APPENDIX 11

Landscape Character and Visual Impact Assessment

This report has been prepared for Richmond Valley Solar & BESS Pty Ltd (ABN 43 672 993 869) a wholly owned special purpose vehicle of Ark Energy Projects Pty Ltd and the Proponent of the Project. Richmond Valley Solar & BESS Pty Ltd will herein be referred to as Ark Energy or Ark Energy Projects.

moir
landscape architecture

Richmond Valley Solar Farm

Landscape and Visual Impact Assessment

Richmond Valley Solar Farm

Landscape and Visual Impact Assessment

Prepared for
Ark Energy Projects Pty Ltd (Ark Energy) c/o Umwelt Australia (Pty Limited)

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Executive Summary

Moir Landscape Architecture (Moir LA), have been engaged by Umwelt (Australia) Pty Limited (Umwelt) on behalf of Ark Energy Pty Ltd (Ark Energy) to prepare a Landscape and Visual Impact Assessment (LVIA) for the proposed Richmond Valley Solar Farm (the Project).

The Project involves the construction, operation and decommissioning of a photovoltaic (PV) solar facility with an estimated generation capacity of up to 500 MW Direct Current (DC), battery energy storage system (BESS) with a capacity of 275 MW and an energy storage capacity of approximately 2,200 Megawatt hour (MWh) over eight (8) hours, and associated infrastructure. These associated elements have also been assessed in this report.

Moir LA has applied a quantitative study methodology in accordance with the Department of Planning and Environment (DPE) (Now the Department of Planning, Housing and Infrastructure) Large-Scale Solar Energy Guideline, August 2022 (referred to hereafter as 'the Guideline') and conforming with the Technical Supplement - Landscape and Visual Impact Assessment (referred to hereafter as the 'Technical Supplement').

This report includes a comprehensive assessment of the existing landscape character, scenic quality and visibility of the Project.

Moir LA attended the Project Area in August 2023 to undertake analysis and a photographic survey to determine the landscape character and establish a visual baseline. The survey and analysis determined the region's landscape character is typical of the North Coast Interim Biogeographic Regionalisation of Australia (IBRA) Bioregion characterised by land modified to support pastoral activities with scattered or patchy remnant vegetation.

The landscape was divided into four (4) specific Landscape Character Zones (LCZ). A quantitative frame of reference was applied to establish the Scenic Quality Rating of these LCZs which ranged from low to moderate.

In accordance with the Guidelines and the Technical Supplement, Moir LA applied the preliminary assessment tools to the Project layout to determine receptors that require detailed assessment. The assessment identified 27 Private Receptors (non-associated) within 4 km of the Project and seven (7) viewpoints from public roads and rail lines (public receptors) within 2.5 km as requiring further assessment.

The potential for visual impact from the 27 private receptors (non-associated) was assessed using wireframe analysis with the application of the Visual Magnitude Tool from the Guideline. This approach represents a worst case scenario as the model is terrain based only and does not consider any intervening vegetation or built form (sheds, housing etc). 20 private receptors (non-associated) were assessed as having a 'low' visual impact rating. Seven (7) private receptors (non-associated) were assessed as having a 'moderate' visual impact.

In accordance with the Guidelines, photomontage preparation was undertaken to verify the visual impact at the seven (7) private receptors (non-associated). Assessment of the photomontages identified the visual impact at six (6) private receptors (non-associated) as low or very low. This was primarily due to existing intervening vegetation between the receptor and the Project.

Moir LA was not granted permission to access one of the private receptors (D3-47). As a result, the detailed assessment utilised a combination of aerial imagery, wireframe analysis and a representative viewpoint (VP03) in lieu of a site visit to make assumptions on the likely influence of existing vegetation on the view. Assessment of the representative viewpoint showed a 'low' visual impact rating. However, it was concluded by using a combination of aerial imagery, wireframe analysis and representative viewpoints that the degree of existing vegetation may not provide sufficient screening toward the Project from the dwelling's primary view. The results indicated that mitigation was required from D3-47. Mitigation methods in line with the Guidelines and the Technical Supplement have been provided within Section 14.0.

Similarly, wireframe analysis of the seven (7) public receptors was undertaken of which, five (5) public receptors were assessed as having either a 'low' or a 'very low' visual impact. Two (2) public receptors (VP04 and VP05) were identified as having a 'moderate' visual impact. Further assessment was conducted by preparing photomontages from these two (2) public receptors to compare visual impact against existing vegetation. The resulting visual impact was rated as 'Low'.

Glare modelling was undertaken to assess the potential glare within the surrounding area. A total of 33 free standing Observation Points (OP), i.e. (private receptors) were identified within 3 km of the Project. Based on glare assessment, potential "Yellow" glare was identified for four (4) of private receptors (non-associated). Detailed assessment of the results indicates that the potential 'yellow' glare at these receptors is less than 10 hours per year which therefore renders a 'low' glare impact. No further mitigation has been determined to be required from private receptors in accordance with the Technical Supplement.

Two (2) public receptor locations including Avenue Road and Main Camp Road were identified within 1 km of the development footprint. Based on the assessment, potential "Yellow" glare was identified for these road receptors. As a result of these findings, mitigation is required in line with the Technical Supplement from Avenue Road alone as the potential yellow glare along Main Camp Road is within acceptable level in accordance with the Guidelines. In recognition of community concerns regarding bushfire risk posed by additional planting adjacent to the access road, alternative mitigation measures will be considered.

Based on size and scale, geographical area and duration of the development, the impact on the local landscape is considered to be low. The impacts to surrounding public and private receptors is likely to be acceptable with implementation of the mitigation measures outlined in Section 14.0, and as shown within Appendix D. On evaluation, the Project is compliant with the performance objectives as per the Guidelines and the Technical Supplement.

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Glossary of Key Terms

Associated receptor - A private receptor on privately-owned land in respect of which the owner has reached an agreement with Ark Energy in relation to the development and management of impacts associated with the Project.

Baseline Investigation - Work done to determine and describe the environmental conditions against which any future changes can be measures or predicted and assessed.

Dwelling entitlement - A reference to lots where residences may be erected with respect to the Richmond Valley Local Environmental Plan, 2012.

Large-scale solar energy development - Works, infrastructure and buildings for the purpose of generating electricity using ground-mounted photovoltaic panels that are state significant development (SSD).

Landscape character - A distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse.

Landscape and Visual Impact Assessment - A tool used to identify and assess the likely significance of the effects of change resulting from development both on the landscape as an environmental resource in its own right and on people's views and visual amenity.

Magnitude - A term that combines judgements about the size and scale of the effect, the extent of the area over which it occurs, whether it is reversible or irreversible and whether it is short or long term in duration.

Non-associated receptor - A private receptor on privately-owned land in respect of which the owner has not reached an agreement with Ark Energy in relation to the Project.

Receptors - Individuals and/or defined groups of people who have the potential to be visually impacted by a proposal.

Public receptor - Publicly accessible locations which have the potential to be visually impacted by a proposal. These generally include local roads and rail users.

Photomontage - A visualisation which superimposes an image of a proposed development upon a photograph or series of photographs.

Sensitivity - The capacity of a landscape or viewpoint to absorb the impacts from a proposed land use change and/or built form.

Study area - Specific geographic location that is the focus of the analysis.

SSD - State Significant Development

SEARs - Secretary's Environmental Assessment Requirements

View - The sight of a landscape or scene.

Viewpoint - A location or a receptor within the public or private domain with a potential view of a large-scale solar energy project.

Visual impact - The impact on views from private and public places. It is determined by considering the visual magnitude and sensitivity.

Viewshed - Observable area from a specific location or a vantage point typically related to a scenic landscape or natural features.

***Note** - In this report, any references to "residence", "dwellings" or "residences" are cited as they appear in the Guidelines and the Technical Supplement. For consistency within this report, it is crucial to understand that they refer to "Private Receptors" to fully grasp their intended meaning.*

01
Introduction

1.0 Introduction

1.1 Introduction

Moir Landscape Architecture (Moir LA), have been engaged by Umwelt (Australia) Pty Limited (Umwelt) on behalf of Ark Energy Pty Ltd (Ark Energy) to prepare a Landscape and Visual Impact Assessment (LVIA) for the proposed Richmond Valley Solar Farm (the Project) approx. 25 kilometres (km) south of Casino, New South Wales within the Richmond Valley Council Local Government Area (LGA) (refer to **Figure 02**).

This report supports a State Significant Development (SSD) Development Consent application under Part 4, Division 4.7 of the *Environmental Planning and Assessment Act 1979* (SSD-41020244), as part of the Environmental Impact Statement (EIS) for the Project.

The Project will involve the construction, operation and decommissioning of a photovoltaic (PV) solar facility, a Battery Energy Storage System (BESS) and associated infrastructure. The Project is located in the Richmond Valley Council LGA.

The purpose of this report is to provide a comprehensive assessment of visibility and potential visual impacts associated with the Project relating to landscape character, landscape values, landscape amenity and any scenic vistas. The report details the results of the field work, documents the assessment of the landscape character and visual setting, identifies potential impacts and makes recommendations to assist in the mitigation of any potential impacts resulting from the Project.

This report has been prepared in accordance with the Department of Planning and Environment (DPE) *Large-Scale Solar Energy Guideline, August 2022* (referred to hereafter as 'the Guideline') and conforming with *the Technical Supplement - Landscape and Visual Impact Assessment* (referred to hereafter as the 'Technical Supplement') (now the Department of Planning, Housing and Infrastructure [DPHI]).

1.2 Professional Assessment Skills

The Technical Supplement states: *Professional assessment skills are critical to an effective landscape character and visual impact assessment. The applicant is expected to engage relevant professionals (for example, landscape architects, architects, environmental planners, geographers, or other visual assessment specialists) with demonstrated experience and capabilities* (DPE 2022b, p. 6).

Moir LA is a professional design practice and consultancy specialising in the areas of Landscape Architecture, Urban Design and Landscape and Visual Impact Assessment. Our team has extensive experience in undertaking Landscape and Visual Impact Assessments for large-scale infrastructure and renewable energy projects. In the context of our experience and with guidance from the Guideline and the Technical Supplement we have developed methodologies to ensure a comprehensive and qualitative assessment of the Project.

Recent experience includes the preparation of Landscape and Visual Impact Assessments for the following solar farm projects of similar scale:

- Blind Creek Solar Farm Project LVIA (Bungendore, NSW)
- Glenellen Solar Farm LVIA (Glenellen, NSW)
- Oxley Solar Farm LVIA (Castledoyle, NSW)
- Stubbo Solar Farm LVIA (Stubbo, NSW).

1.3 Secretary' s Environmental Assessment Requirements (SEARs)

Secretary's Environmental Assessment Requirements (SEARs) issued on the 21st of September 2022 for the Project state the EIS must address specific issues for the solar farm and associated infrastructure relating to potential visual impacts. Similarly, SEARs advice received from Richmond Valley Council has been addressed in this report. **Table 01** provides an overview of the SEARs requirements and where these have been addressed in this report.

LVIA Report Structure	
SEARs Requirements (DPE, 2022c)	**Relevant Section of LVIA**
A landscape and visual impact assessment, prepared in accordance with the Solar Guideline and the Technical Supplement – Landscape and Visual Impact Assessment;	Refer to **Section 2.1 Overview of the Study Method** to see relevant sections of the LVIA that address requirements of the *Solar Guideline and the Technical Supplement - Landscape and Visual Impact Assessment*, August 2022.
A detailed assessment of the likely visual impacts (including night lighting) of all components of the project on surrounding receptors (including approved developments, lodged development applications and dwelling entitlements), and key locations, scenic or significant vistas and road corridors in the public domain;	**Section 8.0 Visual Impact Assessment** **Section 9.0 Preliminary Assessment Tools** **Section 10.0 Detailed Receptor Assessment** **Section 11.0 Lots with Dwelling Entitlements** **Section 13.0 Nightlighting**
Details of measures to mitigate and/or manage potential impacts (including a draft landscaping plan for on-site perimeter planting, with evidence it has been developed in consultation with affected landowners);	**Section 15.0 Performance Objectives and Mitigation**
Glint and Glare – provide a glint and glare assessment prepared having regard to the Solar Guideline.	**Section 14.0 Glint and Glare Assessment**
SEARs Requirements - Richmond Valley Council 2022	**Relevant Section of LVIA**
The EIS must have regard for the cumulative impacts associated with multiple solar farms adjacent/in close proximity to each other in the region. In this regard, potential cumulative impacts on rural land uses, sensitive receivers, biodiversity, visual, transport/traffic generation, road capacity, and other similar matters must be considered. All supporting reports must assess and address the cumulative impacts.	**Section 6.10 Large-Scale Developments within a regional or local context**
Potential glare from the surrounding roads and neighbours/impact on visual amenity.	**Section 14.0 Glint and Glare Assessment**

Table 01 – Overview of SEARs and Report Structure

02

Study Method

2.0 Study Method

2.1 Overview of the Study Method

This report is prepared in accordance with the Guidelines and Technical Supplement and differentiates between the landscape character assessment and the visual impact assessment. **Figure 01** illustrates the Study Method undertaken to assess large-scale solar farms.

2.1.1 Landscape character assessment

The Technical Supplement states: *This is the process for determining the overall impact of a project on an area's character and sense of place including what people think and feel about it and how society values it* (DPE 2022b, p. 6).

2.1.2 Visual impact assessment

The Technical Supplement states: *This is the process for determining the day-to-day visual effects of a project on peoples views (what people see at a place, when they are there) from the private and public domain.*

In both cases, the likely impacts of a large-scale solar energy development can only be determined by understanding the sensitivity of an area or view to change and the magnitude of a Project in that area or view (DPE 2022b, p. 6).

2.1.3 Performance Objectives & Mitigation

Once the level of impact has been established according to the visual performance objectives of high, medium and low, mitigation and avoidance strategies must be considered. If the level of visual impact is deemed high to medium, options include the re-siting, removal or re-sizing of project elements to minimise visual impact, vegetative screening as well as impact agreements.

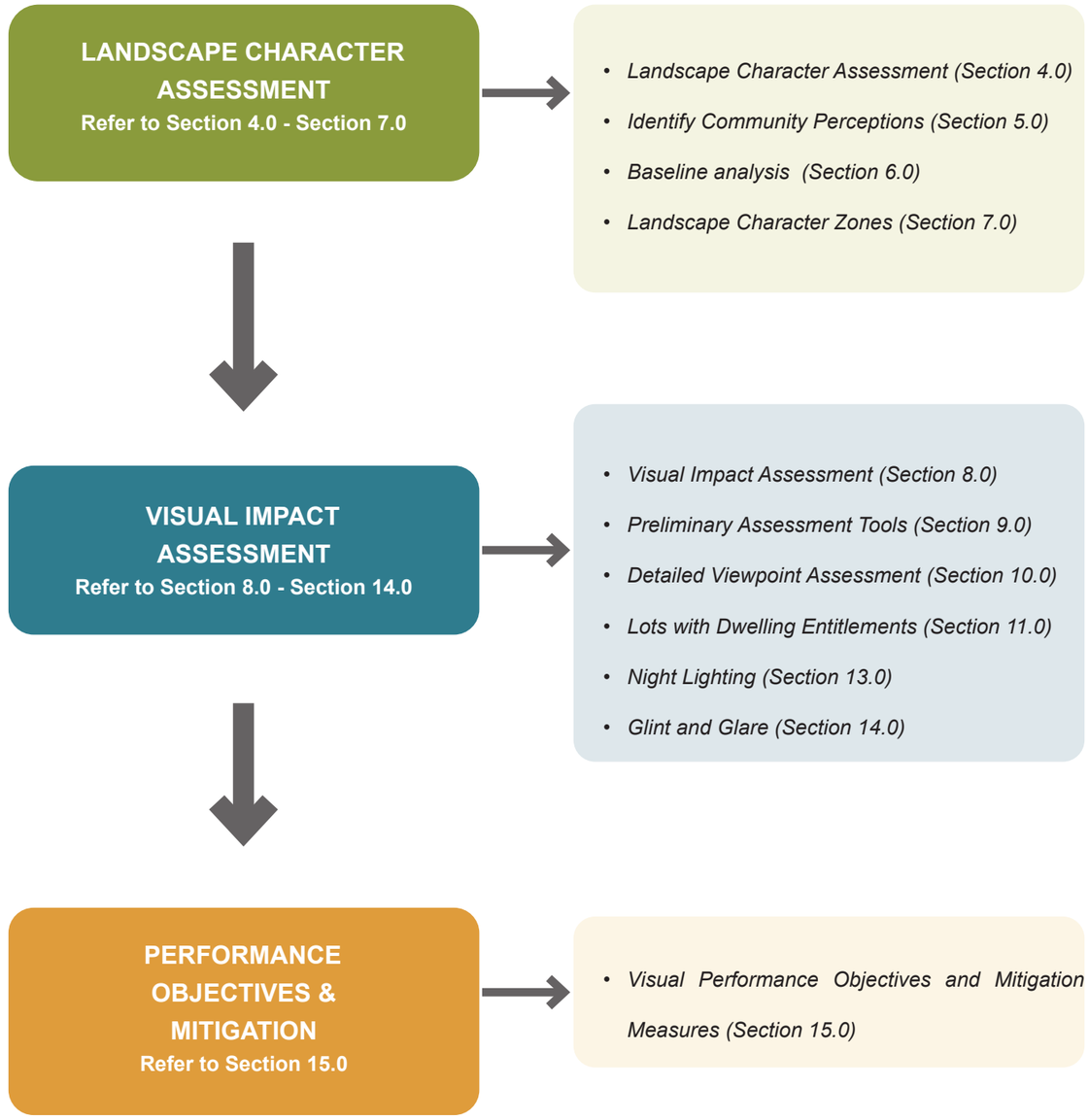


Figure 01 – Overview of Study Method

2.1.4 Receptor definition

As stated in the Technical Supplement, the landscape character of the surrounding area has been assessed to an extent of 5 km from the Project Area (defined as Study Area) (**Figure 05**). Additionally, all other private receptors (also referred to as non-associated receptors) have been assessed within 4 km of the Project.

All public receptors (road and rail receptors) have been assessed within 2.5 km of the Project. With exception of assessing the Landscape Character (**Section 4.0 - Section 7.0**), all other assessments have been undertaken for an extent of 4 km (for all private receptors) from the Project Area and 2.5 km (for all road and rail receptors) from the Project Area. All the above distances are in accordance with the Technical Supplement (DPE 2022b, p. 12).

2.1.5 Receptor Identification

Ark Energy has used a grid to name all private receptors, using letters A-Z on the x axis, and numbering on the y axis. For instance some receptors may fall in the same square hence there may be a D3-1 and D3-2.

03

Project Overview

3.0 Project Overview

3.1 Regional Overview

The Project is located within the Richmond Valley Council LGA, approximately 25 km south of Casino. The Project Area is zoned “RU1 Primary Production” under the Richmond Valley ‘Local Environmental Plan 2012’ (Richmond Valley Council, 2012) bordered by land parcels zoned as RU3 - Forestry and C1 - National Parks and Nature Reserves (see **Figure 07**). Bungawalbin National Park (approximately 5 km) and State Forest are located in close proximity to the Project Area. Myrtle Creek, Physics Creek and Bungawalbin Creek are some of the most notable creeks in the surrounding landscape.

The Project is located east of Summerland Way (approximately 1.80 km to its nearest point). The Project is located along Avenue Road. A number of other low use unsealed roads connect the Summerland Way to homesteads located within the surrounding area including Main Camp Road, Myall Creek Road and Elliots Road.

The Project Area and immediate surrounds consist of low lying mostly cleared agricultural land which is surrounded by a number of densely vegetated State Forests and National Park and Conservation Areas. A number of rural residential dwellings are scattered around the Project, clustered primarily along Avenue Road, Ellangowan Road, Myall Creek Road, Elliots Road and Main Camp Road.

Figure 02 provides a regional overview of the Project.

The Project Area encompasses the proposed PV solar arrays, substation and all other associated infrastructure within the Project Area as shown on **Figure 04**.

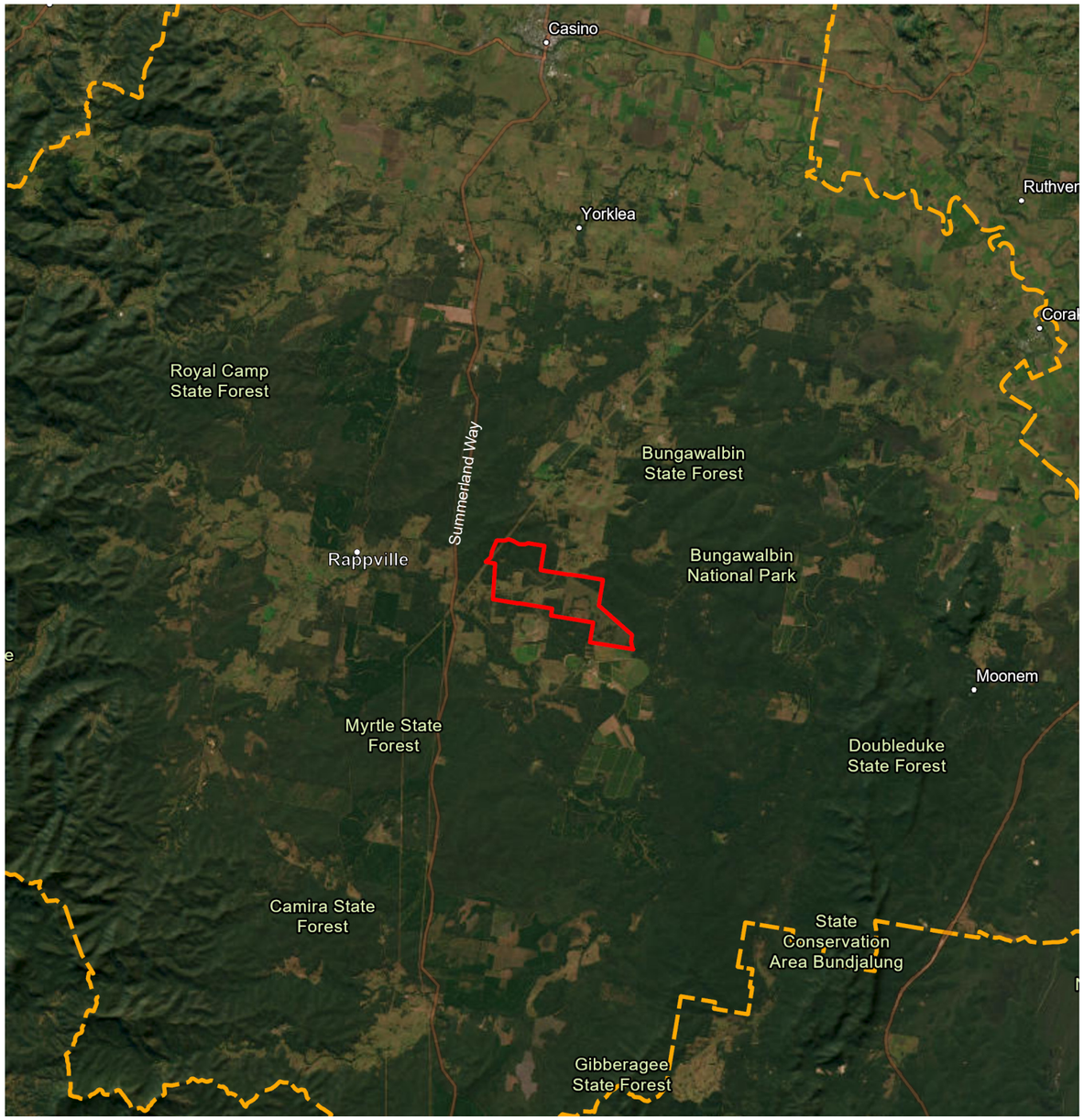


Figure 02 – Regional Context
Source: ArcGIS, 2024

3.2 The Project

The Project will involve the construction, operation and decommissioning of a PV solar facility with a targeted solar photovoltaic generating capacity of up to 500 Mega Watt (MW) DC, BESS with a power capacity of 275 MW and an energy storage capacity of up to 2,200 Mega Watt hours (MWh) over eight (8) hours, and a transmission line to connect the Project from the substation to the NEM. The Project will include various associated infrastructure including, temporary construction facilities, O&M facility, internal roads, civil works and other required electrical infrastructure.

The Project covers an area of approximately 1,475 ha and the solar farm and associated infrastructure is proposed to have a Development Footprint of approximately 803 ha and the road upgrade Development Footprint is proposed to be approximately 11 ha.

Key infrastructure and assets associated with the Project includes:

- Up to 730,000 bifacial solar panels on ground-mounted single axis tracking framework, maximum height of 4 m above natural ground
- BESS with a capacity of up to 275 MW and an energy storage capacity of up to 2,200 MWh over eight (8) hours
- Up to 118 inverter stations
- Substation with a footprint of approximately 1.6 ha
- Switching substation with a footprint of approximately 1.3 ha
- Underground cabling
- Fencing
- 330 kV transmission line including 11 transmission towers at 55 m in height
- Site office
- Switch room
- Lighting.

During the construction phase, temporary facilities may include a material laydown area, temporary construction site offices and amenities and car and bus parking areas for construction staff. After decommissioning, most above ground infrastructure will be removed and the Project Area returned to its existing land use, for continued agricultural or alternative appropriate uses. The layout of the Project can be seen in **Figure 04**.

3.3 The Solar (PV) Array

The PV array will be the largest component of the Project and will comprise of up to 730,000 PV modules with a capacity of approximately 500 MW (DC). Each PV module typically measures 2.384 m by 1.303 m with rows spacing approximately 5.4 m apart (refer to **Figure 03** and **Table 02**). The Project will utilise ground-mounted solar PV single portrait solar arrays which will be mounted on a single-axis tracking system.

The final number of PV modules will be dependent on detailed design, equipment availability and commercial considerations. These dimensions may alter based on Project Area constraints such as all geotechnical and topographic conditions, boundaries, riparian zones, existing vegetation and access tracks.

The assessment has been completed using the worst case scenario with the panels assumed at their highest pitch (4 m).

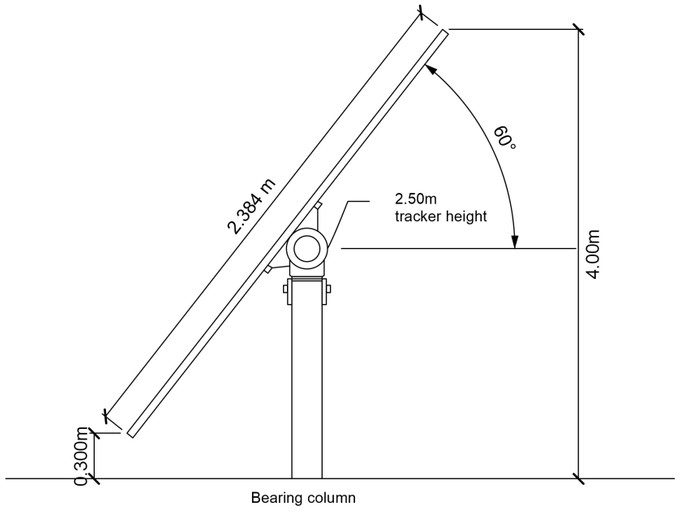


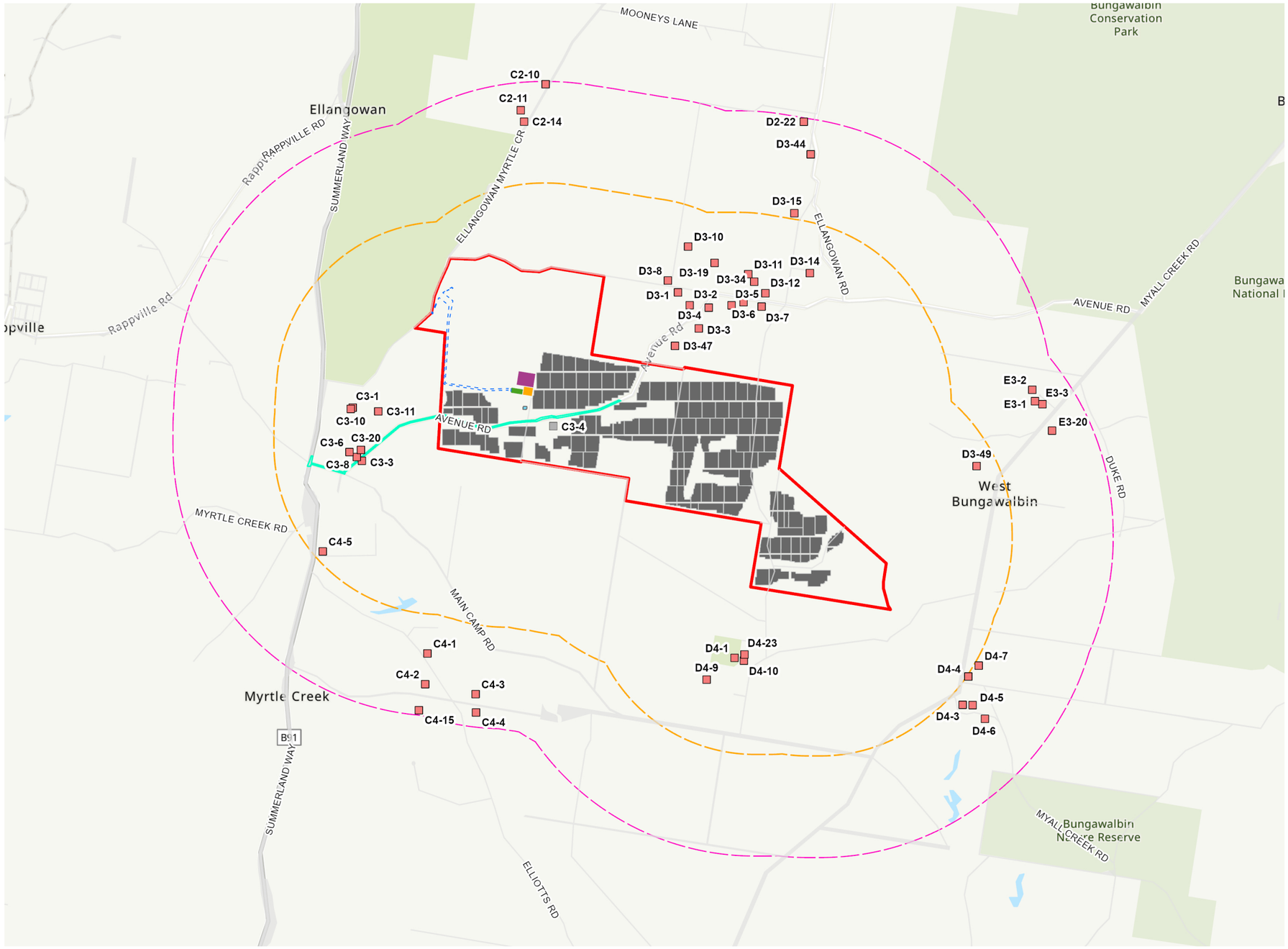
Figure 03 – Solar Panel Parameters
Source: As provided by the Client

Solar Panel Tracking Parameters	
Axis Orientation	**0°**
Module Offset angle	**0°**
Max tracking angle	**±60° (Range of 120°)**
Resting angle	**0°, 22°, 45°, 5°**
Height	**4 m**

Table 02 – Tracking Parameters

Project Layout

Richmond Valley Solar Farm



LEGEND

- Project Area
- 2.5 km from the nearest solar array
- 4 km from the nearest solar array
- Private Receptors (Non-associated)
- Private Receptors (Associated)
- PV Array
- BESS
- Switching Station
- O & M Facility
- Substation
- Major Roads
- Local Roads
- Transmission Line
- Avenue Road Upgrade

0 1 2 3

Figure 04 – Project Layout
Source: ArcGIS, 2023

04

Landscape Character Assessment

4.0 Landscape Character Assessment

4.1 Overview of Landscape Character Assessment

The Technical Supplement States:

The EIS must include an assessment of how the project will affect the elements that make up the landscape, the aesthetic and perceptual aspects of the landscape and its distinctive character. Landscape character assessment can help the community, applicants and consent authorities understand the sensitivities of a landscape and to determine the overall impact of a project on an area's character and sense of place (DPE 2022b, p. 8).

The following provides an overview of the requirements of the landscape character assessment.

Step 1: Baseline Investigations

The Technical Supplement States: *Applicants must undertake a baseline study to establish the existing landscape character of the area and its sensitivity. This should be based on desktop analysis and field visits and should provide a descriptive and illustrative analysis of the qualities of the place, what makes it valued and any challenges that could arise in relation to the Project* (DPE 2022b, p. 8).

The community consultation findings have been used to inform this step.

Refer to Section 5.0 & Section 6.0

Step 2: Identify Landscape Character Zones (LCZ)

Applicants must assess and determine the overall sensitivity and magnitude of change resulting from the Project on each LCZ.

Refer to Section 7.0

Step 3: Assess the Landscape Character Impact

Landscape Character Impact will be assessed for each LCZ by comparing the visual sensitivity and magnitude of change resulting from the Project.

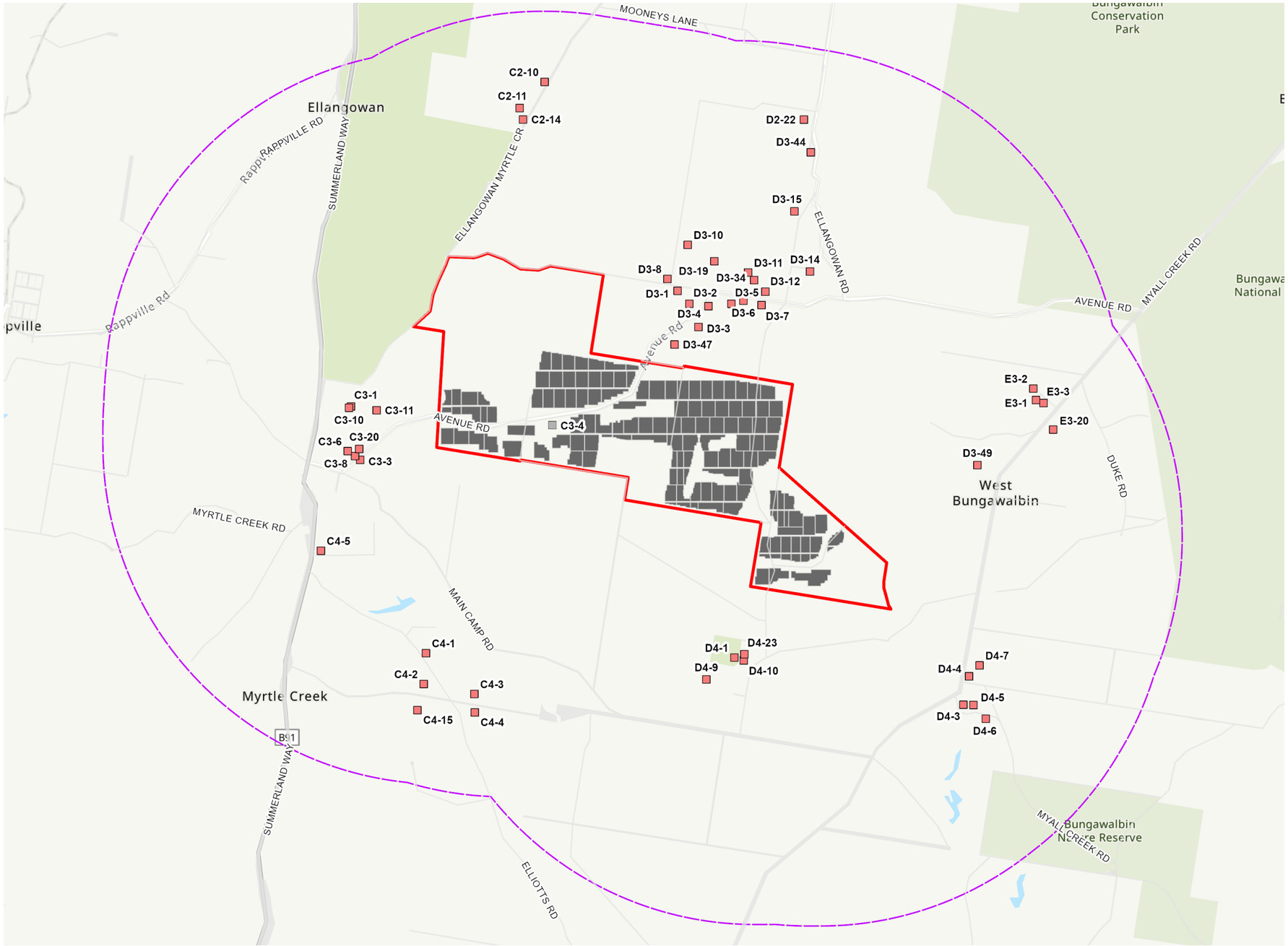
Refer to Section 7.0

4.2 Landscape Character Study Area

The Technical Supplement States:

The study area for the landscape character assessment should generally be approximately 5km from the proposed development. However, the character of landscapes can vary significantly and justification may be provided for analysing a smaller area (DPE 2022b, p. 8).

As illustrated in **Figure 05** the landscape character of the surrounding area has been generally assessed to an extent of 5 km 'Study Area' (applicable for **Section 4.0 - Section 7.0**).



Study Area

Richmond Valley Solar Farm

LEGEND

- Project Area
- 5 km Study Area
- Private Receptors (Non-associated)
- Private Receptors (Associated)
- PV Array
- Major Roads
- Local Roads

0 1 2 3 4 km

Figure 05 – Study Area
Source: ArcGIS, 2023

05

Community Consultation

5.0 Community Consultation

5.1 Community Consultation Process

The Guidelines states that: *the community should be engaged as early as possible to identify potential opportunities and constraints associated with the Project* (DPE 2022a, p. 16). A total of three (3) community feedback sessions were conducted on 6th and 7th of September 2023 and on 7th February 2024.

The purpose of community consultation is to update the community of the status of the Project and receive feedback or potential concerns relating to the Project. Community consultation processes also assist in understanding the community's perception on significant landscape features, defining areas of scenic quality and Identifying key public viewpoints valued by the community.

It is important that applicants engage with the community (including the indigenous community), local council and potentially affected landowners as early as possible to identify and establish the importance of particular landscape values and characteristics. Understanding these values can provide a firm basis for siting and designing a solar energy project that seeks to avoid or minimise impacts.

5.2 Community Perception

Key concerns of the community related to the Project include bushfire and heat concerns, devaluation of property value and potential visual impact from the Project on surrounding receptors.

5.2.1 Concerns raised during Community Info Session on Wednesday 6 September 2023 and Wednesday 7 September 2023

Key issues included the risk of bushfires, particularly with grass under solar panels and the frequency of vegetation management to mitigate this risk. There was also concerns raised about the heat islands effect and cumulative impacts due to the proximity of other solar farms.

The community expressed Environmental worries with visual impacts from panel reflection being key concern.

5.2.2 Concerns raised during Community Info Session on 7 February 2024

For some residents key issues raised during the session held on 7 February 2024 focused on the presence of multiple solar farms introduced a direct visual impact that was perceived negatively, detracting from the natural landscape and making it less aesthetically pleasing. This raised concerns and prompted questions about the potential implications of other proposed solar farms in the area.

06

Baseline Investigation

6.0 Baseline Investigation

6.1 Overview of Visual Baseline Investigation

The Technical Supplement States:

Applicants must undertake a baseline study to establish the existing landscape character of the area and its sensitivity. This should be based on desktop analysis and field visits and should provide a descriptive and illustrative analysis of the qualities of the place, what makes it valued and any challenges that could arise in relation to the Project (DPE 2022b, p. 8).

Field work was undertaken in August 2023 by Moir LA within the Project Area to assess and identify the existing landscape character of the area. The visual baseline investigation has been assessed to an extent of the Study Area (**Figure 05**)

As discussed in **Section 5.0** it is important that applicants engage with the community (including the indigenous community), local council and potentially affected landowners as early as possible to identify and establish the importance of particular landscape values and characteristics. Gauging these values can provide a firm basis for siting and designing a solar energy project that seeks to avoid or minimise impacts.

The baseline investigation inputs as set out in the Guidelines and where they have been addressed in this report are outlined in **Table 03**.

Baseline Investigation Inputs:	
• Physical influences (such as geology, soils, land form, natural drainage and water bodies)	**Refer to Section 6.2**
• Ecological characteristics and land cover of an area (such as whether it is forested, wetland, scrub, grass etc.) and the quality and type of vegetation cover	**Refer to Section 6.3**
• The influence of human activity, including land use and management and the character of any settlements and buildings	**Refer to Section 6.4**
• Key landscape features or attributes of the landscape associated with high visual interest or quality that stand out visually in the landscape, including natural features (such as a distinctive mountain peak or hilltop), cultural or agricultural features • The aesthetic and perceptual aspects of the landscape, particularly emphasising those that are key characteristics contributing to the distinctive character of the landscape (such as its scale, complexity, openness, tranquility or wildness)	**Refer to Section 6.5**
• Aspects of the landscape that have important aboriginal cultural heritage value (with the exception of artefacts and intangible values that would be assessed in detail as part of an Aboriginal Cultural Heritage Assessment), including why they are valuable to the community	**Refer to Section 6.6**
• The condition of the landscape, including the condition of elements or features such as buildings or vegetation	**Refer to Section 6.7**
• The planning designations of an area relating to landscape character, including sensitive land use designations, zonings and heritage listings	**Refer to Section 6.8**
• The location of any existing operational or approved large-scale energy developments within a regional and local context, including projects which may have the potential to create direct or indirect cumulative impacts with the project	**Refer to Section 6.10**

Table 03 – Baseline Investigation Inputs

6.2 Physical Influences

The Project Area is situated within the North Coast Interim Biogeographic Regionalisation of Australia (IBRA) Bioregion, which runs up the east coast of NSW from just north of Newcastle to just inside the QLD border. The Sydney Basin Bioregion bounds the North Coast Bioregion in the south and the Nandewar and New England Tablelands bioregions lie against its western boundary. The Bioregion occupies 7.11% of the state. The North Coast Bioregion is diverse due to the geological and topographical variation across the bioregion. The North Coast Bioregion covers northern NSW from the shoreline to the Great Escarpment with a sequence of topographical variances from coastal sand barrier, through low foothills and ranges, to the steep slopes and gorges of the Escarpment.

The Project Area is located within the Clarence Basin subregion which is characterised by low stepped hills and flood plains, with hillier areas in west and south. The Clarence Basin is formed on sub-horizontal Jurassic and Cretaceous lithic and quartz sandstones and claystones. The bioregion is characterised by mellow texture contrast soils and areas of deep sand on Mesozoic rocks. Deep siliceous sands are evident along rivers and streams (NPWS, 2003).

Within the Project Area, the landform is characterised by flat and low lying flats that are generally cleared and modified to support agricultural activities, with remnant patches of native vegetation situated in pockets. Dense areas of forestry plantations (**Image 03**) and native vegetation forestry (State Forests) exists within the north west and central areas of the Project Area and to the immediate north east.

Myrtle Creek is the most notable creek within the Study Area (see **Figure 08**). Myrtle Creek generally runs north south to the west of the Study Area, which eventually connects to the Richmond River (**Image 04**). Runoff is channelled through drainage depressions to the creek floodplain. This has resulted in a landscape with a unique combination of small billabongs, swamps, flood channels and stands of swamp vegetation (NPWS, 2003). A network of dams and irrigation channels provide irrigation to the adjacent modified agricultural uses. Other key creeks include Physics Creek to the south east of the Project Area and Bungawalbin Creek to the west of the Project (see **Figure 08**).

6.3 Ecological Characteristics

The vegetation of the of the North Coast IBRA Bioregion is influenced primarily by geology and changes in temperature and rainfall, with significant variation in ecological characteristics across the bioregion. The Project Area and surrounds are generally located across agricultural areas at low elevation that are characterised by cleared areas with some scattered to dense groupings of vegetation within lots (**Image 02**).

Image 01 – *Dense areas of native vegetation associated with surrounding nature conservation (Source: Moir LA, 2023).*

Image 02 – *Cleared flat agricultural land with scattered patches of vegetation within lots and ephemeral creek lines (Source: Moir LA, 2023).*

Image 03 – *Plantation forestry areas (Source: Moir LA, 2023).*

Image 04 – *River and creekline vegetation over sandy soils (Source: Moir LA, 2023).*

Dense areas of native conservation land associated with the Bungawalbin National Park (**Image 01**) to the north east of the Project including of species characteristic of the sub bioregion such as dry sclerophyll forest and woodlands species of spotted gum, grey gum, blackbutt and red bloodwood (see **Figure 08**). Riparian vegetation along the deep siliceous sands of the rivers and creek networks are evident within the Study Area with species including paperbark, snappy gum, blackbutt, dwarf red bloodwood, bastard mahogany with banksia and areas of heath and paperbark swamp (**Image 04**). Areas within the Study Area are also characterised by a variety of productive landscapes including plantation forests. The dense homogeneous areas of exotic pine species form an existing visual element in the landscape (**Image 03**).

6.4 Human Activity

The Summerland Way road generally runs north south and is located approximately 1.8 km west of the Project (see **Figure 08**). It is the main highway connecting Grafton to Casino. Avenue road connects to Summerland Way and runs between the Project from east to west direction. Summerland way is flanked by dense vegetation (**Image 08**). A number of low use unsealed roads connect Summerland Way to homesteads located within the Study Area including Main Camp Road, Myall Creek Road and Elliots Road. Main Camp Road is a local road that connects to Summerland Way and generally runs east west through the Study Area located to the south of the Project. Myall Creek Road is another unsealed road that runs north south connecting homesteads located to the east of the Study Area. Elliots Road is located south of the Study Area and generally runs north south connecting with Summerland Way. The vegetation flanking these local roads is predominantly dense, obscuring views from the road (**Image 07**).

The nearest major settlement is Casino which is located approximately 25km north of the Project Area. Casino is a town of approximately 11,000 people according to the 2021 ABS data. Smaller rural settlements in the vicinity include Rappville which is located 6km west of the Project. Rappville is a small rural community of approximately 100 residents. A number of scattered homesteads have been identified within the Study Area.

Land within the Study Area includes a number of intensive agricultural land uses including irrigated and plantation forestry, cropping, animal production, and perennial horticulture (**Image 06**).

Image 05 – *View of the modified land utilised for agriculture with scattered rural dwellings (Source: Moir LA, 2023).*

Image 06 – *Land has been modified to support livestock grazing and farming (Source: Moir LA, 2023).*

Image 07 – *Vegetation along the Project's southern boundary as viewed from Main Camp Road (Source: Moir LA, 2023).*

Image 08 – *Vegetation character along Summerland Way (Source: Moir LA, 2023).*

6.5 Key Landscape Features and Aesthetics

The Study Area consist of low lying mostly cleared agricultural land which is surrounded by a number of densely vegetated State Forests and National Park and Conservation Areas (see **Figure 08**). The Study Area includes flat topography, with a network of creeks and a series of irrigation channels and dams that provide irrigation to the adjoining agricultural land uses.

Myrtle Creek is the most notable watercourse and runs in a generally north south direction approximately 1.5 km to the west of the Project Area. A number of low lying drainage depressions are evident particularly to the north of connect to the creek floodplains.

Bungawalbin National Park and Conservation Area is located approximately 5 km west of the Project Area. The National Park and Conservation Area protects important wetlands, creeks and permanent lagoons and their associated riparian vegetation that provides habitat for a wide variety of fauna, including aquatic and terrestrial invertebrates, fish, amphibians, reptiles, birds and mammals. There are currently no formal picnic areas, camping areas or other visitor facilities (NPWS, 2012).

The surrounding State Forests include Braemar State Forest, Ellangowan State Forest, Bungawalbin State Forest and Myrtle State Forest. The character of these features are dominated by dense production native forestry species. Generally, public access into these locations is limited with the exception of Bramar Park. Bramar Park is a campground located approximately 1.5 km west of the Project Area (see **Figure 08**).

6.6 Aboriginal Cultural Heritage Value

The traditional custodians of the land of the Casino areaor Djanangmum, as it is known to Aboriginal people, are Galibal. The area known today as the Northern Rivers was occupied by the Bundjalung-speaking peoples, made up of an estimated 20 different language groups. The Richmond Valley Council acknowledges the Bundjalung Nation as custodians and traditional owners of the land. Numerous ceremonial areas and other locations of cultural significance are noted within the Plans of Management for the surrounding Bungawalbin National Park and Conservation Area indicate the presence of Aboriginal inhabitancy in the area particularly around the creeks and streams (NPWS, 2012).

6.7 Landscape Condition

The Project Area has predominantly been modified for intensive agricultural uses including cropping, forestry, animal production and horticulture (**Image 05**). Vegetation in these areas has generally been cleared, with the exception of native vegetation land parcels dedicated to Ellangowan State Forest to the west and Bungawalbin State Forest to the east of the Project Area. Pockets of vegetation are located within cleared grazing lots and road corridors with dense riparian vegetation along creeklines and creek floodplains. Dense patches of exotic pine species are interspersed within cleared agricultural land, and contrast with the surrounding landscape.

Topography of the Project Area ranges from 30 AHD to the east of the site, rising to 100 AHD to the far west boundary of the Project Area. Several lower order ephemeral streams including Physics Creek to the south east and creek floodplains are evident to the north of the Study area. Myrtle Creek is the most notable watercourse and runs in a generally north south direction to the west of the Study Area. Physics Creek intersects with the Project Area to the south east (see **Figure 08**). Several man-made dams and irrigation channels occur within the Study Area. These are used to provide water for agricultural activities. A number of rural residential dwellings are scattered around the Project, clustered primarily along Avenue Road, Ellangowan Road, Myall Creek Road, Elliots Road and Main Camp Road.

6.8 Land Use

The Project Area is located on land zoned RU1 - Primary Production as set out in the *Richmond Valley Local Environmental Plan, 2012* (RVLEP 2012). Land directly adjoining the Project to the west and east is zoned as RU3 - Forestry. Bungawalbin Conservation Park and National Park are zoned National Park is zoned C1 - National Parks and Nature Reserves and are located to the east (see **Figure 07**).

The majority of the landscape making up the Project Area includes native and non native plantation forest and minimal use areas with pockets of grazing on native vegetation and grazing on modified pastures (Richmond Valley Council, 2012). Land within 5km of the Project Area includes a number of intensive agricultural land uses including irrigated and plantation forestry, cropping, animal production, and perennial horticulture (SEED, 2019)(see **Figure 06**).

6.9 Heritage Item

Study of the NSW Environmental Planning Instrument (EPI) - State Heritage Register (SHR) (2019) identified three (3) Heritage Listed Items (see **Table 04**) of local significance as listed under the RVLEP 2012 located within the Study Area (see **Figure 08**) these include the:

- 'Hindmarsh' Grave - I120 located approximately 4.28 km north of the Project.
- Main Camp Homestead & surrounds - I143 precinct located approximately less than 1 km south of the Project.
- High Conservation Value Old Growth Forest - I1487 - The closest State listed heritage item to the Project Area is SHR Item #01487 'High Conservation Value Old Growth Forest'. This is a group listing of several areas of the identified natural heritage item and is located across the wider Richmond Valley region. The nearest gazetted area of this SHR group is located approximately 940 m east of the Project Area and the next closest gazetted area being approximately 5km east, with other areas located at greater distances all directions from the Project Area (see **Figure 08**).

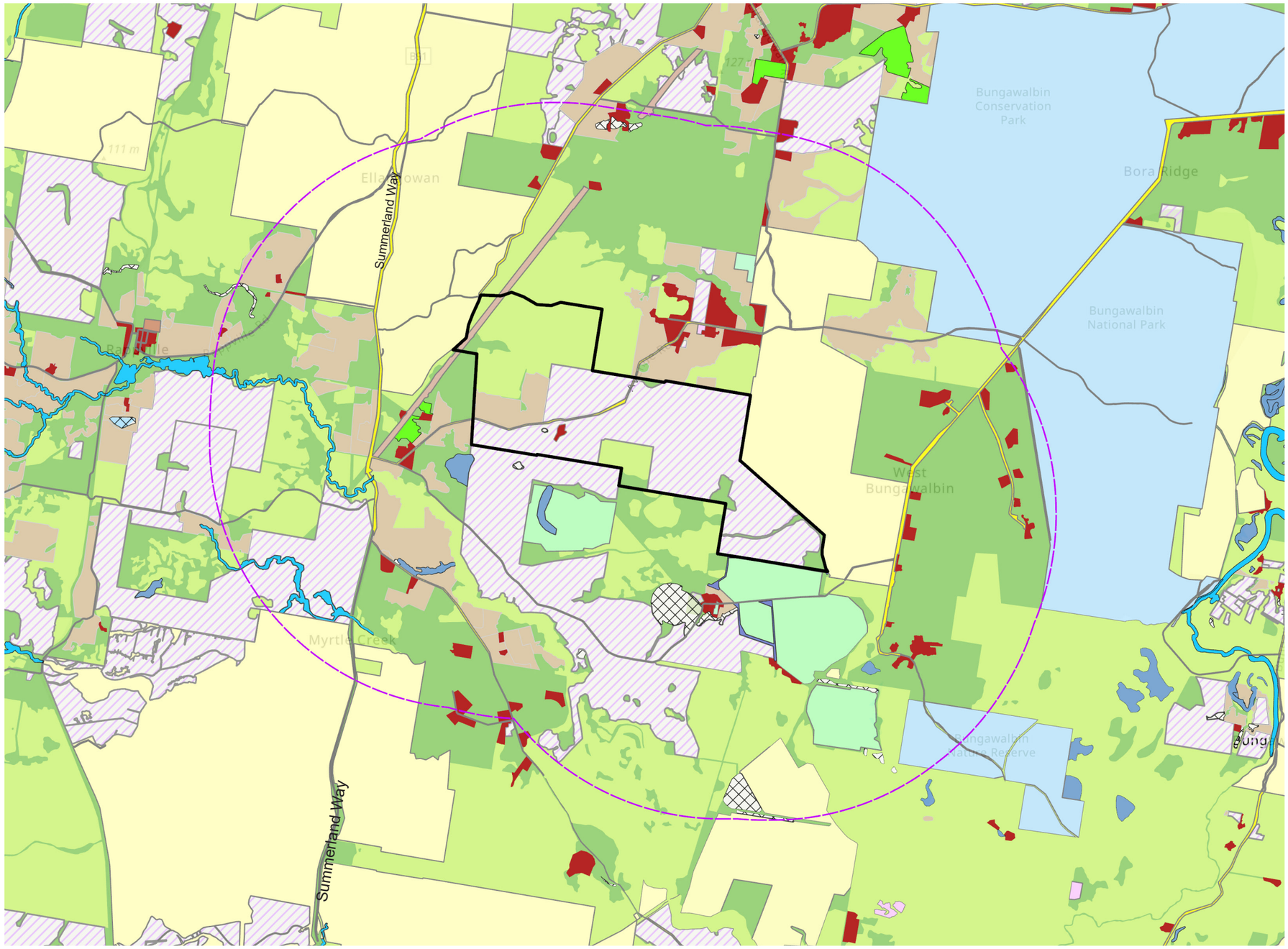
HERITAGE ITEMS		
ITEM No	**NAME**	**ADDRESS**
I120	'Hindmarsh' Grave	465 Ellangowan Myrtle Creek Road, Ellangowan
I143	Main Camp Homestead & surrounds	840, Main Camp Road, Myrtle Creek
I1487	High Conservation Value Old Growth Forest	Myall Creek Road, Ellangowan

Table 04 – Heritage Items listed Under the EPI 2019 Heritage Register
Source: EPI, 2019

Potential visual impact from the Project at the three (3) heritage listed items is assessed in detail in **Section 12.0** using a Zone of Visual Influence (ZVI) methodology. This assessment represents a bare ground scenario, i.e., a landscape without intervening elements such as vegetation and structures (a worst-case scenario).

Land Use

Richmond Valley Solar Farm



LEGEND

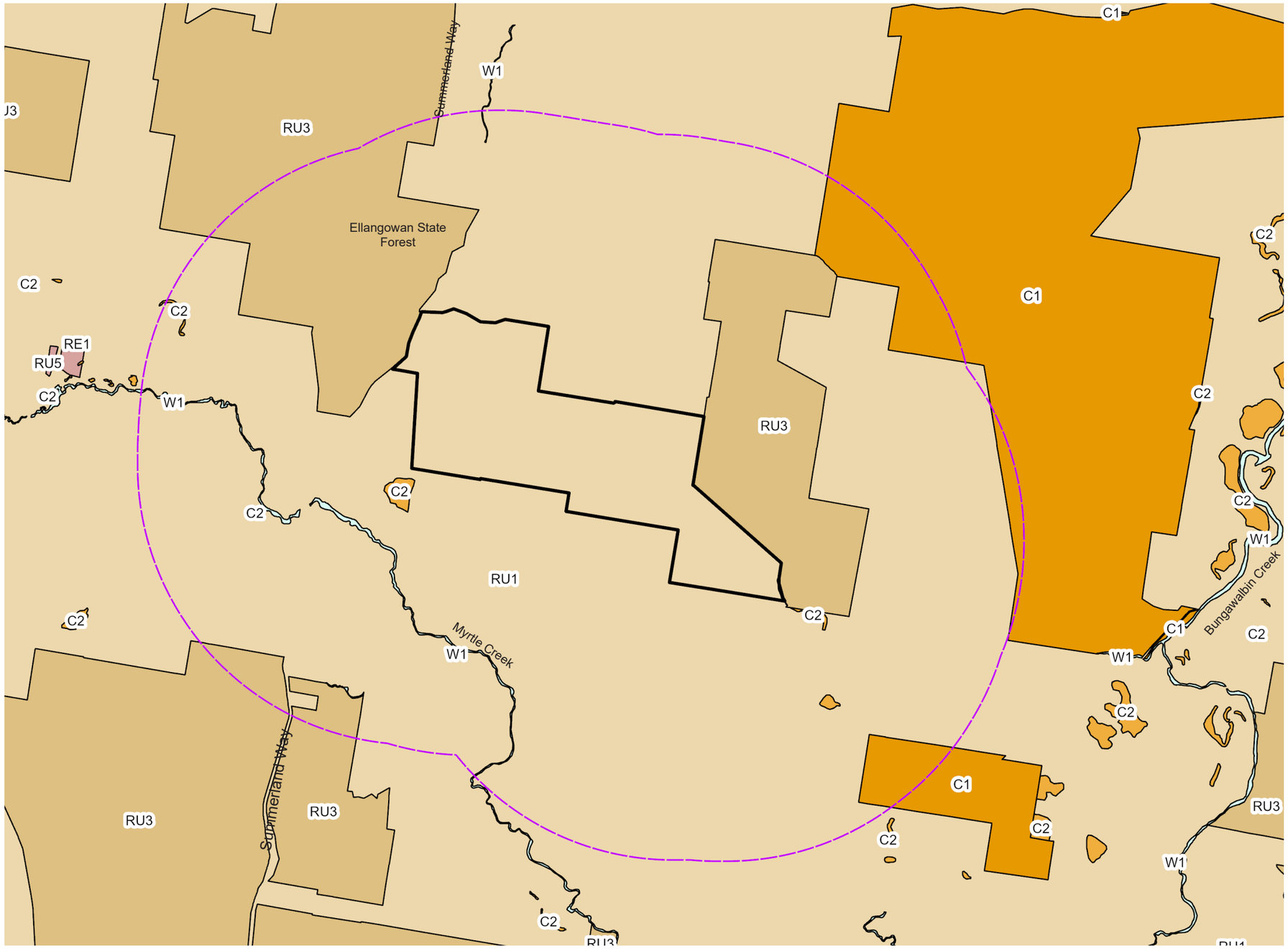
- Project Area
- 5 km Study Area
- Nature conservation
- Other minimal use
- Grazing native vegetation
- Production native forests
- Plantation forests
- Grazing modified pastures
- Cropping
- Perennial horticulture
- Seasonal horticulture
- Irrigated plantation forestry
- Irrigated perennial horticulture
- Intensive animal production
- Residential and farm infrastructure
- Services
- Utilities
- Transport and communication
- Reservoir/dam
- River
- Channel/aqueduct
- Marsh/wetland

0 1 2 3 4 km

Figure 06 – Land Use
Source: SEED, 2019

LEP Zoning

Richmond Valley Solar Farm



LEGEND

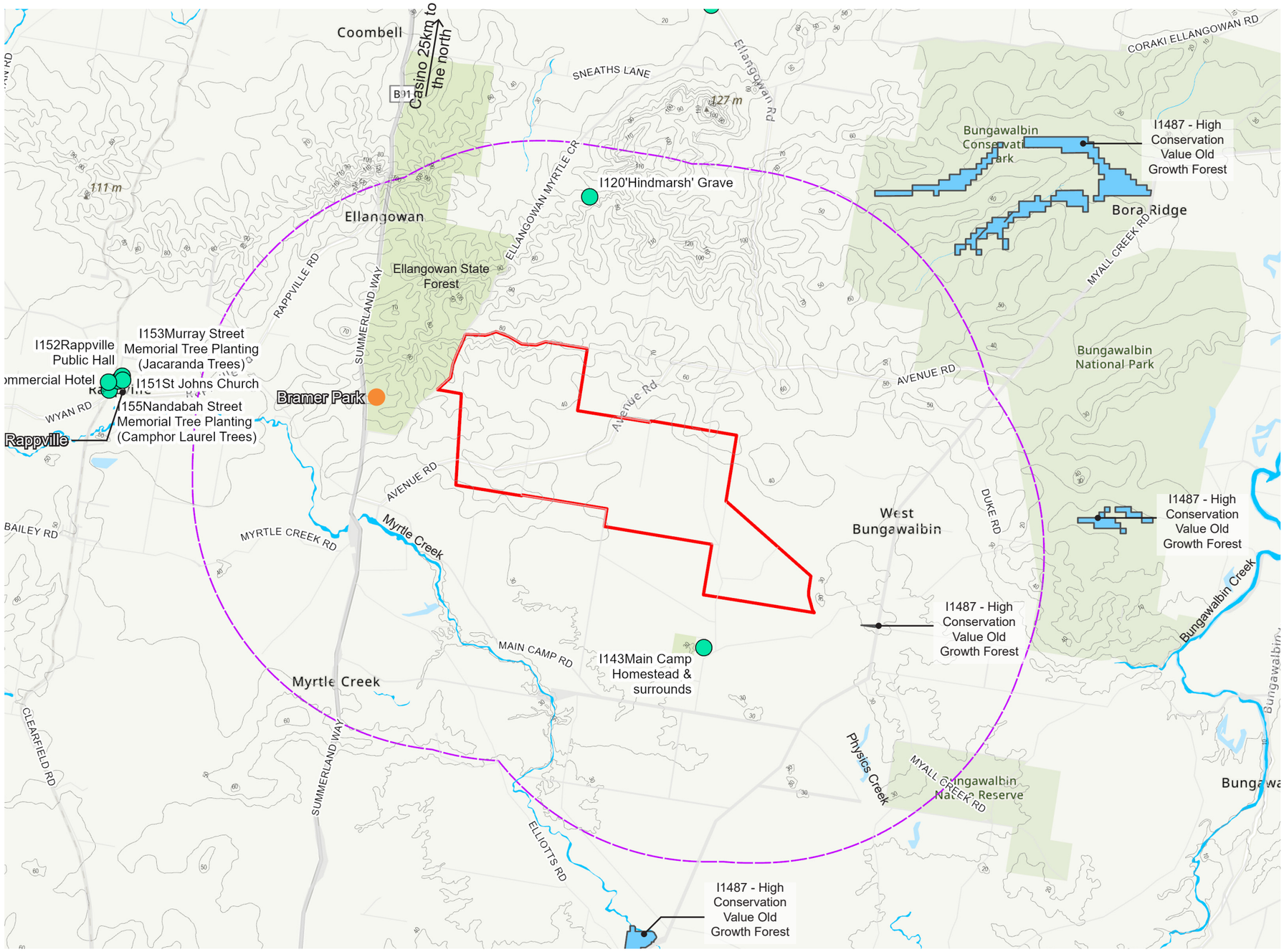
- Project Area
- 5 km Study Area
- C1: National Parks and Nature Reserves
- RU3: Forestry
- RU1: Primary Production
- RU5: Village
- RE1: Public Recreation
- W2: Natural Waterways

0 1 2 3 4 km

Figure 07 – LEP Zoning
Source: Richmond Valley Council, 2012

Key Landscape Features

Richmond Valley Solar Farm



LEGEND

- Project Area
- 5 km Study Area
- Local Roads
- Major Road
- Public Camping Ground
- Creeks and Rivers
- Heritage Listed Item (Local Significance)
- Heritage Listed Item (State Significance)
- Contours

0 1 2 3 4 km

Figure 08 – Key Landscape Features
Source: ArcGIS, 2023

6.10 Large-Scale Developments within a regional or local context

The Project is located outside the proposed Renewable Energy Zone (REZ) (see **Figure 09**). The closest REZ to the Project is the New England REZ located approximately 65 km to the southwest.

In accordance with the *Cumulative Impact Assessment Guidelines* (DPE, 2022d), the area chosen to assess relevant cumulative impacts from other developments should not be unnecessarily large or include areas where the cumulative impacts are likely to be negligible, relative to the baseline condition of the relevant Project. Visibility research suggests turbines and objects recede into the background in terms of visibility at 8 km (DPE 2021). However, as re-occurrence of large scale developments could potentially alter the visual character of a region over time, it is essential to consider if there is potential for a cumulative visual impact beyond 8 km from projects.

Table 05 provides other developments currently proposed, in operation or approved which may have the potential to have a cumulative impact.

Upon a detailed investigations of the area, two (2) large-scale solar farms were identified in close proximity to the Project. These include the Myrtle Creek Solar Farm (MCSF) and the Summerville Solar Farm (SSF).

MCSF is located directly adjacent to the south of the Project (refer to **Figure 10**). Due to the distance between the Projects, it is likely that both these projects could be viewed simultaneously. However, observations made during the fieldwork in August 2023 indicate, views from Avenue Road towards both projects would be limited by topography and intervening vegetation.

SSF is located approximately 1.8 km west of the Project directly adjacent to Summerland Way (refer to **Figure 10**). Potential cumulative impacts were identified along Summerland Way closer towards the turn off lane to Avenue Road. Observations made during the fieldwork in August 2023 indicate vegetation between both projects (SSF and the Project) will filter views to both projects simultaneously along this route.

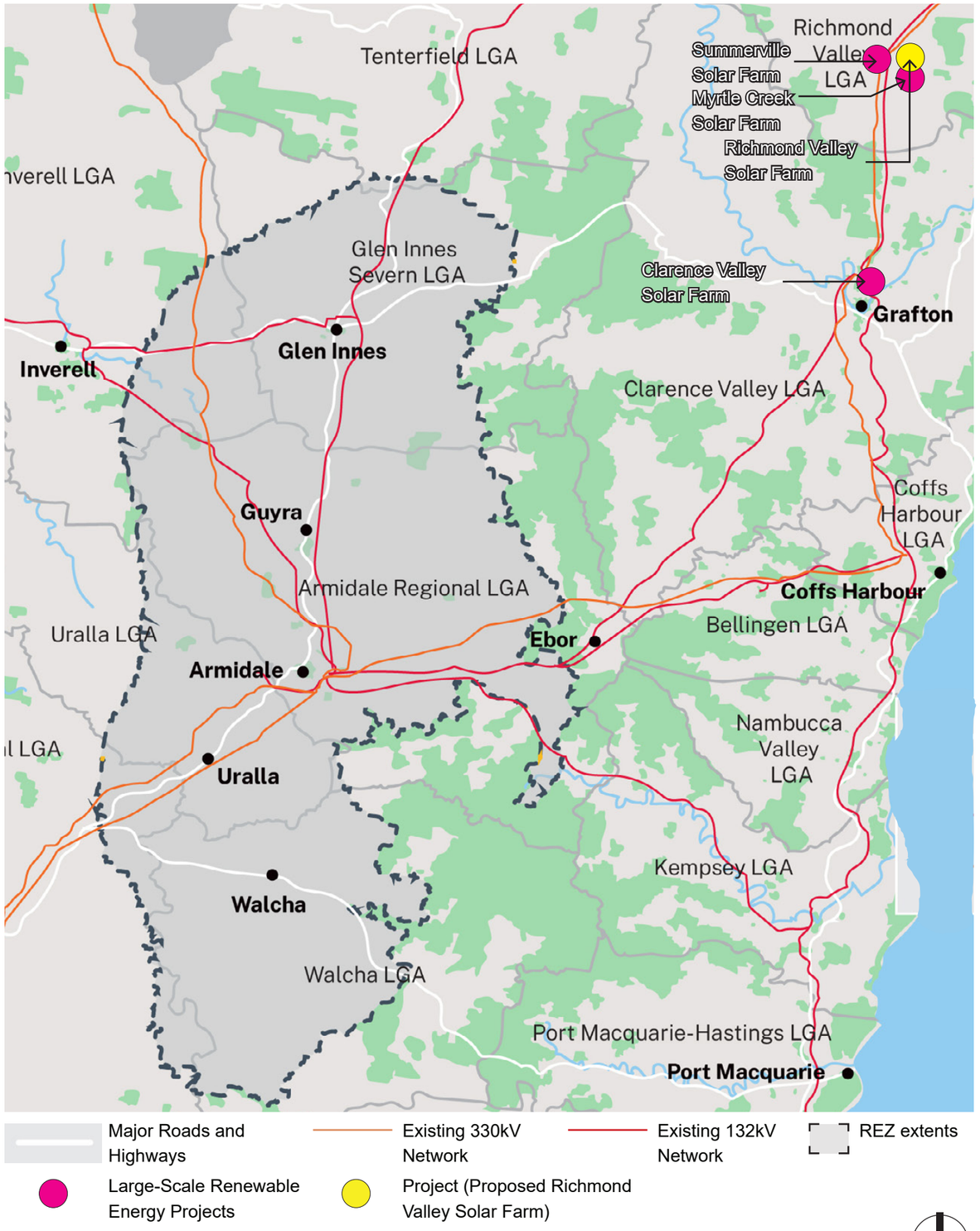


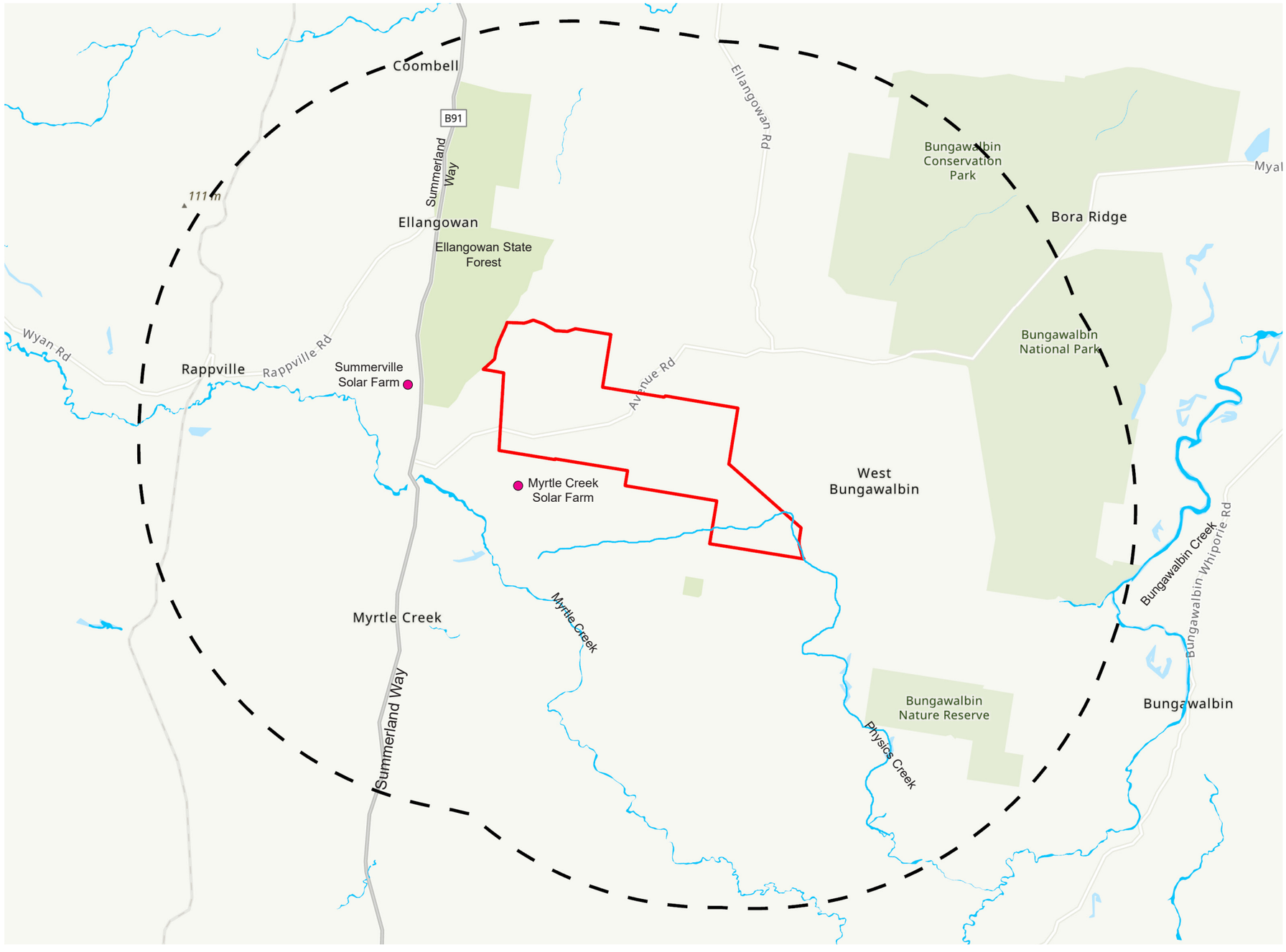
Figure 09 – Location of the Project in relation to the REZ
Source: ArcGIS, 2023

Name of the Project	Distance to the Project Area	Current Status	Potential Cumulative Impact
Myrtle Creek Solar Farm	Potentially directly adjacent to the south of the Project Area.	**Pre-Scoping Phase**	**LOW** Lack of Project details as the Project is in its early scoping phase. Topography and intervening vegetation will fragment views to both projects simultaneously.
Summerville Solar Farm	Approx. 1.4 km to the west along Summerland Way	**Response to Submissions December 2023**	**VERY LOW** Existing vegetation between the projects along Summerland Way would contain views to both projects simultaneously.
Pacific Highway between Pine Road (66 km north of Grafton) and Tabbimoble Overflow No. 2	Approx. 19 km to the south east	**Approved**	**VERY LOW** Potential cumulative impact is unlikely due to the distance between the two (2) projects.
Coraki Quarry MOD 2	Approx. 24 km to the north east	**Approved**	**VERY LOW** Potential cumulative impact is unlikely due to the distance between the two (2) projects.
Clarence Valley Solar Farm	Approx. 50 km to the south	**SEARs issued December 2021**	**VERY LOW** Potential cumulative impact is unlikely due to the distance between the two (2) projects.
Casino Biohub (bioenergy facility)	27 km to the north	**In Planning - Prepare EIS**	**VERY LOW** Potential cumulative impact is unlikely due to the distance between the two (2) projects.
Richmond Valley Power Station	20 km to the north	**Approved**	**VERY LOW** Potential cumulative impact is unlikely due to the distance between the two (2) projects.
Lismore to Mullumbimby Transmission Upgrade	50 km to the northwest	**Operational**	**VERY LOW** Potential cumulative impact is unlikely due to the distance between the two(2) projects.
Lismore BESS facility	26 km northeast	**In Planning - Prepare EIS**	**VERY LOW** Potential cumulative impact is unlikely due to the distance between the two (2) projects.
Lismore Hospital Redevelopment - Stage 3C	38 km northeast	**Approved**	**VERY LOW** Potential cumulative impact is unlikely due to the distance between the two (2) projects.
Blakebrook Quarry	40 km northeast	**Operational**	**VERY LOW** Potential cumulative impact is unlikely due to the distance between the two (2) projects.
Champions Quarry	30 km northeast	**Operational**	**VERY LOW** Potential cumulative impact is unlikely due to the distance between the two (2) projects.

Table 05 – Overview of nearby Large-scale developments
Source: Major Projects Website www.planningportal.nsw.gov.au

Nearby Renewable Energy Projects

Richmond Valley Solar Farm



LEGEND

- Project Area
- 8 km Extent to assess potential Cumulative Impacts
- Other nearby renewable energy projects
- Local Roads
- Major Road
- Creeks and Rivers

0 2 3 5

Figure 10 – Nearby large-scale renewable energy projects
Source: ArcGIS, 2023

6.11 Overview of Cumulative Impact Assessment

Myrtle Creek Solar Farm is in its early scoping phase. Due to lack of project details it is difficult to assess the cumulative visual impact of the project due to a lack of details. The cumulative impacts with Myrtle Creek Solar Farm will need to be addressed in the Myrtle Creek EIS.

Figure 11 illustrates the area that may experience potential cumulative visual impacts from SSF and the Project. The majority of the cumulative visual impact will potentially be experienced along Summerland Way. 12 private receptors (non-associated) are located between SSF and the Project (see **Figure 11**). These include C2-11, C2-14, C3-1, C3-10, C3-11, C3-20, C3-6, C3-3, C3-8, C4-5, C4-1 and C4-2.

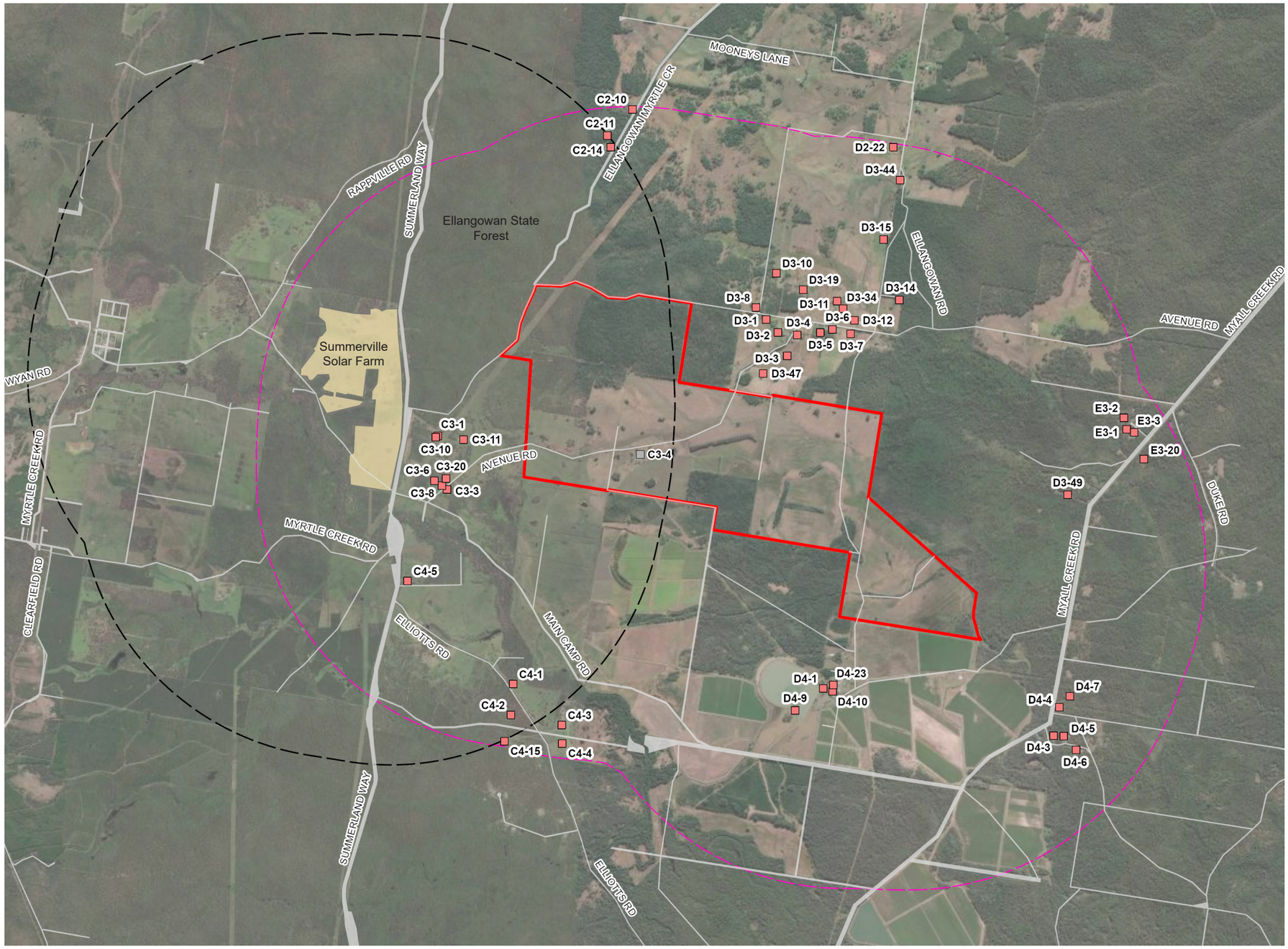
Desktop assessment of the aerial imagery and observations made during the fieldwork in August 2023 indicates vegetation surrounding the receptors mentioned previously and along Summerland Way will fragment views of the SSF and the Project.

Further assessment done by applying the Preliminary Assessment Tools indicates that the above receptors either require no further assessment based on preliminary assessment tools (see **Figure 17** and **Table 10**) or have a ‘low’ or ‘very low’ visual impact (see **Table 18**).

Based on the existing vegetation and further assessment conducted in this report, it is unlikely that both the SSF and the Project will be visible simultaneously.

Cumulative Visual Impact Assessment

Richmond Valley Solar Farm



LEGEND

- Project Area
- 4 km from the Project Area
- 4 km from Summerville Solar Farm boundary
- Project Area - Summerville Solar Farm
- Private Receptors (Non-associated)
- Private Receptors (Associated)
- Local Roads
- Major Road
- Creeks and Rivers

0 1 2 3 4 km

Figure 11 – Cumulative Visual Impact Assessment
Source: ArcGIS, 2023

07

Landscape Character Zones

7.0 Landscape Character Zones

7.1 Identify Landscape Character Zones

The Technical Supplement states: *If the landscape includes distinct areas that have different qualities, the Study Area should be broken down into different character zones - Landscape character zones (LCZs). Landscape Character Zones should divide the landscape based on common distinguishing visual characteristics. These patterns are formed by combinations of vegetation, water bodies, landforms and land use, from which key landscape features can also be identified* (DPE 2022b, p. 10).

Figure 12 provides a schematic representation of what defines Land Character Zones. **Figure 13** shows the LCZs identified within the 5 km Study Area (see **Figure 05**). A summary of each LCZ is provided in **Section 7.5**.

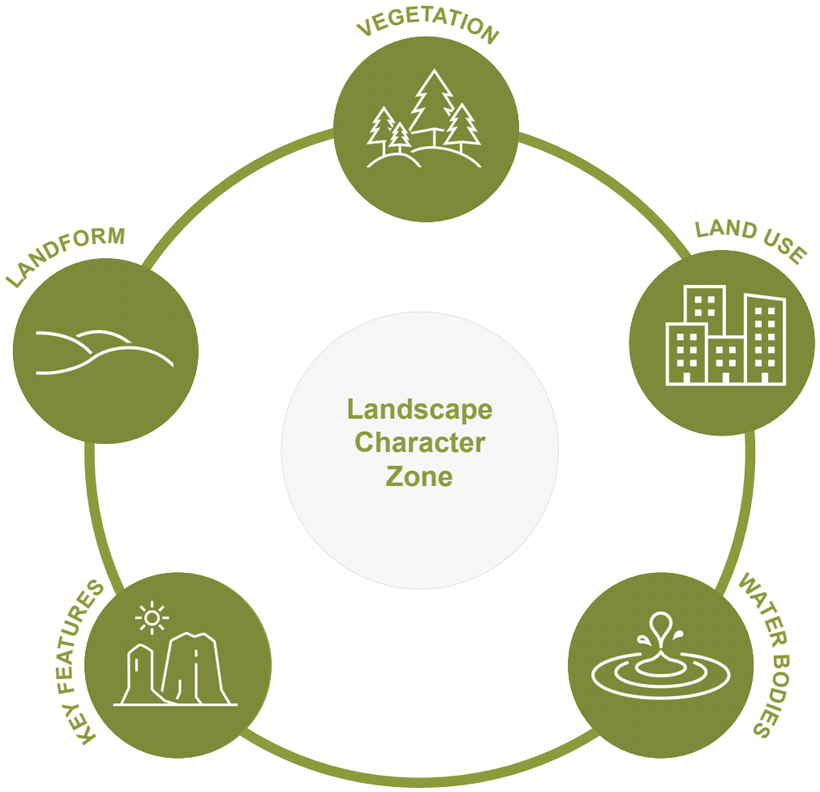


Figure 12 – Defining Land Character Zones
Source: Adapted from DPE, 2022

7.2 Impact on Landscape Character Zones

The Technical Supplement states: *Applicants should determine the impact of the Project on each Landscape Character Zone by evaluating the sensitivity of the landscape and the magnitude of the project's effects in that area. The sensitivity and magnitude should be assigned a rating (low, moderate or high) that can be used to determine the overall landscape character impact on any given zone. Rationale for the ratings must be provided as part of the assessment* (DPE 2022b, p. 10).

The following provides an overview of determining the sensitivity of a LCZ and the magnitude of effect resulting from the Project. The overall level of landscape character impact has been assessed using the matrix in **Table 07**.

7.2.1 Determine Sensitivity

The Technical Supplement states: *The sensitivity of the landscape character type should be rated based on the inherent capability of the area to absorb changes from the project* (DPE 2022b, p. 10). For the purpose of this report, the scenic quality of the LCZ has been taken into consideration when determining the sensitivity refer to **Section 7.3**.

7.2.2 Determine Magnitude

The Technical Supplement provides guidance on considerations for analysing and rating the magnitude of a project. These include:

- *Size and scale including:*
  - » *The extent of existing landscape elements that may be lost and the contribution of that element to the character of the landscape*
  - » *The extent to which the Project becomes a minor or major element in the landscape and its dominance in the visual catchment*
  - » *The extent to which the Project changes the key characteristics of the landscape, which are critical to its distinctive character*
- *Geographical area: the area of the landscape over which the effects will be experienced, having regard to the nature and scale of the Project's effects. This could vary from the immediate setting of the Project Area to larger scales where the Project may influence several landscape character zones*
- *Duration and reversibility of the effects on the landscape.*

7.2.3 Determine Impact on LCZ

The overall level of landscape character impact has been assessed using the matrix in **Table 06**.

MAGNITUDE	VISUAL SENSITIVITY			
	HIGH	**MODERATE**	**LOW**	**VERY LOW**
VERY HIGH	HIGH	HIGH	MODERATE	MODERATE
HIGH	HIGH	MODERATE	MODERATE	LOW
MODERATE	MODERATE	MODERATE	LOW	LOW
LOW	MODERATE	LOW	LOW	VERY LOW
VERY LOW	LOW	LOW	VERY LOW	VERY LOW

Table 06 – Visual Impact Matrix

7.3 Determining Scenic Quality

The Technical Supplement states: *Scenic quality refers to the relative scenic, cultural or aesthetic value of the landscape within the viewshed based on the presence or absence of key landscape features known to be associated with community perceptions of low, moderate, or high scenic quality. It is typically a complex process undertaken by experts in visual impact assessment and must take community values into consideration* (DPE 2022b, p. 24).

The baseline analysis and landscape character assessment have been used to inform the classification of scenic quality values. A scenic quality rating has been applied to each LCZ based on the visual reference for scenic quality values provided in the Technical Supplement (as presented in **Table 07**).

The scenic quality has assisted in determining the sensitivity of each LCZ.

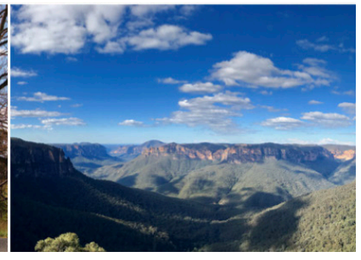
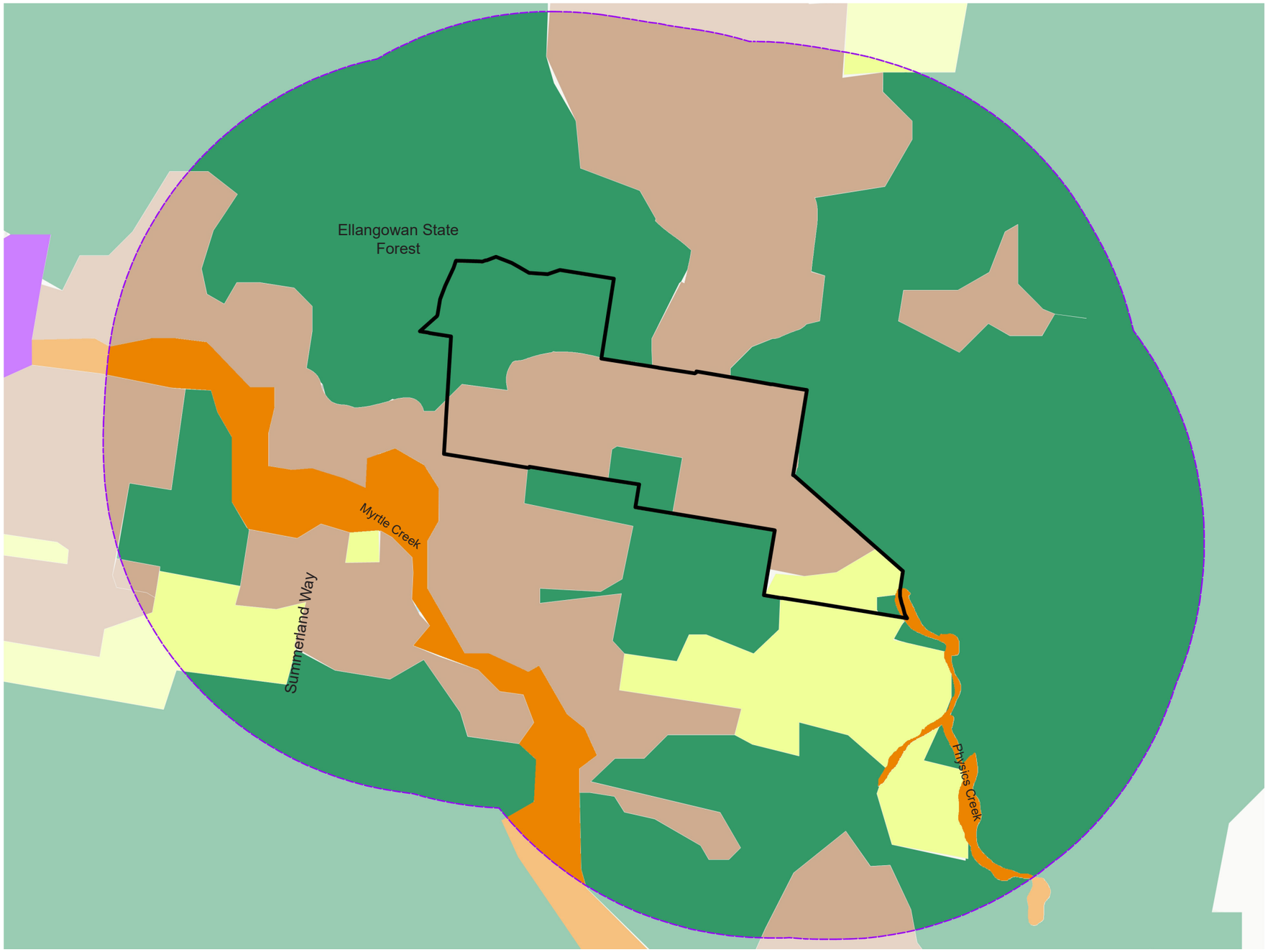
	SCENIC QUALITY VALUES		
	LOW SCENIC QUALITY	**MODERATE SCENIC QUALITY**	**HIGH SCENIC QUALITY**
LANDFORM			
VEGETATION			
WATER BODIES			
SOCIAL / CULTURAL			
HUMAN PRESENCE			

Table 07 – Visual reference for scenic quality values
Source: Adapted from DPE, 2022



Landscape Character Zones

Richmond Valley Solar Farm

LEGEND

Project Area

5 km Study Area

LANDSCAPE CHARACTER ZONES (LCZ)

LCZ01: Densely Vegetated Forest

LCZ02: Plantation Forestry

LCZ03: Modified Pastures

LCZ04: Watercourses and Riparian Corridors

0 0.5 1 1.5 2 3.5 4km

Figure 13 – Landscape Character Zones
Source: ArcGIS, 2023

7.4 Overview of Landscape Character Zones

7.4.1 LCZ01 - Densely Vegetated Native Forest

Landforms within this LCZ is typically defined by undulating to hilly terrain. This undulating topography creates creeks and gullies with typical riparian vegetation. The dense vegetation is primarily composed of native forest species, with tall canopy and a diverse understory.

Road and infrastructure corridors within this LCZ indicate human intervention. The landscape character seamlessly integrates with the adjoining landscapes, sharing similar landforms and vegetation characteristics. Key features include Bungawalbin National Park, Ellangowan State Forest and Bungawalbin Conservation Area. The Project is not located in this LCZ. Braemar Park is the only publicly accessible recreational area identified in the Study Area.

Overall the scenic quality of this LCZ is rated as **Moderate**.

See **Image 09 and Image 10**

Image 09 – *Typical character within this LCZ. Dense vegetation, occasionally cleared for road and transmission infrastructure are part of this visual character (Source: Moir LA, 2023).*

Image 10 – *View of the Bungawalbin National Park. Bungawalbin National Park, Reserve and Conservation Area are key features in this landscape (Source: Moir LA, 2023).*

LANDSCAPE CHARACTER ZONE	KEY LANDSCAPE FEATURES (Key features within this zone)	KEY VIEWPOINTS		Application of Scenic Quality Rating Frame of Reference							SCENIC QUALITY RATING
				Landform	Waterforms	Vegetation	Human Influence	Activity	Rarity	Relationship with Adjoining Landscapes	
LCZ01 - Densely Vegetated Native Forest	Bungawalbin National Park Ellangowan State Forest Bungawalbin State Forest	Braemar Park Camping Area	H M L								MODERATE

7.4.2 LCZ02 - Plantation Forestry

Landforms within this LCZ is generally flat to gently undulating in character. Vegetation is dense and highly modified for production forestry. Creeks and gullies are present through these areas, but are generally modified due to the utilisation of land. Electrical power lines and roads transverse through this LCZ and add to the modified character of the LCZ.

Overall the scenic quality of this LCZ is rated as **Low**.

See **Image 11** and **Image 12**

Image 11 – *Modified vegetation and land use for timber production. Topography is typically flat to gently undulating. Vegetation contains views to surrounding areas (Source: Moir LA, 2023).*

Image 12 – *Native vegetation is modified for plantation forestry with roads and electrical infrastructure intersecting the LCZ (Source: Moir LA, 2023).*

LANDSCAPE CHARACTER ZONE	KEY LANDSCAPE FEATURES (Key features within this zone)	KEY VIEWPOINTS		Application of Scenic Quality Rating Frame of Reference							SCENIC QUALITY RATING
				Landform	Waterforms	Vegetation	Human Influence	Activity	Rarity	Relationship with Adjoining Landscapes	
LCZ02 - Plantation Forestry	Plantation forestry, modified landscape	n/a	H M L								LOW

7.4.3 LCZ03 - Modified Pastures

The landscape within this LCZ is characterised by gently rolling hills and open, flat agricultural land. The terrain is mostly flat expanses with occasional undulations. The vegetation is generally cleared to allow for agricultural land uses.

The vegetation is predominantly cleared, with patches of trees and shrubs. The primary activity in this area is farming, including grazing livestock and some crop cultivation. These activities shape the landscape, with fields often delineated by fencing characterising the pastoral and modified use of land within this LCZ. The Project is located in this LCZ.

Overall the scenic quality of this LCZ is rated as **Low**.

See **Image 13** and **Image 14**

Image 13 – *Typical modified land with cleared vegetation utilised for grazing (Source: Moir LA, 2023).*

Image 14 – *Land use is predominantly grazing typical of this LCZ (Source: Moir LA, 2023).*

LANDSCAPE CHARACTER ZONE	KEY LANDSCAPE FEATURES (Key features within this zone)	KEY VIEWPOINTS		Application of Scenic Quality Rating Frame of Reference							SCENIC QUALITY RATING
				Landform	Waterforms	Vegetation	Human Influence	Activity	Rarity	Relationship with Adjoining Landscapes	
LCZ03 - Modified Pastures	Grazing and cropping pastures	Avenue Road	H M L								**LOW**

7.4.4 LCZ04 - Watercourses & Riparian Corridors

This LCZ is characterised by the existing watercourses and riparian corridors within the Study Area including Myrtle Creek and Physics Creek which support to adjoining agricultural land uses. Dense vegetation often borders the creeks and gullies within this LCZ. Vegetation in this LCZ includes a mix of native and introduced species.

Overall the scenic quality of this LCZ is rated as **Moderate**.

See **Image 15** and **Image 16**

Image 15 – *View of Myrtle Creek. Riparian vegetation surrounds the creeks - a typical feature in this LCZ (Source: Moir LA, 2023).*

Image 16 – *View over Myrtle Creek and modified character of the surrounding landscape (Source: Moir LA, 2023).*

LANDSCAPE CHARACTER ZONE	KEY LANDSCAPE FEATURES (Key features within this zone)	KEY VIEWPOINTS		Application of Scenic Quality Rating Frame of Reference							SCENIC QUALITY RATING
				Landform	Waterforms	Vegetation	Human Influence	Activity	Rarity	Relationship with Adjoining Landscapes	
LCZ04 - Watercourses & Riparian Corridors	Myrtle Creek. Seasonal lower order creeks	Summerland Way	H M L								MODERATE

7.5 Summary of Landscape Character Assessments

Landscape Character Assessment:					
LCZ:	Name:	Scenic Quality Rating:	Sensitivity:	Magnitude:	Landscape Character Impact:
LCZ01	Densely Vegetated Native Forest	Moderate	Moderate Human modifications are evident within this LCZ with vegetation cleared for electrical and road infrastructure. Vegetation is typically native bushland with tall tree canopies and dense understory. As a result the Project is not likely to disrupt any key landscape features. The landscape elements that contribute to its quality will remain unchanged.	Low Views of the Project from within the LCZ are limited and filtered due to the vegetation within this LCZ. The Project is located outside of this LCZ and as a result the resulting magnitude of change is considered to be minor.	Low
LCZ02	Plantation Forestry	Low	Low The LCZ includes land modified for timber production or plantation forestry. Vegetation is predominantly introduced species with a distinctive character in relation to adjoining native bushland.	Low The Project is sited to avoid areas located within this LCZ. Due to the existing vegetation, views to the Project are likely to be limited. As a result the landscape within this LCZ will be unaltered as a result of the Project.	Low
LCZ03	Modified Pastures	Low	Low The LCZ is a modified environment defined by land predominantly cleared to support pastoral activity such as livestock grazing, agriculture and cropping. As such, it is considered to have some capacity to absorb the type of change envisaged by the Project. The landscape character of this LCZ will remain unchanged as a result of the Project.	Low The Project is located within this LCZ and as a result views towards the Project will be available from locations at close range including along Avenue Road. Existing vegetation is likely to assist in filtering views of the Project from Summerland Way. The Project will be a visible element in the landscape from areas at close range. However, the extent of this change is considered minor due to the modified nature of the surrounding area.	Low
LCZ04	Watercourses & Riparian Corridors	Moderate	Moderate Dense riparian vegetation borders the watercourses and riparian corridors. Creeks within this LCZ support the agricultural and pastoral activities adjoining the LCZ. The landscape character of this LCZ will remain unchanged as a result of the Project.	Low The Project is sited to avoid areas located within this LCZ. Due to the dense vegetation generally surrounding the LCZ views towards the Project are likely to be limited, and where available are likely to occupy a small proportion of the view. As a result the impact upon this LCZ is likely to be low.	Low

Table 08 – Overview of Landscape Character Assessment

08

Visual Impact Assessment

8.0 Visual Impact Assessment

8.1 Overview of Visual Impact Assessment

The Technical Supplement states: *the EIS must include a visual impact assessment that considers the likely impacts of the development on viewpoints within the private and public domain. The process can be broken into two key stages* (DPE 2022b, p. 12)*:*

Stage 1: Preliminary Assessment (Refer to Section 9.0)

The preliminary assessment stage is used to identify viewpoints in the public and private domain that require a detailed assessment. The preliminary assessment includes:

- Viewshed mapping (Refer to **Section 9.1**).
- Application of Preliminary Assessment Tools (Refer to **Section 9.3**)

Stage 2: Detailed Assessment (Refer to Section 10.0)

The detailed assessment stage is used to undertake a comprehensive assessment of the visual impacts on viewpoints identified through the preliminary assessment.

This stage is undertaken through stages outlined below:

Project Area Visit
Stage 1: Refine and classify viewpoints.
Stage 2: Determine the visual magnitude.
Stage 3: Determine the visual sensitivity.
Stage 4: Determine the visual impact.
Stage 5: Determine the visual impact based on Photomontage.
Stage 6: Performance Objectives and Mitigation.

8.2 Assessment of Associated Infrastructure

In addition to the proposed PV arrays, the associated infrastructure has the potential to contrast with the existing visual landscape.

8.2.1 Assessment Methodology

Moir LA has developed a methodology based on the relevant policies, frameworks and our experience in undertaking LVIA. The ancillary infrastructure associated with the Project has been assessed using methodology discussed in **Section 7.0** and **Section 10.4**. Assessment made using these methodology suggests that due to a relatively low scale and siting of the Project, access roads, transmission lines and other ancillary structures are unlikely to alter the existing visual landscape outside of the immediate vicinity.

An overview of the potential visual impact resulting from associated infrastructure and Project components is provided below.

A summary of the proposed infrastructure associated with the Project can be found in **Section 3.0**.

8.2.2 Site Access and External Road Upgrades

Three access points will be provided along both the northern and southern sides of Avenue Road. The main entrance to the Project Area will be via Avenue Road, providing staff and construction vehicles access to the staff parking, O&M facility, laydown areas, substation and BESS (see **Figure 14**). The internal road network will be unsealed and approximately 4 m wide to accommodate construction and operational traffic movements throughout the Project Area. The internal road network has been designed to generally follow the perimeter of the solar array blocks.

The external road upgrades proposed include:

- Summerland Way / Main Camp Road intersection will be upgraded to provide a rural basic left (BAL) treatment on the northern approach and to reconfigure a CHR into the existing AUR treatment at the intersection..
- The northbound and southbound departures of the Summerland Way / Main Camp Road intersection are proposed to be widened to provide bus layby / set down areas clear of the adjacent vehicle movements at the intersection.
- Main Camp Road / Avenue Road intersection upgrade to provide a BAL and Basic right (BAR) on

the Main Camp Road approaches.

- Upgrades to Main Camp Road and Avenue Road in accordance with the Northern Rivers Road Design Specification (6m seal with 0.5m shoulders). These upgrades will occur from the intersection of Summerland Way / Main Camp Road to the Projects most eastern access point on Avenue Road (see **Figure 14**).

Upgrades to Avenue Road includes sealing of the road. Sealing of Avenue Road may lead to increase in traffic movements along this route. However, the associated receptor sensitivity will remain very low (see **Table 14**).

8.2.3 Site Office and Operations and Monitoring Facility

A permanent operation monitoring and maintenance facility would be constructed to support the ongoing operation of the solar farm. The facility would be located between the BESS, substation and construction compound. The O&M facility would be used on an ongoing basis to support maintenance and repair activities. This would include storage space, a communication and control room, male, female and disabled toilets, kitchen facilities, cribbing facilities and office space suitable for four people. The facility would have a footprint of approximately 0.2 ha.

The appearance of these facilities would be similar to the existing farm structures within the landscape therefore the potential visual impacts are likely to be very low.

8.2.4 Battery Energy Storage System (BESS)

The BESS has a proposed capacity of up to 275 MW and an energy storage capacity of up to 2,200 MWh (DC) over eight (8) hours. The final detailed design of the BESS will be subject to further refinement as the Project progresses toward construction. The BESS would be located adjacent to the substation in the western extent of the Development Footprint. Fencing will be erected surrounding the BESS facility that will be at least 2.1 m high (see **Figure 14**).

It is likely that the BESS would be visible when travelling along Avenue Road due to its proximity (approximately 600 m to the nearest point along Avenue Road). However, as Avenue Road is a local road (proposed to be sealed), the associated receptor sensitivity is very low (see **Table 14**).

The resulting visual impact associated with the BESS is likely to be very low.

8.2.5 Inverters, Substation and Switching Station

Up to 118 inverter transformer stations are estimated to be required and will be distributed through out the Project Area. The inverters and transformers will be co-located together in single, container-style buildings (stations) and will be distributed throughout the Project Area, for power conversion separately from the array. The appearance of these elements would be similar to the existing farm structures within the landscape therefore the potential visual impacts are likely to be very low.

The Project would include a substation connected to electrical infrastructure via a network of underground cables which are buried in trenches (up to one m deep and one m wide). The solar PV modules will be connected together via a direct current (DC) collection system consisting of cables mounted on the module support structure. The electricity generated by the Project would be directed via these cables to the inverters and transformers which will be located in an array within the footprint to convert the DC to AC.

The substation is proposed to built with an access from Avenue Road and covers an area of approximately 1.6 ha (see **Figure 14**). The substation would include a range of electrical equipment to manage and control the supply of electricity and a lightning rod of up to 30 m in height. The substation will be enclosed securely and will consist of a transformer to increase voltage from 33kV to 330 kV.

It is likely that the substation would be visible when travelling along Avenue Road due to its proximity. However, Avenue Road is a local road (proposed to be sealed), the associated receptor sensitivity is very low (see **Table 14**).

Views from the surrounding Receptors are limited as a combination of intervening vegetation between the Project and the substation would likely screen views toward the substation.

The resulting visual impact associated with the substation is likely to be very low.

The substation and the switching substation are located south of the BESS (see **Figure 14**). The 330kV switching substation is the point of connection for the solar farm and BESS and provides facilities for Transgrid to operate and maintain the switching station independently along with proper control and protection systems. The footprint of the switching substation is 1.3 ha. A connection from the switching substation to the nearby Transgrid Powerlines will be made via overhead high voltage cables.

8.2.6 Electrical Reticulation and Grid Connection

The Project would use the existing 330 kV Transgrid transmission network located 1.6 km to the north-west of the proposed substation. The transmission line that will connect the Project to the Transgrid transmission line would be owned by Transgrid and would require a 330kV transmission line built from the switching substation to the existing network. The proposed transmission line corridor is approximately 60 m in width and would travel from the switching substation to the existing Transgrid transmission network for a distance of approximately 2km (see **Figure 14**). The proposed transmission line connection route traverses a pre-existing partially cleared corridor along the western boundary of which is zoned RU1 – Primary Production. The 11 new transmission towers will be 55 m high (see **Figure 14**).

Transmission infrastructure is an element within the Study Area and forms part of the visual character of the area. The proposed transmission reticulations are likely to be higher than those that are currently within the Study Area. The proposed transmission infrastructure is likely to be visible, though will not dominate the surrounding visual landscape. Therefore the potential visual impact are likely to be low.

8.2.7 Fencing and other infrastructural elements

Within the Development Footprint, PV modules and associated Project infrastructure would be enclosed by security fencing (no security fencing is proposed around the Project Area boundary), approximately 2.1 m high, subject to final design. The security fencing would involve casting concrete footings for posts and installing fencing mesh and barbed wire. Fencing will restrict public access to the Development Footprint and is required under Australian Standard (AS) 1725.2010 Parts 1-5. CCTV cameras would also be provided around the onsite substations, and at all entrances to the Project Area.

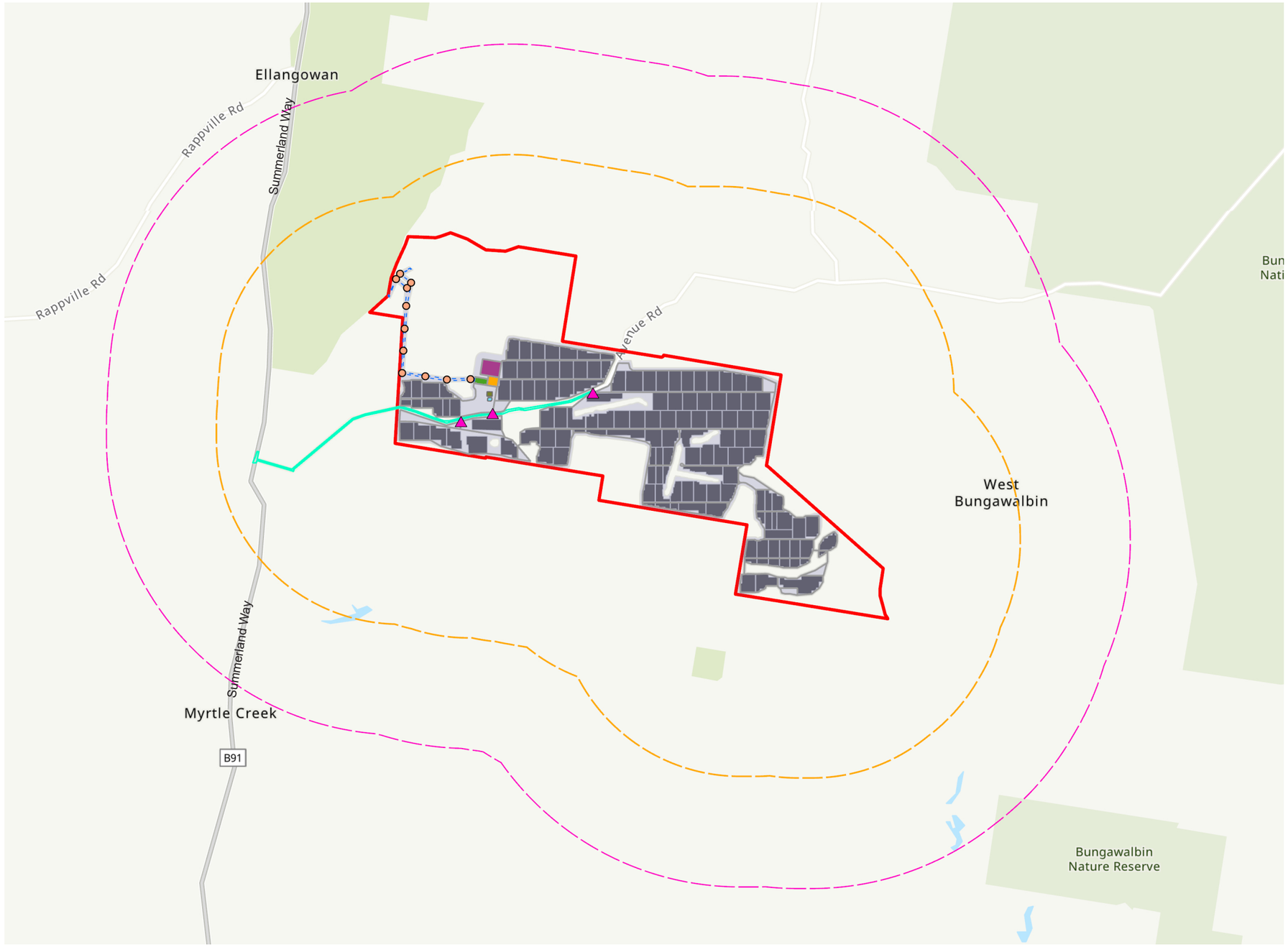
Whilst the fencing is likely to be visible from areas directly adjoining the Project, the proposed fencing is unlikely to contrast with the surrounding landscape. As a result, the visual impacts are likely to be negligible.

8.3 Design Considerations

Good design principles employed through the Project design phase can significantly reduce the visual impacts of the Project and associated infrastructure. These include the siting principles, access, layout and other aspects of the design which directly influence the appearance of the proposed development. The following outlines the design considerations that have been developed in response to the associated infrastructure:

- Retain the existing vegetation, where possible, within the Study Area (see Figure 05) and along creek corridors to reduce the overall visual impact
- Consider the colours of the ancillary structures to ensure minimal contrast and to help blend into the surrounding landscape to the extent practicable (see **Image 17**).
- Consider the height of ancillary structures to ensure the development does not contrast significantly with surrounding landscape.
- Existing vegetation generally present around the Project Area will be retained and protected to maintain the existing level of screening.

Image 17 – *Example of building colour palette sympathetic to its surrounding.*



Associated Infrastructure

Richmond Valley Solar Farm

LEGEND

- Project Area
- 2.5 km from the nearest solar array
- 4 km from the nearest solar array
- PV Array
- BESS
- Switching Station
- O & M Facility
- Substation
- Proposed Site Access Points
- Proposed Transmission towers
- Local Roads
- Transmission Line
- Proposed Avenue Road Upgrade
- Access Roads
- Development Footprint
- Parking Area

0 1 2 3 4 km

Figure 14 – Location of the Associated Infrastructure
Source: ArcGIS, 2023

8.4 Analysis of viewpoints along Public Receptors

8.4.1 Methodology

The viewpoint analysis considers the likely visual impacts of the Project on the existing landscape character and visual amenity by selecting prominent sites, otherwise referred to as viewpoints or public receptors along publicly accessible areas. Once the viewpoints have been selected, panoramic photographs are taken on a level tripod at a height of 150cm (to represent eye level). Photographs are taken with a Fujifilm GFX 100s medium format film camera through a 50mm fixed focal lens (63mm medium format lens) which closely represents the central field of vision of the human eye.

The visual impact of the viewpoint is then assessed both on site and with the topographic and aerial information to ensure accuracy. For each viewpoint, the potential visual impacts are analysed through a combination of the 3D terrain modelling, topographic maps and on site analysis. Viewpoint photographs and analysis have been included in **Appendix A**. The findings of the viewpoint analysis have been quantified and are summarised in **Table 09**.

8.4.2 Selection Process

The locations have been identified in **Figure 15**. The directions of the viewpoints are noted in **Appendix A**. The selection of the viewpoints has been informed by topographical maps, fieldwork observations and other relevant influences such as access, landscape character, the popularity of vantage points and key landscape features identified within each LCZ (see **Section 7.0**).

A total of 13 locations were selected from publicly accessible locations to represent a range of views surrounding the Project Area.

Viewpoints are selected to illustrate a combination of the following:

- Areas of high landscape or scenic value
- Visual composition (eg. focused or panoramic views, simple or complex landscape pattern)
- Range of distances
- Varying aspects
- Various elevations
- Various extent of development visibility (full and partial visibility)
- Views from major routes

8.5 Overview of Viewpoint Analysis

As discussed in the rationale for the selection process, these viewpoints are representative of the worst case scenario. For each location, the potential visual impact are analysed through a combination of topographic maps and on site analysis.

The visual sensitivity and visual magnitude of each viewpoint have been assessed which, when combined, results in an overall visual impact for the viewpoint (see **Table 09**).

Of the 13 locations, ten (10) locations have a ‘Very Low’ visual impact rating. Two (2) locations have been rated as having a ‘Low’ visual impact rating and One (1) location has been rated as having a ‘Moderate’ visual impact rating. It is essential to note that the visual impact ratings discussed below are preliminary findings based on site observations. Further assessment in the form of application of Preliminary Assessment Tool and Wireframe Analysis has been conducted to confirm the visual impact (see **Table 12** and **Table 19**).

VP Analysis ID	Location	Visual Sensitivity	Visual Magnitude	Visual Impact Rating
VP01	Braemar Forest Park Rest Area	MODERATE	VERY LOW	LOW
VP02	Intersection of Ermelo Road and Avenue Road	VERY LOW	VERY LOW	VERY LOW
VP03	Avenue Road	VERY LOW	LOW	VERY LOW
VP04	Avenue Road	VERY LOW	HIGH	LOW
VP05	Avenue Road	VERY LOW	VERY HIGH	MODERATE
VP06	Avenue Road	VERY LOW	VERY LOW	VERY LOW
VP07	Intersection of Avenue Road and Myall Creek Road	VERY LOW	VERY LOW	VERY LOW
VP08	Myall Creek Road	VERY LOW	VERY LOW	VERY LOW
VP09	Avenue Road	VERY LOW	VERY LOW	VERY LOW
VP10	Avenue Road	VERY LOW	VERY LOW	VERY LOW
VP11	Main Camp Road	VERY LOW	VERY LOW	VERY LOW
VP12	Intersection of Summerland Way and Myrtle Creek Road	VERY LOW	VERY LOW	VERY LOW
VP13	Main Camp Road	VERY LOW	VERY LOW	VERY LOW

Table 09 – Summary of Viewpoint Analysis - see Appendix A

Receptor Locations - Public Receptors

Richmond Valley Solar Farm

LEGEND

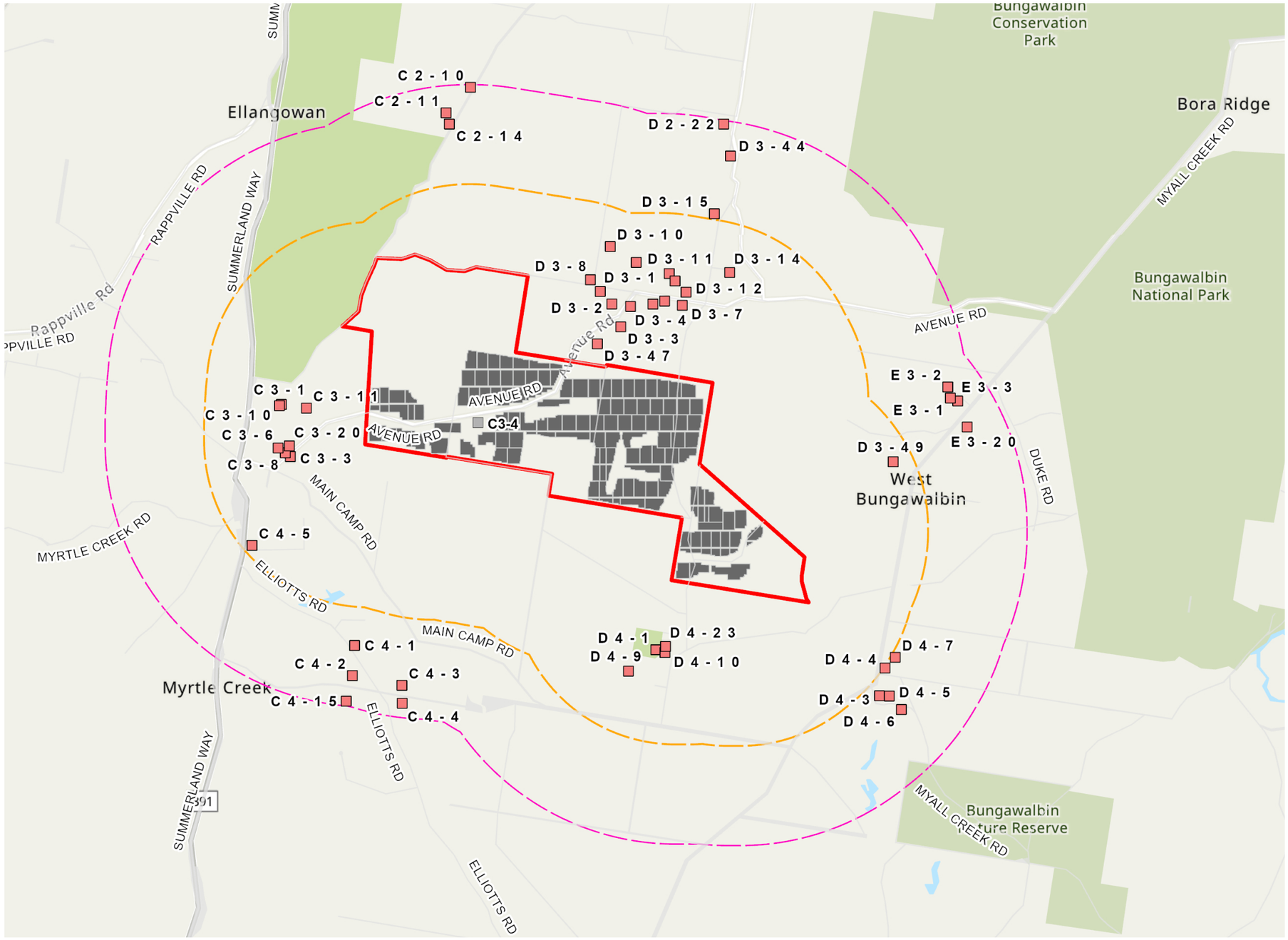
- Project Area
- 2.5 km from the nearest solar array
- 4 km from the nearest solar array
- Viewpoints along Public Receptors
- PV Array
- Access Roads

Figure 15 – Receptor Location Map - Public Receptors
Source: ArcGIS, 2023

0 1 2 3 4 km

Receptor Locations - Private Receptors

Richmond Valley Solar Farm



LEGEND

- Project Area
- 2.5 km from the nearest solar array
- 4 km from the nearest solar array
- Private Receptors (Non-associated)
- Private Receptors (Associated)
- PV Array
- Access Roads

0 1 2 3 4 km

Figure 16 – Receptor Location Map - Private Receptors
Source: ArcGIS, 2023

09

Preliminary Assessment Tools

9.0 Preliminary Assessment Tools

9.1 Viewshed Mapping

A viewshed map identifies all areas from which a project may be theoretically viewed. Viewshed mapping can be achieved by using geographic information systems (GIS) that account for topography and line of sight between viewpoints and the Project.

The purpose of the viewshed map is to further eliminate the need to assess receptor locations that fall below the lines in the Preliminary Assessment Tool if the analysis shows there is intervening terrain that would block line of sight to a particular viewpoint.

Viewshed mapping was undertaken for the Project to eliminate receptor locations that will not have a line of sight to the Project (see **Figure 17**). Based on topography alone, 36 private receptors will have a direct line of sight to the Project. Similarly, based on the viewshed mapping, 12 private receptors did not have a direct line of sight to the Project. Public receptors are discussed in the summary below.

It is important to note that the viewshed map provides an assessment based on topography alone and does not take into account intervening elements such as vegetation and areas or parts of the Project that may screen distant rows of panels. The viewshed map, therefore, represents a theoretical worst case scenario.

Viewshed mapping has been undertaken based on a panel height of 4 m.

Summary of Viewshed Map:

The following provides a summary of preliminary findings from the viewshed map prepared for the Study Area (see **Figure 17**):

- The Project is located on a relative flat land surrounded by gently undulating topography. This results in limited views within close proximity to the Project.
- Due to the topography variations to the north, theoretically the majority of the views of the Project are from receptors to the north (up to 100%) located approximately within 1 km of the Project.
- Theoretically, from the south, southwest and southeast, there is up to 75% visibility based on topography alone.
- Avenue Road intersects the Project and will have the most views of the Project (up to 100%). However, this visibility is limited to parts of the road within the Project Area and in close proximity to the north.
- Views along Summerland Way are limited to up to 25% based on topography alone.
- Theoretically areas to the west have some visibility of the Project (up to 25%) due to the undulating topography of the Project Area.
- Similarly due to topographical variations some areas to the east, north and southeast have no direct line of sight towards the Project.

Further assessment and ground-truthing during field work was undertaken in August 2023 to ascertain potential visibility from key locations by taking into account structures and vegetation.

9.2 Reverse Viewshed Mapping

The Technical Supplement states: "*The applicant should also consider undertaking a reverse viewshed analysis. This can be a useful tool to refine the project design process to reduce any significant impacts. It can also be used to communicate the visibility of certain parts of the project and aid consultation with the community. This analysis should be used to highlight parts of the project that can be seen from the greatest number of viewpoints*" (DPE 2022b, p. 14).

Figure 18 represents a reverse viewshed map that takes into account private receptors (non-associated) that were identified within 4 km of the Project Area. The reverse viewshed mapping represents the views from the surrounding private receptors (non-associated) towards the Project based on topography alone. This assessment also represents a bare ground scenario, i.e., a landscape without intervening elements such as vegetation and structures.

Summary of Reverse Viewshed Map:

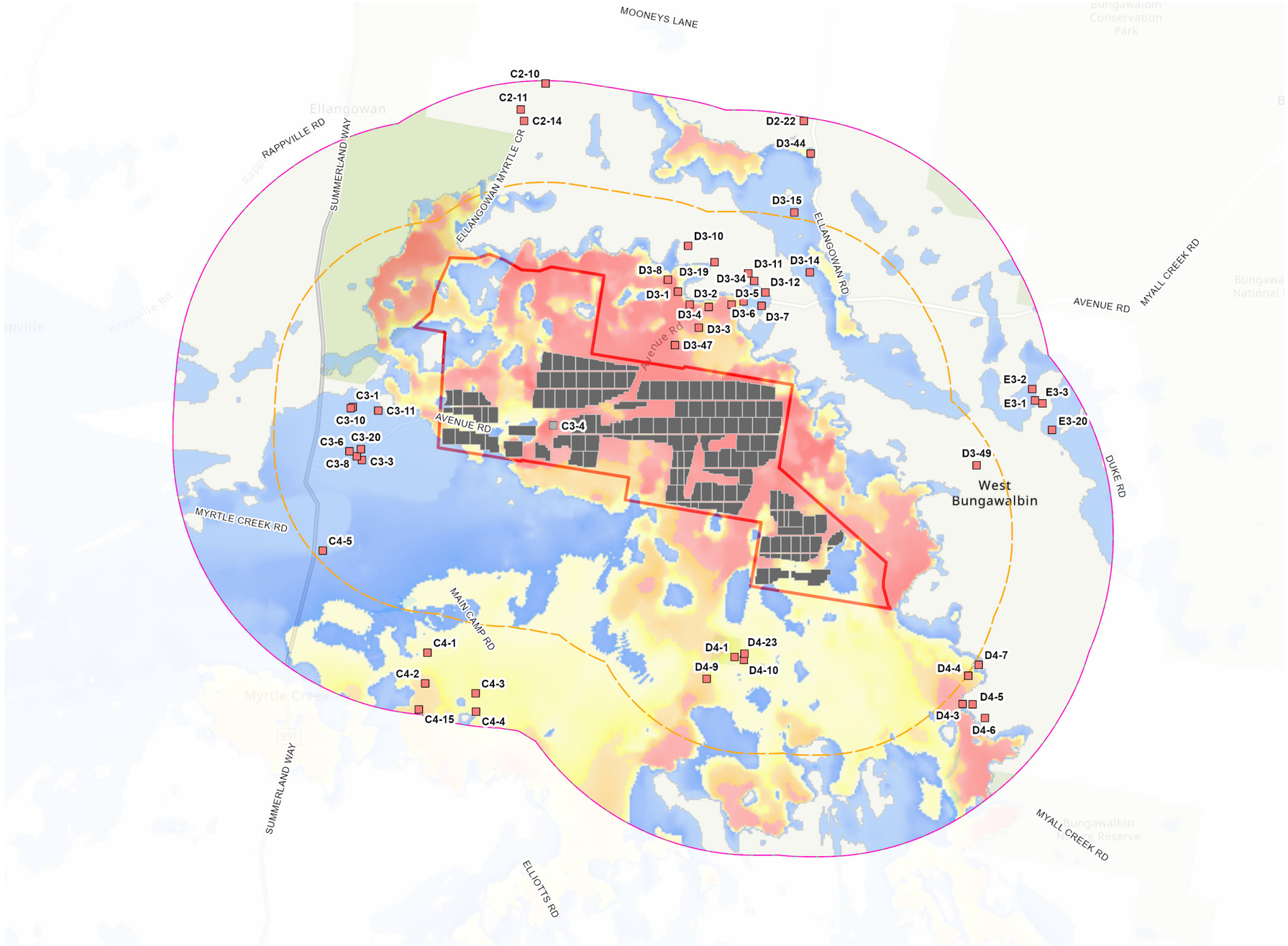
The following provides a summary of the reverse viewshed map prepared for the Project Area:

- The majority of the views would be towards the southern edge of the Project from surrounding private receptors (views from up to 30 private receptors(non-associated))
- Up to 15 private receptors (non-associated) will theoretically have views of up to 25% of the Project.

This assessment also represents a bare ground scenario, i.e., a landscape without intervening elements such as vegetation and structures.

Viewshed Map

Richmond Valley Solar Farm



LEGEND

- Project Area
- 2.5 km from Solar Array
- 4 km from Solar Array
- Private Receptors (Non-associated)
- Private Receptors (Associated)
- Local Roads
- Major Road
- PV Array
- State Forests and National Parks

ZVI (Based on 4m Panel Height)

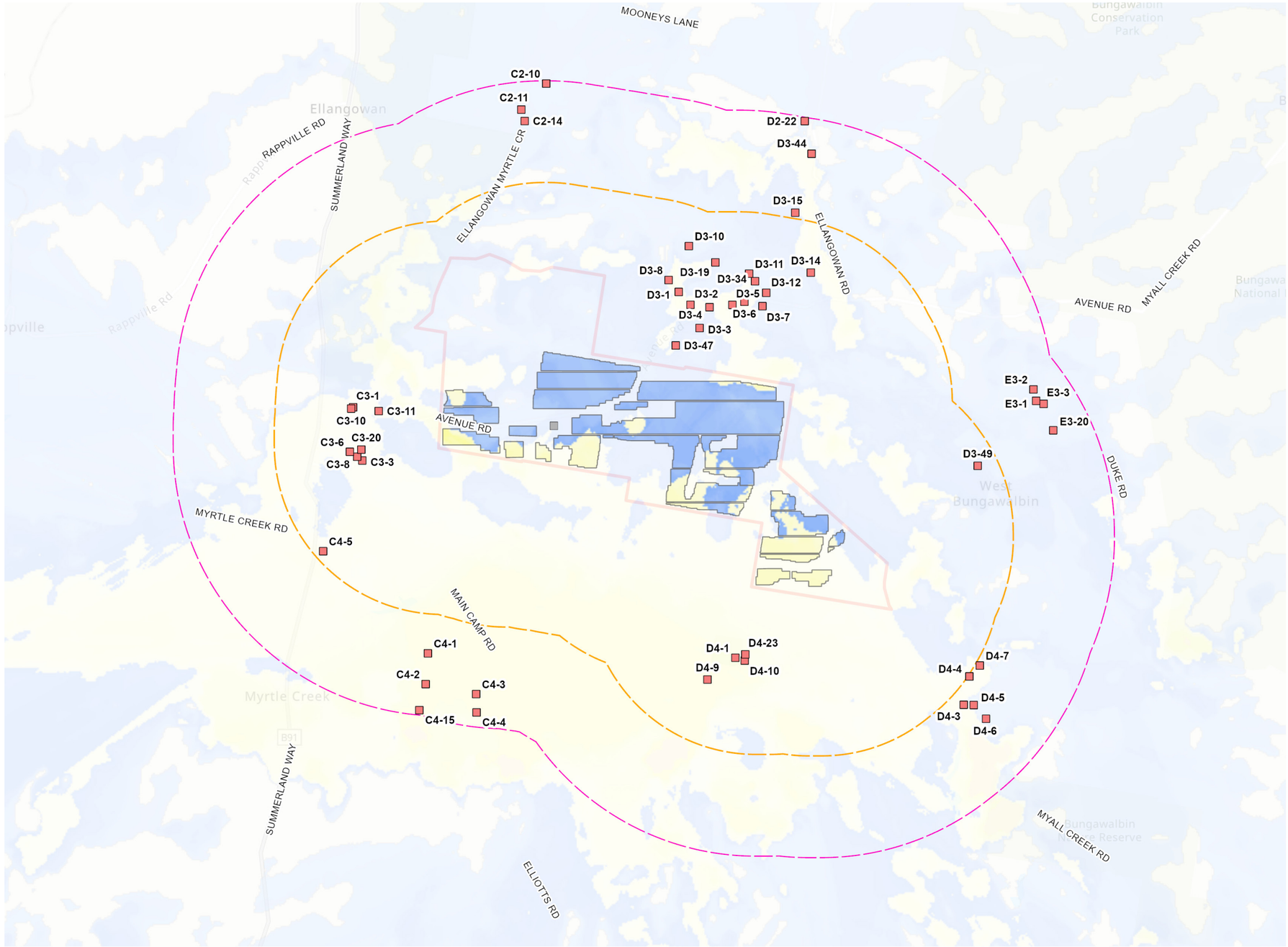
- No Visibility
- 1- 25 % Visibility
- 25 - 50% Visibility
- 50 - 75% Visibility
- 75 - 100% Visibility

0 1 2 3 4 km

Figure 17 – Viewshed Map
Source: ArcGIS, 2023

Reverse Viewshed Map

Richmond Valley Solar Farm



LEGEND

- Project Area
- 2.5 km from Solar Array
- 4 km from Solar Array
- Private Receptors (Non-associated)
- Private Receptors (Associated)
- Local Roads
- Major Road
- PV Array

Reverse ZVI (Based on 4m Panel Height)

- No Visibility
- 1 - < 15 Receptors
- 15 - < 30 Receptors
- 30 - < 45 Receptors

0 1 2 3 4 km

Figure 18 – Reverse Viewshed Map
Source: ArcGIS, 2023

9.3 Preliminary Assessment Tools

The Technical Supplement states: "*A preliminary visual assessment must be included in an applicant's scoping report as part of their request for the Secretary's environmental assessment requirements (SEARs)*" (DPE 2022b, p. 12).

The Preliminary Assessment Tools is used to identify receptor locations that require detailed assessment. The tools are designed to eliminate the need to assess receptor locations that are likely to experience very low impacts. This is based on the vertical and horizontal field of view that a development is likely to occupy when viewed from each receptor location and is influenced by distance, height elevation changes, and width of a project.

The flowchart provides an overview of the requirement of the Preliminary Assessment (in accordance with the Technical Supplement) and where these have been addressed in this report.

Assessment Parameters:

The Technical Supplement states: "*The calculations can be based on either the project area, or the disturbance footprint depending on the level of information available at the time. A more refined approach that uses the development footprint, may result in less viewpoints requiring assessment*." (DPE 2022b, p. 13).

For the purpose of this report, the Preliminary Assessment Tools have been applied to the Project (see **Figure 04**).

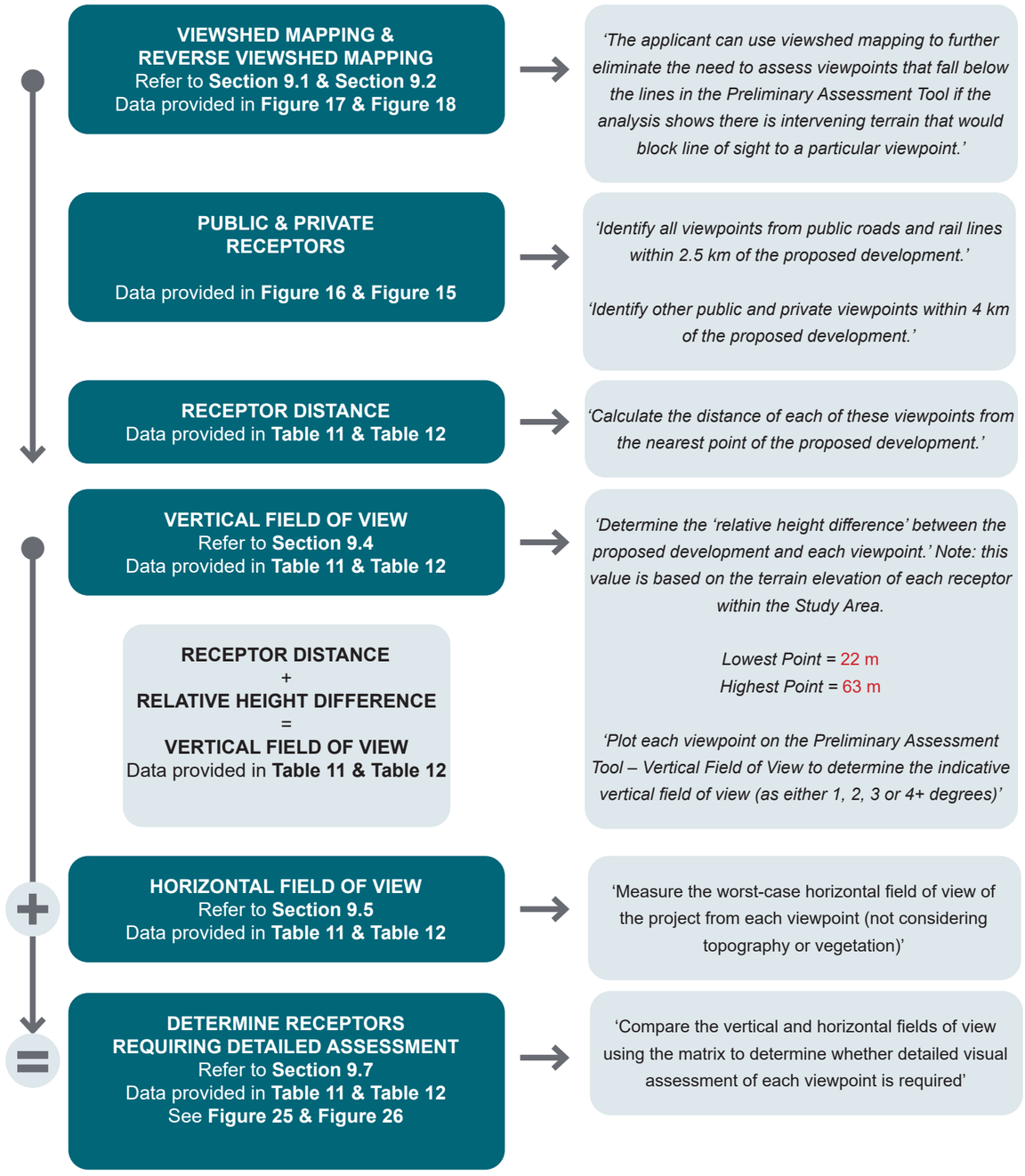


Figure 19 – Overview of Preliminary Assessment Tools

9.4 Vertical Field of View Calculations

Figure 20 illustrates how the vertical field of view is calculated for each viewpoint location. Plotting viewpoints on **Figure 22**, provides the results of the vertical field of view.

Section 9.4 and **Section 9.5** illustrate the methodology for calculating the vertical and horizontal field of view for each receptor. **Table 11** and **Table 12** compare the vertical and horizontal fields of view using the matrix in **Table 10** to determine whether detailed visual assessment of each receptor is required. The process for detailed assessments is included in **Section 10.0**.

Project located above and below viewpoint (a - c)

Project located above viewpoint (a - b)

Project located below viewpoint (b - c)

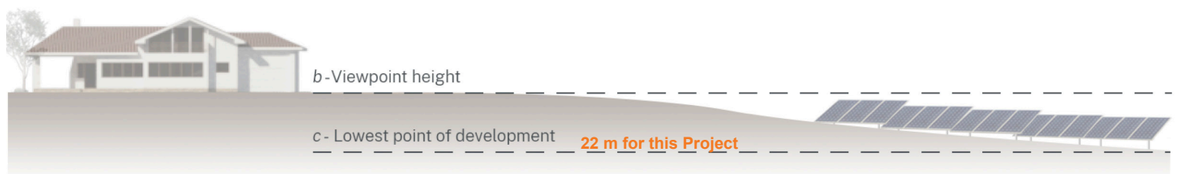


Figure 20 – Relative Height Difference Calculation
Source: DPE, 2022

9.5 Horizontal Field of View Calculations

Figure 21 illustrates how the horizontal field of view is calculated for each viewpoint location. For the purpose of this report, the horizontal field of view has been calculated based on the solar array area to provide a worst-case scenario assessment. Each receptor has been plotted on **Figure 22** and **Figure 23** overleaf which illustrates receptors that require further detailed assessments (plots between 1° - 4°).

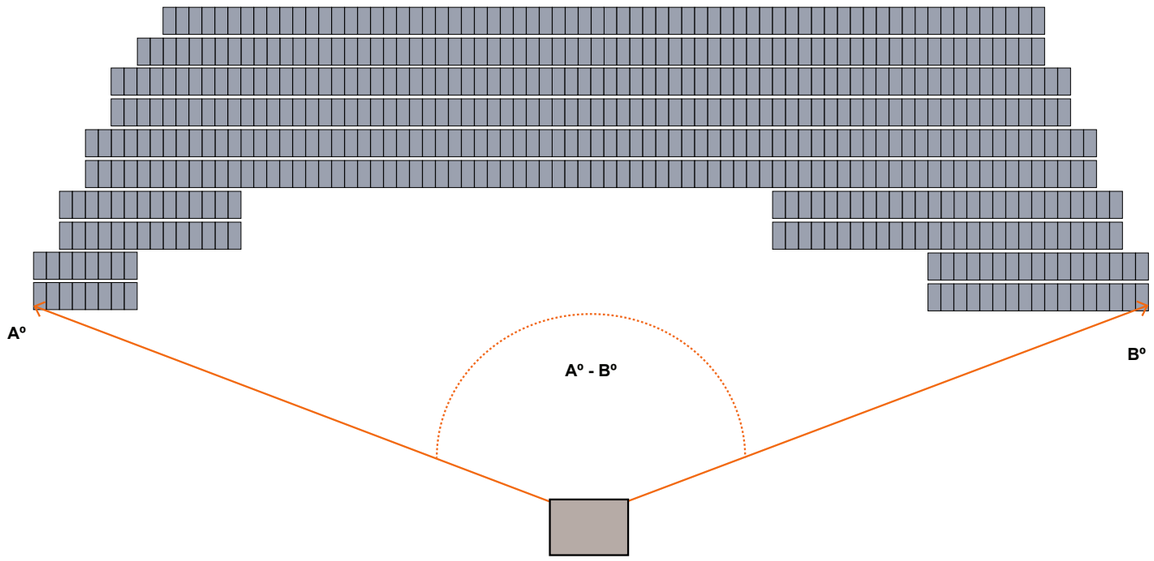


Figure 21 – Horizontal Field of View Calculations
Source: MLA, 2022

9.6 Detailed Assessment Requirements

Horizontal field of view of project	1º vertical field of view	2º vertical field of view	3º vertical field of view	4º + vertical field of view
1 - 10º	No assessment required	No assessment required	No assessment required	No assessment required
11 - 20º	No assessment required	No assessment required	No assessment required	Assessment required
21 - 30º	No assessment required	No assessment required	Assessment required for all viewpoints except road / rail	Assessment required
31 - 40º	No assessment required	Assessment required for all viewpoints except road / rail	Assessment required for all viewpoints except road / rail	Assessment required
41 - 50º	No assessment required	Assessment required for all viewpoints except road / rail	Assessment required	Assessment required
51 - 60º	No assessment required	Assessment required for all viewpoints except road / rail	Assessment required	Assessment required
61 - 70º	No assessment required	Assessment required	Assessment required	Assessment required
71 - 130º	Assessment required for all viewpoints except road / rail	Assessment required	Assessment required	Assessment required
130º+	Assessment required	Assessment required	Assessment required	Assessment required

Table 10 – Preliminary Visual Assessment Tool - Assessment Requirements
Source: DPE, 2022b

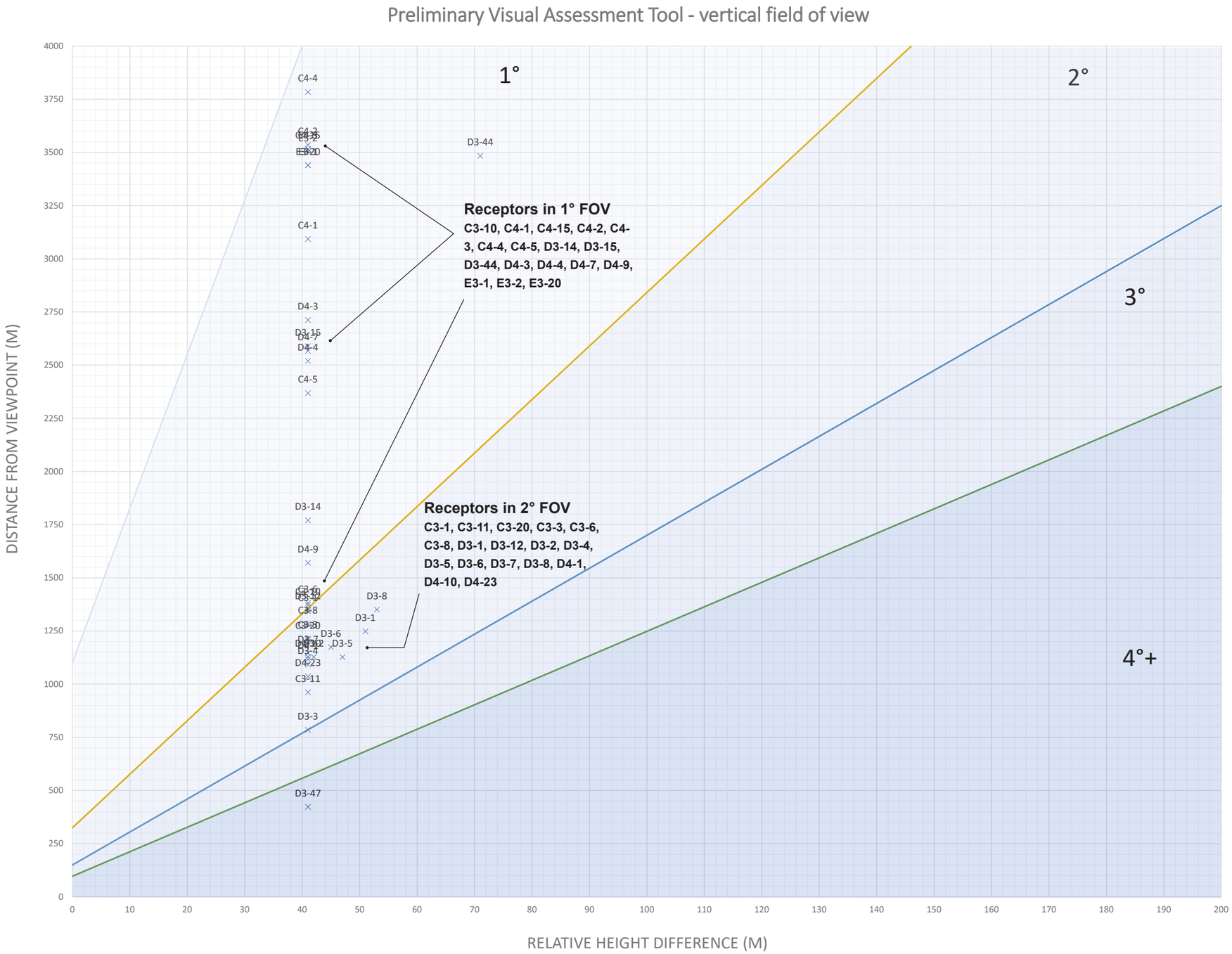


Figure 22 – Preliminary Assessment Tool - Vertical Field of View - Private Viewpoints
Source: MLA, 2022

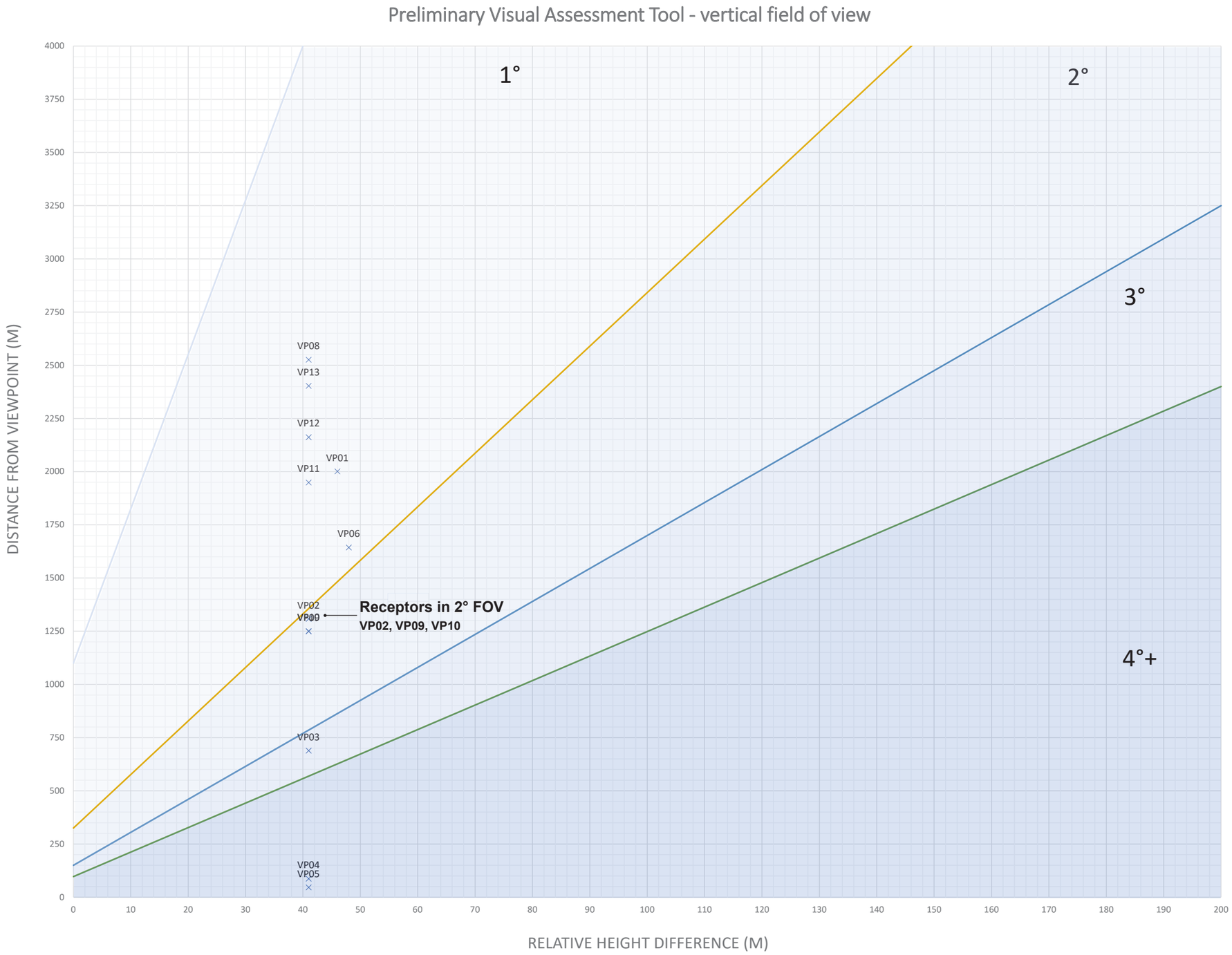


Figure 23 – Preliminary Assessment Tool - Vertical Field of View - Public Viewpoints
Source: MLA, 2022

ID	Receptor Elevation	Relative Height Difference (m)	Distance to the Solar Panel	Vertical Field of View degree	Horizontal extent of view	Visible based on viewshed mapping	Detailed Assessment Required?:
C3-1	57	41	1343	2	39	Yes	YES
C3-10	58	41	1372	1	40	Yes	NO
C3-11	58	41	962	2	44	Yes	YES
C3-20	44	41	1210	2	55	Yes	YES
C3-3	42	41	1215	2	59	Yes	YES
C3-6	45	41	1382	2	79	Yes	YES
C3-8	40	41	1282	2	55	Yes	YES
C4-1	38	41	3093	1	77	Yes	YES
C4-15	49	41	3516	1	80	Yes	YES
C4-2	54	41	3536	1	73	Yes	YES
C4-3	36	41	3516	1	80	Yes	YES
C4-4	35	41	3784	1	78	Yes	YES
C4-5	38	41	2368	1	57	Yes	NO
D3-1	73	51	1248	2	112	Yes	YES
D3-12	50	41	1350	2	91	Yes	YES
D3-14	58	41	1770	1	81	Yes	YES
D3-15	58	41	2589	1	72	Yes	YES
D3-2	64	42	1128	2	118	Yes	YES
D3-3	47	41	785	3	134	Yes	YES
D3-4	60	41	1092	2	115	Yes	YES
D3-44	93	71	3484	1	63	Yes	NO
D3-47	41	41	423	4	169	Yes	YES
D3-5	69	47	1127	2	105	Yes	YES
D3-6	67	45	1174	2	99	Yes	YES
D3-7	50	41	1146	2	98	Yes	YES
D3-8	75	53	1351	2	109	Yes	YES
D4-1	34	41	1117	2	104	Yes	YES
D4-10	34	41	1128	2	90	Yes	YES
D4-23	36	41	1036	2	104	Yes	YES
D4-3	43	41	2712	1	33	Yes	NO
D4-4	42	41	2520	1	33	Yes	NO
D4-7	42	41	2567	1	34	Yes	NO
D4-9	32	41	1570	1	99	Yes	YES
E3-1	44	41	3440	1	46	Yes	NO
E3-2	47	41	3504	1	48	Yes	NO
E3-20	37	41	3440	1	42	Yes	NO

Table 11 – Results of Preliminary Assessment Tools - Private Receptors

ID	Receptor Elevation	Relative Height Difference	Distance to the Solar Panel	Vertical Field of View degree	Horizontal extent of view	Visible based on viewshed mapping	Detailed Assessment Required?:
VP01	68	46	2001	1	39	NO	NO
VP02	52	41	1308	2	103	NO	NO
VP03	46	41	689	3	143	YES	YES
VP04	31	41	87	4	179	YES	YES
VP05	56	41	46	4	157	YES	YES
VP06	70	48	1644	1	81	YES	YES
VP07	33	41	5452	0	36	NO	NO
VP08	42	41	2526	1	34	YES	NO
VP09	60	41	1249	2	97	YES	YES
VP10	51	41	1251	2	91	YES	YES
VP11	44	41	1949	1	44	YES	NO
VP12	43	41	2162	1	53	YES	NO
VP13	35	41	2403	1	100	YES	YES

Table 12 – Results of Preliminary Assessment Tools - Public Receptors

9.7 Summary of Application of Preliminary Assessment Tools - Private & Public Receptors

Application of the Preliminary Assessment Tools identified public and private receptors for further assessment.

36 private receptors (non-associated) were identified within 4 km of the nearest solar array (see **Figure 16**). Of the 36 private receptors (non-associated), 27 private receptors (non-associated) were identified for further detailed assessment using wireframe analysis (see **Figure 25**). Similarly, a total of 12 locations were identified within 2.5 km of the nearest solar array along public receptors and one (1) location to represent views from Bungawalbin National Park (see **Figure 15**). Of which, seven (7) locations require further detailed assessment using wireframe analysis (see **Figure 26**).

10

Detailed Receptor Assessment

10.0 Detailed Receptor Assessment

10.1 Detailed Receptor Assessment Requirements

The detailed assessment stage involves undertaking a comprehensive assessment of the visual impacts of receptors identified as having a potential for impact in the preliminary assessment. The detailed assessment also considers options for mitigating impacts. The process for the detailed visual impact assessment is provided in **Figure 24**.

10.2 Stage 1 - Refine and Classify Receptors

All receptors requiring detailed assessment have been identified through the application of the Preliminary Assessment Tools (**Refer to Section 9.7**).

A total of 27 private receptors (non-associated) have been identified for detailed assessment from the application of Preliminary Assessment Tool (see **Figure 25**). Similarly, application of the Preliminary Assessment Tool identified seven (7) locations along public receptors for a detailed assessment (see **Figure 26**).

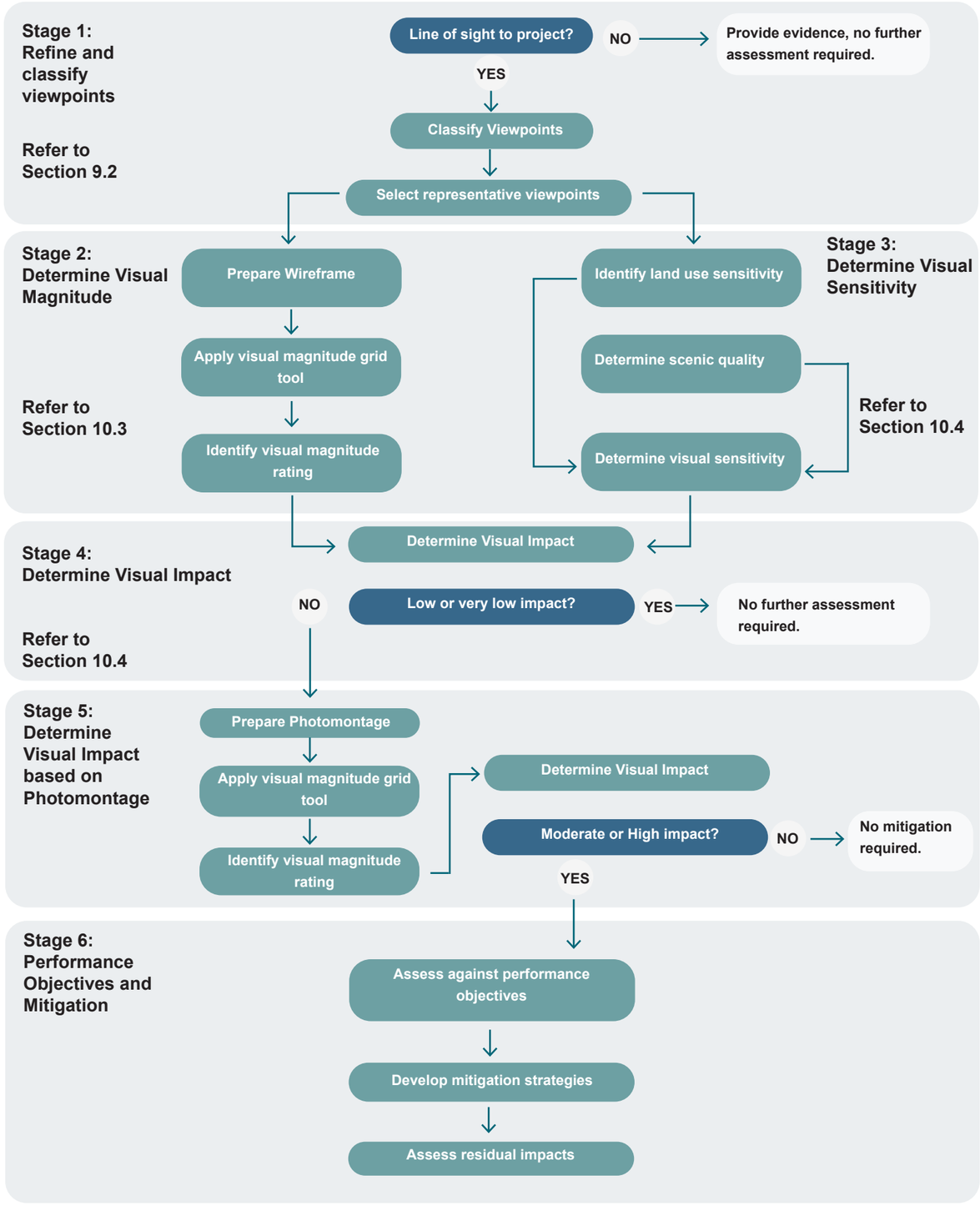
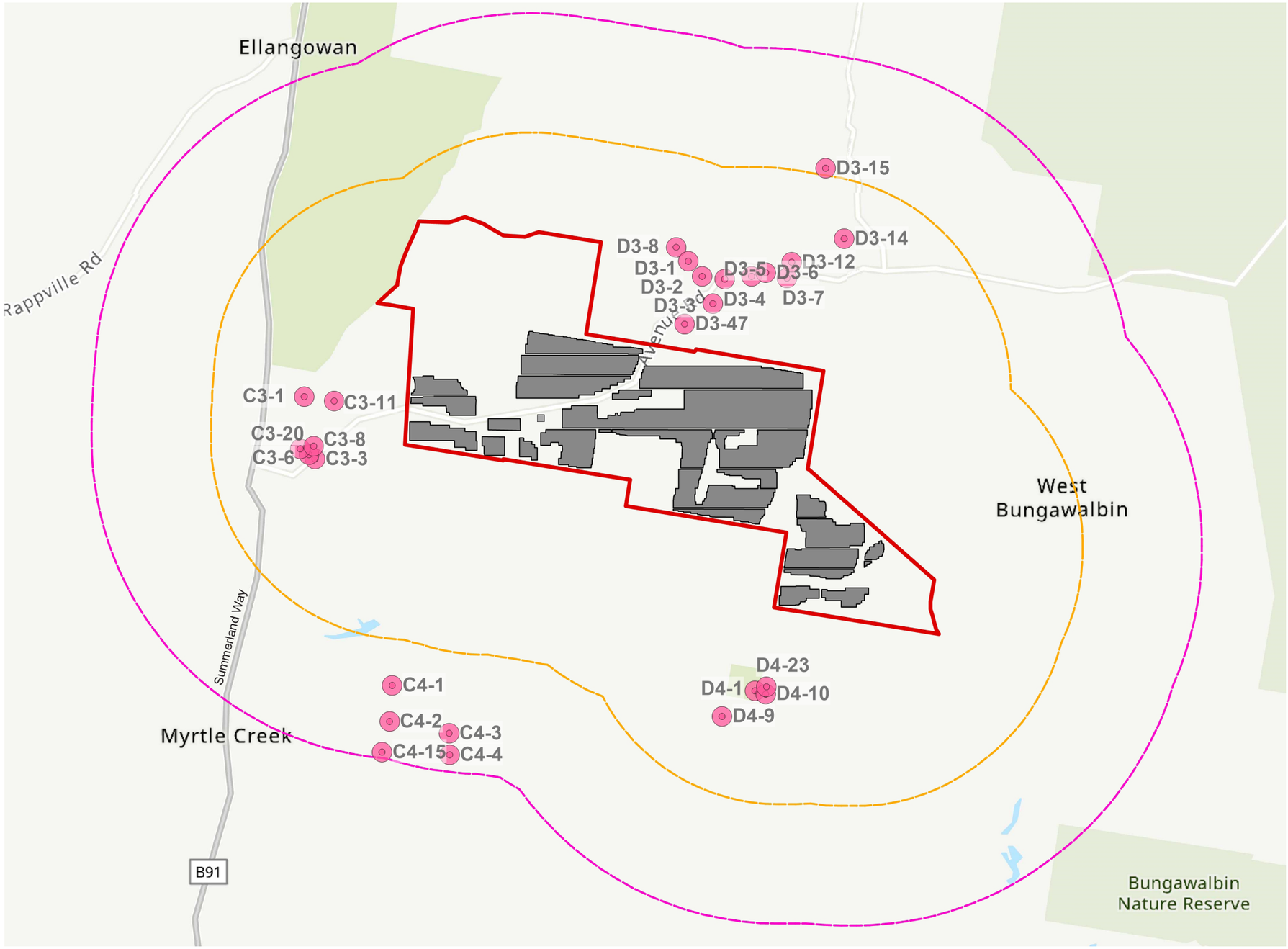


Figure 24 – Detailed Visual Impact Assessment Process
Source: DPE, 2022b



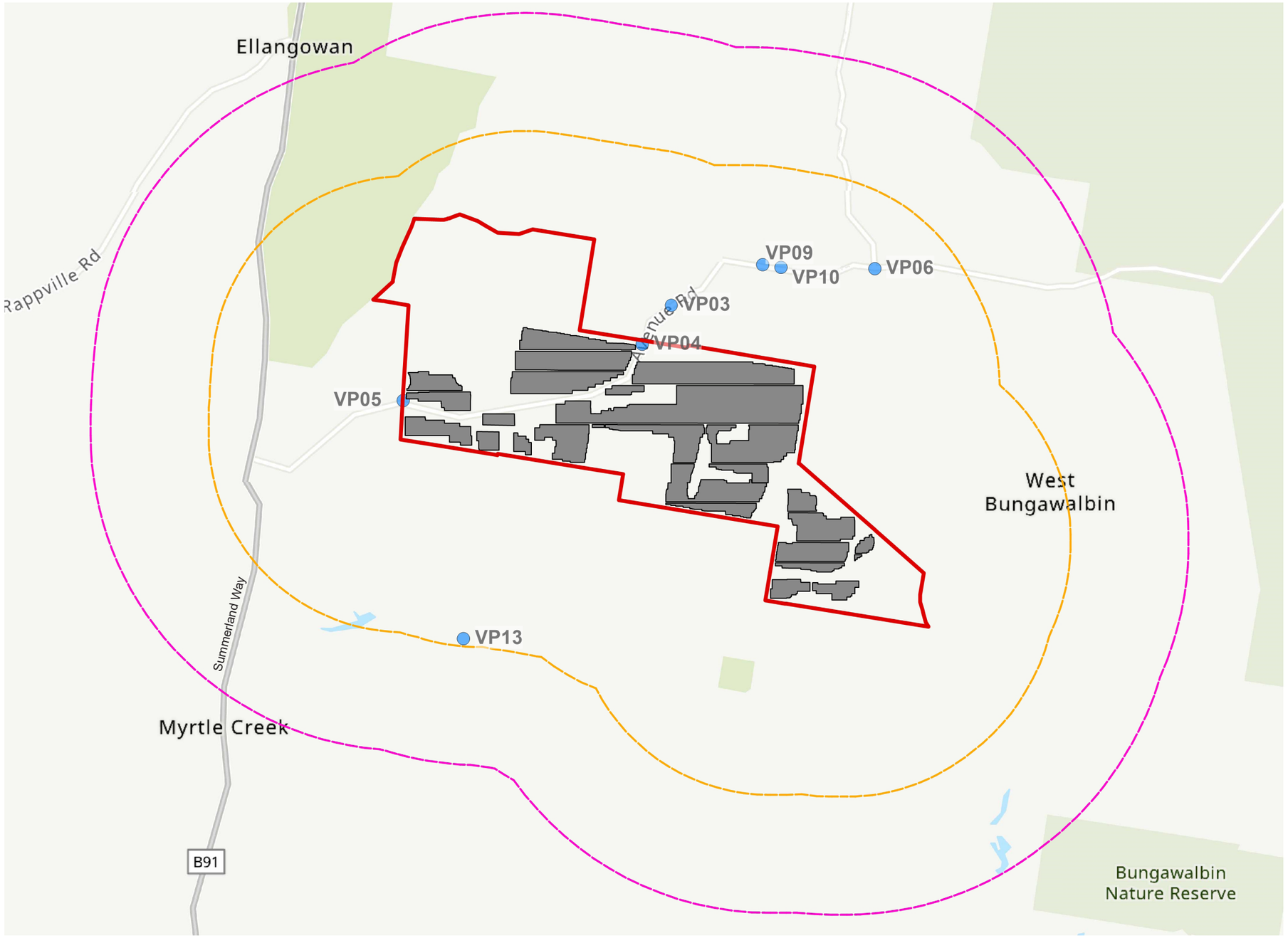
Receptor Locations - Private Receptors

Richmond Valley Solar Farm

LEGEND

- Project Area
- 2.5 km from the nearest solar array
- 4 km from the nearest solar array
- Private Receptors identified for detailed assessment
- Associated Receptors
- PV Array
- Local Roads

Figure 25 – Receptor Location Map - Private Receptors requiring detailed assessment
Source: ArcGIS, 2023



Receptor Locations - Public Receptors

Richmond Valley Solar Farm

LEGEND

- Project Area
- 2.5 km from the nearest solar array
- 4 km from the nearest solar array
- Locations along public receptors identified for detailed assessment
- PV Array
- Local Roads

Figure 26 – Receptor Location Map - Locations along Public Receptors requiring detailed assessment
Source: ArcGIS, 2023

10.3 Stage 2 - Determine Visual Magnitude

The visual magnitude of a project is determined by the volume of the horizontal and vertical fields of view occupied. To determine the visual magnitude for each receptor the following has been undertaken:

Step 1. Produce a wireframe that comprises a 180º field of view.
Step 2. Overlay the visual magnitude grid tool on the wireframe.
Step 3. Identify and count the number of grid cells that project would occupy
Step 4. Determine the magnitude rating base on the number of cells and thresholds (outlined in **Table 13** below).

The visual magnitude grid overlays have been provided in **Appendix B** and **Appendix C** and summarised in **Table 18** and **Table 19.**

Visual Magnitude Thresholds:	
Number of Occupied Cells	**Visual Magnitude Rating**
1 - 6	Very Low
7 - 12	Low
13 - 21	Moderate
22 - 30	High
31+	Very High

Table 13 – Visual Magnitude Thresholds
Source: DPE, 2022b

10.4 Stage 3 - Determine Visual Sensitivity

Visual sensitivity refers to the quality of the existing view and how sensitive the view is to the proposed change. The visual sensitivity is determined through the following three steps:

Step 1: Receptor Sensitivity
Step 2: Scenic Quality
Step 3: Visual Sensitivity

Step 1 - Receptor sensitivity

The Technical Supplement states:

Receptor sensitivity relates to the relative importance of receptors and the value that the community or visitors may place on landscapes viewed from public use areas, public travel ways and non-associated residences such as dwellings. The applicant must classify the sensitivity of each viewpoint into one of four (4) sensitivity ratings (very low, low, moderate, high) considering the examples in **Table 14**, *the baseline landscape study, and consultation with the community and individual landholders* (DPE 2022b, p. 24).

Step 2 - Scenic Quality

The Technical Supplement states:

Scenic quality refers to the relative scenic, cultural or aesthetic value of the landscape within the viewshed based on the presence or absence of key landscape features known to be associated with community perceptions of low, moderate, or high scenic quality. It is typically a complex process undertaken by experts in visual impact assessment and must take community values into consideration (DPE 2022b, p. 24).

The baseline analysis and landscape character assessment undertaken in the initial VIA has been used to inform the scenic quality of each LCZ (see **Section 7.0**).

Step 3 - Overall Visual Sensitivity

Once the viewpoint sensitivity and scenic quality are determined, these can be combined using the visual sensitivity matrix in **Table 15** to determine the overall visual sensitivity of each receptors.

	RECEPTOR SENSITIVITY LEVELS AND EXAMPLES			
	VERY LOW SENSITIVITY	**LOW SENSITIVITY**	**MODERATE SENSITIVITY**	**HIGH SENSITIVITY**
RESIDENTIAL	No place of residence present	Secondary view from dwellings in rural areas (zoned RU1, RU2, RU3, RU4 and RU6), large lot residential area (zoned R5) and in environmental conservation areas (zoned C2, C3 and C4).	Primary view from dwellings in rural areas (zoned RU1, RU2, RU3, RU4 and RU6), large lot residential area (zoned R5) and in environmental conservation areas (zoned C2, C3 and C4).	Dwellings in residential areas and rural villages (land zoned R1, R2, R3, R4 and RU5) Historic rural homesteads / residences on the national, state or local heritage list
TRANSPORT / INFRASTRUCTURE	Local sealed and unsealed roads Passenger rail lines with daily daylight services State highways, freeways and classified main roads Walking tracks and navigable waterways	Tourist roads and scenic drives Walking tracks and navigable waterways	N/A	N/A
SOCIAL / CULTURAL	Private recreation areas and sporting fields (defined as land zoned RE2)	Cemeteries, memorial parks	Tourist and visitor accommodation and places of worship (such as bed and breakfasts, motels, hotels) Tourist uses in tourist areas (zoned SP3) Publicly accessible green and open spaces including picnic areas, parks, public recreation areas Town centres and central business districts	N/A

Table 14 – Receptor sensitivity levels and examples
Source: DPE, 2022b

	SCENIC QUALITY RATING		
VIEWPOINT SENSITIVITY	**HIGH**	**MODERATE**	**LOW**
HIGH	HIGH	HIGH	MODERATE
MODERATE	HIGH	MODERATE	MODERATE
LOW	MODERATE	LOW	LOW
VERY LOW	LOW	VERY LOW	VERY LOW

Table 15 – Overall Visual Sensitivity Matrix
Source: DPE, 2022b

10.5 Stage 4 - Determine Visual Impact

The overall visual impact rating of each viewpoint must be determined for each assessable viewpoint by combining the visual magnitude and visual sensitivity using the matrix in **Table 16** below.

		VISUAL SENSITIVITY RATING			
		HIGH	**MODERATE**	**LOW**	**VERY LOW**
MAGNITUDE RATING	**VERY HIGH**	HIGH	HIGH	MODERATE	MODERATE
	HIGH	HIGH	MODERATE	MODERATE	LOW
	MODERATE	MODERATE	MODERATE	LOW	LOW
	LOW	MODERATE	LOW	LOW	VERY LOW
	VERY LOW	LOW	LOW	VERY LOW	VERY LOW

Table 16 – Visual Impact Matrix
Source: DPE, 2022b

10.6 Stage 5 - Determine Visual Magnitude Using Photomontage

The visual magnitude of a project is determined by the volume of the horizontal and vertical fields of view occupied. To determine the visual magnitude for each viewpoint the following has been undertaken:

Step 1. Produce a Photomontage that comprises a 180º field of view.
Step 2. Overlay the visual magnitude grid tool on the Photomontage
Step 3. Identify and count the number of grid cells that the project would occupy
Step 4. Determine the magnitude rating based on the number of cells and thresholds

The visual magnitude grid overlays for photomontages have been provided in **Appendix C** (Photomontages).

10.7 Stage 6 - Performance Objectives and Mitigation

Applicants must address the relevant performance objective for each assessable receptor and the level of impact identified (see **Table 17**).

Recommendation to address the performance objective have been provided in **Section 14.0**.

PERFORMANCE OBJECTIVES	
HIGH VISUAL IMPACT	This level of impact should be avoided unless the applicant can justify that: • all reasonable efforts have been made to avoid the impact and alternative project designs are not feasible or would be unlikely to materially reduce the impact • all reasonable mitigation options have been considered • the proposed mitigation measures would effectively mitigate the impact and would not result in a significant obstruction of views • the Project Area is strategically important because of its location • the project is in the public interest.
MODERATE VISUAL IMPACT	Visual impact mitigation is required in consultation with the affected landowner and should be proportionate to the scale of impact. There is no expectation this mitigation should eliminate the view of the development entirely but must reduce the impact to an acceptable level. Appropriate mitigation options include vegetation screening or project landscaping to reduce impacts. If the available mitigation options would not be effective in reducing impacts or are unsuitable due to the nature of the impact (e.g. screening would result in the obstruction of views), then project redesign and/or impact agreements should be considered.
LOW & VERY LOW VISUAL IMPACT	No mitigation is required.

Table 17 – Visual Performance Objectives
Source: DPE, 2022b

10.8 Summary of Detailed Receptors Assessment using Wireframe Analysis

The following provides a summary of the detailed visual impact assessment undertaken for all receptors as identified using wireframe analysis.

36 private receptors (non-associated) were identified within 4 km of the nearest solar array. Of the 36 private receptors (non-associated), 27 private receptors (non-associated) were identified for further detailed assessment using wireframe analysis. Similarly, a total of 12 locations were identified within 2.5 km of the nearest solar array along public receptors and one (1) location to represent views from Bungawalbin National Park (see **Figure 15**). Of which, seven (7) locations along public receptor require further detailed assessment using wireframe analysis.

10.8.1 Private Receptor Locations within 4km of the nearest solar array:

Application of the Visual Magnitude Tool onto the wireframes identified that of the 27 private receptors (non-associated) identified for detailed assessment using wireframe analysis (see **Table 18**) :

- 20 private receptors (non-associated) would have a ‘low’ visual impact rating. This is generally due to the location of these receptors either in close proximity or at a higher elevation in relation to the Project.
- Seven (7) private receptors (non-associated) [D3-1, D3-2, D3-3, D3-4, D3-47,D3-5 and D3-8] have a ‘moderate’ rating.

In accordance with the performance objectives (outlined in **Section 10.7**), no mitigation is required for locations rated as ‘low’ visual impact (see **Table 17)**.

10.8.2 Public Receptor Locations within 2.5km of the nearest solar array:

Application of the Visual Magnitude Tool onto the wireframes identified that of the seven (7) locations along public receptors identified for detailed assessment using wireframe analysis:

- Two (2) would have a ‘moderate’ visual impact rating and
- Five (5) would have a ‘low’ or ‘very low’ visual impact rating (see **Table 19**).

No rail receptors were identified within 2.5km of the Project Area.

Wireframe Analysis for the 13 locations along public receptors and 27 private receptors are found in **Appendix B**.

Dwelling ID	Approx. distance to the solar panel (m)	LCZ	Scenic Quality Rating	Receptor Sensitivity	Overall Visual Sensitivity	Occupied Cells through Wireframe Analysis	Visual Magnitude Rating based on occupied cells	Visual Impact Rating	*Refer to:
C3-1	1321 m	LCZ03 - Modified Pastures	LOW	MODERATE	MODERATE	1	VERY LOW	LOW	B.04
C3-11	961 m	LCZ03 - Modified Pastures	LOW	MODERATE	MODERATE	1	VERY LOW	LOW	B.15
C3-20	1150 m	LCZ03 - Modified Pastures	LOW	MODERATE	MODERATE	2	VERY LOW	LOW	B.13
C3-3	1357 m	LCZ03 - Modified Pastures	LOW	MODERATE	MODERATE	1	VERY LOW	LOW	B.02
C3-6	1380 m	LCZ03 - Modified Pastures	LOW	MODERATE	MODERATE	1	VERY LOW	LOW	B.14
C3-8	1403 m	LCZ03 - Modified Pastures	LOW	MODERATE	MODERATE	2	VERY LOW	LOW	B.03
C4-1	3548 m	LCZ03 - Modified Pastures	LOW	MODERATE	MODERATE	3	VERY LOW	LOW	B.20
C4-15	3930 m	LCZ01 - Densely Vegetated Native Forest	MODERATE	MODERATE	MODERATE	7	LOW	LOW	B.21
C4-2	3539 m	LCZ01 - Densely Vegetated Native Forest	MODERATE	MODERATE	MODERATE	5	VERY LOW	LOW	B.22
C4-3	3517 m	LCZ03 - Modified Pastures	LOW	MODERATE	MODERATE	7	LOW	LOW	B.23
C4-4	3795 m	LCZ03 - Modified Pastures	LOW	MODERATE	MODERATE	7	LOW	LOW	B.24
D3-1	1140 m	LCZ03 - Modified Pastures	LOW	MODERATE	MODERATE	28	HIGH	MODERATE	B.05
D3-12	1288 m	LCZ03 - Modified Pastures	LOW	MODERATE	MODERATE	0	VERY LOW	LOW	B.11
D3-14	1778 m	LCZ01 - Densely Vegetated Native Forest	MODERATE	MODERATE	MODERATE	0	VERY LOW	LOW	B.25
D3-15	2605 m	LCZ03 - Modified Pastures	LOW	MODERATE	MODERATE	0	VERY LOW	LOW	B.26
D3-2	938 m	LCZ03 - Modified Pastures	LOW	MODERATE	MODERATE	18	MODERATE	MODERATE	B.06
D3-3	610 m	LCZ03 - Modified Pastures	LOW	MODERATE	MODERATE	21	HIGH	MODERATE	B.09
D3-4	938 m	LCZ03 - Modified Pastures	LOW	MODERATE	MODERATE	18	MODERATE	MODERATE	B.07
D3-47	423 m	LCZ03 - Modified Pastures	LOW	MODERATE	MODERATE	27	HIGH	MODERATE	B.16
D3-5	1029 m	LCZ03 - Modified Pastures	LOW	MODERATE	MODERATE	18	MODERATE	MODERATE	B.08
D3-6	1103 m	LCZ03 - Modified Pastures	LOW	MODERATE	MODERATE	8	LOW	LOW	B.12
D3-7	1083 m	LCZ03 - Modified Pastures	LOW	MODERATE	MODERATE	0	VERY LOW	LOW	B.10
D3-8	1350 m	LCZ03 - Modified Pastures	LOW	MODERATE	MODERATE	16	MODERATE	MODERATE	B.17
D4-1	1084 m	LCZ02 - Plantation Forestry	LOW	MODERATE	MODERATE	8	LOW	LOW	B.01
D4-10**	1120 m	LCZ02 - Plantation Forestry	LOW	HIGH	MODERATE	7	LOW	LOW	B.18
D4-23**	1030 m	LCZ02 - Plantation Forestry	LOW	HIGH	MODERATE	7	LOW	LOW	B.19
D4-9	1574 m	LCZ02 - Plantation Forestry	LOW	MODERATE	MODERATE	9	LOW	LOW	B.27

*** Wireframe Analysis for each receptor is included in Appendix B**

**** Receptors are part of a Heritage Precinct of local significance listed under NSW Heritage Register.**

Table 18 – Summary of Detailed Assessment of Private Receptors (non-associated)
Source: MLA, 2023

Viewpoint ID	Approx. distance to the solar panel (m)	LCZ	Scenic Quality Rating	Receptor Sensitivity	Overall Visual Sensitivity	Occupied Cells through Wireframe Analysis	Visual Magnitude Rating based on occupied cells	Visual Impact Rating	*Refer to:
VP03	689 m	LCZ03-Modified Pastures	LOW	VERY LOW	VERY LOW	26	HIGH	LOW	B.28
VP04	87 m	LCZ03-Modified Pastures	LOW	VERY LOW	VERY LOW	31	VERY HIGH	MODERATE	B.29
VP05	46 m	LCZ03-Modified Pastures	LOW	VERY LOW	VERY LOW	40	VERY HIGH	MODERATE	B.30
VP06	1644 m	LCZ01-Densley Vegetated Native Forest	MODERATE	VERY LOW	VERY LOW	4	VERY LOW	VERY LOW	B.31
VP09	1249 m	LCZ03-Modified Pastures	LOW	VERY LOW	VERY LOW	4	VERY LOW	VERY LOW	B.32
VP10	1251 m	LCZ03-Modified Pastures	LOW	VERY LOW	VERY LOW	0	VERY LOW	VERY LOW	B.33
VP13	2403 m	LCZ03-Modified Pastures	LOW	VERY LOW	VERY LOW	6	VERY LOW	VERY LOW	B.34

*** Wireframe Analysis for each receptor is included in Appendix B**

Table 19 – Summary of Detailed Assessment of locations along Public Receptors
Source: DPE, 2022

10.9 Detailed Receptor Assessment Using Photomontages

The following provides a summary of the detailed visual impact assessment undertaken for all receptors identified in **Section 10.8** as requiring further assessment.

Private Receptor Locations:

Seven (7) private receptors (non-associated) [D3-1, D3-2, D3-3, D3-4, D3-47,D3-5 and D3-8] have been identified as having a 'moderate' visual impact through the application of the Preliminary Visual Magnitude Grid Tool. To verify these results, photomontages have been prepared from six (6) private receptors (non-associated) to demonstrate any existing conditions and their impacts upon the proposed view (see **Appendix C**).

As Moir LA was not granted permission to access private receptor location D3-47 a representative viewpoint was utilised (VP03 - see **Appendix C**).

Assessment of the Photomontages from the seven (7) private receptors (non-associated) demonstrated that existing vegetation would filter views of the Project, resulting in a 'low' visual Impact rating. Therefore in accordance with the performance objectives outlined in **Table 17** no mitigation is required.

Although the representative viewpoint (VP03 assessed for D3-47) showed a 'low' visual impact rating, it has been concluded by using a combination of aerial imagery, wireframe analysis and representative viewpoints that the degree of existing vegetation may not provide sufficient screening toward the Project from the receptor's primary view. As a result, mitigation in accordance with the performance objectives is recommended for D3-47.

A summary of the findings are provided in **Table 20** below.

Public Receptor Locations:

Two (2) locations along public receptors [VP04 and VP05] have been identified as having a 'moderate' visual impact through the application of the Preliminary Visual Magnitude Grid Tool. To verify these results, photomontages have been prepared from these two (2) locations (see **Appendix C**).

Assessment of the Photomontages from the two (2) locations demonstrated that the horizontal scale of the Project results in a 'LOW' visual Impact rating. Therefore in accordance with the performance objectives outlined in **Table 17** no mitigation is required.

A summary of the findings are provided in **Table 21** below.

Dwelling ID	Approx. distance to the solar panel (m)	LCZ	Scenic Quality Rating	Receptor Sensitivity	Overall Visual Sensitivity	Occupied Cells through Photomontage Analysis	Visual Magnitude Rating based on occupied cells	Visual Impact Rating	Recommendations (Mitigation)
D3-1	1140 m	LCZ03 - Modified Pastures	LOW	MODERATE	MODERATE	2	VERY LOW	LOW	Mitigation is not required
D3-2	938 m	LCZ03 - Modified Pastures	LOW	MODERATE	MODERATE	1	VERY LOW	LOW	Mitigation is not required
D3-3	610 m	LCZ03 - Modified Pastures	LOW	MODERATE	MODERATE	3	VERY LOW	LOW	Mitigation is not required
D3-4	938 m	LCZ03 - Modified Pastures	LOW	MODERATE	MODERATE	2	VERY LOW	LOW	Mitigation is not required
D3-47 (Representative Viewpoint VP03)	423 m	LCZ03 - Modified Pastures	LOW	MODERATE	MODERATE	3	VERY LOW	LOW	Mitigation is required*
D3-5	1029 m	LCZ03 - Modified Pastures	LOW	MODERATE	MODERATE	0	VERY LOW	LOW	Mitigation is not required
D3-8	1350 m	LCZ03 - Modified Pastures	LOW	MODERATE	MODERATE	1	VERY LOW	LOW	Mitigation is not required

Note: A representative viewpoint has been considered to assess potential visual impact at dwelling D3-47. Although the visual impact has been identified as 'low', mitigation has been proposed for this receptor in lieu of lack of a site visit.

Table 20 – Summary of Detailed Assessment of Private Receptor (non-associated)
Source: MLA, 2023

Dwelling ID	Approx. distance to the solar panel (m)	LCZ	Scenic Quality Rating	Receptor Sensitivity	Overall Visual Sensitivity	Occupied Cells through Photomontage Analysis	Visual Magnitude Rating based on occupied cells	Visual Impact Rating	Recommendations (Mitigation)
VP04	89 m	LCZ03 - Modified Pastures	LOW	VERY LOW	VERY LOW	26	HIGH	LOW	Mitigation is not required
VP05	46m	LCZ03 - Modified Pastures	LOW	VERY LOW	VERY LOW	23	HIGH	LOW	Mitigation is not required

Table 21 – Summary of Detailed Assessment of locations along Public Receptors
Source: MLA, 2023

11

Lots with Dwelling Entitlements

11.0 Lots with Dwelling Entitlements

11.1 Dwelling Entitlement Assessment Requirements

The SEARs issued for the Project outlines the following assessment requirements for the LVIA: "*a detailed assessment of the likely visual impacts (...) of all components of the project on surrounding residences (including approved developments, lodged development applications and dwelling entitlements) (...).*" (DPE, 2022c).

Richmond Valley Council LEP 2012 recognises up to 143 lots with dwelling entitlements or dwelling opportunities (Richmond Valley Council LEP 2012) within 4km of the Project. Moir LA has undertaken a theoretical assessment using ZVI to examine potential visual impact on these lots to demonstrate the potential visual impact on lots with entitlements.

A receivers list received from Ark Energy dated June 27 2023 showed 65 dwellings within 4 km of the Project. This list was refined based on feedback from Richmond Valley Council to exclude 17 structures that were determined to be sheds. Therefore, as per the latest data received from Ark Energy dated November 27 2023, there are 49 structures classified as dwellings within 4 km of the Project. Of these, one (1) is classified as an associated private receptor.

Lot Entitlement with no visibility have been excluded from this assessment. Similarly, Lots with private receptors (non-associated) as per **Figure 27** have also been excluded in this assessment as these private receptors (non-associated) have been assessed in **Section 9.0** and /or in **Section 10.0** using Preliminary Assessment Tool and Wireframe Analysis.

11.2 Overview of Lots with Dwelling Entitlements

Figure 27 illustrates all lots with Dwelling Entitlement located within 4km of the Project. Results of viewshed mapping have been overlaid to illustrate the percentage of potential visibility of the development footprint for each lot (based on topography alone). It is important to understand that the exercise represents a bare ground scenario and does not consider intervening elements such as vegetation and structures.

- The majority of the lots that border the southwestern edge of the Project will theoretically have up to 1-25% visibility.
- Lots with entitlements to the immediate south would theoretically have up to 50-100% visibility with views reducing to up to 50% further south.
- Due to topography lots to the east, northeast, further north beyond approximately 1 km, and northwest will have limited visibility.

It is important to note that the assessment is solely based on the topography and does not take into account intervening elements such as vegetation or built form.

Observations made during the site visit indicate vegetation to the south of the Project will fragment views of the Project in this direction.

Table 22 provides an overview of the percentage of visibility of the Project for each lot. The visibility percentage refers to the percentage of visibility of the Project as per the **Figure 27.**

The following recommendations are made for lots with dwelling entitlements to assist in reducing the visual impacts of the Project:

- Structures are sited further away from the Project where possible.
- Structures are sited in locations where topography and existing vegetation assists in screening views to the Project.
- Screen planting is proposed around any receptors for reduced visual impacts from the Project.

Lot Reference	Lot Size (Ha) within 4km	Percentage of Lot Covered by 'ZVI Band'				
		No visibility	0-25%	25-50%	50-75%	75-100%
1/263564	3799.20	0	100			
1/755601	26050.62	0	24	32	31	13
1/755612	11026.51	72	28			
10/263564	5048.06	0	42	45	13	
10/701873	4026.21	68	11	4	5	12
10/739475	3942.80	94	6			
100/43822	6820.43	92	8			
11/263564	4771.20	0	37	63		
11/264440	27.99	0	18	58	24	
11/755601	2722.49	86	14			
119/755612	4593.60	79	13	8		
12/263564	3947.97	0	78	22		
12/701621	929.53	0		43	57	
12/755601	1349.61	22	78			
120/755612	25544.28	71	12	8	5	4
121/755612	4414.60	89	5	3		3
127/755620	2291.25	13	87			
128/755620	24051.64	37	63			
13/263564	2488.04	0	13	87		
13/701621	14.97	0		64	13	23
130/755620	18713.08	0	100			
136/755612	14655.44	0	67	9	16	8
14/755601	11227.41	0	46	28	19	7
145/755612	10574.41	92	7	1		
15/755601	16662.47	18	29	28	10	15
15/755607	25520.50	0	45	55		
16/755607	25862.54	0	27	35	26	12
17/701873	886.08	0		4	8	88
18/701873	1506.20	0		3	27	70
18/755607	471.42	13	87			
19/755620	1803.98	0	100			
2/1132428	6.09	0	100			
2/263564	4143.99	0	97	3		
2/701873	3985.82	86	8	6		
2/755601	21661.19	0	21	26	35	18
2/808274	13302.02	55	45			
20/755607	38839.62	0	3	67	18	12
21/755607	13026.56	0	23	77		

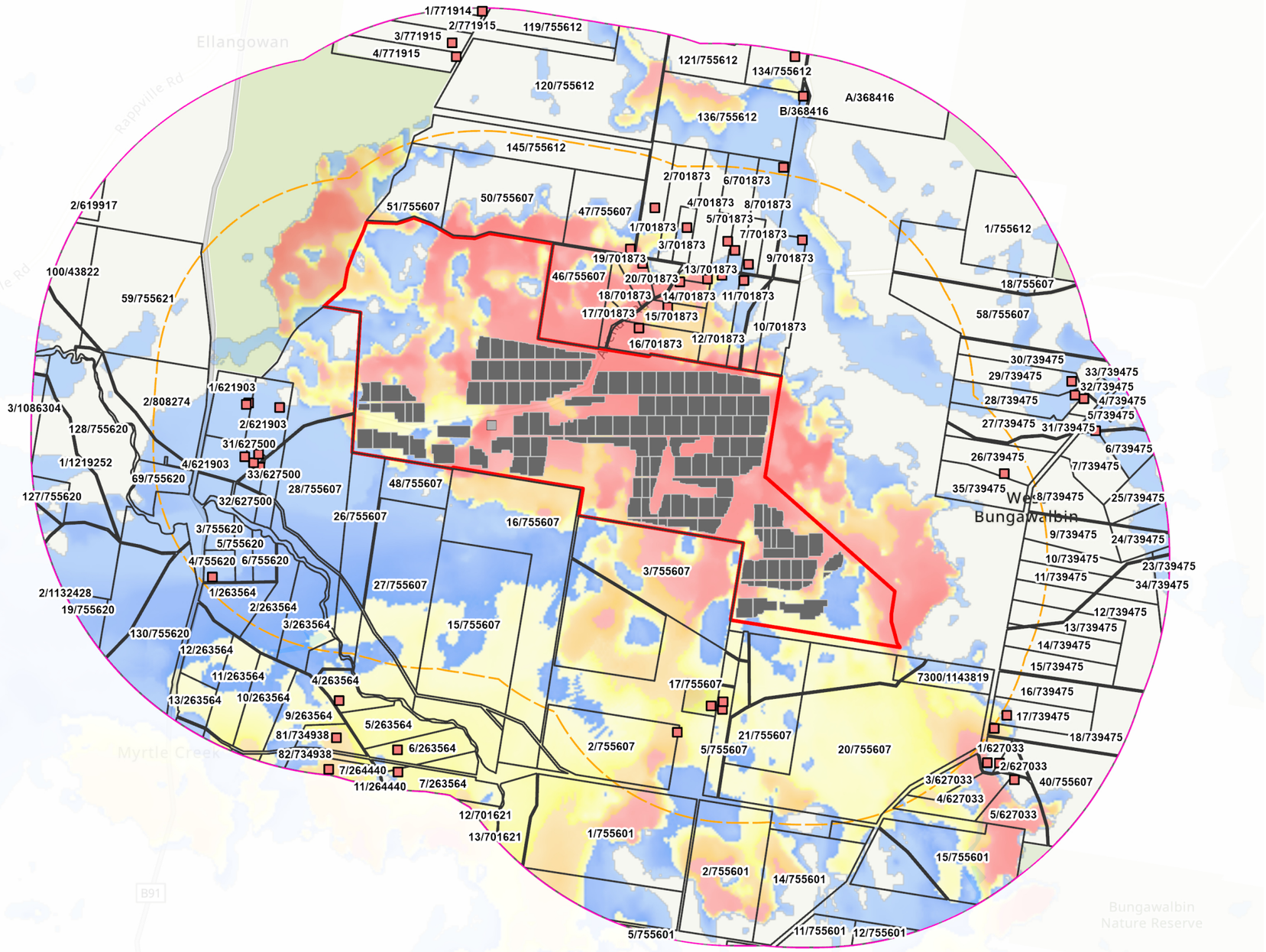
Lot Reference	Lot Size (Ha) within 4km	Percentage of Lot Covered by 'ZVI Band'				
		No visibility	0-25%	25-50%	50-75%	75-100%
23/739475	34.87	0	100			
24/739475	3334.03	47	53			
25/739475	3190.67	61	39			
26/755607	8271.64	0	85	15		
27/739475	6010.76	77	23			
27/755607	18695.93	0	35	65		
28/755607	26150.47	0	65	8	15	12
3/1086304	1375.84	82	18			
3/263564	5209.86	0	89	11		
3/627033	2023.08	0	18	35	13	34
3/755607	32082.61	2	12	23	34	29
3/755620	1764.12	0	100			
30/739475	3999.58	81	19			
32/739475	529.62	11	89			
33/627500	1861.62	0	100			
33/739475	296.53	0	100			
34/739475	1265.53	78	22			
35/739475	4450.06	88	12			
4/627033	3948.93	3	7	17	49	24
4/701873	3946.06	86	14			
4/739475	296.76	0	100			
40/755607	7926.52	73	9	5	8	5
46/755607	8760.01	0	12	8	3	77
48/755607	4155.34	2	73	12	7	6
5/263564	4068.43	0		100		
5/739475	511.72	0	100			
5/755601	210.09	0	50	50		
5/755620	1566.19	0	100			
50/755607	14261.78	47	12	8	9	24
51/755607	6361.48	56	23	12	7	2
58/755607	21881.86	82	18			
59/755621	22335.08	85	15			
6/739475	3588.37	3	97			
6/755620	1592.74	0	100			
69/755620	3023.16	5	95			
7/264440	13.33	5	5	8	69	13
7300/1143819	3601.83	18	49	23	10	
9/263564	5065.85	0	56	44		

Table 22 – Lots with Dwelling Entitlements
Source: MLA, 2023

Please note: Lot Entitlement with no visibility have been excluded from this assessment. Similarly, Lots with receptors as per Figure 27 have also been excluded in this assessment as these private receptors (non-associated) have been assessed in Section 9.0 and /or in Section 10.0 of this report.

Potential Visual Impact on Lots with Entitlements

Richmond Valley Solar Farm



LEGEND

- Project Area
- 2.5 km from the nearest solar array
- 4 km from the nearest solar array
- Private Receptors (Non-associated)
- Private Receptors (Associated)
- PV Array
- 3/755607 — Lot with Dwelling Entitlement

Results of Viewshed Mapping (Based on 4m Panel Height)

- No Visibility
- 1- 25 % Visibility
- 25 - 50% Visibility
- 50 - 75% Visibility
- 75 - 100% Visibility

0 1 2 3 4 km

Figure 27 – Potential Visual Impacts on Lots with Entitlements
Source: ArcGIS, 2023

12

Visual Impact on Heritage Listed Items

12.0 Visual Impact on Heritage Items

12.1 Overview of Detailed Visual Impact Assessments - Heritage Items

As outlined in the SEARs advice received from Richmond Valley Council (2022), potential visual impact from the Project must be assessed at heritage listed items. In accordance with the Technical Supplement, Heritage items located with the 4km of the Project have been identified and assessed. As discussed in **Section 6.9** a ZVI assessment was undertaken to identify potential visual impacts at the three (3) locations (see **Table 04**).

A ZVI assessment determined that from:

- ***'Hindmarsh' Grave - I120*** views are limited from the majority of the lot by topography alone, except for a tiny portion to the southeast (up to 50%) of this lot (see **Figure 28**).
- ***Main Camp Homestead & surrounds - I143*** - Based on topography alone, up to 50% of the Project would theoretically be visible from these receptors (see **Figure 28**). Receptors D4-10 and D4-23 are part of the Heritage precinct I143.
- ***High Conservation Value Old Growth Forest - I1487*** - Based on topography alone, visibility is up to 25% from this location.

Desktop assessment using aerial imagery indicates that a combination of intervening vegetation with the distance between the Heritage listed Item I120 and the Project which would obscure views of the Project from this location (see **Figure 28**). As such the resulting potential Visual Impact is **Low**.

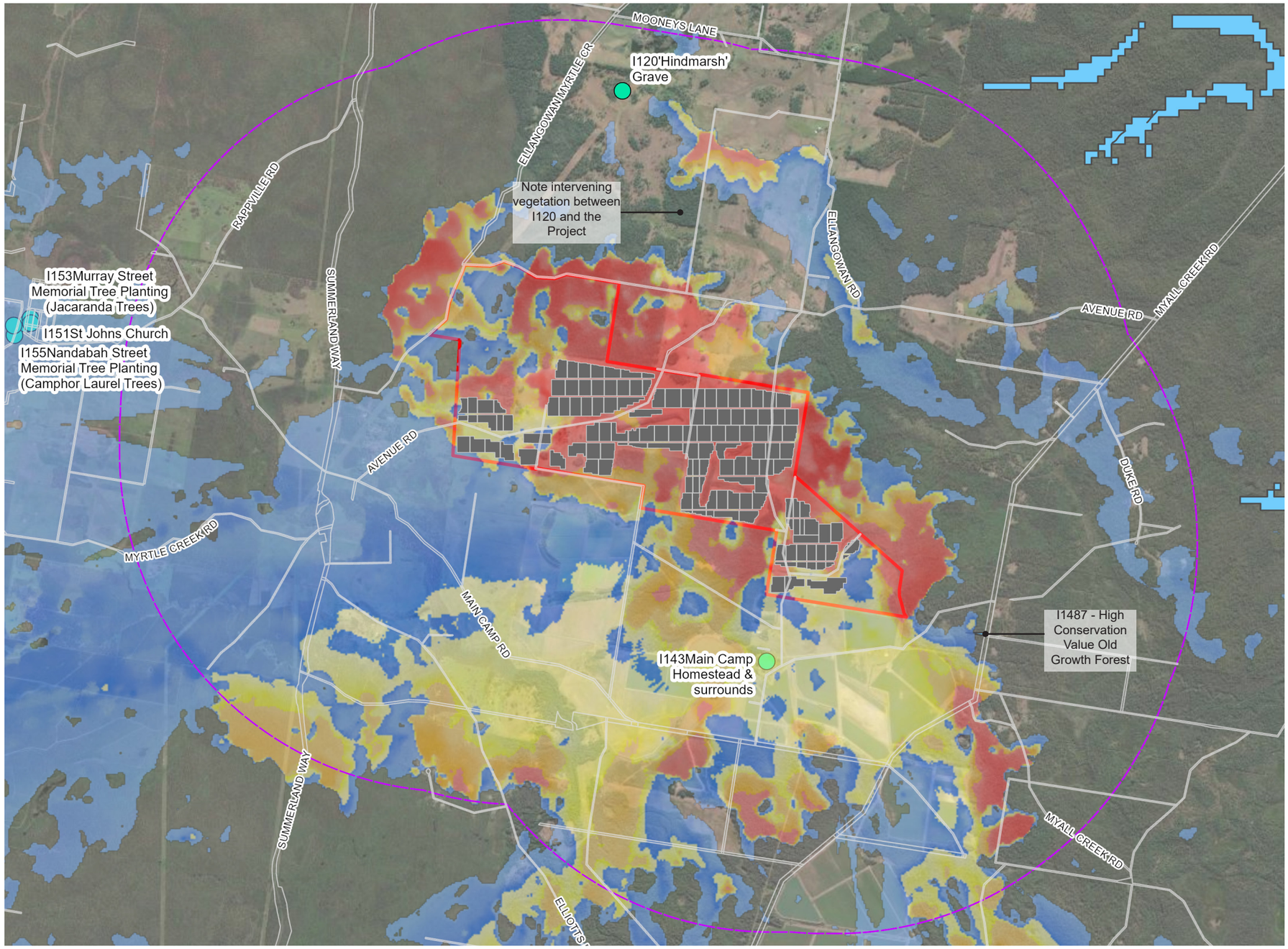
Detailed assessment using Wireframe Analysis from D4-10 and D4-23 (see **Table 18** and **Appendix B.18** and **B.19**) indicate a low visual impact from these receptors (**Table 23**).

Item I1487 is located approximately 940m west of Myall Creek Road. Desktop assessment and observations made during fieldwork in August 2023 demonstrate existing vegetation between the Project and I1487 will limit potential impacts. Additionally, the area designated as 'High Conservation Old Growth Forest' has no public access. Therefore, a combination of existing vegetation and limited public access within I1487, results in a **Low** potential visual impact.

As per the Guidelines no further assessment is required for those found to have a **Low** or **Very Low** potential Visual Impact.

HERITAGE ITEMS				
ITEM No	**NAME**	**ADDRESS**	**Assessment Notes**	**Potential Visual Impact**
I120	'Hindmarsh' Grave	465 Ellangowan Myrtle Creek Road, Ellangowan	Intervening vegetation between the Project and I120 will obscure views of the Project from this receptor (see **Figure 28**)	Low
I143	Main Camp Homestead & surrounds	840, Main Camp Road, Myrtle Creek	Detailed assessment is provided in **Appendix B.18** and **B.19**	Low
I1487	High Conservation Value Old Growth Forest	Myall Creek Road, Ellangowan	Intervening vegetation located between the Project and I1487 will limit views.	Low

Table 23 – Summary of potential visual impact on Heritage listed items



Potential Visual Impact on Heritage Listed Items

Richmond Valley Solar Farm

LEGEND

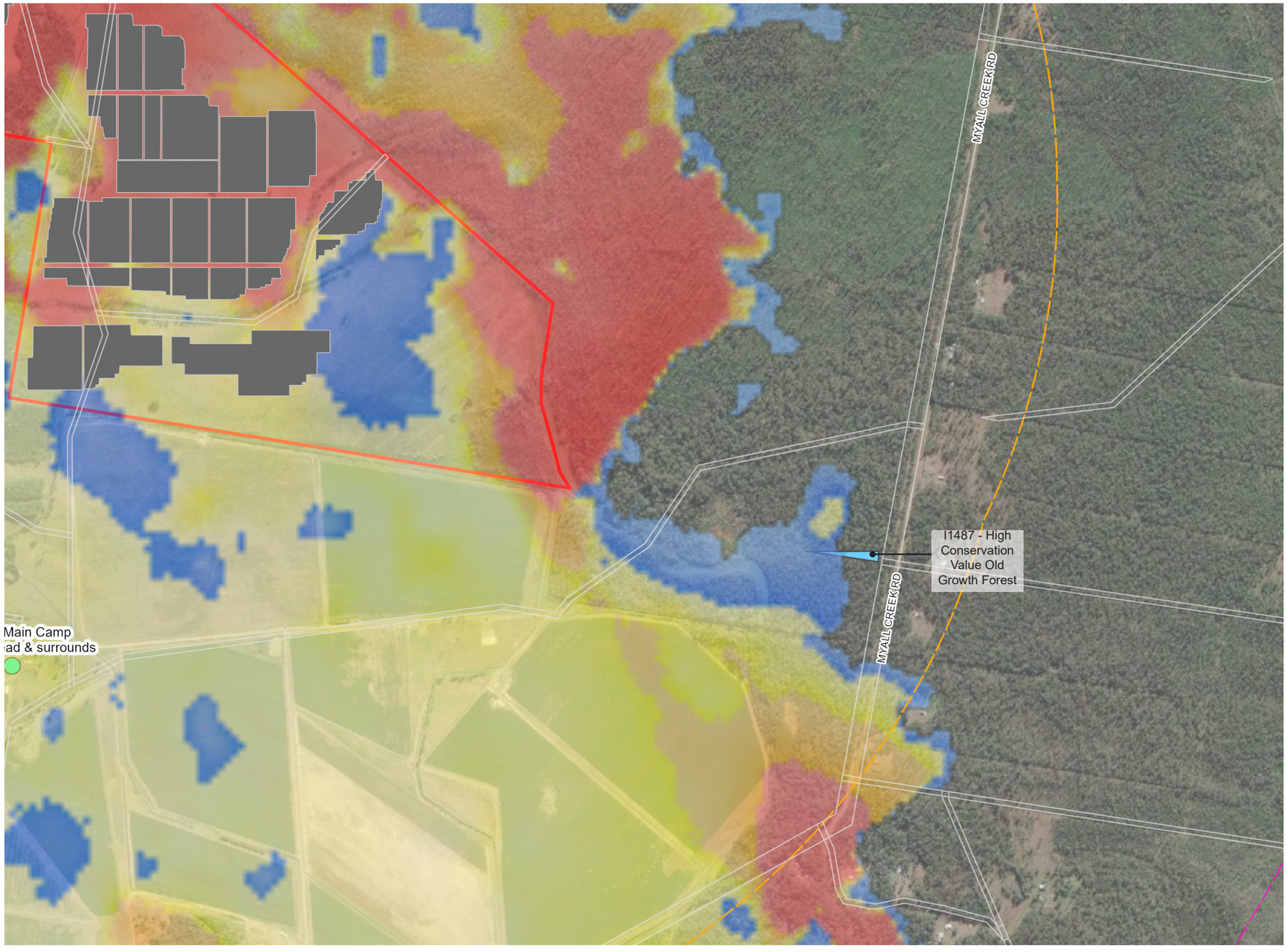
- Project Area
- 5 km Study Area
- Local Roads
- Major Road
- Heritage Listed Item (Local Significance)
- Heritage Listed Item (State Significance)
- Contours
- PV Array

ZVI (Based on 4m Panel Height)

- No Visibility
- 1- 25 % Visibility
- 25 - 50% Visibility
- 50 - 75% Visibility
- 75 - 100% Visibility

0 1 2 3 4 km

Figure 28 – Potential Visual Impacts on Heritage Listed Items
Source: ArcGIS, 2023



Potential Visual Impact on I1487

Richmond Valley Solar Farm

LEGEND

- Project Area
- 2.5 km from the nearest solar array
- Heritage Listed Item (Local Significance)
- Heritage Listed Item (State Significance)
- Lot Boundary
- PV Array

ZVI (Based on 4m Panel Height)

- No Visibility
- 1- 25 % Visibility
- 25 - 50% Visibility
- 50 - 75% Visibility
- 75 - 100% Visibility

0 1 2 3 4 km

Figure 29 – Potential Visual Impacts on I1487
Source: ArcGIS, 2023

13
Night Lighting

13.0 Nightlighting

13.1 Overview of Potential Night Light Sources

The SEARs issued for the Project outlines the following assessment requirements for the LVIA: "*a detailed assessment of the likely visual impacts (including night lighting) of all components of the project on surrounding residences (including approved developments, lodged development applications and dwelling entitlements) (...)*." (DPE, 2022c).

Due to the relatively isolated location of the Project, very little existing sources of lighting are present in the night time landscape of the Study Area (see **Figure 05**). Existing lighting associated with homesteads and motor vehicles are dispersed around the Study Area. As there are limited private receptors with the Study Area, the impact of nightlighting is unlikely to be experienced from inside of a dwelling as internal lights reflect on windows and limit views to the exterior at night. Isolated receptors within the Study Area experience a dark night sky with minimal light sources.

The requirements for nightlighting of ancillary infrastructure for this Project is generally limited to security lighting to the substation, and within the operations & maintenance facility. The light sources are limited to low-level lighting for security, night time maintenance and emergency purposes. There will be no permanently illuminated lighting installed. The proposed ancillary infrastructure has been carefully sited to minimise visibility from existing receptors and publicly accessible viewpoints. It is unlikely the proposed nightlighting associated with the ancillary infrastructure would create a noticeable impact on the existing night time landscape.

13.2 Design Principles

The following recommendations have been developed with consideration of the principles outlined in relevant best practice guidelines for lighting design. The Dark Sky Planning Guidelines (hereafter referred to as the Dark Sky Guidelines) (DPE, 2023) provides guidelines for lighting practices that support the maintenance of a dark sky and improve lighting practice. The Dark Sky Guidelines are related to developments within 200 km of the Siding Spring Observatory. The Project is located approximately 450 km north east of the Siding Spring Observatory. However, they provide relevant guidance to reduce potential light pollution can be applied to lighting design for the ancillary infrastructure for the proposed substation. The National Light Pollution Guidelines for Wildlife (DEE, 2023) may also be considered during the detailed design phase for nightlighting considerations. It is likely there will be limited or no visual impacts resulting from nightlighting of ancillary structures for the Project.

- Control the Level of Lighting
  - » Only use lighting for areas that require lighting i.e. paths, building entry points.
  - » Reduce the duration of lighting.
  - » Switch off lighting when not required.
  - » Consider the use of sensors to activate lighting and timers to switch off lighting.
- Lighting Design
  - » Use the lowest intensity required for the job.
  - » Use energy efficient bulbs and warm colours.
  - » Direct light downwards to eliminate.
  - » Ensure lights are not directed at reflective surfaces.
  - » Use non-reflective dark coloured surfaces to reduce reflection of lighting (**Figure 30**).
  - » Keep lights close to the ground and / or directed downwards (**Figure 31**).
  - » Use light shield fittings to avoid light spill (**Figure 32**).

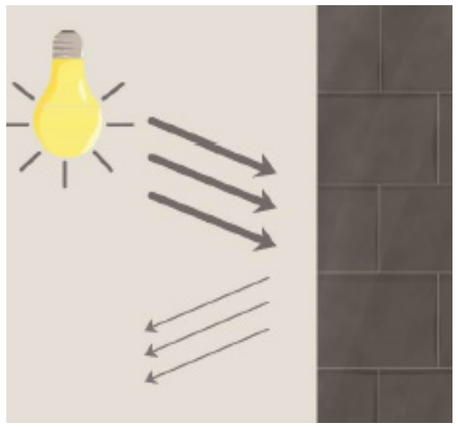


Figure 30 – Surface Reflectivity

Source: Department of Environment and Energy National Light Pollution Guidelines for Wildlife 2020

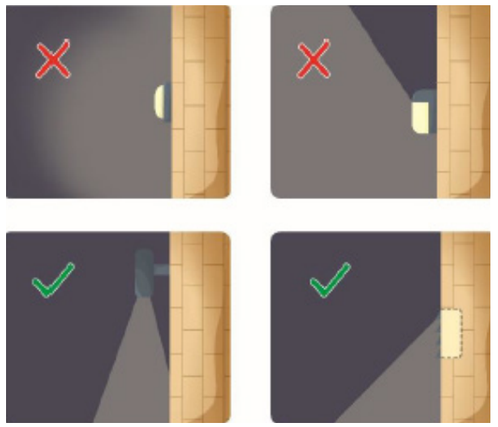


Figure 31 – Downward Lighting

Source: Department of Environment and Energy National Light Pollution Guidelines for Wildlife 2020

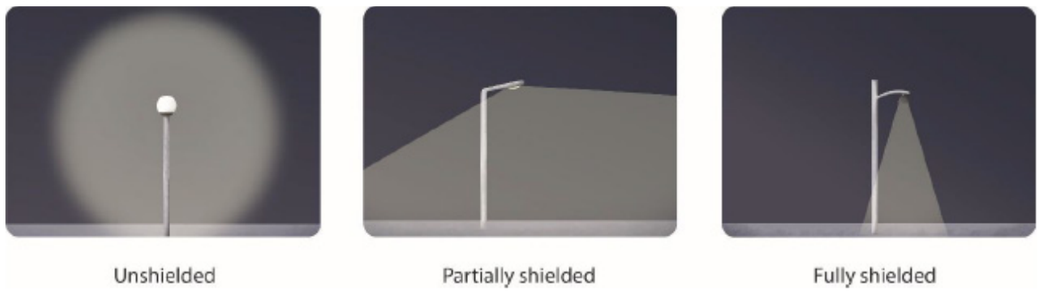


Figure 32 – Light Shielding

Source: Department of Environment and Energy National Light Pollution Guidelines for Wildlife 2020

14

Glint and Glare Assessment

14.0 Glint and Glare Assessment

14.1 Glint and Glare Principles

The key principles for ensuring the Project can be undertaken whilst maintaining an acceptable level of amenity are outlined in the Guideline as follows:

1. Solar panels should be sited to reduce the likely impacts of glint and glare.

2. Solar panels and other infrastructure should be constructed of materials and / or treated to minimise glint and glare.

3. If large scale solar energy development is likely to exceed the relevant criteria for glare and standards for glint, mitigation strategies should be adopted.

14.2 Glint and Glare Requirements

The Glint and Glare Assessment has been prepared in accordance with the Guideline developed by DPE. The objective of the assessment as stated in the Guideline is to *"demonstrate that glint and glare would not pose a significant risk to motorists or pilots and that nuisance from glare is minimised for residential locations in accordance with the objectives outlines in [the Guideline]"* (DPE 2022a, p. 32).

In accordance with the requirements outlined in the Guideline and the Technical Supplement, a Glint and Glare assessment has been undertaken and included in **Appendix D** of this report. Results of the Glint and Glare assessment are included as Attachments A and B to **Appendix D**.

Refer to Section 4.0, Appendix D

Private Receptors (non-associated)

Assess all residential dwellings within 3 km of the development footprint that have a line of sight.

Refer to Section 5.0, Appendix D

Public Receptors

Assess all roads and rail lines within 1 km of the development footprint.

Refer to Section 6.0, Appendix D

Aviation Receptors

Assess all air traffic control towers and take off / landing approaches to any runway or landing strip within 5 km of the development footprint.

Refer to Section 7.0, Appendix D

Performance Objectives

Summary of the assessment with reference to performance objectives.

Refer to Section 8.0, Appendix D

Mitigation Recommendations

Overview of proposed strategies to either avoid or mitigate impacts.

14.3 Summary of Assessment Results

14.3.1 Private receptors (non-associated):

Four (4) private receptors (non-associated) have been assessed as having a potential 'Yellow' glare. The assessment reveals that the OP4 (C3-20) is projected to experience approximately 0.70 hours per year of potential "Yellow" glare from PV Array 10. OP5 (C3-3) is projected to experience approximately 1.1 hours per year of potential "Yellow" glare from PV Array 10. OP6 (C3-6) is projected to experience approximately 0.6 hours per year of potential "Yellow" glare from PV Array 10. OP7 (C3-8) is projected to experience approximately 1.9 hours per year of potential "Yellow" glare from PV Array 10.

The result of the findings for the four (4) private receptors (non-associated) are under 10 hr/yr, resulting in a 'low' glare impact. As a result, no further mitigation measures are required in accordance with the Guidelines.

14.3.2 Public Receptor Locations:

Two (2) public receptors have been assessed as having a potential 'Yellow' glare. The assessment reveals that Avenue Road may experience approximately 534 hours per year of potential "Yellow" glare and Main Camp Road is projected to experience approximately 2.1 hours per year of potential "Yellow" glare.

The assessment shows that PV Array 10 is expected to have the majority of glare with up to 395.8 hr/year of 'Yellow' glare during the period from mid-March to late September, specifically between 5:45 am to 10.15 am and between 12:30 pm to 06:00 pm. PV Array 6 is expected to have up to 89.8 hr/year of 'Yellow' glare during the period from mid February to mid October between 05:00am until 07:55am and from mid April to late August from 04:30pm to 05:30pm. PV Array 19 is expected to have up to 34 hr/year of 'Yellow' glare during the period from February to early November. PV Arrays 7,8,15 and 16 are expected to have less than 10 hrs/year of 'Yellow' glare per panel that contributes to the total glare experienced along Avenue Road (534.0 hrs).

The assessment indicates that PV Array 15 is expected to have up to 2.1 hr/year of 'Yellow' glare in mid May and August between 02:00 pm to 02:15 pm which has the potential to effect Main Camp Road.

As noted in the performance objectives:

'If glare is geometrically possible then measures should be taken to eliminate the occurrence of glare. Alternatively, the applicant must demonstrate that glare would not significantly impede the safe operation of vehicles or the interpretation of signals and signage' (DPE 2022a, Table 7, p. 32).

Upon conducting a desktop assessment of Avenue Road using aerial imagery, it is apparent that there is limited or no screening vegetation between the affected section of the road and the Project.

It is understood that the both Avenue Road are located within a bushfire zone. As a result, mitigation in the form of screen planting is not an option. As an alternative, operational management techniques have been explored to mitigate the potential glint and glare identified as a result of the Project

14.4 Mitigation Measures

14.4.1 Private Receptor Locations:

Four (4) receptors have been assessed as having a potential 'Yellow' glare. These four (4) private receptors (non-associated) returned a 'low' glare impact and therefore no mitigation is required in accordance with the Guidelines.

14.4.2 Public Receptor Locations:

Two (2) public receptors were identified within a 1 km radius of the nearest solar array which have the potential to experience a yellow glare. These roads include Avenue Road and Main Camp Road. Both roads were identified as having limited screening elements. Potential glare assessed along Main Camp Road is within the acceptable limit in accordance with the Guidelines.

Assessment identified potential locations along Avenue Road that exceeded limits as defined in the Guidelines. Therefore alternative mitigation strategies are proposed for the PV Array areas causing the majority of the potential 'Yellow Glare' along Avenue Road.

14.4.3 Aviation Receptor Locations:

No Aviation receptors were identified within the Study Area (see **Figure 05**).

14.5 Mitigation Strategies

Section 8.2 of **Appendix D** outlines proposed mitigation strategies that could be undertaken to prevent glare from the panels.

Moir LA explored operational management strategies as optional mitigation measures to mitigate potential glare at surrounding receptors due to the potential bushfire risk posed by additional screen planting, if proposed.

In response, Moir LA have conducted additional assessments using different modelling scenarios (i.e. Scenario 2 - 6 in **Appendix D**) to determine the most appropriate operational mitigation strategy.

The assessment demonstrated that Scenario 6 (no backtracking and no night time stowing angle) (see **Appendix D**), is the most effective in eliminating the potential for 'yellow' glare impacts from Avenue Road and Main Camp Road.

It is noted that altering the tracking patterns as per Scenario 6 is only proposed for the times of year and panel locations whereby 'yellow' glare is potentially possible. Outside of these times the panels would move as per the desired tracking patterns. It is recommended that this operation strategy be considered to effectively mitigate the identified glare associated with the Project.

15

Performance Objective and Mitigation

15.0 Performance Objectives and Mitigation

15.1 Assessment Methodology

Applicants must address the relevant performance objective for each assessable viewpoint and the level of impact identified (**Table 18** and **Table 19**).

One (1) private receptor (non-associated) (D3-47) were identified as having a 'moderate' visual impact through wireframe assessment (see **Section 10.8**). To verify these results, a representative photomontage (VP03) from Avenue Road was prepared. Photomontage assessment resulted in a visual impact rating of low from this location. Considering the visual impact at this dwelling through wireframe analysis and representative photomontage, Moir LA have taken a conservative approach and proposed mitigation due to the proximity of this private receptor (non-associated) to the Project and the condition of surrounding vegetation (see **Appendix C**).

Ark Energy is proposing a 30 m biodiversity buffer along the northern boundary of the Project (see **Figure 33**). Once established, the proposed biodiversity corridor will reduce the impact to an acceptable level from the surrounding receptors, specifically from D3-47. Until the establishment of the proposed corridor, Ark Energy may need to consider alternative mitigation options such as Impact Agreements or on-site planting in consultation with the landowner.

VP05 and VP04 are locations along Avenue Road (public receptor) and have been identified as having a 'moderate' visual impact in **Section 10.8**. Assessment of photomontages prepared for the two (2) locations and by applying the Visual Magnitude Grid Tool identified the resulting visual impact as 'Low' (see **Section 10.9**). As per **Table 24** mitigation is not required.

PERFORMANCE OBJECTIVES	
HIGH VISUAL IMPACT	This level of impact should be avoided unless the applicant can justify that: • all reasonable efforts have been made to avoid the impact and alternative project designs are not feasible or would be unlikely to materially reduce the impact • all reasonable mitigation options have been considered • the proposed mitigation measures would effectively mitigate the impact and would not result in a significant obstruction of views • the Project Area is strategically important because of its location • the project is in the public interest.
MODERATE VISUAL IMPACT	Visual impact mitigation is required in consultation with the affected landowner and should be proportionate to the scale of impact. There is no expectation this mitigation should eliminate the view of the development entirely but must reduce the impact to an acceptable level. Appropriate mitigation options include vegetation screening or project landscaping to reduce impacts. If the available mitigation options would not be effective in reducing impacts or are unsuitable due to the nature of the impact (e.g. screening would result in the obstruction of views), then project redesign and/or impact agreements should be considered.
LOW & VERY LOW VISUAL IMPACT	No mitigation is required.

Table 24 – Visual Performance Objectives
Source: DPE, 2022b

Location of the proposed Biodiversity Corridor

Richmond Valley Solar Farm

LEGEND

- Project Area
- 2.5 km from the nearest solar array
- 4 km from the nearest solar array
- Proposed 30 m biodiversity corridor
- PV Array
- Access Roads
- Private Receptors (Non-associated)
- Private Receptors (Associated)

Figure 33 – Location of the proposed Biodiversity Corridor
Source: ArcGIS, 2023

16
Conclusion

16.0 Conclusion

With all visual impact assessments the objective is not to determine whether the Project is visible or not, it is to determine how the Project will impact on existing visual amenity, landscape character and scenic quality. If there is a potential for a moderate and above impact on these factors it must then be investigated and determined how this impact can be mitigated to the extent that the impact is reduced to an acceptable level.

The Project Area is characterised by land modified to support primary production activities such as agriculture and grazing. The land parcels are zoned RU1 under the RVLEP 2012. The Project is located off Summerland Way along Avenue Road which intersects the Project. Existing overhead transmission infrastructure is located in close proximity to the Project. These elements combined with existing electricity infrastructure form a landscape that has a modified in visual character.

Theoretical analysis through ZVI mapping indicates that based on topography alone, the views to the Project will be from areas in close proximity of the Project. Theoretically, the majority of the views are from the north and the south in close proximity. The undulating topography filters views or provide minimal views (up to 25%) from other areas within the Study Area. The majority of the views will be experienced along Avenue Road.

Application of the Preliminary Assessment Tool (refer to **Section 9.0**) identified up to 27 private receptors (non-associated) within 4 km of the Project that required detailed assessment. Detailed assessment identified seven (7) private receptors (non-associated) to have a ‘moderate’ rating based on topography alone (refer to **Section 10.0**).

13 locations along public receptors were assessed within 2.5 km of the Project Area. Of which, seven (7) locations were identified as requiring a detailed assessment. Detailed assessment was undertaken from seven (7) locations using wireframe analysis to verify the findings of the Preliminary Assessment Tool. Wireframe analysis confirmed the resulting visual impact at five (5) locations varied from ‘low’ to ‘very low’. Two (2) viewpoint (VP04 and VP05) along Avenue Road (public receptor) were identified to have a ‘moderate’ rating.

Photomontages were prepared from private and public receptors that required additional assessment. This detailed assessment using photomontages demonstrated that of the seven (7) private receptors (non-associated), existing vegetation would filter views of the Project from six (6) private receptors (non-associated). A representative viewpoint was considered for Dwelling D3-47 as no access was granted to this dwelling. Mitigation was recommended for this dwelling due to proximity to the Project. A 30 m biodiversity corridor is proposed along the northern boundary of the Project. Once established, the proposed biodiversity corridor would reduce the visual impact to an acceptable level from the surrounding receptor locations.

Glare modelling was undertaken using alternative scenarios to assess potential glare at receptors surrounding the Project. 33 private receptors (non-associated) were identified within 3 km of the solar array. Of these, four (4) were identified as having the potential to experience ‘yellow’ glare. However, the results indicated a ‘low’ glare impact which is acceptable and does not trigger the requirement of mitigation in accordance with the Guidelines.

Two (2) public receptors were identified within 1 km of the solar array, which included Avenue Road and Main Camp Road. The results determined that there is potential to experience ‘yellow’ glare from both roads. In accordance with the Guidelines, if glare is theoretically possible then measures should be taken to eliminate the occurrence of glare. It was determined that potential glare along Main Camp Road was within the acceptable level as outlined in the Guidelines. No aviation receptors were identified within 5 km of the development footprint.

Due to a potential bushfire risk that may be posed by additional planting, screen planting mitigation must be avoided. As such, alternative mitigation measures in the form of operational management have been is recommended (see **Appendix D**).The potential for glare is effectively mitigated through the implementation of operational management strategies.

Although alteration to the existing visual landscape may occur during the construction stage, over time as the mitigation measures establish, these would have the ability to screen the Project in to the surrounding landscape.

17

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17.0 References

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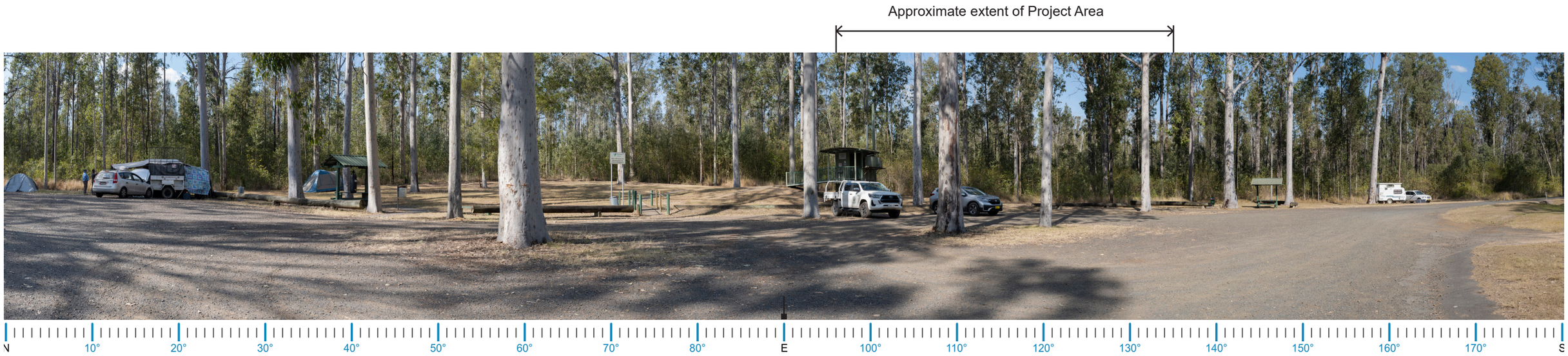
A

Viewpoint Analysis

VP01 Braemar Park, Rappville



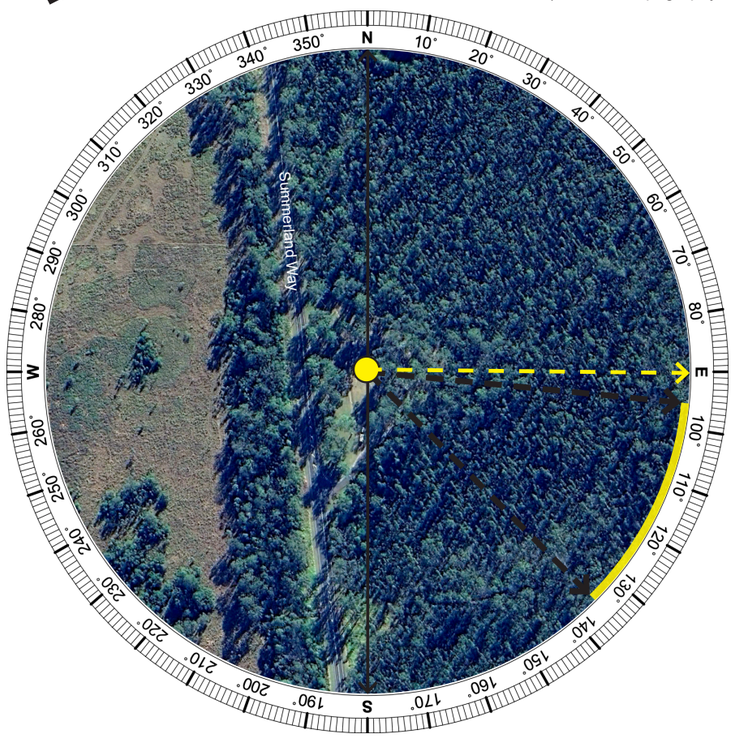
LEGEND

Viewing direction and centre of panorama

Extent of panorama

Direction of Project

Extent of Project
(Based on topography alone)



VIEWPOINT VP01

Viewpoint Summary:	
Location:	Elevation:
Summerland Way, Rappville	68 m
Coordinates:	Distance to Project:
29° 5’16.53”S 153° 0’6.59”E	2.00 km
Viewing Direction:	
East	
Visual Sensitivity:	
MODERATE	
Visual Magnitude:	
VERY LOW	
Visual Impact:	
LOW	

Aerial Image Source: Google Earth (02/2016)

Existing Landscape Character Description:

This viewpoint was taken in Braemar Park. The project is located east from this location.

The terrain is predominantly flat with the land utilised as a camping area.

Views are contained by dense vegetation around Braemer park.

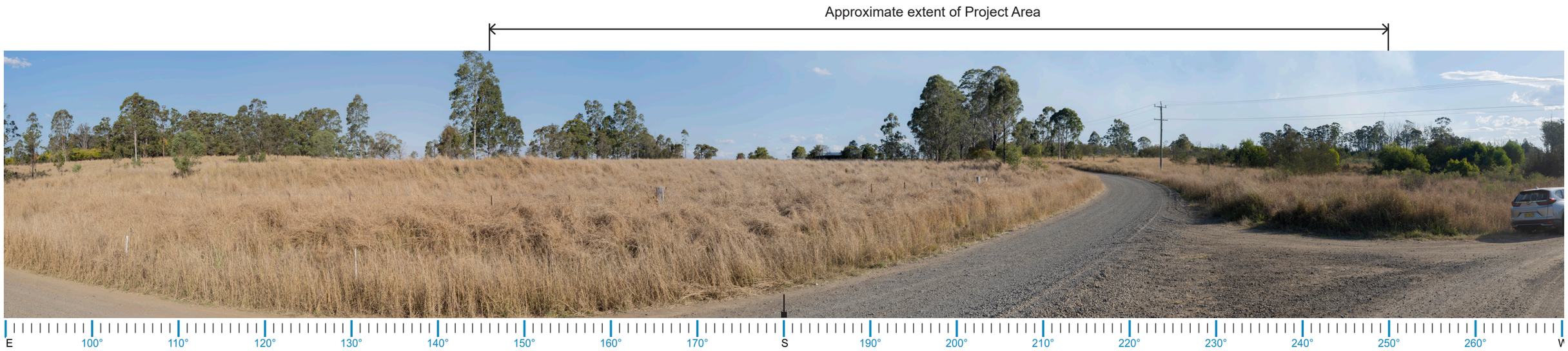
The resulting visual sensitivity is Moderate.

Potential Visual Impact:

From this location, the Project will not be visible due to the dense vegetation containing the views towards the Project.

As such the resulting visual magnitude is Very Low and as a result the visual impact is rated as Low.

VP02 Intersection of Ermelo Road and Avenue Road, Ellangowan



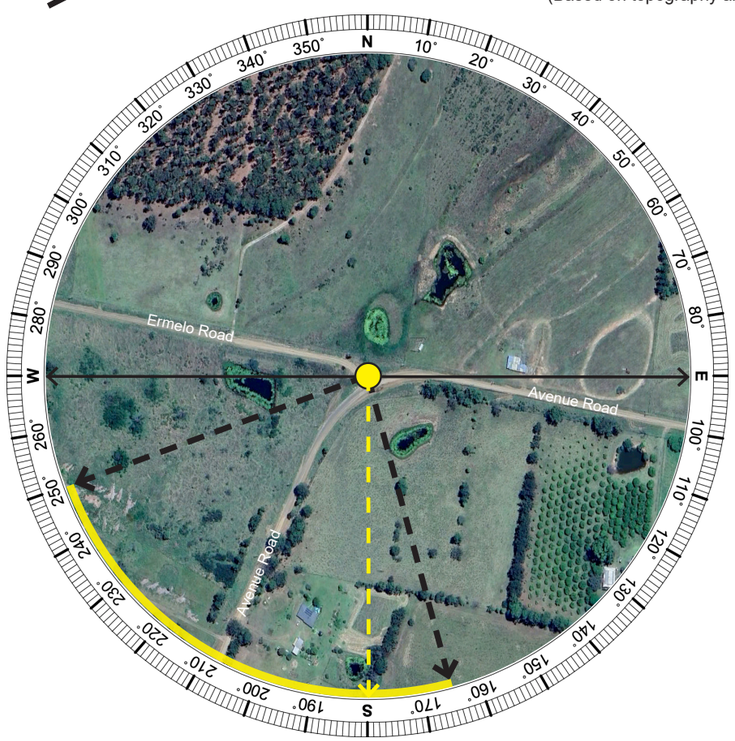
LEGEND

Viewing direction and centre of panorama

Extent of panorama

Direction of Project

Extent of Project
(Based on topography alone)



VIEWPOINT VP02

Viewpoint Summary:	
Location:	Elevation:
Intersection of Ermelo Road and Avenue Road, Ellangowan	52 m
Coordinates:	Distance to Project:
29° 4’59.63”S 153° 3’39.50”E	1.38 km
Viewing Direction:	
South	
Visual Sensitivity:	
VERY LOW	
Visual Magnitude:	
VERY LOW	
Visual Impact:	
VERY LOW	

Aerial Image Source: Google Earth (02/2016)

Existing Landscape Character Description:

This viewpoint was taken at the intersection of Ermelo Road and Avenue Road. The project is located south-southwest from this location.
Avenue road is a local unsealed road and connects Summerland Way and Myall Creek Road.

The terrain is gently undulating with the land utilised for grazing.

Vegetation generally scattered.

Power lines and poles form part of the existing visual character.

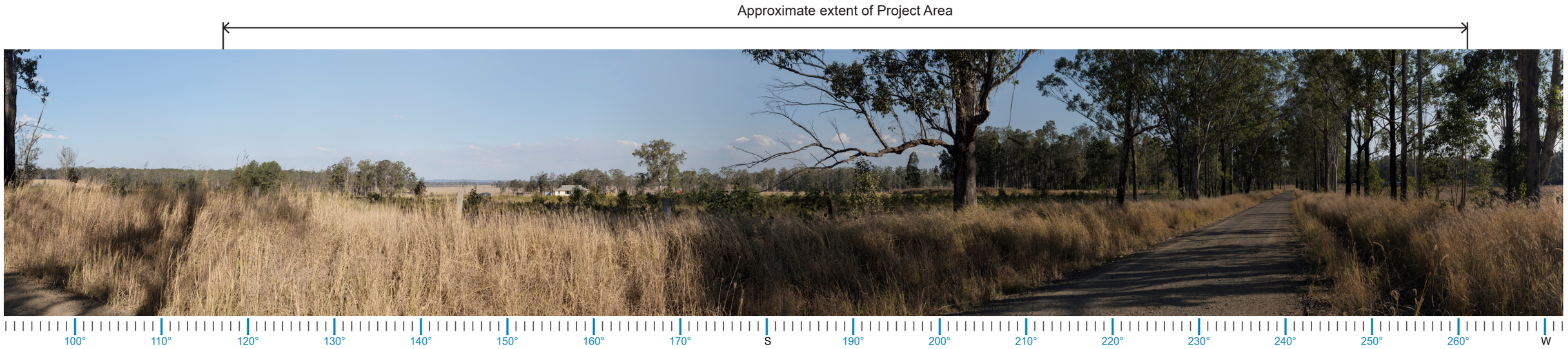
The resulting visual sensitivity is Very Low.

Potential Visual Impact:

From this location, the Project will not be visible due to the dense vegetation and undulating topography.

As such the resulting visual magnitude is Very Low and as a result the visual impact is rated as Very Low.

VP03 Avenue Road, Ellangowan



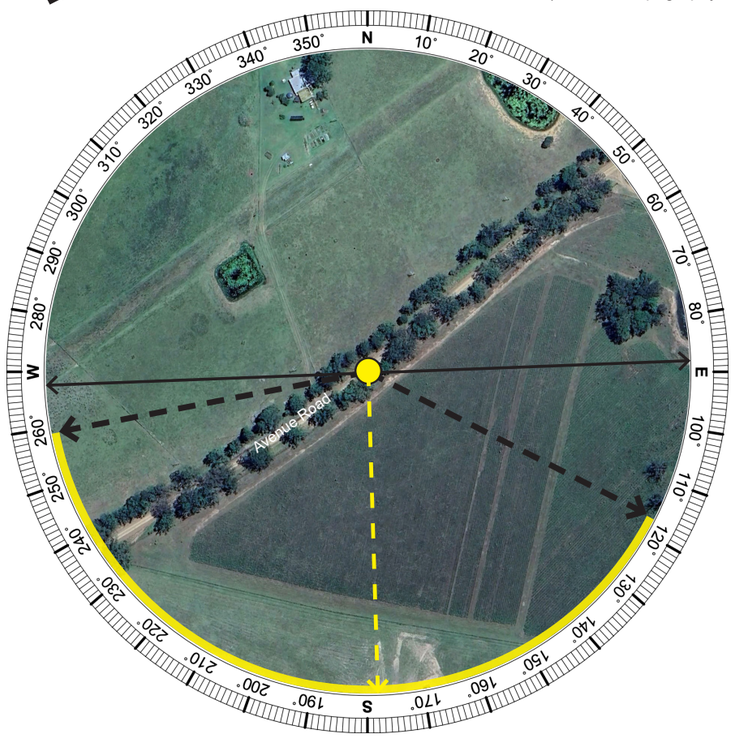
LEGEND

Viewing direction and centre of panorama

Extent of panorama

Direction of Project

Extent of Project
(Based on topography alone)



VIEWPOINT VP03

Viewpoint Summary:	
Location:	Elevation:
Avenue Road, Ellangowan	46 m
Coordinates:	Distance to Project:
29° 5’18.60”S 153° 3’15.65”E	0.69 km
Viewing Direction:	
South	
Visual Sensitivity:	
VERY LOW	
Visual Magnitude:	
LOW	
Visual Impact:	
VERY LOW	

Aerial Image Source: Google Earth (02/2016)

Existing Landscape Character Description:

This viewpoint was taken along Avenue Road looking south towards the Project.

Avenue road is a local unsealed road and connects Summerland Way and Myall Creek Road.

The terrain is gently undulating with the land utilised for grazing.

Vegetation generally scattered and lines the road to the southwest. Vegetation is visible surrounding dwellings and as wind breaks along property boundaries.

Scattered dwellings as visible through out the landscape.

The resulting visual sensitivity is Very Low.

Potential Visual Impact:

Views to the Project are generally through breaks in the vegetation. However, views to the majority of the Project would be filtered from this location.

As such the resulting visual magnitude is Low and as a result the visual impact is rated as Very Low.

VP04 Avenue Road, Ellangowan

Approximate extent of Project Area

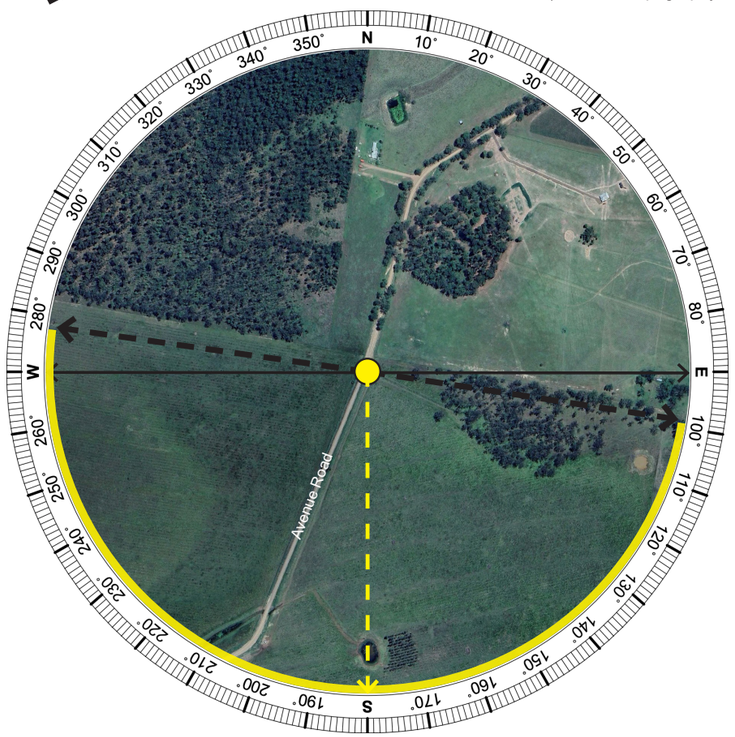
LEGEND

Viewing direction and centre of panorama

Extent of panorama

Direction of Project

Extent of Project
(Based on topography alone)



VIEWPOINT VPA04

Viewpoint Summary:	
Location:	Elevation:
Avenue Road, Ellangowan	31 m
Coordinates:	Distance to Project:
29° 5'34.74"S 153° 3'1.99"E	0.087 km
Viewing Direction:	
South	
Visual Sensitivity:	
VERY LOW	
Visual Magnitude:	
HIGH	
Visual Impact:	
LOW	

Aerial Image Source: Google Earth (02/2016)

Existing Landscape Character Description:

This viewpoint was taken along Avenue Road looking south towards the Project.

Avenue road is a local unsealed road and connects Summerland Way and Myall Creek Road.

The terrain is predominantly flat and the surrounding land is utilised for grazing.

Vegetation is cleared to accommodate grazing and other farming activities. Clusters of trees are visible further in the background towards the south and the east

Overhead power lines and poles visible through out the landscape.

As such the resulting visual sensitivity is Very Low.

Potential Visual Impact:

Due to the proximity of this location, the views to the Project are direct.

As such the resulting visual magnitude is High and resulting in a visual impact rating of Low.

VP05 Avenue Road, Ellangowan

Approximate extent of Project Area

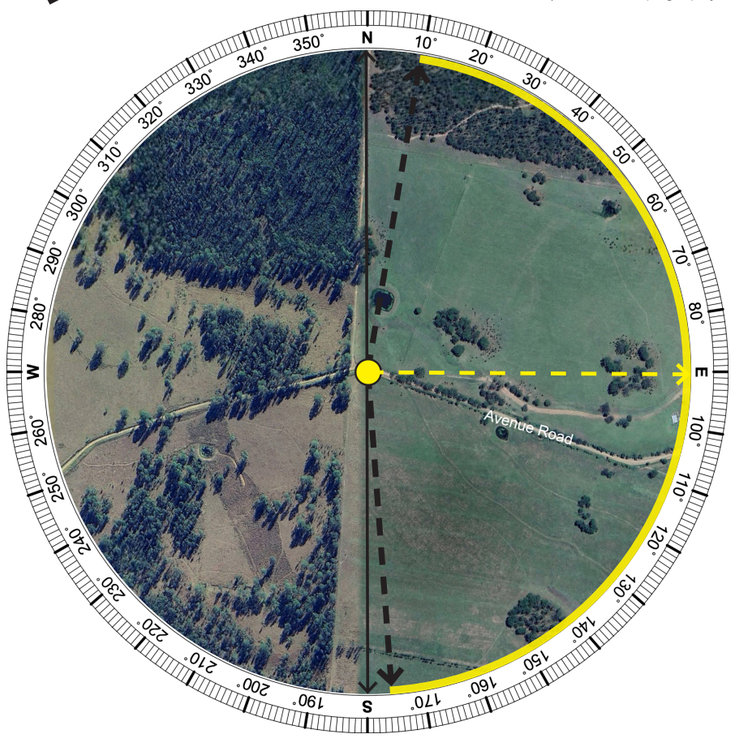
LEGEND

Viewing direction and centre of panorama

Extent of panorama

Direction of Project

Extent of Project
(Based on topography alone)



VIEWPOINT VP05

Viewpoint Summary:	
Location:	Elevation:
Avenue Road, Ellangowan	56 m
Coordinates:	Distance to Project:
29° 5'57.98"S 153° 1'9.46"E	0.046 km
Viewing Direction:	
East	
Visual Sensitivity:	
VERY LOW	
Visual Magnitude:	
VERY HIGH	
Visual Impact:	
MODERATE	

Aerial Image Source: Google Earth (02/2016)

Existing Landscape Character Description:

This viewpoint was taken along Avenue Road looking east towards the Project.

Avenue road is a local unsealed road and connects Summerland Way and Myall Creek Road.

The terrain is predominantly flat and the surrounding land is utilised for grazing.

Vegetation is cleared to accommodate grazing and other farming activities. Clusters of trees is visible further along Avenue Road.

Farm infrastructure such as fences are visible through out the landscape.

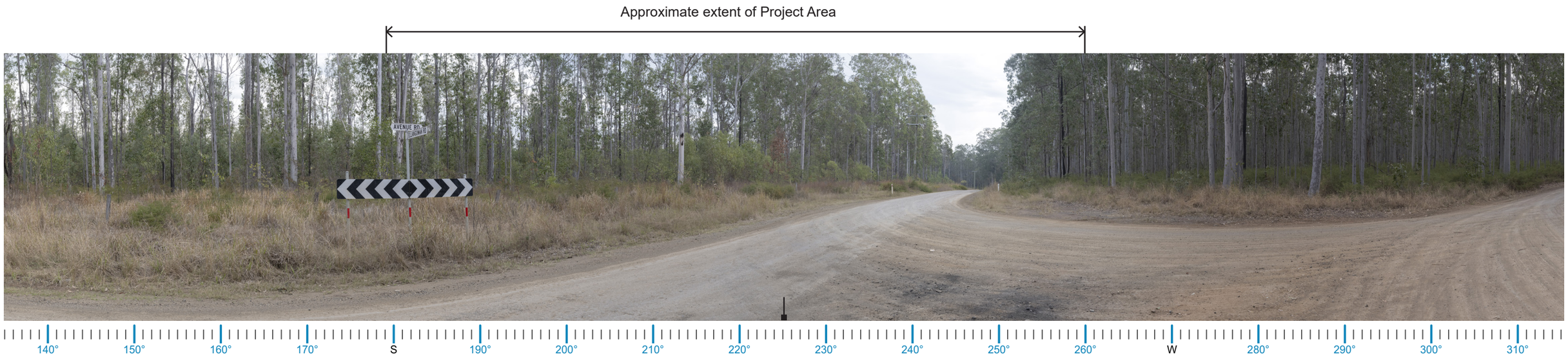
As such the resulting visual sensitivity is Very Low.

Potential Visual Impact:

Due to the proximity of this location, the views to the Project are direct.

As such the resulting visual magnitude is Very High and resulting in a visual impact rating of Moderate.

VP06 Intersection of Ellangowan Road and Avenue Road, Ellangowan



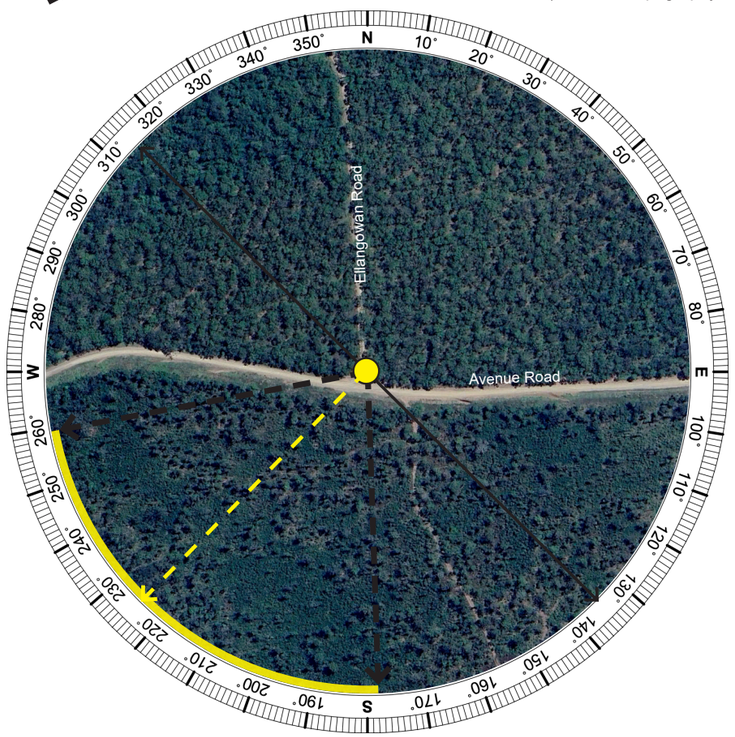
LEGEND

Viewing direction and centre of panorama

Extent of panorama

Direction of Project

Extent of Project
(Based on topography alone)



VIEWPOINT VP06

Viewpoint Summary:	
Location:	Elevation:
Intersection of Ellangowan Road and Avenue Road, Ellangowan	70 m
Coordinates:	Distance to Project:
29° 5’3.36”S 153° 4’51.37”E	1.64 km
Viewing Direction:	
Southwest	
Visual Sensitivity:	
VERY LOW	
Visual Magnitude:	
VERY LOW	
Visual Impact:	
VERY LOW	

Aerial Image Source: Google Earth (02/2016)

Existing Landscape Character Description:

This viewpoint was taken at the intersection of Ellengowan Road and Avenue Road. The Project is located south-southwest from this location.

Avenue road and Ellangowan Road are local unsealed roads.

The terrain is generally flat with minor undulations.

Dense vegetation contains views from this location.

The resulting visual sensitivity is Very Low.

Potential Visual Impact:

From this location, the Project will not be visible due to the dense vegetation.

As such the resulting visual magnitude is Very Low and as a result the visual impact is rated as Very Low.

VP07 Intersection of Avenue Road and Myall Creek Road, West Bungawalbin

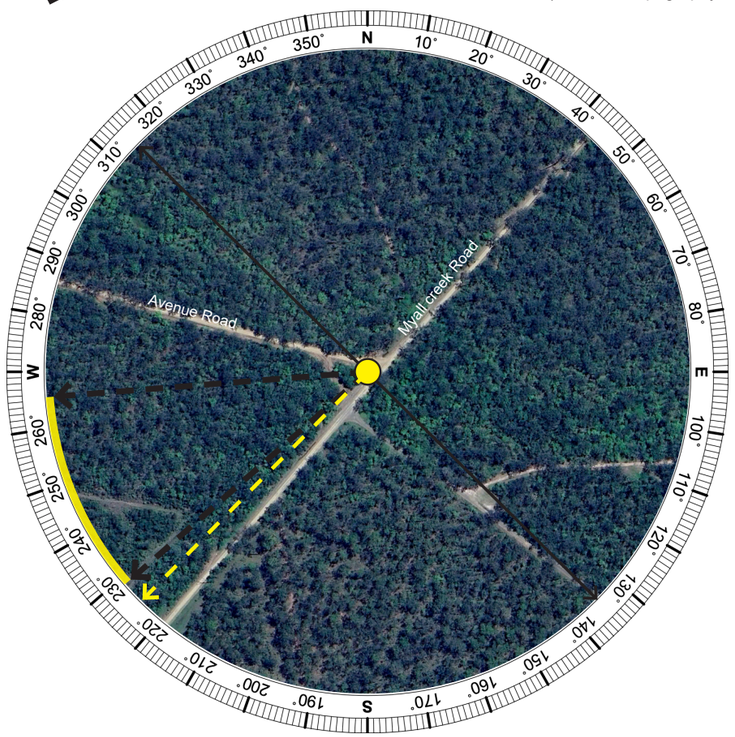
LEGEND

Viewing direction and centre of panorama

Extent of panorama

Direction of Project

Extent of Project
(Based on topography alone)



VIEWPOINT VP07

Viewpoint Summary:	
Location:	Elevation:
Intersection of Avenue Road and Myall Creek Road, West Bungawalbin	33 m
Coordinates:	Distance to Project:
29° 5'9.63"S 153° 7'33.30"E	5.45 km
Viewing Direction:	
Southwest	
Visual Sensitivity:	
VERY LOW	
Visual Magnitude:	
VERY LOW	
Visual Impact:	
VERY LOW	

Aerial Image Source: Google Earth (02/2016)

Existing Landscape Character Description:

This viewpoint was taken at the intersection of Myall Creek Road and Avenue Road. The Project is located south-southwest from this location.

Avenue road and Myall Creek Road are local unsealed roads.

The terrain is generally flat with minor undulations.

Dense vegetation associated with the Bungawalbin National Park contains views from this location.

The resulting visual sensitivity is Very Low.

Potential Visual Impact:

From this location, the Project will not be visible due to the dense vegetation.

As such the resulting visual magnitude is Very Low and as a result the visual impact is rated as Very Low.

VP08 Myall Creek Road, West Bungawalbin

Approximate extent of Project Area

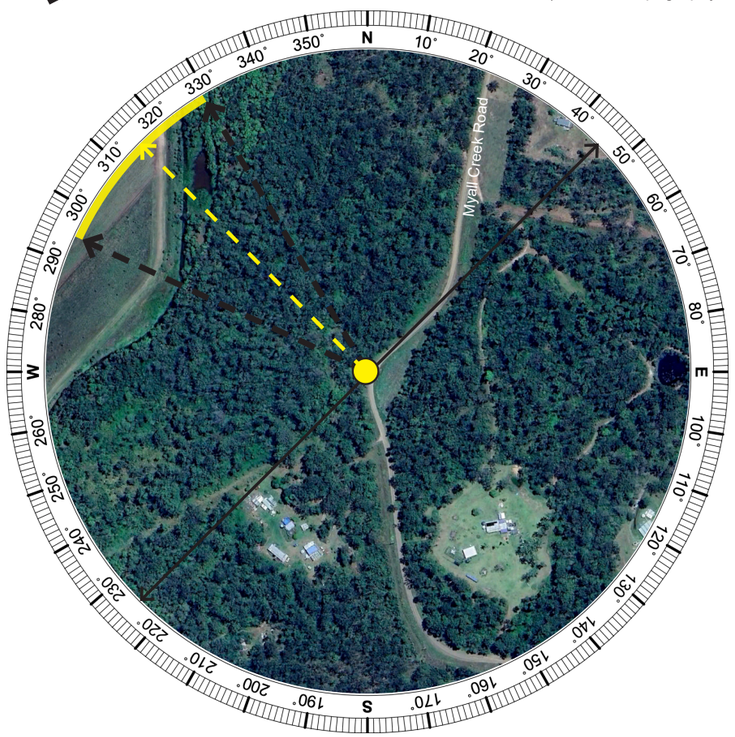
LEGEND

Viewing direction and centre of panorama

Extent of panorama

Direction of Project

Extent of Project
(Based on topography alone)



VIEWPOINT VP08

Viewpoint Summary:	
Location:	Elevation:
Myall Creek Road, West Bungawalbin	38 m
Coordinates:	Distance to Project:
29° 8’12.38”S 153° 5’51.46”E	15.82 km
Viewing Direction:	
Northwest	
Visual Sensitivity:	
VERY LOW	
Visual Magnitude:	
VERY LOW	
Visual Impact:	
VERY LOW	

Aerial Image Source: Google Earth (02/2016)

Existing Landscape Character Description:

This viewpoint was taken along Myall Creek Road. The Project is located northwest from this location.

Myall Creek Road is a local unsealed roads.

The terrain is generally flat with minor undulations.

Dense vegetation lines the road and filters views from this location.

As such the resulting visual sensitivity is Very Low.

Potential Visual Impact:

From this location, the Project will not be visible due to the dense vegetation.

As such the resulting visual magnitude is Very Low and as a result the visual impact is rated as Very Low.

VP09 Avenue Road, Ellangowan

Approximate extent of Project Area

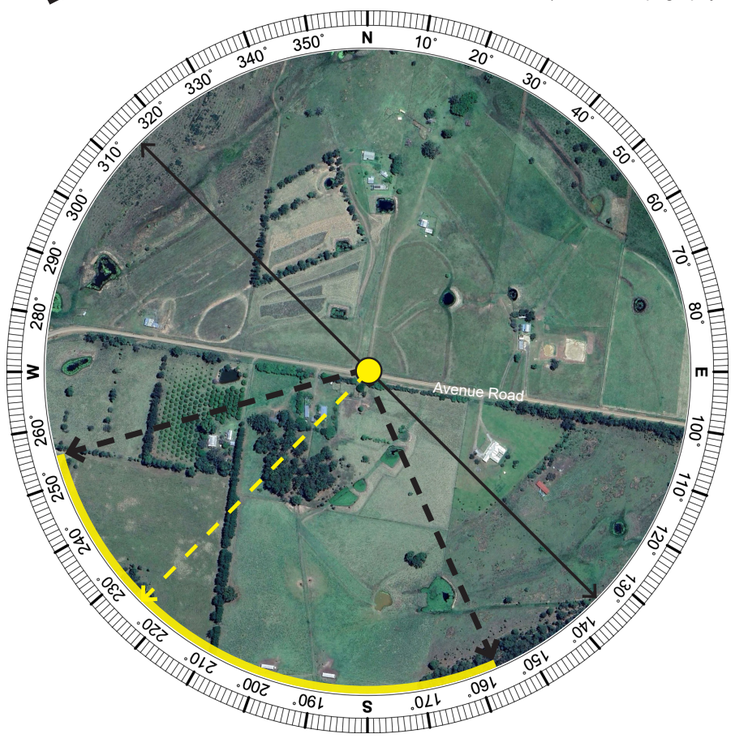
LEGEND

Viewing direction and centre of panorama

Extent of panorama

Direction of Project

Extent of Project
(Based on topography alone)



VIEWPOINT VP09

Viewpoint Summary:	
Location:	Elevation:
Avenue Road, Ellangowan	60 m
Coordinates:	Distance to Project:
29° 5'1.76"S 153° 3'58.61"E	1.25 km
Viewing Direction:	
Southwest	
Visual Sensitivity:	
VERY LOW	
Visual Magnitude:	
VERY LOW	
Visual Impact:	
VERY LOW	

Aerial Image Source: Google Earth (02/2016)

Existing Landscape Character Description:

This viewpoint was taken along Avenue Road looking south towards the Project.

Avenue road is a local unsealed road and connects Summerland Way and Myall Creek Road.

The terrain is predominantly flat and the surrounding land is utilised for grazing. The surrounding land has a typical rural land use character.

Vegetation is cleared to accommodate grazing and other farming activities. Clusters of trees is visible along Avenue Road generally used as wind break vegetation.

Dwellings are scattered within the landscape.

As such the resulting visual sensitivity is Very Low.

Potential Visual Impact:

Intervening vegetation undulating topography will fragment views of the Project from this location.

As such the resulting visual magnitude is Very Low and resulting in a visual impact rating of Very Low.

VP10 Avenue Road, Ellangowan

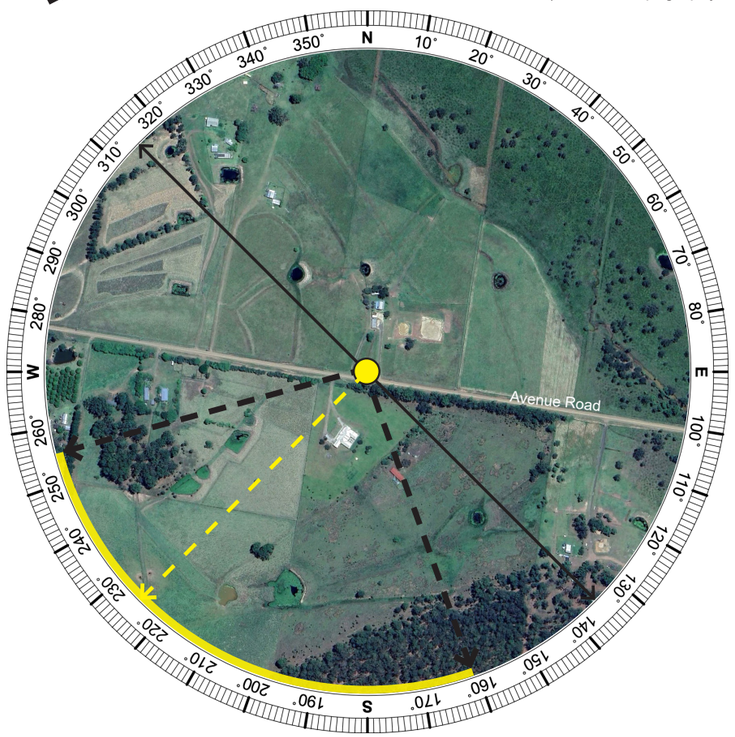
LEGEND

Viewing direction and centre of panorama

Extent of panorama

Direction of Project

Extent of Project
(Based on topography alone)



VIEWPOINT VP10

Viewpoint Summary:	
Location:	Elevation:
Avenue Road, Ellangowan	51 m
Coordinates:	Distance to Project:
29° 5'2.91"S 153° 4'7.21"E	7.89 km
Viewing Direction:	
Southwest	
Visual Sensitivity:	
VERY LOW	
Visual Magnitude:	
VERY LOW	
Visual Impact:	
VERY LOW	

Aerial Image Source: Google Earth (02/2016)

Existing Landscape Character Description:

This viewpoint was taken along Avenue Road looking southwest towards the Project.

Avenue road is a local unsealed road and connects Summerland Way and Myall Creek Road.

The terrain is predominantly flat and the surrounding land is utilised for grazing. The surrounding land has a typical rural land use character.

Vegetation is cleared to accommodate grazing and other farming activities. Clusters of trees is visible along Avenue Road generally used as wind break vegetation.

As such the resulting visual sensitivity is Very Low.

Potential Visual Impact:

Intervening vegetation undulating topography will fragment views of the Project from this location.

As such the resulting visual magnitude is Very Low and resulting in a visual impact rating of Very Low.

VP11 Intersection of Summerland Way and Main Camp Road, Myrtle Creek

Approximate extent of Project Area

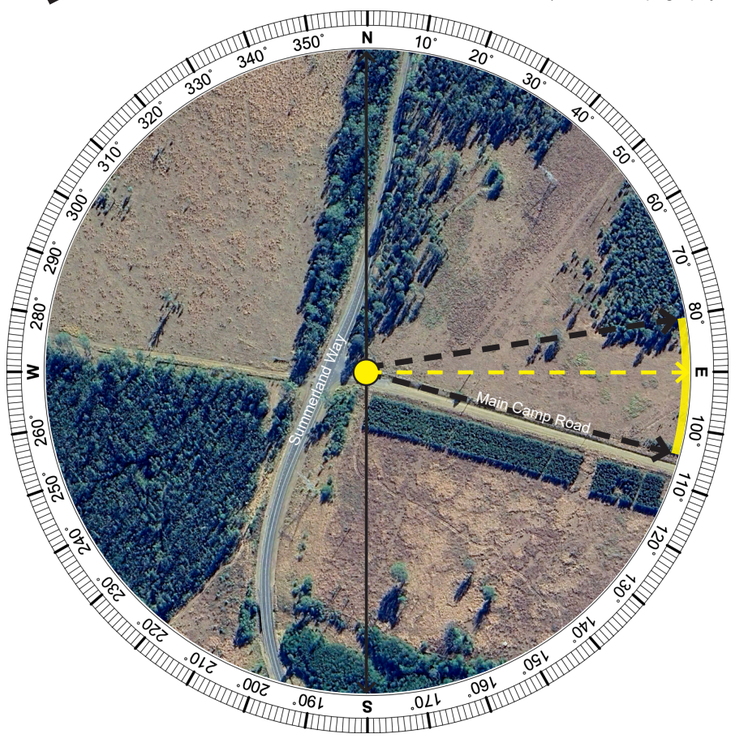
LEGEND

Viewing direction and centre of panorama

Extent of panorama

Direction of Project

Extent of Project
(Based on topography alone)



VIEWPOINT VP11

Viewpoint Summary:	
Location:	Elevation:
Intersection of Summerland Way and Main Camp Road, Myrtle Creek	44 m
Coordinates:	Distance to Project:
29° 6'21.59"S 152°59'59.26"E	1.95 km
Viewing Direction:	
East	
Visual Sensitivity:	
VERY LOW	
Visual Magnitude:	
VERY LOW	
Visual Impact:	
VERY LOW	

Aerial Image Source: Google Earth (02/2016)

Existing Landscape Character Description:

This viewpoint was taken at the intersection of Avenue Road and Summerland Way looking east towards the Project.

The terrain is predominantly flat and the surrounding land is cleared for electrical easement.

Clusters of trees are visible along further east along Avenue Road

Avenue road is a local unsealed road and connects Summerland Way and Myall Creek Road.

As such the resulting visual sensitivity is Very Low.

Potential Visual Impact:

Intervening vegetation will fragment views of the Project from this location.

As such the resulting visual magnitude is Very Low and resulting in a visual impact rating of Very Low.

VP12 Intersection of Summerland Way and Myrtle Creek Road, Myrtle Creek

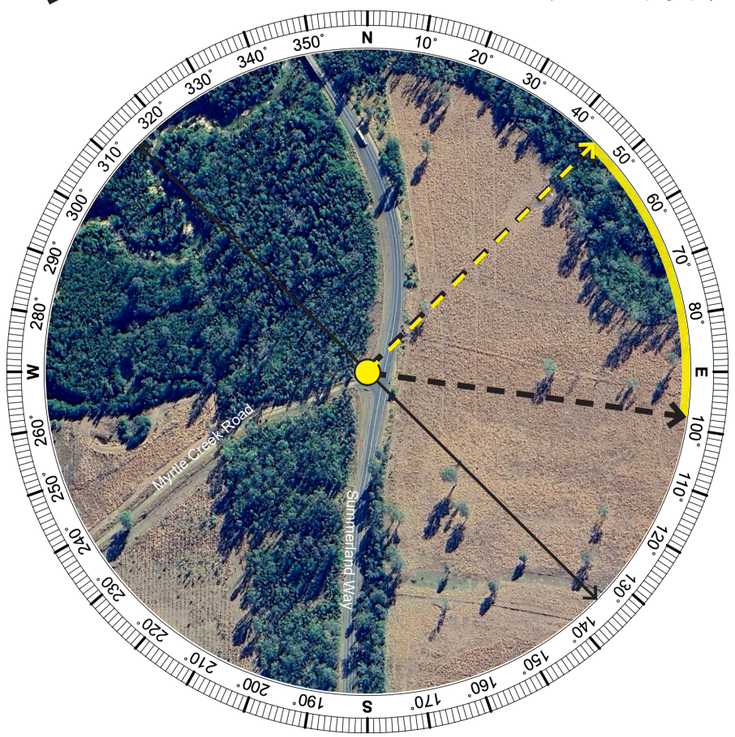
LEGEND

Viewing direction and centre of panorama

Extent of panorama

Direction of Project

Extent of Project
(Based on topography alone)



VIEWPOINT VP12

Viewpoint Summary:	
Location:	Elevation:
Intersection of Summerland Way and Myrtle Creek Road, Myrtle Creek	43 m
Coordinates:	Distance to Project:
29° 6'47.31"S 153° 0'1.19"E	2.16 km
Viewing Direction:	
Northeast	
Visual Sensitivity:	
VERY LOW	
Visual Magnitude:	
VERY LOW	
Visual Impact:	
VERY LOW	

Aerial Image Source: Google Earth (02/2016)

Existing Landscape Character Description:

This viewpoint was taken along Summerland Way looking east towards the Project.

The terrain is predominantly flat and the surrounding land is cleared for electrical easement.

Clusters of trees are visible to the northeast along Myrtle Creek.

Summerland Way is major state route connecting Grafton to northern NSW.

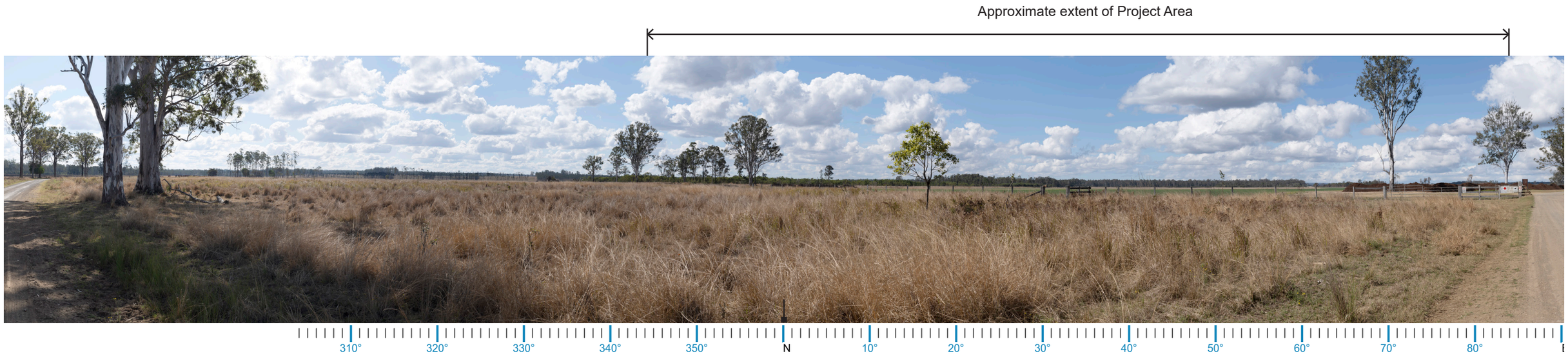
As such the resulting visual sensitivity is Very Low.

Potential Visual Impact:

Intervening vegetation will fragment views of the Project from this location.

As such the resulting visual magnitude is Very Low and resulting in a visual impact rating of Very Low.

VP13 Main Camp Road, Myrtle Creek



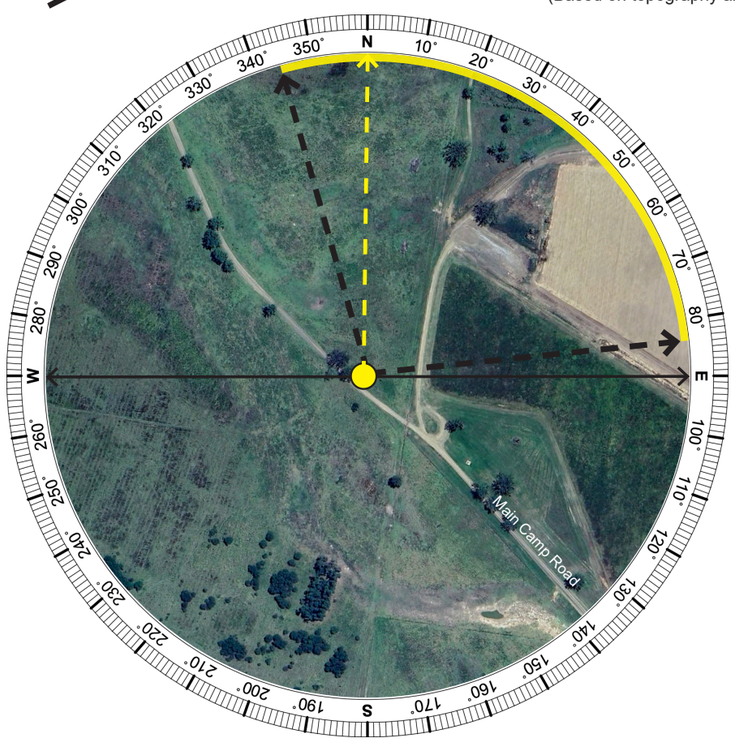
LEGEND

Viewing direction and centre of panorama

Extent of panorama

Direction of Project

Extent of Project
(Based on topography alone)



VIEWPOINT VP13

Viewpoint Summary:	
Location:	Elevation:
Main Camp Road, Myrtle Creek	35 m
Coordinates:	Distance to Project:
29° 7’36.31”S 153° 1’37.93”E	2.40 km
Viewing Direction:	
North	
Visual Sensitivity:	
VERY LOW	
Visual Magnitude:	
VERY LOW	
Visual Impact:	
VERY LOW	

Aerial Image Source: Google Earth (02/2016)

Existing Landscape Character Description:

This viewpoint was taken along Main Camp Road looking north towards the Project.

The terrain is predominantly flat and the surrounding land is modified for grazing.

Vegetation is visible further to the north in the background between the Project and this location.

Main Camp Road is a local unsealed road. Beyond this location, Main Camp Road becomes a Private Road.

As such the resulting visual sensitivity is Very Low.

Potential Visual Impact:

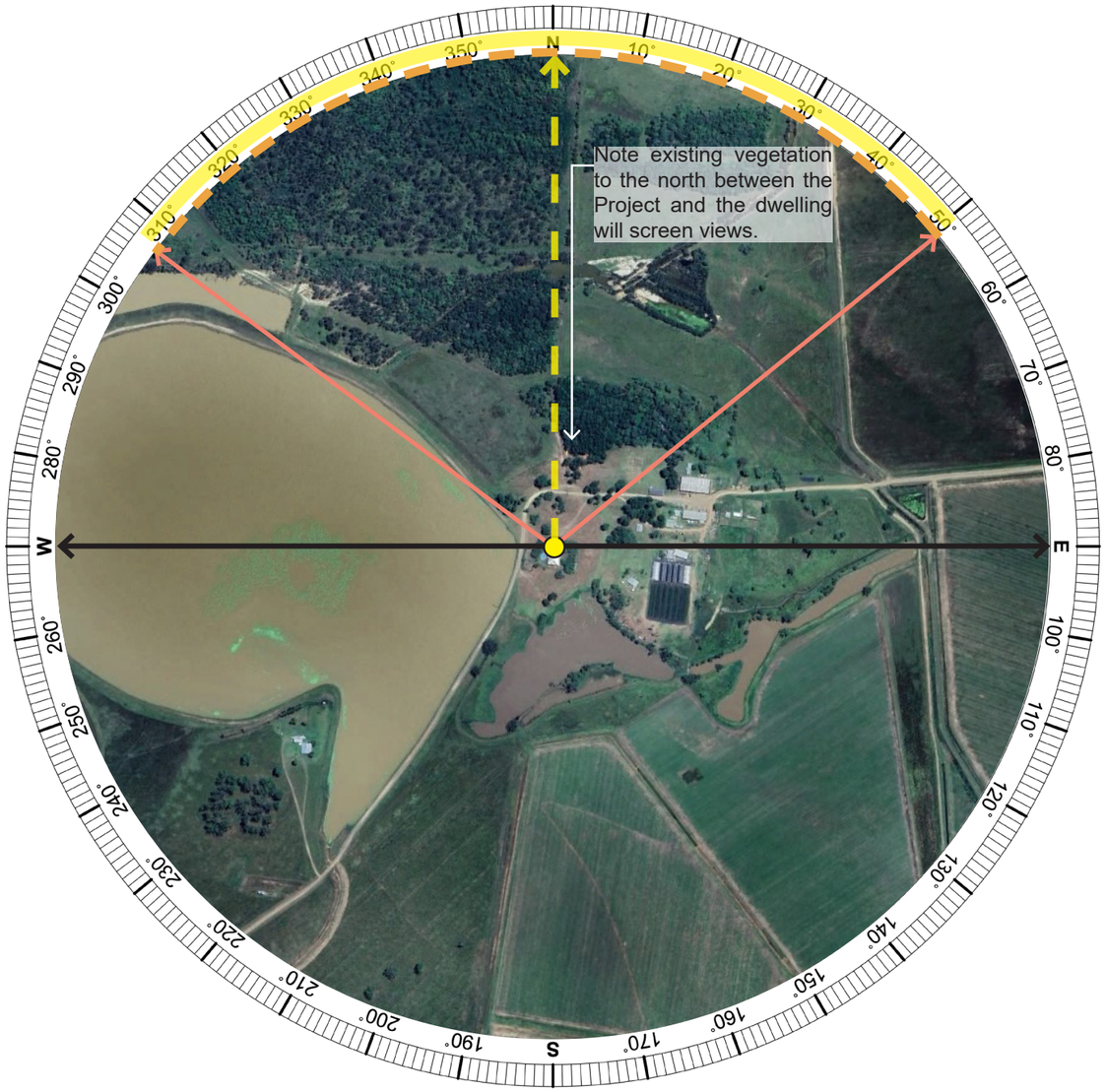
Intervening vegetation will fragment views of the Project from this location.

As such the resulting visual magnitude is Very Low and resulting in a visual impact rating of Very Low.

B.1

Wireframes - Private Receptors

Residential Receptor D4-1 - Sensitivity and Magnitude



LEGEND

- Direction of potential visible Development Footprint (based on topography alone)
- Extent of potential visible Development Footprint (based on topography alone)
- Direction of the Wireframe
- Extent of Panorama
- Location of the viewpoint
- Extent potentially screened by existing vegetation confirmed against site conditions.
- Extent potentially fragmented by existing vegetation confirmed against site conditions.

Aerial Image - Wireframe Location (Aerial Image Source: Google Earth 2022)

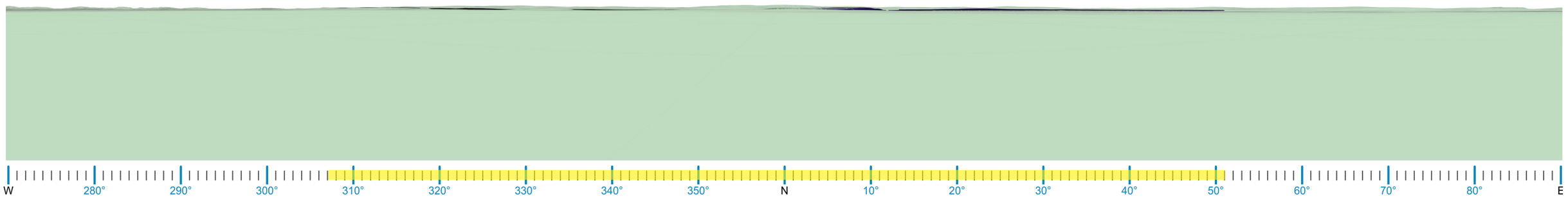
Residential Receptor D4-1

Receptor Assessment:

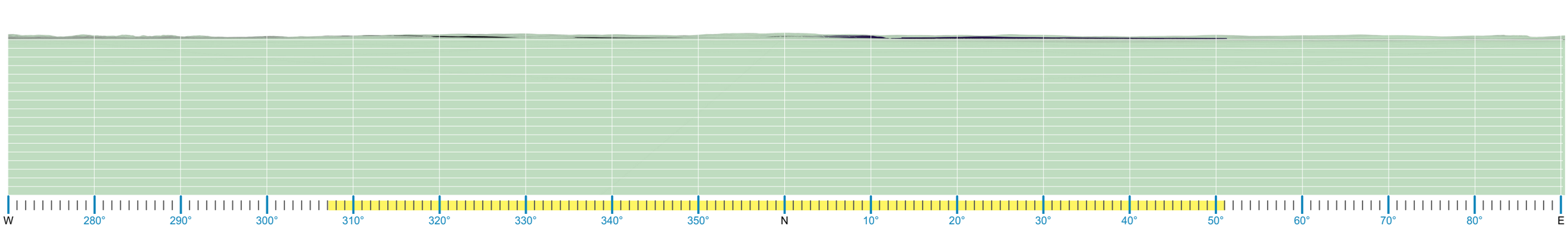
This receptor is located approximately 1.08 km south of the Project. An assessment based on topography alone suggests that topography limits opportunities to view the majority of the Project. Some portions may be visible approximately between 307º - 51º within the horizontal field of view. A site visit was undertaken with permission of the land owner in August 2023 which suggests that the dwelling is orientated east-west, with vegetation in the near curtilage of the dwelling to the north, east and northwest of the dwelling. Beyond this, dense vegetation is located beyond the curtilage to the north. A combination of these factors have the potential to screen the views towards the solar panels in this direction. A Wireframe was prepared to demonstrate the potential visual impacts associated with the Project. It is noted that the Wireframe represents a worst-case scenario and does not consider existing screen factors such as vegetation or structures. The Wireframe found that 8 cells have the potential to be occupied by the Project, which is a **low** magnitude rating according to the technical supplement. When combined with the overall sensitivity of **moderate**, results in a **low** preliminary visual impact rating.

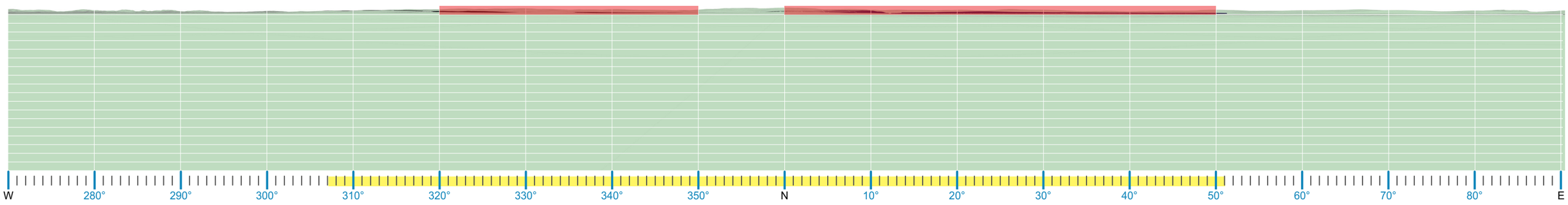
Coordinates	Distance to development:	Viewpoint Type:	Receptor Sensitivity:	Scenic Quality:	Overall Sensitivity:	Occupied Cells:	Magnitude Rating:	Preliminary Visual Impact Rating:
29°07’54.51”S 153°03’51.06”E	1.08 km	Residential Receptor	Moderate (RU1)	Low	Moderate	8	Low	Low

Residential Receptor D4-1 - Sensitivity and Magnitude



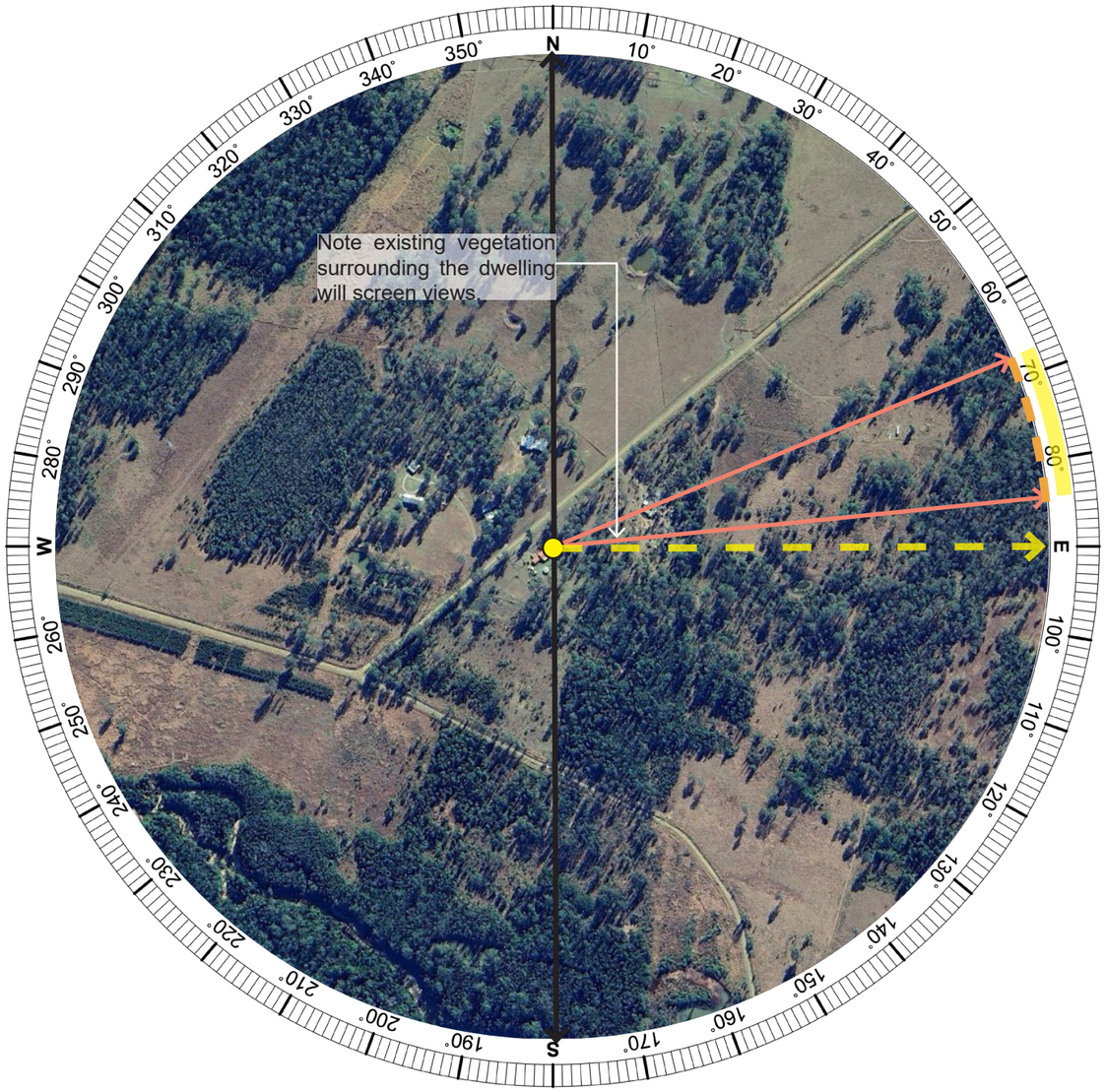
Extent of potentially visible solar panels (based on topography alone)





Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

Residential Receptor C3-3 - Sensitivity and Magnitude



LEGEND

- Direction of potential visible Development Footprint (based on topography alone)
- Extent of potential visible Development Footprint (based on topography alone)
- Direction of the Wireframe
- Extent of Panorama
- Location of the viewpoint
- Extent potentially screened by existing vegetation confirmed against site conditions.
- Extent potentially fragmented by existing vegetation confirmed against site conditions.

Aerial Image - Wireframe Location (Aerial Image Source: Google Earth 2022)

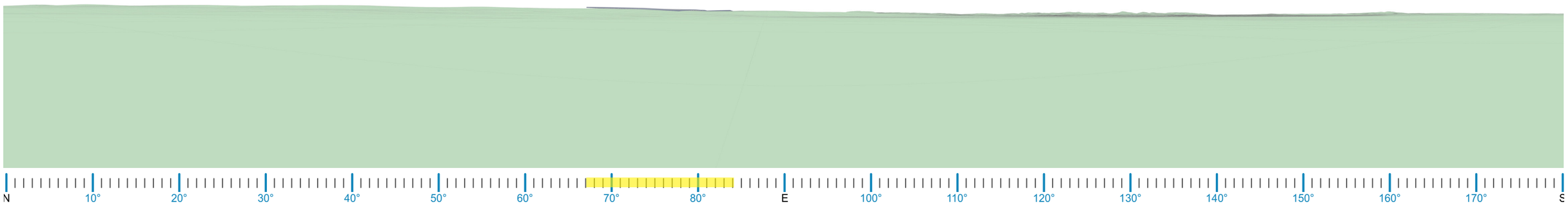
Residential Receptor C3-3

Receptor Assessment:

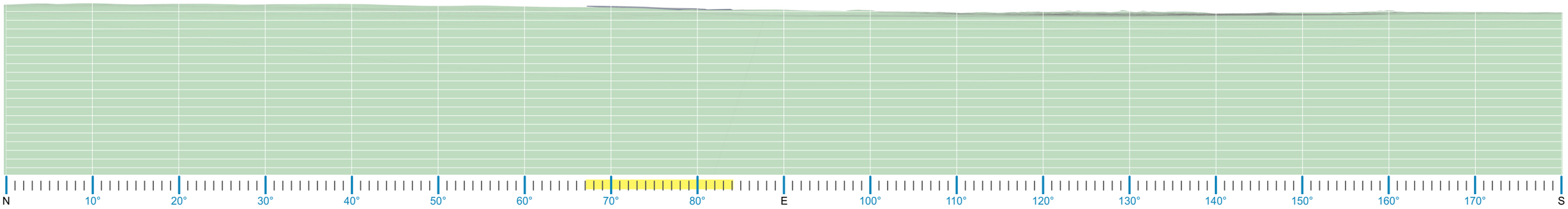
This receptor is located approximately 1.36 km west of the Project. An assessment based on topography alone suggests that the Project will be visible approximately between 67º - 84º horizontal field of view. A site visit was undertaken with permission of the land owner in August 2023 which suggest that the dwelling faces north-south direction. The aerial suggests dense vegetation is located to the north and east of the dwelling which has the potential to screen the view to the Project in this direction. A Wireframe was prepared to demonstrate the potential visual impacts associated with the Project. It is noted that the Wireframe represents a worst-case scenario and does not consider existing screen factors such as vegetation or structures. The Wireframe found that 1 cell has the potential to be occupied by the Project, which is a **very low** magnitude rating according to the technical supplement. When combined with the overall sensitivity of **moderate**, results in a **low** preliminary visual impact rating. It is noted that the anticipated number of occupied cells is likely to reduce to 0 due to the surrounding screen vegetation identified during the site visit.

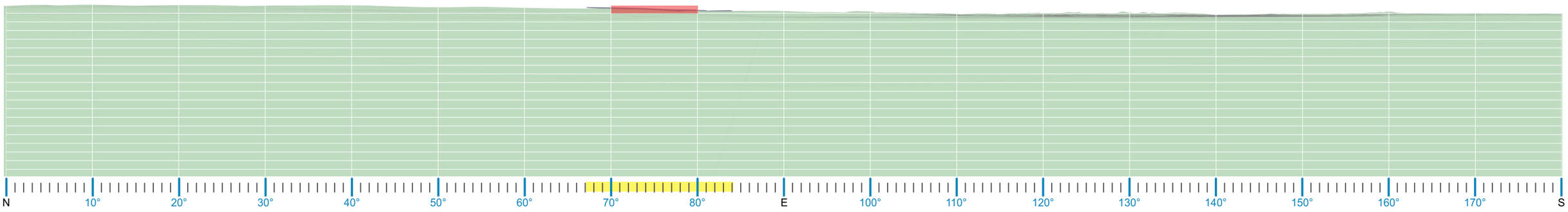
Coordinates	Distance to development:	Viewpoint Type:	Receptor Sensitivity:	Scenic Quality:	Overall Sensitivity:	Occupied Cells:	Magnitude Rating:	Preliminary Visual Impact Rating:
29°06’20.01”S 153°00’26.62”E	1.36 km	Residential Receptor	Moderate (RU1)	Low	Moderate	1	Very Low	Low

Residential Receptor C3-3 - Sensitivity and Magnitude



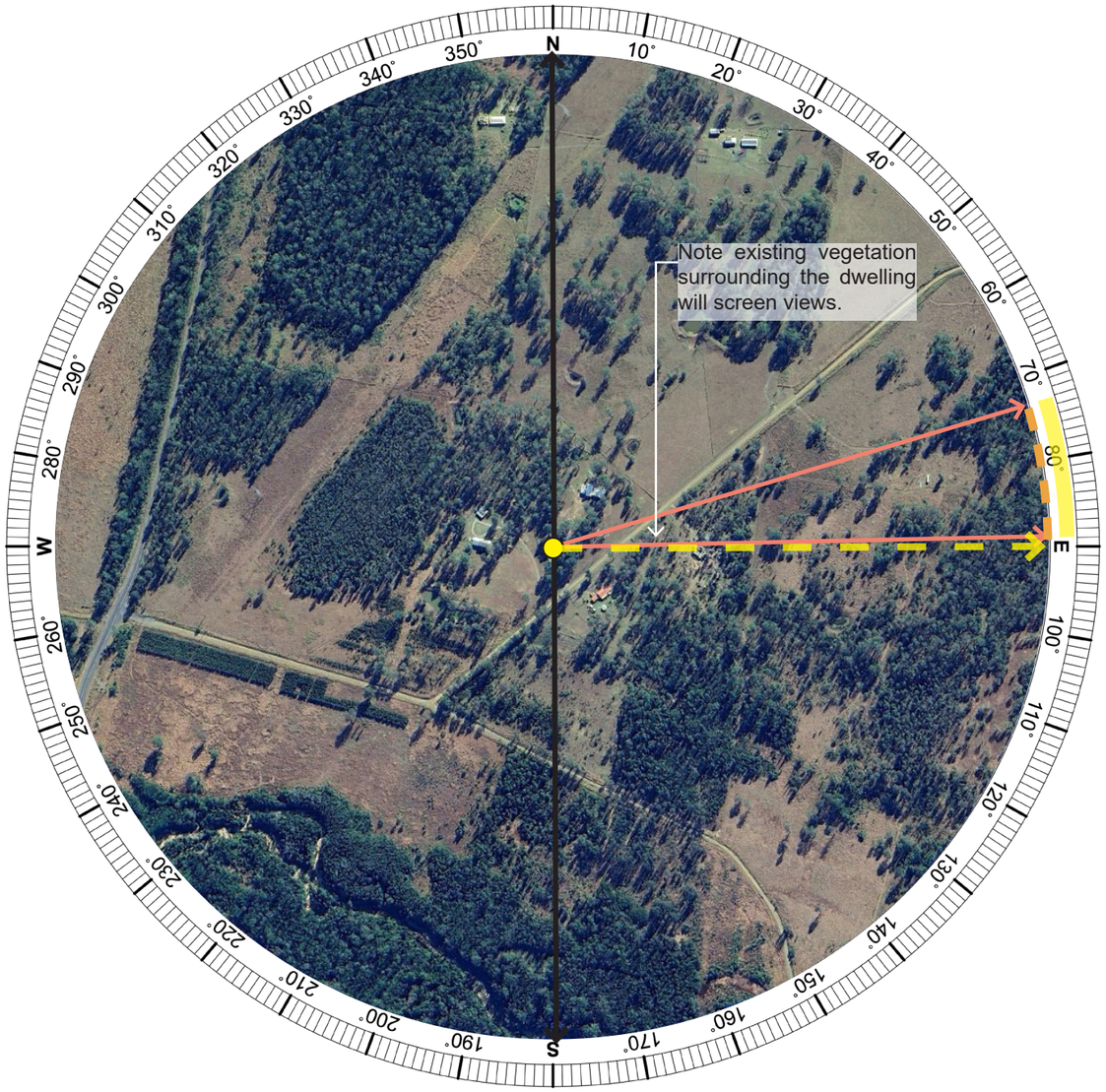
Extent of potentially visible solar panels (based on topography alone)





Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

Residential Receptor C3-8 - Sensitivity and Magnitude



LEGEND

- Direction of potential visible Development Footprint (based on topography alone)
- Extent of potential visible Development Footprint (based on topography alone)
- Direction of the Wireframe
- Extent of Panorama
- Location of the viewpoint
- Extent potentially screened by existing vegetation confirmed against site conditions.
- Extent potentially fragmented by existing vegetation confirmed against site conditions.

Aerial Image - Wireframe Location (Aerial Image Source: Google Earth 2022)

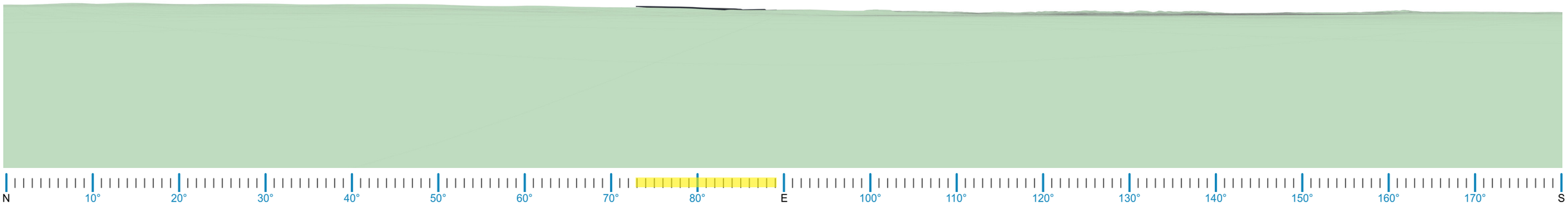
Residential Receptor C3-8

Receptor Assessment:

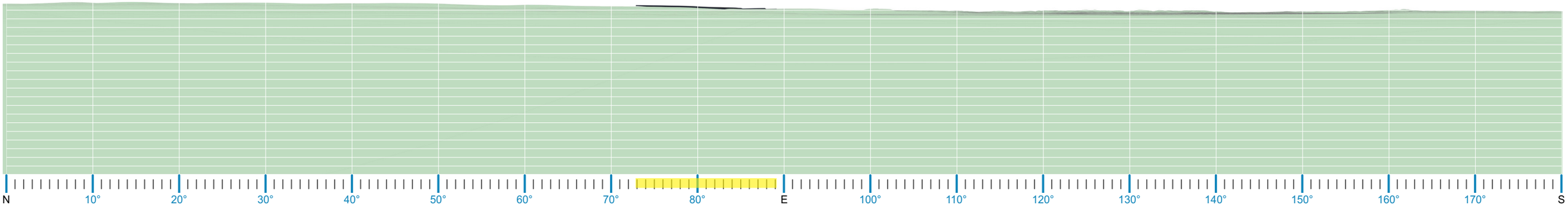
This receptor is located approximately 1.40 km west of the Project. An assessment based on topography alone suggests that the Project will be visible approximately between 73º - 89º horizontal field of view. A site visit was undertaken with permission of the land owner in August 2023 which suggest that the dwelling faces northeast - southwest direction. The aerial suggests dense vegetation to the north and east of the dwelling which has the potential to screen views towards the Project from this location. A Wireframe was prepared to demonstrate the potential visual impacts associated with the Project. It is noted that the Wireframe represents a worst-case scenario and does not consider existing screen factors such as vegetation or structures. The Wireframe found that 2 cells have the potential to be occupied by the Project, which is a **very low** magnitude rating according to the technical supplement. When combined with the overall sensitivity of **moderate**, results in a **low** preliminary visual impact rating. It is noted that the anticipated number of occupied cells is likely to reduce to 0 due to the surrounding screen vegetation identified during the site visit.

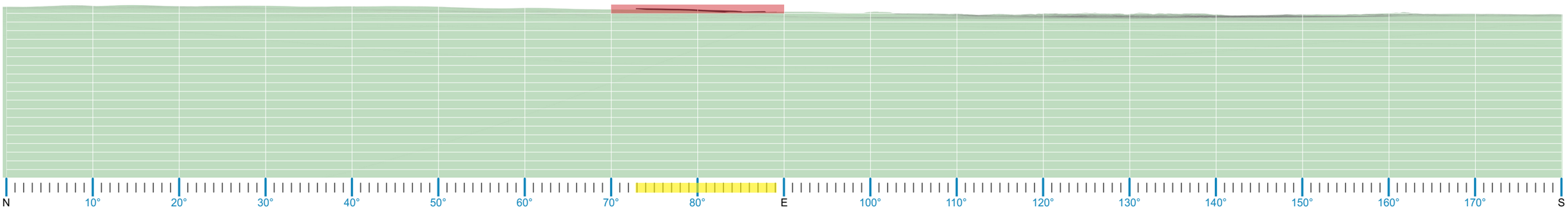
Coordinates	Distance to development:	Viewpoint Type:	Receptor Sensitivity:	Scenic Quality:	Overall Sensitivity:	Occupied Cells:	Magnitude Rating:	Preliminary Visual Impact Rating:
29°06’18.11”S 153°00’23.51”E	1.40 km	Residential Receptor	Moderate (RU1)	Low	Moderate	2	Very Low	Low

Residential Receptor C3-8 - Sensitivity and Magnitude



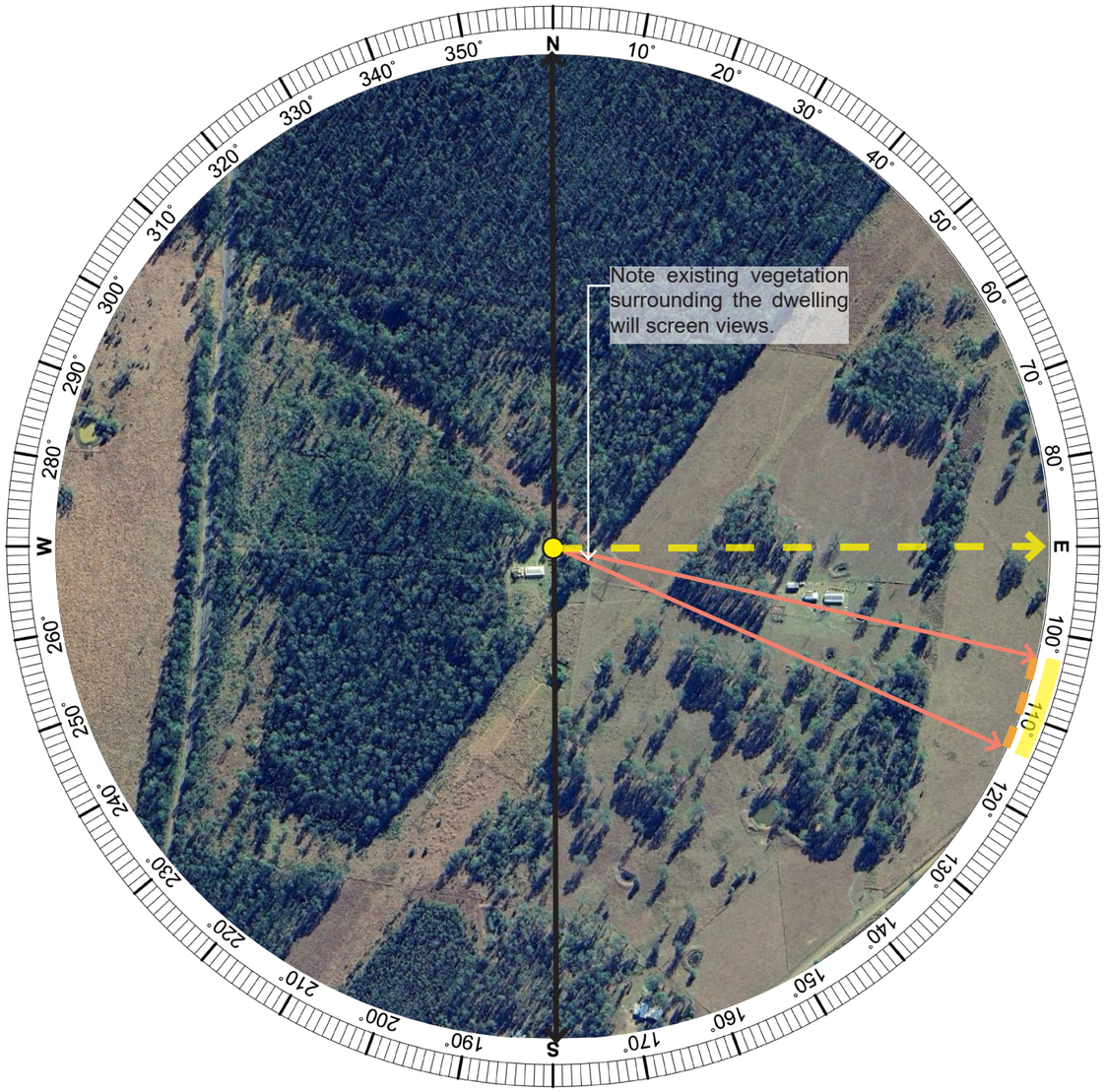
Extent of potentially visible solar panels (based on topography alone)





Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

Residential Receptor C3-1 - Sensitivity and Magnitude



LEGEND

- Direction of potential visible Development Footprint (based on topography alone)
- Extent of potential visible Development Footprint (based on topography alone)
- Direction of the Wireframe
- Extent of Panorama
- Location of the viewpoint
- Extent potentially screened by existing vegetation confirmed against site conditions.
- Extent potentially fragmented by existing vegetation confirmed against site conditions.

Aerial Image - Wireframe Location (Aerial Image Source: Google Earth 2022)

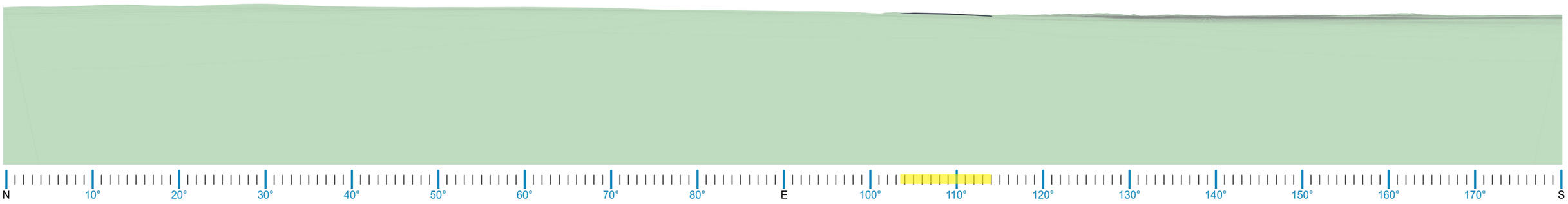
Residential Receptor C3-1

Receptor Assessment:

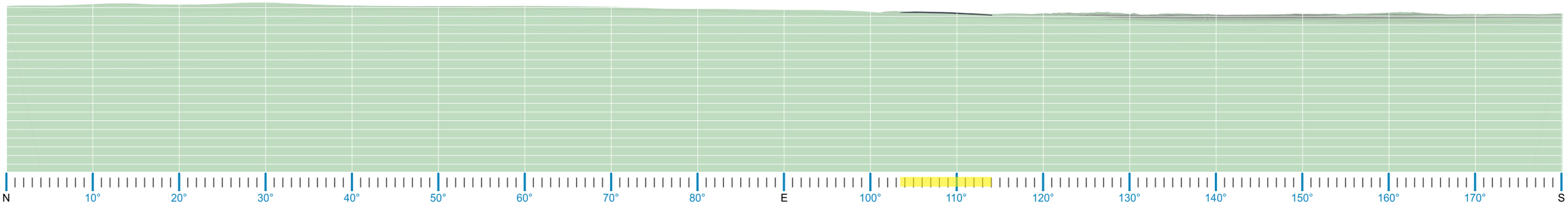
This receptor is located approximately 1.32 km west of the Project. An assessment based on topography alone suggests that the Project will be visible approximately between 103º - 114º horizontal field of view. A site visit was undertaken with permission of the land owner in August 2023 which suggest that the dwelling faces a east - west direction. The aerial suggests dense vegetation surrounds the dwelling which has the potential to screen views toward the Project from this location. A Wireframe was prepared to demonstrate the potential visual impacts associated with the Project. It is noted that the Wireframe represents a worst-case scenario and does not consider existing screen factors such as vegetation or structures. The Wireframe found that 1 cell has the potential to be occupied by the Project, which is a **very low** magnitude rating according to the technical supplement. When combined with the overall sensitivity of **moderate**, results in a **low** preliminary visual impact rating. It is noted that the anticipated number of occupied cells is likely to reduce to 0 due to the surrounding screen vegetation identified during the site visit.

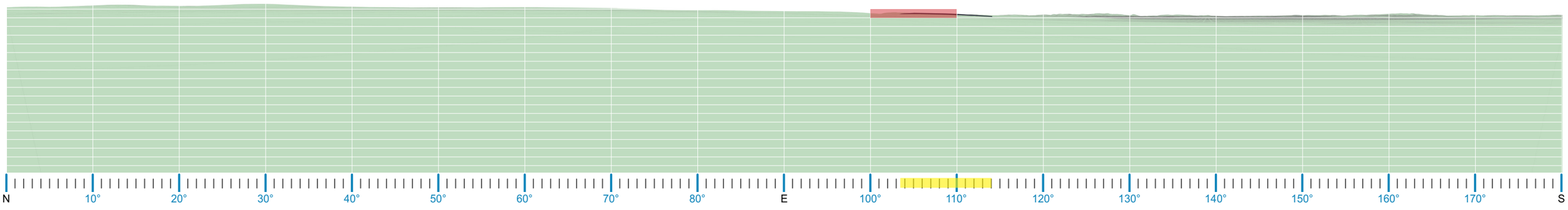
Coordinates	Distance to development:	Viewpoint Type:	Receptor Sensitivity:	Scenic Quality:	Overall Sensitivity:	Occupied Cells:	Magnitude Rating:	Preliminary Visual Impact Rating:
29°05’54.39”S 153°00’20.99”E	1.32 km	Residential Receptor	Moderate (RU1)	Low	Moderate	1	Very Low	Low

Residential Receptor C3-1 - Sensitivity and Magnitude



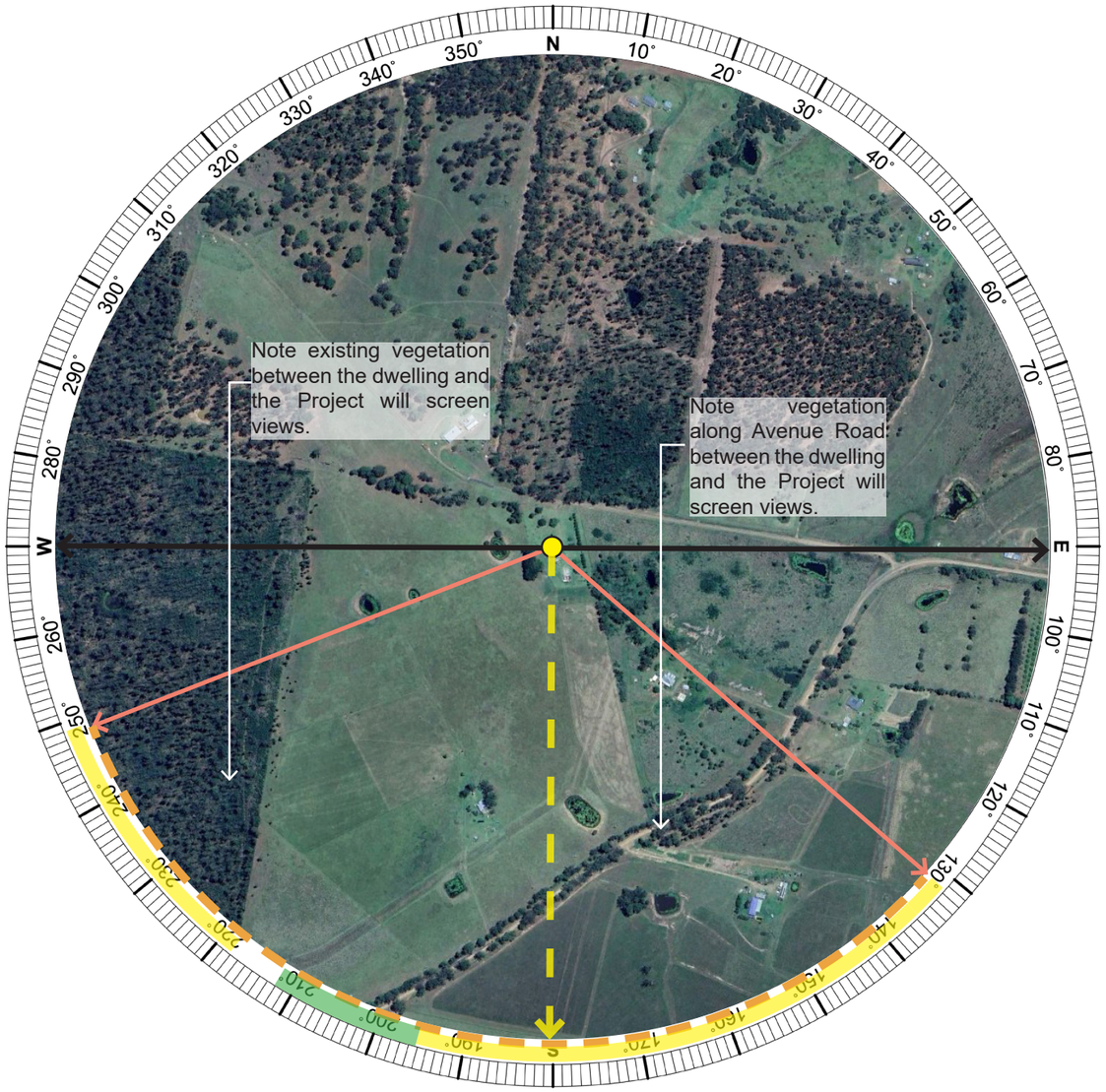
Extent of potentially visible solar panels (based on topography alone)





Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

Residential Receptor D3-1 - Sensitivity and Magnitude



Aerial Image - Wireframe Location (Aerial Image Source: Google Earth 2022)

LEGEND

- Direction of potential visible Development Footprint (based on topography alone)
- Extent of potential visible Development Footprint (based on topography alone)
- Direction of the Wireframe
- Extent of Panorama
- Location of the viewpoint
- Extent potentially screened by existing vegetation confirmed against site conditions.
- Extent potentially fragmented by existing vegetation confirmed against site conditions.

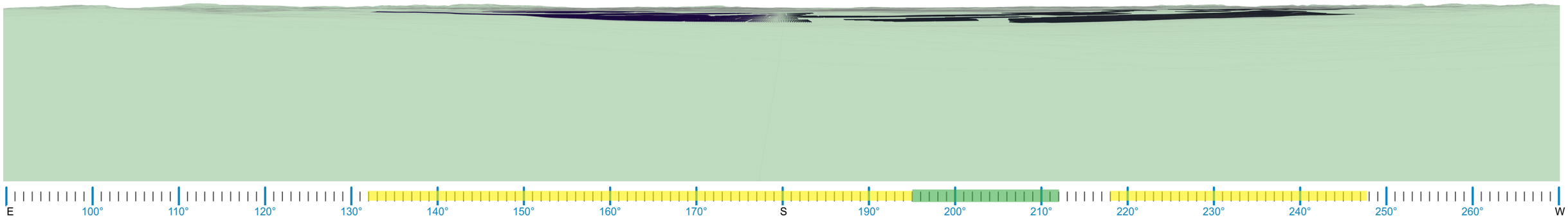
Residential Receptor D3-1

Receptor Assessment:

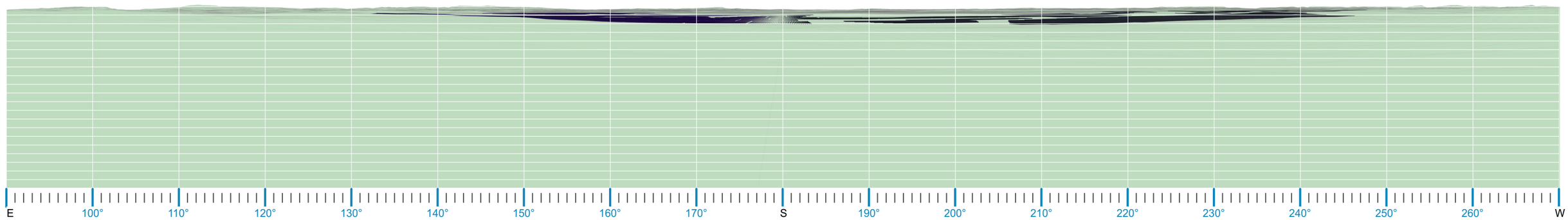
This receptor is located approximately 1.14 km north of the Project. An assessment based on topography alone suggests that the Project will be visible approximately between 132º - 248º horizontal field of view. A site visit was undertaken with permission of the land owner in August 2023 which suggest that the dwelling faces a east - west direction with primary views to the north - south on a slightly elevated position . The aerial suggests that there is no vegetation within the curtilage of the dwelling except for a group of trees to the south-southwest. A shed exists to the southeast adjacent to the dwelling. Dense vegetation located beyond the curtilage to the southwest. Dense patches of vegetation to the west and along Avenue road to the south were noted. A combination of these factors has the potential to fragment portions of the view towards the Project in these directions. A Wireframe was prepared to demonstrate the potential visual impacts associated with the Project. It is noted that the Wireframe represents a worst-case scenario and does not consider existing screen factors such as vegetation or structures. The Wireframe found that 22 cells have the potential to be occupied by the Project, which is a **high** magnitude rating according to the technical supplement. When combined with the overall sensitivity of **moderate**, results in a **moderate** preliminary visual impact rating. A photomontage has been prepared from this location to confirm the visual impact at this receptor (see PM01). It is likely that due to the condition of nearby screen vegetation, the number of potential cells that are occupied will reduce.

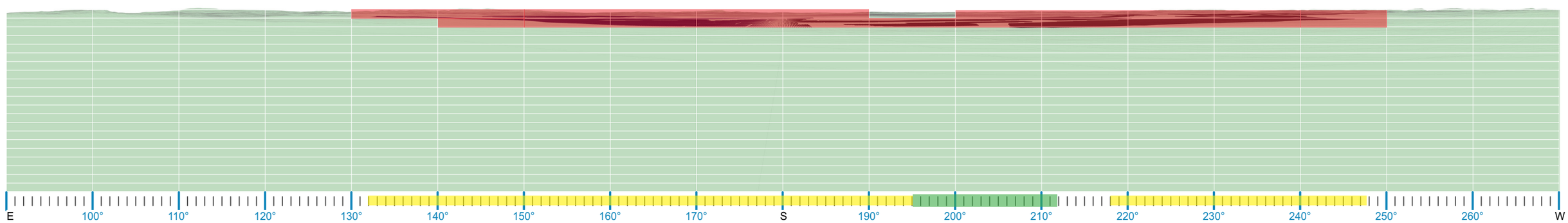
Coordinates	Distance to development:	Viewpoint Type:	Receptor Sensitivity:	Scenic Quality:	Overall Sensitivity:	Occupied Cells:	Magnitude Rating:	Preliminary Visual Impact Rating:
29°04’59.12”S 153°03’19.99”E	1.14 km	Residential Receptor	Moderate (RU1)	Low	Moderate	22	High	Moderate

Residential Receptor D3-1 - Sensitivity and Magnitude



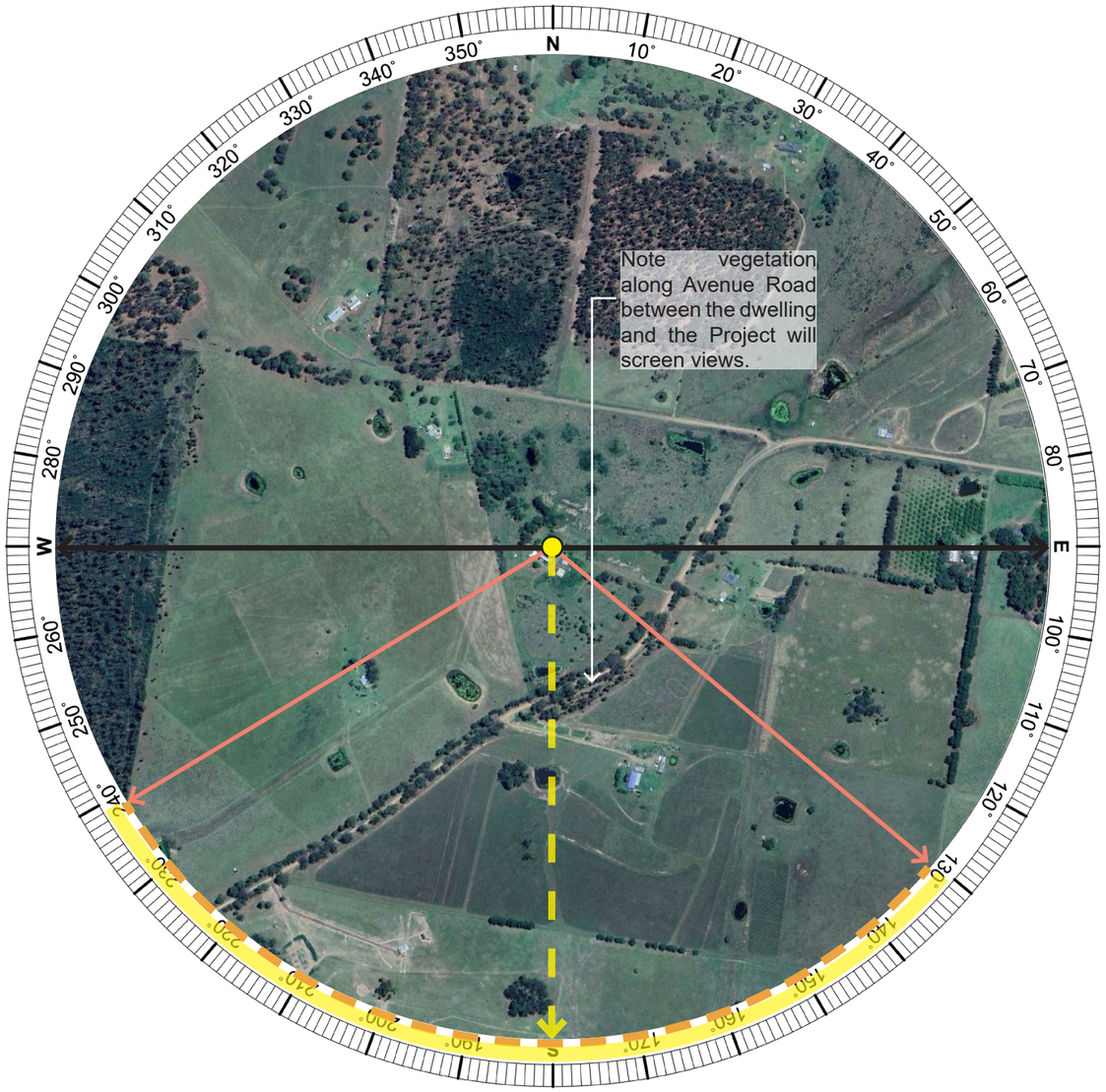
Extent of potentially visible solar panels (based on topography alone)





Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

Residential Receptor D3-2 - Sensitivity and Magnitude



LEGEND

- Direction of potential visible Development Footprint (based on topography alone)
- Extent of potential visible Development Footprint (based on topography alone)
- Direction of the Wireframe
- Extent of Panorama
- Location of the viewpoint
- Extent potentially screened by existing vegetation confirmed against site conditions.
- Extent potentially fragmented by existing vegetation confirmed against site conditions.

Aerial Image - Wireframe Location (Aerial Image Source: Google Earth 2022)

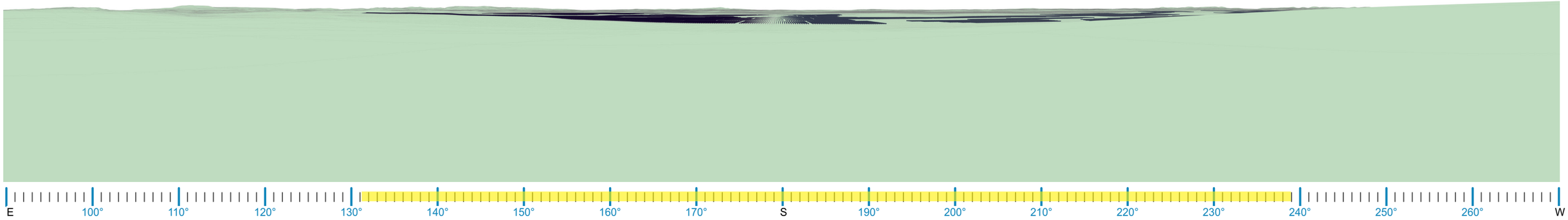
Residential Receptor D3-2

Receptor Assessment:

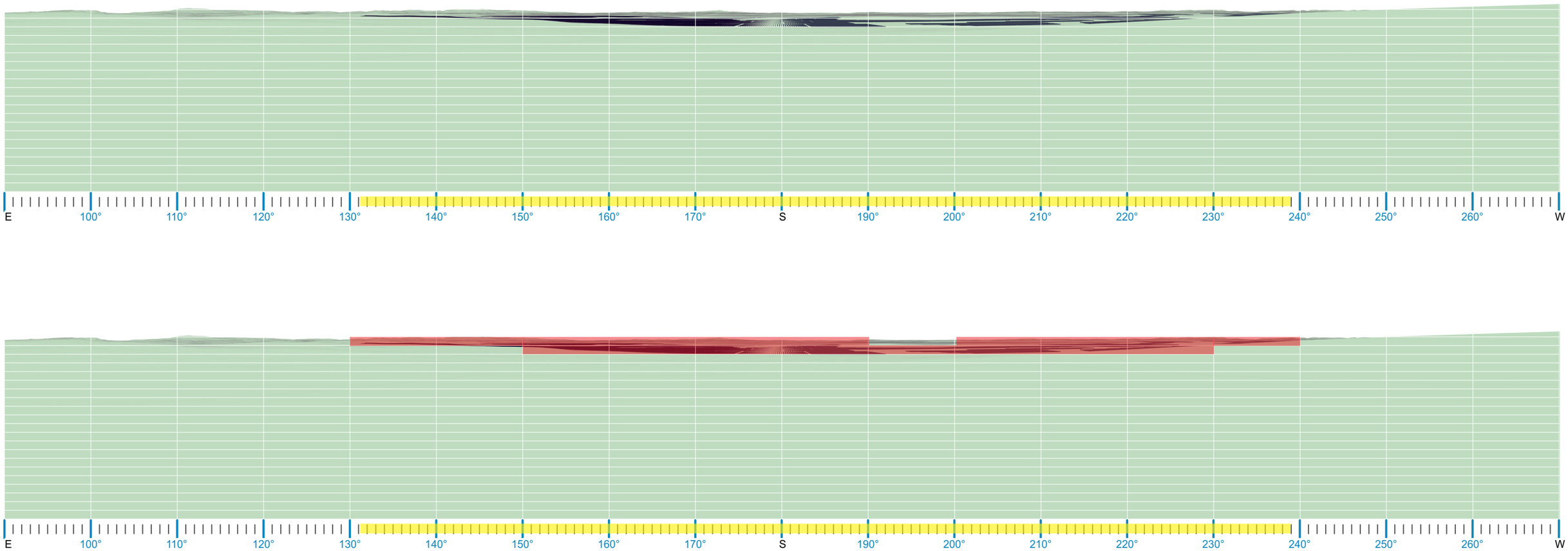
This receptor is located approximately 0.94 km north of the Project. An assessment based on topography alone suggests that the Project will be visible approximately between 131º - 239º horizontal field of view. A site visit was undertaken with permission of the land owner in August 2023 which suggest that the dwelling is located in an elevated position and faces a northwest - southeast direction with primary views to the southwest. The aerial suggests that there is no vegetation surrounding the dwelling except for isolated trees to the southwest. However, dense patches of vegetation located beyond the dwelling to the south have the potential to fragment portions of the view towards the Project in this direction. The site visit suggest that views west are contained by existing topography. A Wireframe was prepared to demonstrate the potential visual impacts associated with the Project. It is noted that the Wireframe represents a worst-case scenario and does not consider existing screen factors such as vegetation or structures. The Wireframe found that 18 cells have the potential to be occupied by the Project, which is a **moderate** magnitude rating according to the technical supplement. When combined with the overall sensitivity of **moderate**, results in a **moderate** preliminary visual impact rating. A photomontage has been prepared from this location to confirm the visual impact at this receptor (see PM02). It is noted that due to the condition of nearby screen vegetation, the number of potential cells that are occupied is likely to reduce to approximately 0.

Coordinates	Distance to development:	Viewpoint Type:	Receptor Sensitivity:	Scenic Quality:	Overall Sensitivity:	Occupied Cells:	Magnitude Rating:	Preliminary Visual Impact Rating:
29°05’5.29”S 153°03’26.44”E	0.94 km	Residential Receptor	Moderate (RU1)	Low	Moderate	18	Moderate	Moderate

Residential Receptor D3-2 - Sensitivity and Magnitude

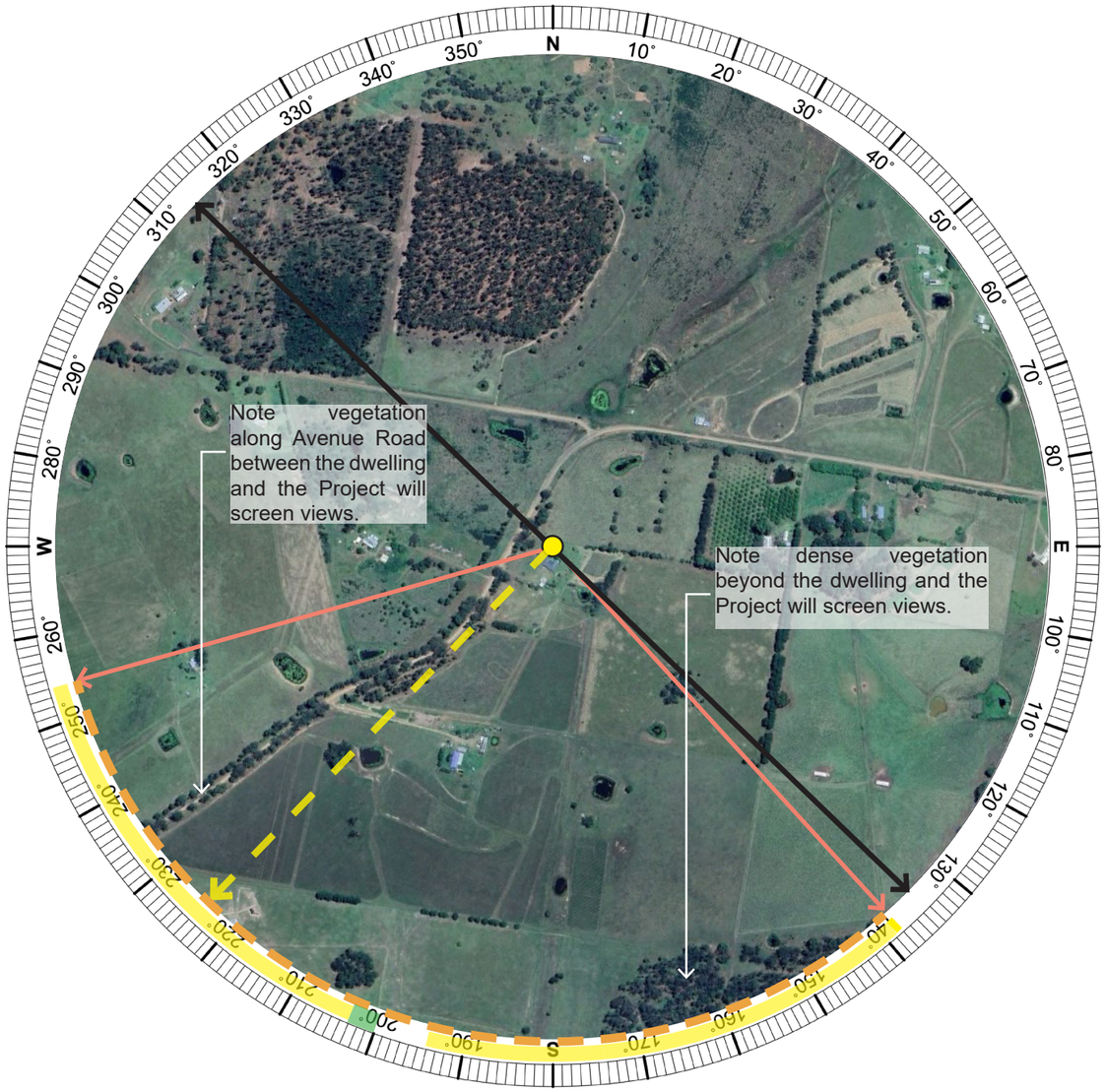


Extent of potentially visible solar panels (based on topography alone)



Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

Residential Receptor D3-4 - Sensitivity and Magnitude



Aerial Image - Wireframe Location (Aerial Image Source: Google Earth 2022)

LEGEND

- Direction of potential visible Development Footprint (based on topography alone)
- Extent of potential visible Development Footprint (based on topography alone)
- Direction of the Wireframe
- Extent of Panorama
- Location of the viewpoint
- Extent potentially screened by existing vegetation confirmed against site conditions.
- Extent potentially fragmented by existing vegetation confirmed against site conditions.

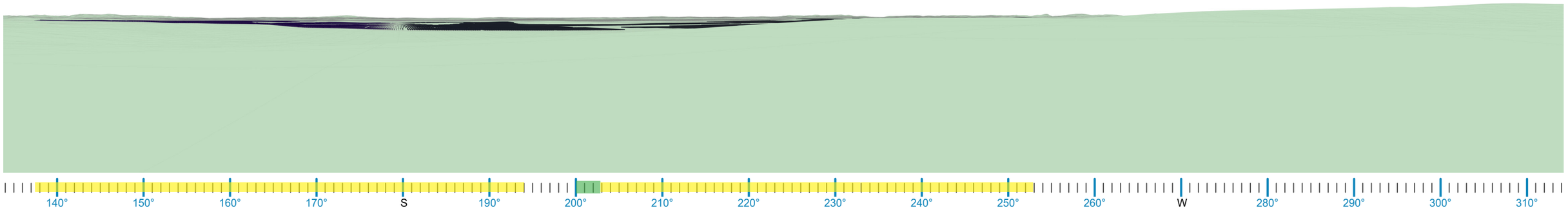
Residential Receptor D3-4

Receptor Assessment:

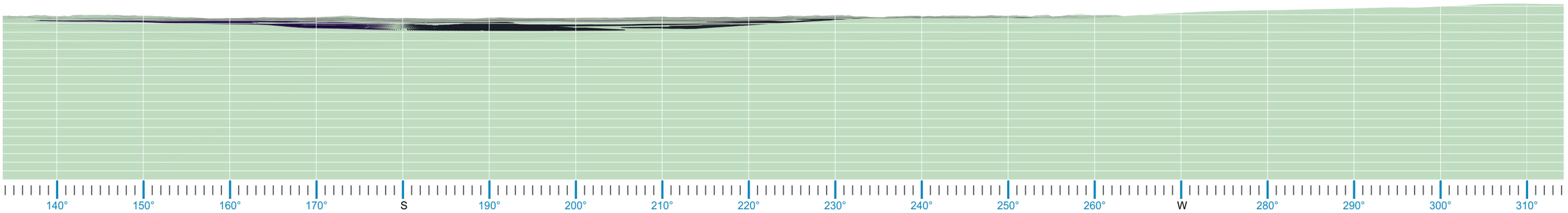
This receptor is located approximately 0.94 km north of the Project. An assessment based on topography alone suggests that the Project will be visible approximately between 138º - 253º horizontal field of view. A site visit was undertaken with permission of the land owner in August 2023 which suggest that the dwelling faces a north east - south west, with primary views to the northeast . The aerial suggests that there is no vegetation in the near curtilage of the dwelling however, a combination of sheds and vegetation contain views southeast and southwest. Vegetation located beyond the curtilage to the southwest along Avenue Road and within the southeastern paddocks have the potential to filter portions of the view towards the Project in these directions. A Wireframe was prepared to demonstrate the potential visual impacts associated with the Project. It is noted that the Wireframe represents a worst-case scenario and does not consider existing screen factors such as vegetation or structures. The Wireframe found that 18 cells have the potential to be occupied by the Project, which is a **moderate** magnitude rating according to the technical supplement. When combined with the overall sensitivity of **moderate**, results in a **moderate** preliminary visual impact rating. A photomontage has been prepared from this location to confirm the visual impact at this receptor (see PM03). It is likely that due to the condition of nearby screen vegetation, the number of potential cells that are occupied is likely to reduce to approximaetely 7.

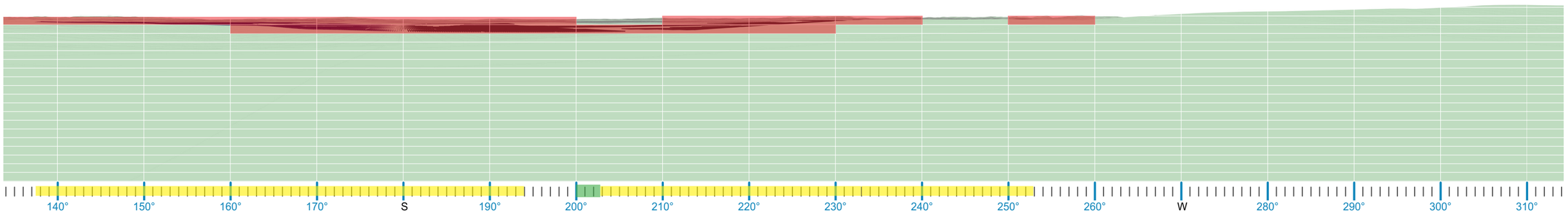
Coordinates	Distance to development:	Viewpoint Type:	Receptor Sensitivity:	Scenic Quality:	Overall Sensitivity:	Occupied Cells:	Magnitude Rating:	Preliminary Visual Impact Rating:
29°05’06.45”S 153°03’36.91”E	0.94 km	Residential Receptor	Moderate (RU1)	Low	Moderate	18	Moderate	Moderate

Residential Receptor D3-4 - Sensitivity and Magnitude



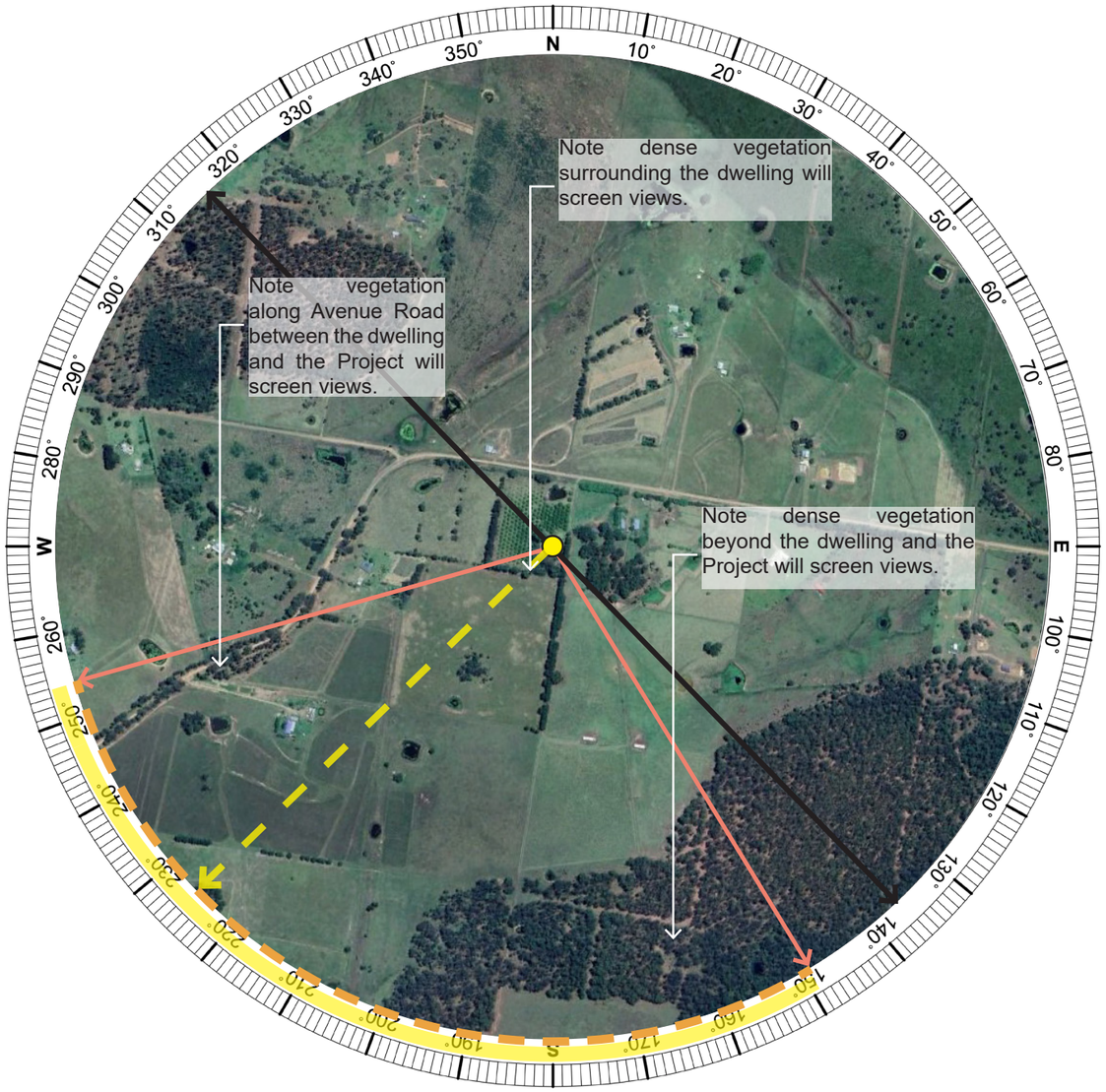
Extent of potentially visible solar panels (based on topography alone)





Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

Residential Receptor D3-5 - Sensitivity and Magnitude



LEGEND

- Direction of potential visible Development Footprint (based on topography alone)
- Extent of potential visible Development Footprint (based on topography alone)
- Direction of the Wireframe
- Extent of Panorama
- Location of the viewpoint
- Extent potentially screened by existing vegetation confirmed against site conditions.
- Extent potentially fragmented by existing vegetation confirmed against site conditions.

Aerial Image - Wireframe Location (Aerial Image Source: Google Earth 2022)

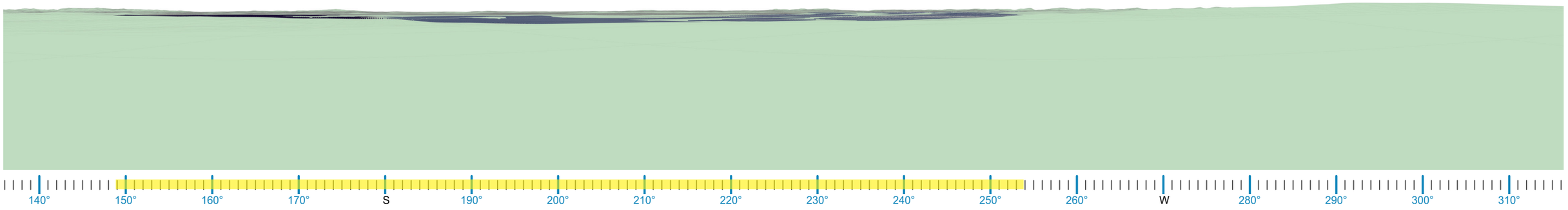
Residential Receptor D3-5

Receptor Assessment:

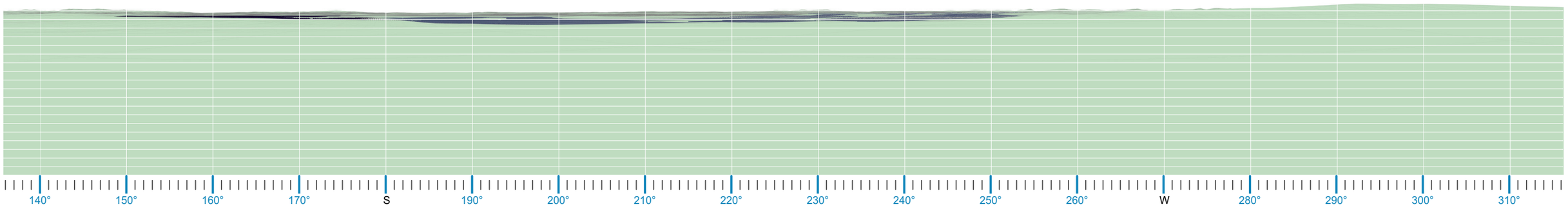
This receptor is located approximately 1.029 km north of the Project. An assessment based on topography alone suggests that the Project will be visible approximately between 149º - 254º horizontal field of view. A site visit was undertaken with permission of the land owner in August 2023 which suggest that the dwelling faces a north - south direction with primary views to the south . The aerial suggests dense vegetation surrounding the dwelling has the potential to screen views towards the Project in this direction. A Wireframe was prepared to demonstrate the potential visual impacts associated with the Project. It is noted that the Wireframe represents a worst-case scenario and does not consider existing screen factors such as vegetation or structures. The Wireframe found that 18 cells have the potential to be occupied by the Project, which is a **moderate** magnitude rating according to the technical supplement. When combined with the overall sensitivity of **moderate**, results in a **moderate** preliminary visual impact rating. A photomontage will be prepared from this location to confirm the visual impact at this receptor (see PM04). It is likely that due to the condition of nearby screen vegetation, the number of potential cells that are occupied is likely to reduce to approximately 0.

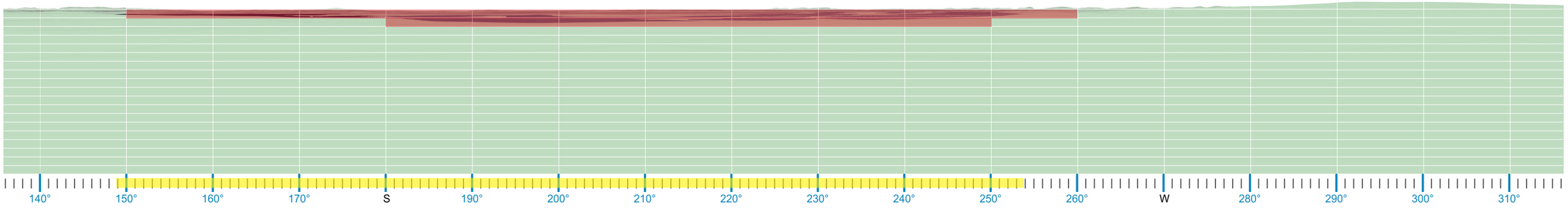
Coordinates	Distance to development:	Viewpoint Type:	Receptor Sensitivity:	Scenic Quality:	Overall Sensitivity:	Occupied Cells:	Magnitude Rating:	Preliminary Visual Impact Rating:
29°05’05.33”S 153°03’49.45”E	1.029 km	Residential Receptor	Moderate (RU1)	Low	Moderate	18	Moderate	Moderate

Residential Receptor D3-5 - Sensitivity and Magnitude



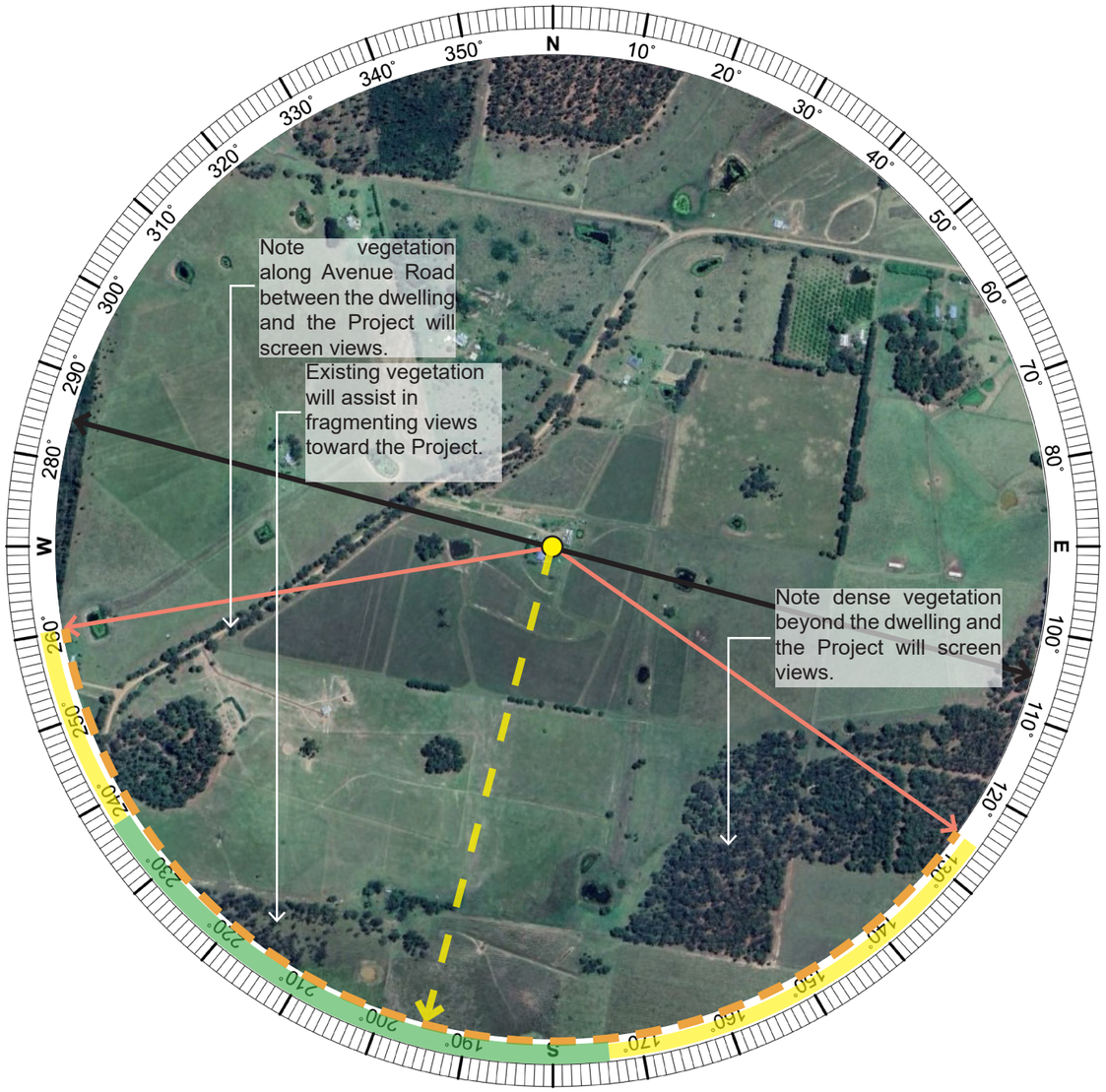
Extent of potentially visible solar panels (based on topography alone)





Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

Residential Receptor D3-3 - Sensitivity and Magnitude



LEGEND

- Direction of potential visible Development Footprint (based on topography alone)
- Extent of potential visible Development Footprint (based on topography alone)
- Direction of the Wireframe
- Extent of Panorama
- Location of the viewpoint
- Extent potentially screened by existing vegetation confirmed against site conditions.
- Extent potentially fragmented by existing vegetation confirmed against site conditions.

Aerial Image - Wireframe Location (Aerial Image Source: Google Earth 2022)

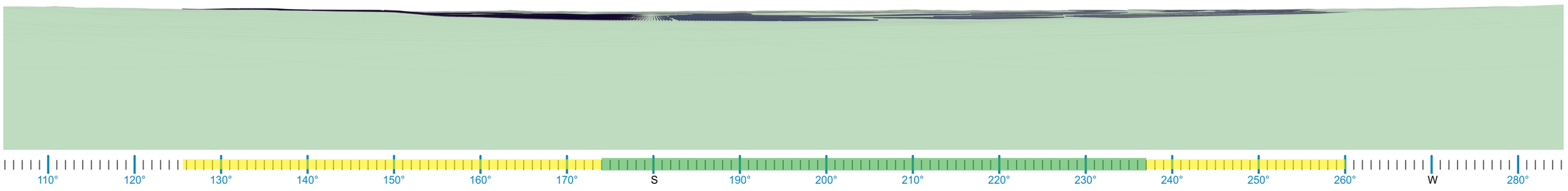
Residential Receptor D3-3

Receptor Assessment:

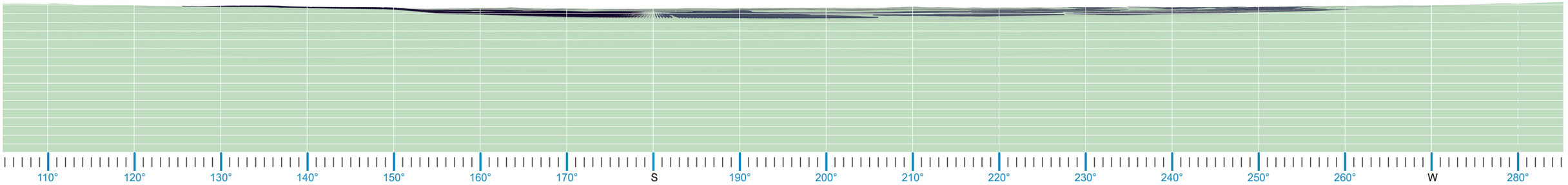
This receptor is located approximately 0.61 km north of the Project. An assessment based on topography alone suggests that the Project will be visible approximately between 126º - 260º horizontal field of view. A site visit was undertaken with permission of the land owner in August 2023 which suggest that the dwelling is raised and faces a northeast - southwest direction with primary views to the east. The site visit and viewpoints collected suggest that there are tanks located to the south of the dwelling and scattered patches of vegetation to the south of the dwelling with denser areas to the south east and south west. A Wireframe was prepared to demonstrate the potential visual impacts associated with the Project. It is noted that the Wireframe represents a worst-case scenario and does not consider existing screen factors such as vegetation or structures. The Wireframe found that 21 cells have the potential to be occupied by the Project, which is a **high** magnitude rating according to the technical supplement. When combined with the overall sensitivity of **moderate**, results in a **moderate** preliminary visual impact rating. A photomontage has been prepared from this location to confirm the visual impact at this receptor (see PM05). It is likely that due to the condition of the vegetation character, the number of potential cells that are occupied will reduce.

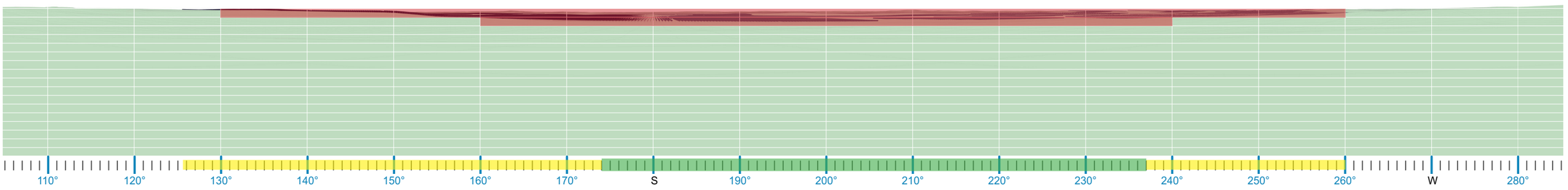
Coordinates	Distance to development:	Viewpoint Type:	Receptor Sensitivity:	Scenic Quality:	Overall Sensitivity:	Occupied Cells:	Magnitude Rating:	Preliminary Visual Impact Rating:
29°05’16.43”S 153°03’31.44”E	0.61 km	Residential Receptor	Moderate (RU1)	Low	Moderate	21	High	Moderate

Residential Receptor D3-3 - Sensitivity and Magnitude



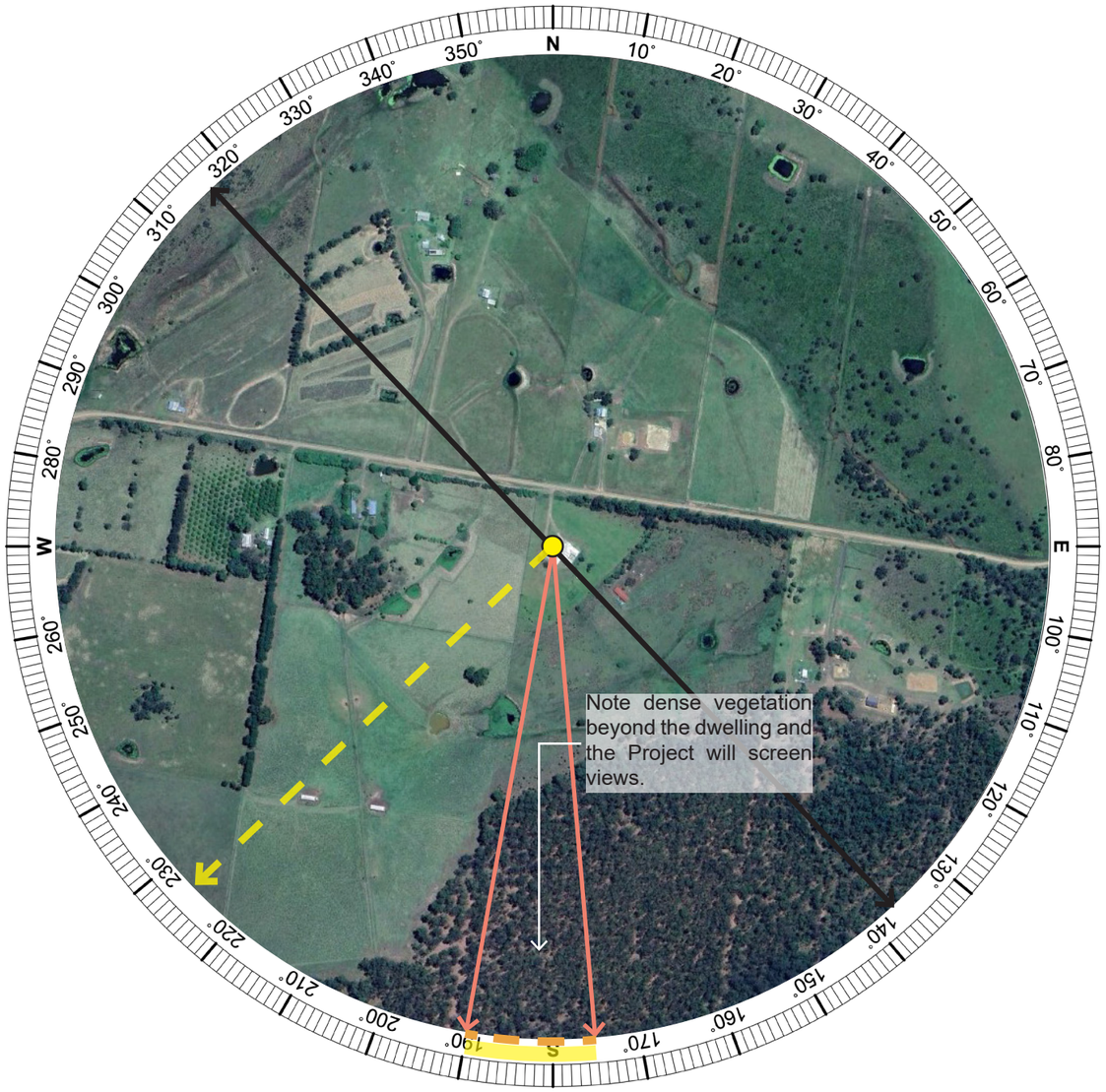
Extent of potentially visible solar panels (based on topography alone)





Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

Residential Receptor D3-7 - Sensitivity and Magnitude



LEGEND

- Direction of potential visible Development Footprint (based on topography alone)
- Extent of potential visible Development Footprint (based on topography alone)
- Direction of the Wireframe
- Extent of Panorama
- Location of the viewpoint
- Extent potentially screened by existing vegetation confirmed against site conditions.
- Extent potentially fragmented by existing vegetation confirmed against site conditions.

Aerial Image - Wireframe Location (Aerial Image Source: Google Earth 2022)

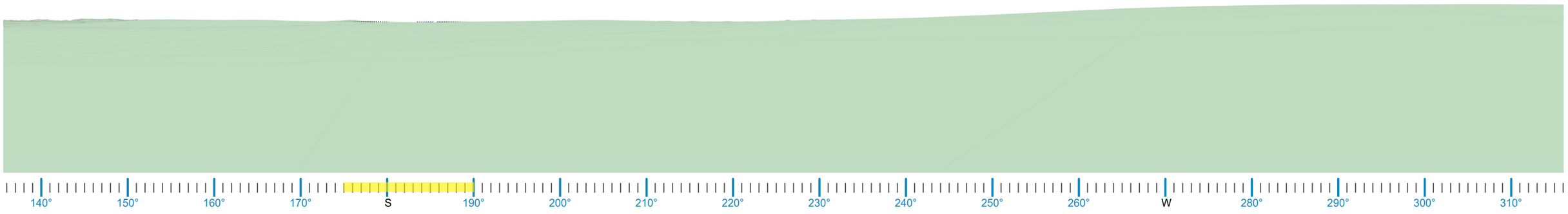
Residential Receptor D3-7

Receptor Assessment:

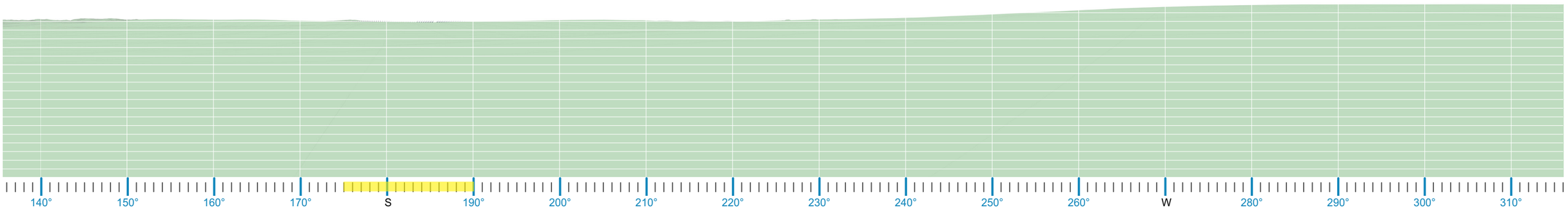
This receptor is located approximately 1.08 km north of the Project. An assessment based on topography alone suggests that the views to the majority of the Project will be contained by topography with a small portion visible approximately between 175º - 190º horizontal field of view. A site visit was undertaken with permission of the land owner in August 2023 which suggest that the dwelling faces a northwest - southeast direction with primary views to the northeast - southwest. The aerial suggests that there is no vegetation in the near curtilage of the dwelling however, vegetation located beyond the curtilage to the south has the potential to screen the view towards the Project. A Wireframe was prepared to demonstrate the potential visual impacts associated with the Project. It is noted that the Wireframe represents a worst-case scenario and does not consider existing screen factors such as vegetation or structures. The Wireframe found that 0 cells have the potential to be occupied by the Project, which is a **very low** magnitude rating according to the technical supplement. When combined with the overall sensitivity of **moderate**, results in a **low** preliminary visual impact rating.

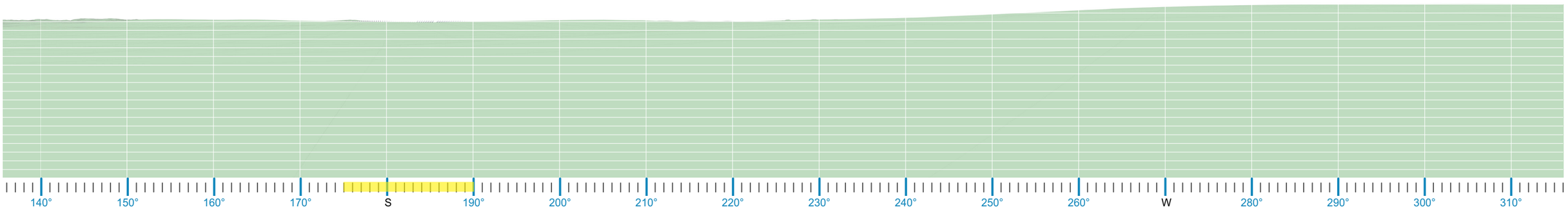
Coordinates	Distance to development:	Viewpoint Type:	Receptor Sensitivity:	Scenic Quality:	Overall Sensitivity:	Occupied Cells:	Magnitude Rating:	Preliminary Visual Impact Rating:
29°05’05.93”S 153°04’05.96”E	1.08 km	Residential Receptor	Moderate (RU1)	Low	Moderate	0	Very Low	Low

Residential Receptor D3-7 - Sensitivity and Magnitude



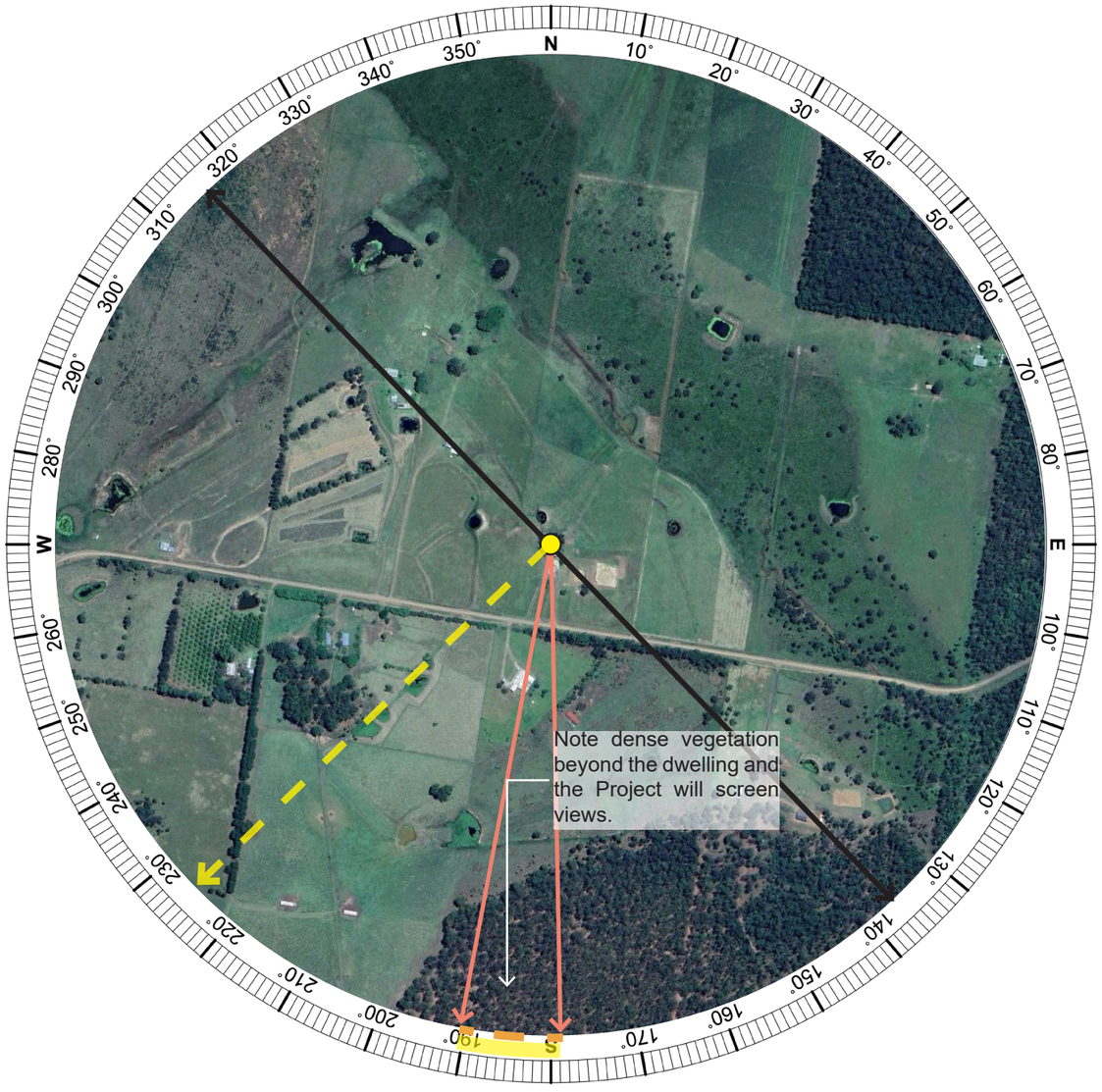
Extent of potentially visible solar panels (based on topography alone)





Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

Residential Receptor D3-12 - Sensitivity and Magnitude



LEGEND

- Direction of potential visible Development Footprint (based on topography alone)
- Extent of potential visible Development Footprint (based on topography alone)
- Direction of the Wireframe
- Extent of Panorama
- Location of the viewpoint
- Extent potentially screened by existing vegetation confirmed against site conditions.
- Extent potentially fragmented by existing vegetation confirmed against site conditions.

Aerial Image - Wireframe Location (Aerial Image Source: Google Earth 2022)

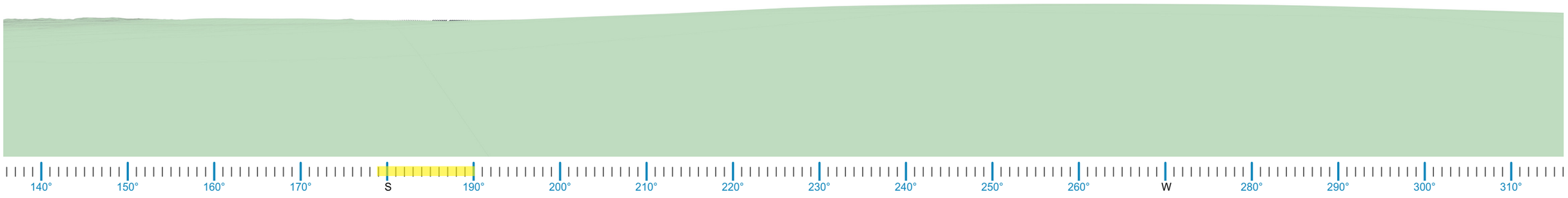
Residential Receptor D3-12

Receptor Assessment:

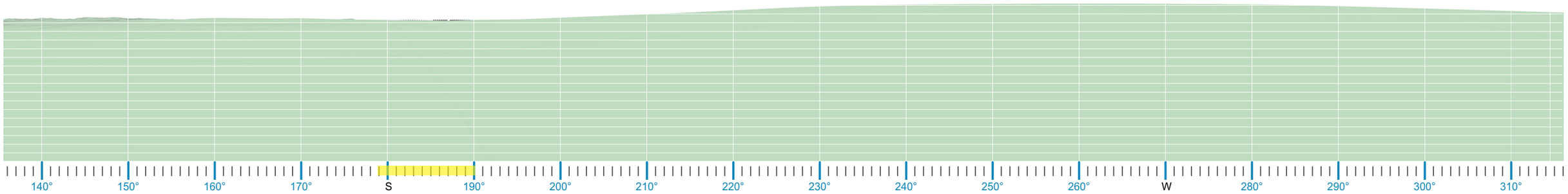
This receptor is located approximately 1.28 km north of the Project. An assessment based on topography alone suggests that the views to the majority of the Project will be contained by topography with a small portion visible approximately between 179º - 190º horizontal field of view. Site investigations suggest that the dwelling faces a north - south direction with primary views to the east. The aerial suggests that there are buildings to the south of the dwelling with some scattered patches of vegetation to the south east. Vegetation located beyond the curtilage to the south along Avenue Road along with the dense patch of vegetation to the south has the potential to screen the view towards solar panels in this direction. As access was not granted for this dwelling, a wireframe was prepared to demonstrate the potential visual impacts associated with the Project. It is noted that the Wireframe represents a worst-case scenario and does not consider existing screen factors such as vegetation or structures. The Wireframe found that 0 cells have the potential to be occupied by the Project, which is a **very low** magnitude rating according to the technical supplement. When combined with the overall sensitivity of **moderate**, results in a **low** preliminary visual impact rating.

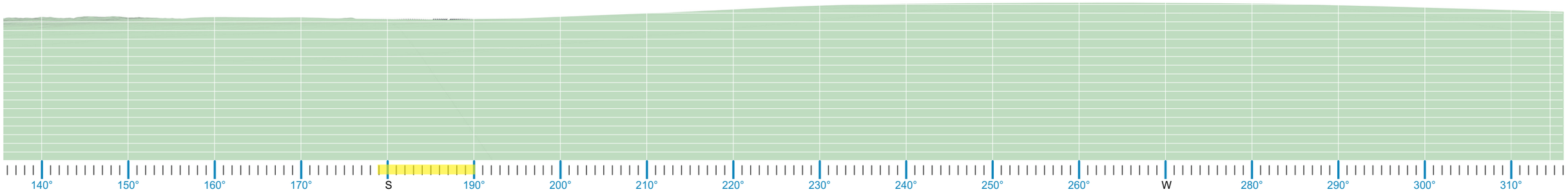
Coordinates	Distance to development:	Viewpoint Type:	Receptor Sensitivity:	Scenic Quality:	Overall Sensitivity:	Occupied Cells:	Magnitude Rating:	Preliminary Visual Impact Rating:
29°04’59.51”S 153°04’08.04”E	1.28 km	Residential Receptor	Moderate (RU1)	Low	Moderate	0	Very Low	Low

Residential Receptor D3-12 - Sensitivity and Magnitude



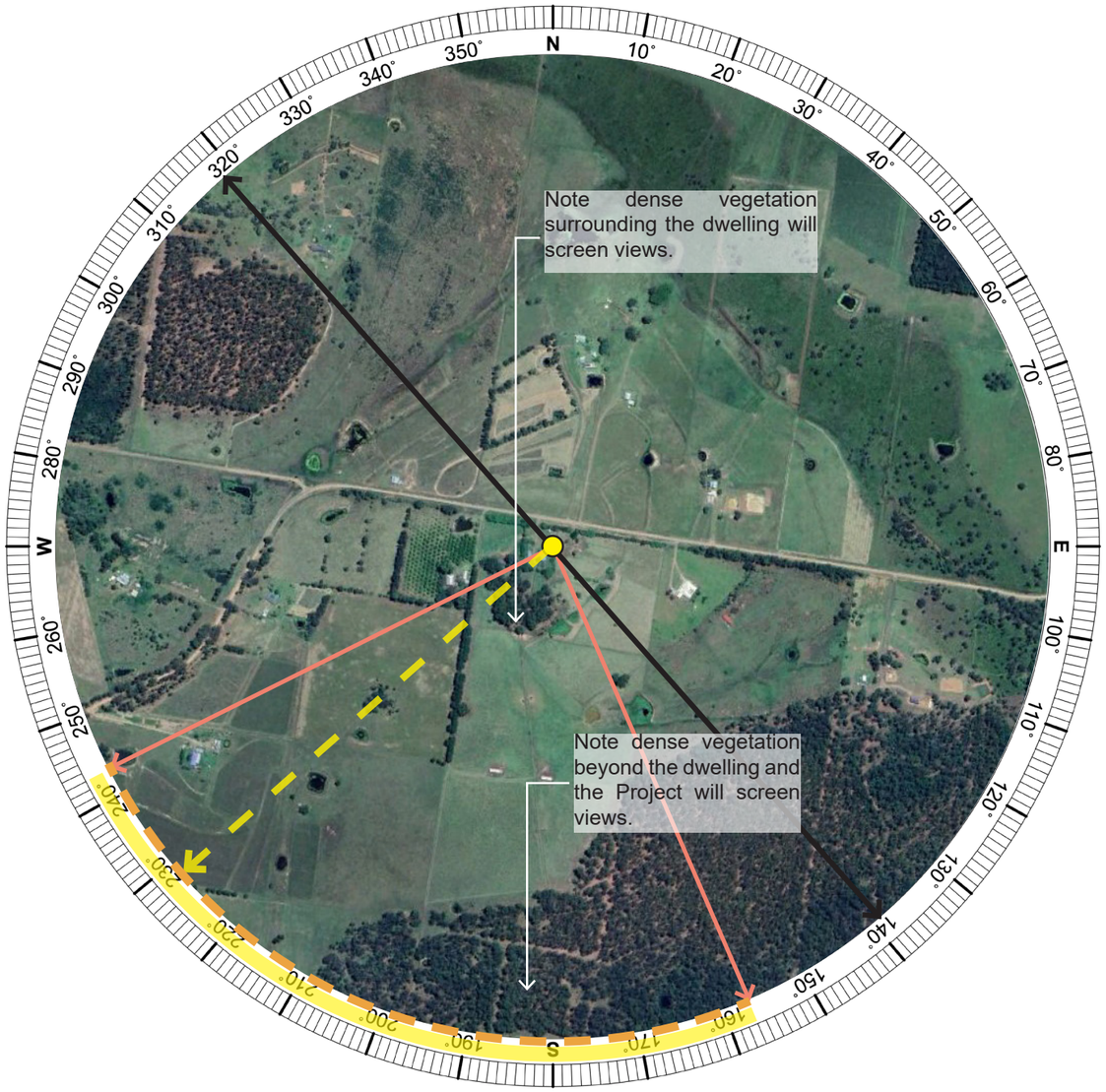
Extent of potentially visible solar panels (based on topography alone)





Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

Residential Receptor D3-6 - Sensitivity and Magnitude



LEGEND

- Direction of potential visible Development Footprint (based on topography alone)
- Extent of potential visible Development Footprint (based on topography alone)
- Direction of the Wireframe
- Extent of Panorama
- Location of the viewpoint
- Extent potentially screened by existing vegetation confirmed against site conditions.
- Extent potentially fragmented by existing vegetation confirmed against site conditions.

Aerial Image - Wireframe Location (Aerial Image Source: Google Earth 2022)

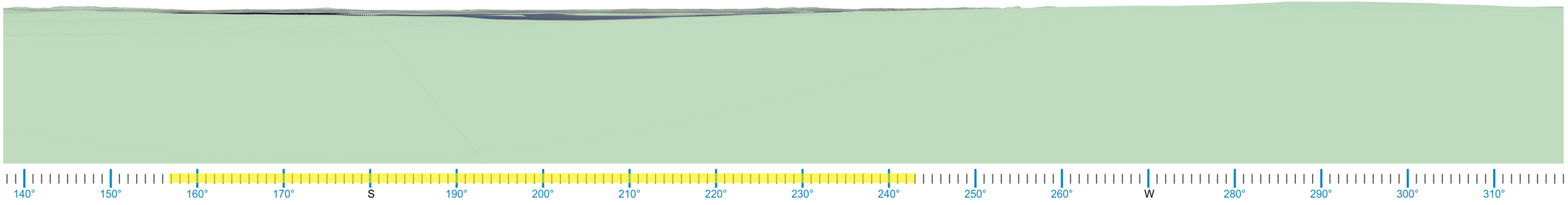
Residential Receptor D3-6

Receptor Assessment:

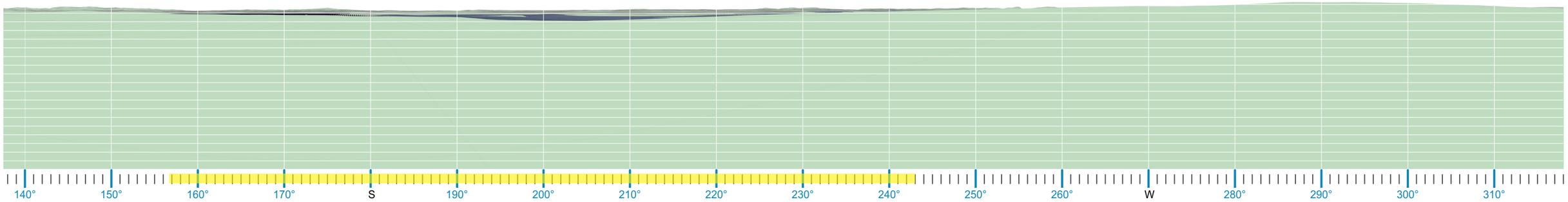
This receptor is located approximately 1.10 km northeast of the Project. An assessment based on topography alone suggests that the Project will be visible approximately between 157º - 243º horizontal field of view. A site visit was undertaken with permission of the land owner in August 2023 which suggest that the dwelling faces a north - south direction with primary views to the north. The aerial suggests that there is dense vegetation in the near curtilage of the dwelling which has the potential to screen the view towards solar panels to the southwest. A Wireframe was prepared to demonstrate the potential visual impacts associated with the Project. It is noted that the Wireframe represents a worst-case scenario and does not consider existing screen factors such as vegetation or structures. The Wireframe found that 8 cells have the potential to be occupied by the Project, which is a **low** magnitude rating according to the technical supplement. When combined with the overall sensitivity of **moderate**, results in a **low** preliminary visual impact rating. It is likely that due to the condition of the vegetation character, the number of potential cells that are occupied is likely to reduce to 0.

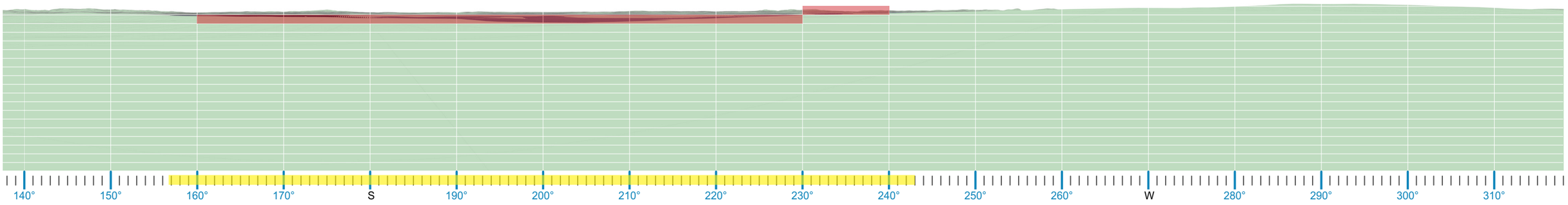
Coordinates	Distance to development:	Viewpoint Type:	Receptor Sensitivity:	Scenic Quality:	Overall Sensitivity:	Occupied Cells:	Magnitude Rating:	Preliminary Visual Impact Rating:
29°05’03.83”S 153°03’56.04”E	1.10 km	Residential Receptor	Moderate (RU1)	Low	Moderate	8	Low	Low

Residential Receptor D3-6 - Sensitivity and Magnitude



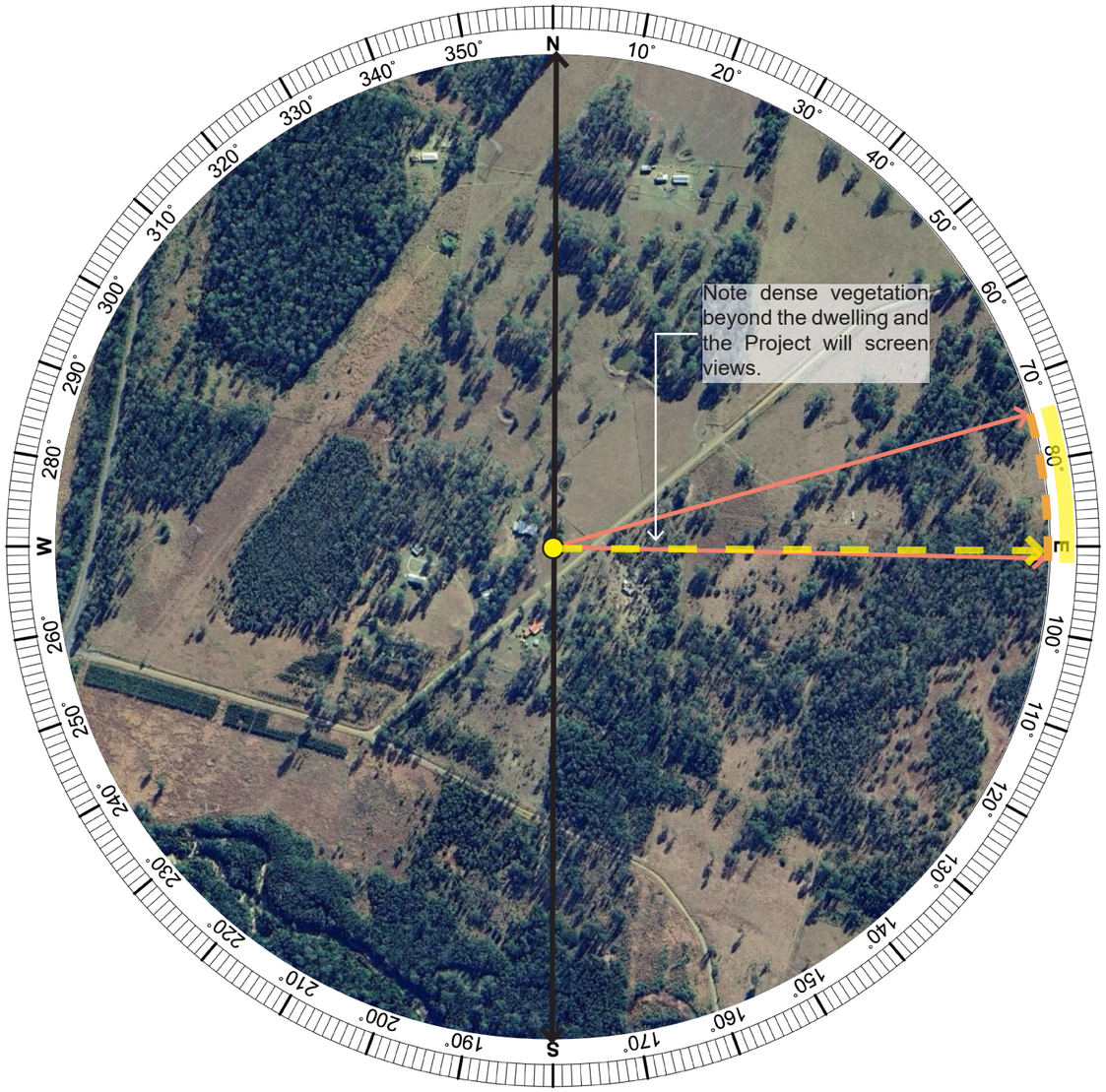
Extent of potentially visible solar panels (based on topography alone)





Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

Residential Receptor C3-20 - Sensitivity and Magnitude



LEGEND

- Direction of potential visible Development Footprint (based on topography alone)
- Extent of potential visible Development Footprint (based on topography alone)
- Direction of the Wireframe
- Extent of Panorama
- Location of the viewpoint
- Extent potentially screened by existing vegetation confirmed against site conditions.
- Extent potentially fragmented by existing vegetation confirmed against site conditions.

Aerial Image - Wireframe Location (Aerial Image Source: Google Earth 2022)

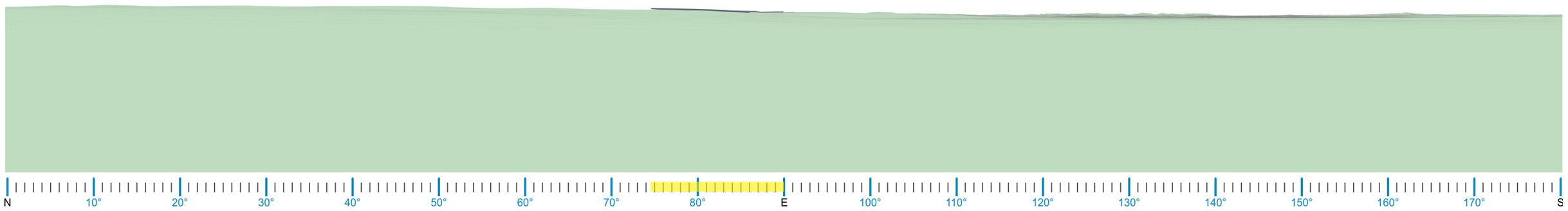
Residential Receptor C3-20

Receptor Assessment:

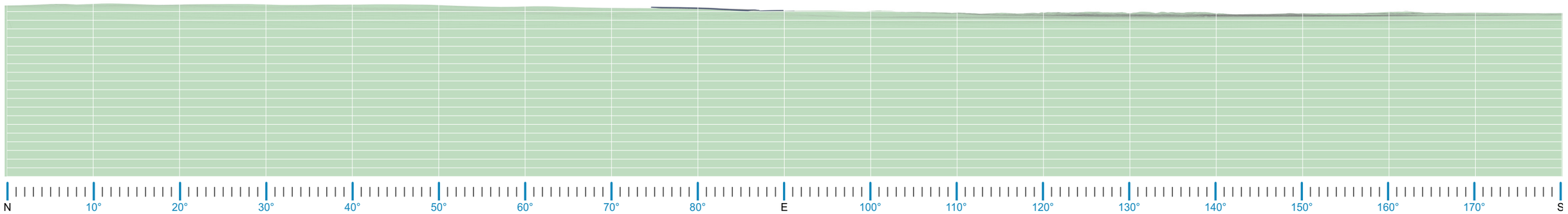
This receptor is located approximately 1.15 km west of the Project. An assessment based on topography alone suggests that the Project will be visible approximately between 74º - 92º horizontal field of view. A site visit was undertaken with permission of the land owner in August 2023 which suggest that the dwelling faces a north - south direction with primary views to the north and south . The aerial suggests that there is dense vegetation in the near curtilage of the dwelling which has the potential to screen the view towards solar panels to the east. A Wireframe was prepared to demonstrate the potential visual impacts associated with the Project. It is noted that the Wireframe represents a worst-case scenario and does not consider existing screen factors such as vegetation or structures. The Wireframe found that 2 cells have the potential to be occupied by the Project, which is a **very low** magnitude rating according to the technical supplement. When combined with the overall sensitivity of **moderate**, results in a **low** preliminary visual impact rating.

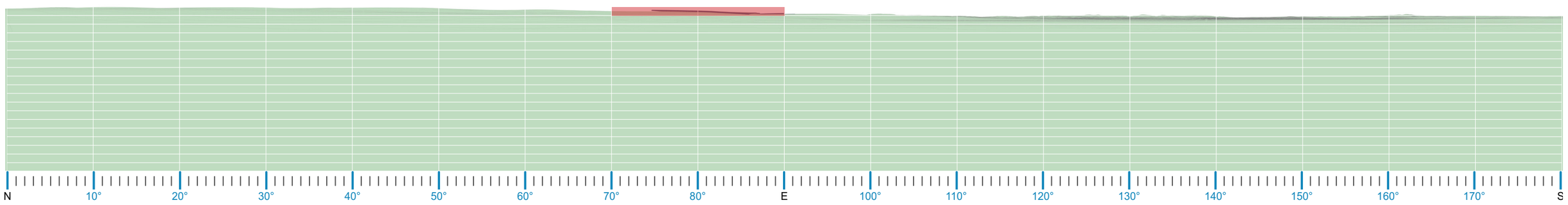
Coordinates	Distance to development:	Viewpoint Type:	Receptor Sensitivity:	Scenic Quality:	Overall Sensitivity:	Occupied Cells:	Magnitude Rating:	Preliminary Visual Impact Rating:
29°06’16.02”S 153°00’26.98”E	1.15 km	Residential Receptor	Moderate (RU1)	Low	Moderate	2	Very Low	Low

Residential Receptor C3-20 - Sensitivity and Magnitude



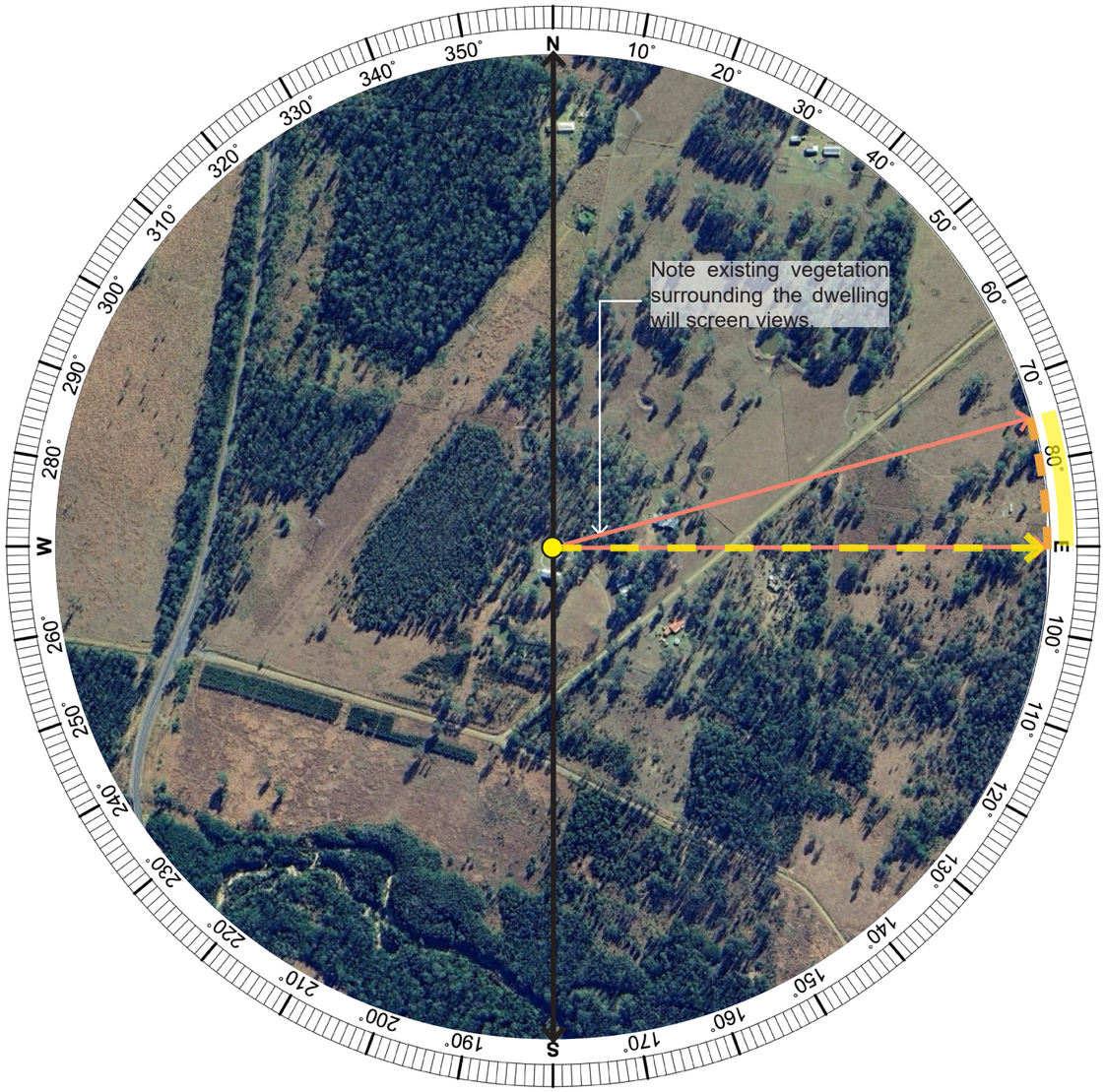
Extent of potentially visible solar panels (based on topography alone)





Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

Residential Receptor C3-6 - Sensitivity and Magnitude



LEGEND

- Direction of potential visible Development Footprint (based on topography alone)
- Extent of potential visible Development Footprint (based on topography alone)
- Direction of the Wireframe
- Extent of Panorama
- Location of the viewpoint
- Extent potentially screened by existing vegetation confirmed against site conditions.
- Extent potentially fragmented by existing vegetation confirmed against site conditions.

Aerial Image - Wireframe Location (Aerial Image Source: Google Earth 2022)

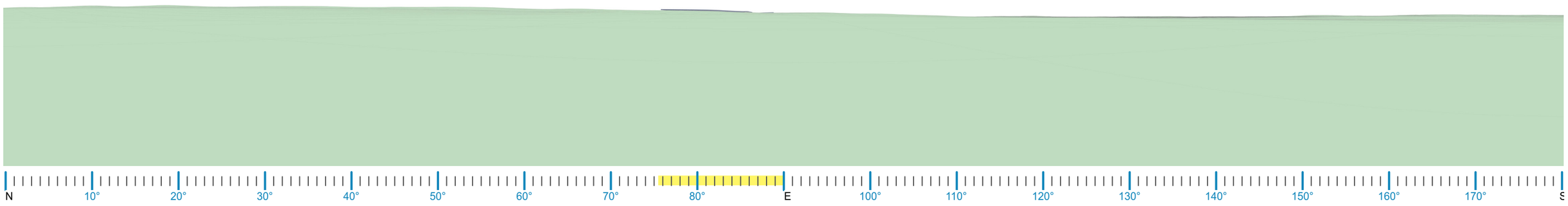
Residential Receptor C3-6

Receptor Assessment:

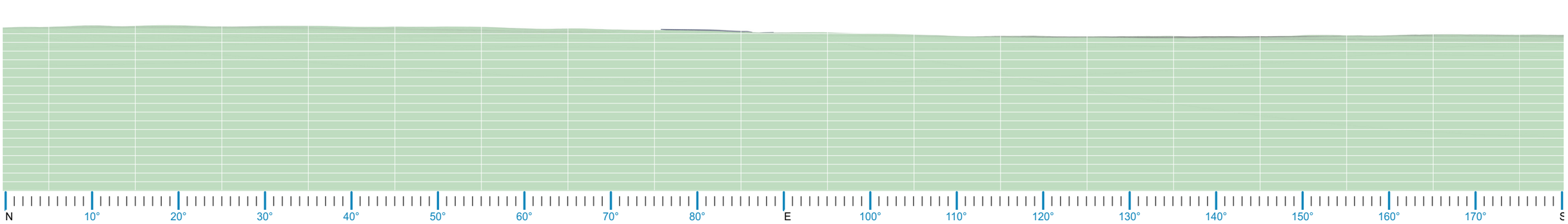
This receptor is located approximately 1.38 km west of the Project. An assessment based on topography alone suggests that the Project will be visible approximately between 75º - 90º horizontal field of view. A site visit was undertaken with permission of the land owner in August 2023 which suggest that the dwelling faces a generally north - south direction with primary views to the northeast . The aerial suggests dense vegetation surrounds the dwelling which has the potential to screen views toward the Project from this location. A Wireframe was prepared to demonstrate the potential visual impacts associated with the Project. It is noted that the Wireframe represents a worst-case scenario and does not consider existing screen factors such as vegetation or structures. The Wireframe found that 1 cell has the potential to be occupied by the Project, which is a **very low** magnitude rating according to the technical supplement. When combined with the overall sensitivity of **moderate**, results in a **low** preliminary visual impact rating.

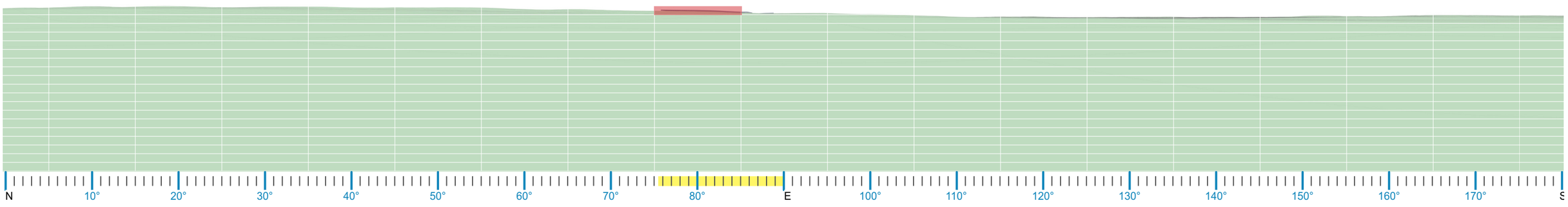
Coordinates	Distance to development:	Viewpoint Type:	Receptor Sensitivity:	Scenic Quality:	Overall Sensitivity:	Occupied Cells:	Magnitude Rating:	Preliminary Visual Impact Rating:
29° 6’15.76”S 153° 0’19.48”E	1.38 km	Residential Receptor	Moderate (RU1)	Low	Moderate	1	Very Low	Low

Residential Receptor C3-6 - Sensitivity and Magnitude



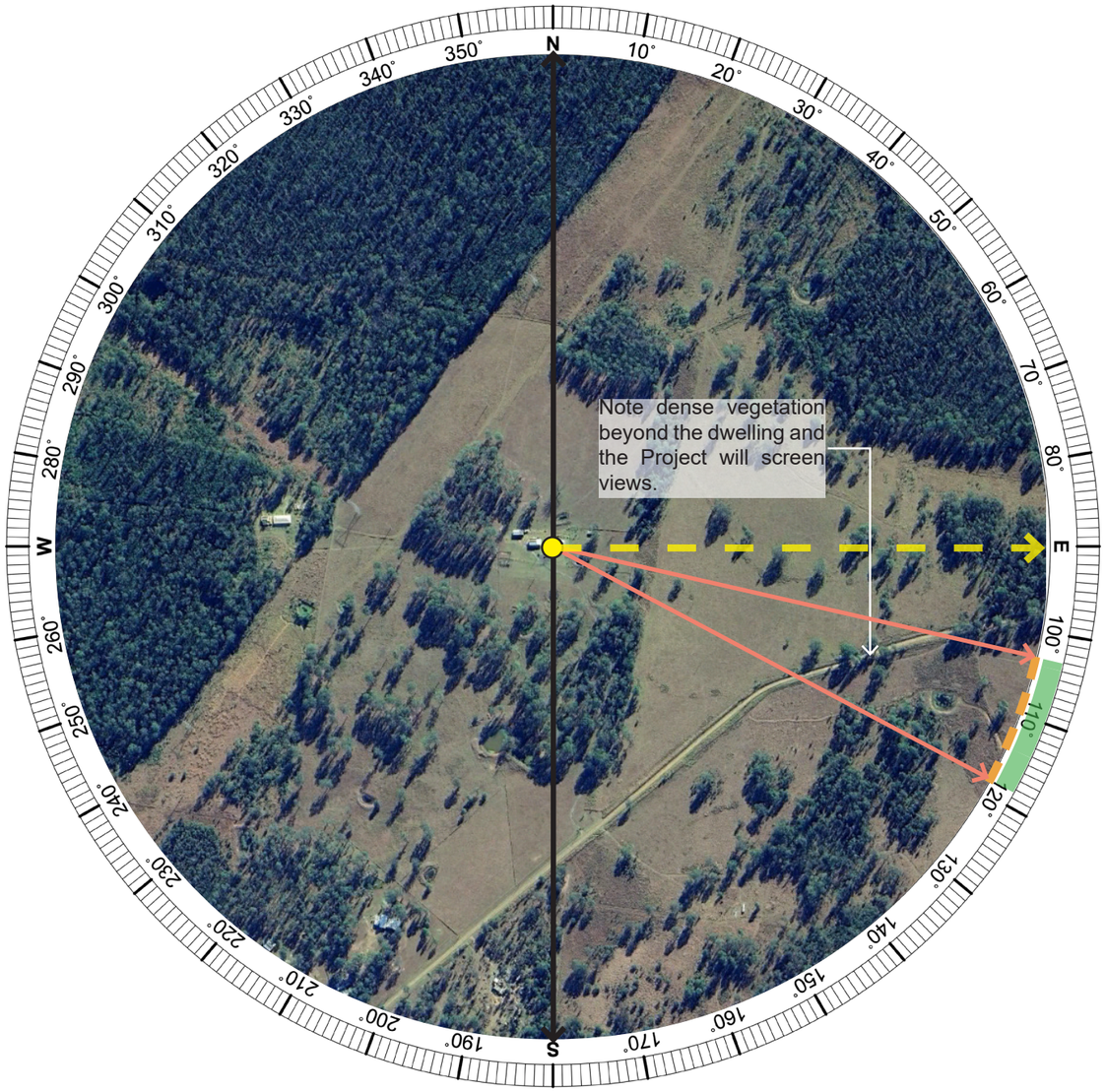
Extent of potentially visible solar panels (based on topography alone)





Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

Residential Receptor C3-11 - Sensitivity and Magnitude



LEGEND

- Direction of potential visible Development Footprint (based on topography alone)
- Extent of potential visible Development Footprint (based on topography alone)
- Direction of the Wireframe
- Extent of Panorama
- Location of the viewpoint
- Extent potentially screened by existing vegetation confirmed against site conditions.
- Extent potentially fragmented by existing vegetation confirmed against site conditions.

Aerial Image - Wireframe Location (Aerial Image Source: Google Earth 2022)

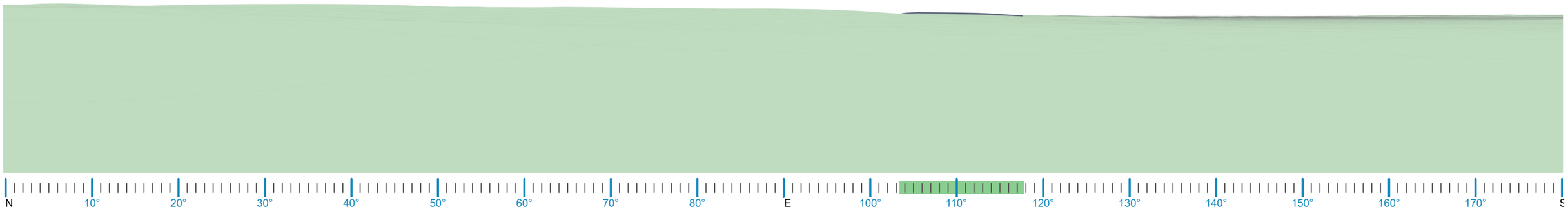
Residential Receptor C3-11

Receptor Assessment:

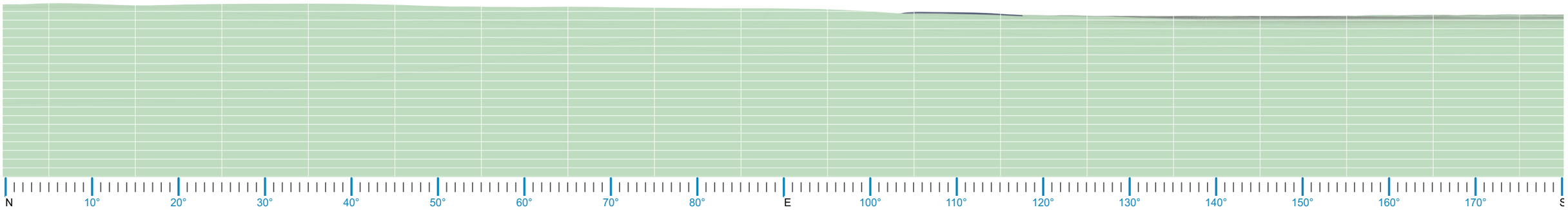
This receptor is located approximately 0.96 km west of the Project. An assessment based on topography alone suggests that the Project will be visible approximately between 103º - 118º horizontal field of view. A site visit was undertaken with permission of the land owner in August 2023 which suggest that the dwelling faces an east - west direction with primary views to the south . The aerial suggests that there is vegetation in the near curtilage of the dwelling to the east of the dwelling. Beyond this dense patches of vegetation are located beyond the curtilage to the east. A combination of these factors have the potential to screen the views towards the solar panels in this direction. A Wireframe was prepared to demonstrate the potential visual impacts associated with the Project. It is noted that the Wireframe represents a worst-case scenario and does not consider existing screen factors such as vegetation or structures. The Wireframe found that 1 cell has the potential to be occupied by the Project, which is a **very low** magnitude rating according to the technical supplement. When combined with the overall sensitivity of **moderate**, results in a **low** preliminary visual impact rating.

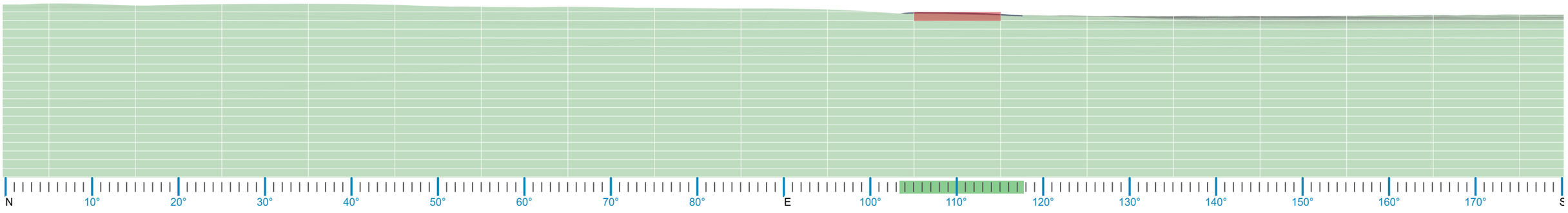
Coordinates	Distance to development:	Viewpoint Type:	Receptor Sensitivity:	Scenic Quality:	Overall Sensitivity:	Occupied Cells:	Magnitude Rating:	Preliminary Visual Impact Rating:
29° 5’56.24”S 153° 0’35.32”E	0.96 km	Residential Receptor	Moderate (RU1)	Low	Moderate	1	Very Low	Low

Residential Receptor C3-11 - Sensitivity and Magnitude



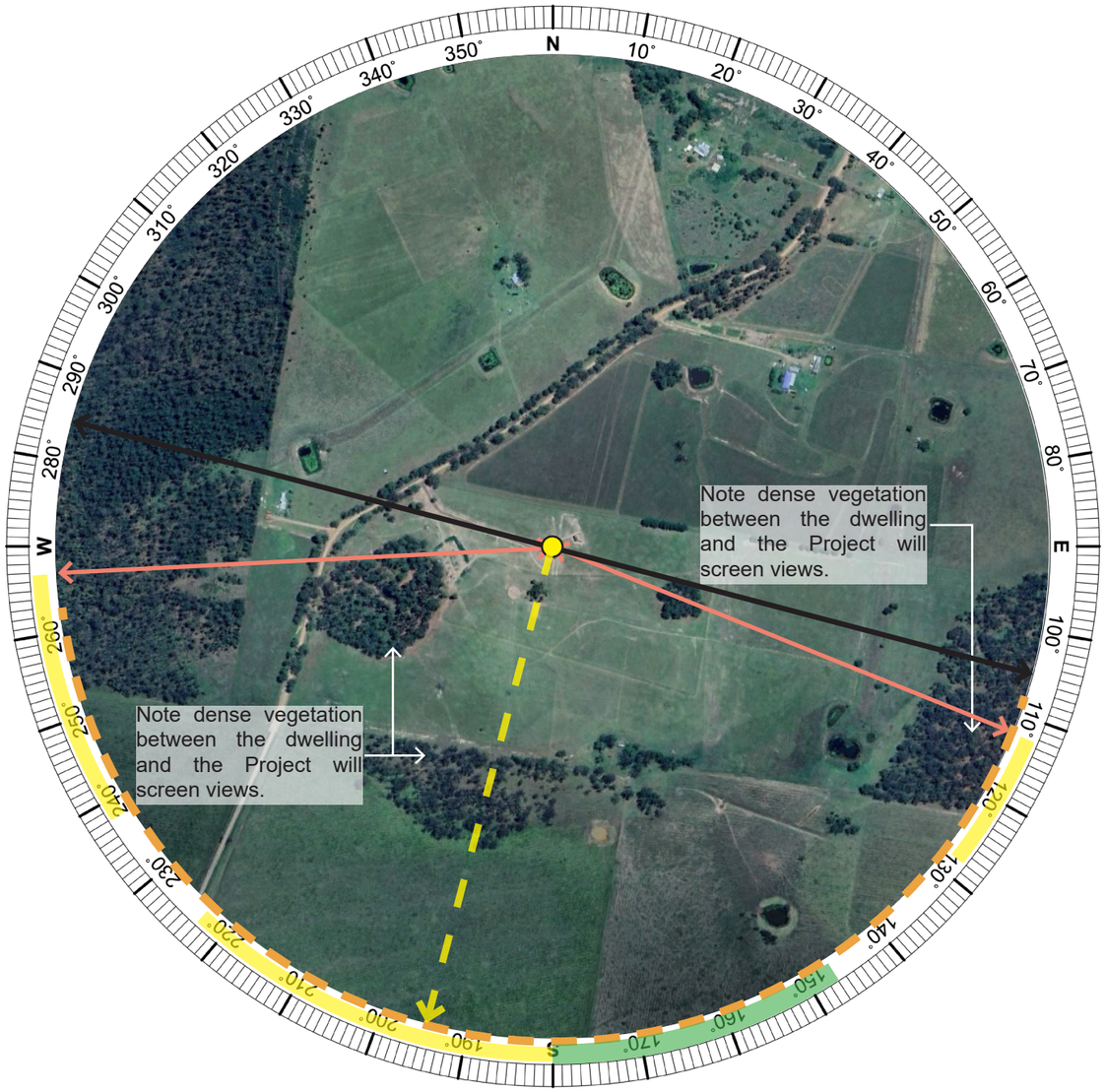
Extent of potentially visible solar panels (based on topography alone)





Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

Residential Receptor D3-47 - Sensitivity and Magnitude



LEGEND

- Direction of potential visible Development Footprint (based on topography alone)
- Extent of potential visible Development Footprint (based on topography alone)
- Direction of the Wireframe
- Extent of Panorama
- Location of the viewpoint
- Extent potentially screened by existing vegetation confirmed against site conditions.
- Extent potentially fragmented by existing vegetation confirmed against site conditions.

Aerial Image - Wireframe Location (Aerial Image Source: Google Earth 2022)

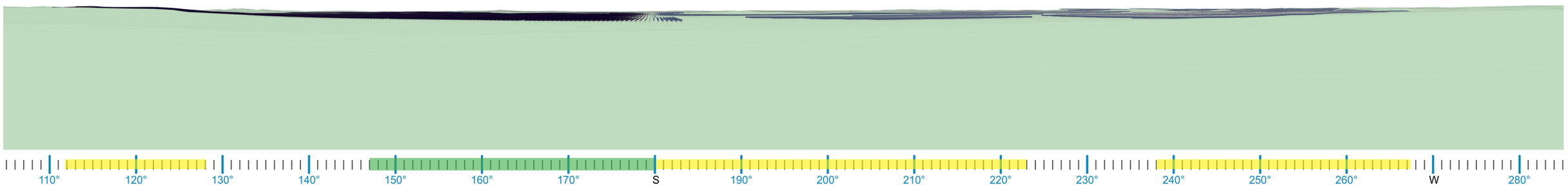
Residential Receptor D3-47

Receptor Assessment:

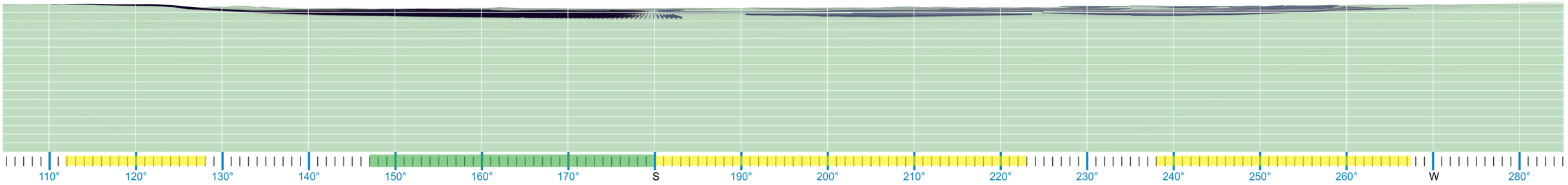
This receptor is located approximately 0.42 km north of the Project. An assessment based on topography alone suggests that the Project will be visible approximately between 112º - 266º horizontal field of view. The aerial suggests that the dwelling faces a generally east - west direction and that there is no vegetation in the near curtilage of the dwelling however, dense patches of vegetation are located beyond the curtilage to the southeast, south and southwest have the potential to screen portions of the view towards solar panels in these directions. A Wireframe was prepared to demonstrate the potential visual impacts associated with the Project. It is noted that the Wireframe represents a worst-case scenario and does not consider existing screen factors such as vegetation or structures. The Wireframe found that 27 cells have the potential to be occupied by the Project, which is a **high** magnitude rating according to the technical supplement. When combined with the overall sensitivity of **moderate**, results in a **moderate** preliminary visual impact rating. It is likely that due to the condition of the vegetation character, the number of potential cells that are occupied is likely to reduce. Moir LA was not granted permission to access dwelling D3-47. As a result, the detailed assessment utilises a combination of aerial imagery, wireframe analysis and a representative viewpoint (VP05) in lieu of a site visit to make assumptions on the likely influence of existing vegetation on the view to demonstrate the potential visual impacts (see PM09).

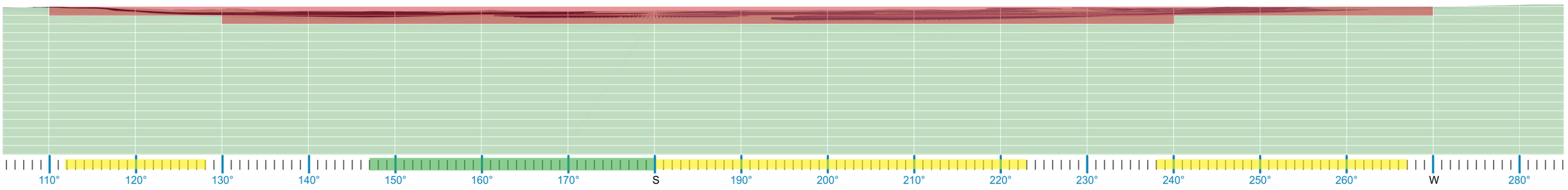
Coordinates	Distance to development:	Viewpoint Type:	Receptor Sensitivity:	Scenic Quality:	Overall Sensitivity:	Occupied Cells:	Magnitude Rating:	Preliminary Visual Impact Rating:
29° 5’24.78”S 153° 3’18.35”E	0.42 km	Residential Receptor	Moderate (RU1)	Low	Moderate	27	High	Moderate

Residential Receptor D3-47 - Sensitivity and Magnitude



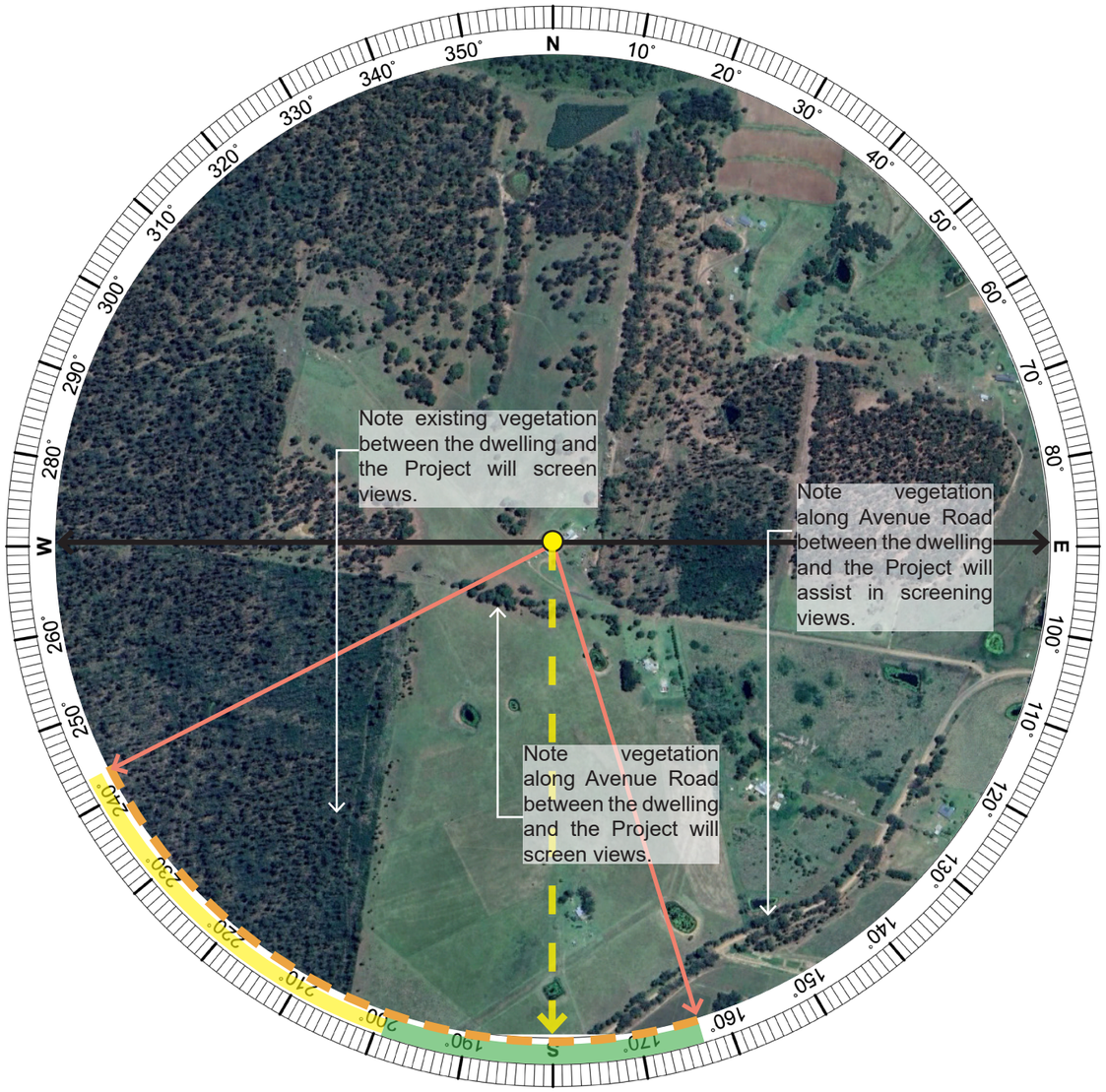
Extent of potentially visible solar panels (based on topography alone)





Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

Residential Receptor D3-8 - Sensitivity and Magnitude



LEGEND

- Direction of potential visible Development Footprint (based on topography alone)
- Extent of potential visible Development Footprint (based on topography alone)
- Direction of the Wireframe
- Extent of Panorama
- Location of the viewpoint
- Extent potentially screened by existing vegetation confirmed against site conditions.
- Extent potentially fragmented by existing vegetation confirmed against site conditions.

Aerial Image - Wireframe Location (Aerial Image Source: Google Earth 2022)

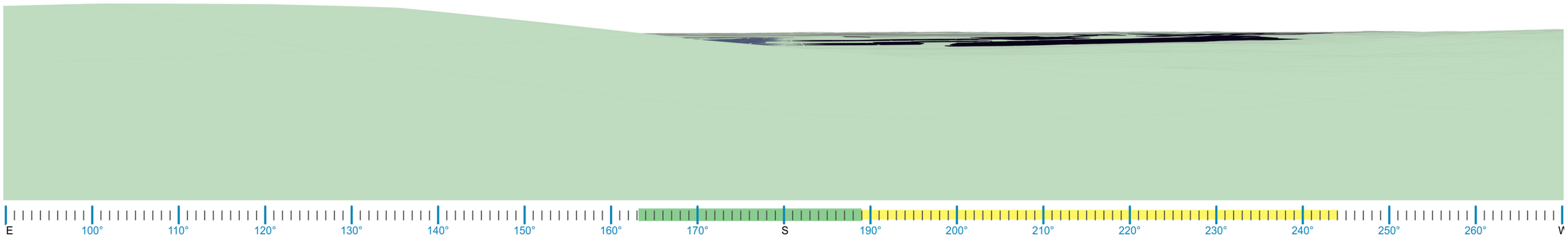
Residential Receptor D3-8

Receptor Assessment:

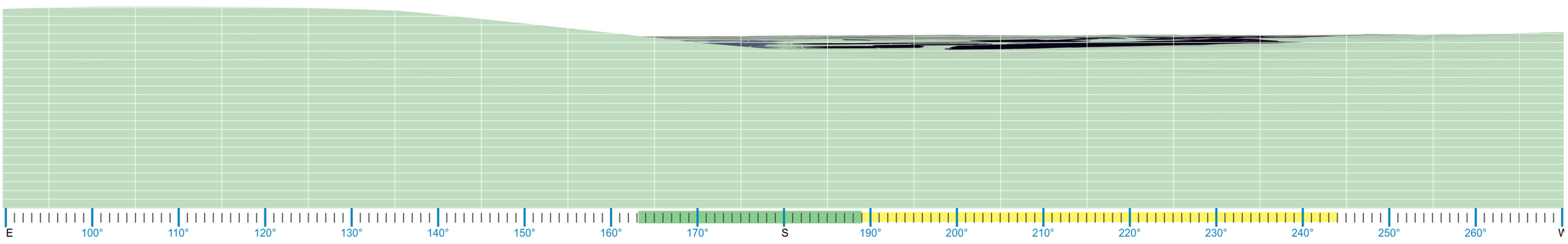
This receptor is located approximately 1.35 km north of the Project. An assessment based on topography alone suggests that the Project will be visible approximately between 163º - 243º horizontal field of view. A site visit was undertaken with permission of the land owner in August 2023 which suggest that the dwelling faces a northeast - southwest direction with primary views to the northwest. The aerial suggests that there is vegetation in the near curtilage to the south and southeast of the dwelling. Beyond this, dense patches of vegetation are located beyond the curtilage to the south, southeast and southwest have the potential to screen portions of the view towards solar panels in these directions. A Wireframe was prepared to demonstrate the potential visual impacts associated with the Project. It is noted that the Wireframe represents a worst-case scenario and does not consider existing screen factors such as vegetation or structures. The Wireframe found that 16 cells have the potential to be occupied by the Project, which is a **moderate** magnitude rating according to the technical supplement. When combined with the overall sensitivity of **moderate**, results in a **moderate** preliminary visual impact rating. It is likely that due to the condition of the vegetation character, the number of potential cells that are occupied is likely to reduce. A photomontage will be prepared from this location to confirm the visual impact at this receptor (see PM07).

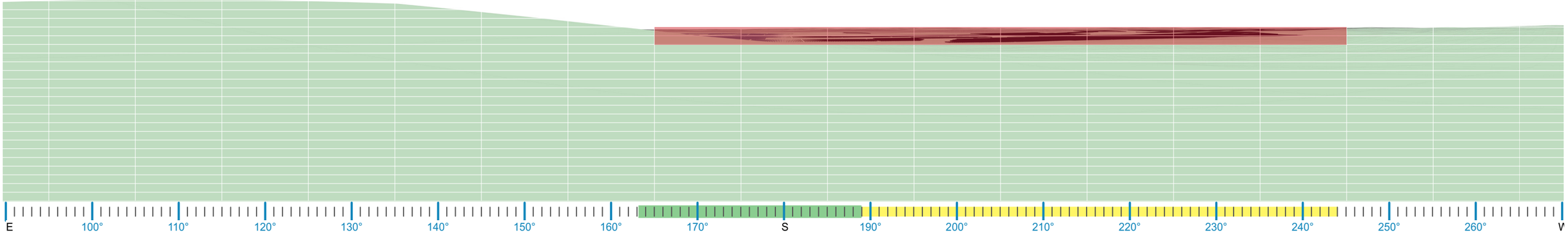
Coordinates	Distance to development:	Viewpoint Type:	Receptor Sensitivity:	Scenic Quality:	Overall Sensitivity:	Occupied Cells:	Magnitude Rating:	Preliminary Visual Impact Rating:
29° 4’53.42”S 153° 3’14.45”E	1.35 km	Residential Receptor	Moderate (RU1)	Low	Moderate	16	Moderate	Moderate

Residential Receptor D3-8 - Sensitivity and Magnitude



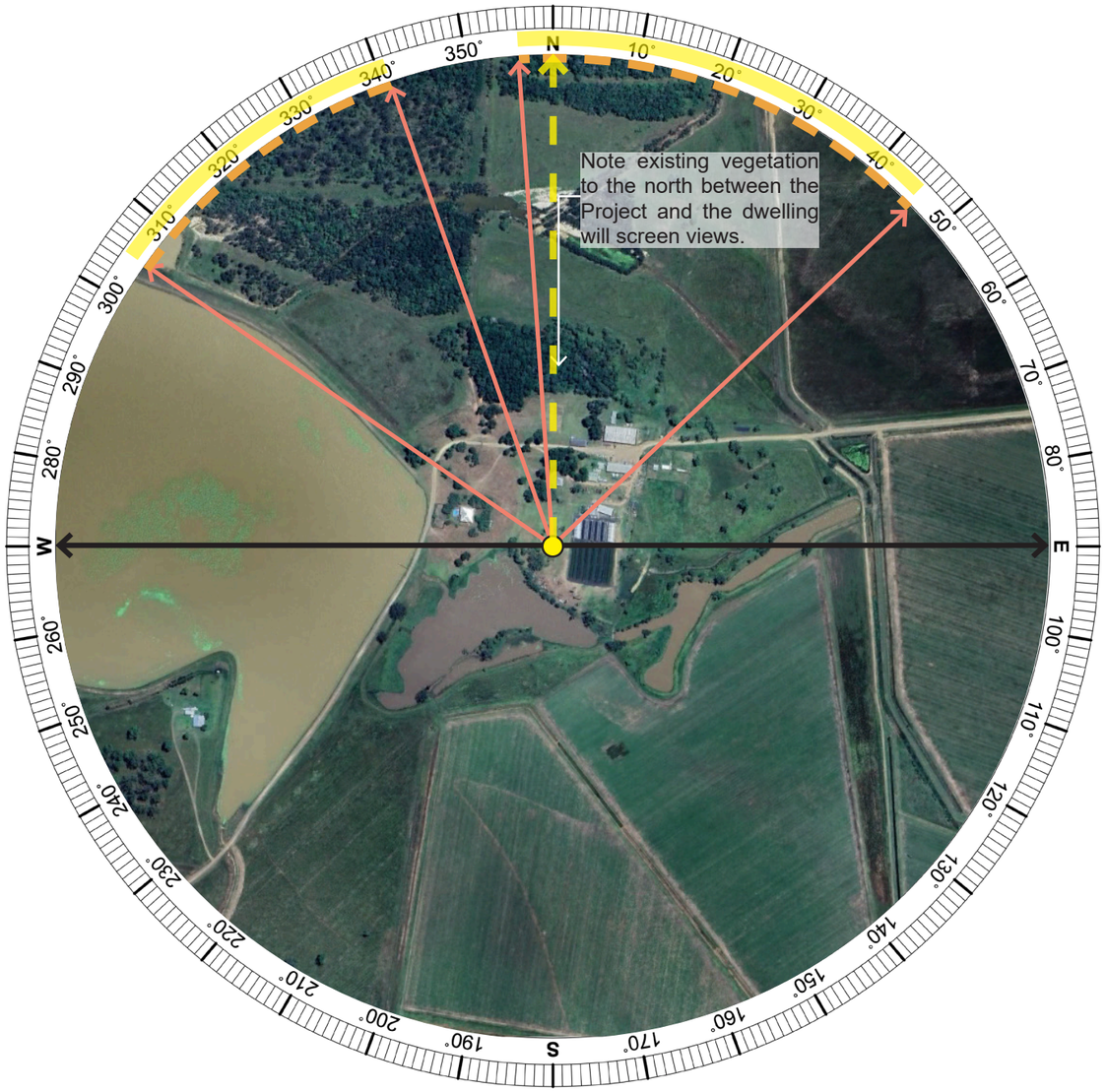
Extent of potentially visible solar panels (based on topography alone)





Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

Residential Receptor D4-10 - Sensitivity and Magnitude



LEGEND

- Direction of potential visible Development Footprint (based on topography alone)
- Extent of potential visible Development Footprint (based on topography alone)
- Direction of the Wireframe
- Extent of Panorama
- Location of the viewpoint
- Extent potentially screened by existing vegetation confirmed against site conditions.
- Extent potentially fragmented by existing vegetation confirmed against site conditions.

Aerial Image - Wireframe Location (Aerial Image Source: Google Earth 2022)

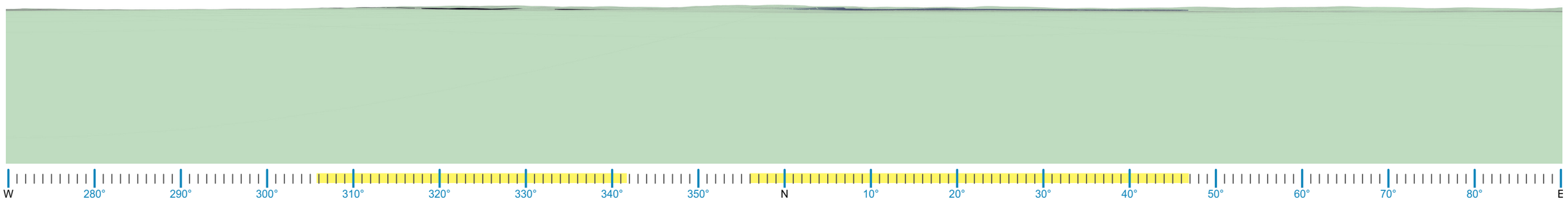
Residential Receptor D4-10

Receptor Assessment:

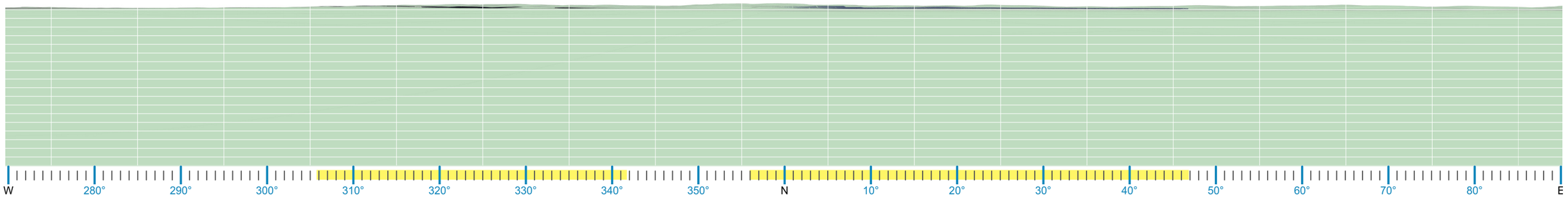
This receptor is located approximately 1.12 km south of the Project. An assessment based on topography alone suggests that topography limits opportunities to view the majority of the Project. Some portions may be visible approximately between 305º - 45º within the horizontal field of view. A site visit was undertaken with permission of the land owner in August 2023 which suggests that the dwelling is orientated east-west, with vegetation in the near curtilage of the dwelling to the northwest of the dwelling. Beyond this, dense vegetation is located beyond the curtilage to the north. A combination of these factors have the potential to screen the views towards the solar panels in this direction. A Wireframe was prepared to demonstrate the potential visual impacts associated with the Project. It is noted that the Wireframe represents a worst-case scenario and does not consider existing screen factors such as vegetation or structures. The Wireframe found that 7 cells have the potential to be occupied by the Project, which is a **low** magnitude rating according to the technical supplement. When combined with the overall sensitivity of **moderate**, results in a **low** preliminary visual impact rating.

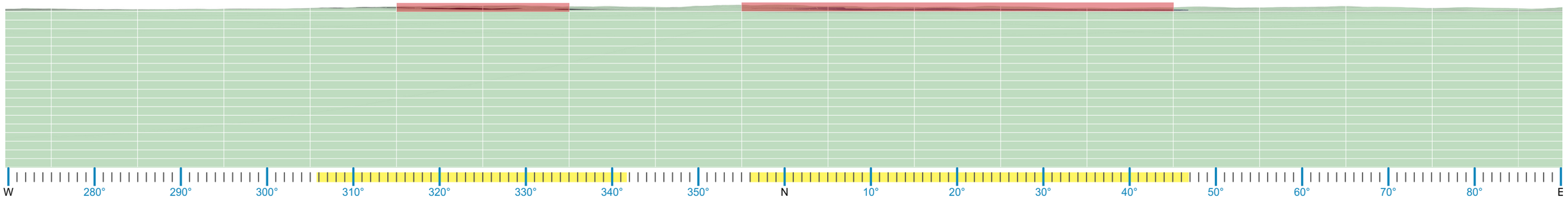
Coordinates	Distance to development:	Viewpoint Type:	Receptor Sensitivity:	Scenic Quality:	Overall Sensitivity:	Occupied Cells:	Magnitude Rating:	Preliminary Visual Impact Rating:
29° 7’55.81”S 153° 3’56.21”E	1.12 km	Residential Receptor	High (Heritage Item)	Low	Moderate	7	Low	Low

Residential Receptor D4-10 - Sensitivity and Magnitude



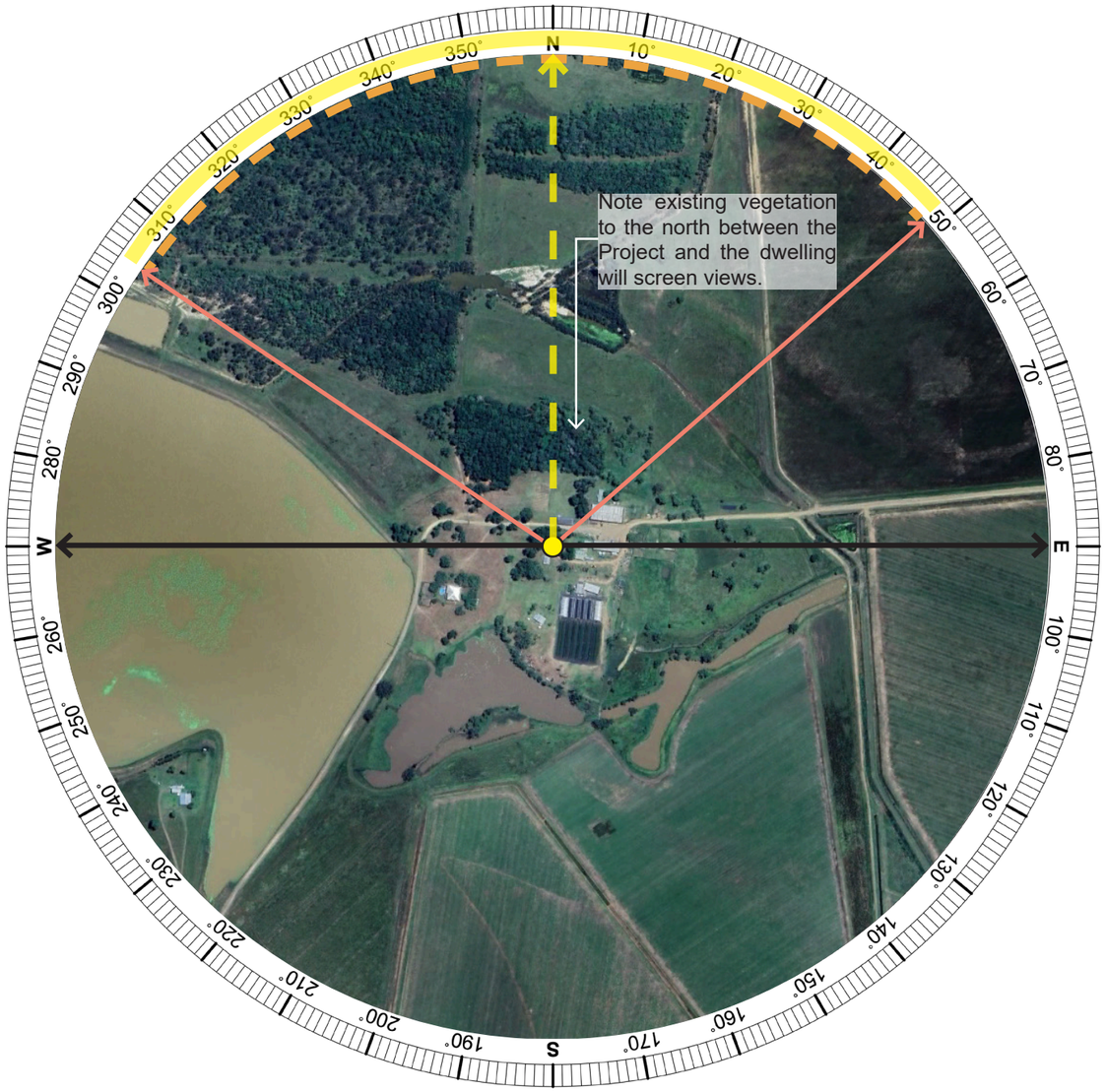
Extent of potentially visible solar panels (based on topography alone)





Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

Residential Receptor D4-23 - Sensitivity and Magnitude



LEGEND

- Direction of potential visible Development Footprint (based on topography alone)
- Extent of potential visible Development Footprint (based on topography alone)
- Direction of the Wireframe
- Extent of Panorama
- Location of the viewpoint
- Extent potentially screened by existing vegetation confirmed against site conditions.
- Extent potentially fragmented by existing vegetation confirmed against site conditions.

Aerial Image - Wireframe Location (Aerial Image Source: Google Earth 2022)

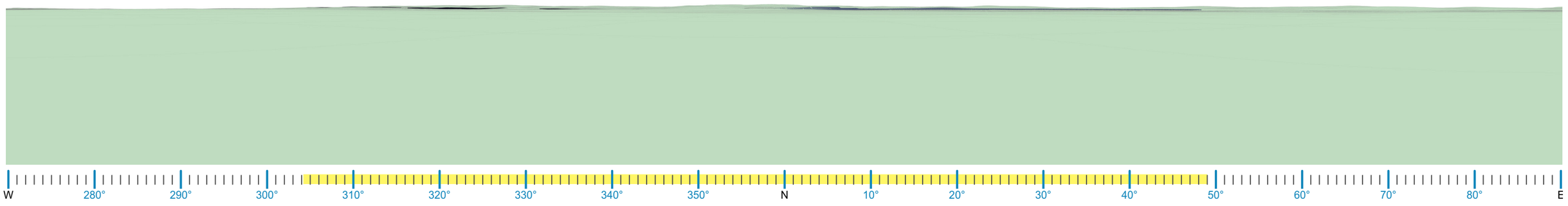
Residential Receptor D4-23

Receptor Assessment:

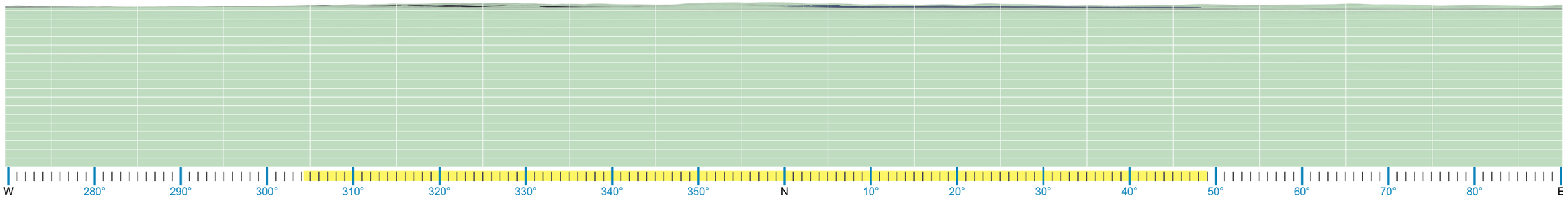
This receptor is located approximately 1.03 km south of the Project. An assessment based on topography alone suggests that topography limits opportunities to view the majority of the Project. Some portions may be visible approximately between 305º - 48º within the horizontal field of view. A site visit was undertaken with permission of the land owner in August 2023 which suggests that there is vegetation in the near curtilage of the dwelling to the north of the dwelling. Beyond this, dense vegetation is located beyond the curtilage further to the north. A combination of these factors have the potential to screen the views towards the solar panels in this direction. A Wireframe was prepared to demonstrate the potential visual impacts associated with the Project. It is noted that the Wireframe represents a worst-case scenario and does not consider existing screen factors such as vegetation or structures. The Wireframe found that 7 cells have the potential to be occupied by the Project, which is a **low** magnitude rating according to the technical supplement. When combined with the overall sensitivity of **moderate**, results in a **low** preliminary visual impact rating.

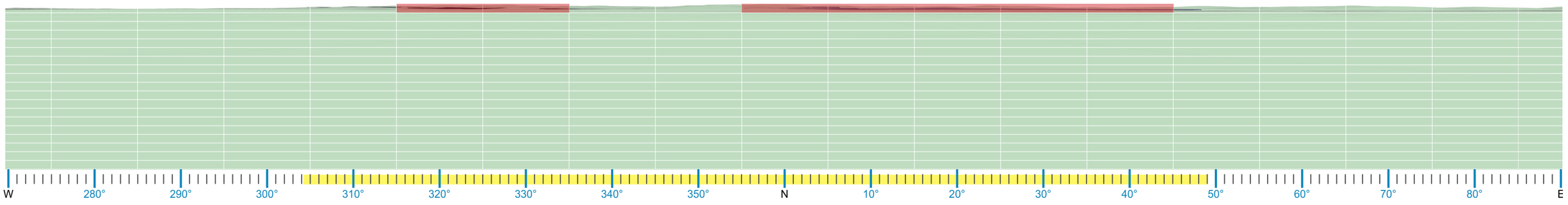
Coordinates	Distance to development:	Viewpoint Type:	Receptor Sensitivity:	Scenic Quality:	Overall Sensitivity:	Occupied Cells:	Magnitude Rating:	Preliminary Visual Impact Rating:
29° 7’52.83”S 153° 3’56.54”E	1.03 km	Residential Receptor	High (Heritage Item)	Low	Moderate	7	Low	Low

Residential Receptor D4-23 - Sensitivity and Magnitude



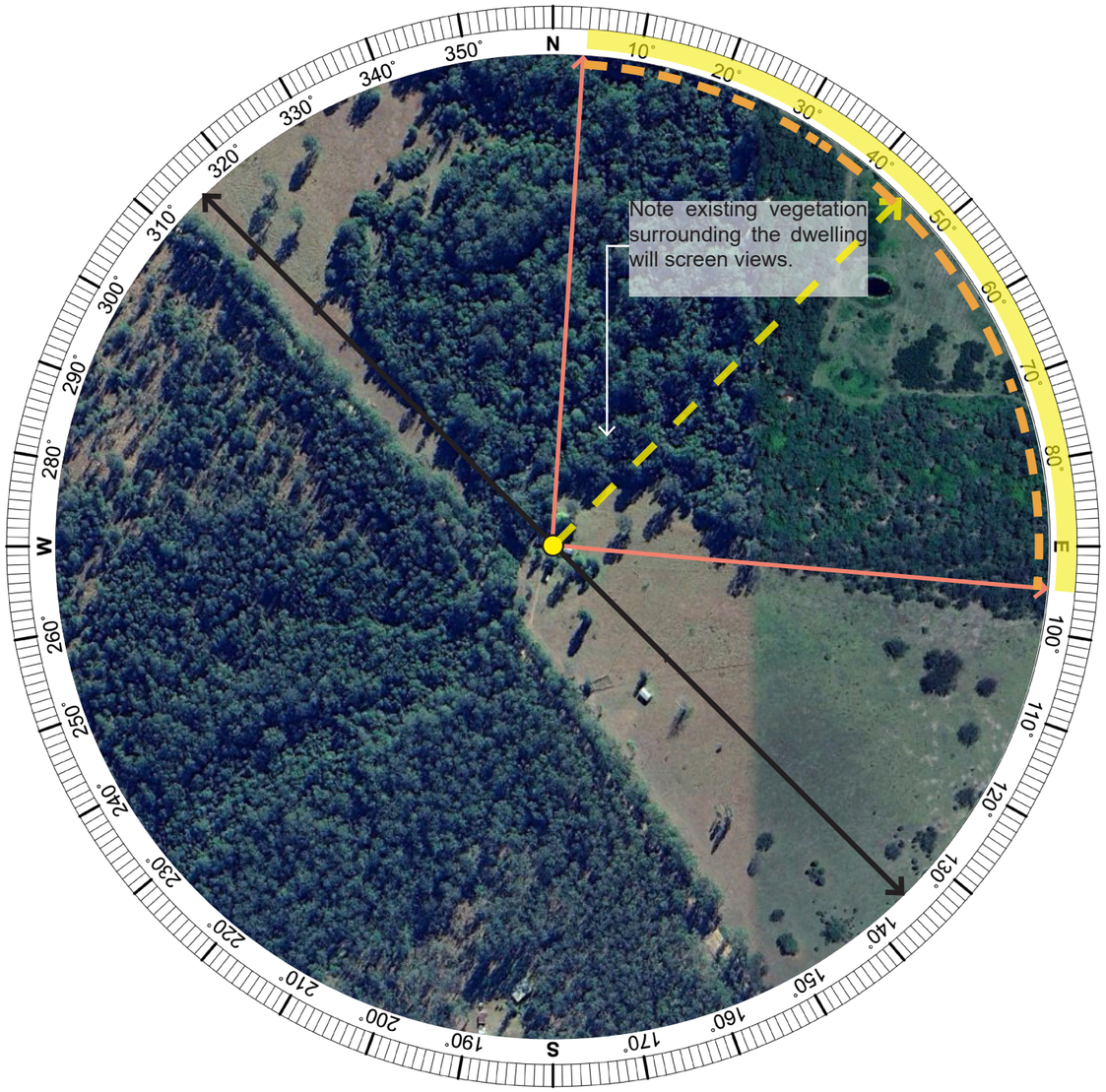
Extent of potentially visible solar panels (based on topography alone)





Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

Residential Receptor C4-1 - Sensitivity and Magnitude



LEGEND

- Direction of potential visible Development Footprint (based on topography alone)
- Extent of potential visible Development Footprint (based on topography alone)
- Direction of the Wireframe
- Extent of Panorama
- Location of the viewpoint
- Extent potentially screened by existing vegetation confirmed against site conditions.
- Extent potentially fragmented by existing vegetation confirmed against site conditions.

Aerial Image - Wireframe Location (Aerial Image Source: Google Earth 2022)

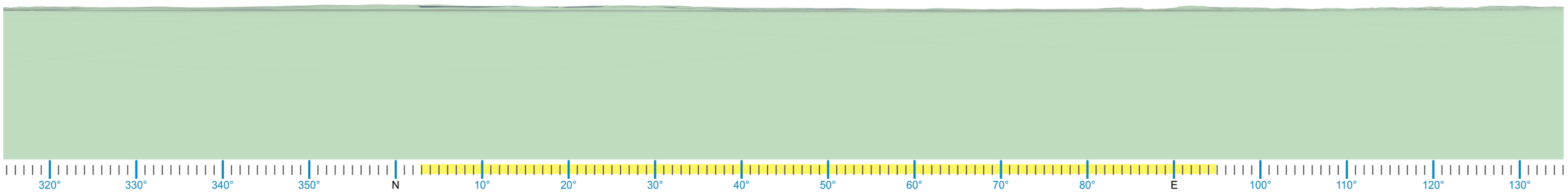
Residential Receptor C4-1

Receptor Assessment:

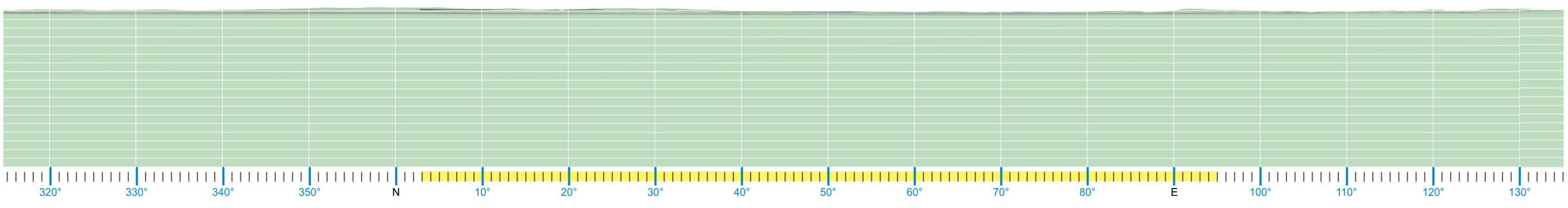
This receptor is located approximately 3.55 km south of the Project. An assessment based on topography alone suggests that topography limits opportunities to view the majority of the Project. Some portions may be visible within several sectors of the horizontal field of view. A site visit was undertaken with permission of the land owner in August 2023 which suggests that there is vegetation in the near curtilage of the dwelling to the north of the dwelling. Beyond this, dense vegetation is located beyond the curtilage further to the northeast. A combination of these factors have the potential to screen the views towards the solar panels in this direction. A Wireframe was prepared to demonstrate the potential visual impacts associated with the Project. It is noted that the Wireframe represents a worst-case scenario and does not consider existing screen factors such as vegetation or structures. The Wireframe found that 3 cells have the potential to be occupied by the Project, which is a **very low** magnitude rating according to the technical supplement. When combined with the overall sensitivity of **moderate**, results in a **low** preliminary visual impact rating.

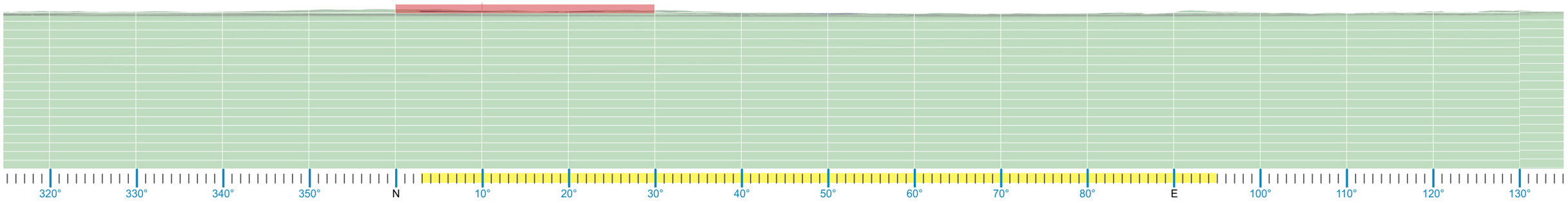
Coordinates	Distance to development:	Viewpoint Type:	Receptor Sensitivity:	Scenic Quality:	Overall Sensitivity:	Occupied Cells:	Magnitude Rating:	Preliminary Visual Impact Rating:
29° 7’52.36”S 153° 3’56.54”E	3.55 km	Residential Receptor	Moderate (RU1)	Low	Moderate	3	Very Low	Low

Residential Receptor C4-1 - Sensitivity and Magnitude



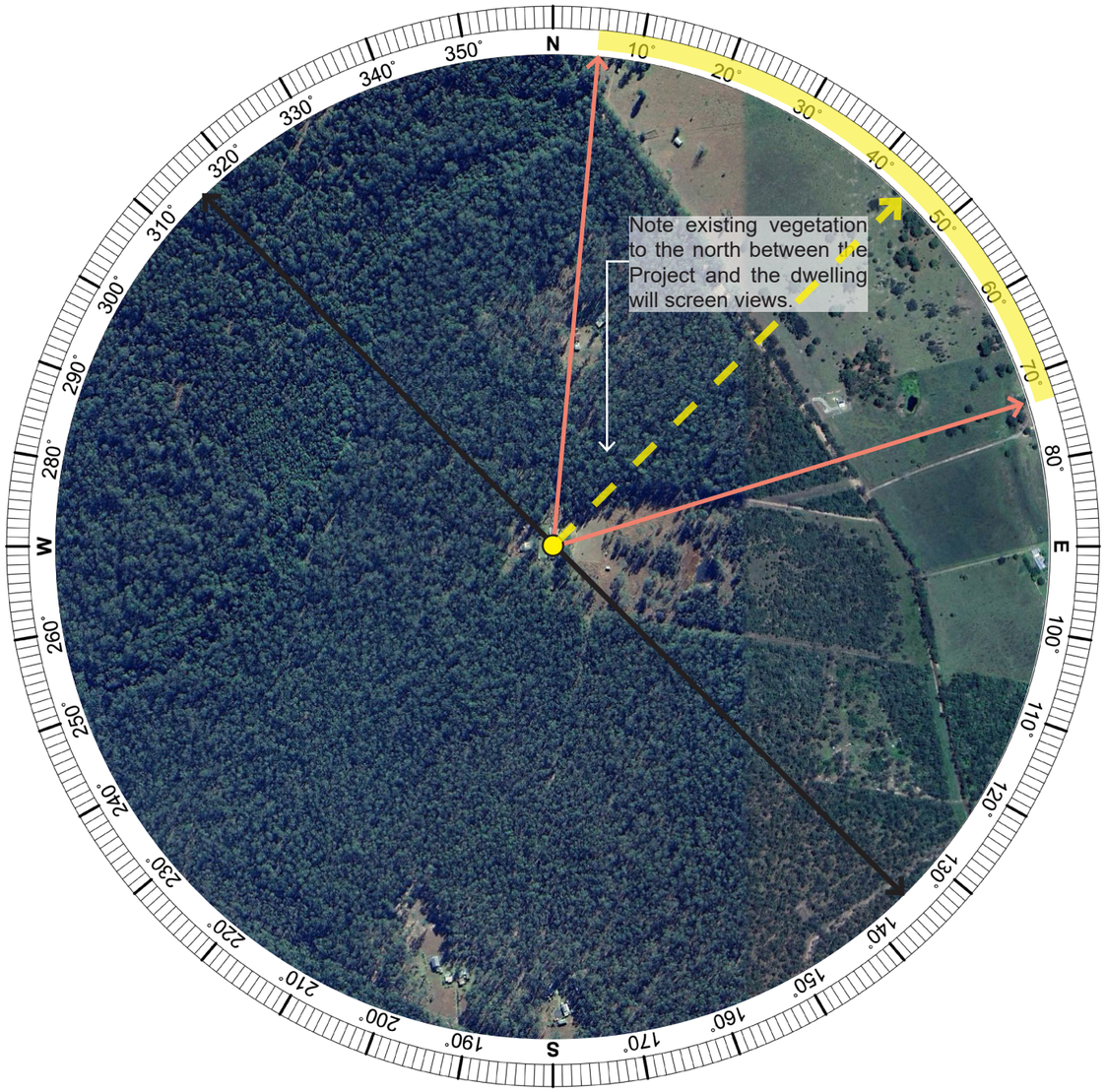
Extent of potentially visible solar panels (based on topography alone)





Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

Residential Receptor C4-15 - Sensitivity and Magnitude



LEGEND

- Direction of potential visible Development Footprint (based on topography alone)
- Extent of potential visible Development Footprint (based on topography alone)
- Direction of the Wireframe
- Extent of Panorama
- Location of the viewpoint
- Extent potentially screened by existing vegetation confirmed against site conditions.
- Extent potentially fragmented by existing vegetation confirmed against site conditions.

Aerial Image - Wireframe Location (Aerial Image Source: Google Earth 2022)

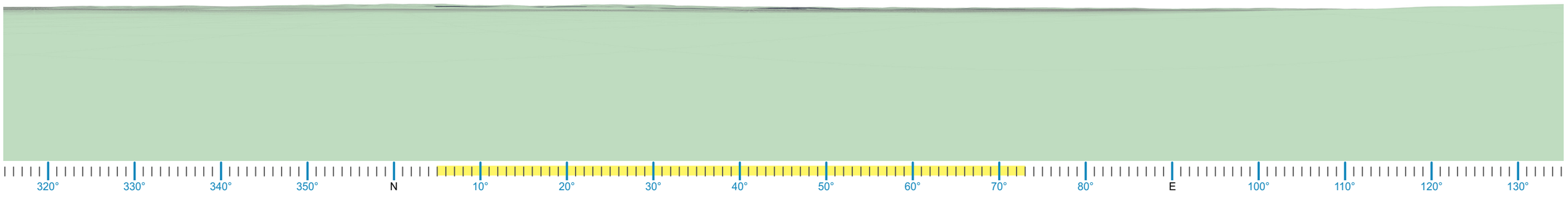
Residential Receptor C4-15

Receptor Assessment:

This receptor is located approximately 3.93 km south of the Project. An assessment based on topography alone suggests that topography limits opportunities to view the majority of the Project. Some portions may be visible within several sectors of the horizontal field of view. Aerial imagery assessment suggests that there is vegetation surrounding the dwelling. This vegetation has the potential to screen the views towards the solar panels. A Wireframe was prepared to demonstrate the potential visual impacts associated with the Project. It is noted that the Wireframe represents a worst-case scenario and does not consider existing screen factors such as vegetation or structures. The Wireframe found that 7 cells have the potential to be occupied by the Project, which is a **low** magnitude rating according to the technical supplement. When combined with the overall sensitivity of **moderate**, results in a **low** preliminary visual impact rating.

Coordinates	Distance to development:	Viewpoint Type:	Receptor Sensitivity:	Scenic Quality:	Overall Sensitivity:	Occupied Cells:	Magnitude Rating:	Preliminary Visual Impact Rating:
29° 8’19.59”S 153° 0’57.61”E	3.93 km	Residential Receptor	Moderate (RU1)	Moderate	Moderate	7	Low	Low

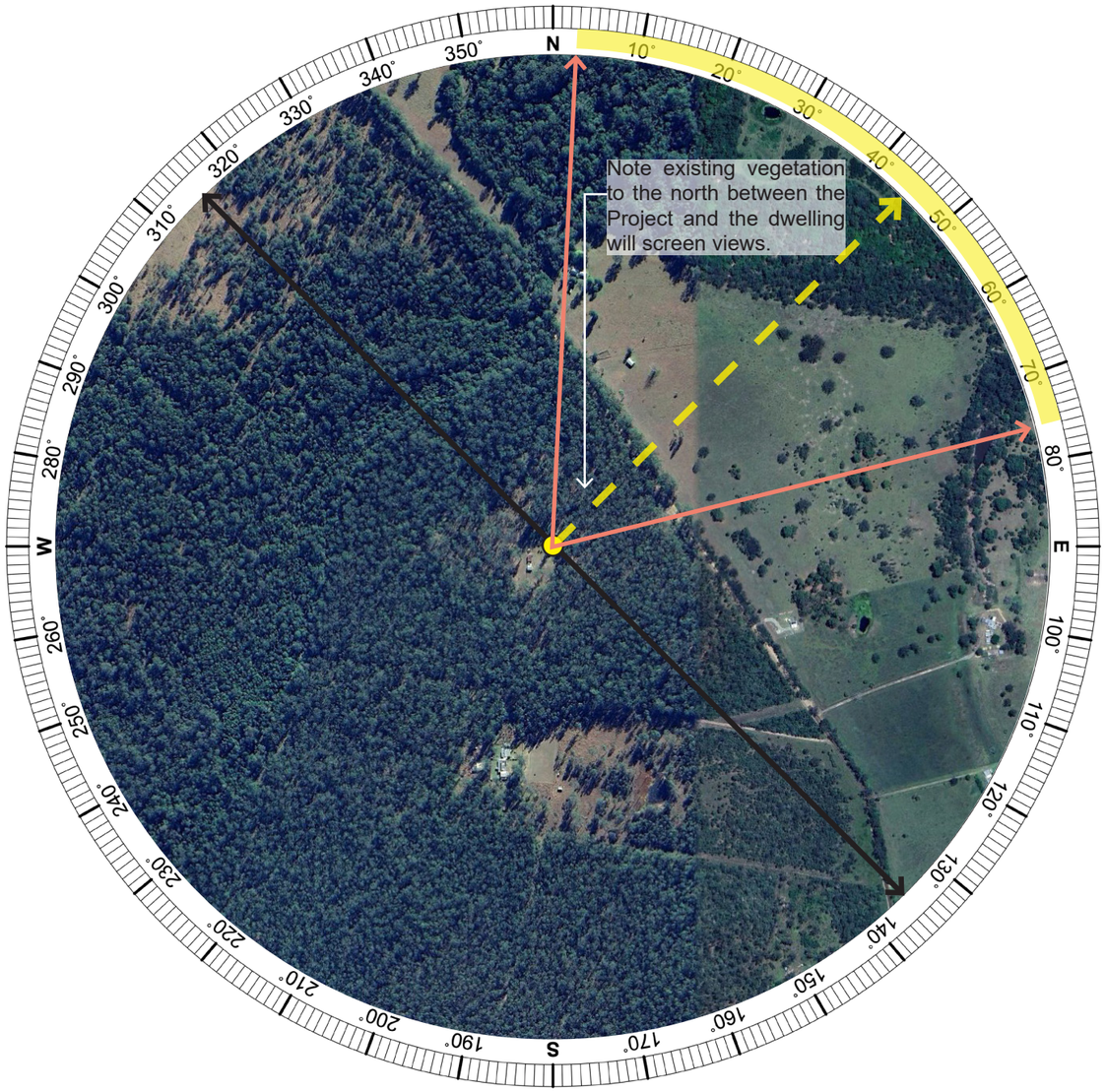
Residential Receptor C4-15 - Sensitivity and Magnitude



Extent of potentially visible solar panels (based on topography alone)

Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

Residential Receptor C4-2 - Sensitivity and Magnitude



LEGEND

- Direction of potential visible Development Footprint (based on topography alone)
- Extent of potential visible Development Footprint (based on topography alone)
- Direction of the Wireframe
- Extent of Panorama
- Location of the viewpoint
- Extent potentially screened by existing vegetation confirmed against site conditions.
- Extent potentially fragmented by existing vegetation confirmed against site conditions.

Aerial Image - Wireframe Location (Aerial Image Source: Google Earth 2022)

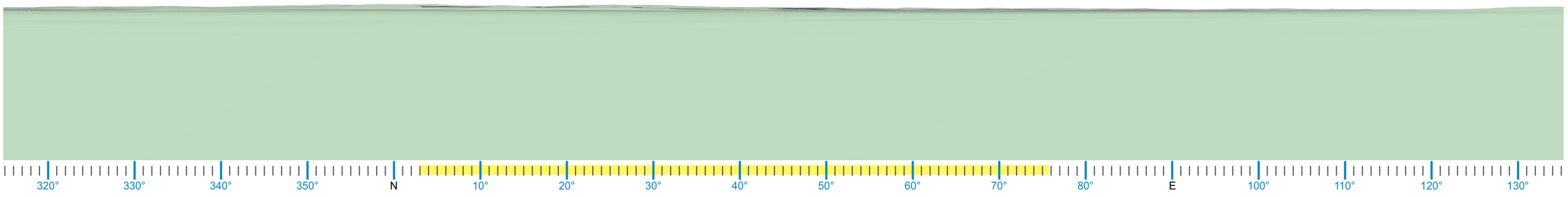
Residential Receptor C4-2

Receptor Assessment:

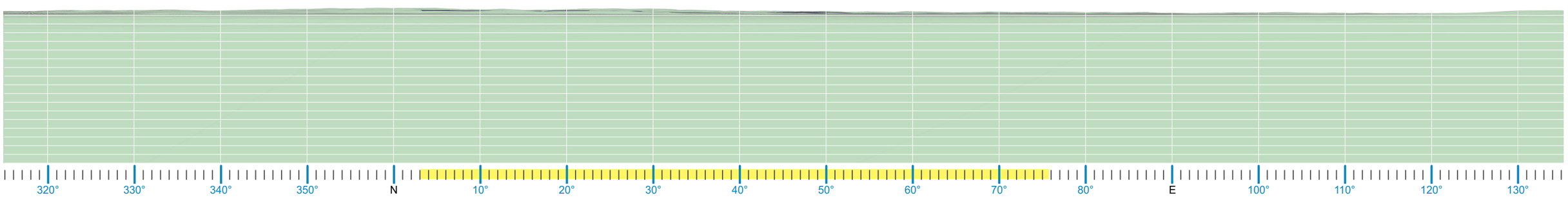
This receptor is located approximately 3.54 km south of the Project. An assessment based on topography alone suggests that topography limits opportunities to view the majority of the Project. Some portions may be visible within several sectors of the horizontal field of view. Aerial imagery assessment suggests that there is vegetation surrounding the dwelling. This vegetation has the potential to screen the views towards the solar panels. A Wireframe was prepared to demonstrate the potential visual impacts associated with the Project. It is noted that the Wireframe represents a worst-case scenario and does not consider existing screen factors such as vegetation or structures. The Wireframe found that 5 cells have the potential to be occupied by the Project, which is a **Very low** magnitude rating according to the technical supplement. When combined with the overall sensitivity of **moderate**, results in a **low** preliminary visual impact rating.

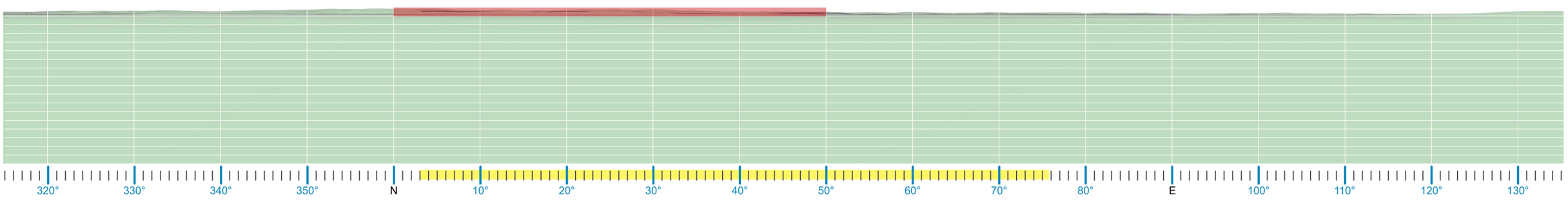
Coordinates	Distance to development:	Viewpoint Type:	Receptor Sensitivity:	Scenic Quality:	Overall Sensitivity:	Occupied Cells:	Magnitude Rating:	Preliminary Visual Impact Rating:
29° 8’7.09”S 153° 1’1.09”E	3.54 km	Residential Receptor	Moderate (RU1)	Moderate	Moderate	5	Very Low	Low

Residential Receptor C4-2 - Sensitivity and Magnitude



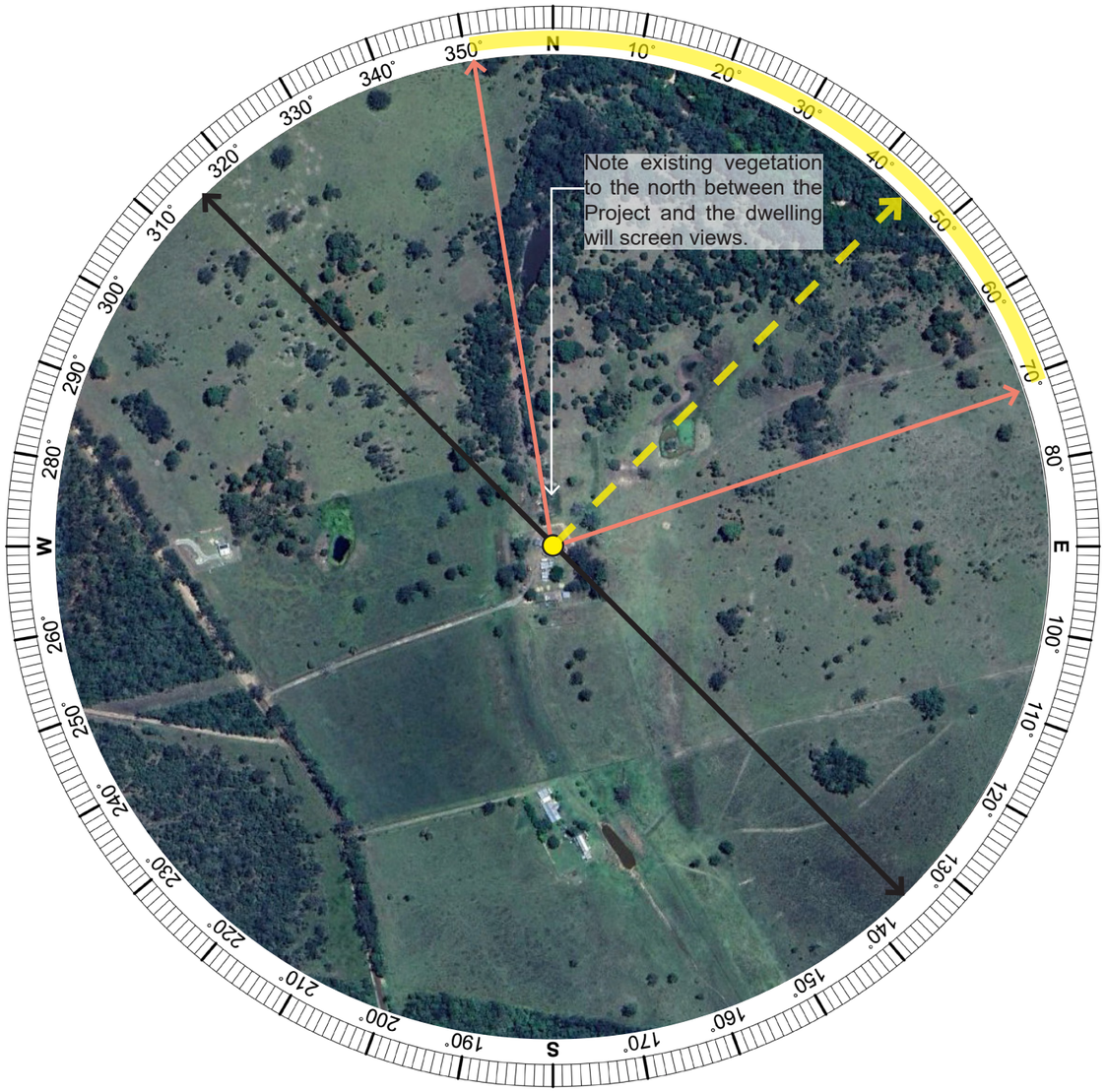
Extent of potentially visible solar panels (based on topography alone)





Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

Residential Receptor C4-3 - Sensitivity and Magnitude



LEGEND

- Direction of potential visible Development Footprint (based on topography alone)
- Extent of potential visible Development Footprint (based on topography alone)
- Direction of the Wireframe
- Extent of Panorama
- Location of the viewpoint
- Extent potentially screened by existing vegetation confirmed against site conditions.
- Extent potentially fragmented by existing vegetation confirmed against site conditions.

Aerial Image - Wireframe Location (Aerial Image Source: Google Earth 2022)

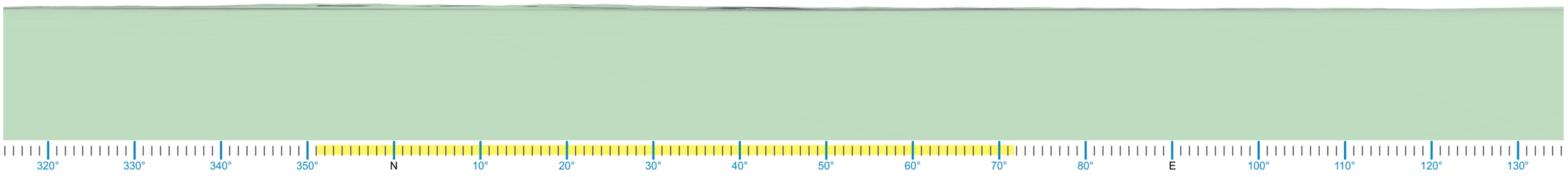
Residential Receptor C4-3

Receptor Assessment:

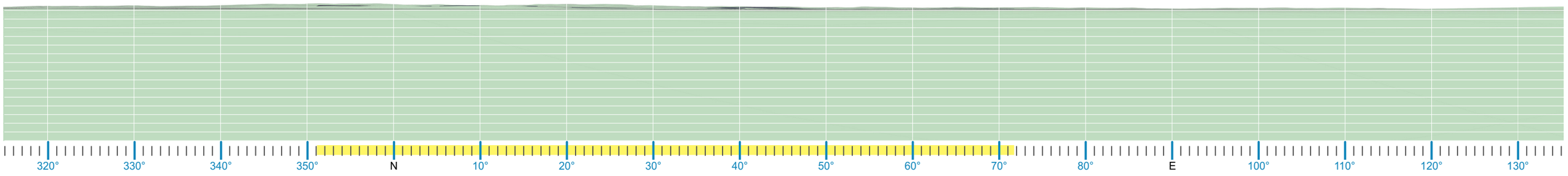
This receptor is located approximately 3.52 km south of the Project. An assessment based on topography alone suggests that topography limits opportunities to view the majority of the Project. Some portions may be visible within several sectors of the horizontal field of view. Aerial imagery assessment suggests that there is vegetation surrounding the dwelling. This vegetation has the potential to screen the views towards the solar panels. A Wireframe was prepared to demonstrate the potential visual impacts associated with the Project. It is noted that the Wireframe represents a worst-case scenario and does not consider existing screen factors such as vegetation or structures. The Wireframe found that 7 cells have the potential to be occupied by the Project, which is a **low** magnitude rating according to the technical supplement. When combined with the overall sensitivity of **moderate**, results in a **low** preliminary visual impact rating.

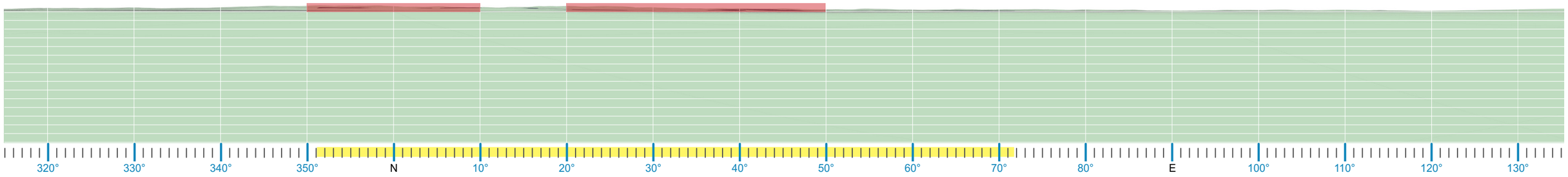
Coordinates	Distance to development:	Viewpoint Type:	Receptor Sensitivity:	Scenic Quality:	Overall Sensitivity:	Occupied Cells:	Magnitude Rating:	Preliminary Visual Impact Rating:
29° 8’11.86”S 153° 1’28.82”E	3.52 km	Residential Receptor	Moderate (RU1)	Low	Moderate	7	Low	Low

Residential Receptor C4-3 - Sensitivity and Magnitude



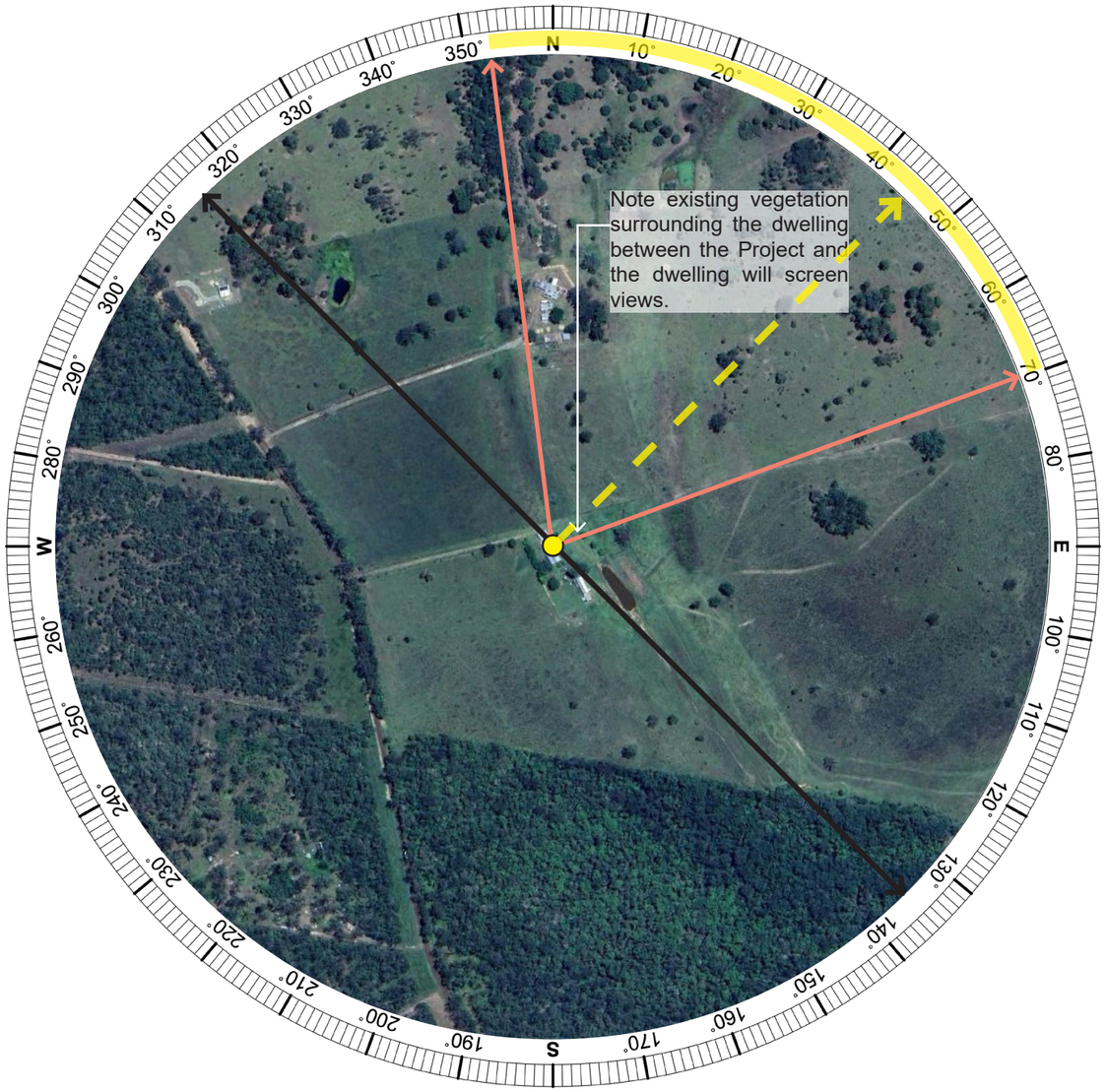
Extent of potentially visible solar panels (based on topography alone)





Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

Residential Receptor C4-4 - Sensitivity and Magnitude



LEGEND

- Direction of potential visible Development Footprint (based on topography alone)
- Extent of potential visible Development Footprint (based on topography alone)
- Direction of the Wireframe
- Extent of Panorama
- Location of the viewpoint
- Extent potentially screened by existing vegetation confirmed against site conditions.
- Extent potentially fragmented by existing vegetation confirmed against site conditions.

Aerial Image - Wireframe Location (Aerial Image Source: Google Earth 2022)

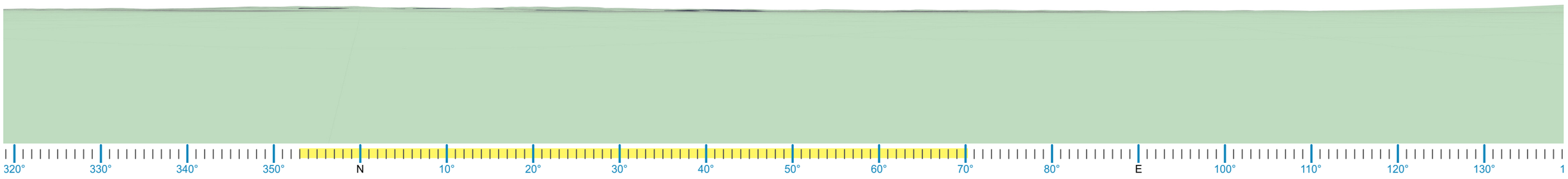
Residential Receptor C4-4

Receptor Assessment:

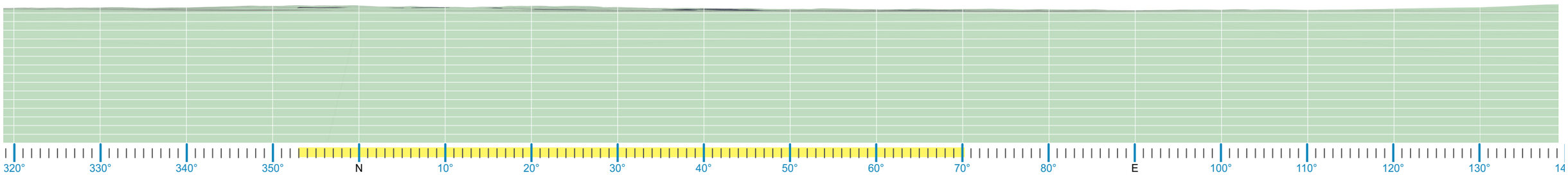
This receptor is located approximately 3.80 km south of the Project. An assessment based on topography alone suggests that topography limits opportunities to view the majority of the Project. Some portions may be visible within several sectors of the horizontal field of view. Aerial imagery assessment suggests that the dwelling is orientated northwest - southeast with scattered vegetation in the direction of the Project. Dense vegetation beyond the general curtilage of the dwelling is also visible. This combination of vegetation has the potential to screen the views towards the solar panels. A Wireframe was prepared to demonstrate the potential visual impacts associated with the Project. It is noted that the Wireframe represents a worst-case scenario and does not consider existing screen factors such as vegetation or structures. The Wireframe found that 5 cells have the potential to be occupied by the Project, which is a **Very low** magnitude rating according to the technical supplement. When combined with the overall sensitivity of **moderate**, results in a **low** preliminary visual impact rating.

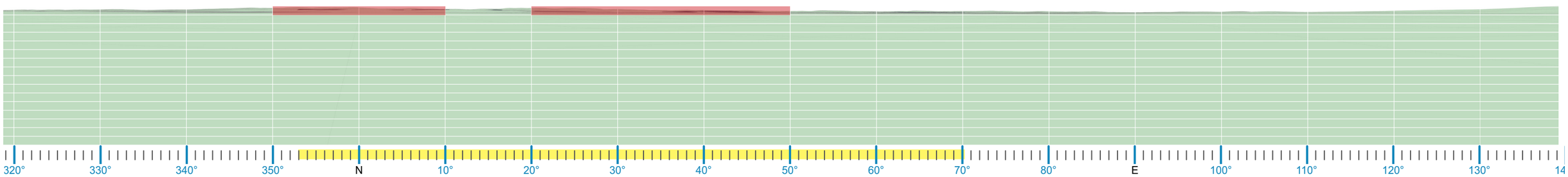
Coordinates	Distance to development:	Viewpoint Type:	Receptor Sensitivity:	Scenic Quality:	Overall Sensitivity:	Occupied Cells:	Magnitude Rating:	Preliminary Visual Impact Rating:
29° 8’20.66”S 153° 1’29.01”E	3.80 km	Residential Receptor	Moderate (RU1)	Low	Moderate	5	Very Low	Low

Residential Receptor C4-4 - Sensitivity and Magnitude



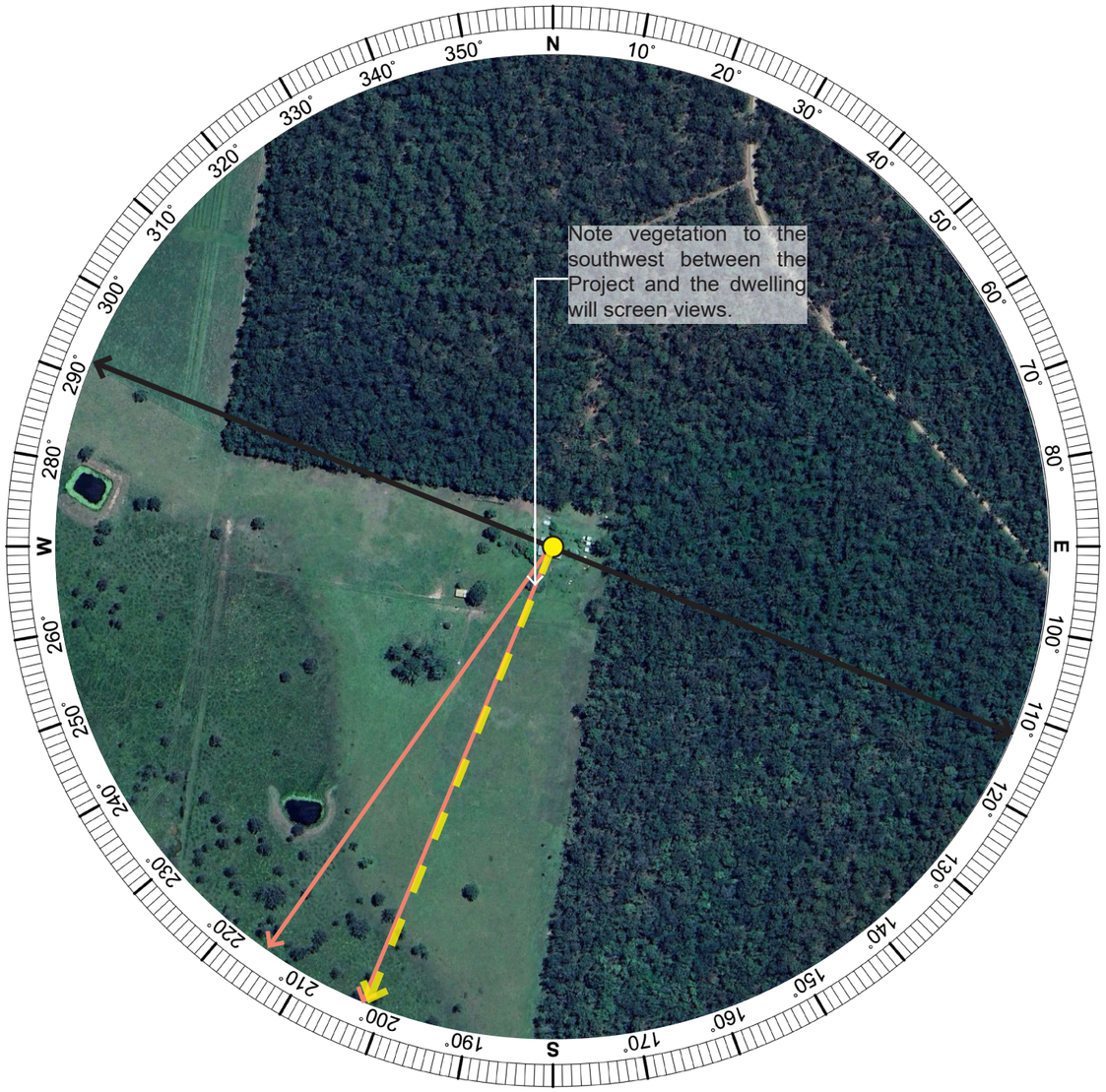
Extent of potentially visible solar panels (based on topography alone)





Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

Residential Receptor D3-14 - Sensitivity and Magnitude



LEGEND

- Direction of potential visible Development Footprint (based on topography alone)
- Extent of potential visible Development Footprint (based on topography alone)
- Direction of the Wireframe
- Extent of Panorama
- Location of the viewpoint
- Extent potentially screened by existing vegetation confirmed against site conditions.
- Extent potentially fragmented by existing vegetation confirmed against site conditions.

Aerial Image - Wireframe Location (Aerial Image Source: Google Earth 2022)

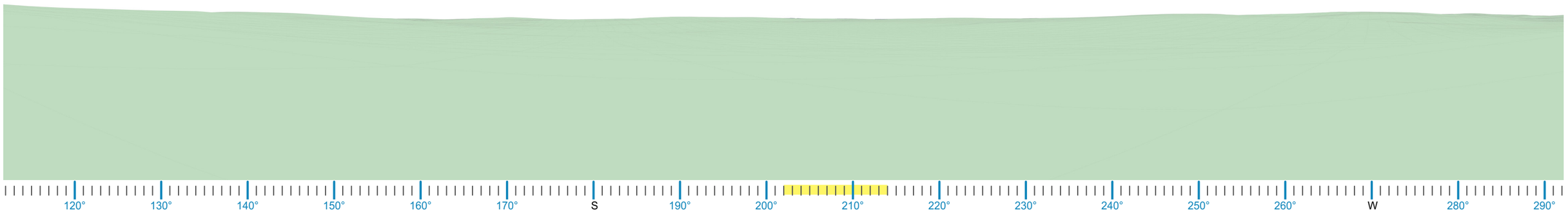
Residential Receptor D3-14

Receptor Assessment:

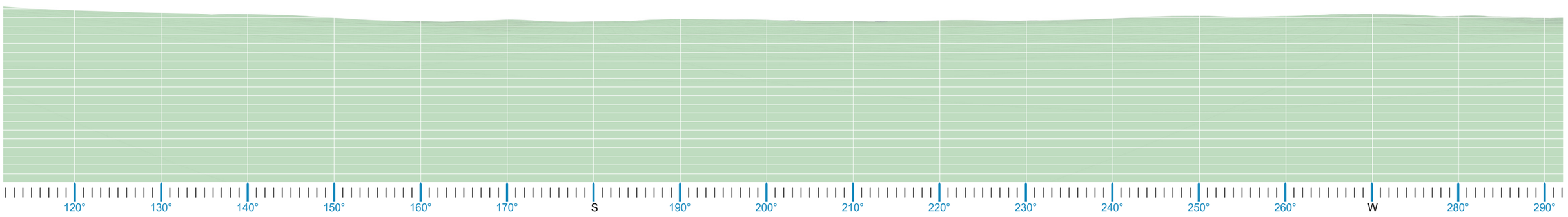
This receptor is located approximately 1.78 km north of the Project. An assessment based on topography alone suggests that topography limits opportunities to view the majority of the Project. Wireframe analysis suggests that from this dwelling only the top edge of the panels could be visible within 202° - 214° of the horizontal field of view. Aerial imagery assessment indicates scattered vegetation present in the direction of the Project. This combination of topography and vegetation has the potential to screen the views towards the solar panels. A Wireframe was prepared to demonstrate the potential visual impacts associated with the Project. It is noted that the Wireframe represents a worst-case scenario and does not consider existing screen factors such as vegetation or structures. The Wireframe found that 0 cells have the potential to be occupied by the Project, which is a **very low** magnitude rating according to the technical supplement. When combined with the overall sensitivity of **moderate**, results in a **low** preliminary visual impact rating.

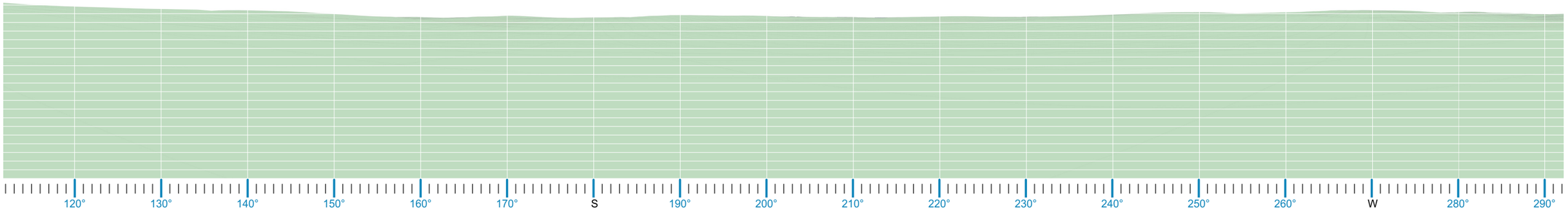
Coordinates	Distance to development:	Viewpoint Type:	Receptor Sensitivity:	Scenic Quality:	Overall Sensitivity:	Occupied Cells:	Magnitude Rating:	Preliminary Visual Impact Rating:
29° 4’49.87”S 153° 4’32.48”E	1.78 km	Residential Receptor	Moderate (RU1)	Low	Moderate	0	Very Low	Low

Residential Receptor D3-14 - Sensitivity and Magnitude



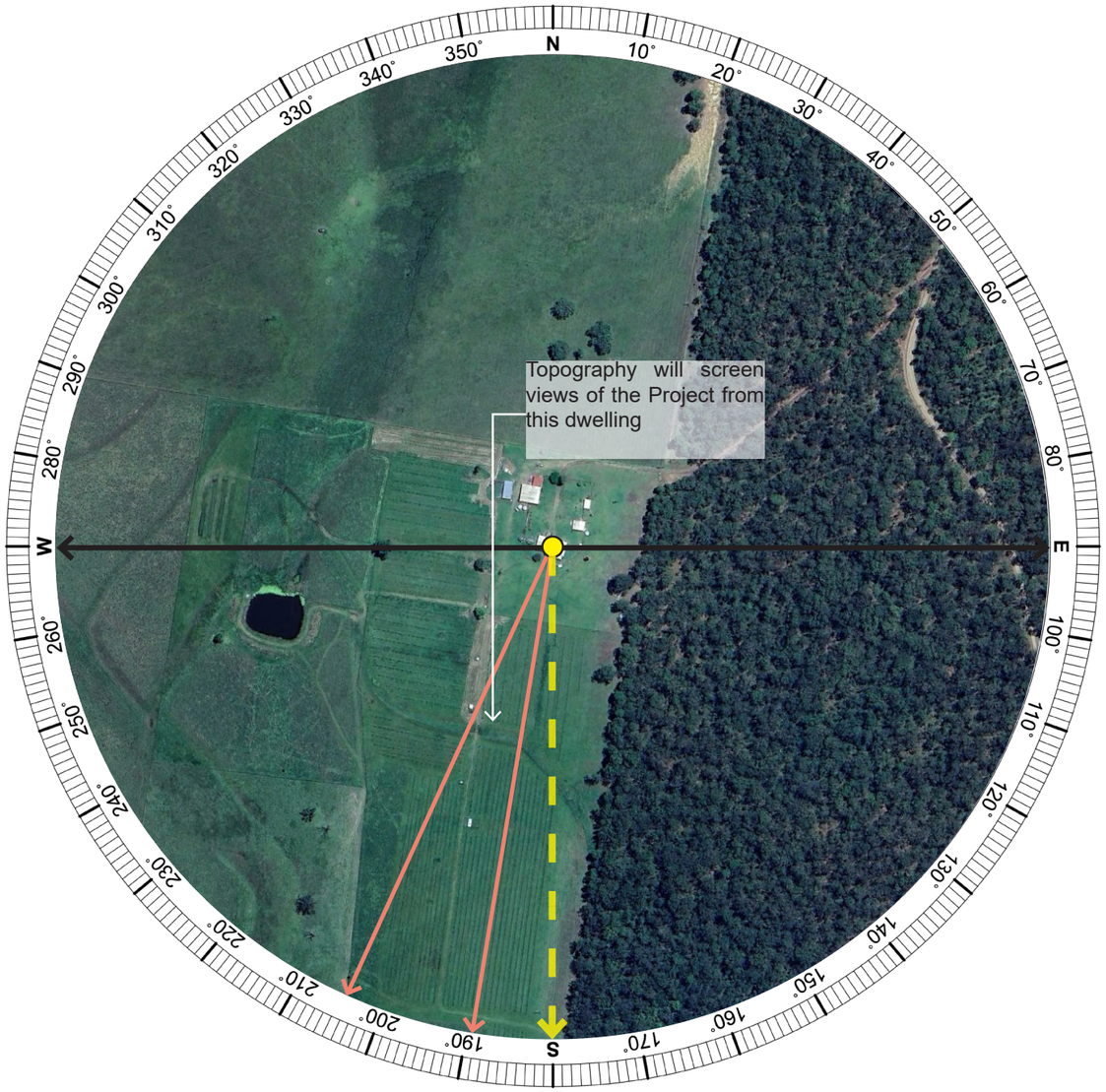
Extent of potentially visible solar panels (based on topography alone)





Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

Residential Receptor D3-15 - Sensitivity and Magnitude



LEGEND

- Direction of potential visible Development Footprint (based on topography alone)
- Extent of potential visible Development Footprint (based on topography alone)
- Direction of the Wireframe
- Extent of Panorama
- Location of the viewpoint
- Extent potentially screened by existing vegetation confirmed against site conditions.
- Extent potentially fragmented by existing vegetation confirmed against site conditions.

Aerial Image - Wireframe Location (Aerial Image Source: Google Earth 2022)

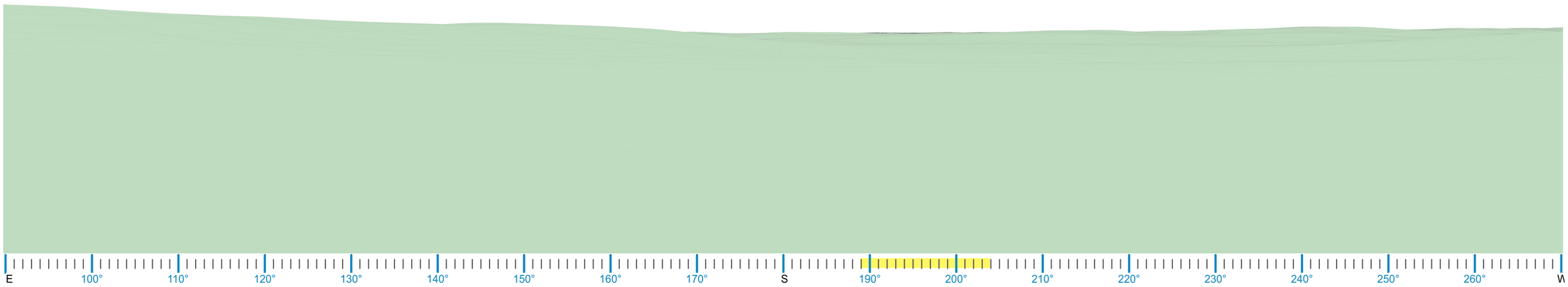
Residential Receptor D3-15

Receptor Assessment:

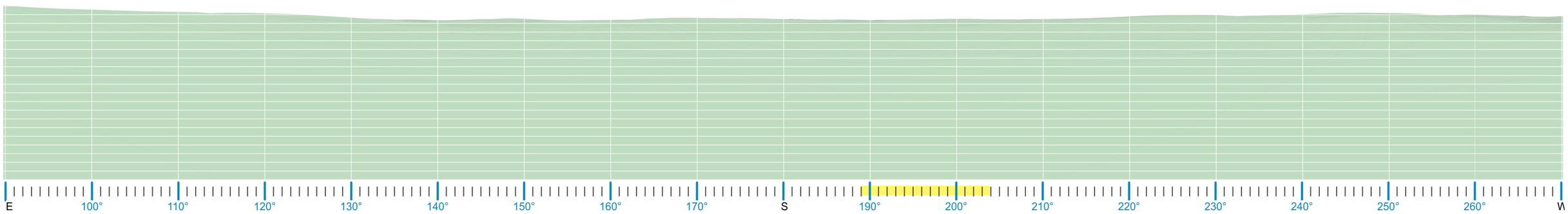
This receptor is located approximately 2.61 km north of the Project. An assessment based on topography alone suggests that topography limits opportunities to view the majority of the Project. Wireframe analysis suggests that from this dwelling only the top edge of the panels could be visible within 189° - 204° of the horizontal field of view. This combination of topography and vegetation has the potential to screen the views towards the solar panels. A Wireframe was prepared to demonstrate the potential visual impacts associated with the Project. It is noted that the Wireframe represents a worst-case scenario and does not consider existing screen factors such as vegetation or structures. The Wireframe found that 0 cells have the potential to be occupied by the Project, which is a **very low** magnitude rating according to the technical supplement. When combined with the overall sensitivity of **moderate**, results in a **low** preliminary visual impact rating.

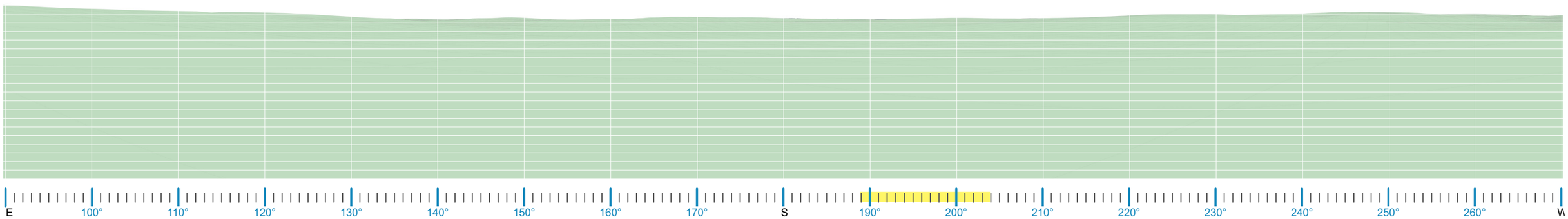
Coordinates	Distance to development:	Viewpoint Type:	Receptor Sensitivity:	Scenic Quality:	Overall Sensitivity:	Occupied Cells:	Magnitude Rating:	Preliminary Visual Impact Rating:
29° 4’21.10”S 153° 4’23.92”E	2.61 km	Residential Receptor	Moderate (RU1)	Low	Moderate	0	Very Low	Low

Residential Receptor D3-15 - Sensitivity and Magnitude



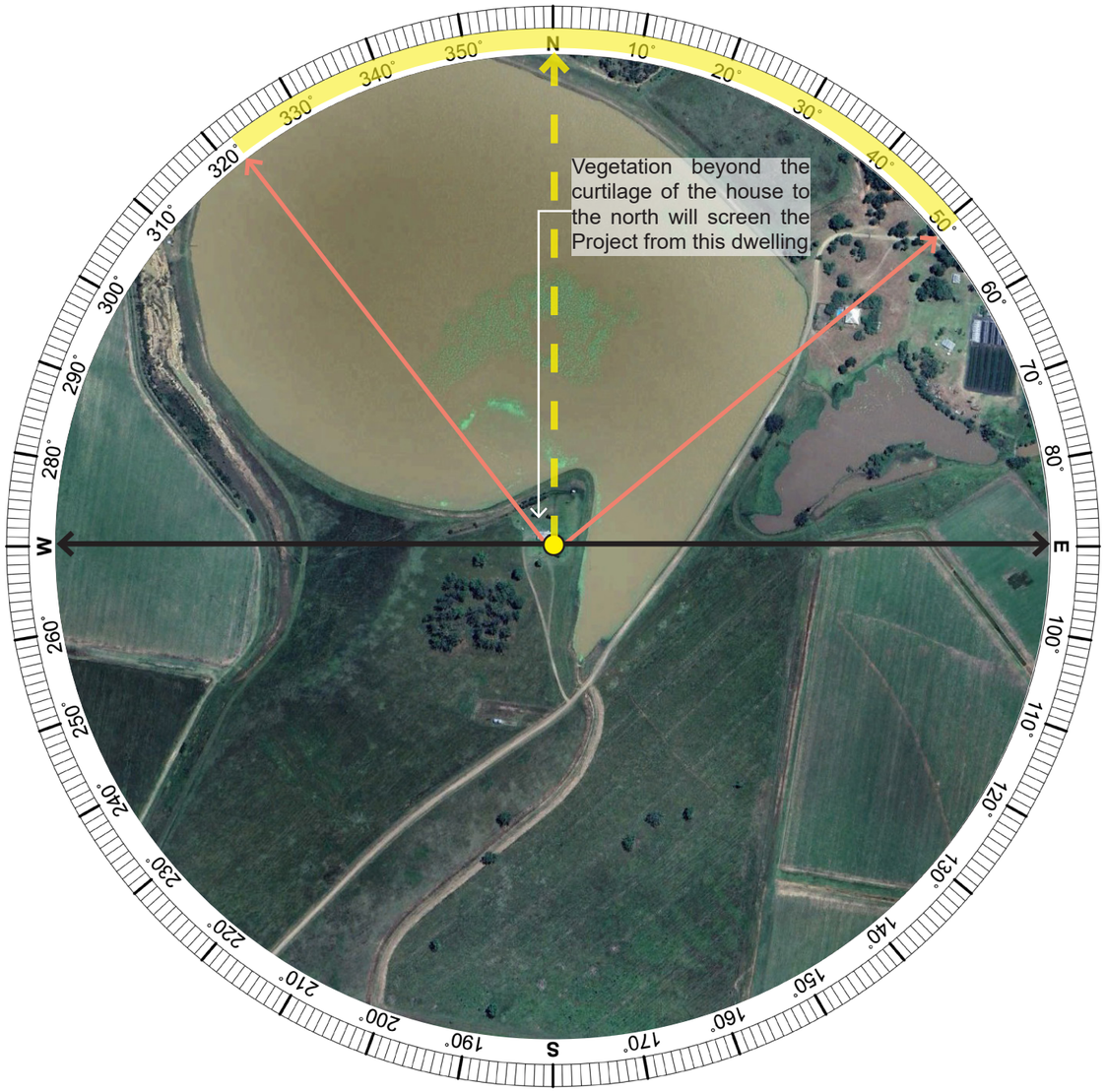
Extent of potentially visible solar panels (based on topography alone)





Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

Residential Receptor D4-9 - Sensitivity and Magnitude



LEGEND

- Direction of potential visible Development Footprint (based on topography alone)
- Extent of potential visible Development Footprint (based on topography alone)
- Direction of the Wireframe
- Extent of Panorama
- Location of the viewpoint
- Extent potentially screened by existing vegetation confirmed against site conditions.
- Extent potentially fragmented by existing vegetation confirmed against site conditions.

Aerial Image - Wireframe Location (Aerial Image Source: Google Earth 2022)

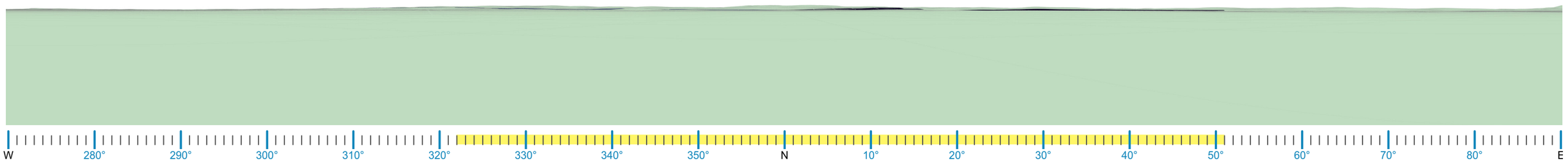
Residential Receptor D4-9

Receptor Assessment:

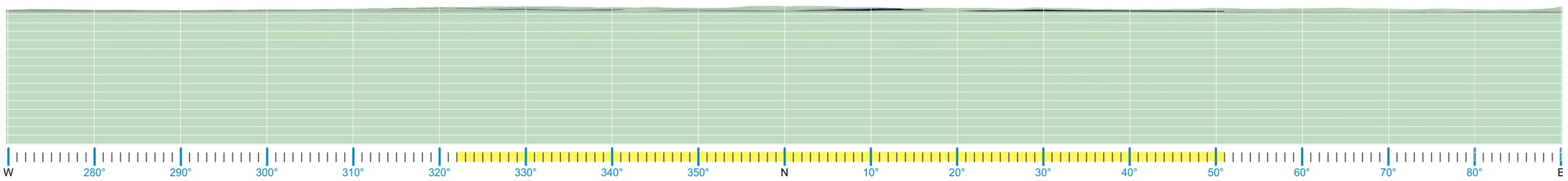
This receptor is located approximately 1.57 km south of the Project. An assessment based on topography alone suggests that topography limits opportunities to view the majority of the Project. A site visit was undertaken with permission of the land owner in August 2023 which suggests a lack of vegetation in the near curtilage of the dwelling. Beyond this, the site visit identified dense vegetation located further to the north beyond the curtilage of the dwelling. A combination of these factors have the potential to screen the views towards the solar panels in this direction. A Wireframe was prepared to demonstrate the potential visual impacts associated with the Project. It is noted that the Wireframe represents a worst-case scenario and does not consider existing screen factors such as vegetation or structures. The Wireframe found that 9 cells have the potential to be occupied by the Project, which is a **low** magnitude rating according to the technical supplement. When combined with the overall sensitivity of **moderate**, results in a **low** preliminary visual impact rating.

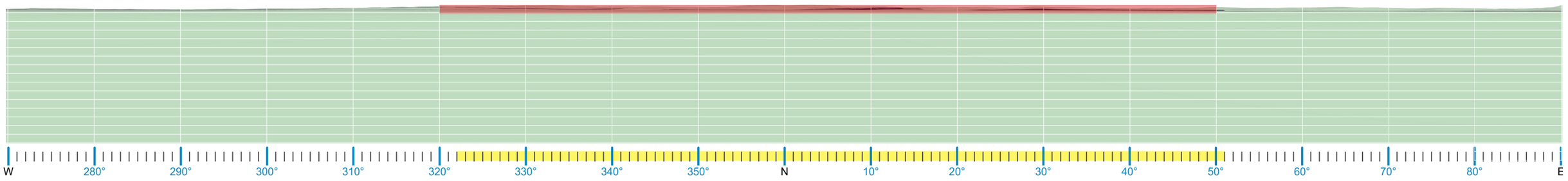
Coordinates	Distance to development:	Viewpoint Type:	Receptor Sensitivity:	Scenic Quality:	Overall Sensitivity:	Occupied Cells:	Magnitude Rating:	Preliminary Visual Impact Rating:
29° 8’4.91”S 153° 3’35.76”E	1.57 km	Residential Receptor	Moderate (RU1)	Low	Moderate	9	Low	Low

Residential Receptor D4-9 - Sensitivity and Magnitude



Extent of potentially visible solar panels (based on topography alone)



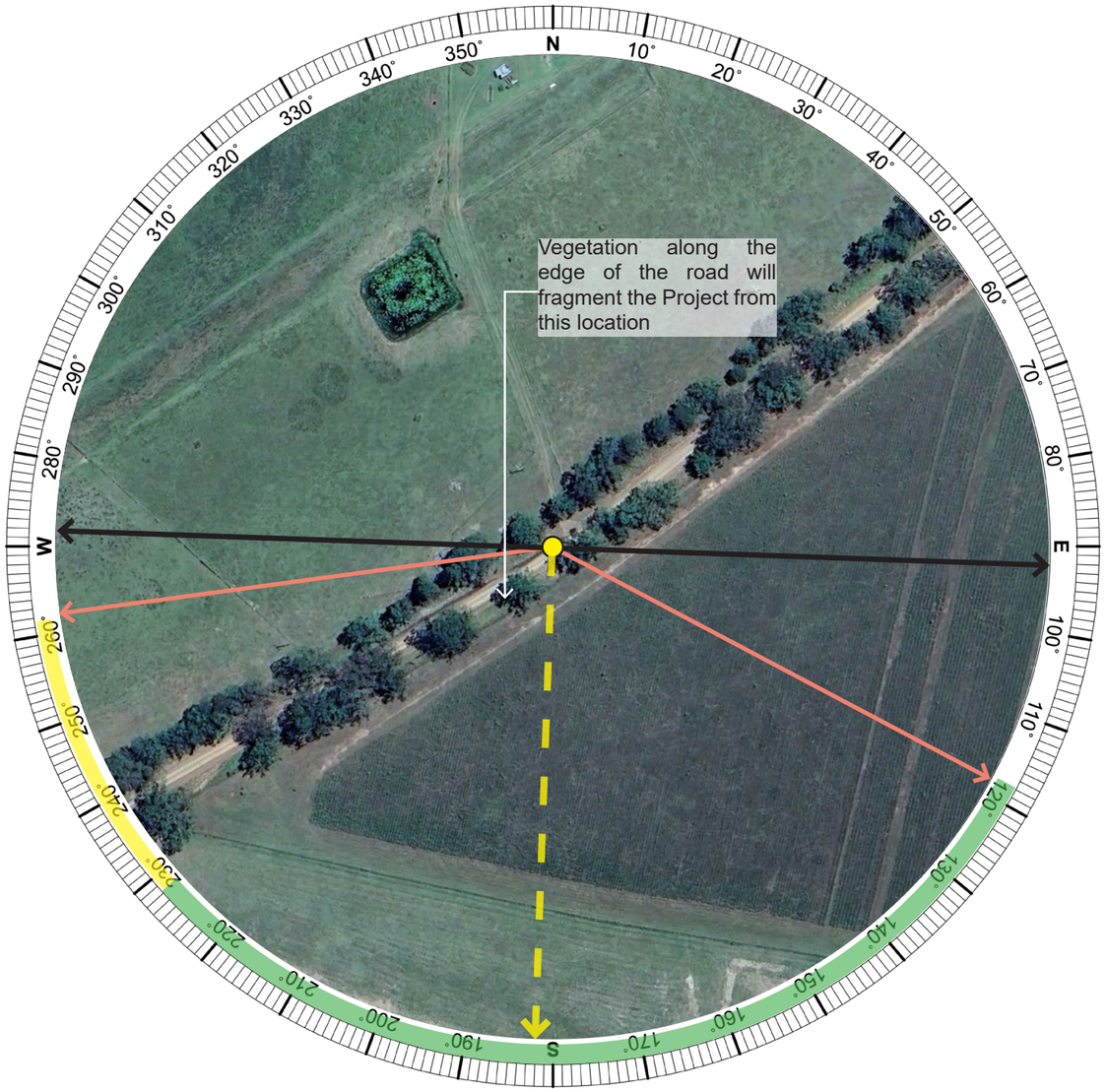


Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

B.2

Wireframes - Public Receptors

Public Receptor VP03 - Sensitivity and Magnitude



LEGEND

- Direction of potential visible Development Footprint (based on topography alone)
- Extent of potential visible Development Footprint (based on topography alone)
- Direction of the Wireframe
- Extent of Panorama
- Location of the viewpoint
- Extent potentially screened by existing vegetation confirmed against site conditions.
- Extent potentially fragmented by existing vegetation confirmed against site conditions.

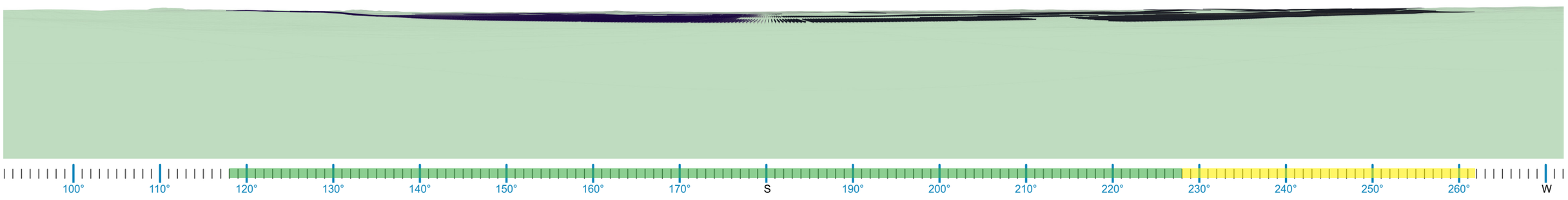
Aerial Image - Wireframe Location (Aerial Image Source: Google Earth 2022)

Public Receptor VP03

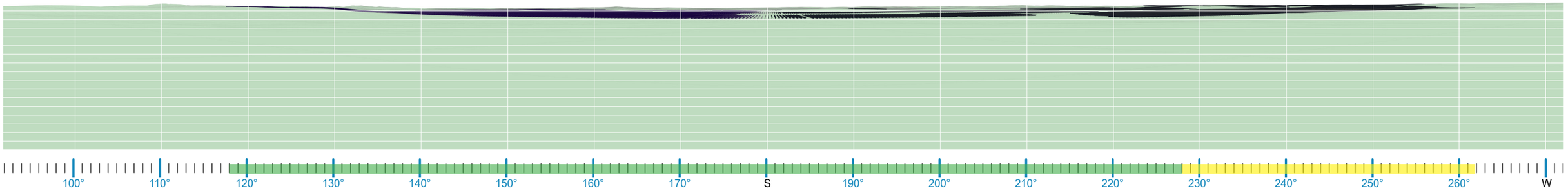
Receptor Assessment:

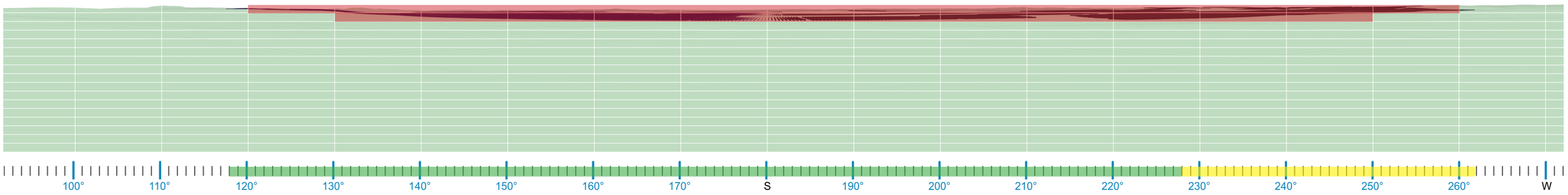
This receptor is located approximately 0.69 km north of the Project along Avenue Road. Based on proximity of this viewpoint and topography associated with the Project alone, majority of the Project could be visible from this location. A site visit was undertaken in August 2023 which suggests a roadside vegetation along Avenue Road. This roadside vegetation could fragment views of the solar farm. A Wireframe was prepared to demonstrate the potential visual impacts associated with the Project. It is noted that the Wireframe represents a worst-case scenario and does not consider existing screen factors such as vegetation or structures. The Wireframe found that 26 cells have the potential to be occupied by the Project, which is a **High** magnitude rating according to the technical supplement. When combined with the overall sensitivity of **Very Low** due to the land use, results in a **low** preliminary visual impact rating. It is noted that a photo was captured from this location (see VP03).

Coordinates	Distance to development:	Viewpoint Type:	Receptor Sensitivity:	Scenic Quality:	Overall Sensitivity:	Occupied Cells:	Magnitude Rating:	Preliminary Visual Impact Rating:
29° 5’18.60”S 153° 3’15.65”E	0.69 km	Public Receptor	Very Low	Low	Very Low	26	High	Low



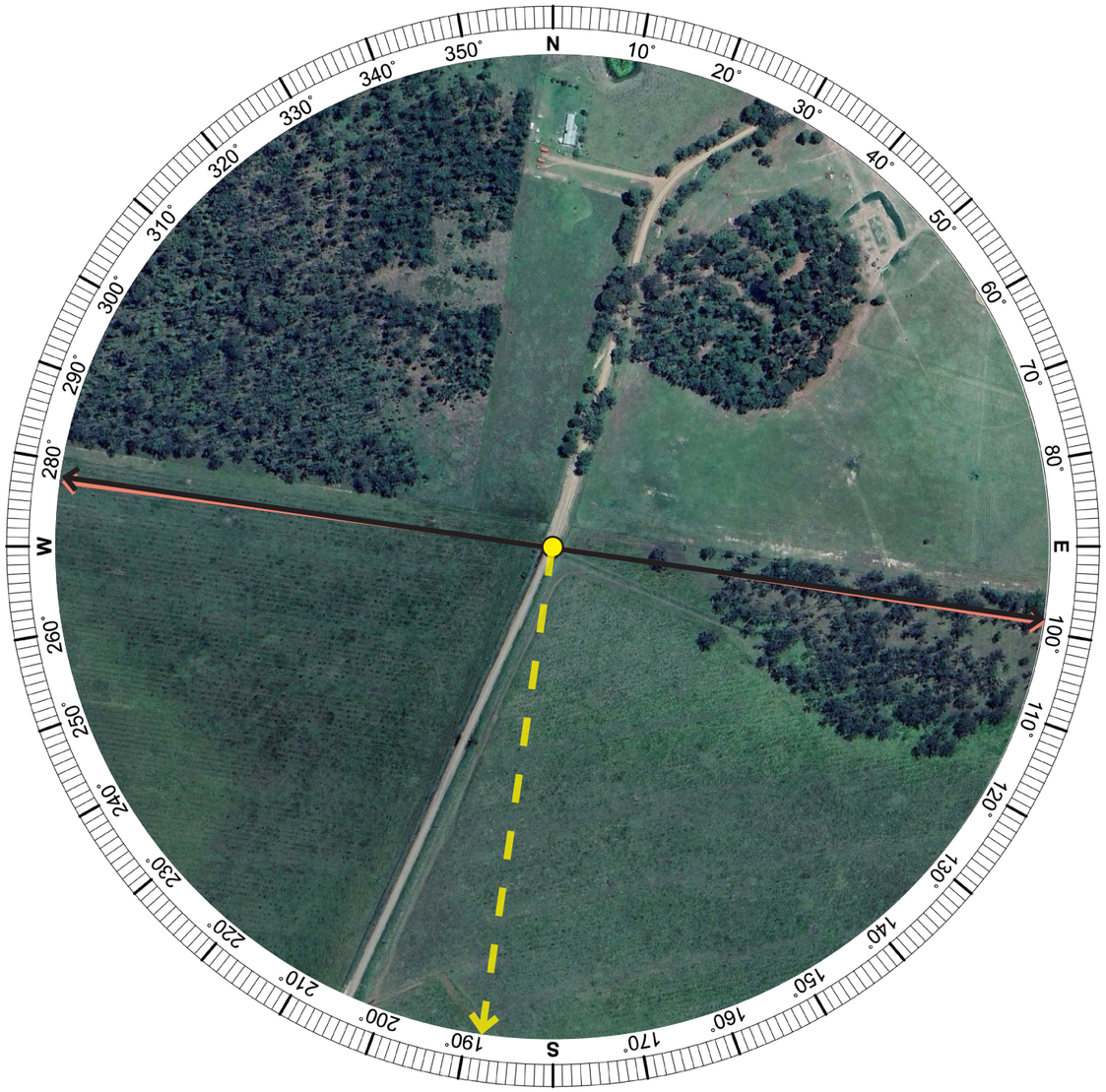
Extent of potentially visible solar panels (based on topography alone)





Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

Public Receptor VP04 - Sensitivity and Magnitude



LEGEND

- Direction of potential visible Development Footprint (based on topography alone)
- Extent of potential visible Development Footprint (based on topography alone)
- Direction of the Wireframe
- Extent of Panorama
- Location of the viewpoint
- Extent potentially screened by existing vegetation confirmed against site conditions.
- Extent potentially fragmented by existing vegetation confirmed against site conditions.

Aerial Image - Wireframe Location (Aerial Image Source: Google Earth 2022)

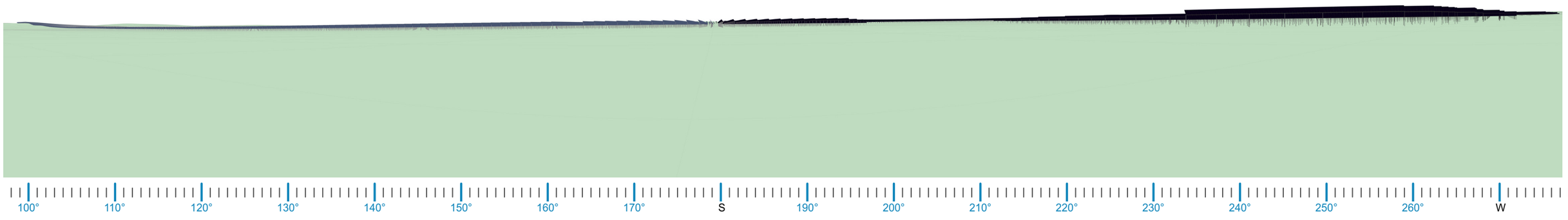
Public Receptor VP04

Receptor Assessment:

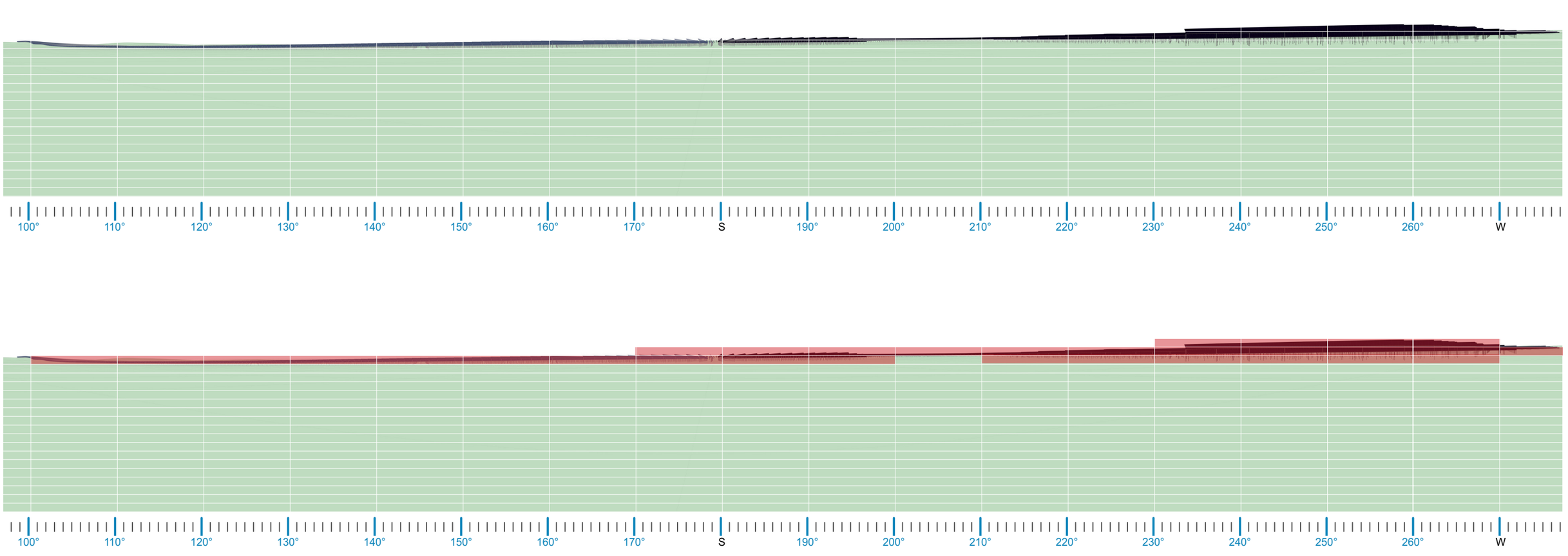
This viewpoint is located to the north adjacent to the Project along Avenue Road. Based on proximity of this viewpoint and topography associated with the Project alone, majority of the Project could be visible from this location. A site visit was undertaken in August 2023 which suggests a a direct line of sight from this location. A Wireframe was prepared to demonstrate the potential visual impacts associated with the Project. It is noted that the Wireframe represents a worst-case scenario and does not consider existing screen factors such as vegetation or structures. The Wireframe found that 31 cells have the potential to be occupied by the Project, which is a **Very High** magnitude rating according to the technical supplement. When combined with the overall sensitivity of **Very Low** due to the nature of the receptor sensitivity, results in a **Moderate** preliminary visual impact rating. It is noted that a photo was captured from this location (see VP04).

Coordinates	Distance to development:	Viewpoint Type:	Receptor Sensitivity:	Scenic Quality:	Overall Sensitivity:	Occupied Cells:	Magnitude Rating:	Preliminary Visual Impact Rating:
29° 5’34.74”S 153° 3’1.99”E	0.08 m	Public Receptor	Very Low	Low	Very Low	31	Very High	Moderate

Public Receptor VP04 - Sensitivity and Magnitude

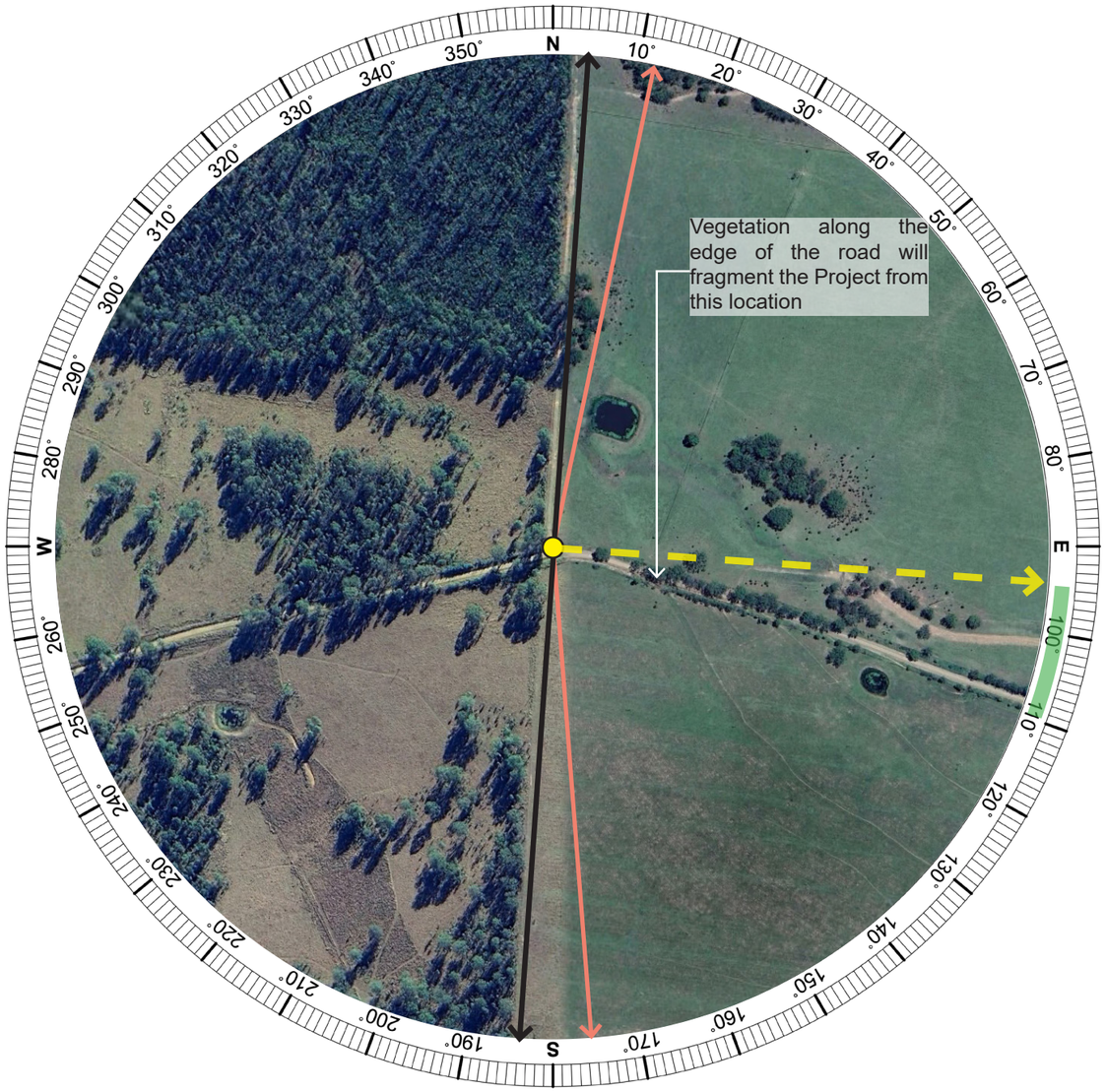


Extent of potentially visible solar panels (based on topography alone)



Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

Public Receptor VP05 - Sensitivity and Magnitude



LEGEND

- Direction of potential visible Development Footprint (based on topography alone)
- Extent of potential visible Development Footprint (based on topography alone)
- Direction of the Wireframe
- Extent of Panorama
- Location of the viewpoint
- Extent potentially screened by existing vegetation confirmed against site conditions.
- Extent potentially fragmented by existing vegetation confirmed against site conditions.

Aerial Image - Wireframe Location (Aerial Image Source: Google Earth 2022)

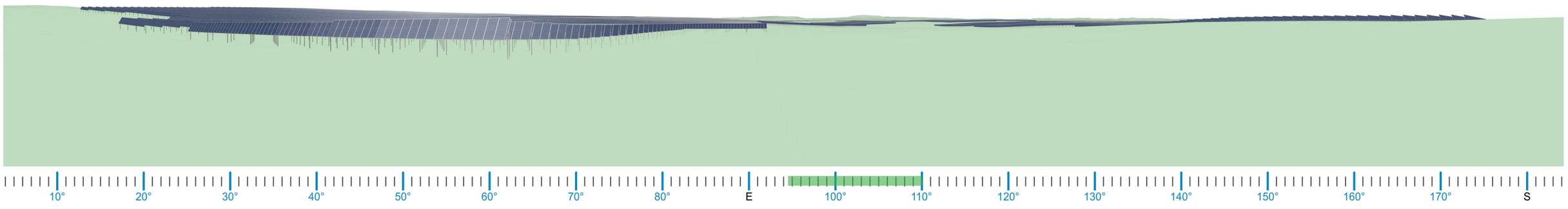
Public Receptor VP05

Receptor Assessment:

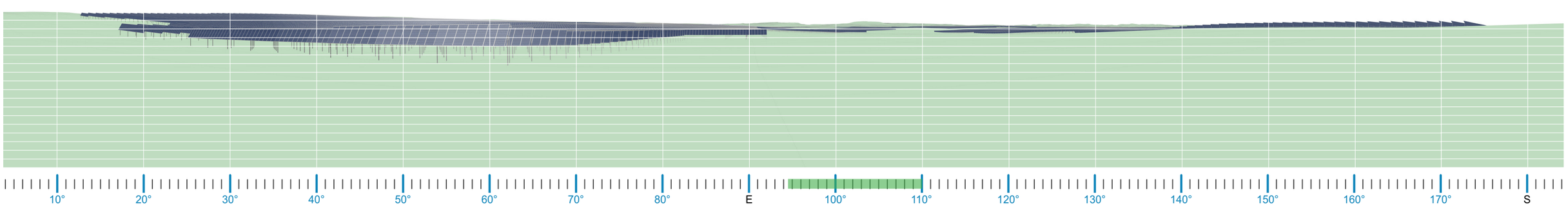
This viewpoint is located to the west adjacent to the Project along Avenue Road. Based on proximity of this viewpoint and topography associated with the Project alone, majority of the Project will be visible from this location. A site visit was undertaken in August 2023 which suggests a direct line of sight from this location. A Wireframe was prepared to demonstrate the potential visual impacts associated with the Project. It is noted that the Wireframe represents a worst-case scenario and does not consider existing screen factors such as vegetation or structures. The Wireframe found that 40 cells have the potential to be occupied by the Project, which is a **Very High** magnitude rating according to the technical supplement. When combined with the overall sensitivity of **Very Low** due to the nature of the receptor sensitivity, results in a **moderate** preliminary visual impact rating. It is noted that a photo was captured from this location (see VP05).

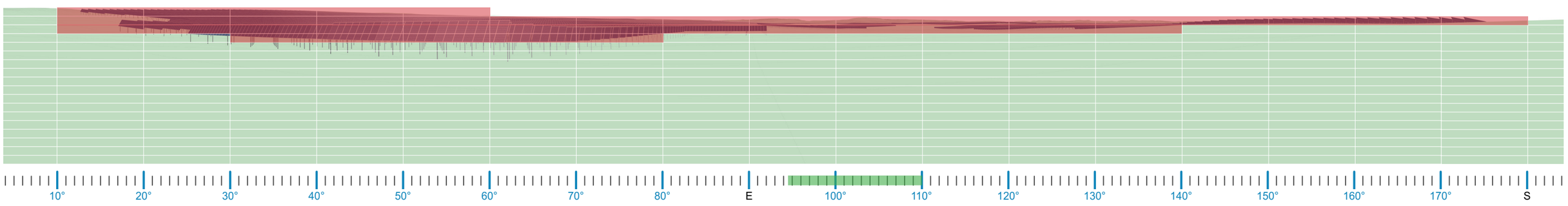
Coordinates	Distance to development:	Viewpoint Type:	Receptor Sensitivity:	Scenic Quality:	Overall Sensitivity:	Occupied Cells:	Magnitude Rating:	Preliminary Visual Impact Rating:
29° 5’57.98”S 153° 1’9.46”E	0.04 m	Public Receptor	Very Low	Low	Very Low	40	Very High	Moderate

Public Receptor VP05 - Sensitivity and Magnitude



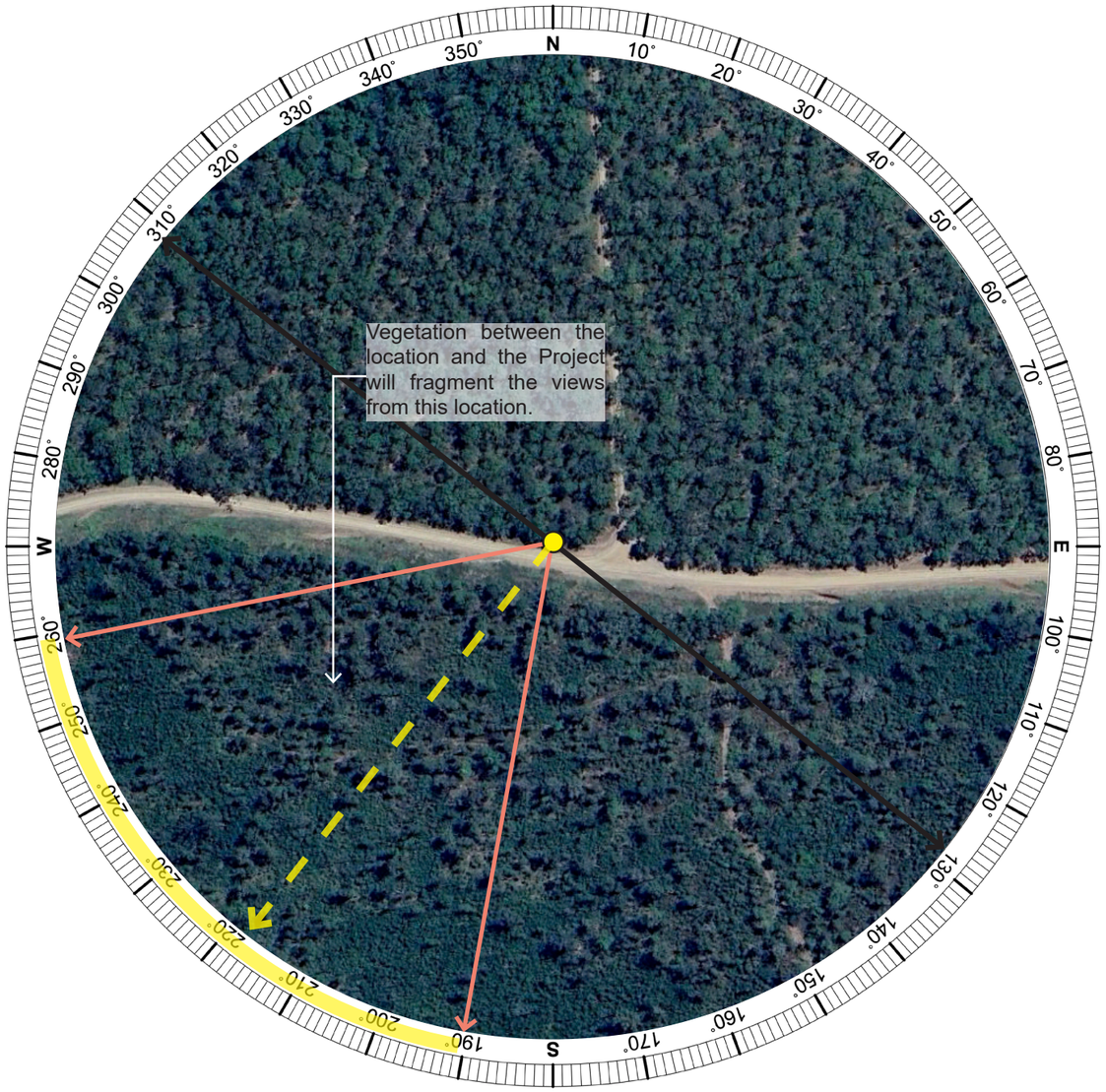
Extent of potentially visible solar panels (based on topography alone)





Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

Public Receptor VP06 - Sensitivity and Magnitude



LEGEND

- Direction of potential visible Development Footprint (based on topography alone)
- Extent of potential visible Development Footprint (based on topography alone)
- Direction of the Wireframe
- Extent of Panorama
- Location of the viewpoint
- Extent potentially screened by existing vegetation confirmed against site conditions.

Aerial Image - Wireframe Location (Aerial Image Source: Google Earth 2022)

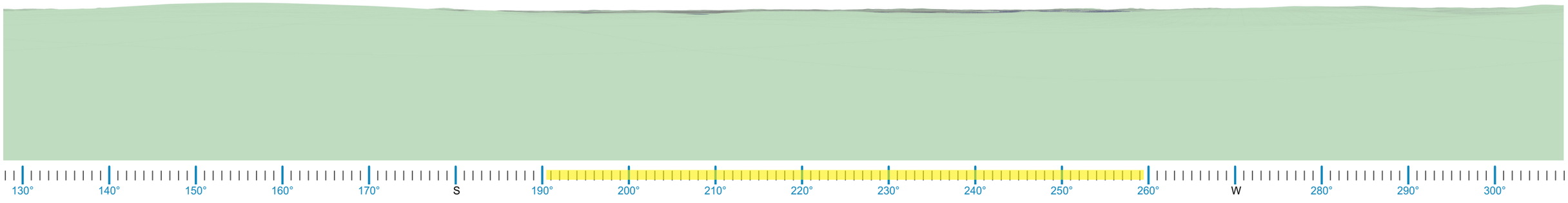
Public Receptor VP06

Receptor Assessment:

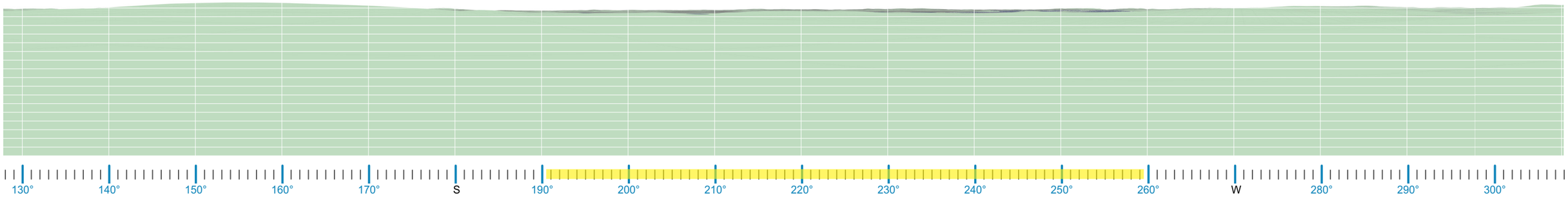
This viewpoint is located to the northeast approximately 1.64 km to the Project along Avenue Road. Based on topography associated with the Project alone, some of the Project will be visible from this location. A site visit was undertaken in August 2023 which suggests a direct line of sight from this location. A Wireframe was prepared to demonstrate the potential visual impacts associated with the Project. It is noted that the Wireframe represents a worst-case scenario and does not consider existing screen factors such as vegetation or structures. The Wireframe found that 3 cells have the potential to be occupied by the Project, which is a **Very Low** magnitude rating according to the technical supplement. When combined with the overall sensitivity of **Very Low** due to the nature of the receptor sensitivity, results in a **Very Low** preliminary visual impact rating. It is noted that a photo was captured from this location (see VP06).

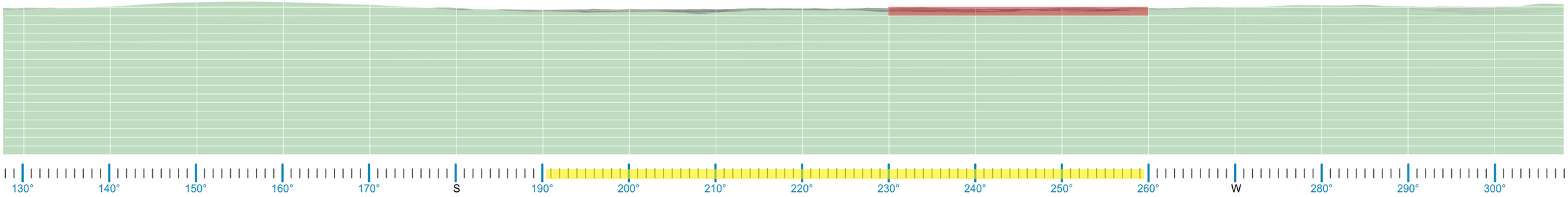
Coordinates	Distance to development:	Viewpoint Type:	Receptor Sensitivity:	Scenic Quality:	Overall Sensitivity:	Occupied Cells:	Magnitude Rating:	Preliminary Visual Impact Rating:
29° 5’3.36”S 153° 4’51.37”E	1.64 km	Public Receptor	Very Low	Low	Very Low	3	Very Low	Very Low

Public Receptor VP06 - Sensitivity and Magnitude



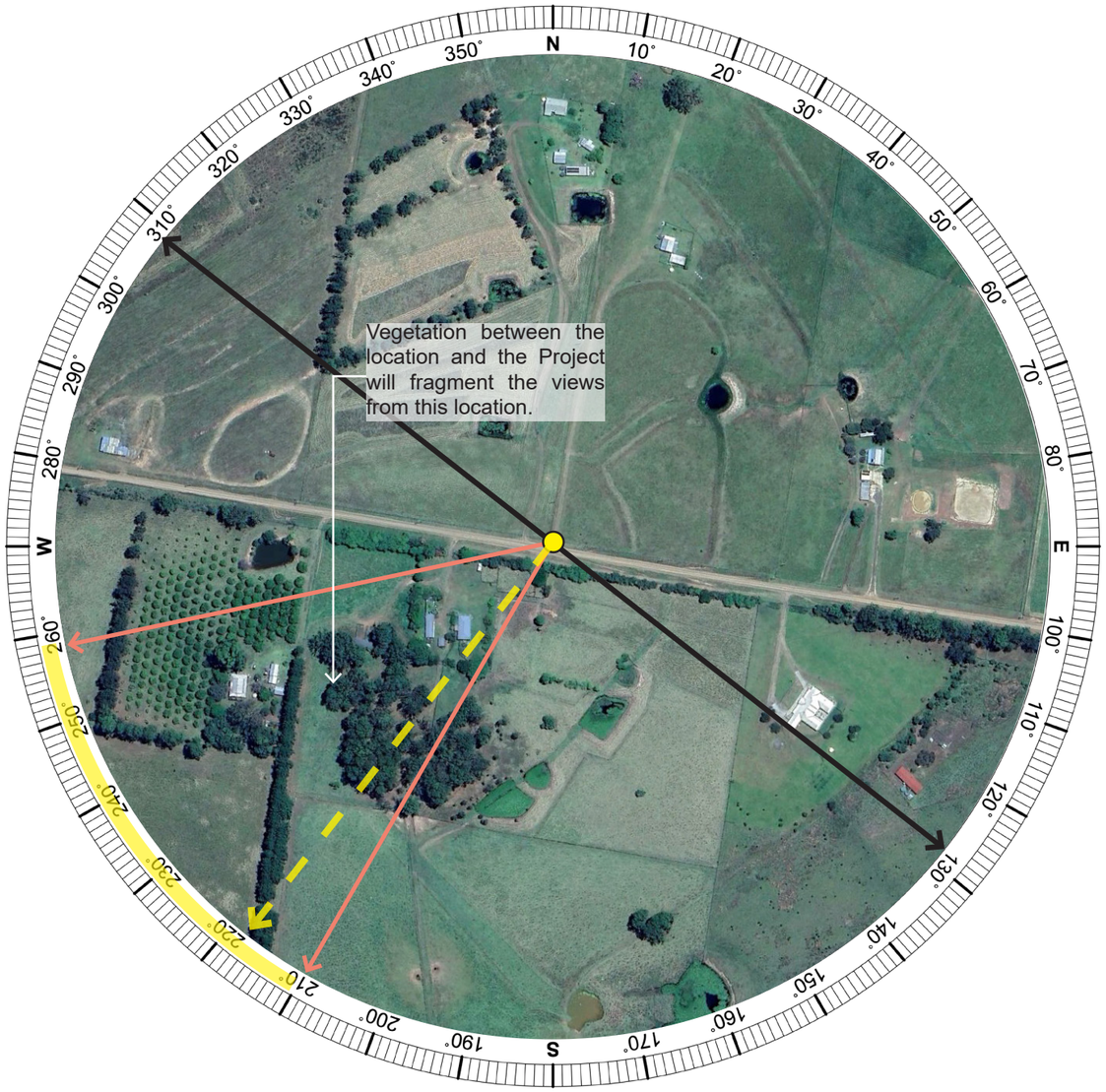
Extent of potentially visible solar panels (based on topography alone)





Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

Public Receptor VP09 - Sensitivity and Magnitude



LEGEND

- Direction of potential visible Development Footprint (based on topography alone)
- Extent of potential visible Development Footprint (based on topography alone)
- Direction of the Wireframe
- Extent of Panorama
- Location of the viewpoint
- Extent potentially screened by existing vegetation confirmed against site conditions.

Aerial Image - Wireframe Location (Aerial Image Source: Google Earth 2022)

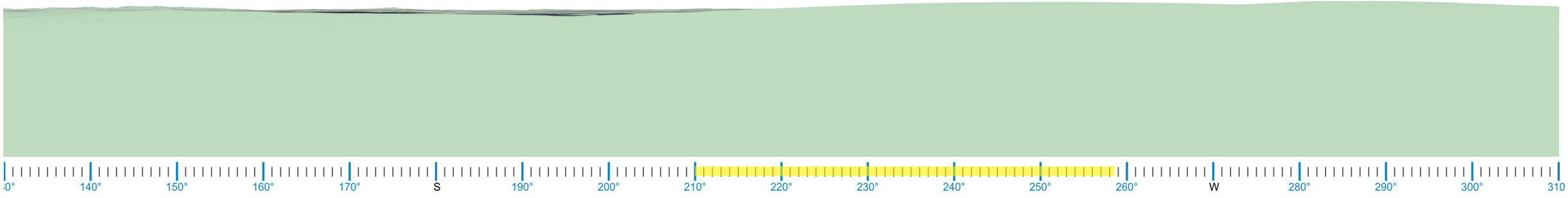
Public Receptor VP09

Receptor Assessment:

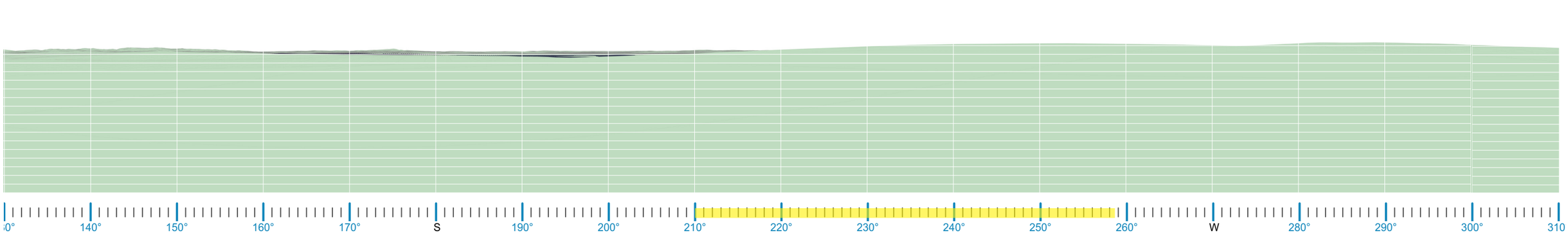
This viewpoint is located to the northeast approximately 1.25 km to the Project along Avenue Road. Based on topography associated with the Project alone, some of the Project will be visible from this location. A site visit was undertaken in August 2023 which suggests a direct line of sight from this location. A Wireframe was prepared to demonstrate the potential visual impacts associated with the Project. It is noted that the Wireframe represents a worst-case scenario and does not consider existing screen factors such as vegetation or structures. The Wireframe found that 6 cells have the potential to be occupied by the Project, which is a **Very Low** magnitude rating according to the technical supplement. When combined with the overall sensitivity of **Very Low** due to the nature of the receptor sensitivity, results in a **Very Low** preliminary visual impact rating. It is noted that a photo was captured from this location (see VP09).

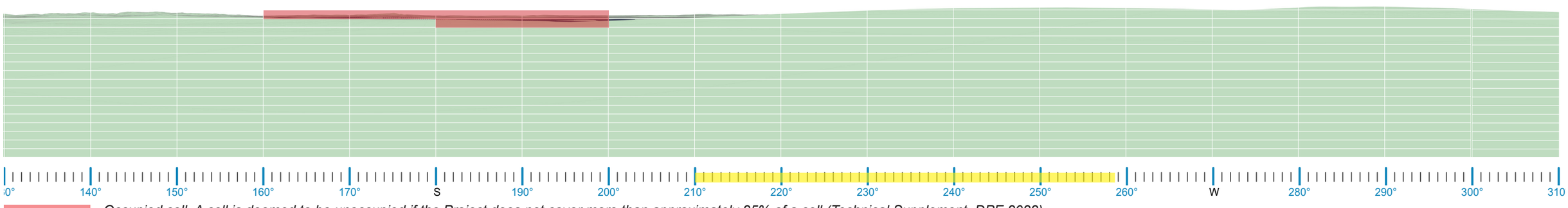
Coordinates	Distance to development:	Viewpoint Type:	Receptor Sensitivity:	Scenic Quality:	Overall Sensitivity:	Occupied Cells:	Magnitude Rating:	Preliminary Visual Impact Rating:
29° 5’3.36”S 153° 4’51.37”E	1.25 km	Public Receptor	Very Low	Low	Very Low	6	Very Low	Very Low

Public Receptor VP09 - Sensitivity and Magnitude



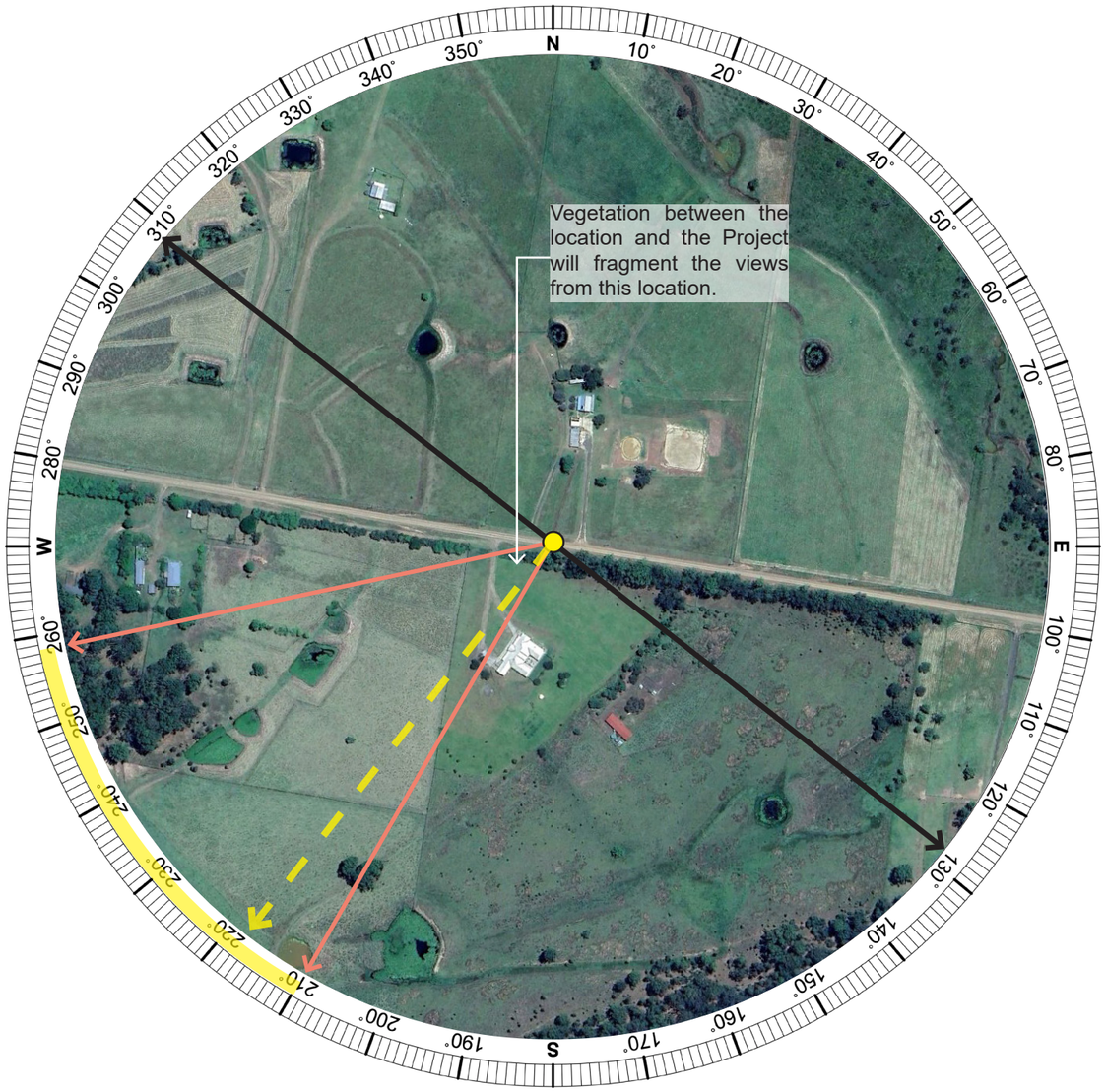
Extent of potentially visible solar panels (based on topography alone)





Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

Public Receptor VP10 - Sensitivity and Magnitude



LEGEND

- Direction of potential visible Development Footprint (based on topography alone)
- Extent of potential visible Development Footprint (based on topography alone)
- Direction of the Wireframe
- Extent of Panorama
- Location of the viewpoint
- Extent potentially screened by existing vegetation confirmed against site conditions.

Aerial Image - Wireframe Location (Aerial Image Source: Google Earth 2022)

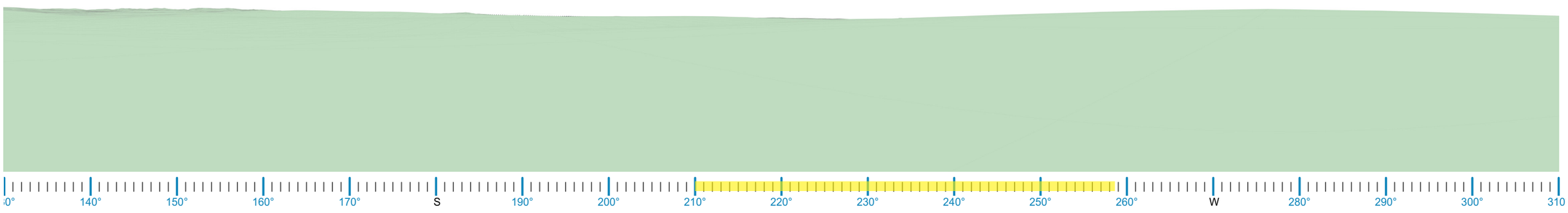
Public Receptor VP10

Receptor Assessment:

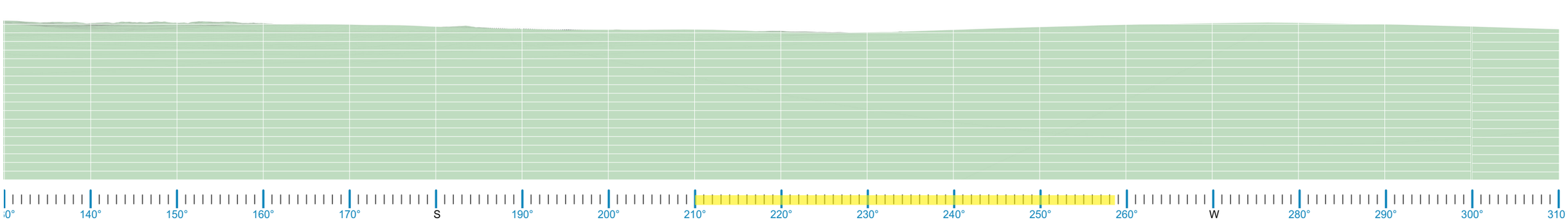
This viewpoint is located to the northeast approximately 1.25 km to the Project along Avenue Road. Based on topography associated with the Project alone, some of the Project will be visible from this location. A site visit was undertaken in August 2023 which indicated vegetation along property boundaries would filter views of the Project. A Wireframe was prepared to demonstrate the potential visual impacts associated with the Project. It is noted that the Wireframe represents a worst-case scenario and does not consider existing screen factors such as vegetation or structures. The Wireframe found that 0 cells have the potential to be occupied by the Project, which is a **Very Low** magnitude rating according to the technical supplement. When combined with the overall sensitivity of **Very Low** due to the nature of the receptor sensitivity, results in a **Very Low** preliminary visual impact rating. It is noted that a photo was captured from this location (see VP10).

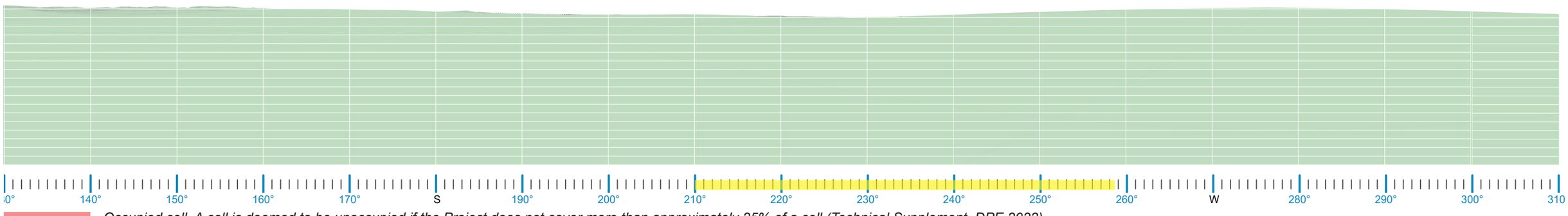
Coordinates	Distance to development:	Viewpoint Type:	Receptor Sensitivity:	Scenic Quality:	Overall Sensitivity:	Occupied Cells:	Magnitude Rating:	Preliminary Visual Impact Rating:
29° 5’2.91”S 153° 4’7.21”E	1.25 km	Public Receptor	Very Low	Low	Very Low	0	Very Low	Very Low

Public Receptor VP10 - Sensitivity and Magnitude



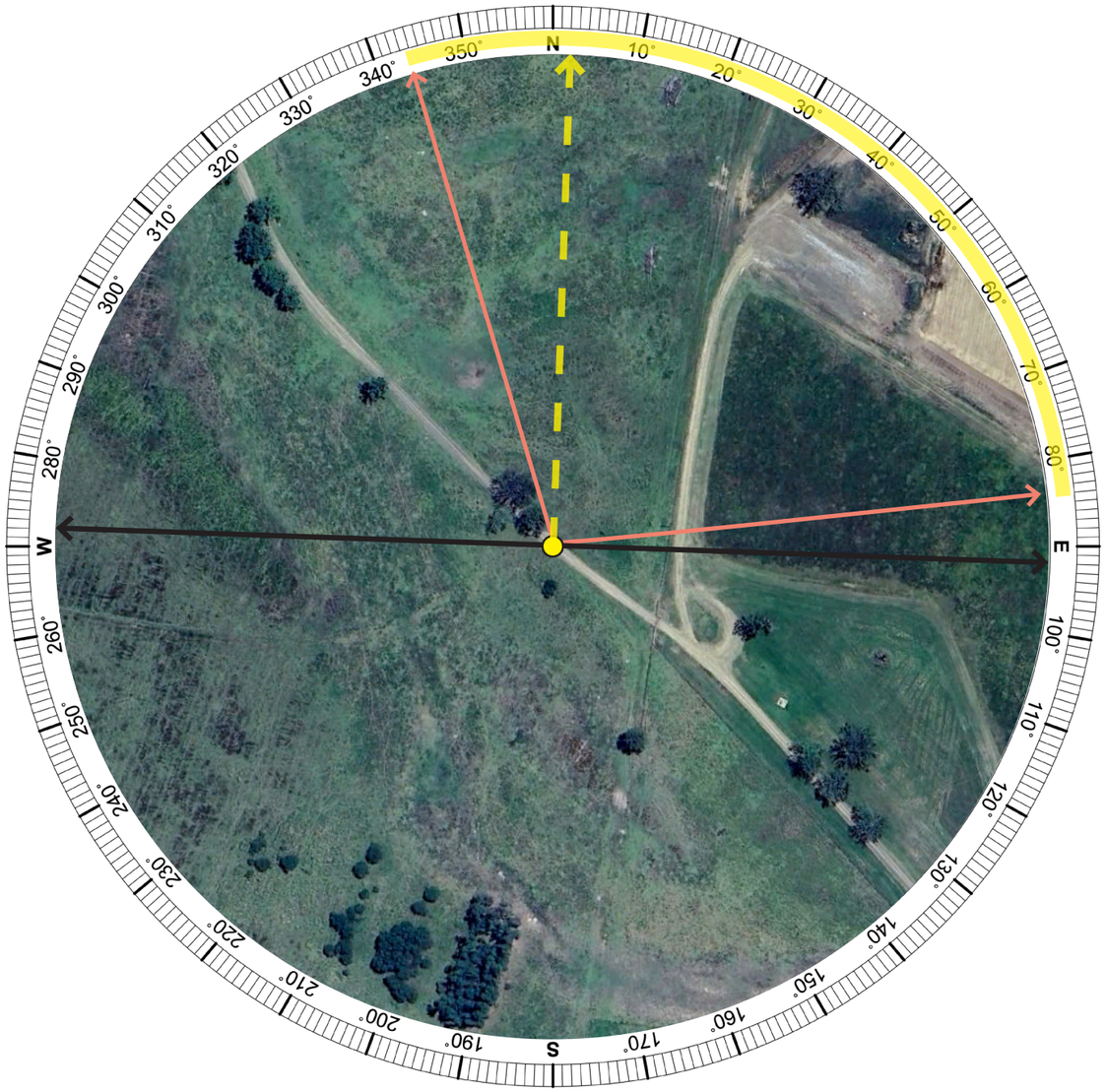
Extent of potentially visible solar panels (based on topography alone)





Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

Public Receptor VP13 - Sensitivity and Magnitude



LEGEND

- Direction of potential visible Development Footprint (based on topography alone)
- Extent of potential visible Development Footprint (based on topography alone)
- Direction of the Wireframe
- Extent of Panorama
- Location of the viewpoint
- Extent potentially screened by existing vegetation confirmed against site conditions.

Aerial Image - Wireframe Location (Aerial Image Source: Google Earth 2022)

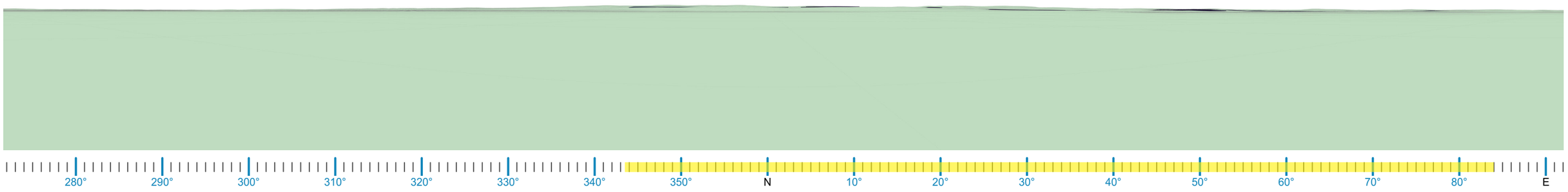
Public Receptor VP13

Receptor Assessment:

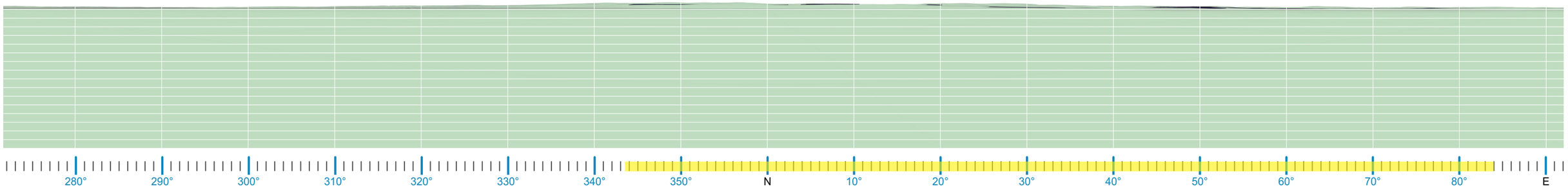
This viewpoint is located to the south approximately 2.04 km to the Project along Main Camp Road. Based on topography associated with the Project alone, some of the Project will be visible from this location. A site visit was undertaken in August 2023 which indicated vegetation between this location and along the southern edge of the Project would filter views of the Project. A Wireframe was prepared to demonstrate the potential visual impacts associated with the Project. It is noted that the Wireframe represents a worst-case scenario and does not consider existing screen factors such as vegetation or structures. The Wireframe found that 6 cells have the potential to be occupied by the Project, which is a **Very Low** magnitude rating according to the technical supplement. When combined with the overall sensitivity of **Very Low** due to the nature of the receptor sensitivity, results in a **Very Low** preliminary visual impact rating. It is noted that a photo was captured from this location (see VP13).

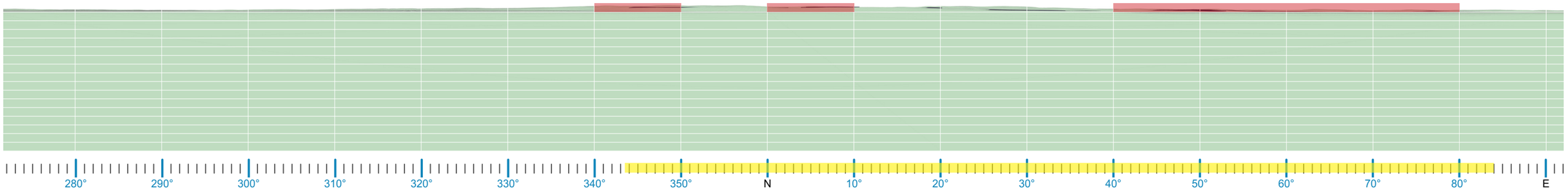
Coordinates	Distance to development:	Viewpoint Type:	Receptor Sensitivity:	Scenic Quality:	Overall Sensitivity:	Occupied Cells:	Magnitude Rating:	Preliminary Visual Impact Rating:
29° 5’2.91”S 153° 4’7.21”E	2.40 km	Public Receptor	Very Low	Low	Very Low	6	Very Low	Very Low

Public Receptor VP13 - Sensitivity and Magnitude



Extent of potentially visible solar panels (based on topography alone)

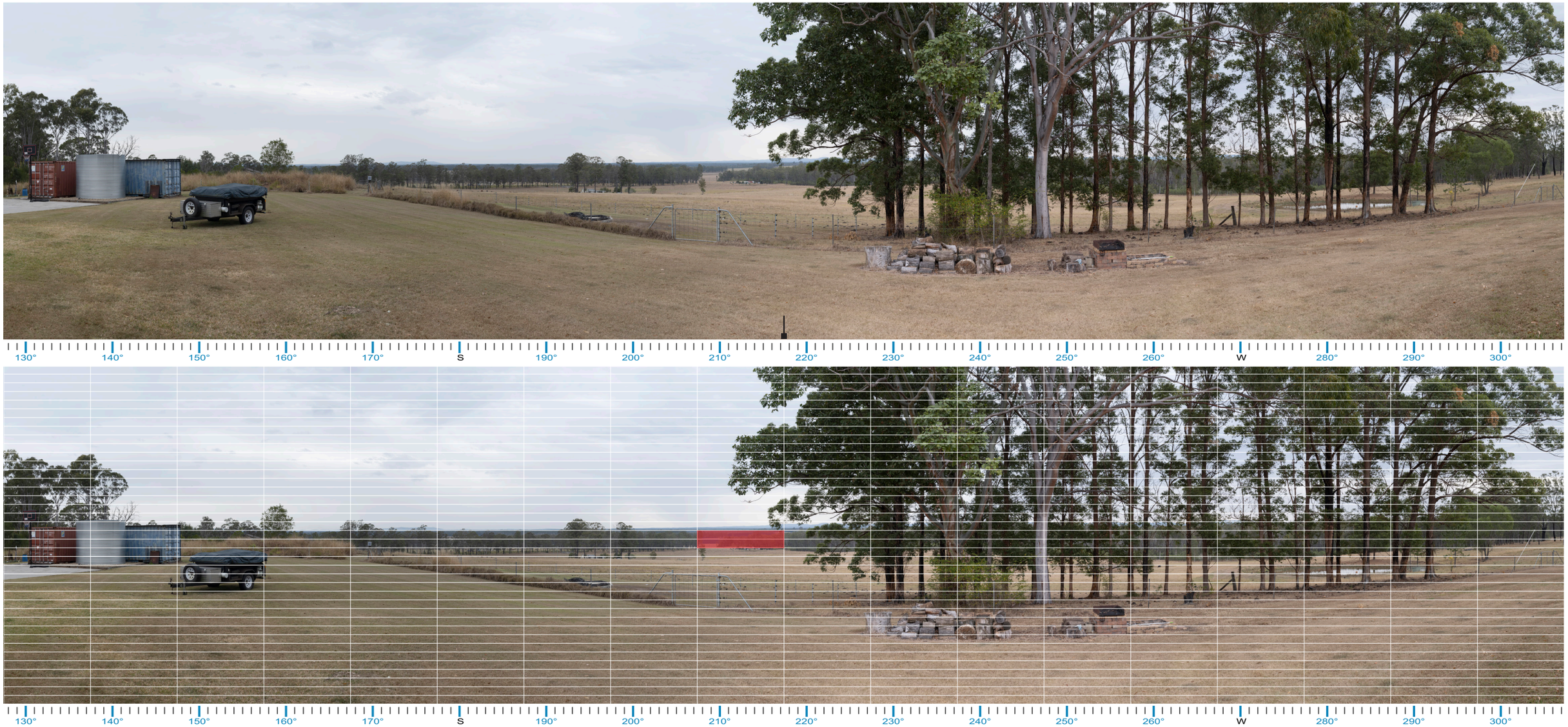




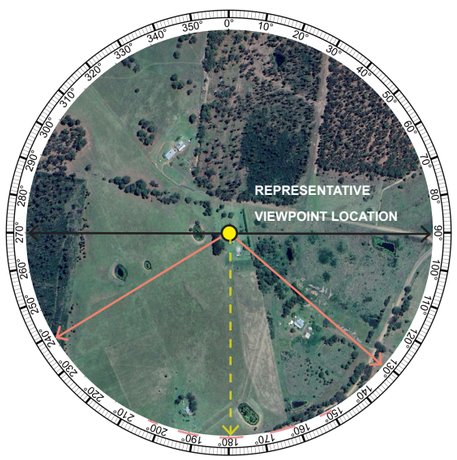
Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

Appendix C: Photomontages

Photomontage 01 - Sensitivity and Magnitude



PM01 (VPA60)							Dwelling D3-1	
Coordinates	**Distance to development:**	**Viewpoint Type:**	**Receptor Sensitivity:**	**Scenic Quality:**	**Overall Sensitivity:**	**Occupied Cells:**	**Magnitude Rating:**	**Visual Impact Rating:**
29° 04’59.45”S 153° 03’19.97”E	1.09 km	Residential Receptor	Moderate	Low	Moderate	2	Very Low	Low



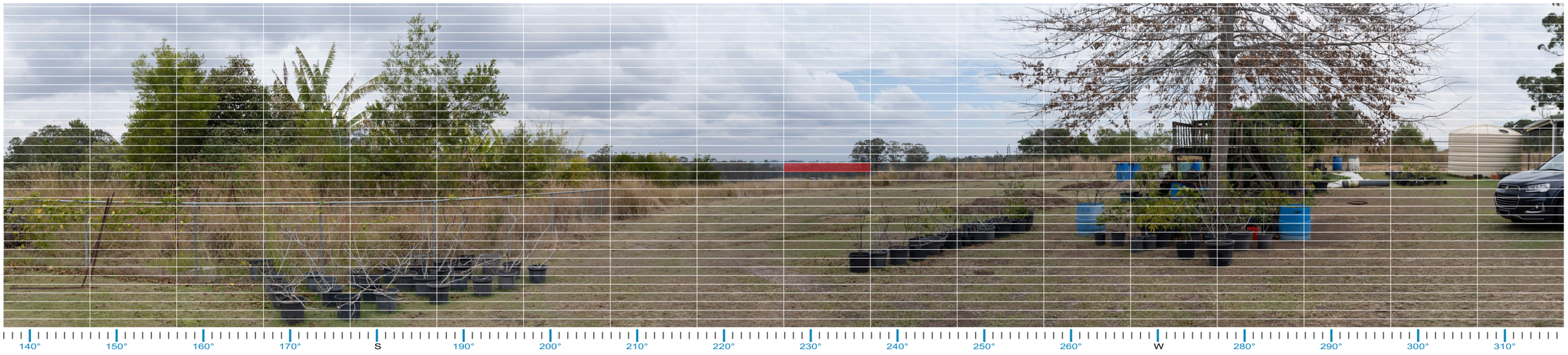
Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

Photomontage 01 - Visual Impact Rating: Low

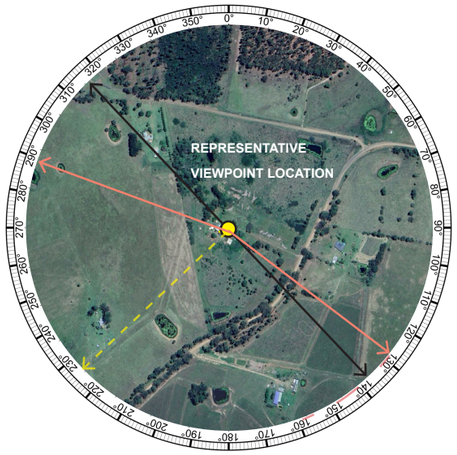
Proposed 60° crop

Note: The inset image provides an accurate representation of the view when the document is viewed at 100% zoom on a screen or held at arms length when printed at A3 size.

Photomontage 02 - Sensitivity and Magnitude



PM02 (VPA16)						Dwelling D3-2		
Coordinates	**Distance to development:**	**Viewpoint Type:**	**Receptor Sensitivity:**	**Scenic Quality:**	**Overall Sensitivity:**	**Occupied Cells:**	**Magnitude Rating:**	**Visual Impact Rating:**
29° 05'05.75"S 153° 03'26.36"E	**0.92km**	**Residential Receptor**	**Moderate**	**Low**	**Moderate**	**1**	**Very Low**	**Low**



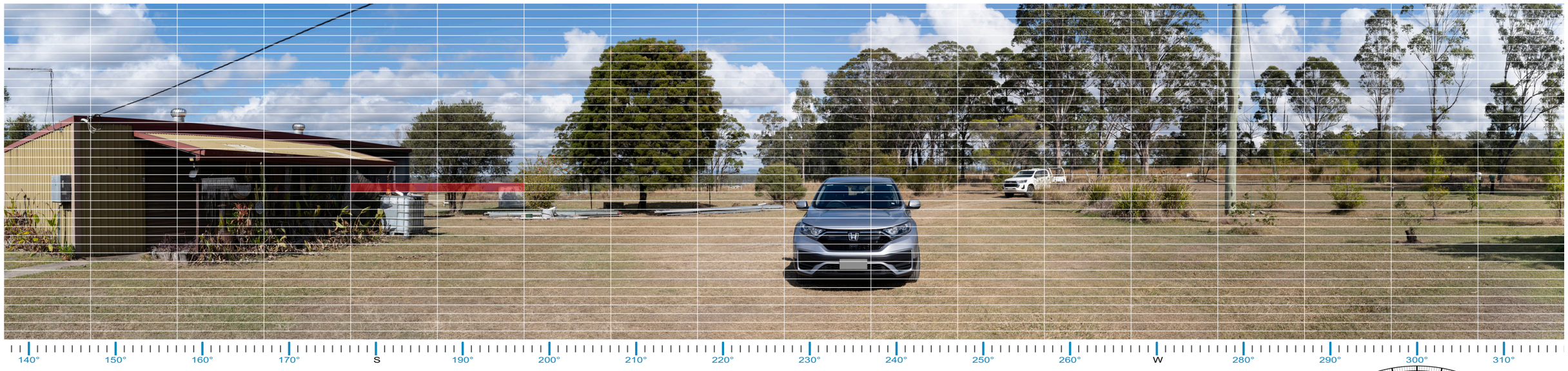
Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

Photomontage 02 - Visual Impact Rating: Low

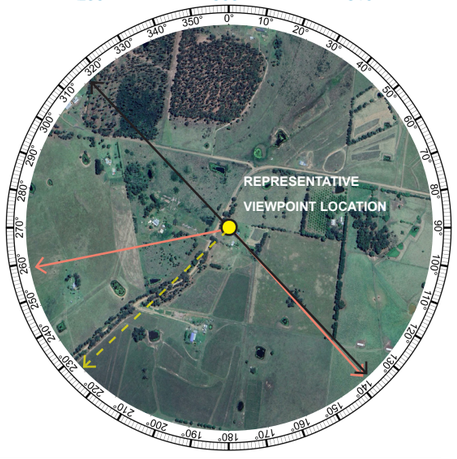
Proposed 60° crop

Note: The inset image provides an accurate representation of the view when the document is viewed at 100% zoom on a screen or held at arms length when printed at A3 size.

Photomontage 03 - Sensitivity and Magnitude



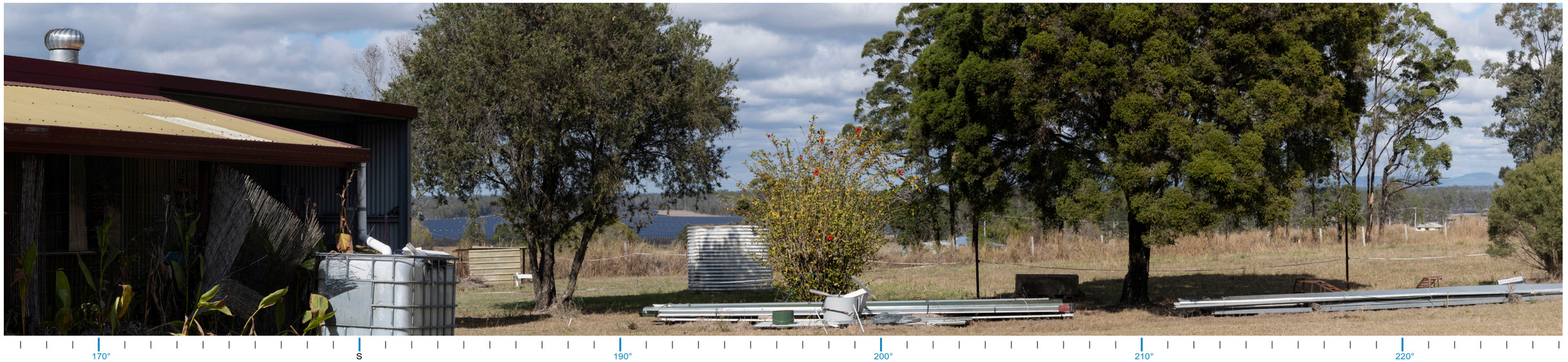
PM03 (VPA34)						Dwelling D3-4		
Coordinates	**Distance to development:**	**Viewpoint Type:**	**Receptor Sensitivity:**	**Scenic Quality:**	**Overall Sensitivity:**	**Occupied Cells:**	**Magnitude Rating:**	**Visual Impact Rating:**
29°05'06.68"S 153°03'36.23"E	**0.94 km**	**Residential Receptor**	**Moderate**	**Low**	**Moderate**	**2**	**Very Low**	**Low**



Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

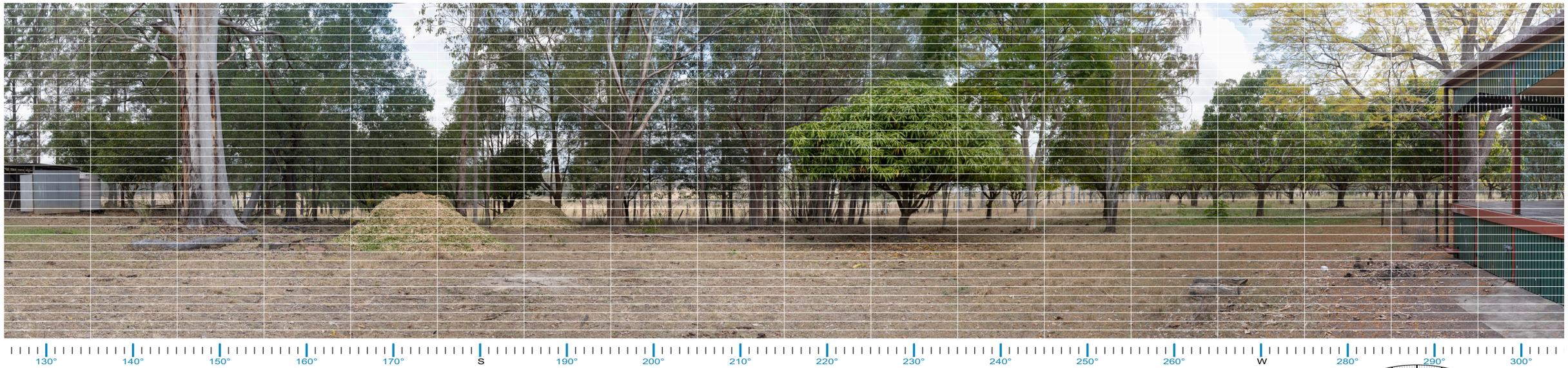
Photomontage 03 - Visual Impact Rating: Low

Proposed 60° crop

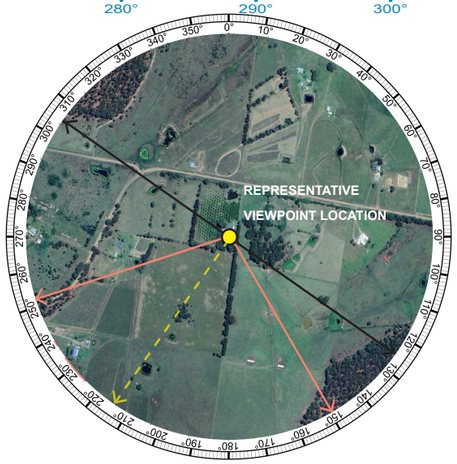


Note: The inset image provides an accurate representation of the view when the document is viewed at 100% zoom on a screen or held at arms length when printed at A3 size.

Photomontage 04 - Sensitivity and Magnitude



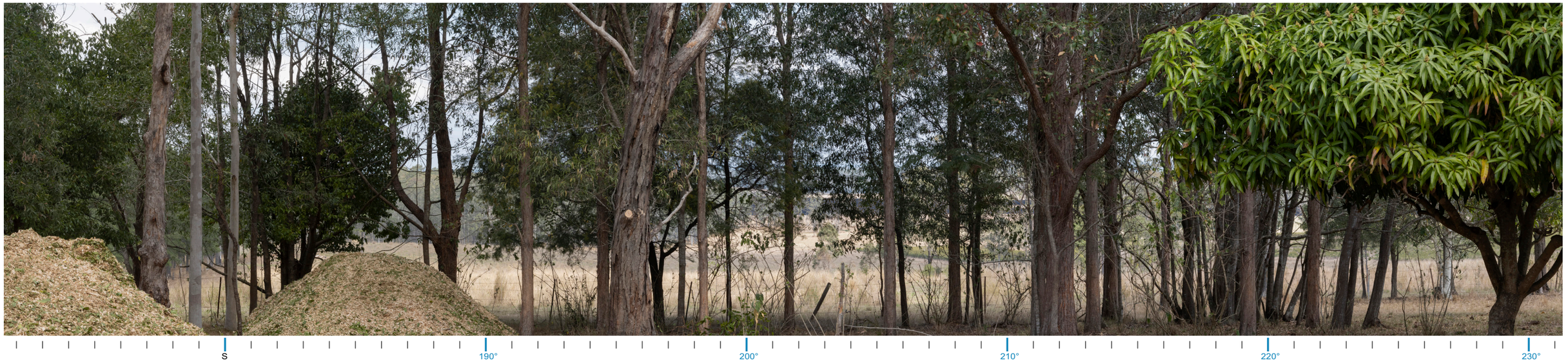
PM04 (VPA17)							Dwelling D3-5	
Coordinates	**Distance to development:**	**Viewpoint Type:**	**Receptor Sensitivity:**	**Scenic Quality:**	**Overall Sensitivity:**	**Occupied Cells:**	**Magnitude Rating:**	**Visual Impact Rating:**
29°05’05.64”S 153°03’49.55”E	1.03 km	Residential Receptor	Moderate	Low	Moderate	0	Very Low	Low



Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

Photomontage 04 - Visual Impact Rating: Low

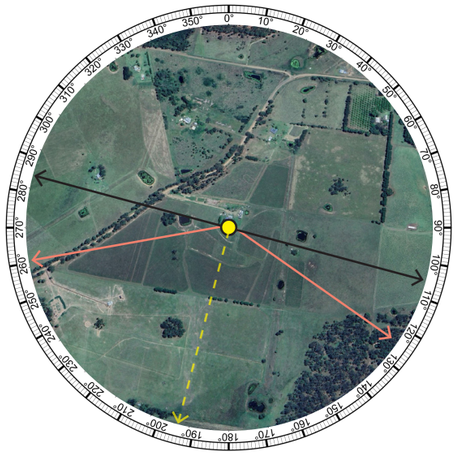
Proposed 60° crop



Note: The inset image provides an accurate representation of the view when the document is viewed at 100% zoom on a screen or held at arms length when printed at A3 size.

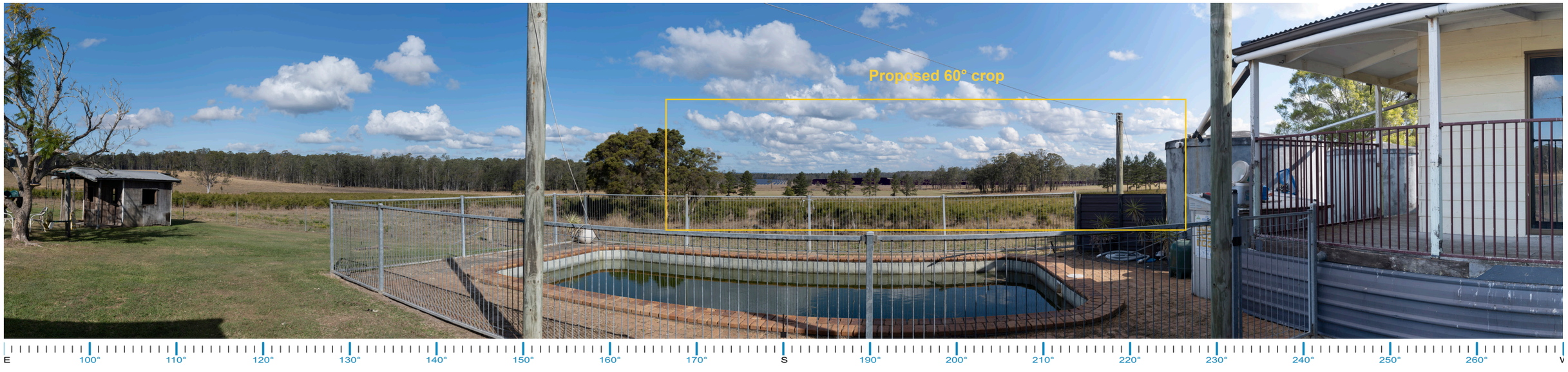
Photomontage 05 - Sensitivity and Magnitude

PM05 (VPA50)							Dwelling D3-3	
Coordinates	Distance to development:	Viewpoint Type:	Receptor Sensitivity:	Scenic Quality:	Overall Sensitivity:	Occupied Cells:	Magnitude Rating:	Visual Impact Rating:
29°05’16.75”S 153°03’31.61”E	0.61 km	Residential Receptor	Moderate	Low	Moderate	3	Very Low	Low



Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

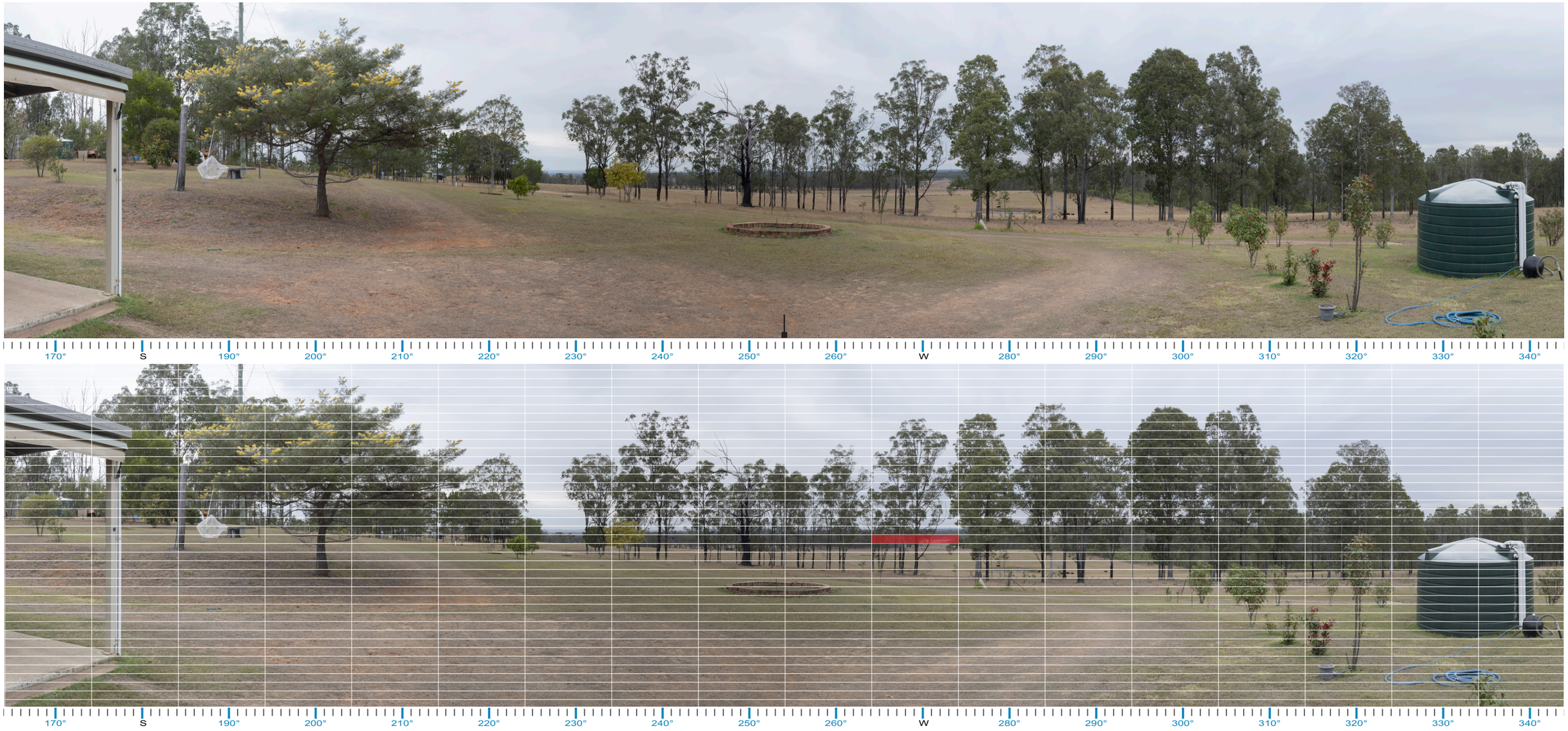
Photomontage 05 - Visual Impact Rating: Low



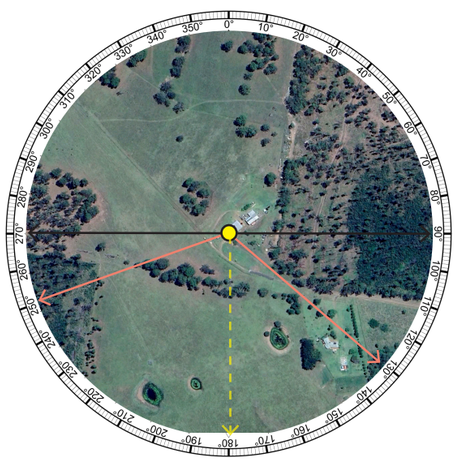
Proposed 60° crop

Note: The inset image provides an accurate representation of the view when the document is viewed at 100% zoom on a screen or held at arms length when printed at A3 size.

Photomontage 06 - Sensitivity and Magnitude

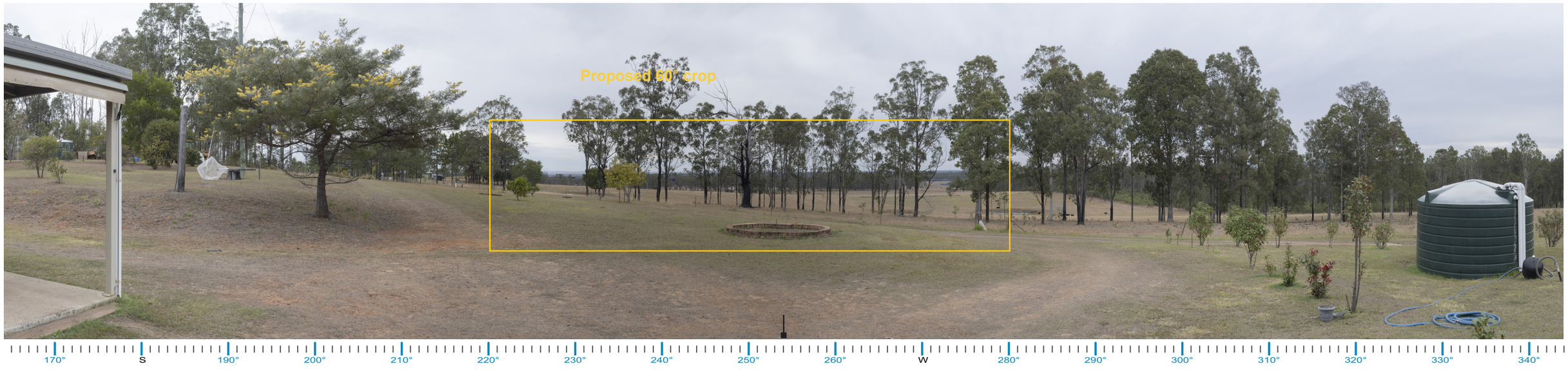


PM06 (VPA59)							Dwelling D3-8	
Coordinates	**Distance to development:**	**Viewpoint Type:**	**Receptor Sensitivity:**	**Scenic Quality:**	**Overall Sensitivity:**	**Occupied Cells:**	**Magnitude Rating:**	**Visual Impact Rating:**
29°04’53.68”S 153°03’14.18”E	**0.94 km**	**Residential Receptor**	**Moderate**	**Low**	**Moderate**	**1**	**Very Low**	**Low**

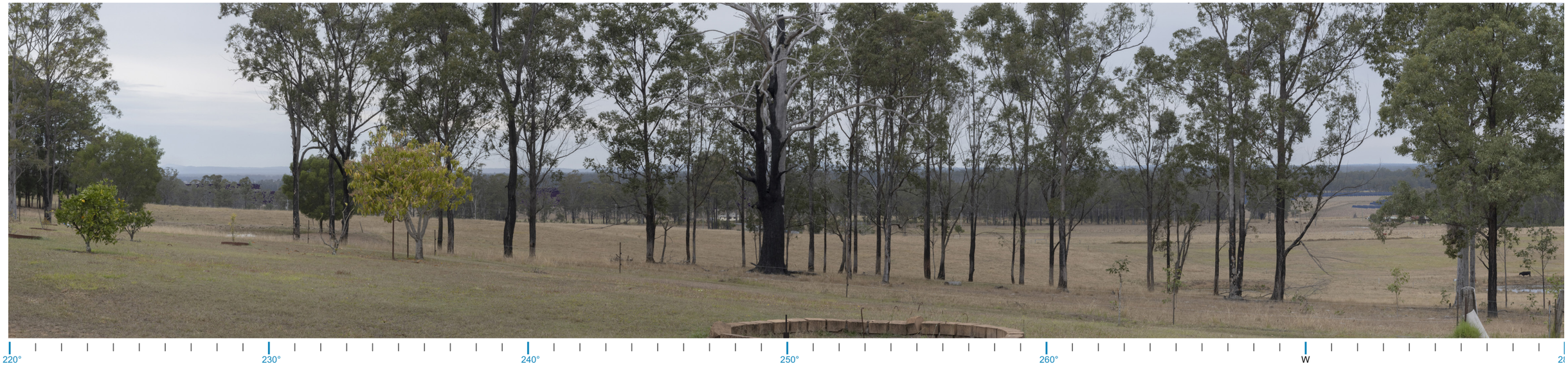


Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

Photomontage 06 - Visual Impact Rating: Low

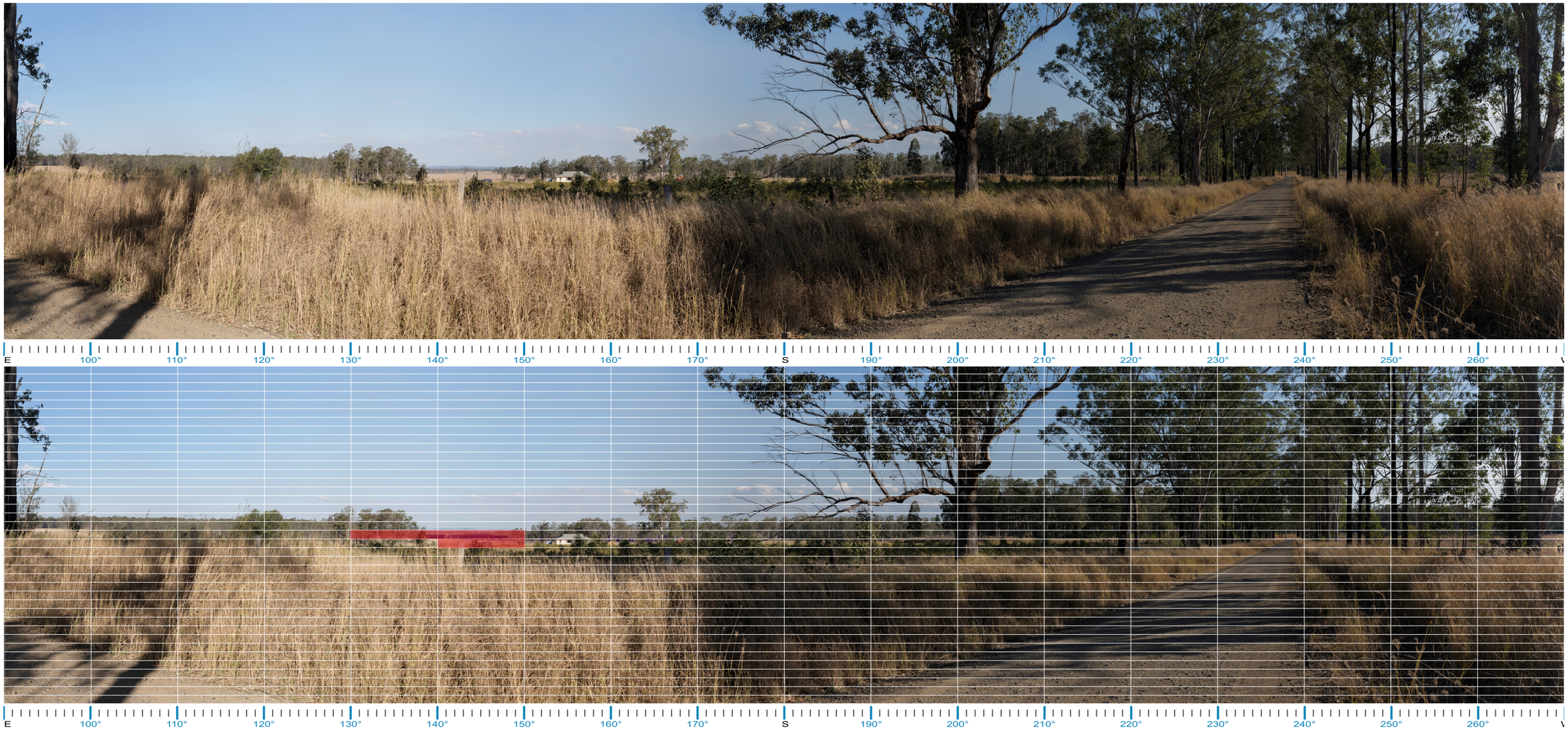


Proposed 60° crop

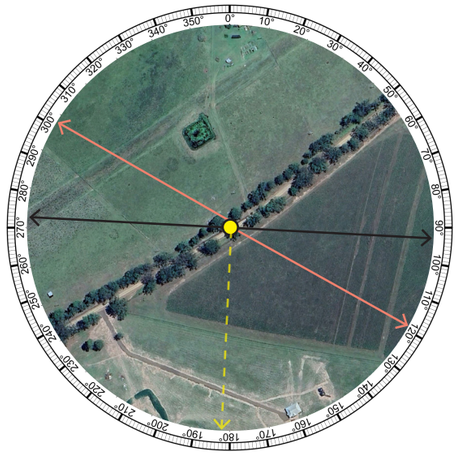


Note: The inset image provides an accurate representation of the view when the document is viewed at 100% zoom on a screen or held at arms length when printed at A3 size.

Photomontage 07 - Sensitivity and Magnitude

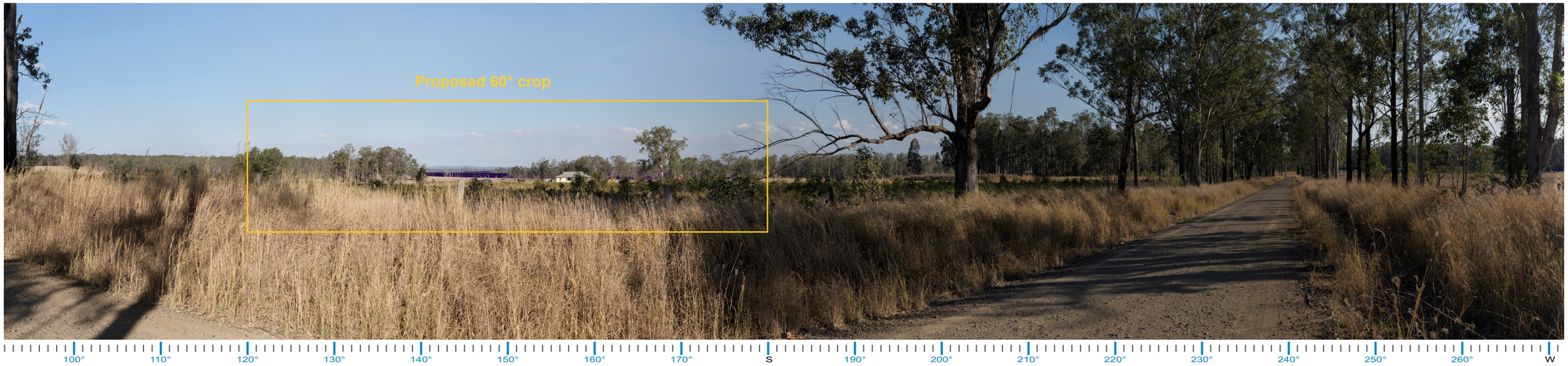


PM07 (VPA35) D3-47 (Representative Viewpoint)								
Coordinates	**Distance to development:**	**Viewpoint Type:**	**Receptor Sensitivity:**	**Scenic Quality:**	**Overall Sensitivity:**	**Occupied Cells:**	**Magnitude Rating:**	**Visual Impact Rating:**
29° 5’18.60”S 153° 3’15.65”E	**0.69 km**	**Residential Receptor**	**Moderate**	**Low**	**Moderate**	**3**	**Very Low**	**Low**

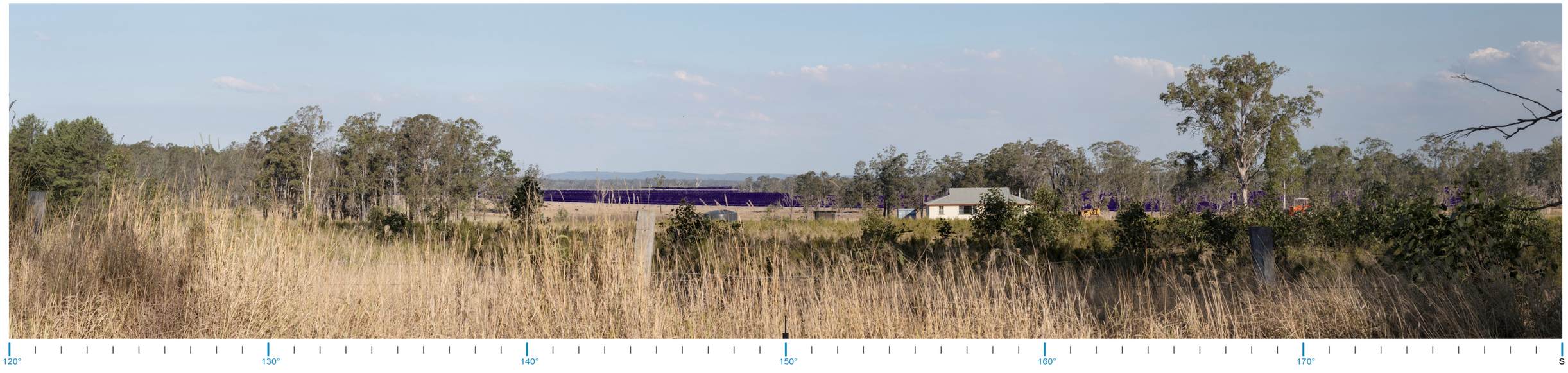


Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

Photomontage 07 - Visual Impact Rating: Low

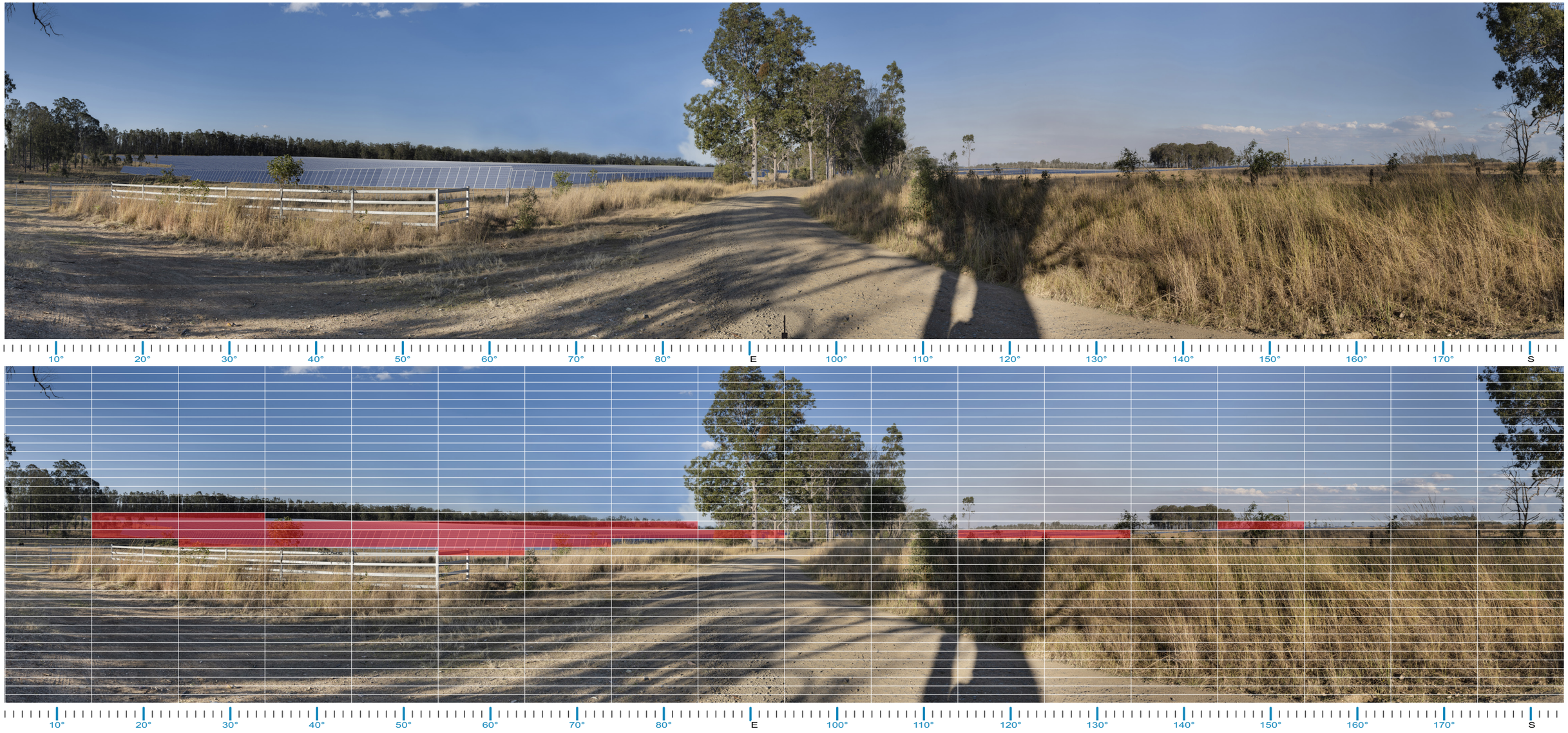


Proposed 60° crop

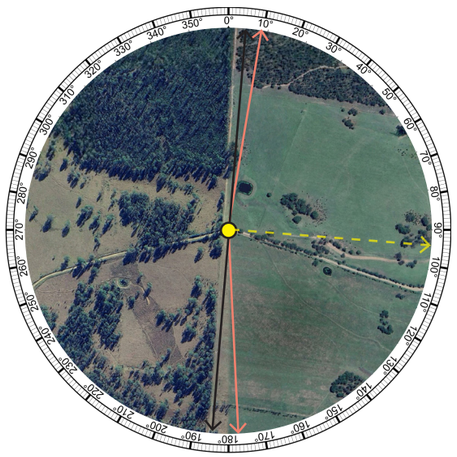


Note: The inset image provides an accurate representation of the view when the document is viewed at 100% zoom on a screen or held at arms length when printed at A3 size.

Photomontage 08 - Sensitivity and Magnitude

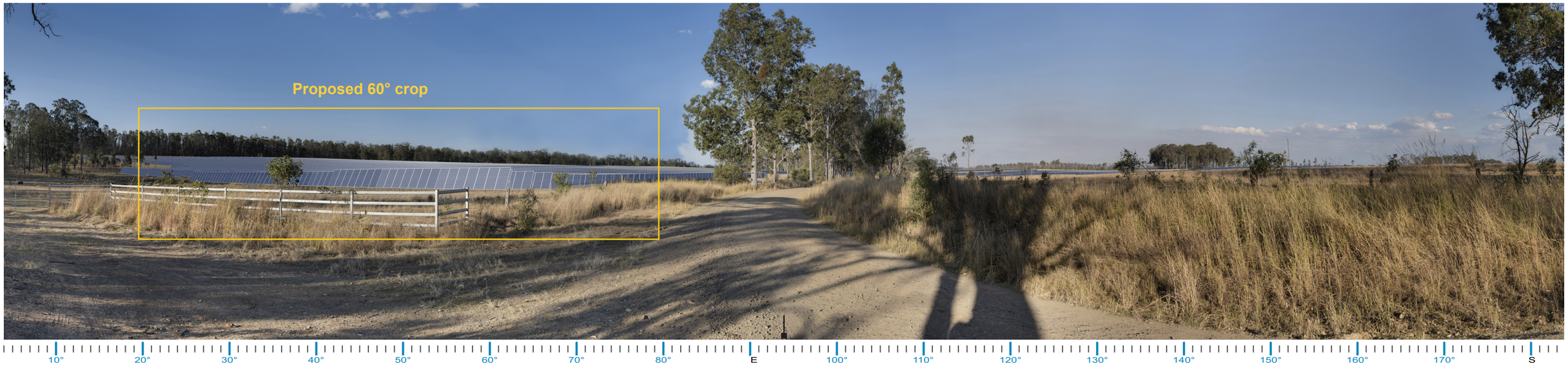


PM08 (VP05)								
Coordinates	**Distance to development:**	**Viewpoint Type:**	**Receptor Sensitivity:**	**Scenic Quality:**	**Overall Sensitivity:**	**Occupied Cells:**	**Magnitude Rating:**	**Visual Impact Rating:**
29°05’57.98”S 153°01’9.46”E	**0.046 km**	**Public Receptor**	**Very Low**	**Low**	**Very Low**	**26**	**High**	**Low**



Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

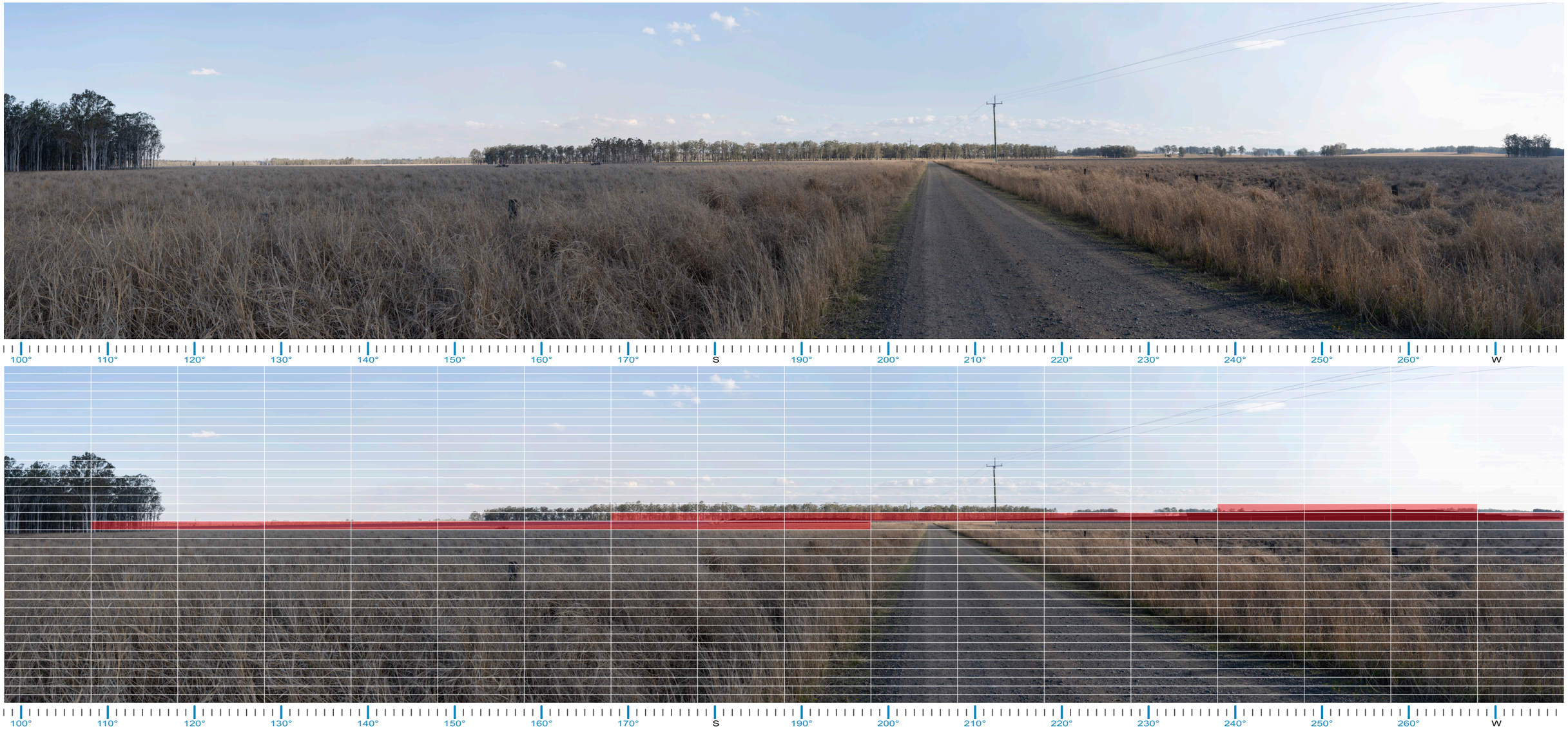
Photomontage 08 - Visual Impact Rating: Low



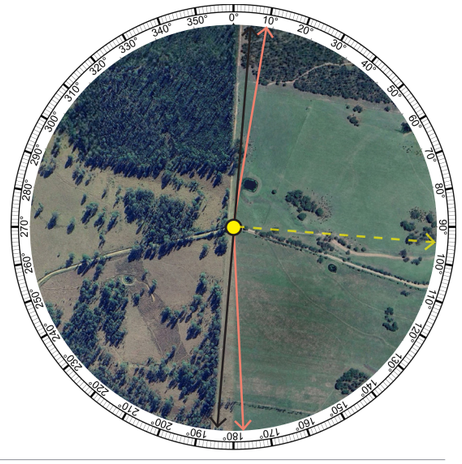
Proposed 60° crop

Note: The inset image provides an accurate representation of the view when the document is viewed at 100% zoom on a screen or held at arms length when printed at A3 size.

Photomontage 09 - Sensitivity and Magnitude

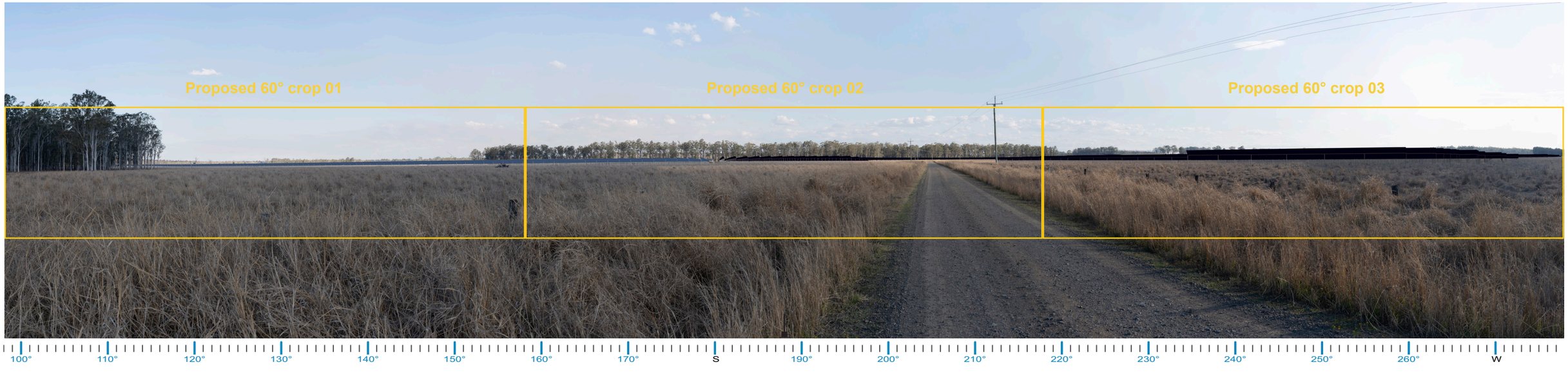


PM09 (VP04)								
Coordinates	**Distance to development:**	**Viewpoint Type:**	**Receptor Sensitivity:**	**Scenic Quality:**	**Overall Sensitivity:**	**Occupied Cells:**	**Magnitude Rating:**	**Visual Impact Rating:**
29° 5’34.76”S 153° 3’1.94”E	**0.089 km**	**Public Receptor**	**Very Low**	**Low**	**Very Low**	**23**	**High**	**Low**

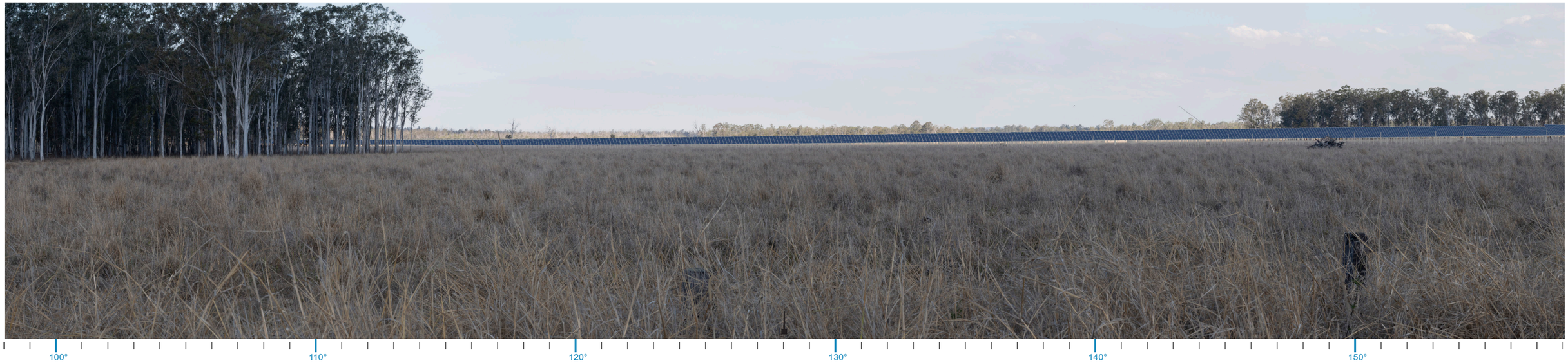


Occupied cell. A cell is deemed to be unoccupied if the Project does not cover more than approximately 25% of a cell (Technical Supplement, DPE 2022)

Photomontage 09 - Visual Impact Rating: Low



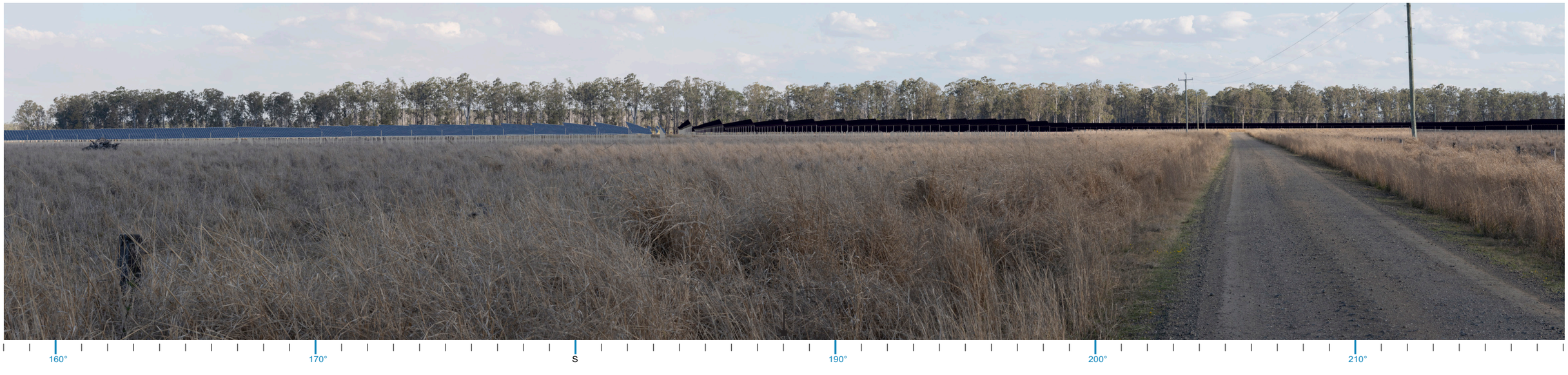
Proposed 60° crop 01



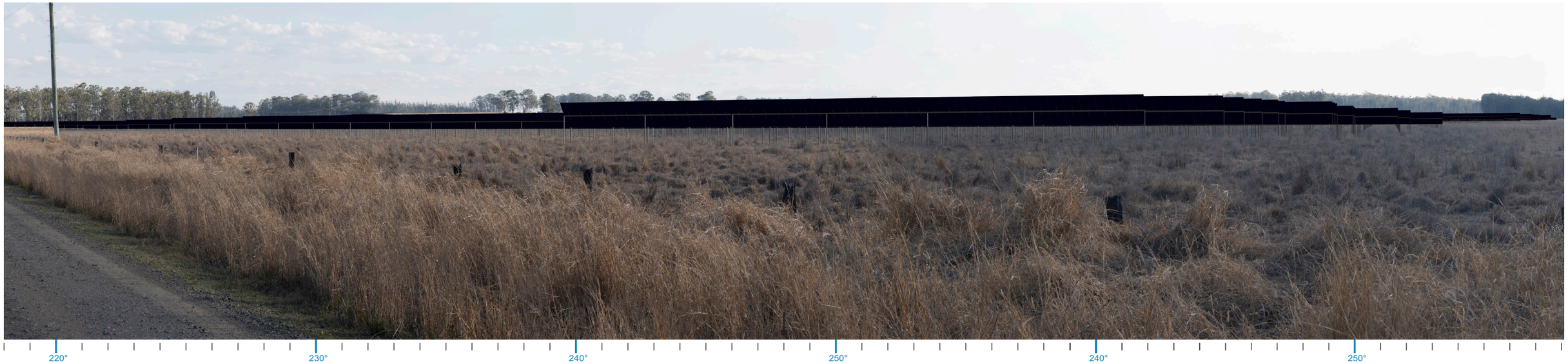
Note: The inset image provides an accurate representation of the view when the document is viewed at 100% zoom on a screen or held at arms length when printed at A3 size.

Photomontage 09 - Visual Impact Rating: Low

Proposed 60° crop 02



Proposed 60° crop 03



Note: The inset image provides an accurate representation of the view when the document is viewed at 100% zoom on a screen or held at arms length when printed at A3 size.

D

Glint and Glare Assessment

Executive Summary

Moir Landscape Architecture (Moir LA), have been engaged by Umwelt (Australia) Pty Limited (Umwelt) on behalf of Ark Energy Pty Ltd (Ark Energy) to prepare a Glint and Glare Assessment for the proposed Richmond Valley Solar Farm (the Project).

This Glint and Glare Assessment has been prepared in accordance with the Department of Planning and Environment (DPE) *Large-Scale Solar Energy Guideline* (August 2022) (the Guideline) (now the Department of Planning, Housing and Infrastructure [DPHI]).

In accordance with the Guideline, the following has been assessed:

- Assessment of private (non-associated) receptors (observation points) within 3 km of the solar array that have a line of sight is a requirement of the Guideline.
- All public (road) receptors within 1km of the solar array.
- Aviation receptors within 5 km of the solar array.

Moir LA has undertaken this glint and glare assessment utilising the Solar Glare Hazard Analysis Tool (SGHAT). The SGHAT is used to evaluate glare resulting from solar farms at different receptors, based on proximity, orientation and specifications of the PV modules.

It is important to note, this assessment is based on a worst-case scenario and does not take into account weather conditions, intervening elements such as vegetation and built structures.

A total of 33 free standing Observation Points (OP), i.e. private receptors (non-associated) were identified within 3 km of the Project. Based on glare assessment, potential "Yellow" glare was identified for four (4) of private receptors (non-associated). Detailed assessment of the results indicates that the potential 'yellow' glare at these receptors is less than 10 hours per year which therefore renders a 'low' glare impact. No further mitigation have been determined to be required from private receptors (non-associated) in accordance with the Guidelines.

Two (2) public (road) receptors including Avenue Road and Main Camp Road were identified within 1 km of the solar array. Based on the assessment, potential "Yellow" glare was identified for these public (road) receptors. As a result of these findings, mitigation is required in line with the Guidelines from these public (road) receptors.

Principles for mitigation to reduce potential glare have been discussed in this report in accordance with the *Large-Scale Solar Energy Guideline Guidelines* - Landscape and Visual Impact Assessment (DPEa, 2022).

Glossary of Key Terms

Associated receptor - A private receptor on privately-owned land in respect of which the owner has reached an agreement with Ark Energy in relation to the development and management of impacts associated with the Project.

Backtracking - Adjusting the position of solar panels to capture sunlight enhancing energy efficiency.

Large-scale solar energy development - Works, infrastructure and buildings for the purpose of generating electricity using ground-mounted photovoltaic panels that are state significant development (SSD).

Glint and Glare Assessment - A tool used to identify and assess the likely impacts of potential glare resulting from the Project on surrounding road users, rail network, nearby buildings, air traffic controllers and pilots.

Glare Modelling - Simulation or representation of how glare might occur in a given environment.

Non-associated receptors - A private receptor on privately-owned land in respect of which the owner has not reached an agreement with Ark Energy in relation to the Project.

Observation Point - A private (non-associated) receptor identified to assess the likely impacts of potential glare resulting from the Project.

Public receptor - Publicly accessible locations which have the potential to be visually impacted by a proposal. These generally include local roads and rail users.

Receptors - Individuals and/or defined groups of people who have the potential to be visually impacted by a proposal.

Study area - Specific geographic location that is the focus of the analysis.

SSD - State Significant Development

SEARs - Secretary's Environmental Assessment Requirements

Glare impact - The potential glare impact on views from the Project on receptors surrounding the Project.

***Note** - In this report, any references to "residence", "dwellings" or "residences" are cited as they appear in the Guidelines and the Technical Supplement. For consistency within this report, it is crucial to understand that they refer to "Private Receptors" to fully grasp their intended meaning.*

1.0 Introduction

1.1 The purpose of this report

Moir Landscape Architecture (Moir LA), have been engaged by Umwelt (Australia) Pty Limited (Umwelt) on behalf of Ark Energy Projects Pty Ltd (Ark) provide a Glint and Glare assessment of the Project. The report will accompany the EIS prepared for the Project.

The Glint and Glare Assessment has been prepared in accordance with the *Large-Scale Solar Energy Guidelines* - Landscape and Visual Impact Assessment (DPE, 2022).

Glint is generally defined as a momentary flash of bright light while glare can be defined as continuous source of excessive brightness proportionate to ambient lighting (FAA, 2021).

While glint and glare impacts can be relatively uncommon, it is important to model and assess these impacts to ensure any potential significant impact is avoided or mitigated appropriately (DPE, 2022).

Assessment needs to be undertaken to ensure that sensitive visual receptors such as road users, surrounding rail network, nearby buildings, air traffic controllers and pilots are not impacted by the proposed development (ForgeSolar, 2022).

1.2 Glint and glare key principles

The key principles for ensuring the Project can be undertaken whilst maintaining an acceptable level of amenity are outlined in the Guideline as follows:

1. **Solar panels should be sited to reduce the likely impacts of glint and glare.**

2. **Solar panels and other infrastructure should be constructed of materials and / or treated to minimise glint and glare.**

3. **If large scale solar energy development is likely to exceed the relevant criteria for glare and standards for glint, mitigation strategies should be adopted.**

1.3 Glint and glare key principles

Table 1 provides an outline of the assessment requirements for the glint and glare report (in accordance with the Guidelines, DPE 2022 and the SEARs) and where these have been addressed in the report. The objective of the assessment as stated in the Guideline is to "*demonstrate that glint and glare would not pose a significant risk to motorists or pilots and that nuisance from glare is minimised for residential locations in accordance with the objectives outlines in* [the Guideline]" (DPE 2022a, p. 32).

Report Structure	
Requirements for Glint and Glare Assessment:	**Addressed in report:**
A description of the proposed PV panels indicating: *- the axis of rotation and maximum tilt angle* *- the light absorption efficiency and / or refractive index values at different angles.* *- whether any backtracking is proposed and the time and duration of these operations.*	**Refer to:** **Section 3.0: Project Overview**
A justification for excluding any modeled glare results because they would be insignificant due to the size, position and luminance of the glare source or high ambient luminance.	**Refer to:** **Section 2.0: Study Method**
Results of the glint and glare analysis for each assessable receiver	**Refer to:** **Section 4.0: Private receptors** (Assess all residential dwellings within 3 km of the proposed solar array that have a line of sight.) **Section 5.0: Public Receptors** (Assess all roads and rail lines within 1 km of the proposed solar array.) **Section 6.0: Aviation Receptors** (Assess all air traffic control towers and take off / landing approaches to any runway or landing strip within 5 km of the proposed solar array.)
Identification of existing vegetation or built structures and a quantitative assessment of whether these features would eliminate or reduce the modeled impacts.	**Refer to Summary Tables**
Details of strategies to either avoid or mitigate impacts including re-siting or sizing the project, altering the tracking patterns, implementing vegetation screening, or entering neighbor agreements with landowners if all other measures have been exhausted.	**Refer to:** **Section 8.0: Mitigation Recommendations**

Table 01 – Overview of Assessment Requirements

2.0 Study Method

2.1 Assessment Methodology

Moir LA have undertaken this glint and glare assessment utilising Solar Glare Hazard Analysis Tool (SGHAT) developed by Sandia National Laboratories. The SGHAT is used to evaluate glare resulting from solar farms at different receptors, based on proximity, orientation and specifications of the PV modules. This tool is recognised by the Australian Government Civil Aviation Safety Authority (CASA).

SGHAT is used to indicate the nature of glare that can be expected at each potential receptor. Glare can be broadly classified into three categories and presented by the following three colours:

- **Green Glare:** Low potential for temporary after-image
- **Yellow Glare:** Potential for temporary after-image
- **Red Glare:** Retinal burn, not expected for PV.

Note: The main focus of this assessment is the yellow glare. Red glare is not expected for PV and green glare has low potential to cause after image and deemed negligible (HO,2011).

The glare analysis tool used to assess the glint and glare hazard was run at a simulation interval of one minute, based on the reflectivity of solar rays off PV modules which typically lasts for at least one minute.

Modelling for the solar farms in the SGHAT tool is based on the following factors:

- Position of the sun over time with respect to the location of the proposed solar farm.
- Assessment is based on a worst case scenario assuming clear weather all year round, (ie. no consideration of cloud coverage).
- Tracking axis tilt, tracking axis orientation and properties of the PV modules.
- Potential to screen the impact by surrounding topography (does not take into account intervening elements such as vegetation and built structures).

2.2 Modelling Assumptions

The glare and glint impact is calculated utilising the geographic location, elevation, position of the sun and other vector calculations including module orientation, reflective environment and visual factors. Sun position is determined at every one (1) minute interval through out the year.

Although the SGHAT is an extensive tool to understand the impacts of potential glare, it does not consider weather conditions, separation between PV modules and existing surrounding vegetation (if present) between the Project and a sensitive receiver.

Single axis tracking PV panels capable of rotating to a maximum of 60° have been considered to indicate a full rotational range of 120° for this analysis. The trackers are oriented north-south with a maximum pitch distance of 5.4 m. Glare modelling has been conducted to correspond to maximum tracker height to provide a wider range of observed solar glare based on the extremities.

The glint and glare effects of PV panels depends on the scale and type of infrastructure, the prominence and topography of the site relative to the surrounding environment, and any proposed screening measures to reduce visibility of the site.

Glare modelling has been conducted using the Shade-slope backtracking function within the SGHAT tool. Ground Coverage Ratio (GCR) calculations are used within the SGHAT tool for 'Shade-Slope' backtracking analysis. GCR is defined as the ratio of the array length (L) to proposed pitch distance (R) (Doubleday et al. 2016) (see **Figure 01**).

$$\mathrm{GCR} = \frac{L}{R} \ .$$

For this assessment GCR is calculated considering L = 2.384 m and R = 5.4 m.
The resulting GCR = 0.44.

Section 3.0 provides an overview of the PV panel parameters used for the assessment.

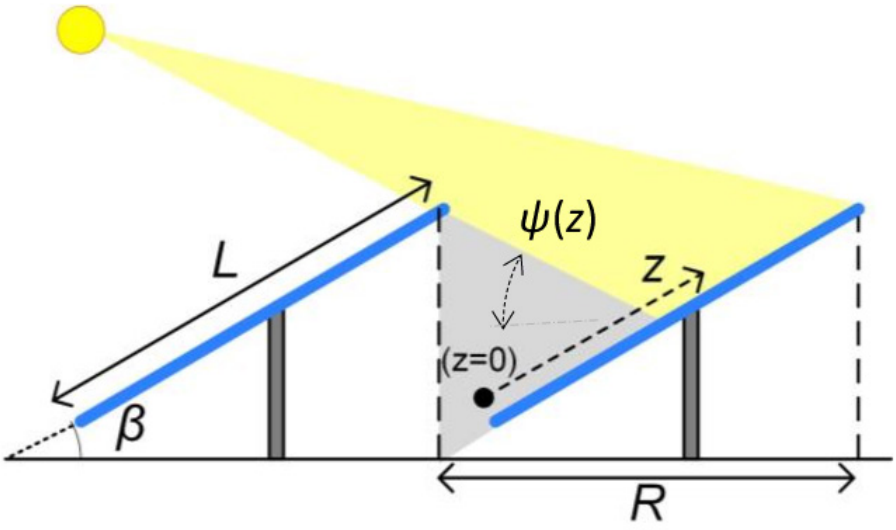


Figure 01 – GCR Calculation
Imagery Source: Doubleday et al. 2016

2.3 Backtracking Operations

A single axis horizontal tracking system can be configured to do a 'backtracking' technique, which implies that when the sun is low in the sky in the morning or evening, the tracking system can adjust the panels to maximise solar capture while minimising overshadowing. (Refer to **Image 2 & 3**).

ForgeSolar uses a simplified model of backtracking to avoid shading. Single-axis trackers follow the movement of the sun as it moves east to west throughout the day. Yields are maximised, and light reflection is minimised when panels are directly facing the sun. In times when the sun is not in the tracking range, it is assumed that the panels instantaneously 'backtrack' to their resting angle of 0° (horizontal) over the night . Due to this, glare from the backtracking mechanism will be more conservatively simulated and at times of sunset and sunrise, when the sun is at a lower angle relative to the array, glare impacts will be more noticeable.

Variable angles of incidence of the sun relative to the panels may occur when the tracking system is performing a backtracking operation, and this variation is somewhat represented by SGHAT software in its recent update of 2022.

Shade-slope backtracking function within the SGHAT tool considers the lowest possible panel rotation angle during backtracking. Therefore, 0° resting angle option is modelled. This function simulates the impression of the panels returning to a predefined angle after the maximum tilt angle has been attained.

It is important to note however, that this backtracking modelling is not a realistic representation of how a backtracking technique would work in actuality but gives an indication of the potential glare of shifting the PV panels away from the sun after the maximum tilt is reached.

For the purposes of the assessment, the assumptions for backtracking in relation to the Project is as follow: (Refer to **Image 3**)

- Scenario 1: Normal tracking with backtracking and a night time stowing angle of 0° - to represent a worst-case scenario for the Project. In this case, the panels move between the operational range (maximum tilt).

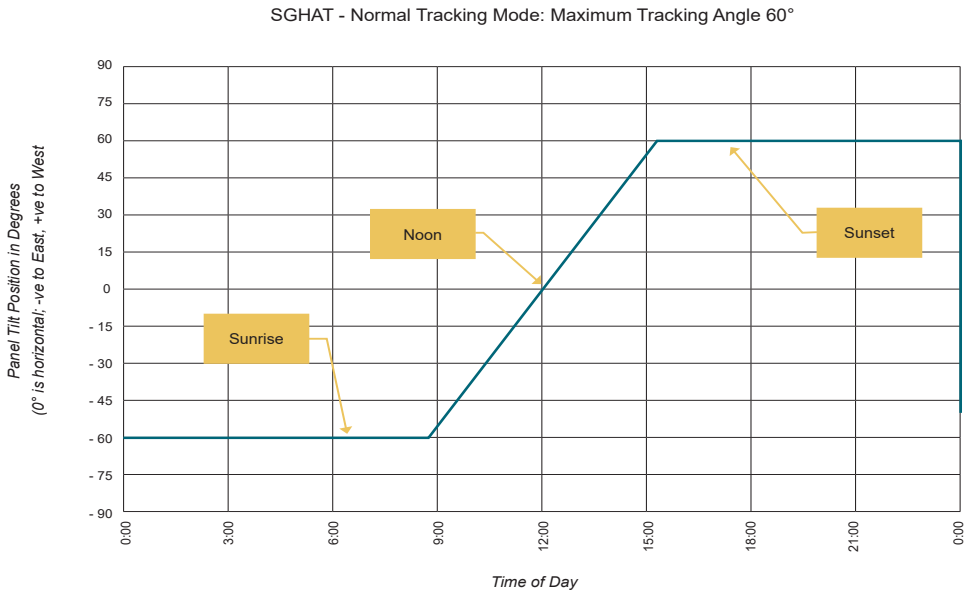
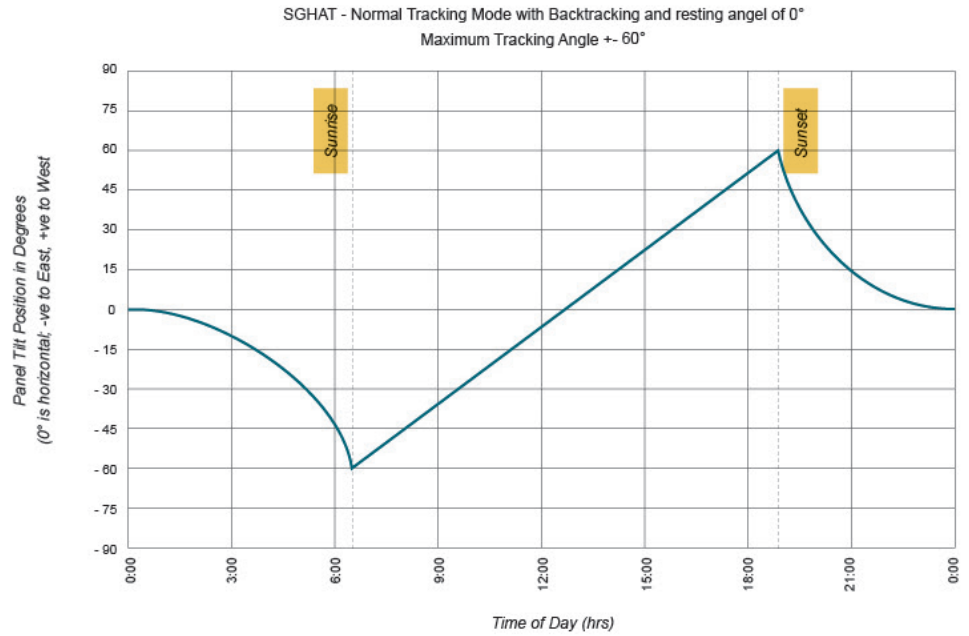


Image 02 Normal Tracking without Backtracking (2023) - Scenario 6



LEGEND

Relative Angles of Panels

Image 03 Normal Tracking with Backtracking and Resting Angle of 0°

2.4 Operational Management Strategy

Utilising operational management techniques is an alternative mitigation measure to alter the functioning of the PV array during the backtracking mode. This method serves to mitigate glare effectively.

To address this strategy and reduce the potential glare impacts linked to the Project, it has been rigorously assessed and modelled adjustments to the tracking patterns using ForgeSolar (refer to **Image 4**).

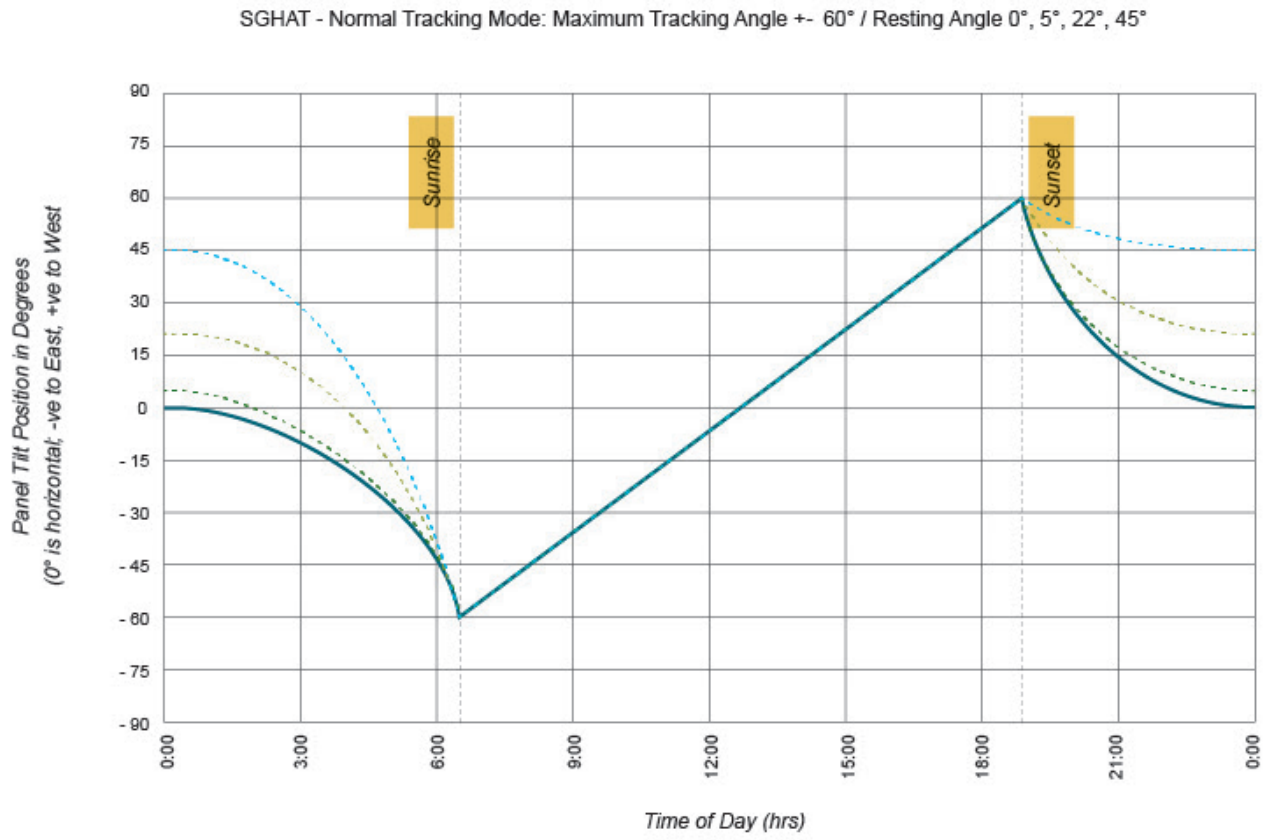


Image 04 Backtracking Operations for Mitigation (2023)

The following aspects of each scenario have been undertaken to ascertain an appropriate mitigation strategy:

- Scenario 1 (worst case): Normal tracking with backtracking and night time stowing angle of 0° - scenario was modelled as a worst-case scenario for the Project. In this case, the panels move between the operational range (maximum tilt) discussed in Section 2.4 (refer image 03).
- Scenario 2: Normal tracking with backtracking and night time stowing angle of 5° - scenario was modelled with a normal tracking angle of ±60° angle with backtracking operation. In this case, the panels move between the operational range (maximum tilt) and backtrack to 5° when the sun is out of range and remain at this angle only switching back during the night.
- Scenario 3: Normal tracking with backtracking and night time stowing angle of 22° - scenario was modelled with a normal tracking angle of ±60° angle with backtracking operation. In this case, the panels move between the operational range (maximum tilt) and backtrack to 22° when the sun is out of range and remain at this angle only switching back during the night.

- Scenario 4: Normal tracking with backtracking and night time stowing angle of 45° - scenario was modelled with a normal tracking angle of ±60° angle with backtracking operation. In this case, the panels move between the operational range (maximum tilt) and backtrack to 45° when the sun is out of range and remain at this angle only switching back during the night.
- Scenario 5: Normal tracking with backtracking and night time stowing angle of 60° - scenario was modelled with a normal tracking angle of ±60° angle with no backtracking operation. In this case, the panels move between the operational range (maximum tilt) and remain at this angle only switching back during the night.
- Scenario 6: Normal tracking without backtracking and stowing angle - scenario was modelled with a normal tracking angle of ±60° angle with no backtracking operation. In this case, the panels move between the operational range (maximum tilt) and remain at this angle only switching back during the night (refer **Image 02**).

3.0 Project Overview

3.1 Solar Panel Specifications

To attain optimum solar energy collection, the Project modelling has utilised a maximum rotational range of 120°. The panels are fixed on a tubular frame with a single axis tracking procedure. For accuracy, glare analysis has been performed using maximum tracker height not exceeding 2.5 m when facing at the highest angle.

Refer to **Figure 02** for typical panel dimensions utilised for this assessment.

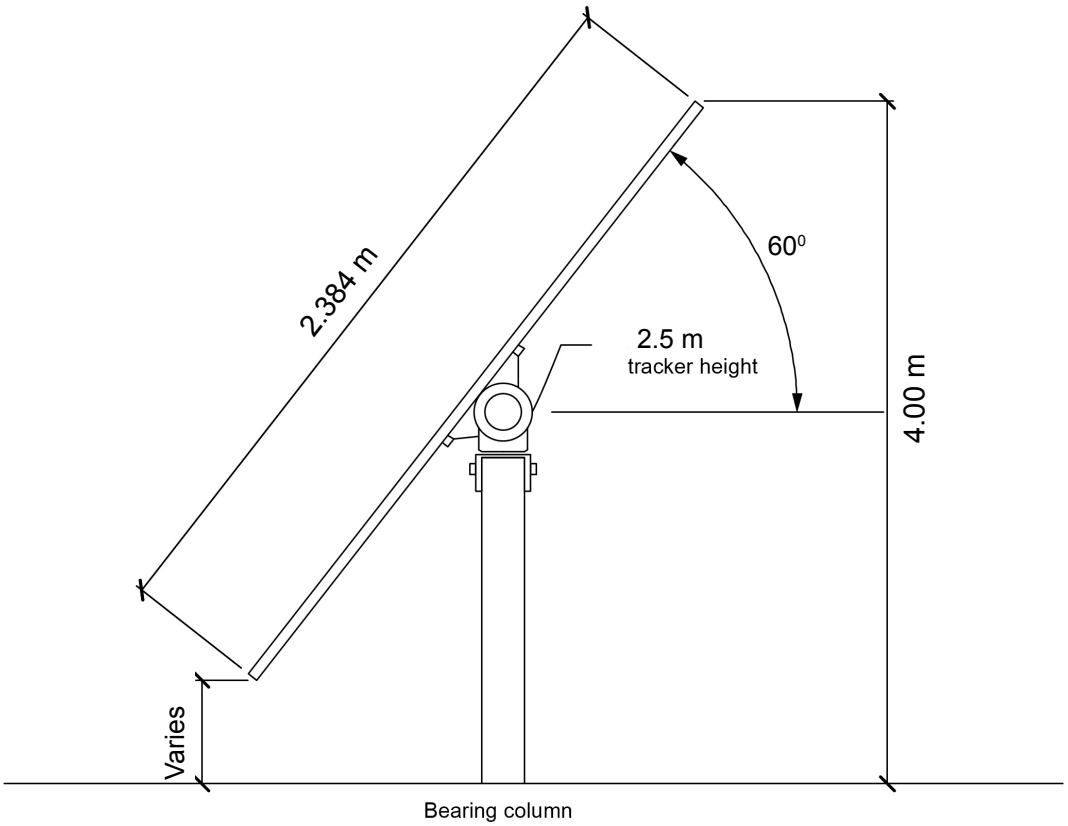


Figure 02 – PV Parameters utilised for this assessment
Imagery Source: Provided by the Client

General Solar PV system inputs:			
Input Data	**Units**	**Value**	**Comments**
Time Zone	UTC	+10	NSW time Zone
Orientation of Array	Degrees	0	Rows aligned in north-south directions
PV Surface materials	-	Smooth Glass with Anti-Reflective Coating	-
Mounting Type	-	Single Axis Tracking	-
Panel Maximum Height	Metres	4.00	Provided by Ark Energy
Panel Dimensions	Metres	2.384 (L) x 2.00 (W)	Provided by Ark Energy
Pitch Distance	Metres	5.4	Provided by Ark Energy
Single Axis Tracking Parameters			
Axis Orientation	Degrees	0	Panels orientated north south
Module Offset angle	Degrees	0	Facing upwards Panels rotate during operation
Max tracking angle	Degrees	±60° (Range of 120°)	Panels following the Sun
Resting angle	Degrees	0	Panels following the sun, to represent backtracking and after dark stowing angles
Maximum Tracker Height	Metres	2.5	Provided by Ark Energy
Backtracking	-	Shade-Slope	Provided by Ark Energy
Ground Coverage Ratio	-	0.44	Ratio of the Array length to the pitch distance as provided by Ark Energy

Table 02 – Summary of modelling parameters (Scenario 1)

3.2 Array layout

A single axis tracking system follows the sun's trajectory and rotates the panels across east to west. The modules mounted on a north/south axis will slowly track the movement of the sun. The rows of modules will be spaced approximately 5.4 m apart to ensure no shading occurs and allow for ease of access for maintenance purposes (Refer to **Table 02**).

For the purpose of this report, the Project has been divided into 19 separate areas (numbered 1 - 23) for assessment. This has been done due to software limitations and does not have any effects on the overall result. Please note that although the solar arrays have been divided into 19 separate areas, they have been numbered starting from 1 to 23 due to software limitations. Again, this does not have any effects on the overall result.

Refer **Figure 03** for PV array areas.

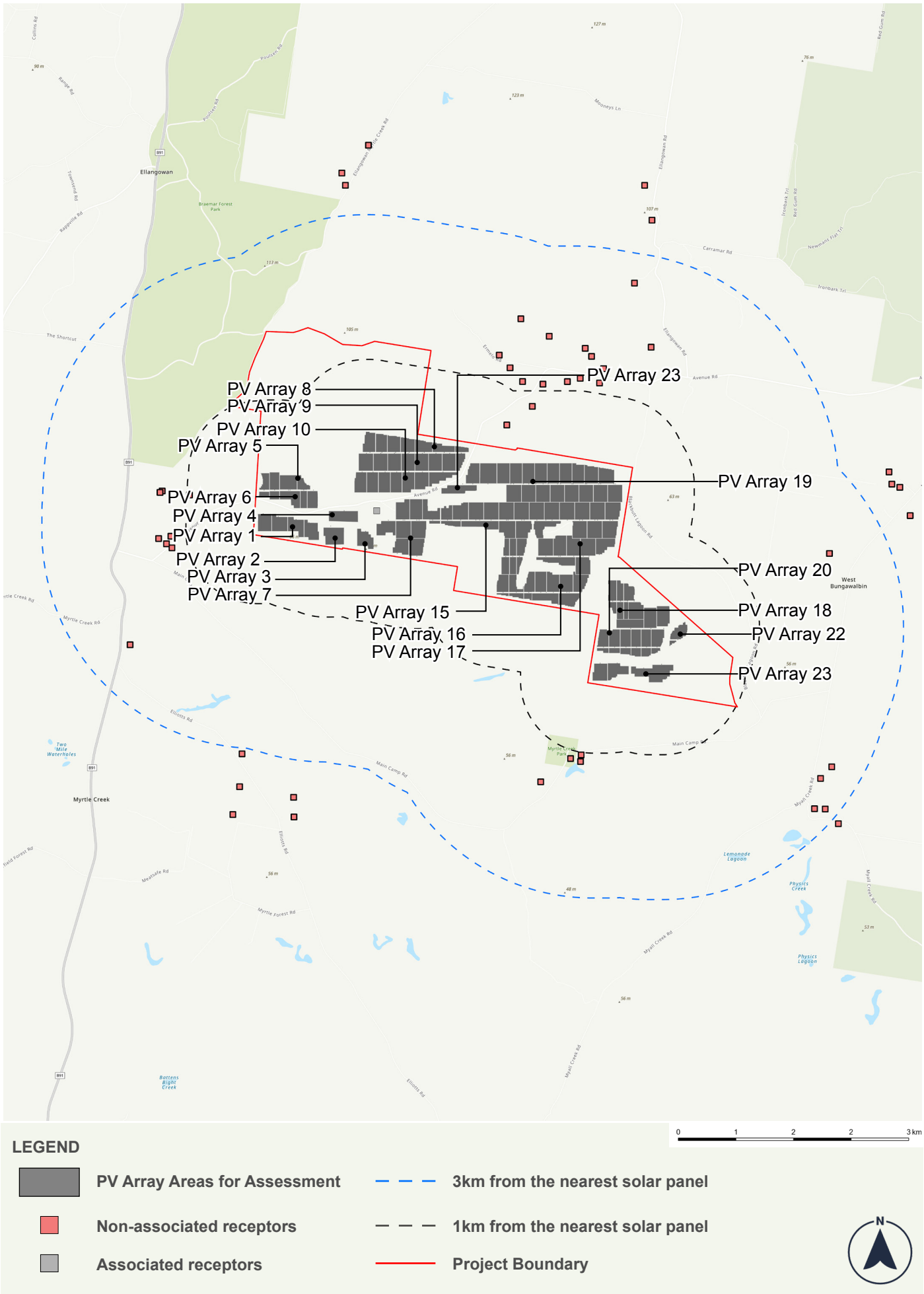


Figure 03 – Project Area
Imagery Source: ESRI Aerial Imagery 2023

4.0 Private receptors

4.1 Overview of Methodology

Table 03 provides an overview of the scope, methodology and performance objectives for assessment of glint and glare on private receptors (non-associated).

Glint and Glare Requirements - Private Receptor		
Scope	**Methodology**	**Performance Objective**
All residential viewpoints within 3 km of the proposed solar array that have a line of sight. Representative viewpoints may be used for residential receptor that are clustered together.	**Analysis of the daily and yearly glare impacts in minutes.** **All residential receptor must be assessed at a height of 1.5 m above ground level.**	**Refer to Table 04.**
Note: Modeling for private receptors is calculated on a receptor height of 1.5 m AGL.		

Table 03 – Private receptors Assessment Requirements (Source: DPE, 2022)

Impact rating and performance objectives for glare impacts on Private receptors		
High Glare Impact	**Moderate Glare Impact**	**Low Glare Impact**
> 30 minutes per day **> 30 hours per year**	**< 30 minutes per day > 10 minutes per day** **< 30 hours per year > 10 hours per year**	**< 10 minutes per day** **< 10 hours per year**
Significant amount of glare that should be avoided	*Implement mitigation measures to reduce impacts as far as practicable*	*No mitigation required*

Table 04 – Private receptor impact rating and performance objectives (Source: DPE, 2022)

4.2 Private receptors

A desktop assessment identified 33 private receptors (non-associated) with a line of sight to the Project within 3 km of the Project.

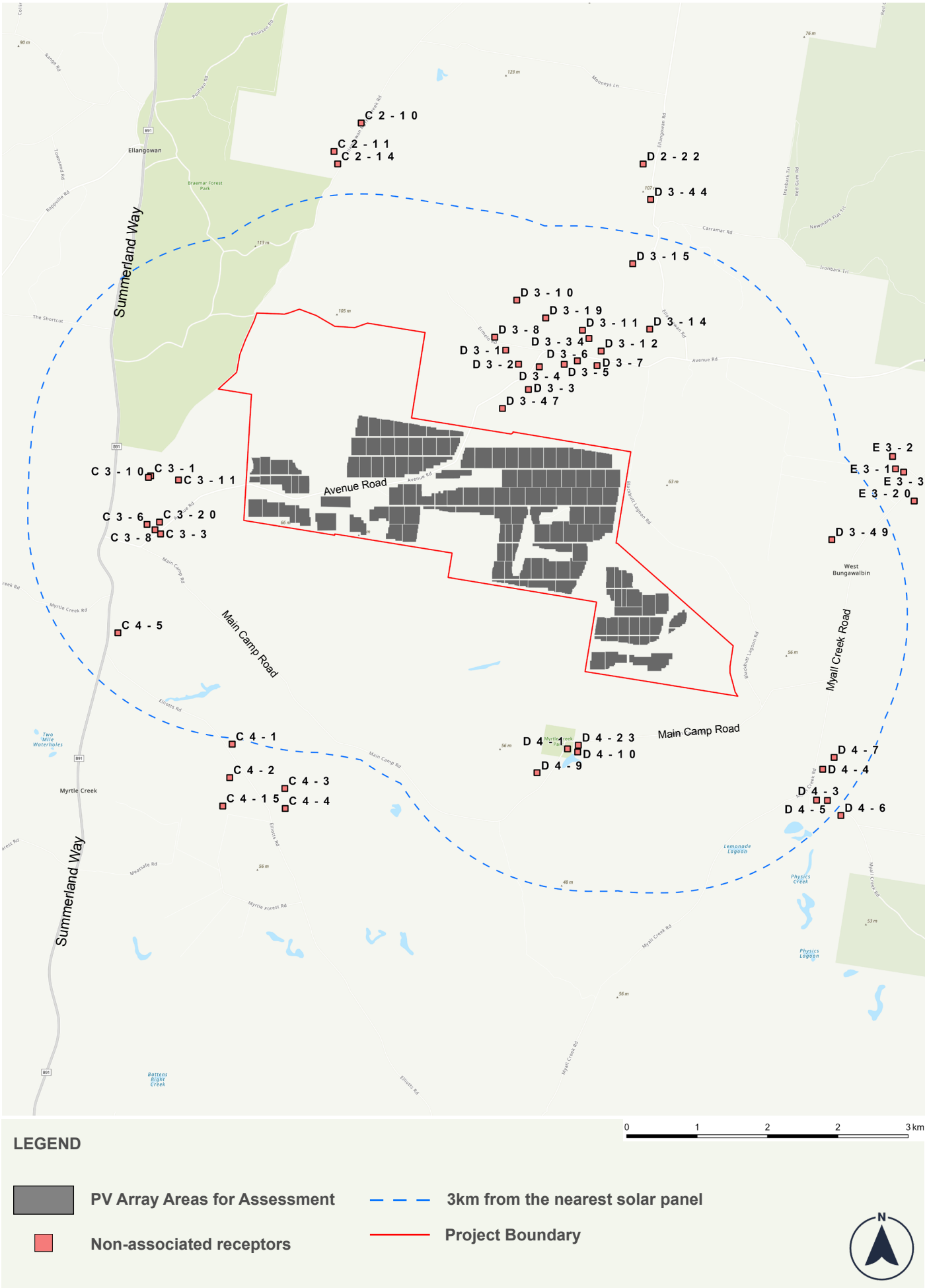


Figure 04 – Private receptors
Imagery Source: ESRI Aerial Imagery 2023

Dwelling ID	OP ID	Glare Hours per year (Yellow)	Distance to the solar panel	Impact Rating and Performance Objective in accordance with the Guidelines (see Table 04):
C3-1	OP1	0.0	1,321	< 10 hours per year means Low Glare Impact. Performance objective: No mitigation required.
C3-10	OP2	0.0	1,324	< 10 hours per year means Low Glare Impact. Performance objective: No mitigation required.
C3-11	OP3	0.0	961	< 10 hours per year means Low Glare Impact. Performance objective: No mitigation required.
C3-20	OP4	0.7	1,150	< 10 hours per year means Low Glare Impact. Performance objective: No mitigation required.
C3-3	OP5	1.1	1,357	< 10 hours per year means Low Glare Impact. Performance objective: No mitigation required.
C3-6	OP6	0.6	1,380	< 10 hours per year means Low Glare Impact. Performance objective: No mitigation required.
C3-8	OP7	1.9	1,403	< 10 hours per year means Low Glare Impact. Performance objective: No mitigation required.
C4-5	OP8	0.0	2,370	< 10 hours per year means Low Glare Impact. Performance objective: No mitigation required.
D3-1	OP9	0.0	1,140	< 10 hours per year means Low Glare Impact. Performance objective: No mitigation required.
D3-10	OP10	0.0	1,930	< 10 hours per year means Low Glare Impact. Performance objective: No mitigation required.
D3-11	OP11	0.0	1,593	< 10 hours per year means Low Glare Impact. Performance objective: No mitigation required.
D3-12	OP12	0.0	1,288	< 10 hours per year means Low Glare Impact. Performance objective: No mitigation required.
D3-14	OP13	0.0	1,772	< 10 hours per year means Low Glare Impact. Performance objective: No mitigation required.
D3-15	OP14	0.0	2,596	< 10 hours per year means Low Glare Impact. Performance objective: No mitigation required.
D3-19	OP15	0.0	1,759	< 10 hours per year means Low Glare Impact. Performance objective: No mitigation required.
D3-2	OP16	0.0	938	< 10 hours per year means Low Glare Impact. Performance objective: No mitigation required.
D3-3	OP17	0.0	610	< 10 hours per year means Low Glare Impact. Performance objective: No mitigation required.
D3-34	OP18	0.0	1,490	< 10 hours per year means Low Glare Impact. Performance objective: No mitigation required.
D3-4	OP19	0.0	938	< 10 hours per year means Low Glare Impact. Performance objective: No mitigation required.
D3-47	OP20	0.0	423	< 10 hours per year means Low Glare Impact. Performance objective: No mitigation required.
D3-49	OP21	0.0	2,204	< 10 hours per year means Low Glare Impact. Performance objective: No mitigation required.

Table 05 – Residential receptor assessment results

D3-5	OP22	0.0	1,029	< 10 hours per year means Low Glare Impact. Performance objective: No mitigation required.
D3-6	OP23	0.0	1,103	< 10 hours per year means Low Glare Impact. Performance objective: No mitigation required.
D3-7	OP24	0.0	1,083	< 10 hours per year means Low Glare Impact. Performance objective: No mitigation required.
D3-8	OP25	0.0	1,350	< 10 hours per year means Low Glare Impact. Performance objective: No mitigation required.
D4-1	OP26	0.0	1,084	< 10 hours per year means Low Glare Impact. Performance objective: No mitigation required.
D4-10	OP27	0.0	1,120	< 10 hours per year means Low Glare Impact. Performance objective: No mitigation required.
D4-23	OP28	0.0	1,030	< 10 hours per year means Low Glare Impact. Performance objective: No mitigation required.
D4-3	OP29	0.0	2,736	< 10 hours per year means Low Glare Impact. Performance objective: No mitigation required.
D4-4	OP30	0.0	2,529	< 10 hours per year means Low Glare Impact. Performance objective: No mitigation required.
D4-5	OP31	0.0	2,831	< 10 hours per year means Low Glare Impact. Performance objective: No mitigation required.
D4-7	OP32	0.0	2,566	< 10 hours per year means Low Glare Impact. Performance objective: No mitigation required.
D4-9	OP33	0.0	1,584	< 10 hours per year means Low Glare Impact. Performance objective: No mitigation required.

5.0 Public receptors

5.1 Overview of Methodology

Table 06 provides an overview of the scope, methodology and performance objectives for assessment of glint and glare on road and railway line receptors.

Glint and Glare Requirements - Public Receptors		
Scope	**Methodology**	**Performance Objective**
All roads and rail lines within 1 km of the proposed solar array.	**Solar glare analysis to identify whether glint and glare are geometrically possible within the forward looking eyeline of motorists and rail operators.**	**If glare is geometrically possible then measures should be taken to eliminate the occurrence of glare. Alternatively, Ark Energy must demonstrate that glare would not significantly impede the safe operation of vehicles or the interpretation of signals and signage.**
Note: Modeling for public (road) receptors is calculated on a maximum height of 2.4 m AGL - representative of the eye level for truck drivers (Source: Austroads Ltd. 2021).		
Modeling for rail lines is based a representative eye height of 3 m AGL to represent the eye level of train drivers (Source: Transport Asset Standards Authority 2020).		

Table 06 – Public Receptor Assessment Requirements (Source: DPE, 2022)

5.2 Public receptors

The desktop assessment identified two (2) public receptors within 1 km of the solar array. These include Avenue Road and Main Camp Road.

No rail receptors were identified within 1 km of the solar array.

Figure 05 illustrates public (road) receptors identified within 1 km of the solar array.

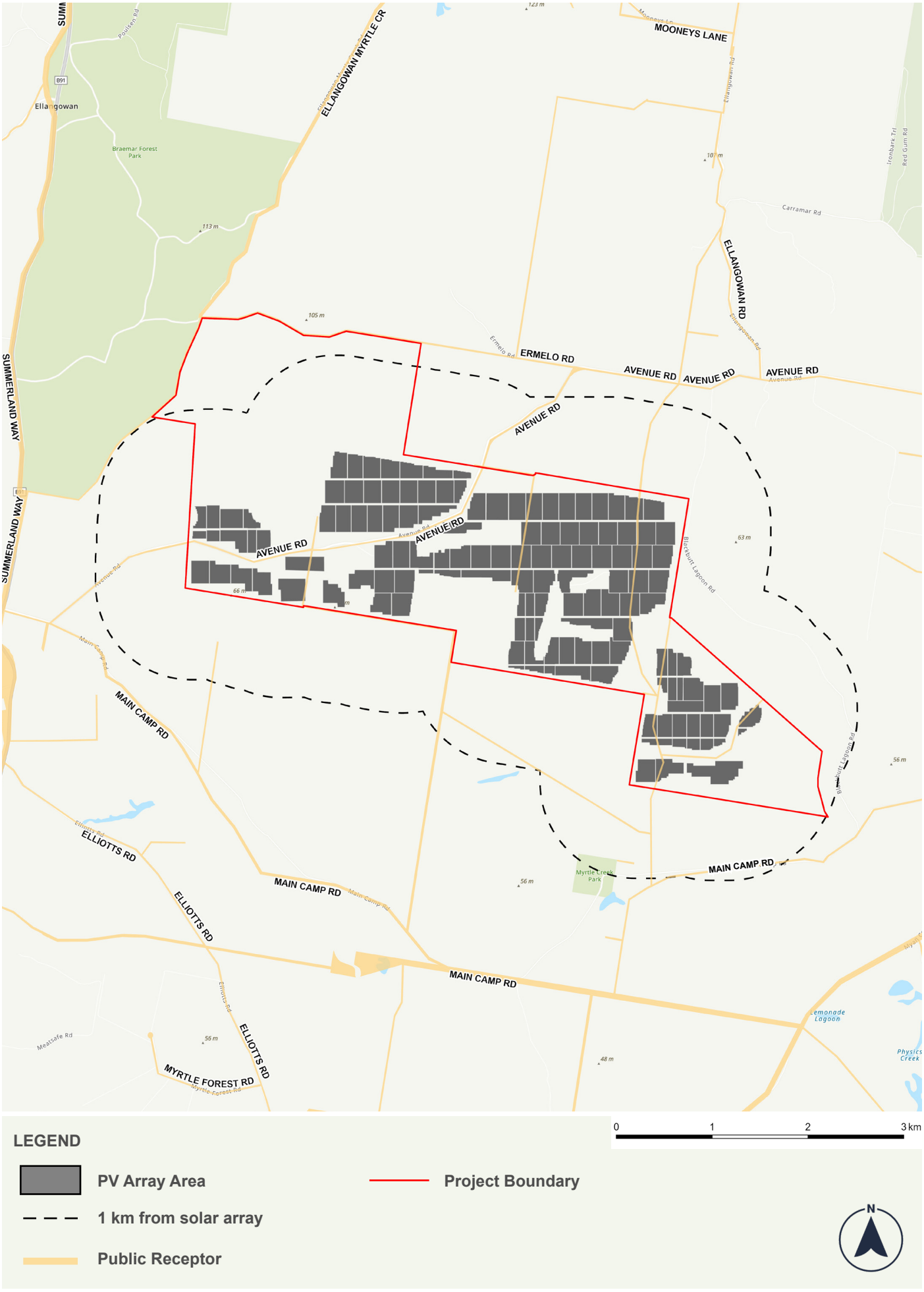


Figure 05 – Public (road) receptors
Imagery Source: ESRI Aerial Imagery 2023

5.3 Results of Glint and Glare Assessment - Public receptors

Two (2) public (road) receptors were identified as part of the assessment.

Table 07 provides an overview of the annual glare experienced along the two (2) public receptors using Scenario 1.

Road/Rail Receptors	Approximate Location to Project	Elevation	Glare Hours per year (Yellow)	Impact Rating and Performance Objective in accordance with the Guidelines (see Table 04):	Existing Screening Factors	Mitigation Recommendations:
Avenue Road	Runs through the Project	29-60 m	534.0 hrs	> 30 hours per year means High Glare Impact. Performance objective: Implement mitigation measures to reduce impacts as far as practicable.	Roadside vegetation along the road to the west	Operational management techniques such as altering normal tracking operations are recommended. Refer to Section 8.0 for details.
Main Camp Road	Located to the south of the Project. Approx. 0.963m at its closest	25-31 m	2.1 hrs	< 10 hours per year means Low Glare Impact. Performance objective: No mitigation required.	Potentially a Private Road. Lack of roadside Vegetation	Not required

Table 07 – Public (road) receptor assessment results

5.3.1 Avenue Road

Based on the glare assessment, it has been determined that Avenue Road is projected to experience a total of approximately 534 hours of 'Yellow' glare per year which is deemed as a 'high' glare impact. The following outlines the PV Array areas and times that there is the potential for 'Yellow' Glare:

- PV Array 10 is expected to have the majority of glare with up to 395.8 hr/year of 'Yellow' glare during the period from mid-March to late September, specifically between 5:45 am to 10.15 am and between 12:30 pm to 06:00 pm.
- PV Array 6 is expected to have up to 89.8 hr/year of 'Yellow' glare during the period from mid February to mid October between 05:00 am until 07:55 am and from mid April to late August from 04:30pm to 05:30pm.
- PV Array 19 is expected to have up to 34 hr/year of 'Yellow' glare during the period from February to early November.
- PV Arrays 7,8,15 and 16 are expected to have less than 10 hrs/year of 'Yellow' glare per panel that contributes to the total glare experienced along Avenue Road (534.0 hrs).

It is crucial to emphasise that this assessment is based on a worst-case scenario and does not account for factors such as weather conditions, intervening elements like vegetation, or built structures, which may influence the actual glare experienced.

For more detailed information on the glare impact on Avenue Road, please refer to the comprehensive glare impact output provided in **Attachment A.**

5.3.2 Main Camp Road

PV Array 15 are expected to have up to 2.1 hr/year of 'Yellow' glare in mid May and August between 02:00 pm to 02:15 pm which has the potential to effect Main Camp Road. In accordance with the Guidelines this is considered as a 'low' glare impact.

For more detailed information on the glare impact on Main Camp Road, please refer to the comprehensive glare impact output provided in **Attachment A.**

6.0 Aviation Receptors

6.1 Overview of Methodology

Table 08 provides an overview of the scope, methodology and performance objectives for assessment of glint and glare on aviation receptors.

Glint and Glare Requirements - Aviation Receptors		
Scope	**Methodology**	**Performance Objective**
All air traffic control towers and take off / landing approaches to any runway or landing strip within 5 km of the proposed solar array.	**Solar glare analysis that is worst case in all scenarios accounting for all aircraft using the airport (e.g. gliders, helicopters etc).**	**Any glint and glare should be avoided unless the aerodrome operator agrees that the impact would not be material (e.g. occurs at times when there are no flights or would not pose a safety risk to airport operations).**
Note: Modeling for Flight Path receptors is calculated on a threshold crossing height of 50 ft (15 m) in two mile (3.21 km) point ground elevation and the ±50 degree azimuthal and 30 degree vertical viewing angle representative of the pilot field view from cockpit (Source: Rogers, 2015).		

Table 08 – Aviation Receptor Assessment Requirements (Source: DPE, 2022)

6.2 Aviation Receptors

The desktop assessment did not identify any landing strips within 5 km of the solar array and therefore no further assessment was undertaken.

7.0 Performance Objectives

7.1 Summary of assessment results

7.1.1 Private Receptors

Table 04 provides an overview of the scope, methodology and performance objectives for assessment of glint and glare on receptor receptors. The assessment undertaken by Moir LA has been summarised below:

Four (4) residential receivers have been assessed as having a potential 'Yellow' glare

The assessment reveals that the OP4 (C3-20) is projected to experience approximately 0.70 hours per year of potential "Yellow" glare from PV Array 10. OP5 (C3-3) is projected to experience approximately 1.1 hours per year of potential "Yellow" glare from PV Array 10. OP6 (C3-6) is projected to experience approximately 0.6 hours per year of potential "Yellow" glare from PV Array 10. OP7 (C3-8) is projected to experience approximately 1.9 hours per year of potential "Yellow" glare from PV Array 10.

The detailed glint and glare findings for the receptors are found in the attached Glint and Glare Assessment Results (**Attachment A and B**).

The result of the findings for the four (4) residential receivers are under 10 hr/yr, resulting in a 'low' glare impact. As a result, no further mitigation measures are required in accordance with the Guidelines

7.1.2 Public receptors

Table 06 provides an overview of the scope, methodology and performance objectives for assessment of glint and glare on receptor receptors. The assessment has been summarised below:

Two (2) Public (road) receptors have been assessed as having potential glare.

The assessment reveals that Avenue Road may experience approximately 534 hours per year of potential "Yellow" glare and Main Camp Road is projected to experience approximately 2.1 hours per year of potential "Yellow" glare. The assessment shows that:

PV Array 10 is expected to have the majority of glare with up to 395.8 hr/year of 'Yellow' glare during the period from mid-March to late September, specifically between 5:45 am to 10.15 am and between 12:30 pm to 06:00 pm. PV Array 6 is expected to have up to 89.8 hr/year of 'Yellow' glare

during the period from mid February to mid October between 05:00am until 07:55am and from mid April to late August from 04:30pm to 05:30pm. PV Array 19 is expected to have up to 34 hr/year of 'Yellow' glare during the period from February to early November.

PV Array 15 are expected to have up to 2.1 hr/year of 'Yellow' glare in mid May and August between 02:00 pm to 02:15 pm which has the potential to effect Main Camp Road.

As noted in the performance objectives:

'If glare is geometrically possible then measures should be taken to eliminate the occurrence of glare. Alternatively, the applicant must demonstrate that glare would not significantly impede the safe operation of vehicles or the interpretation of signals and signage'

Upon conducting a desktop assessment of Avenue Road using aerial imagery, it is apparent that there is limited or no screening vegetation between the affected section of the road and the Project.

It is understood that the both Avenue Road and Main Camp Road are located within a bushfire zone. As a result, mitigation in the form of screen planting is not an option. As an alternative, operational management techniques have been explored to mitigate the potential glint and glare identified as a result of the Project (see **Section 8.0**).

8.0 Mitigation Measures

8.1 Overview of Impacts

In accordance with the Guideline: *Details of strategies to either avoid or mitigate impacts of the Project must be provided. The following summarises the key results and proposed mitigation strategies to address the potential impacts.*

8.1.1 Private Receptors

Four (4) receptors have been assessed as having a potential 'Yellow' glare. These four (residential receivers returned a 'low' glare impact and therefore no mitigation is required in accordance with the Guidelines.

8.1.2 Public Receptors

Two (2) roads were identified within a 1 km radius of the solar array which have the potential to experience yellow glare. These roads include Avenue Road and Main Camp Road. Both roads were identified as having limited screening elements therefore alternative mitigation strategies are proposed for the PV Array areas causing the majority of the potential 'Yellow Glare'. However, potential glare along Main Camp Road is less than 10 hours per year and therefore is considered as having a low glare impact in accordance with the Guidelines. As such no mitigation strategies are required for Main Camp Road.

8.1.3 Aviation Receptors

No Aviation receptors were identified within 5 km of the Project.

8.2 Proposed Mitigation Strategies

The Guideline states: *Vegetation screening, or the planting of trees and shrubs, to visually screen solar energy projects or other potential visual impacts (such as glint and glare) from view may be a useful mitigation option for selected viewpoints. On-site screening, such as perimeter planting, should be considered in the first instance. If this is unlikely to be effective, screening can be considered at affected viewpoints.*

Due to the bushfire risk posed by additional screen planting, this mode of mitigation is not possible and operational management is recommended for the PV Arrays 10, 6, 15 and 19.

In the context of the glint and glare assessment and as an alternative mitigation strategy to prevent glare during backtracking mode, Moir LA has undertaken additional assessments. Operational management strategies have been explored as optional mitigation measures to mitigate potential glare at surrounding receptors.

As explained in Section 2.4, the scenario 1, 2, 3, 4, and 5 involve modelling different scenarios with normal tracking, backtracking, and resting angles of 0°, 5°, 22°, 45°, and 60° during night time stowing. Scenario 6 was also modelled and included normal tracking of ±60° angle without backtracking and stowing angle.

In the glare modelling conducted for each scenario, the details and outcomes have been outlined comprehensively in **Appendix B**. Notably, it has been observed that utilising alternate tracking patterns, specifically in Scenario 2, 3, 4, or 5, progressively reduces glare for public receptors however it does not eliminate the instance completely. However, scenario 6 (no backtracking and no night time stowing angle), whereby the panels move between the operational range (maximum tilt) and remain at this angle only switching back during the night was modelled which eliminates the potential for 'yellow' glare impacts from Avenue Road. It is noted that altering the tracking patterns as per Scenario 6 would only be required for the periods and times of year whereby 'yellow' glare is potentially possible and for the groups of panels noted. As such adopting operational management using scenario 6 would result in no 'Yellow' glare. Outside of these times the panels would move as per the desired tracking patterns.

The strategic approach of altering the tracking patterns using Scenario 6 proves to be a proactive and highly effective measure in mitigating the potential glare caused by the Project for Avenue Road. The results derived from these modelling scenarios will serve as an invaluable guide for implementing the most efficient mitigation strategy moving forward and as an effective alternative to screen planting within bushfire prone land.

9.0 Conclusion

The purpose of this report is to identify potential glint and glare impacts from the Project on the surrounding private (non-associated) receptors (within 3 km of the solar array), public (road) receptors (within 1 km of the solar array) and aviation receptors (within 5 km of the solar array).

Based on the assumptions and aforementioned parameters for Scenario 1, the findings of the assessment were:

33 private (non-associated) receptors were identified within 3 km of the solar array. Of these, four (4) were identified as having the potential to experience 'yellow' glare. However, the results indicated a 'low' glare impact which is acceptable and does not trigger the requirement of mitigation in accordance with the Guidelines.

No aviation receptors were identified within 5 km of the solar array. Therefore no further assessment was required.

Two (2) public (road) receptors were identified within 1 km of the solar array, these include Avenue Road and Main Camp Road. In accordance with the Guidelines, if glare is theoretically possible then measures should be taken to eliminate the occurrence of glare. The results determined that there is potential to experience 'yellow' glare from both roads. However, in accordance with the Guidelines, potential glare experienced along Main Camp Road is within acceptable limits and therefore no mitigation is required.

Due to the bushfire risk posed by additional planting, screen planting mitigation was not possible and operational management have been is recommended for the PV Arrays 10, 6, 15 and 19.

In response, Moir LA have conducted additional assessments using different modelling scenarios (i.e. Scenario 2 - 6) to determine the most appropriate operational mitigation strategy.

The assessment demonstrated that Scenario 6 (no backtracking and no night time stowing angle), is the most effective in eliminating the potential for 'yellow' glare impacts from Avenue Road.

It is noted that altering the tracking patterns as per Scenario 6 is only proposed for the times of year and panel locations whereby 'yellow' glare is potentially possible. Outside of these times the panels would move as per the desired tracking patterns. It is recommended that this operation strategy be considered to effectively mitigate the identified glare associated with the Project.

Glint and Glare Assessment Results Attachment A - Scenario 1

FORGESOLAR GLARE ANALYSIS

Project: **2320 Richmond Valley Solar Farm**
Site configuration: **2320 Richmond Valley Analysis Report 20231211**

Created 11 Dec, 2023
Updated 18 Dec, 2023
Time-step 1 minute
Timezone offset UTC10
Minimum sun altitude 0.0 deg
DNI peaks at 1,000.0 W/m^2
Category 100 MW to 1 GW
Site ID 107578.18000

Ocular transmission coefficient 0.5
Pupil diameter 0.002 m
Eye focal length 0.017 m
Sun subtended angle 9.3 mrad
PV analysis methodology V2

Summary of Results

Glare with potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV array 1	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 10	SA tracking	SA tracking	34,804	580.1	24,005	400.1	-
PV array 15	SA tracking	SA tracking	586	9.8	126	2.1	-
PV array 16	SA tracking	SA tracking	1,828	30.5	469	7.8	-
PV array 17	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 18	SA tracking	SA tracking	1,036	17.3	0	0.0	-
PV array 19	SA tracking	SA tracking	1,519	25.3	2,042	34.0	-
PV array 2	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 20	SA tracking	SA tracking	306	5.1	0	0.0	-
PV array 21	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 22	SA tracking	SA tracking	177	3.0	0	0.0	-
PV array 23	SA tracking	SA tracking	1,068	17.8	0	0.0	-
PV array 3	SA tracking	SA tracking	1,073	17.9	0	0.0	-
PV array 4	SA tracking	SA tracking	220	3.7	1	0.0	-
PV array 5	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 6	SA tracking	SA tracking	2,141	35.7	5,385	89.8	-
PV array 7	SA tracking	SA tracking	563	9.4	376	6.3	-
PV array 8	SA tracking	SA tracking	9,942	165.7	18	0.3	-
PV array 9	SA tracking	SA tracking	0	0.0	0	0.0	-

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	24,413	406.9	32,041	534.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Main Camp Road	4,270	71.2	126	2.1
OP 1	226	3.8	0	0.0
OP 2	231	3.9	0	0.0
OP 3	198	3.3	0	0.0
OP 4	150	2.5	43	0.7
OP 5	184	3.1	63	1.1
OP 6	139	2.3	36	0.6
OP 7	253	4.2	113	1.9
OP 8	613	10.2	0	0.0
OP 9	1,345	22.4	0	0.0
OP 10	48	0.8	0	0.0
OP 11	951	15.8	0	0.0
OP 12	209	3.5	0	0.0
OP 13	334	5.6	0	0.0
OP 14	903	15.1	0	0.0
OP 15	1,095	18.2	0	0.0
OP 16	1,265	21.1	0	0.0
OP 17	80	1.3	0	0.0
OP 18	712	11.9	0	0.0
OP 19	444	7.4	0	0.0
OP 20	0	0.0	0	0.0
OP 21	315	5.2	0	0.0
OP 22	298	5.0	0	0.0
OP 23	244	4.1	0	0.0
OP 24	115	1.9	0	0.0
OP 25	417	7.0	0	0.0
OP 26	3,022	50.4	0	0.0
OP 27	2,729	45.5	0	0.0
OP 28	2,667	44.5	0	0.0
OP 29	635	10.6	0	0.0
OP 30	1,108	18.5	0	0.0
OP 31	717	11.9	0	0.0
OP 32	1,298	21.6	0	0.0
OP 33	3,635	60.6	0	0.0

Component Data

PV Arrays

Name: PV array 1
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 0.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.101325	153.019581	366.24	2.50	368.74
2	-29.101319	153.022208	373.42	2.50	375.92
3	-29.101675	153.022244	322.35	2.50	324.85
4	-29.101686	153.024706	312.51	2.50	315.01
5	-29.102036	153.024742	303.12	2.50	305.62
6	-29.102033	153.026689	299.33	2.50	301.83
7	-29.102411	153.026725	328.19	2.50	330.69
8	-29.102419	153.028128	322.49	2.50	324.99
9	-29.103497	153.028139	354.56	2.50	357.06
10	-29.103500	153.028281	326.46	2.50	328.96
11	-29.104558	153.028281	314.31	2.50	316.81
12	-29.104567	153.026794	364.57	2.50	367.07
13	-29.104200	153.026775	369.06	2.50	371.56
14	-29.104211	153.025361	350.76	2.50	353.26
15	-29.103472	153.025344	337.49	2.50	339.99
16	-29.103472	153.019586	354.43	2.50	356.93

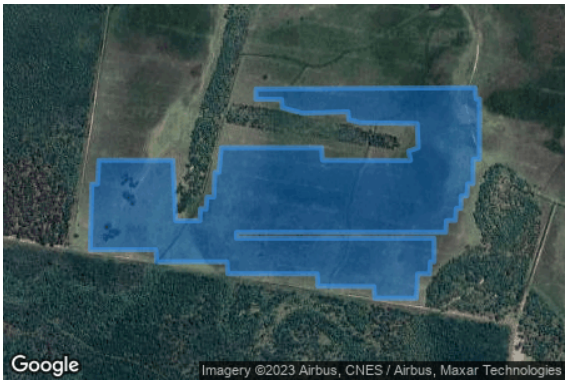
Name: PV array 10
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 0.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.096789	153.033475	67.12	2.50	69.62
2	-29.096789	153.033625	94.58	2.50	97.08
3	-29.096086	153.033664	83.67	2.50	86.17
4	-29.096069	153.048192	86.35	2.50	88.85
5	-29.096428	153.048178	86.17	2.50	88.67
6	-29.096431	153.047381	77.50	2.50	80.00
7	-29.096778	153.047358	70.21	2.50	72.71
8	-29.096778	153.046492	64.01	2.50	66.51
9	-29.097136	153.046467	57.37	2.50	59.87
10	-29.097136	153.045553	58.92	2.50	61.42
11	-29.097508	153.045553	44.73	2.50	47.23
12	-29.097514	153.044489	51.53	2.50	54.03
13	-29.097786	153.044467	54.99	2.50	57.49
14	-29.097864	153.043553	60.25	2.50	62.75
15	-29.098228	153.043531	57.21	2.50	59.71
16	-29.098236	153.041514	58.17	2.50	60.67
17	-29.098608	153.041486	51.15	2.50	53.65
18	-29.098619	153.033442	60.48	2.50	62.98

Name: PV array 15
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 0.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

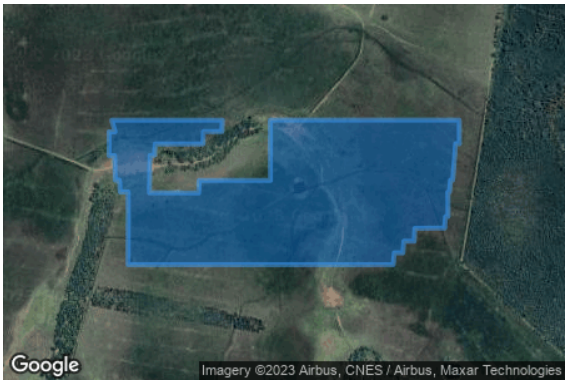
Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.102156	153.044086	58.73	2.50	61.23
2	-29.102156	153.047328	63.32	2.50	65.82
3	-29.102194	153.047328	95.21	2.50	97.71
4	-29.102194	153.058594	119.73	2.50	122.23
5	-29.102550	153.058617	84.51	2.50	87.01
6	-29.102550	153.058697	82.32	2.50	84.82
7	-29.103253	153.058700	86.95	2.50	89.45
8	-29.103253	153.058464	98.42	2.50	100.92
9	-29.103636	153.058431	85.79	2.50	88.29
10	-29.103636	153.058125	71.39	2.50	73.89
11	-29.104347	153.058089	63.19	2.50	65.69
12	-29.104347	153.057872	68.64	2.50	71.14
13	-29.105078	153.057872	75.02	2.50	77.52
14	-29.105080	153.057786	73.92	2.50	76.42
15	-29.105431	153.057761	95.27	2.50	97.77
16	-29.105431	153.057622	95.06	2.50	97.56
17	-29.106164	153.057597	96.25	2.50	98.75
18	-29.106167	153.057461	85.20	2.50	87.70
19	-29.106514	153.057433	78.67	2.50	81.17
20	-29.106514	153.057292	76.66	2.50	79.16
21	-29.107410	153.057270	69.71	2.50	72.21
22	-29.107410	153.057190	70.70	2.50	73.20
23	-29.107760	153.057150	76.15	2.50	78.65
24	-29.107770	153.056900	69.23	2.50	71.73
25	-29.108870	153.056840	63.91	2.50	66.41
26	-29.108840	153.054250	69.03	2.50	71.53
27	-29.106690	153.054260	67.10	2.50	69.60
28	-29.106700	153.054510	61.84	2.50	64.34
29	-29.105460	153.054540	51.44	2.50	53.94
30	-29.105460	153.054670	46.48	2.50	48.98
31	-29.103650	153.054660	44.11	2.50	46.61
32	-29.103650	153.053990	50.89	2.50	53.39
33	-29.103260	153.053990	55.01	2.50	57.51
34	-29.103260	153.051930	50.62	2.50	53.12
35	-29.102900	153.051890	64.22	2.50	66.72
36	-29.102900	153.046260	78.81	2.50	81.31
37	-29.102530	153.046260	69.88	2.50	72.38
38	-29.102531	153.044111	81.44	2.50	83.94

Name: PV array 16
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 0.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.109583	153.053697	35.88	2.50	38.38
2	-29.109580	153.053892	35.82	2.50	38.32
3	-29.108872	153.053936	34.22	2.50	36.72
4	-29.108872	153.056486	35.80	2.50	38.30
5	-29.110681	153.056581	33.60	2.50	36.10
6	-29.110680	153.057408	33.51	2.50	36.01
7	-29.110322	153.057431	33.12	2.50	35.62
8	-29.110333	153.057622	33.65	2.50	36.15
9	-29.109972	153.057656	34.81	2.50	37.31
10	-29.109969	153.057892	35.48	2.50	37.98
11	-29.109233	153.057922	37.27	2.50	39.77
12	-29.109230	153.058064	37.55	2.50	40.05
13	-29.108494	153.058144	37.24	2.50	39.74
14	-29.108494	153.061594	35.21	2.50	37.71
15	-29.108867	153.061622	34.11	2.50	36.61
16	-29.108875	153.064650	30.58	2.50	33.08
17	-29.108597	153.064578	31.08	2.50	33.58
18	-29.108494	153.064914	30.76	2.50	33.26
19	-29.107772	153.064875	32.09	2.50	34.59
20	-29.107750	153.062925	30.39	2.50	32.89
21	-29.107664	153.062525	32.23	2.50	34.73
22	-29.107419	153.062503	32.17	2.50	34.67
23	-29.107467	153.060950	34.16	2.50	36.66
24	-29.107297	153.060244	33.94	2.50	36.44
25	-29.107050	153.060219	33.92	2.50	36.42
26	-29.107044	153.059328	34.04	2.50	36.54
27	-29.106736	153.059336	34.04	2.50	36.54
28	-29.106700	153.066869	31.79	2.50	34.29
29	-29.107036	153.066903	31.47	2.50	33.97
30	-29.107036	153.067019	31.60	2.50	34.10
31	-29.108842	153.067022	33.82	2.50	36.32
32	-29.108842	153.066803	33.30	2.50	35.80
33	-29.109572	153.066800	34.25	2.50	36.75
34	-29.109570	153.066614	33.70	2.50	36.20
35	-29.109936	153.066586	34.18	2.50	36.68
36	-29.109940	153.066383	33.57	2.50	36.07
37	-29.110311	153.066380	34.11	2.50	36.61
38	-29.110310	153.066217	33.64	2.50	36.14
39	-29.110669	153.066192	34.08	2.50	36.58
40	-29.110675	153.065881	33.18	2.50	35.68
41	-29.111028	153.065858	33.66	2.50	36.16
42	-29.111028	153.058667	34.00	2.50	36.50
43	-29.111203	153.058667	34.00	2.50	36.50
44	-29.111203	153.065461	33.51	2.50	36.01
45	-29.111908	153.065461	35.73	2.50	38.23
46	-29.111908	153.065331	35.54	2.50	38.04
47	-29.112269	153.065303	35.50	2.50	38.00
48	-29.112270	153.064894	35.16	2.50	37.66
49	-29.112997	153.064853	35.92	2.50	38.42
50	-29.112997	153.063419	33.64	2.50	36.14
51	-29.112650	153.063394	34.07	2.50	36.57
52	-29.112639	153.061467	31.62	2.50	34.12
53	-29.112269	153.061444	32.22	2.50	34.72
54	-29.112264	153.058369	34.15	2.50	36.65
55	-29.111908	153.058342	34.08	2.50	36.58
56	-29.111908	153.055928	33.83	2.50	36.33
57	-29.111547	153.055900	33.61	2.50	36.11
58	-29.111550	153.053644	40.15	2.50	42.65

Name: PV array 17
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 0.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.102197	153.059017	39.95	2.50	42.45
2	-29.102194	153.062817	37.76	2.50	40.26
3	-29.102533	153.062803	35.96	2.50	38.46
4	-29.102539	153.062167	38.22	2.50	40.72
5	-29.102906	153.062150	38.04	2.50	40.54
6	-29.102910	153.060506	39.98	2.50	42.48
7	-29.103247	153.060483	38.09	2.50	40.59
8	-29.103253	153.060331	35.83	2.50	38.33
9	-29.104367	153.060311	35.23	2.50	37.73
10	-29.104375	153.062003	35.00	2.50	37.50
11	-29.103994	153.062019	35.26	2.50	37.76
12	-29.104000	153.064469	35.33	2.50	37.83
13	-29.102194	153.064467	41.33	2.50	43.83
14	-29.102194	153.070958	35.53	2.50	38.03
15	-29.102900	153.070964	31.99	2.50	34.49
16	-29.102900	153.070833	34.31	2.50	36.81
17	-29.103986	153.070736	38.09	2.50	40.59
18	-29.103992	153.070656	36.86	2.50	39.36
19	-29.104342	153.070622	35.58	2.50	38.08
20	-29.104344	153.070567	35.32	2.50	37.82
21	-29.105078	153.070575	39.57	2.50	42.07
22	-29.105080	153.070486	39.78	2.50	42.28
23	-29.105425	153.070458	37.46	2.50	39.96
24	-29.105431	153.069433	34.45	2.50	36.95
25	-29.105819	153.069408	43.72	2.50	46.22
26	-29.105819	153.069053	44.69	2.50	47.19
27	-29.106167	153.069022	39.39	2.50	41.89
28	-29.106167	153.068725	33.07	2.50	35.57
29	-29.106519	153.068689	38.03	2.50	40.53
30	-29.106520	153.059578	36.08	2.50	38.58
31	-29.104344	153.059583	36.72	2.50	39.22
32	-29.104347	153.059308	37.07	2.50	39.57
33	-29.103989	153.059278	37.85	2.50	40.35
34	-29.103989	153.059139	38.21	2.50	40.71
35	-29.103253	153.059111	40.68	2.50	43.18
36	-29.103253	153.058922	39.83	2.50	42.33
37	-29.102544	153.058922	38.08	2.50	40.58
38	-29.102544	153.059133	37.66	2.50	40.16

Name: PV array 18
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 0.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.109586	153.069572	30.93	2.50	33.43
2	-29.109592	153.071361	29.24	2.50	31.74
3	-29.109972	153.071386	29.96	2.50	32.46
4	-29.109978	153.072467	30.00	2.50	32.50
5	-29.110311	153.072500	30.00	2.50	32.50
6	-29.110319	153.073303	31.15	2.50	33.65
7	-29.110672	153.073361	30.64	2.50	33.14
8	-29.112108	153.073353	28.68	2.50	31.18
9	-29.112119	153.072439	30.64	2.50	33.14
10	-29.112300	153.072442	30.87	2.50	33.37
11	-29.112300	153.074256	29.00	2.50	31.50
12	-29.112653	153.074275	29.74	2.50	32.24
13	-29.112661	153.074633	29.77	2.50	32.27
14	-29.113006	153.074628	30.79	2.50	33.29
15	-29.113006	153.076522	29.89	2.50	32.39
16	-29.112797	153.076511	29.59	2.50	32.09
17	-29.112797	153.078297	26.43	2.50	28.93
18	-29.113372	153.078353	27.13	2.50	29.63
19	-29.114981	153.078347	29.88	2.50	32.38
20	-29.114969	153.078094	29.97	2.50	32.47
21	-29.115317	153.078075	30.26	2.50	32.76
22	-29.115320	153.076460	34.27	2.50	36.77
23	-29.115528	153.076456	33.21	2.50	35.71
24	-29.115525	153.070742	31.94	2.50	34.44
25	-29.114467	153.070742	30.74	2.50	33.24
26	-29.114467	153.070797	30.48	2.50	32.98
27	-29.113725	153.070797	30.05	2.50	32.55
28	-29.113725	153.070239	31.57	2.50	34.07
29	-29.113350	153.070219	31.26	2.50	33.76
30	-29.113350	153.070125	31.37	2.50	33.87
31	-29.113000	153.070100	31.06	2.50	33.56
32	-29.113000	153.069572	31.53	2.50	34.03

Name: PV array 19
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 0.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.095008	153.049878	30.65	2.50	33.15
2	-29.095006	153.067636	55.88	2.50	58.38
3	-29.095361	153.067678	52.05	2.50	54.55
4	-29.095372	153.070639	54.94	2.50	57.44
5	-29.095722	153.070672	51.58	2.50	54.08
6	-29.095733	153.071469	49.76	2.50	52.26
7	-29.097678	153.071458	43.37	2.50	45.87
8	-29.097692	153.071583	43.76	2.50	46.26
9	-29.099842	153.071569	35.11	2.50	37.61
10	-29.099842	153.071353	33.97	2.50	36.47
11	-29.100928	153.071347	33.60	2.50	36.10
12	-29.100928	153.071208	33.60	2.50	36.10
13	-29.101667	153.071186	35.03	2.50	37.53
14	-29.101658	153.071047	35.08	2.50	37.58
15	-29.102022	153.071031	35.02	2.50	37.52
16	-29.102020	153.047342	32.77	2.50	35.27
17	-29.102114	153.047336	32.68	2.50	35.18
18	-29.102111	153.044069	34.04	2.50	36.54
19	-29.102019	153.044086	34.00	2.50	36.50
20	-29.102014	153.039336	38.65	2.50	41.15
21	-29.099867	153.039331	37.84	2.50	40.34
22	-29.099861	153.040528	36.06	2.50	38.56
23	-29.099494	153.040547	35.30	2.50	37.80
24	-29.099494	153.043892	32.13	2.50	34.63
25	-29.100950	153.043914	33.56	2.50	36.06
26	-29.100958	153.045236	34.06	2.50	36.56
27	-29.100580	153.045280	34.35	2.50	36.85
28	-29.100570	153.046140	33.76	2.50	36.26
29	-29.100220	153.046170	35.46	2.50	37.96
30	-29.100220	153.046440	35.17	2.50	37.67
31	-29.100570	153.046470	33.65	2.50	36.15
32	-29.100570	153.046810	33.54	2.50	36.04
33	-29.100220	153.046830	34.76	2.50	37.26
34	-29.100220	153.048570	34.30	2.50	36.80
35	-29.099860	153.048580	34.26	2.50	36.76
36	-29.099860	153.055040	30.23	2.50	32.73
37	-29.097520	153.055040	29.19	2.50	31.69
38	-29.097508	153.049244	29.61	2.50	32.11
39	-29.096461	153.049253	28.44	2.50	30.94

Name: PV array 2
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 0.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.103011	153.028981	45.87	2.50	48.37
2	-29.103033	153.031867	42.45	2.50	44.95
3	-29.105117	153.031872	39.58	2.50	42.08
4	-29.105139	153.029231	43.48	2.50	45.98
5	-29.104064	153.029211	43.73	2.50	46.23
6	-29.104044	153.028956	41.58	2.50	44.08

Name: PV array 20
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 0.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.097756	153.046586	30.04	2.50	32.54
2	-29.097722	153.046661	30.51	2.50	33.01
3	-29.097722	153.050819	31.18	2.50	33.68
4	-29.098397	153.050817	30.55	2.50	33.05
5	-29.098400	153.050675	29.78	2.50	32.28
6	-29.098433	153.050681	29.76	2.50	32.26
7	-29.098430	153.049186	29.93	2.50	32.43
8	-29.098747	153.049158	31.20	2.50	33.70
9	-29.098744	153.049008	30.31	2.50	32.81
10	-29.098781	153.048992	30.37	2.50	32.87
11	-29.098789	153.045769	30.60	2.50	33.10
12	-29.098081	153.045769	31.10	2.50	33.60
13	-29.098089	153.046567	32.80	2.50	35.30

Name: PV array 21
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 0.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.115711	153.068300	41.50	2.50	44.00
2	-29.115708	153.077564	41.51	2.50	44.01
3	-29.116775	153.077617	41.78	2.50	44.28
4	-29.116775	153.077372	41.72	2.50	44.22
5	-29.117500	153.077344	41.23	2.50	43.73
6	-29.117500	153.077214	40.70	2.50	43.20
7	-29.117853	153.077178	40.00	2.50	42.50
8	-29.117858	153.077039	40.44	2.50	42.94
9	-29.118383	153.077014	41.50	2.50	44.00
10	-29.118383	153.076644	41.18	2.50	43.68
11	-29.118739	153.076631	40.28	2.50	42.78
12	-29.118739	153.075653	39.12	2.50	41.62
13	-29.119083	153.075622	38.34	2.50	40.84
14	-29.119083	153.072625	39.10	2.50	41.60
15	-29.118736	153.072594	40.48	2.50	42.98
16	-29.118736	153.068858	40.41	2.50	42.91
17	-29.118383	153.068831	42.05	2.50	44.55
18	-29.118383	153.067967	42.40	2.50	44.90
19	-29.116806	153.067970	42.22	2.50	44.72
20	-29.116810	153.068106	42.02	2.50	44.52
21	-29.116053	153.068131	41.65	2.50	44.15
22	-29.116050	153.068272	42.27	2.50	44.77

Name: PV array 22
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 0.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.114775	153.080247	54.75	2.50	57.25
2	-29.114775	153.080583	53.92	2.50	56.42
3	-29.115122	153.080614	56.19	2.50	58.69
4	-29.115125	153.080961	59.96	2.50	62.46
5	-29.115822	153.080961	55.06	2.50	57.56
6	-29.115822	153.080836	49.55	2.50	52.05
7	-29.116564	153.080797	49.76	2.50	52.26
8	-29.116564	153.080217	46.19	2.50	48.69
9	-29.116928	153.080192	43.83	2.50	46.33
10	-29.116928	153.079286	43.59	2.50	46.09
11	-29.117444	153.079256	45.43	2.50	47.93
12	-29.117444	153.078672	40.64	2.50	43.14
13	-29.117797	153.078642	41.60	2.50	44.10
14	-29.117797	153.078194	41.85	2.50	44.35
15	-29.117103	153.078194	41.39	2.50	43.89
16	-29.117103	153.078386	41.00	2.50	43.50
17	-29.116203	153.078425	51.19	2.50	53.69
18	-29.116208	153.078614	48.69	2.50	51.19
19	-29.115853	153.078644	55.75	2.50	58.25
20	-29.115853	153.079003	60.58	2.50	63.08
21	-29.115475	153.079028	56.40	2.50	58.90
22	-29.115481	153.079553	48.27	2.50	50.77
23	-29.115125	153.079589	49.11	2.50	51.61
24	-29.115128	153.080219	57.49	2.50	59.99

Name: PV array 23
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 0.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.119964	153.067553	34.62	2.50	37.12
2	-29.119931	153.071286	34.59	2.50	37.09
3	-29.120281	153.071325	33.95	2.50	36.45
4	-29.120344	153.073556	31.66	2.50	34.16
5	-29.120458	153.073553	31.39	2.50	33.89
6	-29.120464	153.075878	34.40	2.50	36.90
7	-29.120114	153.075856	33.35	2.50	35.85
8	-29.120114	153.078875	29.83	2.50	32.33
9	-29.120853	153.078881	29.81	2.50	32.31
10	-29.120853	153.078372	29.48	2.50	31.98
11	-29.121589	153.078375	30.72	2.50	33.22
12	-29.121597	153.077969	30.34	2.50	32.84
13	-29.121947	153.077806	30.38	2.50	32.88
14	-29.121947	153.077344	29.07	2.50	31.57
15	-29.122303	153.077336	29.04	2.50	31.54
16	-29.122294	153.075361	32.04	2.50	34.54
17	-29.121594	153.075361	34.77	2.50	37.27
18	-29.121586	153.073336	29.42	2.50	31.92
19	-29.121239	153.073328	29.58	2.50	32.08
20	-29.121294	153.070856	32.46	2.50	34.96
21	-29.121714	153.070683	31.91	2.50	34.41
22	-29.121714	153.070081	32.74	2.50	35.24
23	-29.122067	153.069833	32.73	2.50	35.23
24	-29.122103	153.067342	29.46	2.50	31.96
25	-29.121022	153.067347	32.75	2.50	35.25
26	-29.121022	153.067553	32.13	2.50	34.63

Name: PV array 3
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 0.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.103158	153.033744	37.67	2.50	40.17
2	-29.103161	153.034311	44.09	2.50	46.59
3	-29.103506	153.034347	49.91	2.50	52.41
4	-29.103506	153.035361	50.39	2.50	52.89
5	-29.103864	153.035389	48.02	2.50	50.52
6	-29.103864	153.035694	46.05	2.50	48.55
7	-29.104236	153.035733	43.39	2.50	45.89
8	-29.104242	153.036075	41.79	2.50	44.29
9	-29.105681	153.036081	43.07	2.50	45.57
10	-29.105678	153.035300	40.37	2.50	42.87
11	-29.105300	153.035261	38.35	2.50	40.85
12	-29.105300	153.033747	38.15	2.50	40.65

Name: PV array 4
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 0.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.100956	153.029697	61.70	2.50	64.20
2	-29.100960	153.033861	52.05	2.50	54.55
3	-29.102319	153.033872	41.22	2.50	43.72
4	-29.102206	153.029711	55.91	2.50	58.41

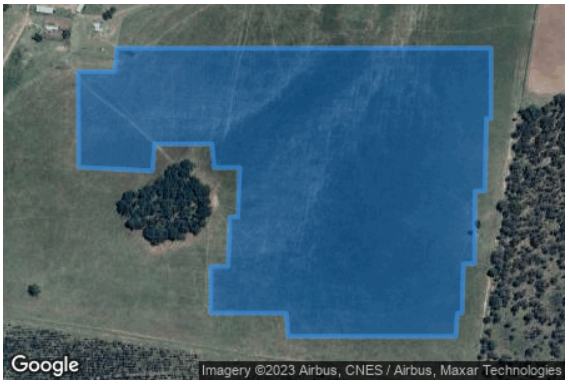
Name: PV array 5
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 0.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.096244	153.020017	63.68	2.50	66.18
2	-29.096258	153.021258	58.95	2.50	61.45
3	-29.096144	153.021281	58.13	2.50	60.63
4	-29.096142	153.022628	52.57	2.50	55.07
5	-29.096497	153.022653	51.62	2.50	54.12
6	-29.096506	153.025769	53.56	2.50	56.06
7	-29.096856	153.025817	52.73	2.50	55.23
8	-29.096858	153.026111	52.97	2.50	55.47
9	-29.097494	153.026317	52.15	2.50	54.65
10	-29.097789	153.027056	53.44	2.50	55.94
11	-29.098275	153.027050	51.11	2.50	53.61
12	-29.098319	153.019792	51.02	2.50	53.52
13	-29.098064	153.019775	50.99	2.50	53.49
14	-29.097667	153.020156	52.49	2.50	54.99
15	-29.097636	153.020281	52.49	2.50	54.99
16	-29.096947	153.020283	54.63	2.50	57.13
17	-29.096931	153.020225	54.40	2.50	56.90
18	-29.096930	153.020225	52.63	2.50	55.13
19	-29.096930	153.020225	56.59	2.50	59.09

Name: PV array 6
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 0.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.098411	153.019708	52.49	2.50	54.99
2	-29.098410	153.022644	54.27	2.50	56.77
3	-29.098453	153.022644	54.17	2.50	56.67
4	-29.098453	153.025644	52.52	2.50	55.02
5	-29.098406	153.025644	52.52	2.50	55.02
6	-29.098410	153.026583	50.97	2.50	53.47
7	-29.098456	153.026583	50.96	2.50	53.46
8	-29.098460	153.028092	50.98	2.50	53.48
9	-29.098806	153.028111	49.50	2.50	52.00
10	-29.098814	153.028110	49.50	2.50	52.00
11	-29.100568	153.028106	43.03	2.50	45.53
12	-29.100578	153.028090	43.04	2.50	45.54
13	-29.100586	153.028083	43.04	2.50	45.54
14	-29.100586	153.024706	46.96	2.50	49.46
15	-29.100236	153.024675	47.84	2.50	50.34
16	-29.100236	153.024317	47.76	2.50	50.26
17	-29.099511	153.024286	51.07	2.50	53.57
18	-29.099503	153.021261	52.06	2.50	54.56
19	-29.099153	153.021256	51.64	2.50	54.14
20	-29.099147	153.019714	53.21	2.50	55.71

Name: PV array 7
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 0.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.102553	153.036561	61.89	2.50	64.39
2	-29.102550	153.037192	57.69	2.50	60.19
3	-29.102203	153.037222	56.56	2.50	59.06
4	-29.102200	153.043656	57.79	2.50	60.29
5	-29.103258	153.043656	59.96	2.50	62.46
6	-29.103258	153.043578	60.09	2.50	62.59
7	-29.104339	153.043550	61.32	2.50	63.82
8	-29.104344	153.043381	63.82	2.50	66.32
9	-29.105428	153.043375	64.55	2.50	67.05
10	-29.105430	153.043181	65.16	2.50	67.66
11	-29.106169	153.043158	66.84	2.50	69.34
12	-29.106170	153.043078	69.07	2.50	71.57
13	-29.106517	153.043053	71.34	2.50	73.84
14	-29.106517	153.040167	72.19	2.50	74.69
15	-29.106167	153.040136	70.00	2.50	72.50
16	-29.106167	153.038839	69.02	2.50	71.52
17	-29.105467	153.038839	69.78	2.50	72.28
18	-29.105470	153.039136	74.83	2.50	77.33
19	-29.104728	153.039169	75.24	2.50	77.74
20	-29.104728	153.039303	72.87	2.50	75.37
21	-29.103992	153.039336	67.81	2.50	70.31
22	-29.103990	153.038897	63.04	2.50	65.54
23	-29.103636	153.038858	60.65	2.50	63.15
24	-29.103640	153.037875	61.34	2.50	63.84
25	-29.104042	153.037839	65.75	2.50	68.25
26	-29.103986	153.036569	63.73	2.50	66.23

Name: PV array 8
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 0.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.092536	153.034539	49.37	2.50	51.87
2	-29.092539	153.034797	46.57	2.50	49.07
3	-29.091453	153.034833	44.03	2.50	46.53
4	-29.091453	153.034972	42.10	2.50	44.60
5	-29.091078	153.034981	41.53	2.50	44.03
6	-29.091078	153.035514	38.85	2.50	41.35
7	-29.091175	153.035525	37.65	2.50	40.15
8	-29.091308	153.036322	36.36	2.50	38.86
9	-29.092222	153.043542	34.71	2.50	37.21
10	-29.092350	153.043533	33.71	2.50	36.21
11	-29.092544	153.045875	34.18	2.50	36.68
12	-29.092803	153.045858	35.67	2.50	38.17
13	-29.092858	153.048208	36.30	2.50	38.80
14	-29.093097	153.049672	36.65	2.50	39.15
15	-29.093600	153.049675	36.09	2.50	38.59
16	-29.093600	153.034550	36.90	2.50	39.40
17	-29.093600	153.034550	38.56	2.50	41.06
18	-29.093600	153.034550	40.09	2.50	42.59
19	-29.093600	153.034550	43.30	2.50	45.80
20	-29.093600	153.034550	46.85	2.50	49.35
21	-29.093600	153.034550	50.12	2.50	52.62
22	-29.093600	153.034550	50.80	2.50	53.30

Name: PV array 9
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 0.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.093742	153.034075	47.59	2.50	50.09
2	-29.093742	153.047911	29.17	2.50	31.67
3	-29.093636	153.047906	29.32	2.50	31.82
4	-29.093640	153.047924	29.32	2.50	31.82
5	-29.094433	153.049239	29.11	2.50	31.61
6	-29.094433	153.049097	29.00	2.50	31.50
7	-29.094797	153.049075	29.37	2.50	31.87
8	-29.094797	153.048883	29.37	2.50	31.87
9	-29.095178	153.048853	29.93	2.50	32.43
10	-29.095178	153.048714	29.93	2.50	32.43
11	-29.095531	153.048686	29.56	2.50	32.06
12	-29.095533	153.048492	29.56	2.50	32.06
13	-29.095894	153.048458	29.04	2.50	31.54
14	-29.095890	153.034044	50.01	2.50	52.51

Route Receptors

Name: Avenue Road
Path type: Two-way
Observer view angle: 50.0°

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.104310	153.008342	42.58	2.40	44.98
2	-29.100917	153.012869	48.57	2.40	50.97
3	-29.099510	153.019414	55.62	2.40	58.02
4	-29.101310	153.026194	44.13	2.40	46.53
5	-29.100501	153.029799	39.40	2.40	41.80
6	-29.100182	153.033833	38.23	2.40	40.63
7	-29.099919	153.034691	38.36	2.40	40.76
8	-29.099619	153.036214	38.31	2.40	40.71
9	-29.099788	153.037373	38.57	2.40	40.97
10	-29.098748	153.043470	32.00	2.40	34.40
11	-29.096820	153.048507	29.92	2.40	32.32
12	-29.092638	153.050803	31.00	2.40	33.40
13	-29.089901	153.051575	41.28	2.40	43.68
14	-29.088341	153.054683	47.04	2.40	49.44
15	-29.087047	153.056636	55.63	2.40	58.03
16	-29.086241	153.058610	59.01	2.40	61.41
17	-29.084685	153.059683	59.79	2.40	62.19

Name: Main Camp Road
Path type: Two-way
Observer view angle: 50.0°

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.130769	153.064031	35.05	2.40	37.45
2	-29.130881	153.067035	33.07	2.40	35.47
3	-29.130450	153.072142	26.52	2.40	28.92
4	-29.129644	153.084169	26.00	2.40	28.40

Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (m)	Height (m)
OP 1	1	-29.098436	153.005919	57.00	1.50
OP 2	2	-29.098614	153.005617	58.18	1.50
OP 3	3	-29.098942	153.009817	58.46	1.50
OP 4	4	-29.104081	153.007164	43.97	1.50
OP 5	5	-29.105522	153.007317	42.09	1.50
OP 6	6	-29.104364	153.005417	45.19	1.50
OP 7	7	-29.105019	153.006536	45.10	1.50
OP 8	8	-29.117603	153.001347	38.65	1.50
OP 9	9	-29.083078	153.055558	73.37	1.50
OP 10	10	-29.076967	153.057103	64.26	1.50
OP 11	11	-29.080647	153.066289	49.73	1.50
OP 12	12	-29.083183	153.068906	49.76	1.50
OP 13	13	-29.080508	153.075694	58.03	1.50
OP 14	14	-29.072514	153.073319	58.38	1.50
OP 15	15	-29.079144	153.061150	62.76	1.50
OP 16	16	-29.084792	153.057350	64.28	1.50
OP 17	17	-29.087883	153.058739	46.82	1.50
OP 18	18	-29.081653	153.067194	53.77	1.50
OP 19	19	-29.085114	153.060258	60.28	1.50
OP 20	20	-29.090203	153.055103	40.01	1.50
OP 21	21	-29.106228	153.101144	34.31	1.50
OP 22	22	-29.084800	153.063742	69.22	1.50
OP 23	23	-29.084386	153.065572	66.41	1.50
OP 24	24	-29.084969	153.068331	50.01	1.50
OP 25	25	-29.081494	153.054019	74.64	1.50
OP 26	26	-29.131783	153.064194	34.19	1.50
OP 27	27	-29.132158	153.065619	34.34	1.50
OP 28	28	-29.131331	153.065711	36.18	1.50
OP 29	29	-29.138036	153.099008	43.00	1.50
OP 30	30	-29.134267	153.099875	41.44	1.50
OP 31	31	-29.138078	153.100536	38.27	1.50
OP 32	32	-29.132817	153.101467	42.08	1.50
OP 33	33	-29.134686	153.059939	31.67	1.50

Glare Analysis Results

Summary of Results

Glare with potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV array 1	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 10	SA tracking	SA tracking	34,804	580.1	24,005	400.1	-
PV array 15	SA tracking	SA tracking	586	9.8	126	2.1	-
PV array 16	SA tracking	SA tracking	1,828	30.5	469	7.8	-
PV array 17	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 18	SA tracking	SA tracking	1,036	17.3	0	0.0	-
PV array 19	SA tracking	SA tracking	1,519	25.3	2,042	34.0	-
PV array 2	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 20	SA tracking	SA tracking	306	5.1	0	0.0	-
PV array 21	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 22	SA tracking	SA tracking	177	3.0	0	0.0	-
PV array 23	SA tracking	SA tracking	1,068	17.8	0	0.0	-
PV array 3	SA tracking	SA tracking	1,073	17.9	0	0.0	-
PV array 4	SA tracking	SA tracking	220	3.7	1	0.0	-
PV array 5	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 6	SA tracking	SA tracking	2,141	35.7	5,385	89.8	-
PV array 7	SA tracking	SA tracking	563	9.4	376	6.3	-
PV array 8	SA tracking	SA tracking	9,942	165.7	18	0.3	-
PV array 9	SA tracking	SA tracking	0	0.0	0	0.0	-

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Avenue Road	24,413	406.9	32,041	534.0
Main Camp Road	4,270	71.2	126	2.1

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 1	226	3.8	0	0.0
OP 2	231	3.9	0	0.0
OP 3	198	3.3	0	0.0
OP 4	150	2.5	43	0.7
OP 5	184	3.1	63	1.1
OP 6	139	2.3	36	0.6
OP 7	253	4.2	113	1.9
OP 8	613	10.2	0	0.0
OP 9	1,345	22.4	0	0.0
OP 10	48	0.8	0	0.0
OP 11	951	15.8	0	0.0
OP 12	209	3.5	0	0.0
OP 13	334	5.6	0	0.0
OP 14	903	15.1	0	0.0
OP 15	1,095	18.2	0	0.0
OP 16	1,265	21.1	0	0.0
OP 17	80	1.3	0	0.0
OP 18	712	11.9	0	0.0
OP 19	444	7.4	0	0.0
OP 20	0	0.0	0	0.0
OP 21	315	5.2	0	0.0
OP 22	298	5.0	0	0.0
OP 23	244	4.1	0	0.0
OP 24	115	1.9	0	0.0
OP 25	417	7.0	0	0.0
OP 26	3,022	50.4	0	0.0
OP 27	2,729	45.5	0	0.0
OP 28	2,667	44.5	0	0.0
OP 29	635	10.6	0	0.0
OP 30	1,108	18.5	0	0.0
OP 31	717	11.9	0	0.0
OP 32	1,298	21.6	0	0.0
OP 33	3,635	60.6	0	0.0

PV: PV array 1 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 1 and Route: Avenue Road

No glare found

PV array 1 and Route: Main Camp Road

No glare found

PV array 1 and OP 1

No glare found

PV array 1 and OP 2

No glare found

PV array 1 and OP 3

No glare found

PV array 1 and OP 4

No glare found

PV array 1 and OP 5

No glare found

PV array 1 and OP 6

No glare found

PV array 1 and OP 7

No glare found

PV array 1 and OP 8

No glare found

PV array 1 and OP 9

No glare found

PV array 1 and OP 10

No glare found

PV array 1 and OP 11

No glare found

PV array 1 and OP 12

No glare found

PV array 1 and OP 13

No glare found

PV array 1 and OP 14

No glare found

PV array 1 and OP 15

No glare found

PV array 1 and OP 16

No glare found

PV array 1 and OP 17

No glare found

PV array 1 and OP 18

No glare found

PV array 1 and OP 19

No glare found

PV array 1 and OP 20

No glare found

PV array 1 and OP 21

No glare found

PV array 1 and OP 22

No glare found

PV array 1 and OP 23

No glare found

PV array 1 and OP 24

No glare found

PV array 1 and OP 25

No glare found

PV array 1 and OP 26

No glare found

PV array 1 and OP 27

No glare found

PV array 1 and OP 28

No glare found

PV array 1 and OP 29

No glare found

PV array 1 and OP 30

No glare found

PV array 1 and OP 31

No glare found

PV array 1 and OP 32

No glare found

PV array 1 and OP 33

No glare found

PV: PV array 10 potential temporary after-image

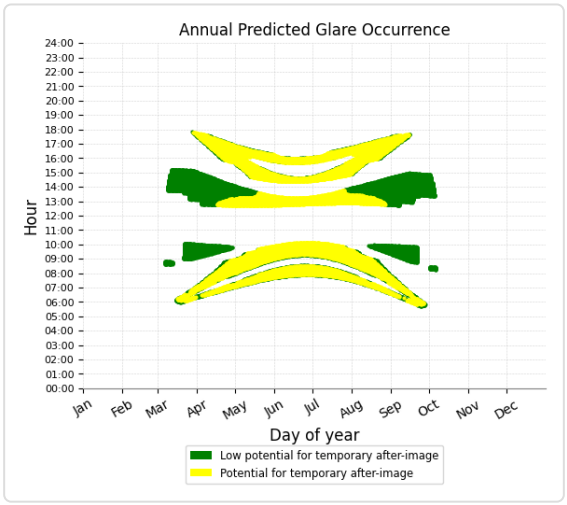
Receptor results ordered by category of glare

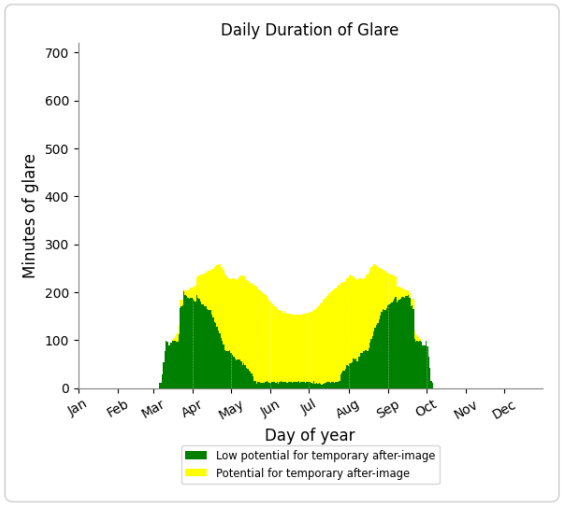
Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	17,442	290.7	23,750	395.8
Main Camp Road	2,262	37.7	0	0.0
OP 4	131	2.2	43	0.7
OP 5	184	3.1	63	1.1
OP 6	139	2.3	36	0.6
OP 7	253	4.2	113	1.9
OP 8	418	7.0	0	0.0
OP 26	3,022	50.4	0	0.0
OP 27	2,729	45.5	0	0.0
OP 28	2,667	44.5	0	0.0
OP 29	512	8.5	0	0.0
OP 30	470	7.8	0	0.0
OP 31	538	9.0	0	0.0
OP 32	402	6.7	0	0.0
OP 33	3,635	60.6	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0

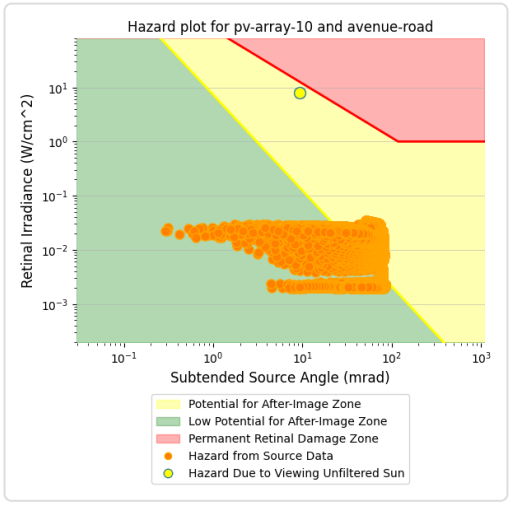
PV array 10 and Route: Avenue Road

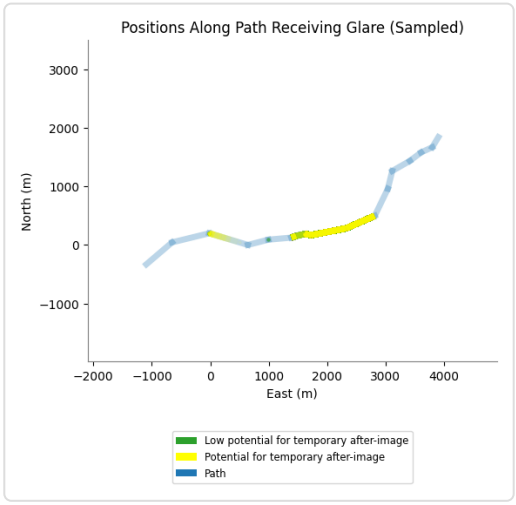
Yellow glare: 23,750 min.

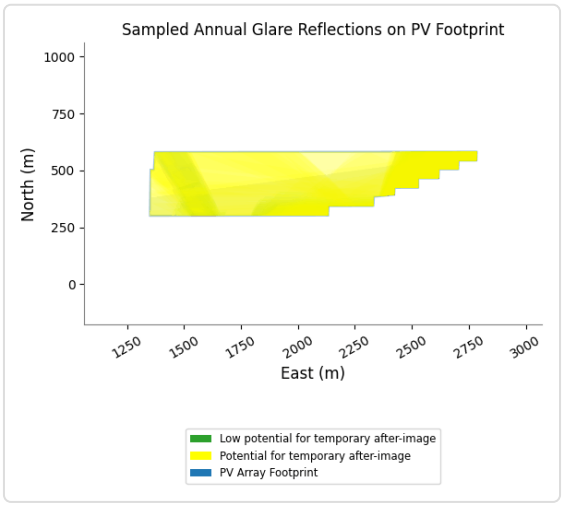
Green glare: 17,442 min.







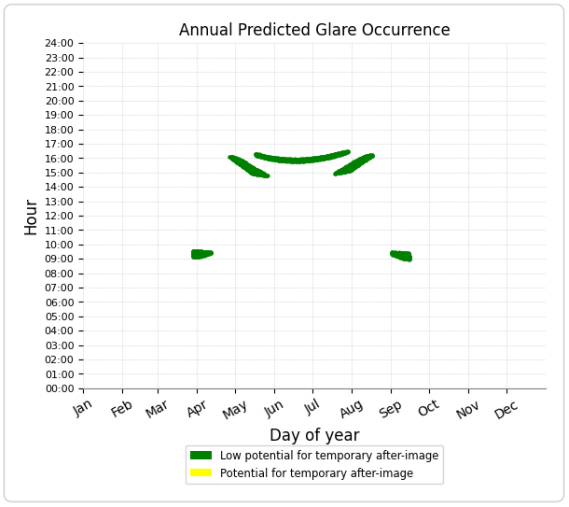


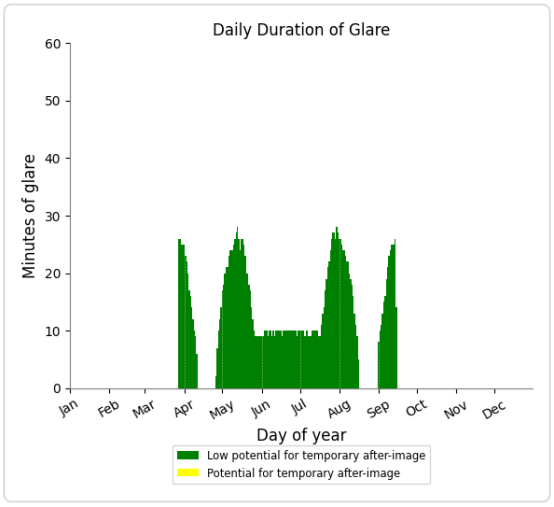


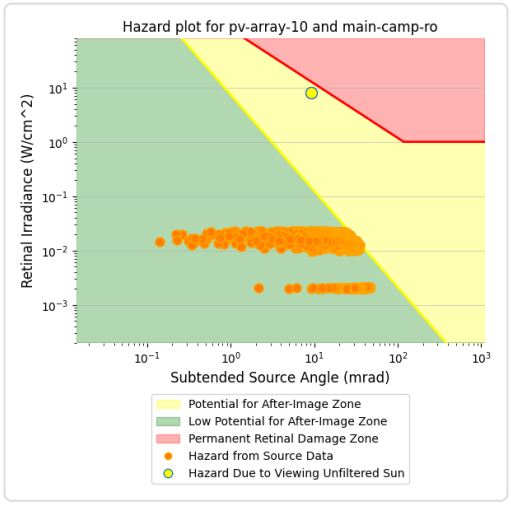
PV array 10 and Route: Main Camp Road

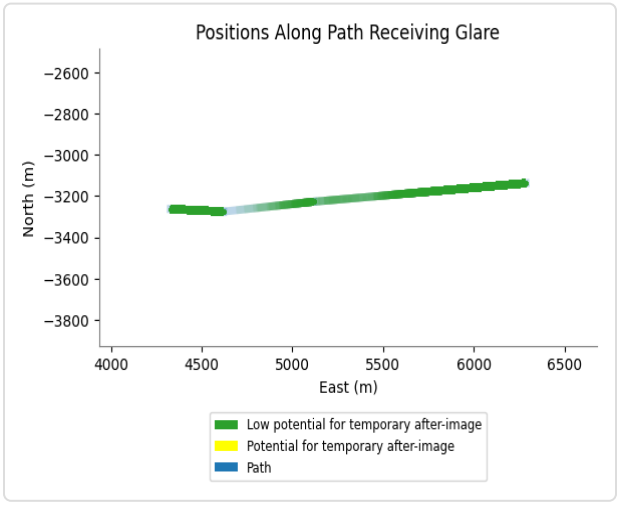
Yellow glare: none

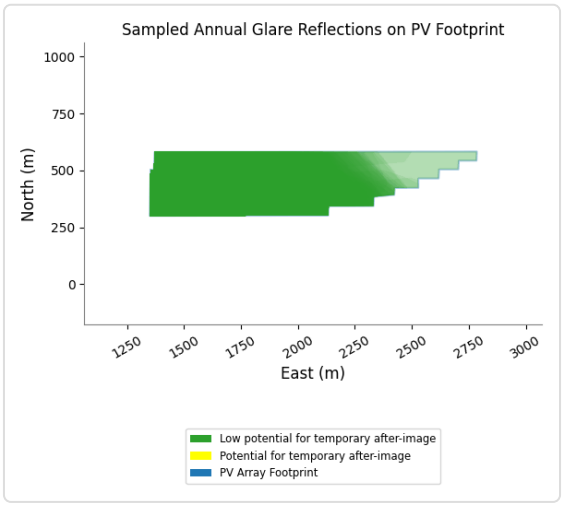
Green glare: 2,262 min.







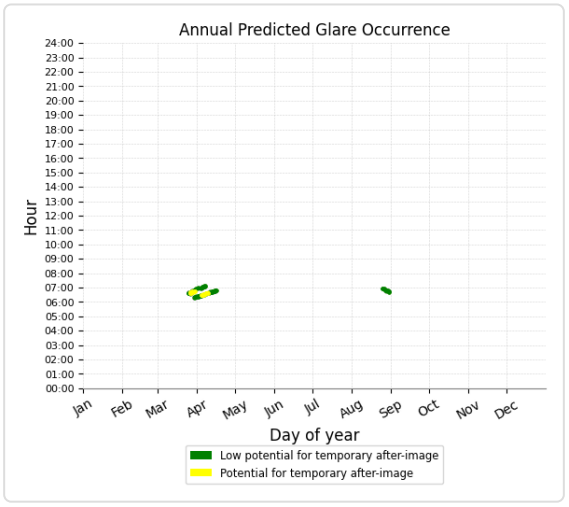


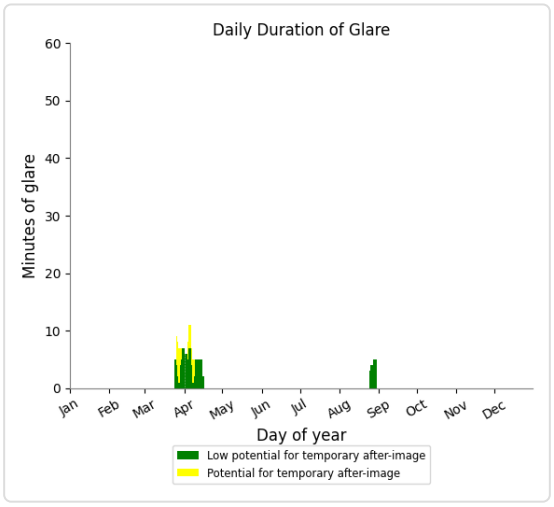


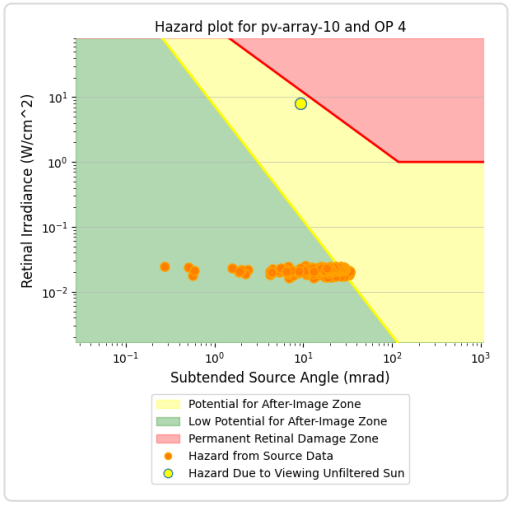
PV array 10 and OP 4

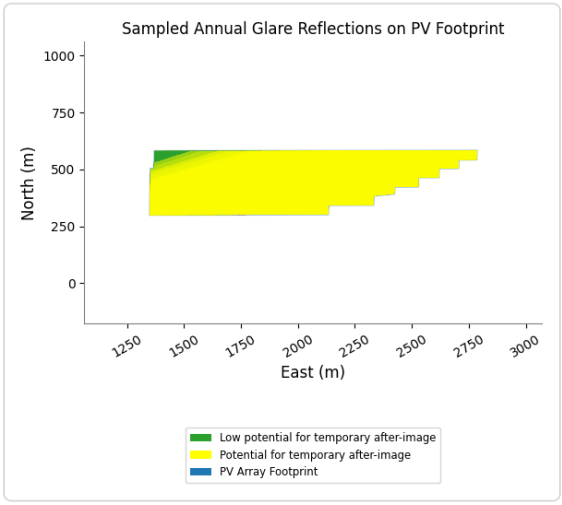
Yellow glare: 43 min.

Green glare: 131 min.





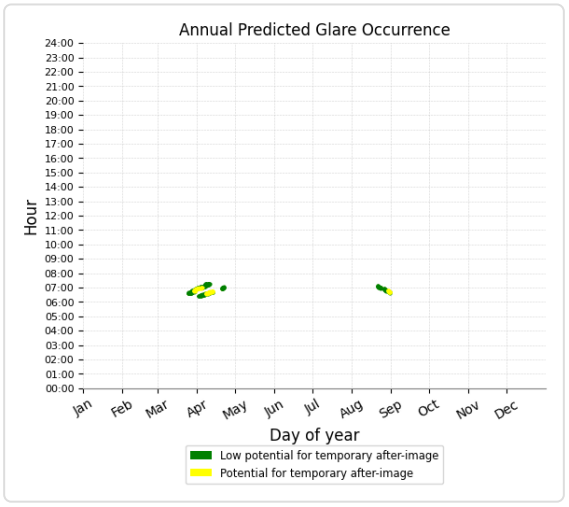


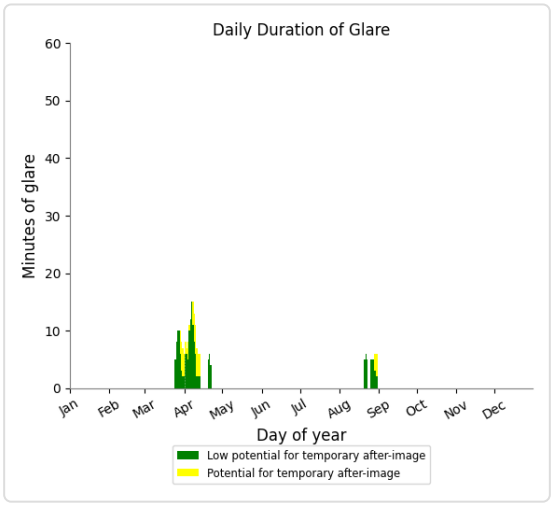


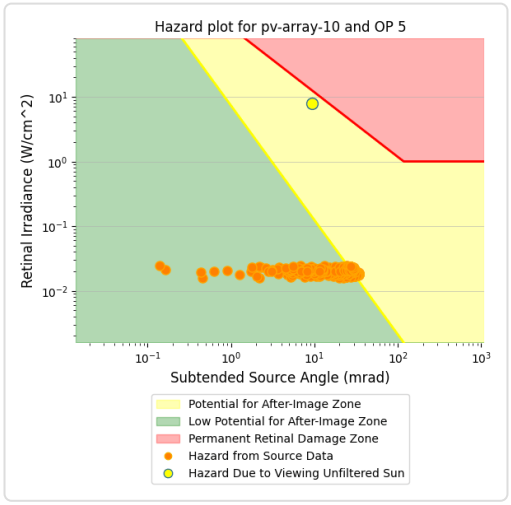
PV array 10 and OP 5

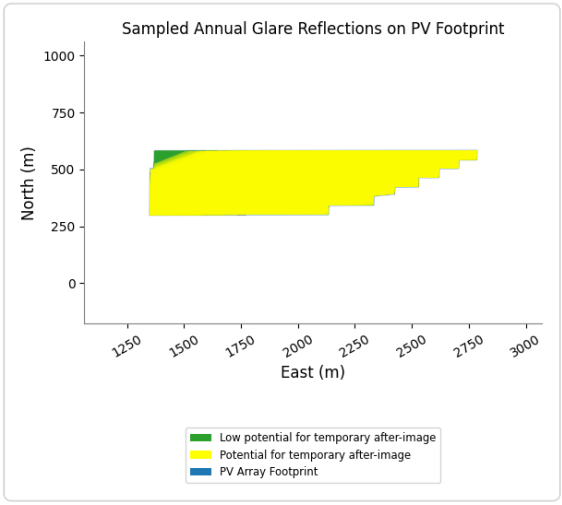
Yellow glare: 63 min.

Green glare: 184 min.





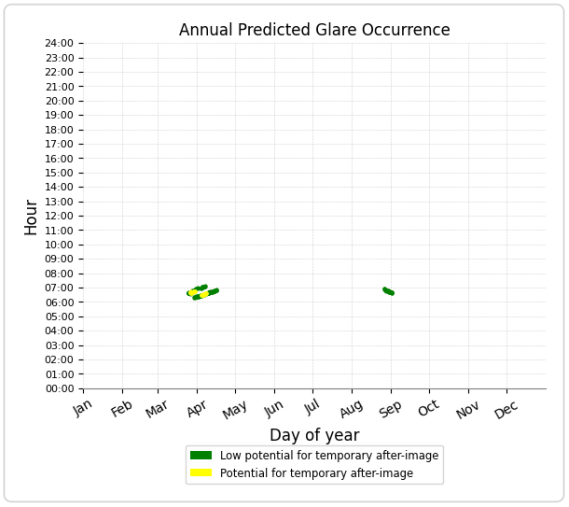


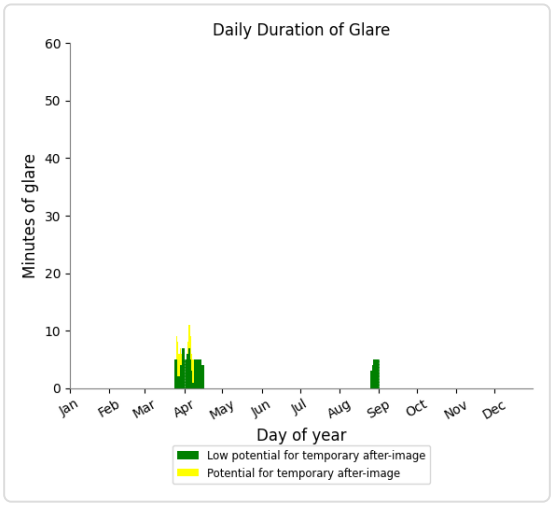


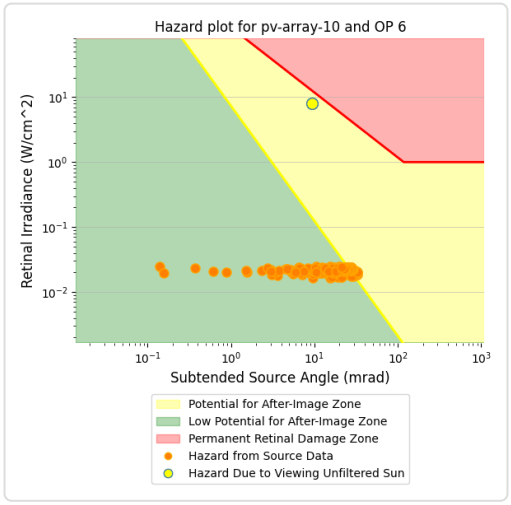
PV array 10 and OP 6

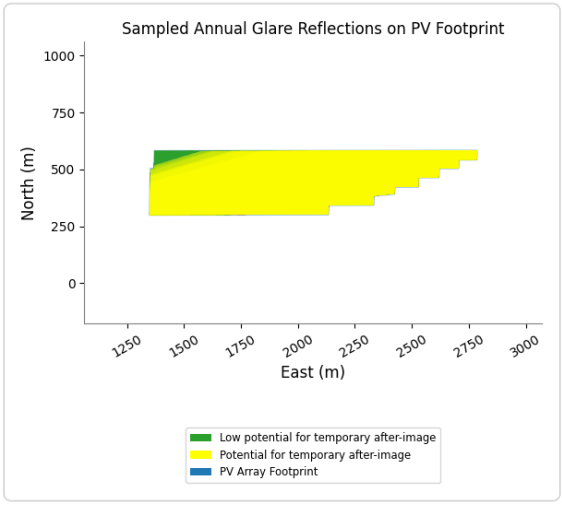
Yellow glare: 36 min.

Green glare: 139 min.





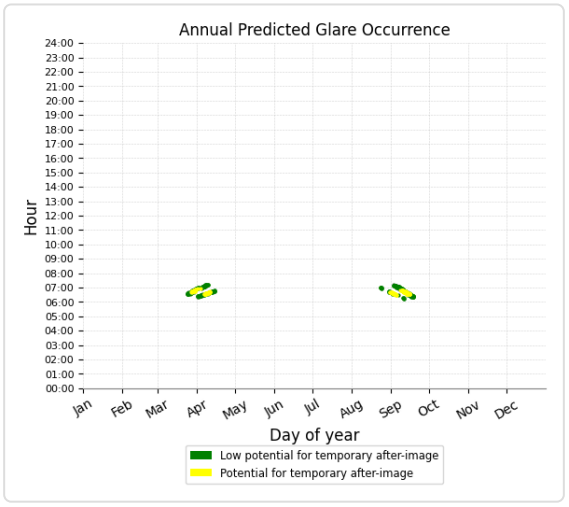


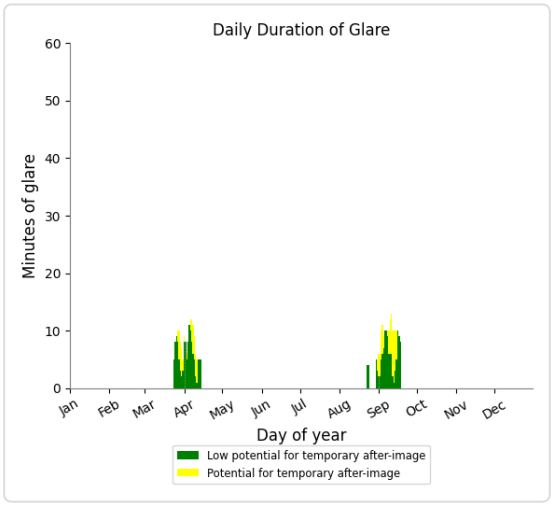


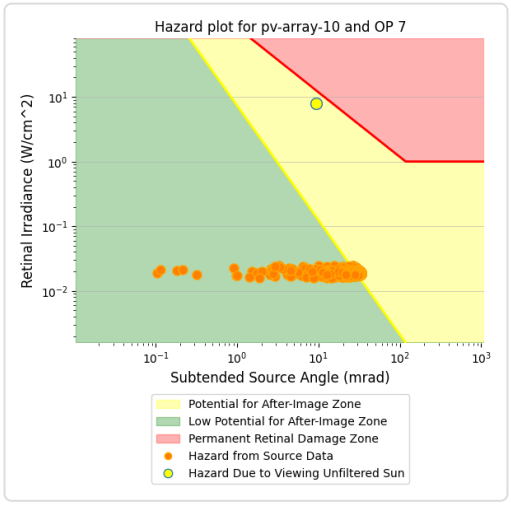
PV array 10 and OP 7

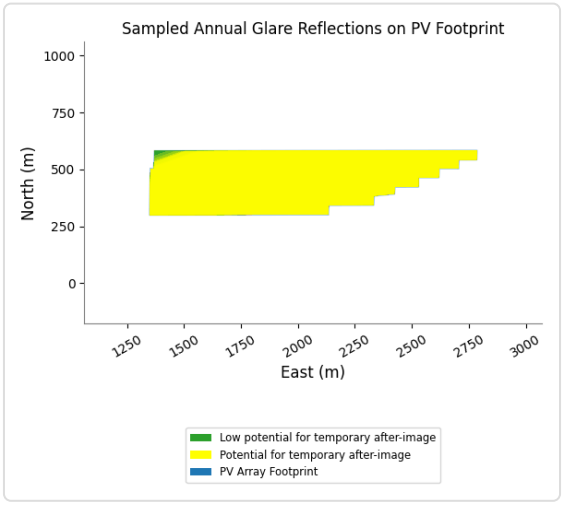
Yellow glare: 113 min.

Green glare: 253 min.





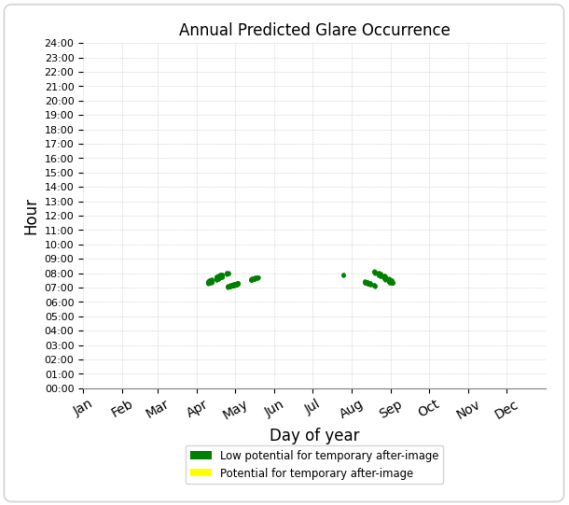


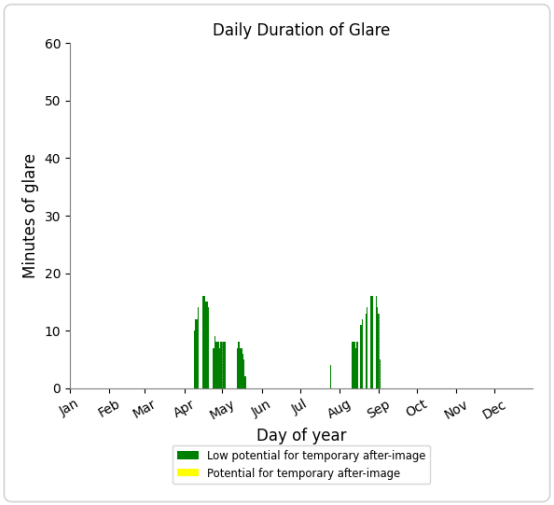


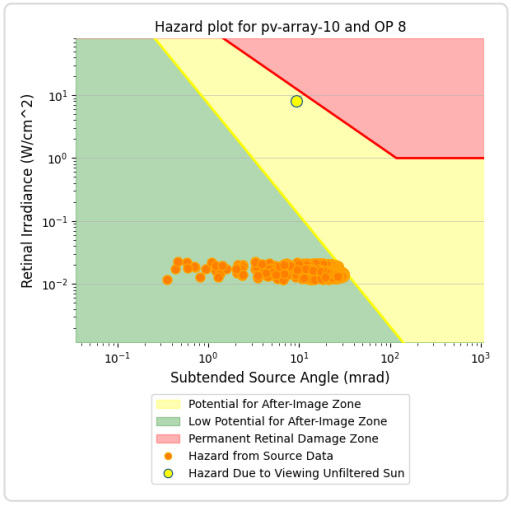
PV array 10 and OP 8

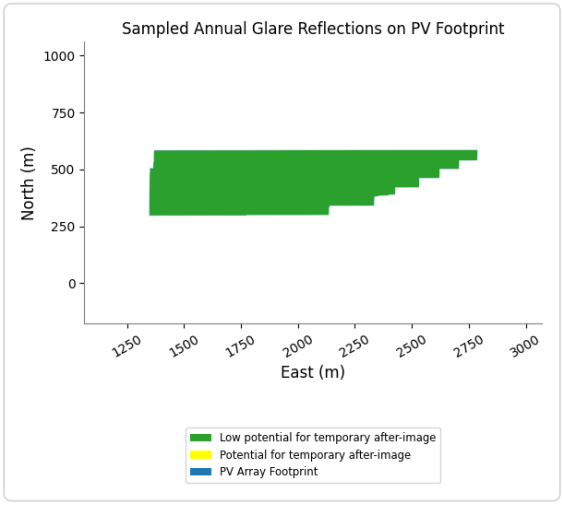
Yellow glare: none

Green glare: 418 min.





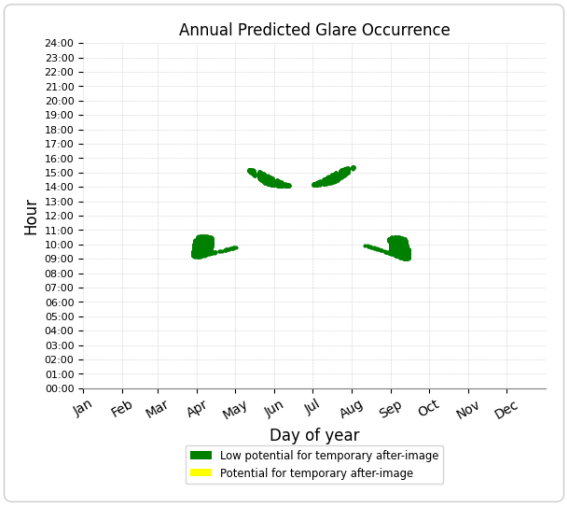


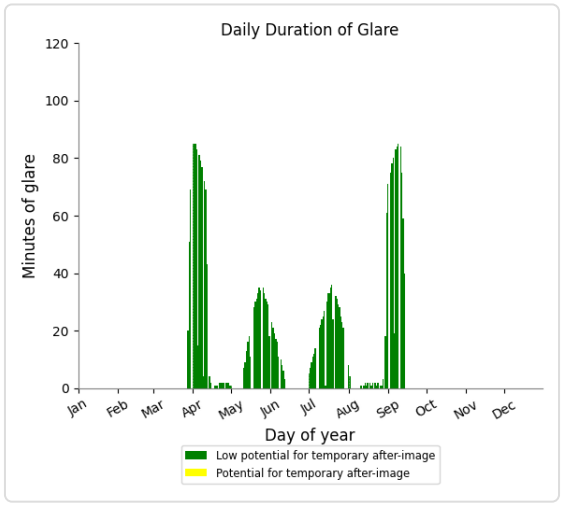


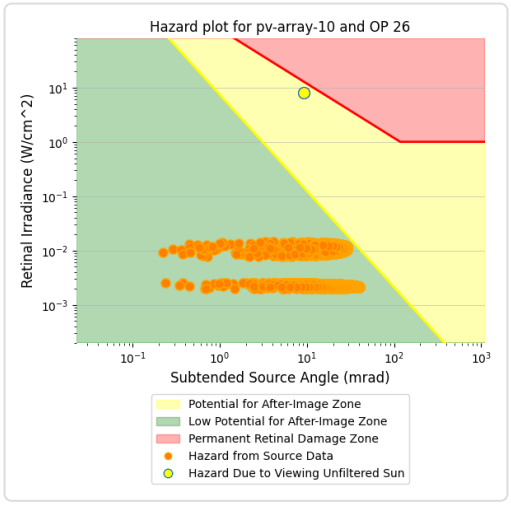
PV array 10 and OP 26

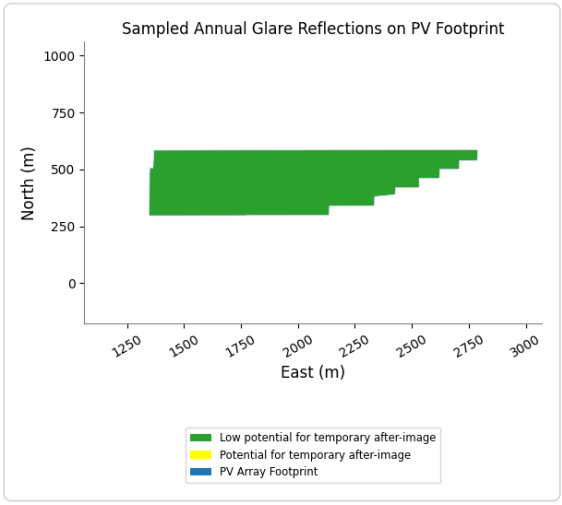
Yellow glare: none

Green glare: 3,022 min.





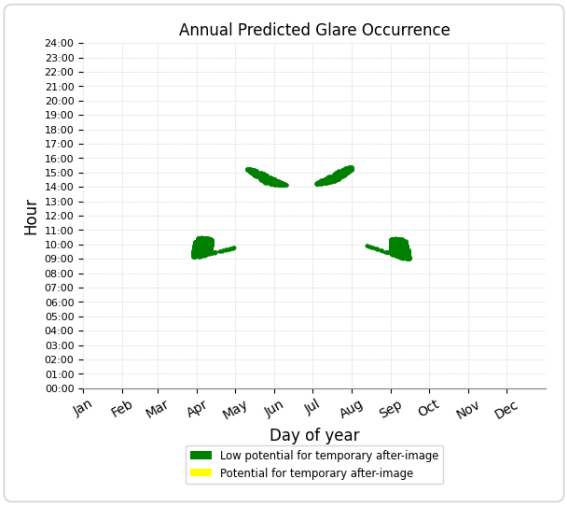


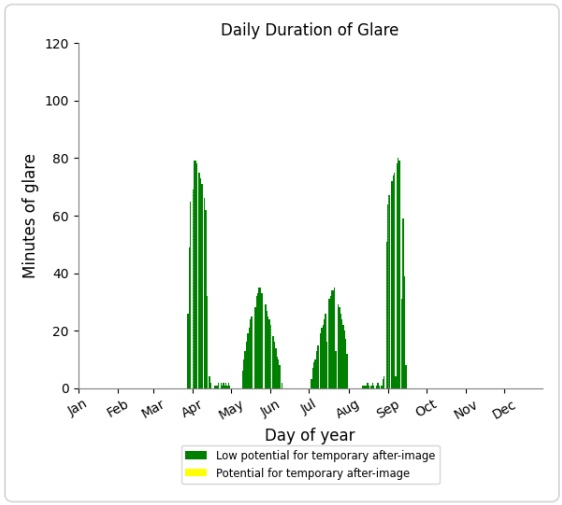


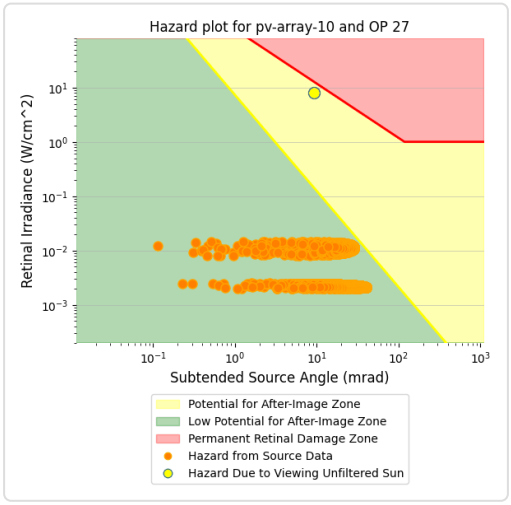
PV array 10 and OP 27

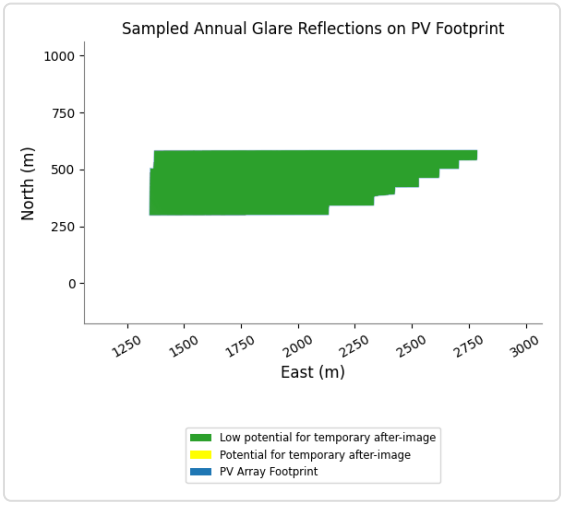
Yellow glare: none

Green glare: 2,729 min.





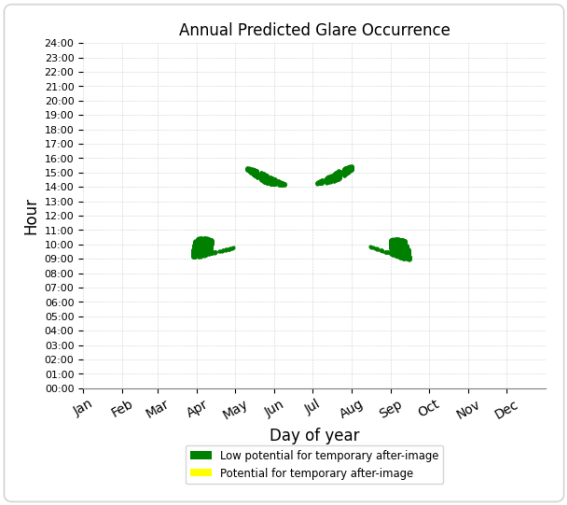


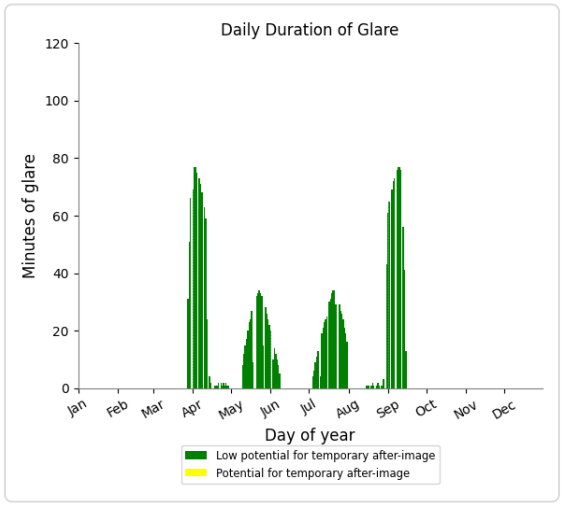


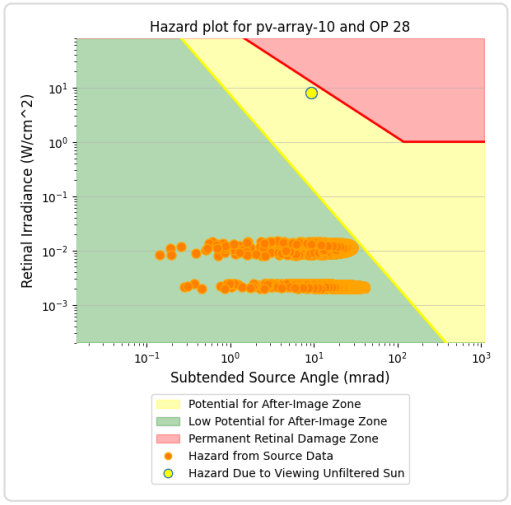
PV array 10 and OP 28

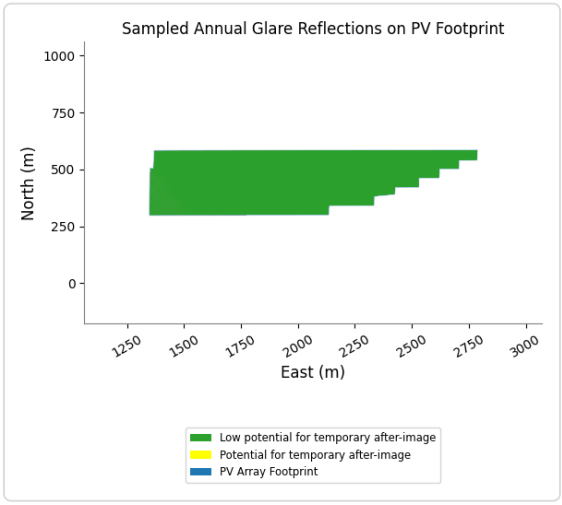
Yellow glare: none

Green glare: 2,667 min.





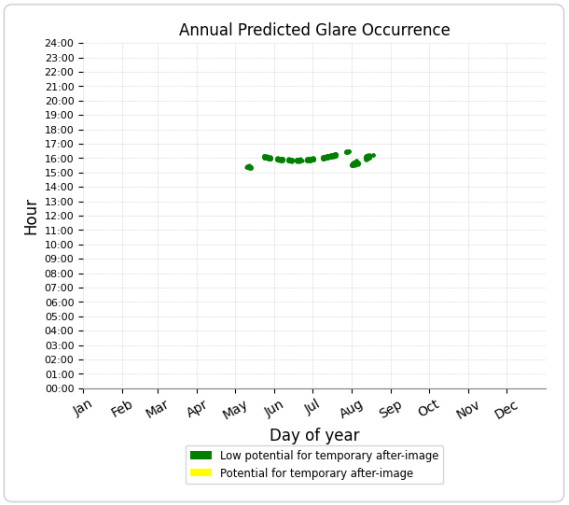


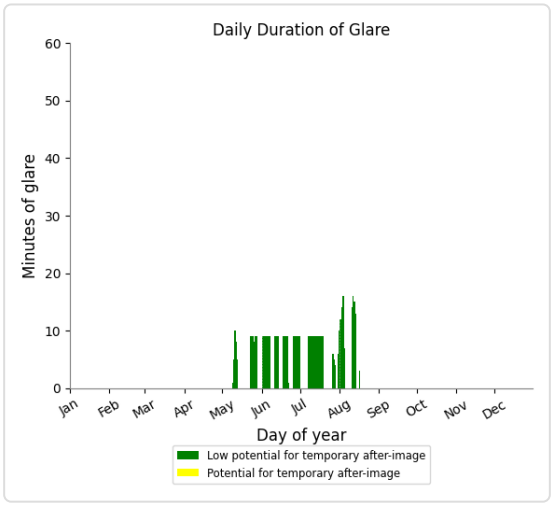


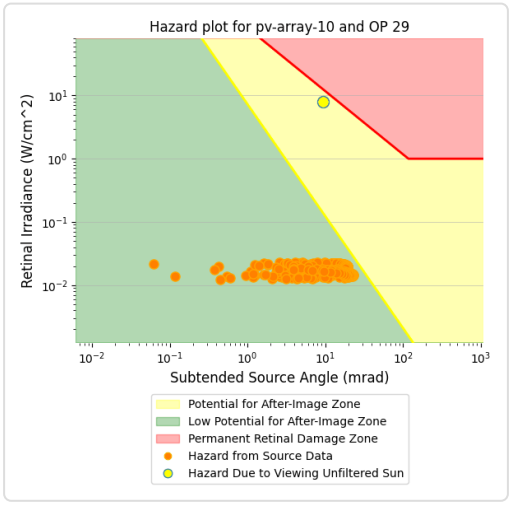
PV array 10 and OP 29

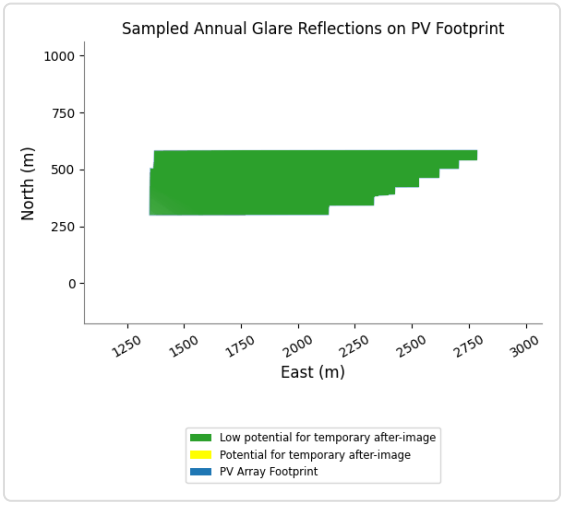
Yellow glare: none

Green glare: 512 min.





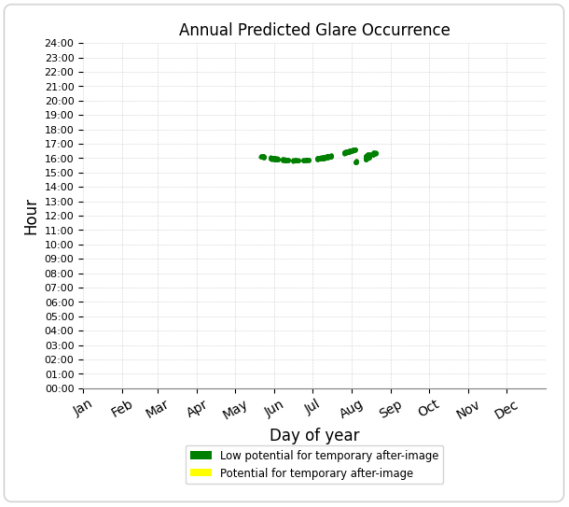


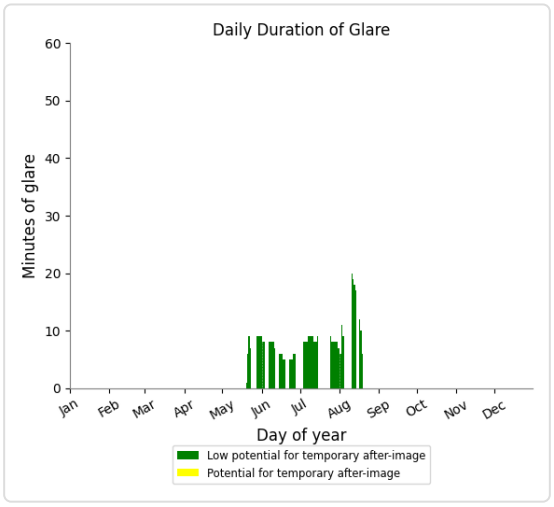


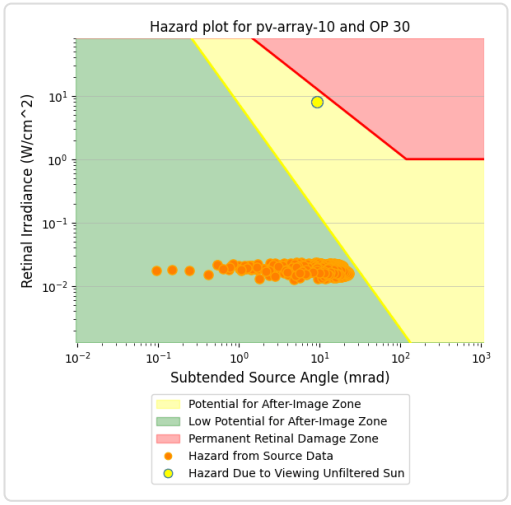
PV array 10 and OP 30

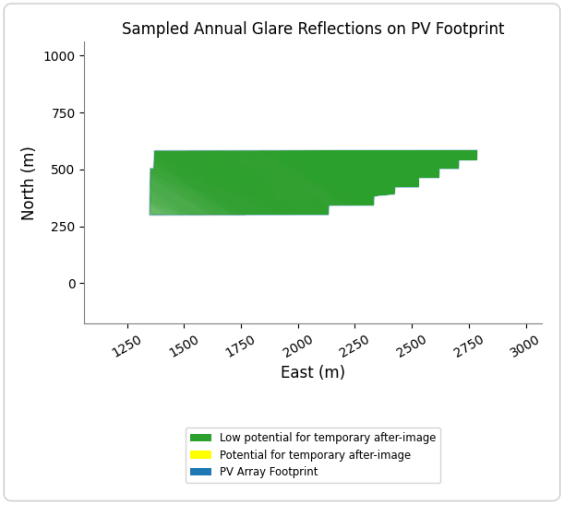
Yellow glare: none

Green glare: 470 min.





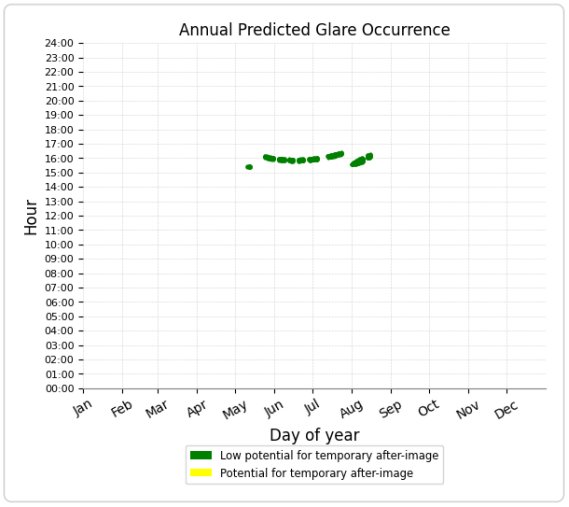


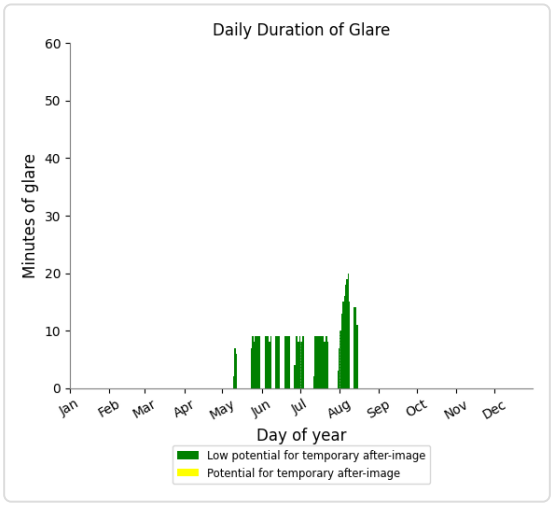


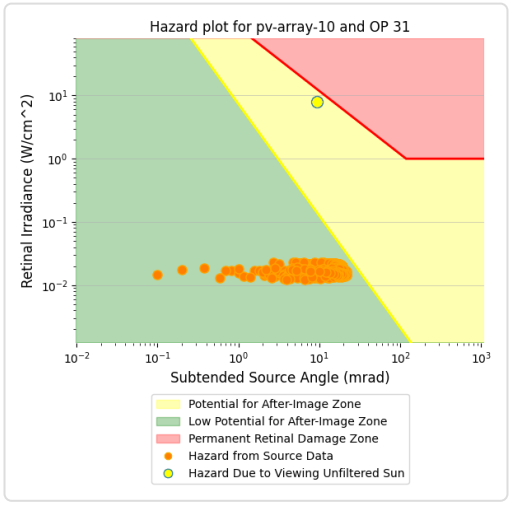
PV array 10 and OP 31

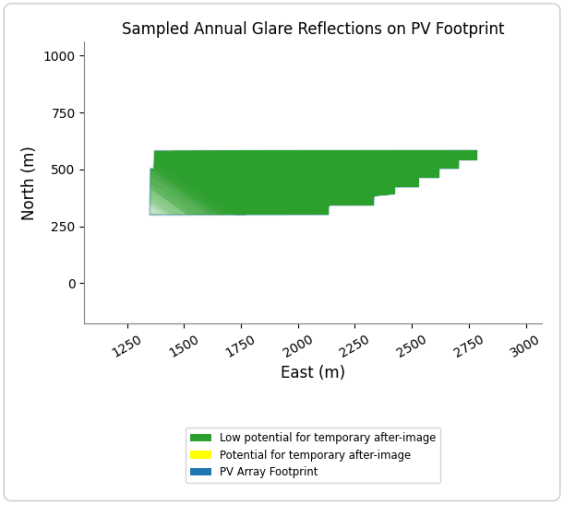
Yellow glare: none

Green glare: 538 min.





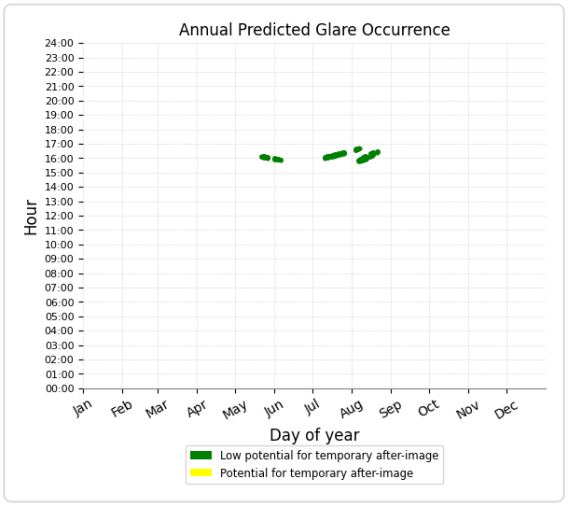


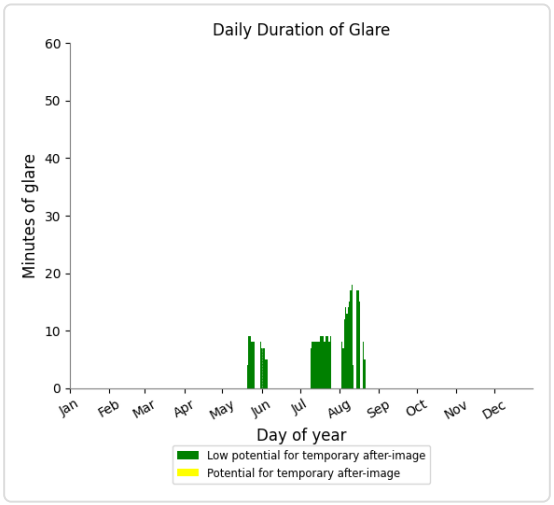


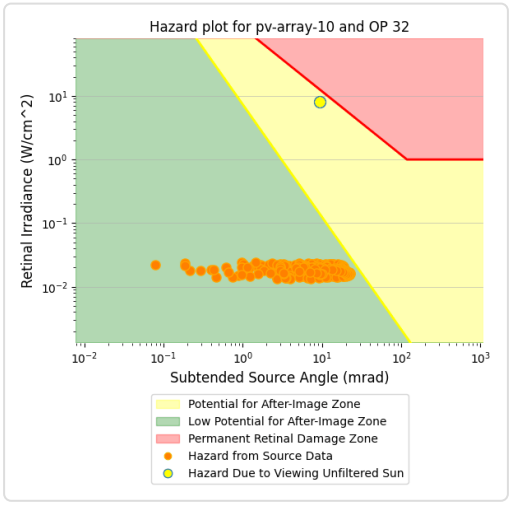
PV array 10 and OP 32

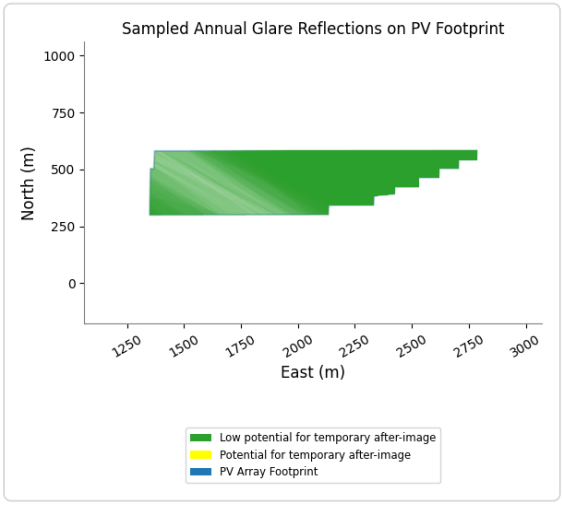
Yellow glare: none

Green glare: 402 min.





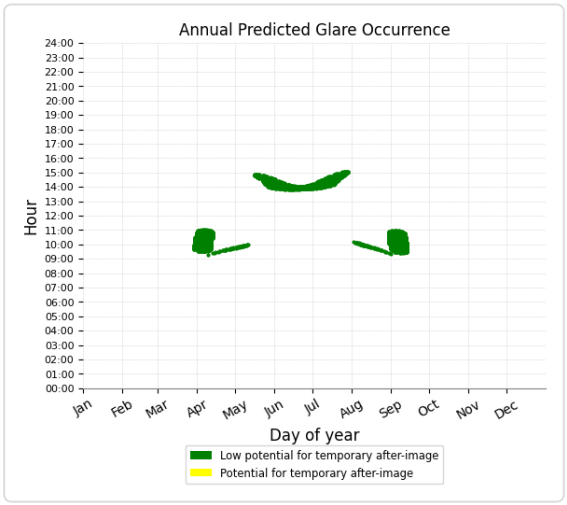


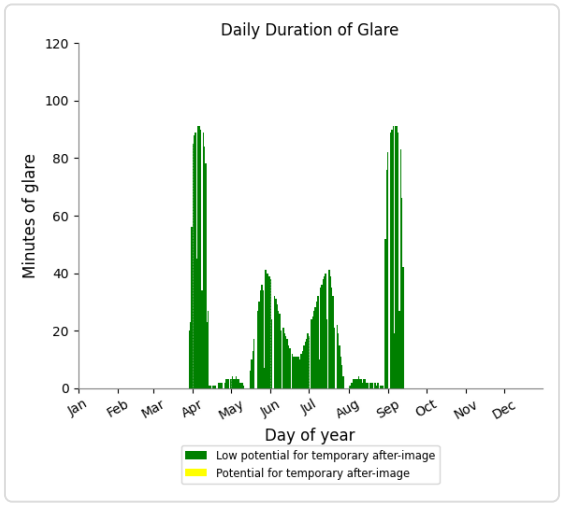


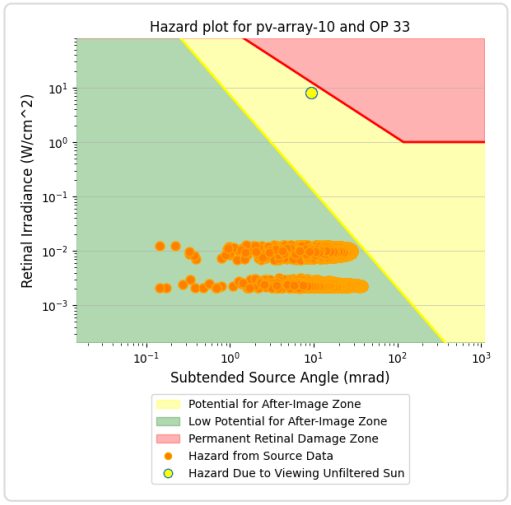
PV array 10 and OP 33

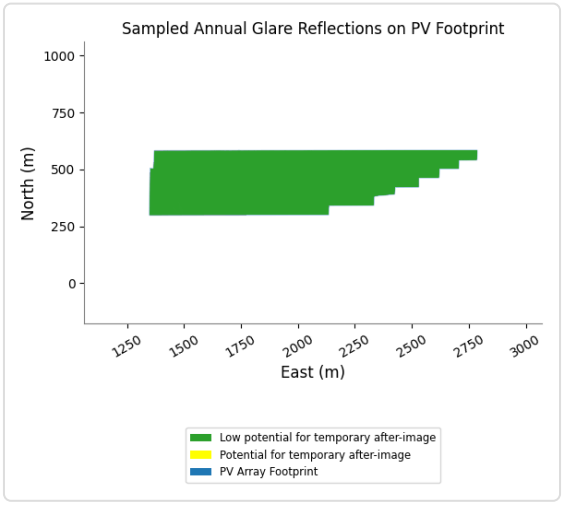
Yellow glare: none

Green glare: 3,635 min.









PV array 10 and OP 1

No glare found

PV array 10 and OP 2

No glare found

PV array 10 and OP 3

No glare found

PV array 10 and OP 9

No glare found

PV array 10 and OP 10

No glare found

PV array 10 and OP 11

No glare found

PV array 10 and OP 12

No glare found

PV array 10 and OP 13

No glare found

PV array 10 and OP 14

No glare found

PV array 10 and OP 15

No glare found

PV array 10 and OP 16

No glare found

PV array 10 and OP 17

No glare found

PV array 10 and OP 18

No glare found

PV array 10 and OP 19

No glare found

PV array 10 and OP 20

No glare found

PV array 10 and OP 21

No glare found

PV array 10 and OP 22

No glare found

PV array 10 and OP 23

No glare found

PV array 10 and OP 24

No glare found

PV array 10 and OP 25

No glare found

PV: PV array 15 potential temporary after-image

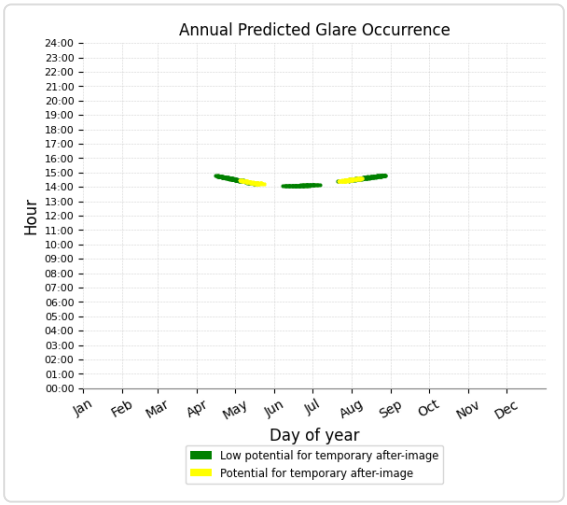
Receptor results ordered by category of glare

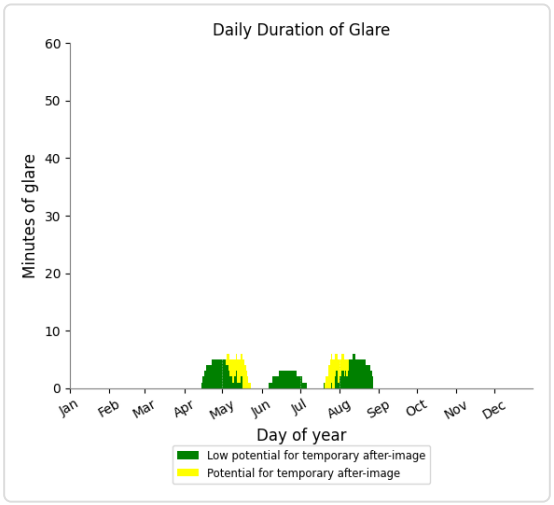
Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Main Camp Road	289	4.8	126	2.1
Avenue Road	0	0.0	0	0.0
OP 21	297	5.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

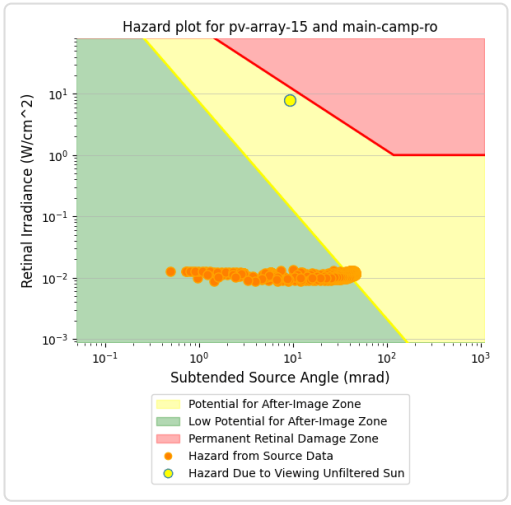
PV array 15 and Route: Main Camp Road

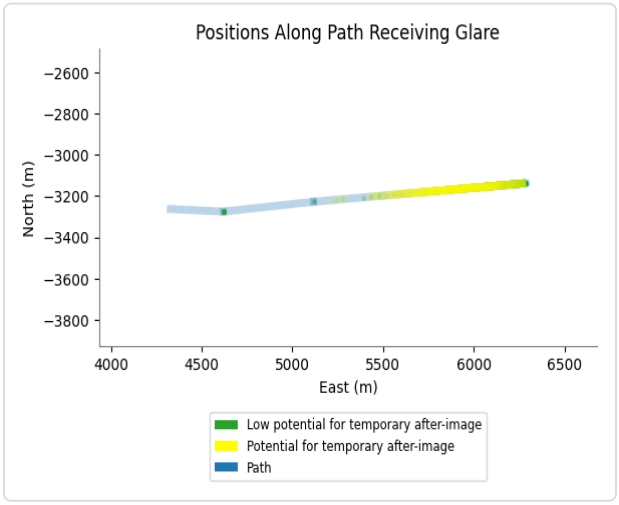
Yellow glare: 126 min.

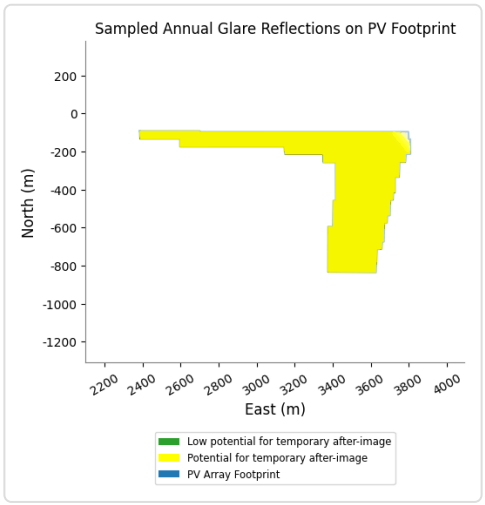
Green glare: 289 min.











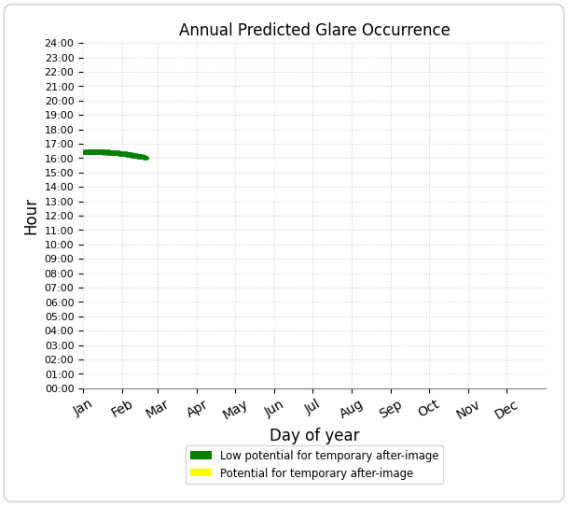
PV array 15 and Route: Avenue Road

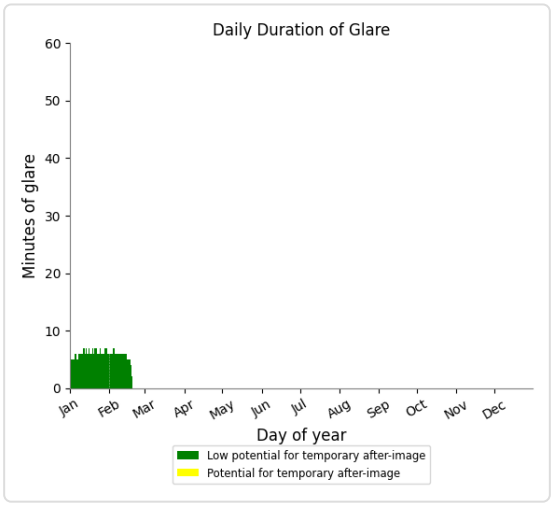
No glare found

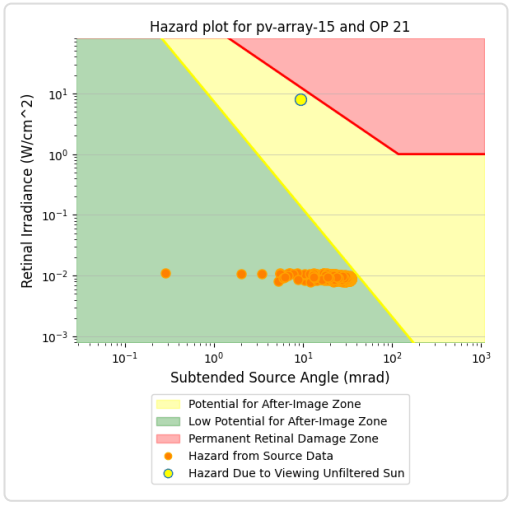
PV array 15 and OP 21

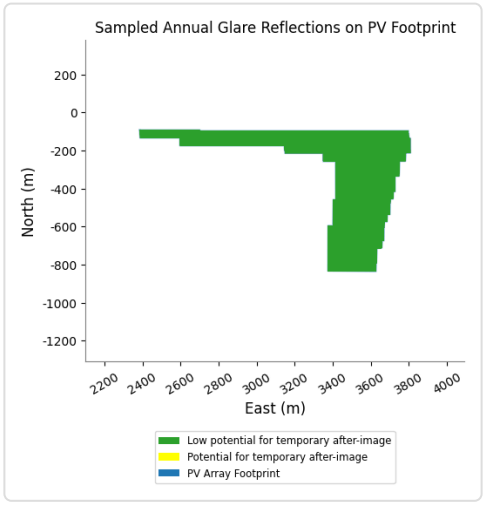
Yellow glare: none

Green glare: 297 min.









PV array 15 and OP 1

No glare found

PV array 15 and OP 2

No glare found

PV array 15 and OP 3

No glare found

PV array 15 and OP 4

No glare found

PV array 15 and OP 5

No glare found

PV array 15 and OP 6

No glare found

PV array 15 and OP 7

No glare found

PV array 15 and OP 8

No glare found

PV array 15 and OP 9

No glare found

PV array 15 and OP 10

No glare found

PV array 15 and OP 11

No glare found

PV array 15 and OP 12

No glare found

PV array 15 and OP 13

No glare found

PV array 15 and OP 14

No glare found

PV array 15 and OP 15

No glare found

PV array 15 and OP 16

No glare found

PV array 15 and OP 17

No glare found

PV array 15 and OP 18

No glare found

PV array 15 and OP 19

No glare found

PV array 15 and OP 20

No glare found

PV array 15 and OP 22

No glare found

PV array 15 and OP 23

No glare found

PV array 15 and OP 24

No glare found

PV array 15 and OP 25

No glare found

PV array 15 and OP 26

No glare found

PV array 15 and OP 27

No glare found

PV array 15 and OP 28

No glare found

PV array 15 and OP 29

No glare found

PV array 15 and OP 30

No glare found

PV array 15 and OP 31

No glare found

PV array 15 and OP 32

No glare found

PV array 15 and OP 33

No glare found

PV: PV array 16 potential temporary after-image

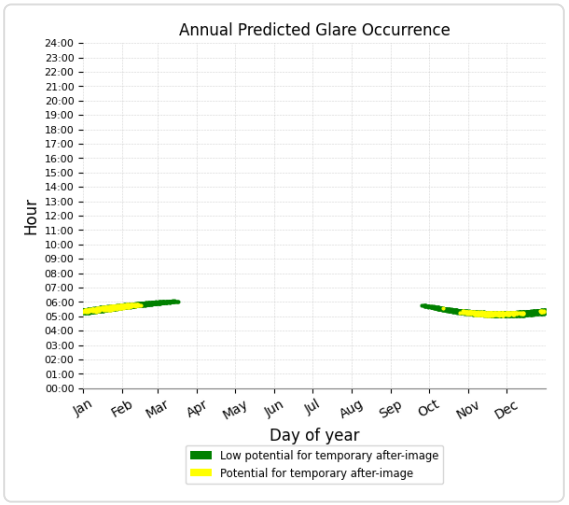
Receptor results ordered by category of glare

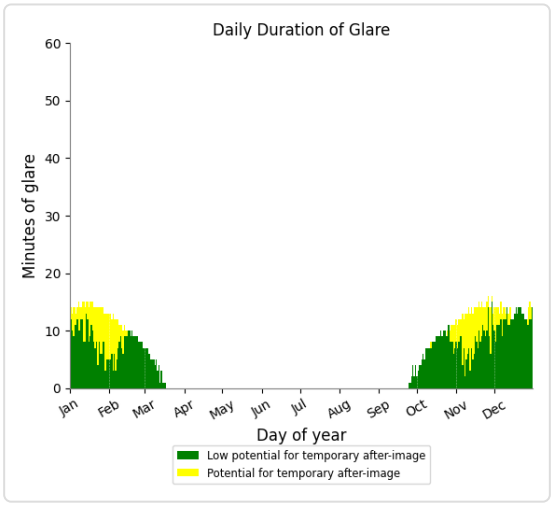
Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	1,411	23.5	469	7.8
Main Camp Road	0	0.0	0	0.0
OP 1	140	2.3	0	0.0
OP 2	147	2.5	0	0.0
OP 3	130	2.2	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

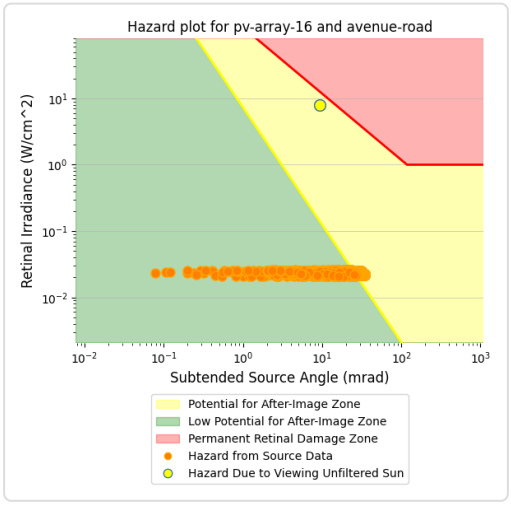
PV array 16 and Route: Avenue Road

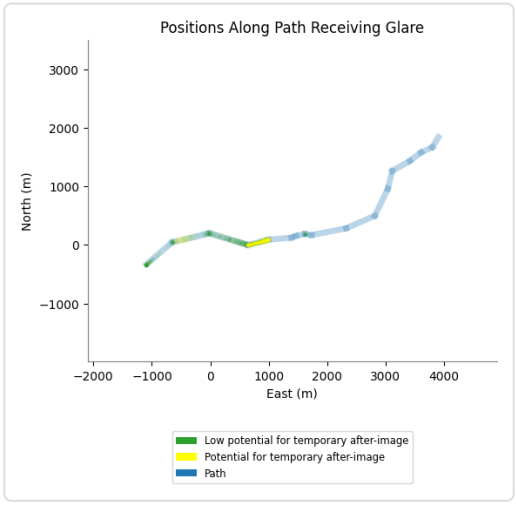
Yellow glare: 469 min.

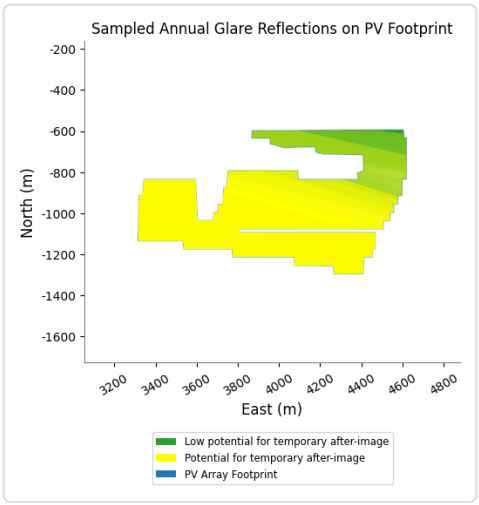
Green glare: 1,411 min.











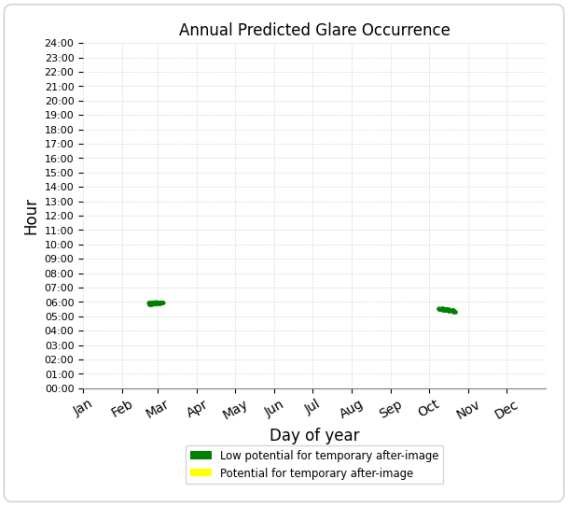
PV array 16 and Route: Main Camp Road

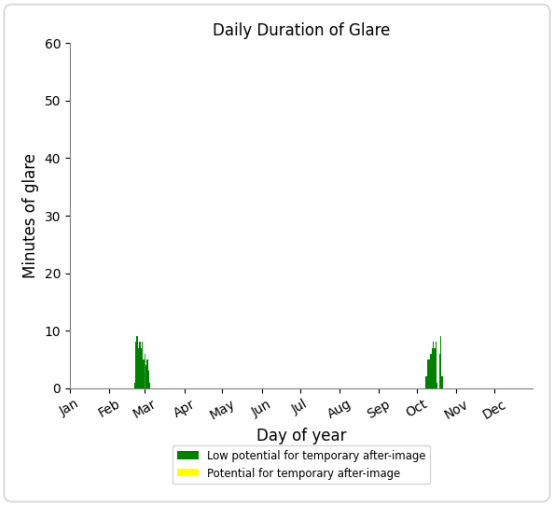
No glare found

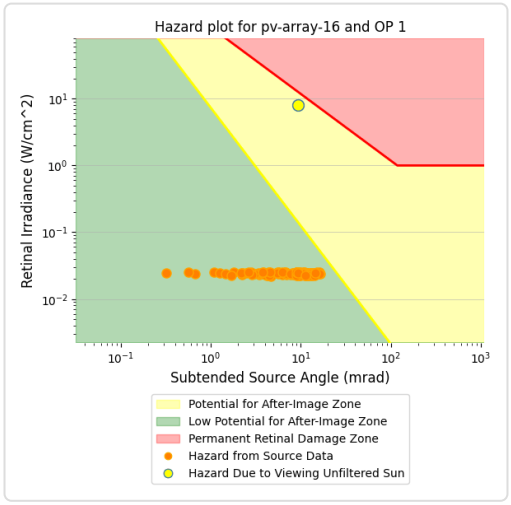
PV array 16 and OP 1

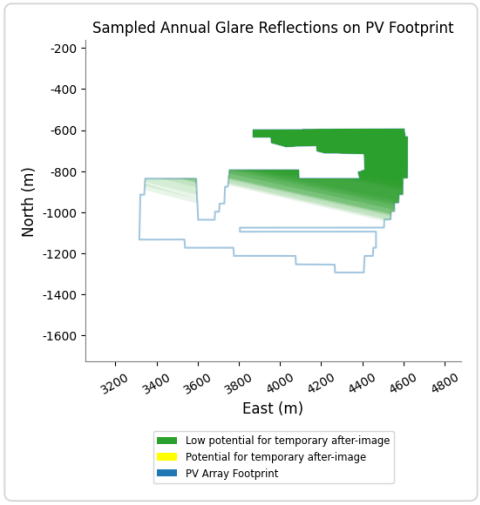
Yellow glare: none

Green glare: 140 min.





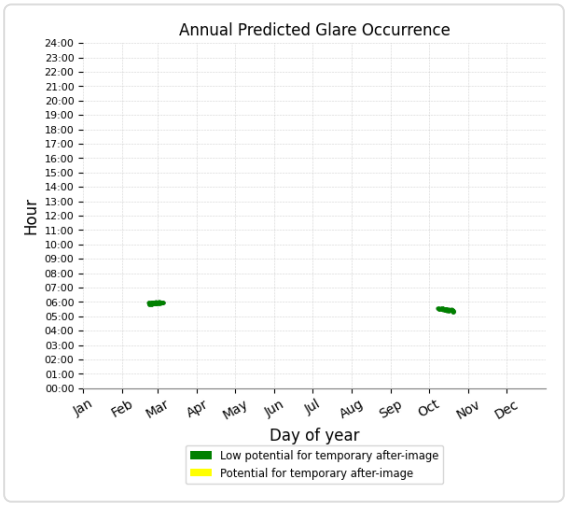


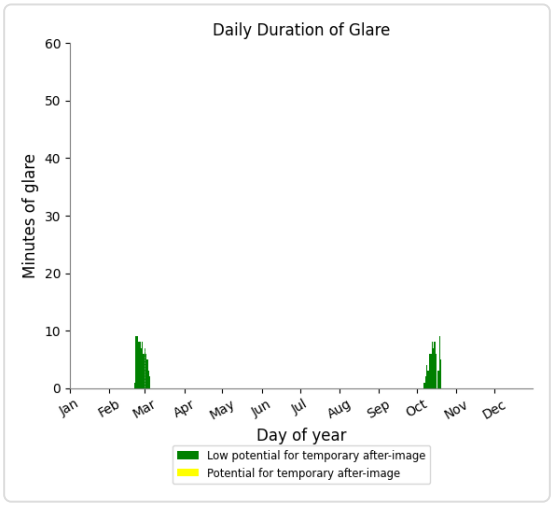


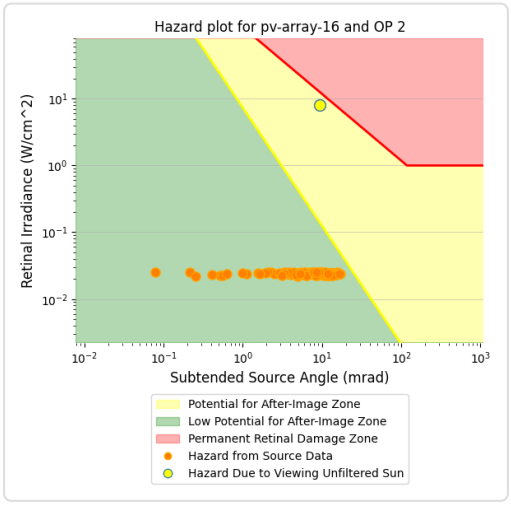
PV array 16 and OP 2

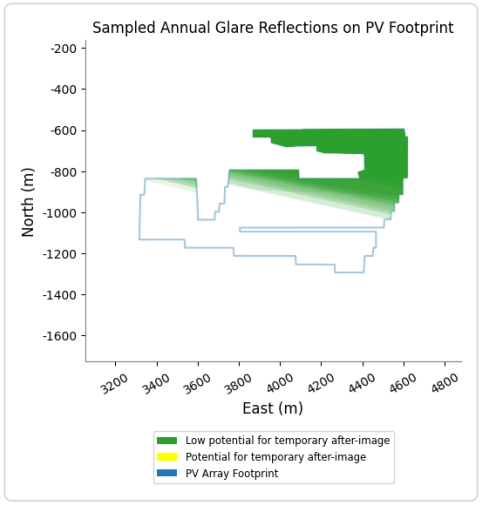
Yellow glare: none

Green glare: 147 min.





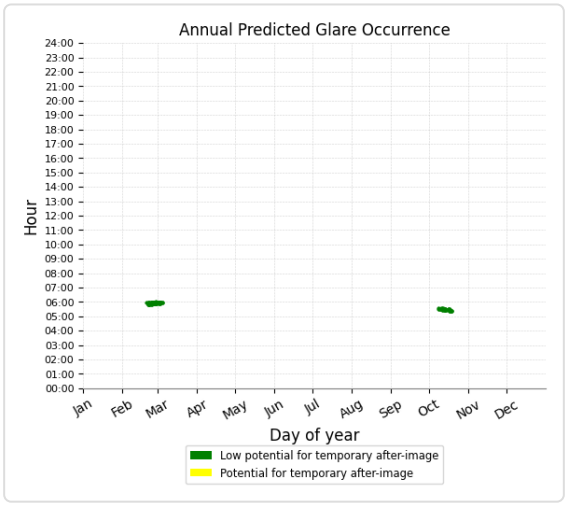


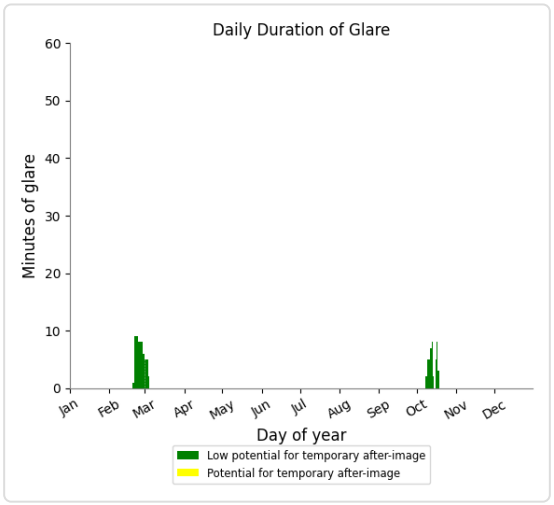


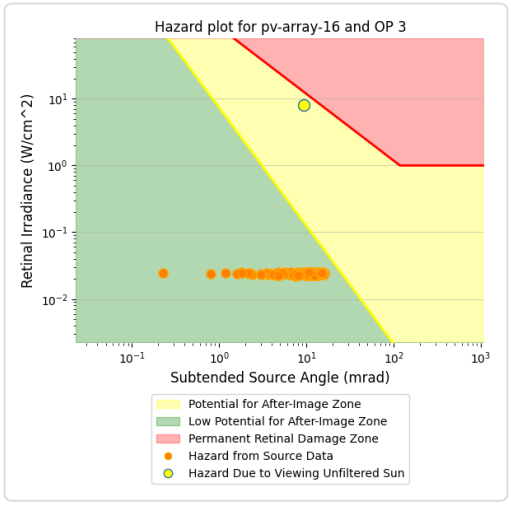
PV array 16 and OP 3

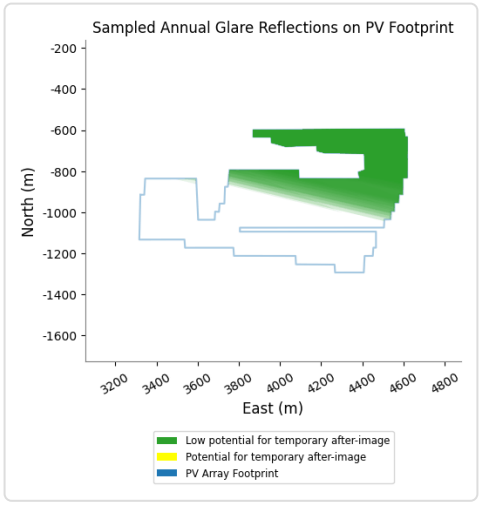
Yellow glare: none

Green glare: 130 min.









PV array 16 and OP 4

No glare found

PV array 16 and OP 5

No glare found

PV array 16 and OP 6

No glare found

PV array 16 and OP 7

No glare found

PV array 16 and OP 8

No glare found

PV array 16 and OP 9

No glare found

PV array 16 and OP 10

No glare found

PV array 16 and OP 11

No glare found

PV array 16 and OP 12

No glare found

PV array 16 and OP 13

No glare found

PV array 16 and OP 14

No glare found

PV array 16 and OP 15

No glare found

PV array 16 and OP 16

No glare found

PV array 16 and OP 17

No glare found

PV array 16 and OP 18

No glare found

PV array 16 and OP 19

No glare found

PV array 16 and OP 20

No glare found

PV array 16 and OP 21

No glare found

PV array 16 and OP 22

No glare found

PV array 16 and OP 23

No glare found

PV array 16 and OP 24

No glare found

PV array 16 and OP 25

No glare found

PV array 16 and OP 26

No glare found

PV array 16 and OP 27

No glare found

PV array 16 and OP 28

No glare found

PV array 16 and OP 29

No glare found

PV array 16 and OP 30

No glare found

PV array 16 and OP 31

No glare found

PV array 16 and OP 32

No glare found

PV array 16 and OP 33

No glare found

PV: PV array 17 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 17 and Route: Avenue Road

No glare found

PV array 17 and Route: Main Camp Road

No glare found

PV array 17 and OP 1

No glare found

PV array 17 and OP 2

No glare found

PV array 17 and OP 3

No glare found

PV array 17 and OP 4

No glare found

PV array 17 and OP 5

No glare found

PV array 17 and OP 6

No glare found

PV array 17 and OP 7

No glare found

PV array 17 and OP 8

No glare found

PV array 17 and OP 9

No glare found

PV array 17 and OP 10

No glare found

PV array 17 and OP 11

No glare found

PV array 17 and OP 12

No glare found

PV array 17 and OP 13

No glare found

PV array 17 and OP 14

No glare found

PV array 17 and OP 15

No glare found

PV array 17 and OP 16

No glare found

PV array 17 and OP 17

No glare found

PV array 17 and OP 18

No glare found

PV array 17 and OP 19

No glare found

PV array 17 and OP 20

No glare found

PV array 17 and OP 21

No glare found

PV array 17 and OP 22

No glare found

PV array 17 and OP 23

No glare found

PV array 17 and OP 24

No glare found

PV array 17 and OP 25

No glare found

PV array 17 and OP 26

No glare found

PV array 17 and OP 27

No glare found

PV array 17 and OP 28

No glare found

PV array 17 and OP 29

No glare found

PV array 17 and OP 30

No glare found

PV array 17 and OP 31

No glare found

PV array 17 and OP 32

No glare found

PV array 17 and OP 33

No glare found

PV: PV array 18 low potential for temporary after-image

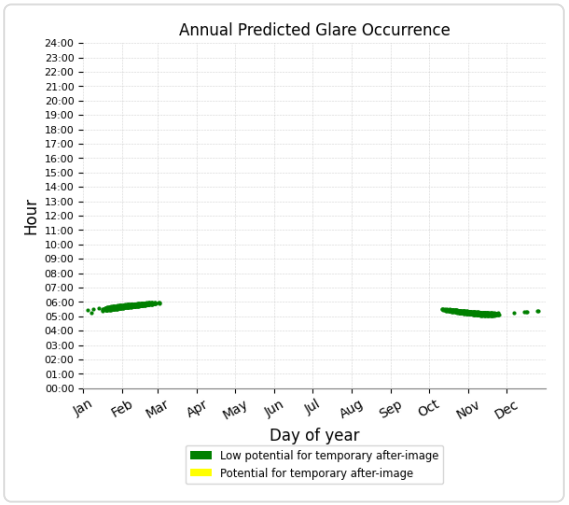
Receptor results ordered by category of glare

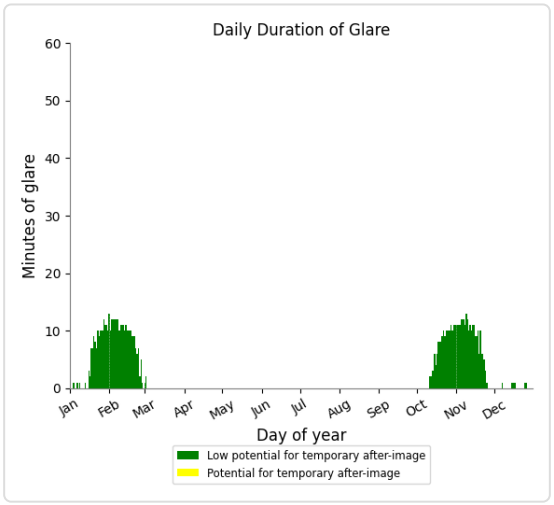
Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	798	13.3	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	86	1.4	0	0.0
OP 2	84	1.4	0	0.0
OP 3	68	1.1	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

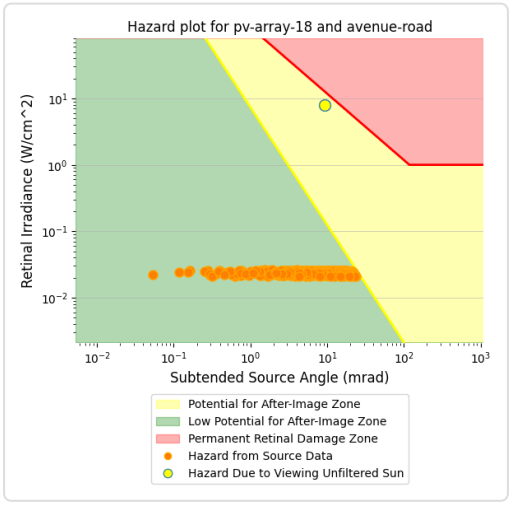
PV array 18 and Route: Avenue Road

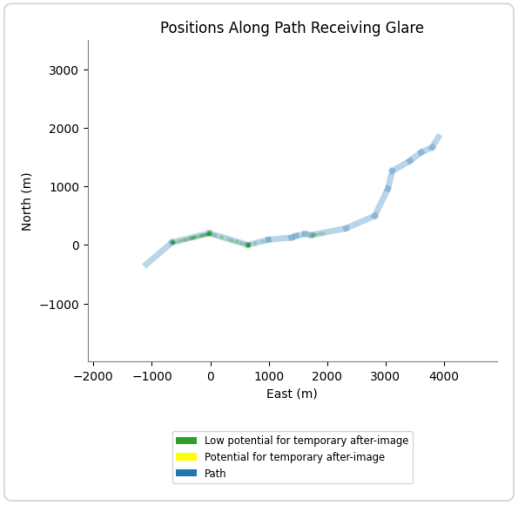
Yellow glare: none

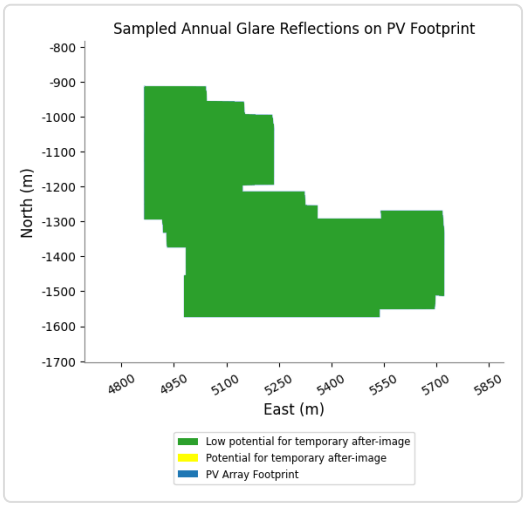
Green glare: 798 min.











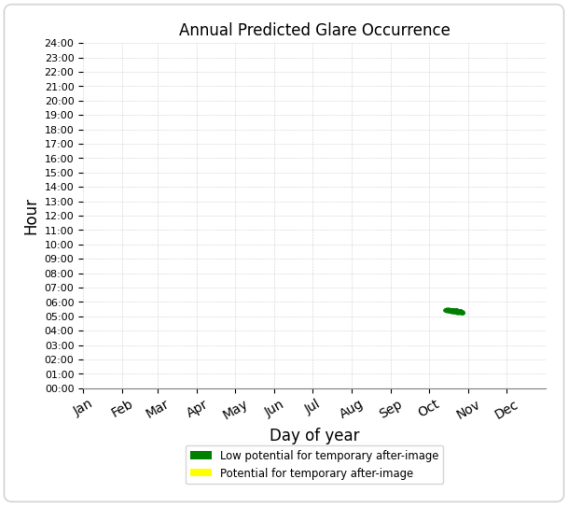
PV array 18 and Route: Main Camp Road

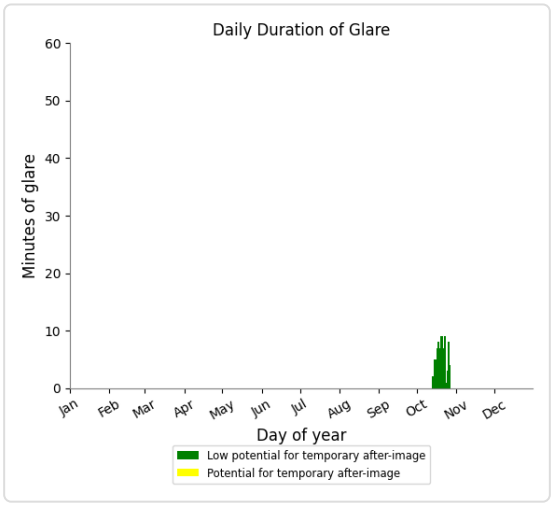
No glare found

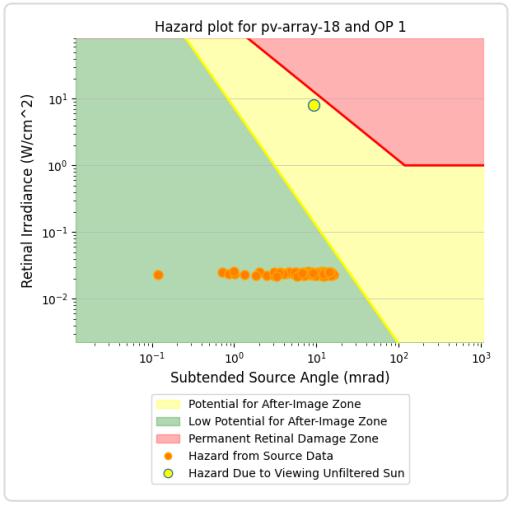
PV array 18 and OP 1

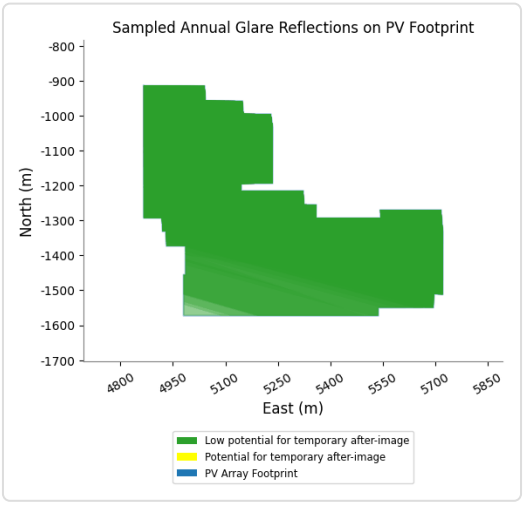
Yellow glare: none

Green glare: 86 min.





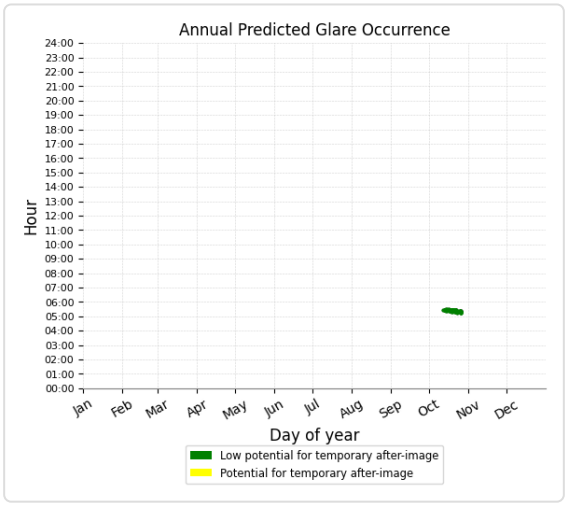


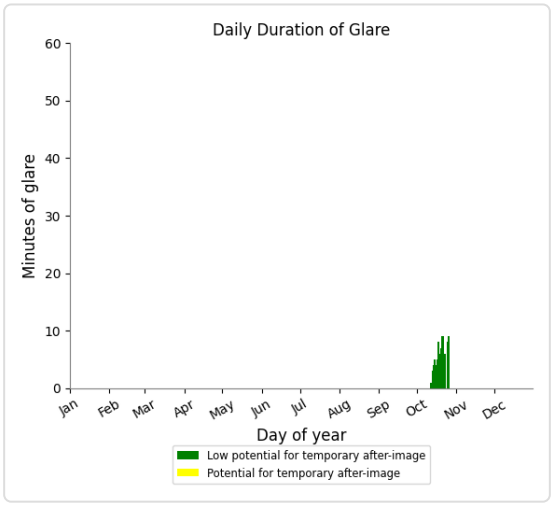


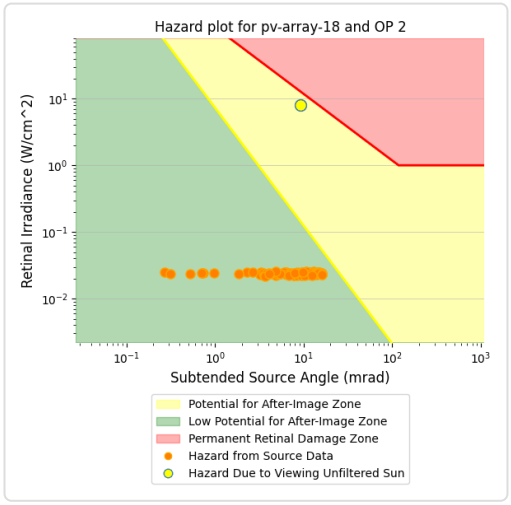
PV array 18 and OP 2

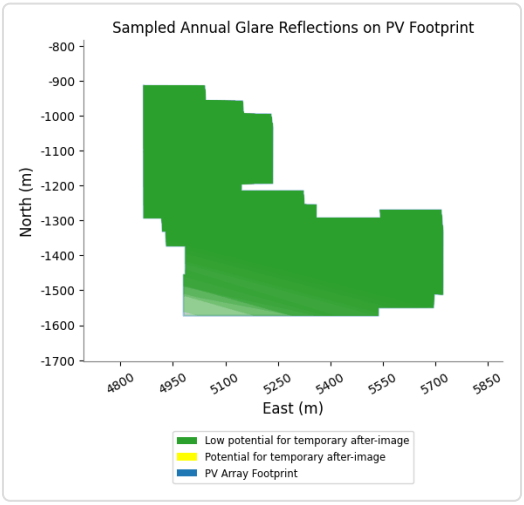
Yellow glare: none

Green glare: 84 min.



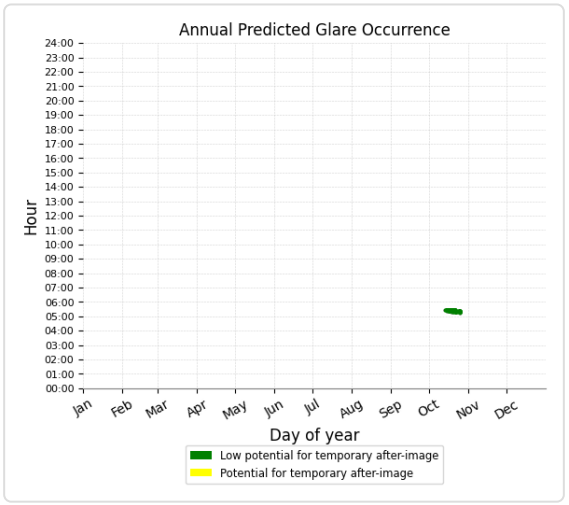


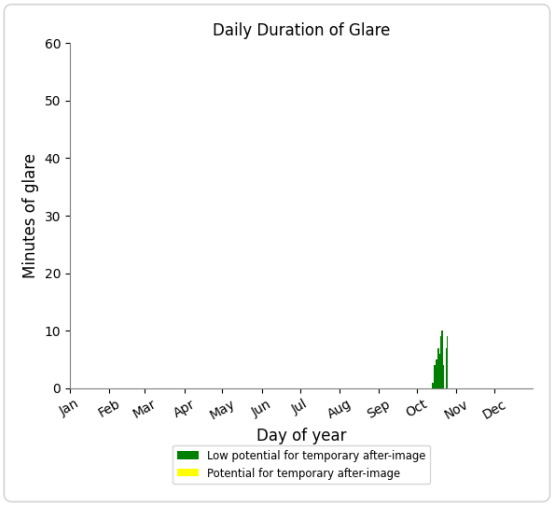


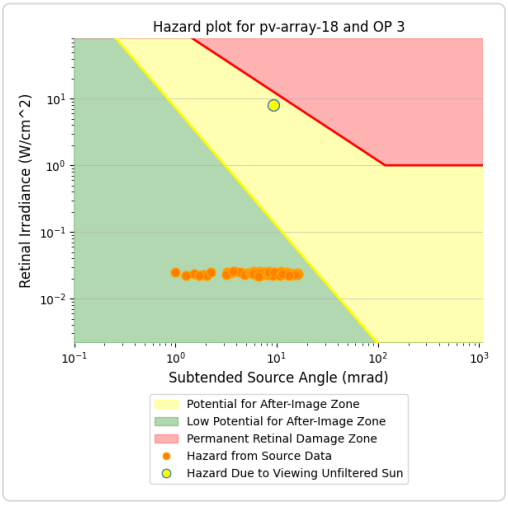


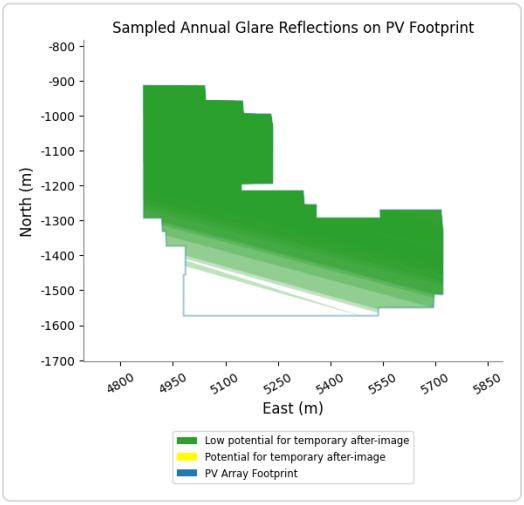
PV array 18 and OP 3

Yellow glare: none
Green glare: 68 min.









PV array 18 and OP 4

No glare found

PV array 18 and OP 5

No glare found

PV array 18 and OP 6

No glare found

PV array 18 and OP 7

No glare found

PV array 18 and OP 8

No glare found

PV array 18 and OP 9

No glare found

PV array 18 and OP 10

No glare found

PV array 18 and OP 11

No glare found

PV array 18 and OP 12

No glare found

PV array 18 and OP 13

No glare found

PV array 18 and OP 14

No glare found

PV array 18 and OP 15

No glare found

PV array 18 and OP 16

No glare found

PV array 18 and OP 17

No glare found

PV array 18 and OP 18

No glare found

PV array 18 and OP 19

No glare found

PV array 18 and OP 20

No glare found

PV array 18 and OP 21

No glare found

PV array 18 and OP 22

No glare found

PV array 18 and OP 23

No glare found

PV array 18 and OP 24

No glare found

PV array 18 and OP 25

No glare found

PV array 18 and OP 26

No glare found

PV array 18 and OP 27

No glare found

PV array 18 and OP 28

No glare found

PV array 18 and OP 29

No glare found

PV array 18 and OP 30

No glare found

PV array 18 and OP 31

No glare found

PV array 18 and OP 32

No glare found

PV array 18 and OP 33

No glare found

PV: PV array 19 potential temporary after-image

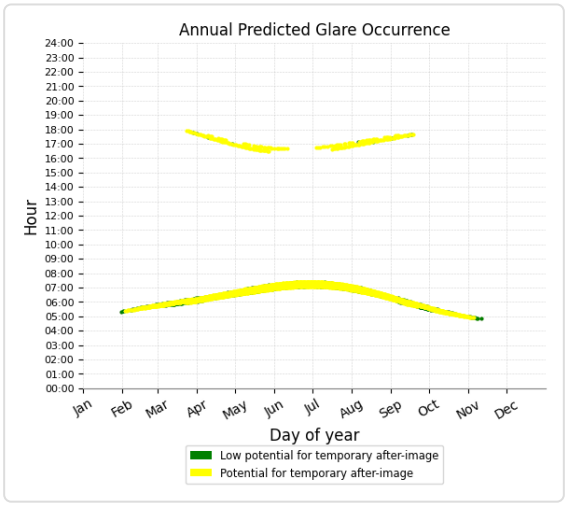
Receptor results ordered by category of glare

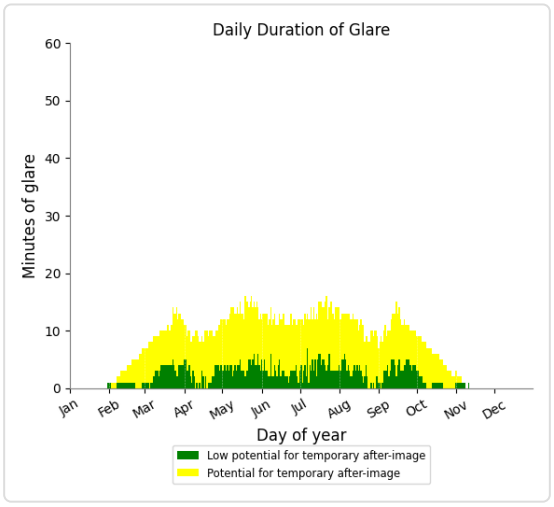
Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	714	11.9	2,042	34.0
Main Camp Road	0	0.0	0	0.0
OP 8	195	3.2	0	0.0
OP 21	18	0.3	0	0.0
OP 30	246	4.1	0	0.0
OP 32	346	5.8	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

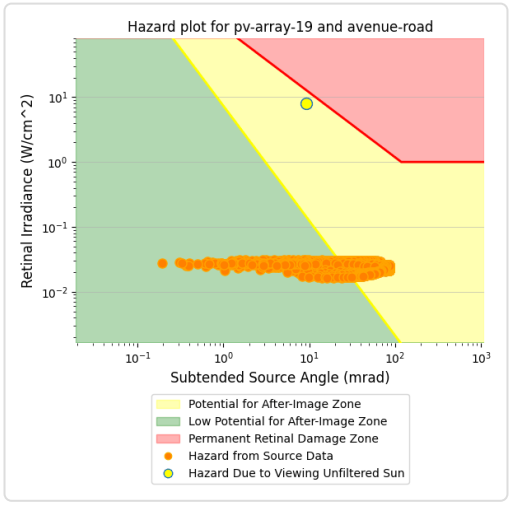
PV array 19 and Route: Avenue Road

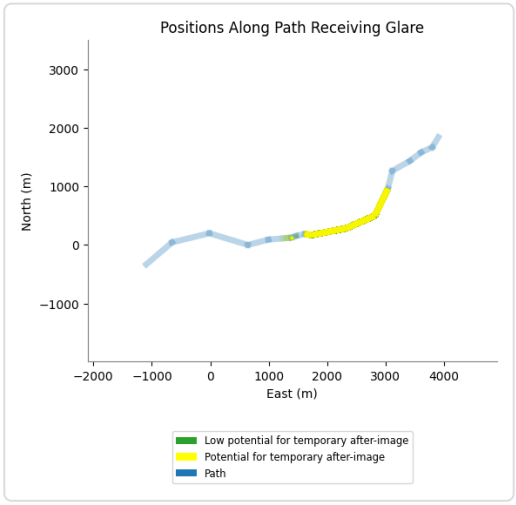
Yellow glare: 2,042 min.

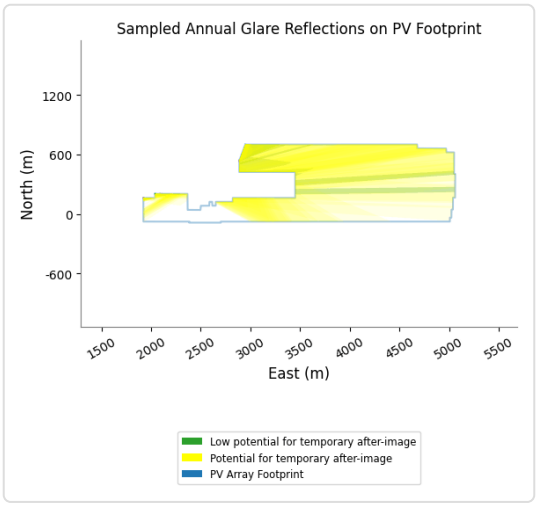
Green glare: 714 min.











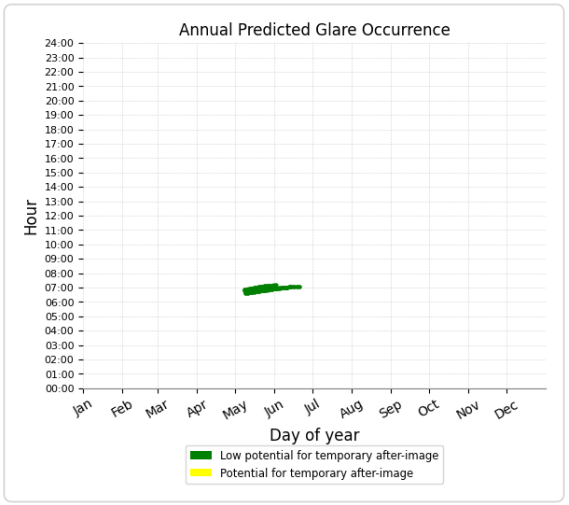
PV array 19 and Route: Main Camp Road

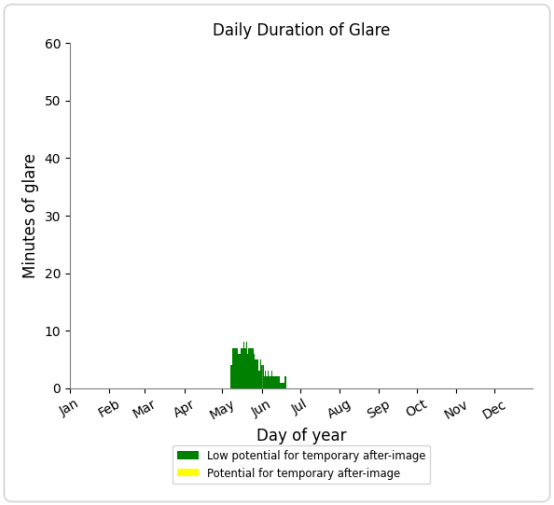
No glare found

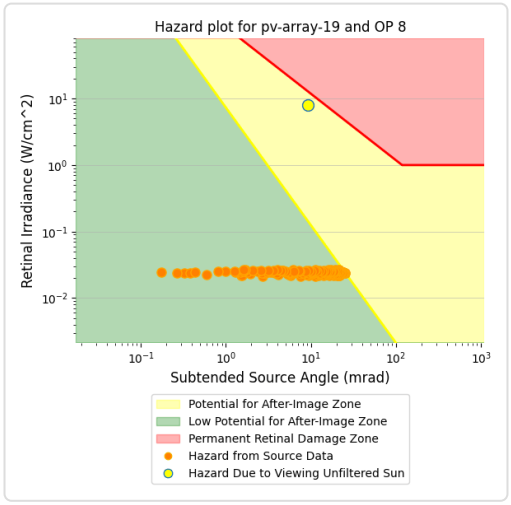
PV array 19 and OP 8

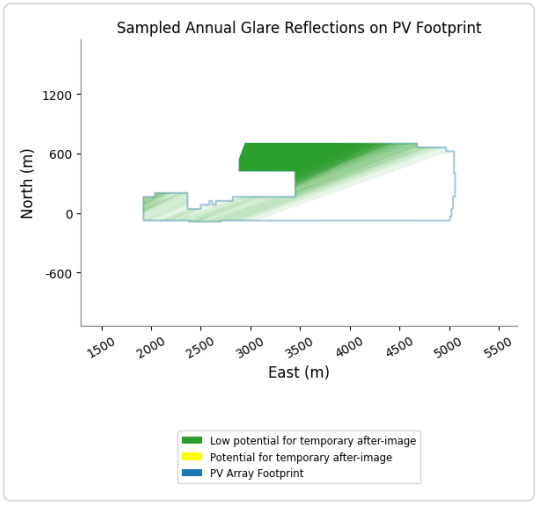
Yellow glare: none

Green glare: 195 min.





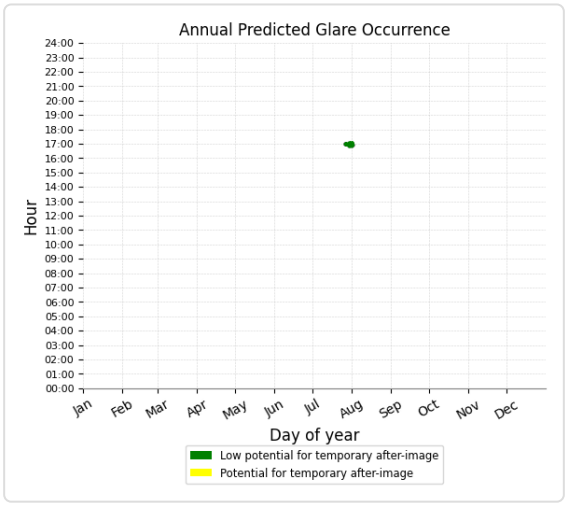


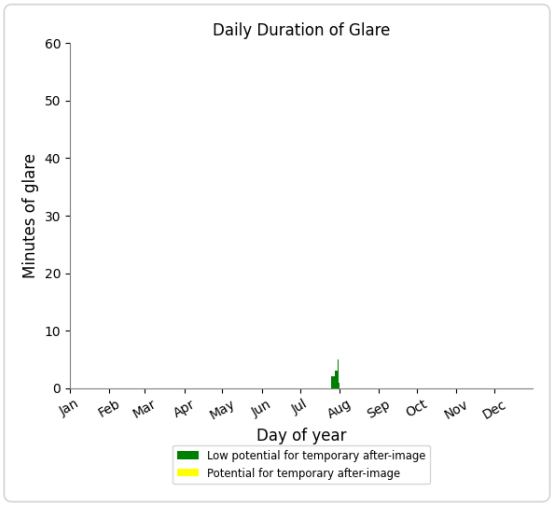


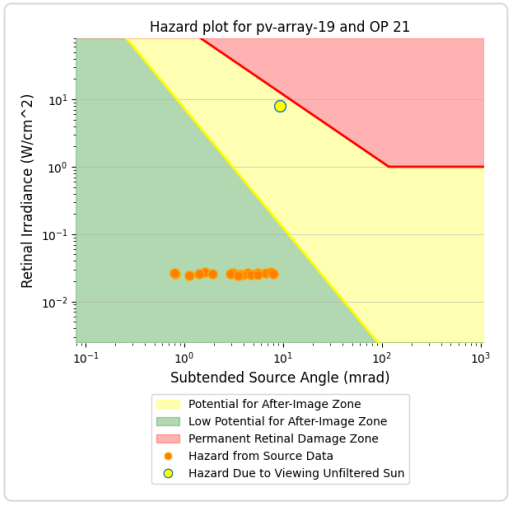
PV array 19 and OP 21

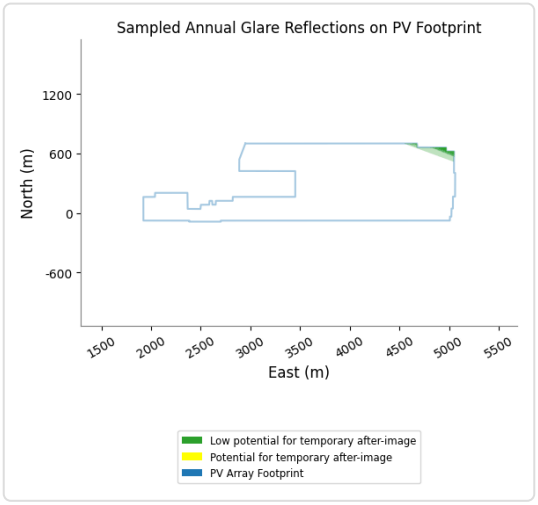
Yellow glare: none

Green glare: 18 min.





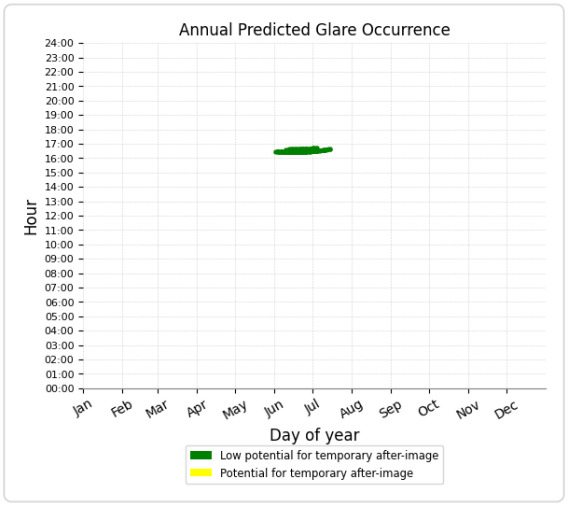


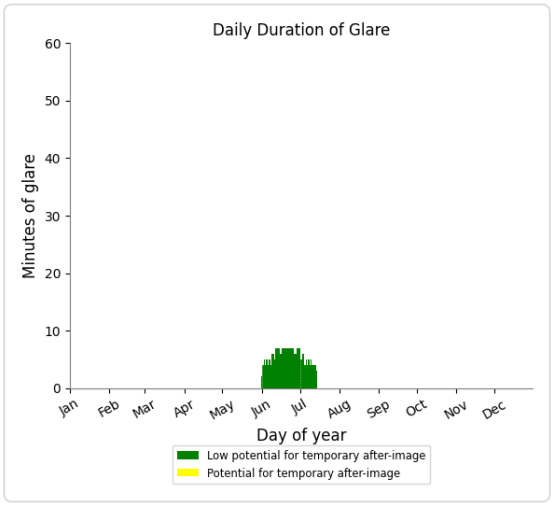


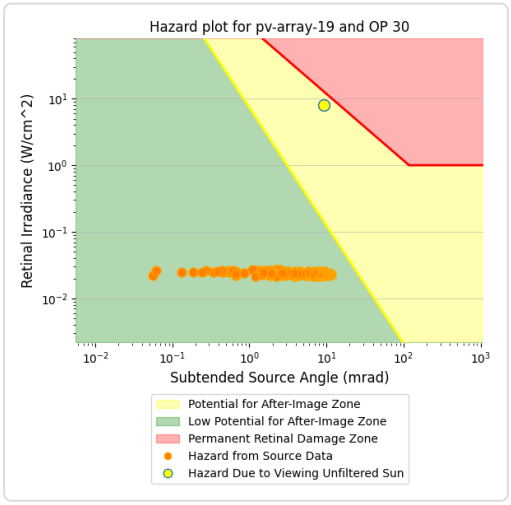
PV array 19 and OP 30

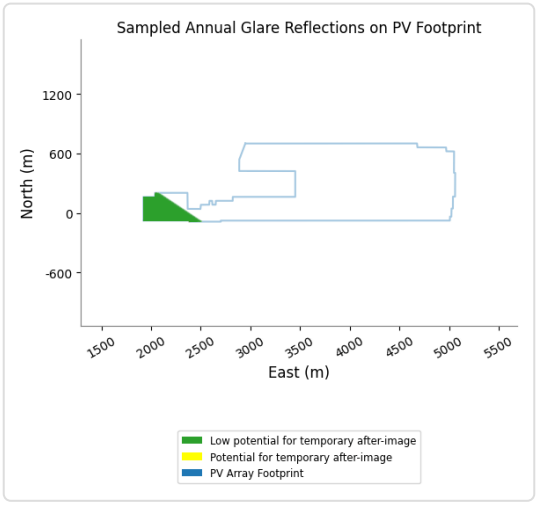
Yellow glare: none

Green glare: 246 min.



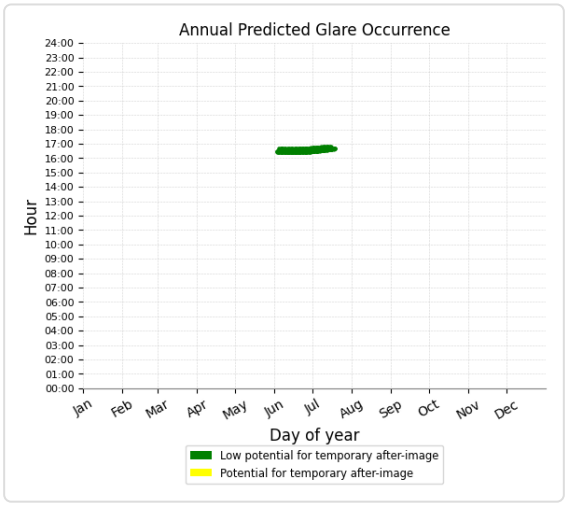


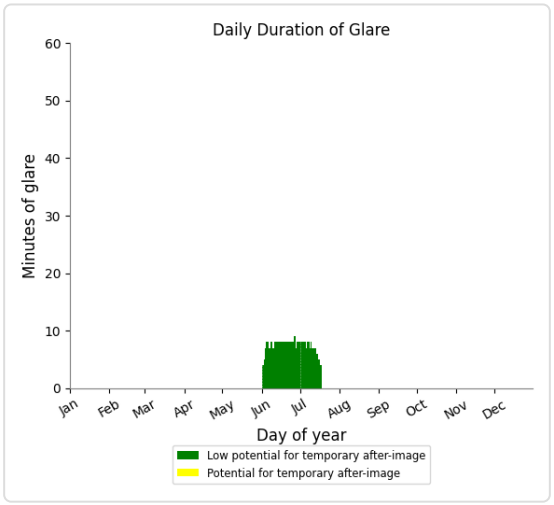


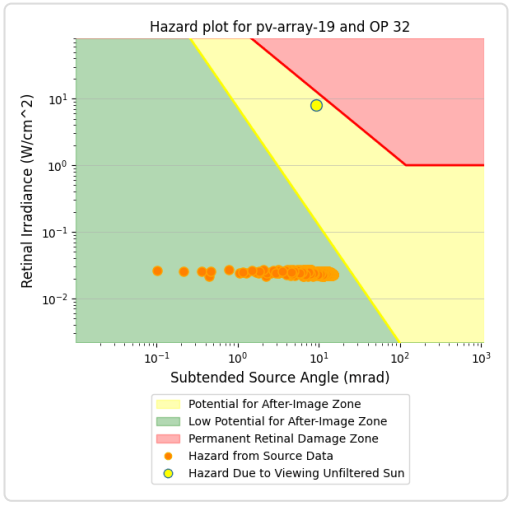


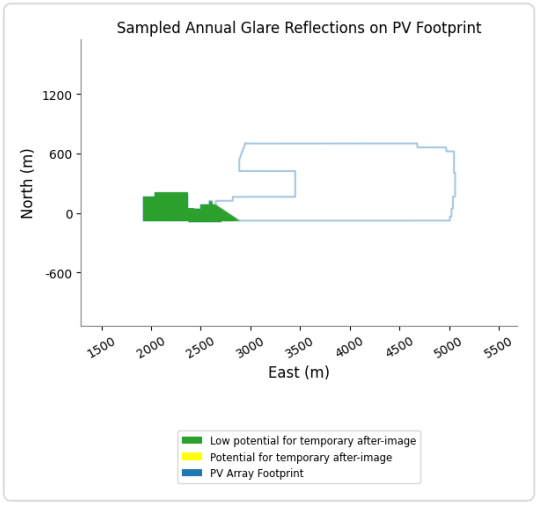
PV array 19 and OP 32

Yellow glare: none
Green glare: 346 min.









PV array 19 and OP 1

No glare found

PV array 19 and OP 2

No glare found

PV array 19 and OP 3

No glare found

PV array 19 and OP 4

No glare found

PV array 19 and OP 5

No glare found

PV array 19 and OP 6

No glare found

PV array 19 and OP 7

No glare found

PV array 19 and OP 9

No glare found

PV array 19 and OP 10

No glare found

PV array 19 and OP 11

No glare found

PV array 19 and OP 12

No glare found

PV array 19 and OP 13

No glare found

PV array 19 and OP 14

No glare found

PV array 19 and OP 15

No glare found

PV array 19 and OP 16

No glare found

PV array 19 and OP 17

No glare found

PV array 19 and OP 18

No glare found

PV array 19 and OP 19

No glare found

PV array 19 and OP 20

No glare found

PV array 19 and OP 22

No glare found

PV array 19 and OP 23

No glare found

PV array 19 and OP 24

No glare found

PV array 19 and OP 25

No glare found

PV array 19 and OP 26

No glare found

PV array 19 and OP 27

No glare found

PV array 19 and OP 28

No glare found

PV array 19 and OP 29

No glare found

PV array 19 and OP 31

No glare found

PV array 19 and OP 33

No glare found

PV: PV array 2 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 2 and Route: Avenue Road

No glare found

PV array 2 and Route: Main Camp Road

No glare found

PV array 2 and OP 1

No glare found

PV array 2 and OP 2

No glare found

PV array 2 and OP 3

No glare found

PV array 2 and OP 4

No glare found

PV array 2 and OP 5

No glare found

PV array 2 and OP 6

No glare found

PV array 2 and OP 7

No glare found

PV array 2 and OP 8

No glare found

PV array 2 and OP 9

No glare found

PV array 2 and OP 10

No glare found

PV array 2 and OP 11

No glare found

PV array 2 and OP 12

No glare found

PV array 2 and OP 13

No glare found

PV array 2 and OP 14

No glare found

PV array 2 and OP 15

No glare found

PV array 2 and OP 16

No glare found

PV array 2 and OP 17

No glare found

PV array 2 and OP 18

No glare found

PV array 2 and OP 19

No glare found

PV array 2 and OP 20

No glare found

PV array 2 and OP 21

No glare found

PV array 2 and OP 22

No glare found

PV array 2 and OP 23

No glare found

PV array 2 and OP 24

No glare found

PV array 2 and OP 25

No glare found

PV array 2 and OP 26

No glare found

PV array 2 and OP 27

No glare found

PV array 2 and OP 28

No glare found

PV array 2 and OP 29

No glare found

PV array 2 and OP 30

No glare found

PV array 2 and OP 31

No glare found

PV array 2 and OP 32

No glare found

PV array 2 and OP 33

No glare found

PV: PV array 20 low potential for temporary after-image

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 29	35	0.6	0	0.0
OP 30	102	1.7	0	0.0
OP 31	63	1.1	0	0.0
OP 32	106	1.8	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 20 and Route: Avenue Road

No glare found

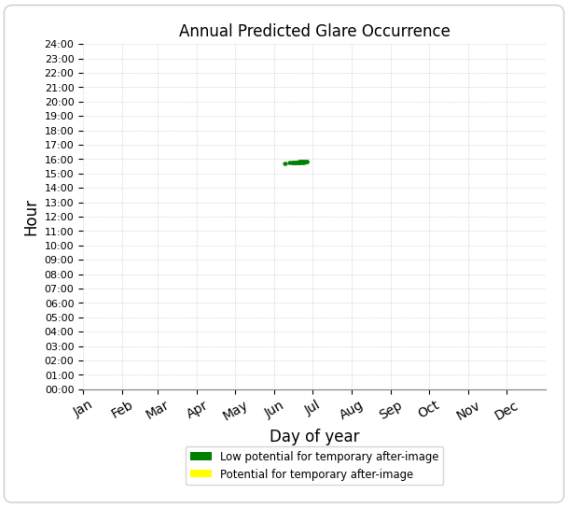
PV array 20 and Route: Main Camp Road

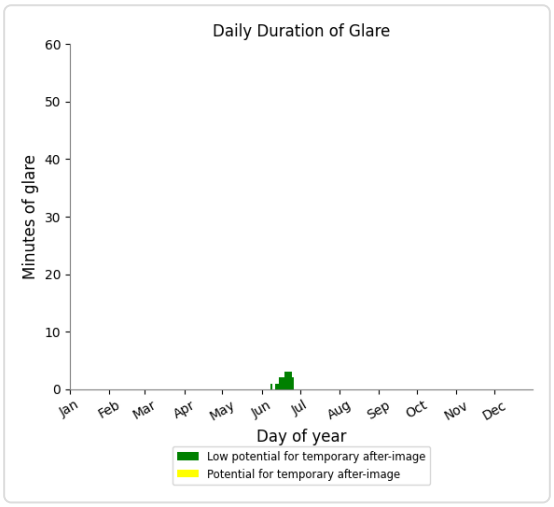
No glare found

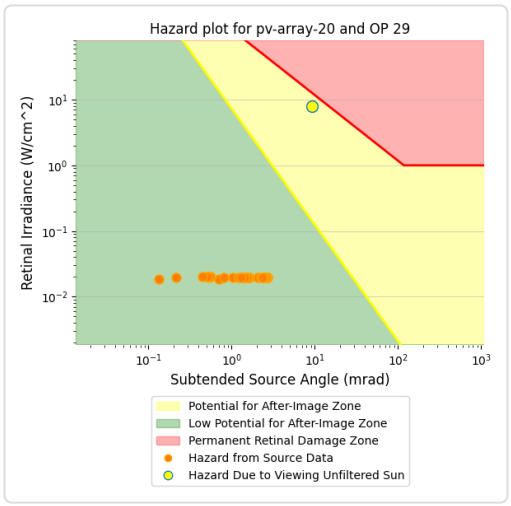
PV array 20 and OP 29

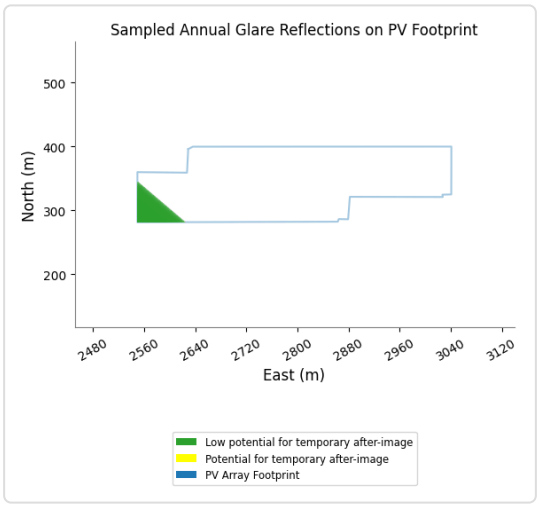
Yellow glare: none

Green glare: 35 min.





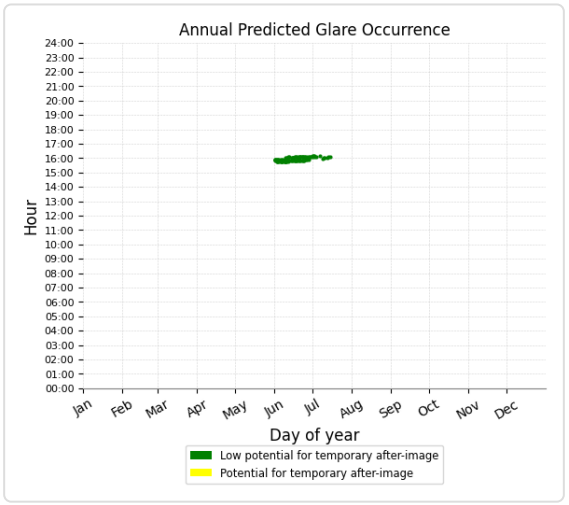


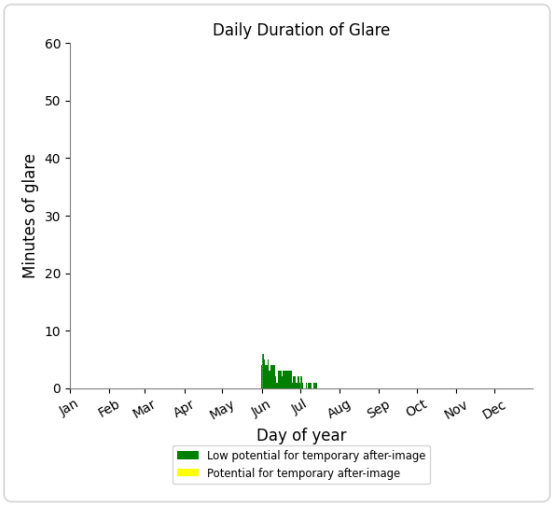


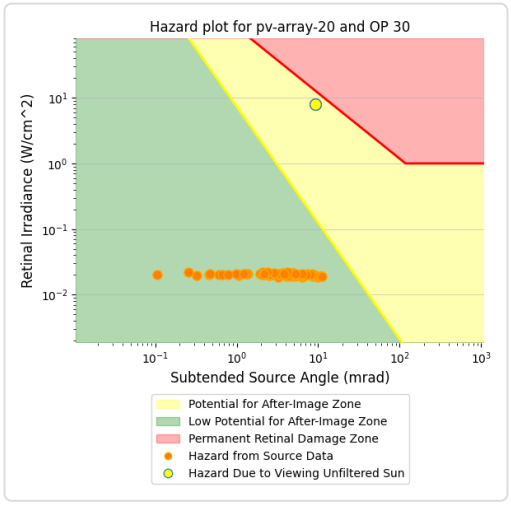
PV array 20 and OP 30

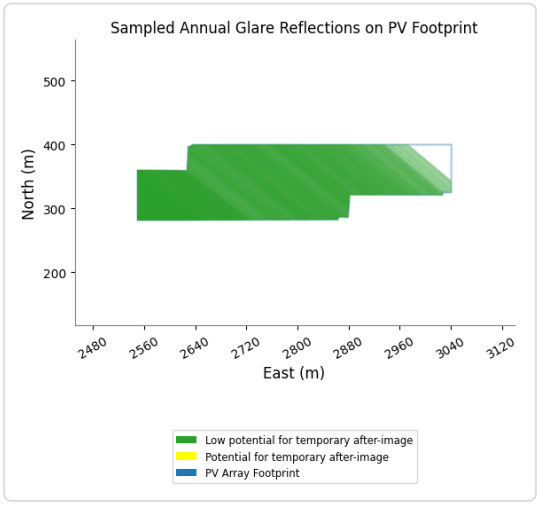
Yellow glare: none

Green glare: 102 min.





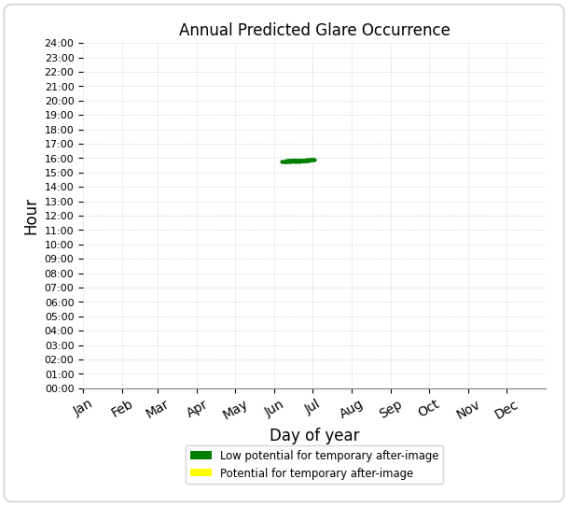


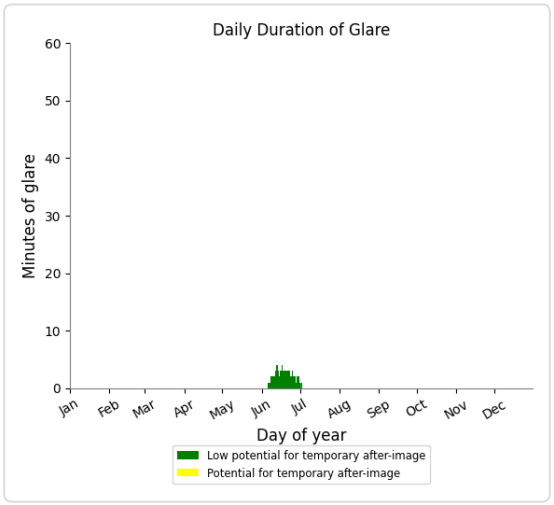


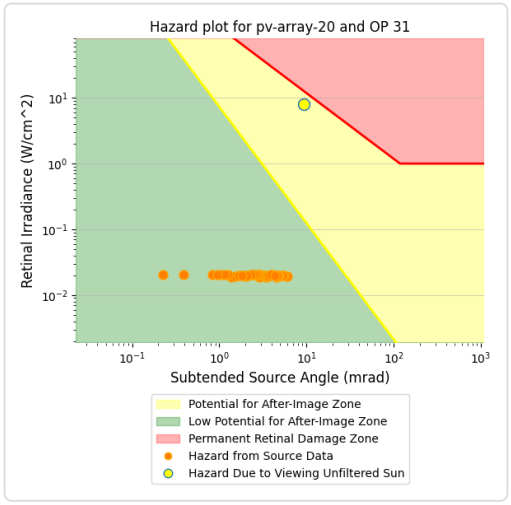
PV array 20 and OP 31

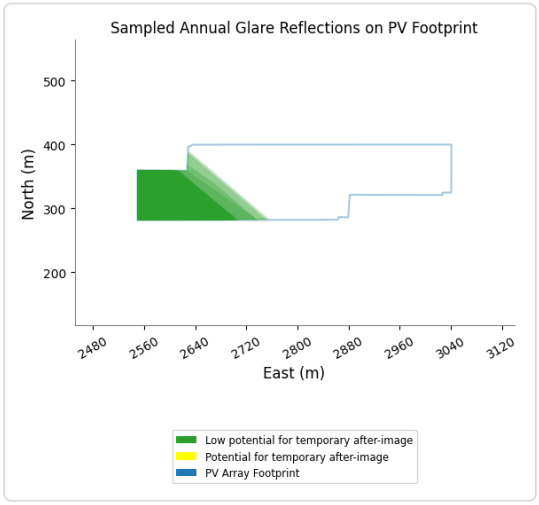
Yellow glare: none

Green glare: 63 min.





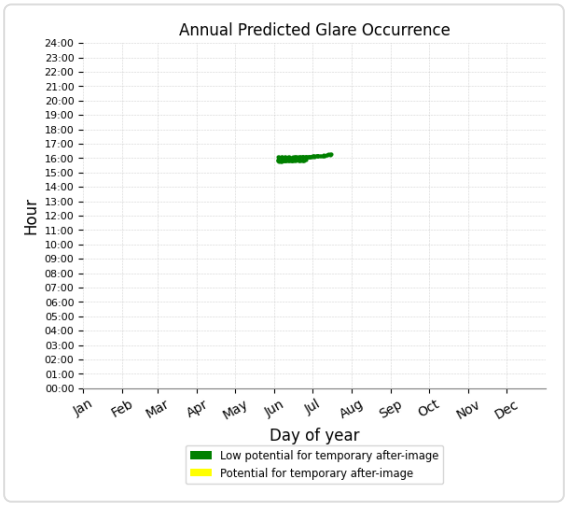


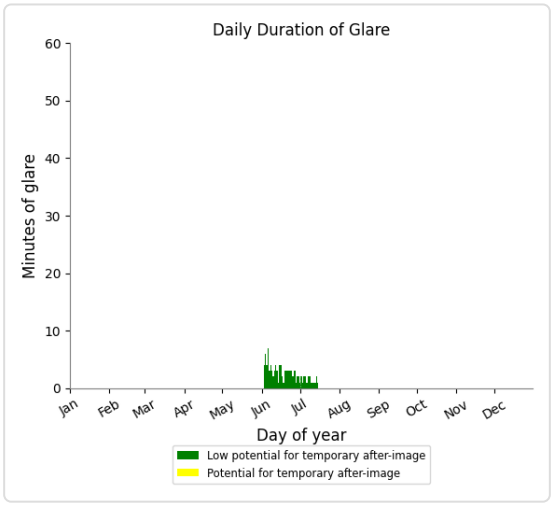


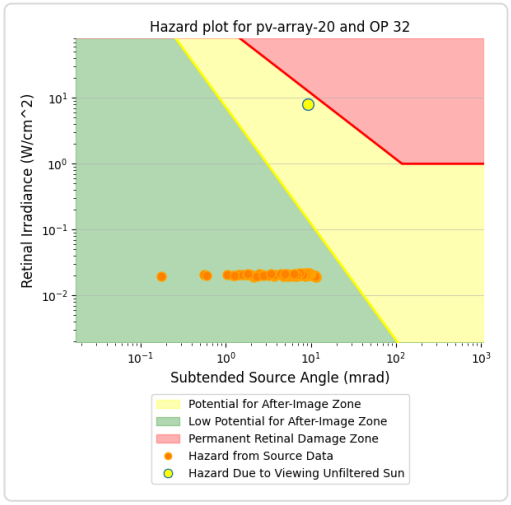
PV array 20 and OP 32

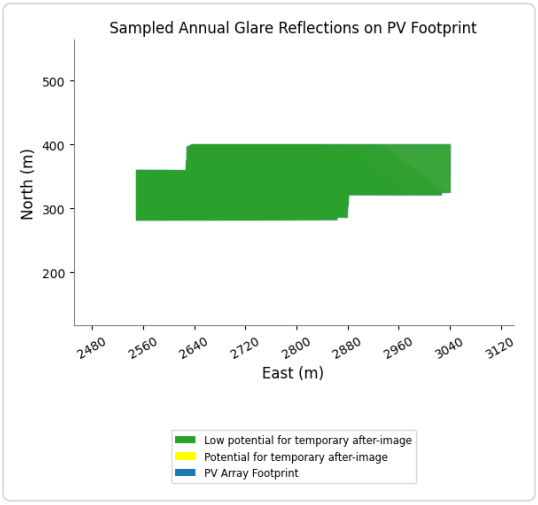
Yellow glare: none

Green glare: 106 min.









PV array 20 and OP 1

No glare found

PV array 20 and OP 2

No glare found

PV array 20 and OP 3

No glare found

PV array 20 and OP 4

No glare found

PV array 20 and OP 5

No glare found

PV array 20 and OP 6

No glare found

PV array 20 and OP 7

No glare found

PV array 20 and OP 8

No glare found

PV array 20 and OP 9

No glare found

PV array 20 and OP 10

No glare found

PV array 20 and OP 11

No glare found

PV array 20 and OP 12

No glare found

PV array 20 and OP 13

No glare found

PV array 20 and OP 14

No glare found

PV array 20 and OP 15

No glare found

PV array 20 and OP 16

No glare found

PV array 20 and OP 17

No glare found

PV array 20 and OP 18

No glare found

PV array 20 and OP 19

No glare found

PV array 20 and OP 20

No glare found

PV array 20 and OP 21

No glare found

PV array 20 and OP 22

No glare found

PV array 20 and OP 23

No glare found

PV array 20 and OP 24

No glare found

PV array 20 and OP 25

No glare found

PV array 20 and OP 26

No glare found

PV array 20 and OP 27

No glare found

PV array 20 and OP 28

No glare found

PV array 20 and OP 33

No glare found

PV: PV array 21 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 21 and Route: Avenue Road

No glare found

PV array 21 and Route: Main Camp Road

No glare found

PV array 21 and OP 1

No glare found

PV array 21 and OP 2

No glare found

PV array 21 and OP 3

No glare found

PV array 21 and OP 4

No glare found

PV array 21 and OP 5

No glare found

PV array 21 and OP 6

No glare found

PV array 21 and OP 7

No glare found

PV array 21 and OP 8

No glare found

PV array 21 and OP 9

No glare found

PV array 21 and OP 10

No glare found

PV array 21 and OP 11

No glare found

PV array 21 and OP 12

No glare found

PV array 21 and OP 13

No glare found

PV array 21 and OP 14

No glare found

PV array 21 and OP 15

No glare found

PV array 21 and OP 16

No glare found

PV array 21 and OP 17

No glare found

PV array 21 and OP 18

No glare found

PV array 21 and OP 19

No glare found

PV array 21 and OP 20

No glare found

PV array 21 and OP 21

No glare found

PV array 21 and OP 22

No glare found

PV array 21 and OP 23

No glare found

PV array 21 and OP 24

No glare found

PV array 21 and OP 25

No glare found

PV array 21 and OP 26

No glare found

PV array 21 and OP 27

No glare found

PV array 21 and OP 28

No glare found

PV array 21 and OP 29

No glare found

PV array 21 and OP 30

No glare found

PV array 21 and OP 31

No glare found

PV array 21 and OP 32

No glare found

PV array 21 and OP 33

No glare found

PV: PV array 22 low potential for temporary after-image

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 30	38	0.6	0	0.0
OP 32	139	2.3	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 22 and Route: Avenue Road

No glare found

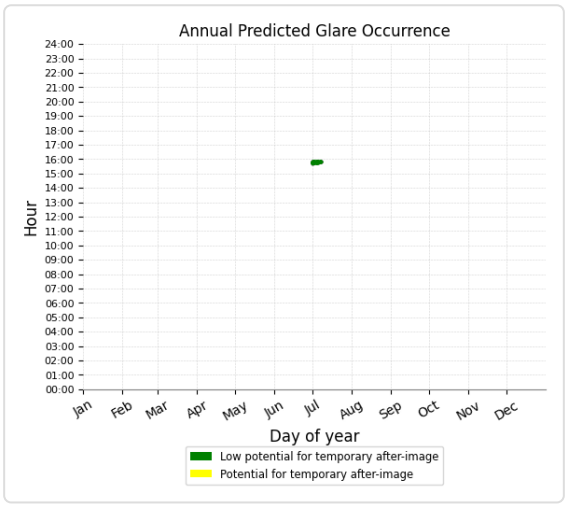
PV array 22 and Route: Main Camp Road

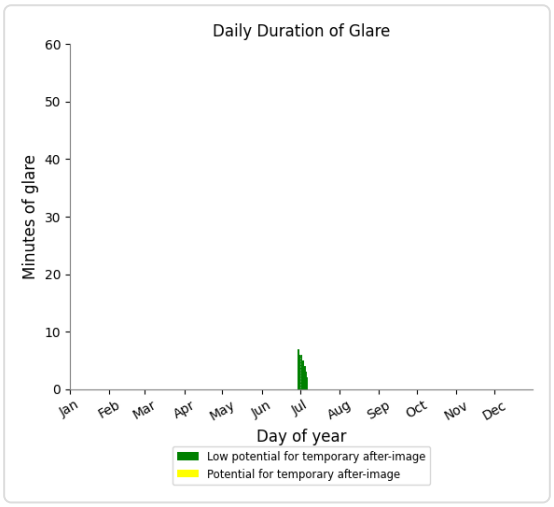
No glare found

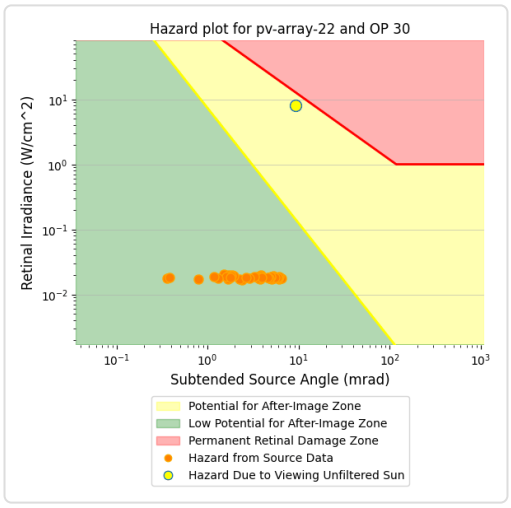
PV array 22 and OP 30

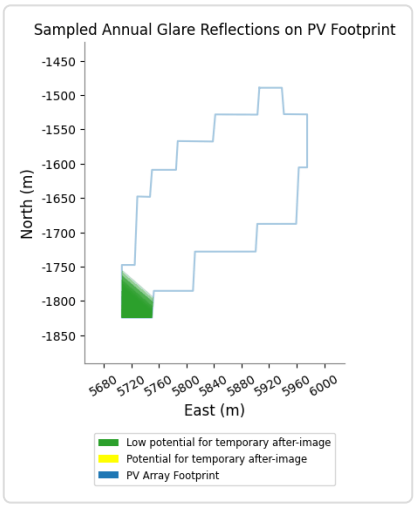
Yellow glare: none

Green glare: 38 min.





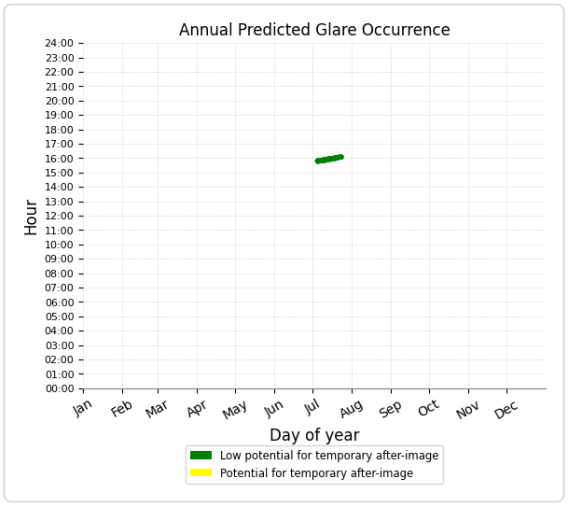


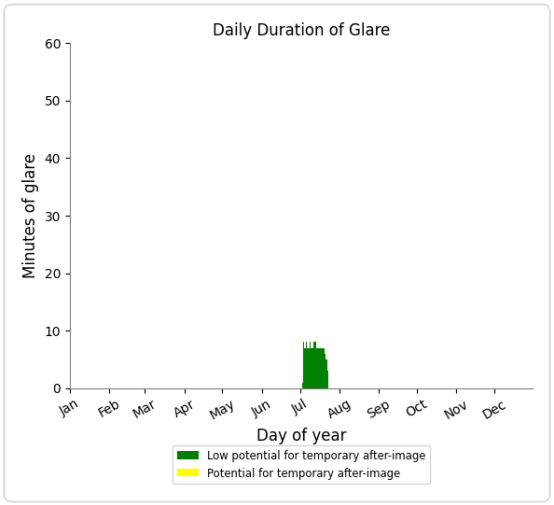


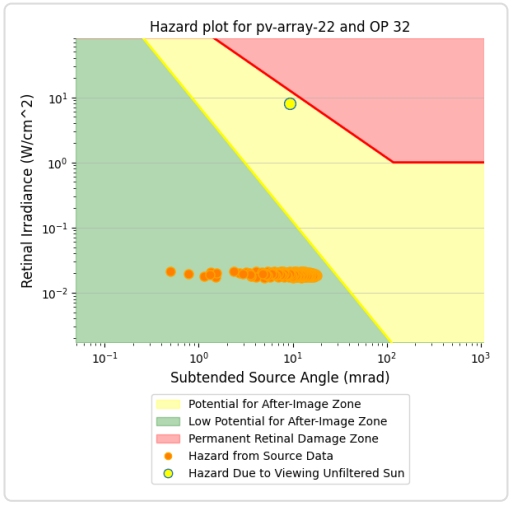
PV array 22 and OP 32

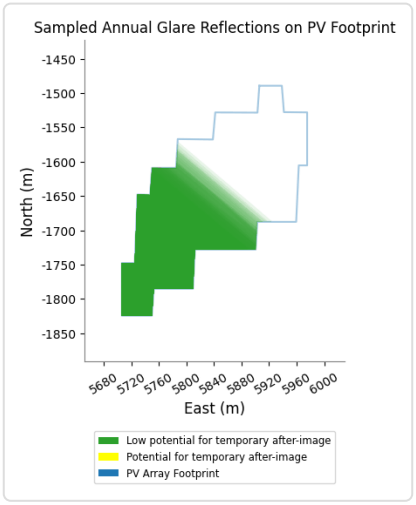
Yellow glare: none

Green glare: 139 min.









PV array 22 and OP 1

No glare found

PV array 22 and OP 2

No glare found

PV array 22 and OP 3

No glare found

PV array 22 and OP 4

No glare found

PV array 22 and OP 5

No glare found

PV array 22 and OP 6

No glare found

PV array 22 and OP 7

No glare found

PV array 22 and OP 8

No glare found

PV array 22 and OP 9

No glare found

PV array 22 and OP 10

No glare found

PV array 22 and OP 11

No glare found

PV array 22 and OP 12

No glare found

PV array 22 and OP 13

No glare found

PV array 22 and OP 14

No glare found

PV array 22 and OP 15

No glare found

PV array 22 and OP 16

No glare found

PV array 22 and OP 17

No glare found

PV array 22 and OP 18

No glare found

PV array 22 and OP 19

No glare found

PV array 22 and OP 20

No glare found

PV array 22 and OP 21

No glare found

PV array 22 and OP 22

No glare found

PV array 22 and OP 23

No glare found

PV array 22 and OP 24

No glare found

PV array 22 and OP 25

No glare found

PV array 22 and OP 26

No glare found

PV array 22 and OP 27

No glare found

PV array 22 and OP 28

No glare found

PV array 22 and OP 29

No glare found

PV array 22 and OP 31

No glare found

PV array 22 and OP 33

No glare found

PV: PV array 23 low potential for temporary after-image

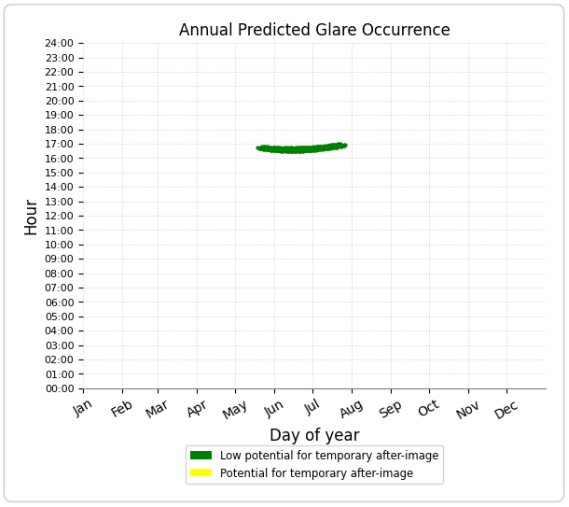
Receptor results ordered by category of glare

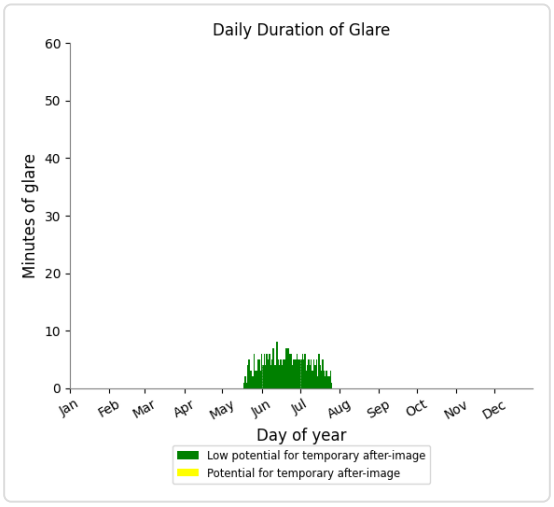
Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Main Camp Road	307	5.1	0	0.0
Avenue Road	0	0.0	0	0.0
OP 29	88	1.5	0	0.0
OP 30	252	4.2	0	0.0
OP 31	116	1.9	0	0.0
OP 32	305	5.1	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

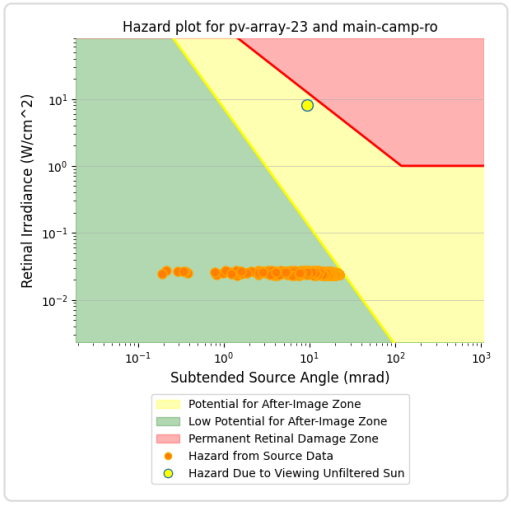
PV array 23 and Route: Main Camp Road

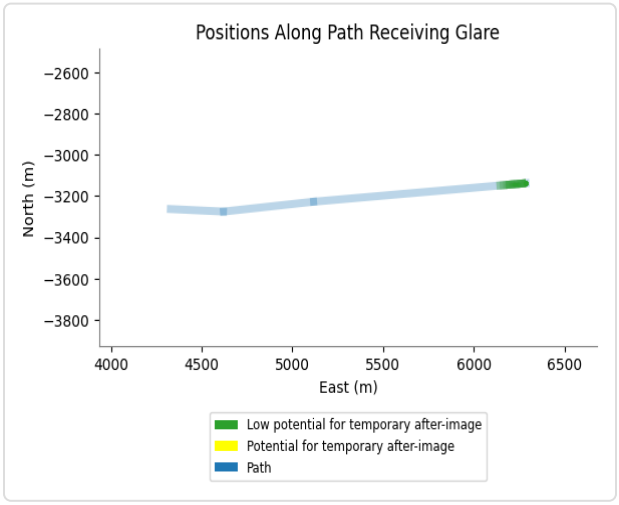
Yellow glare: none

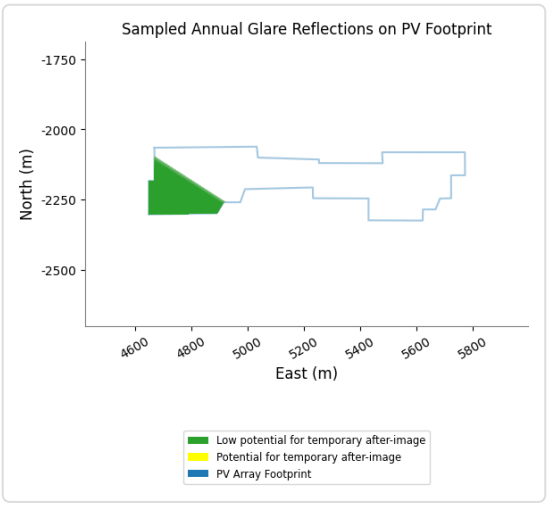
Green glare: 307 min.











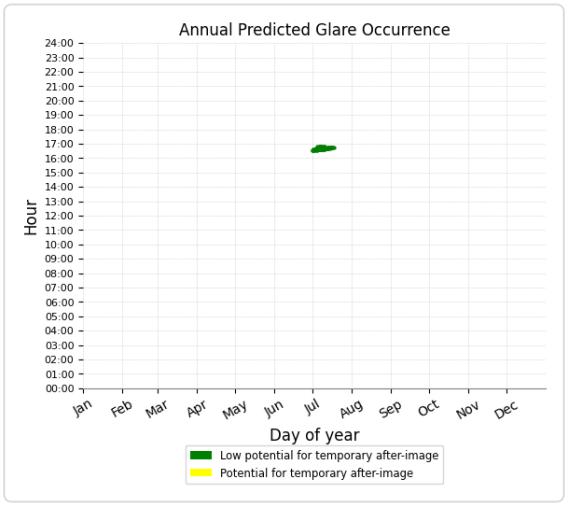
PV array 23 and Route: Avenue Road

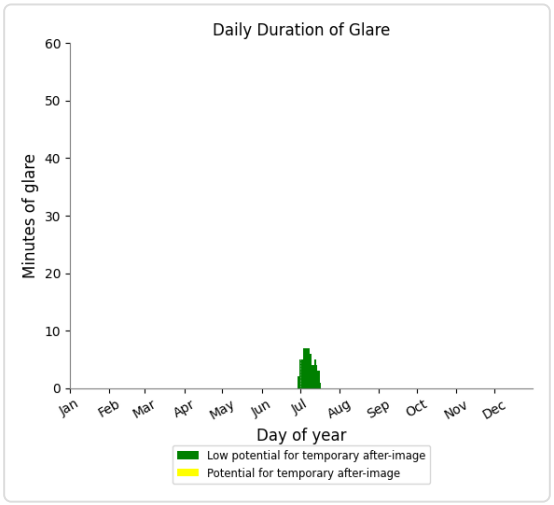
No glare found

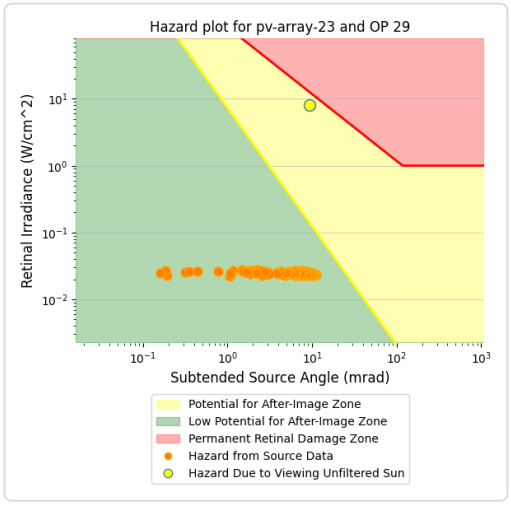
PV array 23 and OP 29

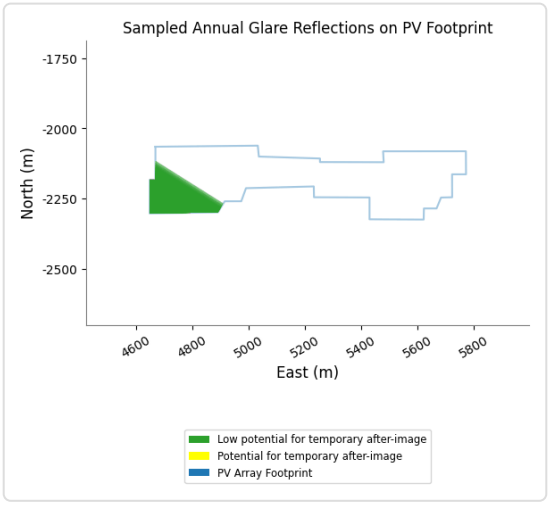
Yellow glare: none

Green glare: 88 min.





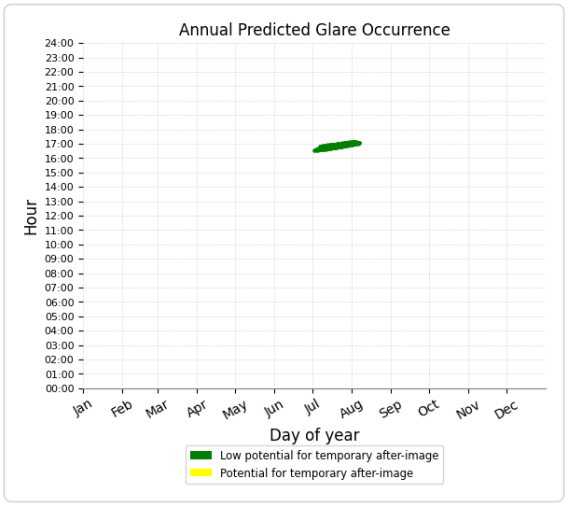


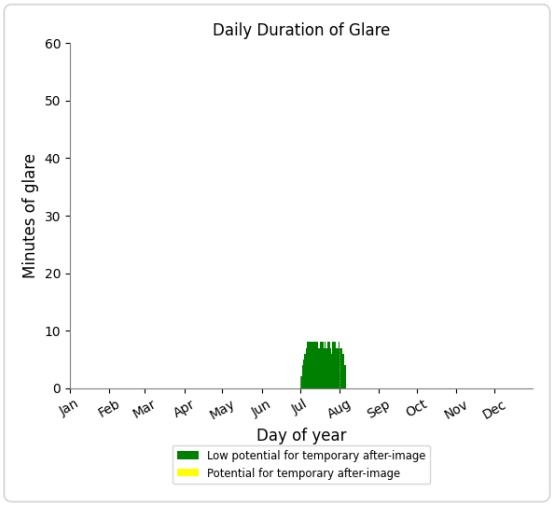


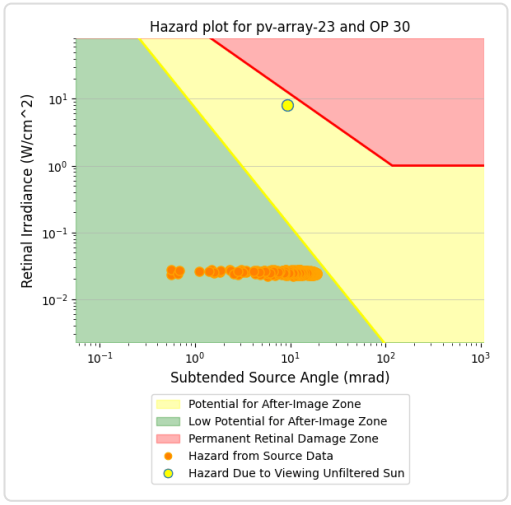
PV array 23 and OP 30

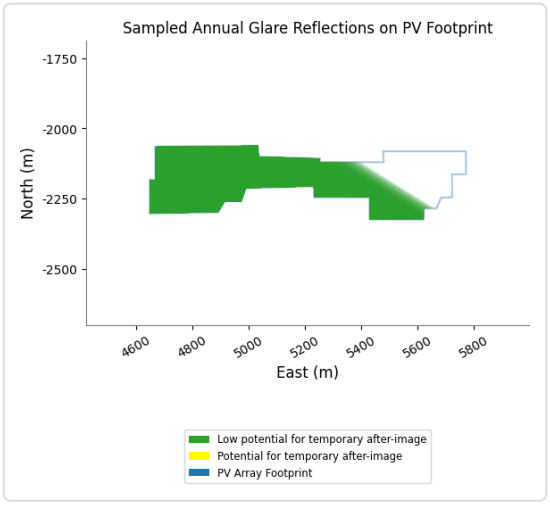
Yellow glare: none

Green glare: 252 min.





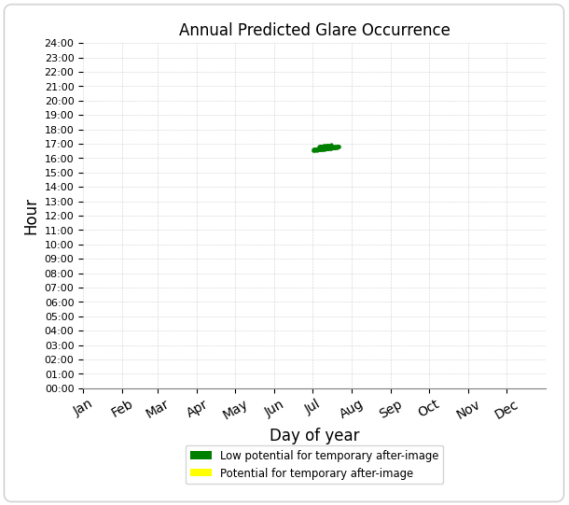


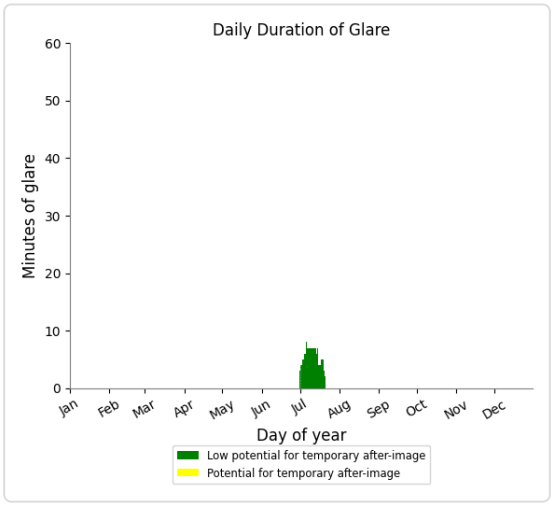


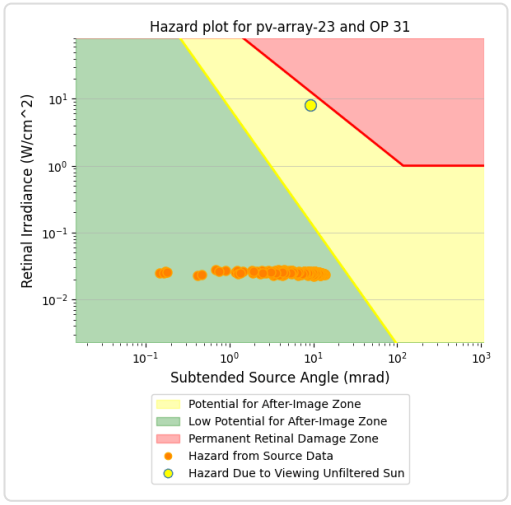
PV array 23 and OP 31

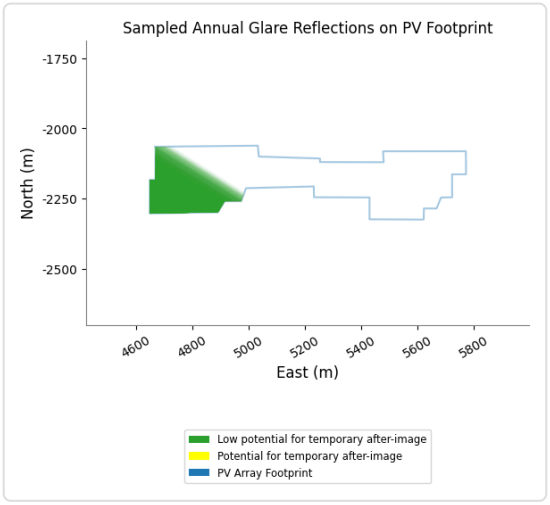
Yellow glare: none

Green glare: 116 min.





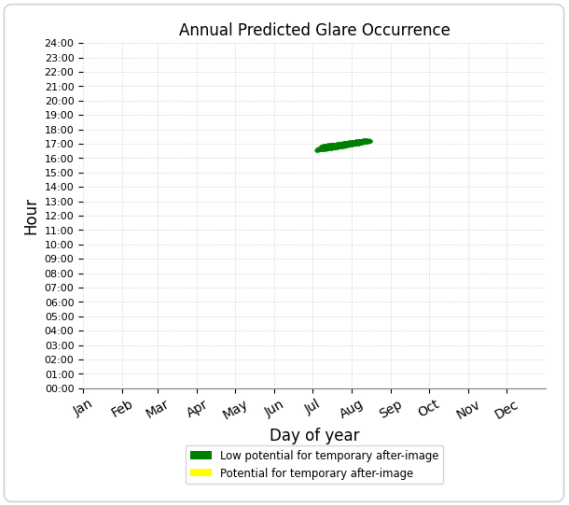


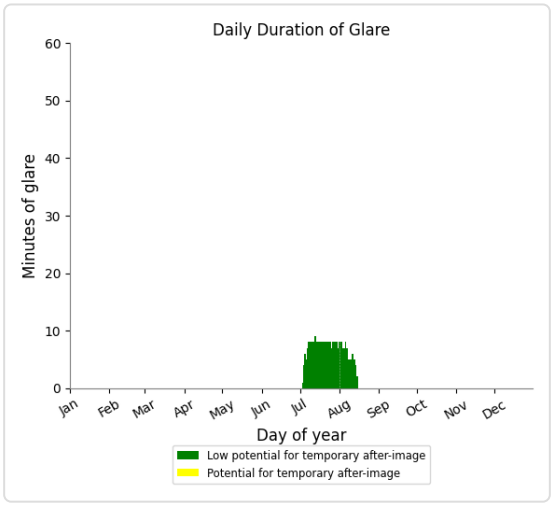


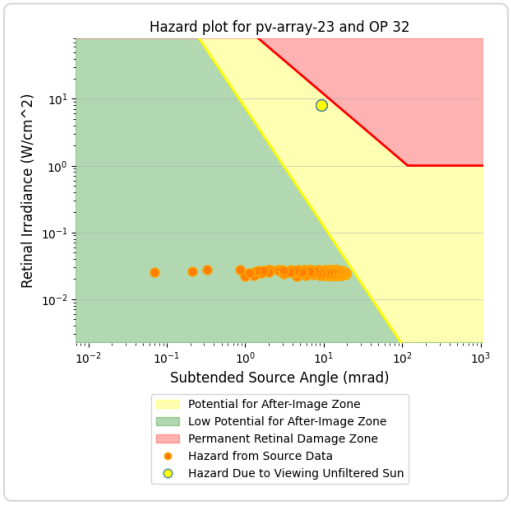
PV array 23 and OP 32

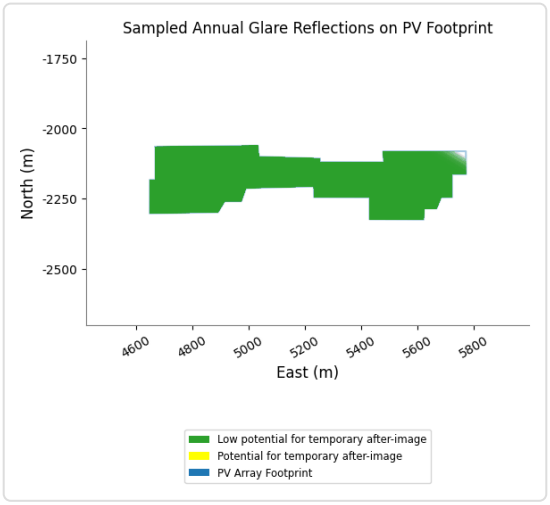
Yellow glare: none

Green glare: 305 min.









PV array 23 and OP 1

No glare found

PV array 23 and OP 2

No glare found

PV array 23 and OP 3

No glare found

PV array 23 and OP 4

No glare found

PV array 23 and OP 5

No glare found

PV array 23 and OP 6

No glare found

PV array 23 and OP 7

No glare found

PV array 23 and OP 8

No glare found

PV array 23 and OP 9

No glare found

PV array 23 and OP 10

No glare found

PV array 23 and OP 11

No glare found

PV array 23 and OP 12

No glare found

PV array 23 and OP 13

No glare found

PV array 23 and OP 14

No glare found

PV array 23 and OP 15

No glare found

PV array 23 and OP 16

No glare found

PV array 23 and OP 17

No glare found

PV array 23 and OP 18

No glare found

PV array 23 and OP 19

No glare found

PV array 23 and OP 20

No glare found

PV array 23 and OP 21

No glare found

PV array 23 and OP 22

No glare found

PV array 23 and OP 23

No glare found

PV array 23 and OP 24

No glare found

PV array 23 and OP 25

No glare found

PV array 23 and OP 26

No glare found

PV array 23 and OP 27

No glare found

PV array 23 and OP 28

No glare found

PV array 23 and OP 33

No glare found

PV: PV array 3 low potential for temporary after-image

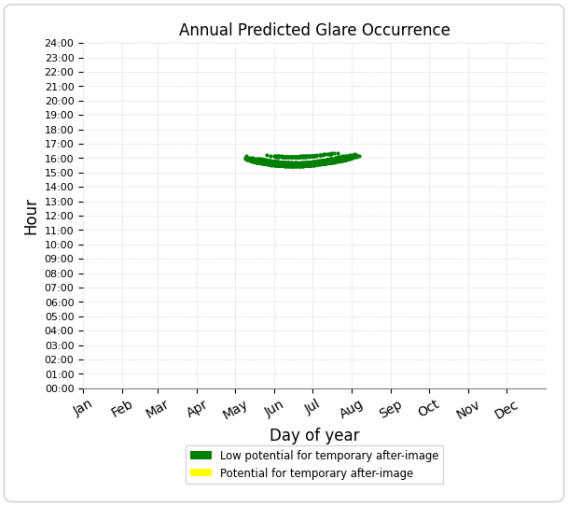
Receptor results ordered by category of glare

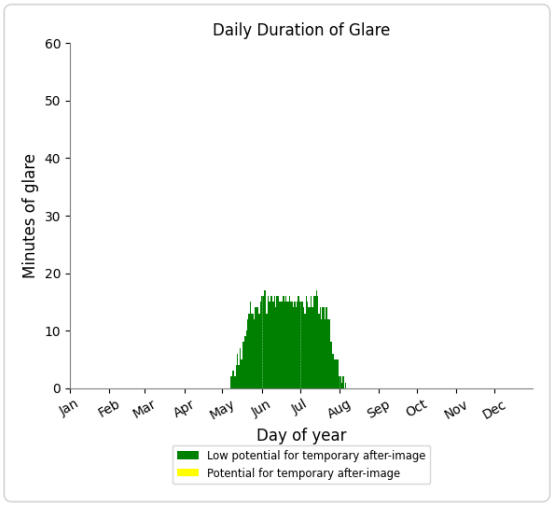
Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Main Camp Road	1,073	17.9	0	0.0
Avenue Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

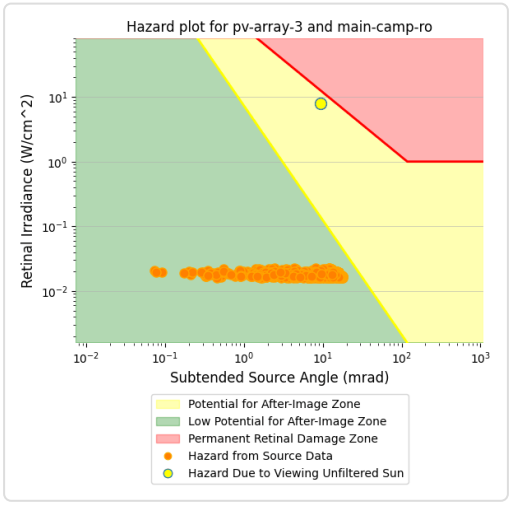
PV array 3 and Route: Main Camp Road

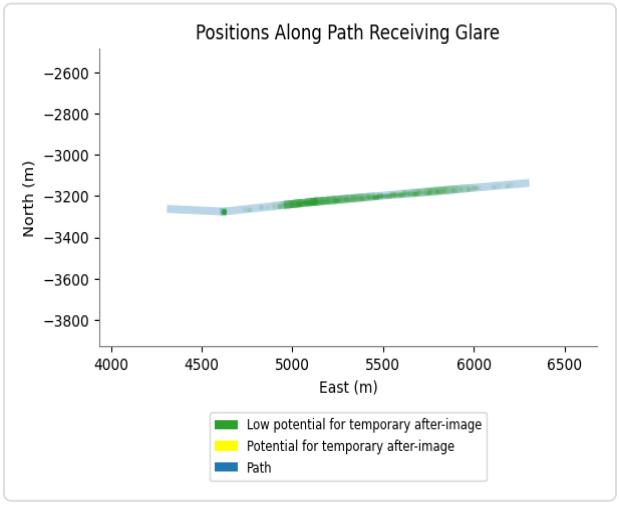
Yellow glare: none

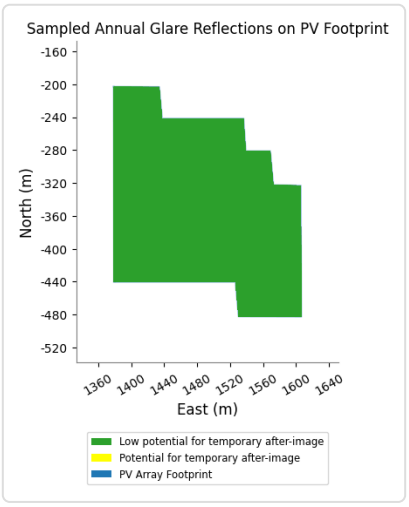
Green glare: 1,073 min.











PV array 3 and Route: Avenue Road

No glare found

PV array 3 and OP 1

No glare found

PV array 3 and OP 2

No glare found

PV array 3 and OP 3

No glare found

PV array 3 and OP 4

No glare found

PV array 3 and OP 5

No glare found

PV array 3 and OP 6

No glare found

PV array 3 and OP 7

No glare found

PV array 3 and OP 8

No glare found

PV array 3 and OP 9

No glare found

PV array 3 and OP 10

No glare found

PV array 3 and OP 11

No glare found

PV array 3 and OP 12

No glare found

PV array 3 and OP 13

No glare found

PV array 3 and OP 14

No glare found

PV array 3 and OP 15

No glare found

PV array 3 and OP 16

No glare found

PV array 3 and OP 17

No glare found

PV array 3 and OP 18

No glare found

PV array 3 and OP 19

No glare found

PV array 3 and OP 20

No glare found

PV array 3 and OP 21

No glare found

PV array 3 and OP 22

No glare found

PV array 3 and OP 23

No glare found

PV array 3 and OP 24

No glare found

PV array 3 and OP 25

No glare found

PV array 3 and OP 26

No glare found

PV array 3 and OP 27

No glare found

PV array 3 and OP 28

No glare found

PV array 3 and OP 29

No glare found

PV array 3 and OP 30

No glare found

PV array 3 and OP 31

No glare found

PV array 3 and OP 32

No glare found

PV array 3 and OP 33

No glare found

PV: PV array 4 potential temporary after-image

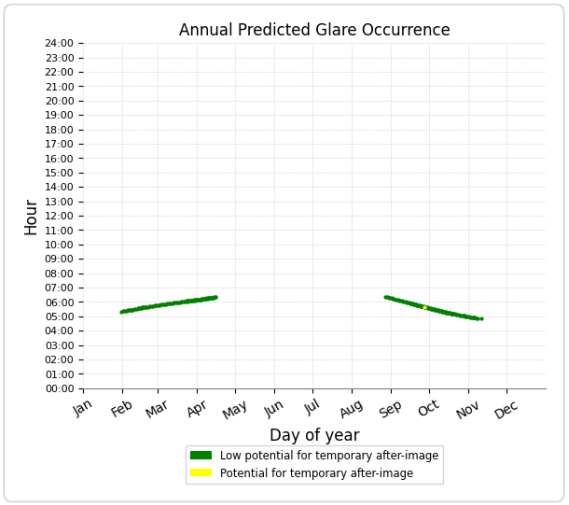
Receptor results ordered by category of glare

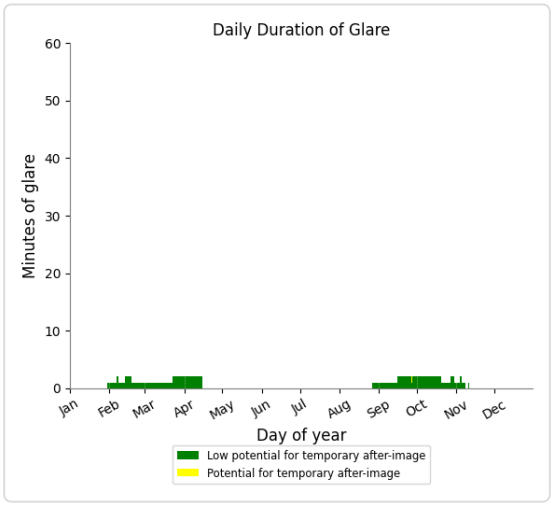
Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	220	3.7	1	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

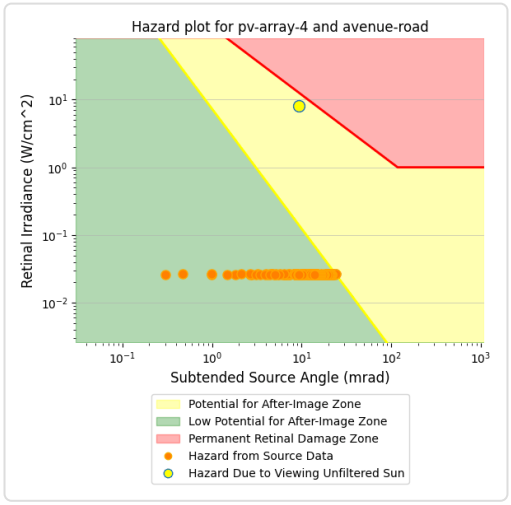
PV array 4 and Route: Avenue Road

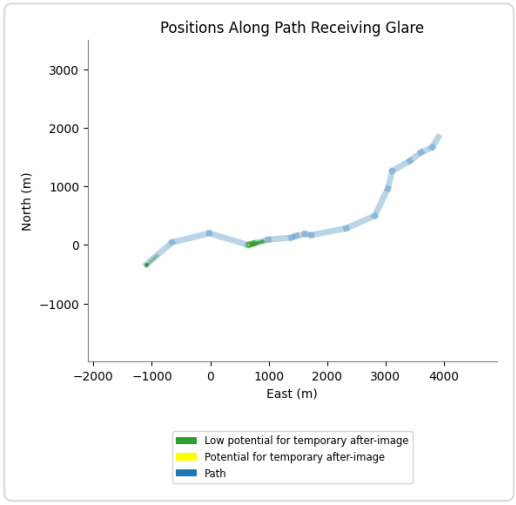
Yellow glare: 1 min.

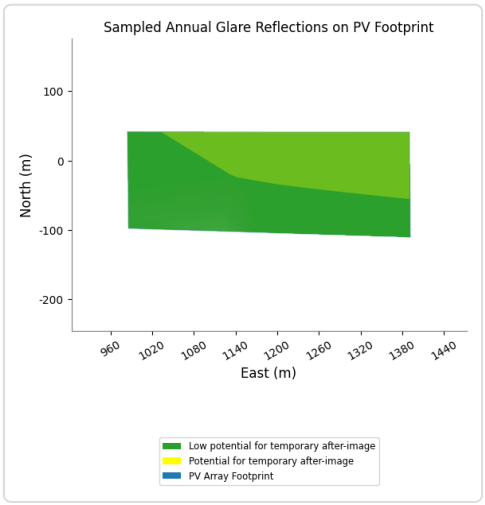
Green glare: 220 min.











PV array 4 and Route: Main Camp Road

No glare found

PV array 4 and OP 1

No glare found

PV array 4 and OP 2

No glare found

PV array 4 and OP 3

No glare found

PV array 4 and OP 4

No glare found

PV array 4 and OP 5

No glare found

PV array 4 and OP 6

No glare found

PV array 4 and OP 7

No glare found

PV array 4 and OP 8

No glare found

PV array 4 and OP 9

No glare found

PV array 4 and OP 10

No glare found

PV array 4 and OP 11

No glare found

PV array 4 and OP 12

No glare found

PV array 4 and OP 13

No glare found

PV array 4 and OP 14

No glare found

PV array 4 and OP 15

No glare found

PV array 4 and OP 16

No glare found

PV array 4 and OP 17

No glare found

PV array 4 and OP 18

No glare found

PV array 4 and OP 19

No glare found

PV array 4 and OP 20

No glare found

PV array 4 and OP 21

No glare found

PV array 4 and OP 22

No glare found

PV array 4 and OP 23

No glare found

PV array 4 and OP 24

No glare found

PV array 4 and OP 25

No glare found

PV array 4 and OP 26

No glare found

PV array 4 and OP 27

No glare found

PV array 4 and OP 28

No glare found

PV array 4 and OP 29

No glare found

PV array 4 and OP 30

No glare found

PV array 4 and OP 31

No glare found

PV array 4 and OP 32

No glare found

PV array 4 and OP 33

No glare found

PV: PV array 5 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 5 and Route: Avenue Road

No glare found

PV array 5 and Route: Main Camp Road

No glare found

PV array 5 and OP 1

No glare found

PV array 5 and OP 2

No glare found

PV array 5 and OP 3

No glare found

PV array 5 and OP 4

No glare found

PV array 5 and OP 5

No glare found

PV array 5 and OP 6

No glare found

PV array 5 and OP 7

No glare found

PV array 5 and OP 8

No glare found

PV array 5 and OP 9

No glare found

PV array 5 and OP 10

No glare found

PV array 5 and OP 11

No glare found

PV array 5 and OP 12

No glare found

PV array 5 and OP 13

No glare found

PV array 5 and OP 14

No glare found

PV array 5 and OP 15

No glare found

PV array 5 and OP 16

No glare found

PV array 5 and OP 17

No glare found

PV array 5 and OP 18

No glare found

PV array 5 and OP 19

No glare found

PV array 5 and OP 20

No glare found

PV array 5 and OP 21

No glare found

PV array 5 and OP 22

No glare found

PV array 5 and OP 23

No glare found

PV array 5 and OP 24

No glare found

PV array 5 and OP 25

No glare found

PV array 5 and OP 26

No glare found

PV array 5 and OP 27

No glare found

PV array 5 and OP 28

No glare found

PV array 5 and OP 29

No glare found

PV array 5 and OP 30

No glare found

PV array 5 and OP 31

No glare found

PV array 5 and OP 32

No glare found

PV array 5 and OP 33

No glare found

PV: PV array 6 potential temporary after-image

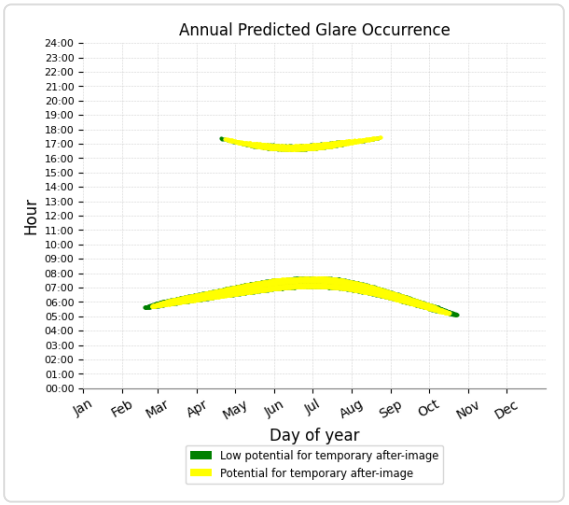
Receptor results ordered by category of glare

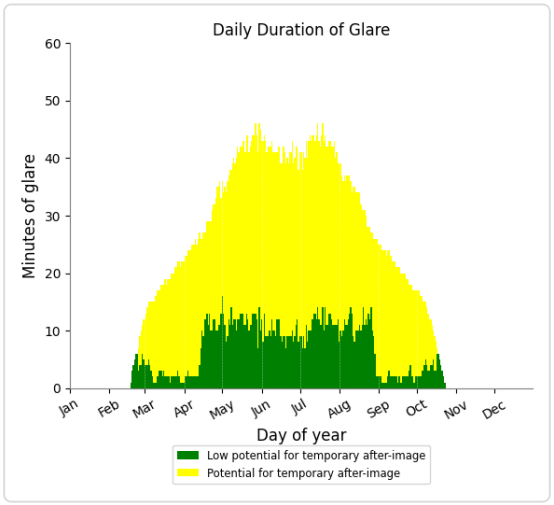
Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	1,783	29.7	5,385	89.8
Main Camp Road	339	5.7	0	0.0
OP 4	19	0.3	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

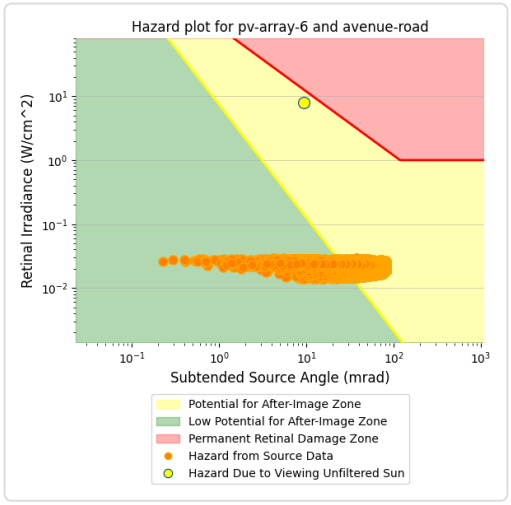
PV array 6 and Route: Avenue Road

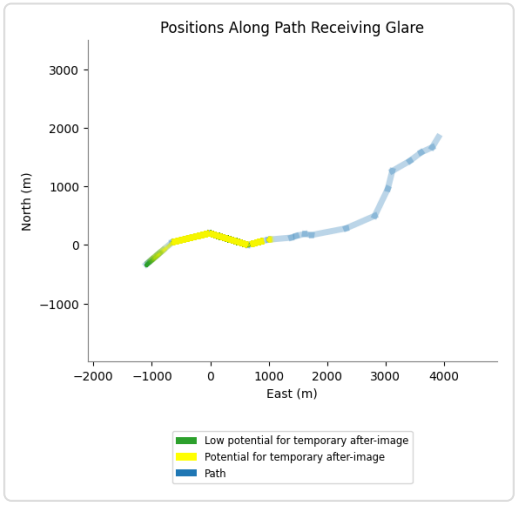
Yellow glare: 5,385 min.

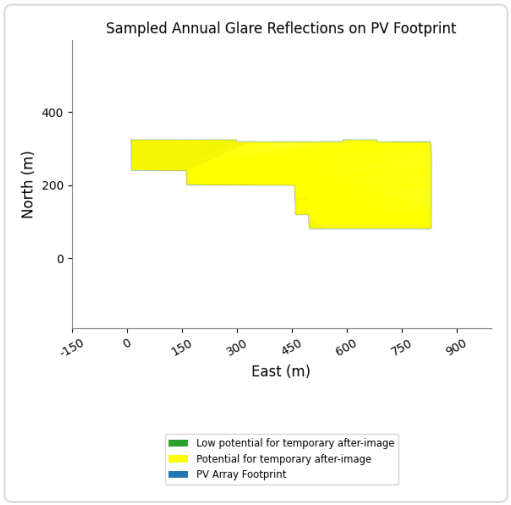
Green glare: 1,783 min.







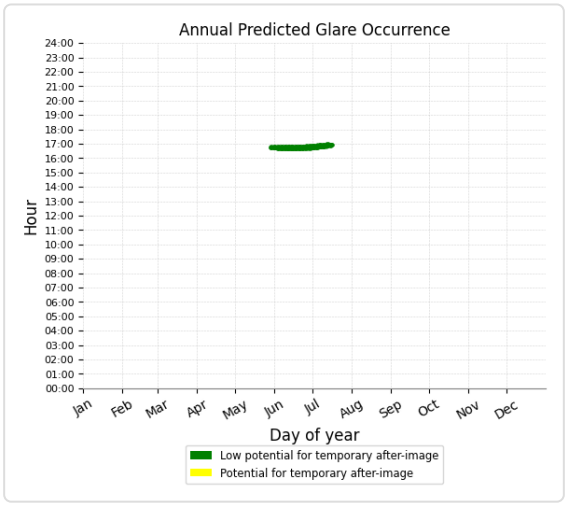


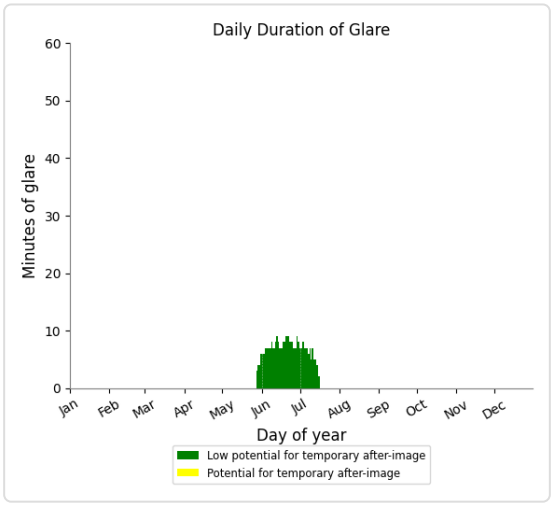


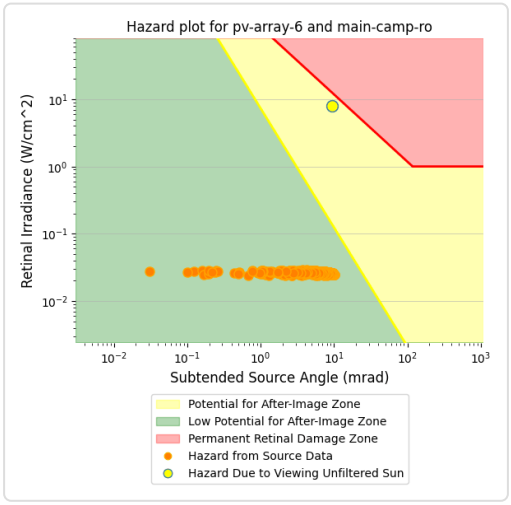
PV array 6 and Route: Main Camp Road

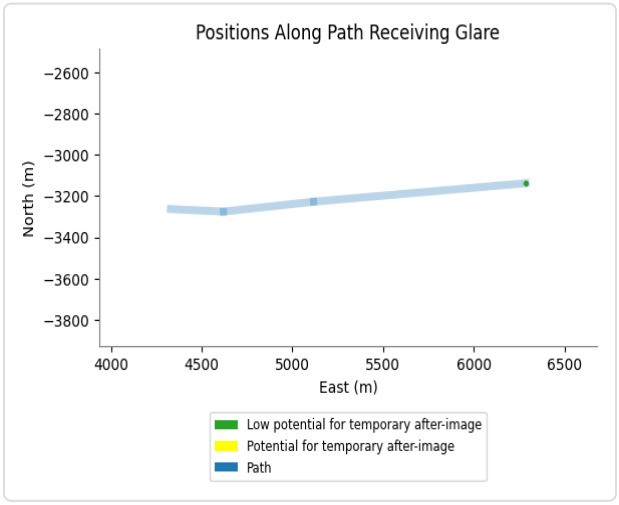
Yellow glare: none

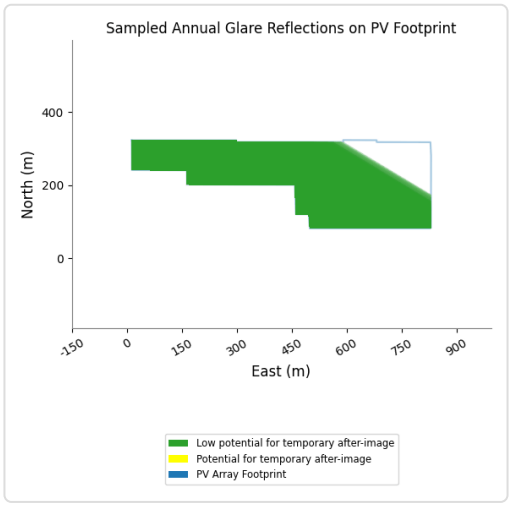
Green glare: 339 min.





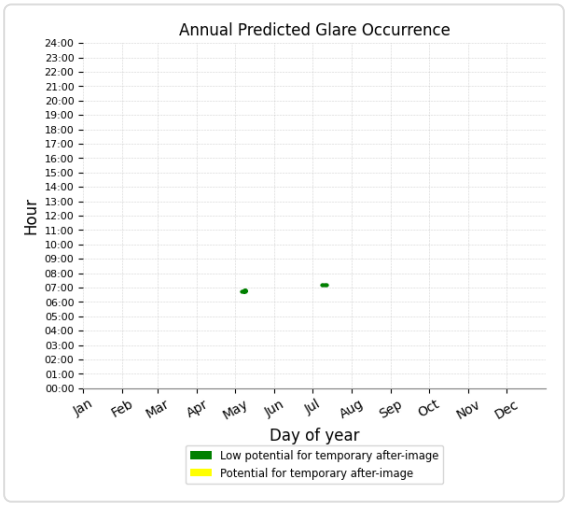


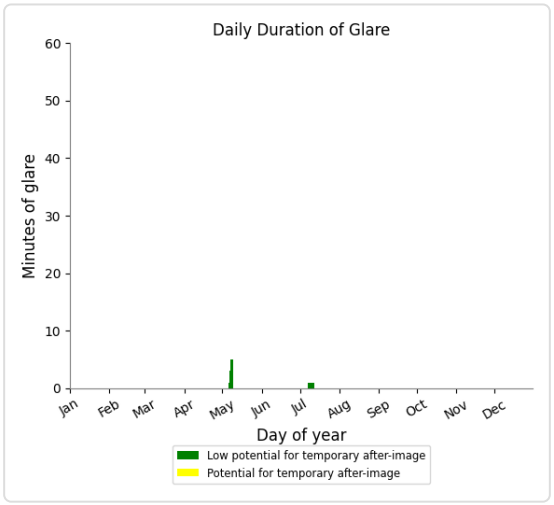


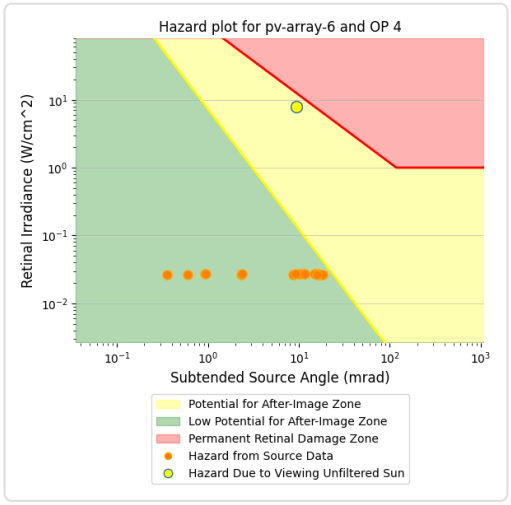


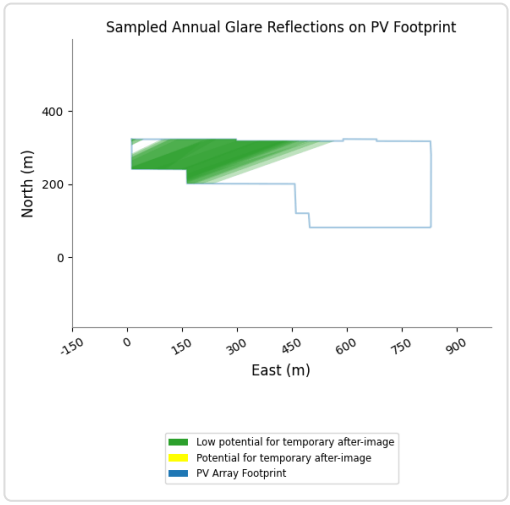
PV array 6 and OP 4

Yellow glare: none
Green glare: 19 min.









PV array 6 and OP 1

No glare found

PV array 6 and OP 2

No glare found

PV array 6 and OP 3

No glare found

PV array 6 and OP 5

No glare found

PV array 6 and OP 6

No glare found

PV array 6 and OP 7

No glare found

PV array 6 and OP 8

No glare found

PV array 6 and OP 9

No glare found

PV array 6 and OP 10

No glare found

PV array 6 and OP 11

No glare found

PV array 6 and OP 12

No glare found

PV array 6 and OP 13

No glare found

PV array 6 and OP 14

No glare found

PV array 6 and OP 15

No glare found

PV array 6 and OP 16

No glare found

PV array 6 and OP 17

No glare found

PV array 6 and OP 18

No glare found

PV array 6 and OP 19

No glare found

PV array 6 and OP 20

No glare found

PV array 6 and OP 21

No glare found

PV array 6 and OP 22

No glare found

PV array 6 and OP 23

No glare found

PV array 6 and OP 24

No glare found

PV array 6 and OP 25

No glare found

PV array 6 and OP 26

No glare found

PV array 6 and OP 27

No glare found

PV array 6 and OP 28

No glare found

PV array 6 and OP 29

No glare found

PV array 6 and OP 30

No glare found

PV array 6 and OP 31

No glare found

PV array 6 and OP 32

No glare found

PV array 6 and OP 33

No glare found

PV: PV array 7 potential temporary after-image

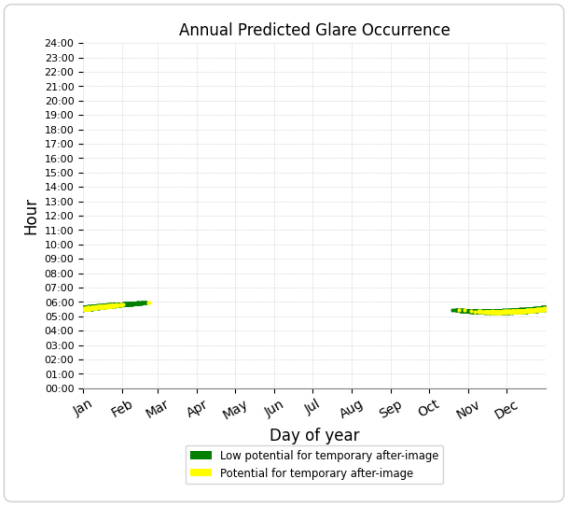
Receptor results ordered by category of glare

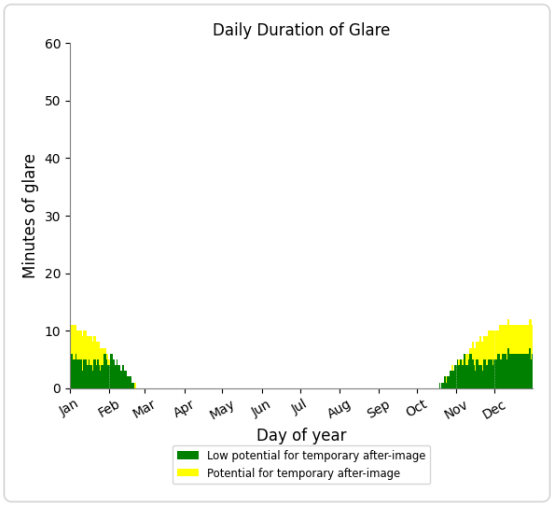
Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	563	9.4	376	6.3
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

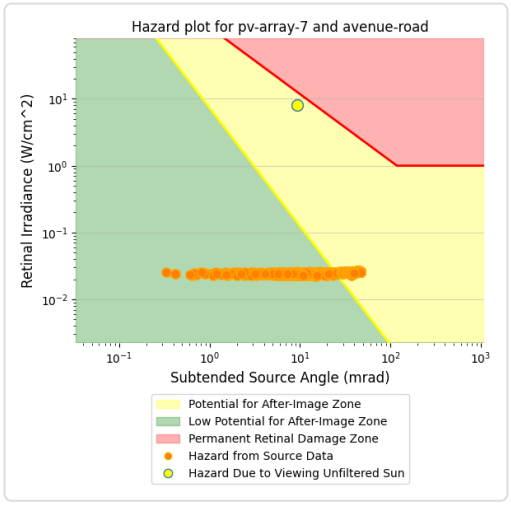
PV array 7 and Route: Avenue Road

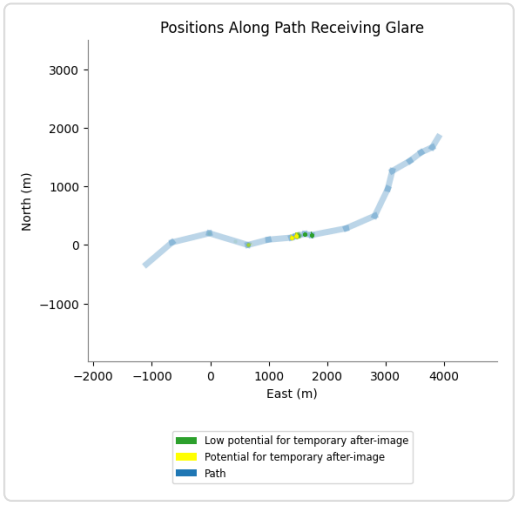
Yellow glare: 376 min.

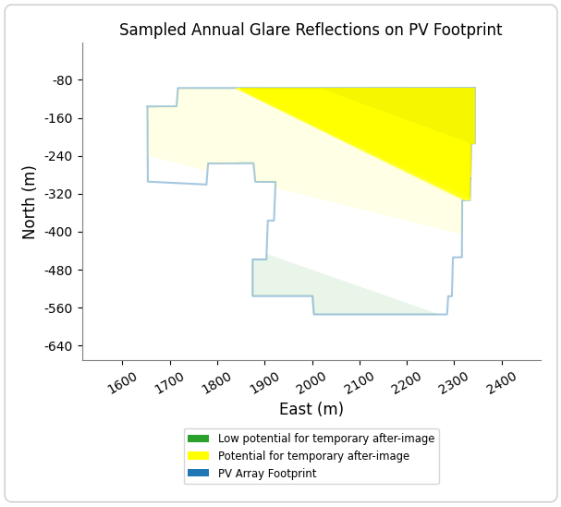
Green glare: 563 min.











PV array 7 and Route: Main Camp Road

No glare found

PV array 7 and OP 1

No glare found

PV array 7 and OP 2

No glare found

PV array 7 and OP 3

No glare found

PV array 7 and OP 4

No glare found

PV array 7 and OP 5

No glare found

PV array 7 and OP 6

No glare found

PV array 7 and OP 7

No glare found

PV array 7 and OP 8

No glare found

PV array 7 and OP 9

No glare found

PV array 7 and OP 10

No glare found

PV array 7 and OP 11

No glare found

PV array 7 and OP 12

No glare found

PV array 7 and OP 13

No glare found

PV array 7 and OP 14

No glare found

PV array 7 and OP 15

No glare found

PV array 7 and OP 16

No glare found

PV array 7 and OP 17

No glare found

PV array 7 and OP 18

No glare found

PV array 7 and OP 19

No glare found

PV array 7 and OP 20

No glare found

PV array 7 and OP 21

No glare found

PV array 7 and OP 22

No glare found

PV array 7 and OP 23

No glare found

PV array 7 and OP 24

No glare found

PV array 7 and OP 25

No glare found

PV array 7 and OP 26

No glare found

PV array 7 and OP 27

No glare found

PV array 7 and OP 28

No glare found

PV array 7 and OP 29

No glare found

PV array 7 and OP 30

No glare found

PV array 7 and OP 31

No glare found

PV array 7 and OP 32

No glare found

PV array 7 and OP 33

No glare found

PV: PV array 8 potential temporary after-image

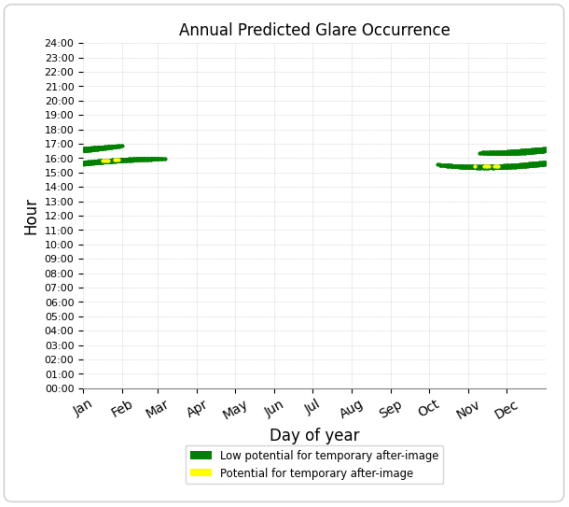
Receptor results ordered by category of glare

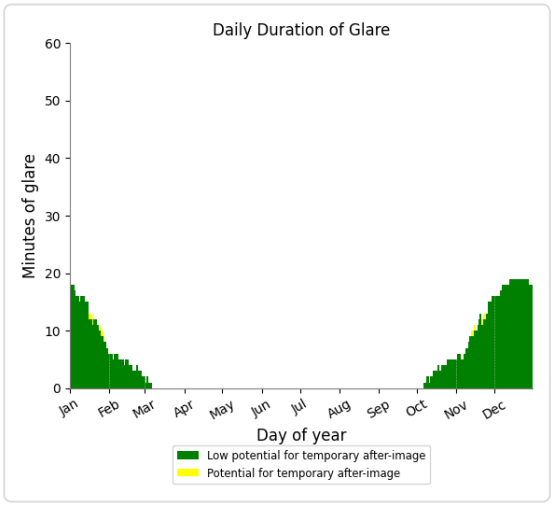
Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	1,482	24.7	18	0.3
Main Camp Road	0	0.0	0	0.0
OP 9	1,345	22.4	0	0.0
OP 10	48	0.8	0	0.0
OP 11	951	15.8	0	0.0
OP 12	209	3.5	0	0.0
OP 13	334	5.6	0	0.0
OP 14	903	15.1	0	0.0
OP 15	1,095	18.2	0	0.0
OP 16	1,265	21.1	0	0.0
OP 17	80	1.3	0	0.0
OP 18	712	11.9	0	0.0
OP 19	444	7.4	0	0.0
OP 22	298	5.0	0	0.0
OP 23	244	4.1	0	0.0
OP 24	115	1.9	0	0.0
OP 25	417	7.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

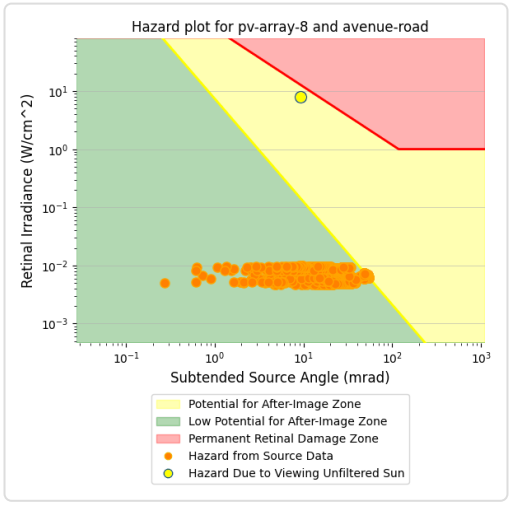
PV array 8 and Route: Avenue Road

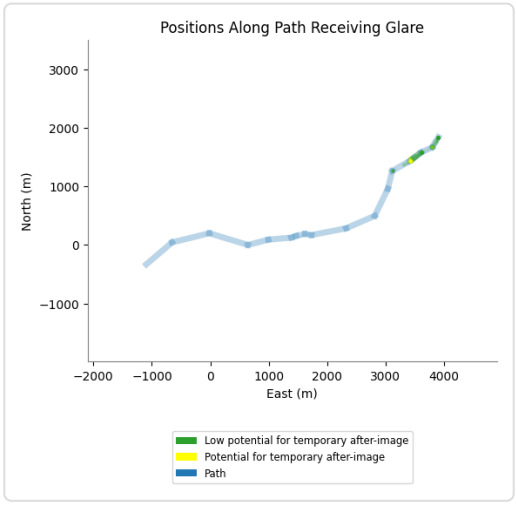
Yellow glare: 18 min.

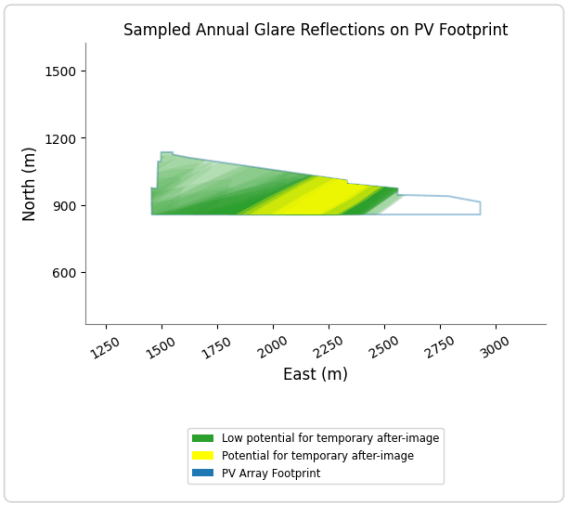
Green glare: 1,482 min.











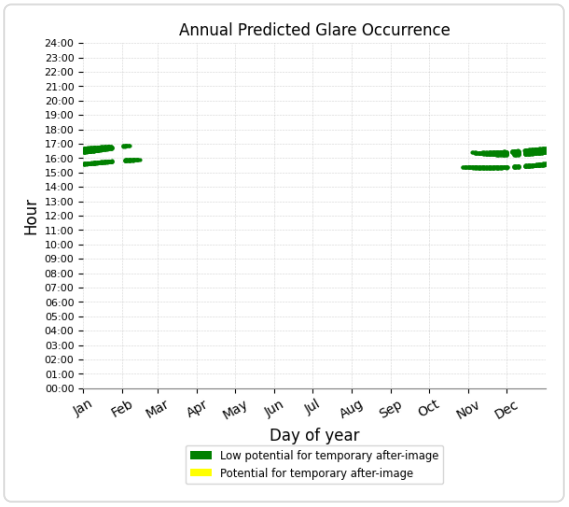
PV array 8 and Route: Main Camp Road

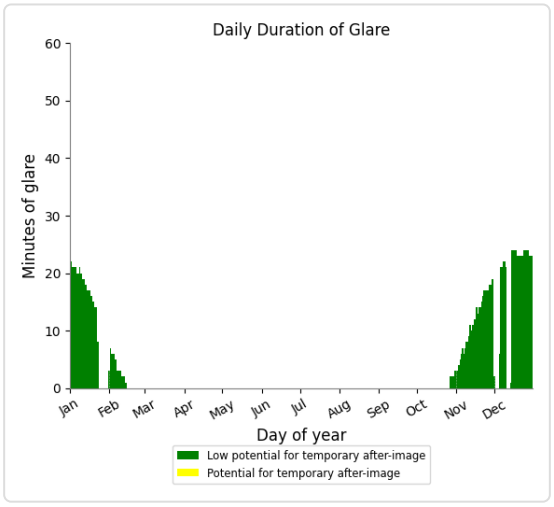
No glare found

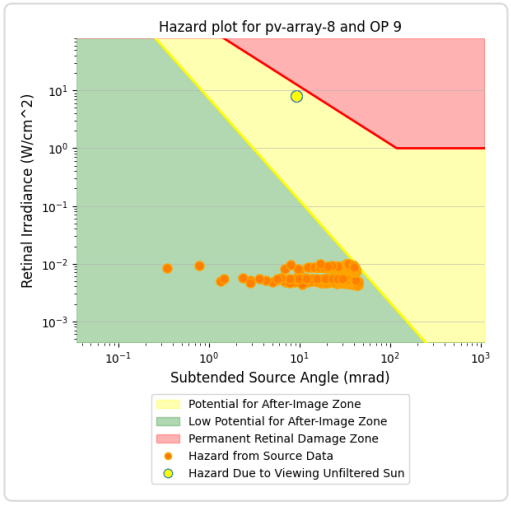
PV array 8 and OP 9

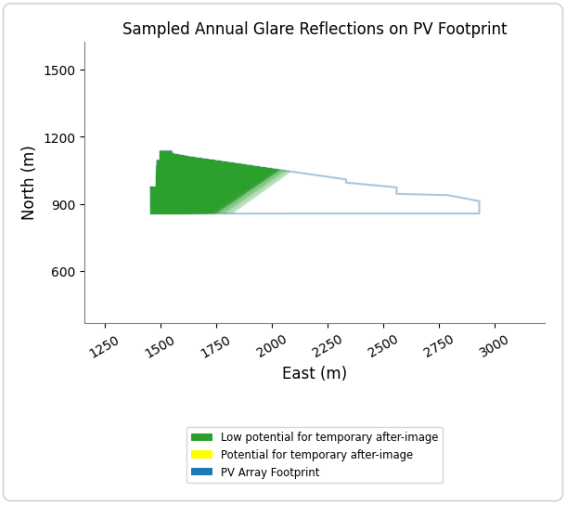
Yellow glare: none

Green glare: 1,345 min.





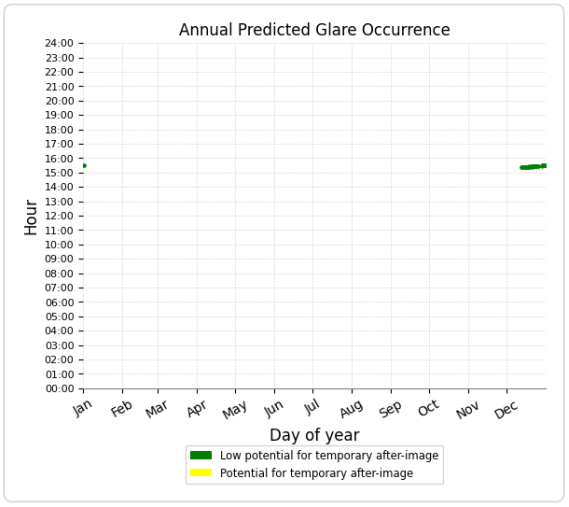


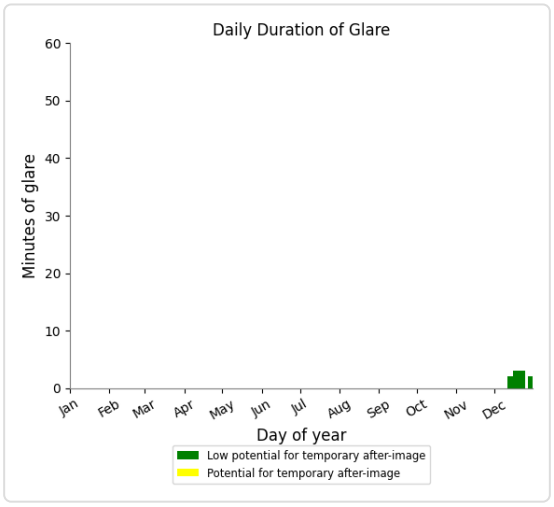


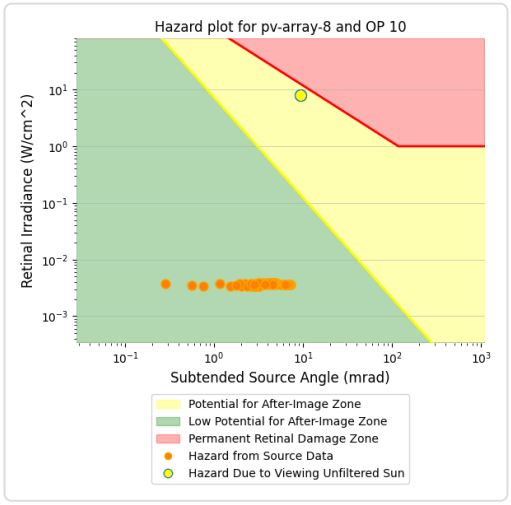
PV array 8 and OP 10

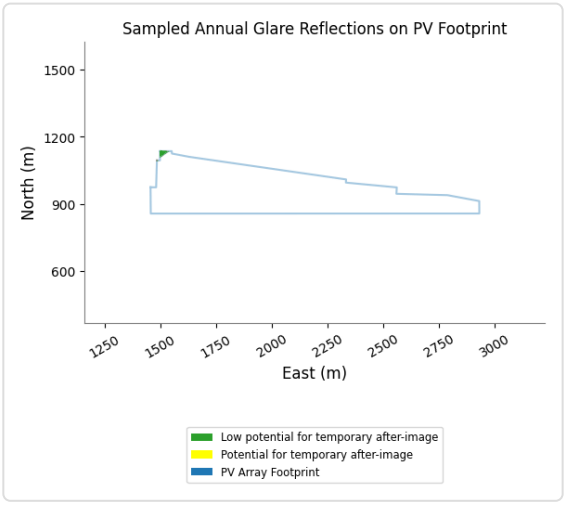
Yellow glare: none

Green glare: 48 min.





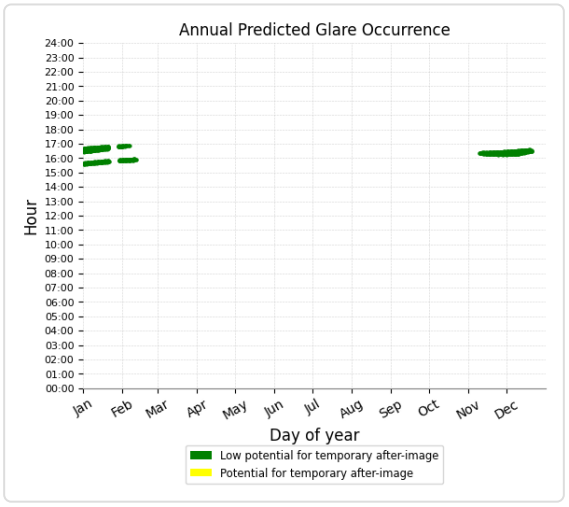


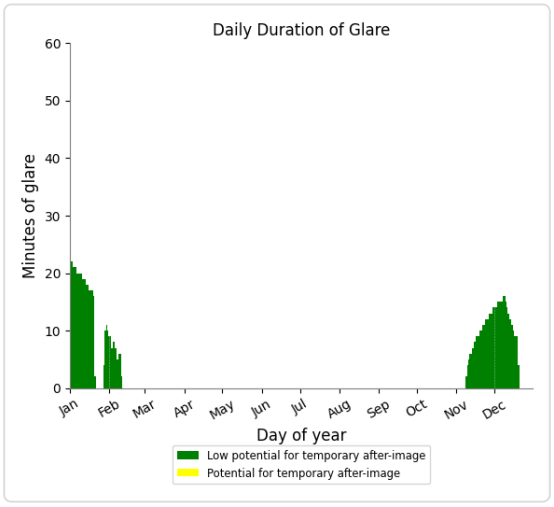


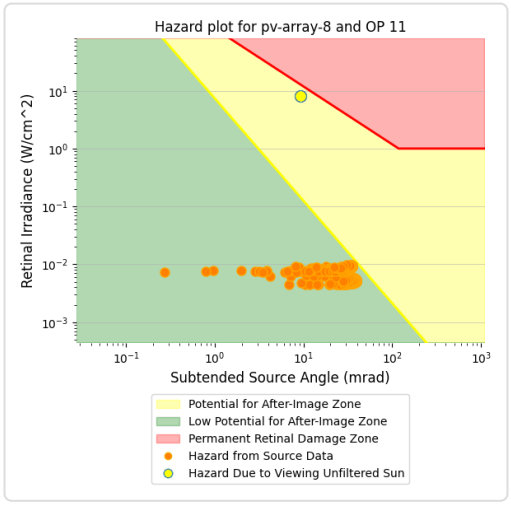
PV array 8 and OP 11

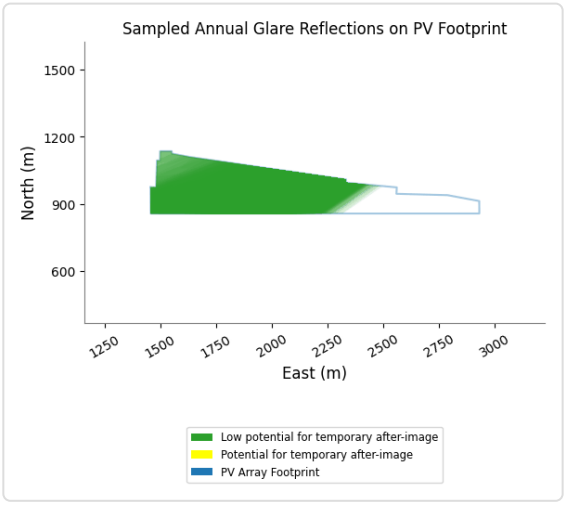
Yellow glare: none

Green glare: 951 min.





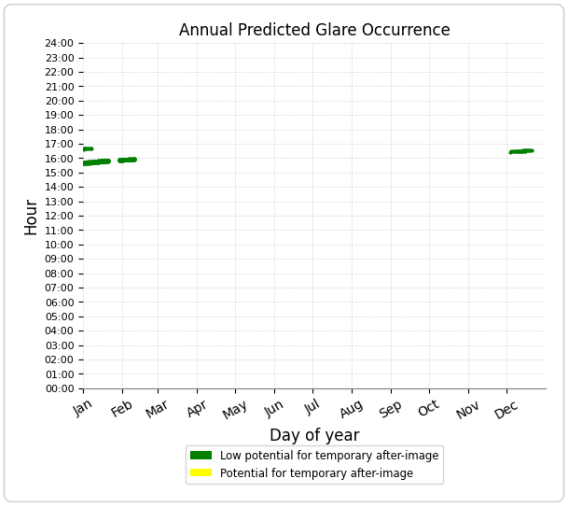


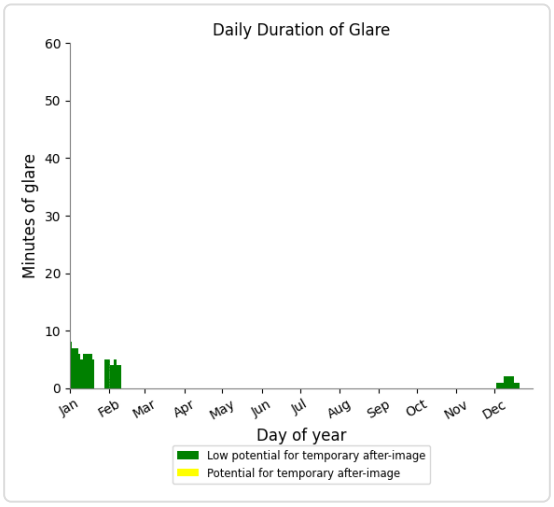


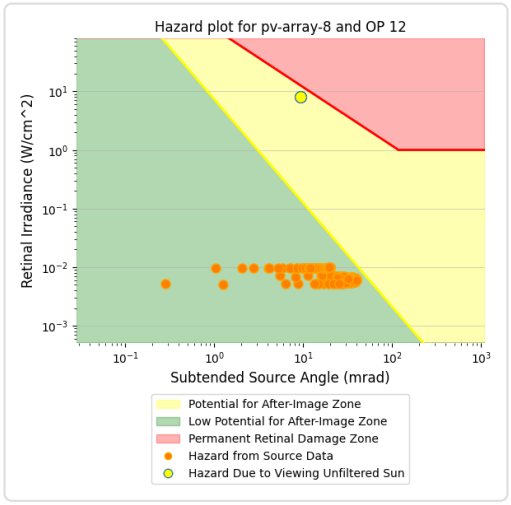
PV array 8 and OP 12

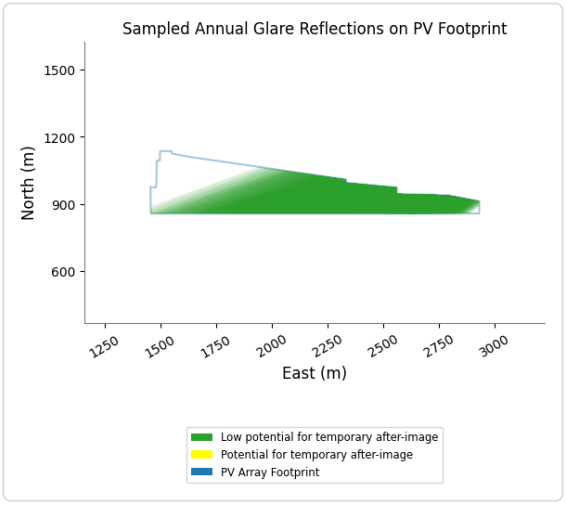
Yellow glare: none

Green glare: 209 min.





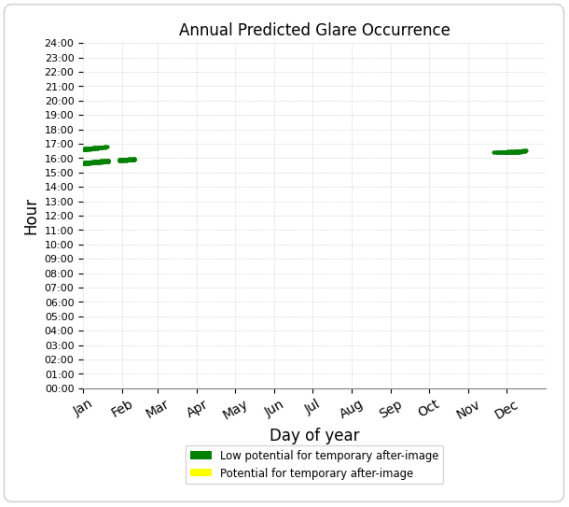


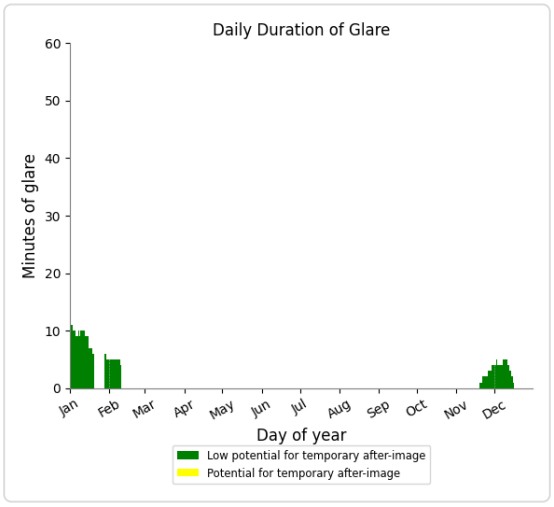


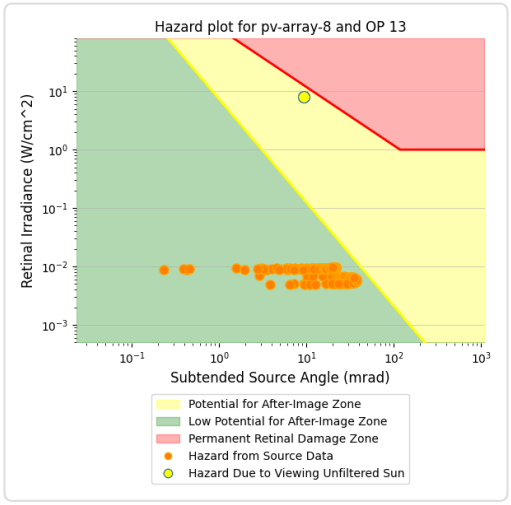
PV array 8 and OP 13

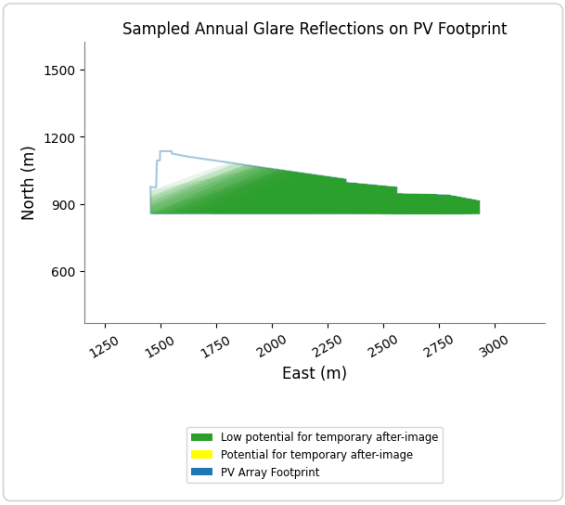
Yellow glare: none

Green glare: 334 min.





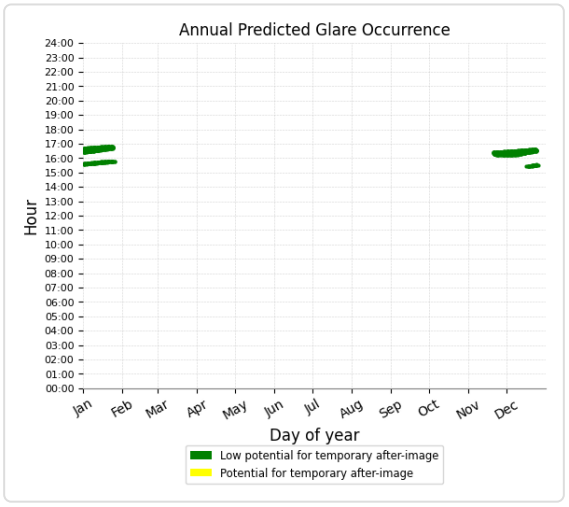


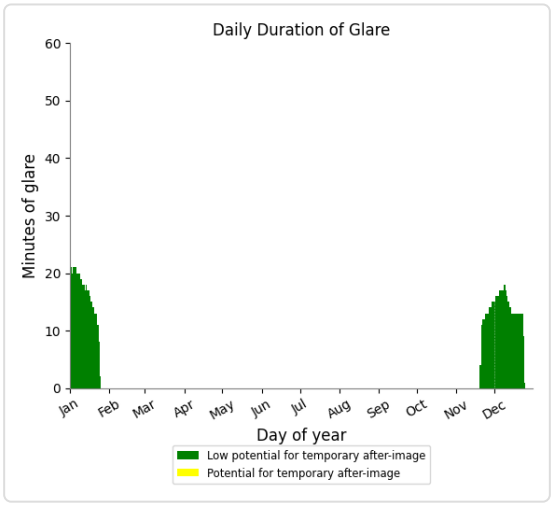


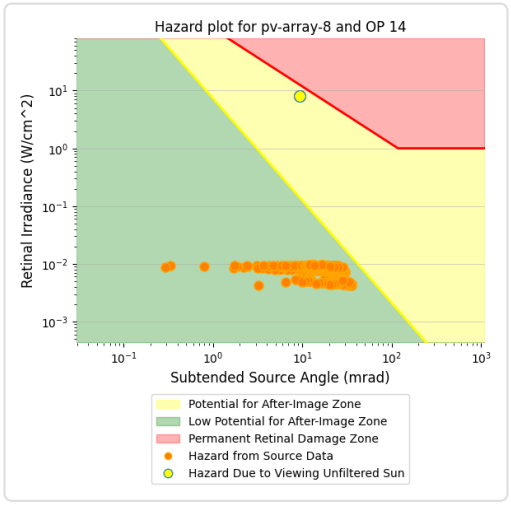
PV array 8 and OP 14

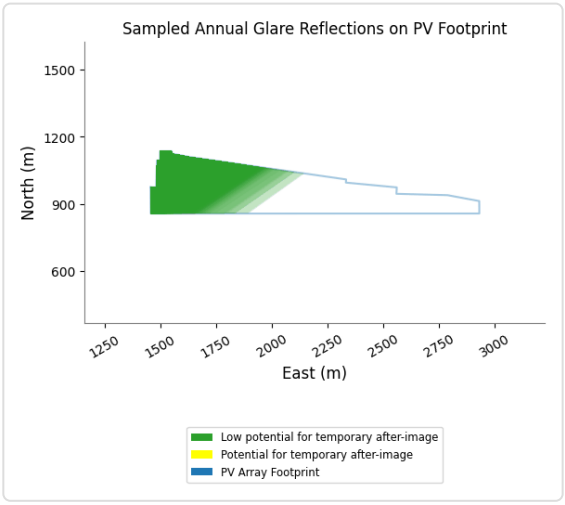
Yellow glare: none

Green glare: 903 min.





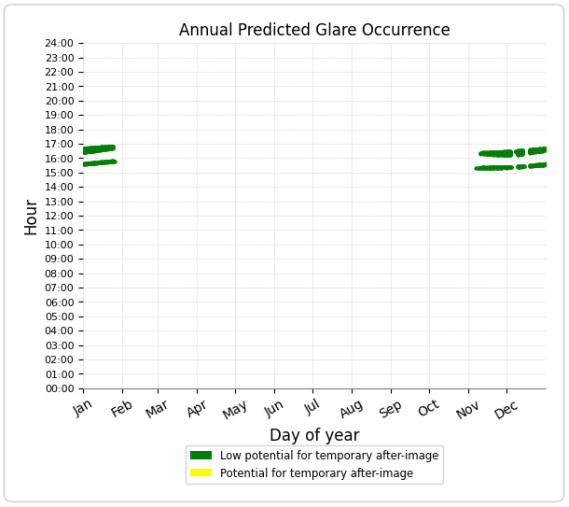


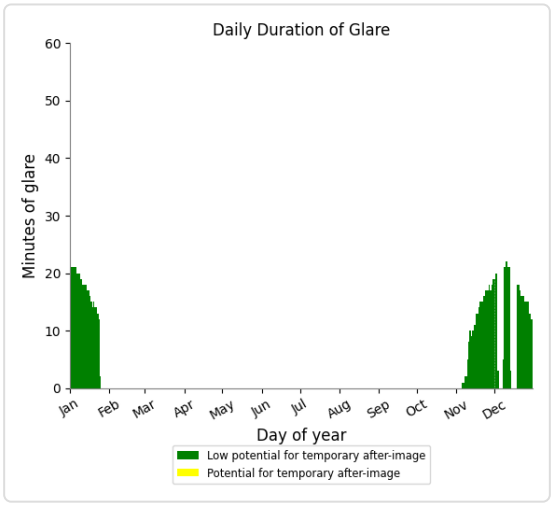


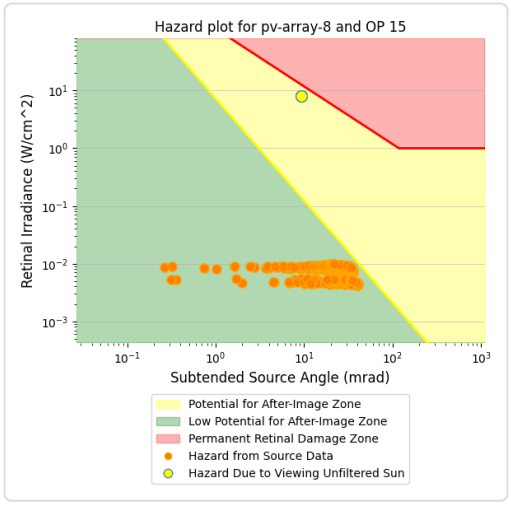
PV array 8 and OP 15

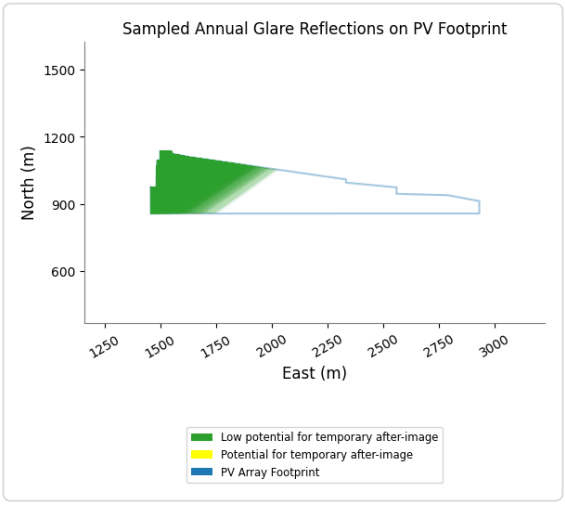
Yellow glare: none

Green glare: 1,095 min.





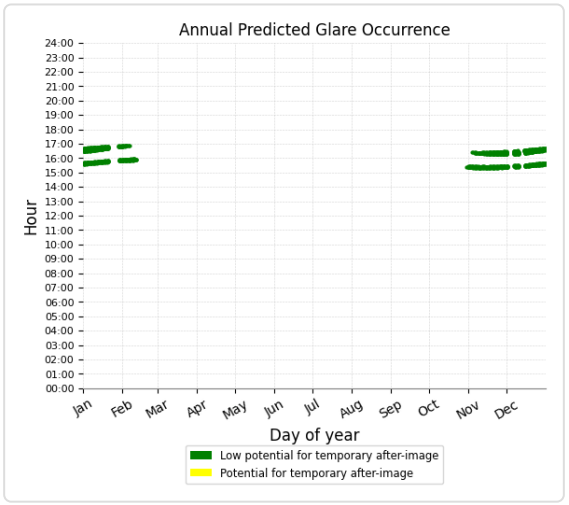


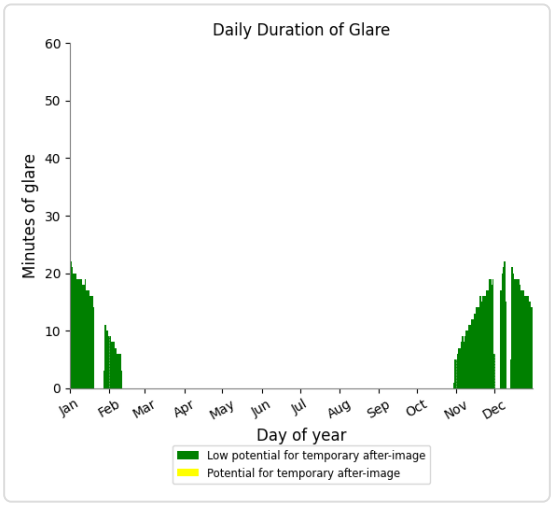


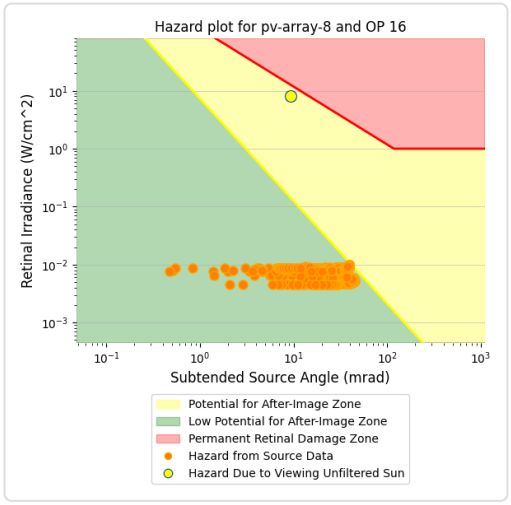
PV array 8 and OP 16

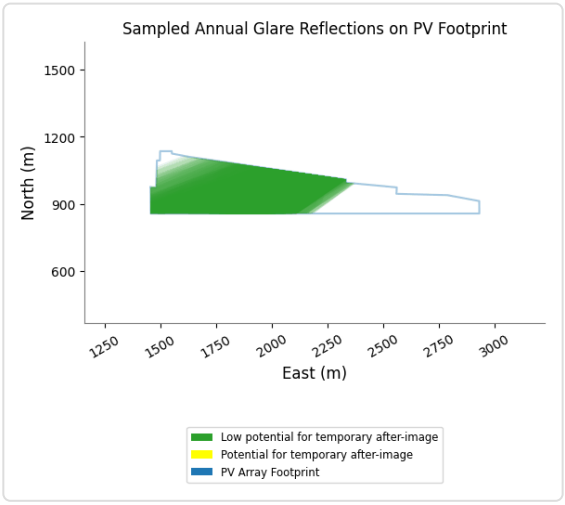
Yellow glare: none

Green glare: 1,265 min.





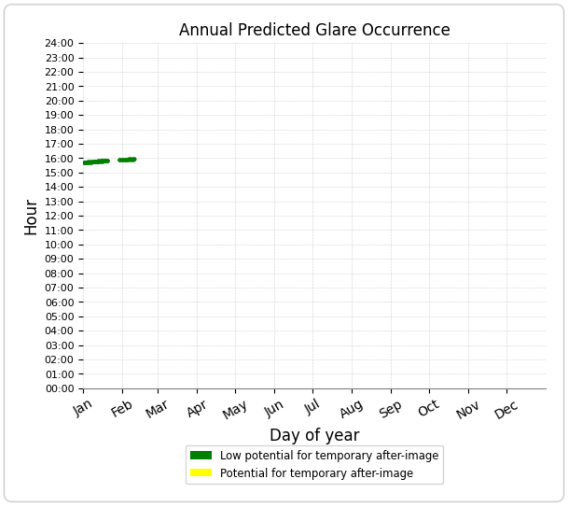


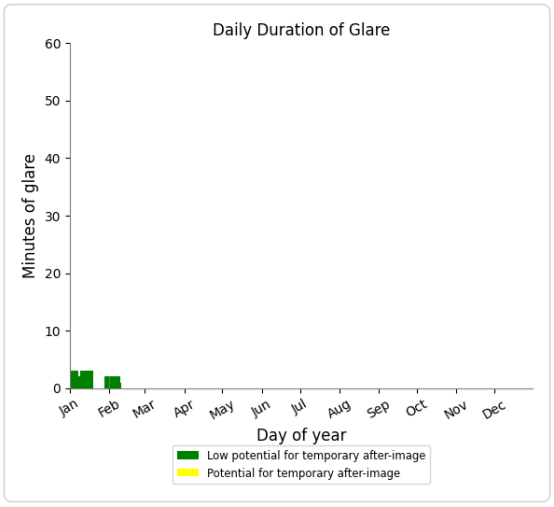


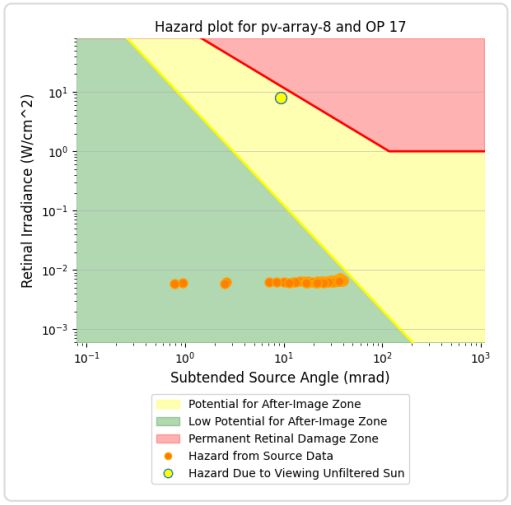
PV array 8 and OP 17

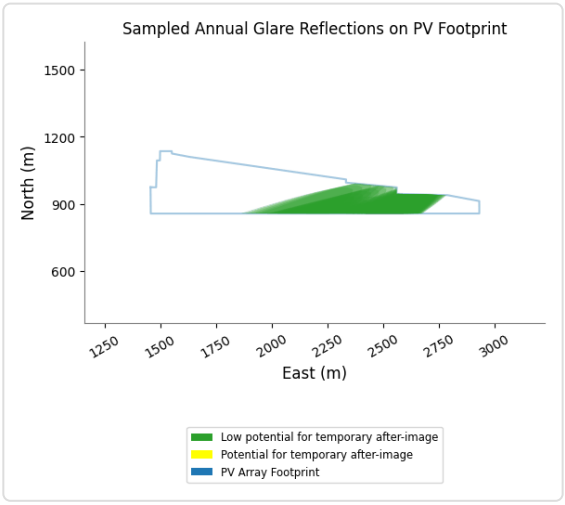
Yellow glare: none

Green glare: 80 min.





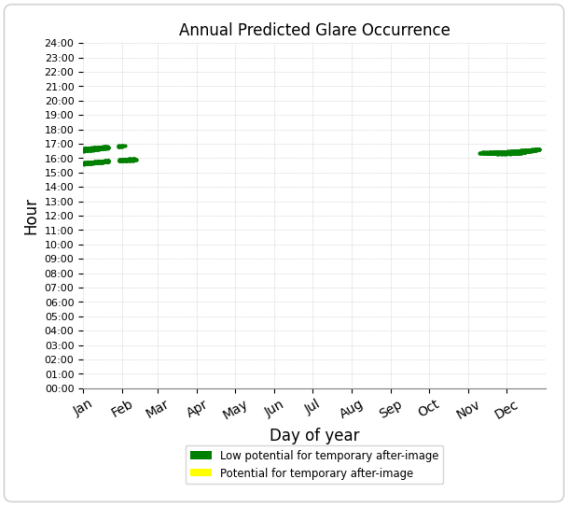


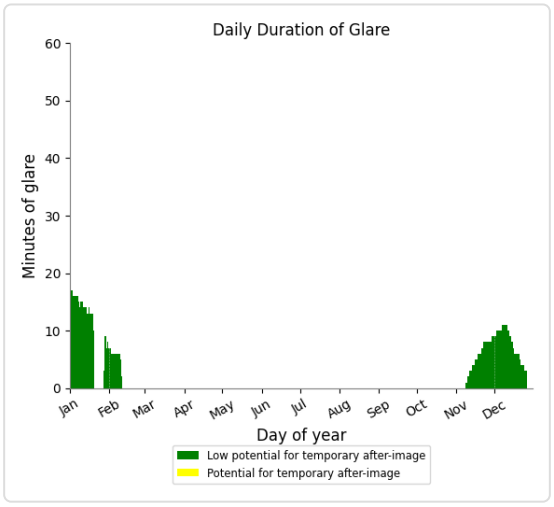


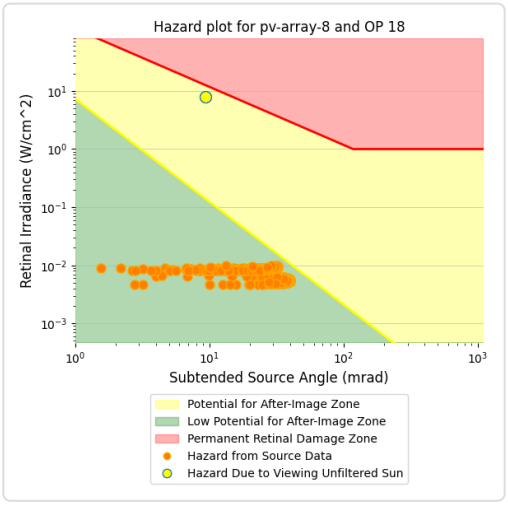
PV array 8 and OP 18

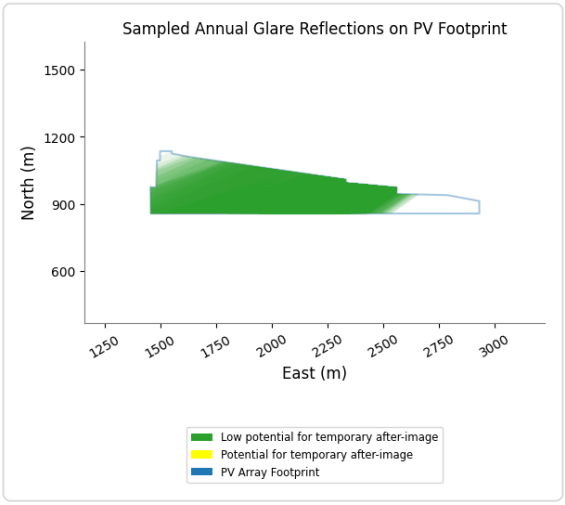
Yellow glare: none

Green glare: 712 min.





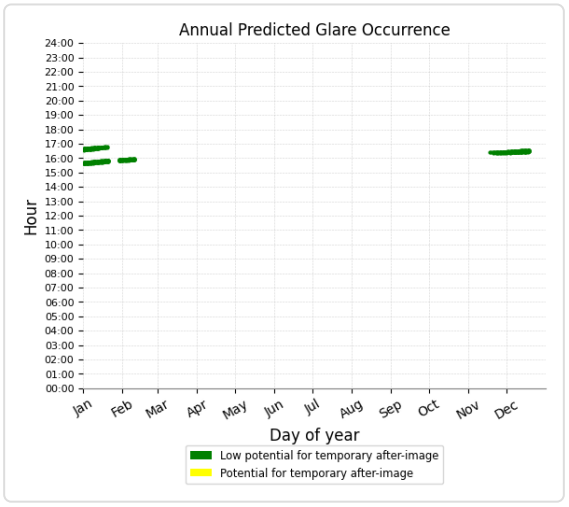


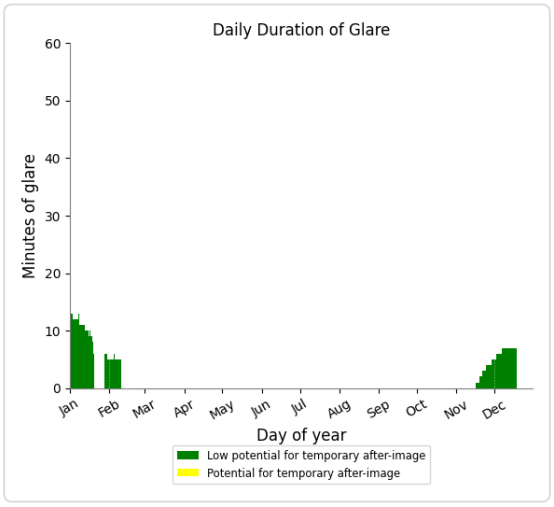


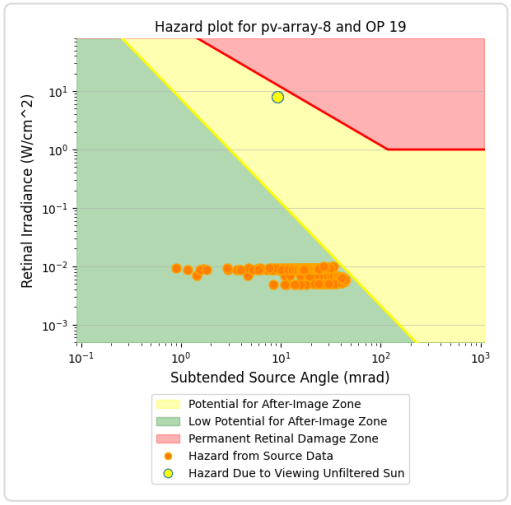
PV array 8 and OP 19

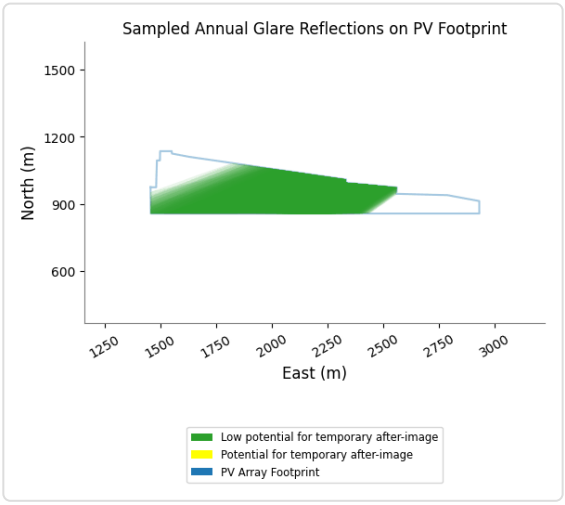
Yellow glare: none

Green glare: 444 min.





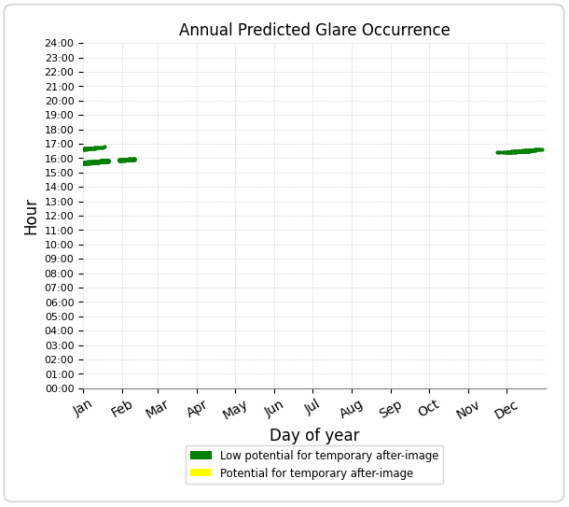


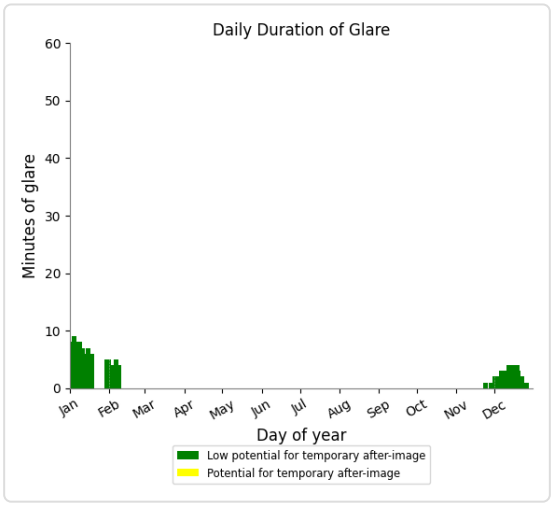


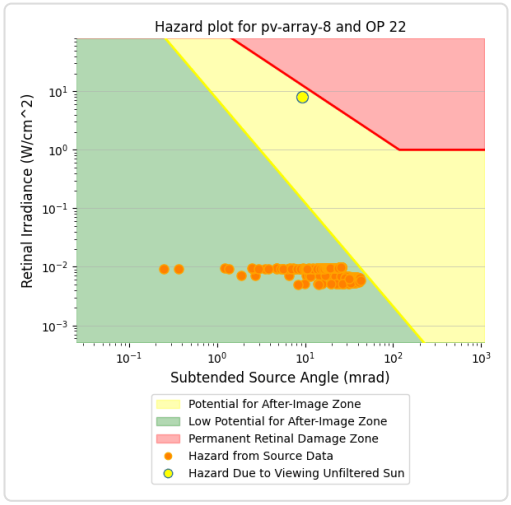
PV array 8 and OP 22

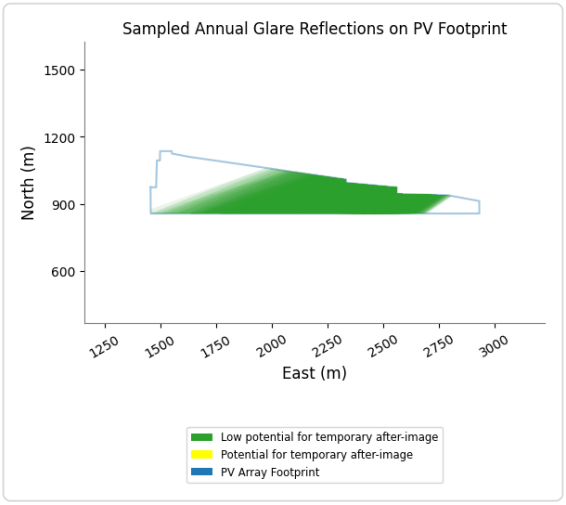
Yellow glare: none

Green glare: 298 min.





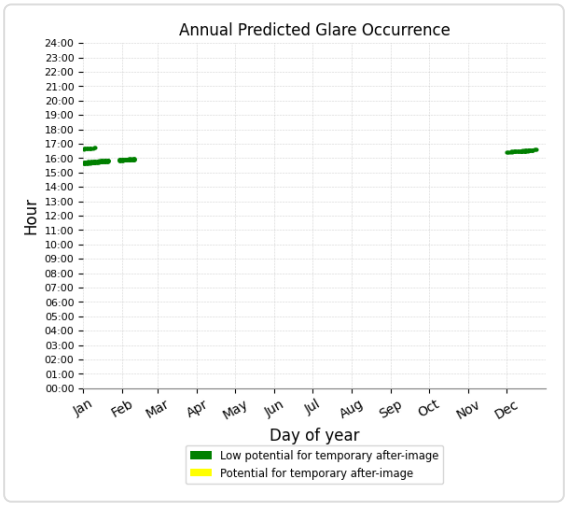


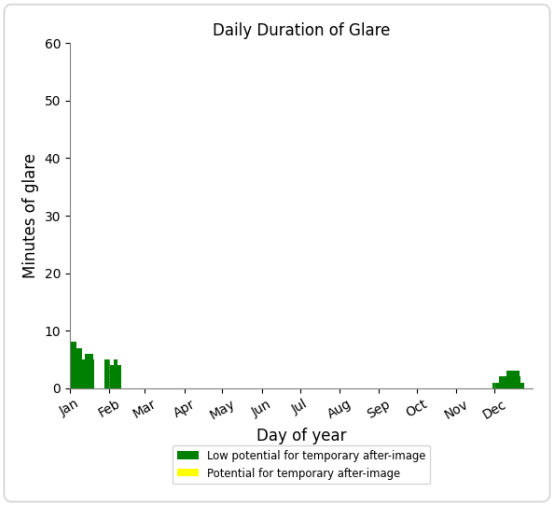


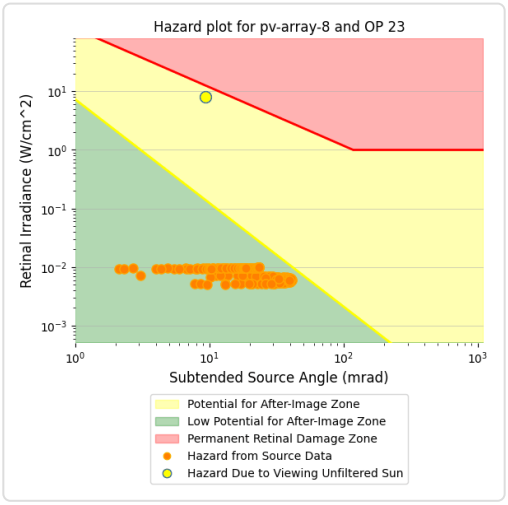
PV array 8 and OP 23

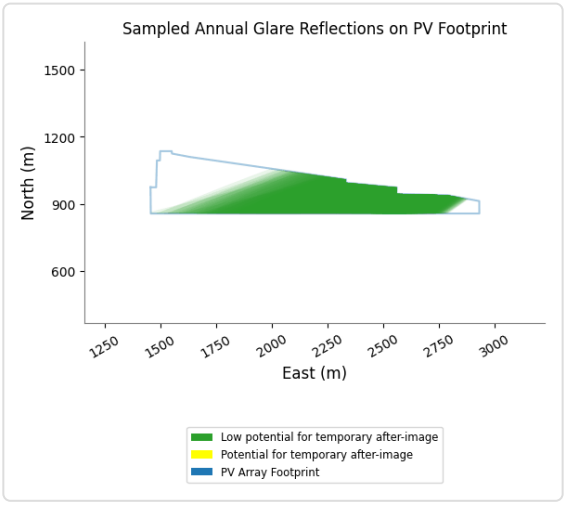
Yellow glare: none

Green glare: 244 min.





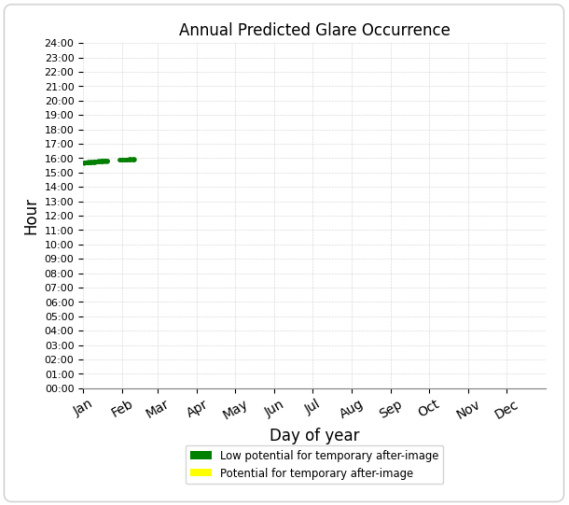


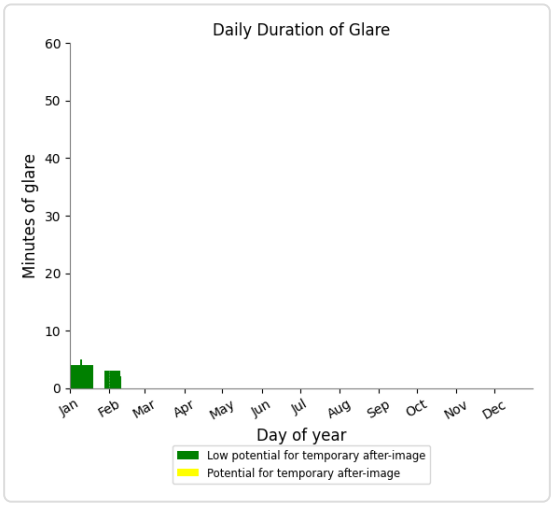


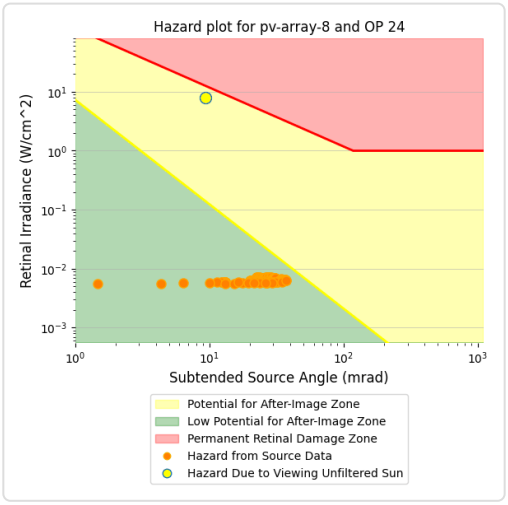
PV array 8 and OP 24

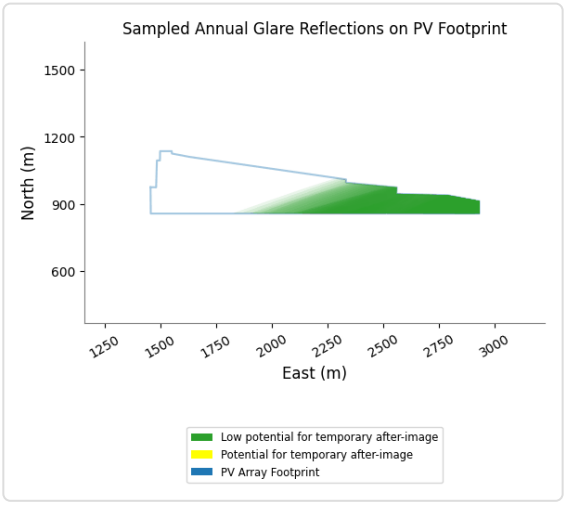
Yellow glare: none

Green glare: 115 min.



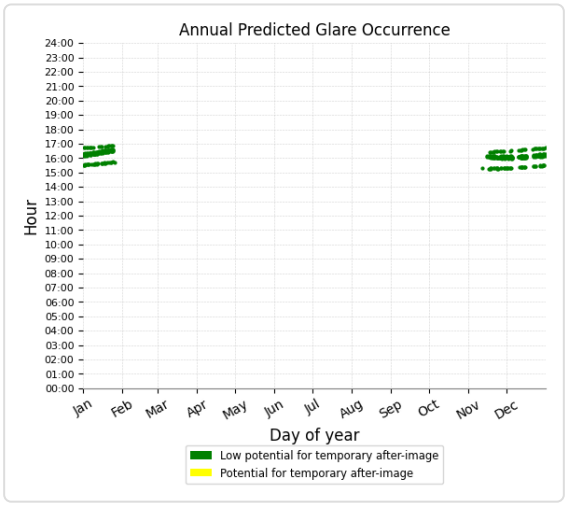


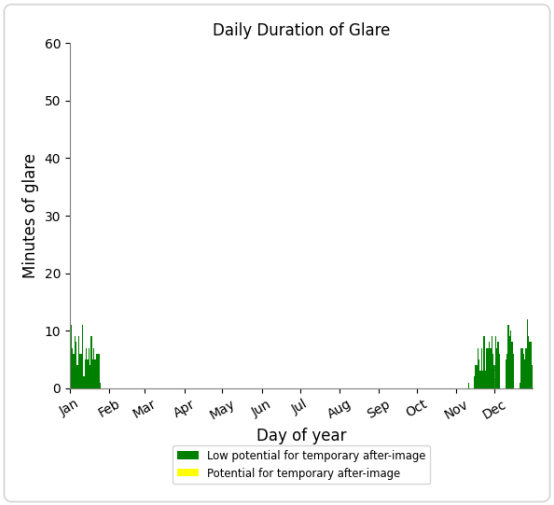


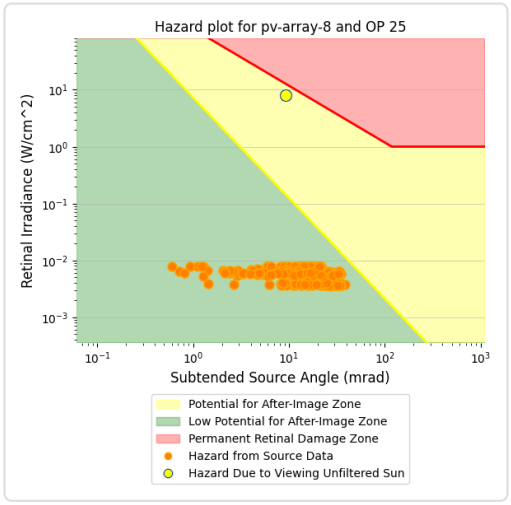


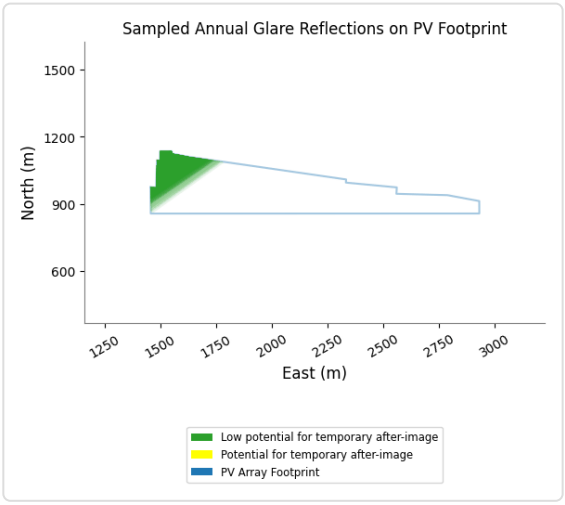
PV array 8 and OP 25

Yellow glare: none
Green glare: 417 min.









PV array 8 and OP 1

No glare found

PV array 8 and OP 2

No glare found

PV array 8 and OP 3

No glare found

PV array 8 and OP 4

No glare found

PV array 8 and OP 5

No glare found

PV array 8 and OP 6

No glare found

PV array 8 and OP 7

No glare found

PV array 8 and OP 8

No glare found

PV array 8 and OP 20

No glare found

PV array 8 and OP 21

No glare found

PV array 8 and OP 26

No glare found

PV array 8 and OP 27

No glare found

PV array 8 and OP 28

No glare found

PV array 8 and OP 29

No glare found

PV array 8 and OP 30

No glare found

PV array 8 and OP 31

No glare found

PV array 8 and OP 32

No glare found

PV array 8 and OP 33

No glare found

PV: PV array 9 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 9 and Route: Avenue Road

No glare found

PV array 9 and Route: Main Camp Road

No glare found

PV array 9 and OP 1

No glare found

PV array 9 and OP 2

No glare found

PV array 9 and OP 3

No glare found

PV array 9 and OP 4

No glare found

PV array 9 and OP 5

No glare found

PV array 9 and OP 6

No glare found

PV array 9 and OP 7

No glare found

PV array 9 and OP 8

No glare found

PV array 9 and OP 9

No glare found

PV array 9 and OP 10

No glare found

PV array 9 and OP 11

No glare found

PV array 9 and OP 12

No glare found

PV array 9 and OP 13

No glare found

PV array 9 and OP 14

No glare found

PV array 9 and OP 15

No glare found

PV array 9 and OP 16

No glare found

PV array 9 and OP 17

No glare found

PV array 9 and OP 18

No glare found

PV array 9 and OP 19

No glare found

PV array 9 and OP 20

No glare found

PV array 9 and OP 21

No glare found

PV array 9 and OP 22

No glare found

PV array 9 and OP 23

No glare found

PV array 9 and OP 24

No glare found

PV array 9 and OP 25

No glare found

PV array 9 and OP 26

No glare found

PV array 9 and OP 27

No glare found

PV array 9 and OP 28

No glare found

PV array 9 and OP 29

No glare found

PV array 9 and OP 30

No glare found

PV array 9 and OP 31

No glare found

PV array 9 and OP 32

No glare found

PV array 9 and OP 33

No glare found

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year.
Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare. This primarily affects V1 analyses of path receptors.
Random number computations are utilized by various steps of the annual hazard analysis algorithm. Predicted minutes of glare can vary between runs as a result. This limitation primarily affects analyses of Observation Point receptors, including ATCTs. Note that the SGHAT/ ForgeSolar methodology has always relied on an analytical, qualitative approach to accurately determine the overall hazard (i.e. green vs. yellow) of expected glare on an annual basis.
The analysis does not automatically consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.
The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)
The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.
The ocular hazard predicted by the tool depends on a number of environmental, optical, and human factors, which can be uncertain. We provide input fields and typical ranges of values for these factors so that the user can vary these parameters to see if they have an impact on the results. The speed of SGHAT allows expedited sensitivity and parametric analyses.
The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.
Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.
Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
Refer to the Help page at **www.forgesolar.com/help/** for assumptions and limitations not listed here.

Default glare analysis parameters and observer eye characteristics (for reference only):

- Analysis time interval: 1 minute
- Ocular transmission coefficient: 0.5
- Pupil diameter: 0.002 meters
- Eye focal length: 0.017 meters
- Sun subtended angle: 9.3 milliradians

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Glint and Glare Assessment Results
Attachment B - Scenario 2

FORGESOLAR GLARE ANALYSIS

Project: **2320 Richmond Valley Solar Farm**
Site configuration: **2320 Richmond Valley 5d Resting Angle 20231211**

Created 11 Dec, 2023
Updated 18 Dec, 2023
Time-step 1 minute
Timezone offset UTC10
Minimum sun altitude 0.0 deg
DNI peaks at 1,000.0 W/m^2
Category 100 MW to 1 GW
Site ID 107576.18000

Ocular transmission coefficient 0.5
Pupil diameter 0.002 m
Eye focal length 0.017 m
Sun subtended angle 9.3 mrad
PV analysis methodology V2

Summary of Results

Glare with potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV array 1	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 10	SA tracking	SA tracking	32,564	542.7	27,392	456.5	-
PV array 15	SA tracking	SA tracking	583	9.7	127	2.1	-
PV array 16	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 17	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 18	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 19	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 2	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 20	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 21	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 22	SA tracking	SA tracking	287	4.8	0	0.0	-
PV array 23	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 3	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 4	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 5	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 6	SA tracking	SA tracking	779	13.0	2,145	35.8	-
PV array 7	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 8	SA tracking	SA tracking	4,461	74.3	21	0.3	-
PV array 9	SA tracking	SA tracking	0	0.0	0	0.0	-

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	20,028	333.8	29,558	492.6

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Main Camp Road	2,540	42.3	127	2.1
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	157	2.6	0	0.0
OP 6	0	0.0	0	0.0
OP 7	75	1.2	0	0.0
OP 8	740	12.3	0	0.0
OP 9	307	5.1	0	0.0
OP 10	42	0.7	0	0.0
OP 11	278	4.6	0	0.0
OP 12	271	4.5	0	0.0
OP 13	284	4.7	0	0.0
OP 14	144	2.4	0	0.0
OP 15	195	3.2	0	0.0
OP 16	538	9.0	0	0.0
OP 17	123	2.0	0	0.0
OP 18	300	5.0	0	0.0
OP 19	306	5.1	0	0.0
OP 20	0	0.0	0	0.0
OP 21	296	4.9	0	0.0
OP 22	288	4.8	0	0.0
OP 23	280	4.7	0	0.0
OP 24	185	3.1	0	0.0
OP 25	57	0.9	0	0.0
OP 26	2,155	35.9	0	0.0
OP 27	1,953	32.5	0	0.0
OP 28	1,962	32.7	0	0.0
OP 29	468	7.8	0	0.0
OP 30	448	7.5	0	0.0
OP 31	504	8.4	0	0.0
OP 32	596	9.9	0	0.0
OP 33	3,154	52.6	0	0.0

Component Data

PV Arrays

Name: PV array 1
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 5.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.101325	153.019581	366.24	2.50	368.74
2	-29.101319	153.022208	373.42	2.50	375.92
3	-29.101675	153.022244	322.35	2.50	324.85
4	-29.101686	153.024706	312.51	2.50	315.01
5	-29.102036	153.024742	303.12	2.50	305.62
6	-29.102033	153.026689	299.33	2.50	301.83
7	-29.102411	153.026725	328.19	2.50	330.69
8	-29.102419	153.028128	322.49	2.50	324.99
9	-29.103497	153.028139	354.56	2.50	357.06
10	-29.103500	153.028281	326.46	2.50	328.96
11	-29.104558	153.028281	314.31	2.50	316.81
12	-29.104567	153.026794	364.57	2.50	367.07
13	-29.104200	153.026775	369.06	2.50	371.56
14	-29.104211	153.025361	350.76	2.50	353.26
15	-29.103472	153.025344	337.49	2.50	339.99
16	-29.103472	153.019586	354.43	2.50	356.93

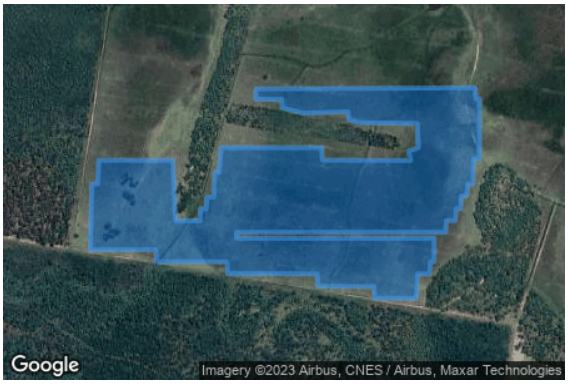
Name: PV array 10
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 5.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.096789	153.033475	67.12	2.50	69.62
2	-29.096789	153.033625	94.58	2.50	97.08
3	-29.096086	153.033664	83.67	2.50	86.17
4	-29.096069	153.048192	86.35	2.50	88.85
5	-29.096428	153.048178	86.17	2.50	88.67
6	-29.096431	153.047381	77.50	2.50	80.00
7	-29.096778	153.047358	70.21	2.50	72.71
8	-29.096778	153.046492	64.01	2.50	66.51
9	-29.097136	153.046467	57.37	2.50	59.87
10	-29.097136	153.045553	58.92	2.50	61.42
11	-29.097508	153.045553	44.73	2.50	47.23
12	-29.097514	153.044489	51.53	2.50	54.03
13	-29.097786	153.044467	54.99	2.50	57.49
14	-29.097864	153.043553	60.25	2.50	62.75
15	-29.098228	153.043531	57.21	2.50	59.71
16	-29.098236	153.041514	58.17	2.50	60.67
17	-29.098608	153.041486	51.15	2.50	53.65
18	-29.098619	153.033442	60.48	2.50	62.98

Name: PV array 15
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 5.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

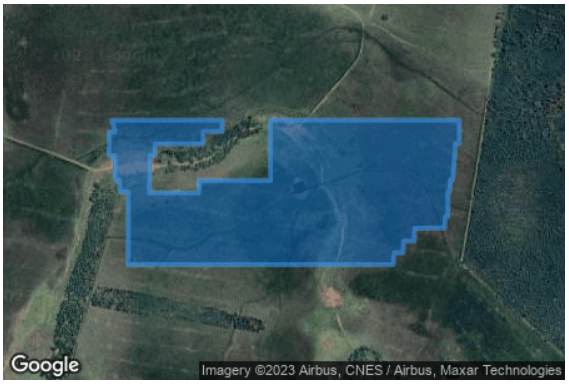
Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.102156	153.044086	58.73	2.50	61.23
2	-29.102156	153.047328	63.32	2.50	65.82
3	-29.102194	153.047328	95.21	2.50	97.71
4	-29.102194	153.058594	119.73	2.50	122.23
5	-29.102550	153.058617	84.51	2.50	87.01
6	-29.102550	153.058697	82.32	2.50	84.82
7	-29.103253	153.058700	86.95	2.50	89.45
8	-29.103253	153.058464	98.42	2.50	100.92
9	-29.103636	153.058431	85.79	2.50	88.29
10	-29.103636	153.058125	71.39	2.50	73.89
11	-29.104347	153.058089	63.19	2.50	65.69
12	-29.104347	153.057872	68.64	2.50	71.14
13	-29.105078	153.057872	75.02	2.50	77.52
14	-29.105080	153.057786	73.92	2.50	76.42
15	-29.105431	153.057761	95.27	2.50	97.77
16	-29.105431	153.057622	95.06	2.50	97.56
17	-29.106164	153.057597	96.25	2.50	98.75
18	-29.106167	153.057461	85.20	2.50	87.70
19	-29.106514	153.057433	78.67	2.50	81.17
20	-29.106514	153.057292	76.66	2.50	79.16
21	-29.107410	153.057270	69.71	2.50	72.21
22	-29.107410	153.057190	70.70	2.50	73.20
23	-29.107760	153.057150	76.15	2.50	78.65
24	-29.107770	153.056900	69.23	2.50	71.73
25	-29.108870	153.056840	63.91	2.50	66.41
26	-29.108840	153.054250	69.03	2.50	71.53
27	-29.106690	153.054260	67.10	2.50	69.60
28	-29.106700	153.054510	61.84	2.50	64.34
29	-29.105460	153.054540	51.44	2.50	53.94
30	-29.105460	153.054670	46.48	2.50	48.98
31	-29.103650	153.054660	44.11	2.50	46.61
32	-29.103650	153.053990	50.89	2.50	53.39
33	-29.103260	153.053990	55.01	2.50	57.51
34	-29.103260	153.051930	50.62	2.50	53.12
35	-29.102900	153.051890	64.22	2.50	66.72
36	-29.102900	153.046260	78.81	2.50	81.31
37	-29.102530	153.046260	69.88	2.50	72.38
38	-29.102531	153.044111	81.44	2.50	83.94

Name: PV array 16
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 5.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.109583	153.053697	35.88	2.50	38.38
2	-29.109580	153.053892	35.82	2.50	38.32
3	-29.108872	153.053936	34.22	2.50	36.72
4	-29.108872	153.056486	35.80	2.50	38.30
5	-29.110681	153.056581	33.60	2.50	36.10
6	-29.110680	153.057408	33.51	2.50	36.01
7	-29.110322	153.057431	33.12	2.50	35.62
8	-29.110333	153.057622	33.65	2.50	36.15
9	-29.109972	153.057656	34.81	2.50	37.31
10	-29.109969	153.057892	35.48	2.50	37.98
11	-29.109233	153.057922	37.27	2.50	39.77
12	-29.109230	153.058064	37.55	2.50	40.05
13	-29.108494	153.058144	37.24	2.50	39.74
14	-29.108494	153.061594	35.21	2.50	37.71
15	-29.108867	153.061622	34.11	2.50	36.61
16	-29.108875	153.064650	30.58	2.50	33.08
17	-29.108597	153.064578	31.08	2.50	33.58
18	-29.108494	153.064914	30.76	2.50	33.26
19	-29.107772	153.064875	32.09	2.50	34.59
20	-29.107750	153.062925	30.39	2.50	32.89
21	-29.107664	153.062525	32.23	2.50	34.73
22	-29.107419	153.062503	32.17	2.50	34.67
23	-29.107467	153.060950	34.16	2.50	36.66
24	-29.107297	153.060244	33.94	2.50	36.44
25	-29.107050	153.060219	33.92	2.50	36.42
26	-29.107044	153.059328	34.04	2.50	36.54
27	-29.106736	153.059336	34.04	2.50	36.54
28	-29.106700	153.066869	31.79	2.50	34.29
29	-29.107036	153.066903	31.47	2.50	33.97
30	-29.107036	153.067019	31.60	2.50	34.10
31	-29.108842	153.067022	33.82	2.50	36.32
32	-29.108842	153.066803	33.30	2.50	35.80
33	-29.109572	153.066800	34.25	2.50	36.75
34	-29.109570	153.066614	33.70	2.50	36.20
35	-29.109936	153.066586	34.18	2.50	36.68
36	-29.109940	153.066383	33.57	2.50	36.07
37	-29.110311	153.066380	34.11	2.50	36.61
38	-29.110310	153.066217	33.64	2.50	36.14
39	-29.110669	153.066192	34.08	2.50	36.58
40	-29.110675	153.065881	33.18	2.50	35.68
41	-29.111028	153.065858	33.66	2.50	36.16
42	-29.111028	153.058667	34.00	2.50	36.50
43	-29.111203	153.058667	34.00	2.50	36.50
44	-29.111203	153.065461	33.51	2.50	36.01
45	-29.111908	153.065461	35.73	2.50	38.23
46	-29.111908	153.065331	35.54	2.50	38.04
47	-29.112269	153.065303	35.50	2.50	38.00
48	-29.112270	153.064894	35.16	2.50	37.66
49	-29.112997	153.064853	35.92	2.50	38.42
50	-29.112997	153.063419	33.64	2.50	36.14
51	-29.112650	153.063394	34.07	2.50	36.57
52	-29.112639	153.061467	31.62	2.50	34.12
53	-29.112269	153.061444	32.22	2.50	34.72
54	-29.112264	153.058369	34.15	2.50	36.65
55	-29.111908	153.058342	34.08	2.50	36.58
56	-29.111908	153.055928	33.83	2.50	36.33
57	-29.111547	153.055900	33.61	2.50	36.11
58	-29.111550	153.053644	40.15	2.50	42.65

Name: PV array 17
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 5.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.102197	153.059017	39.95	2.50	42.45
2	-29.102194	153.062817	37.76	2.50	40.26
3	-29.102533	153.062803	35.96	2.50	38.46
4	-29.102539	153.062167	38.22	2.50	40.72
5	-29.102906	153.062150	38.04	2.50	40.54
6	-29.102910	153.060506	39.98	2.50	42.48
7	-29.103247	153.060483	38.09	2.50	40.59
8	-29.103253	153.060331	35.83	2.50	38.33
9	-29.104367	153.060311	35.23	2.50	37.73
10	-29.104375	153.062003	35.00	2.50	37.50
11	-29.103994	153.062019	35.26	2.50	37.76
12	-29.104000	153.064469	35.33	2.50	37.83
13	-29.102194	153.064467	41.33	2.50	43.83
14	-29.102194	153.070958	35.53	2.50	38.03
15	-29.102900	153.070964	31.99	2.50	34.49
16	-29.102900	153.070833	34.31	2.50	36.81
17	-29.103986	153.070736	38.09	2.50	40.59
18	-29.103992	153.070656	36.86	2.50	39.36
19	-29.104342	153.070622	35.58	2.50	38.08
20	-29.104344	153.070567	35.32	2.50	37.82
21	-29.105078	153.070575	39.57	2.50	42.07
22	-29.105080	153.070486	39.78	2.50	42.28
23	-29.105425	153.070458	37.46	2.50	39.96
24	-29.105431	153.069433	34.45	2.50	36.95
25	-29.105819	153.069408	43.72	2.50	46.22
26	-29.105819	153.069053	44.69	2.50	47.19
27	-29.106167	153.069022	39.39	2.50	41.89
28	-29.106167	153.068725	33.07	2.50	35.57
29	-29.106519	153.068689	38.03	2.50	40.53
30	-29.106520	153.059578	36.08	2.50	38.58
31	-29.104344	153.059583	36.72	2.50	39.22
32	-29.104347	153.059308	37.07	2.50	39.57
33	-29.103989	153.059278	37.85	2.50	40.35
34	-29.103989	153.059139	38.21	2.50	40.71
35	-29.103253	153.059111	40.68	2.50	43.18
36	-29.103253	153.058922	39.83	2.50	42.33
37	-29.102544	153.058922	38.08	2.50	40.58
38	-29.102544	153.059133	37.66	2.50	40.16

Name: PV array 18
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 5.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.109586	153.069572	30.93	2.50	33.43
2	-29.109592	153.071361	29.24	2.50	31.74
3	-29.109972	153.071386	29.96	2.50	32.46
4	-29.109978	153.072467	30.00	2.50	32.50
5	-29.110311	153.072500	30.00	2.50	32.50
6	-29.110319	153.073303	31.15	2.50	33.65
7	-29.110672	153.073361	30.64	2.50	33.14
8	-29.112108	153.073353	28.68	2.50	31.18
9	-29.112119	153.072439	30.64	2.50	33.14
10	-29.112300	153.072442	30.87	2.50	33.37
11	-29.112300	153.074256	29.00	2.50	31.50
12	-29.112653	153.074275	29.74	2.50	32.24
13	-29.112661	153.074633	29.77	2.50	32.27
14	-29.113006	153.074628	30.79	2.50	33.29
15	-29.113006	153.076522	29.89	2.50	32.39
16	-29.112797	153.076511	29.59	2.50	32.09
17	-29.112797	153.078297	26.43	2.50	28.93
18	-29.113372	153.078353	27.13	2.50	29.63
19	-29.114981	153.078347	29.88	2.50	32.38
20	-29.114969	153.078094	29.97	2.50	32.47
21	-29.115317	153.078075	30.26	2.50	32.76
22	-29.115320	153.076460	34.27	2.50	36.77
23	-29.115528	153.076456	33.21	2.50	35.71
24	-29.115525	153.070742	31.94	2.50	34.44
25	-29.114467	153.070742	30.74	2.50	33.24
26	-29.114467	153.070797	30.48	2.50	32.98
27	-29.113725	153.070797	30.05	2.50	32.55
28	-29.113725	153.070239	31.57	2.50	34.07
29	-29.113350	153.070219	31.26	2.50	33.76
30	-29.113350	153.070125	31.37	2.50	33.87
31	-29.113000	153.070100	31.06	2.50	33.56
32	-29.113000	153.069572	31.53	2.50	34.03

Name: PV array 19
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 5.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.095008	153.049878	30.65	2.50	33.15
2	-29.095006	153.067636	55.88	2.50	58.38
3	-29.095361	153.067678	52.05	2.50	54.55
4	-29.095372	153.070639	54.94	2.50	57.44
5	-29.095722	153.070672	51.58	2.50	54.08
6	-29.095733	153.071469	49.76	2.50	52.26
7	-29.097678	153.071458	43.37	2.50	45.87
8	-29.097692	153.071583	43.76	2.50	46.26
9	-29.099842	153.071569	35.11	2.50	37.61
10	-29.099842	153.071353	33.97	2.50	36.47
11	-29.100928	153.071347	33.60	2.50	36.10
12	-29.100928	153.071208	33.60	2.50	36.10
13	-29.101667	153.071186	35.03	2.50	37.53
14	-29.101658	153.071047	35.08	2.50	37.58
15	-29.102022	153.071031	35.02	2.50	37.52
16	-29.102020	153.047342	32.77	2.50	35.27
17	-29.102114	153.047336	32.68	2.50	35.18
18	-29.102111	153.044069	34.04	2.50	36.54
19	-29.102019	153.044086	34.00	2.50	36.50
20	-29.102014	153.039336	38.65	2.50	41.15
21	-29.099867	153.039331	37.84	2.50	40.34
22	-29.099861	153.040528	36.06	2.50	38.56
23	-29.099494	153.040547	35.30	2.50	37.80
24	-29.099494	153.043892	32.13	2.50	34.63
25	-29.100950	153.043914	33.56	2.50	36.06
26	-29.100958	153.045236	34.06	2.50	36.56
27	-29.100580	153.045280	34.35	2.50	36.85
28	-29.100570	153.046140	33.76	2.50	36.26
29	-29.100220	153.046170	35.46	2.50	37.96
30	-29.100220	153.046440	35.17	2.50	37.67
31	-29.100570	153.046470	33.65	2.50	36.15
32	-29.100570	153.046810	33.54	2.50	36.04
33	-29.100220	153.046830	34.76	2.50	37.26
34	-29.100220	153.048570	34.30	2.50	36.80
35	-29.099860	153.048580	34.26	2.50	36.76
36	-29.099860	153.055040	30.23	2.50	32.73
37	-29.097520	153.055040	29.19	2.50	31.69
38	-29.097508	153.049244	29.61	2.50	32.11
39	-29.096461	153.049253	28.44	2.50	30.94

Name: PV array 2
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 5.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.103011	153.028981	45.87	2.50	48.37
2	-29.103033	153.031867	42.45	2.50	44.95
3	-29.105117	153.031872	39.58	2.50	42.08
4	-29.105139	153.029231	43.48	2.50	45.98
5	-29.104064	153.029211	43.73	2.50	46.23
6	-29.104044	153.028956	41.58	2.50	44.08

Name: PV array 20
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 5.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.097756	153.046586	30.04	2.50	32.54
2	-29.097722	153.046661	30.51	2.50	33.01
3	-29.097722	153.050819	31.18	2.50	33.68
4	-29.098397	153.050817	30.55	2.50	33.05
5	-29.098400	153.050675	29.78	2.50	32.28
6	-29.098433	153.050681	29.76	2.50	32.26
7	-29.098430	153.049186	29.93	2.50	32.43
8	-29.098747	153.049158	31.20	2.50	33.70
9	-29.098744	153.049008	30.31	2.50	32.81
10	-29.098781	153.048992	30.37	2.50	32.87
11	-29.098789	153.045769	30.60	2.50	33.10
12	-29.098081	153.045769	31.10	2.50	33.60
13	-29.098089	153.046567	32.80	2.50	35.30

Name: PV array 21
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 5.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.119964	153.067553	34.62	2.50	37.12
2	-29.119931	153.071286	34.59	2.50	37.09
3	-29.120281	153.071325	33.95	2.50	36.45
4	-29.120344	153.073556	31.66	2.50	34.16
5	-29.120458	153.073553	31.39	2.50	33.89
6	-29.120464	153.075878	34.40	2.50	36.90
7	-29.120114	153.075856	33.35	2.50	35.85
8	-29.120114	153.078875	29.83	2.50	32.33
9	-29.120853	153.078881	29.81	2.50	32.31
10	-29.120853	153.078372	29.48	2.50	31.98
11	-29.121589	153.078375	30.72	2.50	33.22
12	-29.121597	153.077969	30.34	2.50	32.84
13	-29.121947	153.077806	30.38	2.50	32.88
14	-29.121947	153.077344	29.07	2.50	31.57
15	-29.122303	153.077336	29.04	2.50	31.54
16	-29.122294	153.075361	32.04	2.50	34.54
17	-29.121594	153.075361	34.77	2.50	37.27
18	-29.121586	153.073336	29.42	2.50	31.92
19	-29.121239	153.073328	29.58	2.50	32.08
20	-29.121294	153.070856	32.46	2.50	34.96
21	-29.121714	153.070683	31.91	2.50	34.41
22	-29.121714	153.070081	32.74	2.50	35.24
23	-29.122067	153.069833	32.73	2.50	35.23
24	-29.122103	153.067342	29.46	2.50	31.96
25	-29.121022	153.067347	32.75	2.50	35.25
26	-29.121022	153.067553	32.13	2.50	34.63

Name: PV array 22
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 5.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.114775	153.080247	54.75	2.50	57.25
2	-29.114775	153.080583	53.92	2.50	56.42
3	-29.115122	153.080614	56.19	2.50	58.69
4	-29.115125	153.080961	59.96	2.50	62.46
5	-29.115822	153.080961	55.06	2.50	57.56
6	-29.115822	153.080836	49.55	2.50	52.05
7	-29.116564	153.080797	49.76	2.50	52.26
8	-29.116564	153.080217	46.19	2.50	48.69
9	-29.116928	153.080192	43.83	2.50	46.33
10	-29.116928	153.079286	43.59	2.50	46.09
11	-29.117444	153.079256	45.43	2.50	47.93
12	-29.117444	153.078672	40.64	2.50	43.14
13	-29.117797	153.078642	41.60	2.50	44.10
14	-29.117797	153.078194	41.85	2.50	44.35
15	-29.117103	153.078194	41.39	2.50	43.89
16	-29.117103	153.078386	41.00	2.50	43.50
17	-29.116203	153.078425	51.19	2.50	53.69
18	-29.116208	153.078614	48.69	2.50	51.19
19	-29.115853	153.078644	55.75	2.50	58.25
20	-29.115853	153.079003	60.58	2.50	63.08
21	-29.115475	153.079028	56.40	2.50	58.90
22	-29.115481	153.079553	48.27	2.50	50.77
23	-29.115125	153.079589	49.11	2.50	51.61
24	-29.115128	153.080219	57.49	2.50	59.99

Name: PV array 23
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 5.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.115711	153.068300	41.50	2.50	44.00
2	-29.115708	153.077564	41.51	2.50	44.01
3	-29.116775	153.077617	41.78	2.50	44.28
4	-29.116775	153.077372	41.72	2.50	44.22
5	-29.117500	153.077344	41.23	2.50	43.73
6	-29.117500	153.077214	40.70	2.50	43.20
7	-29.117853	153.077178	40.00	2.50	42.50
8	-29.117858	153.077039	40.44	2.50	42.94
9	-29.118383	153.077014	41.50	2.50	44.00
10	-29.118383	153.076644	41.18	2.50	43.68
11	-29.118739	153.076631	40.28	2.50	42.78
12	-29.118739	153.075653	39.12	2.50	41.62
13	-29.119083	153.075622	38.34	2.50	40.84
14	-29.119083	153.072625	39.10	2.50	41.60
15	-29.118736	153.072594	40.48	2.50	42.98
16	-29.118736	153.068858	40.41	2.50	42.91
17	-29.118383	153.068831	42.05	2.50	44.55
18	-29.118383	153.067967	42.40	2.50	44.90
19	-29.116806	153.067970	42.22	2.50	44.72
20	-29.116810	153.068106	42.02	2.50	44.52
21	-29.116053	153.068131	41.65	2.50	44.15
22	-29.116050	153.068272	42.27	2.50	44.77

Name: PV array 3
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 5.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.103158	153.033744	37.67	2.50	40.17
2	-29.103161	153.034311	44.09	2.50	46.59
3	-29.103506	153.034347	49.91	2.50	52.41
4	-29.103506	153.035361	50.39	2.50	52.89
5	-29.103864	153.035389	48.02	2.50	50.52
6	-29.103864	153.035694	46.05	2.50	48.55
7	-29.104236	153.035733	43.39	2.50	45.89
8	-29.104242	153.036075	41.79	2.50	44.29
9	-29.105681	153.036081	43.07	2.50	45.57
10	-29.105678	153.035300	40.37	2.50	42.87
11	-29.105300	153.035261	38.35	2.50	40.85
12	-29.105300	153.033747	38.15	2.50	40.65

Name: PV array 4
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 5.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.100956	153.029697	61.70	2.50	64.20
2	-29.100960	153.033861	52.05	2.50	54.55
3	-29.102319	153.033872	41.22	2.50	43.72
4	-29.102206	153.029711	55.91	2.50	58.41

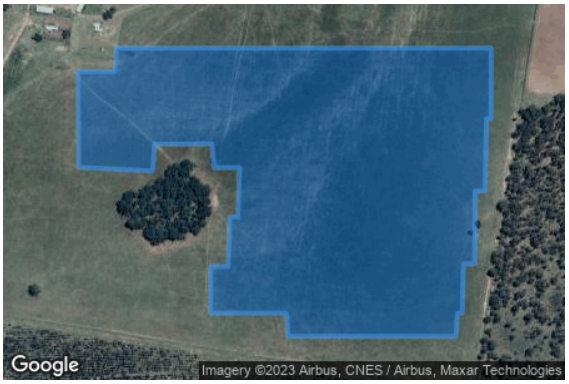
Name: PV array 5
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 5.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.096244	153.020017	63.68	2.50	66.18
2	-29.096258	153.021258	58.95	2.50	61.45
3	-29.096144	153.021281	58.13	2.50	60.63
4	-29.096142	153.022628	52.57	2.50	55.07
5	-29.096497	153.022653	51.62	2.50	54.12
6	-29.096506	153.025769	53.56	2.50	56.06
7	-29.096856	153.025817	52.73	2.50	55.23
8	-29.096858	153.026111	52.97	2.50	55.47
9	-29.097494	153.026317	52.15	2.50	54.65
10	-29.097789	153.027056	53.44	2.50	55.94
11	-29.098275	153.027050	51.11	2.50	53.61
12	-29.098319	153.019792	51.02	2.50	53.52
13	-29.098064	153.019775	50.99	2.50	53.49
14	-29.097667	153.020156	52.49	2.50	54.99
15	-29.097636	153.020281	52.49	2.50	54.99
16	-29.096947	153.020283	54.63	2.50	57.13
17	-29.096931	153.020225	54.40	2.50	56.90
18	-29.096930	153.020225	52.63	2.50	55.13
19	-29.096930	153.020225	56.59	2.50	59.09

Name: PV array 6
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 5.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.098411	153.019708	52.49	2.50	54.99
2	-29.098410	153.022644	54.27	2.50	56.77
3	-29.098453	153.022644	54.17	2.50	56.67
4	-29.098453	153.025644	52.52	2.50	55.02
5	-29.098406	153.025644	52.52	2.50	55.02
6	-29.098410	153.026583	50.97	2.50	53.47
7	-29.098456	153.026583	50.96	2.50	53.46
8	-29.098460	153.028092	50.98	2.50	53.48
9	-29.098806	153.028111	49.50	2.50	52.00
10	-29.098814	153.028110	49.50	2.50	52.00
11	-29.100568	153.028106	43.03	2.50	45.53
12	-29.100578	153.028090	43.04	2.50	45.54
13	-29.100586	153.028083	43.04	2.50	45.54
14	-29.100586	153.024706	46.96	2.50	49.46
15	-29.100236	153.024675	47.84	2.50	50.34
16	-29.100236	153.024317	47.76	2.50	50.26
17	-29.099511	153.024286	51.07	2.50	53.57
18	-29.099503	153.021261	52.06	2.50	54.56
19	-29.099153	153.021256	51.64	2.50	54.14
20	-29.099147	153.019714	53.21	2.50	55.71

Name: PV array 7
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 5.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.102553	153.036561	61.89	2.50	64.39
2	-29.102550	153.037192	57.69	2.50	60.19
3	-29.102203	153.037222	56.56	2.50	59.06
4	-29.102200	153.043656	57.79	2.50	60.29
5	-29.103258	153.043656	59.96	2.50	62.46
6	-29.103258	153.043578	60.09	2.50	62.59
7	-29.104339	153.043550	61.32	2.50	63.82
8	-29.104344	153.043381	63.82	2.50	66.32
9	-29.105428	153.043375	64.55	2.50	67.05
10	-29.105430	153.043181	65.16	2.50	67.66
11	-29.106169	153.043158	66.84	2.50	69.34
12	-29.106170	153.043078	69.07	2.50	71.57
13	-29.106517	153.043053	71.34	2.50	73.84
14	-29.106517	153.040167	72.19	2.50	74.69
15	-29.106167	153.040136	70.00	2.50	72.50
16	-29.106167	153.038839	69.02	2.50	71.52
17	-29.105467	153.038839	69.78	2.50	72.28
18	-29.105470	153.039136	74.83	2.50	77.33
19	-29.104728	153.039169	75.24	2.50	77.74
20	-29.104728	153.039303	72.87	2.50	75.37
21	-29.103992	153.039336	67.81	2.50	70.31
22	-29.103990	153.038897	63.04	2.50	65.54
23	-29.103636	153.038858	60.65	2.50	63.15
24	-29.103640	153.037875	61.34	2.50	63.84
25	-29.104042	153.037839	65.75	2.50	68.25
26	-29.103986	153.036569	63.73	2.50	66.23

Name: PV array 8
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 5.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.092536	153.034539	49.37	2.50	51.87
2	-29.092539	153.034797	46.57	2.50	49.07
3	-29.091453	153.034833	44.03	2.50	46.53
4	-29.091453	153.034972	42.10	2.50	44.60
5	-29.091078	153.034981	41.53	2.50	44.03
6	-29.091078	153.035514	38.85	2.50	41.35
7	-29.091175	153.035525	37.65	2.50	40.15
8	-29.091308	153.036322	36.36	2.50	38.86
9	-29.092222	153.043542	34.71	2.50	37.21
10	-29.092350	153.043533	33.71	2.50	36.21
11	-29.092544	153.045875	34.18	2.50	36.68
12	-29.092803	153.045858	35.67	2.50	38.17
13	-29.092858	153.048208	36.30	2.50	38.80
14	-29.093097	153.049672	36.65	2.50	39.15
15	-29.093600	153.049675	36.09	2.50	38.59
16	-29.093600	153.034550	36.90	2.50	39.40
17	-29.093600	153.034550	38.56	2.50	41.06
18	-29.093600	153.034550	40.09	2.50	42.59
19	-29.093600	153.034550	43.30	2.50	45.80
20	-29.093600	153.034550	46.85	2.50	49.35
21	-29.093600	153.034550	50.12	2.50	52.62
22	-29.093600	153.034550	50.80	2.50	53.30

Name: PV array 9
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 5.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.093742	153.034075	47.59	2.50	50.09
2	-29.093742	153.047911	29.17	2.50	31.67
3	-29.093636	153.047906	29.32	2.50	31.82
4	-29.093640	153.047924	29.32	2.50	31.82
5	-29.094433	153.049239	29.11	2.50	31.61
6	-29.094433	153.049097	29.00	2.50	31.50
7	-29.094797	153.049075	29.37	2.50	31.87
8	-29.094797	153.048883	29.37	2.50	31.87
9	-29.095178	153.048853	29.93	2.50	32.43
10	-29.095178	153.048714	29.93	2.50	32.43
11	-29.095531	153.048686	29.56	2.50	32.06
12	-29.095533	153.048492	29.56	2.50	32.06
13	-29.095894	153.048458	29.04	2.50	31.54
14	-29.095890	153.034044	50.01	2.50	52.51

Route Receptors

Name: Avenue Road
Path type: Two-way
Observer view angle: 50.0°

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.104310	153.008342	42.58	2.40	44.98
2	-29.100917	153.012869	48.57	2.40	50.97
3	-29.099510	153.019414	55.62	2.40	58.02
4	-29.101310	153.026194	44.13	2.40	46.53
5	-29.100501	153.029799	39.40	2.40	41.80
6	-29.100182	153.033833	38.23	2.40	40.63
7	-29.099919	153.034691	38.36	2.40	40.76
8	-29.099619	153.036214	38.31	2.40	40.71
9	-29.099788	153.037373	38.57	2.40	40.97
10	-29.098748	153.043470	32.00	2.40	34.40
11	-29.096820	153.048507	29.92	2.40	32.32
12	-29.092638	153.050803	31.00	2.40	33.40
13	-29.089901	153.051575	41.28	2.40	43.68
14	-29.088341	153.054683	47.04	2.40	49.44
15	-29.087047	153.056636	55.63	2.40	58.03
16	-29.086241	153.058610	59.01	2.40	61.41
17	-29.084685	153.059683	59.79	2.40	62.19

Name: Main Camp Road
Path type: Two-way
Observer view angle: 50.0°

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.130769	153.064031	35.05	2.40	37.45
2	-29.130881	153.067035	33.07	2.40	35.47
3	-29.130450	153.072142	26.52	2.40	28.92
4	-29.129644	153.084169	26.00	2.40	28.40

Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (m)	Height (m)
OP 1	1	-29.098436	153.005919	57.00	1.50
OP 2	2	-29.098614	153.005617	58.18	1.50
OP 3	3	-29.098942	153.009817	58.46	1.50
OP 4	4	-29.104081	153.007164	43.97	1.50
OP 5	5	-29.105522	153.007317	42.09	1.50
OP 6	6	-29.104364	153.005417	45.19	1.50
OP 7	7	-29.105019	153.006536	45.10	1.50
OP 8	8	-29.117603	153.001347	38.65	1.50
OP 9	9	-29.083078	153.055558	73.37	1.50
OP 10	10	-29.076967	153.057103	64.26	1.50
OP 11	11	-29.080647	153.066289	49.73	1.50
OP 12	12	-29.083183	153.068906	49.76	1.50
OP 13	13	-29.080508	153.075694	58.03	1.50
OP 14	14	-29.072514	153.073319	58.38	1.50
OP 15	15	-29.079144	153.061150	62.76	1.50
OP 16	16	-29.084792	153.057350	64.28	1.50
OP 17	17	-29.087883	153.058739	46.82	1.50
OP 18	18	-29.081653	153.067194	53.77	1.50
OP 19	19	-29.085114	153.060258	60.28	1.50
OP 20	20	-29.090203	153.055103	40.01	1.50
OP 21	21	-29.106228	153.101144	34.31	1.50
OP 22	22	-29.084800	153.063742	69.22	1.50
OP 23	23	-29.084386	153.065572	66.41	1.50
OP 24	24	-29.084969	153.068331	50.01	1.50
OP 25	25	-29.081494	153.054019	74.64	1.50
OP 26	26	-29.131783	153.064194	34.19	1.50
OP 27	27	-29.132158	153.065619	34.34	1.50
OP 28	28	-29.131331	153.065711	36.18	1.50
OP 29	29	-29.138036	153.099008	43.00	1.50
OP 30	30	-29.134267	153.099875	41.44	1.50
OP 31	31	-29.138078	153.100536	38.27	1.50
OP 32	32	-29.132817	153.101467	42.08	1.50
OP 33	33	-29.134686	153.059939	31.67	1.50

Glare Analysis Results

Summary of Results

Glare with potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV array 1	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 10	SA tracking	SA tracking	32,564	542.7	27,392	456.5	-
PV array 15	SA tracking	SA tracking	583	9.7	127	2.1	-
PV array 16	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 17	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 18	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 19	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 2	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 20	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 21	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 22	SA tracking	SA tracking	287	4.8	0	0.0	-
PV array 23	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 3	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 4	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 5	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 6	SA tracking	SA tracking	779	13.0	2,145	35.8	-
PV array 7	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 8	SA tracking	SA tracking	4,461	74.3	21	0.3	-
PV array 9	SA tracking	SA tracking	0	0.0	0	0.0	-

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Avenue Road	20,028	333.8	29,558	492.6
Main Camp Road	2,540	42.3	127	2.1

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	157	2.6	0	0.0
OP 6	0	0.0	0	0.0
OP 7	75	1.2	0	0.0
OP 8	740	12.3	0	0.0
OP 9	307	5.1	0	0.0
OP 10	42	0.7	0	0.0
OP 11	278	4.6	0	0.0
OP 12	271	4.5	0	0.0
OP 13	284	4.7	0	0.0
OP 14	144	2.4	0	0.0
OP 15	195	3.2	0	0.0
OP 16	538	9.0	0	0.0
OP 17	123	2.0	0	0.0
OP 18	300	5.0	0	0.0
OP 19	306	5.1	0	0.0
OP 20	0	0.0	0	0.0
OP 21	296	4.9	0	0.0
OP 22	288	4.8	0	0.0
OP 23	280	4.7	0	0.0
OP 24	185	3.1	0	0.0
OP 25	57	0.9	0	0.0
OP 26	2,155	35.9	0	0.0
OP 27	1,953	32.5	0	0.0
OP 28	1,962	32.7	0	0.0
OP 29	468	7.8	0	0.0
OP 30	448	7.5	0	0.0
OP 31	504	8.4	0	0.0
OP 32	596	9.9	0	0.0
OP 33	3,154	52.6	0	0.0

PV: PV array 1 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 1 and Route: Avenue Road

No glare found

PV array 1 and Route: Main Camp Road

No glare found

PV array 1 and OP 1

No glare found

PV array 1 and OP 2

No glare found

PV array 1 and OP 3

No glare found

PV array 1 and OP 4

No glare found

PV array 1 and OP 5

No glare found

PV array 1 and OP 6

No glare found

PV array 1 and OP 7

No glare found

PV array 1 and OP 8

No glare found

PV array 1 and OP 9

No glare found

PV array 1 and OP 10

No glare found

PV array 1 and OP 11

No glare found

PV array 1 and OP 12

No glare found

PV array 1 and OP 13

No glare found

PV array 1 and OP 14

No glare found

PV array 1 and OP 15

No glare found

PV array 1 and OP 16

No glare found

PV array 1 and OP 17

No glare found

PV array 1 and OP 18

No glare found

PV array 1 and OP 19

No glare found

PV array 1 and OP 20

No glare found

PV array 1 and OP 21

No glare found

PV array 1 and OP 22

No glare found

PV array 1 and OP 23

No glare found

PV array 1 and OP 24

No glare found

PV array 1 and OP 25

No glare found

PV array 1 and OP 26

No glare found

PV array 1 and OP 27

No glare found

PV array 1 and OP 28

No glare found

PV array 1 and OP 29

No glare found

PV array 1 and OP 30

No glare found

PV array 1 and OP 31

No glare found

PV array 1 and OP 32

No glare found

PV array 1 and OP 33

No glare found

PV: PV array 10 potential temporary after-image

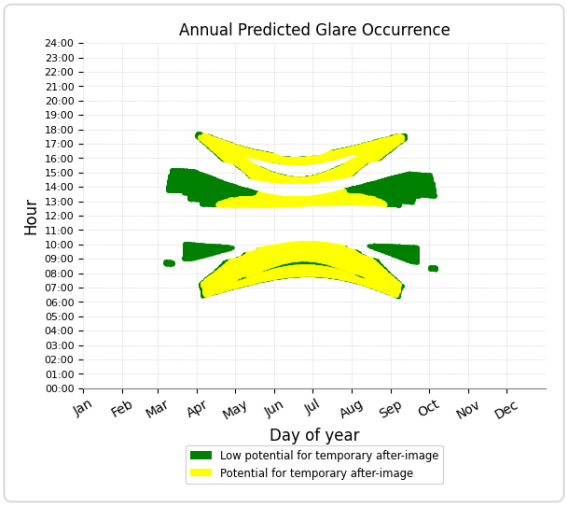
Receptor results ordered by category of glare

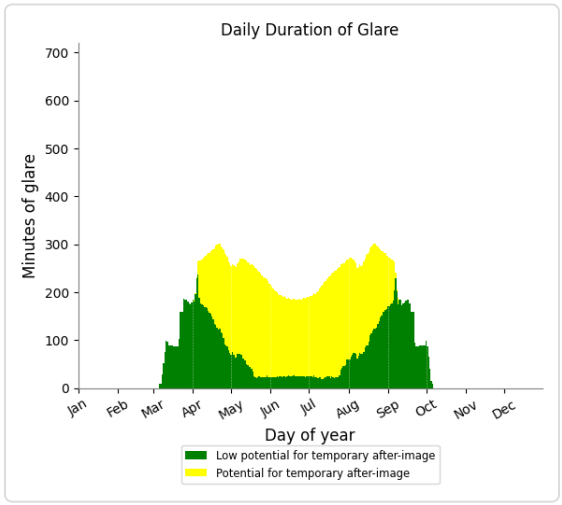
Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	18,386	306.4	27,392	456.5
Main Camp Road	2,253	37.5	0	0.0
OP 5	157	2.6	0	0.0
OP 7	75	1.2	0	0.0
OP 8	740	12.3	0	0.0
OP 26	2,155	35.9	0	0.0
OP 27	1,953	32.5	0	0.0
OP 28	1,962	32.7	0	0.0
OP 29	468	7.8	0	0.0
OP 30	448	7.5	0	0.0
OP 31	504	8.4	0	0.0
OP 32	309	5.2	0	0.0
OP 33	3,154	52.6	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0

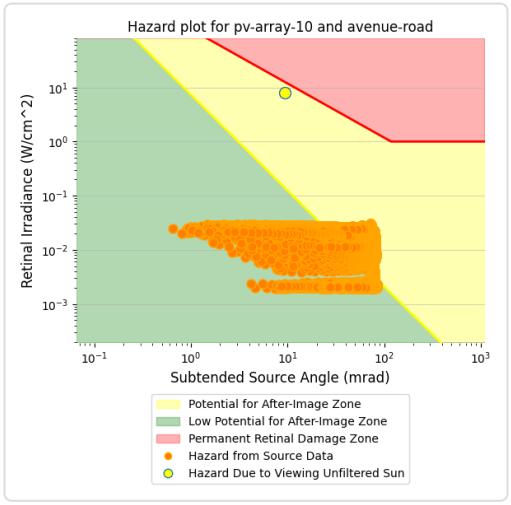
PV array 10 and Route: Avenue Road

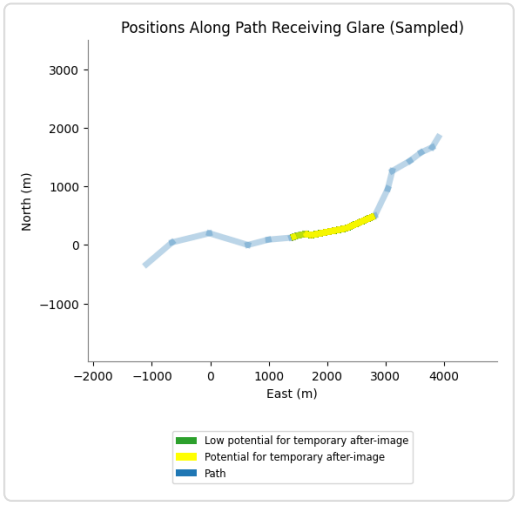
Yellow glare: 27,392 min.

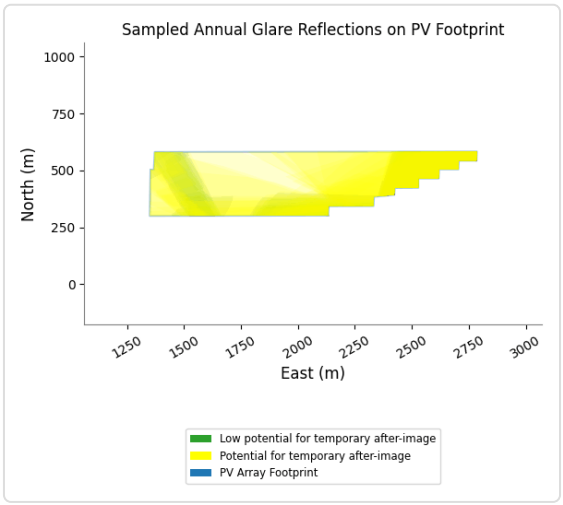
Green glare: 18,386 min.







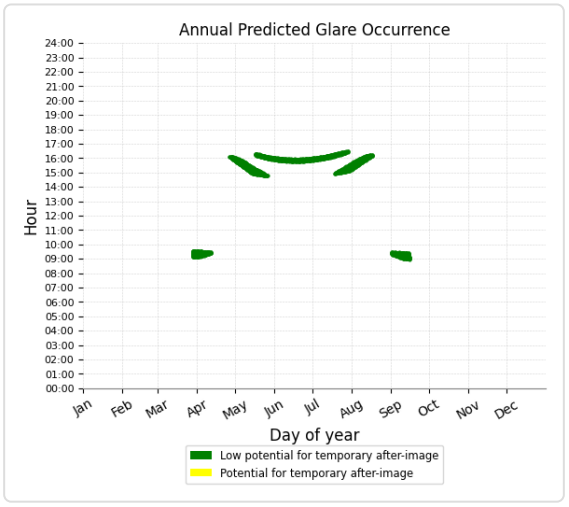


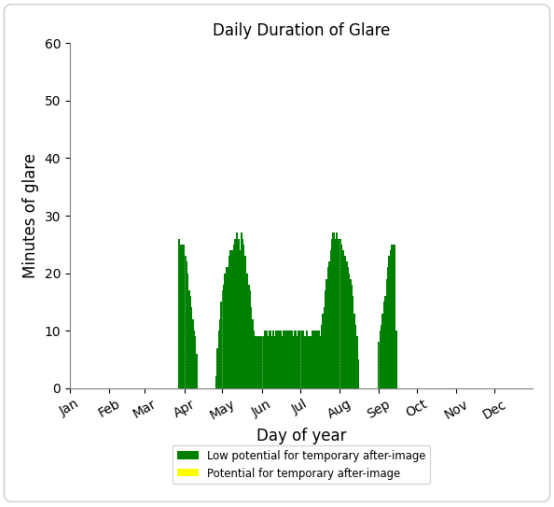


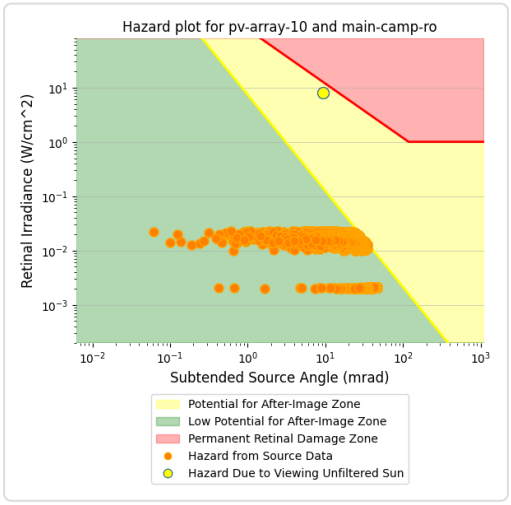
PV array 10 and Route: Main Camp Road

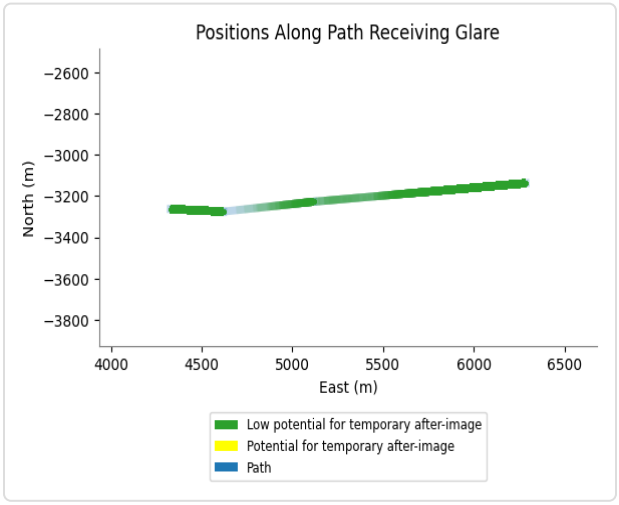
Yellow glare: none

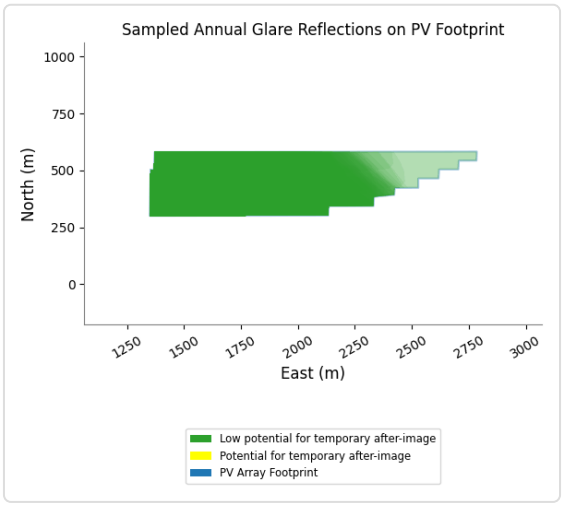
Green glare: 2,253 min.







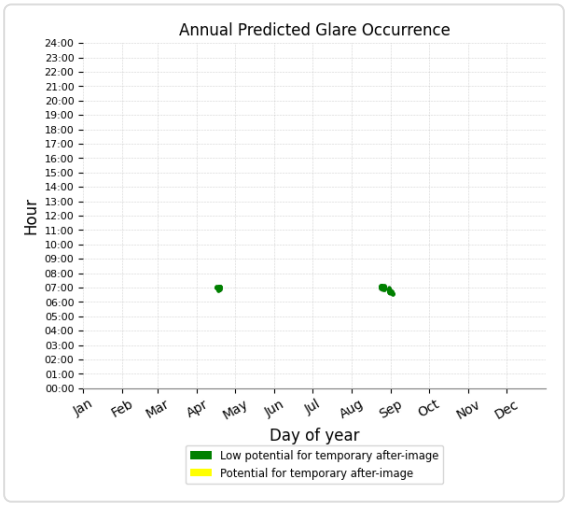


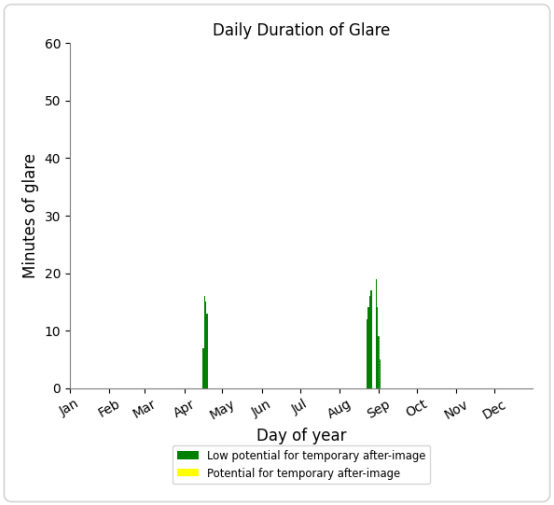


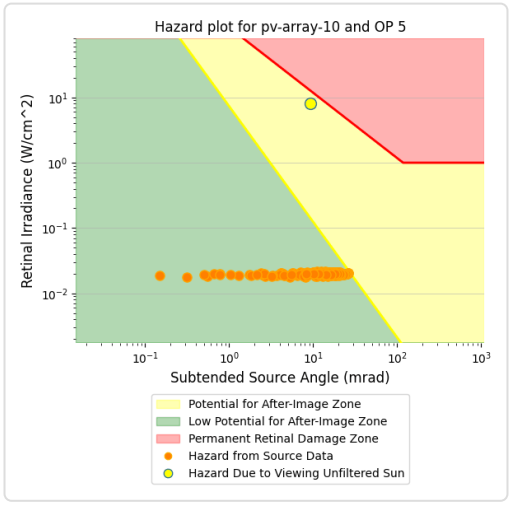
PV array 10 and OP 5

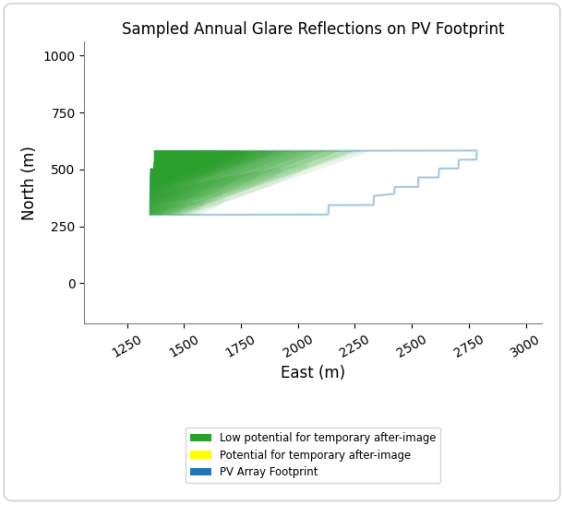
Yellow glare: none

Green glare: 157 min.





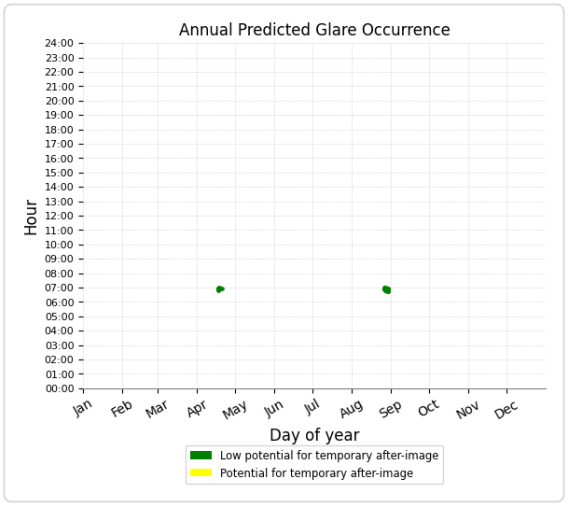


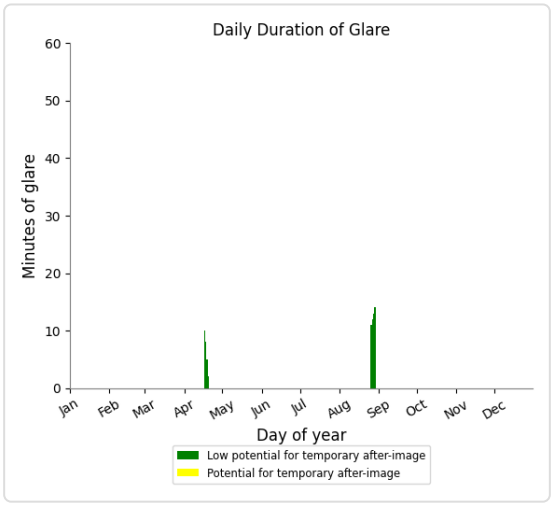


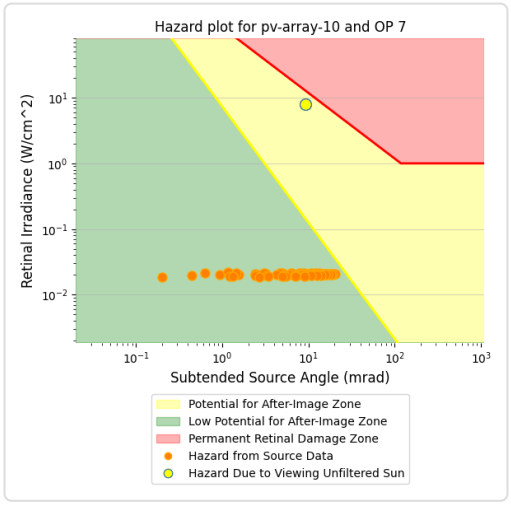
PV array 10 and OP 7

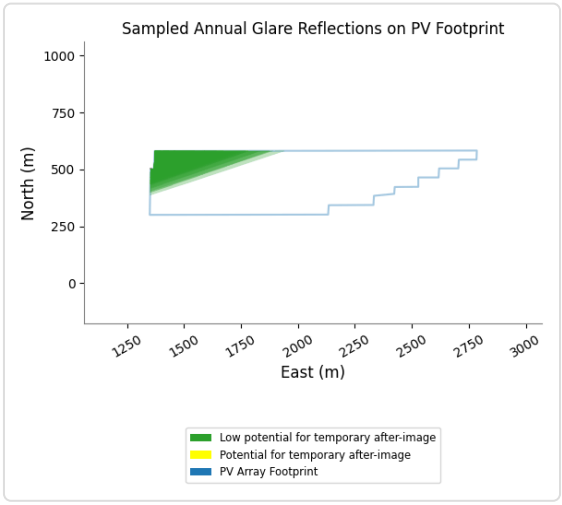
Yellow glare: none

Green glare: 75 min.





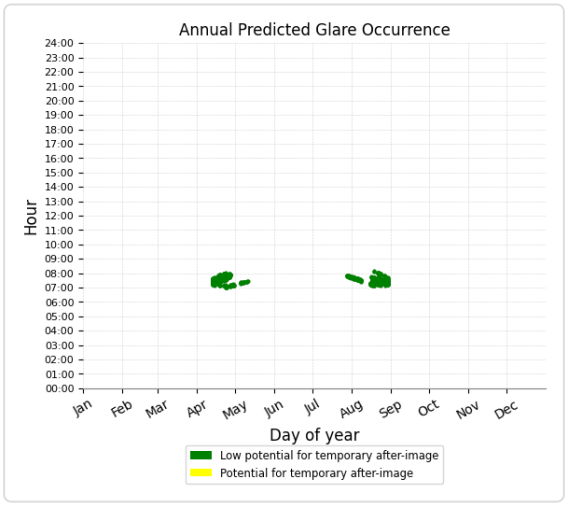


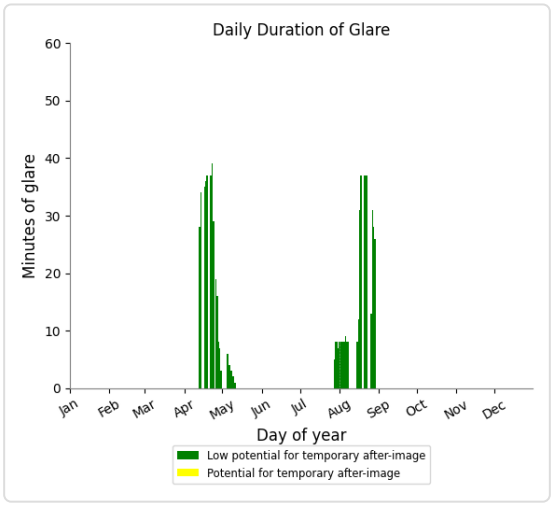


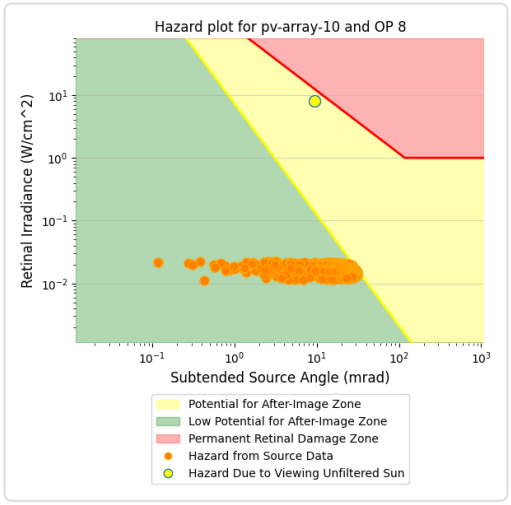
PV array 10 and OP 8

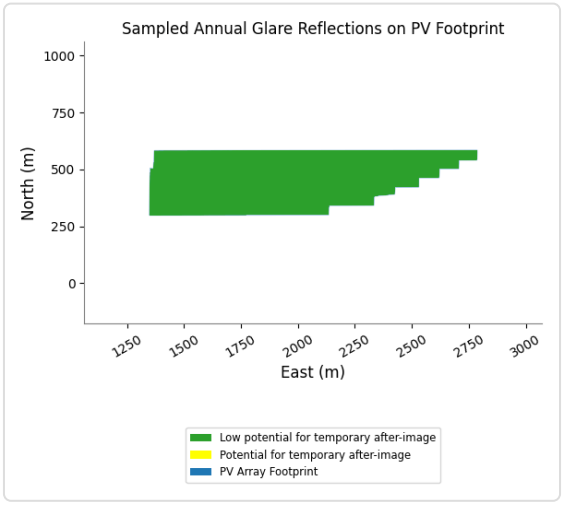
Yellow glare: none

Green glare: 740 min.





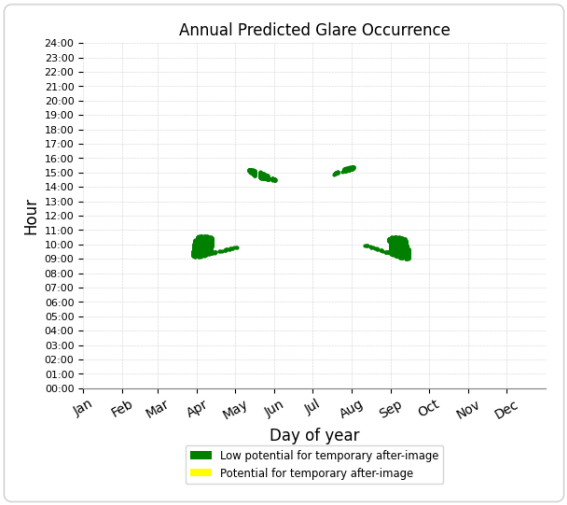


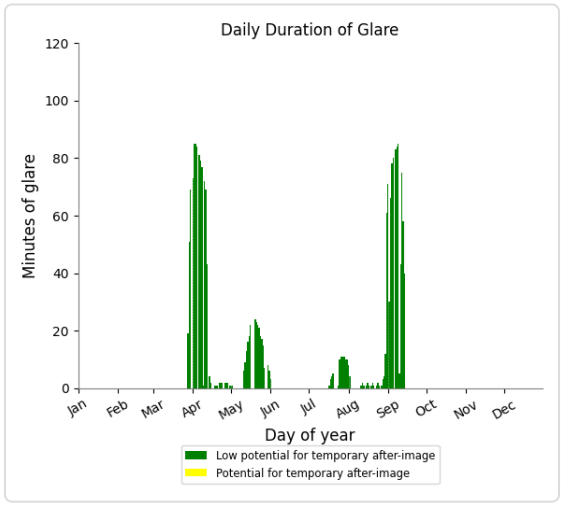


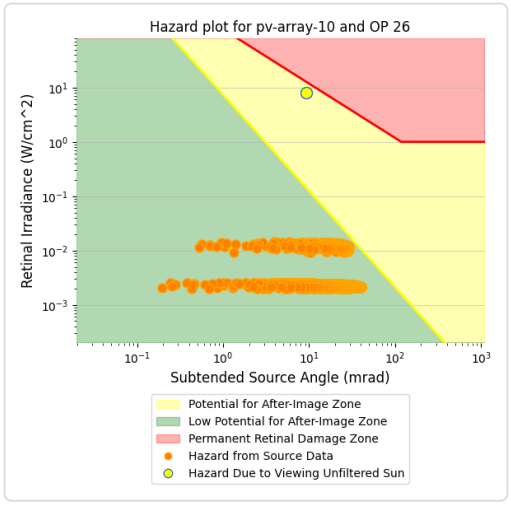
PV array 10 and OP 26

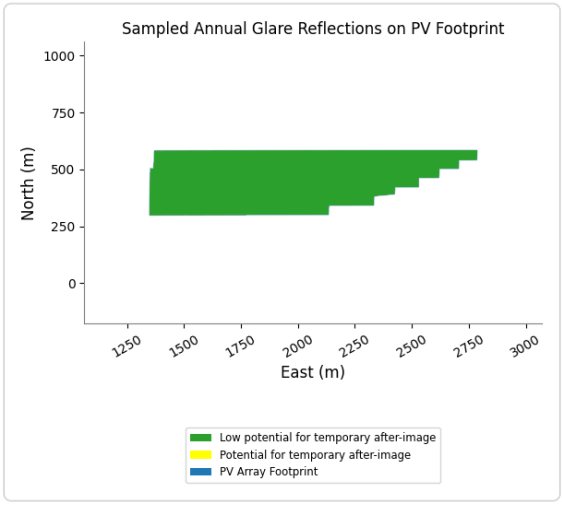
Yellow glare: none

Green glare: 2,155 min.





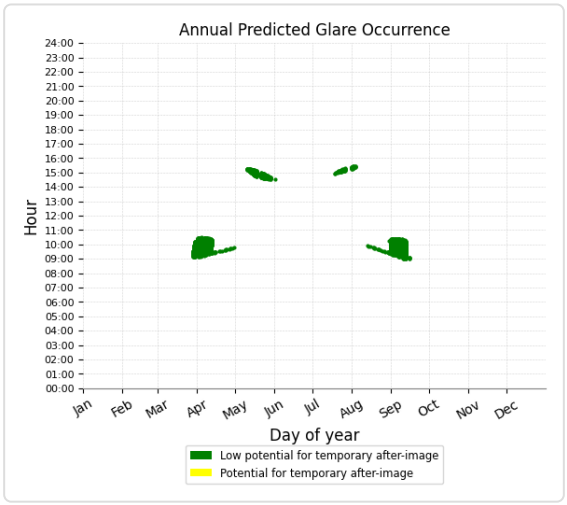


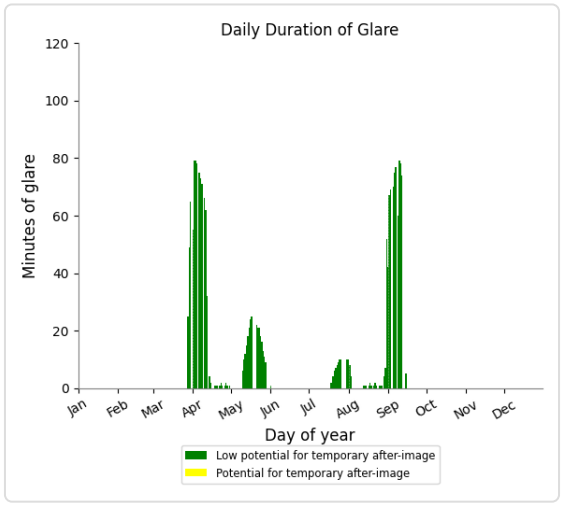


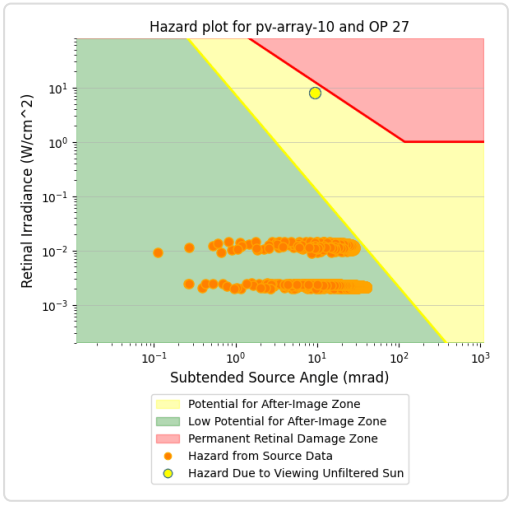
PV array 10 and OP 27

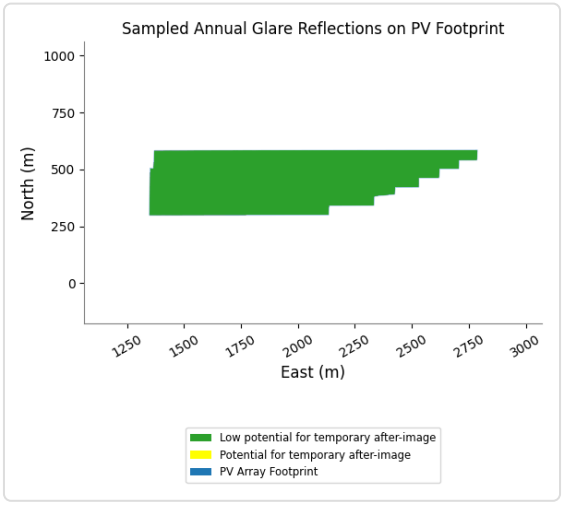
Yellow glare: none

Green glare: 1,953 min.





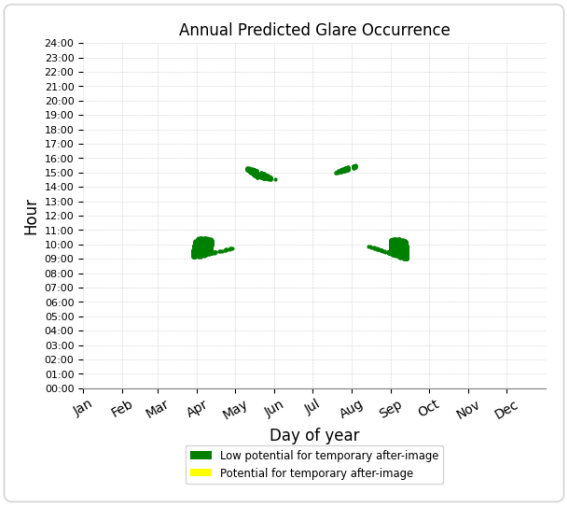


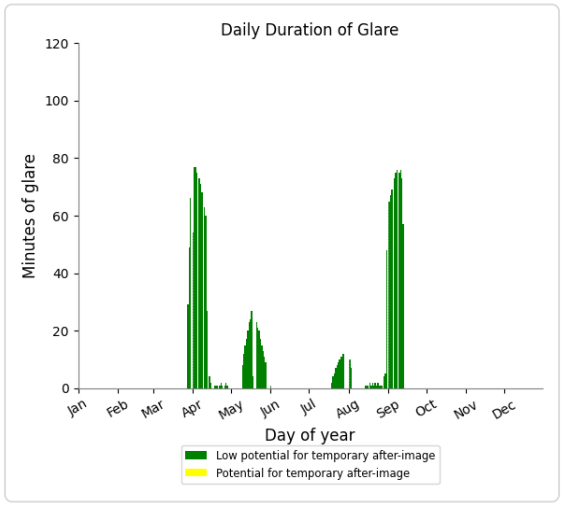


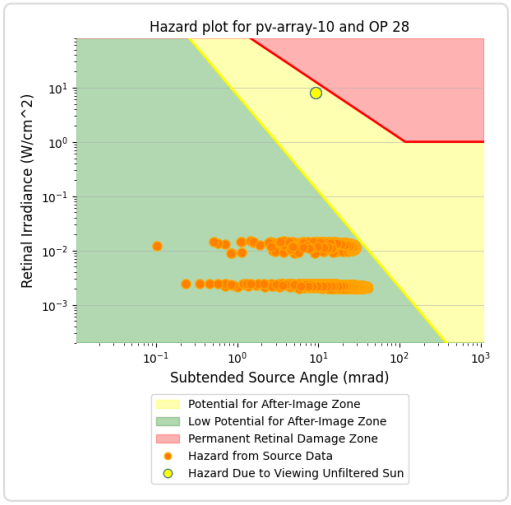
PV array 10 and OP 28

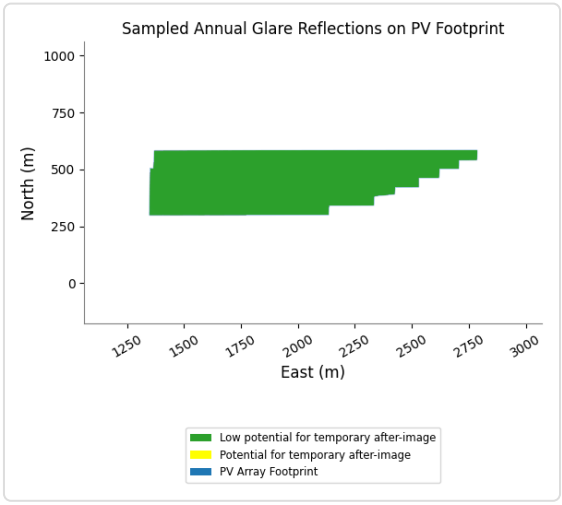
Yellow glare: none

Green glare: 1,962 min.





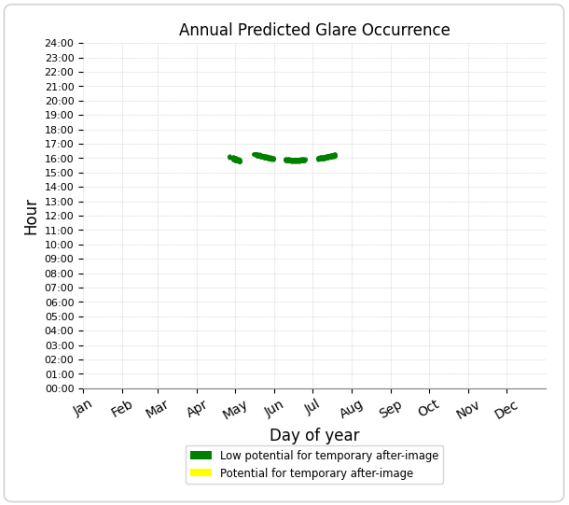


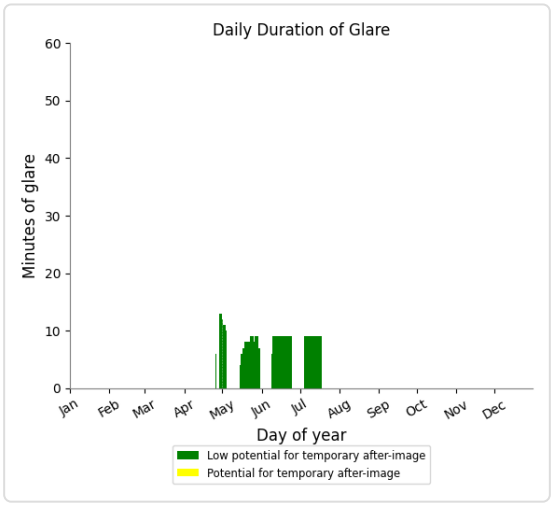


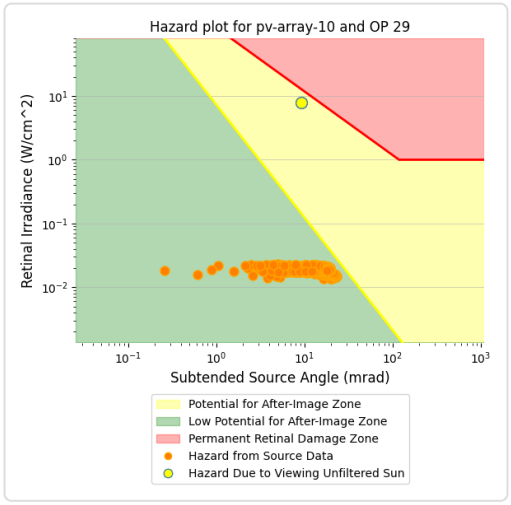
PV array 10 and OP 29

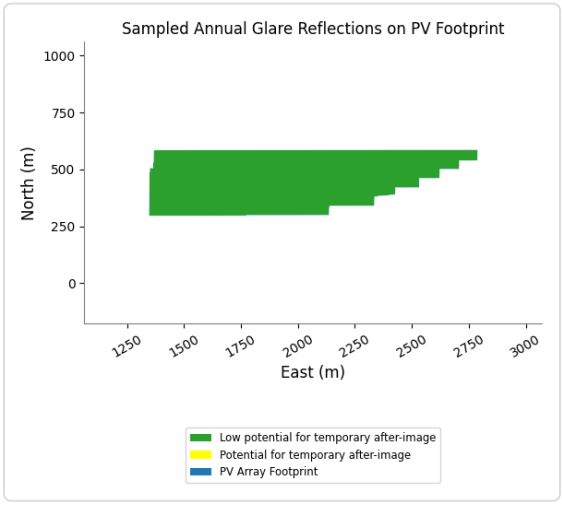
Yellow glare: none

Green glare: 468 min.





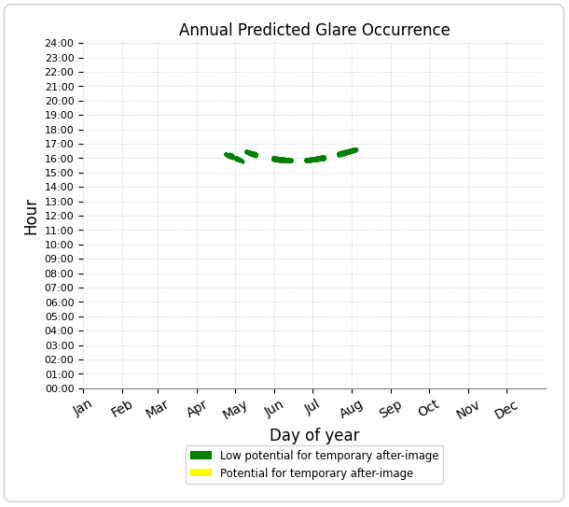


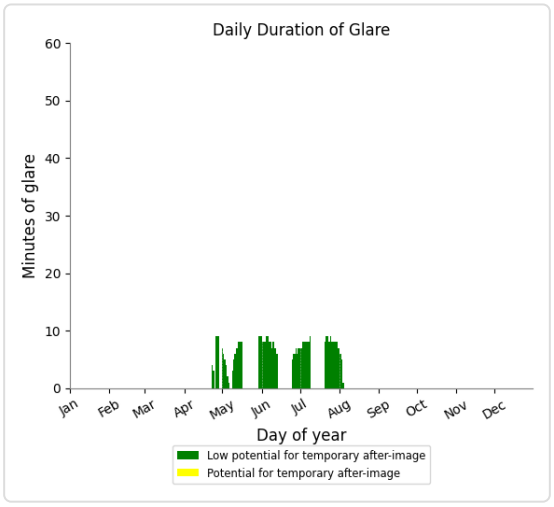


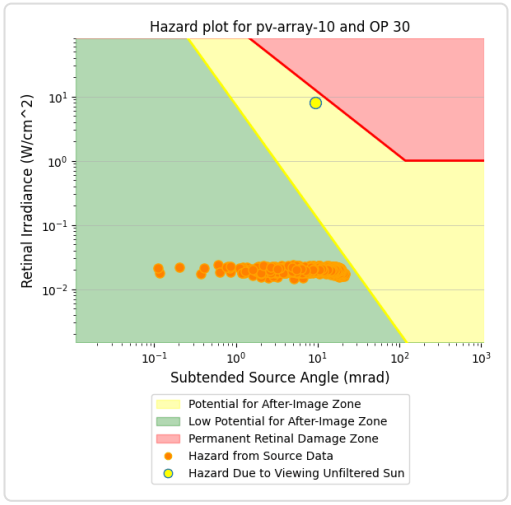
PV array 10 and OP 30

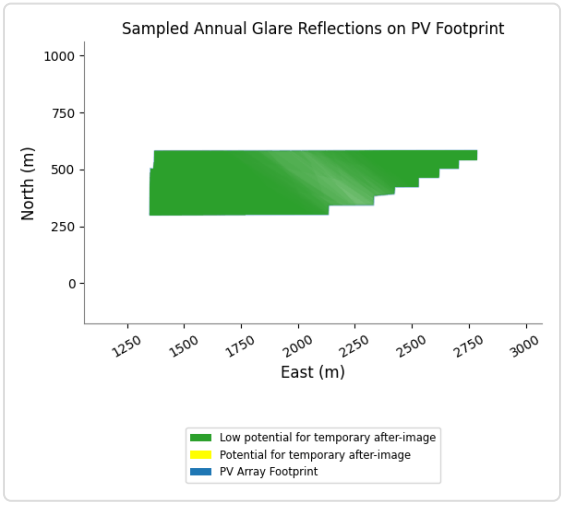
Yellow glare: none

Green glare: 448 min.





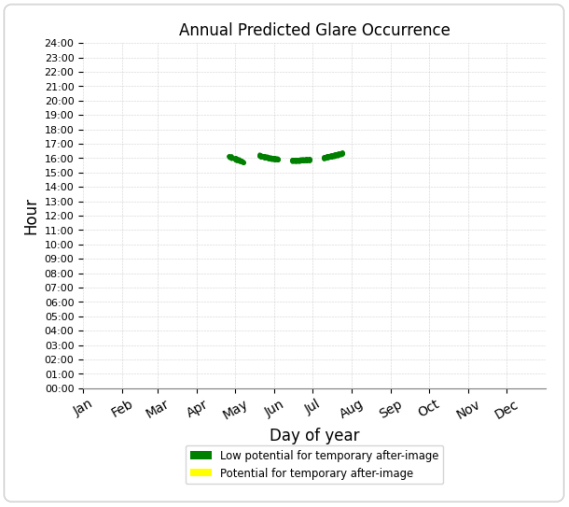


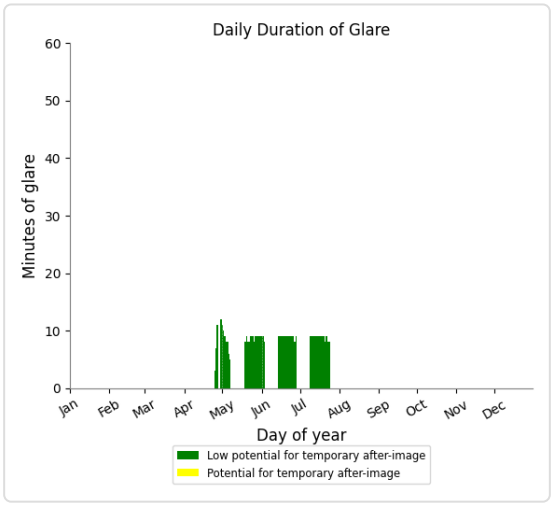


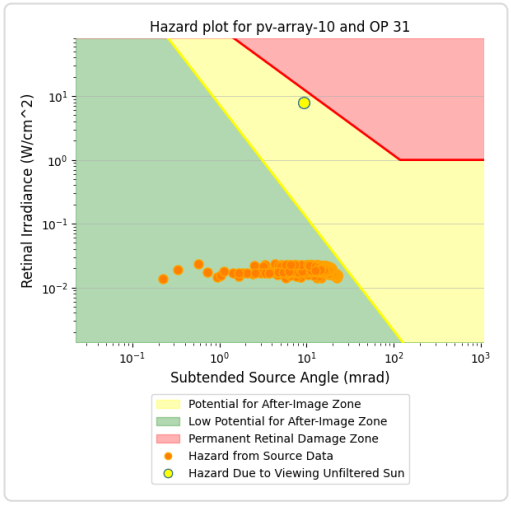
PV array 10 and OP 31

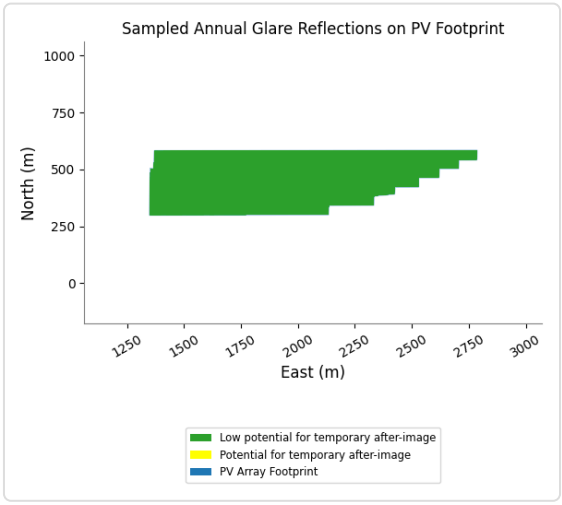
Yellow glare: none

Green glare: 504 min.





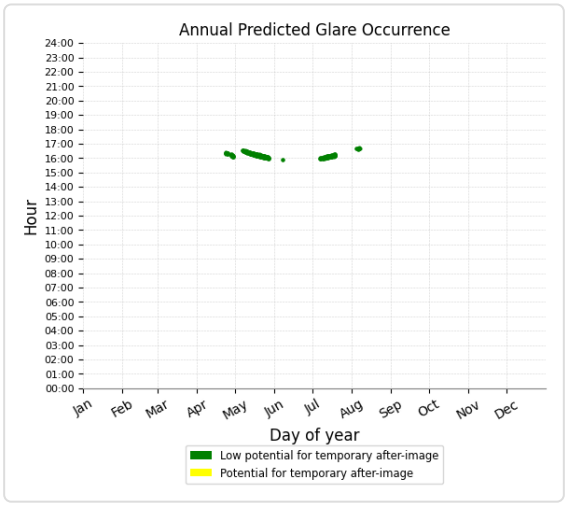


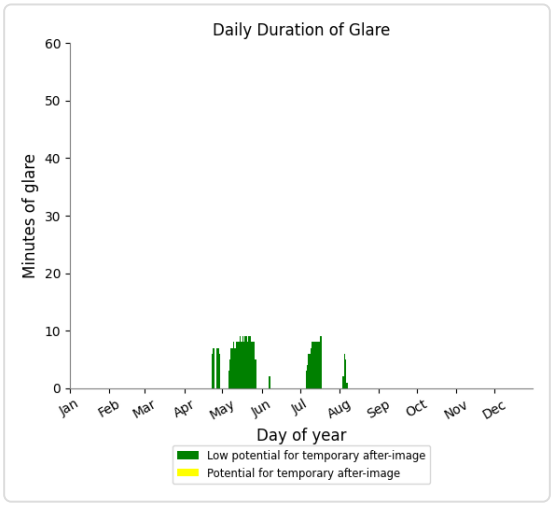


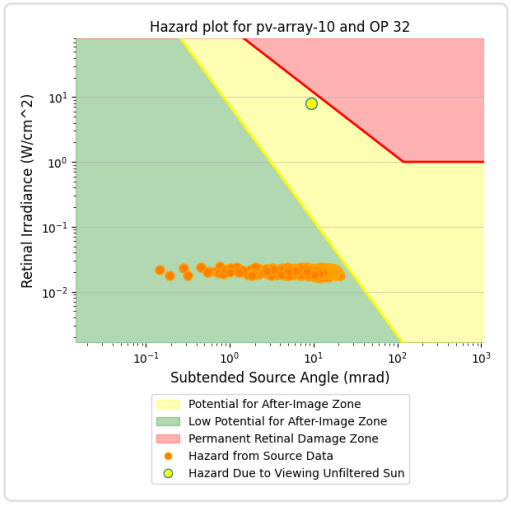
PV array 10 and OP 32

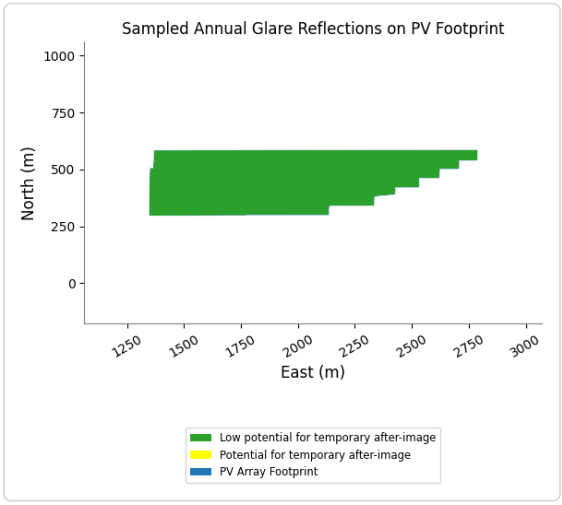
Yellow glare: none

Green glare: 309 min.





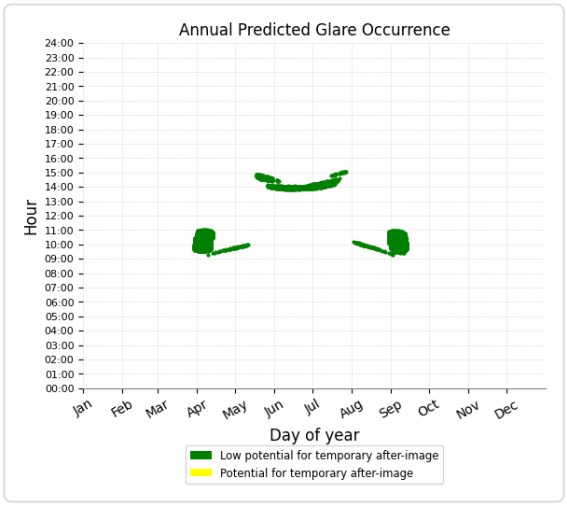


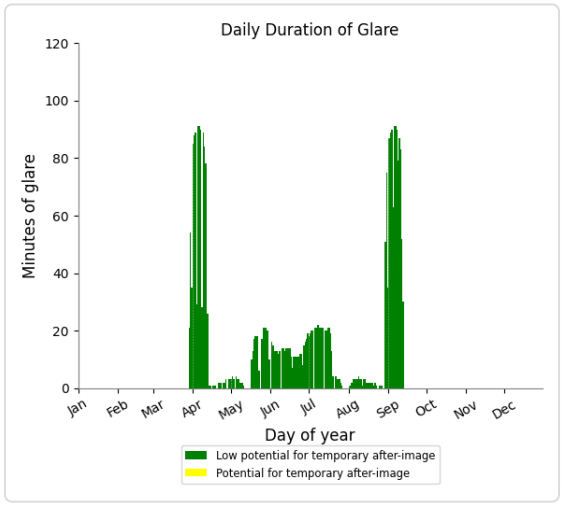


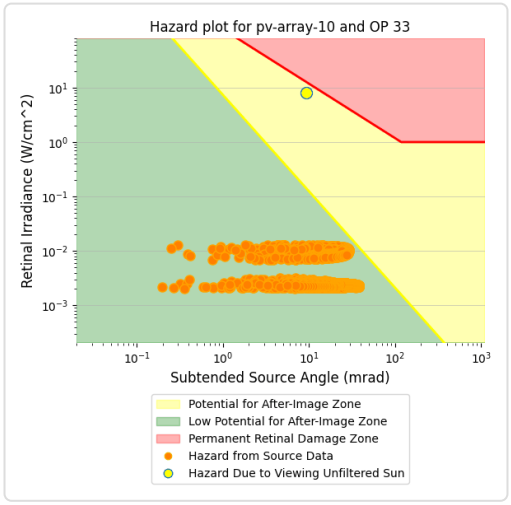
PV array 10 and OP 33

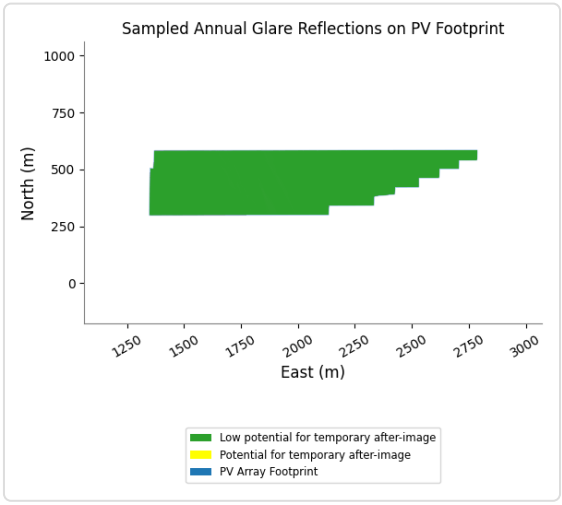
Yellow glare: none

Green glare: 3,154 min.









PV array 10 and OP 1

No glare found

PV array 10 and OP 2

No glare found

PV array 10 and OP 3

No glare found

PV array 10 and OP 4

No glare found

PV array 10 and OP 6

No glare found

PV array 10 and OP 9

No glare found

PV array 10 and OP 10

No glare found

PV array 10 and OP 11

No glare found

PV array 10 and OP 12

No glare found

PV array 10 and OP 13

No glare found

PV array 10 and OP 14

No glare found

PV array 10 and OP 15

No glare found

PV array 10 and OP 16

No glare found

PV array 10 and OP 17

No glare found

PV array 10 and OP 18

No glare found

PV array 10 and OP 19

No glare found

PV array 10 and OP 20

No glare found

PV array 10 and OP 21

No glare found

PV array 10 and OP 22

No glare found

PV array 10 and OP 23

No glare found

PV array 10 and OP 24

No glare found

PV array 10 and OP 25

No glare found

PV: PV array 15 potential temporary after-image

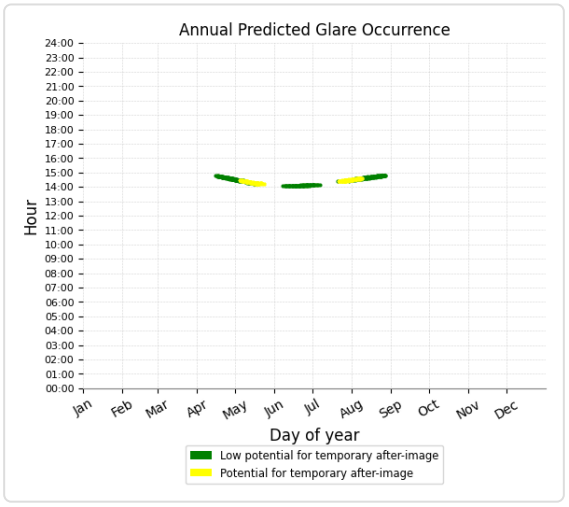
Receptor results ordered by category of glare

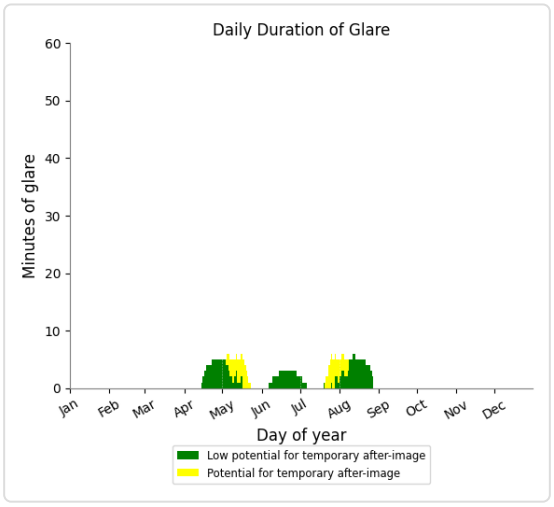
Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Main Camp Road	287	4.8	127	2.1
Avenue Road	0	0.0	0	0.0
OP 21	296	4.9	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

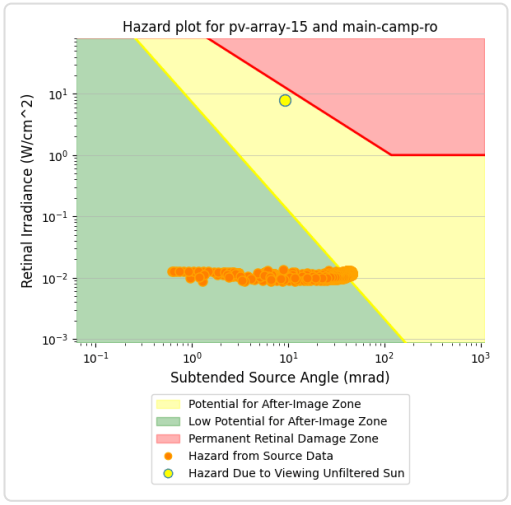
PV array 15 and Route: Main Camp Road

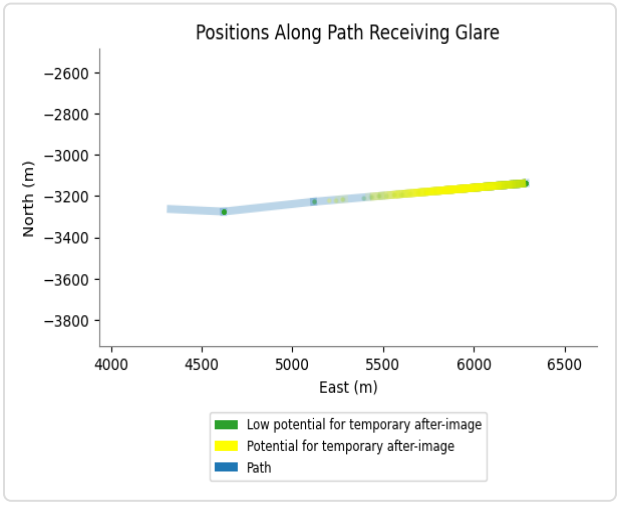
Yellow glare: 127 min.

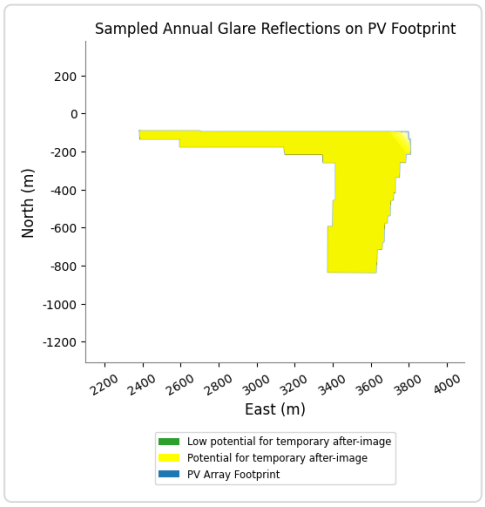
Green glare: 287 min.











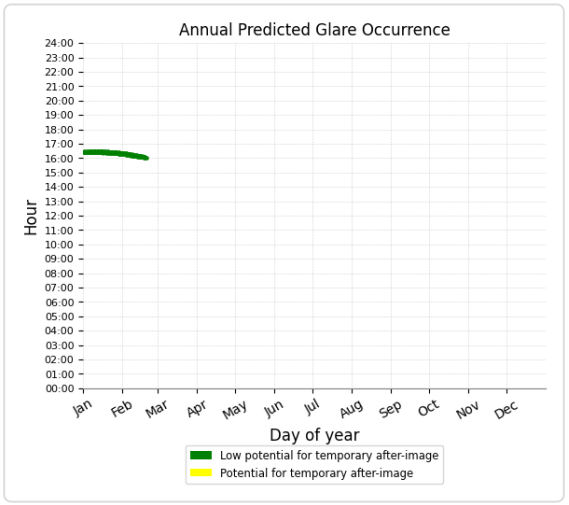
PV array 15 and Route: Avenue Road

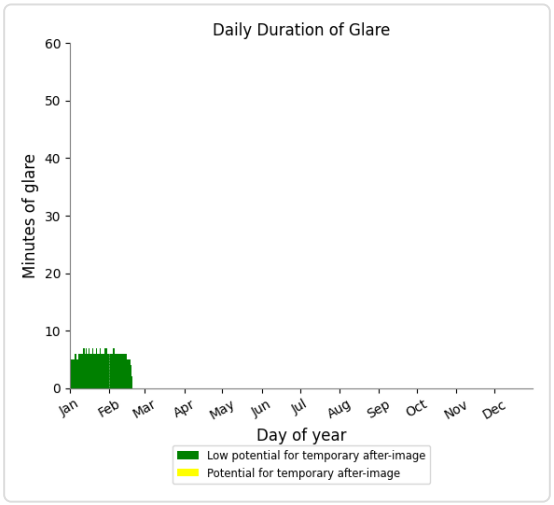
No glare found

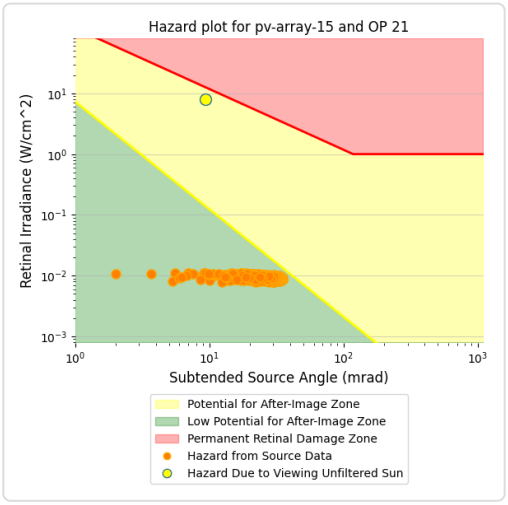
PV array 15 and OP 21

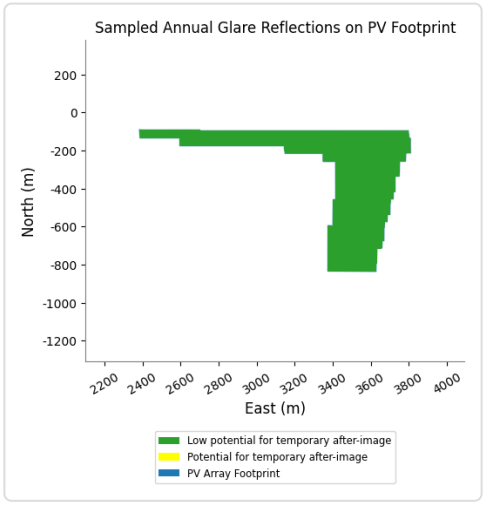
Yellow glare: none

Green glare: 296 min.









PV array 15 and OP 1

No glare found

PV array 15 and OP 2

No glare found

PV array 15 and OP 3

No glare found

PV array 15 and OP 4

No glare found

PV array 15 and OP 5

No glare found

PV array 15 and OP 6

No glare found

PV array 15 and OP 7

No glare found

PV array 15 and OP 8

No glare found

PV array 15 and OP 9

No glare found

PV array 15 and OP 10

No glare found

PV array 15 and OP 11

No glare found

PV array 15 and OP 12

No glare found

PV array 15 and OP 13

No glare found

PV array 15 and OP 14

No glare found

PV array 15 and OP 15

No glare found

PV array 15 and OP 16

No glare found

PV array 15 and OP 17

No glare found

PV array 15 and OP 18

No glare found

PV array 15 and OP 19

No glare found

PV array 15 and OP 20

No glare found

PV array 15 and OP 22

No glare found

PV array 15 and OP 23

No glare found

PV array 15 and OP 24

No glare found

PV array 15 and OP 25

No glare found

PV array 15 and OP 26

No glare found

PV array 15 and OP 27

No glare found

PV array 15 and OP 28

No glare found

PV array 15 and OP 29

No glare found

PV array 15 and OP 30

No glare found

PV array 15 and OP 31

No glare found

PV array 15 and OP 32

No glare found

PV array 15 and OP 33

No glare found

PV: PV array 16 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 16 and Route: Avenue Road

No glare found

PV array 16 and Route: Main Camp Road

No glare found

PV array 16 and OP 1

No glare found

PV array 16 and OP 2

No glare found

PV array 16 and OP 3

No glare found

PV array 16 and OP 4

No glare found

PV array 16 and OP 5

No glare found

PV array 16 and OP 6

No glare found

PV array 16 and OP 7

No glare found

PV array 16 and OP 8

No glare found

PV array 16 and OP 9

No glare found

PV array 16 and OP 10

No glare found

PV array 16 and OP 11

No glare found

PV array 16 and OP 12

No glare found

PV array 16 and OP 13

No glare found

PV array 16 and OP 14

No glare found

PV array 16 and OP 15

No glare found

PV array 16 and OP 16

No glare found

PV array 16 and OP 17

No glare found

PV array 16 and OP 18

No glare found

PV array 16 and OP 19

No glare found

PV array 16 and OP 20

No glare found

PV array 16 and OP 21

No glare found

PV array 16 and OP 22

No glare found

PV array 16 and OP 23

No glare found

PV array 16 and OP 24

No glare found

PV array 16 and OP 25

No glare found

PV array 16 and OP 26

No glare found

PV array 16 and OP 27

No glare found

PV array 16 and OP 28

No glare found

PV array 16 and OP 29

No glare found

PV array 16 and OP 30

No glare found

PV array 16 and OP 31

No glare found

PV array 16 and OP 32

No glare found

PV array 16 and OP 33

No glare found

PV: PV array 17 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 17 and Route: Avenue Road

No glare found

PV array 17 and Route: Main Camp Road

No glare found

PV array 17 and OP 1

No glare found

PV array 17 and OP 2

No glare found

PV array 17 and OP 3

No glare found

PV array 17 and OP 4

No glare found

PV array 17 and OP 5

No glare found

PV array 17 and OP 6

No glare found

PV array 17 and OP 7

No glare found

PV array 17 and OP 8

No glare found

PV array 17 and OP 9

No glare found

PV array 17 and OP 10

No glare found

PV array 17 and OP 11

No glare found

PV array 17 and OP 12

No glare found

PV array 17 and OP 13

No glare found

PV array 17 and OP 14

No glare found

PV array 17 and OP 15

No glare found

PV array 17 and OP 16

No glare found

PV array 17 and OP 17

No glare found

PV array 17 and OP 18

No glare found

PV array 17 and OP 19

No glare found

PV array 17 and OP 20

No glare found

PV array 17 and OP 21

No glare found

PV array 17 and OP 22

No glare found

PV array 17 and OP 23

No glare found

PV array 17 and OP 24

No glare found

PV array 17 and OP 25

No glare found

PV array 17 and OP 26

No glare found

PV array 17 and OP 27

No glare found

PV array 17 and OP 28

No glare found

PV array 17 and OP 29

No glare found

PV array 17 and OP 30

No glare found

PV array 17 and OP 31

No glare found

PV array 17 and OP 32

No glare found

PV array 17 and OP 33

No glare found

PV: PV array 18 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 18 and Route: Avenue Road

No glare found

PV array 18 and Route: Main Camp Road

No glare found

PV array 18 and OP 1

No glare found

PV array 18 and OP 2

No glare found

PV array 18 and OP 3

No glare found

PV array 18 and OP 4

No glare found

PV array 18 and OP 5

No glare found

PV array 18 and OP 6

No glare found

PV array 18 and OP 7

No glare found

PV array 18 and OP 8

No glare found

PV array 18 and OP 9

No glare found

PV array 18 and OP 10

No glare found

PV array 18 and OP 11

No glare found

PV array 18 and OP 12

No glare found

PV array 18 and OP 13

No glare found

PV array 18 and OP 14

No glare found

PV array 18 and OP 15

No glare found

PV array 18 and OP 16

No glare found

PV array 18 and OP 17

No glare found

PV array 18 and OP 18

No glare found

PV array 18 and OP 19

No glare found

PV array 18 and OP 20

No glare found

PV array 18 and OP 21

No glare found

PV array 18 and OP 22

No glare found

PV array 18 and OP 23

No glare found

PV array 18 and OP 24

No glare found

PV array 18 and OP 25

No glare found

PV array 18 and OP 26

No glare found

PV array 18 and OP 27

No glare found

PV array 18 and OP 28

No glare found

PV array 18 and OP 29

No glare found

PV array 18 and OP 30

No glare found

PV array 18 and OP 31

No glare found

PV array 18 and OP 32

No glare found

PV array 18 and OP 33

No glare found

PV: PV array 19 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 19 and Route: Avenue Road

No glare found

PV array 19 and Route: Main Camp Road

No glare found

PV array 19 and OP 1

No glare found

PV array 19 and OP 2

No glare found

PV array 19 and OP 3

No glare found

PV array 19 and OP 4

No glare found

PV array 19 and OP 5

No glare found

PV array 19 and OP 6

No glare found

PV array 19 and OP 7

No glare found

PV array 19 and OP 8

No glare found

PV array 19 and OP 9

No glare found

PV array 19 and OP 10

No glare found

PV array 19 and OP 11

No glare found

PV array 19 and OP 12

No glare found

PV array 19 and OP 13

No glare found

PV array 19 and OP 14

No glare found

PV array 19 and OP 15

No glare found

PV array 19 and OP 16

No glare found

PV array 19 and OP 17

No glare found

PV array 19 and OP 18

No glare found

PV array 19 and OP 19

No glare found

PV array 19 and OP 20

No glare found

PV array 19 and OP 21

No glare found

PV array 19 and OP 22

No glare found

PV array 19 and OP 23

No glare found

PV array 19 and OP 24

No glare found

PV array 19 and OP 25

No glare found

PV array 19 and OP 26

No glare found

PV array 19 and OP 27

No glare found

PV array 19 and OP 28

No glare found

PV array 19 and OP 29

No glare found

PV array 19 and OP 30

No glare found

PV array 19 and OP 31

No glare found

PV array 19 and OP 32

No glare found

PV array 19 and OP 33

No glare found

PV: PV array 2 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 2 and Route: Avenue Road

No glare found

PV array 2 and Route: Main Camp Road

No glare found

PV array 2 and OP 1

No glare found

PV array 2 and OP 2

No glare found

PV array 2 and OP 3

No glare found

PV array 2 and OP 4

No glare found

PV array 2 and OP 5

No glare found

PV array 2 and OP 6

No glare found

PV array 2 and OP 7

No glare found

PV array 2 and OP 8

No glare found

PV array 2 and OP 9

No glare found

PV array 2 and OP 10

No glare found

PV array 2 and OP 11

No glare found

PV array 2 and OP 12

No glare found

PV array 2 and OP 13

No glare found

PV array 2 and OP 14

No glare found

PV array 2 and OP 15

No glare found

PV array 2 and OP 16

No glare found

PV array 2 and OP 17

No glare found

PV array 2 and OP 18

No glare found

PV array 2 and OP 19

No glare found

PV array 2 and OP 20

No glare found

PV array 2 and OP 21

No glare found

PV array 2 and OP 22

No glare found

PV array 2 and OP 23

No glare found

PV array 2 and OP 24

No glare found

PV array 2 and OP 25

No glare found

PV array 2 and OP 26

No glare found

PV array 2 and OP 27

No glare found

PV array 2 and OP 28

No glare found

PV array 2 and OP 29

No glare found

PV array 2 and OP 30

No glare found

PV array 2 and OP 31

No glare found

PV array 2 and OP 32

No glare found

PV array 2 and OP 33

No glare found

PV: PV array 20 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 20 and Route: Avenue Road

No glare found

PV array 20 and Route: Main Camp Road

No glare found

PV array 20 and OP 1

No glare found

PV array 20 and OP 2

No glare found

PV array 20 and OP 3

No glare found

PV array 20 and OP 4

No glare found

PV array 20 and OP 5

No glare found

PV array 20 and OP 6

No glare found

PV array 20 and OP 7

No glare found

PV array 20 and OP 8

No glare found

PV array 20 and OP 9

No glare found

PV array 20 and OP 10

No glare found

PV array 20 and OP 11

No glare found

PV array 20 and OP 12

No glare found

PV array 20 and OP 13

No glare found

PV array 20 and OP 14

No glare found

PV array 20 and OP 15

No glare found

PV array 20 and OP 16

No glare found

PV array 20 and OP 17

No glare found

PV array 20 and OP 18

No glare found

PV array 20 and OP 19

No glare found

PV array 20 and OP 20

No glare found

PV array 20 and OP 21

No glare found

PV array 20 and OP 22

No glare found

PV array 20 and OP 23

No glare found

PV array 20 and OP 24

No glare found

PV array 20 and OP 25

No glare found

PV array 20 and OP 26

No glare found

PV array 20 and OP 27

No glare found

PV array 20 and OP 28

No glare found

PV array 20 and OP 29

No glare found

PV array 20 and OP 30

No glare found

PV array 20 and OP 31

No glare found

PV array 20 and OP 32

No glare found

PV array 20 and OP 33

No glare found

PV: PV array 21 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 21 and Route: Avenue Road

No glare found

PV array 21 and Route: Main Camp Road

No glare found

PV array 21 and OP 1

No glare found

PV array 21 and OP 2

No glare found

PV array 21 and OP 3

No glare found

PV array 21 and OP 4

No glare found

PV array 21 and OP 5

No glare found

PV array 21 and OP 6

No glare found

PV array 21 and OP 7

No glare found

PV array 21 and OP 8

No glare found

PV array 21 and OP 9

No glare found

PV array 21 and OP 10

No glare found

PV array 21 and OP 11

No glare found

PV array 21 and OP 12

No glare found

PV array 21 and OP 13

No glare found

PV array 21 and OP 14

No glare found

PV array 21 and OP 15

No glare found

PV array 21 and OP 16

No glare found

PV array 21 and OP 17

No glare found

PV array 21 and OP 18

No glare found

PV array 21 and OP 19

No glare found

PV array 21 and OP 20

No glare found

PV array 21 and OP 21

No glare found

PV array 21 and OP 22

No glare found

PV array 21 and OP 23

No glare found

PV array 21 and OP 24

No glare found

PV array 21 and OP 25

No glare found

PV array 21 and OP 26

No glare found

PV array 21 and OP 27

No glare found

PV array 21 and OP 28

No glare found

PV array 21 and OP 29

No glare found

PV array 21 and OP 30

No glare found

PV array 21 and OP 31

No glare found

PV array 21 and OP 32

No glare found

PV array 21 and OP 33

No glare found

PV: PV array 22 low potential for temporary after-image

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 32	287	4.8	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 22 and Route: Avenue Road

No glare found

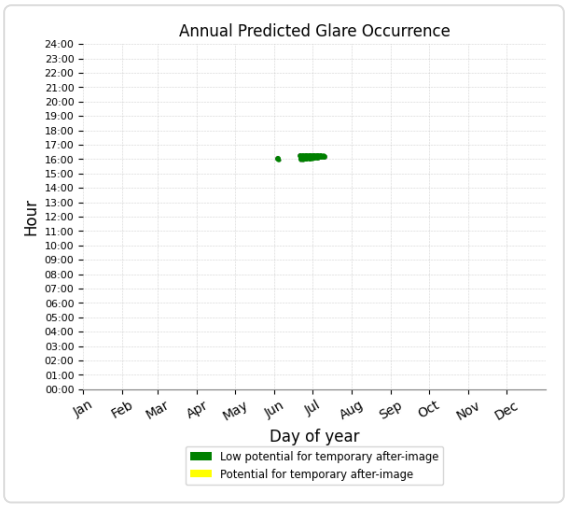
PV array 22 and Route: Main Camp Road

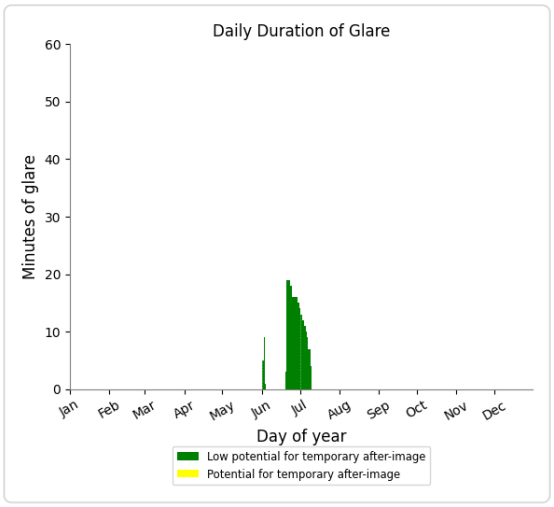
No glare found

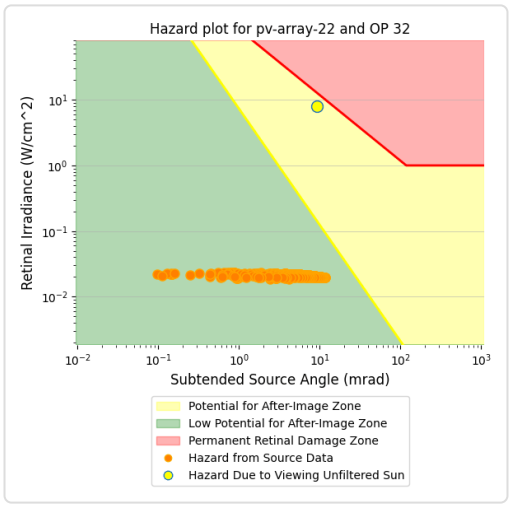
PV array 22 and OP 32

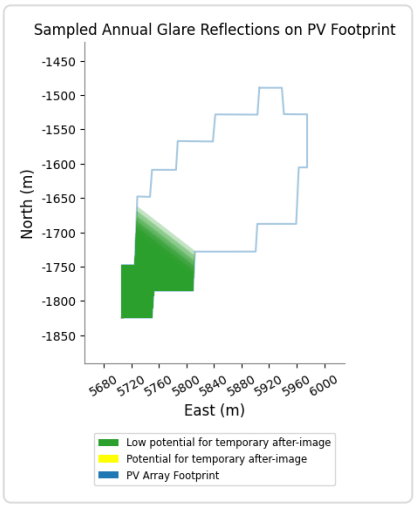
Yellow glare: none

Green glare: 287 min.









PV array 22 and OP 1

No glare found

PV array 22 and OP 2

No glare found

PV array 22 and OP 3

No glare found

PV array 22 and OP 4

No glare found

PV array 22 and OP 5

No glare found

PV array 22 and OP 6

No glare found

PV array 22 and OP 7

No glare found

PV array 22 and OP 8

No glare found

PV array 22 and OP 9

No glare found

PV array 22 and OP 10

No glare found

PV array 22 and OP 11

No glare found

PV array 22 and OP 12

No glare found

PV array 22 and OP 13

No glare found

PV array 22 and OP 14

No glare found

PV array 22 and OP 15

No glare found

PV array 22 and OP 16

No glare found

PV array 22 and OP 17

No glare found

PV array 22 and OP 18

No glare found

PV array 22 and OP 19

No glare found

PV array 22 and OP 20

No glare found

PV array 22 and OP 21

No glare found

PV array 22 and OP 22

No glare found

PV array 22 and OP 23

No glare found

PV array 22 and OP 24

No glare found

PV array 22 and OP 25

No glare found

PV array 22 and OP 26

No glare found

PV array 22 and OP 27

No glare found

PV array 22 and OP 28

No glare found

PV array 22 and OP 29

No glare found

PV array 22 and OP 30

No glare found

PV array 22 and OP 31

No glare found

PV array 22 and OP 33

No glare found

PV: PV array 23 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 23 and Route: Avenue Road

No glare found

PV array 23 and Route: Main Camp Road

No glare found

PV array 23 and OP 1

No glare found

PV array 23 and OP 2

No glare found

PV array 23 and OP 3

No glare found

PV array 23 and OP 4

No glare found

PV array 23 and OP 5

No glare found

PV array 23 and OP 6

No glare found

PV array 23 and OP 7

No glare found

PV array 23 and OP 8

No glare found

PV array 23 and OP 9

No glare found

PV array 23 and OP 10

No glare found

PV array 23 and OP 11

No glare found

PV array 23 and OP 12

No glare found

PV array 23 and OP 13

No glare found

PV array 23 and OP 14

No glare found

PV array 23 and OP 15

No glare found

PV array 23 and OP 16

No glare found

PV array 23 and OP 17

No glare found

PV array 23 and OP 18

No glare found

PV array 23 and OP 19

No glare found

PV array 23 and OP 20

No glare found

PV array 23 and OP 21

No glare found

PV array 23 and OP 22

No glare found

PV array 23 and OP 23

No glare found

PV array 23 and OP 24

No glare found

PV array 23 and OP 25

No glare found

PV array 23 and OP 26

No glare found

PV array 23 and OP 27

No glare found

PV array 23 and OP 28

No glare found

PV array 23 and OP 29

No glare found

PV array 23 and OP 30

No glare found

PV array 23 and OP 31

No glare found

PV array 23 and OP 32

No glare found

PV array 23 and OP 33

No glare found

PV: PV array 3 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 3 and Route: Avenue Road

No glare found

PV array 3 and Route: Main Camp Road

No glare found

PV array 3 and OP 1

No glare found

PV array 3 and OP 2

No glare found

PV array 3 and OP 3

No glare found

PV array 3 and OP 4

No glare found

PV array 3 and OP 5

No glare found

PV array 3 and OP 6

No glare found

PV array 3 and OP 7

No glare found

PV array 3 and OP 8

No glare found

PV array 3 and OP 9

No glare found

PV array 3 and OP 10

No glare found

PV array 3 and OP 11

No glare found

PV array 3 and OP 12

No glare found

PV array 3 and OP 13

No glare found

PV array 3 and OP 14

No glare found

PV array 3 and OP 15

No glare found

PV array 3 and OP 16

No glare found

PV array 3 and OP 17

No glare found

PV array 3 and OP 18

No glare found

PV array 3 and OP 19

No glare found

PV array 3 and OP 20

No glare found

PV array 3 and OP 21

No glare found

PV array 3 and OP 22

No glare found

PV array 3 and OP 23

No glare found

PV array 3 and OP 24

No glare found

PV array 3 and OP 25

No glare found

PV array 3 and OP 26

No glare found

PV array 3 and OP 27

No glare found

PV array 3 and OP 28

No glare found

PV array 3 and OP 29

No glare found

PV array 3 and OP 30

No glare found

PV array 3 and OP 31

No glare found

PV array 3 and OP 32

No glare found

PV array 3 and OP 33

No glare found

PV: PV array 4 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 4 and Route: Avenue Road

No glare found

PV array 4 and Route: Main Camp Road

No glare found

PV array 4 and OP 1

No glare found

PV array 4 and OP 2

No glare found

PV array 4 and OP 3

No glare found

PV array 4 and OP 4

No glare found

PV array 4 and OP 5

No glare found

PV array 4 and OP 6

No glare found

PV array 4 and OP 7

No glare found

PV array 4 and OP 8

No glare found

PV array 4 and OP 9

No glare found

PV array 4 and OP 10

No glare found

PV array 4 and OP 11

No glare found

PV array 4 and OP 12

No glare found

PV array 4 and OP 13

No glare found

PV array 4 and OP 14

No glare found

PV array 4 and OP 15

No glare found

PV array 4 and OP 16

No glare found

PV array 4 and OP 17

No glare found

PV array 4 and OP 18

No glare found

PV array 4 and OP 19

No glare found

PV array 4 and OP 20

No glare found

PV array 4 and OP 21

No glare found

PV array 4 and OP 22

No glare found

PV array 4 and OP 23

No glare found

PV array 4 and OP 24

No glare found

PV array 4 and OP 25

No glare found

PV array 4 and OP 26

No glare found

PV array 4 and OP 27

No glare found

PV array 4 and OP 28

No glare found

PV array 4 and OP 29

No glare found

PV array 4 and OP 30

No glare found

PV array 4 and OP 31

No glare found

PV array 4 and OP 32

No glare found

PV array 4 and OP 33

No glare found

PV: PV array 5 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 5 and Route: Avenue Road

No glare found

PV array 5 and Route: Main Camp Road

No glare found

PV array 5 and OP 1

No glare found

PV array 5 and OP 2

No glare found

PV array 5 and OP 3

No glare found

PV array 5 and OP 4

No glare found

PV array 5 and OP 5

No glare found

PV array 5 and OP 6

No glare found

PV array 5 and OP 7

No glare found

PV array 5 and OP 8

No glare found

PV array 5 and OP 9

No glare found

PV array 5 and OP 10

No glare found

PV array 5 and OP 11

No glare found

PV array 5 and OP 12

No glare found

PV array 5 and OP 13

No glare found

PV array 5 and OP 14

No glare found

PV array 5 and OP 15

No glare found

PV array 5 and OP 16

No glare found

PV array 5 and OP 17

No glare found

PV array 5 and OP 18

No glare found

PV array 5 and OP 19

No glare found

PV array 5 and OP 20

No glare found

PV array 5 and OP 21

No glare found

PV array 5 and OP 22

No glare found

PV array 5 and OP 23

No glare found

PV array 5 and OP 24

No glare found

PV array 5 and OP 25

No glare found

PV array 5 and OP 26

No glare found

PV array 5 and OP 27

No glare found

PV array 5 and OP 28

No glare found

PV array 5 and OP 29

No glare found

PV array 5 and OP 30

No glare found

PV array 5 and OP 31

No glare found

PV array 5 and OP 32

No glare found

PV array 5 and OP 33

No glare found

PV: PV array 6 potential temporary after-image

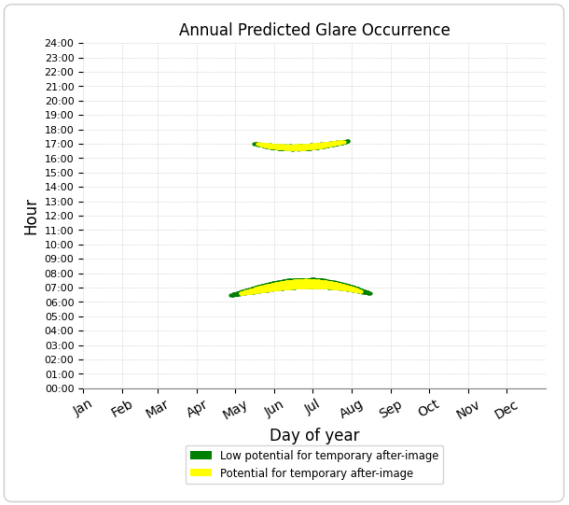
Receptor results ordered by category of glare

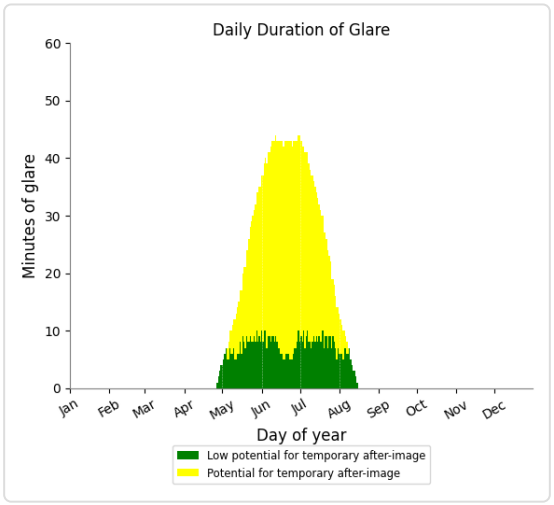
Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	779	13.0	2,145	35.8
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

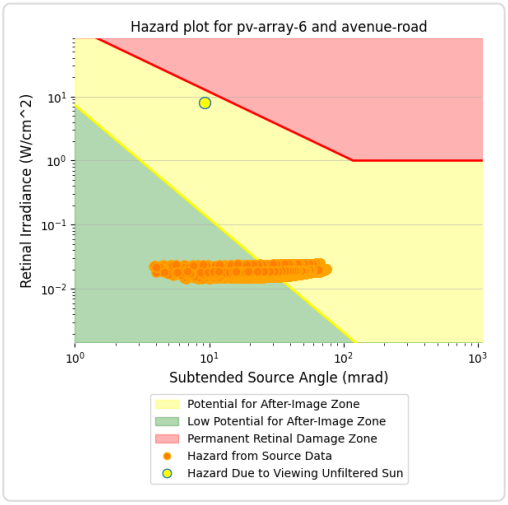
PV array 6 and Route: Avenue Road

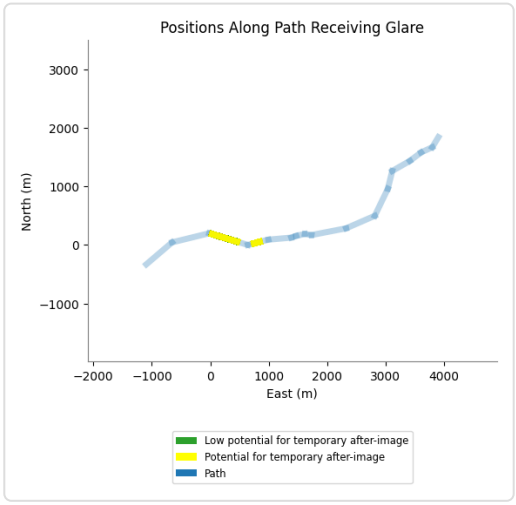
Yellow glare: 2,145 min.

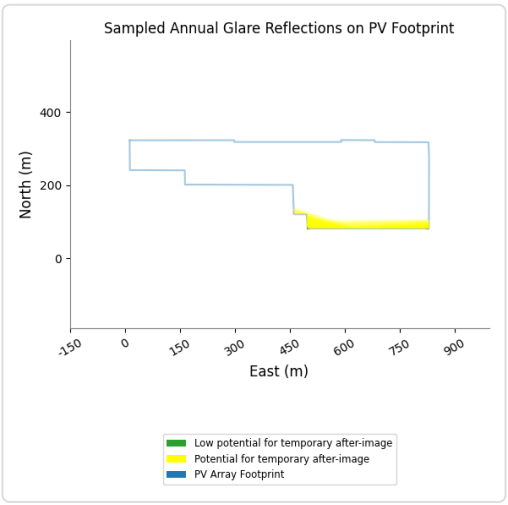
Green glare: 779 min.











PV array 6 and Route: Main Camp Road

No glare found

PV array 6 and OP 1

No glare found

PV array 6 and OP 2

No glare found

PV array 6 and OP 3

No glare found

PV array 6 and OP 4

No glare found

PV array 6 and OP 5

No glare found

PV array 6 and OP 6

No glare found

PV array 6 and OP 7

No glare found

PV array 6 and OP 8

No glare found

PV array 6 and OP 9

No glare found

PV array 6 and OP 10

No glare found

PV array 6 and OP 11

No glare found

PV array 6 and OP 12

No glare found

PV array 6 and OP 13

No glare found

PV array 6 and OP 14

No glare found

PV array 6 and OP 15

No glare found

PV array 6 and OP 16

No glare found

PV array 6 and OP 17

No glare found

PV array 6 and OP 18

No glare found

PV array 6 and OP 19

No glare found

PV array 6 and OP 20

No glare found

PV array 6 and OP 21

No glare found

PV array 6 and OP 22

No glare found

PV array 6 and OP 23

No glare found

PV array 6 and OP 24

No glare found

PV array 6 and OP 25

No glare found

PV array 6 and OP 26

No glare found

PV array 6 and OP 27

No glare found

PV array 6 and OP 28

No glare found

PV array 6 and OP 29

No glare found

PV array 6 and OP 30

No glare found

PV array 6 and OP 31

No glare found

PV array 6 and OP 32

No glare found

PV array 6 and OP 33

No glare found

PV: PV array 7 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 7 and Route: Avenue Road

No glare found

PV array 7 and Route: Main Camp Road

No glare found

PV array 7 and OP 1

No glare found

PV array 7 and OP 2

No glare found

PV array 7 and OP 3

No glare found

PV array 7 and OP 4

No glare found

PV array 7 and OP 5

No glare found

PV array 7 and OP 6

No glare found

PV array 7 and OP 7

No glare found

PV array 7 and OP 8

No glare found

PV array 7 and OP 9

No glare found

PV array 7 and OP 10

No glare found

PV array 7 and OP 11

No glare found

PV array 7 and OP 12

No glare found

PV array 7 and OP 13

No glare found

PV array 7 and OP 14

No glare found

PV array 7 and OP 15

No glare found

PV array 7 and OP 16

No glare found

PV array 7 and OP 17

No glare found

PV array 7 and OP 18

No glare found

PV array 7 and OP 19

No glare found

PV array 7 and OP 20

No glare found

PV array 7 and OP 21

No glare found

PV array 7 and OP 22

No glare found

PV array 7 and OP 23

No glare found

PV array 7 and OP 24

No glare found

PV array 7 and OP 25

No glare found

PV array 7 and OP 26

No glare found

PV array 7 and OP 27

No glare found

PV array 7 and OP 28

No glare found

PV array 7 and OP 29

No glare found

PV array 7 and OP 30

No glare found

PV array 7 and OP 31

No glare found

PV array 7 and OP 32

No glare found

PV array 7 and OP 33

No glare found

PV: PV array 8 potential temporary after-image

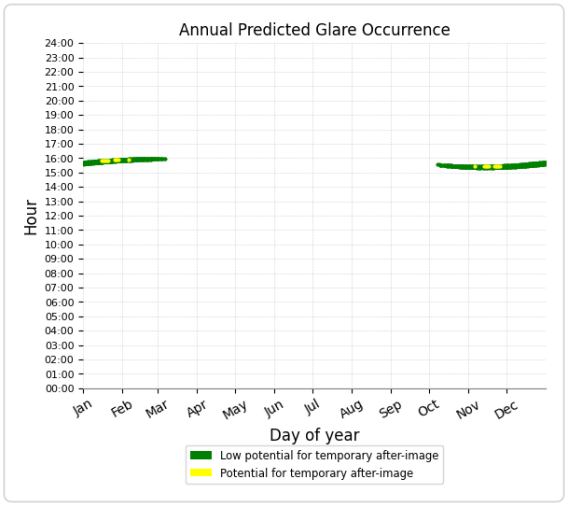
Receptor results ordered by category of glare

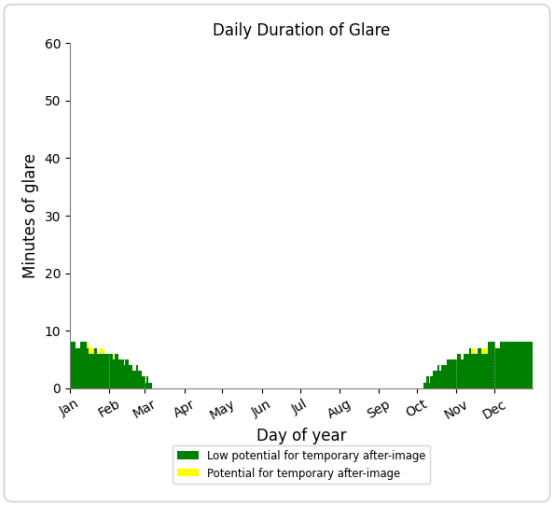
Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	863	14.4	21	0.3
Main Camp Road	0	0.0	0	0.0
OP 9	307	5.1	0	0.0
OP 10	42	0.7	0	0.0
OP 11	278	4.6	0	0.0
OP 12	271	4.5	0	0.0
OP 13	284	4.7	0	0.0
OP 14	144	2.4	0	0.0
OP 15	195	3.2	0	0.0
OP 16	538	9.0	0	0.0
OP 17	123	2.0	0	0.0
OP 18	300	5.0	0	0.0
OP 19	306	5.1	0	0.0
OP 22	288	4.8	0	0.0
OP 23	280	4.7	0	0.0
OP 24	185	3.1	0	0.0
OP 25	57	0.9	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

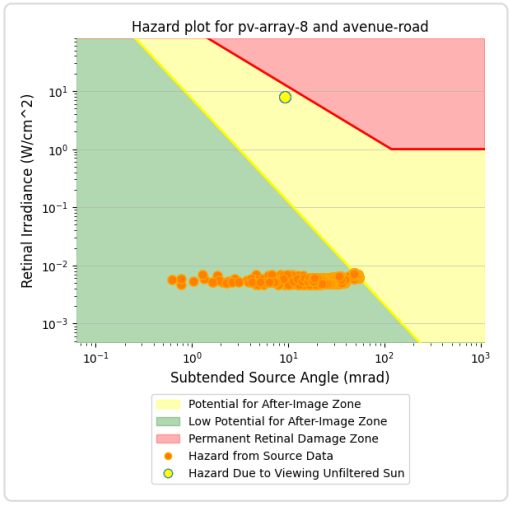
PV array 8 and Route: Avenue Road

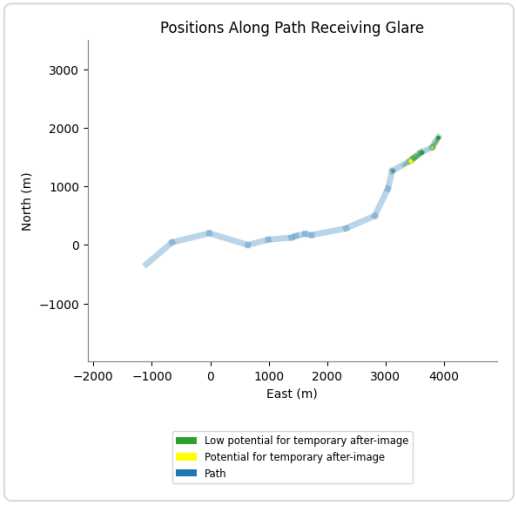
Yellow glare: 21 min.

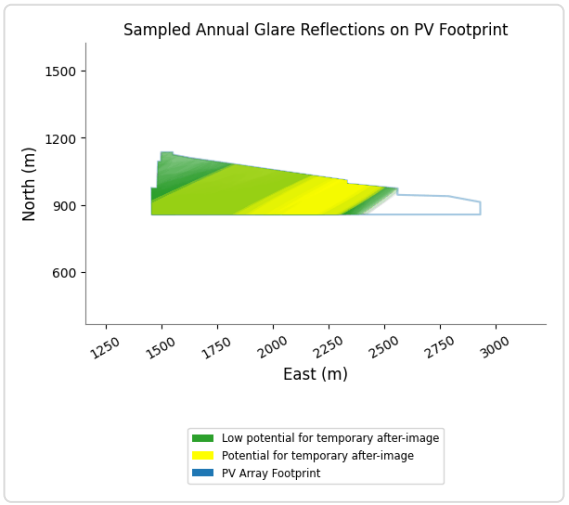
Green glare: 863 min.











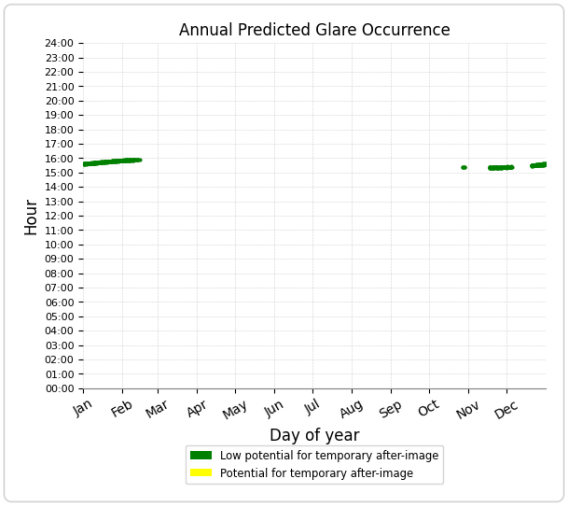
PV array 8 and Route: Main Camp Road

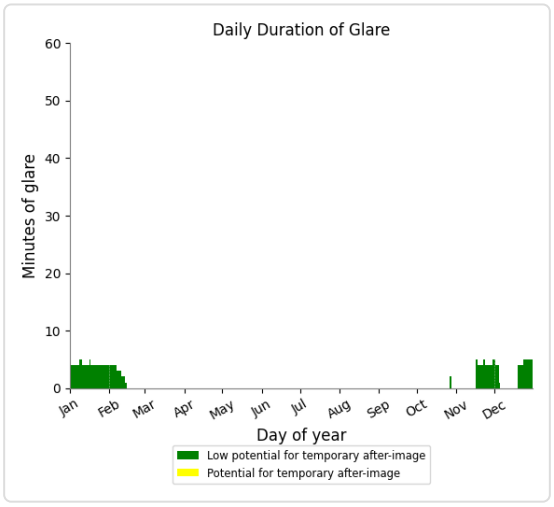
No glare found

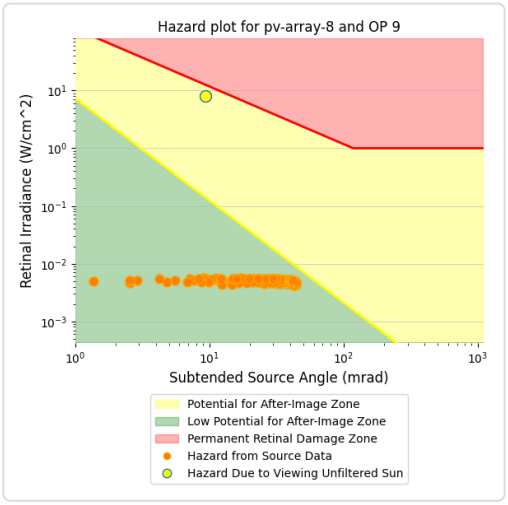
PV array 8 and OP 9

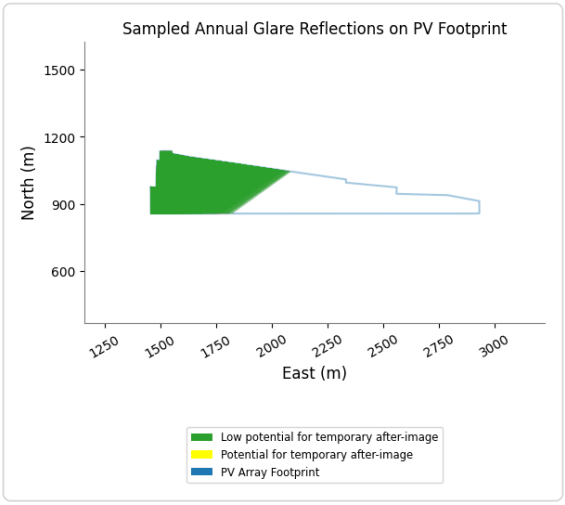
Yellow glare: none

Green glare: 307 min.





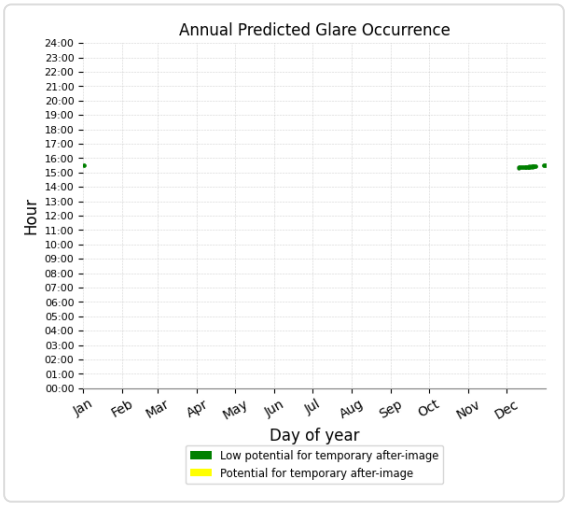


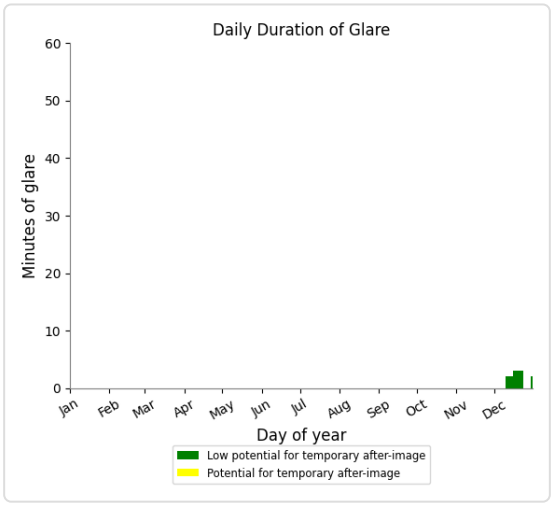


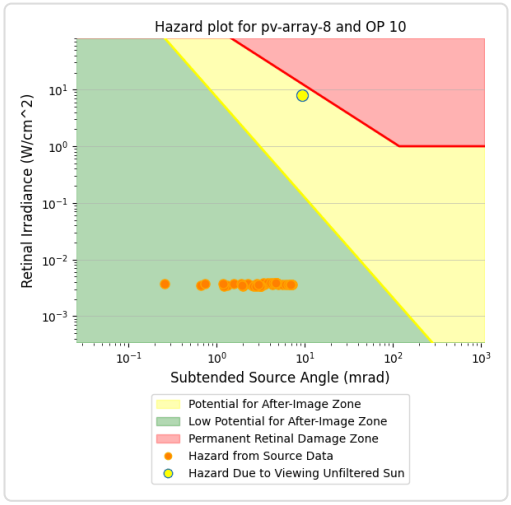
PV array 8 and OP 10

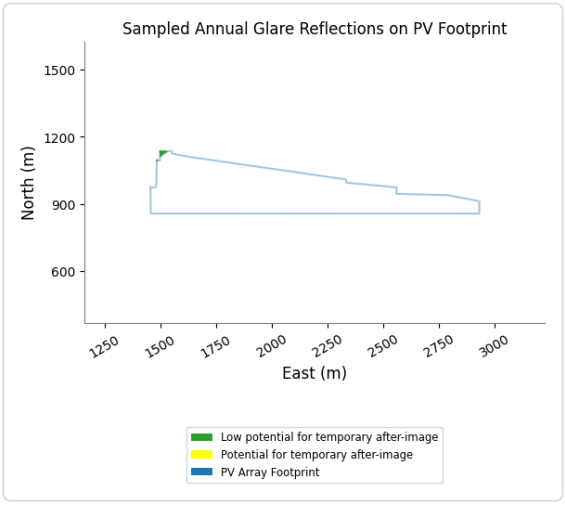
Yellow glare: none

Green glare: 42 min.





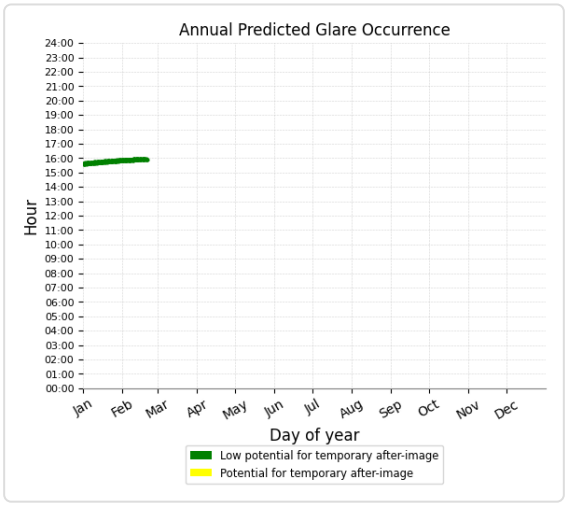


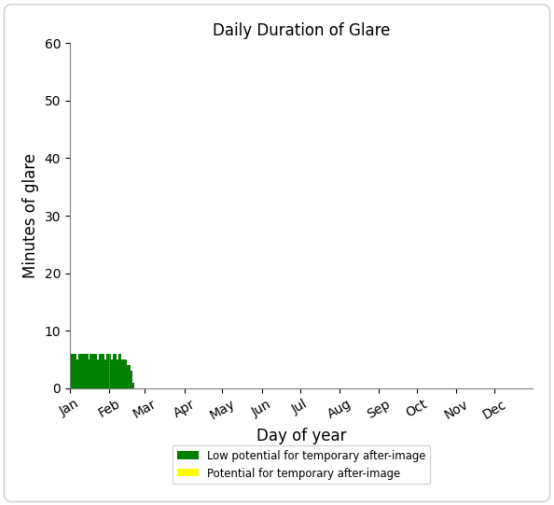


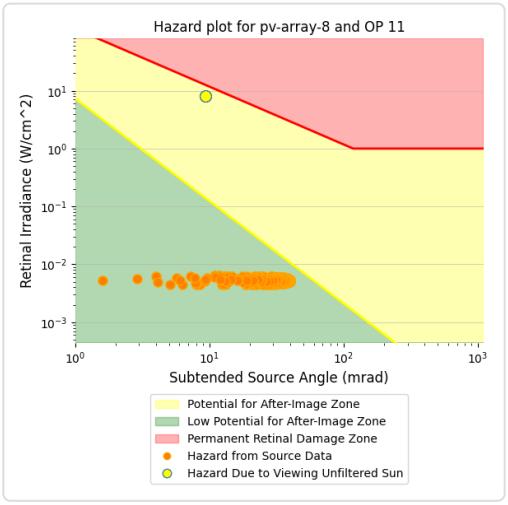
PV array 8 and OP 11

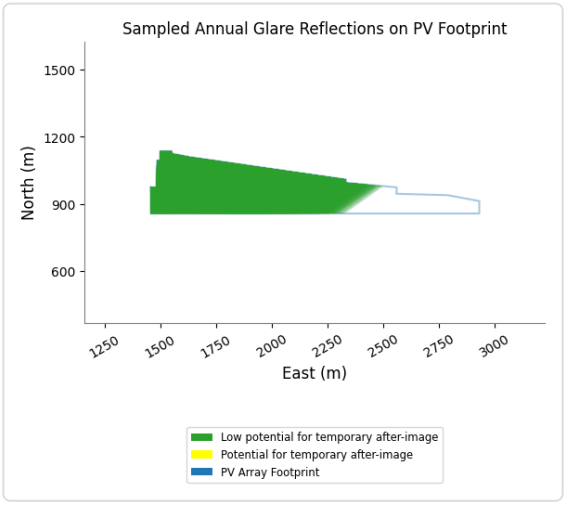
Yellow glare: none

Green glare: 278 min.





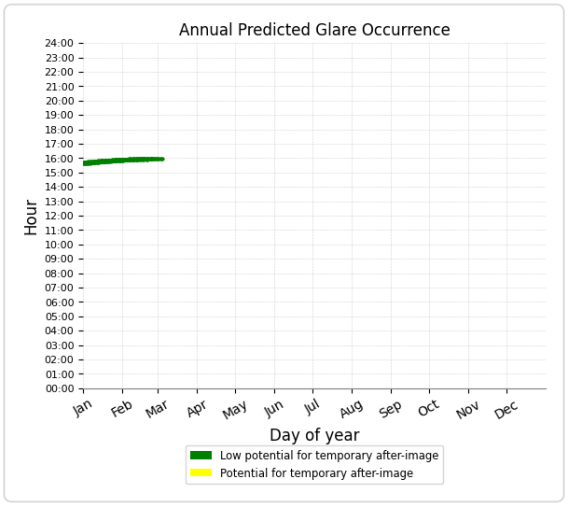


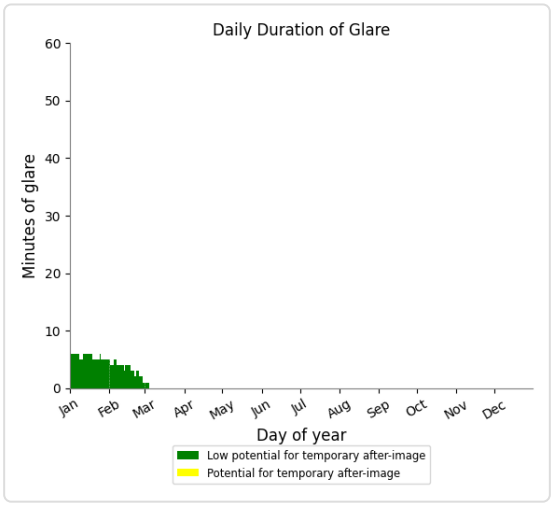


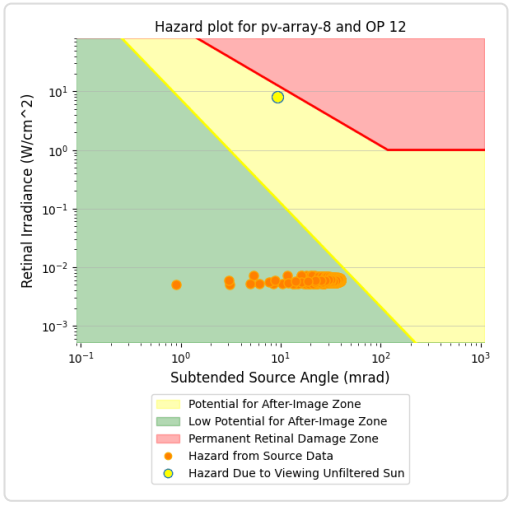
PV array 8 and OP 12

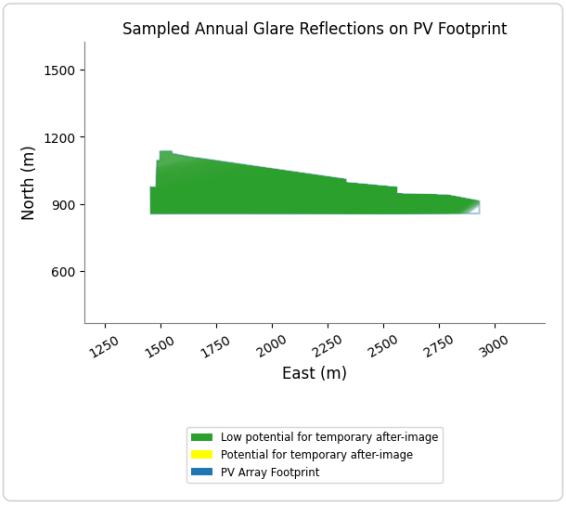
Yellow glare: none

Green glare: 271 min.





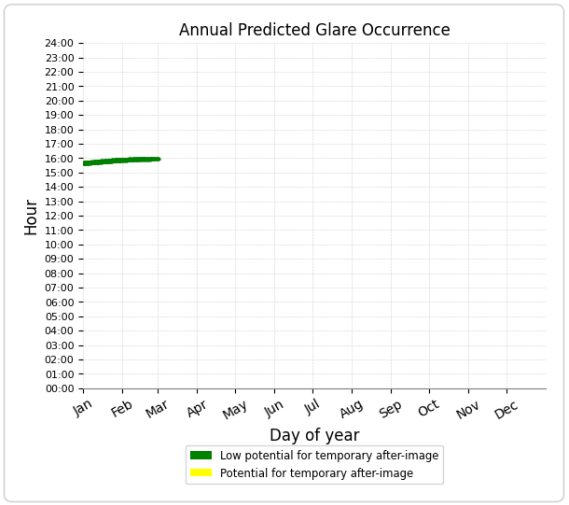


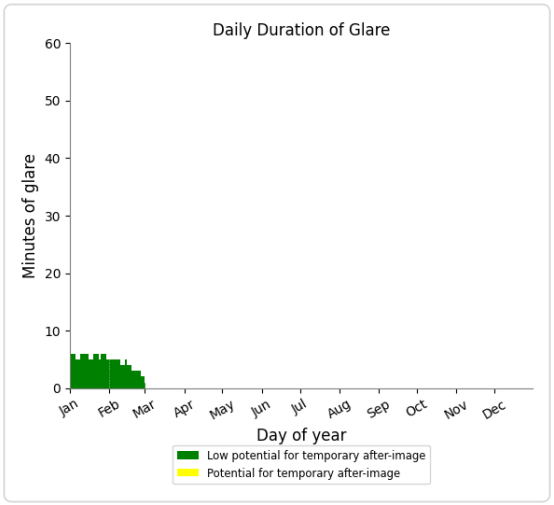


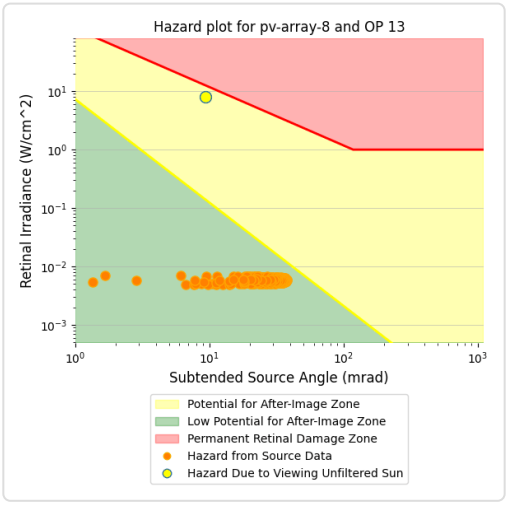
PV array 8 and OP 13

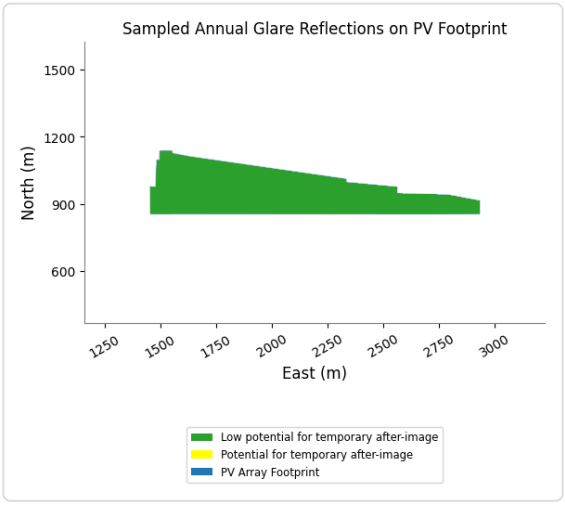
Yellow glare: none

Green glare: 284 min.





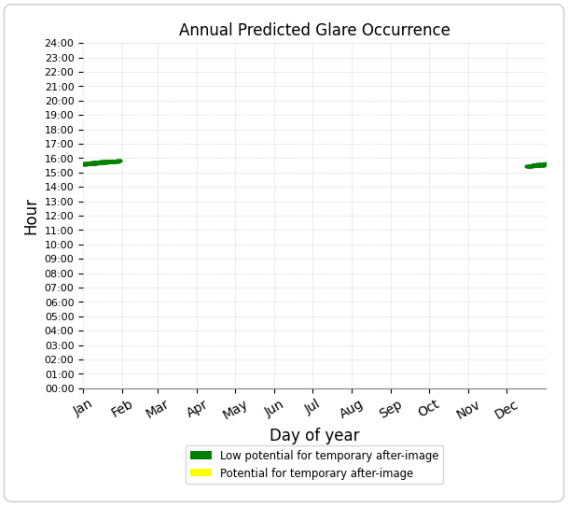


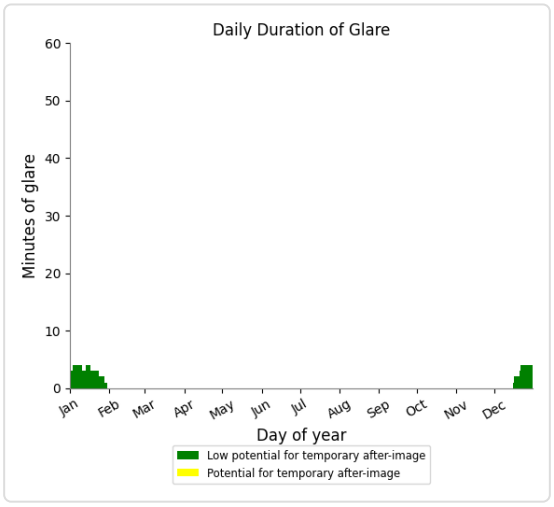


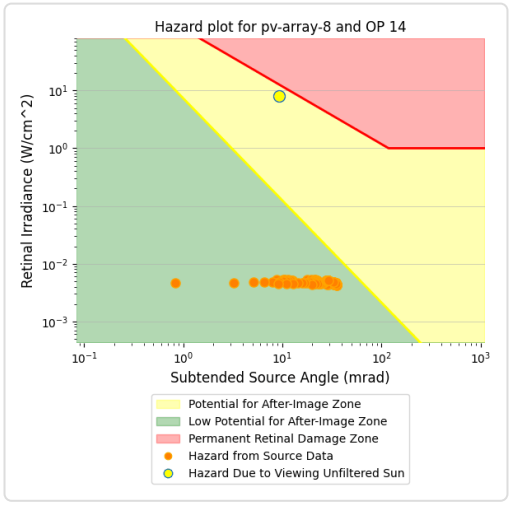
PV array 8 and OP 14

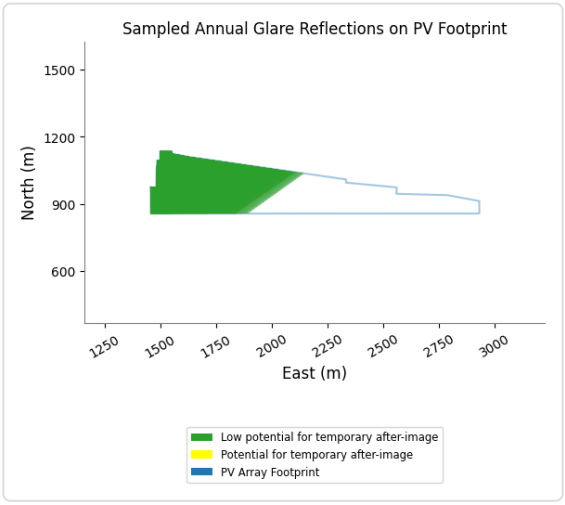
Yellow glare: none

Green glare: 144 min.





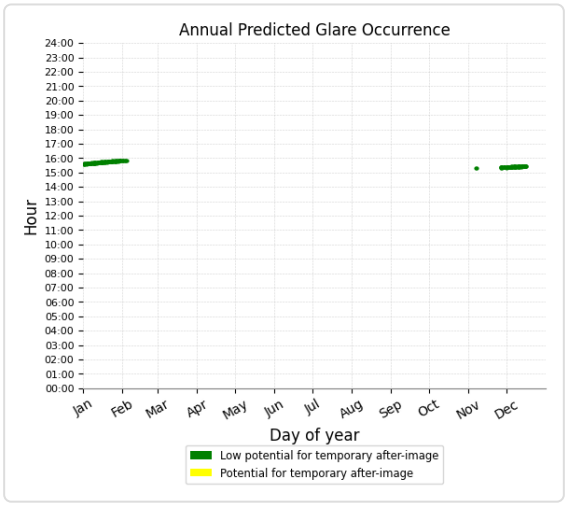


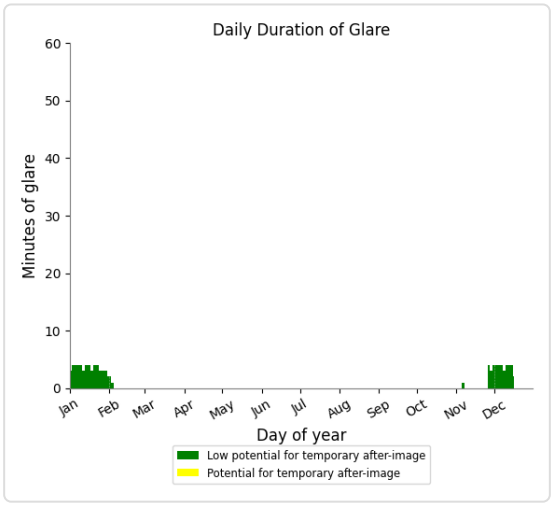


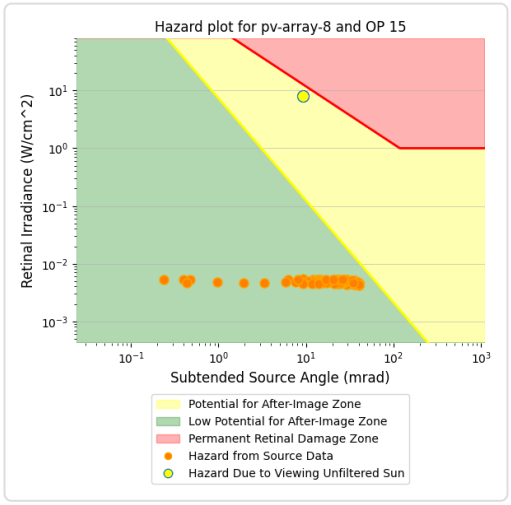
PV array 8 and OP 15

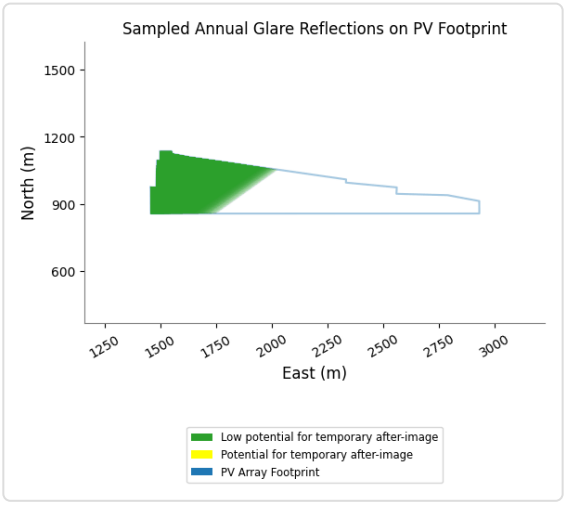
Yellow glare: none

Green glare: 195 min.





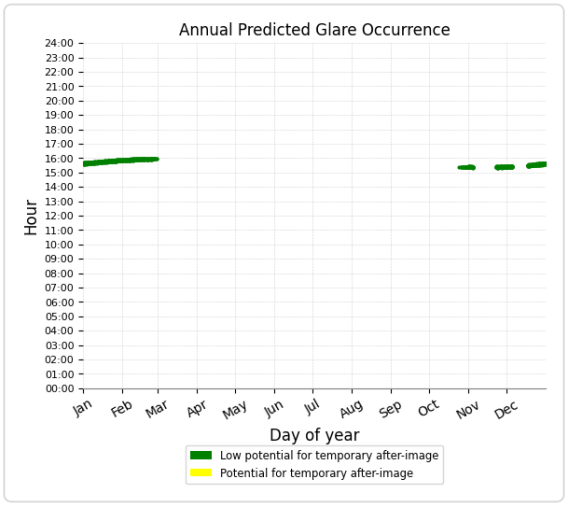


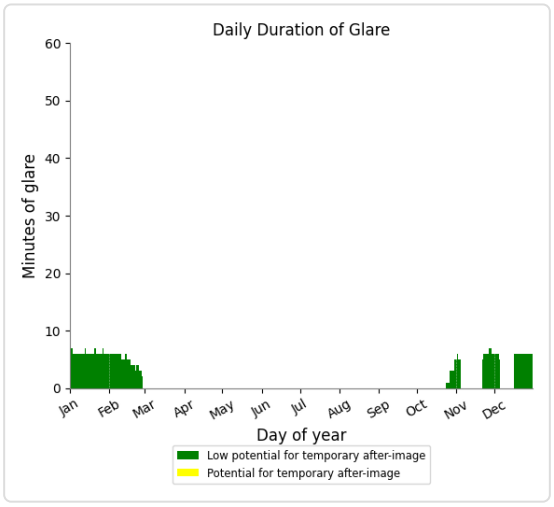


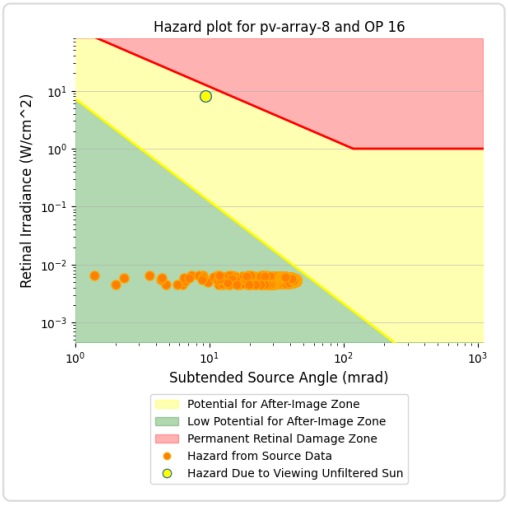
PV array 8 and OP 16

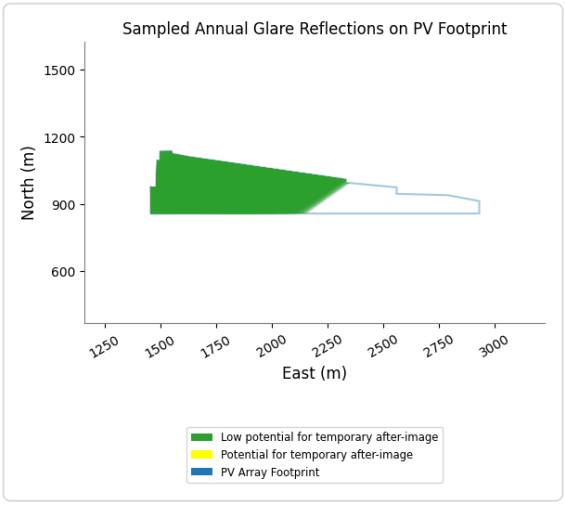
Yellow glare: none

Green glare: 538 min.





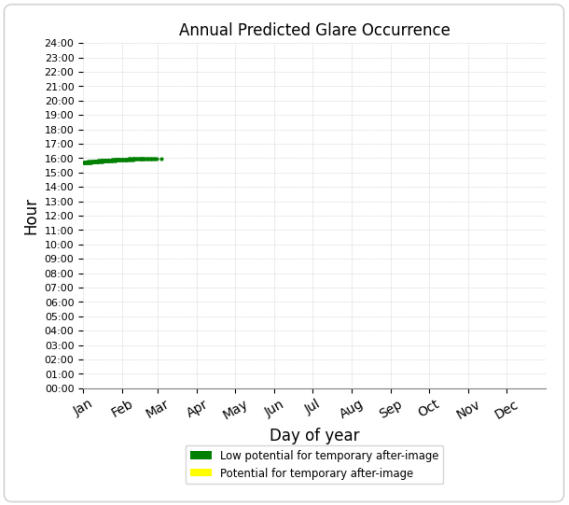


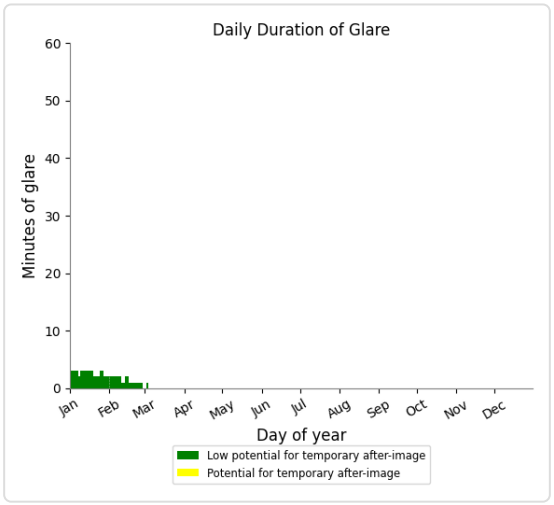


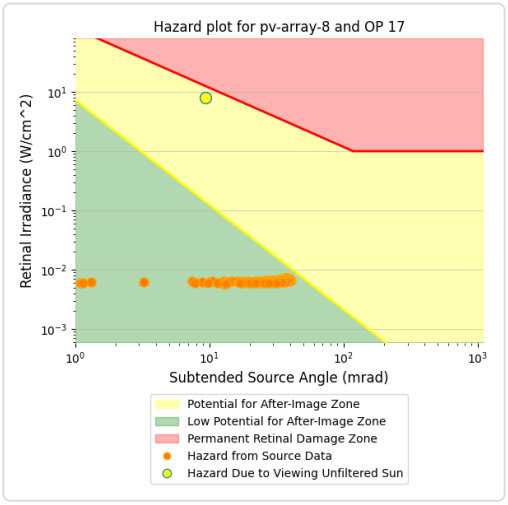
PV array 8 and OP 17

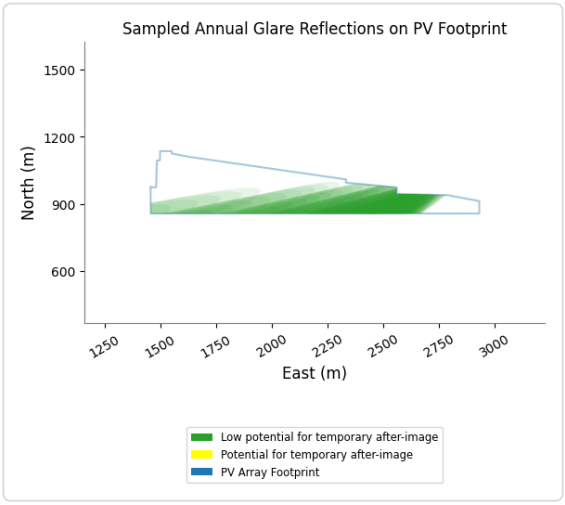
Yellow glare: none

Green glare: 123 min.





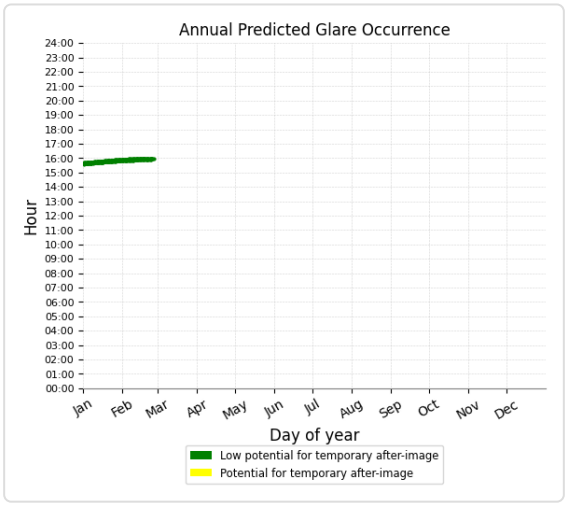


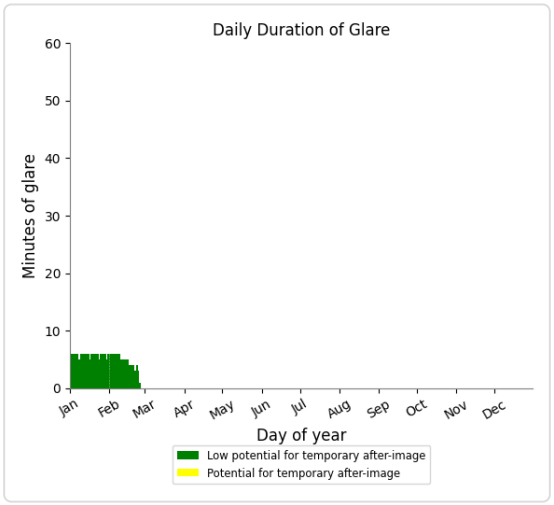


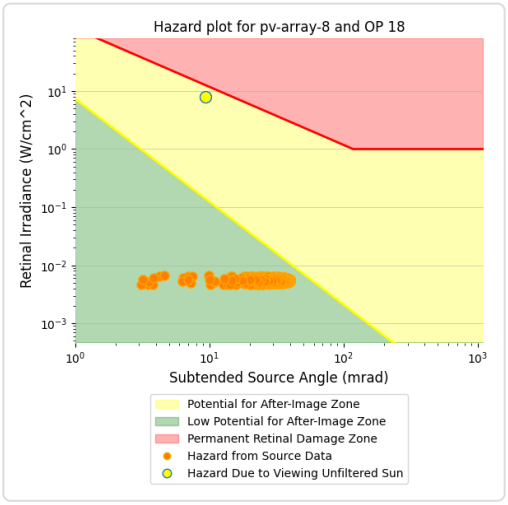
PV array 8 and OP 18

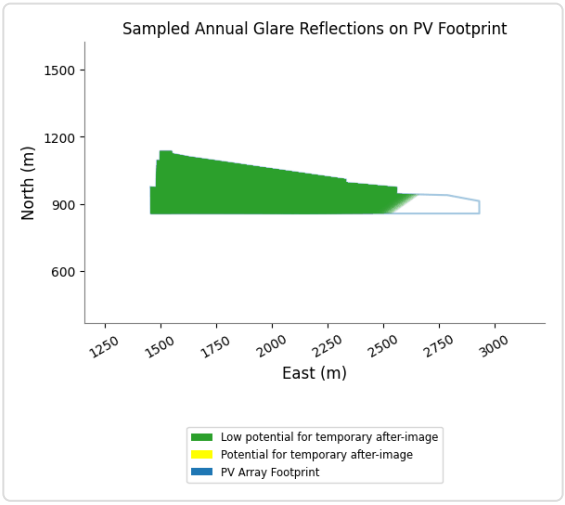
Yellow glare: none

Green glare: 300 min.





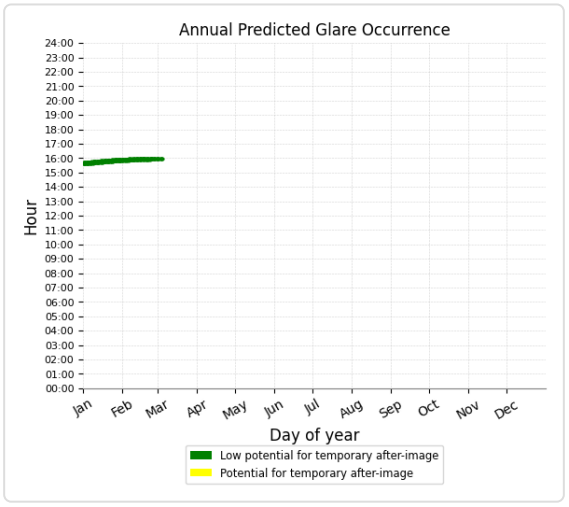


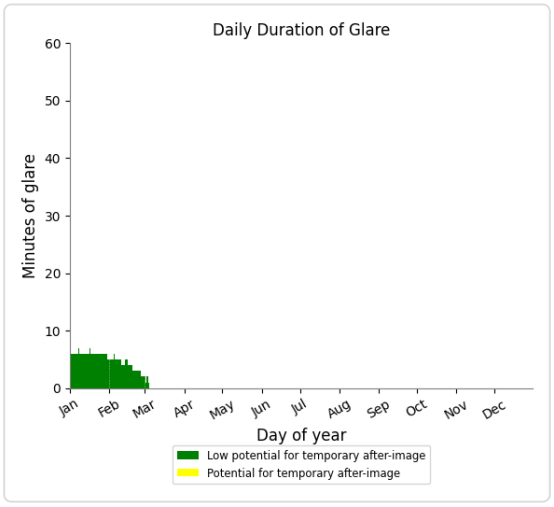


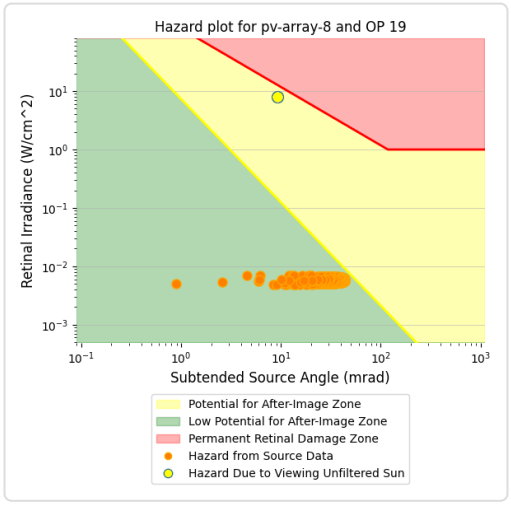
PV array 8 and OP 19

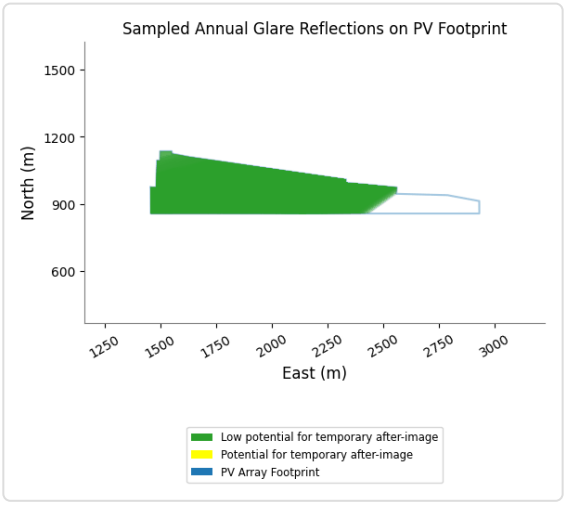
Yellow glare: none

Green glare: 306 min.





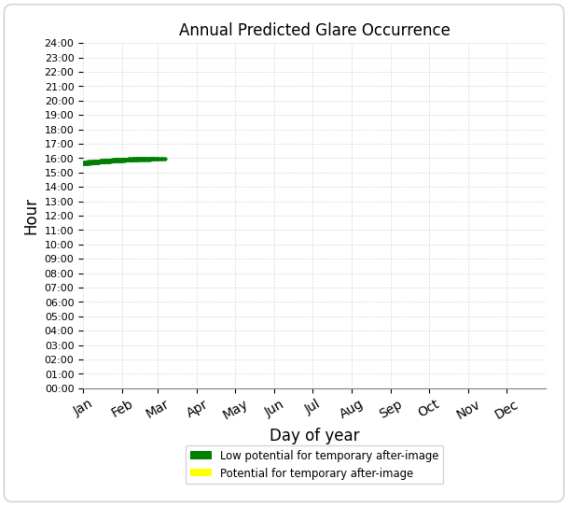


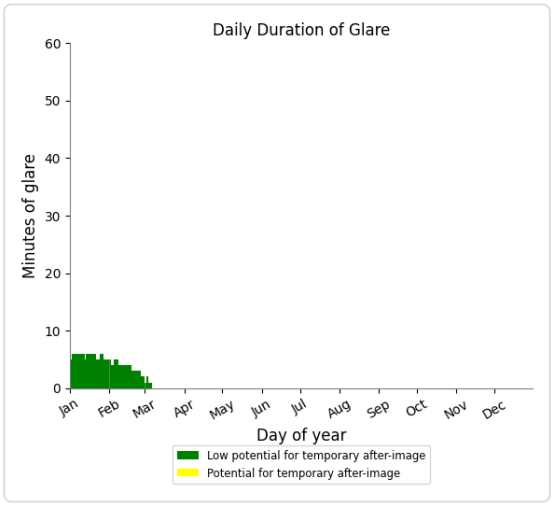


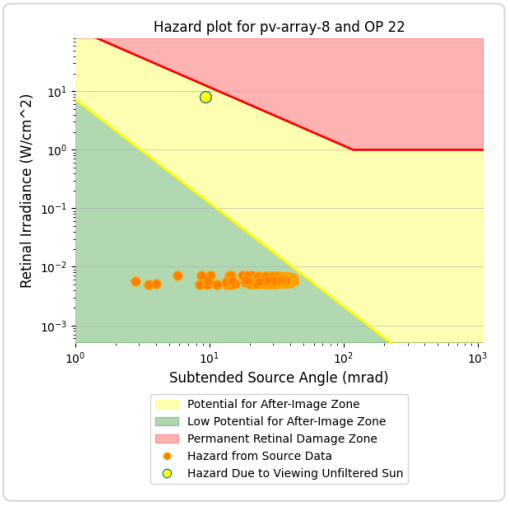
PV array 8 and OP 22

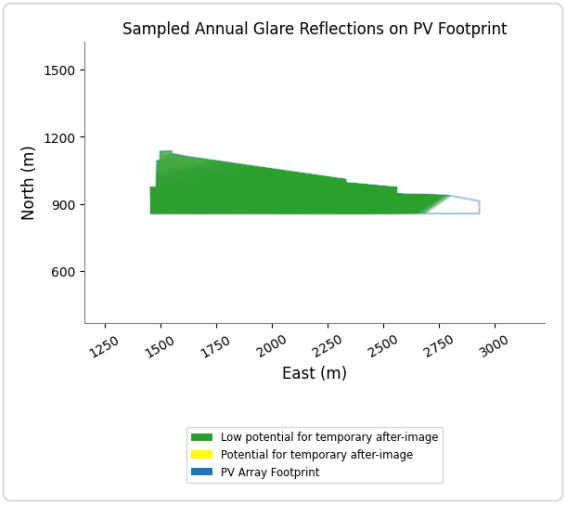
Yellow glare: none

Green glare: 288 min.





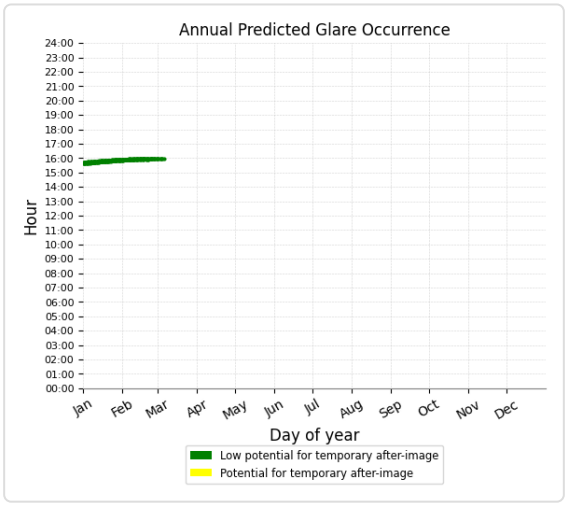


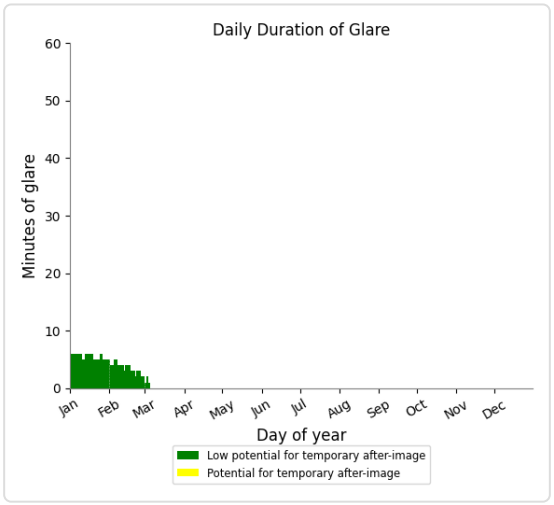


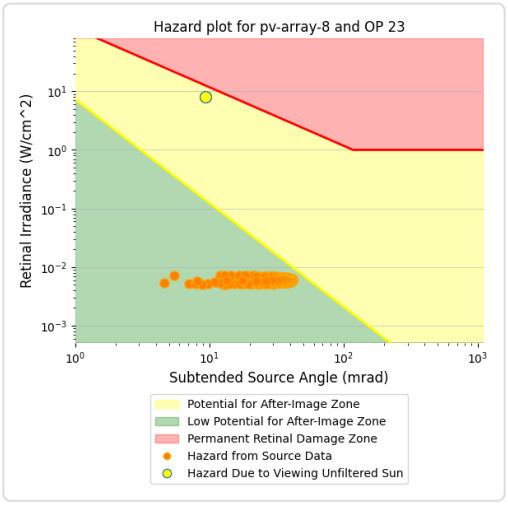
PV array 8 and OP 23

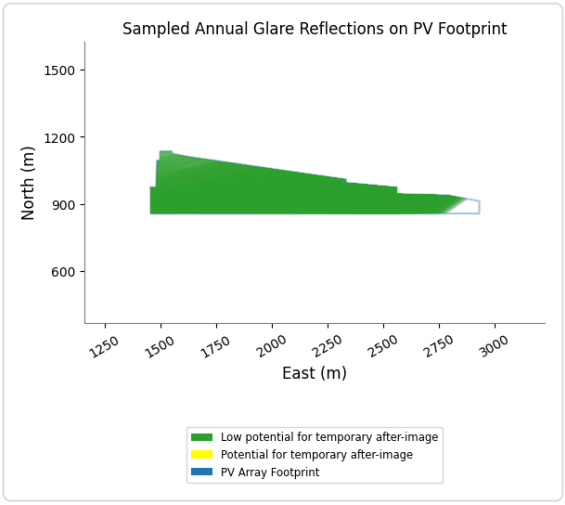
Yellow glare: none

Green glare: 280 min.





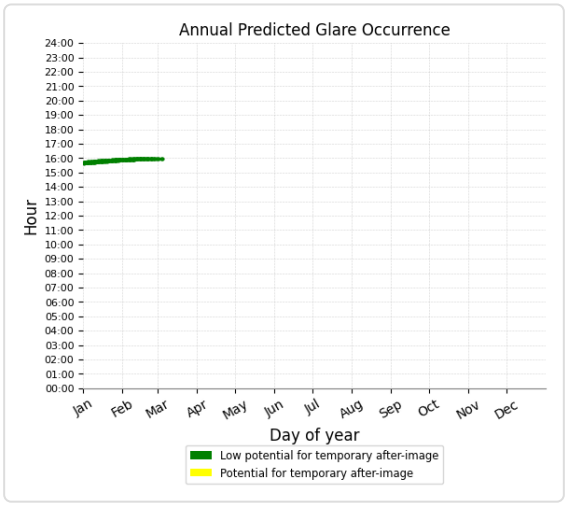


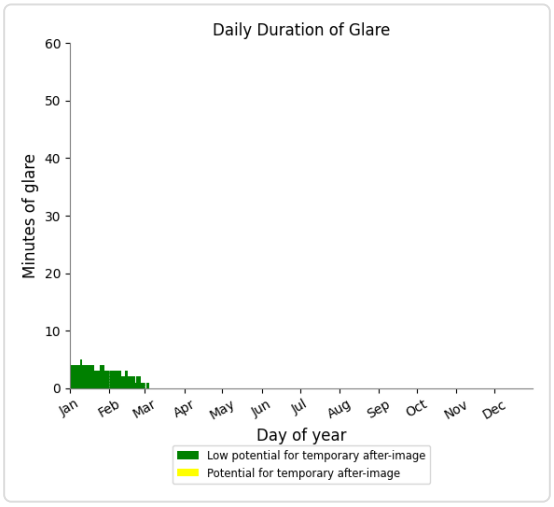


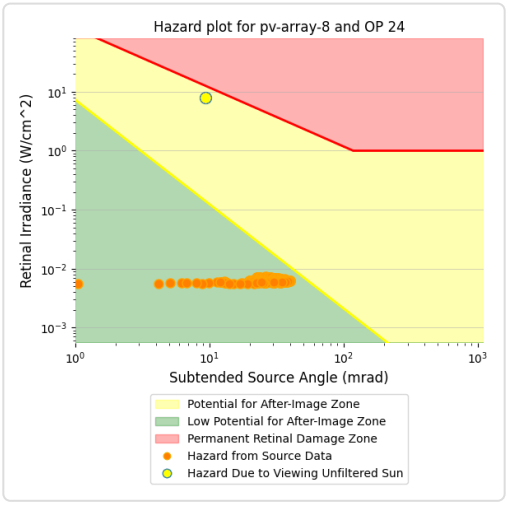
PV array 8 and OP 24

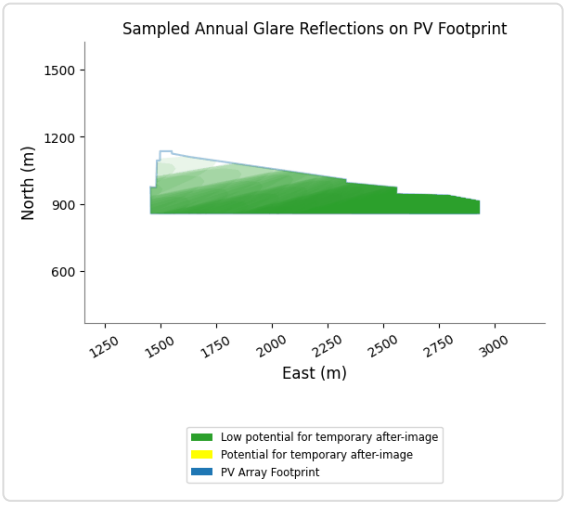
Yellow glare: none

Green glare: 185 min.



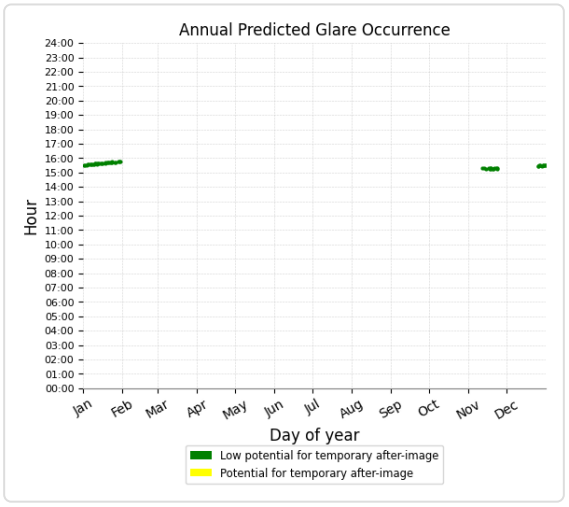


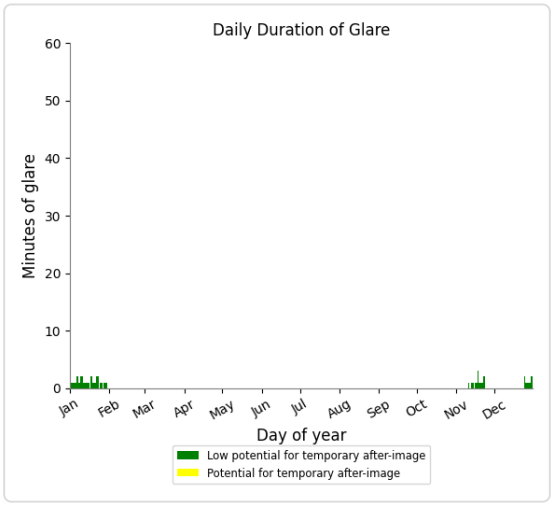


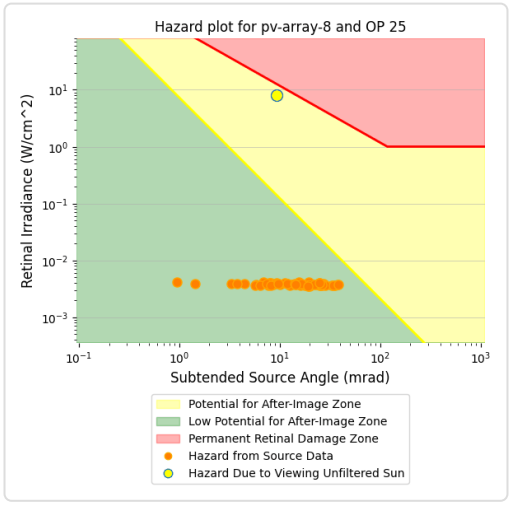


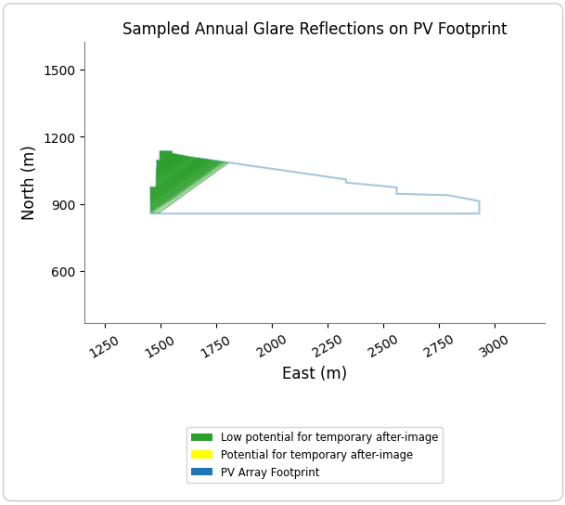
PV array 8 and OP 25

Yellow glare: none
Green glare: 57 min.









PV array 8 and OP 1

No glare found

PV array 8 and OP 2

No glare found

PV array 8 and OP 3

No glare found

PV array 8 and OP 4

No glare found

PV array 8 and OP 5

No glare found

PV array 8 and OP 6

No glare found

PV array 8 and OP 7

No glare found

PV array 8 and OP 8

No glare found

PV array 8 and OP 20

No glare found

PV array 8 and OP 21

No glare found

PV array 8 and OP 26

No glare found

PV array 8 and OP 27

No glare found

PV array 8 and OP 28

No glare found

PV array 8 and OP 29

No glare found

PV array 8 and OP 30

No glare found

PV array 8 and OP 31

No glare found

PV array 8 and OP 32

No glare found

PV array 8 and OP 33

No glare found

PV: PV array 9 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 9 and Route: Avenue Road

No glare found

PV array 9 and Route: Main Camp Road

No glare found

PV array 9 and OP 1

No glare found

PV array 9 and OP 2

No glare found

PV array 9 and OP 3

No glare found

PV array 9 and OP 4

No glare found

PV array 9 and OP 5

No glare found

PV array 9 and OP 6

No glare found

PV array 9 and OP 7

No glare found

PV array 9 and OP 8

No glare found

PV array 9 and OP 9

No glare found

PV array 9 and OP 10

No glare found

PV array 9 and OP 11

No glare found

PV array 9 and OP 12

No glare found

PV array 9 and OP 13

No glare found

PV array 9 and OP 14

No glare found

PV array 9 and OP 15

No glare found

PV array 9 and OP 16

No glare found

PV array 9 and OP 17

No glare found

PV array 9 and OP 18

No glare found

PV array 9 and OP 19

No glare found

PV array 9 and OP 20

No glare found

PV array 9 and OP 21

No glare found

PV array 9 and OP 22

No glare found

PV array 9 and OP 23

No glare found

PV array 9 and OP 24

No glare found

PV array 9 and OP 25

No glare found

PV array 9 and OP 26

No glare found

PV array 9 and OP 27

No glare found

PV array 9 and OP 28

No glare found

PV array 9 and OP 29

No glare found

PV array 9 and OP 30

No glare found

PV array 9 and OP 31

No glare found

PV array 9 and OP 32

No glare found

PV array 9 and OP 33

No glare found

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year.
Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare. This primarily affects V1 analyses of path receptors.
Random number computations are utilized by various steps of the annual hazard analysis algorithm. Predicted minutes of glare can vary between runs as a result. This limitation primarily affects analyses of Observation Point receptors, including ATCTs. Note that the SGHAT/ ForgeSolar methodology has always relied on an analytical, qualitative approach to accurately determine the overall hazard (i.e. green vs. yellow) of expected glare on an annual basis.
The analysis does not automatically consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.
The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)
The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.
The ocular hazard predicted by the tool depends on a number of environmental, optical, and human factors, which can be uncertain. We provide input fields and typical ranges of values for these factors so that the user can vary these parameters to see if they have an impact on the results. The speed of SGHAT allows expedited sensitivity and parametric analyses.
The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.
Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.
Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
Refer to the Help page at **www.forgesolar.com/help/** for assumptions and limitations not listed here.

Default glare analysis parameters and observer eye characteristics (for reference only):

- Analysis time interval: 1 minute
- Ocular transmission coefficient: 0.5
- Pupil diameter: 0.002 meters
- Eye focal length: 0.017 meters
- Sun subtended angle: 9.3 milliradians

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Glint and Glare Assessment Results Attachment B - Scenario 3

FORGESOLAR GLARE ANALYSIS

Project: **2320 Richmond Valley Solar Farm**
Site configuration: **2320 Richmond Valley 22d Resting Angle 20231211**

Created 11 Dec, 2023
Updated 18 Dec, 2023
Time-step 1 minute
Timezone offset UTC10
Minimum sun altitude 0.0 deg
DNI peaks at 1,000.0 W/m^2
Category 100 MW to 1 GW
Site ID 107579.18000

Ocular transmission coefficient 0.5
Pupil diameter 0.002 m
Eye focal length 0.017 m
Sun subtended angle 9.3 mrad
PV analysis methodology V2

Summary of Results

Glare with potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV array 1	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 10	SA tracking	SA tracking	25,115	418.6	10,250	170.8	-
PV array 15	SA tracking	SA tracking	584	9.7	127	2.1	-
PV array 16	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 17	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 18	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 19	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 2	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 20	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 21	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 22	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 23	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 3	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 4	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 5	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 6	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 7	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 8	SA tracking	SA tracking	4,334	72.2	19	0.3	-
PV array 9	SA tracking	SA tracking	0	0.0	0	0.0	-

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	16,829	280.5	10,269	171.2

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Main Camp Road	838	14.0	127	2.1
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	261	4.3	0	0.0
OP 10	57	0.9	0	0.0
OP 11	278	4.6	0	0.0
OP 12	271	4.5	0	0.0
OP 13	284	4.7	0	0.0
OP 14	144	2.4	0	0.0
OP 15	148	2.5	0	0.0
OP 16	488	8.1	0	0.0
OP 17	123	2.0	0	0.0
OP 18	300	5.0	0	0.0
OP 19	306	5.1	0	0.0
OP 20	0	0.0	0	0.0
OP 21	297	5.0	0	0.0
OP 22	290	4.8	0	0.0
OP 23	280	4.7	0	0.0
OP 24	185	3.1	0	0.0
OP 25	55	0.9	0	0.0
OP 26	1,941	32.4	0	0.0
OP 27	1,708	28.5	0	0.0
OP 28	1,651	27.5	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	3,299	55.0	0	0.0

Component Data

PV Arrays

Name: PV array 1
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 22.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.101325	153.019581	366.24	2.50	368.74
2	-29.101319	153.022208	373.42	2.50	375.92
3	-29.101675	153.022244	322.35	2.50	324.85
4	-29.101686	153.024706	312.51	2.50	315.01
5	-29.102036	153.024742	303.12	2.50	305.62
6	-29.102033	153.026689	299.33	2.50	301.83
7	-29.102411	153.026725	328.19	2.50	330.69
8	-29.102419	153.028128	322.49	2.50	324.99
9	-29.103497	153.028139	354.56	2.50	357.06
10	-29.103500	153.028281	326.46	2.50	328.96
11	-29.104558	153.028281	314.31	2.50	316.81
12	-29.104567	153.026794	364.57	2.50	367.07
13	-29.104200	153.026775	369.06	2.50	371.56
14	-29.104211	153.025361	350.76	2.50	353.26
15	-29.103472	153.025344	337.49	2.50	339.99
16	-29.103472	153.019586	354.43	2.50	356.93

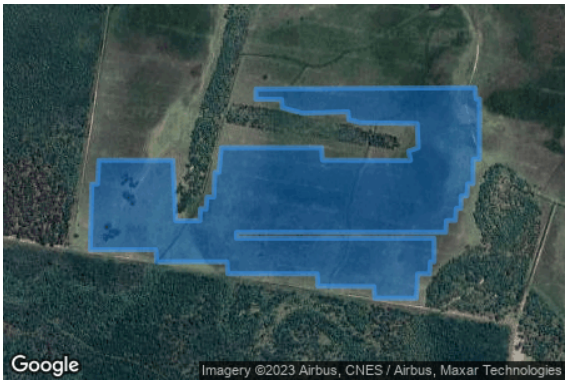
Name: PV array 10
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 22.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.096789	153.033475	67.12	2.50	69.62
2	-29.096789	153.033625	94.58	2.50	97.08
3	-29.096086	153.033664	83.67	2.50	86.17
4	-29.096069	153.048192	86.35	2.50	88.85
5	-29.096428	153.048178	86.17	2.50	88.67
6	-29.096431	153.047381	77.50	2.50	80.00
7	-29.096778	153.047358	70.21	2.50	72.71
8	-29.096778	153.046492	64.01	2.50	66.51
9	-29.097136	153.046467	57.37	2.50	59.87
10	-29.097136	153.045553	58.92	2.50	61.42
11	-29.097508	153.045553	44.73	2.50	47.23
12	-29.097514	153.044489	51.53	2.50	54.03
13	-29.097786	153.044467	54.99	2.50	57.49
14	-29.097864	153.043553	60.25	2.50	62.75
15	-29.098228	153.043531	57.21	2.50	59.71
16	-29.098236	153.041514	58.17	2.50	60.67
17	-29.098608	153.041486	51.15	2.50	53.65
18	-29.098619	153.033442	60.48	2.50	62.98

Name: PV array 15
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 22.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

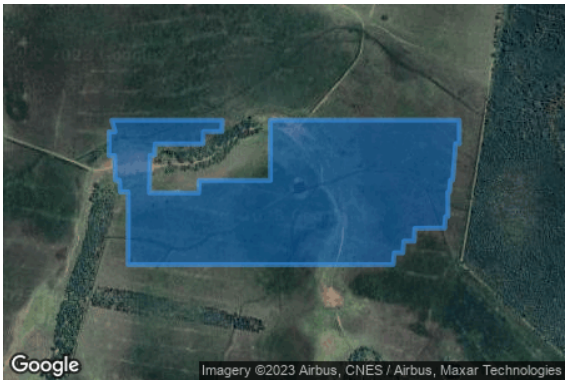
Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.102156	153.044086	58.73	2.50	61.23
2	-29.102156	153.047328	63.32	2.50	65.82
3	-29.102194	153.047328	95.21	2.50	97.71
4	-29.102194	153.058594	119.73	2.50	122.23
5	-29.102550	153.058617	84.51	2.50	87.01
6	-29.102550	153.058697	82.32	2.50	84.82
7	-29.103253	153.058700	86.95	2.50	89.45
8	-29.103253	153.058464	98.42	2.50	100.92
9	-29.103636	153.058431	85.79	2.50	88.29
10	-29.103636	153.058125	71.39	2.50	73.89
11	-29.104347	153.058089	63.19	2.50	65.69
12	-29.104347	153.057872	68.64	2.50	71.14
13	-29.105078	153.057872	75.02	2.50	77.52
14	-29.105080	153.057786	73.92	2.50	76.42
15	-29.105431	153.057761	95.27	2.50	97.77
16	-29.105431	153.057622	95.06	2.50	97.56
17	-29.106164	153.057597	96.25	2.50	98.75
18	-29.106167	153.057461	85.20	2.50	87.70
19	-29.106514	153.057433	78.67	2.50	81.17
20	-29.106514	153.057292	76.66	2.50	79.16
21	-29.107410	153.057270	69.71	2.50	72.21
22	-29.107410	153.057190	70.70	2.50	73.20
23	-29.107760	153.057150	76.15	2.50	78.65
24	-29.107770	153.056900	69.23	2.50	71.73
25	-29.108870	153.056840	63.91	2.50	66.41
26	-29.108840	153.054250	69.03	2.50	71.53
27	-29.106690	153.054260	67.10	2.50	69.60
28	-29.106700	153.054510	61.84	2.50	64.34
29	-29.105460	153.054540	51.44	2.50	53.94
30	-29.105460	153.054670	46.48	2.50	48.98
31	-29.103650	153.054660	44.11	2.50	46.61
32	-29.103650	153.053990	50.89	2.50	53.39
33	-29.103260	153.053990	55.01	2.50	57.51
34	-29.103260	153.051930	50.62	2.50	53.12
35	-29.102900	153.051890	64.22	2.50	66.72
36	-29.102900	153.046260	78.81	2.50	81.31
37	-29.102530	153.046260	69.88	2.50	72.38
38	-29.102531	153.044111	81.44	2.50	83.94

Name: PV array 16
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 22.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.109583	153.053697	35.88	2.50	38.38
2	-29.109580	153.053892	35.82	2.50	38.32
3	-29.108872	153.053936	34.22	2.50	36.72
4	-29.108872	153.056486	35.80	2.50	38.30
5	-29.110681	153.056581	33.60	2.50	36.10
6	-29.110680	153.057408	33.51	2.50	36.01
7	-29.110322	153.057431	33.12	2.50	35.62
8	-29.110333	153.057622	33.65	2.50	36.15
9	-29.109972	153.057656	34.81	2.50	37.31
10	-29.109969	153.057892	35.48	2.50	37.98
11	-29.109233	153.057922	37.27	2.50	39.77
12	-29.109230	153.058064	37.55	2.50	40.05
13	-29.108494	153.058144	37.24	2.50	39.74
14	-29.108494	153.061594	35.21	2.50	37.71
15	-29.108867	153.061622	34.11	2.50	36.61
16	-29.108875	153.064650	30.58	2.50	33.08
17	-29.108597	153.064578	31.08	2.50	33.58
18	-29.108494	153.064914	30.76	2.50	33.26
19	-29.107772	153.064875	32.09	2.50	34.59
20	-29.107750	153.062925	30.39	2.50	32.89
21	-29.107664	153.062525	32.23	2.50	34.73
22	-29.107419	153.062503	32.17	2.50	34.67
23	-29.107467	153.060950	34.16	2.50	36.66
24	-29.107297	153.060244	33.94	2.50	36.44
25	-29.107050	153.060219	33.92	2.50	36.42
26	-29.107044	153.059328	34.04	2.50	36.54
27	-29.106736	153.059336	34.04	2.50	36.54
28	-29.106700	153.066869	31.79	2.50	34.29
29	-29.107036	153.066903	31.47	2.50	33.97
30	-29.107036	153.067019	31.60	2.50	34.10
31	-29.108842	153.067022	33.82	2.50	36.32
32	-29.108842	153.066803	33.30	2.50	35.80
33	-29.109572	153.066800	34.25	2.50	36.75
34	-29.109570	153.066614	33.70	2.50	36.20
35	-29.109936	153.066586	34.18	2.50	36.68
36	-29.109940	153.066383	33.57	2.50	36.07
37	-29.110311	153.066380	34.11	2.50	36.61
38	-29.110310	153.066217	33.64	2.50	36.14
39	-29.110669	153.066192	34.08	2.50	36.58
40	-29.110675	153.065881	33.18	2.50	35.68
41	-29.111028	153.065858	33.66	2.50	36.16
42	-29.111028	153.058667	34.00	2.50	36.50
43	-29.111203	153.058667	34.00	2.50	36.50
44	-29.111203	153.065461	33.51	2.50	36.01
45	-29.111908	153.065461	35.73	2.50	38.23
46	-29.111908	153.065331	35.54	2.50	38.04
47	-29.112269	153.065303	35.50	2.50	38.00
48	-29.112270	153.064894	35.16	2.50	37.66
49	-29.112997	153.064853	35.92	2.50	38.42
50	-29.112997	153.063419	33.64	2.50	36.14
51	-29.112650	153.063394	34.07	2.50	36.57
52	-29.112639	153.061467	31.62	2.50	34.12
53	-29.112269	153.061444	32.22	2.50	34.72
54	-29.112264	153.058369	34.15	2.50	36.65
55	-29.111908	153.058342	34.08	2.50	36.58
56	-29.111908	153.055928	33.83	2.50	36.33
57	-29.111547	153.055900	33.61	2.50	36.11
58	-29.111550	153.053644	40.15	2.50	42.65

Name: PV array 17
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 22.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.102197	153.059017	39.95	2.50	42.45
2	-29.102194	153.062817	37.76	2.50	40.26
3	-29.102533	153.062803	35.96	2.50	38.46
4	-29.102539	153.062167	38.22	2.50	40.72
5	-29.102906	153.062150	38.04	2.50	40.54
6	-29.102910	153.060506	39.98	2.50	42.48
7	-29.103247	153.060483	38.09	2.50	40.59
8	-29.103253	153.060331	35.83	2.50	38.33
9	-29.104367	153.060311	35.23	2.50	37.73
10	-29.104375	153.062003	35.00	2.50	37.50
11	-29.103994	153.062019	35.26	2.50	37.76
12	-29.104000	153.064469	35.33	2.50	37.83
13	-29.102194	153.064467	41.33	2.50	43.83
14	-29.102194	153.070958	35.53	2.50	38.03
15	-29.102900	153.070964	31.99	2.50	34.49
16	-29.102900	153.070833	34.31	2.50	36.81
17	-29.103986	153.070736	38.09	2.50	40.59
18	-29.103992	153.070656	36.86	2.50	39.36
19	-29.104342	153.070622	35.58	2.50	38.08
20	-29.104344	153.070567	35.32	2.50	37.82
21	-29.105078	153.070575	39.57	2.50	42.07
22	-29.105080	153.070486	39.78	2.50	42.28
23	-29.105425	153.070458	37.46	2.50	39.96
24	-29.105431	153.069433	34.45	2.50	36.95
25	-29.105819	153.069408	43.72	2.50	46.22
26	-29.105819	153.069053	44.69	2.50	47.19
27	-29.106167	153.069022	39.39	2.50	41.89
28	-29.106167	153.068725	33.07	2.50	35.57
29	-29.106519	153.068689	38.03	2.50	40.53
30	-29.106520	153.059578	36.08	2.50	38.58
31	-29.104344	153.059583	36.72	2.50	39.22
32	-29.104347	153.059308	37.07	2.50	39.57
33	-29.103989	153.059278	37.85	2.50	40.35
34	-29.103989	153.059139	38.21	2.50	40.71
35	-29.103253	153.059111	40.68	2.50	43.18
36	-29.103253	153.058922	39.83	2.50	42.33
37	-29.102544	153.058922	38.08	2.50	40.58
38	-29.102544	153.059133	37.66	2.50	40.16

Name: PV array 18
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 22.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.109586	153.069572	30.93	2.50	33.43
2	-29.109592	153.071361	29.24	2.50	31.74
3	-29.109972	153.071386	29.96	2.50	32.46
4	-29.109978	153.072467	30.00	2.50	32.50
5	-29.110311	153.072500	30.00	2.50	32.50
6	-29.110319	153.073303	31.15	2.50	33.65
7	-29.110672	153.073361	30.64	2.50	33.14
8	-29.112108	153.073353	28.68	2.50	31.18
9	-29.112119	153.072439	30.64	2.50	33.14
10	-29.112300	153.072442	30.87	2.50	33.37
11	-29.112300	153.074256	29.00	2.50	31.50
12	-29.112653	153.074275	29.74	2.50	32.24
13	-29.112661	153.074633	29.77	2.50	32.27
14	-29.113006	153.074628	30.79	2.50	33.29
15	-29.113006	153.076522	29.89	2.50	32.39
16	-29.112797	153.076511	29.59	2.50	32.09
17	-29.112797	153.078297	26.43	2.50	28.93
18	-29.113372	153.078353	27.13	2.50	29.63
19	-29.114981	153.078347	29.88	2.50	32.38
20	-29.114969	153.078094	29.97	2.50	32.47
21	-29.115317	153.078075	30.26	2.50	32.76
22	-29.115320	153.076460	34.27	2.50	36.77
23	-29.115528	153.076456	33.21	2.50	35.71
24	-29.115525	153.070742	31.94	2.50	34.44
25	-29.114467	153.070742	30.74	2.50	33.24
26	-29.114467	153.070797	30.48	2.50	32.98
27	-29.113725	153.070797	30.05	2.50	32.55
28	-29.113725	153.070239	31.57	2.50	34.07
29	-29.113350	153.070219	31.26	2.50	33.76
30	-29.113350	153.070125	31.37	2.50	33.87
31	-29.113000	153.070100	31.06	2.50	33.56
32	-29.113000	153.069572	31.53	2.50	34.03

Name: PV array 19
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 22.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.095008	153.049878	30.65	2.50	33.15
2	-29.095006	153.067636	55.88	2.50	58.38
3	-29.095361	153.067678	52.05	2.50	54.55
4	-29.095372	153.070639	54.94	2.50	57.44
5	-29.095722	153.070672	51.58	2.50	54.08
6	-29.095733	153.071469	49.76	2.50	52.26
7	-29.097678	153.071458	43.37	2.50	45.87
8	-29.097692	153.071583	43.76	2.50	46.26
9	-29.099842	153.071569	35.11	2.50	37.61
10	-29.099842	153.071353	33.97	2.50	36.47
11	-29.100928	153.071347	33.60	2.50	36.10
12	-29.100928	153.071208	33.60	2.50	36.10
13	-29.101667	153.071186	35.03	2.50	37.53
14	-29.101658	153.071047	35.08	2.50	37.58
15	-29.102022	153.071031	35.02	2.50	37.52
16	-29.102020	153.047342	32.77	2.50	35.27
17	-29.102114	153.047336	32.68	2.50	35.18
18	-29.102111	153.044069	34.04	2.50	36.54
19	-29.102019	153.044086	34.00	2.50	36.50
20	-29.102014	153.039336	38.65	2.50	41.15
21	-29.099867	153.039331	37.84	2.50	40.34
22	-29.099861	153.040528	36.06	2.50	38.56
23	-29.099494	153.040547	35.30	2.50	37.80
24	-29.099494	153.043892	32.13	2.50	34.63
25	-29.100950	153.043914	33.56	2.50	36.06
26	-29.100958	153.045236	34.06	2.50	36.56
27	-29.100580	153.045280	34.35	2.50	36.85
28	-29.100570	153.046140	33.76	2.50	36.26
29	-29.100220	153.046170	35.46	2.50	37.96
30	-29.100220	153.046440	35.17	2.50	37.67
31	-29.100570	153.046470	33.65	2.50	36.15
32	-29.100570	153.046810	33.54	2.50	36.04
33	-29.100220	153.046830	34.76	2.50	37.26
34	-29.100220	153.048570	34.30	2.50	36.80
35	-29.099860	153.048580	34.26	2.50	36.76
36	-29.099860	153.055040	30.23	2.50	32.73
37	-29.097520	153.055040	29.19	2.50	31.69
38	-29.097508	153.049244	29.61	2.50	32.11
39	-29.096461	153.049253	28.44	2.50	30.94

Name: PV array 2
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 22.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.103011	153.028981	45.87	2.50	48.37
2	-29.103033	153.031867	42.45	2.50	44.95
3	-29.105117	153.031872	39.58	2.50	42.08
4	-29.105139	153.029231	43.48	2.50	45.98
5	-29.104064	153.029211	43.73	2.50	46.23
6	-29.104044	153.028956	41.58	2.50	44.08

Name: PV array 20
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 22.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.097756	153.046586	30.04	2.50	32.54
2	-29.097722	153.046661	30.51	2.50	33.01
3	-29.097722	153.050819	31.18	2.50	33.68
4	-29.098397	153.050817	30.55	2.50	33.05
5	-29.098400	153.050675	29.78	2.50	32.28
6	-29.098433	153.050681	29.76	2.50	32.26
7	-29.098430	153.049186	29.93	2.50	32.43
8	-29.098747	153.049158	31.20	2.50	33.70
9	-29.098744	153.049008	30.31	2.50	32.81
10	-29.098781	153.048992	30.37	2.50	32.87
11	-29.098789	153.045769	30.60	2.50	33.10
12	-29.098081	153.045769	31.10	2.50	33.60
13	-29.098089	153.046567	32.80	2.50	35.30

Name: PV array 21
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 22.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.119964	153.067553	34.62	2.50	37.12
2	-29.119931	153.071286	34.59	2.50	37.09
3	-29.120281	153.071325	33.95	2.50	36.45
4	-29.120344	153.073556	31.66	2.50	34.16
5	-29.120458	153.073553	31.39	2.50	33.89
6	-29.120464	153.075878	34.40	2.50	36.90
7	-29.120114	153.075856	33.35	2.50	35.85
8	-29.120114	153.078875	29.83	2.50	32.33
9	-29.120853	153.078881	29.81	2.50	32.31
10	-29.120853	153.078372	29.48	2.50	31.98
11	-29.121589	153.078375	30.72	2.50	33.22
12	-29.121597	153.077969	30.34	2.50	32.84
13	-29.121947	153.077806	30.38	2.50	32.88
14	-29.121947	153.077344	29.07	2.50	31.57
15	-29.122303	153.077336	29.04	2.50	31.54
16	-29.122294	153.075361	32.04	2.50	34.54
17	-29.121594	153.075361	34.77	2.50	37.27
18	-29.121586	153.073336	29.42	2.50	31.92
19	-29.121239	153.073328	29.58	2.50	32.08
20	-29.121294	153.070856	32.46	2.50	34.96
21	-29.121714	153.070683	31.91	2.50	34.41
22	-29.121714	153.070081	32.74	2.50	35.24
23	-29.122067	153.069833	32.73	2.50	35.23
24	-29.122103	153.067342	29.46	2.50	31.96
25	-29.121022	153.067347	32.75	2.50	35.25
26	-29.121022	153.067553	32.13	2.50	34.63

Name: PV array 22
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 22.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.114775	153.080247	54.75	2.50	57.25
2	-29.114775	153.080583	53.92	2.50	56.42
3	-29.115122	153.080614	56.19	2.50	58.69
4	-29.115125	153.080961	59.96	2.50	62.46
5	-29.115822	153.080961	55.06	2.50	57.56
6	-29.115822	153.080836	49.55	2.50	52.05
7	-29.116564	153.080797	49.76	2.50	52.26
8	-29.116564	153.080217	46.19	2.50	48.69
9	-29.116928	153.080192	43.83	2.50	46.33
10	-29.116928	153.079286	43.59	2.50	46.09
11	-29.117444	153.079256	45.43	2.50	47.93
12	-29.117444	153.078672	40.64	2.50	43.14
13	-29.117797	153.078642	41.60	2.50	44.10
14	-29.117797	153.078194	41.85	2.50	44.35
15	-29.117103	153.078194	41.39	2.50	43.89
16	-29.117103	153.078386	41.00	2.50	43.50
17	-29.116203	153.078425	51.19	2.50	53.69
18	-29.116208	153.078614	48.69	2.50	51.19
19	-29.115853	153.078644	55.75	2.50	58.25
20	-29.115853	153.079003	60.58	2.50	63.08
21	-29.115475	153.079028	56.40	2.50	58.90
22	-29.115481	153.079553	48.27	2.50	50.77
23	-29.115125	153.079589	49.11	2.50	51.61
24	-29.115128	153.080219	57.49	2.50	59.99

Name: PV array 23
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 22.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.115711	153.068300	41.50	2.50	44.00
2	-29.115708	153.077564	41.51	2.50	44.01
3	-29.116775	153.077617	41.78	2.50	44.28
4	-29.116775	153.077372	41.72	2.50	44.22
5	-29.117500	153.077344	41.23	2.50	43.73
6	-29.117500	153.077214	40.70	2.50	43.20
7	-29.117853	153.077178	40.00	2.50	42.50
8	-29.117858	153.077039	40.44	2.50	42.94
9	-29.118383	153.077014	41.50	2.50	44.00
10	-29.118383	153.076644	41.18	2.50	43.68
11	-29.118739	153.076631	40.28	2.50	42.78
12	-29.118739	153.075653	39.12	2.50	41.62
13	-29.119083	153.075622	38.34	2.50	40.84
14	-29.119083	153.072625	39.10	2.50	41.60
15	-29.118736	153.072594	40.48	2.50	42.98
16	-29.118736	153.068858	40.41	2.50	42.91
17	-29.118383	153.068831	42.05	2.50	44.55
18	-29.118383	153.067967	42.40	2.50	44.90
19	-29.116806	153.067970	42.22	2.50	44.72
20	-29.116810	153.068106	42.02	2.50	44.52
21	-29.116053	153.068131	41.65	2.50	44.15
22	-29.116050	153.068272	42.27	2.50	44.77

Name: PV array 3
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 22.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.103158	153.033744	37.67	2.50	40.17
2	-29.103161	153.034311	44.09	2.50	46.59
3	-29.103506	153.034347	49.91	2.50	52.41
4	-29.103506	153.035361	50.39	2.50	52.89
5	-29.103864	153.035389	48.02	2.50	50.52
6	-29.103864	153.035694	46.05	2.50	48.55
7	-29.104236	153.035733	43.39	2.50	45.89
8	-29.104242	153.036075	41.79	2.50	44.29
9	-29.105681	153.036081	43.07	2.50	45.57
10	-29.105678	153.035300	40.37	2.50	42.87
11	-29.105300	153.035261	38.35	2.50	40.85
12	-29.105300	153.033747	38.15	2.50	40.65

Name: PV array 4
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 22.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.100956	153.029697	61.70	2.50	64.20
2	-29.100960	153.033861	52.05	2.50	54.55
3	-29.102319	153.033872	41.22	2.50	43.72
4	-29.102206	153.029711	55.91	2.50	58.41

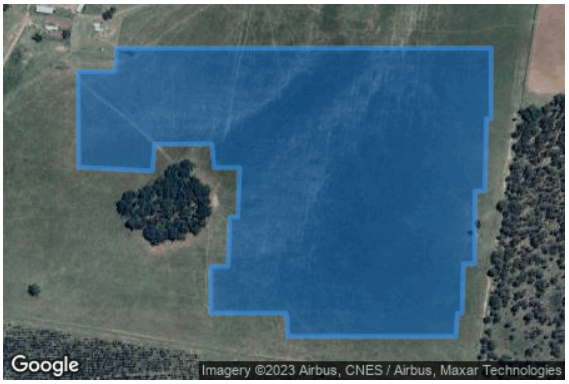
Name: PV array 5
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 22.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.096244	153.020017	63.68	2.50	66.18
2	-29.096258	153.021258	58.95	2.50	61.45
3	-29.096144	153.021281	58.13	2.50	60.63
4	-29.096142	153.022628	52.57	2.50	55.07
5	-29.096497	153.022653	51.62	2.50	54.12
6	-29.096506	153.025769	53.56	2.50	56.06
7	-29.096856	153.025817	52.73	2.50	55.23
8	-29.096858	153.026111	52.97	2.50	55.47
9	-29.097494	153.026317	52.15	2.50	54.65
10	-29.097789	153.027056	53.44	2.50	55.94
11	-29.098275	153.027050	51.11	2.50	53.61
12	-29.098319	153.019792	51.02	2.50	53.52
13	-29.098064	153.019775	50.99	2.50	53.49
14	-29.097667	153.020156	52.49	2.50	54.99
15	-29.097636	153.020281	52.49	2.50	54.99
16	-29.096947	153.020283	54.63	2.50	57.13
17	-29.096931	153.020225	54.40	2.50	56.90
18	-29.096930	153.020225	52.63	2.50	55.13
19	-29.096930	153.020225	56.59	2.50	59.09

Name: PV array 6
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 22.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.098411	153.019708	52.49	2.50	54.99
2	-29.098410	153.022644	54.27	2.50	56.77
3	-29.098453	153.022644	54.17	2.50	56.67
4	-29.098453	153.025644	52.52	2.50	55.02
5	-29.098406	153.025644	52.52	2.50	55.02
6	-29.098410	153.026583	50.97	2.50	53.47
7	-29.098456	153.026583	50.96	2.50	53.46
8	-29.098460	153.028092	50.98	2.50	53.48
9	-29.098806	153.028111	49.50	2.50	52.00
10	-29.098814	153.028110	49.50	2.50	52.00
11	-29.100568	153.028106	43.03	2.50	45.53
12	-29.100578	153.028090	43.04	2.50	45.54
13	-29.100586	153.028083	43.04	2.50	45.54
14	-29.100586	153.024706	46.96	2.50	49.46
15	-29.100236	153.024675	47.84	2.50	50.34
16	-29.100236	153.024317	47.76	2.50	50.26
17	-29.099511	153.024286	51.07	2.50	53.57
18	-29.099503	153.021261	52.06	2.50	54.56
19	-29.099153	153.021256	51.64	2.50	54.14
20	-29.099147	153.019714	53.21	2.50	55.71

Name: PV array 7
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 22.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.102553	153.036561	61.89	2.50	64.39
2	-29.102550	153.037192	57.69	2.50	60.19
3	-29.102203	153.037222	56.56	2.50	59.06
4	-29.102200	153.043656	57.79	2.50	60.29
5	-29.103258	153.043656	59.96	2.50	62.46
6	-29.103258	153.043578	60.09	2.50	62.59
7	-29.104339	153.043550	61.32	2.50	63.82
8	-29.104344	153.043381	63.82	2.50	66.32
9	-29.105428	153.043375	64.55	2.50	67.05
10	-29.105430	153.043181	65.16	2.50	67.66
11	-29.106169	153.043158	66.84	2.50	69.34
12	-29.106170	153.043078	69.07	2.50	71.57
13	-29.106517	153.043053	71.34	2.50	73.84
14	-29.106517	153.040167	72.19	2.50	74.69
15	-29.106167	153.040136	70.00	2.50	72.50
16	-29.106167	153.038839	69.02	2.50	71.52
17	-29.105467	153.038839	69.78	2.50	72.28
18	-29.105470	153.039136	74.83	2.50	77.33
19	-29.104728	153.039169	75.24	2.50	77.74
20	-29.104728	153.039303	72.87	2.50	75.37
21	-29.103992	153.039336	67.81	2.50	70.31
22	-29.103990	153.038897	63.04	2.50	65.54
23	-29.103636	153.038858	60.65	2.50	63.15
24	-29.103640	153.037875	61.34	2.50	63.84
25	-29.104042	153.037839	65.75	2.50	68.25
26	-29.103986	153.036569	63.73	2.50	66.23

Name: PV array 8
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 22.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.092536	153.034539	49.37	2.50	51.87
2	-29.092539	153.034797	46.57	2.50	49.07
3	-29.091453	153.034833	44.03	2.50	46.53
4	-29.091453	153.034972	42.10	2.50	44.60
5	-29.091078	153.034981	41.53	2.50	44.03
6	-29.091078	153.035514	38.85	2.50	41.35
7	-29.091175	153.035525	37.65	2.50	40.15
8	-29.091308	153.036322	36.36	2.50	38.86
9	-29.092222	153.043542	34.71	2.50	37.21
10	-29.092350	153.043533	33.71	2.50	36.21
11	-29.092544	153.045875	34.18	2.50	36.68
12	-29.092803	153.045858	35.67	2.50	38.17
13	-29.092858	153.048208	36.30	2.50	38.80
14	-29.093097	153.049672	36.65	2.50	39.15
15	-29.093600	153.049675	36.09	2.50	38.59
16	-29.093600	153.034550	36.90	2.50	39.40
17	-29.093600	153.034550	38.56	2.50	41.06
18	-29.093600	153.034550	40.09	2.50	42.59
19	-29.093600	153.034550	43.30	2.50	45.80
20	-29.093600	153.034550	46.85	2.50	49.35
21	-29.093600	153.034550	50.12	2.50	52.62
22	-29.093600	153.034550	50.80	2.50	53.30

Name: PV array 9
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 22.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.093742	153.034075	47.59	2.50	50.09
2	-29.093742	153.047911	29.17	2.50	31.67
3	-29.093636	153.047906	29.32	2.50	31.82
4	-29.093640	153.047924	29.32	2.50	31.82
5	-29.094433	153.049239	29.11	2.50	31.61
6	-29.094433	153.049097	29.00	2.50	31.50
7	-29.094797	153.049075	29.37	2.50	31.87
8	-29.094797	153.048883	29.37	2.50	31.87
9	-29.095178	153.048853	29.93	2.50	32.43
10	-29.095178	153.048714	29.93	2.50	32.43
11	-29.095531	153.048686	29.56	2.50	32.06
12	-29.095533	153.048492	29.56	2.50	32.06
13	-29.095894	153.048458	29.04	2.50	31.54
14	-29.095890	153.034044	50.01	2.50	52.51

Route Receptors

Name: Avenue Road
Path type: Two-way
Observer view angle: 50.0°

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.104310	153.008342	42.58	2.40	44.98
2	-29.100917	153.012869	48.57	2.40	50.97
3	-29.099510	153.019414	55.62	2.40	58.02
4	-29.101310	153.026194	44.13	2.40	46.53
5	-29.100501	153.029799	39.40	2.40	41.80
6	-29.100182	153.033833	38.23	2.40	40.63
7	-29.099919	153.034691	38.36	2.40	40.76
8	-29.099619	153.036214	38.31	2.40	40.71
9	-29.099788	153.037373	38.57	2.40	40.97
10	-29.098748	153.043470	32.00	2.40	34.40
11	-29.096820	153.048507	29.92	2.40	32.32
12	-29.092638	153.050803	31.00	2.40	33.40
13	-29.089901	153.051575	41.28	2.40	43.68
14	-29.088341	153.054683	47.04	2.40	49.44
15	-29.087047	153.056636	55.63	2.40	58.03
16	-29.086241	153.058610	59.01	2.40	61.41
17	-29.084685	153.059683	59.79	2.40	62.19

Name: Main Camp Road
Path type: Two-way
Observer view angle: 50.0°

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.130769	153.064031	35.05	2.40	37.45
2	-29.130881	153.067035	33.07	2.40	35.47
3	-29.130450	153.072142	26.52	2.40	28.92
4	-29.129644	153.084169	26.00	2.40	28.40

Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (m)	Height (m)
OP 1	1	-29.098436	153.005919	57.00	1.50
OP 2	2	-29.098614	153.005617	58.18	1.50
OP 3	3	-29.098942	153.009817	58.46	1.50
OP 4	4	-29.104081	153.007164	43.97	1.50
OP 5	5	-29.105522	153.007317	42.09	1.50
OP 6	6	-29.104364	153.005417	45.19	1.50
OP 7	7	-29.105019	153.006536	45.10	1.50
OP 8	8	-29.117603	153.001347	38.65	1.50
OP 9	9	-29.083078	153.055558	73.37	1.50
OP 10	10	-29.076967	153.057103	64.26	1.50
OP 11	11	-29.080647	153.066289	49.73	1.50
OP 12	12	-29.083183	153.068906	49.76	1.50
OP 13	13	-29.080508	153.075694	58.03	1.50
OP 14	14	-29.072514	153.073319	58.38	1.50
OP 15	15	-29.079144	153.061150	62.76	1.50
OP 16	16	-29.084792	153.057350	64.28	1.50
OP 17	17	-29.087883	153.058739	46.82	1.50
OP 18	18	-29.081653	153.067194	53.77	1.50
OP 19	19	-29.085114	153.060258	60.28	1.50
OP 20	20	-29.090203	153.055103	40.01	1.50
OP 21	21	-29.106228	153.101144	34.31	1.50
OP 22	22	-29.084800	153.063742	69.22	1.50
OP 23	23	-29.084386	153.065572	66.41	1.50
OP 24	24	-29.084969	153.068331	50.01	1.50
OP 25	25	-29.081494	153.054019	74.64	1.50
OP 26	26	-29.131783	153.064194	34.19	1.50
OP 27	27	-29.132158	153.065619	34.34	1.50
OP 28	28	-29.131331	153.065711	36.18	1.50
OP 29	29	-29.138036	153.099008	43.00	1.50
OP 30	30	-29.134267	153.099875	41.44	1.50
OP 31	31	-29.138078	153.100536	38.27	1.50
OP 32	32	-29.132817	153.101467	42.08	1.50
OP 33	33	-29.134686	153.059939	31.67	1.50

Glare Analysis Results

Summary of Results

Glare with potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV array 1	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 10	SA tracking	SA tracking	25,115	418.6	10,250	170.8	-
PV array 15	SA tracking	SA tracking	584	9.7	127	2.1	-
PV array 16	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 17	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 18	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 19	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 2	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 20	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 21	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 22	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 23	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 3	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 4	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 5	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 6	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 7	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 8	SA tracking	SA tracking	4,334	72.2	19	0.3	-
PV array 9	SA tracking	SA tracking	0	0.0	0	0.0	-

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Avenue Road	16,829	280.5	10,269	171.2
Main Camp Road	838	14.0	127	2.1

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	261	4.3	0	0.0
OP 10	57	0.9	0	0.0
OP 11	278	4.6	0	0.0
OP 12	271	4.5	0	0.0
OP 13	284	4.7	0	0.0
OP 14	144	2.4	0	0.0
OP 15	148	2.5	0	0.0
OP 16	488	8.1	0	0.0
OP 17	123	2.0	0	0.0
OP 18	300	5.0	0	0.0
OP 19	306	5.1	0	0.0
OP 20	0	0.0	0	0.0
OP 21	297	5.0	0	0.0
OP 22	290	4.8	0	0.0
OP 23	280	4.7	0	0.0
OP 24	185	3.1	0	0.0
OP 25	55	0.9	0	0.0
OP 26	1,941	32.4	0	0.0
OP 27	1,708	28.5	0	0.0
OP 28	1,651	27.5	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	3,299	55.0	0	0.0

PV: PV array 1 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 1 and Route: Avenue Road

No glare found

PV array 1 and Route: Main Camp Road

No glare found

PV array 1 and OP 1

No glare found

PV array 1 and OP 2

No glare found

PV array 1 and OP 3

No glare found

PV array 1 and OP 4

No glare found

PV array 1 and OP 5

No glare found

PV array 1 and OP 6

No glare found

PV array 1 and OP 7

No glare found

PV array 1 and OP 8

No glare found

PV array 1 and OP 9

No glare found

PV array 1 and OP 10

No glare found

PV array 1 and OP 11

No glare found

PV array 1 and OP 12

No glare found

PV array 1 and OP 13

No glare found

PV array 1 and OP 14

No glare found

PV array 1 and OP 15

No glare found

PV array 1 and OP 16

No glare found

PV array 1 and OP 17

No glare found

PV array 1 and OP 18

No glare found

PV array 1 and OP 19

No glare found

PV array 1 and OP 20

No glare found

PV array 1 and OP 21

No glare found

PV array 1 and OP 22

No glare found

PV array 1 and OP 23

No glare found

PV array 1 and OP 24

No glare found

PV array 1 and OP 25

No glare found

PV array 1 and OP 26

No glare found

PV array 1 and OP 27

No glare found

PV array 1 and OP 28

No glare found

PV array 1 and OP 29

No glare found

PV array 1 and OP 30

No glare found

PV array 1 and OP 31

No glare found

PV array 1 and OP 32

No glare found

PV array 1 and OP 33

No glare found

PV: PV array 10 potential temporary after-image

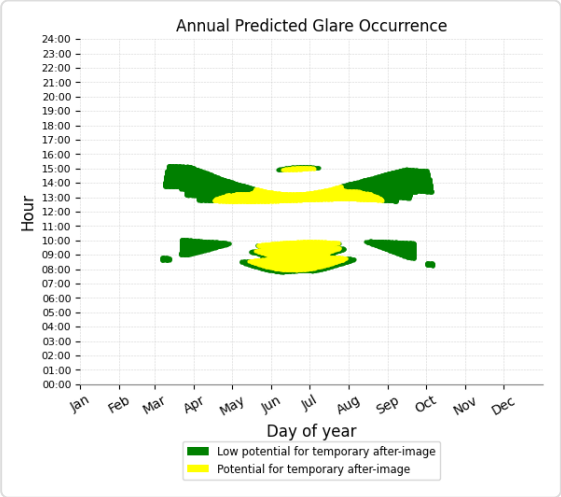
Receptor results ordered by category of glare

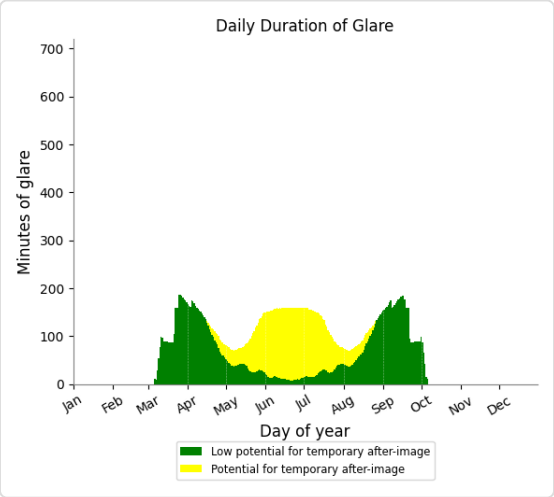
Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	15,965	266.1	10,250	170.8
Main Camp Road	551	9.2	0	0.0
OP 26	1,941	32.4	0	0.0
OP 27	1,708	28.5	0	0.0
OP 28	1,651	27.5	0	0.0
OP 33	3,299	55.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0

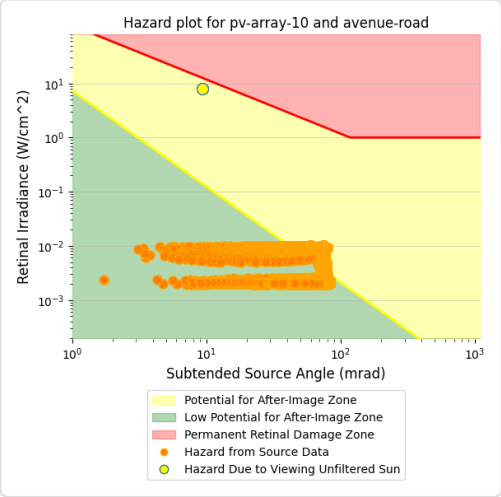
PV array 10 and Route: Avenue Road

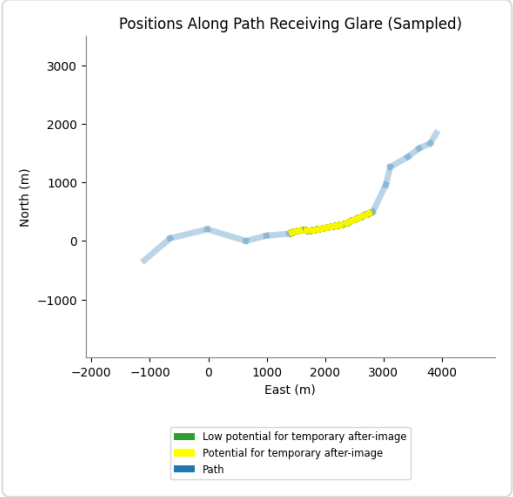
Yellow glare: 10,250 min.

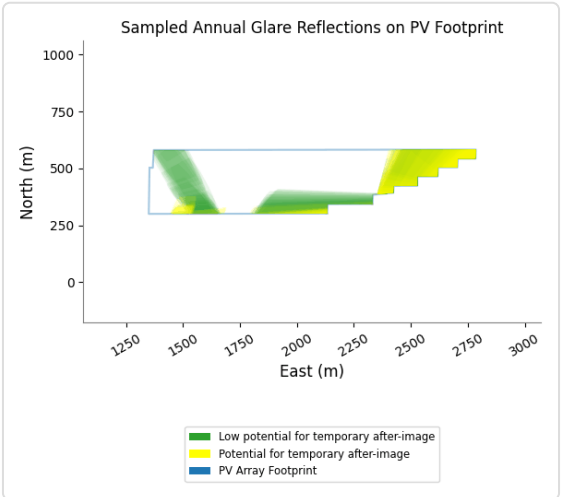
Green glare: 15,965 min.







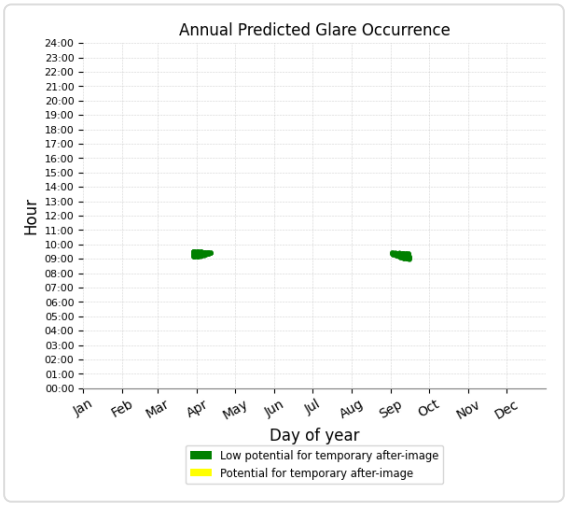


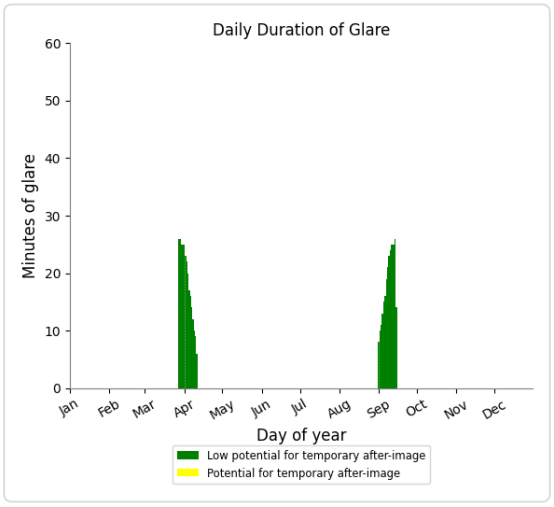


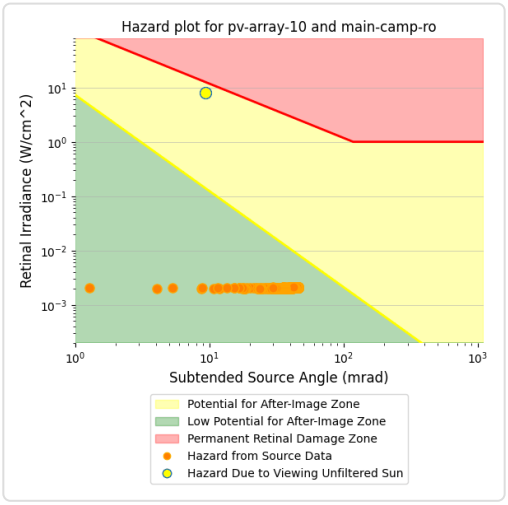
PV array 10 and Route: Main Camp Road

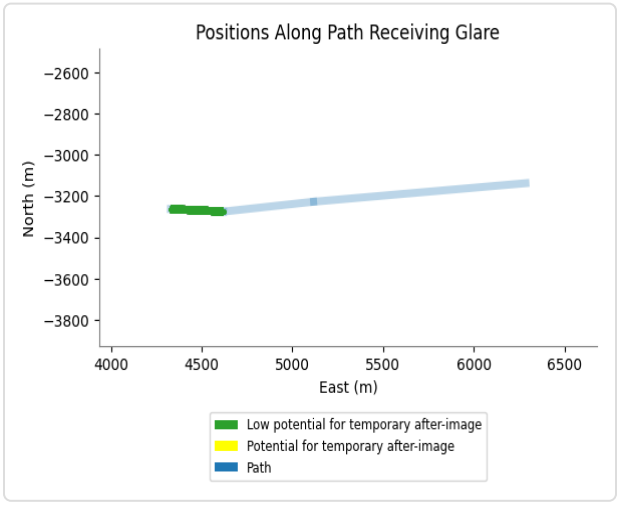
Yellow glare: none

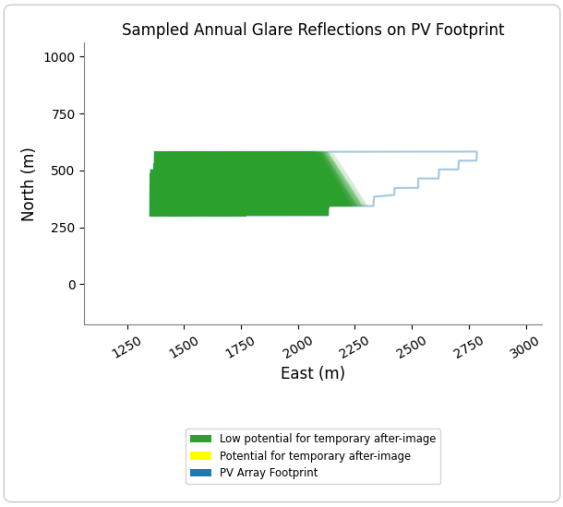
Green glare: 551 min.







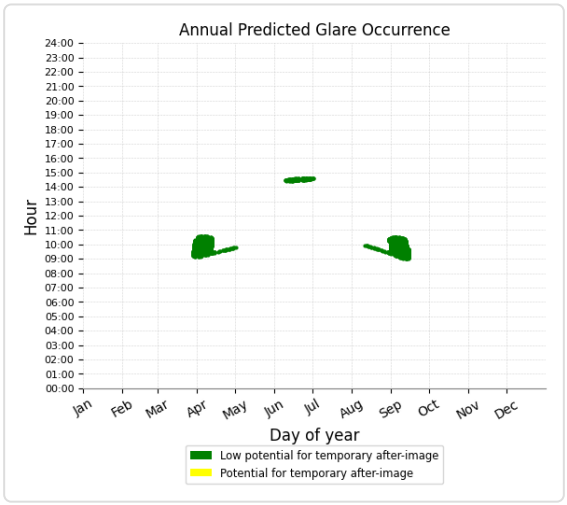


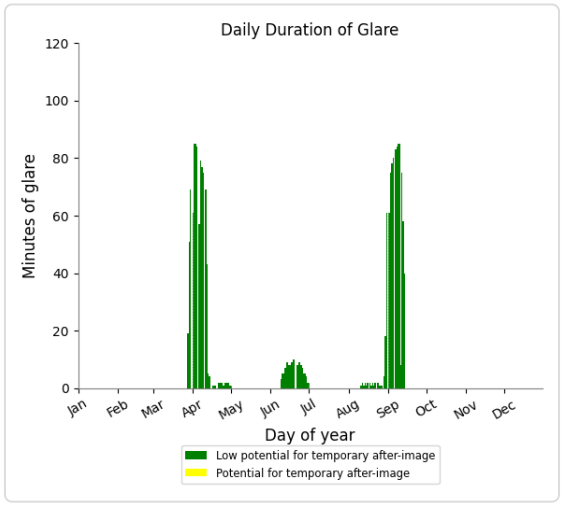


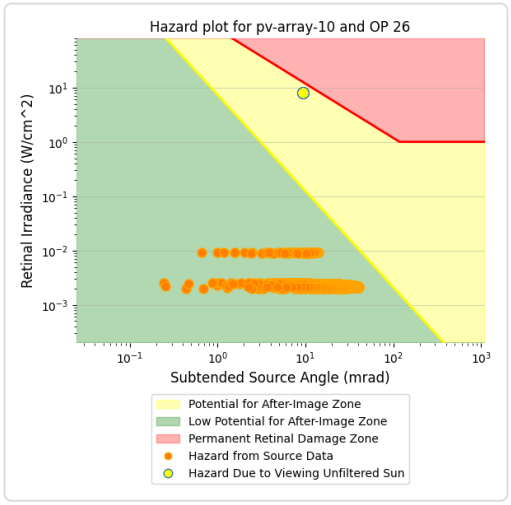
PV array 10 and OP 26

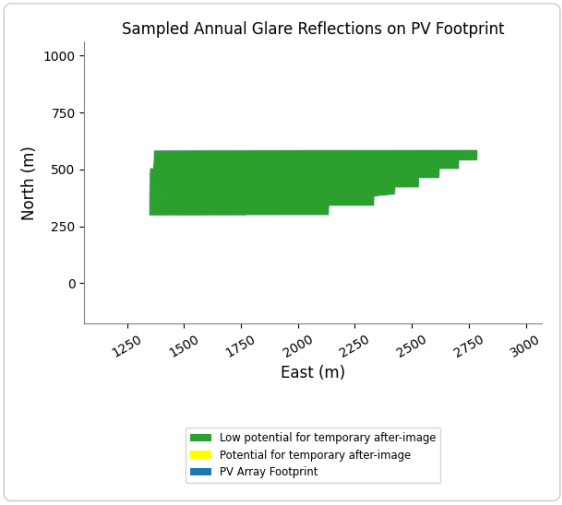
Yellow glare: none

Green glare: 1,941 min.





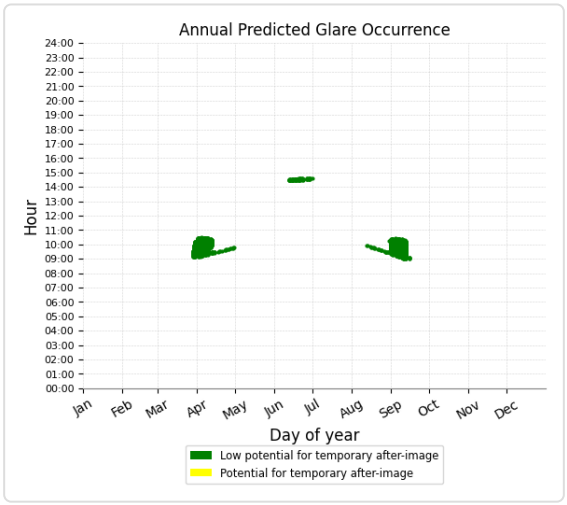


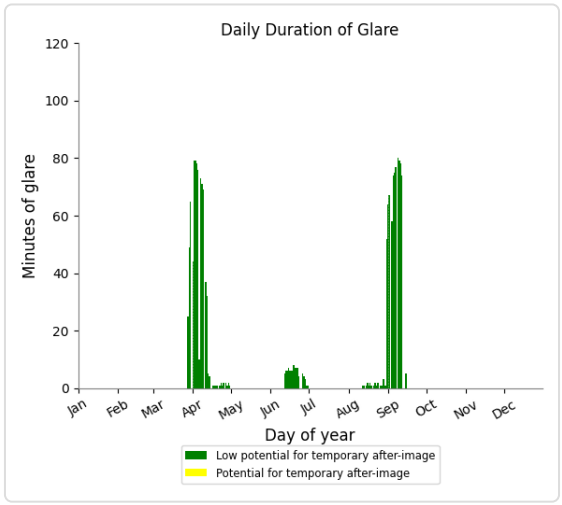


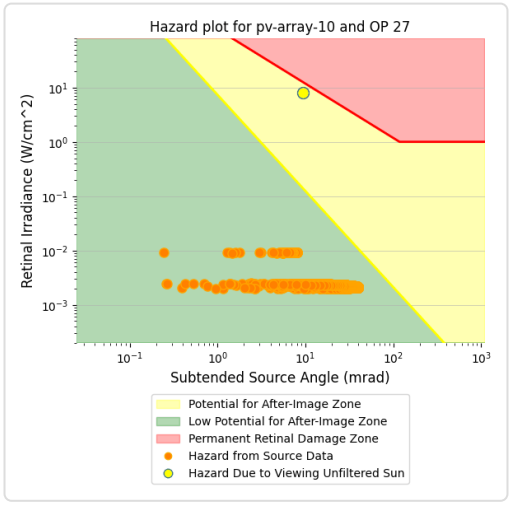
PV array 10 and OP 27

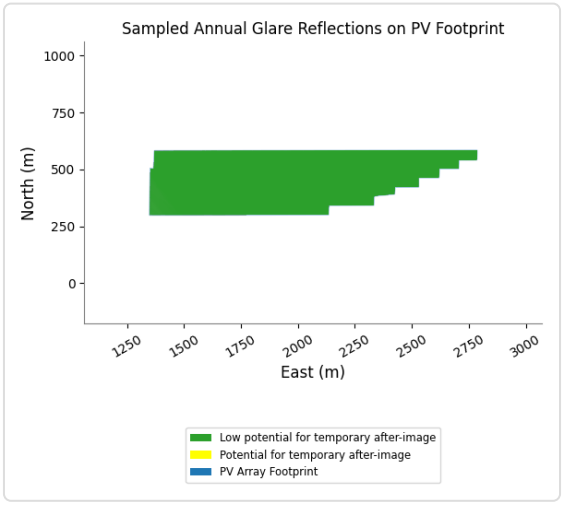
Yellow glare: none

Green glare: 1,708 min.





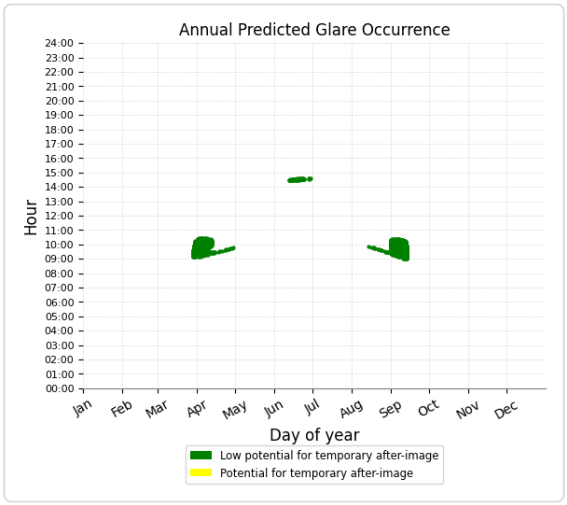


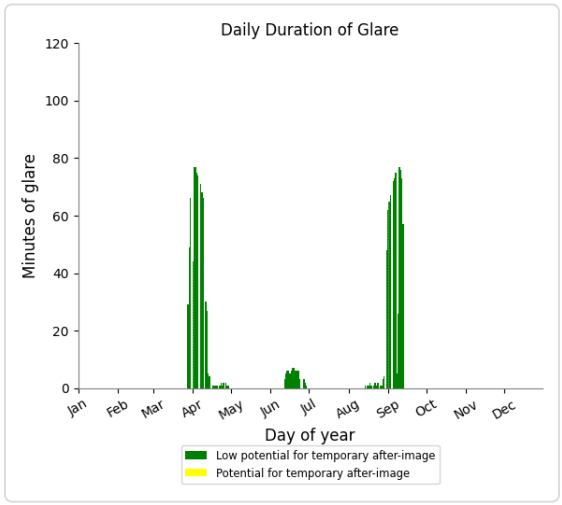


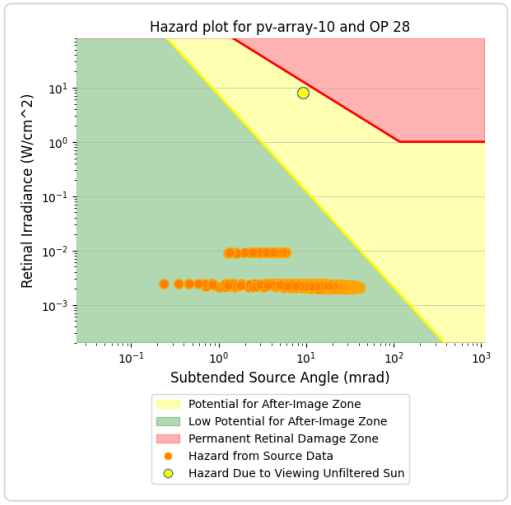
PV array 10 and OP 28

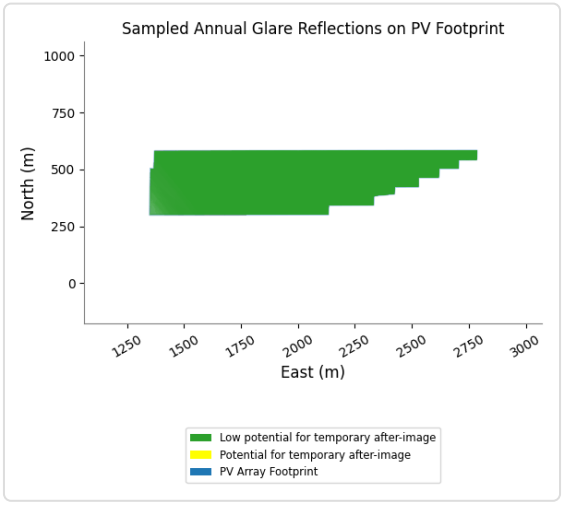
Yellow glare: none

Green glare: 1,651 min.





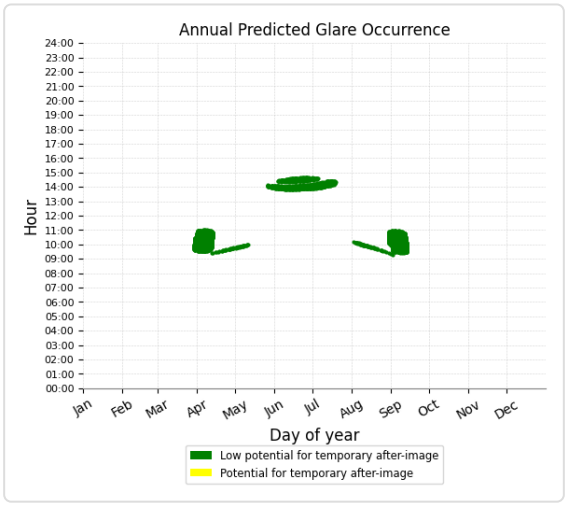


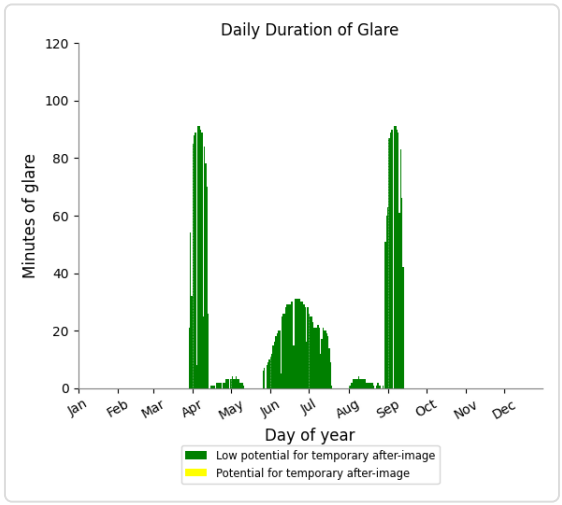


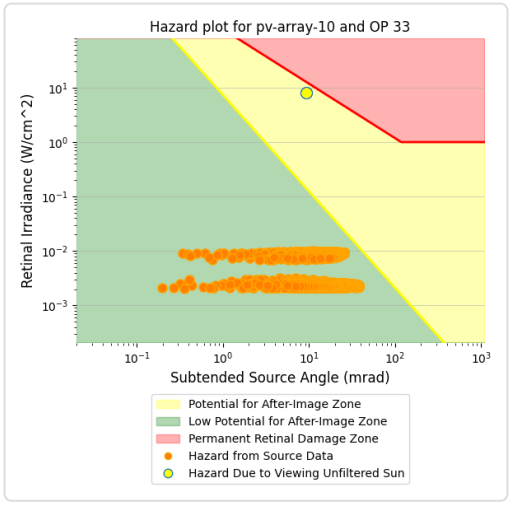
PV array 10 and OP 33

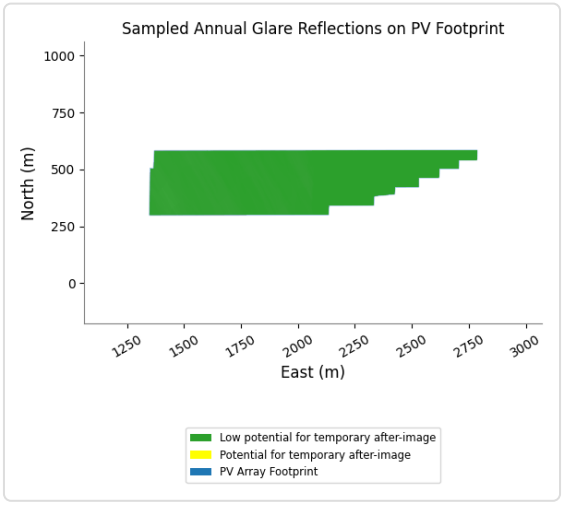
Yellow glare: none

Green glare: 3,299 min.









PV array 10 and OP 1

No glare found

PV array 10 and OP 2

No glare found

PV array 10 and OP 3

No glare found

PV array 10 and OP 4

No glare found

PV array 10 and OP 5

No glare found

PV array 10 and OP 6

No glare found

PV array 10 and OP 7

No glare found

PV array 10 and OP 8

No glare found

PV array 10 and OP 9

No glare found

PV array 10 and OP 10

No glare found

PV array 10 and OP 11

No glare found

PV array 10 and OP 12

No glare found

PV array 10 and OP 13

No glare found

PV array 10 and OP 14

No glare found

PV array 10 and OP 15

No glare found

PV array 10 and OP 16

No glare found

PV array 10 and OP 17

No glare found

PV array 10 and OP 18

No glare found

PV array 10 and OP 19

No glare found

PV array 10 and OP 20

No glare found

PV array 10 and OP 21

No glare found

PV array 10 and OP 22

No glare found

PV array 10 and OP 23

No glare found

PV array 10 and OP 24

No glare found

PV array 10 and OP 25

No glare found

PV array 10 and OP 29

No glare found

PV array 10 and OP 30

No glare found

PV array 10 and OP 31

No glare found

PV array 10 and OP 32

No glare found

PV: PV array 15 potential temporary after-image

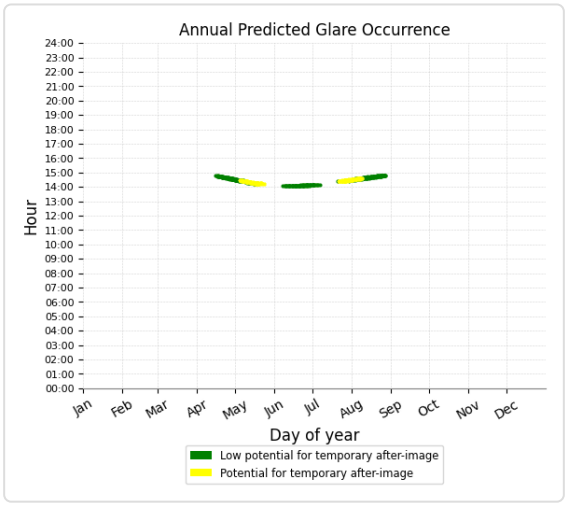
Receptor results ordered by category of glare

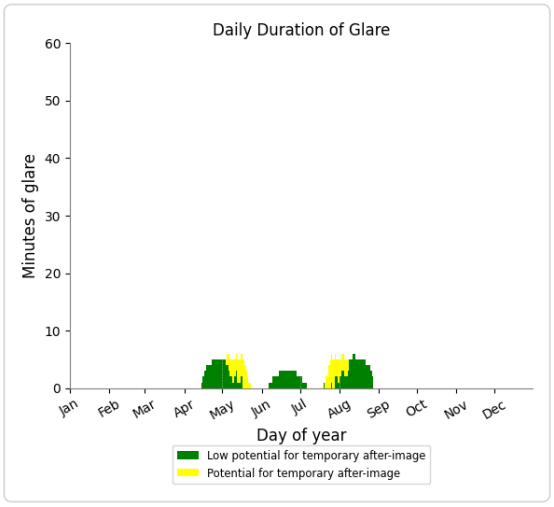
Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Main Camp Road	287	4.8	127	2.1
Avenue Road	0	0.0	0	0.0
OP 21	297	5.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

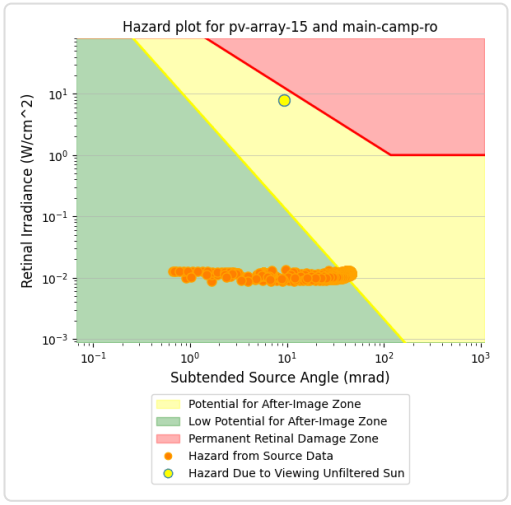
PV array 15 and Route: Main Camp Road

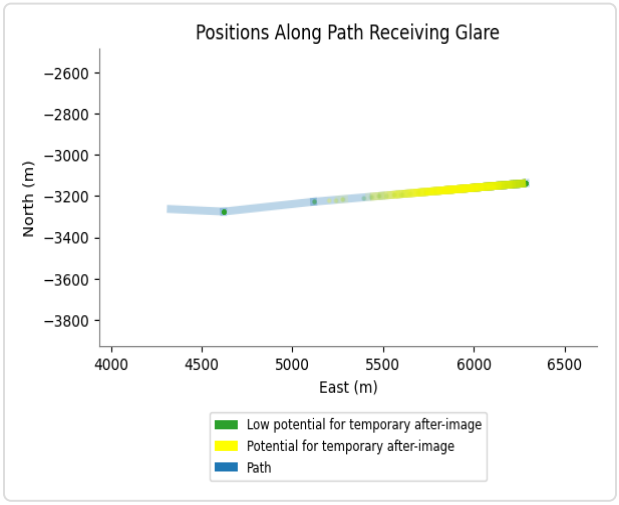
Yellow glare: 127 min.

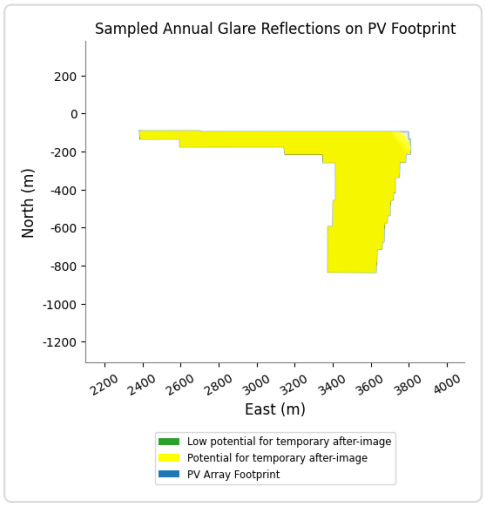
Green glare: 287 min.











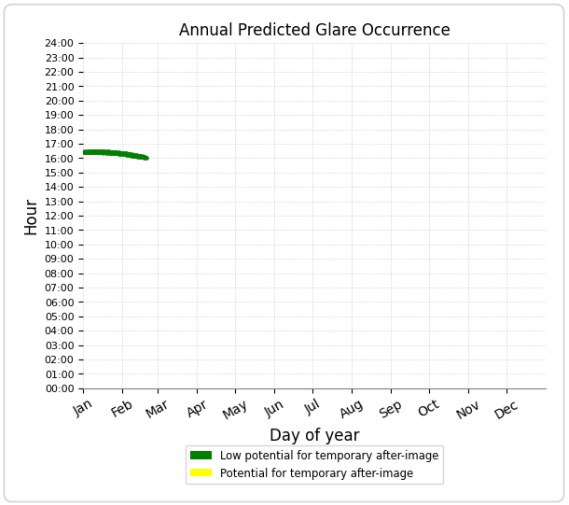
PV array 15 and Route: Avenue Road

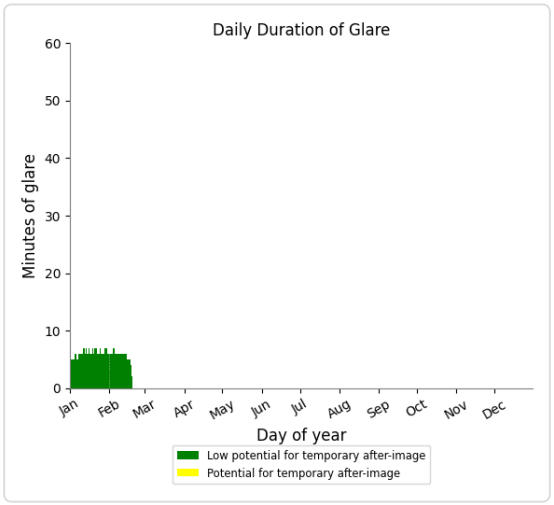
No glare found

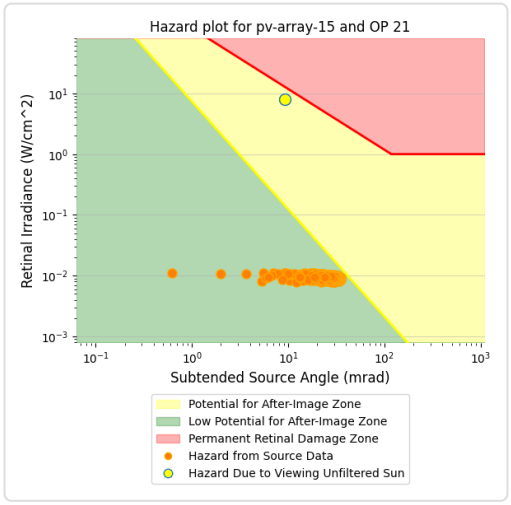
PV array 15 and OP 21

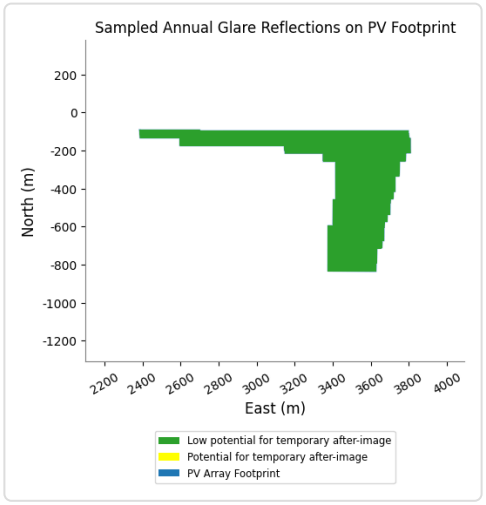
Yellow glare: none

Green glare: 297 min.









PV array 15 and OP 1

No glare found

PV array 15 and OP 2

No glare found

PV array 15 and OP 3

No glare found

PV array 15 and OP 4

No glare found

PV array 15 and OP 5

No glare found

PV array 15 and OP 6

No glare found

PV array 15 and OP 7

No glare found

PV array 15 and OP 8

No glare found

PV array 15 and OP 9

No glare found

PV array 15 and OP 10

No glare found

PV array 15 and OP 11

No glare found

PV array 15 and OP 12

No glare found

PV array 15 and OP 13

No glare found

PV array 15 and OP 14

No glare found

PV array 15 and OP 15

No glare found

PV array 15 and OP 16

No glare found

PV array 15 and OP 17

No glare found

PV array 15 and OP 18

No glare found

PV array 15 and OP 19

No glare found

PV array 15 and OP 20

No glare found

PV array 15 and OP 22

No glare found

PV array 15 and OP 23

No glare found

PV array 15 and OP 24

No glare found

PV array 15 and OP 25

No glare found

PV array 15 and OP 26

No glare found

PV array 15 and OP 27

No glare found

PV array 15 and OP 28

No glare found

PV array 15 and OP 29

No glare found

PV array 15 and OP 30

No glare found

PV array 15 and OP 31

No glare found

PV array 15 and OP 32

No glare found

PV array 15 and OP 33

No glare found

PV: PV array 16 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 16 and Route: Avenue Road

No glare found

PV array 16 and Route: Main Camp Road

No glare found

PV array 16 and OP 1

No glare found

PV array 16 and OP 2

No glare found

PV array 16 and OP 3

No glare found

PV array 16 and OP 4

No glare found

PV array 16 and OP 5

No glare found

PV array 16 and OP 6

No glare found

PV array 16 and OP 7

No glare found

PV array 16 and OP 8

No glare found

PV array 16 and OP 9

No glare found

PV array 16 and OP 10

No glare found

PV array 16 and OP 11

No glare found

PV array 16 and OP 12

No glare found

PV array 16 and OP 13

No glare found

PV array 16 and OP 14

No glare found

PV array 16 and OP 15

No glare found

PV array 16 and OP 16

No glare found

PV array 16 and OP 17

No glare found

PV array 16 and OP 18

No glare found

PV array 16 and OP 19

No glare found

PV array 16 and OP 20

No glare found

PV array 16 and OP 21

No glare found

PV array 16 and OP 22

No glare found

PV array 16 and OP 23

No glare found

PV array 16 and OP 24

No glare found

PV array 16 and OP 25

No glare found

PV array 16 and OP 26

No glare found

PV array 16 and OP 27

No glare found

PV array 16 and OP 28

No glare found

PV array 16 and OP 29

No glare found

PV array 16 and OP 30

No glare found

PV array 16 and OP 31

No glare found

PV array 16 and OP 32

No glare found

PV array 16 and OP 33

No glare found

PV: PV array 17 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 17 and Route: Avenue Road

No glare found

PV array 17 and Route: Main Camp Road

No glare found

PV array 17 and OP 1

No glare found

PV array 17 and OP 2

No glare found

PV array 17 and OP 3

No glare found

PV array 17 and OP 4

No glare found

PV array 17 and OP 5

No glare found

PV array 17 and OP 6

No glare found

PV array 17 and OP 7

No glare found

PV array 17 and OP 8

No glare found

PV array 17 and OP 9

No glare found

PV array 17 and OP 10

No glare found

PV array 17 and OP 11

No glare found

PV array 17 and OP 12

No glare found

PV array 17 and OP 13

No glare found

PV array 17 and OP 14

No glare found

PV array 17 and OP 15

No glare found

PV array 17 and OP 16

No glare found

PV array 17 and OP 17

No glare found

PV array 17 and OP 18

No glare found

PV array 17 and OP 19

No glare found

PV array 17 and OP 20

No glare found

PV array 17 and OP 21

No glare found

PV array 17 and OP 22

No glare found

PV array 17 and OP 23

No glare found

PV array 17 and OP 24

No glare found

PV array 17 and OP 25

No glare found

PV array 17 and OP 26

No glare found

PV array 17 and OP 27

No glare found

PV array 17 and OP 28

No glare found

PV array 17 and OP 29

No glare found

PV array 17 and OP 30

No glare found

PV array 17 and OP 31

No glare found

PV array 17 and OP 32

No glare found

PV array 17 and OP 33

No glare found

PV: PV array 18 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 18 and Route: Avenue Road

No glare found

PV array 18 and Route: Main Camp Road

No glare found

PV array 18 and OP 1

No glare found

PV array 18 and OP 2

No glare found

PV array 18 and OP 3

No glare found

PV array 18 and OP 4

No glare found

PV array 18 and OP 5

No glare found

PV array 18 and OP 6

No glare found

PV array 18 and OP 7

No glare found

PV array 18 and OP 8

No glare found

PV array 18 and OP 9

No glare found

PV array 18 and OP 10

No glare found

PV array 18 and OP 11

No glare found

PV array 18 and OP 12

No glare found

PV array 18 and OP 13

No glare found

PV array 18 and OP 14

No glare found

PV array 18 and OP 15

No glare found

PV array 18 and OP 16

No glare found

PV array 18 and OP 17

No glare found

PV array 18 and OP 18

No glare found

PV array 18 and OP 19

No glare found

PV array 18 and OP 20

No glare found

PV array 18 and OP 21

No glare found

PV array 18 and OP 22

No glare found

PV array 18 and OP 23

No glare found

PV array 18 and OP 24

No glare found

PV array 18 and OP 25

No glare found

PV array 18 and OP 26

No glare found

PV array 18 and OP 27

No glare found

PV array 18 and OP 28

No glare found

PV array 18 and OP 29

No glare found

PV array 18 and OP 30

No glare found

PV array 18 and OP 31

No glare found

PV array 18 and OP 32

No glare found

PV array 18 and OP 33

No glare found

PV: PV array 19 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 19 and Route: Avenue Road

No glare found

PV array 19 and Route: Main Camp Road

No glare found

PV array 19 and OP 1

No glare found

PV array 19 and OP 2

No glare found

PV array 19 and OP 3

No glare found

PV array 19 and OP 4

No glare found

PV array 19 and OP 5

No glare found

PV array 19 and OP 6

No glare found

PV array 19 and OP 7

No glare found

PV array 19 and OP 8

No glare found

PV array 19 and OP 9

No glare found

PV array 19 and OP 10

No glare found

PV array 19 and OP 11

No glare found

PV array 19 and OP 12

No glare found

PV array 19 and OP 13

No glare found

PV array 19 and OP 14

No glare found

PV array 19 and OP 15

No glare found

PV array 19 and OP 16

No glare found

PV array 19 and OP 17

No glare found

PV array 19 and OP 18

No glare found

PV array 19 and OP 19

No glare found

PV array 19 and OP 20

No glare found

PV array 19 and OP 21

No glare found

PV array 19 and OP 22

No glare found

PV array 19 and OP 23

No glare found

PV array 19 and OP 24

No glare found

PV array 19 and OP 25

No glare found

PV array 19 and OP 26

No glare found

PV array 19 and OP 27

No glare found

PV array 19 and OP 28

No glare found

PV array 19 and OP 29

No glare found

PV array 19 and OP 30

No glare found

PV array 19 and OP 31

No glare found

PV array 19 and OP 32

No glare found

PV array 19 and OP 33

No glare found

PV: PV array 2 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 2 and Route: Avenue Road

No glare found

PV array 2 and Route: Main Camp Road

No glare found

PV array 2 and OP 1

No glare found

PV array 2 and OP 2

No glare found

PV array 2 and OP 3

No glare found

PV array 2 and OP 4

No glare found

PV array 2 and OP 5

No glare found

PV array 2 and OP 6

No glare found

PV array 2 and OP 7

No glare found

PV array 2 and OP 8

No glare found

PV array 2 and OP 9

No glare found

PV array 2 and OP 10

No glare found

PV array 2 and OP 11

No glare found

PV array 2 and OP 12

No glare found

PV array 2 and OP 13

No glare found

PV array 2 and OP 14

No glare found

PV array 2 and OP 15

No glare found

PV array 2 and OP 16

No glare found

PV array 2 and OP 17

No glare found

PV array 2 and OP 18

No glare found

PV array 2 and OP 19

No glare found

PV array 2 and OP 20

No glare found

PV array 2 and OP 21

No glare found

PV array 2 and OP 22

No glare found

PV array 2 and OP 23

No glare found

PV array 2 and OP 24

No glare found

PV array 2 and OP 25

No glare found

PV array 2 and OP 26

No glare found

PV array 2 and OP 27

No glare found

PV array 2 and OP 28

No glare found

PV array 2 and OP 29

No glare found

PV array 2 and OP 30

No glare found

PV array 2 and OP 31

No glare found

PV array 2 and OP 32

No glare found

PV array 2 and OP 33

No glare found

PV: PV array 20 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 20 and Route: Avenue Road

No glare found

PV array 20 and Route: Main Camp Road

No glare found

PV array 20 and OP 1

No glare found

PV array 20 and OP 2

No glare found

PV array 20 and OP 3

No glare found

PV array 20 and OP 4

No glare found

PV array 20 and OP 5

No glare found

PV array 20 and OP 6

No glare found

PV array 20 and OP 7

No glare found

PV array 20 and OP 8

No glare found

PV array 20 and OP 9

No glare found

PV array 20 and OP 10

No glare found

PV array 20 and OP 11

No glare found

PV array 20 and OP 12

No glare found

PV array 20 and OP 13

No glare found

PV array 20 and OP 14

No glare found

PV array 20 and OP 15

No glare found

PV array 20 and OP 16

No glare found

PV array 20 and OP 17

No glare found

PV array 20 and OP 18

No glare found

PV array 20 and OP 19

No glare found

PV array 20 and OP 20

No glare found

PV array 20 and OP 21

No glare found

PV array 20 and OP 22

No glare found

PV array 20 and OP 23

No glare found

PV array 20 and OP 24

No glare found

PV array 20 and OP 25

No glare found

PV array 20 and OP 26

No glare found

PV array 20 and OP 27

No glare found

PV array 20 and OP 28

No glare found

PV array 20 and OP 29

No glare found

PV array 20 and OP 30

No glare found

PV array 20 and OP 31

No glare found

PV array 20 and OP 32

No glare found

PV array 20 and OP 33

No glare found

PV: PV array 21 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 21 and Route: Avenue Road

No glare found

PV array 21 and Route: Main Camp Road

No glare found

PV array 21 and OP 1

No glare found

PV array 21 and OP 2

No glare found

PV array 21 and OP 3

No glare found

PV array 21 and OP 4

No glare found

PV array 21 and OP 5

No glare found

PV array 21 and OP 6

No glare found

PV array 21 and OP 7

No glare found

PV array 21 and OP 8

No glare found

PV array 21 and OP 9

No glare found

PV array 21 and OP 10

No glare found

PV array 21 and OP 11

No glare found

PV array 21 and OP 12

No glare found

PV array 21 and OP 13

No glare found

PV array 21 and OP 14

No glare found

PV array 21 and OP 15

No glare found

PV array 21 and OP 16

No glare found

PV array 21 and OP 17

No glare found

PV array 21 and OP 18

No glare found

PV array 21 and OP 19

No glare found

PV array 21 and OP 20

No glare found

PV array 21 and OP 21

No glare found

PV array 21 and OP 22

No glare found

PV array 21 and OP 23

No glare found

PV array 21 and OP 24

No glare found

PV array 21 and OP 25

No glare found

PV array 21 and OP 26

No glare found

PV array 21 and OP 27

No glare found

PV array 21 and OP 28

No glare found

PV array 21 and OP 29

No glare found

PV array 21 and OP 30

No glare found

PV array 21 and OP 31

No glare found

PV array 21 and OP 32

No glare found

PV array 21 and OP 33

No glare found

PV: PV array 22 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 22 and Route: Avenue Road

No glare found

PV array 22 and Route: Main Camp Road

No glare found

PV array 22 and OP 1

No glare found

PV array 22 and OP 2

No glare found

PV array 22 and OP 3

No glare found

PV array 22 and OP 4

No glare found

PV array 22 and OP 5

No glare found

PV array 22 and OP 6

No glare found

PV array 22 and OP 7

No glare found

PV array 22 and OP 8

No glare found

PV array 22 and OP 9

No glare found

PV array 22 and OP 10

No glare found

PV array 22 and OP 11

No glare found

PV array 22 and OP 12

No glare found

PV array 22 and OP 13

No glare found

PV array 22 and OP 14

No glare found

PV array 22 and OP 15

No glare found

PV array 22 and OP 16

No glare found

PV array 22 and OP 17

No glare found

PV array 22 and OP 18

No glare found

PV array 22 and OP 19

No glare found

PV array 22 and OP 20

No glare found

PV array 22 and OP 21

No glare found

PV array 22 and OP 22

No glare found

PV array 22 and OP 23

No glare found

PV array 22 and OP 24

No glare found

PV array 22 and OP 25

No glare found

PV array 22 and OP 26

No glare found

PV array 22 and OP 27

No glare found

PV array 22 and OP 28

No glare found

PV array 22 and OP 29

No glare found

PV array 22 and OP 30

No glare found

PV array 22 and OP 31

No glare found

PV array 22 and OP 32

No glare found

PV array 22 and OP 33

No glare found

PV: PV array 23 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 23 and Route: Avenue Road

No glare found

PV array 23 and Route: Main Camp Road

No glare found

PV array 23 and OP 1

No glare found

PV array 23 and OP 2

No glare found

PV array 23 and OP 3

No glare found

PV array 23 and OP 4

No glare found

PV array 23 and OP 5

No glare found

PV array 23 and OP 6

No glare found

PV array 23 and OP 7

No glare found

PV array 23 and OP 8

No glare found

PV array 23 and OP 9

No glare found

PV array 23 and OP 10

No glare found

PV array 23 and OP 11

No glare found

PV array 23 and OP 12

No glare found

PV array 23 and OP 13

No glare found

PV array 23 and OP 14

No glare found

PV array 23 and OP 15

No glare found

PV array 23 and OP 16

No glare found

PV array 23 and OP 17

No glare found

PV array 23 and OP 18

No glare found

PV array 23 and OP 19

No glare found

PV array 23 and OP 20

No glare found

PV array 23 and OP 21

No glare found

PV array 23 and OP 22

No glare found

PV array 23 and OP 23

No glare found

PV array 23 and OP 24

No glare found

PV array 23 and OP 25

No glare found

PV array 23 and OP 26

No glare found

PV array 23 and OP 27

No glare found

PV array 23 and OP 28

No glare found

PV array 23 and OP 29

No glare found

PV array 23 and OP 30

No glare found

PV array 23 and OP 31

No glare found

PV array 23 and OP 32

No glare found

PV array 23 and OP 33

No glare found

PV: PV array 3 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 3 and Route: Avenue Road

No glare found

PV array 3 and Route: Main Camp Road

No glare found

PV array 3 and OP 1

No glare found

PV array 3 and OP 2

No glare found

PV array 3 and OP 3

No glare found

PV array 3 and OP 4

No glare found

PV array 3 and OP 5

No glare found

PV array 3 and OP 6

No glare found

PV array 3 and OP 7

No glare found

PV array 3 and OP 8

No glare found

PV array 3 and OP 9

No glare found

PV array 3 and OP 10

No glare found

PV array 3 and OP 11

No glare found

PV array 3 and OP 12

No glare found

PV array 3 and OP 13

No glare found

PV array 3 and OP 14

No glare found

PV array 3 and OP 15

No glare found

PV array 3 and OP 16

No glare found

PV array 3 and OP 17

No glare found

PV array 3 and OP 18

No glare found

PV array 3 and OP 19

No glare found

PV array 3 and OP 20

No glare found

PV array 3 and OP 21

No glare found

PV array 3 and OP 22

No glare found

PV array 3 and OP 23

No glare found

PV array 3 and OP 24

No glare found

PV array 3 and OP 25

No glare found

PV array 3 and OP 26

No glare found

PV array 3 and OP 27

No glare found

PV array 3 and OP 28

No glare found

PV array 3 and OP 29

No glare found

PV array 3 and OP 30

No glare found

PV array 3 and OP 31

No glare found

PV array 3 and OP 32

No glare found

PV array 3 and OP 33

No glare found

PV: PV array 4 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 4 and Route: Avenue Road

No glare found

PV array 4 and Route: Main Camp Road

No glare found

PV array 4 and OP 1

No glare found

PV array 4 and OP 2

No glare found

PV array 4 and OP 3

No glare found

PV array 4 and OP 4

No glare found

PV array 4 and OP 5

No glare found

PV array 4 and OP 6

No glare found

PV array 4 and OP 7

No glare found

PV array 4 and OP 8

No glare found

PV array 4 and OP 9

No glare found

PV array 4 and OP 10

No glare found

PV array 4 and OP 11

No glare found

PV array 4 and OP 12

No glare found

PV array 4 and OP 13

No glare found

PV array 4 and OP 14

No glare found

PV array 4 and OP 15

No glare found

PV array 4 and OP 16

No glare found

PV array 4 and OP 17

No glare found

PV array 4 and OP 18

No glare found

PV array 4 and OP 19

No glare found

PV array 4 and OP 20

No glare found

PV array 4 and OP 21

No glare found

PV array 4 and OP 22

No glare found

PV array 4 and OP 23

No glare found

PV array 4 and OP 24

No glare found

PV array 4 and OP 25

No glare found

PV array 4 and OP 26

No glare found

PV array 4 and OP 27

No glare found

PV array 4 and OP 28

No glare found

PV array 4 and OP 29

No glare found

PV array 4 and OP 30

No glare found

PV array 4 and OP 31

No glare found

PV array 4 and OP 32

No glare found

PV array 4 and OP 33

No glare found

PV: PV array 5 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 5 and Route: Avenue Road

No glare found

PV array 5 and Route: Main Camp Road

No glare found

PV array 5 and OP 1

No glare found

PV array 5 and OP 2

No glare found

PV array 5 and OP 3

No glare found

PV array 5 and OP 4

No glare found

PV array 5 and OP 5

No glare found

PV array 5 and OP 6

No glare found

PV array 5 and OP 7

No glare found

PV array 5 and OP 8

No glare found

PV array 5 and OP 9

No glare found

PV array 5 and OP 10

No glare found

PV array 5 and OP 11

No glare found

PV array 5 and OP 12

No glare found

PV array 5 and OP 13

No glare found

PV array 5 and OP 14

No glare found

PV array 5 and OP 15

No glare found

PV array 5 and OP 16

No glare found

PV array 5 and OP 17

No glare found

PV array 5 and OP 18

No glare found

PV array 5 and OP 19

No glare found

PV array 5 and OP 20

No glare found

PV array 5 and OP 21

No glare found

PV array 5 and OP 22

No glare found

PV array 5 and OP 23

No glare found

PV array 5 and OP 24

No glare found

PV array 5 and OP 25

No glare found

PV array 5 and OP 26

No glare found

PV array 5 and OP 27

No glare found

PV array 5 and OP 28

No glare found

PV array 5 and OP 29

No glare found

PV array 5 and OP 30

No glare found

PV array 5 and OP 31

No glare found

PV array 5 and OP 32

No glare found

PV array 5 and OP 33

No glare found

PV: PV array 6 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 6 and Route: Avenue Road

No glare found

PV array 6 and Route: Main Camp Road

No glare found

PV array 6 and OP 1

No glare found

PV array 6 and OP 2

No glare found

PV array 6 and OP 3

No glare found

PV array 6 and OP 4

No glare found

PV array 6 and OP 5

No glare found

PV array 6 and OP 6

No glare found

PV array 6 and OP 7

No glare found

PV array 6 and OP 8

No glare found

PV array 6 and OP 9

No glare found

PV array 6 and OP 10

No glare found

PV array 6 and OP 11

No glare found

PV array 6 and OP 12

No glare found

PV array 6 and OP 13

No glare found

PV array 6 and OP 14

No glare found

PV array 6 and OP 15

No glare found

PV array 6 and OP 16

No glare found

PV array 6 and OP 17

No glare found

PV array 6 and OP 18

No glare found

PV array 6 and OP 19

No glare found

PV array 6 and OP 20

No glare found

PV array 6 and OP 21

No glare found

PV array 6 and OP 22

No glare found

PV array 6 and OP 23

No glare found

PV array 6 and OP 24

No glare found

PV array 6 and OP 25

No glare found

PV array 6 and OP 26

No glare found

PV array 6 and OP 27

No glare found

PV array 6 and OP 28

No glare found

PV array 6 and OP 29

No glare found

PV array 6 and OP 30

No glare found

PV array 6 and OP 31

No glare found

PV array 6 and OP 32

No glare found

PV array 6 and OP 33

No glare found

PV: PV array 7 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 7 and Route: Avenue Road

No glare found

PV array 7 and Route: Main Camp Road

No glare found

PV array 7 and OP 1

No glare found

PV array 7 and OP 2

No glare found

PV array 7 and OP 3

No glare found

PV array 7 and OP 4

No glare found

PV array 7 and OP 5

No glare found

PV array 7 and OP 6

No glare found

PV array 7 and OP 7

No glare found

PV array 7 and OP 8

No glare found

PV array 7 and OP 9

No glare found

PV array 7 and OP 10

No glare found

PV array 7 and OP 11

No glare found

PV array 7 and OP 12

No glare found

PV array 7 and OP 13

No glare found

PV array 7 and OP 14

No glare found

PV array 7 and OP 15

No glare found

PV array 7 and OP 16

No glare found

PV array 7 and OP 17

No glare found

PV array 7 and OP 18

No glare found

PV array 7 and OP 19

No glare found

PV array 7 and OP 20

No glare found

PV array 7 and OP 21

No glare found

PV array 7 and OP 22

No glare found

PV array 7 and OP 23

No glare found

PV array 7 and OP 24

No glare found

PV array 7 and OP 25

No glare found

PV array 7 and OP 26

No glare found

PV array 7 and OP 27

No glare found

PV array 7 and OP 28

No glare found

PV array 7 and OP 29

No glare found

PV array 7 and OP 30

No glare found

PV array 7 and OP 31

No glare found

PV array 7 and OP 32

No glare found

PV array 7 and OP 33

No glare found

PV: PV array 8 potential temporary after-image

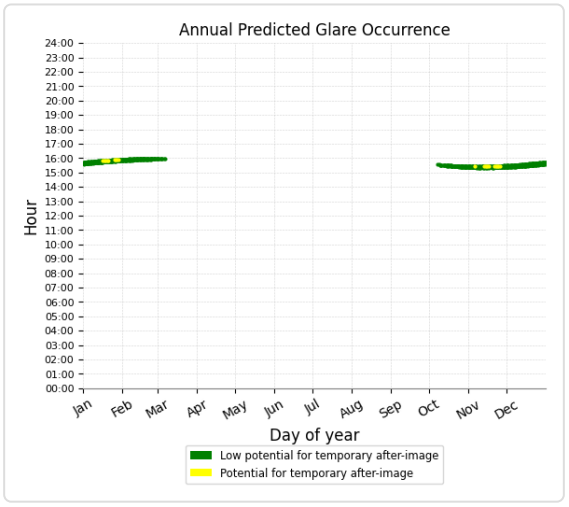
Receptor results ordered by category of glare

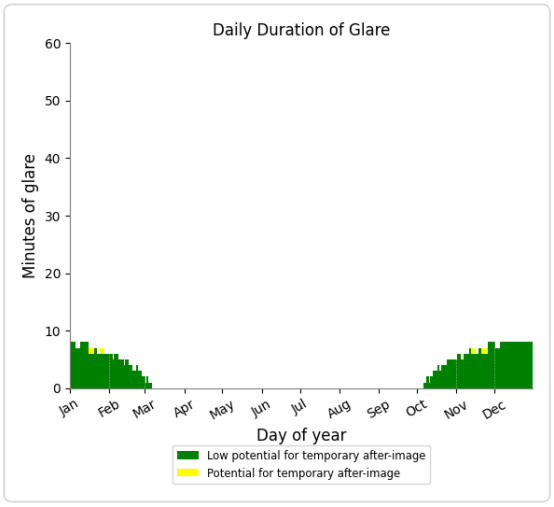
Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	864	14.4	19	0.3
Main Camp Road	0	0.0	0	0.0
OP 9	261	4.3	0	0.0
OP 10	57	0.9	0	0.0
OP 11	278	4.6	0	0.0
OP 12	271	4.5	0	0.0
OP 13	284	4.7	0	0.0
OP 14	144	2.4	0	0.0
OP 15	148	2.5	0	0.0
OP 16	488	8.1	0	0.0
OP 17	123	2.0	0	0.0
OP 18	300	5.0	0	0.0
OP 19	306	5.1	0	0.0
OP 22	290	4.8	0	0.0
OP 23	280	4.7	0	0.0
OP 24	185	3.1	0	0.0
OP 25	55	0.9	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

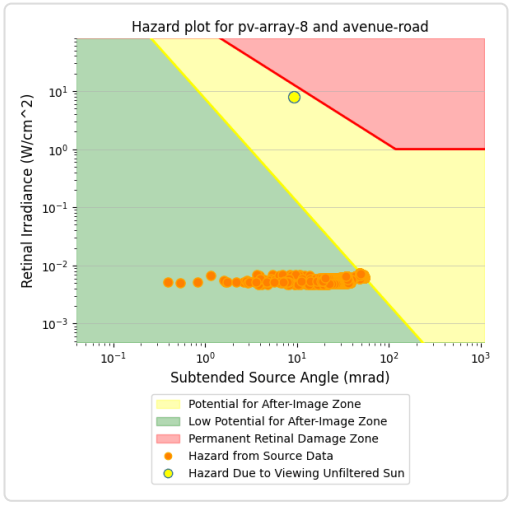
PV array 8 and Route: Avenue Road

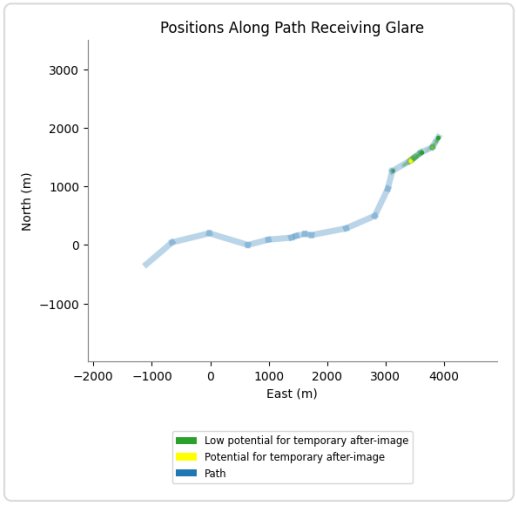
Yellow glare: 19 min.

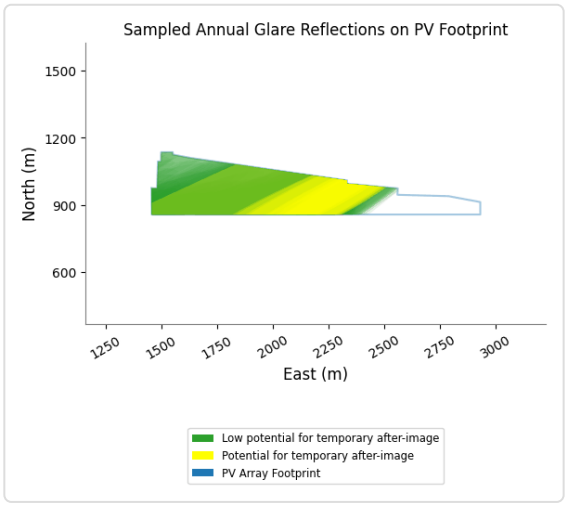
Green glare: 864 min.











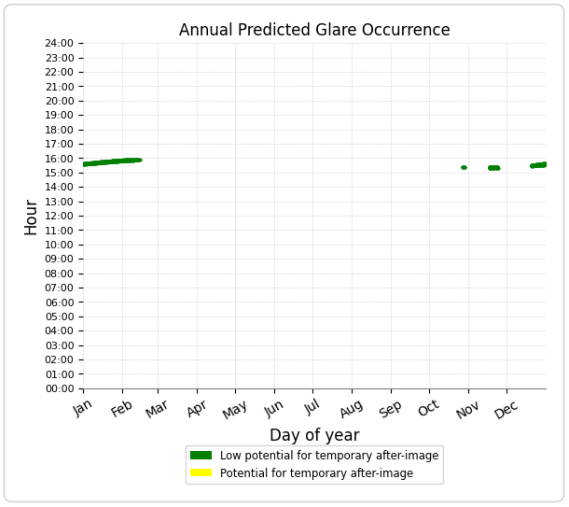
PV array 8 and Route: Main Camp Road

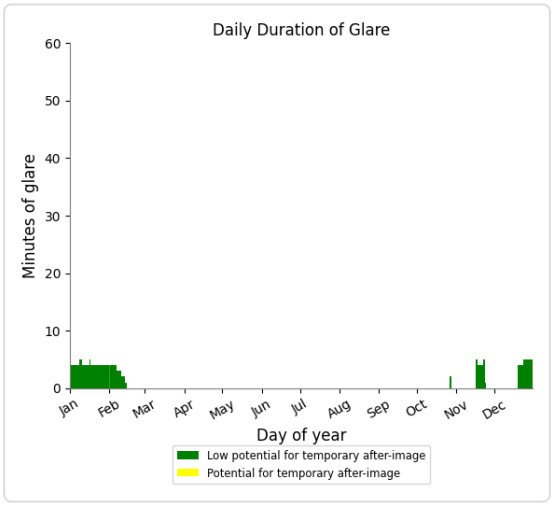
No glare found

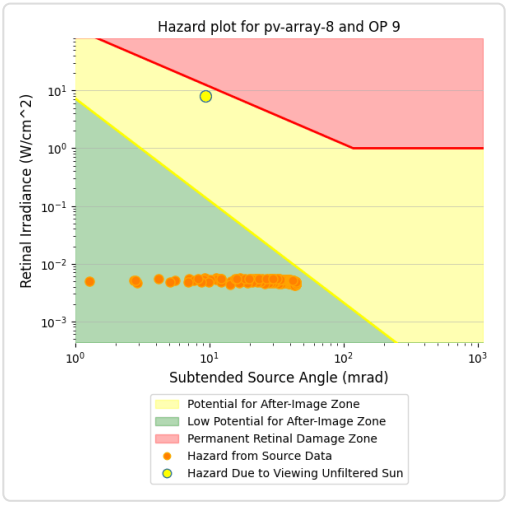
PV array 8 and OP 9

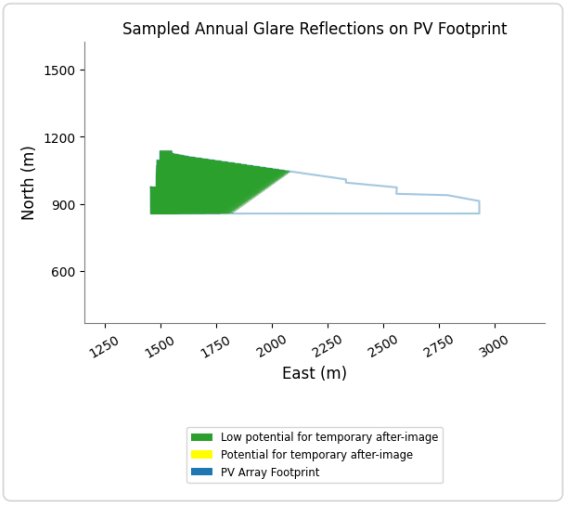
Yellow glare: none

Green glare: 261 min.





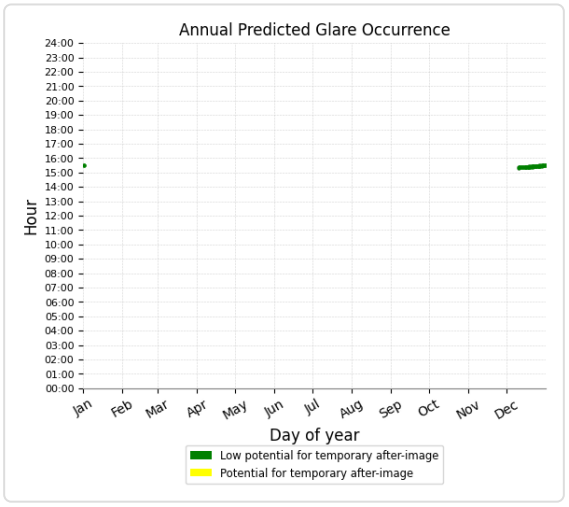


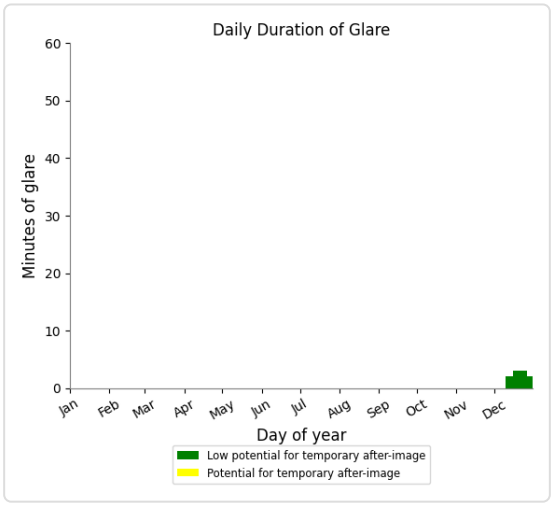


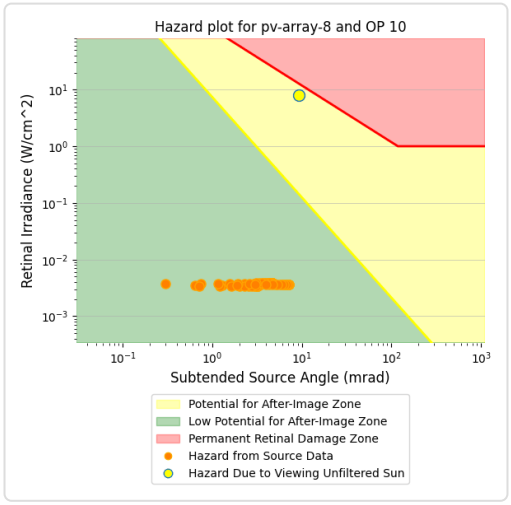
PV array 8 and OP 10

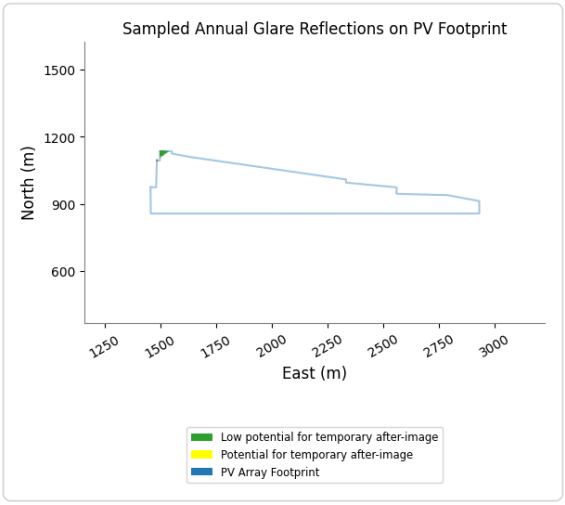
Yellow glare: none

Green glare: 57 min.





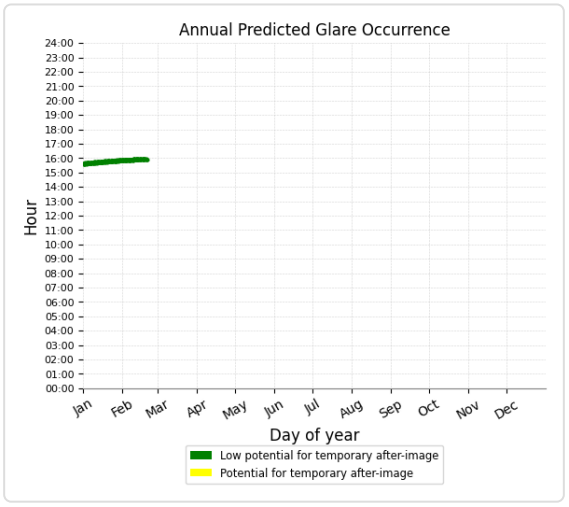


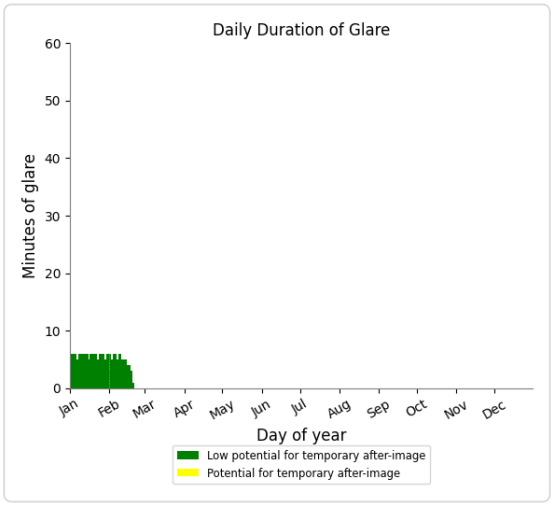


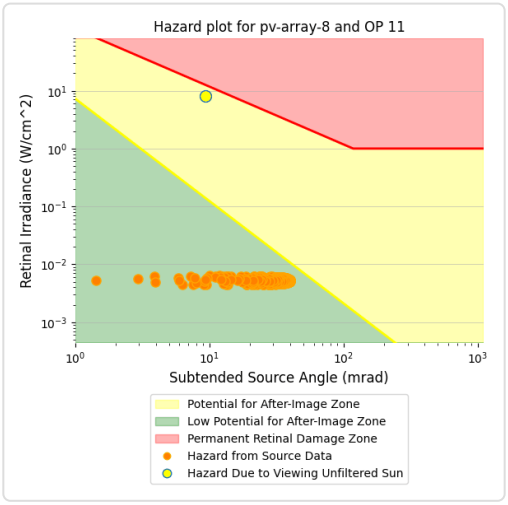
PV array 8 and OP 11

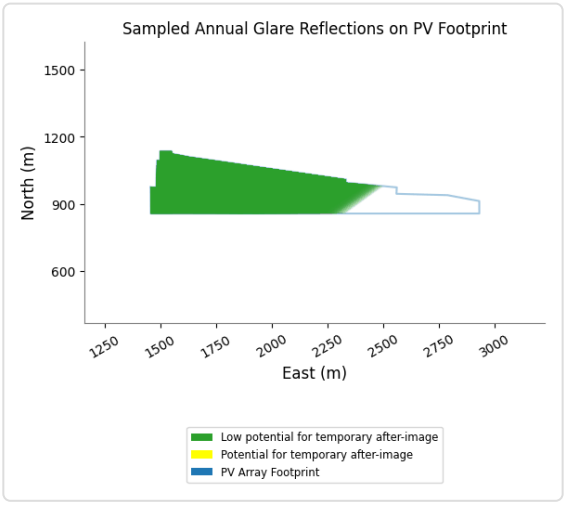
Yellow glare: none

Green glare: 278 min.





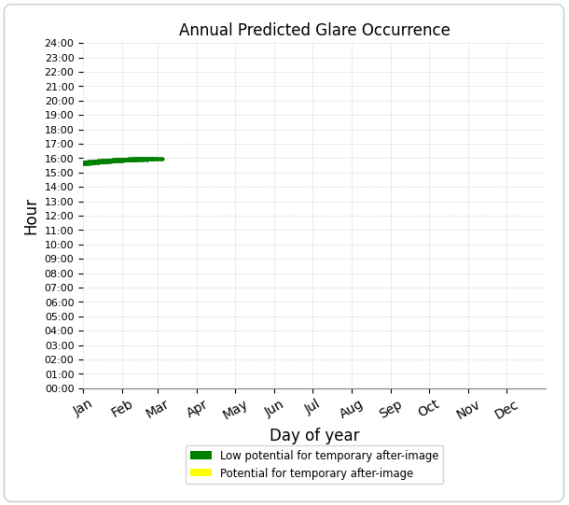


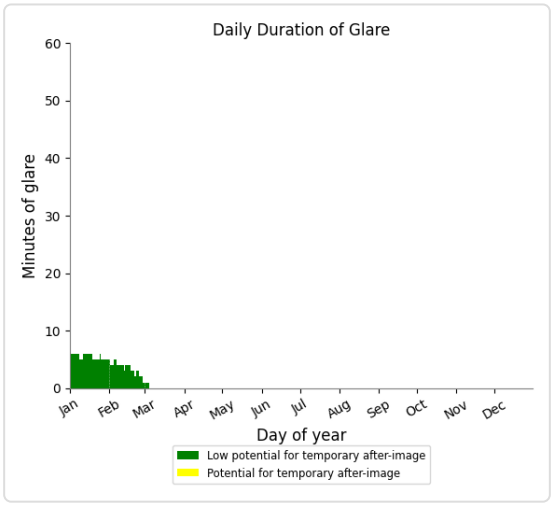


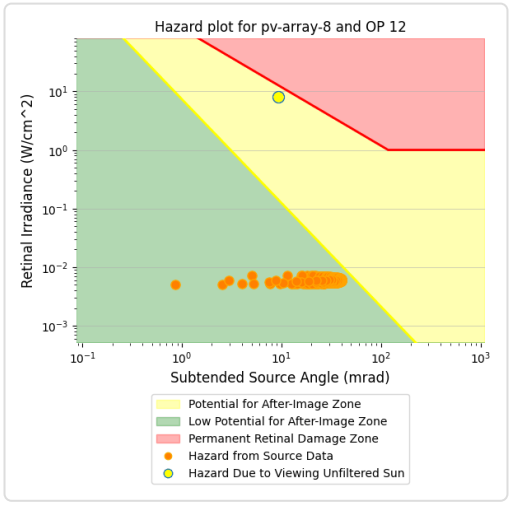
PV array 8 and OP 12

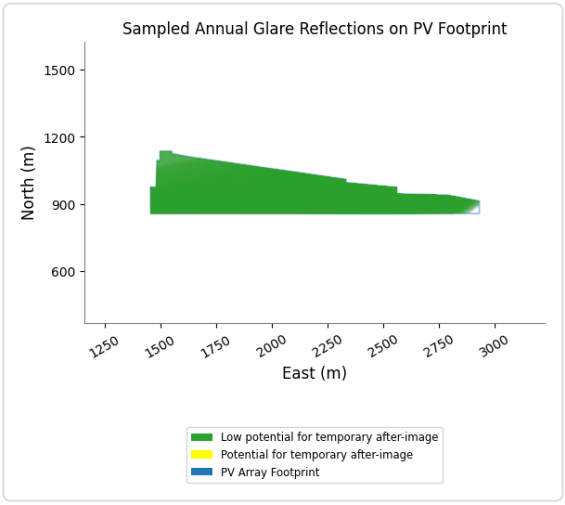
Yellow glare: none

Green glare: 271 min.





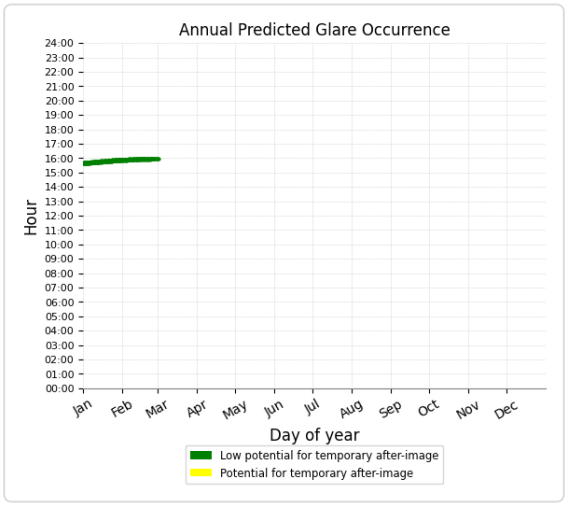


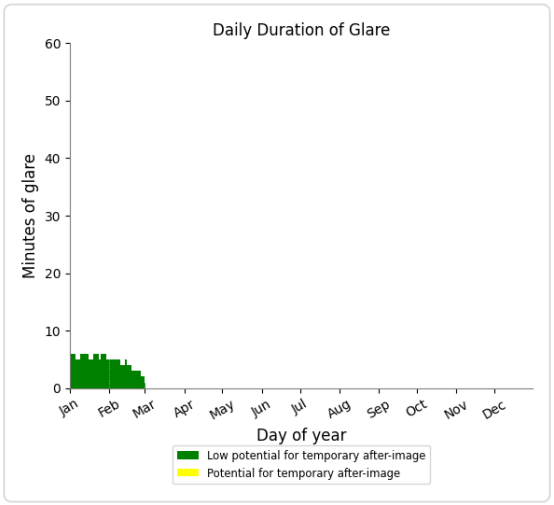


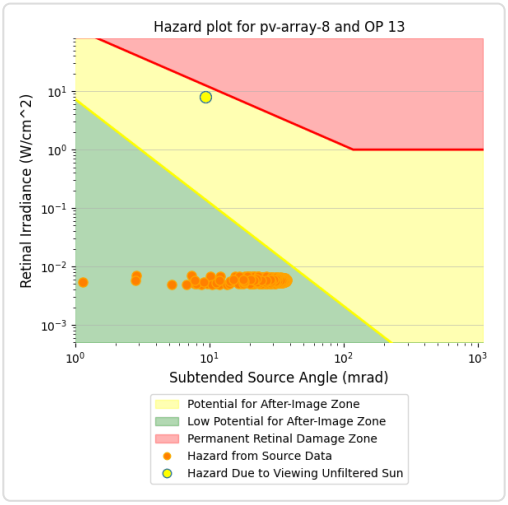
PV array 8 and OP 13

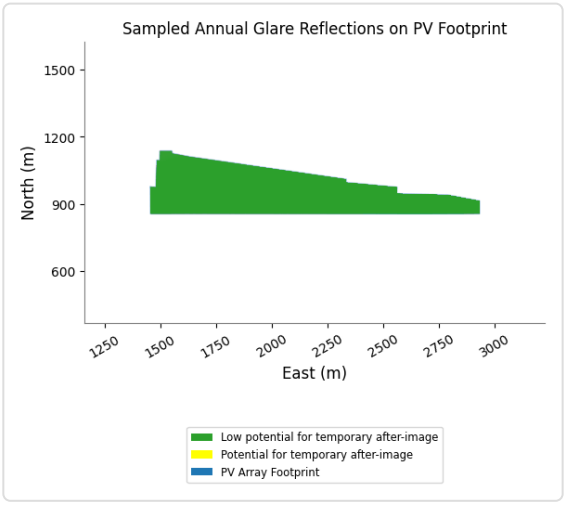
Yellow glare: none

Green glare: 284 min.





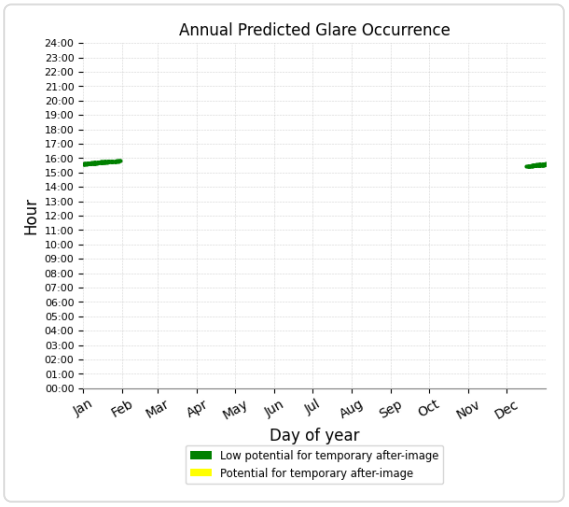


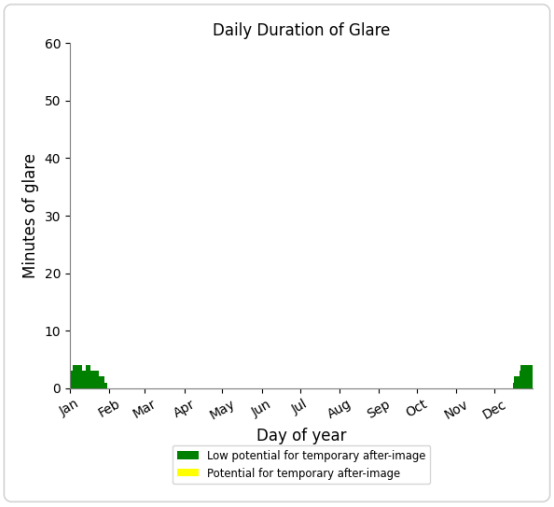


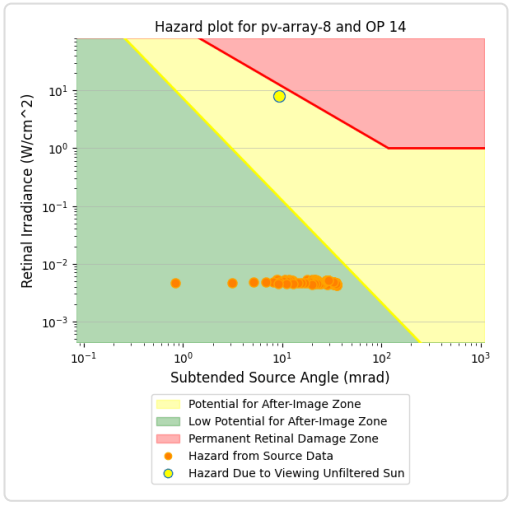
PV array 8 and OP 14

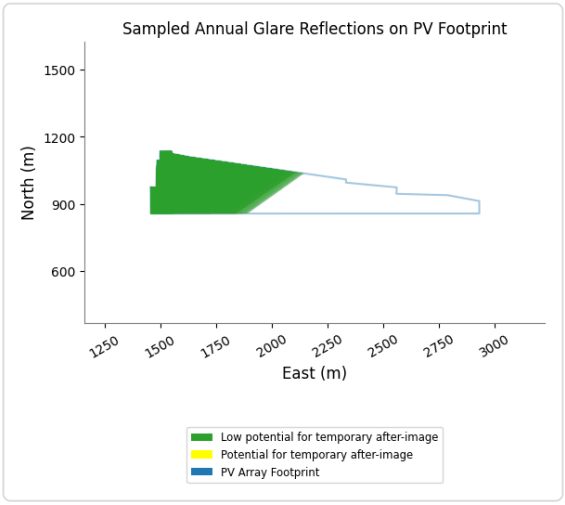
Yellow glare: none

Green glare: 144 min.





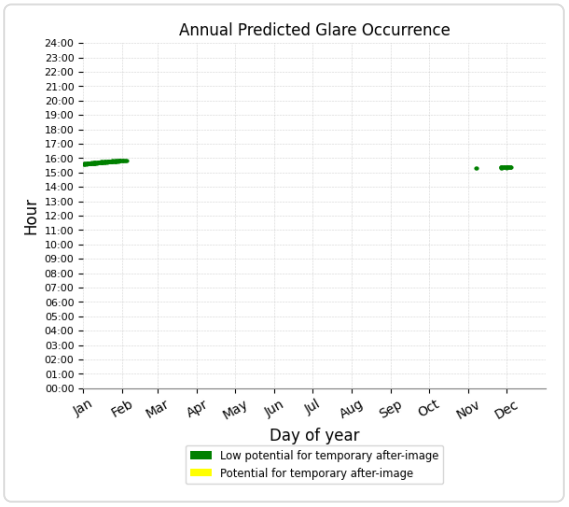


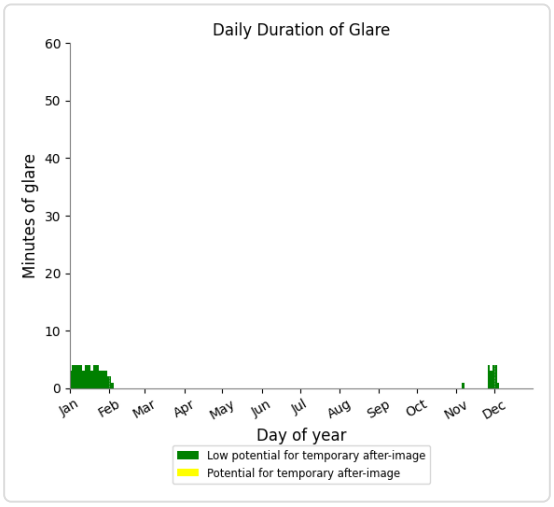


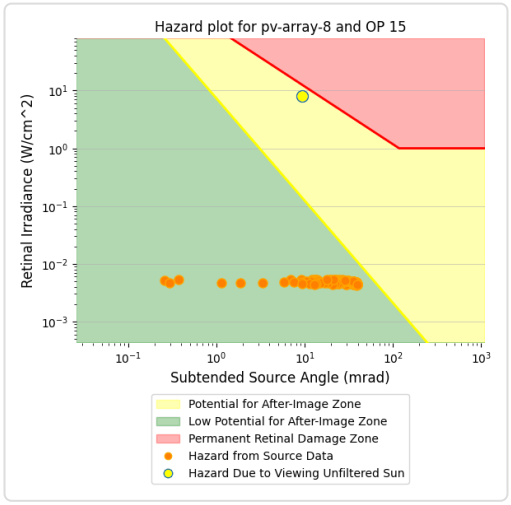
PV array 8 and OP 15

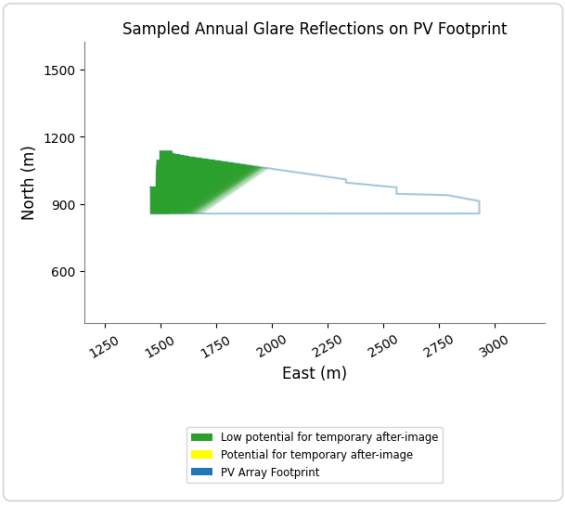
Yellow glare: none

Green glare: 148 min.





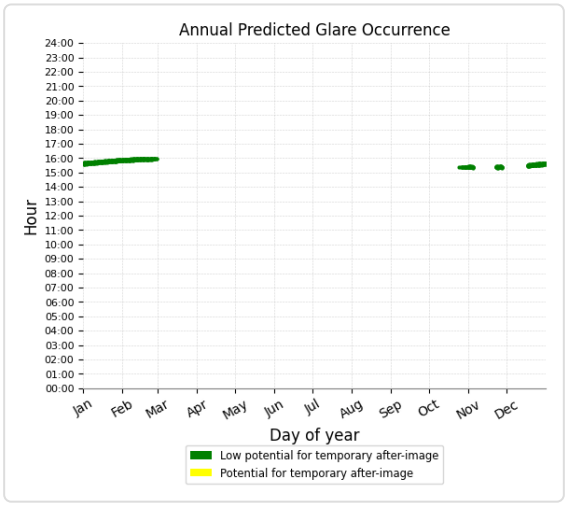


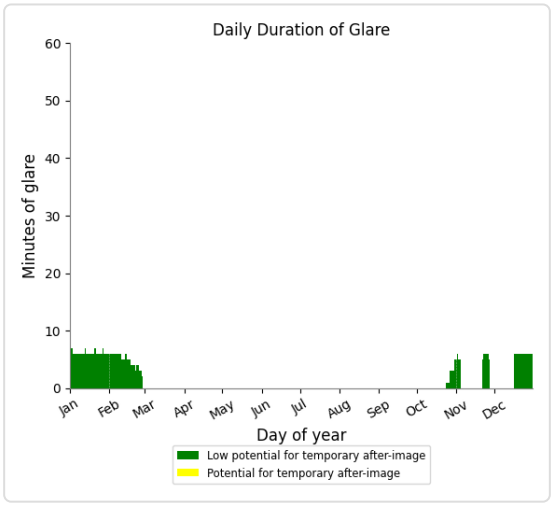


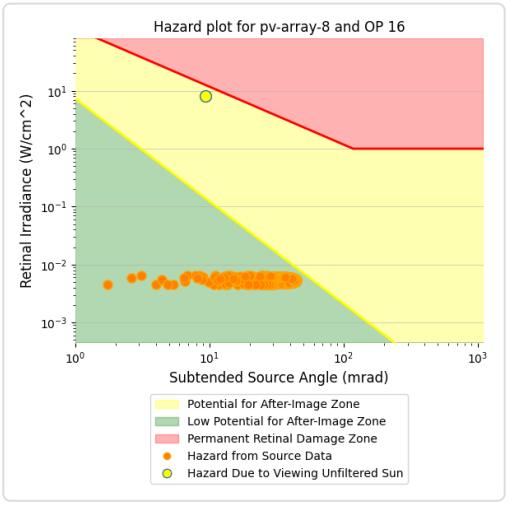
PV array 8 and OP 16

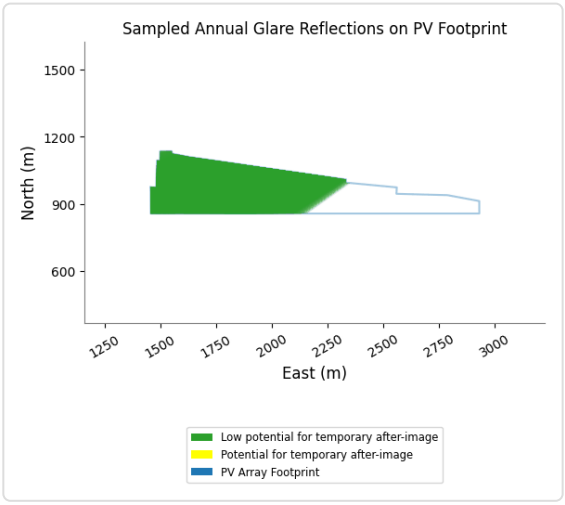
Yellow glare: none

Green glare: 488 min.





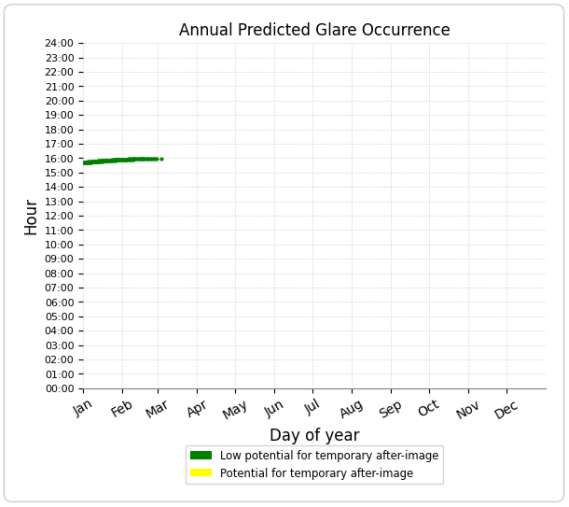


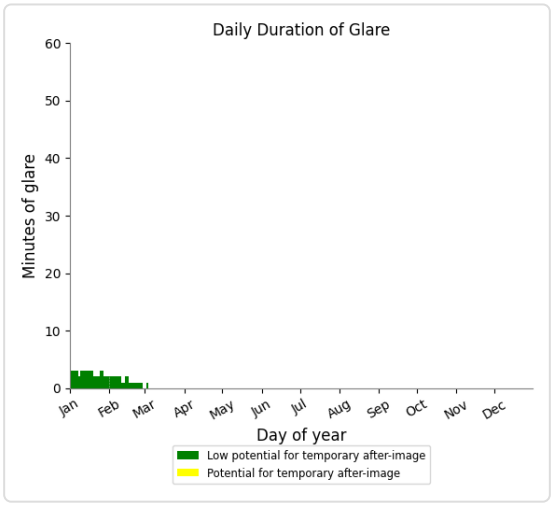


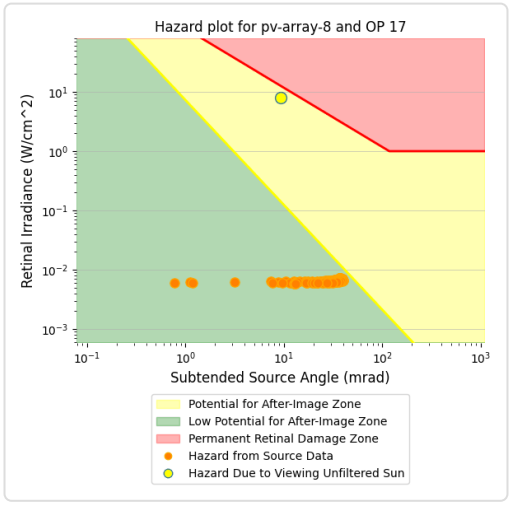
PV array 8 and OP 17

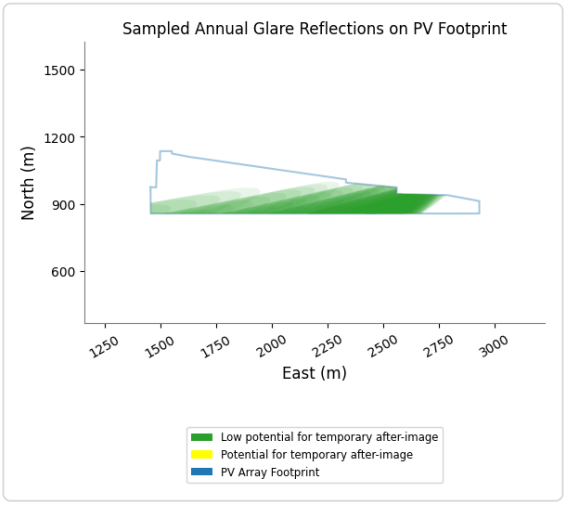
Yellow glare: none

Green glare: 123 min.





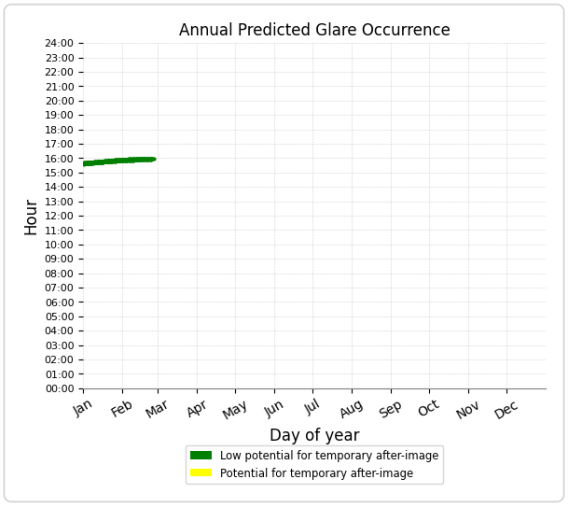


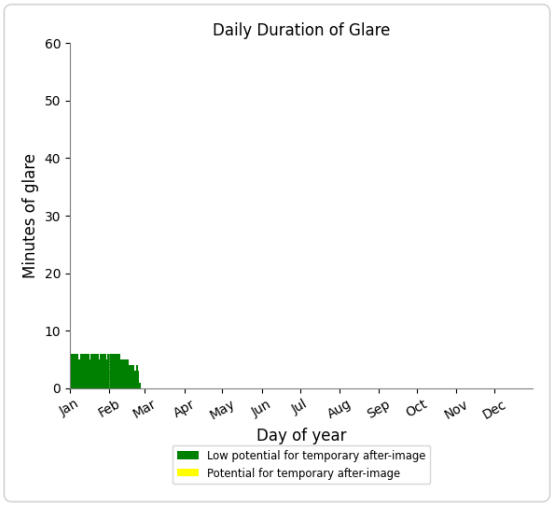


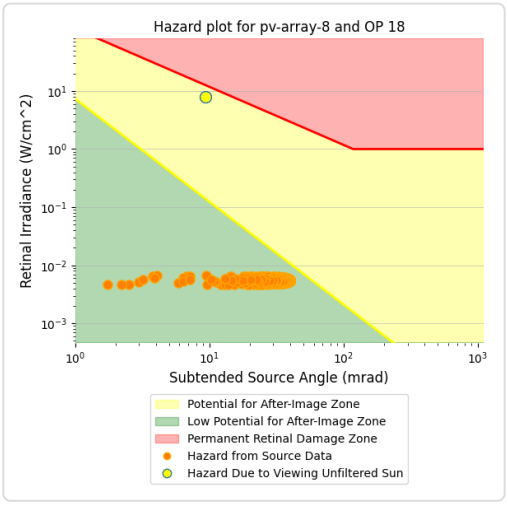
PV array 8 and OP 18

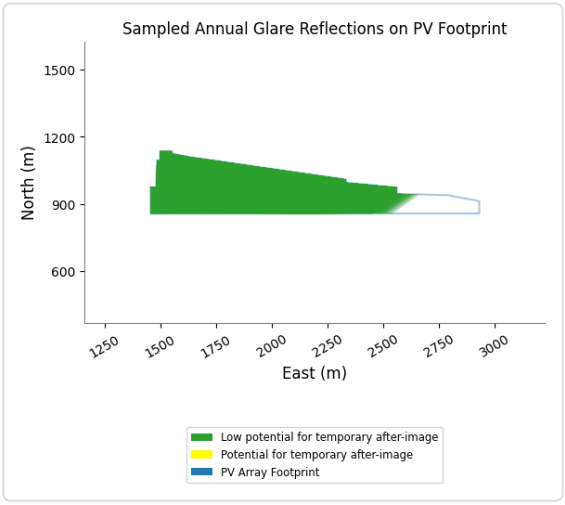
Yellow glare: none

Green glare: 300 min.





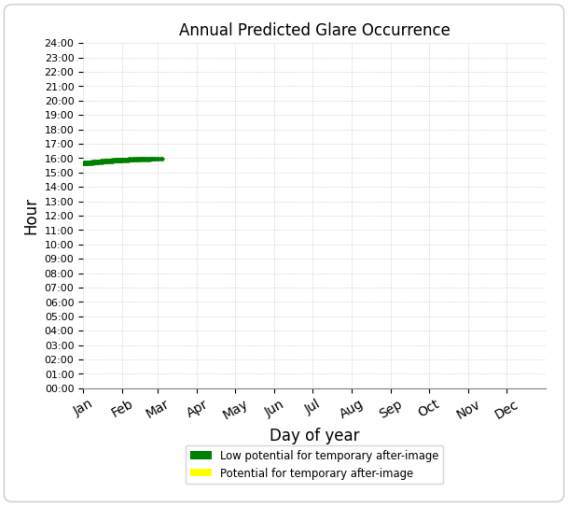


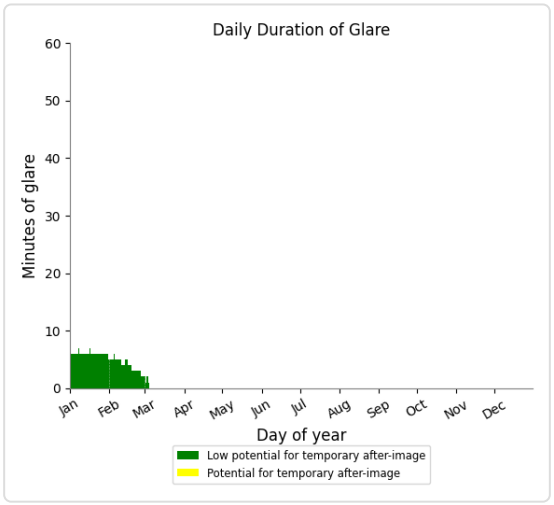


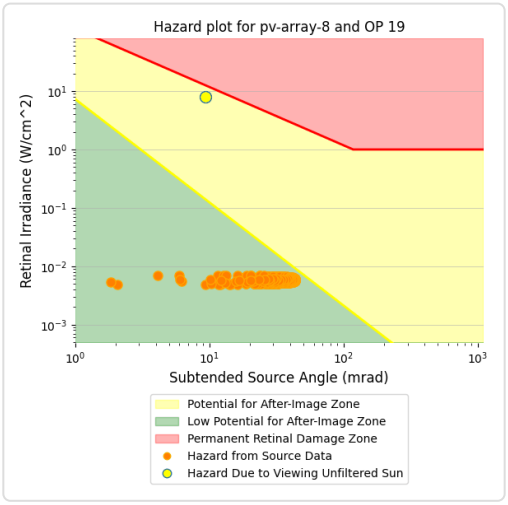
PV array 8 and OP 19

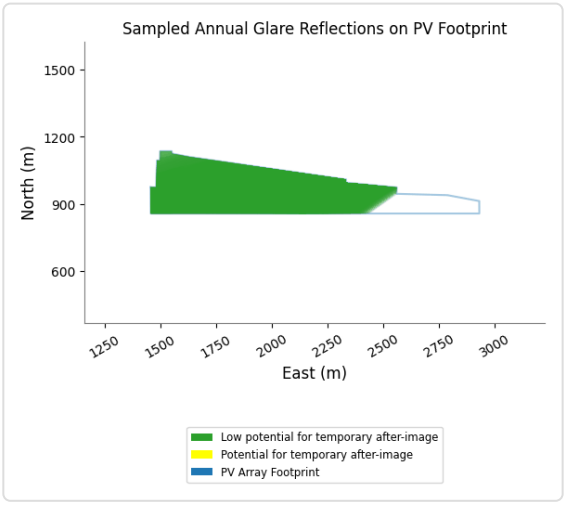
Yellow glare: none

Green glare: 306 min.





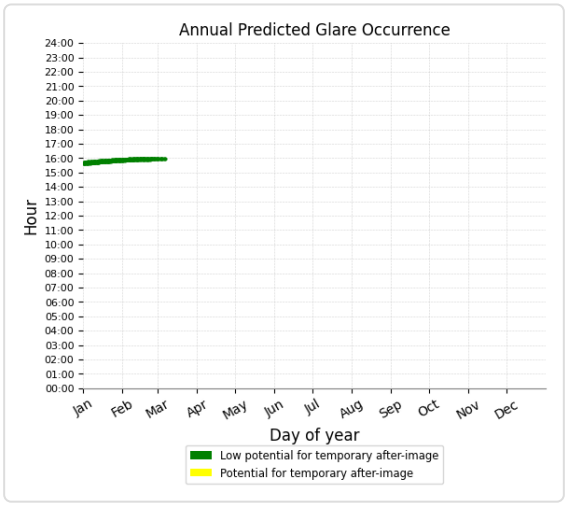


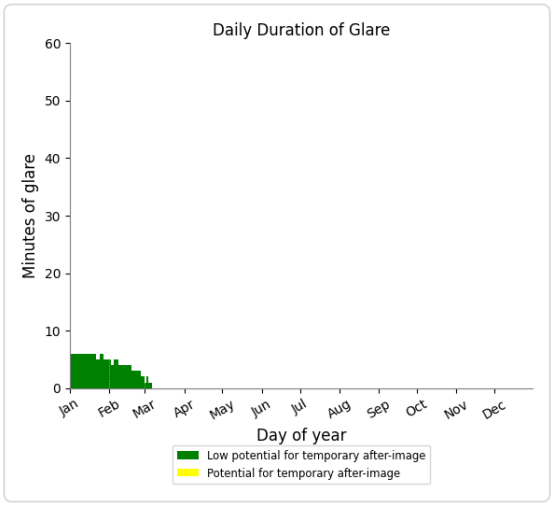


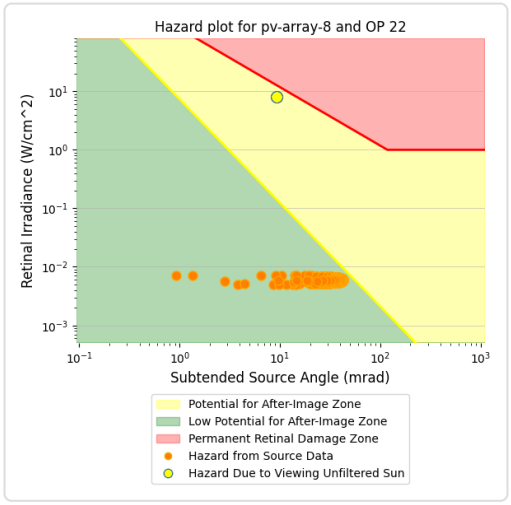
PV array 8 and OP 22

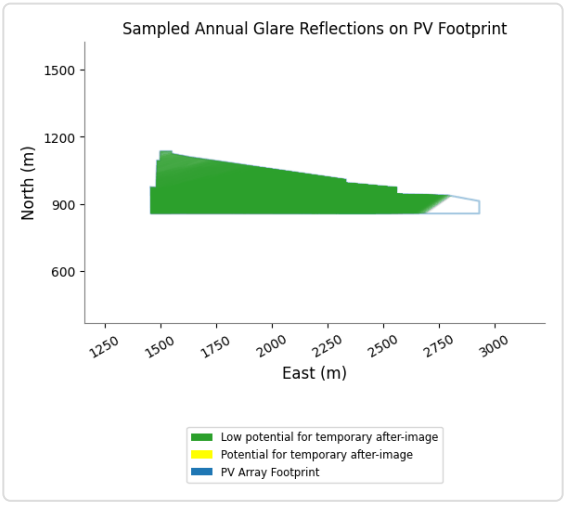
Yellow glare: none

Green glare: 290 min.





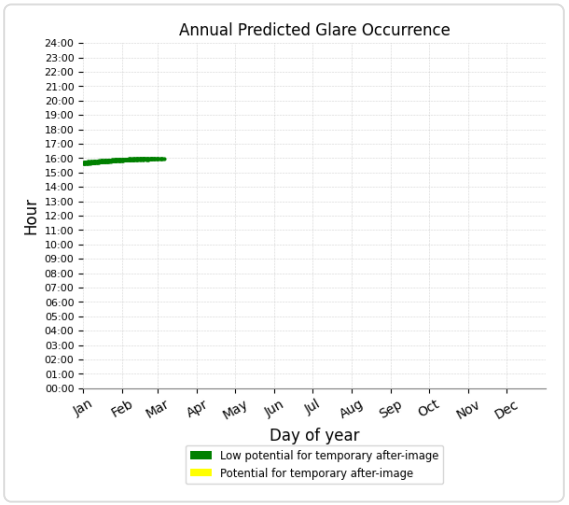


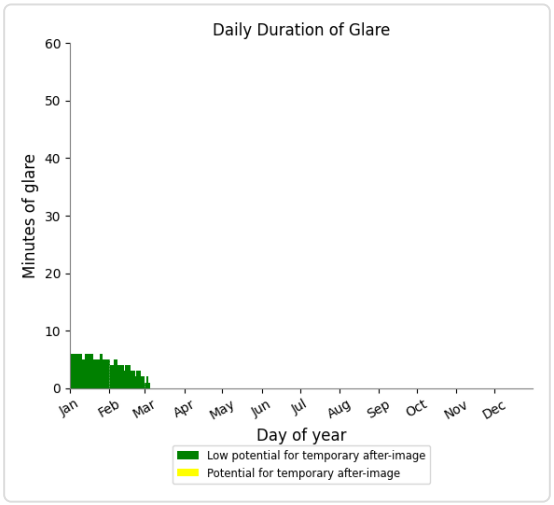


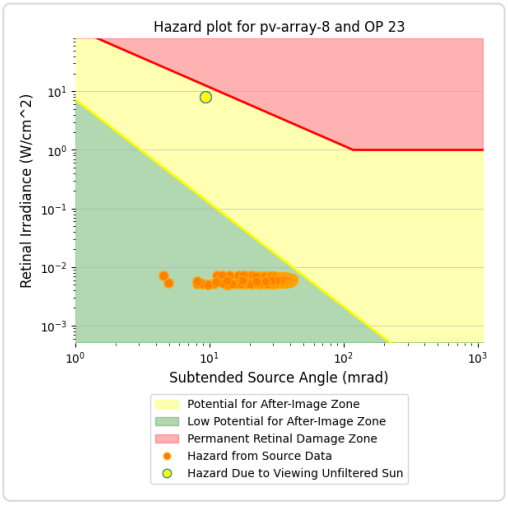
PV array 8 and OP 23

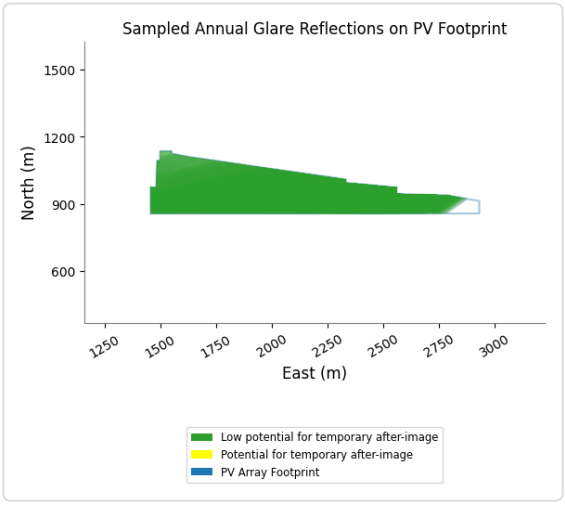
Yellow glare: none

Green glare: 280 min.





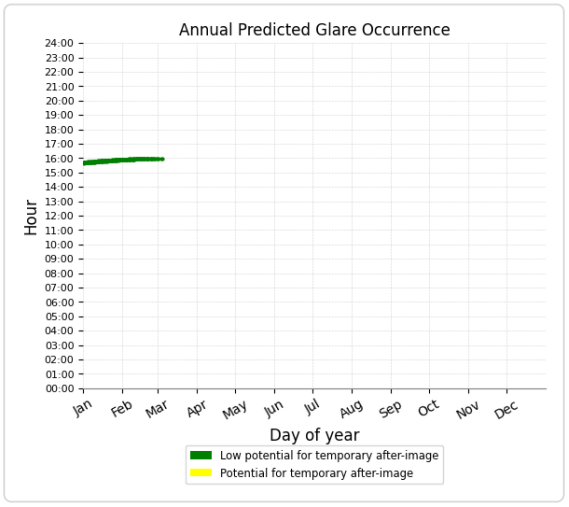


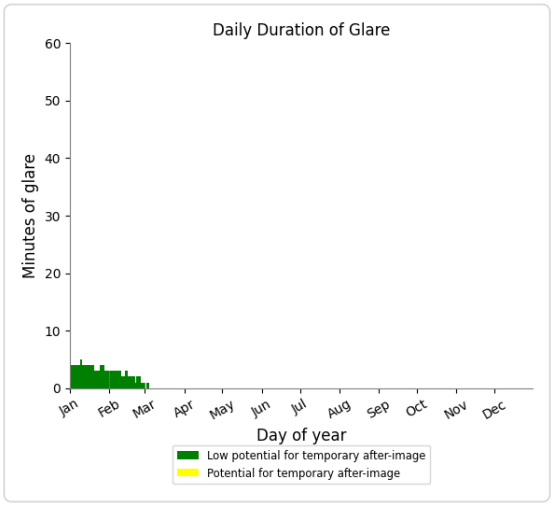


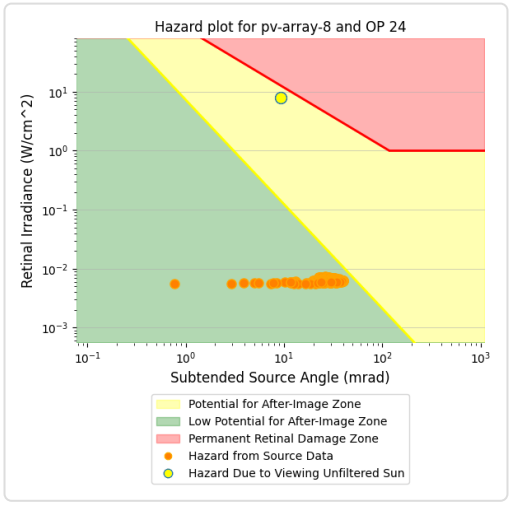
PV array 8 and OP 24

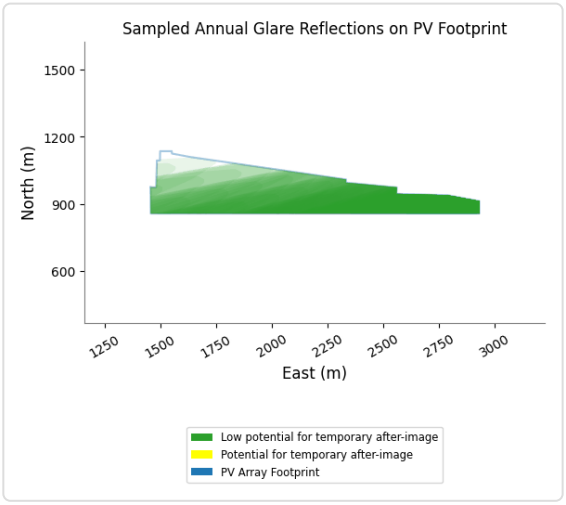
Yellow glare: none

Green glare: 185 min.



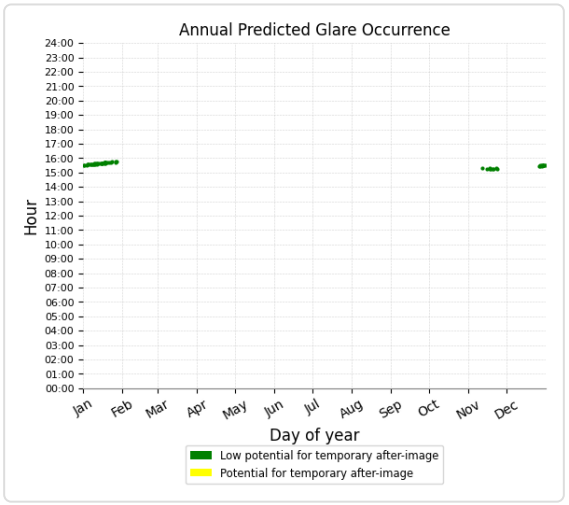


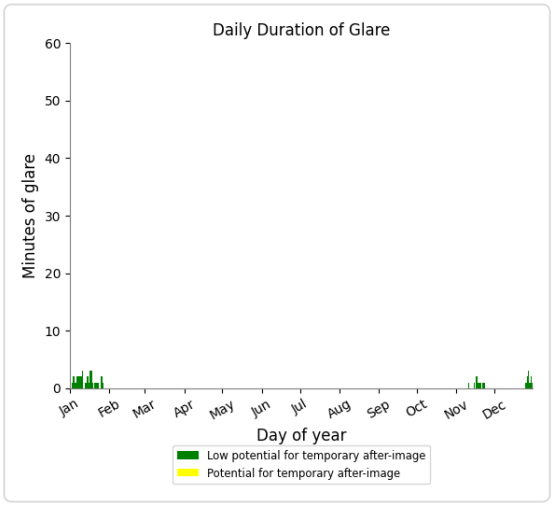


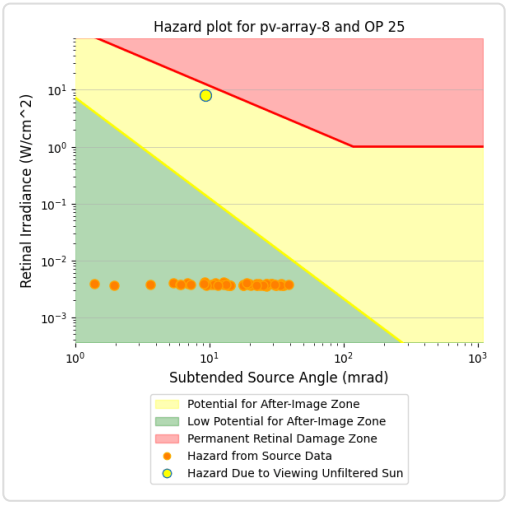


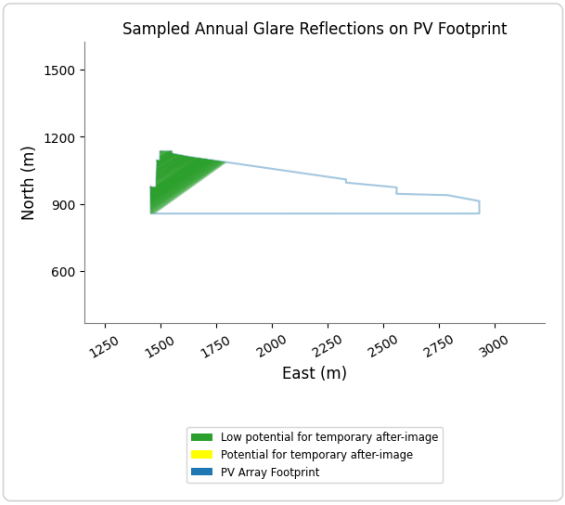
PV array 8 and OP 25

Yellow glare: none
Green glare: 55 min.









PV array 8 and OP 1

No glare found

PV array 8 and OP 2

No glare found

PV array 8 and OP 3

No glare found

PV array 8 and OP 4

No glare found

PV array 8 and OP 5

No glare found

PV array 8 and OP 6

No glare found

PV array 8 and OP 7

No glare found

PV array 8 and OP 8

No glare found

PV array 8 and OP 20

No glare found

PV array 8 and OP 21

No glare found

PV array 8 and OP 26

No glare found

PV array 8 and OP 27

No glare found

PV array 8 and OP 28

No glare found

PV array 8 and OP 29

No glare found

PV array 8 and OP 30

No glare found

PV array 8 and OP 31

No glare found

PV array 8 and OP 32

No glare found

PV array 8 and OP 33

No glare found

PV: PV array 9 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 9 and Route: Avenue Road

No glare found

PV array 9 and Route: Main Camp Road

No glare found

PV array 9 and OP 1

No glare found

PV array 9 and OP 2

No glare found

PV array 9 and OP 3

No glare found

PV array 9 and OP 4

No glare found

PV array 9 and OP 5

No glare found

PV array 9 and OP 6

No glare found

PV array 9 and OP 7

No glare found

PV array 9 and OP 8

No glare found

PV array 9 and OP 9

No glare found

PV array 9 and OP 10

No glare found

PV array 9 and OP 11

No glare found

PV array 9 and OP 12

No glare found

PV array 9 and OP 13

No glare found

PV array 9 and OP 14

No glare found

PV array 9 and OP 15

No glare found

PV array 9 and OP 16

No glare found

PV array 9 and OP 17

No glare found

PV array 9 and OP 18

No glare found

PV array 9 and OP 19

No glare found

PV array 9 and OP 20

No glare found

PV array 9 and OP 21

No glare found

PV array 9 and OP 22

No glare found

PV array 9 and OP 23

No glare found

PV array 9 and OP 24

No glare found

PV array 9 and OP 25

No glare found

PV array 9 and OP 26

No glare found

PV array 9 and OP 27

No glare found

PV array 9 and OP 28

No glare found

PV array 9 and OP 29

No glare found

PV array 9 and OP 30

No glare found

PV array 9 and OP 31

No glare found

PV array 9 and OP 32

No glare found

PV array 9 and OP 33

No glare found

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year.
Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare. This primarily affects V1 analyses of path receptors.
Random number computations are utilized by various steps of the annual hazard analysis algorithm. Predicted minutes of glare can vary between runs as a result. This limitation primarily affects analyses of Observation Point receptors, including ATCTs. Note that the SGHAT/ ForgeSolar methodology has always relied on an analytical, qualitative approach to accurately determine the overall hazard (i.e. green vs. yellow) of expected glare on an annual basis.
The analysis does not automatically consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.
The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)
The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.
The ocular hazard predicted by the tool depends on a number of environmental, optical, and human factors, which can be uncertain. We provide input fields and typical ranges of values for these factors so that the user can vary these parameters to see if they have an impact on the results. The speed of SGHAT allows expedited sensitivity and parametric analyses.
The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.
Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.
Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
Refer to the Help page at **www.forgesolar.com/help/** for assumptions and limitations not listed here.

Default glare analysis parameters and observer eye characteristics (for reference only):

- Analysis time interval: 1 minute
- Ocular transmission coefficient: 0.5
- Pupil diameter: 0.002 meters
- Eye focal length: 0.017 meters
- Sun subtended angle: 9.3 milliradians

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Glint and Glare Assessment Results Attachment B - Scenario 4

FORGESOLAR GLARE ANALYSIS

Project: **2320 Richmond Valley Solar Farm**
Site configuration: **2320 Richmond Valley 45d Resting Angle 20231211**

Created 11 Dec, 2023
Updated 18 Dec, 2023
Time-step 1 minute
Timezone offset UTC10
Minimum sun altitude 0.0 deg
DNI peaks at 1,000.0 W/m^2
Category 100 MW to 1 GW
Site ID 107580.18000

Ocular transmission coefficient 0.5
Pupil diameter 0.002 m
Eye focal length 0.017 m
Sun subtended angle 9.3 mrad
PV analysis methodology V2

Summary of Results

Glare with potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV array 1	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 10	SA tracking	SA tracking	21,770	362.8	4,186	69.8	-
PV array 15	SA tracking	SA tracking	584	9.7	127	2.1	-
PV array 16	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 17	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 18	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 19	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 2	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 20	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 21	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 22	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 23	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 3	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 4	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 5	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 6	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 7	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 8	SA tracking	SA tracking	4,334	72.2	19	0.3	-
PV array 9	SA tracking	SA tracking	0	0.0	0	0.0	-

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	15,275	254.6	4,205	70.1

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Main Camp Road	838	14.0	127	2.1
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	261	4.3	0	0.0
OP 10	57	0.9	0	0.0
OP 11	278	4.6	0	0.0
OP 12	271	4.5	0	0.0
OP 13	284	4.7	0	0.0
OP 14	144	2.4	0	0.0
OP 15	148	2.5	0	0.0
OP 16	488	8.1	0	0.0
OP 17	123	2.0	0	0.0
OP 18	300	5.0	0	0.0
OP 19	306	5.1	0	0.0
OP 20	0	0.0	0	0.0
OP 21	297	5.0	0	0.0
OP 22	290	4.8	0	0.0
OP 23	280	4.7	0	0.0
OP 24	185	3.1	0	0.0
OP 25	55	0.9	0	0.0
OP 26	1,650	27.5	0	0.0
OP 27	1,608	26.8	0	0.0
OP 28	1,469	24.5	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	2,081	34.7	0	0.0

Component Data

PV Arrays

Name: PV array 1
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 45.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.101325	153.019581	366.24	2.50	368.74
2	-29.101319	153.022208	373.42	2.50	375.92
3	-29.101675	153.022244	322.35	2.50	324.85
4	-29.101686	153.024706	312.51	2.50	315.01
5	-29.102036	153.024742	303.12	2.50	305.62
6	-29.102033	153.026689	299.33	2.50	301.83
7	-29.102411	153.026725	328.19	2.50	330.69
8	-29.102419	153.028128	322.49	2.50	324.99
9	-29.103497	153.028139	354.56	2.50	357.06
10	-29.103500	153.028281	326.46	2.50	328.96
11	-29.104558	153.028281	314.31	2.50	316.81
12	-29.104567	153.026794	364.57	2.50	367.07
13	-29.104200	153.026775	369.06	2.50	371.56
14	-29.104211	153.025361	350.76	2.50	353.26
15	-29.103472	153.025344	337.49	2.50	339.99
16	-29.103472	153.019586	354.43	2.50	356.93

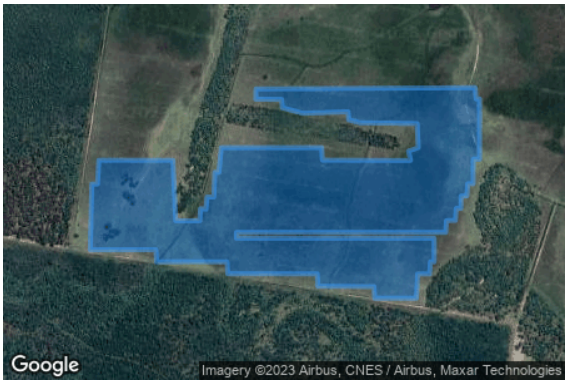
Name: PV array 10
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 45.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.096789	153.033475	67.12	2.50	69.62
2	-29.096789	153.033625	94.58	2.50	97.08
3	-29.096086	153.033664	83.67	2.50	86.17
4	-29.096069	153.048192	86.35	2.50	88.85
5	-29.096428	153.048178	86.17	2.50	88.67
6	-29.096431	153.047381	77.50	2.50	80.00
7	-29.096778	153.047358	70.21	2.50	72.71
8	-29.096778	153.046492	64.01	2.50	66.51
9	-29.097136	153.046467	57.37	2.50	59.87
10	-29.097136	153.045553	58.92	2.50	61.42
11	-29.097508	153.045553	44.73	2.50	47.23
12	-29.097514	153.044489	51.53	2.50	54.03
13	-29.097786	153.044467	54.99	2.50	57.49
14	-29.097864	153.043553	60.25	2.50	62.75
15	-29.098228	153.043531	57.21	2.50	59.71
16	-29.098236	153.041514	58.17	2.50	60.67
17	-29.098608	153.041486	51.15	2.50	53.65
18	-29.098619	153.033442	60.48	2.50	62.98

Name: PV array 15
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 45.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

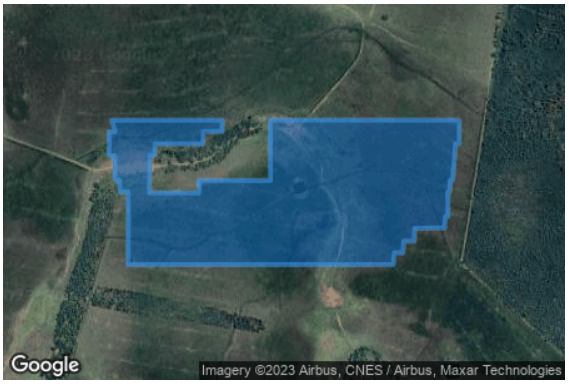
Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.102156	153.044086	58.73	2.50	61.23
2	-29.102156	153.047328	63.32	2.50	65.82
3	-29.102194	153.047328	95.21	2.50	97.71
4	-29.102194	153.058594	119.73	2.50	122.23
5	-29.102550	153.058617	84.51	2.50	87.01
6	-29.102550	153.058697	82.32	2.50	84.82
7	-29.103253	153.058700	86.95	2.50	89.45
8	-29.103253	153.058464	98.42	2.50	100.92
9	-29.103636	153.058431	85.79	2.50	88.29
10	-29.103636	153.058125	71.39	2.50	73.89
11	-29.104347	153.058089	63.19	2.50	65.69
12	-29.104347	153.057872	68.64	2.50	71.14
13	-29.105078	153.057872	75.02	2.50	77.52
14	-29.105080	153.057786	73.92	2.50	76.42
15	-29.105431	153.057761	95.27	2.50	97.77
16	-29.105431	153.057622	95.06	2.50	97.56
17	-29.106164	153.057597	96.25	2.50	98.75
18	-29.106167	153.057461	85.20	2.50	87.70
19	-29.106514	153.057433	78.67	2.50	81.17
20	-29.106514	153.057292	76.66	2.50	79.16
21	-29.107410	153.057270	69.71	2.50	72.21
22	-29.107410	153.057190	70.70	2.50	73.20
23	-29.107760	153.057150	76.15	2.50	78.65
24	-29.107770	153.056900	69.23	2.50	71.73
25	-29.108870	153.056840	63.91	2.50	66.41
26	-29.108840	153.054250	69.03	2.50	71.53
27	-29.106690	153.054260	67.10	2.50	69.60
28	-29.106700	153.054510	61.84	2.50	64.34
29	-29.105460	153.054540	51.44	2.50	53.94
30	-29.105460	153.054670	46.48	2.50	48.98
31	-29.103650	153.054660	44.11	2.50	46.61
32	-29.103650	153.053990	50.89	2.50	53.39
33	-29.103260	153.053990	55.01	2.50	57.51
34	-29.103260	153.051930	50.62	2.50	53.12
35	-29.102900	153.051890	64.22	2.50	66.72
36	-29.102900	153.046260	78.81	2.50	81.31
37	-29.102530	153.046260	69.88	2.50	72.38
38	-29.102531	153.044111	81.44	2.50	83.94

Name: PV array 16
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 45.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.109583	153.053697	35.88	2.50	38.38
2	-29.109580	153.053892	35.82	2.50	38.32
3	-29.108872	153.053936	34.22	2.50	36.72
4	-29.108872	153.056486	35.80	2.50	38.30
5	-29.110681	153.056581	33.60	2.50	36.10
6	-29.110680	153.057408	33.51	2.50	36.01
7	-29.110322	153.057431	33.12	2.50	35.62
8	-29.110333	153.057622	33.65	2.50	36.15
9	-29.109972	153.057656	34.81	2.50	37.31
10	-29.109969	153.057892	35.48	2.50	37.98
11	-29.109233	153.057922	37.27	2.50	39.77
12	-29.109230	153.058064	37.55	2.50	40.05
13	-29.108494	153.058144	37.24	2.50	39.74
14	-29.108494	153.061594	35.21	2.50	37.71
15	-29.108867	153.061622	34.11	2.50	36.61
16	-29.108875	153.064650	30.58	2.50	33.08
17	-29.108597	153.064578	31.08	2.50	33.58
18	-29.108494	153.064914	30.76	2.50	33.26
19	-29.107772	153.064875	32.09	2.50	34.59
20	-29.107750	153.062925	30.39	2.50	32.89
21	-29.107664	153.062525	32.23	2.50	34.73
22	-29.107419	153.062503	32.17	2.50	34.67
23	-29.107467	153.060950	34.16	2.50	36.66
24	-29.107297	153.060244	33.94	2.50	36.44
25	-29.107050	153.060219	33.92	2.50	36.42
26	-29.107044	153.059328	34.04	2.50	36.54
27	-29.106736	153.059336	34.04	2.50	36.54
28	-29.106700	153.066869	31.79	2.50	34.29
29	-29.107036	153.066903	31.47	2.50	33.97
30	-29.107036	153.067019	31.60	2.50	34.10
31	-29.108842	153.067022	33.82	2.50	36.32
32	-29.108842	153.066803	33.30	2.50	35.80
33	-29.109572	153.066800	34.25	2.50	36.75
34	-29.109570	153.066614	33.70	2.50	36.20
35	-29.109936	153.066586	34.18	2.50	36.68
36	-29.109940	153.066383	33.57	2.50	36.07
37	-29.110311	153.066380	34.11	2.50	36.61
38	-29.110310	153.066217	33.64	2.50	36.14
39	-29.110669	153.066192	34.08	2.50	36.58
40	-29.110675	153.065881	33.18	2.50	35.68
41	-29.111028	153.065858	33.66	2.50	36.16
42	-29.111028	153.058667	34.00	2.50	36.50
43	-29.111203	153.058667	34.00	2.50	36.50
44	-29.111203	153.065461	33.51	2.50	36.01
45	-29.111908	153.065461	35.73	2.50	38.23
46	-29.111908	153.065331	35.54	2.50	38.04
47	-29.112269	153.065303	35.50	2.50	38.00
48	-29.112270	153.064894	35.16	2.50	37.66
49	-29.112997	153.064853	35.92	2.50	38.42
50	-29.112997	153.063419	33.64	2.50	36.14
51	-29.112650	153.063394	34.07	2.50	36.57
52	-29.112639	153.061467	31.62	2.50	34.12
53	-29.112269	153.061444	32.22	2.50	34.72
54	-29.112264	153.058369	34.15	2.50	36.65
55	-29.111908	153.058342	34.08	2.50	36.58
56	-29.111908	153.055928	33.83	2.50	36.33
57	-29.111547	153.055900	33.61	2.50	36.11
58	-29.111550	153.053644	40.15	2.50	42.65

Name: PV array 17
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 45.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.102197	153.059017	39.95	2.50	42.45
2	-29.102194	153.062817	37.76	2.50	40.26
3	-29.102533	153.062803	35.96	2.50	38.46
4	-29.102539	153.062167	38.22	2.50	40.72
5	-29.102906	153.062150	38.04	2.50	40.54
6	-29.102910	153.060506	39.98	2.50	42.48
7	-29.103247	153.060483	38.09	2.50	40.59
8	-29.103253	153.060331	35.83	2.50	38.33
9	-29.104367	153.060311	35.23	2.50	37.73
10	-29.104375	153.062003	35.00	2.50	37.50
11	-29.103994	153.062019	35.26	2.50	37.76
12	-29.104000	153.064469	35.33	2.50	37.83
13	-29.102194	153.064467	41.33	2.50	43.83
14	-29.102194	153.070958	35.53	2.50	38.03
15	-29.102900	153.070964	31.99	2.50	34.49
16	-29.102900	153.070833	34.31	2.50	36.81
17	-29.103986	153.070736	38.09	2.50	40.59
18	-29.103992	153.070656	36.86	2.50	39.36
19	-29.104342	153.070622	35.58	2.50	38.08
20	-29.104344	153.070567	35.32	2.50	37.82
21	-29.105078	153.070575	39.57	2.50	42.07
22	-29.105080	153.070486	39.78	2.50	42.28
23	-29.105425	153.070458	37.46	2.50	39.96
24	-29.105431	153.069433	34.45	2.50	36.95
25	-29.105819	153.069408	43.72	2.50	46.22
26	-29.105819	153.069053	44.69	2.50	47.19
27	-29.106167	153.069022	39.39	2.50	41.89
28	-29.106167	153.068725	33.07	2.50	35.57
29	-29.106519	153.068689	38.03	2.50	40.53
30	-29.106520	153.059578	36.08	2.50	38.58
31	-29.104344	153.059583	36.72	2.50	39.22
32	-29.104347	153.059308	37.07	2.50	39.57
33	-29.103989	153.059278	37.85	2.50	40.35
34	-29.103989	153.059139	38.21	2.50	40.71
35	-29.103253	153.059111	40.68	2.50	43.18
36	-29.103253	153.058922	39.83	2.50	42.33
37	-29.102544	153.058922	38.08	2.50	40.58
38	-29.102544	153.059133	37.66	2.50	40.16

Name: PV array 18
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 45.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.109586	153.069572	30.93	2.50	33.43
2	-29.109592	153.071361	29.24	2.50	31.74
3	-29.109972	153.071386	29.96	2.50	32.46
4	-29.109978	153.072467	30.00	2.50	32.50
5	-29.110311	153.072500	30.00	2.50	32.50
6	-29.110319	153.073303	31.15	2.50	33.65
7	-29.110672	153.073361	30.64	2.50	33.14
8	-29.112108	153.073353	28.68	2.50	31.18
9	-29.112119	153.072439	30.64	2.50	33.14
10	-29.112300	153.072442	30.87	2.50	33.37
11	-29.112300	153.074256	29.00	2.50	31.50
12	-29.112653	153.074275	29.74	2.50	32.24
13	-29.112661	153.074633	29.77	2.50	32.27
14	-29.113006	153.074628	30.79	2.50	33.29
15	-29.113006	153.076522	29.89	2.50	32.39
16	-29.112797	153.076511	29.59	2.50	32.09
17	-29.112797	153.078297	26.43	2.50	28.93
18	-29.113372	153.078353	27.13	2.50	29.63
19	-29.114981	153.078347	29.88	2.50	32.38
20	-29.114969	153.078094	29.97	2.50	32.47
21	-29.115317	153.078075	30.26	2.50	32.76
22	-29.115320	153.076460	34.27	2.50	36.77
23	-29.115528	153.076456	33.21	2.50	35.71
24	-29.115525	153.070742	31.94	2.50	34.44
25	-29.114467	153.070742	30.74	2.50	33.24
26	-29.114467	153.070797	30.48	2.50	32.98
27	-29.113725	153.070797	30.05	2.50	32.55
28	-29.113725	153.070239	31.57	2.50	34.07
29	-29.113350	153.070219	31.26	2.50	33.76
30	-29.113350	153.070125	31.37	2.50	33.87
31	-29.113000	153.070100	31.06	2.50	33.56
32	-29.113000	153.069572	31.53	2.50	34.03

Name: PV array 19
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 45.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.095008	153.049878	30.65	2.50	33.15
2	-29.095006	153.067636	55.88	2.50	58.38
3	-29.095361	153.067678	52.05	2.50	54.55
4	-29.095372	153.070639	54.94	2.50	57.44
5	-29.095722	153.070672	51.58	2.50	54.08
6	-29.095733	153.071469	49.76	2.50	52.26
7	-29.097678	153.071458	43.37	2.50	45.87
8	-29.097692	153.071583	43.76	2.50	46.26
9	-29.099842	153.071569	35.11	2.50	37.61
10	-29.099842	153.071353	33.97	2.50	36.47
11	-29.100928	153.071347	33.60	2.50	36.10
12	-29.100928	153.071208	33.60	2.50	36.10
13	-29.101667	153.071186	35.03	2.50	37.53
14	-29.101658	153.071047	35.08	2.50	37.58
15	-29.102022	153.071031	35.02	2.50	37.52
16	-29.102020	153.047342	32.77	2.50	35.27
17	-29.102114	153.047336	32.68	2.50	35.18
18	-29.102111	153.044069	34.04	2.50	36.54
19	-29.102019	153.044086	34.00	2.50	36.50
20	-29.102014	153.039336	38.65	2.50	41.15
21	-29.099867	153.039331	37.84	2.50	40.34
22	-29.099861	153.040528	36.06	2.50	38.56
23	-29.099494	153.040547	35.30	2.50	37.80
24	-29.099494	153.043892	32.13	2.50	34.63
25	-29.100950	153.043914	33.56	2.50	36.06
26	-29.100958	153.045236	34.06	2.50	36.56
27	-29.100580	153.045280	34.35	2.50	36.85
28	-29.100570	153.046140	33.76	2.50	36.26
29	-29.100220	153.046170	35.46	2.50	37.96
30	-29.100220	153.046440	35.17	2.50	37.67
31	-29.100570	153.046470	33.65	2.50	36.15
32	-29.100570	153.046810	33.54	2.50	36.04
33	-29.100220	153.046830	34.76	2.50	37.26
34	-29.100220	153.048570	34.30	2.50	36.80
35	-29.099860	153.048580	34.26	2.50	36.76
36	-29.099860	153.055040	30.23	2.50	32.73
37	-29.097520	153.055040	29.19	2.50	31.69
38	-29.097508	153.049244	29.61	2.50	32.11
39	-29.096461	153.049253	28.44	2.50	30.94

Name: PV array 2
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 45.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.103011	153.028981	45.87	2.50	48.37
2	-29.103033	153.031867	42.45	2.50	44.95
3	-29.105117	153.031872	39.58	2.50	42.08
4	-29.105139	153.029231	43.48	2.50	45.98
5	-29.104064	153.029211	43.73	2.50	46.23
6	-29.104044	153.028956	41.58	2.50	44.08

Name: PV array 20
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 45.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.097756	153.046586	30.04	2.50	32.54
2	-29.097722	153.046661	30.51	2.50	33.01
3	-29.097722	153.050819	31.18	2.50	33.68
4	-29.098397	153.050817	30.55	2.50	33.05
5	-29.098400	153.050675	29.78	2.50	32.28
6	-29.098433	153.050681	29.76	2.50	32.26
7	-29.098430	153.049186	29.93	2.50	32.43
8	-29.098747	153.049158	31.20	2.50	33.70
9	-29.098744	153.049008	30.31	2.50	32.81
10	-29.098781	153.048992	30.37	2.50	32.87
11	-29.098789	153.045769	30.60	2.50	33.10
12	-29.098081	153.045769	31.10	2.50	33.60
13	-29.098089	153.046567	32.80	2.50	35.30

Name: PV array 21
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 45.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.115711	153.068300	41.50	2.50	44.00
2	-29.115708	153.077564	41.51	2.50	44.01
3	-29.116775	153.077617	41.78	2.50	44.28
4	-29.116775	153.077372	41.72	2.50	44.22
5	-29.117500	153.077344	41.23	2.50	43.73
6	-29.117500	153.077214	40.70	2.50	43.20
7	-29.117853	153.077178	40.00	2.50	42.50
8	-29.117858	153.077039	40.44	2.50	42.94
9	-29.118383	153.077014	41.50	2.50	44.00
10	-29.118383	153.076644	41.18	2.50	43.68
11	-29.118739	153.076631	40.28	2.50	42.78
12	-29.118739	153.075653	39.12	2.50	41.62
13	-29.119083	153.075622	38.34	2.50	40.84
14	-29.119083	153.072625	39.10	2.50	41.60
15	-29.118736	153.072594	40.48	2.50	42.98
16	-29.118736	153.068858	40.41	2.50	42.91
17	-29.118383	153.068831	42.05	2.50	44.55
18	-29.118383	153.067967	42.40	2.50	44.90
19	-29.116806	153.067970	42.22	2.50	44.72
20	-29.116810	153.068106	42.02	2.50	44.52
21	-29.116053	153.068131	41.65	2.50	44.15
22	-29.116050	153.068272	42.27	2.50	44.77

Name: PV array 22
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 45.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.119964	153.067553	34.62	2.50	37.12
2	-29.119931	153.071286	34.59	2.50	37.09
3	-29.120281	153.071325	33.95	2.50	36.45
4	-29.120344	153.073556	31.66	2.50	34.16
5	-29.120458	153.073553	31.39	2.50	33.89
6	-29.120464	153.075878	34.40	2.50	36.90
7	-29.120114	153.075856	33.35	2.50	35.85
8	-29.120114	153.078875	29.83	2.50	32.33
9	-29.120853	153.078881	29.81	2.50	32.31
10	-29.120853	153.078372	29.48	2.50	31.98
11	-29.121589	153.078375	30.72	2.50	33.22
12	-29.121597	153.077969	30.34	2.50	32.84
13	-29.121947	153.077806	30.38	2.50	32.88
14	-29.121947	153.077344	29.07	2.50	31.57
15	-29.122303	153.077336	29.04	2.50	31.54
16	-29.122294	153.075361	32.04	2.50	34.54
17	-29.121594	153.075361	34.77	2.50	37.27
18	-29.121586	153.073336	29.42	2.50	31.92
19	-29.121239	153.073328	29.58	2.50	32.08
20	-29.121294	153.070856	32.46	2.50	34.96
21	-29.121714	153.070683	31.91	2.50	34.41
22	-29.121714	153.070081	32.74	2.50	35.24
23	-29.122067	153.069833	32.73	2.50	35.23
24	-29.122103	153.067342	29.46	2.50	31.96
25	-29.121022	153.067347	32.75	2.50	35.25
26	-29.121022	153.067553	32.13	2.50	34.63

Name: PV array 23
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 45.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.114775	153.080247	54.75	2.50	57.25
2	-29.114775	153.080583	53.92	2.50	56.42
3	-29.115122	153.080614	56.19	2.50	58.69
4	-29.115125	153.080961	59.96	2.50	62.46
5	-29.115822	153.080961	55.06	2.50	57.56
6	-29.115822	153.080836	49.55	2.50	52.05
7	-29.116564	153.080797	49.76	2.50	52.26
8	-29.116564	153.080217	46.19	2.50	48.69
9	-29.116928	153.080192	43.83	2.50	46.33
10	-29.116928	153.079286	43.59	2.50	46.09
11	-29.117444	153.079256	45.43	2.50	47.93
12	-29.117444	153.078672	40.64	2.50	43.14
13	-29.117797	153.078642	41.60	2.50	44.10
14	-29.117797	153.078194	41.85	2.50	44.35
15	-29.117103	153.078194	41.39	2.50	43.89
16	-29.117103	153.078386	41.00	2.50	43.50
17	-29.116203	153.078425	51.19	2.50	53.69
18	-29.116208	153.078614	48.69	2.50	51.19
19	-29.115853	153.078644	55.75	2.50	58.25
20	-29.115853	153.079003	60.58	2.50	63.08
21	-29.115475	153.079028	56.40	2.50	58.90
22	-29.115481	153.079553	48.27	2.50	50.77
23	-29.115125	153.079589	49.11	2.50	51.61
24	-29.115128	153.080219	57.49	2.50	59.99

Name: PV array 3
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 45.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.103158	153.033744	37.67	2.50	40.17
2	-29.103161	153.034311	44.09	2.50	46.59
3	-29.103506	153.034347	49.91	2.50	52.41
4	-29.103506	153.035361	50.39	2.50	52.89
5	-29.103864	153.035389	48.02	2.50	50.52
6	-29.103864	153.035694	46.05	2.50	48.55
7	-29.104236	153.035733	43.39	2.50	45.89
8	-29.104242	153.036075	41.79	2.50	44.29
9	-29.105681	153.036081	43.07	2.50	45.57
10	-29.105678	153.035300	40.37	2.50	42.87
11	-29.105300	153.035261	38.35	2.50	40.85
12	-29.105300	153.033747	38.15	2.50	40.65

Name: PV array 4
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 45.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.100956	153.029697	61.70	2.50	64.20
2	-29.100960	153.033861	52.05	2.50	54.55
3	-29.102319	153.033872	41.22	2.50	43.72
4	-29.102206	153.029711	55.91	2.50	58.41

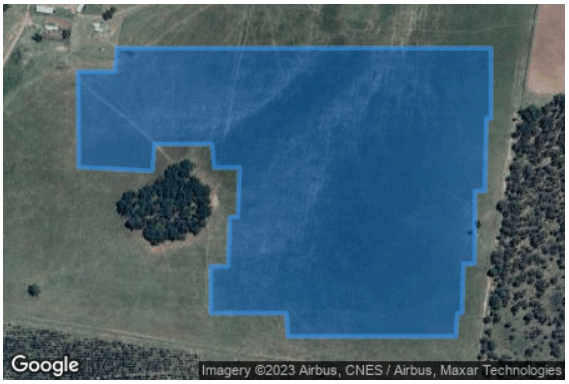
Name: PV array 5
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 45.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.096244	153.020017	63.68	2.50	66.18
2	-29.096258	153.021258	58.95	2.50	61.45
3	-29.096144	153.021281	58.13	2.50	60.63
4	-29.096142	153.022628	52.57	2.50	55.07
5	-29.096497	153.022653	51.62	2.50	54.12
6	-29.096506	153.025769	53.56	2.50	56.06
7	-29.096856	153.025817	52.73	2.50	55.23
8	-29.096858	153.026111	52.97	2.50	55.47
9	-29.097494	153.026317	52.15	2.50	54.65
10	-29.097789	153.027056	53.44	2.50	55.94
11	-29.098275	153.027050	51.11	2.50	53.61
12	-29.098319	153.019792	51.02	2.50	53.52
13	-29.098064	153.019775	50.99	2.50	53.49
14	-29.097667	153.020156	52.49	2.50	54.99
15	-29.097636	153.020281	52.49	2.50	54.99
16	-29.096947	153.020283	54.63	2.50	57.13
17	-29.096931	153.020225	54.40	2.50	56.90
18	-29.096930	153.020225	52.63	2.50	55.13
19	-29.096930	153.020225	56.59	2.50	59.09

Name: PV array 6
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 45.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.098411	153.019708	52.49	2.50	54.99
2	-29.098410	153.022644	54.27	2.50	56.77
3	-29.098453	153.022644	54.17	2.50	56.67
4	-29.098453	153.025644	52.52	2.50	55.02
5	-29.098406	153.025644	52.52	2.50	55.02
6	-29.098410	153.026583	50.97	2.50	53.47
7	-29.098456	153.026583	50.96	2.50	53.46
8	-29.098460	153.028092	50.98	2.50	53.48
9	-29.098806	153.028111	49.50	2.50	52.00
10	-29.098814	153.028110	49.50	2.50	52.00
11	-29.100568	153.028106	43.03	2.50	45.53
12	-29.100578	153.028090	43.04	2.50	45.54
13	-29.100586	153.028083	43.04	2.50	45.54
14	-29.100586	153.024706	46.96	2.50	49.46
15	-29.100236	153.024675	47.84	2.50	50.34
16	-29.100236	153.024317	47.76	2.50	50.26
17	-29.099511	153.024286	51.07	2.50	53.57
18	-29.099503	153.021261	52.06	2.50	54.56
19	-29.099153	153.021256	51.64	2.50	54.14
20	-29.099147	153.019714	53.21	2.50	55.71

Name: PV array 7
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 45.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.102553	153.036561	61.89	2.50	64.39
2	-29.102550	153.037192	57.69	2.50	60.19
3	-29.102203	153.037222	56.56	2.50	59.06
4	-29.102200	153.043656	57.79	2.50	60.29
5	-29.103258	153.043656	59.96	2.50	62.46
6	-29.103258	153.043578	60.09	2.50	62.59
7	-29.104339	153.043550	61.32	2.50	63.82
8	-29.104344	153.043381	63.82	2.50	66.32
9	-29.105428	153.043375	64.55	2.50	67.05
10	-29.105430	153.043181	65.16	2.50	67.66
11	-29.106169	153.043158	66.84	2.50	69.34
12	-29.106170	153.043078	69.07	2.50	71.57
13	-29.106517	153.043053	71.34	2.50	73.84
14	-29.106517	153.040167	72.19	2.50	74.69
15	-29.106167	153.040136	70.00	2.50	72.50
16	-29.106167	153.038839	69.02	2.50	71.52
17	-29.105467	153.038839	69.78	2.50	72.28
18	-29.105470	153.039136	74.83	2.50	77.33
19	-29.104728	153.039169	75.24	2.50	77.74
20	-29.104728	153.039303	72.87	2.50	75.37
21	-29.103992	153.039336	67.81	2.50	70.31
22	-29.103990	153.038897	63.04	2.50	65.54
23	-29.103636	153.038858	60.65	2.50	63.15
24	-29.103640	153.037875	61.34	2.50	63.84
25	-29.104042	153.037839	65.75	2.50	68.25
26	-29.103986	153.036569	63.73	2.50	66.23

Name: PV array 8
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 45.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.092536	153.034539	49.37	2.50	51.87
2	-29.092539	153.034797	46.57	2.50	49.07
3	-29.091453	153.034833	44.03	2.50	46.53
4	-29.091453	153.034972	42.10	2.50	44.60
5	-29.091078	153.034981	41.53	2.50	44.03
6	-29.091078	153.035514	38.85	2.50	41.35
7	-29.091175	153.035525	37.65	2.50	40.15
8	-29.091308	153.036322	36.36	2.50	38.86
9	-29.092222	153.043542	34.71	2.50	37.21
10	-29.092350	153.043533	33.71	2.50	36.21
11	-29.092544	153.045875	34.18	2.50	36.68
12	-29.092803	153.045858	35.67	2.50	38.17
13	-29.092858	153.048208	36.30	2.50	38.80
14	-29.093097	153.049672	36.65	2.50	39.15
15	-29.093600	153.049675	36.09	2.50	38.59
16	-29.093600	153.034550	36.90	2.50	39.40
17	-29.093600	153.034550	38.56	2.50	41.06
18	-29.093600	153.034550	40.09	2.50	42.59
19	-29.093600	153.034550	43.30	2.50	45.80
20	-29.093600	153.034550	46.85	2.50	49.35
21	-29.093600	153.034550	50.12	2.50	52.62
22	-29.093600	153.034550	50.80	2.50	53.30

Name: PV array 9
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 45.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.093742	153.034075	47.59	2.50	50.09
2	-29.093742	153.047911	29.17	2.50	31.67
3	-29.093636	153.047906	29.32	2.50	31.82
4	-29.093640	153.047924	29.32	2.50	31.82
5	-29.094433	153.049239	29.11	2.50	31.61
6	-29.094433	153.049097	29.00	2.50	31.50
7	-29.094797	153.049075	29.37	2.50	31.87
8	-29.094797	153.048883	29.37	2.50	31.87
9	-29.095178	153.048853	29.93	2.50	32.43
10	-29.095178	153.048714	29.93	2.50	32.43
11	-29.095531	153.048686	29.56	2.50	32.06
12	-29.095533	153.048492	29.56	2.50	32.06
13	-29.095894	153.048458	29.04	2.50	31.54
14	-29.095890	153.034044	50.01	2.50	52.51

Route Receptors

Name: Avenue Road
Path type: Two-way
Observer view angle: 50.0°

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.104310	153.008342	42.58	2.40	44.98
2	-29.100917	153.012869	48.57	2.40	50.97
3	-29.099510	153.019414	55.62	2.40	58.02
4	-29.101310	153.026194	44.13	2.40	46.53
5	-29.100501	153.029799	39.40	2.40	41.80
6	-29.100182	153.033833	38.23	2.40	40.63
7	-29.099919	153.034691	38.36	2.40	40.76
8	-29.099619	153.036214	38.31	2.40	40.71
9	-29.099788	153.037373	38.57	2.40	40.97
10	-29.098748	153.043470	32.00	2.40	34.40
11	-29.096820	153.048507	29.92	2.40	32.32
12	-29.092638	153.050803	31.00	2.40	33.40
13	-29.089901	153.051575	41.28	2.40	43.68
14	-29.088341	153.054683	47.04	2.40	49.44
15	-29.087047	153.056636	55.63	2.40	58.03
16	-29.086241	153.058610	59.01	2.40	61.41
17	-29.084685	153.059683	59.79	2.40	62.19

Name: Main Camp Road
Path type: Two-way
Observer view angle: 50.0°

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.130769	153.064031	35.05	2.40	37.45
2	-29.130881	153.067035	33.07	2.40	35.47
3	-29.130450	153.072142	26.52	2.40	28.92
4	-29.129644	153.084169	26.00	2.40	28.40

Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (m)	Height (m)
OP 1	1	-29.098436	153.005919	57.00	1.50
OP 2	2	-29.098614	153.005617	58.18	1.50
OP 3	3	-29.098942	153.009817	58.46	1.50
OP 4	4	-29.104081	153.007164	43.97	1.50
OP 5	5	-29.105522	153.007317	42.09	1.50
OP 6	6	-29.104364	153.005417	45.19	1.50
OP 7	7	-29.105019	153.006536	45.10	1.50
OP 8	8	-29.117603	153.001347	38.65	1.50
OP 9	9	-29.083078	153.055558	73.37	1.50
OP 10	10	-29.076967	153.057103	64.26	1.50
OP 11	11	-29.080647	153.066289	49.73	1.50
OP 12	12	-29.083183	153.068906	49.76	1.50
OP 13	13	-29.080508	153.075694	58.03	1.50
OP 14	14	-29.072514	153.073319	58.38	1.50
OP 15	15	-29.079144	153.061150	62.76	1.50
OP 16	16	-29.084792	153.057350	64.28	1.50
OP 17	17	-29.087883	153.058739	46.82	1.50
OP 18	18	-29.081653	153.067194	53.77	1.50
OP 19	19	-29.085114	153.060258	60.28	1.50
OP 20	20	-29.090203	153.055103	40.01	1.50
OP 21	21	-29.106228	153.101144	34.31	1.50
OP 22	22	-29.084800	153.063742	69.22	1.50
OP 23	23	-29.084386	153.065572	66.41	1.50
OP 24	24	-29.084969	153.068331	50.01	1.50
OP 25	25	-29.081494	153.054019	74.64	1.50
OP 26	26	-29.131783	153.064194	34.19	1.50
OP 27	27	-29.132158	153.065619	34.34	1.50
OP 28	28	-29.131331	153.065711	36.18	1.50
OP 29	29	-29.138036	153.099008	43.00	1.50
OP 30	30	-29.134267	153.099875	41.44	1.50
OP 31	31	-29.138078	153.100536	38.27	1.50
OP 32	32	-29.132817	153.101467	42.08	1.50
OP 33	33	-29.134686	153.059939	31.67	1.50

Glare Analysis Results

Summary of Results

Glare with potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV array 1	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 10	SA tracking	SA tracking	21,770	362.8	4,186	69.8	-
PV array 15	SA tracking	SA tracking	584	9.7	127	2.1	-
PV array 16	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 17	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 18	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 19	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 2	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 20	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 21	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 22	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 23	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 3	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 4	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 5	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 6	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 7	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 8	SA tracking	SA tracking	4,334	72.2	19	0.3	-
PV array 9	SA tracking	SA tracking	0	0.0	0	0.0	-

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Avenue Road	15,275	254.6	4,205	70.1
Main Camp Road	838	14.0	127	2.1

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	261	4.3	0	0.0
OP 10	57	0.9	0	0.0
OP 11	278	4.6	0	0.0
OP 12	271	4.5	0	0.0
OP 13	284	4.7	0	0.0
OP 14	144	2.4	0	0.0
OP 15	148	2.5	0	0.0
OP 16	488	8.1	0	0.0
OP 17	123	2.0	0	0.0
OP 18	300	5.0	0	0.0
OP 19	306	5.1	0	0.0
OP 20	0	0.0	0	0.0
OP 21	297	5.0	0	0.0
OP 22	290	4.8	0	0.0
OP 23	280	4.7	0	0.0
OP 24	185	3.1	0	0.0
OP 25	55	0.9	0	0.0
OP 26	1,650	27.5	0	0.0
OP 27	1,608	26.8	0	0.0
OP 28	1,469	24.5	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	2,081	34.7	0	0.0

PV: PV array 1 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 1 and Route: Avenue Road

No glare found

PV array 1 and Route: Main Camp Road

No glare found

PV array 1 and OP 1

No glare found

PV array 1 and OP 2

No glare found

PV array 1 and OP 3

No glare found

PV array 1 and OP 4

No glare found

PV array 1 and OP 5

No glare found

PV array 1 and OP 6

No glare found

PV array 1 and OP 7

No glare found

PV array 1 and OP 8

No glare found

PV array 1 and OP 9

No glare found

PV array 1 and OP 10

No glare found

PV array 1 and OP 11

No glare found

PV array 1 and OP 12

No glare found

PV array 1 and OP 13

No glare found

PV array 1 and OP 14

No glare found

PV array 1 and OP 15

No glare found

PV array 1 and OP 16

No glare found

PV array 1 and OP 17

No glare found

PV array 1 and OP 18

No glare found

PV array 1 and OP 19

No glare found

PV array 1 and OP 20

No glare found

PV array 1 and OP 21

No glare found

PV array 1 and OP 22

No glare found

PV array 1 and OP 23

No glare found

PV array 1 and OP 24

No glare found

PV array 1 and OP 25

No glare found

PV array 1 and OP 26

No glare found

PV array 1 and OP 27

No glare found

PV array 1 and OP 28

No glare found

PV array 1 and OP 29

No glare found

PV array 1 and OP 30

No glare found

PV array 1 and OP 31

No glare found

PV array 1 and OP 32

No glare found

PV array 1 and OP 33

No glare found

PV: PV array 10 potential temporary after-image

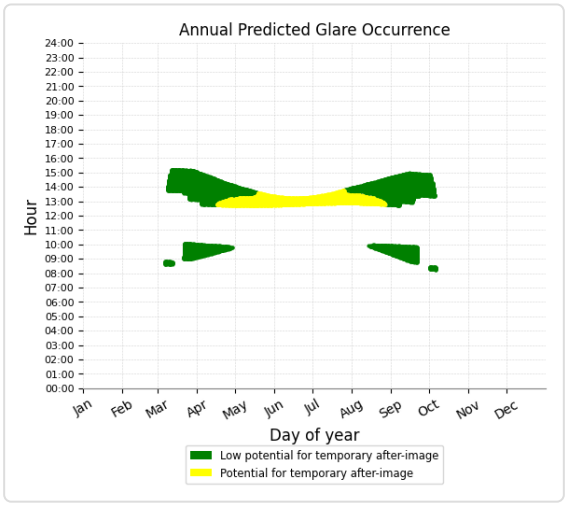
Receptor results ordered by category of glare

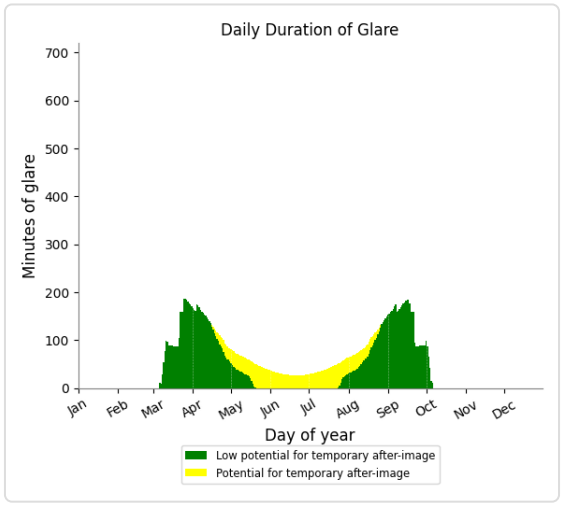
Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	14,411	240.2	4,186	69.8
Main Camp Road	551	9.2	0	0.0
OP 26	1,650	27.5	0	0.0
OP 27	1,608	26.8	0	0.0
OP 28	1,469	24.5	0	0.0
OP 33	2,081	34.7	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0

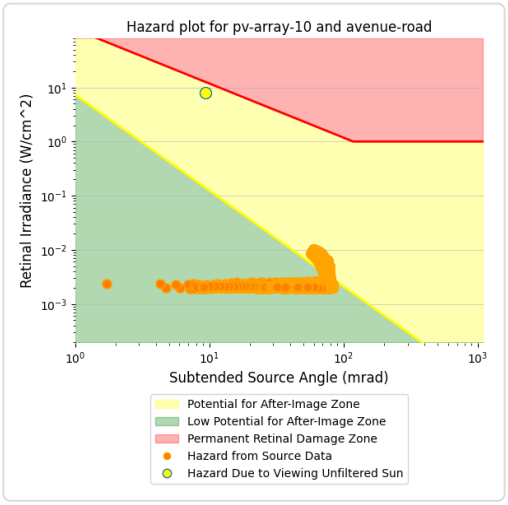
PV array 10 and Route: Avenue Road

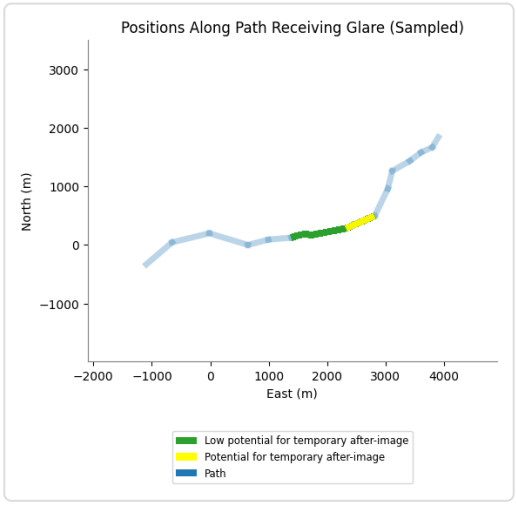
Yellow glare: 4,186 min.

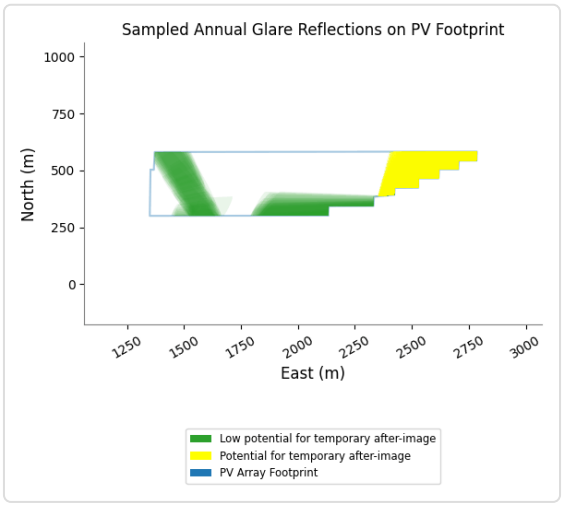
Green glare: 14,411 min.







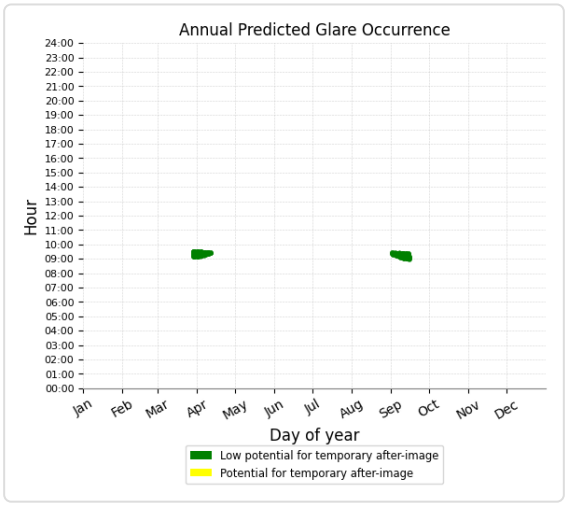


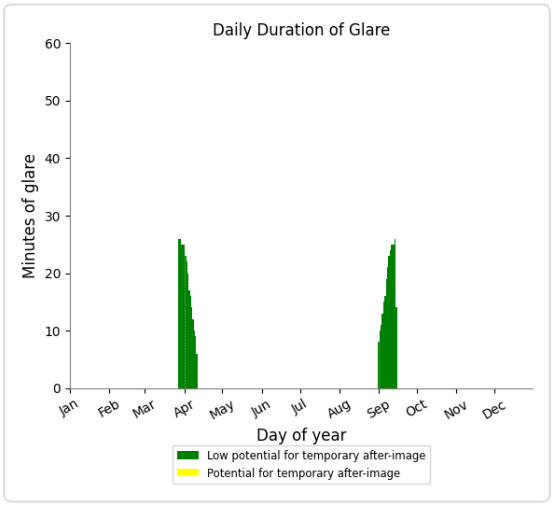


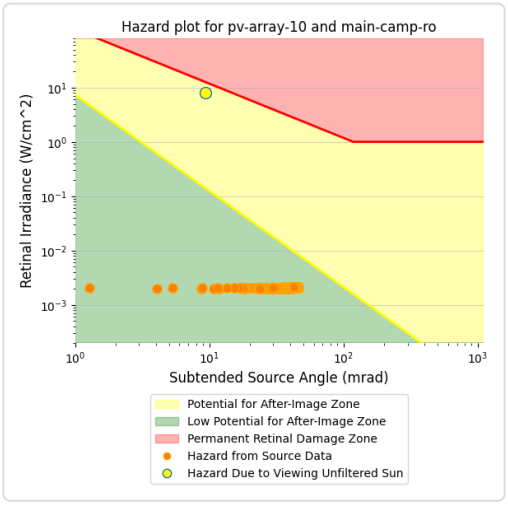
PV array 10 and Route: Main Camp Road

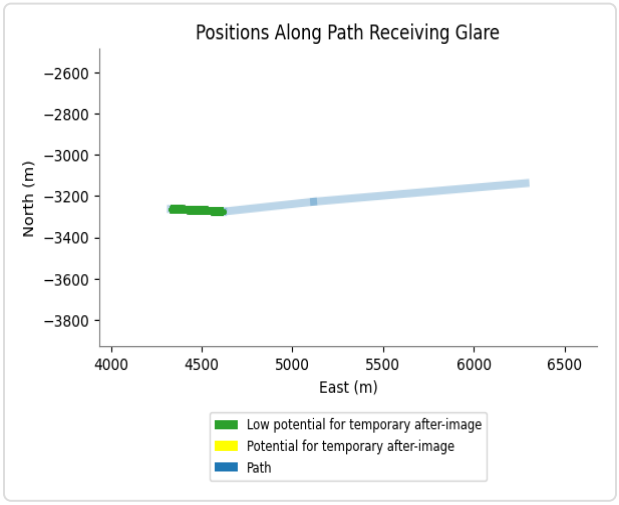
Yellow glare: none

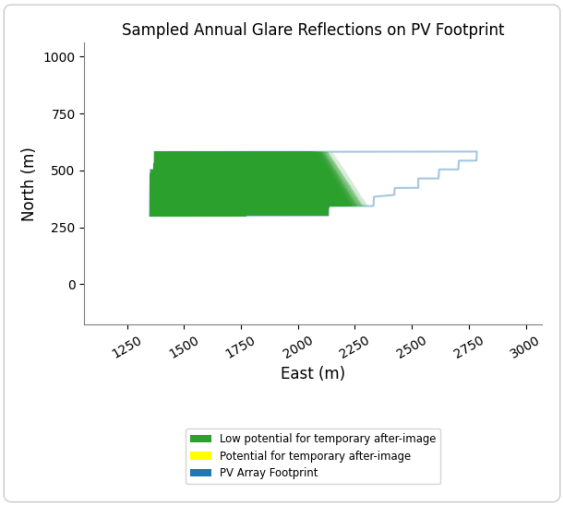
Green glare: 551 min.







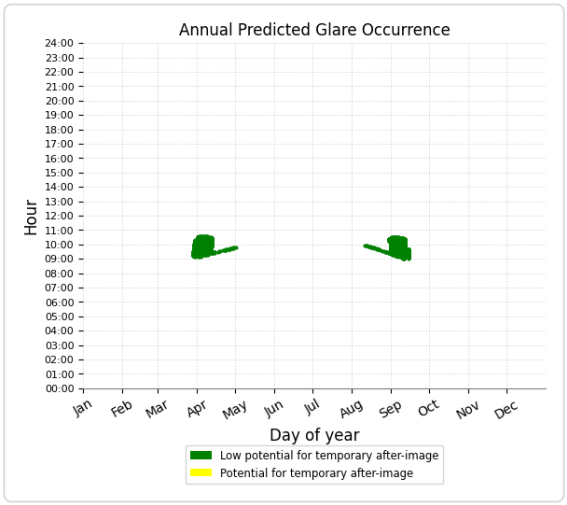


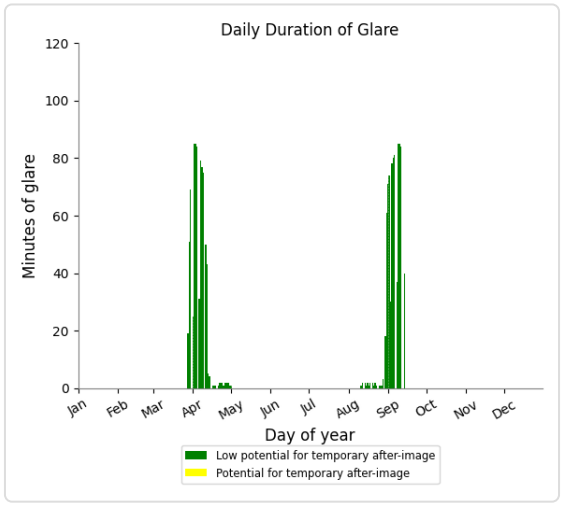


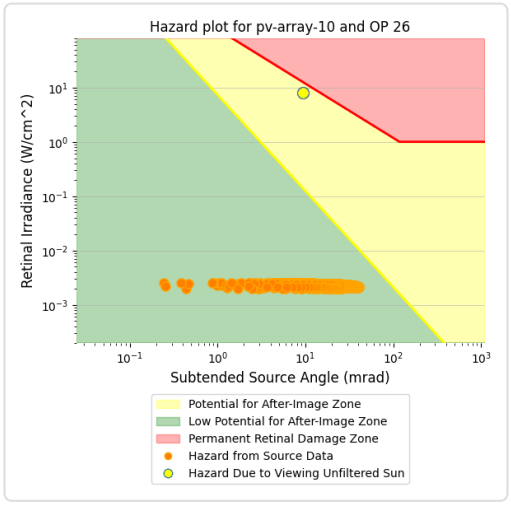
PV array 10 and OP 26

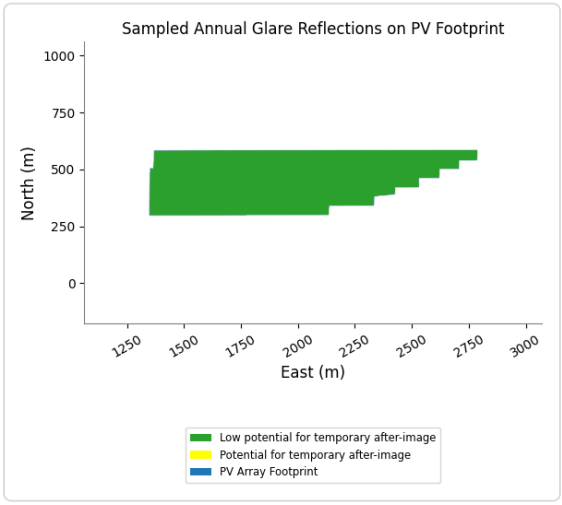
Yellow glare: none

Green glare: 1,650 min.





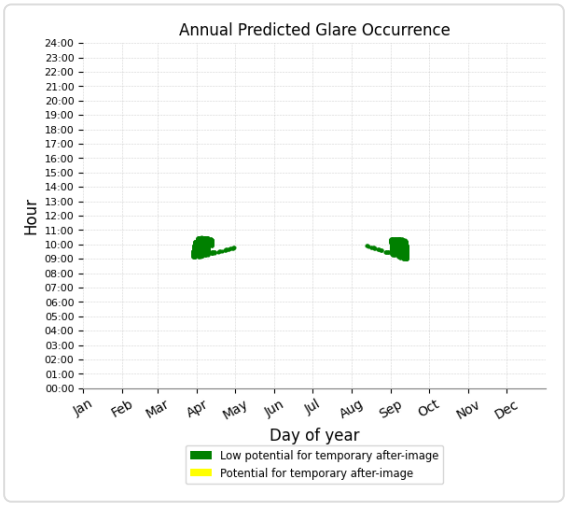


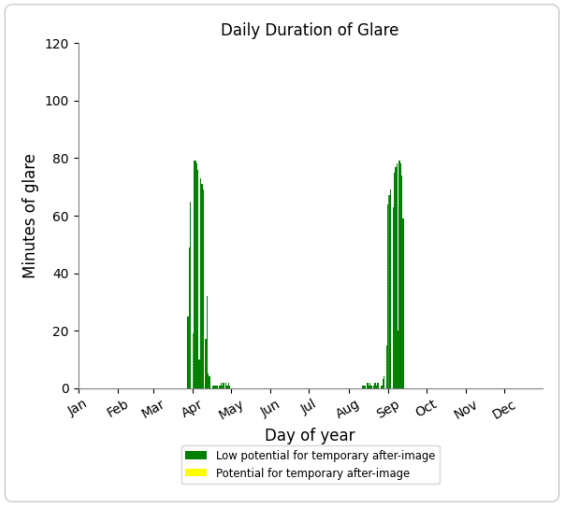


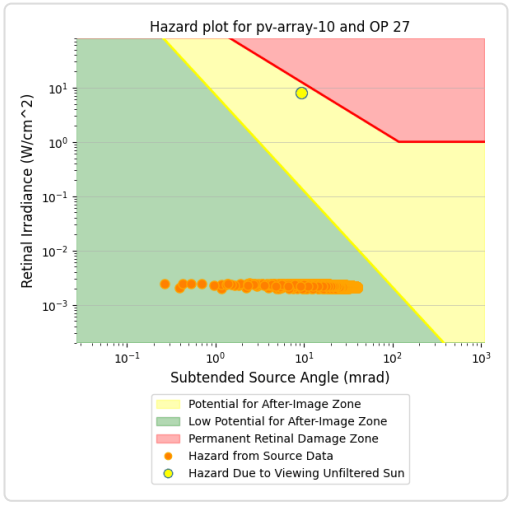
PV array 10 and OP 27

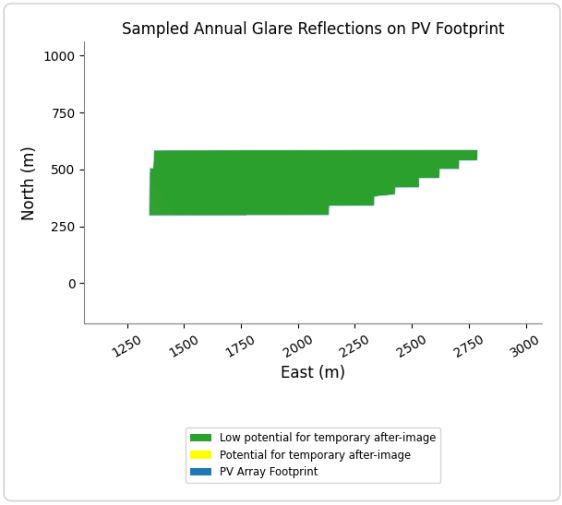
Yellow glare: none

Green glare: 1,608 min.





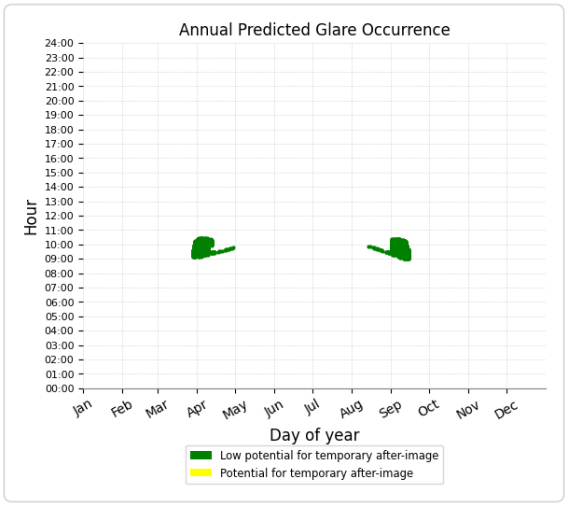


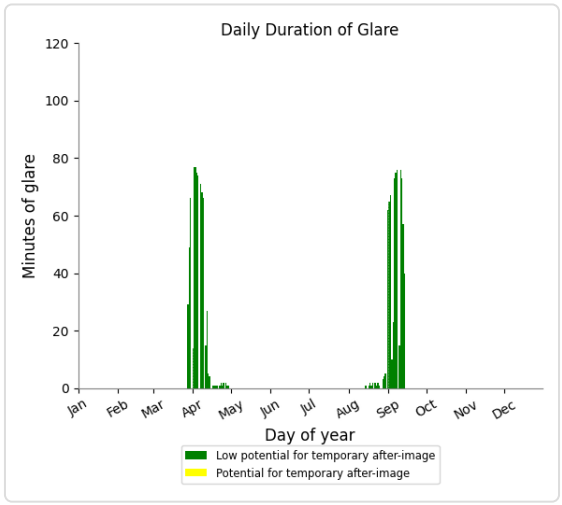


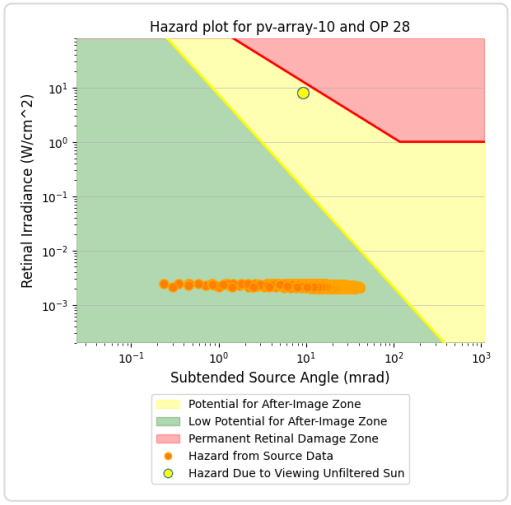
PV array 10 and OP 28

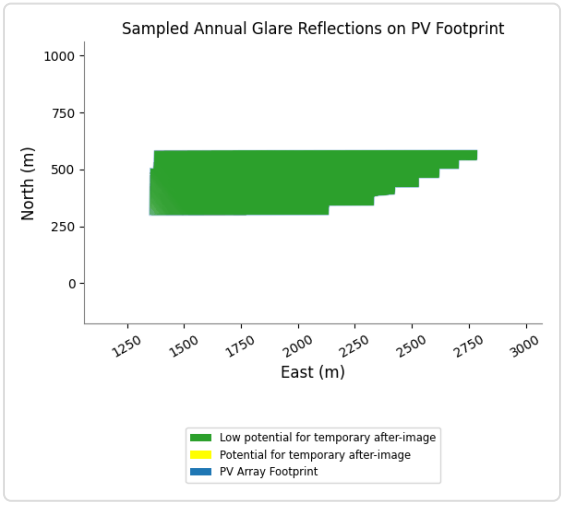
Yellow glare: none

Green glare: 1,469 min.





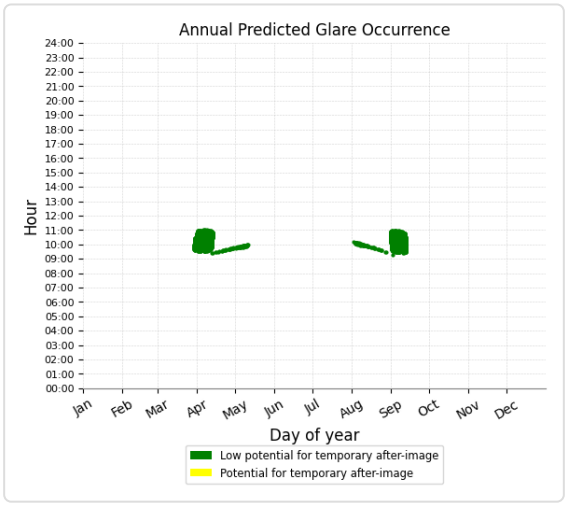


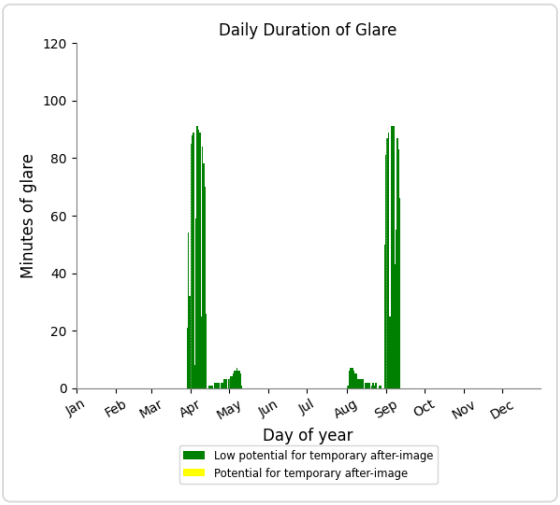


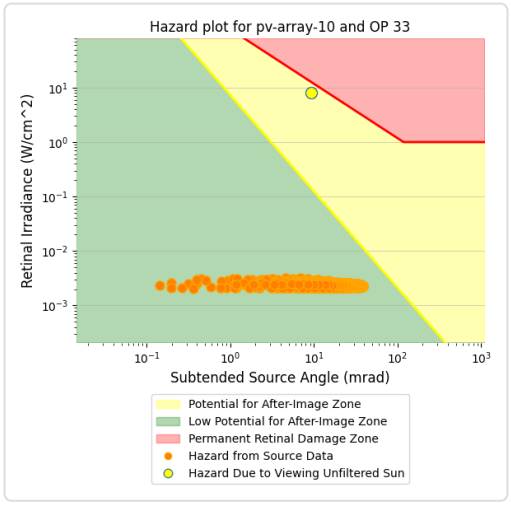
PV array 10 and OP 33

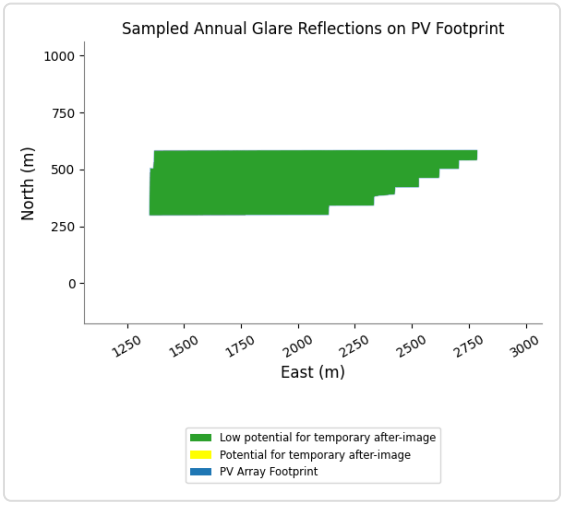
Yellow glare: none

Green glare: 2,081 min.









PV array 10 and OP 1

No glare found

PV array 10 and OP 2

No glare found

PV array 10 and OP 3

No glare found

PV array 10 and OP 4

No glare found

PV array 10 and OP 5

No glare found

PV array 10 and OP 6

No glare found

PV array 10 and OP 7

No glare found

PV array 10 and OP 8

No glare found

PV array 10 and OP 9

No glare found

PV array 10 and OP 10

No glare found

PV array 10 and OP 11

No glare found

PV array 10 and OP 12

No glare found

PV array 10 and OP 13

No glare found

PV array 10 and OP 14

No glare found

PV array 10 and OP 15

No glare found

PV array 10 and OP 16

No glare found

PV array 10 and OP 17

No glare found

PV array 10 and OP 18

No glare found

PV array 10 and OP 19

No glare found

PV array 10 and OP 20

No glare found

PV array 10 and OP 21

No glare found

PV array 10 and OP 22

No glare found

PV array 10 and OP 23

No glare found

PV array 10 and OP 24

No glare found

PV array 10 and OP 25

No glare found

PV array 10 and OP 29

No glare found

PV array 10 and OP 30

No glare found

PV array 10 and OP 31

No glare found

PV array 10 and OP 32

No glare found

PV: PV array 15 potential temporary after-image

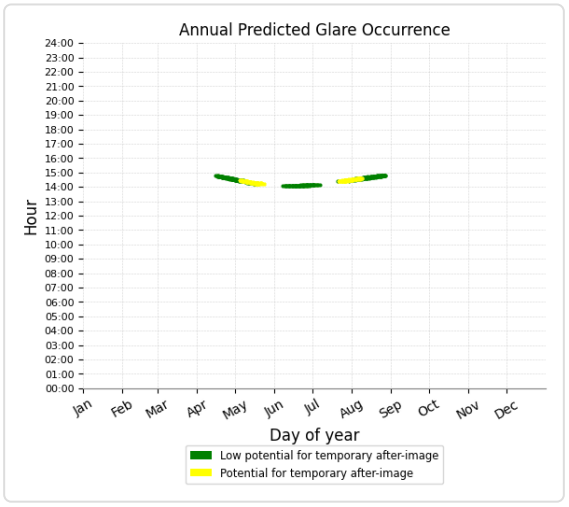
Receptor results ordered by category of glare

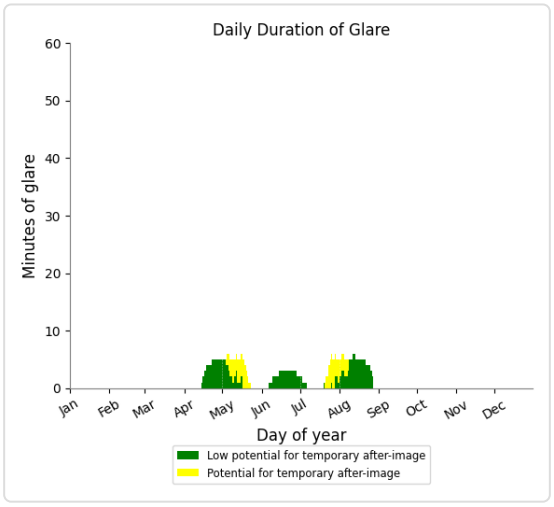
Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Main Camp Road	287	4.8	127	2.1
Avenue Road	0	0.0	0	0.0
OP 21	297	5.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

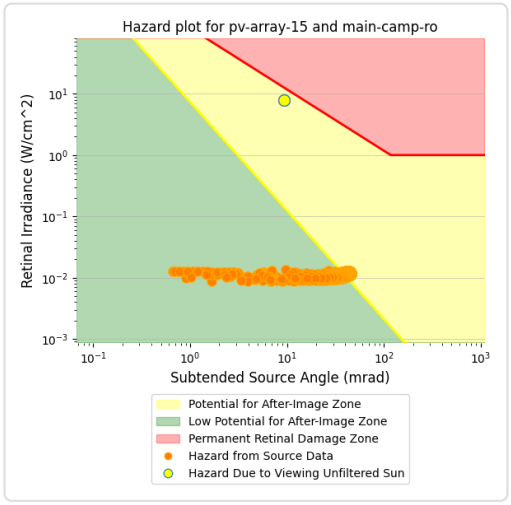
PV array 15 and Route: Main Camp Road

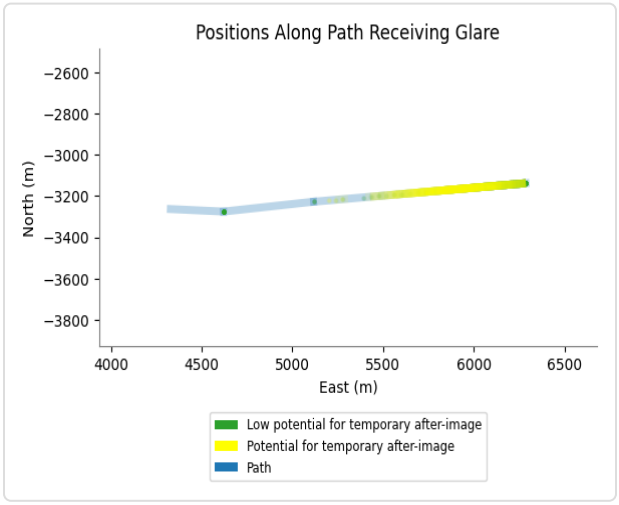
Yellow glare: 127 min.

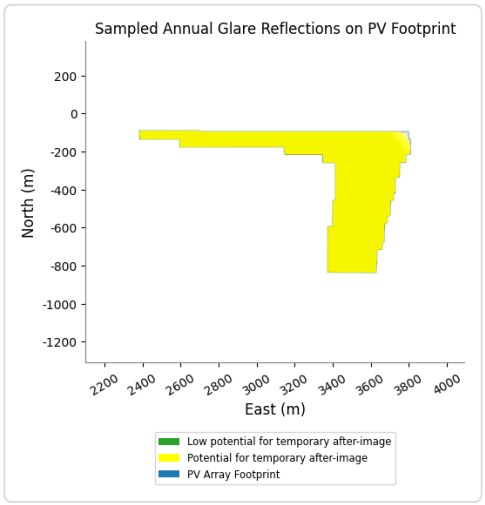
Green glare: 287 min.











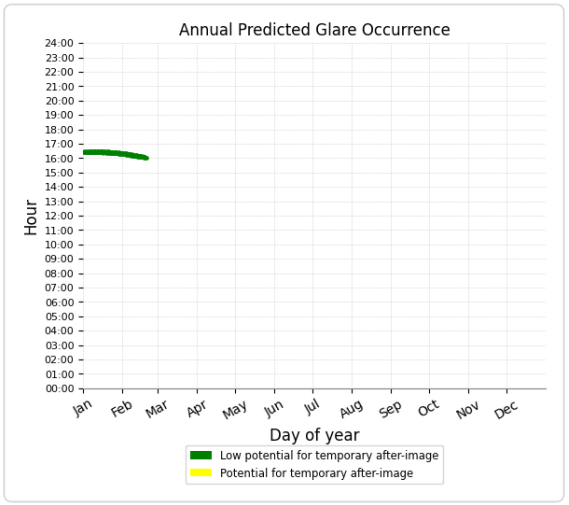
PV array 15 and Route: Avenue Road

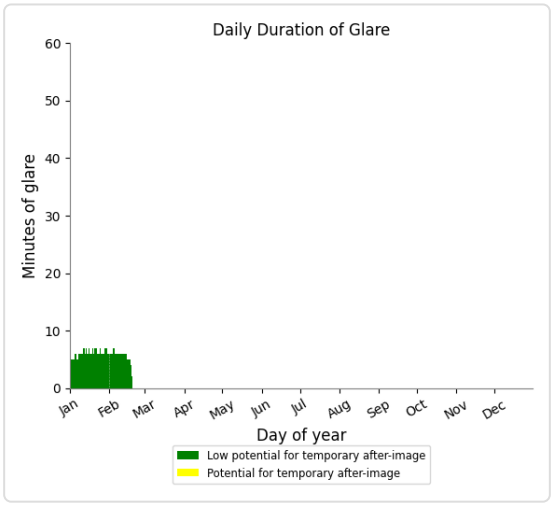
No glare found

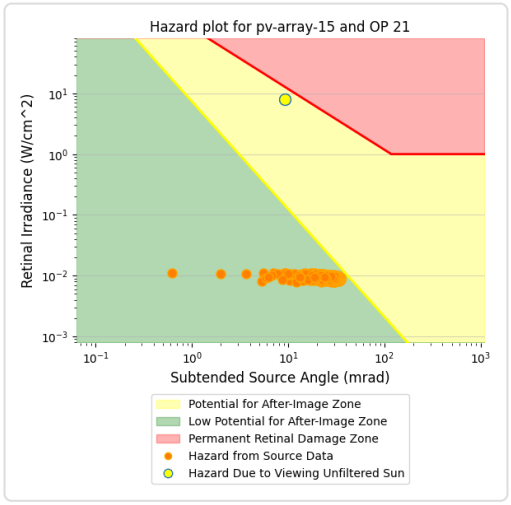
PV array 15 and OP 21

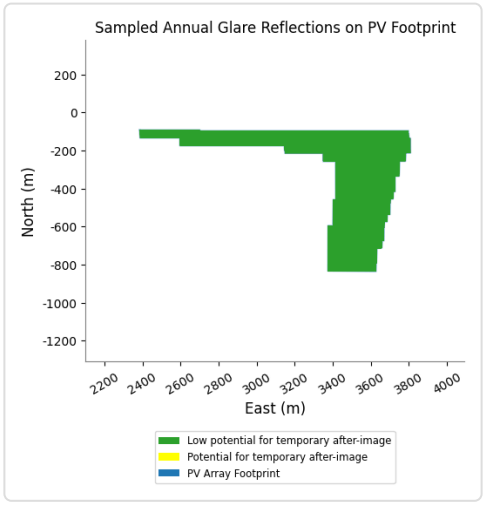
Yellow glare: none

Green glare: 297 min.









PV array 15 and OP 1

No glare found

PV array 15 and OP 2

No glare found

PV array 15 and OP 3

No glare found

PV array 15 and OP 4

No glare found

PV array 15 and OP 5

No glare found

PV array 15 and OP 6

No glare found

PV array 15 and OP 7

No glare found

PV array 15 and OP 8

No glare found

PV array 15 and OP 9

No glare found

PV array 15 and OP 10

No glare found

PV array 15 and OP 11

No glare found

PV array 15 and OP 12

No glare found

PV array 15 and OP 13

No glare found

PV array 15 and OP 14

No glare found

PV array 15 and OP 15

No glare found

PV array 15 and OP 16

No glare found

PV array 15 and OP 17

No glare found

PV array 15 and OP 18

No glare found

PV array 15 and OP 19

No glare found

PV array 15 and OP 20

No glare found

PV array 15 and OP 22

No glare found

PV array 15 and OP 23

No glare found

PV array 15 and OP 24

No glare found

PV array 15 and OP 25

No glare found

PV array 15 and OP 26

No glare found

PV array 15 and OP 27

No glare found

PV array 15 and OP 28

No glare found

PV array 15 and OP 29

No glare found

PV array 15 and OP 30

No glare found

PV array 15 and OP 31

No glare found

PV array 15 and OP 32

No glare found

PV array 15 and OP 33

No glare found

PV: PV array 16 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 16 and Route: Avenue Road

No glare found

PV array 16 and Route: Main Camp Road

No glare found

PV array 16 and OP 1

No glare found

PV array 16 and OP 2

No glare found

PV array 16 and OP 3

No glare found

PV array 16 and OP 4

No glare found

PV array 16 and OP 5

No glare found

PV array 16 and OP 6

No glare found

PV array 16 and OP 7

No glare found

PV array 16 and OP 8

No glare found

PV array 16 and OP 9

No glare found

PV array 16 and OP 10

No glare found

PV array 16 and OP 11

No glare found

PV array 16 and OP 12

No glare found

PV array 16 and OP 13

No glare found

PV array 16 and OP 14

No glare found

PV array 16 and OP 15

No glare found

PV array 16 and OP 16

No glare found

PV array 16 and OP 17

No glare found

PV array 16 and OP 18

No glare found

PV array 16 and OP 19

No glare found

PV array 16 and OP 20

No glare found

PV array 16 and OP 21

No glare found

PV array 16 and OP 22

No glare found

PV array 16 and OP 23

No glare found

PV array 16 and OP 24

No glare found

PV array 16 and OP 25

No glare found

PV array 16 and OP 26

No glare found

PV array 16 and OP 27

No glare found

PV array 16 and OP 28

No glare found

PV array 16 and OP 29

No glare found

PV array 16 and OP 30

No glare found

PV array 16 and OP 31

No glare found

PV array 16 and OP 32

No glare found

PV array 16 and OP 33

No glare found

PV: PV array 17 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 17 and Route: Avenue Road

No glare found

PV array 17 and Route: Main Camp Road

No glare found

PV array 17 and OP 1

No glare found

PV array 17 and OP 2

No glare found

PV array 17 and OP 3

No glare found

PV array 17 and OP 4

No glare found

PV array 17 and OP 5

No glare found

PV array 17 and OP 6

No glare found

PV array 17 and OP 7

No glare found

PV array 17 and OP 8

No glare found

PV array 17 and OP 9

No glare found

PV array 17 and OP 10

No glare found

PV array 17 and OP 11

No glare found

PV array 17 and OP 12

No glare found

PV array 17 and OP 13

No glare found

PV array 17 and OP 14

No glare found

PV array 17 and OP 15

No glare found

PV array 17 and OP 16

No glare found

PV array 17 and OP 17

No glare found

PV array 17 and OP 18

No glare found

PV array 17 and OP 19

No glare found

PV array 17 and OP 20

No glare found

PV array 17 and OP 21

No glare found

PV array 17 and OP 22

No glare found

PV array 17 and OP 23

No glare found

PV array 17 and OP 24

No glare found

PV array 17 and OP 25

No glare found

PV array 17 and OP 26

No glare found

PV array 17 and OP 27

No glare found

PV array 17 and OP 28

No glare found

PV array 17 and OP 29

No glare found

PV array 17 and OP 30

No glare found

PV array 17 and OP 31

No glare found

PV array 17 and OP 32

No glare found

PV array 17 and OP 33

No glare found

PV: PV array 18 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 18 and Route: Avenue Road

No glare found

PV array 18 and Route: Main Camp Road

No glare found

PV array 18 and OP 1

No glare found

PV array 18 and OP 2

No glare found

PV array 18 and OP 3

No glare found

PV array 18 and OP 4

No glare found

PV array 18 and OP 5

No glare found

PV array 18 and OP 6

No glare found

PV array 18 and OP 7

No glare found

PV array 18 and OP 8

No glare found

PV array 18 and OP 9

No glare found

PV array 18 and OP 10

No glare found

PV array 18 and OP 11

No glare found

PV array 18 and OP 12

No glare found

PV array 18 and OP 13

No glare found

PV array 18 and OP 14

No glare found

PV array 18 and OP 15

No glare found

PV array 18 and OP 16

No glare found

PV array 18 and OP 17

No glare found

PV array 18 and OP 18

No glare found

PV array 18 and OP 19

No glare found

PV array 18 and OP 20

No glare found

PV array 18 and OP 21

No glare found

PV array 18 and OP 22

No glare found

PV array 18 and OP 23

No glare found

PV array 18 and OP 24

No glare found

PV array 18 and OP 25

No glare found

PV array 18 and OP 26

No glare found

PV array 18 and OP 27

No glare found

PV array 18 and OP 28

No glare found

PV array 18 and OP 29

No glare found

PV array 18 and OP 30

No glare found

PV array 18 and OP 31

No glare found

PV array 18 and OP 32

No glare found

PV array 18 and OP 33

No glare found

PV: PV array 19 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 19 and Route: Avenue Road

No glare found

PV array 19 and Route: Main Camp Road

No glare found

PV array 19 and OP 1

No glare found

PV array 19 and OP 2

No glare found

PV array 19 and OP 3

No glare found

PV array 19 and OP 4

No glare found

PV array 19 and OP 5

No glare found

PV array 19 and OP 6

No glare found

PV array 19 and OP 7

No glare found

PV array 19 and OP 8

No glare found

PV array 19 and OP 9

No glare found

PV array 19 and OP 10

No glare found

PV array 19 and OP 11

No glare found

PV array 19 and OP 12

No glare found

PV array 19 and OP 13

No glare found

PV array 19 and OP 14

No glare found

PV array 19 and OP 15

No glare found

PV array 19 and OP 16

No glare found

PV array 19 and OP 17

No glare found

PV array 19 and OP 18

No glare found

PV array 19 and OP 19

No glare found

PV array 19 and OP 20

No glare found

PV array 19 and OP 21

No glare found

PV array 19 and OP 22

No glare found

PV array 19 and OP 23

No glare found

PV array 19 and OP 24

No glare found

PV array 19 and OP 25

No glare found

PV array 19 and OP 26

No glare found

PV array 19 and OP 27

No glare found

PV array 19 and OP 28

No glare found

PV array 19 and OP 29

No glare found

PV array 19 and OP 30

No glare found

PV array 19 and OP 31

No glare found

PV array 19 and OP 32

No glare found

PV array 19 and OP 33

No glare found

PV: PV array 2 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 2 and Route: Avenue Road

No glare found

PV array 2 and Route: Main Camp Road

No glare found

PV array 2 and OP 1

No glare found

PV array 2 and OP 2

No glare found

PV array 2 and OP 3

No glare found

PV array 2 and OP 4

No glare found

PV array 2 and OP 5

No glare found

PV array 2 and OP 6

No glare found

PV array 2 and OP 7

No glare found

PV array 2 and OP 8

No glare found

PV array 2 and OP 9

No glare found

PV array 2 and OP 10

No glare found

PV array 2 and OP 11

No glare found

PV array 2 and OP 12

No glare found

PV array 2 and OP 13

No glare found

PV array 2 and OP 14

No glare found

PV array 2 and OP 15

No glare found

PV array 2 and OP 16

No glare found

PV array 2 and OP 17

No glare found

PV array 2 and OP 18

No glare found

PV array 2 and OP 19

No glare found

PV array 2 and OP 20

No glare found

PV array 2 and OP 21

No glare found

PV array 2 and OP 22

No glare found

PV array 2 and OP 23

No glare found

PV array 2 and OP 24

No glare found

PV array 2 and OP 25

No glare found

PV array 2 and OP 26

No glare found

PV array 2 and OP 27

No glare found

PV array 2 and OP 28

No glare found

PV array 2 and OP 29

No glare found

PV array 2 and OP 30

No glare found

PV array 2 and OP 31

No glare found

PV array 2 and OP 32

No glare found

PV array 2 and OP 33

No glare found

PV: PV array 20 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 20 and Route: Avenue Road

No glare found

PV array 20 and Route: Main Camp Road

No glare found

PV array 20 and OP 1

No glare found

PV array 20 and OP 2

No glare found

PV array 20 and OP 3

No glare found

PV array 20 and OP 4

No glare found

PV array 20 and OP 5

No glare found

PV array 20 and OP 6

No glare found

PV array 20 and OP 7

No glare found

PV array 20 and OP 8

No glare found

PV array 20 and OP 9

No glare found

PV array 20 and OP 10

No glare found

PV array 20 and OP 11

No glare found

PV array 20 and OP 12

No glare found

PV array 20 and OP 13

No glare found

PV array 20 and OP 14

No glare found

PV array 20 and OP 15

No glare found

PV array 20 and OP 16

No glare found

PV array 20 and OP 17

No glare found

PV array 20 and OP 18

No glare found

PV array 20 and OP 19

No glare found

PV array 20 and OP 20

No glare found

PV array 20 and OP 21

No glare found

PV array 20 and OP 22

No glare found

PV array 20 and OP 23

No glare found

PV array 20 and OP 24

No glare found

PV array 20 and OP 25

No glare found

PV array 20 and OP 26

No glare found

PV array 20 and OP 27

No glare found

PV array 20 and OP 28

No glare found

PV array 20 and OP 29

No glare found

PV array 20 and OP 30

No glare found

PV array 20 and OP 31

No glare found

PV array 20 and OP 32

No glare found

PV array 20 and OP 33

No glare found

PV: PV array 21 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 21 and Route: Avenue Road

No glare found

PV array 21 and Route: Main Camp Road

No glare found

PV array 21 and OP 1

No glare found

PV array 21 and OP 2

No glare found

PV array 21 and OP 3

No glare found

PV array 21 and OP 4

No glare found

PV array 21 and OP 5

No glare found

PV array 21 and OP 6

No glare found

PV array 21 and OP 7

No glare found

PV array 21 and OP 8

No glare found

PV array 21 and OP 9

No glare found

PV array 21 and OP 10

No glare found

PV array 21 and OP 11

No glare found

PV array 21 and OP 12

No glare found

PV array 21 and OP 13

No glare found

PV array 21 and OP 14

No glare found

PV array 21 and OP 15

No glare found

PV array 21 and OP 16

No glare found

PV array 21 and OP 17

No glare found

PV array 21 and OP 18

No glare found

PV array 21 and OP 19

No glare found

PV array 21 and OP 20

No glare found

PV array 21 and OP 21

No glare found

PV array 21 and OP 22

No glare found

PV array 21 and OP 23

No glare found

PV array 21 and OP 24

No glare found

PV array 21 and OP 25

No glare found

PV array 21 and OP 26

No glare found

PV array 21 and OP 27

No glare found

PV array 21 and OP 28

No glare found

PV array 21 and OP 29

No glare found

PV array 21 and OP 30

No glare found

PV array 21 and OP 31

No glare found

PV array 21 and OP 32

No glare found

PV array 21 and OP 33

No glare found

PV: PV array 22 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 22 and Route: Avenue Road

No glare found

PV array 22 and Route: Main Camp Road

No glare found

PV array 22 and OP 1

No glare found

PV array 22 and OP 2

No glare found

PV array 22 and OP 3

No glare found

PV array 22 and OP 4

No glare found

PV array 22 and OP 5

No glare found

PV array 22 and OP 6

No glare found

PV array 22 and OP 7

No glare found

PV array 22 and OP 8

No glare found

PV array 22 and OP 9

No glare found

PV array 22 and OP 10

No glare found

PV array 22 and OP 11

No glare found

PV array 22 and OP 12

No glare found

PV array 22 and OP 13

No glare found

PV array 22 and OP 14

No glare found

PV array 22 and OP 15

No glare found

PV array 22 and OP 16

No glare found

PV array 22 and OP 17

No glare found

PV array 22 and OP 18

No glare found

PV array 22 and OP 19

No glare found

PV array 22 and OP 20

No glare found

PV array 22 and OP 21

No glare found

PV array 22 and OP 22

No glare found

PV array 22 and OP 23

No glare found

PV array 22 and OP 24

No glare found

PV array 22 and OP 25

No glare found

PV array 22 and OP 26

No glare found

PV array 22 and OP 27

No glare found

PV array 22 and OP 28

No glare found

PV array 22 and OP 29

No glare found

PV array 22 and OP 30

No glare found

PV array 22 and OP 31

No glare found

PV array 22 and OP 32

No glare found

PV array 22 and OP 33

No glare found

PV: PV array 23 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 23 and Route: Avenue Road

No glare found

PV array 23 and Route: Main Camp Road

No glare found

PV array 23 and OP 1

No glare found

PV array 23 and OP 2

No glare found

PV array 23 and OP 3

No glare found

PV array 23 and OP 4

No glare found

PV array 23 and OP 5

No glare found

PV array 23 and OP 6

No glare found

PV array 23 and OP 7

No glare found

PV array 23 and OP 8

No glare found

PV array 23 and OP 9

No glare found

PV array 23 and OP 10

No glare found

PV array 23 and OP 11

No glare found

PV array 23 and OP 12

No glare found

PV array 23 and OP 13

No glare found

PV array 23 and OP 14

No glare found

PV array 23 and OP 15

No glare found

PV array 23 and OP 16

No glare found

PV array 23 and OP 17

No glare found

PV array 23 and OP 18

No glare found

PV array 23 and OP 19

No glare found

PV array 23 and OP 20

No glare found

PV array 23 and OP 21

No glare found

PV array 23 and OP 22

No glare found

PV array 23 and OP 23

No glare found

PV array 23 and OP 24

No glare found

PV array 23 and OP 25

No glare found

PV array 23 and OP 26

No glare found

PV array 23 and OP 27

No glare found

PV array 23 and OP 28

No glare found

PV array 23 and OP 29

No glare found

PV array 23 and OP 30

No glare found

PV array 23 and OP 31

No glare found

PV array 23 and OP 32

No glare found

PV array 23 and OP 33

No glare found

PV: PV array 3 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 3 and Route: Avenue Road

No glare found

PV array 3 and Route: Main Camp Road

No glare found

PV array 3 and OP 1

No glare found

PV array 3 and OP 2

No glare found

PV array 3 and OP 3

No glare found

PV array 3 and OP 4

No glare found

PV array 3 and OP 5

No glare found

PV array 3 and OP 6

No glare found

PV array 3 and OP 7

No glare found

PV array 3 and OP 8

No glare found

PV array 3 and OP 9

No glare found

PV array 3 and OP 10

No glare found

PV array 3 and OP 11

No glare found

PV array 3 and OP 12

No glare found

PV array 3 and OP 13

No glare found

PV array 3 and OP 14

No glare found

PV array 3 and OP 15

No glare found

PV array 3 and OP 16

No glare found

PV array 3 and OP 17

No glare found

PV array 3 and OP 18

No glare found

PV array 3 and OP 19

No glare found

PV array 3 and OP 20

No glare found

PV array 3 and OP 21

No glare found

PV array 3 and OP 22

No glare found

PV array 3 and OP 23

No glare found

PV array 3 and OP 24

No glare found

PV array 3 and OP 25

No glare found

PV array 3 and OP 26

No glare found

PV array 3 and OP 27

No glare found

PV array 3 and OP 28

No glare found

PV array 3 and OP 29

No glare found

PV array 3 and OP 30

No glare found

PV array 3 and OP 31

No glare found

PV array 3 and OP 32

No glare found

PV array 3 and OP 33

No glare found

PV: PV array 4 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 4 and Route: Avenue Road

No glare found

PV array 4 and Route: Main Camp Road

No glare found

PV array 4 and OP 1

No glare found

PV array 4 and OP 2

No glare found

PV array 4 and OP 3

No glare found

PV array 4 and OP 4

No glare found

PV array 4 and OP 5

No glare found

PV array 4 and OP 6

No glare found

PV array 4 and OP 7

No glare found

PV array 4 and OP 8

No glare found

PV array 4 and OP 9

No glare found

PV array 4 and OP 10

No glare found

PV array 4 and OP 11

No glare found

PV array 4 and OP 12

No glare found

PV array 4 and OP 13

No glare found

PV array 4 and OP 14

No glare found

PV array 4 and OP 15

No glare found

PV array 4 and OP 16

No glare found

PV array 4 and OP 17

No glare found

PV array 4 and OP 18

No glare found

PV array 4 and OP 19

No glare found

PV array 4 and OP 20

No glare found

PV array 4 and OP 21

No glare found

PV array 4 and OP 22

No glare found

PV array 4 and OP 23

No glare found

PV array 4 and OP 24

No glare found

PV array 4 and OP 25

No glare found

PV array 4 and OP 26

No glare found

PV array 4 and OP 27

No glare found

PV array 4 and OP 28

No glare found

PV array 4 and OP 29

No glare found

PV array 4 and OP 30

No glare found

PV array 4 and OP 31

No glare found

PV array 4 and OP 32

No glare found

PV array 4 and OP 33

No glare found

PV: PV array 5 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 5 and Route: Avenue Road

No glare found

PV array 5 and Route: Main Camp Road

No glare found

PV array 5 and OP 1

No glare found

PV array 5 and OP 2

No glare found

PV array 5 and OP 3

No glare found

PV array 5 and OP 4

No glare found

PV array 5 and OP 5

No glare found

PV array 5 and OP 6

No glare found

PV array 5 and OP 7

No glare found

PV array 5 and OP 8

No glare found

PV array 5 and OP 9

No glare found

PV array 5 and OP 10

No glare found

PV array 5 and OP 11

No glare found

PV array 5 and OP 12

No glare found

PV array 5 and OP 13

No glare found

PV array 5 and OP 14

No glare found

PV array 5 and OP 15

No glare found

PV array 5 and OP 16

No glare found

PV array 5 and OP 17

No glare found

PV array 5 and OP 18

No glare found

PV array 5 and OP 19

No glare found

PV array 5 and OP 20

No glare found

PV array 5 and OP 21

No glare found

PV array 5 and OP 22

No glare found

PV array 5 and OP 23

No glare found

PV array 5 and OP 24

No glare found

PV array 5 and OP 25

No glare found

PV array 5 and OP 26

No glare found

PV array 5 and OP 27

No glare found

PV array 5 and OP 28

No glare found

PV array 5 and OP 29

No glare found

PV array 5 and OP 30

No glare found

PV array 5 and OP 31

No glare found

PV array 5 and OP 32

No glare found

PV array 5 and OP 33

No glare found

PV: PV array 6 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 6 and Route: Avenue Road

No glare found

PV array 6 and Route: Main Camp Road

No glare found

PV array 6 and OP 1

No glare found

PV array 6 and OP 2

No glare found

PV array 6 and OP 3

No glare found

PV array 6 and OP 4

No glare found

PV array 6 and OP 5

No glare found

PV array 6 and OP 6

No glare found

PV array 6 and OP 7

No glare found

PV array 6 and OP 8

No glare found

PV array 6 and OP 9

No glare found

PV array 6 and OP 10

No glare found

PV array 6 and OP 11

No glare found

PV array 6 and OP 12

No glare found

PV array 6 and OP 13

No glare found

PV array 6 and OP 14

No glare found

PV array 6 and OP 15

No glare found

PV array 6 and OP 16

No glare found

PV array 6 and OP 17

No glare found

PV array 6 and OP 18

No glare found

PV array 6 and OP 19

No glare found

PV array 6 and OP 20

No glare found

PV array 6 and OP 21

No glare found

PV array 6 and OP 22

No glare found

PV array 6 and OP 23

No glare found

PV array 6 and OP 24

No glare found

PV array 6 and OP 25

No glare found

PV array 6 and OP 26

No glare found

PV array 6 and OP 27

No glare found

PV array 6 and OP 28

No glare found

PV array 6 and OP 29

No glare found

PV array 6 and OP 30

No glare found

PV array 6 and OP 31

No glare found

PV array 6 and OP 32

No glare found

PV array 6 and OP 33

No glare found

PV: PV array 7 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 7 and Route: Avenue Road

No glare found

PV array 7 and Route: Main Camp Road

No glare found

PV array 7 and OP 1

No glare found

PV array 7 and OP 2

No glare found

PV array 7 and OP 3

No glare found

PV array 7 and OP 4

No glare found

PV array 7 and OP 5

No glare found

PV array 7 and OP 6

No glare found

PV array 7 and OP 7

No glare found

PV array 7 and OP 8

No glare found

PV array 7 and OP 9

No glare found

PV array 7 and OP 10

No glare found

PV array 7 and OP 11

No glare found

PV array 7 and OP 12

No glare found

PV array 7 and OP 13

No glare found

PV array 7 and OP 14

No glare found

PV array 7 and OP 15

No glare found

PV array 7 and OP 16

No glare found

PV array 7 and OP 17

No glare found

PV array 7 and OP 18

No glare found

PV array 7 and OP 19

No glare found

PV array 7 and OP 20

No glare found

PV array 7 and OP 21

No glare found

PV array 7 and OP 22

No glare found

PV array 7 and OP 23

No glare found

PV array 7 and OP 24

No glare found

PV array 7 and OP 25

No glare found

PV array 7 and OP 26

No glare found

PV array 7 and OP 27

No glare found

PV array 7 and OP 28

No glare found

PV array 7 and OP 29

No glare found

PV array 7 and OP 30

No glare found

PV array 7 and OP 31

No glare found

PV array 7 and OP 32

No glare found

PV array 7 and OP 33

No glare found

PV: PV array 8 potential temporary after-image

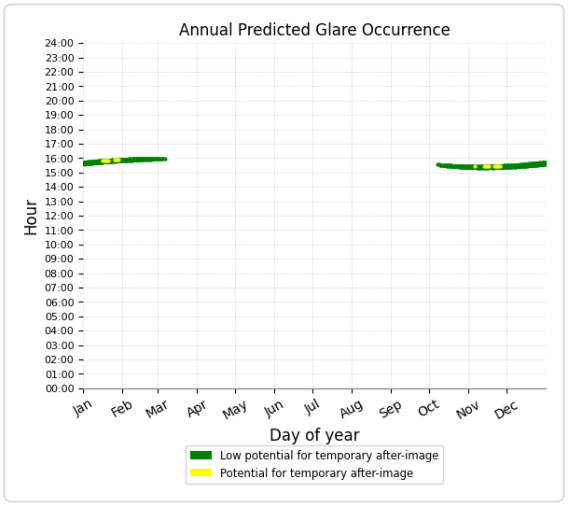
Receptor results ordered by category of glare

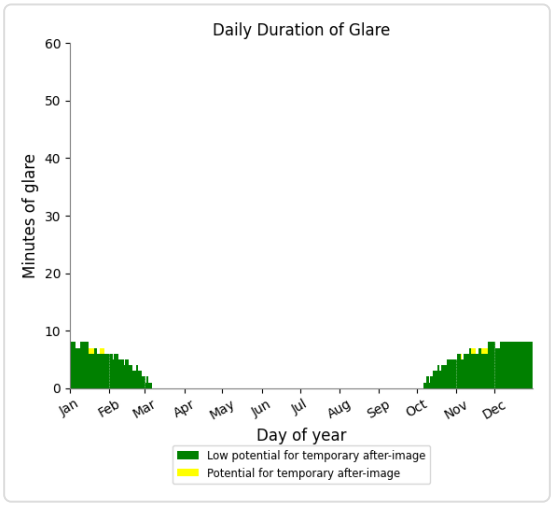
Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	864	14.4	19	0.3
Main Camp Road	0	0.0	0	0.0
OP 9	261	4.3	0	0.0
OP 10	57	0.9	0	0.0
OP 11	278	4.6	0	0.0
OP 12	271	4.5	0	0.0
OP 13	284	4.7	0	0.0
OP 14	144	2.4	0	0.0
OP 15	148	2.5	0	0.0
OP 16	488	8.1	0	0.0
OP 17	123	2.0	0	0.0
OP 18	300	5.0	0	0.0
OP 19	306	5.1	0	0.0
OP 22	290	4.8	0	0.0
OP 23	280	4.7	0	0.0
OP 24	185	3.1	0	0.0
OP 25	55	0.9	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

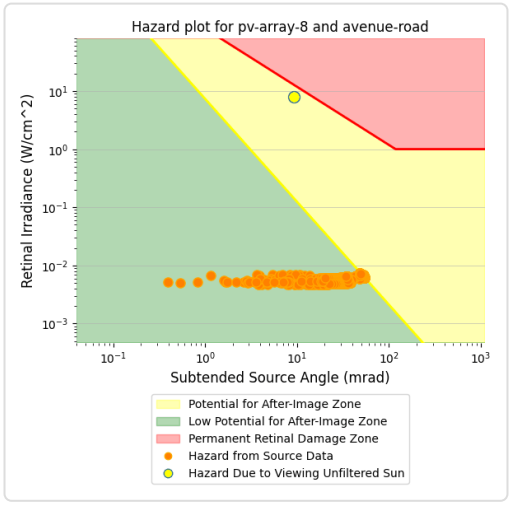
PV array 8 and Route: Avenue Road

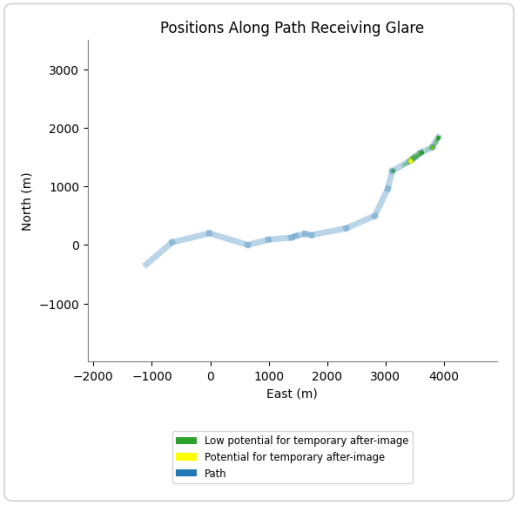
Yellow glare: 19 min.

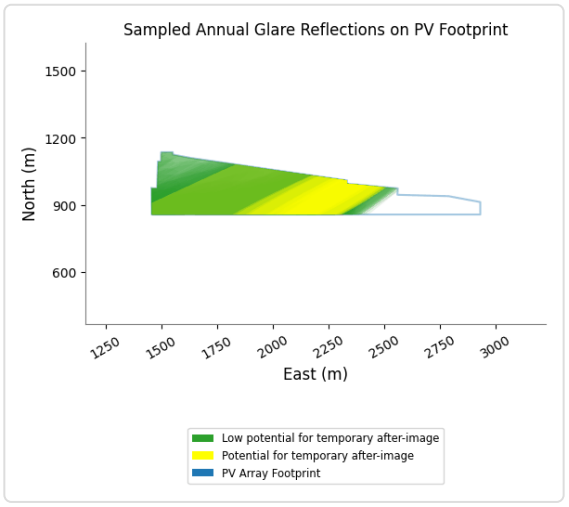
Green glare: 864 min.











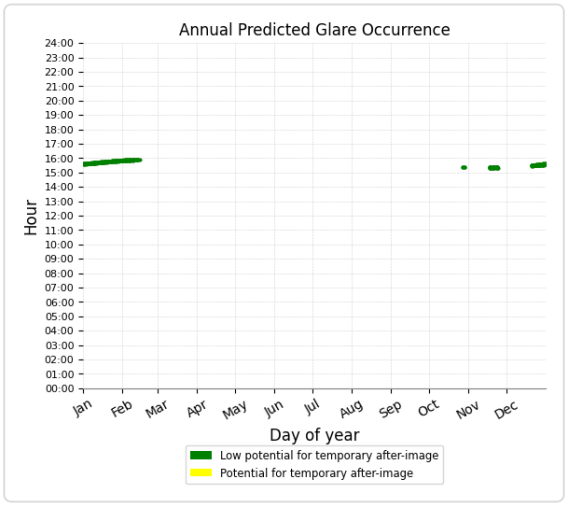
PV array 8 and Route: Main Camp Road

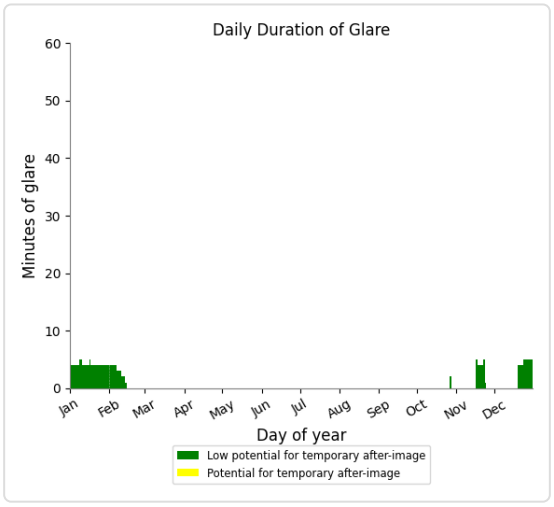
No glare found

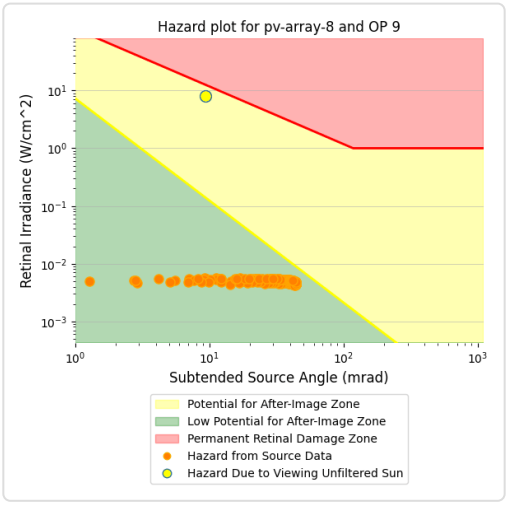
PV array 8 and OP 9

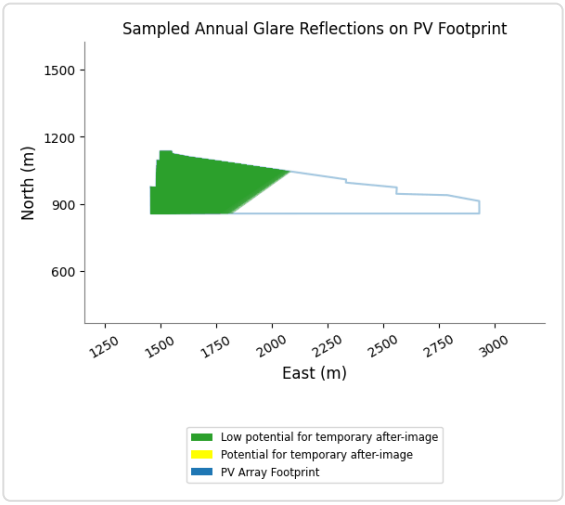
Yellow glare: none

Green glare: 261 min.





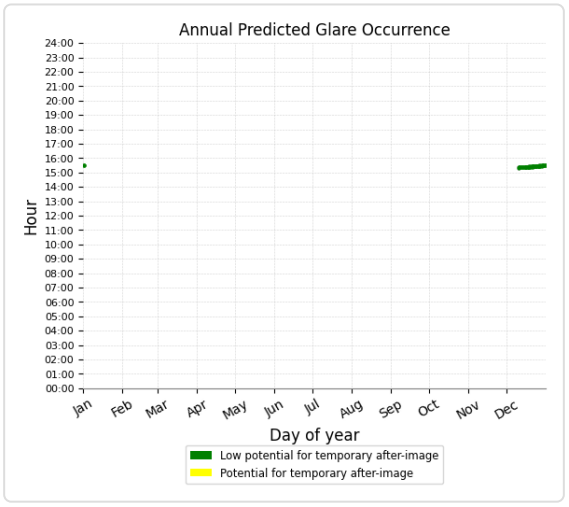


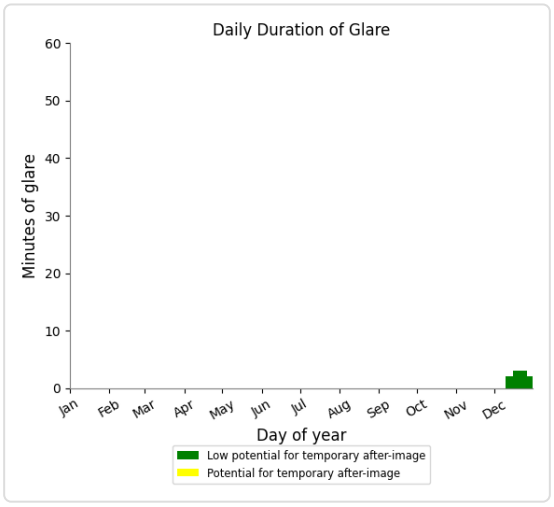


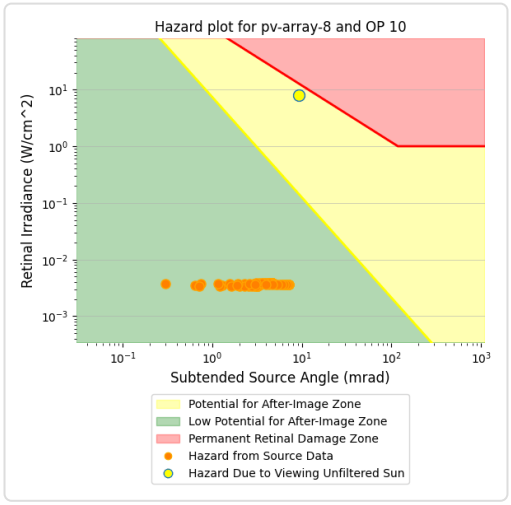
PV array 8 and OP 10

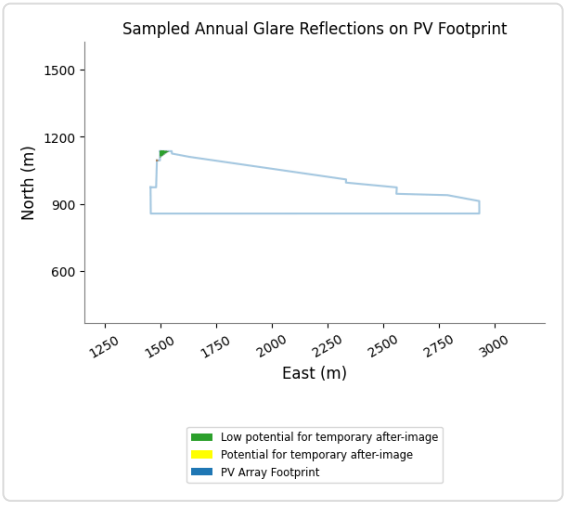
Yellow glare: none

Green glare: 57 min.





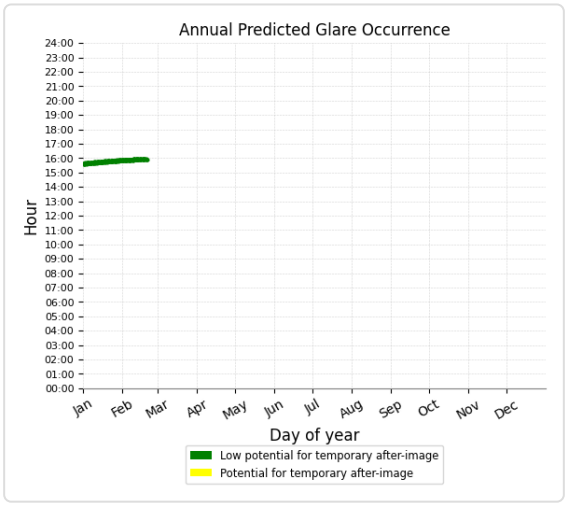


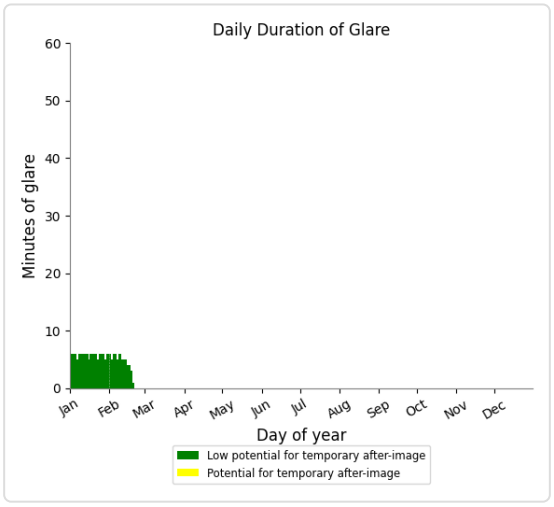


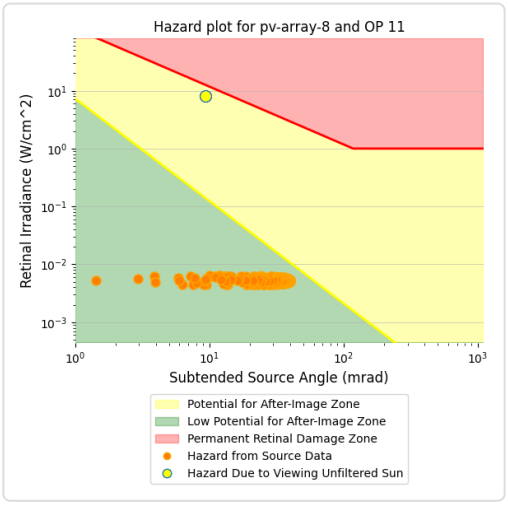
PV array 8 and OP 11

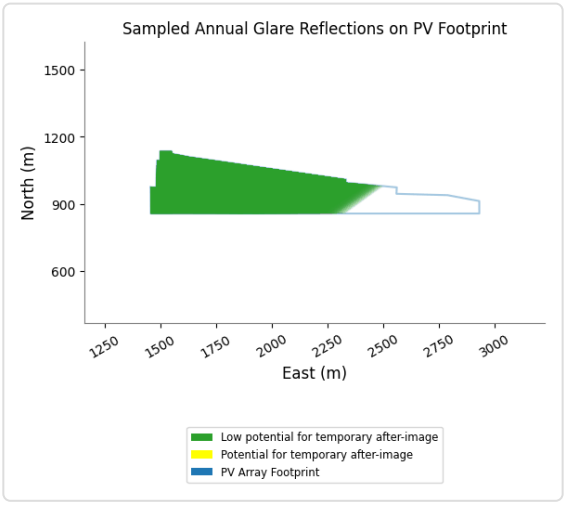
Yellow glare: none

Green glare: 278 min.





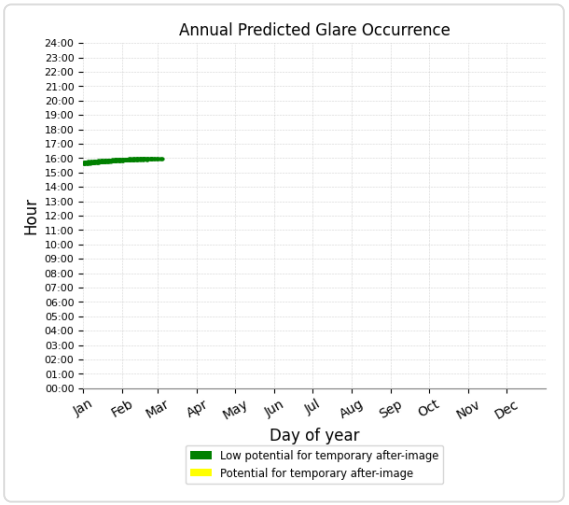


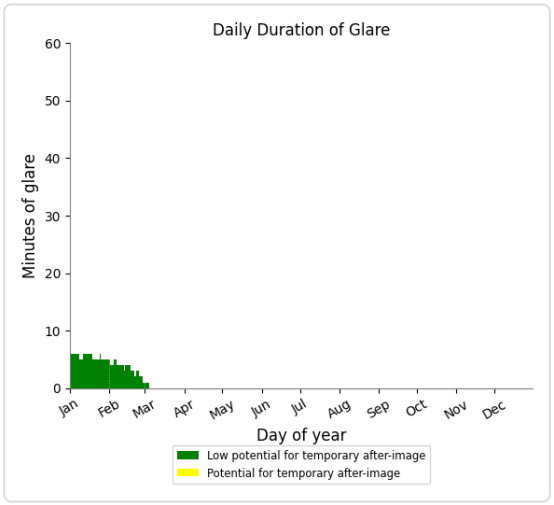


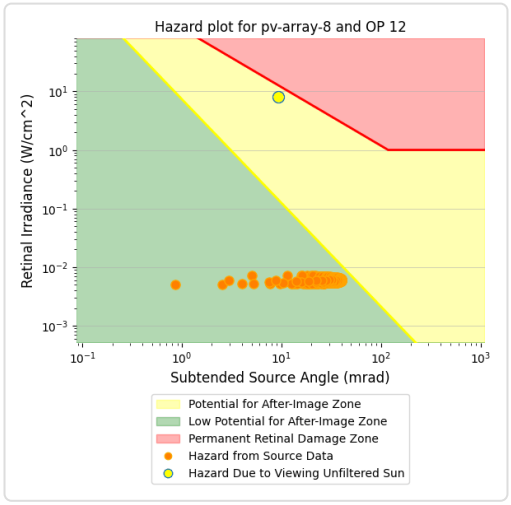
PV array 8 and OP 12

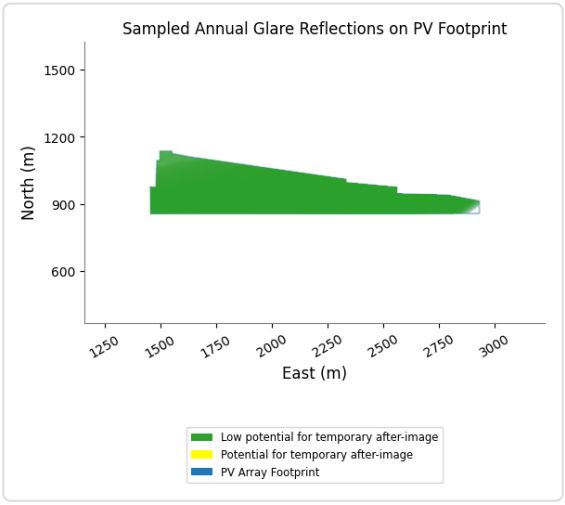
Yellow glare: none

Green glare: 271 min.





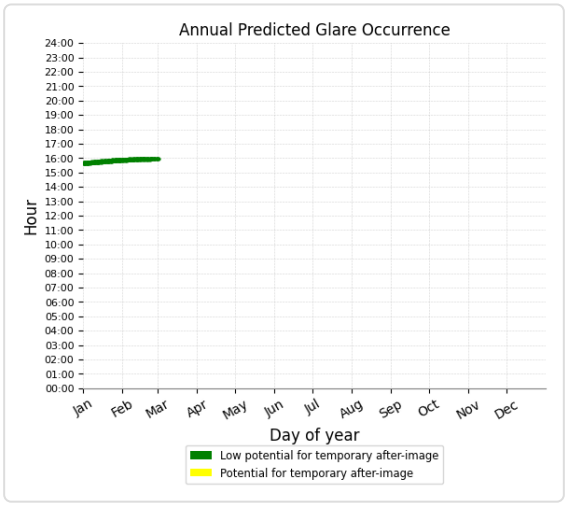


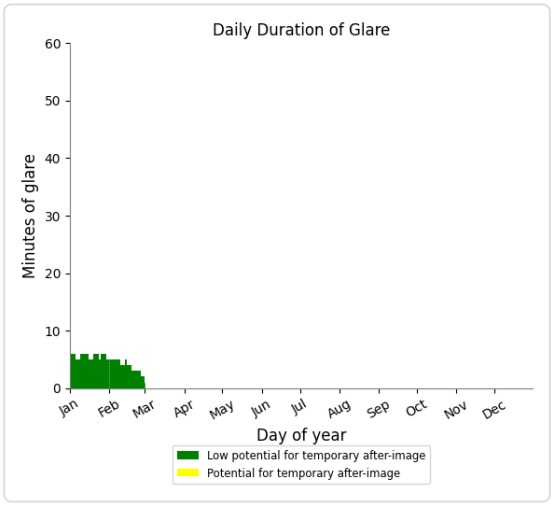


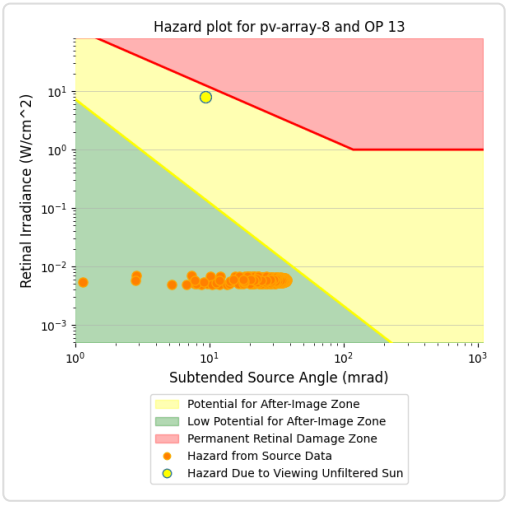
PV array 8 and OP 13

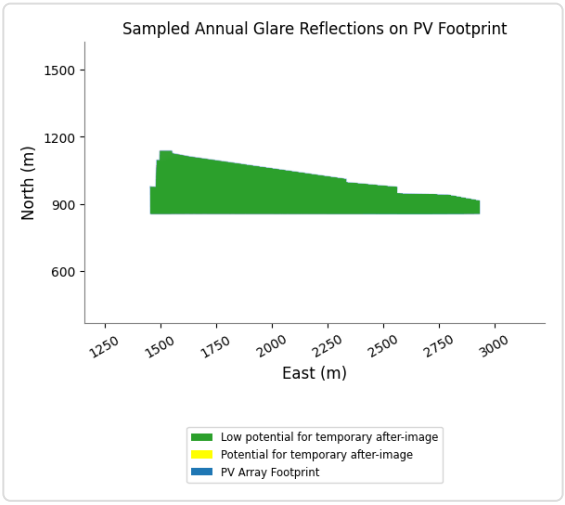
Yellow glare: none

Green glare: 284 min.





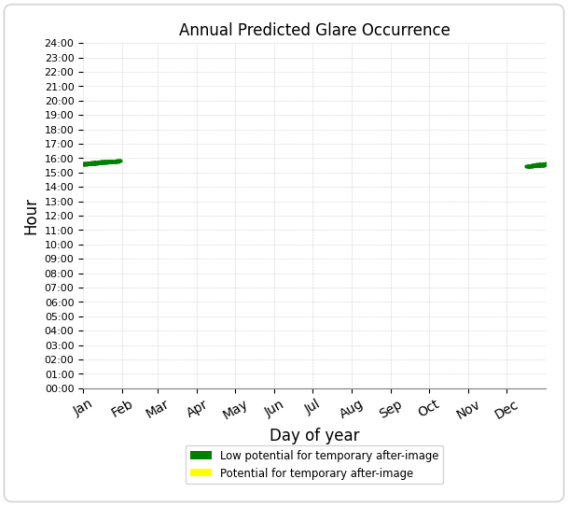


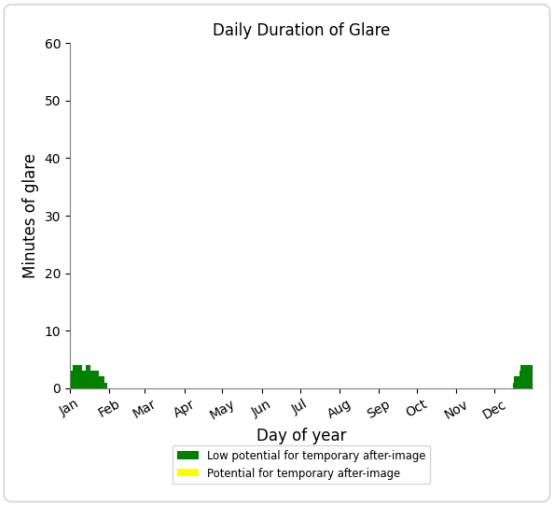


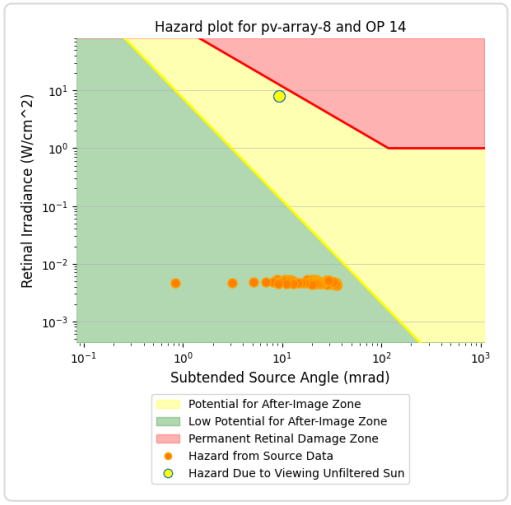
PV array 8 and OP 14

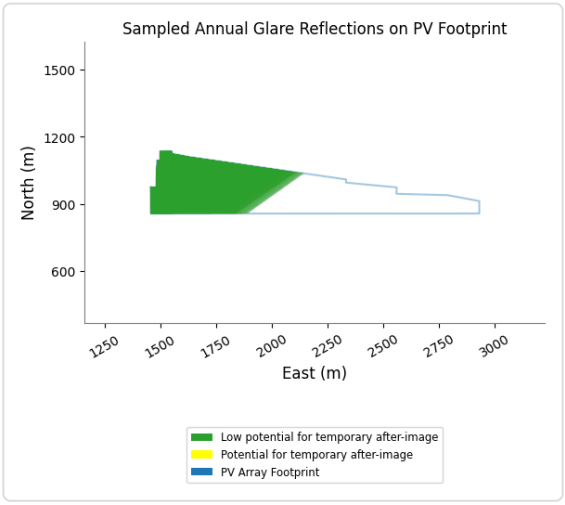
Yellow glare: none

Green glare: 144 min.





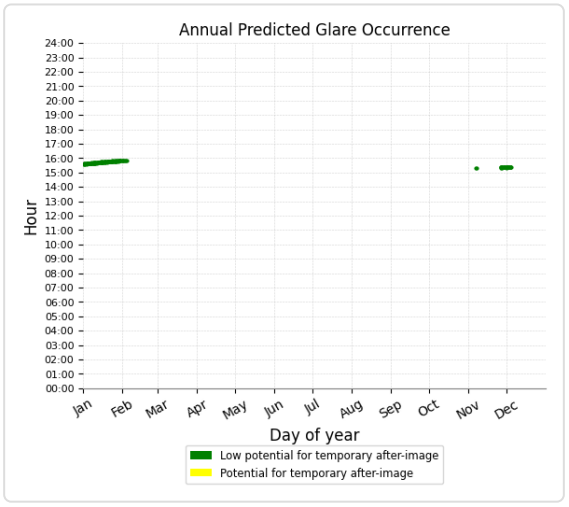


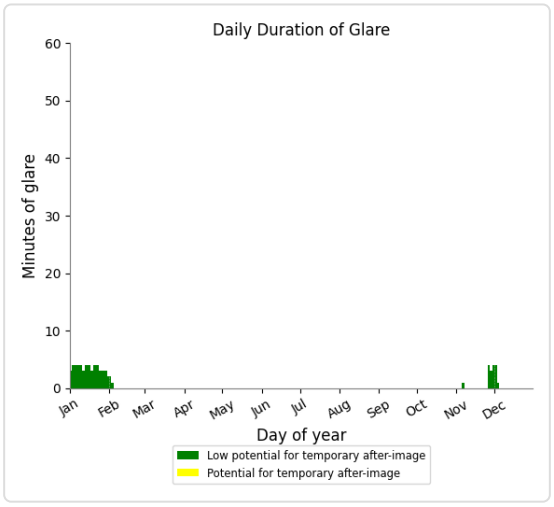


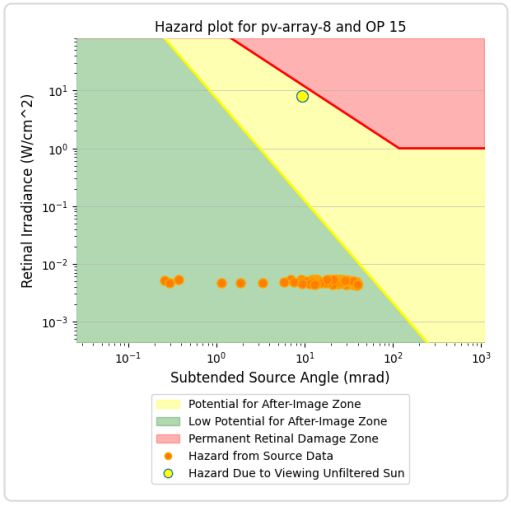
PV array 8 and OP 15

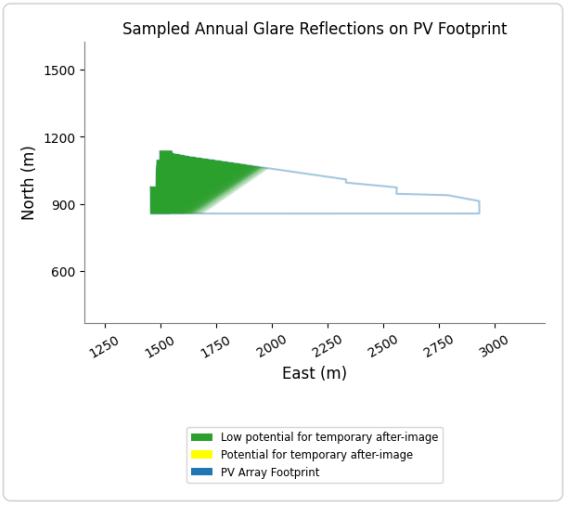
Yellow glare: none

Green glare: 148 min.





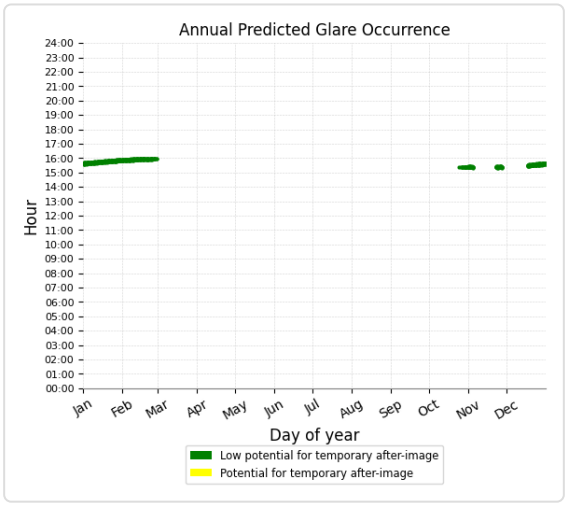


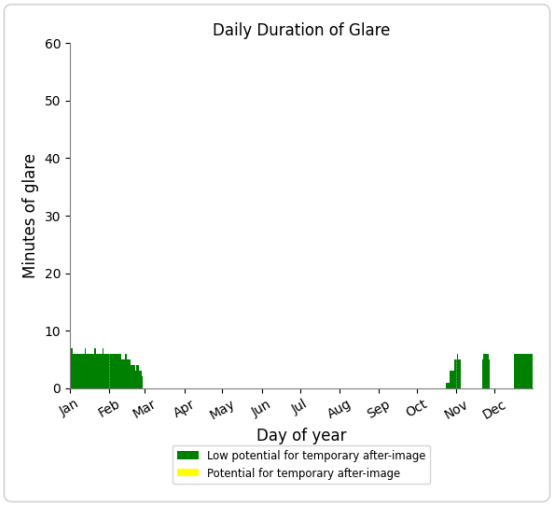


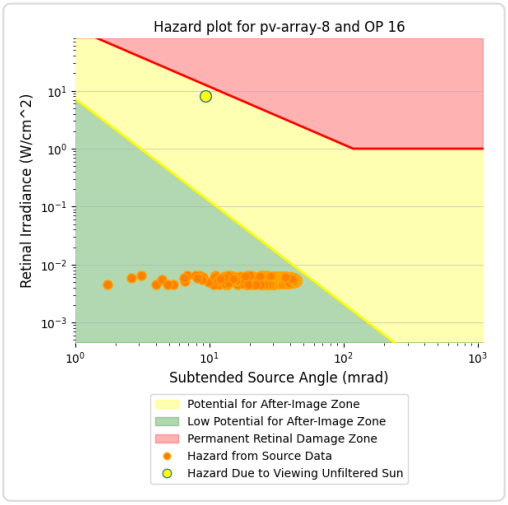
PV array 8 and OP 16

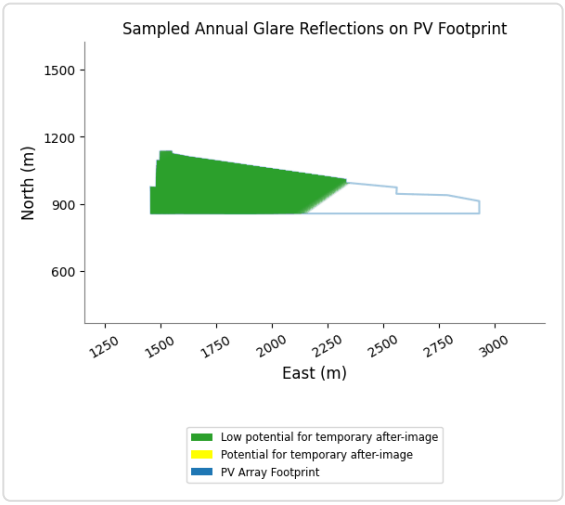
Yellow glare: none

Green glare: 488 min.





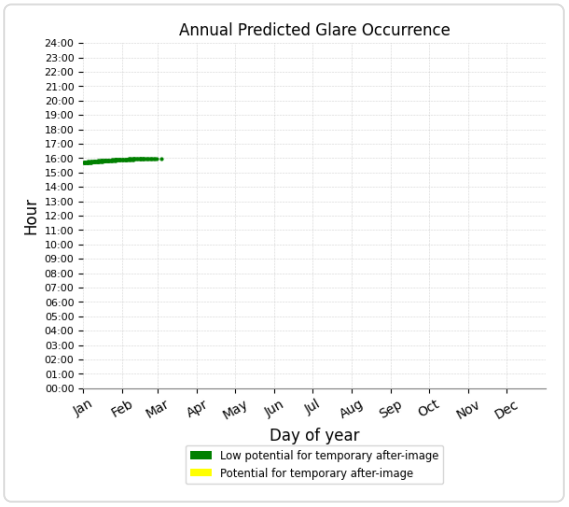


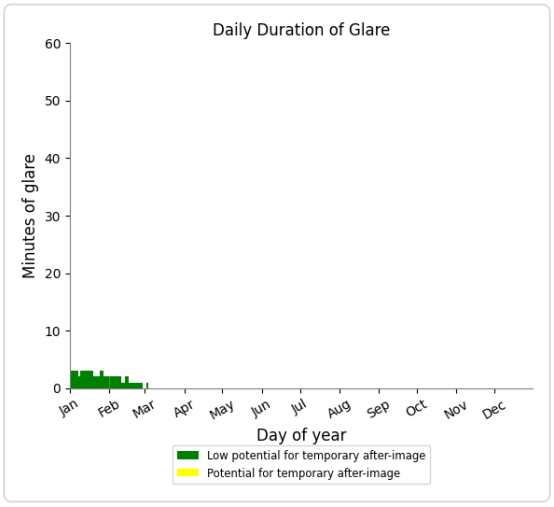


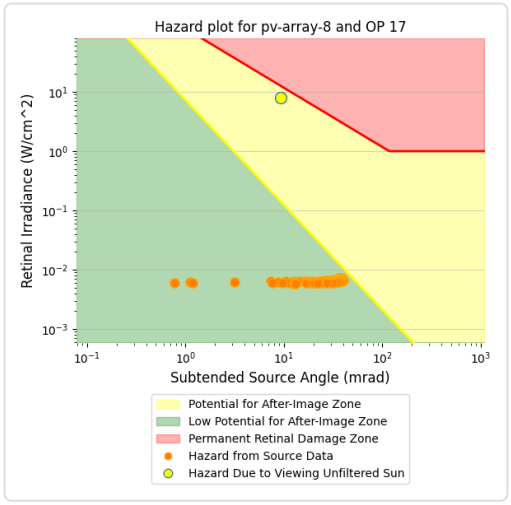
PV array 8 and OP 17

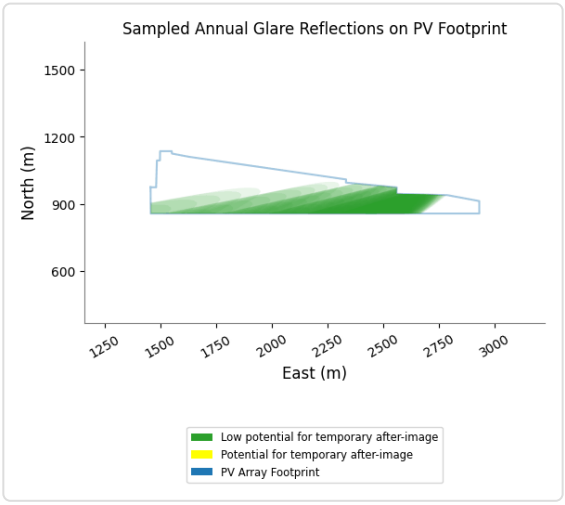
Yellow glare: none

Green glare: 123 min.





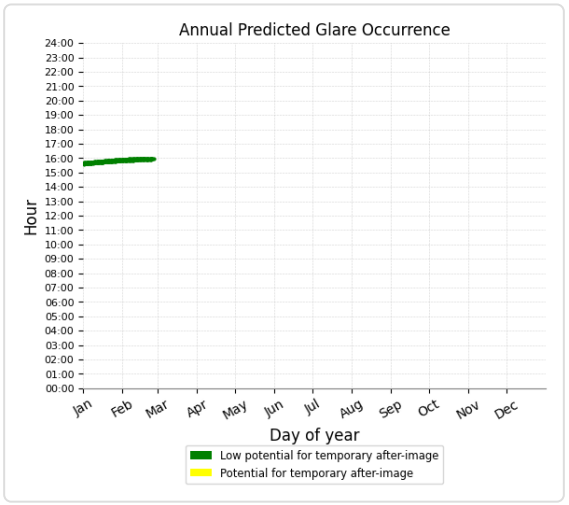


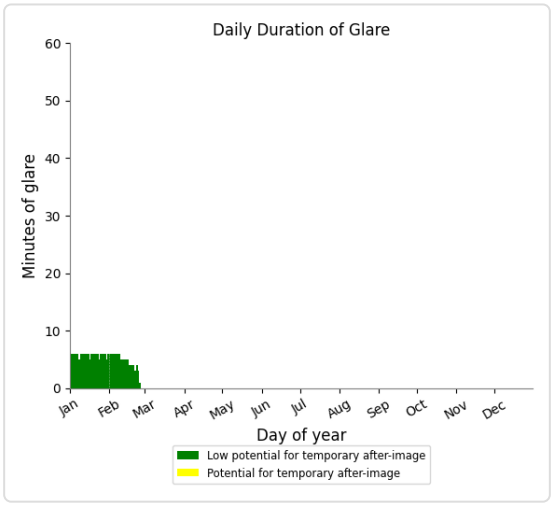


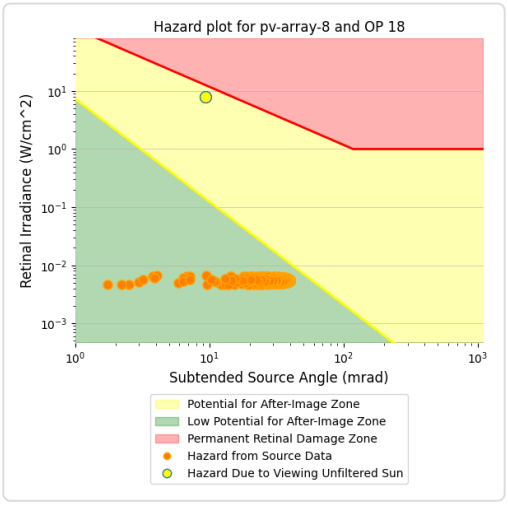
PV array 8 and OP 18

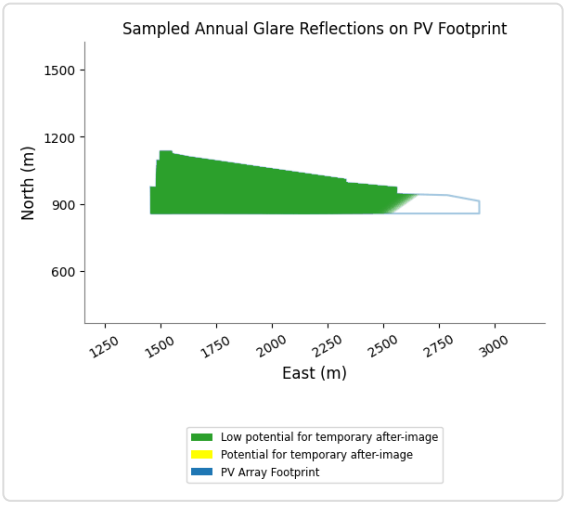
Yellow glare: none

Green glare: 300 min.





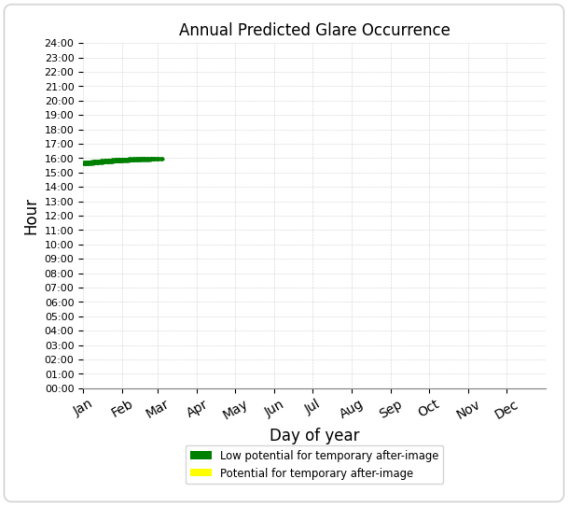


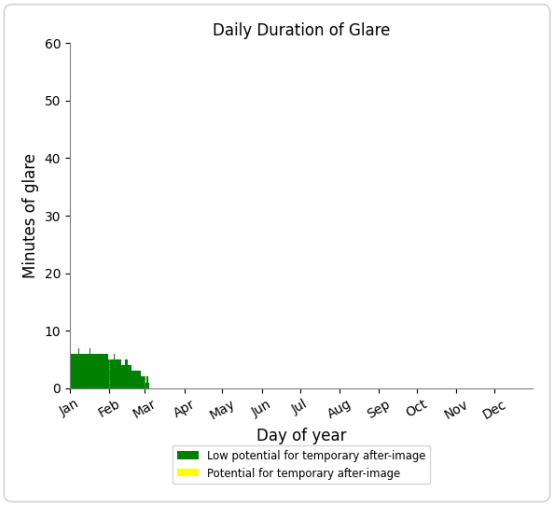


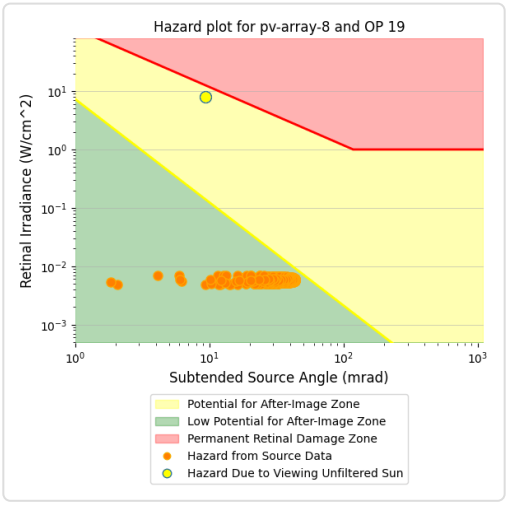
PV array 8 and OP 19

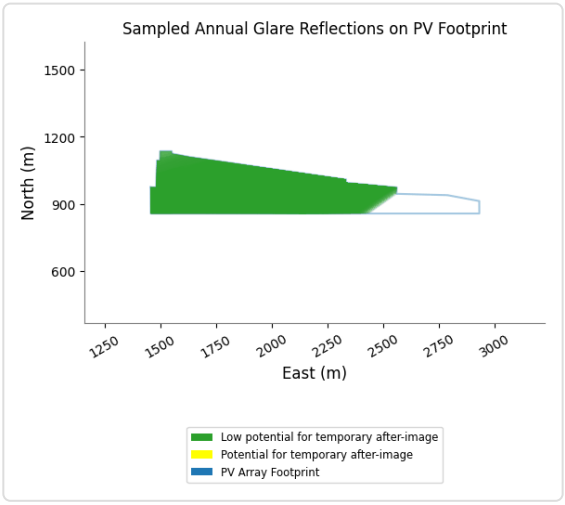
Yellow glare: none

Green glare: 306 min.





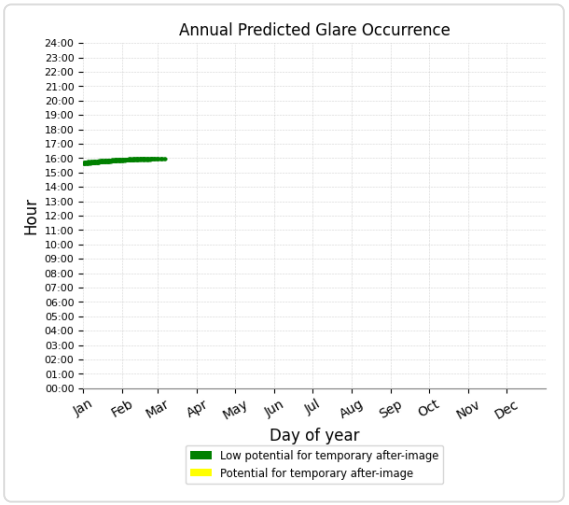


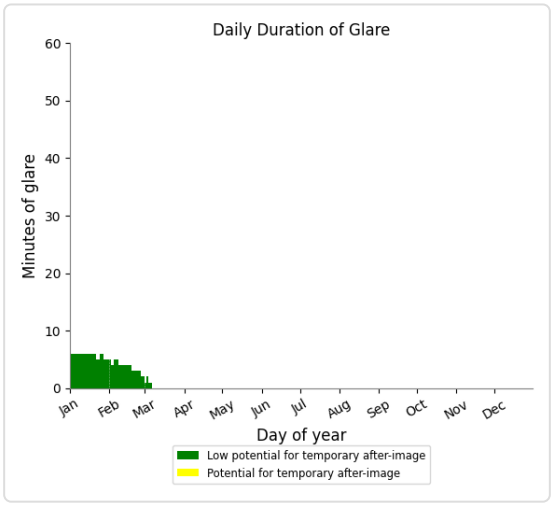


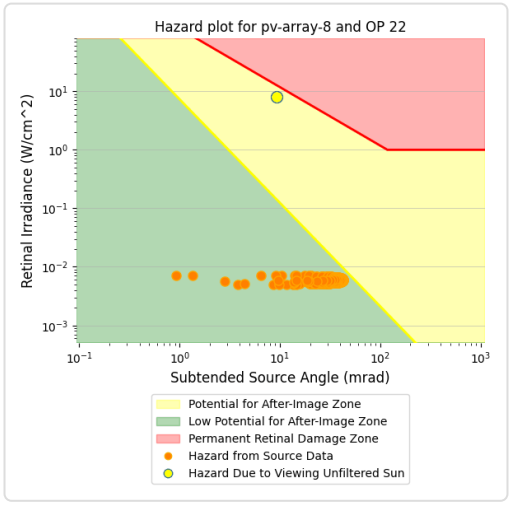
PV array 8 and OP 22

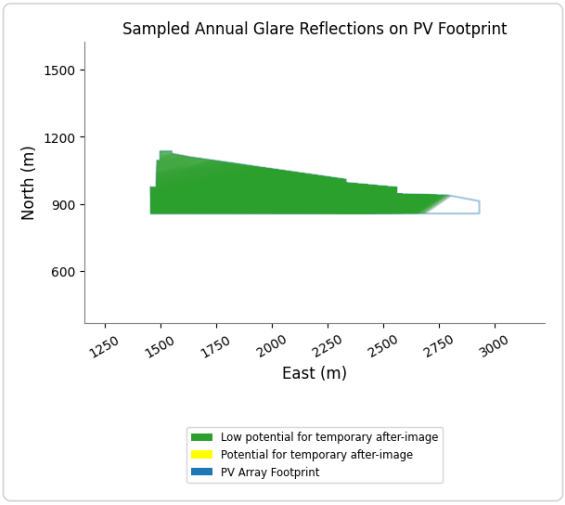
Yellow glare: none

Green glare: 290 min.





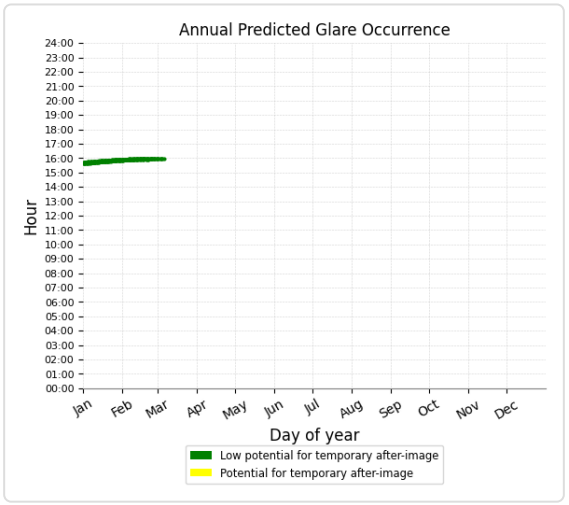


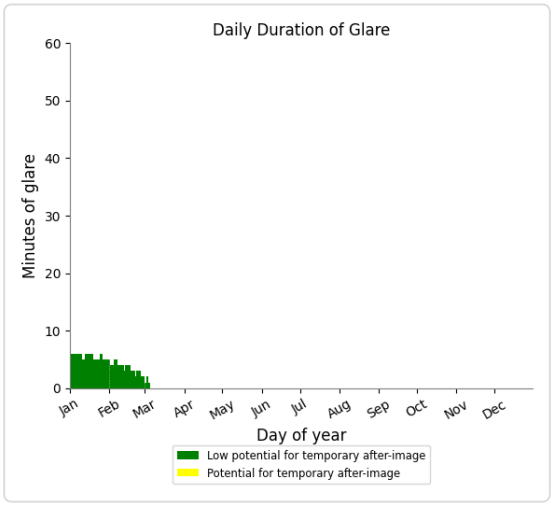


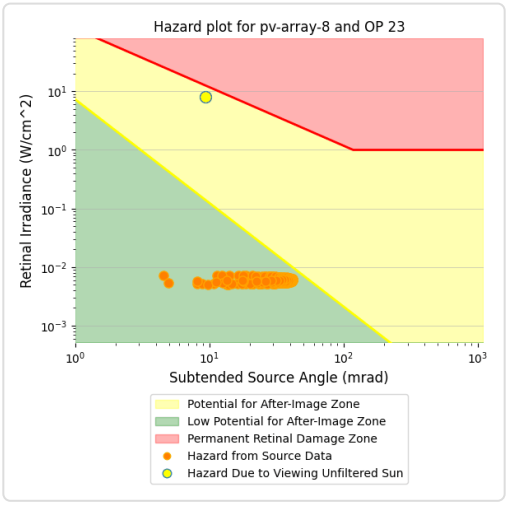
PV array 8 and OP 23

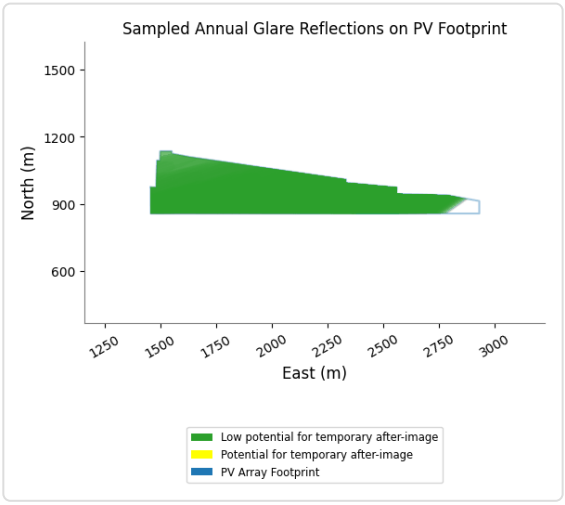
Yellow glare: none

Green glare: 280 min.





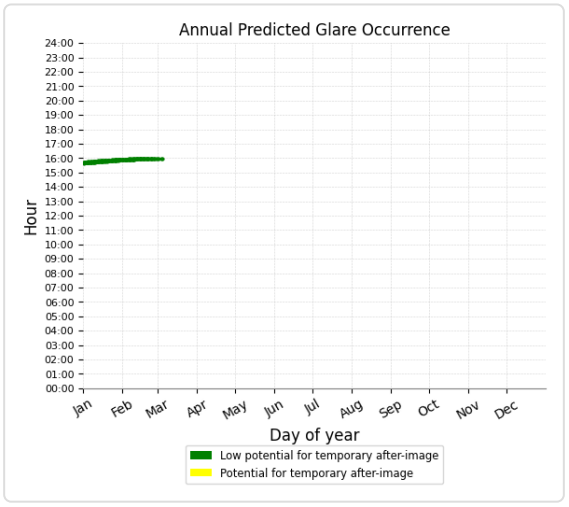


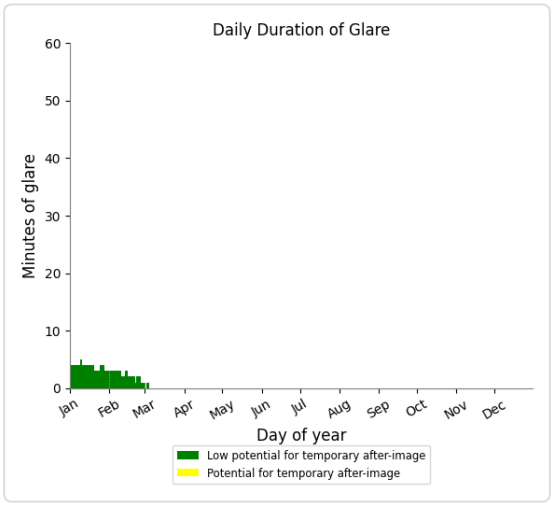


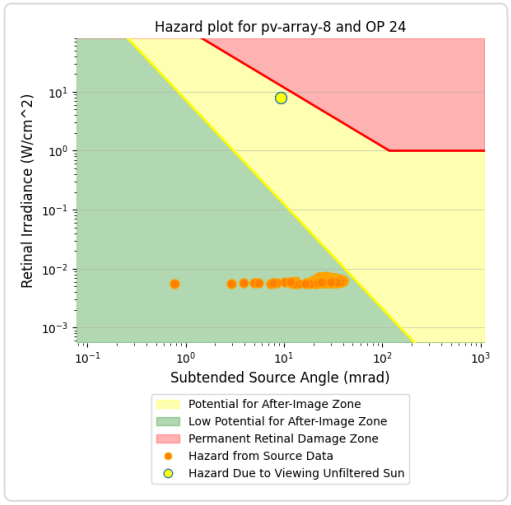
PV array 8 and OP 24

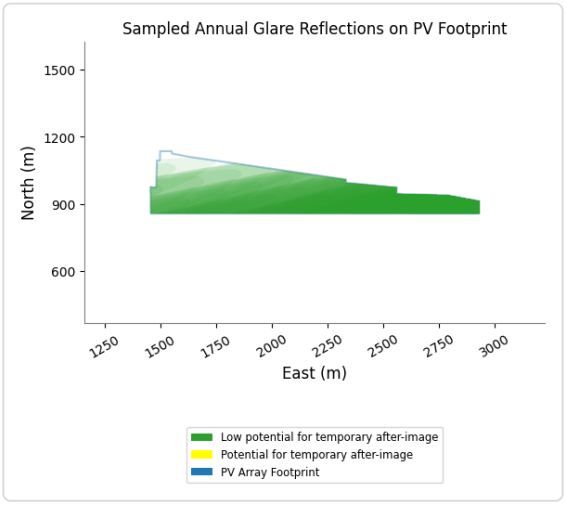
Yellow glare: none

Green glare: 185 min.



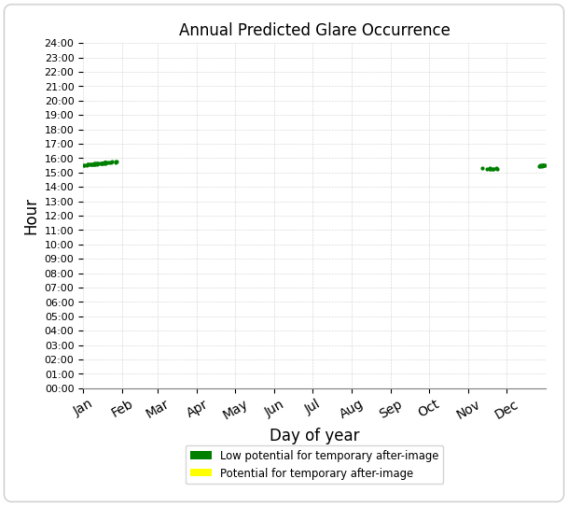


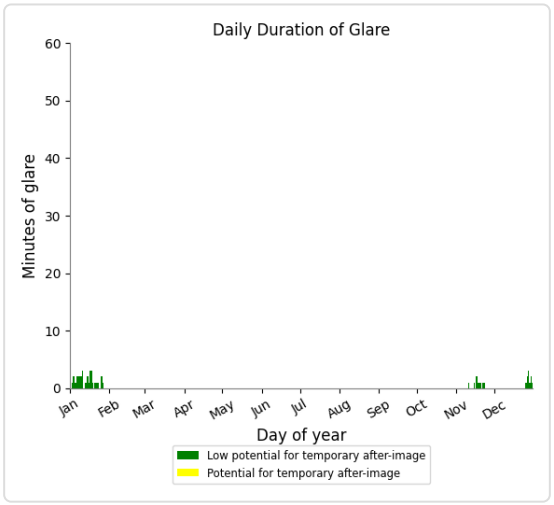


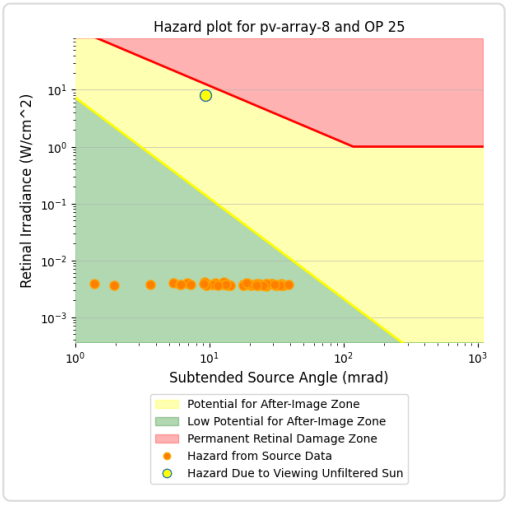


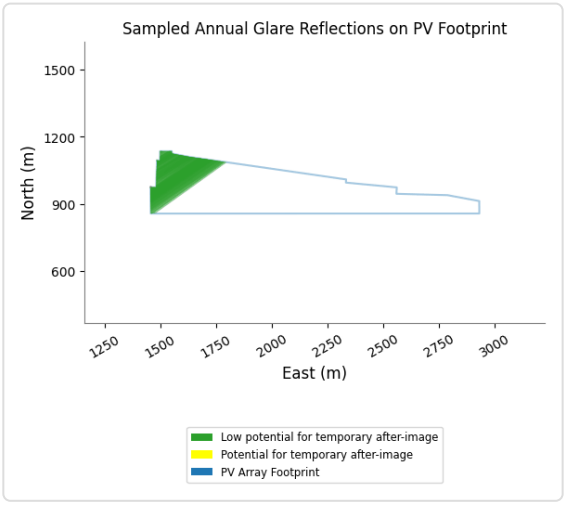
PV array 8 and OP 25

Yellow glare: none
Green glare: 55 min.









PV array 8 and OP 1

No glare found

PV array 8 and OP 2

No glare found

PV array 8 and OP 3

No glare found

PV array 8 and OP 4

No glare found

PV array 8 and OP 5

No glare found

PV array 8 and OP 6

No glare found

PV array 8 and OP 7

No glare found

PV array 8 and OP 8

No glare found

PV array 8 and OP 20

No glare found

PV array 8 and OP 21

No glare found

PV array 8 and OP 26

No glare found

PV array 8 and OP 27

No glare found

PV array 8 and OP 28

No glare found

PV array 8 and OP 29

No glare found

PV array 8 and OP 30

No glare found

PV array 8 and OP 31

No glare found

PV array 8 and OP 32

No glare found

PV array 8 and OP 33

No glare found

PV: PV array 9 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 9 and Route: Avenue Road

No glare found

PV array 9 and Route: Main Camp Road

No glare found

PV array 9 and OP 1

No glare found

PV array 9 and OP 2

No glare found

PV array 9 and OP 3

No glare found

PV array 9 and OP 4

No glare found

PV array 9 and OP 5

No glare found

PV array 9 and OP 6

No glare found

PV array 9 and OP 7

No glare found

PV array 9 and OP 8

No glare found

PV array 9 and OP 9

No glare found

PV array 9 and OP 10

No glare found

PV array 9 and OP 11

No glare found

PV array 9 and OP 12

No glare found

PV array 9 and OP 13

No glare found

PV array 9 and OP 14

No glare found

PV array 9 and OP 15

No glare found

PV array 9 and OP 16

No glare found

PV array 9 and OP 17

No glare found

PV array 9 and OP 18

No glare found

PV array 9 and OP 19

No glare found

PV array 9 and OP 20

No glare found

PV array 9 and OP 21

No glare found

PV array 9 and OP 22

No glare found

PV array 9 and OP 23

No glare found

PV array 9 and OP 24

No glare found

PV array 9 and OP 25

No glare found

PV array 9 and OP 26

No glare found

PV array 9 and OP 27

No glare found

PV array 9 and OP 28

No glare found

PV array 9 and OP 29

No glare found

PV array 9 and OP 30

No glare found

PV array 9 and OP 31

No glare found

PV array 9 and OP 32

No glare found

PV array 9 and OP 33

No glare found

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year.
Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare. This primarily affects V1 analyses of path receptors.
Random number computations are utilized by various steps of the annual hazard analysis algorithm. Predicted minutes of glare can vary between runs as a result. This limitation primarily affects analyses of Observation Point receptors, including ATCTs. Note that the SGHAT/ ForgeSolar methodology has always relied on an analytical, qualitative approach to accurately determine the overall hazard (i.e. green vs. yellow) of expected glare on an annual basis.
The analysis does not automatically consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.
The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)
The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.
The ocular hazard predicted by the tool depends on a number of environmental, optical, and human factors, which can be uncertain. We provide input fields and typical ranges of values for these factors so that the user can vary these parameters to see if they have an impact on the results. The speed of SGHAT allows expedited sensitivity and parametric analyses.
The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.
Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.
Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
Refer to the Help page at **www.forgesolar.com/help/** for assumptions and limitations not listed here.

Default glare analysis parameters and observer eye characteristics (for reference only):

- Analysis time interval: 1 minute
- Ocular transmission coefficient: 0.5
- Pupil diameter: 0.002 meters
- Eye focal length: 0.017 meters
- Sun subtended angle: 9.3 milliradians

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Glint and Glare Assessment Results Attachment B - Scenario 5

FORGESOLAR GLARE ANALYSIS

Project: **2320 Richmond Valley Solar Farm**
Site configuration: **2320 Richmond Valley 60d Resting Angle 20231211**

Created 11 Dec, 2023
Updated 18 Dec, 2023
Time-step 1 minute
Timezone offset UTC10
Minimum sun altitude 0.0 deg
DNI peaks at 1,000.0 W/m^2
Category 100 MW to 1 GW
Site ID 107581.18000

Ocular transmission coefficient 0.5
Pupil diameter 0.002 m
Eye focal length 0.017 m
Sun subtended angle 9.3 mrad
PV analysis methodology V2

Summary of Results

Glare with potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV array 1	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 10	SA tracking	SA tracking	39,012	650.2	5,637	94.0	-
PV array 15	SA tracking	SA tracking	584	9.7	127	2.1	-
PV array 16	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 17	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 18	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 19	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 2	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 20	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 21	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 22	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 23	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 3	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 4	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 5	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 6	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 7	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 8	SA tracking	SA tracking	4,334	72.2	19	0.3	-
PV array 9	SA tracking	SA tracking	0	0.0	0	0.0	-

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	25,082	418.0	5,656	94.3

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Main Camp Road	1,029	17.1	127	2.1
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	261	4.3	0	0.0
OP 10	57	0.9	0	0.0
OP 11	278	4.6	0	0.0
OP 12	271	4.5	0	0.0
OP 13	284	4.7	0	0.0
OP 14	144	2.4	0	0.0
OP 15	148	2.5	0	0.0
OP 16	488	8.1	0	0.0
OP 17	123	2.0	0	0.0
OP 18	300	5.0	0	0.0
OP 19	306	5.1	0	0.0
OP 20	0	0.0	0	0.0
OP 21	297	5.0	0	0.0
OP 22	290	4.8	0	0.0
OP 23	280	4.7	0	0.0
OP 24	185	3.1	0	0.0
OP 25	55	0.9	0	0.0
OP 26	3,776	62.9	0	0.0
OP 27	3,102	51.7	0	0.0
OP 28	2,946	49.1	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	4,228	70.5	0	0.0

Component Data

PV Arrays

Name: PV array 1
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 60.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.101325	153.019581	366.24	2.50	368.74
2	-29.101319	153.022208	373.42	2.50	375.92
3	-29.101675	153.022244	322.35	2.50	324.85
4	-29.101686	153.024706	312.51	2.50	315.01
5	-29.102036	153.024742	303.12	2.50	305.62
6	-29.102033	153.026689	299.33	2.50	301.83
7	-29.102411	153.026725	328.19	2.50	330.69
8	-29.102419	153.028128	322.49	2.50	324.99
9	-29.103497	153.028139	354.56	2.50	357.06
10	-29.103500	153.028281	326.46	2.50	328.96
11	-29.104558	153.028281	314.31	2.50	316.81
12	-29.104567	153.026794	364.57	2.50	367.07
13	-29.104200	153.026775	369.06	2.50	371.56
14	-29.104211	153.025361	350.76	2.50	353.26
15	-29.103472	153.025344	337.49	2.50	339.99
16	-29.103472	153.019586	354.43	2.50	356.93

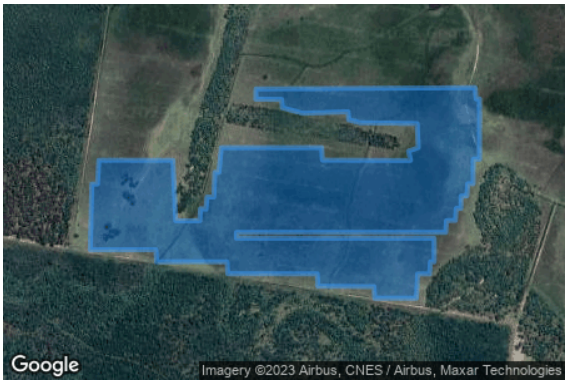
Name: PV array 10
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 60.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.096789	153.033475	67.12	2.50	69.62
2	-29.096789	153.033625	94.58	2.50	97.08
3	-29.096086	153.033664	83.67	2.50	86.17
4	-29.096069	153.048192	86.35	2.50	88.85
5	-29.096428	153.048178	86.17	2.50	88.67
6	-29.096431	153.047381	77.50	2.50	80.00
7	-29.096778	153.047358	70.21	2.50	72.71
8	-29.096778	153.046492	64.01	2.50	66.51
9	-29.097136	153.046467	57.37	2.50	59.87
10	-29.097136	153.045553	58.92	2.50	61.42
11	-29.097508	153.045553	44.73	2.50	47.23
12	-29.097514	153.044489	51.53	2.50	54.03
13	-29.097786	153.044467	54.99	2.50	57.49
14	-29.097864	153.043553	60.25	2.50	62.75
15	-29.098228	153.043531	57.21	2.50	59.71
16	-29.098236	153.041514	58.17	2.50	60.67
17	-29.098608	153.041486	51.15	2.50	53.65
18	-29.098619	153.033442	60.48	2.50	62.98

Name: PV array 15
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 60.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

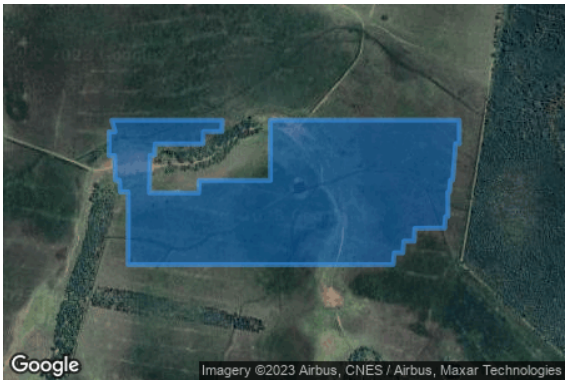
Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.102156	153.044086	58.73	2.50	61.23
2	-29.102156	153.047328	63.32	2.50	65.82
3	-29.102194	153.047328	95.21	2.50	97.71
4	-29.102194	153.058594	119.73	2.50	122.23
5	-29.102550	153.058617	84.51	2.50	87.01
6	-29.102550	153.058697	82.32	2.50	84.82
7	-29.103253	153.058700	86.95	2.50	89.45
8	-29.103253	153.058464	98.42	2.50	100.92
9	-29.103636	153.058431	85.79	2.50	88.29
10	-29.103636	153.058125	71.39	2.50	73.89
11	-29.104347	153.058089	63.19	2.50	65.69
12	-29.104347	153.057872	68.64	2.50	71.14
13	-29.105078	153.057872	75.02	2.50	77.52
14	-29.105080	153.057786	73.92	2.50	76.42
15	-29.105431	153.057761	95.27	2.50	97.77
16	-29.105431	153.057622	95.06	2.50	97.56
17	-29.106164	153.057597	96.25	2.50	98.75
18	-29.106167	153.057461	85.20	2.50	87.70
19	-29.106514	153.057433	78.67	2.50	81.17
20	-29.106514	153.057292	76.66	2.50	79.16
21	-29.107410	153.057270	69.71	2.50	72.21
22	-29.107410	153.057190	70.70	2.50	73.20
23	-29.107760	153.057150	76.15	2.50	78.65
24	-29.107770	153.056900	69.23	2.50	71.73
25	-29.108870	153.056840	63.91	2.50	66.41
26	-29.108840	153.054250	69.03	2.50	71.53
27	-29.106690	153.054260	67.10	2.50	69.60
28	-29.106700	153.054510	61.84	2.50	64.34
29	-29.105460	153.054540	51.44	2.50	53.94
30	-29.105460	153.054670	46.48	2.50	48.98
31	-29.103650	153.054660	44.11	2.50	46.61
32	-29.103650	153.053990	50.89	2.50	53.39
33	-29.103260	153.053990	55.01	2.50	57.51
34	-29.103260	153.051930	50.62	2.50	53.12
35	-29.102900	153.051890	64.22	2.50	66.72
36	-29.102900	153.046260	78.81	2.50	81.31
37	-29.102530	153.046260	69.88	2.50	72.38
38	-29.102531	153.044111	81.44	2.50	83.94

Name: PV array 16
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 60.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.109583	153.053697	35.88	2.50	38.38
2	-29.109580	153.053892	35.82	2.50	38.32
3	-29.108872	153.053936	34.22	2.50	36.72
4	-29.108872	153.056486	35.80	2.50	38.30
5	-29.110681	153.056581	33.60	2.50	36.10
6	-29.110680	153.057408	33.51	2.50	36.01
7	-29.110322	153.057431	33.12	2.50	35.62
8	-29.110333	153.057622	33.65	2.50	36.15
9	-29.109972	153.057656	34.81	2.50	37.31
10	-29.109969	153.057892	35.48	2.50	37.98
11	-29.109233	153.057922	37.27	2.50	39.77
12	-29.109230	153.058064	37.55	2.50	40.05
13	-29.108494	153.058144	37.24	2.50	39.74
14	-29.108494	153.061594	35.21	2.50	37.71
15	-29.108867	153.061622	34.11	2.50	36.61
16	-29.108875	153.064650	30.58	2.50	33.08
17	-29.108597	153.064578	31.08	2.50	33.58
18	-29.108494	153.064914	30.76	2.50	33.26
19	-29.107772	153.064875	32.09	2.50	34.59
20	-29.107750	153.062925	30.39	2.50	32.89
21	-29.107664	153.062525	32.23	2.50	34.73
22	-29.107419	153.062503	32.17	2.50	34.67
23	-29.107467	153.060950	34.16	2.50	36.66
24	-29.107297	153.060244	33.94	2.50	36.44
25	-29.107050	153.060219	33.92	2.50	36.42
26	-29.107044	153.059328	34.04	2.50	36.54
27	-29.106736	153.059336	34.04	2.50	36.54
28	-29.106700	153.066869	31.79	2.50	34.29
29	-29.107036	153.066903	31.47	2.50	33.97
30	-29.107036	153.067019	31.60	2.50	34.10
31	-29.108842	153.067022	33.82	2.50	36.32
32	-29.108842	153.066803	33.30	2.50	35.80
33	-29.109572	153.066800	34.25	2.50	36.75
34	-29.109570	153.066614	33.70	2.50	36.20
35	-29.109936	153.066586	34.18	2.50	36.68
36	-29.109940	153.066383	33.57	2.50	36.07
37	-29.110311	153.066380	34.11	2.50	36.61
38	-29.110310	153.066217	33.64	2.50	36.14
39	-29.110669	153.066192	34.08	2.50	36.58
40	-29.110675	153.065881	33.18	2.50	35.68
41	-29.111028	153.065858	33.66	2.50	36.16
42	-29.111028	153.058667	34.00	2.50	36.50
43	-29.111203	153.058667	34.00	2.50	36.50
44	-29.111203	153.065461	33.51	2.50	36.01
45	-29.111908	153.065461	35.73	2.50	38.23
46	-29.111908	153.065331	35.54	2.50	38.04
47	-29.112269	153.065303	35.50	2.50	38.00
48	-29.112270	153.064894	35.16	2.50	37.66
49	-29.112997	153.064853	35.92	2.50	38.42
50	-29.112997	153.063419	33.64	2.50	36.14
51	-29.112650	153.063394	34.07	2.50	36.57
52	-29.112639	153.061467	31.62	2.50	34.12
53	-29.112269	153.061444	32.22	2.50	34.72
54	-29.112264	153.058369	34.15	2.50	36.65
55	-29.111908	153.058342	34.08	2.50	36.58
56	-29.111908	153.055928	33.83	2.50	36.33
57	-29.111547	153.055900	33.61	2.50	36.11
58	-29.111550	153.053644	40.15	2.50	42.65

Name: PV array 17
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 60.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.102197	153.059017	39.95	2.50	42.45
2	-29.102194	153.062817	37.76	2.50	40.26
3	-29.102533	153.062803	35.96	2.50	38.46
4	-29.102539	153.062167	38.22	2.50	40.72
5	-29.102906	153.062150	38.04	2.50	40.54
6	-29.102910	153.060506	39.98	2.50	42.48
7	-29.103247	153.060483	38.09	2.50	40.59
8	-29.103253	153.060331	35.83	2.50	38.33
9	-29.104367	153.060311	35.23	2.50	37.73
10	-29.104375	153.062003	35.00	2.50	37.50
11	-29.103994	153.062019	35.26	2.50	37.76
12	-29.104000	153.064469	35.33	2.50	37.83
13	-29.102194	153.064467	41.33	2.50	43.83
14	-29.102194	153.070958	35.53	2.50	38.03
15	-29.102900	153.070964	31.99	2.50	34.49
16	-29.102900	153.070833	34.31	2.50	36.81
17	-29.103986	153.070736	38.09	2.50	40.59
18	-29.103992	153.070656	36.86	2.50	39.36
19	-29.104342	153.070622	35.58	2.50	38.08
20	-29.104344	153.070567	35.32	2.50	37.82
21	-29.105078	153.070575	39.57	2.50	42.07
22	-29.105080	153.070486	39.78	2.50	42.28
23	-29.105425	153.070458	37.46	2.50	39.96
24	-29.105431	153.069433	34.45	2.50	36.95
25	-29.105819	153.069408	43.72	2.50	46.22
26	-29.105819	153.069053	44.69	2.50	47.19
27	-29.106167	153.069022	39.39	2.50	41.89
28	-29.106167	153.068725	33.07	2.50	35.57
29	-29.106519	153.068689	38.03	2.50	40.53
30	-29.106520	153.059578	36.08	2.50	38.58
31	-29.104344	153.059583	36.72	2.50	39.22
32	-29.104347	153.059308	37.07	2.50	39.57
33	-29.103989	153.059278	37.85	2.50	40.35
34	-29.103989	153.059139	38.21	2.50	40.71
35	-29.103253	153.059111	40.68	2.50	43.18
36	-29.103253	153.058922	39.83	2.50	42.33
37	-29.102544	153.058922	38.08	2.50	40.58
38	-29.102544	153.059133	37.66	2.50	40.16

Name: PV array 18
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 60.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.109586	153.069572	30.93	2.50	33.43
2	-29.109592	153.071361	29.24	2.50	31.74
3	-29.109972	153.071386	29.96	2.50	32.46
4	-29.109978	153.072467	30.00	2.50	32.50
5	-29.110311	153.072500	30.00	2.50	32.50
6	-29.110319	153.073303	31.15	2.50	33.65
7	-29.110672	153.073361	30.64	2.50	33.14
8	-29.112108	153.073353	28.68	2.50	31.18
9	-29.112119	153.072439	30.64	2.50	33.14
10	-29.112300	153.072442	30.87	2.50	33.37
11	-29.112300	153.074256	29.00	2.50	31.50
12	-29.112653	153.074275	29.74	2.50	32.24
13	-29.112661	153.074633	29.77	2.50	32.27
14	-29.113006	153.074628	30.79	2.50	33.29
15	-29.113006	153.076522	29.89	2.50	32.39
16	-29.112797	153.076511	29.59	2.50	32.09
17	-29.112797	153.078297	26.43	2.50	28.93
18	-29.113372	153.078353	27.13	2.50	29.63
19	-29.114981	153.078347	29.88	2.50	32.38
20	-29.114969	153.078094	29.97	2.50	32.47
21	-29.115317	153.078075	30.26	2.50	32.76
22	-29.115320	153.076460	34.27	2.50	36.77
23	-29.115528	153.076456	33.21	2.50	35.71
24	-29.115525	153.070742	31.94	2.50	34.44
25	-29.114467	153.070742	30.74	2.50	33.24
26	-29.114467	153.070797	30.48	2.50	32.98
27	-29.113725	153.070797	30.05	2.50	32.55
28	-29.113725	153.070239	31.57	2.50	34.07
29	-29.113350	153.070219	31.26	2.50	33.76
30	-29.113350	153.070125	31.37	2.50	33.87
31	-29.113000	153.070100	31.06	2.50	33.56
32	-29.113000	153.069572	31.53	2.50	34.03

Name: PV array 19
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 60.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.095008	153.049878	30.65	2.50	33.15
2	-29.095006	153.067636	55.88	2.50	58.38
3	-29.095361	153.067678	52.05	2.50	54.55
4	-29.095372	153.070639	54.94	2.50	57.44
5	-29.095722	153.070672	51.58	2.50	54.08
6	-29.095733	153.071469	49.76	2.50	52.26
7	-29.097678	153.071458	43.37	2.50	45.87
8	-29.097692	153.071583	43.76	2.50	46.26
9	-29.099842	153.071569	35.11	2.50	37.61
10	-29.099842	153.071353	33.97	2.50	36.47
11	-29.100928	153.071347	33.60	2.50	36.10
12	-29.100928	153.071208	33.60	2.50	36.10
13	-29.101667	153.071186	35.03	2.50	37.53
14	-29.101658	153.071047	35.08	2.50	37.58
15	-29.102022	153.071031	35.02	2.50	37.52
16	-29.102020	153.047342	32.77	2.50	35.27
17	-29.102114	153.047336	32.68	2.50	35.18
18	-29.102111	153.044069	34.04	2.50	36.54
19	-29.102019	153.044086	34.00	2.50	36.50
20	-29.102014	153.039336	38.65	2.50	41.15
21	-29.099867	153.039331	37.84	2.50	40.34
22	-29.099861	153.040528	36.06	2.50	38.56
23	-29.099494	153.040547	35.30	2.50	37.80
24	-29.099494	153.043892	32.13	2.50	34.63
25	-29.100950	153.043914	33.56	2.50	36.06
26	-29.100958	153.045236	34.06	2.50	36.56
27	-29.100580	153.045280	34.35	2.50	36.85
28	-29.100570	153.046140	33.76	2.50	36.26
29	-29.100220	153.046170	35.46	2.50	37.96
30	-29.100220	153.046440	35.17	2.50	37.67
31	-29.100570	153.046470	33.65	2.50	36.15
32	-29.100570	153.046810	33.54	2.50	36.04
33	-29.100220	153.046830	34.76	2.50	37.26
34	-29.100220	153.048570	34.30	2.50	36.80
35	-29.099860	153.048580	34.26	2.50	36.76
36	-29.099860	153.055040	30.23	2.50	32.73
37	-29.097520	153.055040	29.19	2.50	31.69
38	-29.097508	153.049244	29.61	2.50	32.11
39	-29.096461	153.049253	28.44	2.50	30.94

Name: PV array 2
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 60.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.103011	153.028981	45.87	2.50	48.37
2	-29.103033	153.031867	42.45	2.50	44.95
3	-29.105117	153.031872	39.58	2.50	42.08
4	-29.105139	153.029231	43.48	2.50	45.98
5	-29.104064	153.029211	43.73	2.50	46.23
6	-29.104044	153.028956	41.58	2.50	44.08

Name: PV array 20
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 60.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.097756	153.046586	30.04	2.50	32.54
2	-29.097722	153.046661	30.51	2.50	33.01
3	-29.097722	153.050819	31.18	2.50	33.68
4	-29.098397	153.050817	30.55	2.50	33.05
5	-29.098400	153.050675	29.78	2.50	32.28
6	-29.098433	153.050681	29.76	2.50	32.26
7	-29.098430	153.049186	29.93	2.50	32.43
8	-29.098747	153.049158	31.20	2.50	33.70
9	-29.098744	153.049008	30.31	2.50	32.81
10	-29.098781	153.048992	30.37	2.50	32.87
11	-29.098789	153.045769	30.60	2.50	33.10
12	-29.098081	153.045769	31.10	2.50	33.60
13	-29.098089	153.046567	32.80	2.50	35.30

Name: PV array 21
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 60.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.119964	153.067553	34.62	2.50	37.12
2	-29.119931	153.071286	34.59	2.50	37.09
3	-29.120281	153.071325	33.95	2.50	36.45
4	-29.120344	153.073556	31.66	2.50	34.16
5	-29.120458	153.073553	31.39	2.50	33.89
6	-29.120464	153.075878	34.40	2.50	36.90
7	-29.120114	153.075856	33.35	2.50	35.85
8	-29.120114	153.078875	29.83	2.50	32.33
9	-29.120853	153.078881	29.81	2.50	32.31
10	-29.120853	153.078372	29.48	2.50	31.98
11	-29.121589	153.078375	30.72	2.50	33.22
12	-29.121597	153.077969	30.34	2.50	32.84
13	-29.121947	153.077806	30.38	2.50	32.88
14	-29.121947	153.077344	29.07	2.50	31.57
15	-29.122303	153.077336	29.04	2.50	31.54
16	-29.122294	153.075361	32.04	2.50	34.54
17	-29.121594	153.075361	34.77	2.50	37.27
18	-29.121586	153.073336	29.42	2.50	31.92
19	-29.121239	153.073328	29.58	2.50	32.08
20	-29.121294	153.070856	32.46	2.50	34.96
21	-29.121714	153.070683	31.91	2.50	34.41
22	-29.121714	153.070081	32.74	2.50	35.24
23	-29.122067	153.069833	32.73	2.50	35.23
24	-29.122103	153.067342	29.46	2.50	31.96
25	-29.121022	153.067347	32.75	2.50	35.25
26	-29.121022	153.067553	32.13	2.50	34.63

Name: PV array 22
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 60.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.114775	153.080247	54.75	2.50	57.25
2	-29.114775	153.080583	53.92	2.50	56.42
3	-29.115122	153.080614	56.19	2.50	58.69
4	-29.115125	153.080961	59.96	2.50	62.46
5	-29.115822	153.080961	55.06	2.50	57.56
6	-29.115822	153.080836	49.55	2.50	52.05
7	-29.116564	153.080797	49.76	2.50	52.26
8	-29.116564	153.080217	46.19	2.50	48.69
9	-29.116928	153.080192	43.83	2.50	46.33
10	-29.116928	153.079286	43.59	2.50	46.09
11	-29.117444	153.079256	45.43	2.50	47.93
12	-29.117444	153.078672	40.64	2.50	43.14
13	-29.117797	153.078642	41.60	2.50	44.10
14	-29.117797	153.078194	41.85	2.50	44.35
15	-29.117103	153.078194	41.39	2.50	43.89
16	-29.117103	153.078386	41.00	2.50	43.50
17	-29.116203	153.078425	51.19	2.50	53.69
18	-29.116208	153.078614	48.69	2.50	51.19
19	-29.115853	153.078644	55.75	2.50	58.25
20	-29.115853	153.079003	60.58	2.50	63.08
21	-29.115475	153.079028	56.40	2.50	58.90
22	-29.115481	153.079553	48.27	2.50	50.77
23	-29.115125	153.079589	49.11	2.50	51.61
24	-29.115128	153.080219	57.49	2.50	59.99

Name: PV array 23
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 60.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.115711	153.068300	41.50	2.50	44.00
2	-29.115708	153.077564	41.51	2.50	44.01
3	-29.116775	153.077617	41.78	2.50	44.28
4	-29.116775	153.077372	41.72	2.50	44.22
5	-29.117500	153.077344	41.23	2.50	43.73
6	-29.117500	153.077214	40.70	2.50	43.20
7	-29.117853	153.077178	40.00	2.50	42.50
8	-29.117858	153.077039	40.44	2.50	42.94
9	-29.118383	153.077014	41.50	2.50	44.00
10	-29.118383	153.076644	41.18	2.50	43.68
11	-29.118739	153.076631	40.28	2.50	42.78
12	-29.118739	153.075653	39.12	2.50	41.62
13	-29.119083	153.075622	38.34	2.50	40.84
14	-29.119083	153.072625	39.10	2.50	41.60
15	-29.118736	153.072594	40.48	2.50	42.98
16	-29.118736	153.068858	40.41	2.50	42.91
17	-29.118383	153.068831	42.05	2.50	44.55
18	-29.118383	153.067967	42.40	2.50	44.90
19	-29.116806	153.067970	42.22	2.50	44.72
20	-29.116810	153.068106	42.02	2.50	44.52
21	-29.116053	153.068131	41.65	2.50	44.15
22	-29.116050	153.068272	42.27	2.50	44.77

Name: PV array 3
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 60.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.103158	153.033744	37.67	2.50	40.17
2	-29.103161	153.034311	44.09	2.50	46.59
3	-29.103506	153.034347	49.91	2.50	52.41
4	-29.103506	153.035361	50.39	2.50	52.89
5	-29.103864	153.035389	48.02	2.50	50.52
6	-29.103864	153.035694	46.05	2.50	48.55
7	-29.104236	153.035733	43.39	2.50	45.89
8	-29.104242	153.036075	41.79	2.50	44.29
9	-29.105681	153.036081	43.07	2.50	45.57
10	-29.105678	153.035300	40.37	2.50	42.87
11	-29.105300	153.035261	38.35	2.50	40.85
12	-29.105300	153.033747	38.15	2.50	40.65

Name: PV array 4
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 60.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.100956	153.029697	61.70	2.50	64.20
2	-29.100960	153.033861	52.05	2.50	54.55
3	-29.102319	153.033872	41.22	2.50	43.72
4	-29.102206	153.029711	55.91	2.50	58.41

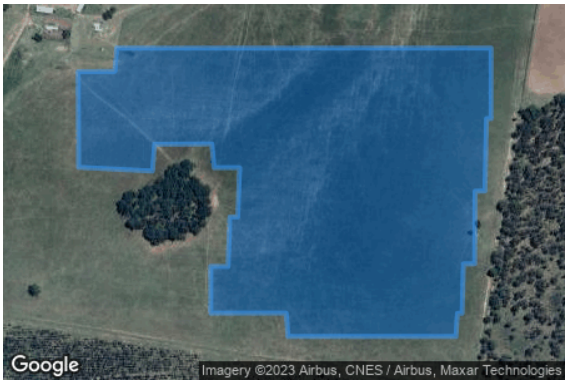
Name: PV array 5
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 60.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.096244	153.020017	63.68	2.50	66.18
2	-29.096258	153.021258	58.95	2.50	61.45
3	-29.096144	153.021281	58.13	2.50	60.63
4	-29.096142	153.022628	52.57	2.50	55.07
5	-29.096497	153.022653	51.62	2.50	54.12
6	-29.096506	153.025769	53.56	2.50	56.06
7	-29.096856	153.025817	52.73	2.50	55.23
8	-29.096858	153.026111	52.97	2.50	55.47
9	-29.097494	153.026317	52.15	2.50	54.65
10	-29.097789	153.027056	53.44	2.50	55.94
11	-29.098275	153.027050	51.11	2.50	53.61
12	-29.098319	153.019792	51.02	2.50	53.52
13	-29.098064	153.019775	50.99	2.50	53.49
14	-29.097667	153.020156	52.49	2.50	54.99
15	-29.097636	153.020281	52.49	2.50	54.99
16	-29.096947	153.020283	54.63	2.50	57.13
17	-29.096931	153.020225	54.40	2.50	56.90
18	-29.096930	153.020225	52.63	2.50	55.13
19	-29.096930	153.020225	56.59	2.50	59.09

Name: PV array 6
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 60.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.098411	153.019708	52.49	2.50	54.99
2	-29.098410	153.022644	54.27	2.50	56.77
3	-29.098453	153.022644	54.17	2.50	56.67
4	-29.098453	153.025644	52.52	2.50	55.02
5	-29.098406	153.025644	52.52	2.50	55.02
6	-29.098410	153.026583	50.97	2.50	53.47
7	-29.098456	153.026583	50.96	2.50	53.46
8	-29.098460	153.028092	50.98	2.50	53.48
9	-29.098806	153.028111	49.50	2.50	52.00
10	-29.098814	153.028110	49.50	2.50	52.00
11	-29.100568	153.028106	43.03	2.50	45.53
12	-29.100578	153.028090	43.04	2.50	45.54
13	-29.100586	153.028083	43.04	2.50	45.54
14	-29.100586	153.024706	46.96	2.50	49.46
15	-29.100236	153.024675	47.84	2.50	50.34
16	-29.100236	153.024317	47.76	2.50	50.26
17	-29.099511	153.024286	51.07	2.50	53.57
18	-29.099503	153.021261	52.06	2.50	54.56
19	-29.099153	153.021256	51.64	2.50	54.14
20	-29.099147	153.019714	53.21	2.50	55.71

Name: PV array 7
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 60.0°
Ground Coverage Ratio: 0.35
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.102553	153.036561	61.89	2.50	64.39
2	-29.102550	153.037192	57.69	2.50	60.19
3	-29.102203	153.037222	56.56	2.50	59.06
4	-29.102200	153.043656	57.79	2.50	60.29
5	-29.103258	153.043656	59.96	2.50	62.46
6	-29.103258	153.043578	60.09	2.50	62.59
7	-29.104339	153.043550	61.32	2.50	63.82
8	-29.104344	153.043381	63.82	2.50	66.32
9	-29.105428	153.043375	64.55	2.50	67.05
10	-29.105430	153.043181	65.16	2.50	67.66
11	-29.106169	153.043158	66.84	2.50	69.34
12	-29.106170	153.043078	69.07	2.50	71.57
13	-29.106517	153.043053	71.34	2.50	73.84
14	-29.106517	153.040167	72.19	2.50	74.69
15	-29.106167	153.040136	70.00	2.50	72.50
16	-29.106167	153.038839	69.02	2.50	71.52
17	-29.105467	153.038839	69.78	2.50	72.28
18	-29.105470	153.039136	74.83	2.50	77.33
19	-29.104728	153.039169	75.24	2.50	77.74
20	-29.104728	153.039303	72.87	2.50	75.37
21	-29.103992	153.039336	67.81	2.50	70.31
22	-29.103990	153.038897	63.04	2.50	65.54
23	-29.103636	153.038858	60.65	2.50	63.15
24	-29.103640	153.037875	61.34	2.50	63.84
25	-29.104042	153.037839	65.75	2.50	68.25
26	-29.103986	153.036569	63.73	2.50	66.23

Name: PV array 8
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 60.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.092536	153.034539	49.37	2.50	51.87
2	-29.092539	153.034797	46.57	2.50	49.07
3	-29.091453	153.034833	44.03	2.50	46.53
4	-29.091453	153.034972	42.10	2.50	44.60
5	-29.091078	153.034981	41.53	2.50	44.03
6	-29.091078	153.035514	38.85	2.50	41.35
7	-29.091175	153.035525	37.65	2.50	40.15
8	-29.091308	153.036322	36.36	2.50	38.86
9	-29.092222	153.043542	34.71	2.50	37.21
10	-29.092350	153.043533	33.71	2.50	36.21
11	-29.092544	153.045875	34.18	2.50	36.68
12	-29.092803	153.045858	35.67	2.50	38.17
13	-29.092858	153.048208	36.30	2.50	38.80
14	-29.093097	153.049672	36.65	2.50	39.15
15	-29.093600	153.049675	36.09	2.50	38.59
16	-29.093600	153.034550	36.90	2.50	39.40
17	-29.093600	153.034550	38.56	2.50	41.06
18	-29.093600	153.034550	40.09	2.50	42.59
19	-29.093600	153.034550	43.30	2.50	45.80
20	-29.093600	153.034550	46.85	2.50	49.35
21	-29.093600	153.034550	50.12	2.50	52.62
22	-29.093600	153.034550	50.80	2.50	53.30

Name: PV array 9
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 0.0°
Max tracking angle: 60.0°
Resting angle: 60.0°
Ground Coverage Ratio: 0.44
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.093742	153.034075	47.59	2.50	50.09
2	-29.093742	153.047911	29.17	2.50	31.67
3	-29.093636	153.047906	29.32	2.50	31.82
4	-29.093640	153.047924	29.32	2.50	31.82
5	-29.094433	153.049239	29.11	2.50	31.61
6	-29.094433	153.049097	29.00	2.50	31.50
7	-29.094797	153.049075	29.37	2.50	31.87
8	-29.094797	153.048883	29.37	2.50	31.87
9	-29.095178	153.048853	29.93	2.50	32.43
10	-29.095178	153.048714	29.93	2.50	32.43
11	-29.095531	153.048686	29.56	2.50	32.06
12	-29.095533	153.048492	29.56	2.50	32.06
13	-29.095894	153.048458	29.04	2.50	31.54
14	-29.095890	153.034044	50.01	2.50	52.51

Route Receptors

Name: Avenue Road
Path type: Two-way
Observer view angle: 50.0°

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.104310	153.008342	42.58	2.40	44.98
2	-29.100917	153.012869	48.57	2.40	50.97
3	-29.099510	153.019414	55.62	2.40	58.02
4	-29.101310	153.026194	44.13	2.40	46.53
5	-29.100501	153.029799	39.40	2.40	41.80
6	-29.100182	153.033833	38.23	2.40	40.63
7	-29.099919	153.034691	38.36	2.40	40.76
8	-29.099619	153.036214	38.31	2.40	40.71
9	-29.099788	153.037373	38.57	2.40	40.97
10	-29.098748	153.043470	32.00	2.40	34.40
11	-29.096820	153.048507	29.92	2.40	32.32
12	-29.092638	153.050803	31.00	2.40	33.40
13	-29.089901	153.051575	41.28	2.40	43.68
14	-29.088341	153.054683	47.04	2.40	49.44
15	-29.087047	153.056636	55.63	2.40	58.03
16	-29.086241	153.058610	59.01	2.40	61.41
17	-29.084685	153.059683	59.79	2.40	62.19

Name: Main Camp Road
Path type: Two-way
Observer view angle: 50.0°

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.130769	153.064031	35.05	2.40	37.45
2	-29.130881	153.067035	33.07	2.40	35.47
3	-29.130450	153.072142	26.52	2.40	28.92
4	-29.129644	153.084169	26.00	2.40	28.40

Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (m)	Height (m)
OP 1	1	-29.098436	153.005919	57.00	1.50
OP 2	2	-29.098614	153.005617	58.18	1.50
OP 3	3	-29.098942	153.009817	58.46	1.50
OP 4	4	-29.104081	153.007164	43.97	1.50
OP 5	5	-29.105522	153.007317	42.09	1.50
OP 6	6	-29.104364	153.005417	45.19	1.50
OP 7	7	-29.105019	153.006536	45.10	1.50
OP 8	8	-29.117603	153.001347	38.65	1.50
OP 9	9	-29.083078	153.055558	73.37	1.50
OP 10	10	-29.076967	153.057103	64.26	1.50
OP 11	11	-29.080647	153.066289	49.73	1.50
OP 12	12	-29.083183	153.068906	49.76	1.50
OP 13	13	-29.080508	153.075694	58.03	1.50
OP 14	14	-29.072514	153.073319	58.38	1.50
OP 15	15	-29.079144	153.061150	62.76	1.50
OP 16	16	-29.084792	153.057350	64.28	1.50
OP 17	17	-29.087883	153.058739	46.82	1.50
OP 18	18	-29.081653	153.067194	53.77	1.50
OP 19	19	-29.085114	153.060258	60.28	1.50
OP 20	20	-29.090203	153.055103	40.01	1.50
OP 21	21	-29.106228	153.101144	34.31	1.50
OP 22	22	-29.084800	153.063742	69.22	1.50
OP 23	23	-29.084386	153.065572	66.41	1.50
OP 24	24	-29.084969	153.068331	50.01	1.50
OP 25	25	-29.081494	153.054019	74.64	1.50
OP 26	26	-29.131783	153.064194	34.19	1.50
OP 27	27	-29.132158	153.065619	34.34	1.50
OP 28	28	-29.131331	153.065711	36.18	1.50
OP 29	29	-29.138036	153.099008	43.00	1.50
OP 30	30	-29.134267	153.099875	41.44	1.50
OP 31	31	-29.138078	153.100536	38.27	1.50
OP 32	32	-29.132817	153.101467	42.08	1.50
OP 33	33	-29.134686	153.059939	31.67	1.50

Glare Analysis Results

Summary of Results

Glare with potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV array 1	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 10	SA tracking	SA tracking	39,012	650.2	5,637	94.0	-
PV array 15	SA tracking	SA tracking	584	9.7	127	2.1	-
PV array 16	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 17	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 18	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 19	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 2	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 20	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 21	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 22	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 23	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 3	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 4	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 5	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 6	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 7	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 8	SA tracking	SA tracking	4,334	72.2	19	0.3	-
PV array 9	SA tracking	SA tracking	0	0.0	0	0.0	-

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Avenue Road	25,082	418.0	5,656	94.3
Main Camp Road	1,029	17.1	127	2.1

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	261	4.3	0	0.0
OP 10	57	0.9	0	0.0
OP 11	278	4.6	0	0.0
OP 12	271	4.5	0	0.0
OP 13	284	4.7	0	0.0
OP 14	144	2.4	0	0.0
OP 15	148	2.5	0	0.0
OP 16	488	8.1	0	0.0
OP 17	123	2.0	0	0.0
OP 18	300	5.0	0	0.0
OP 19	306	5.1	0	0.0
OP 20	0	0.0	0	0.0
OP 21	297	5.0	0	0.0
OP 22	290	4.8	0	0.0
OP 23	280	4.7	0	0.0
OP 24	185	3.1	0	0.0
OP 25	55	0.9	0	0.0
OP 26	3,776	62.9	0	0.0
OP 27	3,102	51.7	0	0.0
OP 28	2,946	49.1	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	4,228	70.5	0	0.0

PV: PV array 1 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 1 and Route: Avenue Road

No glare found

PV array 1 and Route: Main Camp Road

No glare found

PV array 1 and OP 1

No glare found

PV array 1 and OP 2

No glare found

PV array 1 and OP 3

No glare found

PV array 1 and OP 4

No glare found

PV array 1 and OP 5

No glare found

PV array 1 and OP 6

No glare found

PV array 1 and OP 7

No glare found

PV array 1 and OP 8

No glare found

PV array 1 and OP 9

No glare found

PV array 1 and OP 10

No glare found

PV array 1 and OP 11

No glare found

PV array 1 and OP 12

No glare found

PV array 1 and OP 13

No glare found

PV array 1 and OP 14

No glare found

PV array 1 and OP 15

No glare found

PV array 1 and OP 16

No glare found

PV array 1 and OP 17

No glare found

PV array 1 and OP 18

No glare found

PV array 1 and OP 19

No glare found

PV array 1 and OP 20

No glare found

PV array 1 and OP 21

No glare found

PV array 1 and OP 22

No glare found

PV array 1 and OP 23

No glare found

PV array 1 and OP 24

No glare found

PV array 1 and OP 25

No glare found

PV array 1 and OP 26

No glare found

PV array 1 and OP 27

No glare found

PV array 1 and OP 28

No glare found

PV array 1 and OP 29

No glare found

PV array 1 and OP 30

No glare found

PV array 1 and OP 31

No glare found

PV array 1 and OP 32

No glare found

PV array 1 and OP 33

No glare found

PV: PV array 10 potential temporary after-image

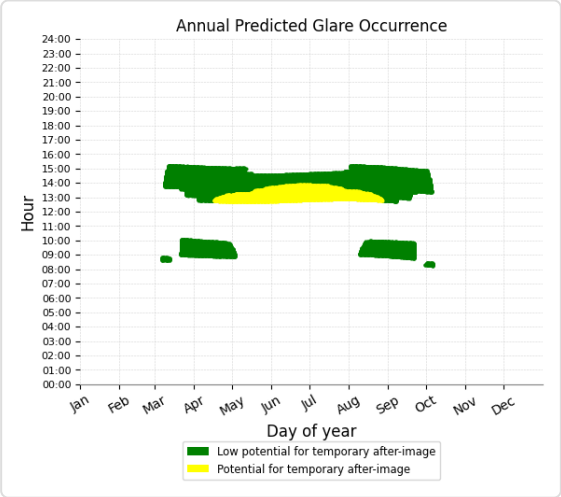
Receptor results ordered by category of glare

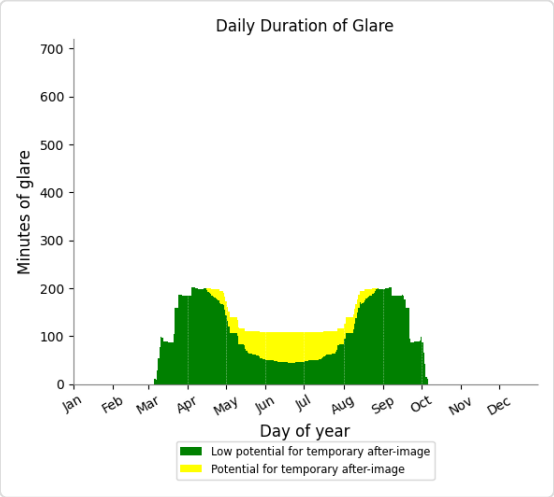
Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	24,218	403.6	5,637	94.0
Main Camp Road	742	12.4	0	0.0
OP 26	3,776	62.9	0	0.0
OP 27	3,102	51.7	0	0.0
OP 28	2,946	49.1	0	0.0
OP 33	4,228	70.5	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0

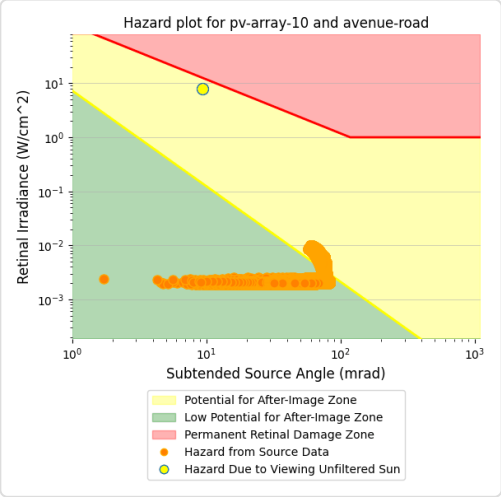
PV array 10 and Route: Avenue Road

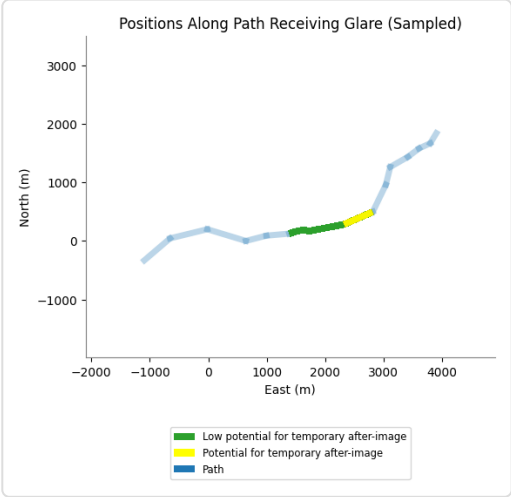
Yellow glare: 5,637 min.

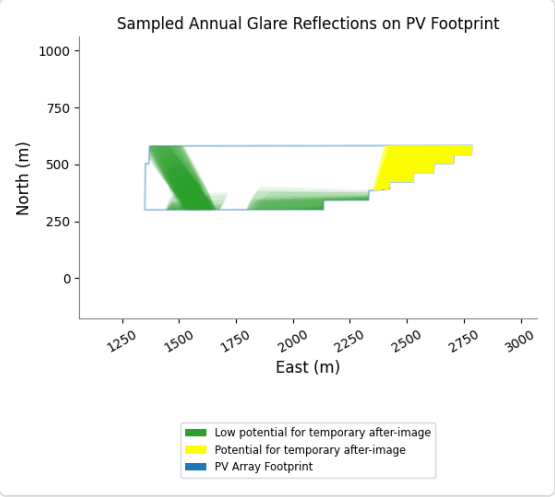
Green glare: 24,218 min.







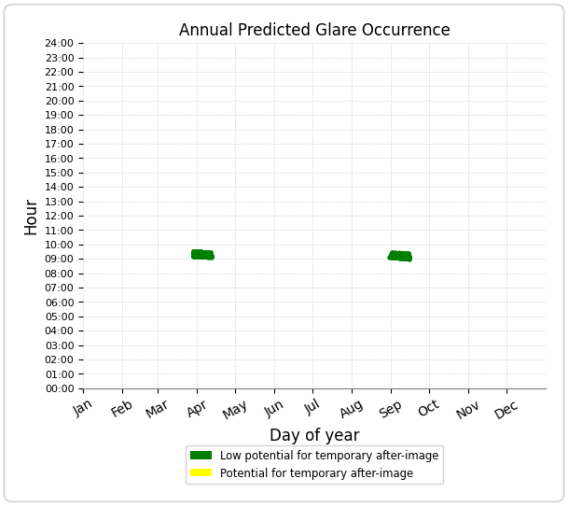


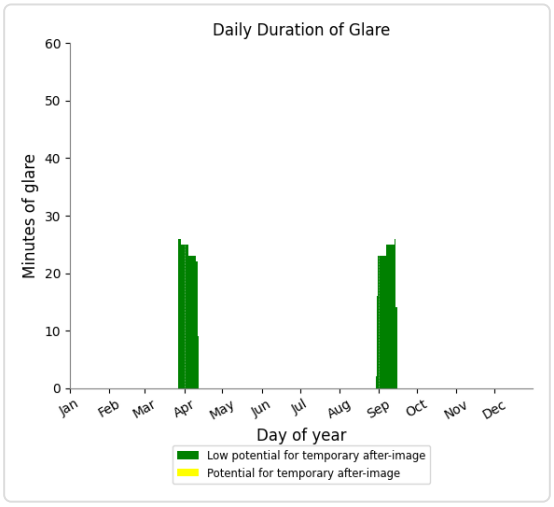


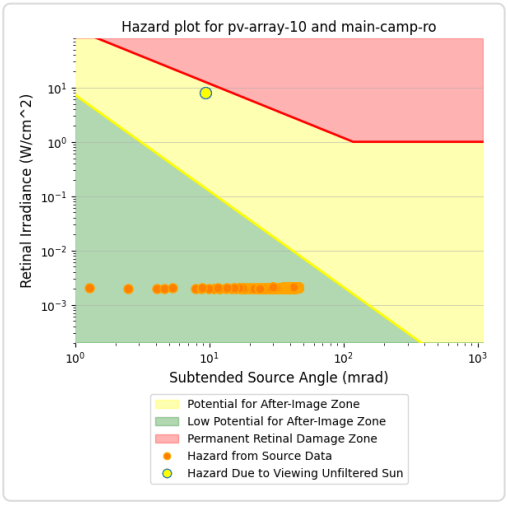
PV array 10 and Route: Main Camp Road

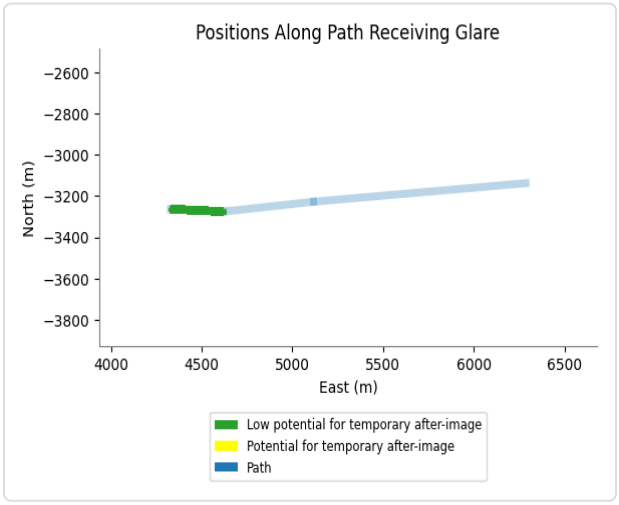
Yellow glare: none

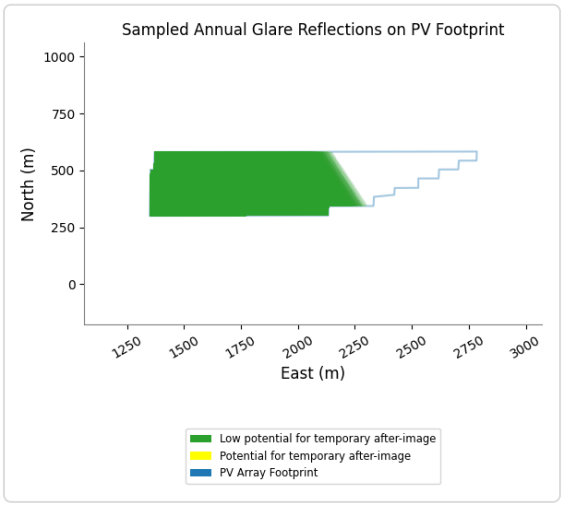
Green glare: 742 min.







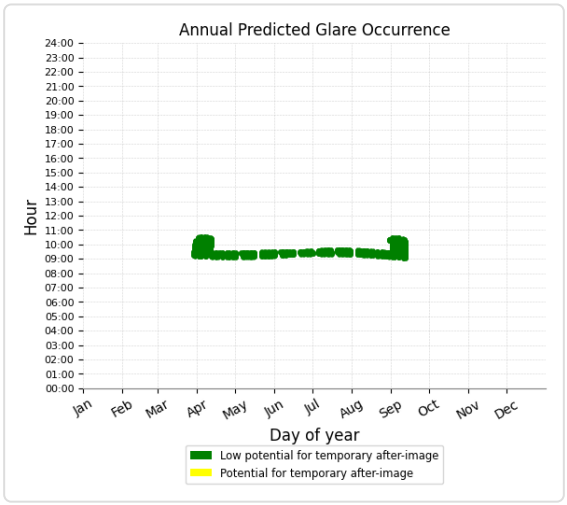


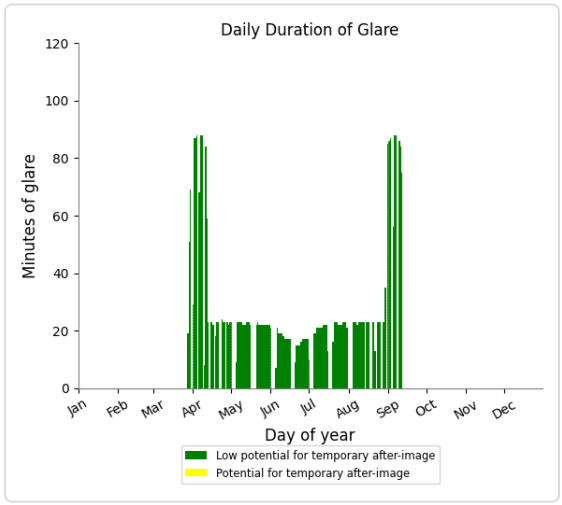


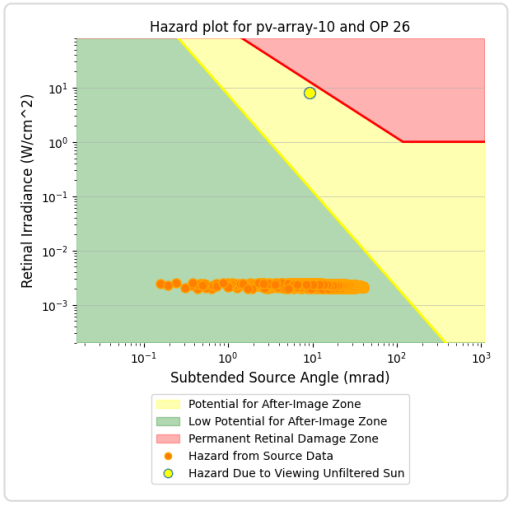
PV array 10 and OP 26

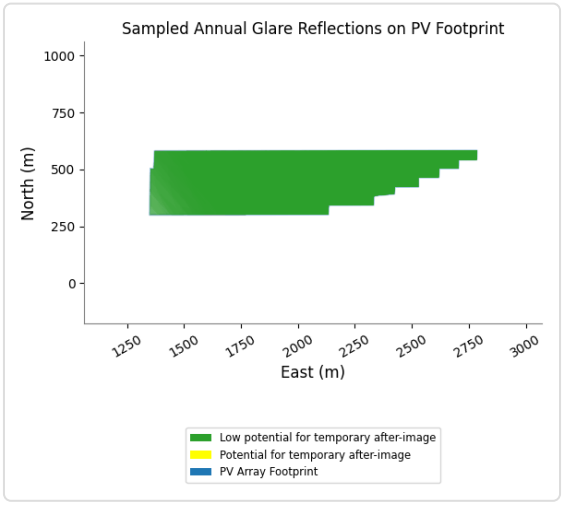
Yellow glare: none

Green glare: 3,776 min.





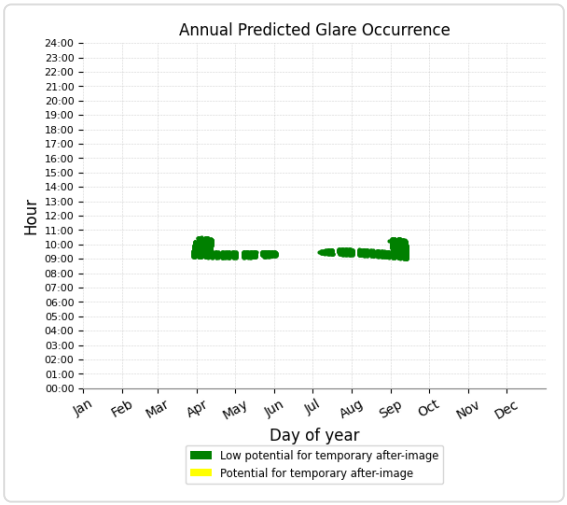


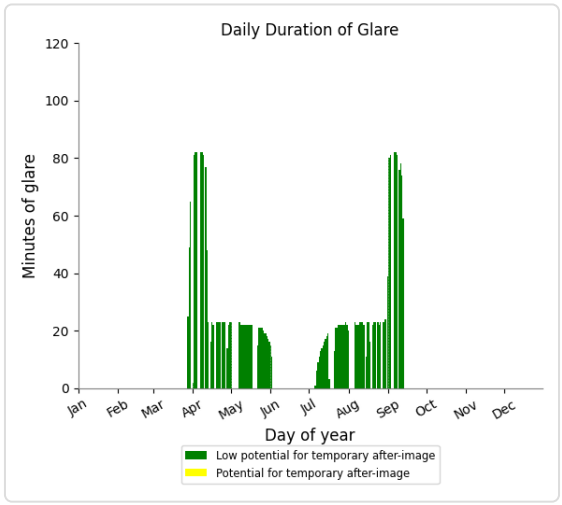


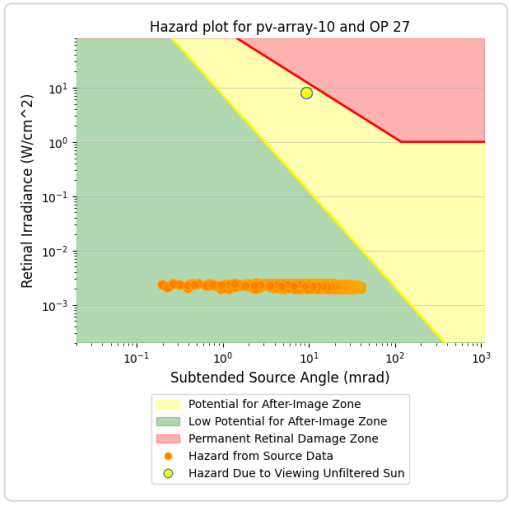
PV array 10 and OP 27

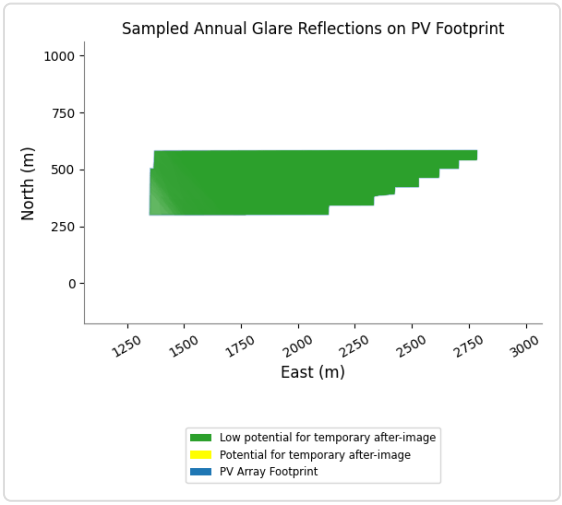
Yellow glare: none

Green glare: 3,102 min.





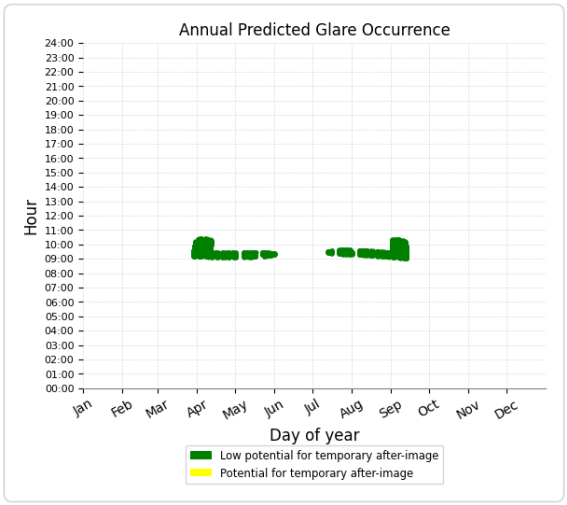


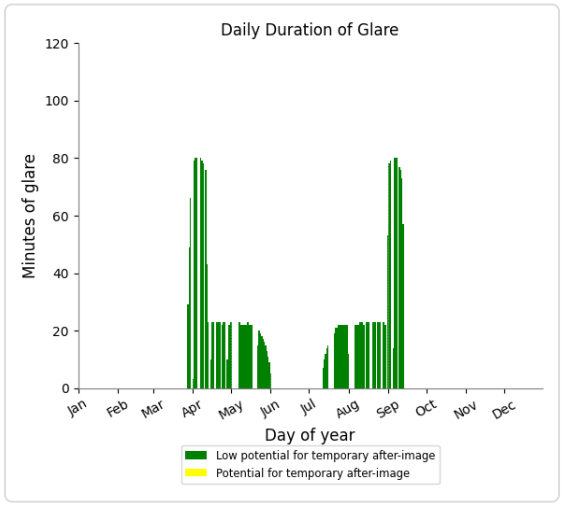


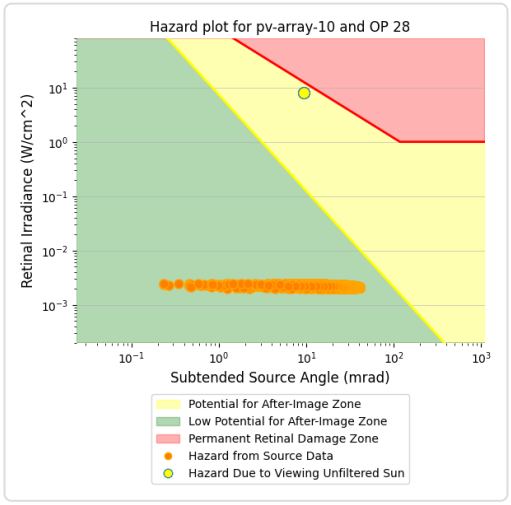
PV array 10 and OP 28

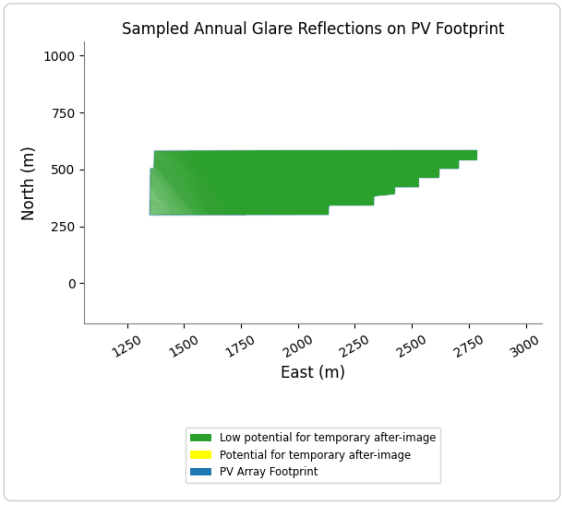
Yellow glare: none

Green glare: 2,946 min.





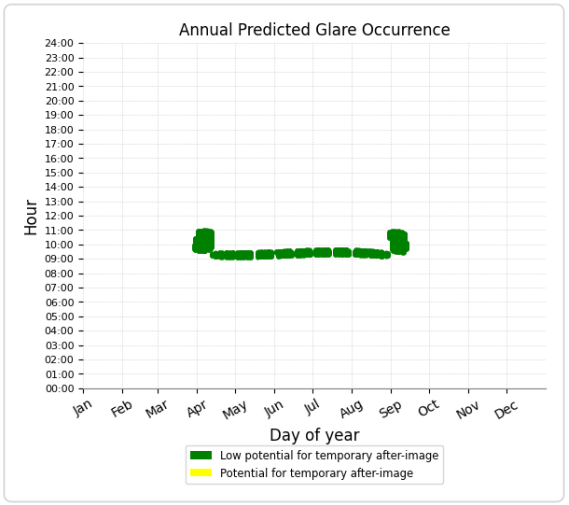


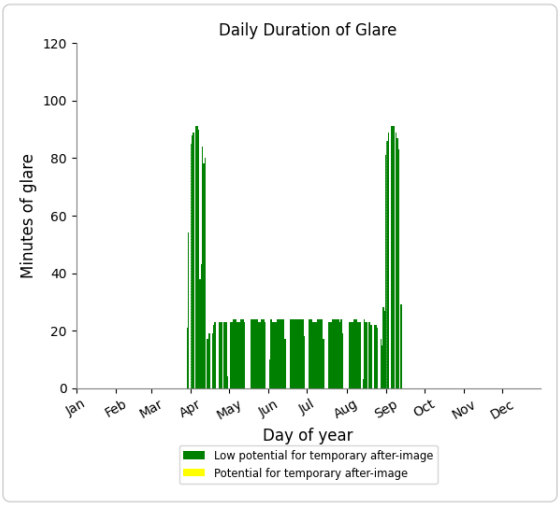


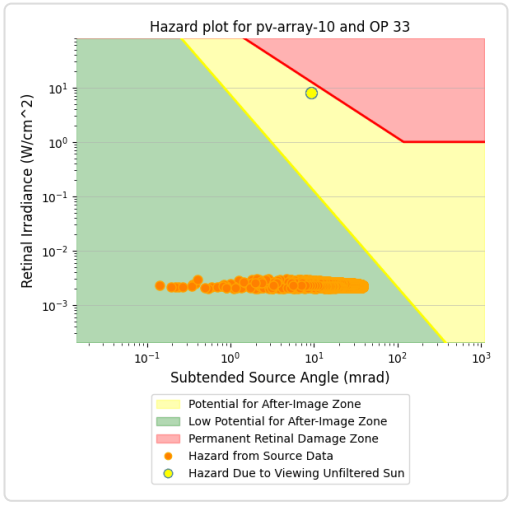
PV array 10 and OP 33

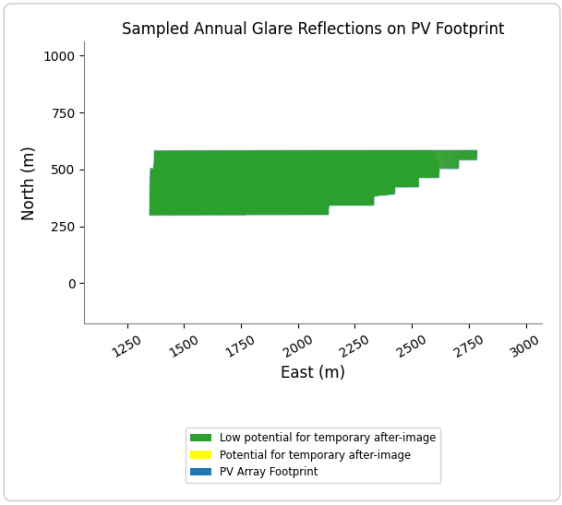
Yellow glare: none

Green glare: 4,228 min.









PV array 10 and OP 1

No glare found

PV array 10 and OP 2

No glare found

PV array 10 and OP 3

No glare found

PV array 10 and OP 4

No glare found

PV array 10 and OP 5

No glare found

PV array 10 and OP 6

No glare found

PV array 10 and OP 7

No glare found

PV array 10 and OP 8

No glare found

PV array 10 and OP 9

No glare found

PV array 10 and OP 10

No glare found

PV array 10 and OP 11

No glare found

PV array 10 and OP 12

No glare found

PV array 10 and OP 13

No glare found

PV array 10 and OP 14

No glare found

PV array 10 and OP 15

No glare found

PV array 10 and OP 16

No glare found

PV array 10 and OP 17

No glare found

PV array 10 and OP 18

No glare found

PV array 10 and OP 19

No glare found

PV array 10 and OP 20

No glare found

PV array 10 and OP 21

No glare found

PV array 10 and OP 22

No glare found

PV array 10 and OP 23

No glare found

PV array 10 and OP 24

No glare found

PV array 10 and OP 25

No glare found

PV array 10 and OP 29

No glare found

PV array 10 and OP 30

No glare found

PV array 10 and OP 31

No glare found

PV array 10 and OP 32

No glare found

PV: PV array 15 potential temporary after-image

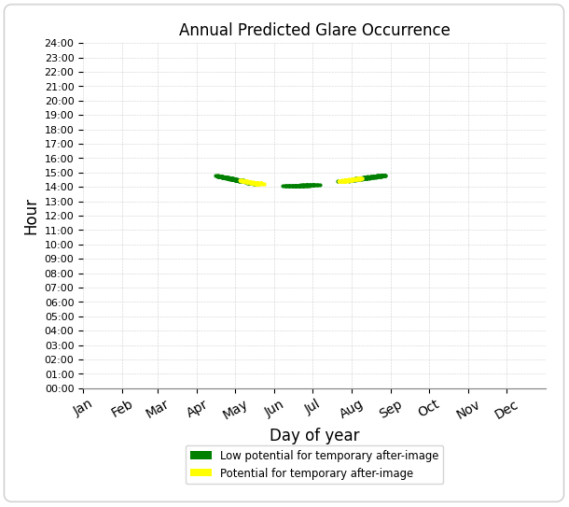
Receptor results ordered by category of glare

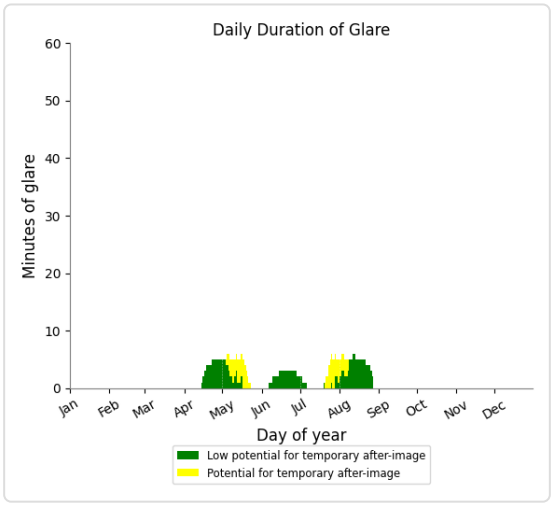
Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Main Camp Road	287	4.8	127	2.1
Avenue Road	0	0.0	0	0.0
OP 21	297	5.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

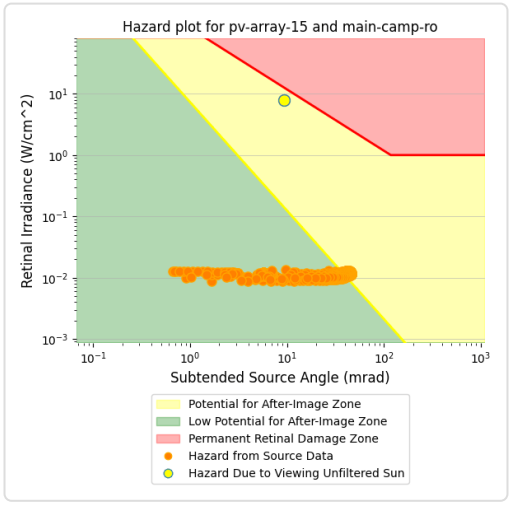
PV array 15 and Route: Main Camp Road

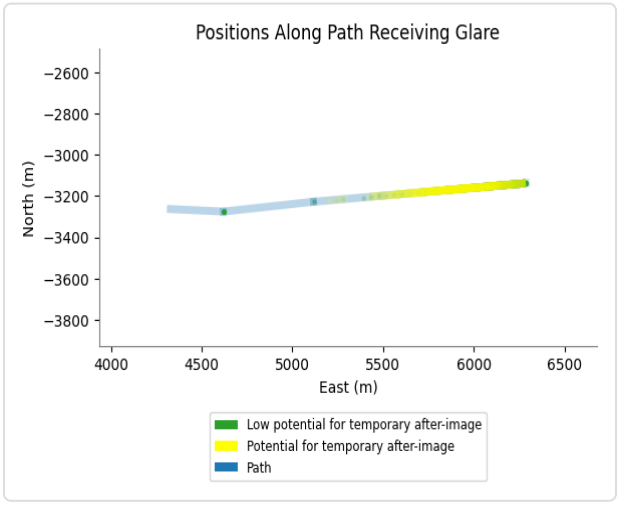
Yellow glare: 127 min.

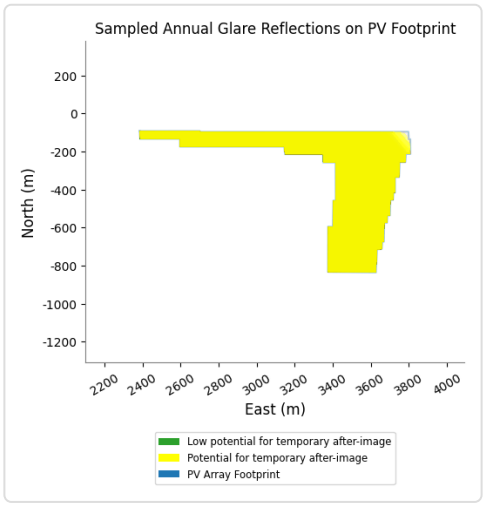
Green glare: 287 min.











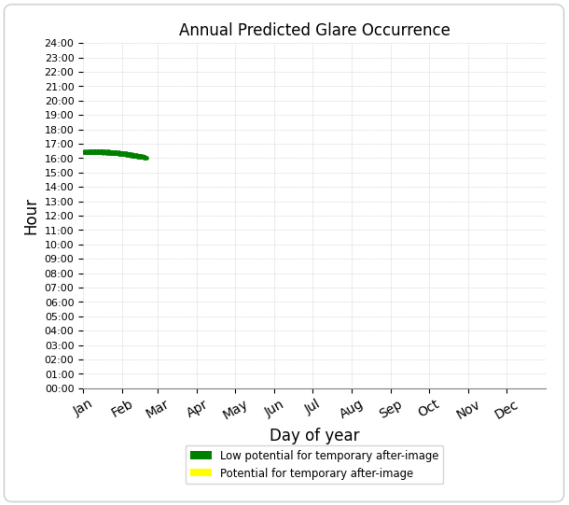
PV array 15 and Route: Avenue Road

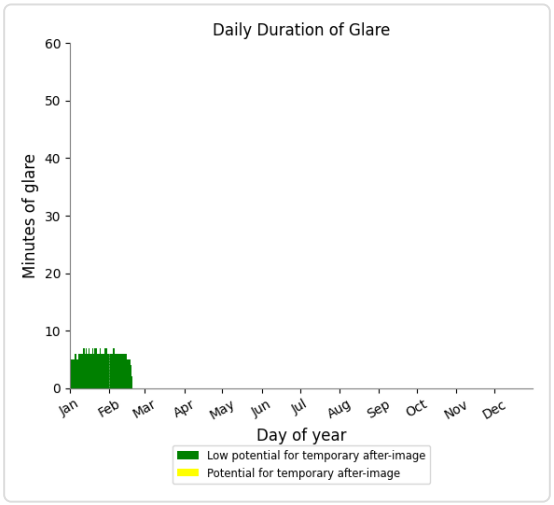
No glare found

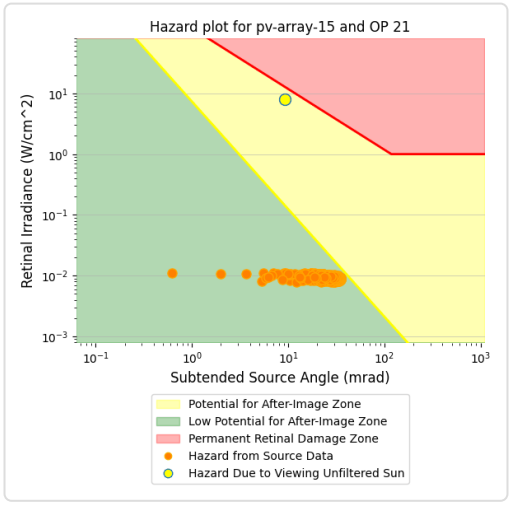
PV array 15 and OP 21

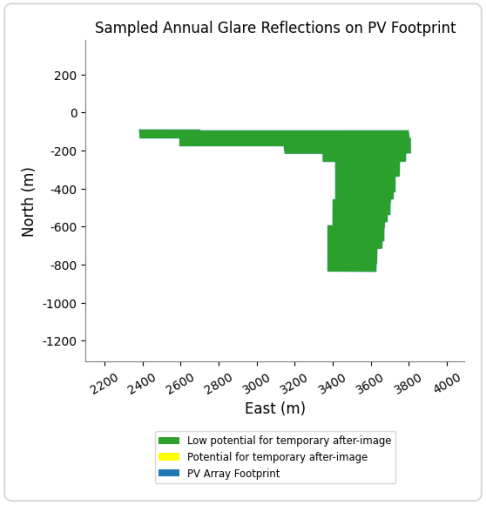
Yellow glare: none

Green glare: 297 min.









PV array 15 and OP 1

No glare found

PV array 15 and OP 2

No glare found

PV array 15 and OP 3

No glare found

PV array 15 and OP 4

No glare found

PV array 15 and OP 5

No glare found

PV array 15 and OP 6

No glare found

PV array 15 and OP 7

No glare found

PV array 15 and OP 8

No glare found

PV array 15 and OP 9

No glare found

PV array 15 and OP 10

No glare found

PV array 15 and OP 11

No glare found

PV array 15 and OP 12

No glare found

PV array 15 and OP 13

No glare found

PV array 15 and OP 14

No glare found

PV array 15 and OP 15

No glare found

PV array 15 and OP 16

No glare found

PV array 15 and OP 17

No glare found

PV array 15 and OP 18

No glare found

PV array 15 and OP 19

No glare found

PV array 15 and OP 20

No glare found

PV array 15 and OP 22

No glare found

PV array 15 and OP 23

No glare found

PV array 15 and OP 24

No glare found

PV array 15 and OP 25

No glare found

PV array 15 and OP 26

No glare found

PV array 15 and OP 27

No glare found

PV array 15 and OP 28

No glare found

PV array 15 and OP 29

No glare found

PV array 15 and OP 30

No glare found

PV array 15 and OP 31

No glare found

PV array 15 and OP 32

No glare found

PV array 15 and OP 33

No glare found

PV: PV array 16 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 16 and Route: Avenue Road

No glare found

PV array 16 and Route: Main Camp Road

No glare found

PV array 16 and OP 1

No glare found

PV array 16 and OP 2

No glare found

PV array 16 and OP 3

No glare found

PV array 16 and OP 4

No glare found

PV array 16 and OP 5

No glare found

PV array 16 and OP 6

No glare found

PV array 16 and OP 7

No glare found

PV array 16 and OP 8

No glare found

PV array 16 and OP 9

No glare found

PV array 16 and OP 10

No glare found

PV array 16 and OP 11

No glare found

PV array 16 and OP 12

No glare found

PV array 16 and OP 13

No glare found

PV array 16 and OP 14

No glare found

PV array 16 and OP 15

No glare found

PV array 16 and OP 16

No glare found

PV array 16 and OP 17

No glare found

PV array 16 and OP 18

No glare found

PV array 16 and OP 19

No glare found

PV array 16 and OP 20

No glare found

PV array 16 and OP 21

No glare found

PV array 16 and OP 22

No glare found

PV array 16 and OP 23

No glare found

PV array 16 and OP 24

No glare found

PV array 16 and OP 25

No glare found

PV array 16 and OP 26

No glare found

PV array 16 and OP 27

No glare found

PV array 16 and OP 28

No glare found

PV array 16 and OP 29

No glare found

PV array 16 and OP 30

No glare found

PV array 16 and OP 31

No glare found

PV array 16 and OP 32

No glare found

PV array 16 and OP 33

No glare found

PV: PV array 17 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 17 and Route: Avenue Road

No glare found

PV array 17 and Route: Main Camp Road

No glare found

PV array 17 and OP 1

No glare found

PV array 17 and OP 2

No glare found

PV array 17 and OP 3

No glare found

PV array 17 and OP 4

No glare found

PV array 17 and OP 5

No glare found

PV array 17 and OP 6

No glare found

PV array 17 and OP 7

No glare found

PV array 17 and OP 8

No glare found

PV array 17 and OP 9

No glare found

PV array 17 and OP 10

No glare found

PV array 17 and OP 11

No glare found

PV array 17 and OP 12

No glare found

PV array 17 and OP 13

No glare found

PV array 17 and OP 14

No glare found

PV array 17 and OP 15

No glare found

PV array 17 and OP 16

No glare found

PV array 17 and OP 17

No glare found

PV array 17 and OP 18

No glare found

PV array 17 and OP 19

No glare found

PV array 17 and OP 20

No glare found

PV array 17 and OP 21

No glare found

PV array 17 and OP 22

No glare found

PV array 17 and OP 23

No glare found

PV array 17 and OP 24

No glare found

PV array 17 and OP 25

No glare found

PV array 17 and OP 26

No glare found

PV array 17 and OP 27

No glare found

PV array 17 and OP 28

No glare found

PV array 17 and OP 29

No glare found

PV array 17 and OP 30

No glare found

PV array 17 and OP 31

No glare found

PV array 17 and OP 32

No glare found

PV array 17 and OP 33

No glare found

PV: PV array 18 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 18 and Route: Avenue Road

No glare found

PV array 18 and Route: Main Camp Road

No glare found

PV array 18 and OP 1

No glare found

PV array 18 and OP 2

No glare found

PV array 18 and OP 3

No glare found

PV array 18 and OP 4

No glare found

PV array 18 and OP 5

No glare found

PV array 18 and OP 6

No glare found

PV array 18 and OP 7

No glare found

PV array 18 and OP 8

No glare found

PV array 18 and OP 9

No glare found

PV array 18 and OP 10

No glare found

PV array 18 and OP 11

No glare found

PV array 18 and OP 12

No glare found

PV array 18 and OP 13

No glare found

PV array 18 and OP 14

No glare found

PV array 18 and OP 15

No glare found

PV array 18 and OP 16

No glare found

PV array 18 and OP 17

No glare found

PV array 18 and OP 18

No glare found

PV array 18 and OP 19

No glare found

PV array 18 and OP 20

No glare found

PV array 18 and OP 21

No glare found

PV array 18 and OP 22

No glare found

PV array 18 and OP 23

No glare found

PV array 18 and OP 24

No glare found

PV array 18 and OP 25

No glare found

PV array 18 and OP 26

No glare found

PV array 18 and OP 27

No glare found

PV array 18 and OP 28

No glare found

PV array 18 and OP 29

No glare found

PV array 18 and OP 30

No glare found

PV array 18 and OP 31

No glare found

PV array 18 and OP 32

No glare found

PV array 18 and OP 33

No glare found

PV: PV array 19 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 19 and Route: Avenue Road

No glare found

PV array 19 and Route: Main Camp Road

No glare found

PV array 19 and OP 1

No glare found

PV array 19 and OP 2

No glare found

PV array 19 and OP 3

No glare found

PV array 19 and OP 4

No glare found

PV array 19 and OP 5

No glare found

PV array 19 and OP 6

No glare found

PV array 19 and OP 7

No glare found

PV array 19 and OP 8

No glare found

PV array 19 and OP 9

No glare found

PV array 19 and OP 10

No glare found

PV array 19 and OP 11

No glare found

PV array 19 and OP 12

No glare found

PV array 19 and OP 13

No glare found

PV array 19 and OP 14

No glare found

PV array 19 and OP 15

No glare found

PV array 19 and OP 16

No glare found

PV array 19 and OP 17

No glare found

PV array 19 and OP 18

No glare found

PV array 19 and OP 19

No glare found

PV array 19 and OP 20

No glare found

PV array 19 and OP 21

No glare found

PV array 19 and OP 22

No glare found

PV array 19 and OP 23

No glare found

PV array 19 and OP 24

No glare found

PV array 19 and OP 25

No glare found

PV array 19 and OP 26

No glare found

PV array 19 and OP 27

No glare found

PV array 19 and OP 28

No glare found

PV array 19 and OP 29

No glare found

PV array 19 and OP 30

No glare found

PV array 19 and OP 31

No glare found

PV array 19 and OP 32

No glare found

PV array 19 and OP 33

No glare found

PV: PV array 2 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 2 and Route: Avenue Road

No glare found

PV array 2 and Route: Main Camp Road

No glare found

PV array 2 and OP 1

No glare found

PV array 2 and OP 2

No glare found

PV array 2 and OP 3

No glare found

PV array 2 and OP 4

No glare found

PV array 2 and OP 5

No glare found

PV array 2 and OP 6

No glare found

PV array 2 and OP 7

No glare found

PV array 2 and OP 8

No glare found

PV array 2 and OP 9

No glare found

PV array 2 and OP 10

No glare found

PV array 2 and OP 11

No glare found

PV array 2 and OP 12

No glare found

PV array 2 and OP 13

No glare found

PV array 2 and OP 14

No glare found

PV array 2 and OP 15

No glare found

PV array 2 and OP 16

No glare found

PV array 2 and OP 17

No glare found

PV array 2 and OP 18

No glare found

PV array 2 and OP 19

No glare found

PV array 2 and OP 20

No glare found

PV array 2 and OP 21

No glare found

PV array 2 and OP 22

No glare found

PV array 2 and OP 23

No glare found

PV array 2 and OP 24

No glare found

PV array 2 and OP 25

No glare found

PV array 2 and OP 26

No glare found

PV array 2 and OP 27

No glare found

PV array 2 and OP 28

No glare found

PV array 2 and OP 29

No glare found

PV array 2 and OP 30

No glare found

PV array 2 and OP 31

No glare found

PV array 2 and OP 32

No glare found

PV array 2 and OP 33

No glare found

PV: PV array 20 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 20 and Route: Avenue Road

No glare found

PV array 20 and Route: Main Camp Road

No glare found

PV array 20 and OP 1

No glare found

PV array 20 and OP 2

No glare found

PV array 20 and OP 3

No glare found

PV array 20 and OP 4

No glare found

PV array 20 and OP 5

No glare found

PV array 20 and OP 6

No glare found

PV array 20 and OP 7

No glare found

PV array 20 and OP 8

No glare found

PV array 20 and OP 9

No glare found

PV array 20 and OP 10

No glare found

PV array 20 and OP 11

No glare found

PV array 20 and OP 12

No glare found

PV array 20 and OP 13

No glare found

PV array 20 and OP 14

No glare found

PV array 20 and OP 15

No glare found

PV array 20 and OP 16

No glare found

PV array 20 and OP 17

No glare found

PV array 20 and OP 18

No glare found

PV array 20 and OP 19

No glare found

PV array 20 and OP 20

No glare found

PV array 20 and OP 21

No glare found

PV array 20 and OP 22

No glare found

PV array 20 and OP 23

No glare found

PV array 20 and OP 24

No glare found

PV array 20 and OP 25

No glare found

PV array 20 and OP 26

No glare found

PV array 20 and OP 27

No glare found

PV array 20 and OP 28

No glare found

PV array 20 and OP 29

No glare found

PV array 20 and OP 30

No glare found

PV array 20 and OP 31

No glare found

PV array 20 and OP 32

No glare found

PV array 20 and OP 33

No glare found

PV: PV array 21 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 21 and Route: Avenue Road

No glare found

PV array 21 and Route: Main Camp Road

No glare found

PV array 21 and OP 1

No glare found

PV array 21 and OP 2

No glare found

PV array 21 and OP 3

No glare found

PV array 21 and OP 4

No glare found

PV array 21 and OP 5

No glare found

PV array 21 and OP 6

No glare found

PV array 21 and OP 7

No glare found

PV array 21 and OP 8

No glare found

PV array 21 and OP 9

No glare found

PV array 21 and OP 10

No glare found

PV array 21 and OP 11

No glare found

PV array 21 and OP 12

No glare found

PV array 21 and OP 13

No glare found

PV array 21 and OP 14

No glare found

PV array 21 and OP 15

No glare found

PV array 21 and OP 16

No glare found

PV array 21 and OP 17

No glare found

PV array 21 and OP 18

No glare found

PV array 21 and OP 19

No glare found

PV array 21 and OP 20

No glare found

PV array 21 and OP 21

No glare found

PV array 21 and OP 22

No glare found

PV array 21 and OP 23

No glare found

PV array 21 and OP 24

No glare found

PV array 21 and OP 25

No glare found

PV array 21 and OP 26

No glare found

PV array 21 and OP 27

No glare found

PV array 21 and OP 28

No glare found

PV array 21 and OP 29

No glare found

PV array 21 and OP 30

No glare found

PV array 21 and OP 31

No glare found

PV array 21 and OP 32

No glare found

PV array 21 and OP 33

No glare found

PV: PV array 22 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 22 and Route: Avenue Road

No glare found

PV array 22 and Route: Main Camp Road

No glare found

PV array 22 and OP 1

No glare found

PV array 22 and OP 2

No glare found

PV array 22 and OP 3

No glare found

PV array 22 and OP 4

No glare found

PV array 22 and OP 5

No glare found

PV array 22 and OP 6

No glare found

PV array 22 and OP 7

No glare found

PV array 22 and OP 8

No glare found

PV array 22 and OP 9

No glare found

PV array 22 and OP 10

No glare found

PV array 22 and OP 11

No glare found

PV array 22 and OP 12

No glare found

PV array 22 and OP 13

No glare found

PV array 22 and OP 14

No glare found

PV array 22 and OP 15

No glare found

PV array 22 and OP 16

No glare found

PV array 22 and OP 17

No glare found

PV array 22 and OP 18

No glare found

PV array 22 and OP 19

No glare found

PV array 22 and OP 20

No glare found

PV array 22 and OP 21

No glare found

PV array 22 and OP 22

No glare found

PV array 22 and OP 23

No glare found

PV array 22 and OP 24

No glare found

PV array 22 and OP 25

No glare found

PV array 22 and OP 26

No glare found

PV array 22 and OP 27

No glare found

PV array 22 and OP 28

No glare found

PV array 22 and OP 29

No glare found

PV array 22 and OP 30

No glare found

PV array 22 and OP 31

No glare found

PV array 22 and OP 32

No glare found

PV array 22 and OP 33

No glare found

PV: PV array 23 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 23 and Route: Avenue Road

No glare found

PV array 23 and Route: Main Camp Road

No glare found

PV array 23 and OP 1

No glare found

PV array 23 and OP 2

No glare found

PV array 23 and OP 3

No glare found

PV array 23 and OP 4

No glare found

PV array 23 and OP 5

No glare found

PV array 23 and OP 6

No glare found

PV array 23 and OP 7

No glare found

PV array 23 and OP 8

No glare found

PV array 23 and OP 9

No glare found

PV array 23 and OP 10

No glare found

PV array 23 and OP 11

No glare found

PV array 23 and OP 12

No glare found

PV array 23 and OP 13

No glare found

PV array 23 and OP 14

No glare found

PV array 23 and OP 15

No glare found

PV array 23 and OP 16

No glare found

PV array 23 and OP 17

No glare found

PV array 23 and OP 18

No glare found

PV array 23 and OP 19

No glare found

PV array 23 and OP 20

No glare found

PV array 23 and OP 21

No glare found

PV array 23 and OP 22

No glare found

PV array 23 and OP 23

No glare found

PV array 23 and OP 24

No glare found

PV array 23 and OP 25

No glare found

PV array 23 and OP 26

No glare found

PV array 23 and OP 27

No glare found

PV array 23 and OP 28

No glare found

PV array 23 and OP 29

No glare found

PV array 23 and OP 30

No glare found

PV array 23 and OP 31

No glare found

PV array 23 and OP 32

No glare found

PV array 23 and OP 33

No glare found

PV: PV array 3 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 3 and Route: Avenue Road

No glare found

PV array 3 and Route: Main Camp Road

No glare found

PV array 3 and OP 1

No glare found

PV array 3 and OP 2

No glare found

PV array 3 and OP 3

No glare found

PV array 3 and OP 4

No glare found

PV array 3 and OP 5

No glare found

PV array 3 and OP 6

No glare found

PV array 3 and OP 7

No glare found

PV array 3 and OP 8

No glare found

PV array 3 and OP 9

No glare found

PV array 3 and OP 10

No glare found

PV array 3 and OP 11

No glare found

PV array 3 and OP 12

No glare found

PV array 3 and OP 13

No glare found

PV array 3 and OP 14

No glare found

PV array 3 and OP 15

No glare found

PV array 3 and OP 16

No glare found

PV array 3 and OP 17

No glare found

PV array 3 and OP 18

No glare found

PV array 3 and OP 19

No glare found

PV array 3 and OP 20

No glare found

PV array 3 and OP 21

No glare found

PV array 3 and OP 22

No glare found

PV array 3 and OP 23

No glare found

PV array 3 and OP 24

No glare found

PV array 3 and OP 25

No glare found

PV array 3 and OP 26

No glare found

PV array 3 and OP 27

No glare found

PV array 3 and OP 28

No glare found

PV array 3 and OP 29

No glare found

PV array 3 and OP 30

No glare found

PV array 3 and OP 31

No glare found

PV array 3 and OP 32

No glare found

PV array 3 and OP 33

No glare found

PV: PV array 4 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 4 and Route: Avenue Road

No glare found

PV array 4 and Route: Main Camp Road

No glare found

PV array 4 and OP 1

No glare found

PV array 4 and OP 2

No glare found

PV array 4 and OP 3

No glare found

PV array 4 and OP 4

No glare found

PV array 4 and OP 5

No glare found

PV array 4 and OP 6

No glare found

PV array 4 and OP 7

No glare found

PV array 4 and OP 8

No glare found

PV array 4 and OP 9

No glare found

PV array 4 and OP 10

No glare found

PV array 4 and OP 11

No glare found

PV array 4 and OP 12

No glare found

PV array 4 and OP 13

No glare found

PV array 4 and OP 14

No glare found

PV array 4 and OP 15

No glare found

PV array 4 and OP 16

No glare found

PV array 4 and OP 17

No glare found

PV array 4 and OP 18

No glare found

PV array 4 and OP 19

No glare found

PV array 4 and OP 20

No glare found

PV array 4 and OP 21

No glare found

PV array 4 and OP 22

No glare found

PV array 4 and OP 23

No glare found

PV array 4 and OP 24

No glare found

PV array 4 and OP 25

No glare found

PV array 4 and OP 26

No glare found

PV array 4 and OP 27

No glare found

PV array 4 and OP 28

No glare found

PV array 4 and OP 29

No glare found

PV array 4 and OP 30

No glare found

PV array 4 and OP 31

No glare found

PV array 4 and OP 32

No glare found

PV array 4 and OP 33

No glare found

PV: PV array 5 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 5 and Route: Avenue Road

No glare found

PV array 5 and Route: Main Camp Road

No glare found

PV array 5 and OP 1

No glare found

PV array 5 and OP 2

No glare found

PV array 5 and OP 3

No glare found

PV array 5 and OP 4

No glare found

PV array 5 and OP 5

No glare found

PV array 5 and OP 6

No glare found

PV array 5 and OP 7

No glare found

PV array 5 and OP 8

No glare found

PV array 5 and OP 9

No glare found

PV array 5 and OP 10

No glare found

PV array 5 and OP 11

No glare found

PV array 5 and OP 12

No glare found

PV array 5 and OP 13

No glare found

PV array 5 and OP 14

No glare found

PV array 5 and OP 15

No glare found

PV array 5 and OP 16

No glare found

PV array 5 and OP 17

No glare found

PV array 5 and OP 18

No glare found

PV array 5 and OP 19

No glare found

PV array 5 and OP 20

No glare found

PV array 5 and OP 21

No glare found

PV array 5 and OP 22

No glare found

PV array 5 and OP 23

No glare found

PV array 5 and OP 24

No glare found

PV array 5 and OP 25

No glare found

PV array 5 and OP 26

No glare found

PV array 5 and OP 27

No glare found

PV array 5 and OP 28

No glare found

PV array 5 and OP 29

No glare found

PV array 5 and OP 30

No glare found

PV array 5 and OP 31

No glare found

PV array 5 and OP 32

No glare found

PV array 5 and OP 33

No glare found

PV: PV array 6 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 6 and Route: Avenue Road

No glare found

PV array 6 and Route: Main Camp Road

No glare found

PV array 6 and OP 1

No glare found

PV array 6 and OP 2

No glare found

PV array 6 and OP 3

No glare found

PV array 6 and OP 4

No glare found

PV array 6 and OP 5

No glare found

PV array 6 and OP 6

No glare found

PV array 6 and OP 7

No glare found

PV array 6 and OP 8

No glare found

PV array 6 and OP 9

No glare found

PV array 6 and OP 10

No glare found

PV array 6 and OP 11

No glare found

PV array 6 and OP 12

No glare found

PV array 6 and OP 13

No glare found

PV array 6 and OP 14

No glare found

PV array 6 and OP 15

No glare found

PV array 6 and OP 16

No glare found

PV array 6 and OP 17

No glare found

PV array 6 and OP 18

No glare found

PV array 6 and OP 19

No glare found

PV array 6 and OP 20

No glare found

PV array 6 and OP 21

No glare found

PV array 6 and OP 22

No glare found

PV array 6 and OP 23

No glare found

PV array 6 and OP 24

No glare found

PV array 6 and OP 25

No glare found

PV array 6 and OP 26

No glare found

PV array 6 and OP 27

No glare found

PV array 6 and OP 28

No glare found

PV array 6 and OP 29

No glare found

PV array 6 and OP 30

No glare found

PV array 6 and OP 31

No glare found

PV array 6 and OP 32

No glare found

PV array 6 and OP 33

No glare found

PV: PV array 7 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 7 and Route: Avenue Road

No glare found

PV array 7 and Route: Main Camp Road

No glare found

PV array 7 and OP 1

No glare found

PV array 7 and OP 2

No glare found

PV array 7 and OP 3

No glare found

PV array 7 and OP 4

No glare found

PV array 7 and OP 5

No glare found

PV array 7 and OP 6

No glare found

PV array 7 and OP 7

No glare found

PV array 7 and OP 8

No glare found

PV array 7 and OP 9

No glare found

PV array 7 and OP 10

No glare found

PV array 7 and OP 11

No glare found

PV array 7 and OP 12

No glare found

PV array 7 and OP 13

No glare found

PV array 7 and OP 14

No glare found

PV array 7 and OP 15

No glare found

PV array 7 and OP 16

No glare found

PV array 7 and OP 17

No glare found

PV array 7 and OP 18

No glare found

PV array 7 and OP 19

No glare found

PV array 7 and OP 20

No glare found

PV array 7 and OP 21

No glare found

PV array 7 and OP 22

No glare found

PV array 7 and OP 23

No glare found

PV array 7 and OP 24

No glare found

PV array 7 and OP 25

No glare found

PV array 7 and OP 26

No glare found

PV array 7 and OP 27

No glare found

PV array 7 and OP 28

No glare found

PV array 7 and OP 29

No glare found

PV array 7 and OP 30

No glare found

PV array 7 and OP 31

No glare found

PV array 7 and OP 32

No glare found

PV array 7 and OP 33

No glare found

PV: PV array 8 potential temporary after-image

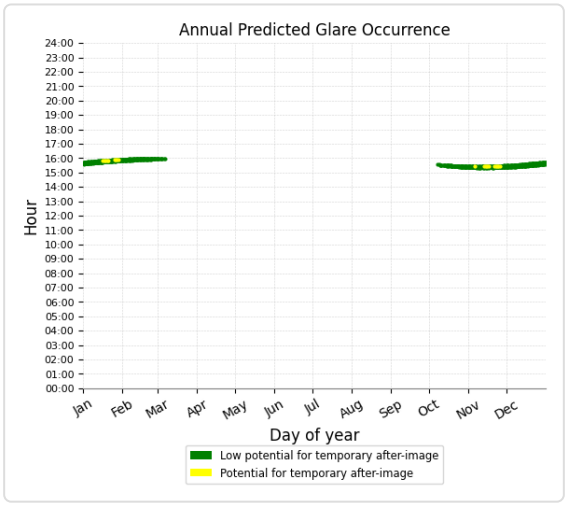
Receptor results ordered by category of glare

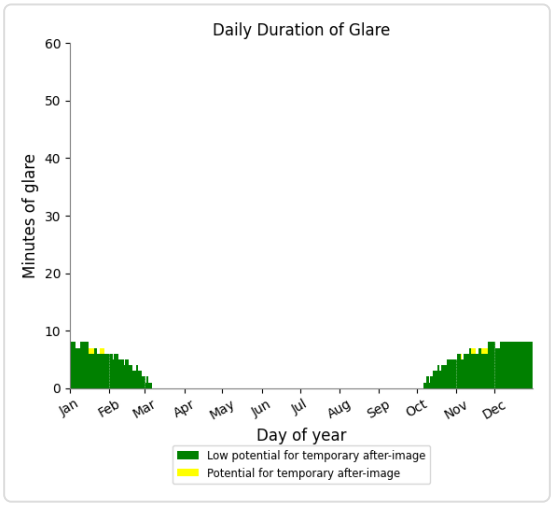
Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	864	14.4	19	0.3
Main Camp Road	0	0.0	0	0.0
OP 9	261	4.3	0	0.0
OP 10	57	0.9	0	0.0
OP 11	278	4.6	0	0.0
OP 12	271	4.5	0	0.0
OP 13	284	4.7	0	0.0
OP 14	144	2.4	0	0.0
OP 15	148	2.5	0	0.0
OP 16	488	8.1	0	0.0
OP 17	123	2.0	0	0.0
OP 18	300	5.0	0	0.0
OP 19	306	5.1	0	0.0
OP 22	290	4.8	0	0.0
OP 23	280	4.7	0	0.0
OP 24	185	3.1	0	0.0
OP 25	55	0.9	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

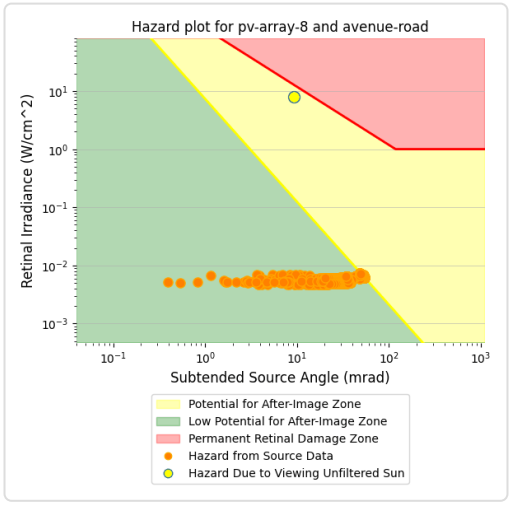
PV array 8 and Route: Avenue Road

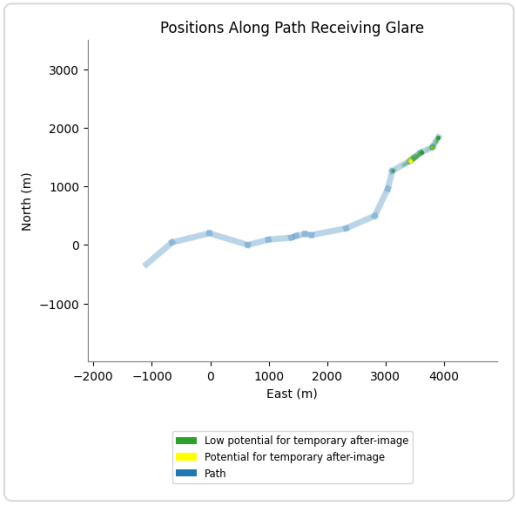
Yellow glare: 19 min.

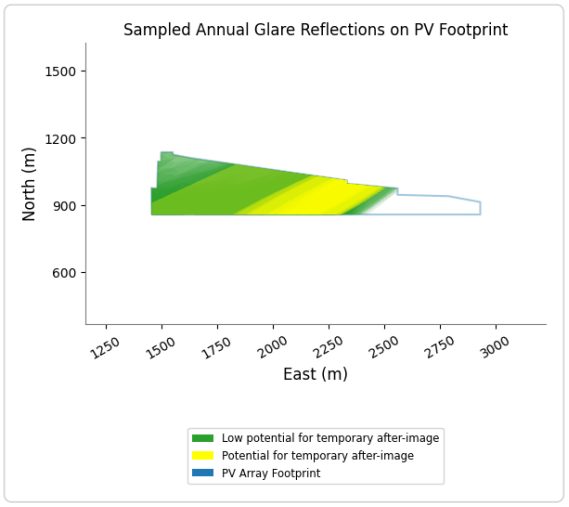
Green glare: 864 min.











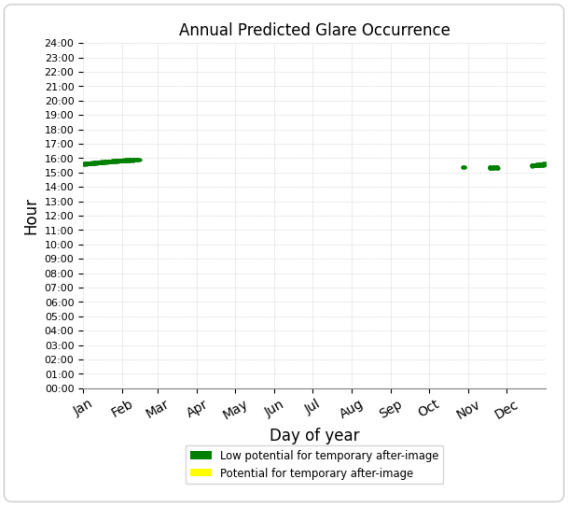
PV array 8 and Route: Main Camp Road

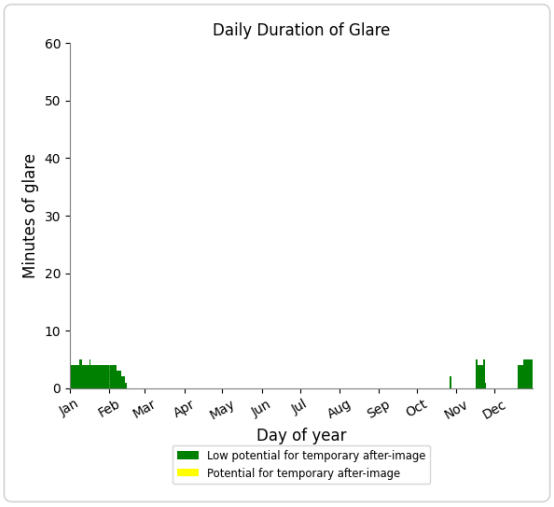
No glare found

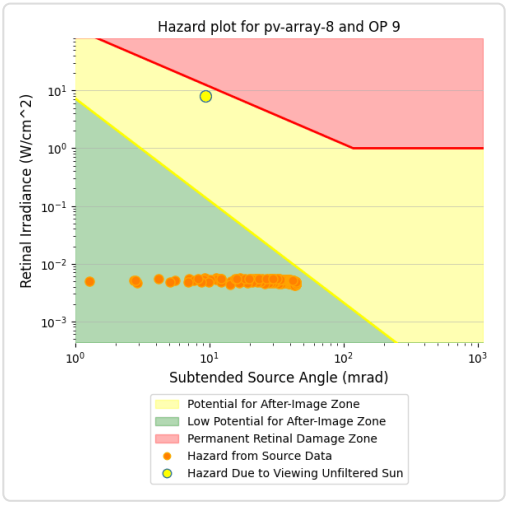
PV array 8 and OP 9

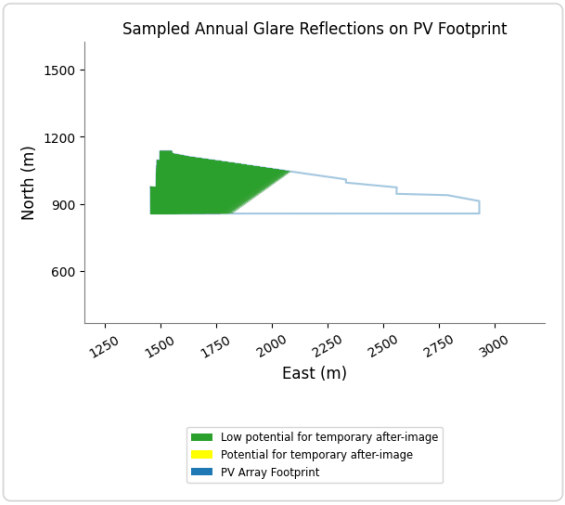
Yellow glare: none

Green glare: 261 min.





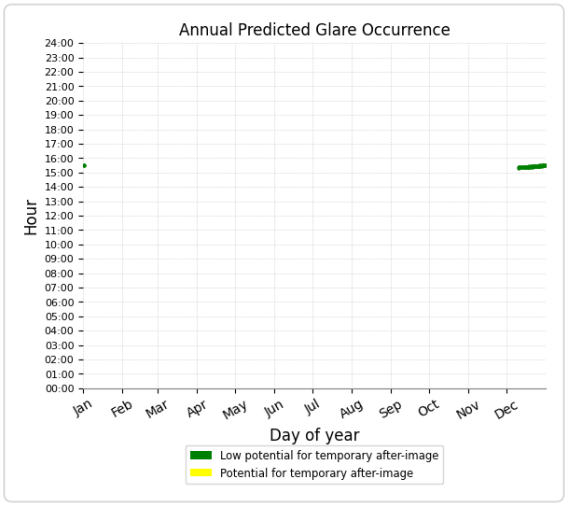


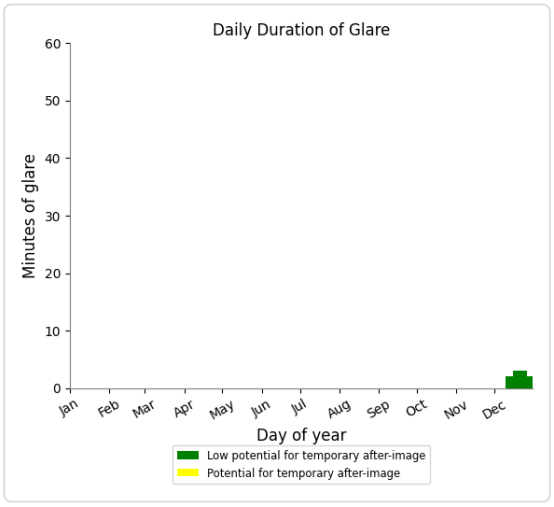


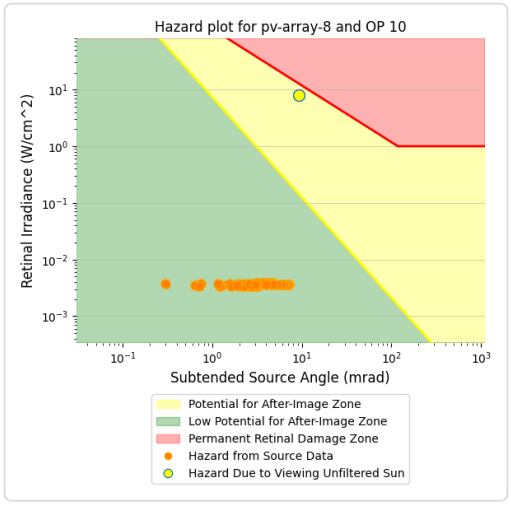
PV array 8 and OP 10

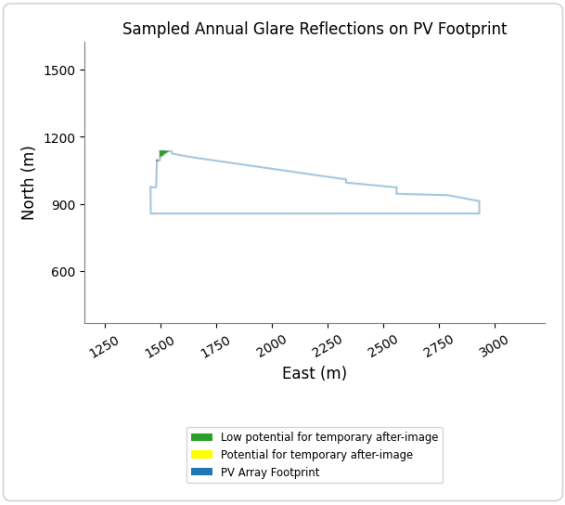
Yellow glare: none

Green glare: 57 min.





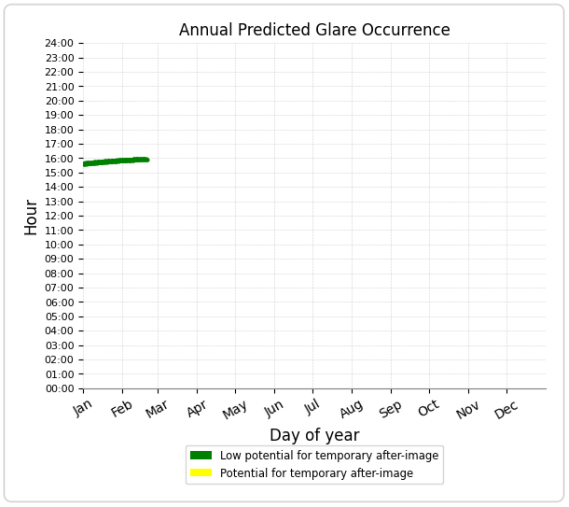


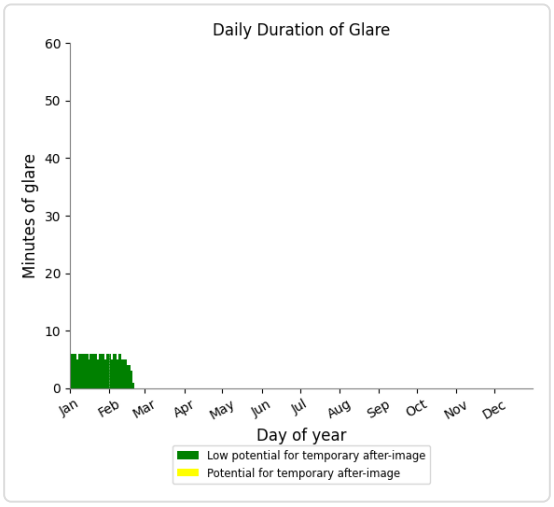


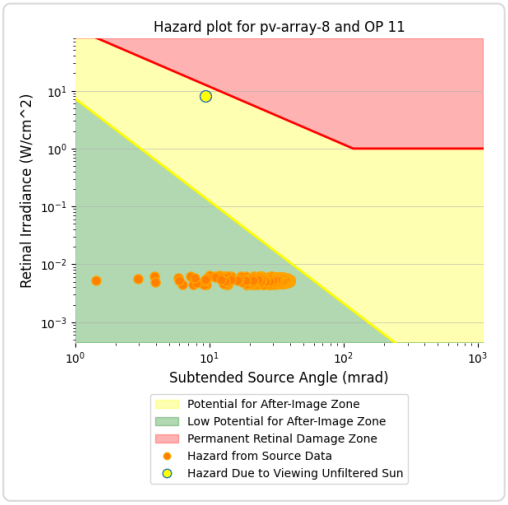
PV array 8 and OP 11

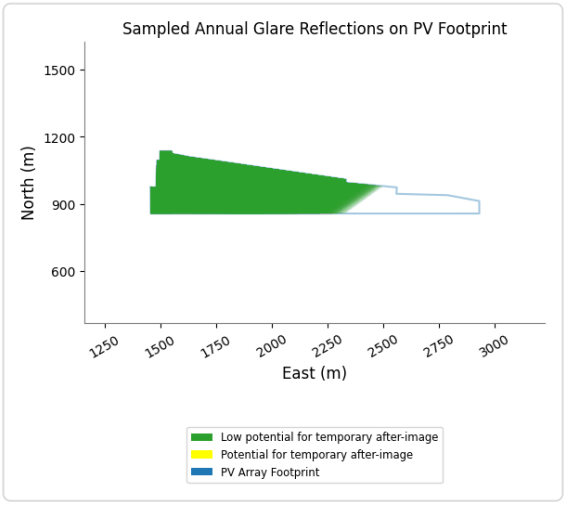
Yellow glare: none

Green glare: 278 min.





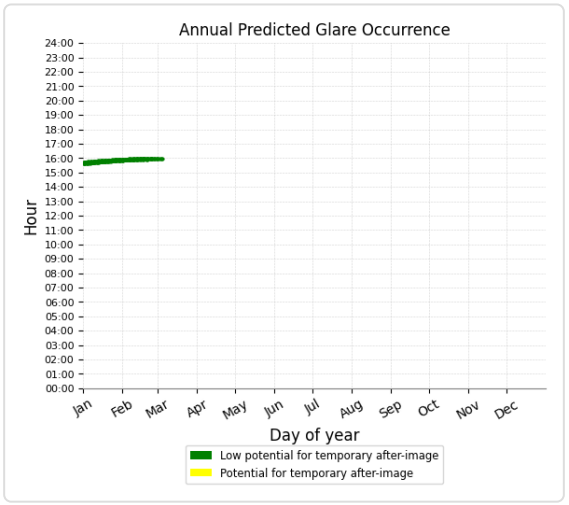


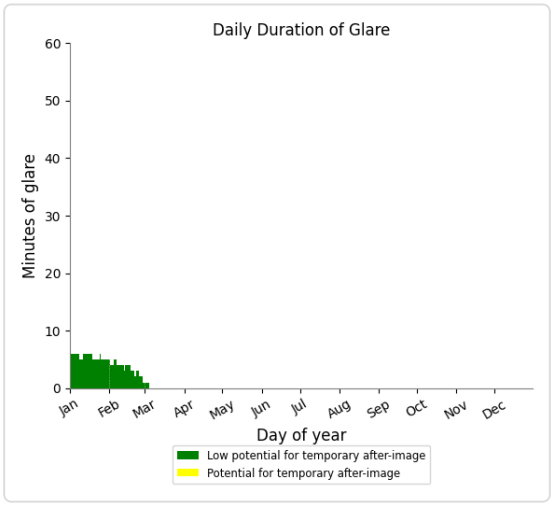


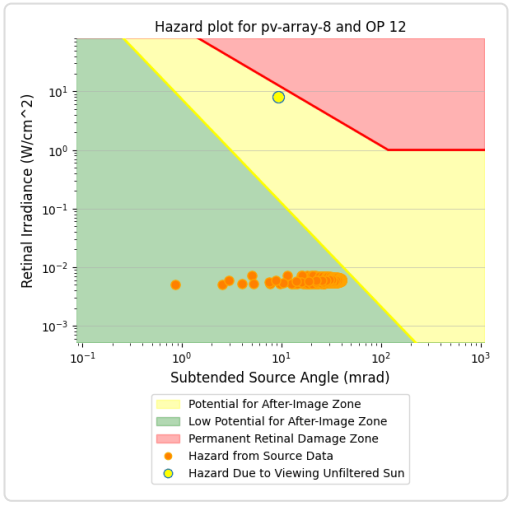
PV array 8 and OP 12

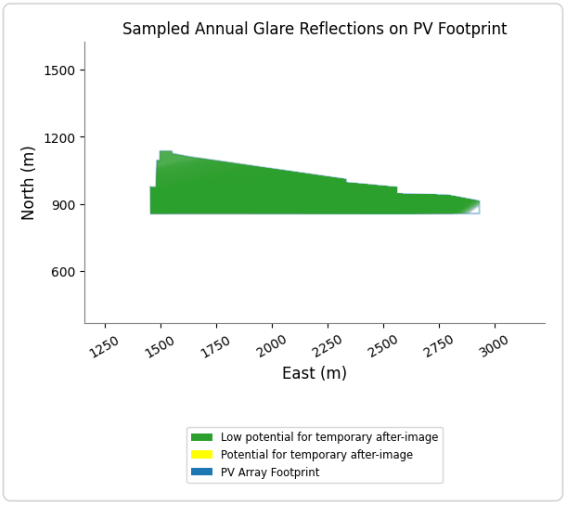
Yellow glare: none

Green glare: 271 min.





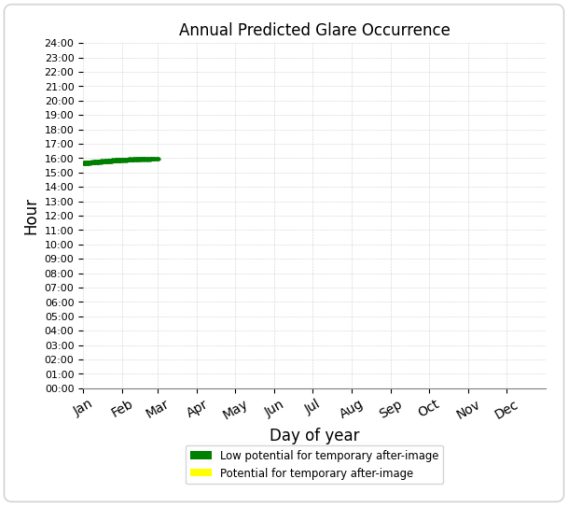


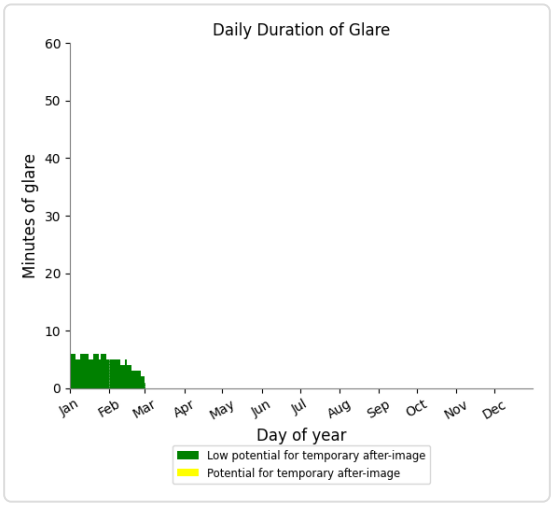


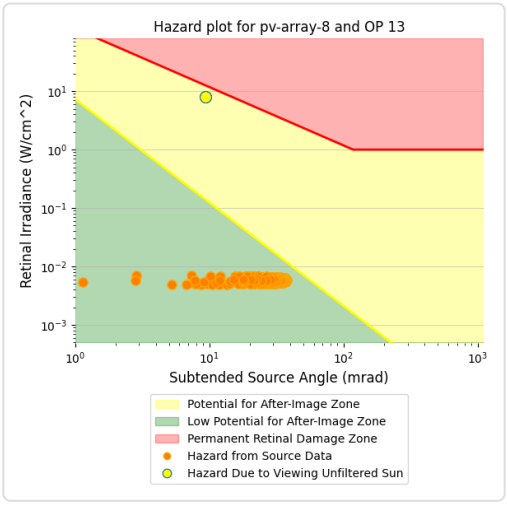
PV array 8 and OP 13

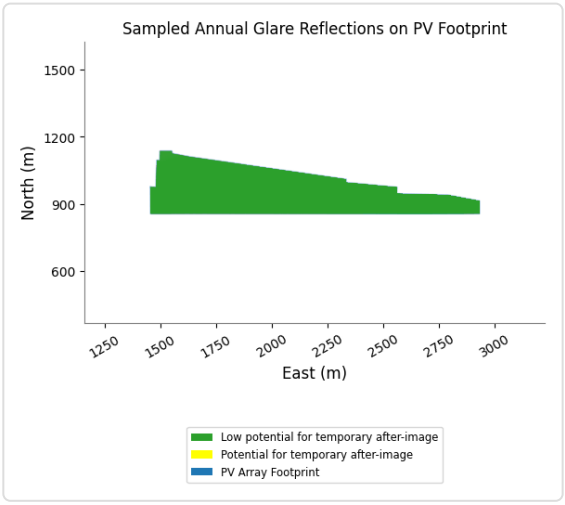
Yellow glare: none

Green glare: 284 min.





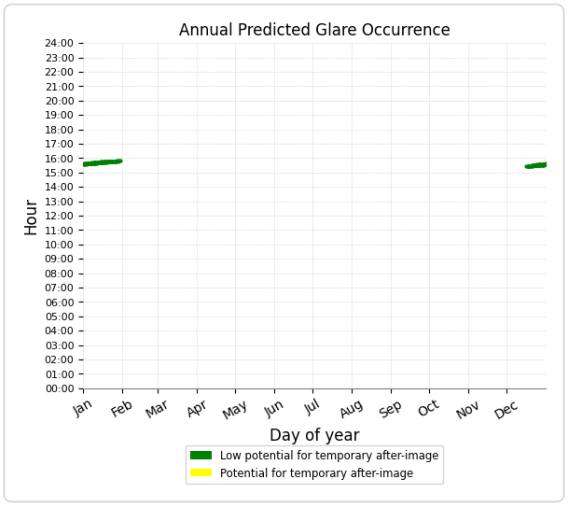


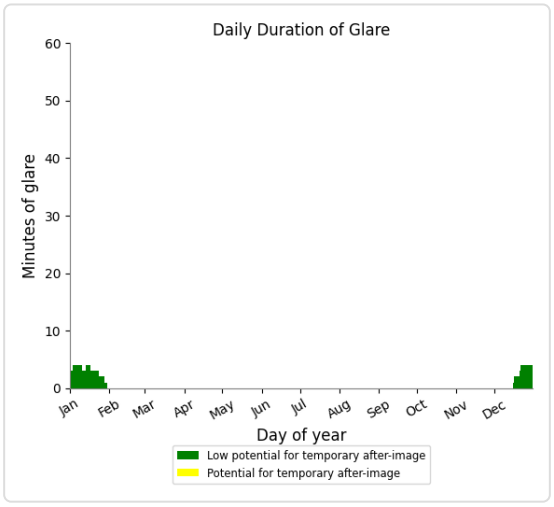


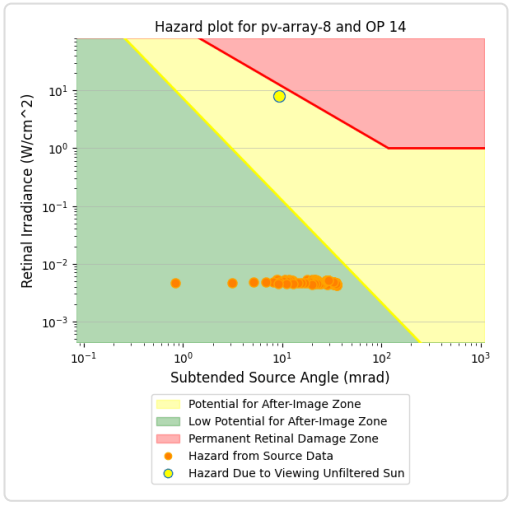
PV array 8 and OP 14

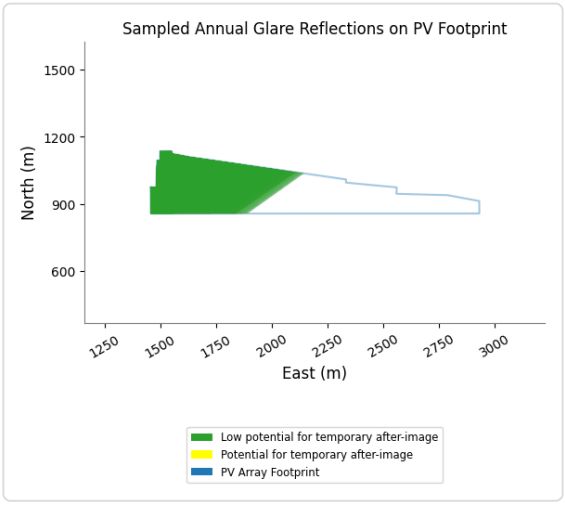
Yellow glare: none

Green glare: 144 min.





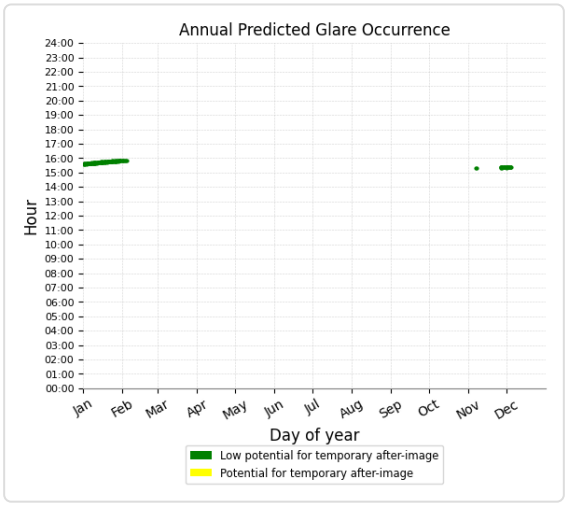


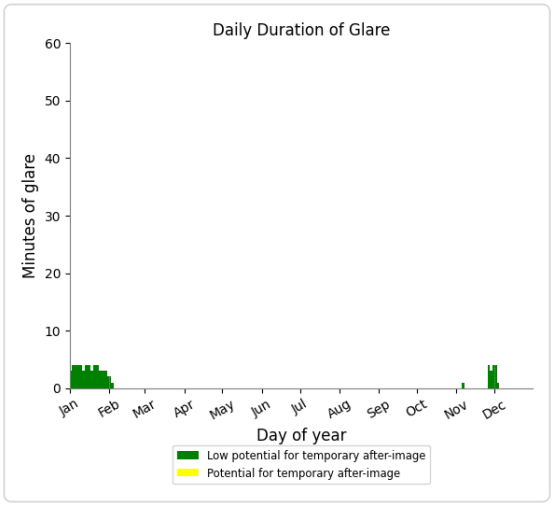


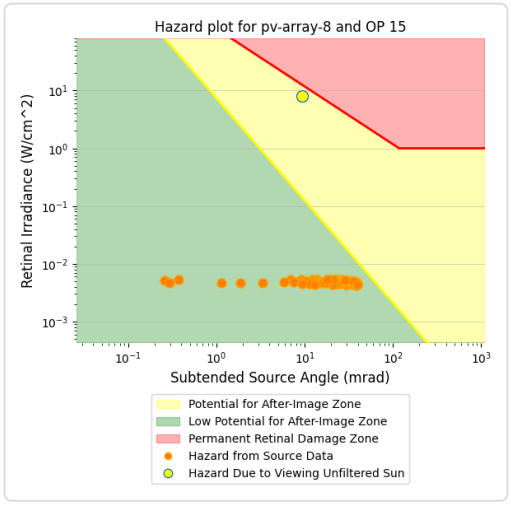
PV array 8 and OP 15

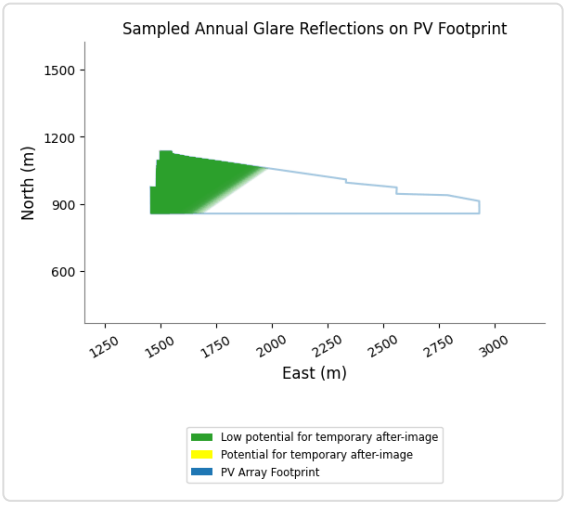
Yellow glare: none

Green glare: 148 min.





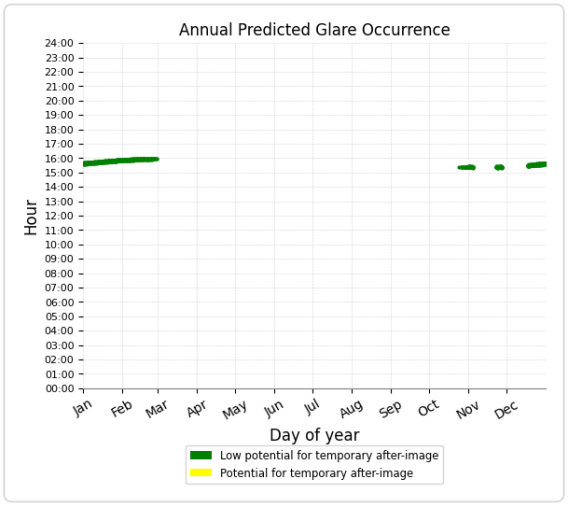


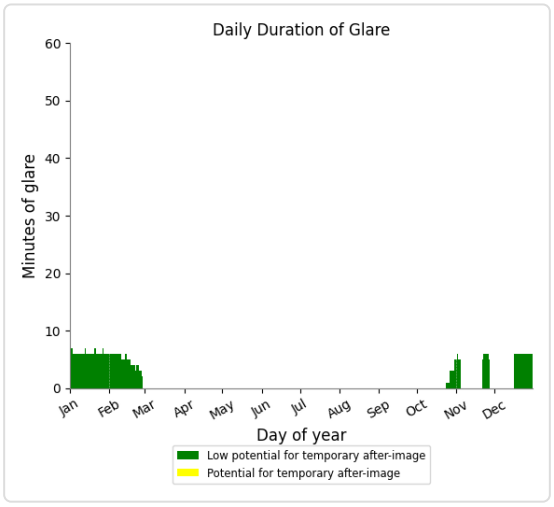


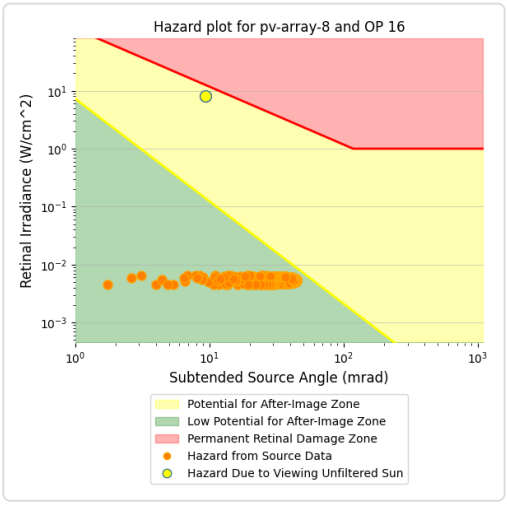
PV array 8 and OP 16

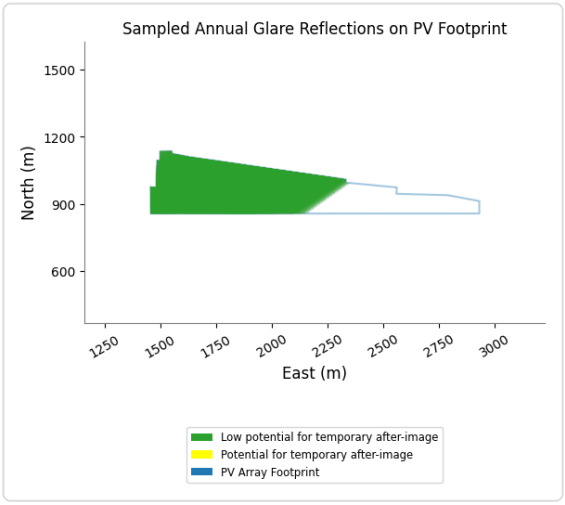
Yellow glare: none

Green glare: 488 min.





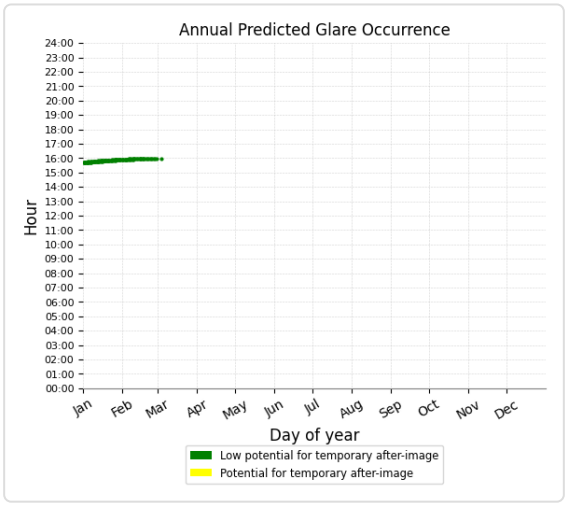


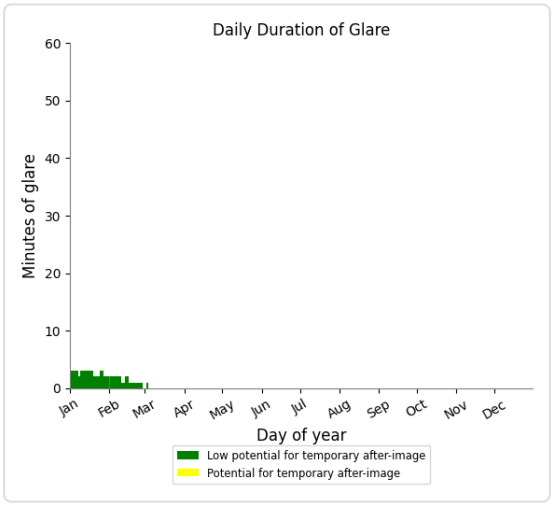


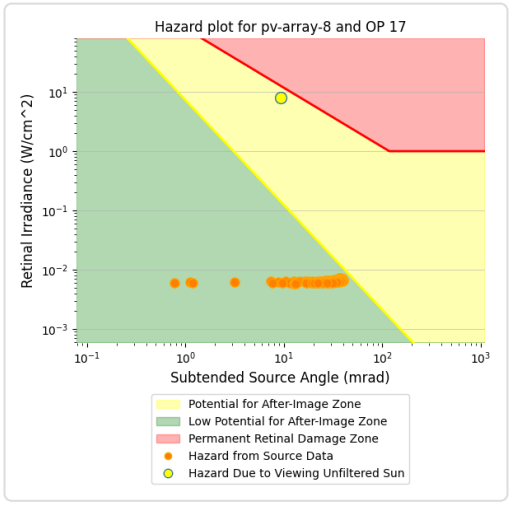
PV array 8 and OP 17

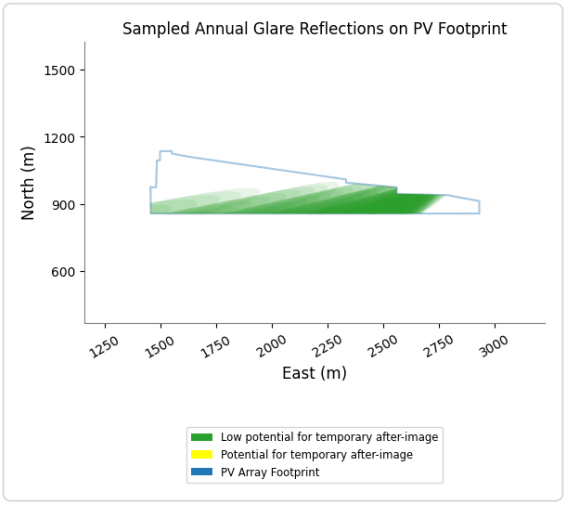
Yellow glare: none

Green glare: 123 min.





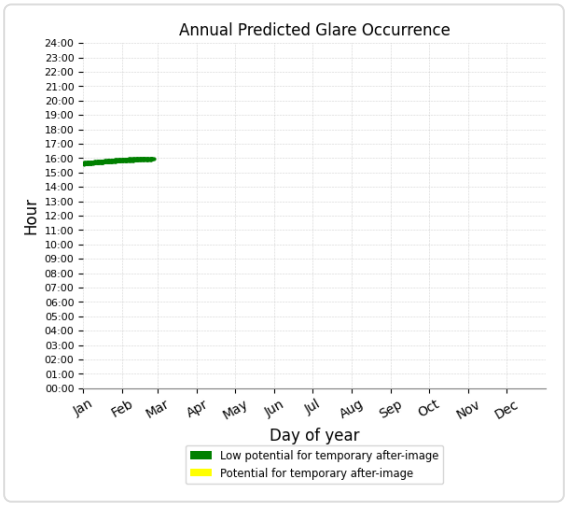


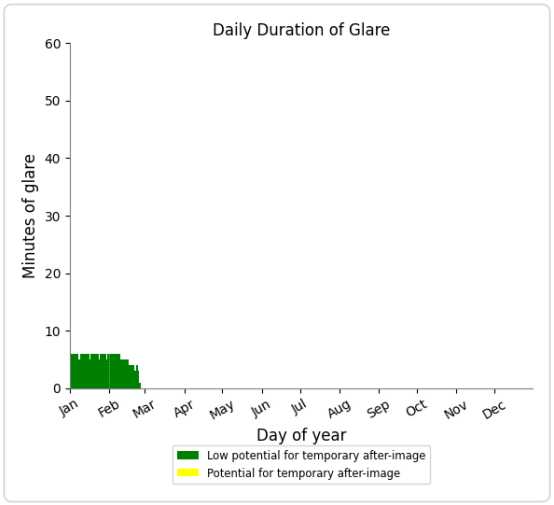


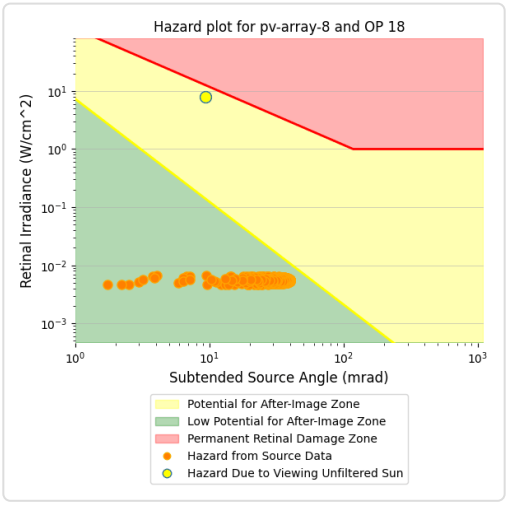
PV array 8 and OP 18

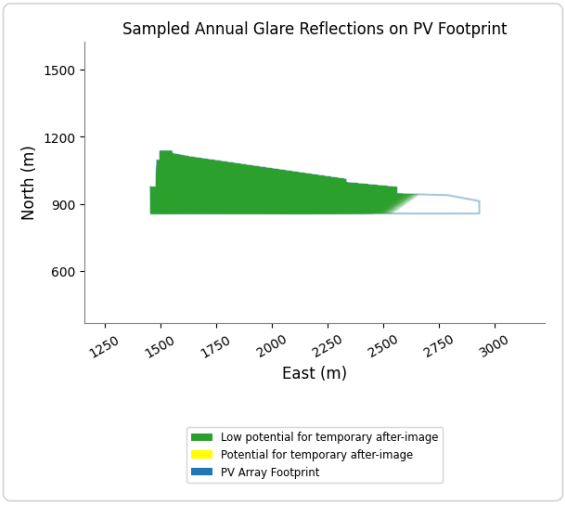
Yellow glare: none

Green glare: 300 min.





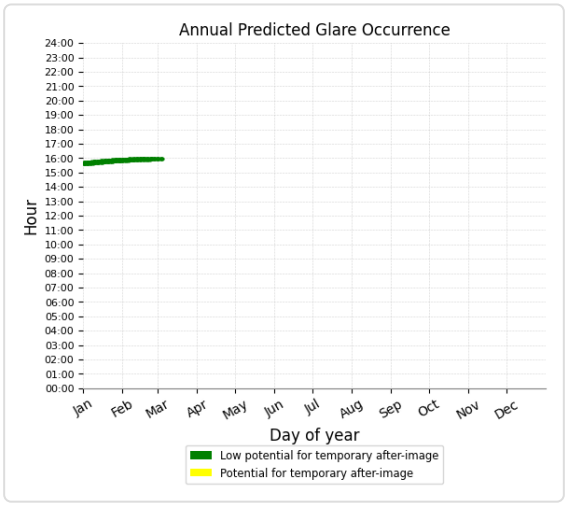


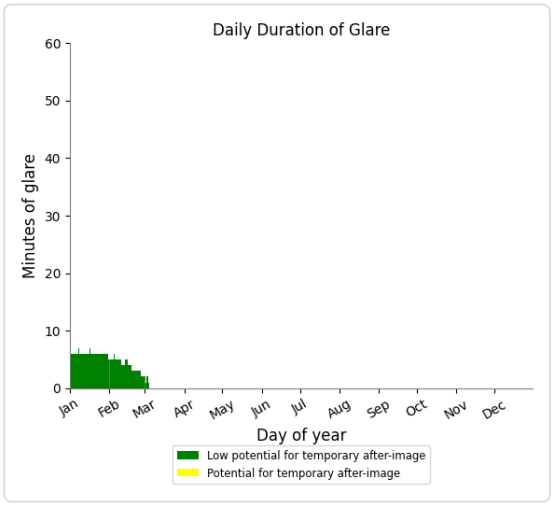


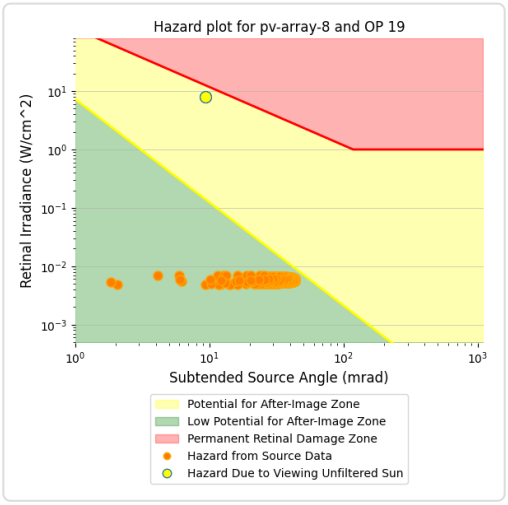
PV array 8 and OP 19

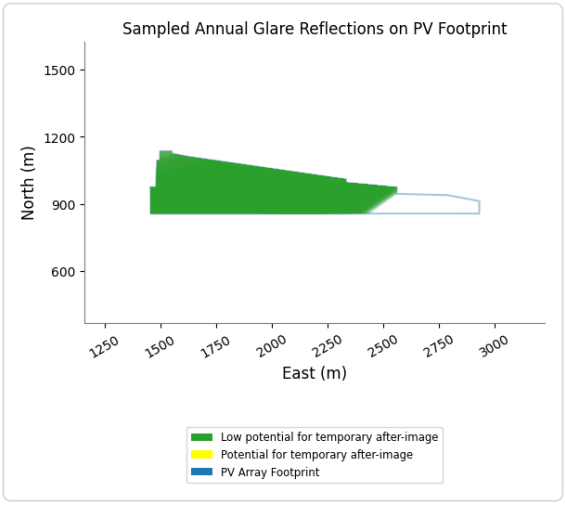
Yellow glare: none

Green glare: 306 min.





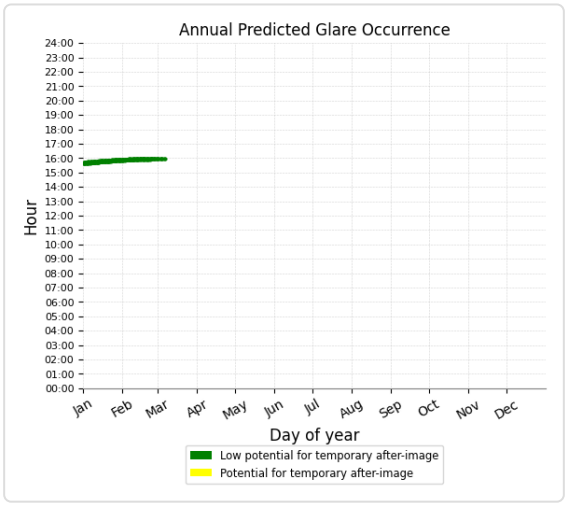


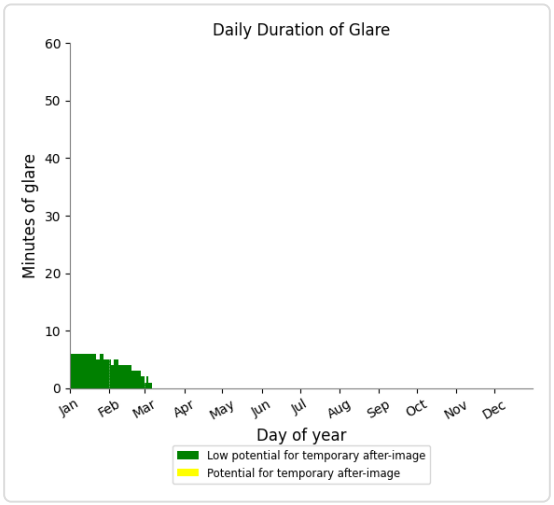


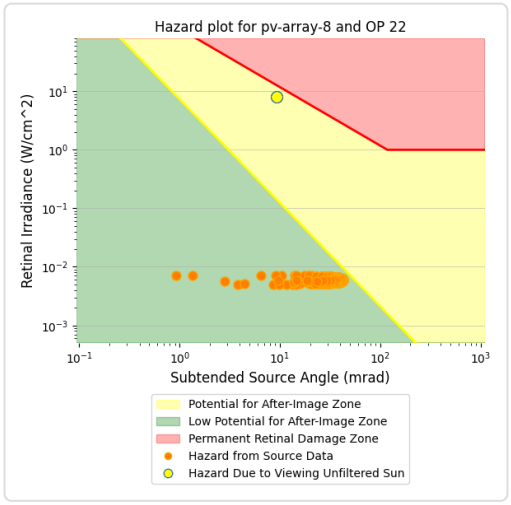
PV array 8 and OP 22

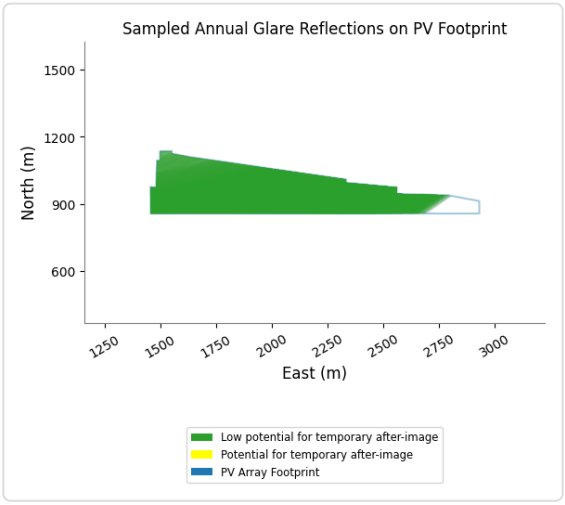
Yellow glare: none

Green glare: 290 min.





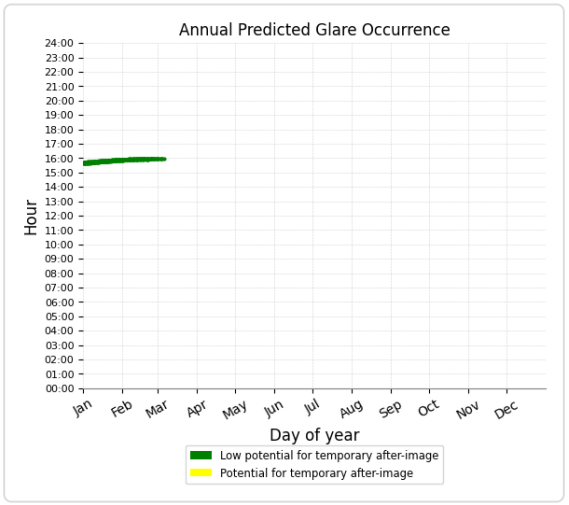


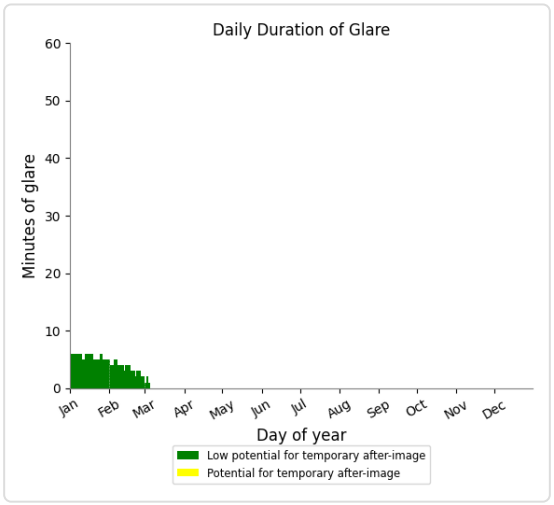


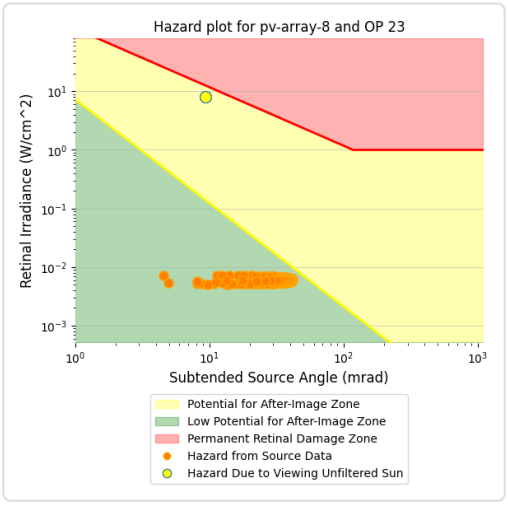
PV array 8 and OP 23

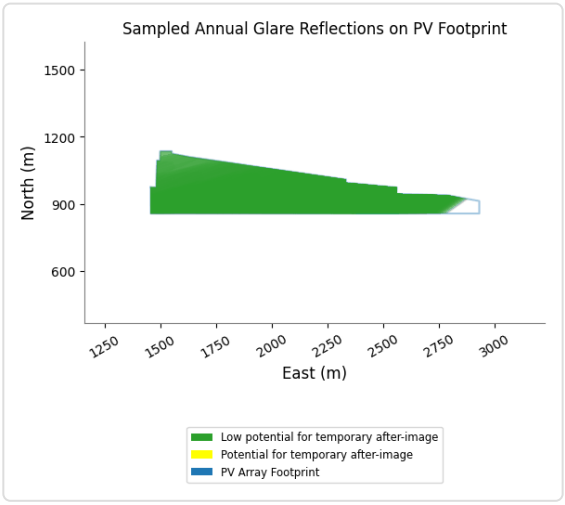
Yellow glare: none

Green glare: 280 min.





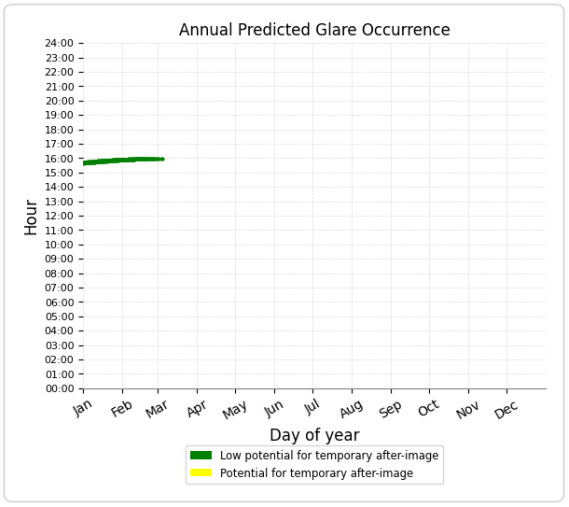


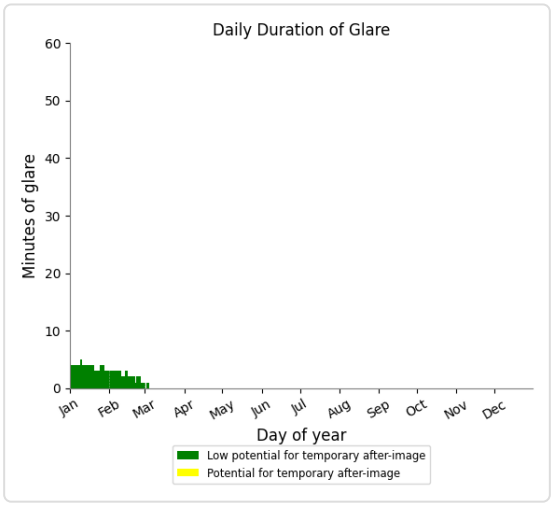


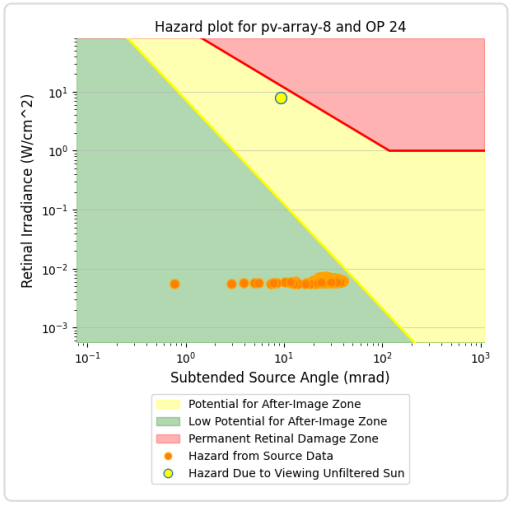
PV array 8 and OP 24

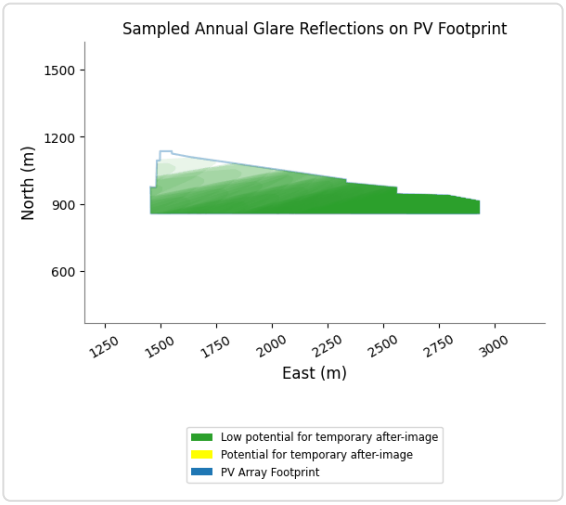
Yellow glare: none

Green glare: 185 min.



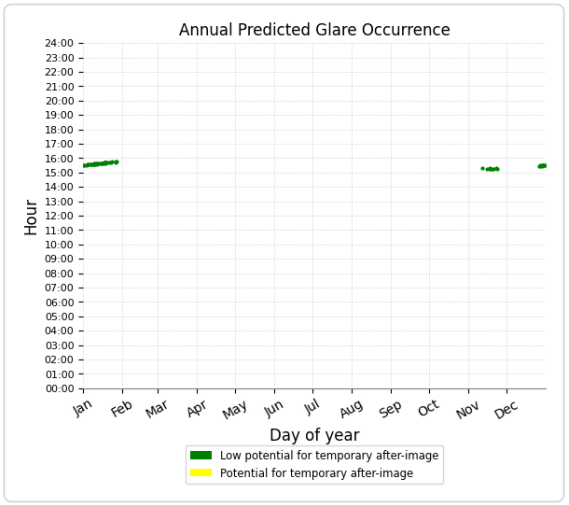


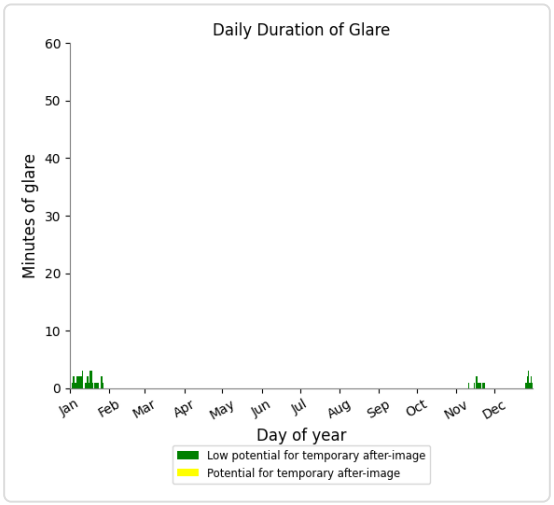


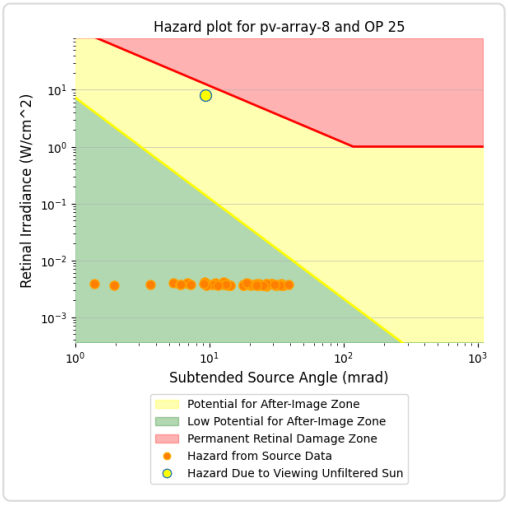


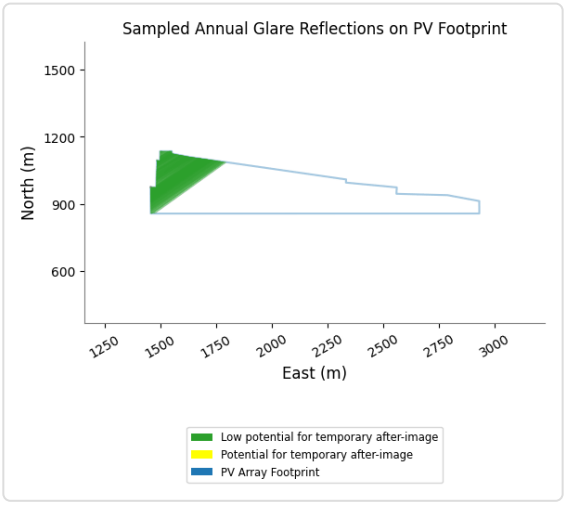
PV array 8 and OP 25

Yellow glare: none
Green glare: 55 min.









PV array 8 and OP 1

No glare found

PV array 8 and OP 2

No glare found

PV array 8 and OP 3

No glare found

PV array 8 and OP 4

No glare found

PV array 8 and OP 5

No glare found

PV array 8 and OP 6

No glare found

PV array 8 and OP 7

No glare found

PV array 8 and OP 8

No glare found

PV array 8 and OP 20

No glare found

PV array 8 and OP 21

No glare found

PV array 8 and OP 26

No glare found

PV array 8 and OP 27

No glare found

PV array 8 and OP 28

No glare found

PV array 8 and OP 29

No glare found

PV array 8 and OP 30

No glare found

PV array 8 and OP 31

No glare found

PV array 8 and OP 32

No glare found

PV array 8 and OP 33

No glare found

PV: PV array 9 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 9 and Route: Avenue Road

No glare found

PV array 9 and Route: Main Camp Road

No glare found

PV array 9 and OP 1

No glare found

PV array 9 and OP 2

No glare found

PV array 9 and OP 3

No glare found

PV array 9 and OP 4

No glare found

PV array 9 and OP 5

No glare found

PV array 9 and OP 6

No glare found

PV array 9 and OP 7

No glare found

PV array 9 and OP 8

No glare found

PV array 9 and OP 9

No glare found

PV array 9 and OP 10

No glare found

PV array 9 and OP 11

No glare found

PV array 9 and OP 12

No glare found

PV array 9 and OP 13

No glare found

PV array 9 and OP 14

No glare found

PV array 9 and OP 15

No glare found

PV array 9 and OP 16

No glare found

PV array 9 and OP 17

No glare found

PV array 9 and OP 18

No glare found

PV array 9 and OP 19

No glare found

PV array 9 and OP 20

No glare found

PV array 9 and OP 21

No glare found

PV array 9 and OP 22

No glare found

PV array 9 and OP 23

No glare found

PV array 9 and OP 24

No glare found

PV array 9 and OP 25

No glare found

PV array 9 and OP 26

No glare found

PV array 9 and OP 27

No glare found

PV array 9 and OP 28

No glare found

PV array 9 and OP 29

No glare found

PV array 9 and OP 30

No glare found

PV array 9 and OP 31

No glare found

PV array 9 and OP 32

No glare found

PV array 9 and OP 33

No glare found

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year.
Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare. This primarily affects V1 analyses of path receptors.
Random number computations are utilized by various steps of the annual hazard analysis algorithm. Predicted minutes of glare can vary between runs as a result. This limitation primarily affects analyses of Observation Point receptors, including ATCTs. Note that the SGHAT/ ForgeSolar methodology has always relied on an analytical, qualitative approach to accurately determine the overall hazard (i.e. green vs. yellow) of expected glare on an annual basis.
The analysis does not automatically consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.
The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)
The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.
The ocular hazard predicted by the tool depends on a number of environmental, optical, and human factors, which can be uncertain. We provide input fields and typical ranges of values for these factors so that the user can vary these parameters to see if they have an impact on the results. The speed of SGHAT allows expedited sensitivity and parametric analyses.
The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.
Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.
Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
Refer to the Help page at **www.forgesolar.com/help/** for assumptions and limitations not listed here.

Default glare analysis parameters and observer eye characteristics (for reference only):

- Analysis time interval: 1 minute
- Ocular transmission coefficient: 0.5
- Pupil diameter: 0.002 meters
- Eye focal length: 0.017 meters
- Sun subtended angle: 9.3 milliradians

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Glint and Glare Assessment Results Attachment B - Scenario 6

FORGESOLAR GLARE ANALYSIS

Project: **2320 Richmond Valley Solar Farm**
Site configuration: **2320 Richmond Valley Analysis N BckTra 202312111**

Created 11 Dec, 2023
Updated 18 Dec, 2023
Time-step 1 minute
Timezone offset UTC10
Minimum sun altitude 0.0 deg
DNI peaks at 1,000.0 W/m^2
Category 100 MW to 1 GW
Site ID 107582.18000

Ocular transmission coefficient 0.5
Pupil diameter 0.002 m
Eye focal length 0.017 m
Sun subtended angle 9.3 mrad
PV analysis methodology V2

Summary of Results No glare predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV array 1	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 10	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 15	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 16	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 17	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 18	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 19	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 2	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 20	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 21	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 22	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 23	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 3	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 4	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 5	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 6	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 7	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 8	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 9	SA tracking	SA tracking	0	0.0	0	0.0	-

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

Component Data

PV Arrays

Name: PV array 1
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 0.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.101325	153.019581	366.24	2.50	368.74
2	-29.101319	153.022208	373.42	2.50	375.92
3	-29.101675	153.022244	322.35	2.50	324.85
4	-29.101686	153.024706	312.51	2.50	315.01
5	-29.102036	153.024742	303.12	2.50	305.62
6	-29.102033	153.026689	299.33	2.50	301.83
7	-29.102411	153.026725	328.19	2.50	330.69
8	-29.102419	153.028128	322.49	2.50	324.99
9	-29.103497	153.028139	354.56	2.50	357.06
10	-29.103500	153.028281	326.46	2.50	328.96
11	-29.104558	153.028281	314.31	2.50	316.81
12	-29.104567	153.026794	364.57	2.50	367.07
13	-29.104200	153.026775	369.06	2.50	371.56
14	-29.104211	153.025361	350.76	2.50	353.26
15	-29.103472	153.025344	337.49	2.50	339.99
16	-29.103472	153.019586	354.43	2.50	356.93

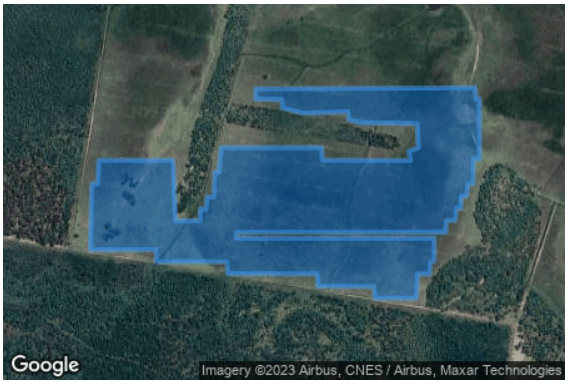
Name: PV array 10
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 0.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.096789	153.033475	67.12	2.50	69.62
2	-29.096789	153.033625	94.58	2.50	97.08
3	-29.096086	153.033664	83.67	2.50	86.17
4	-29.096069	153.048192	86.35	2.50	88.85
5	-29.096428	153.048178	86.17	2.50	88.67
6	-29.096431	153.047381	77.50	2.50	80.00
7	-29.096778	153.047358	70.21	2.50	72.71
8	-29.096778	153.046492	64.01	2.50	66.51
9	-29.097136	153.046467	57.37	2.50	59.87
10	-29.097136	153.045553	58.92	2.50	61.42
11	-29.097508	153.045553	44.73	2.50	47.23
12	-29.097514	153.044489	51.53	2.50	54.03
13	-29.097786	153.044467	54.99	2.50	57.49
14	-29.097864	153.043553	60.25	2.50	62.75
15	-29.098228	153.043531	57.21	2.50	59.71
16	-29.098236	153.041514	58.17	2.50	60.67
17	-29.098608	153.041486	51.15	2.50	53.65
18	-29.098619	153.033442	60.48	2.50	62.98

Name: PV array 15
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 0.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

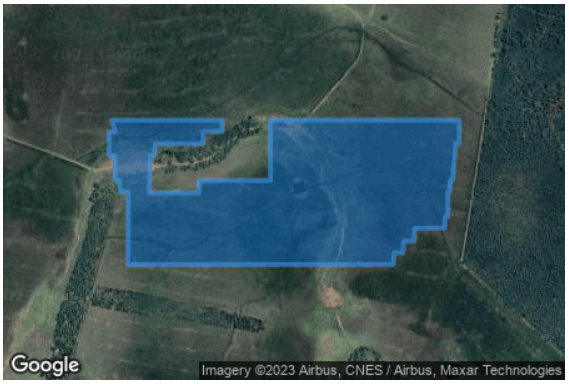
Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.102156	153.044086	58.73	2.50	61.23
2	-29.102156	153.047328	63.32	2.50	65.82
3	-29.102194	153.047328	95.21	2.50	97.71
4	-29.102194	153.058594	119.73	2.50	122.23
5	-29.102550	153.058617	84.51	2.50	87.01
6	-29.102550	153.058697	82.32	2.50	84.82
7	-29.103253	153.058700	86.95	2.50	89.45
8	-29.103253	153.058464	98.42	2.50	100.92
9	-29.103636	153.058431	85.79	2.50	88.29
10	-29.103636	153.058125	71.39	2.50	73.89
11	-29.104347	153.058089	63.19	2.50	65.69
12	-29.104347	153.057872	68.64	2.50	71.14
13	-29.105078	153.057872	75.02	2.50	77.52
14	-29.105080	153.057786	73.92	2.50	76.42
15	-29.105431	153.057761	95.27	2.50	97.77
16	-29.105431	153.057622	95.06	2.50	97.56
17	-29.106164	153.057597	96.25	2.50	98.75
18	-29.106167	153.057461	85.20	2.50	87.70
19	-29.106514	153.057433	78.67	2.50	81.17
20	-29.106514	153.057292	76.66	2.50	79.16
21	-29.107410	153.057270	69.71	2.50	72.21
22	-29.107410	153.057190	70.70	2.50	73.20
23	-29.107760	153.057150	76.15	2.50	78.65
24	-29.107770	153.056900	69.23	2.50	71.73
25	-29.108870	153.056840	63.91	2.50	66.41
26	-29.108840	153.054250	69.03	2.50	71.53
27	-29.106690	153.054260	67.10	2.50	69.60
28	-29.106700	153.054510	61.84	2.50	64.34
29	-29.105460	153.054540	51.44	2.50	53.94
30	-29.105460	153.054670	46.48	2.50	48.98
31	-29.103650	153.054660	44.11	2.50	46.61
32	-29.103650	153.053990	50.89	2.50	53.39
33	-29.103260	153.053990	55.01	2.50	57.51
34	-29.103260	153.051930	50.62	2.50	53.12
35	-29.102900	153.051890	64.22	2.50	66.72
36	-29.102900	153.046260	78.81	2.50	81.31
37	-29.102530	153.046260	69.88	2.50	72.38
38	-29.102531	153.044111	81.44	2.50	83.94

Name: PV array 16
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 0.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.109583	153.053697	35.88	2.50	38.38
2	-29.109580	153.053892	35.82	2.50	38.32
3	-29.108872	153.053936	34.22	2.50	36.72
4	-29.108872	153.056486	35.80	2.50	38.30
5	-29.110681	153.056581	33.60	2.50	36.10
6	-29.110680	153.057408	33.51	2.50	36.01
7	-29.110322	153.057431	33.12	2.50	35.62
8	-29.110333	153.057622	33.65	2.50	36.15
9	-29.109972	153.057656	34.81	2.50	37.31
10	-29.109969	153.057892	35.48	2.50	37.98
11	-29.109233	153.057922	37.27	2.50	39.77
12	-29.109230	153.058064	37.55	2.50	40.05
13	-29.108494	153.058144	37.24	2.50	39.74
14	-29.108494	153.061594	35.21	2.50	37.71
15	-29.108867	153.061622	34.11	2.50	36.61
16	-29.108875	153.064650	30.58	2.50	33.08
17	-29.108597	153.064578	31.08	2.50	33.58
18	-29.108494	153.064914	30.76	2.50	33.26
19	-29.107772	153.064875	32.09	2.50	34.59
20	-29.107750	153.062925	30.39	2.50	32.89
21	-29.107664	153.062525	32.23	2.50	34.73
22	-29.107419	153.062503	32.17	2.50	34.67
23	-29.107467	153.060950	34.16	2.50	36.66
24	-29.107297	153.060244	33.94	2.50	36.44
25	-29.107050	153.060219	33.92	2.50	36.42
26	-29.107044	153.059328	34.04	2.50	36.54
27	-29.106736	153.059336	34.04	2.50	36.54
28	-29.106700	153.066869	31.79	2.50	34.29
29	-29.107036	153.066903	31.47	2.50	33.97
30	-29.107036	153.067019	31.60	2.50	34.10
31	-29.108842	153.067022	33.82	2.50	36.32
32	-29.108842	153.066803	33.30	2.50	35.80
33	-29.109572	153.066800	34.25	2.50	36.75
34	-29.109570	153.066614	33.70	2.50	36.20
35	-29.109936	153.066586	34.18	2.50	36.68
36	-29.109940	153.066383	33.57	2.50	36.07
37	-29.110311	153.066380	34.11	2.50	36.61
38	-29.110310	153.066217	33.64	2.50	36.14
39	-29.110669	153.066192	34.08	2.50	36.58
40	-29.110675	153.065881	33.18	2.50	35.68
41	-29.111028	153.065858	33.66	2.50	36.16
42	-29.111028	153.058667	34.00	2.50	36.50
43	-29.111203	153.058667	34.00	2.50	36.50
44	-29.111203	153.065461	33.51	2.50	36.01
45	-29.111908	153.065461	35.73	2.50	38.23
46	-29.111908	153.065331	35.54	2.50	38.04
47	-29.112269	153.065303	35.50	2.50	38.00
48	-29.112270	153.064894	35.16	2.50	37.66
49	-29.112997	153.064853	35.92	2.50	38.42
50	-29.112997	153.063419	33.64	2.50	36.14
51	-29.112650	153.063394	34.07	2.50	36.57
52	-29.112639	153.061467	31.62	2.50	34.12
53	-29.112269	153.061444	32.22	2.50	34.72
54	-29.112264	153.058369	34.15	2.50	36.65
55	-29.111908	153.058342	34.08	2.50	36.58
56	-29.111908	153.055928	33.83	2.50	36.33
57	-29.111547	153.055900	33.61	2.50	36.11
58	-29.111550	153.053644	40.15	2.50	42.65

Name: PV array 17
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 0.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.102197	153.059017	39.95	2.50	42.45
2	-29.102194	153.062817	37.76	2.50	40.26
3	-29.102533	153.062803	35.96	2.50	38.46
4	-29.102539	153.062167	38.22	2.50	40.72
5	-29.102906	153.062150	38.04	2.50	40.54
6	-29.102910	153.060506	39.98	2.50	42.48
7	-29.103247	153.060483	38.09	2.50	40.59
8	-29.103253	153.060331	35.83	2.50	38.33
9	-29.104367	153.060311	35.23	2.50	37.73
10	-29.104375	153.062003	35.00	2.50	37.50
11	-29.103994	153.062019	35.26	2.50	37.76
12	-29.104000	153.064469	35.33	2.50	37.83
13	-29.102194	153.064467	41.33	2.50	43.83
14	-29.102194	153.070958	35.53	2.50	38.03
15	-29.102900	153.070964	31.99	2.50	34.49
16	-29.102900	153.070833	34.31	2.50	36.81
17	-29.103986	153.070736	38.09	2.50	40.59
18	-29.103992	153.070656	36.86	2.50	39.36
19	-29.104342	153.070622	35.58	2.50	38.08
20	-29.104344	153.070567	35.32	2.50	37.82
21	-29.105078	153.070575	39.57	2.50	42.07
22	-29.105080	153.070486	39.78	2.50	42.28
23	-29.105425	153.070458	37.46	2.50	39.96
24	-29.105431	153.069433	34.45	2.50	36.95
25	-29.105819	153.069408	43.72	2.50	46.22
26	-29.105819	153.069053	44.69	2.50	47.19
27	-29.106167	153.069022	39.39	2.50	41.89
28	-29.106167	153.068725	33.07	2.50	35.57
29	-29.106519	153.068689	38.03	2.50	40.53
30	-29.106520	153.059578	36.08	2.50	38.58
31	-29.104344	153.059583	36.72	2.50	39.22
32	-29.104347	153.059308	37.07	2.50	39.57
33	-29.103989	153.059278	37.85	2.50	40.35
34	-29.103989	153.059139	38.21	2.50	40.71
35	-29.103253	153.059111	40.68	2.50	43.18
36	-29.103253	153.058922	39.83	2.50	42.33
37	-29.102544	153.058922	38.08	2.50	40.58
38	-29.102544	153.059133	37.66	2.50	40.16

Name: PV array 18
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 0.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.109586	153.069572	30.93	2.50	33.43
2	-29.109592	153.071361	29.24	2.50	31.74
3	-29.109972	153.071386	29.96	2.50	32.46
4	-29.109978	153.072467	30.00	2.50	32.50
5	-29.110311	153.072500	30.00	2.50	32.50
6	-29.110319	153.073303	31.15	2.50	33.65
7	-29.110672	153.073361	30.64	2.50	33.14
8	-29.112108	153.073353	28.68	2.50	31.18
9	-29.112119	153.072439	30.64	2.50	33.14
10	-29.112300	153.072442	30.87	2.50	33.37
11	-29.112300	153.074256	29.00	2.50	31.50
12	-29.112653	153.074275	29.74	2.50	32.24
13	-29.112661	153.074633	29.77	2.50	32.27
14	-29.113006	153.074628	30.79	2.50	33.29
15	-29.113006	153.076522	29.89	2.50	32.39
16	-29.112797	153.076511	29.59	2.50	32.09
17	-29.112797	153.078297	26.43	2.50	28.93
18	-29.113372	153.078353	27.13	2.50	29.63
19	-29.114981	153.078347	29.88	2.50	32.38
20	-29.114969	153.078094	29.97	2.50	32.47
21	-29.115317	153.078075	30.26	2.50	32.76
22	-29.115320	153.076460	34.27	2.50	36.77
23	-29.115528	153.076456	33.21	2.50	35.71
24	-29.115525	153.070742	31.94	2.50	34.44
25	-29.114467	153.070742	30.74	2.50	33.24
26	-29.114467	153.070797	30.48	2.50	32.98
27	-29.113725	153.070797	30.05	2.50	32.55
28	-29.113725	153.070239	31.57	2.50	34.07
29	-29.113350	153.070219	31.26	2.50	33.76
30	-29.113350	153.070125	31.37	2.50	33.87
31	-29.113000	153.070100	31.06	2.50	33.56
32	-29.113000	153.069572	31.53	2.50	34.03

Name: PV array 19
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 0.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.095008	153.049878	30.65	2.50	33.15
2	-29.095006	153.067636	55.88	2.50	58.38
3	-29.095361	153.067678	52.05	2.50	54.55
4	-29.095372	153.070639	54.94	2.50	57.44
5	-29.095722	153.070672	51.58	2.50	54.08
6	-29.095733	153.071469	49.76	2.50	52.26
7	-29.097678	153.071458	43.37	2.50	45.87
8	-29.097692	153.071583	43.76	2.50	46.26
9	-29.099842	153.071569	35.11	2.50	37.61
10	-29.099842	153.071353	33.97	2.50	36.47
11	-29.100928	153.071347	33.60	2.50	36.10
12	-29.100928	153.071208	33.60	2.50	36.10
13	-29.101667	153.071186	35.03	2.50	37.53
14	-29.101658	153.071047	35.08	2.50	37.58
15	-29.102022	153.071031	35.02	2.50	37.52
16	-29.102020	153.047342	32.77	2.50	35.27
17	-29.102114	153.047336	32.68	2.50	35.18
18	-29.102111	153.044069	34.04	2.50	36.54
19	-29.102019	153.044086	34.00	2.50	36.50
20	-29.102014	153.039336	38.65	2.50	41.15
21	-29.099867	153.039331	37.84	2.50	40.34
22	-29.099861	153.040528	36.06	2.50	38.56
23	-29.099494	153.040547	35.30	2.50	37.80
24	-29.099494	153.043892	32.13	2.50	34.63
25	-29.100950	153.043914	33.56	2.50	36.06
26	-29.100958	153.045236	34.06	2.50	36.56
27	-29.100580	153.045280	34.35	2.50	36.85
28	-29.100570	153.046140	33.76	2.50	36.26
29	-29.100220	153.046170	35.46	2.50	37.96
30	-29.100220	153.046440	35.17	2.50	37.67
31	-29.100570	153.046470	33.65	2.50	36.15
32	-29.100570	153.046810	33.54	2.50	36.04
33	-29.100220	153.046830	34.76	2.50	37.26
34	-29.100220	153.048570	34.30	2.50	36.80
35	-29.099860	153.048580	34.26	2.50	36.76
36	-29.099860	153.055040	30.23	2.50	32.73
37	-29.097520	153.055040	29.19	2.50	31.69
38	-29.097508	153.049244	29.61	2.50	32.11
39	-29.096461	153.049253	28.44	2.50	30.94

Name: PV array 2
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 0.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.103011	153.028981	45.87	2.50	48.37
2	-29.103033	153.031867	42.45	2.50	44.95
3	-29.105117	153.031872	39.58	2.50	42.08
4	-29.105139	153.029231	43.48	2.50	45.98
5	-29.104064	153.029211	43.73	2.50	46.23
6	-29.104044	153.028956	41.58	2.50	44.08

Name: PV array 20
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 0.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.097756	153.046586	30.04	2.50	32.54
2	-29.097722	153.046661	30.51	2.50	33.01
3	-29.097722	153.050819	31.18	2.50	33.68
4	-29.098397	153.050817	30.55	2.50	33.05
5	-29.098400	153.050675	29.78	2.50	32.28
6	-29.098433	153.050681	29.76	2.50	32.26
7	-29.098430	153.049186	29.93	2.50	32.43
8	-29.098747	153.049158	31.20	2.50	33.70
9	-29.098744	153.049008	30.31	2.50	32.81
10	-29.098781	153.048992	30.37	2.50	32.87
11	-29.098789	153.045769	30.60	2.50	33.10
12	-29.098081	153.045769	31.10	2.50	33.60
13	-29.098089	153.046567	32.80	2.50	35.30

Name: PV array 21
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 0.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.119964	153.067553	34.62	2.50	37.12
2	-29.119931	153.071286	34.59	2.50	37.09
3	-29.120281	153.071325	33.95	2.50	36.45
4	-29.120344	153.073556	31.66	2.50	34.16
5	-29.120458	153.073553	31.39	2.50	33.89
6	-29.120464	153.075878	34.40	2.50	36.90
7	-29.120114	153.075856	33.35	2.50	35.85
8	-29.120114	153.078875	29.83	2.50	32.33
9	-29.120853	153.078881	29.81	2.50	32.31
10	-29.120853	153.078372	29.48	2.50	31.98
11	-29.121589	153.078375	30.72	2.50	33.22
12	-29.121597	153.077969	30.34	2.50	32.84
13	-29.121947	153.077806	30.38	2.50	32.88
14	-29.121947	153.077344	29.07	2.50	31.57
15	-29.122303	153.077336	29.04	2.50	31.54
16	-29.122294	153.075361	32.04	2.50	34.54
17	-29.121594	153.075361	34.77	2.50	37.27
18	-29.121586	153.073336	29.42	2.50	31.92
19	-29.121239	153.073328	29.58	2.50	32.08
20	-29.121294	153.070856	32.46	2.50	34.96
21	-29.121714	153.070683	31.91	2.50	34.41
22	-29.121714	153.070081	32.74	2.50	35.24
23	-29.122067	153.069833	32.73	2.50	35.23
24	-29.122103	153.067342	29.46	2.50	31.96
25	-29.121022	153.067347	32.75	2.50	35.25
26	-29.121022	153.067553	32.13	2.50	34.63

Name: PV array 22
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 0.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.114775	153.080247	54.75	2.50	57.25
2	-29.114775	153.080583	53.92	2.50	56.42
3	-29.115122	153.080614	56.19	2.50	58.69
4	-29.115125	153.080961	59.96	2.50	62.46
5	-29.115822	153.080961	55.06	2.50	57.56
6	-29.115822	153.080836	49.55	2.50	52.05
7	-29.116564	153.080797	49.76	2.50	52.26
8	-29.116564	153.080217	46.19	2.50	48.69
9	-29.116928	153.080192	43.83	2.50	46.33
10	-29.116928	153.079286	43.59	2.50	46.09
11	-29.117444	153.079256	45.43	2.50	47.93
12	-29.117444	153.078672	40.64	2.50	43.14
13	-29.117797	153.078642	41.60	2.50	44.10
14	-29.117797	153.078194	41.85	2.50	44.35
15	-29.117103	153.078194	41.39	2.50	43.89
16	-29.117103	153.078386	41.00	2.50	43.50
17	-29.116203	153.078425	51.19	2.50	53.69
18	-29.116208	153.078614	48.69	2.50	51.19
19	-29.115853	153.078644	55.75	2.50	58.25
20	-29.115853	153.079003	60.58	2.50	63.08
21	-29.115475	153.079028	56.40	2.50	58.90
22	-29.115481	153.079553	48.27	2.50	50.77
23	-29.115125	153.079589	49.11	2.50	51.61
24	-29.115128	153.080219	57.49	2.50	59.99

Name: PV array 23
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 0.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.115711	153.068300	41.50	2.50	44.00
2	-29.115708	153.077564	41.51	2.50	44.01
3	-29.116775	153.077617	41.78	2.50	44.28
4	-29.116775	153.077372	41.72	2.50	44.22
5	-29.117500	153.077344	41.23	2.50	43.73
6	-29.117500	153.077214	40.70	2.50	43.20
7	-29.117853	153.077178	40.00	2.50	42.50
8	-29.117858	153.077039	40.44	2.50	42.94
9	-29.118383	153.077014	41.50	2.50	44.00
10	-29.118383	153.076644	41.18	2.50	43.68
11	-29.118739	153.076631	40.28	2.50	42.78
12	-29.118739	153.075653	39.12	2.50	41.62
13	-29.119083	153.075622	38.34	2.50	40.84
14	-29.119083	153.072625	39.10	2.50	41.60
15	-29.118736	153.072594	40.48	2.50	42.98
16	-29.118736	153.068858	40.41	2.50	42.91
17	-29.118383	153.068831	42.05	2.50	44.55
18	-29.118383	153.067967	42.40	2.50	44.90
19	-29.116806	153.067970	42.22	2.50	44.72
20	-29.116810	153.068106	42.02	2.50	44.52
21	-29.116053	153.068131	41.65	2.50	44.15
22	-29.116050	153.068272	42.27	2.50	44.77

Name: PV array 3
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 0.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.103158	153.033744	37.67	2.50	40.17
2	-29.103161	153.034311	44.09	2.50	46.59
3	-29.103506	153.034347	49.91	2.50	52.41
4	-29.103506	153.035361	50.39	2.50	52.89
5	-29.103864	153.035389	48.02	2.50	50.52
6	-29.103864	153.035694	46.05	2.50	48.55
7	-29.104236	153.035733	43.39	2.50	45.89
8	-29.104242	153.036075	41.79	2.50	44.29
9	-29.105681	153.036081	43.07	2.50	45.57
10	-29.105678	153.035300	40.37	2.50	42.87
11	-29.105300	153.035261	38.35	2.50	40.85
12	-29.105300	153.033747	38.15	2.50	40.65

Name: PV array 4
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 0.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.100956	153.029697	61.70	2.50	64.20
2	-29.100960	153.033861	52.05	2.50	54.55
3	-29.102319	153.033872	41.22	2.50	43.72
4	-29.102206	153.029711	55.91	2.50	58.41

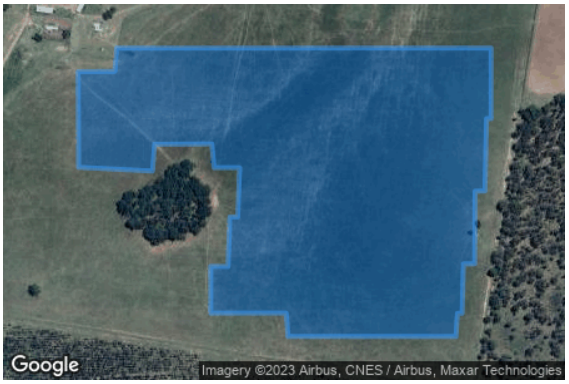
Name: PV array 5
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 0.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.096244	153.020017	63.68	2.50	66.18
2	-29.096258	153.021258	58.95	2.50	61.45
3	-29.096144	153.021281	58.13	2.50	60.63
4	-29.096142	153.022628	52.57	2.50	55.07
5	-29.096497	153.022653	51.62	2.50	54.12
6	-29.096506	153.025769	53.56	2.50	56.06
7	-29.096856	153.025817	52.73	2.50	55.23
8	-29.096858	153.026111	52.97	2.50	55.47
9	-29.097494	153.026317	52.15	2.50	54.65
10	-29.097789	153.027056	53.44	2.50	55.94
11	-29.098275	153.027050	51.11	2.50	53.61
12	-29.098319	153.019792	51.02	2.50	53.52
13	-29.098064	153.019775	50.99	2.50	53.49
14	-29.097667	153.020156	52.49	2.50	54.99
15	-29.097636	153.020281	52.49	2.50	54.99
16	-29.096947	153.020283	54.63	2.50	57.13
17	-29.096931	153.020225	54.40	2.50	56.90
18	-29.096930	153.020225	52.63	2.50	55.13
19	-29.096930	153.020225	56.59	2.50	59.09

Name: PV array 6
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 0.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.098411	153.019708	52.49	2.50	54.99
2	-29.098410	153.022644	54.27	2.50	56.77
3	-29.098453	153.022644	54.17	2.50	56.67
4	-29.098453	153.025644	52.52	2.50	55.02
5	-29.098406	153.025644	52.52	2.50	55.02
6	-29.098410	153.026583	50.97	2.50	53.47
7	-29.098456	153.026583	50.96	2.50	53.46
8	-29.098460	153.028092	50.98	2.50	53.48
9	-29.098806	153.028111	49.50	2.50	52.00
10	-29.098814	153.028110	49.50	2.50	52.00
11	-29.100568	153.028106	43.03	2.50	45.53
12	-29.100578	153.028090	43.04	2.50	45.54
13	-29.100586	153.028083	43.04	2.50	45.54
14	-29.100586	153.024706	46.96	2.50	49.46
15	-29.100236	153.024675	47.84	2.50	50.34
16	-29.100236	153.024317	47.76	2.50	50.26
17	-29.099511	153.024286	51.07	2.50	53.57
18	-29.099503	153.021261	52.06	2.50	54.56
19	-29.099153	153.021256	51.64	2.50	54.14
20	-29.099147	153.019714	53.21	2.50	55.71

Name: PV array 7
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 0.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.102553	153.036561	61.89	2.50	64.39
2	-29.102550	153.037192	57.69	2.50	60.19
3	-29.102203	153.037222	56.56	2.50	59.06
4	-29.102200	153.043656	57.79	2.50	60.29
5	-29.103258	153.043656	59.96	2.50	62.46
6	-29.103258	153.043578	60.09	2.50	62.59
7	-29.104339	153.043550	61.32	2.50	63.82
8	-29.104344	153.043381	63.82	2.50	66.32
9	-29.105428	153.043375	64.55	2.50	67.05
10	-29.105430	153.043181	65.16	2.50	67.66
11	-29.106169	153.043158	66.84	2.50	69.34
12	-29.106170	153.043078	69.07	2.50	71.57
13	-29.106517	153.043053	71.34	2.50	73.84
14	-29.106517	153.040167	72.19	2.50	74.69
15	-29.106167	153.040136	70.00	2.50	72.50
16	-29.106167	153.038839	69.02	2.50	71.52
17	-29.105467	153.038839	69.78	2.50	72.28
18	-29.105470	153.039136	74.83	2.50	77.33
19	-29.104728	153.039169	75.24	2.50	77.74
20	-29.104728	153.039303	72.87	2.50	75.37
21	-29.103992	153.039336	67.81	2.50	70.31
22	-29.103990	153.038897	63.04	2.50	65.54
23	-29.103636	153.038858	60.65	2.50	63.15
24	-29.103640	153.037875	61.34	2.50	63.84
25	-29.104042	153.037839	65.75	2.50	68.25
26	-29.103986	153.036569	63.73	2.50	66.23

Name: PV array 8
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 0.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.092536	153.034539	49.37	2.50	51.87
2	-29.092539	153.034797	46.57	2.50	49.07
3	-29.091453	153.034833	44.03	2.50	46.53
4	-29.091453	153.034972	42.10	2.50	44.60
5	-29.091078	153.034981	41.53	2.50	44.03
6	-29.091078	153.035514	38.85	2.50	41.35
7	-29.091175	153.035525	37.65	2.50	40.15
8	-29.091308	153.036322	36.36	2.50	38.86
9	-29.092222	153.043542	34.71	2.50	37.21
10	-29.092350	153.043533	33.71	2.50	36.21
11	-29.092544	153.045875	34.18	2.50	36.68
12	-29.092803	153.045858	35.67	2.50	38.17
13	-29.092858	153.048208	36.30	2.50	38.80
14	-29.093097	153.049672	36.65	2.50	39.15
15	-29.093600	153.049675	36.09	2.50	38.59
16	-29.093600	153.034550	36.90	2.50	39.40
17	-29.093600	153.034550	38.56	2.50	41.06
18	-29.093600	153.034550	40.09	2.50	42.59
19	-29.093600	153.034550	43.30	2.50	45.80
20	-29.093600	153.034550	46.85	2.50	49.35
21	-29.093600	153.034550	50.12	2.50	52.62
22	-29.093600	153.034550	50.80	2.50	53.30

Name: PV array 9
Axis tracking: Single-axis rotation
Backtracking: None
Tracking axis orientation: 0.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.093742	153.034075	47.59	2.50	50.09
2	-29.093742	153.047911	29.17	2.50	31.67
3	-29.093636	153.047906	29.32	2.50	31.82
4	-29.093640	153.047924	29.32	2.50	31.82
5	-29.094433	153.049239	29.11	2.50	31.61
6	-29.094433	153.049097	29.00	2.50	31.50
7	-29.094797	153.049075	29.37	2.50	31.87
8	-29.094797	153.048883	29.37	2.50	31.87
9	-29.095178	153.048853	29.93	2.50	32.43
10	-29.095178	153.048714	29.93	2.50	32.43
11	-29.095531	153.048686	29.56	2.50	32.06
12	-29.095533	153.048492	29.56	2.50	32.06
13	-29.095894	153.048458	29.04	2.50	31.54
14	-29.095890	153.034044	50.01	2.50	52.51

Route Receptors

Name: Avenue Road
Path type: Two-way
Observer view angle: 50.0°

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.104310	153.008342	42.58	2.40	44.98
2	-29.100917	153.012869	48.57	2.40	50.97
3	-29.099510	153.019414	55.62	2.40	58.02
4	-29.101310	153.026194	44.13	2.40	46.53
5	-29.100501	153.029799	39.40	2.40	41.80
6	-29.100182	153.033833	38.23	2.40	40.63
7	-29.099919	153.034691	38.36	2.40	40.76
8	-29.099619	153.036214	38.31	2.40	40.71
9	-29.099788	153.037373	38.57	2.40	40.97
10	-29.098748	153.043470	32.00	2.40	34.40
11	-29.096820	153.048507	29.92	2.40	32.32
12	-29.092638	153.050803	31.00	2.40	33.40
13	-29.089901	153.051575	41.28	2.40	43.68
14	-29.088341	153.054683	47.04	2.40	49.44
15	-29.087047	153.056636	55.63	2.40	58.03
16	-29.086241	153.058610	59.01	2.40	61.41
17	-29.084685	153.059683	59.79	2.40	62.19

Name: Main Camp Road
Path type: Two-way
Observer view angle: 50.0°

Vertex	Latitude (°)	Longitude (°)	Ground elevation (m)	Height above ground (m)	Total elevation (m)
1	-29.130769	153.064031	35.05	2.40	37.45
2	-29.130881	153.067035	33.07	2.40	35.47
3	-29.130450	153.072142	26.52	2.40	28.92
4	-29.129644	153.084169	26.00	2.40	28.40

Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (m)	Height (m)
OP 1	1	-29.098436	153.005919	57.00	1.50
OP 2	2	-29.098614	153.005617	58.18	1.50
OP 3	3	-29.098942	153.009817	58.46	1.50
OP 4	4	-29.104081	153.007164	43.97	1.50
OP 5	5	-29.105522	153.007317	42.09	1.50
OP 6	6	-29.104364	153.005417	45.19	1.50
OP 7	7	-29.105019	153.006536	45.10	1.50
OP 8	8	-29.117603	153.001347	38.65	1.50
OP 9	9	-29.083078	153.055558	73.37	1.50
OP 10	10	-29.076967	153.057103	64.26	1.50
OP 11	11	-29.080647	153.066289	49.73	1.50
OP 12	12	-29.083183	153.068906	49.76	1.50
OP 13	13	-29.080508	153.075694	58.03	1.50
OP 14	14	-29.072514	153.073319	58.38	1.50
OP 15	15	-29.079144	153.061150	62.76	1.50
OP 16	16	-29.084792	153.057350	64.28	1.50
OP 17	17	-29.087883	153.058739	46.82	1.50
OP 18	18	-29.081653	153.067194	53.77	1.50
OP 19	19	-29.085114	153.060258	60.28	1.50
OP 20	20	-29.090203	153.055103	40.01	1.50
OP 21	21	-29.106228	153.101144	34.31	1.50
OP 22	22	-29.084800	153.063742	69.22	1.50
OP 23	23	-29.084386	153.065572	66.41	1.50
OP 24	24	-29.084969	153.068331	50.01	1.50
OP 25	25	-29.081494	153.054019	74.64	1.50
OP 26	26	-29.131783	153.064194	34.19	1.50
OP 27	27	-29.132158	153.065619	34.34	1.50
OP 28	28	-29.131331	153.065711	36.18	1.50
OP 29	29	-29.138036	153.099008	43.00	1.50
OP 30	30	-29.134267	153.099875	41.44	1.50
OP 31	31	-29.138078	153.100536	38.27	1.50
OP 32	32	-29.132817	153.101467	42.08	1.50
OP 33	33	-29.134686	153.059939	31.67	1.50

Glare Analysis Results

Summary of Results No glare predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV array 1	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 10	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 15	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 16	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 17	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 18	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 19	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 2	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 20	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 21	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 22	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 23	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 3	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 4	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 5	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 6	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 7	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 8	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 9	SA tracking	SA tracking	0	0.0	0	0.0	-

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV: PV array 1 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 1 and Route: Avenue Road

No glare found

PV array 1 and Route: Main Camp Road

No glare found

PV array 1 and OP 1

No glare found

PV array 1 and OP 2

No glare found

PV array 1 and OP 3

No glare found

PV array 1 and OP 4

No glare found

PV array 1 and OP 5

No glare found

PV array 1 and OP 6

No glare found

PV array 1 and OP 7

No glare found

PV array 1 and OP 8

No glare found

PV array 1 and OP 9

No glare found

PV array 1 and OP 10

No glare found

PV array 1 and OP 11

No glare found

PV array 1 and OP 12

No glare found

PV array 1 and OP 13

No glare found

PV array 1 and OP 14

No glare found

PV array 1 and OP 15

No glare found

PV array 1 and OP 16

No glare found

PV array 1 and OP 17

No glare found

PV array 1 and OP 18

No glare found

PV array 1 and OP 19

No glare found

PV array 1 and OP 20

No glare found

PV array 1 and OP 21

No glare found

PV array 1 and OP 22

No glare found

PV array 1 and OP 23

No glare found

PV array 1 and OP 24

No glare found

PV array 1 and OP 25

No glare found

PV array 1 and OP 26

No glare found

PV array 1 and OP 27

No glare found

PV array 1 and OP 28

No glare found

PV array 1 and OP 29

No glare found

PV array 1 and OP 30

No glare found

PV array 1 and OP 31

No glare found

PV array 1 and OP 32

No glare found

PV array 1 and OP 33

No glare found

PV: PV array 10 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 10 and Route: Avenue Road

No glare found

PV array 10 and Route: Main Camp Road

No glare found

PV array 10 and OP 1

No glare found

PV array 10 and OP 2

No glare found

PV array 10 and OP 3

No glare found

PV array 10 and OP 4

No glare found

PV array 10 and OP 5

No glare found

PV array 10 and OP 6

No glare found

PV array 10 and OP 7

No glare found

PV array 10 and OP 8

No glare found

PV array 10 and OP 9

No glare found

PV array 10 and OP 10

No glare found

PV array 10 and OP 11

No glare found

PV array 10 and OP 12

No glare found

PV array 10 and OP 13

No glare found

PV array 10 and OP 14

No glare found

PV array 10 and OP 15

No glare found

PV array 10 and OP 16

No glare found

PV array 10 and OP 17

No glare found

PV array 10 and OP 18

No glare found

PV array 10 and OP 19

No glare found

PV array 10 and OP 20

No glare found

PV array 10 and OP 21

No glare found

PV array 10 and OP 22

No glare found

PV array 10 and OP 23

No glare found

PV array 10 and OP 24

No glare found

PV array 10 and OP 25

No glare found

PV array 10 and OP 26

No glare found

PV array 10 and OP 27

No glare found

PV array 10 and OP 28

No glare found

PV array 10 and OP 29

No glare found

PV array 10 and OP 30

No glare found

PV array 10 and OP 31

No glare found

PV array 10 and OP 32

No glare found

PV array 10 and OP 33

No glare found

PV: PV array 15 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 15 and Route: Avenue Road

No glare found

PV array 15 and Route: Main Camp Road

No glare found

PV array 15 and OP 1

No glare found

PV array 15 and OP 2

No glare found

PV array 15 and OP 3

No glare found

PV array 15 and OP 4

No glare found

PV array 15 and OP 5

No glare found

PV array 15 and OP 6

No glare found

PV array 15 and OP 7

No glare found

PV array 15 and OP 8

No glare found

PV array 15 and OP 9

No glare found

PV array 15 and OP 10

No glare found

PV array 15 and OP 11

No glare found

PV array 15 and OP 12

No glare found

PV array 15 and OP 13

No glare found

PV array 15 and OP 14

No glare found

PV array 15 and OP 15

No glare found

PV array 15 and OP 16

No glare found

PV array 15 and OP 17

No glare found

PV array 15 and OP 18

No glare found

PV array 15 and OP 19

No glare found

PV array 15 and OP 20

No glare found

PV array 15 and OP 21

No glare found

PV array 15 and OP 22

No glare found

PV array 15 and OP 23

No glare found

PV array 15 and OP 24

No glare found

PV array 15 and OP 25

No glare found

PV array 15 and OP 26

No glare found

PV array 15 and OP 27

No glare found

PV array 15 and OP 28

No glare found

PV array 15 and OP 29

No glare found

PV array 15 and OP 30

No glare found

PV array 15 and OP 31

No glare found

PV array 15 and OP 32

No glare found

PV array 15 and OP 33

No glare found

PV: PV array 16 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 16 and Route: Avenue Road

No glare found

PV array 16 and Route: Main Camp Road

No glare found

PV array 16 and OP 1

No glare found

PV array 16 and OP 2

No glare found

PV array 16 and OP 3

No glare found

PV array 16 and OP 4

No glare found

PV array 16 and OP 5

No glare found

PV array 16 and OP 6

No glare found

PV array 16 and OP 7

No glare found

PV array 16 and OP 8

No glare found

PV array 16 and OP 9

No glare found

PV array 16 and OP 10

No glare found

PV array 16 and OP 11

No glare found

PV array 16 and OP 12

No glare found

PV array 16 and OP 13

No glare found

PV array 16 and OP 14

No glare found

PV array 16 and OP 15

No glare found

PV array 16 and OP 16

No glare found

PV array 16 and OP 17

No glare found

PV array 16 and OP 18

No glare found

PV array 16 and OP 19

No glare found

PV array 16 and OP 20

No glare found

PV array 16 and OP 21

No glare found

PV array 16 and OP 22

No glare found

PV array 16 and OP 23

No glare found

PV array 16 and OP 24

No glare found

PV array 16 and OP 25

No glare found

PV array 16 and OP 26

No glare found

PV array 16 and OP 27

No glare found

PV array 16 and OP 28

No glare found

PV array 16 and OP 29

No glare found

PV array 16 and OP 30

No glare found

PV array 16 and OP 31

No glare found

PV array 16 and OP 32

No glare found

PV array 16 and OP 33

No glare found

PV: PV array 17 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 17 and Route: Avenue Road

No glare found

PV array 17 and Route: Main Camp Road

No glare found

PV array 17 and OP 1

No glare found

PV array 17 and OP 2

No glare found

PV array 17 and OP 3

No glare found

PV array 17 and OP 4

No glare found

PV array 17 and OP 5

No glare found

PV array 17 and OP 6

No glare found

PV array 17 and OP 7

No glare found

PV array 17 and OP 8

No glare found

PV array 17 and OP 9

No glare found

PV array 17 and OP 10

No glare found

PV array 17 and OP 11

No glare found

PV array 17 and OP 12

No glare found

PV array 17 and OP 13

No glare found

PV array 17 and OP 14

No glare found

PV array 17 and OP 15

No glare found

PV array 17 and OP 16

No glare found

PV array 17 and OP 17

No glare found

PV array 17 and OP 18

No glare found

PV array 17 and OP 19

No glare found

PV array 17 and OP 20

No glare found

PV array 17 and OP 21

No glare found

PV array 17 and OP 22

No glare found

PV array 17 and OP 23

No glare found

PV array 17 and OP 24

No glare found

PV array 17 and OP 25

No glare found

PV array 17 and OP 26

No glare found

PV array 17 and OP 27

No glare found

PV array 17 and OP 28

No glare found

PV array 17 and OP 29

No glare found

PV array 17 and OP 30

No glare found

PV array 17 and OP 31

No glare found

PV array 17 and OP 32

No glare found

PV array 17 and OP 33

No glare found

PV: PV array 18 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 18 and Route: Avenue Road

No glare found

PV array 18 and Route: Main Camp Road

No glare found

PV array 18 and OP 1

No glare found

PV array 18 and OP 2

No glare found

PV array 18 and OP 3

No glare found

PV array 18 and OP 4

No glare found

PV array 18 and OP 5

No glare found

PV array 18 and OP 6

No glare found

PV array 18 and OP 7

No glare found

PV array 18 and OP 8

No glare found

PV array 18 and OP 9

No glare found

PV array 18 and OP 10

No glare found

PV array 18 and OP 11

No glare found

PV array 18 and OP 12

No glare found

PV array 18 and OP 13

No glare found

PV array 18 and OP 14

No glare found

PV array 18 and OP 15

No glare found

PV array 18 and OP 16

No glare found

PV array 18 and OP 17

No glare found

PV array 18 and OP 18

No glare found

PV array 18 and OP 19

No glare found

PV array 18 and OP 20

No glare found

PV array 18 and OP 21

No glare found

PV array 18 and OP 22

No glare found

PV array 18 and OP 23

No glare found

PV array 18 and OP 24

No glare found

PV array 18 and OP 25

No glare found

PV array 18 and OP 26

No glare found

PV array 18 and OP 27

No glare found

PV array 18 and OP 28

No glare found

PV array 18 and OP 29

No glare found

PV array 18 and OP 30

No glare found

PV array 18 and OP 31

No glare found

PV array 18 and OP 32

No glare found

PV array 18 and OP 33

No glare found

PV: PV array 19 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 19 and Route: Avenue Road

No glare found

PV array 19 and Route: Main Camp Road

No glare found

PV array 19 and OP 1

No glare found

PV array 19 and OP 2

No glare found

PV array 19 and OP 3

No glare found

PV array 19 and OP 4

No glare found

PV array 19 and OP 5

No glare found

PV array 19 and OP 6

No glare found

PV array 19 and OP 7

No glare found

PV array 19 and OP 8

No glare found

PV array 19 and OP 9

No glare found

PV array 19 and OP 10

No glare found

PV array 19 and OP 11

No glare found

PV array 19 and OP 12

No glare found

PV array 19 and OP 13

No glare found

PV array 19 and OP 14

No glare found

PV array 19 and OP 15

No glare found

PV array 19 and OP 16

No glare found

PV array 19 and OP 17

No glare found

PV array 19 and OP 18

No glare found

PV array 19 and OP 19

No glare found

PV array 19 and OP 20

No glare found

PV array 19 and OP 21

No glare found

PV array 19 and OP 22

No glare found

PV array 19 and OP 23

No glare found

PV array 19 and OP 24

No glare found

PV array 19 and OP 25

No glare found

PV array 19 and OP 26

No glare found

PV array 19 and OP 27

No glare found

PV array 19 and OP 28

No glare found

PV array 19 and OP 29

No glare found

PV array 19 and OP 30

No glare found

PV array 19 and OP 31

No glare found

PV array 19 and OP 32

No glare found

PV array 19 and OP 33

No glare found

PV: PV array 2 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 2 and Route: Avenue Road

No glare found

PV array 2 and Route: Main Camp Road

No glare found

PV array 2 and OP 1

No glare found

PV array 2 and OP 2

No glare found

PV array 2 and OP 3

No glare found

PV array 2 and OP 4

No glare found

PV array 2 and OP 5

No glare found

PV array 2 and OP 6

No glare found

PV array 2 and OP 7

No glare found

PV array 2 and OP 8

No glare found

PV array 2 and OP 9

No glare found

PV array 2 and OP 10

No glare found

PV array 2 and OP 11

No glare found

PV array 2 and OP 12

No glare found

PV array 2 and OP 13

No glare found

PV array 2 and OP 14

No glare found

PV array 2 and OP 15

No glare found

PV array 2 and OP 16

No glare found

PV array 2 and OP 17

No glare found

PV array 2 and OP 18

No glare found

PV array 2 and OP 19

No glare found

PV array 2 and OP 20

No glare found

PV array 2 and OP 21

No glare found

PV array 2 and OP 22

No glare found

PV array 2 and OP 23

No glare found

PV array 2 and OP 24

No glare found

PV array 2 and OP 25

No glare found

PV array 2 and OP 26

No glare found

PV array 2 and OP 27

No glare found

PV array 2 and OP 28

No glare found

PV array 2 and OP 29

No glare found

PV array 2 and OP 30

No glare found

PV array 2 and OP 31

No glare found

PV array 2 and OP 32

No glare found

PV array 2 and OP 33

No glare found

PV: PV array 20 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 20 and Route: Avenue Road

No glare found

PV array 20 and Route: Main Camp Road

No glare found

PV array 20 and OP 1

No glare found

PV array 20 and OP 2

No glare found

PV array 20 and OP 3

No glare found

PV array 20 and OP 4

No glare found

PV array 20 and OP 5

No glare found

PV array 20 and OP 6

No glare found

PV array 20 and OP 7

No glare found

PV array 20 and OP 8

No glare found

PV array 20 and OP 9

No glare found

PV array 20 and OP 10

No glare found

PV array 20 and OP 11

No glare found

PV array 20 and OP 12

No glare found

PV array 20 and OP 13

No glare found

PV array 20 and OP 14

No glare found

PV array 20 and OP 15

No glare found

PV array 20 and OP 16

No glare found

PV array 20 and OP 17

No glare found

PV array 20 and OP 18

No glare found

PV array 20 and OP 19

No glare found

PV array 20 and OP 20

No glare found

PV array 20 and OP 21

No glare found

PV array 20 and OP 22

No glare found

PV array 20 and OP 23

No glare found

PV array 20 and OP 24

No glare found

PV array 20 and OP 25

No glare found

PV array 20 and OP 26

No glare found

PV array 20 and OP 27

No glare found

PV array 20 and OP 28

No glare found

PV array 20 and OP 29

No glare found

PV array 20 and OP 30

No glare found

PV array 20 and OP 31

No glare found

PV array 20 and OP 32

No glare found

PV array 20 and OP 33

No glare found

PV: PV array 21 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 21 and Route: Avenue Road

No glare found

PV array 21 and Route: Main Camp Road

No glare found

PV array 21 and OP 1

No glare found

PV array 21 and OP 2

No glare found

PV array 21 and OP 3

No glare found

PV array 21 and OP 4

No glare found

PV array 21 and OP 5

No glare found

PV array 21 and OP 6

No glare found

PV array 21 and OP 7

No glare found

PV array 21 and OP 8

No glare found

PV array 21 and OP 9

No glare found

PV array 21 and OP 10

No glare found

PV array 21 and OP 11

No glare found

PV array 21 and OP 12

No glare found

PV array 21 and OP 13

No glare found

PV array 21 and OP 14

No glare found

PV array 21 and OP 15

No glare found

PV array 21 and OP 16

No glare found

PV array 21 and OP 17

No glare found

PV array 21 and OP 18

No glare found

PV array 21 and OP 19

No glare found

PV array 21 and OP 20

No glare found

PV array 21 and OP 21

No glare found

PV array 21 and OP 22

No glare found

PV array 21 and OP 23

No glare found

PV array 21 and OP 24

No glare found

PV array 21 and OP 25

No glare found

PV array 21 and OP 26

No glare found

PV array 21 and OP 27

No glare found

PV array 21 and OP 28

No glare found

PV array 21 and OP 29

No glare found

PV array 21 and OP 30

No glare found

PV array 21 and OP 31

No glare found

PV array 21 and OP 32

No glare found

PV array 21 and OP 33

No glare found

PV: PV array 22 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 22 and Route: Avenue Road

No glare found

PV array 22 and Route: Main Camp Road

No glare found

PV array 22 and OP 1

No glare found

PV array 22 and OP 2

No glare found

PV array 22 and OP 3

No glare found

PV array 22 and OP 4

No glare found

PV array 22 and OP 5

No glare found

PV array 22 and OP 6

No glare found

PV array 22 and OP 7

No glare found

PV array 22 and OP 8

No glare found

PV array 22 and OP 9

No glare found

PV array 22 and OP 10

No glare found

PV array 22 and OP 11

No glare found

PV array 22 and OP 12

No glare found

PV array 22 and OP 13

No glare found

PV array 22 and OP 14

No glare found

PV array 22 and OP 15

No glare found

PV array 22 and OP 16

No glare found

PV array 22 and OP 17

No glare found

PV array 22 and OP 18

No glare found

PV array 22 and OP 19

No glare found

PV array 22 and OP 20

No glare found

PV array 22 and OP 21

No glare found

PV array 22 and OP 22

No glare found

PV array 22 and OP 23

No glare found

PV array 22 and OP 24

No glare found

PV array 22 and OP 25

No glare found

PV array 22 and OP 26

No glare found

PV array 22 and OP 27

No glare found

PV array 22 and OP 28

No glare found

PV array 22 and OP 29

No glare found

PV array 22 and OP 30

No glare found

PV array 22 and OP 31

No glare found

PV array 22 and OP 32

No glare found

PV array 22 and OP 33

No glare found

PV: PV array 23 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 23 and Route: Avenue Road

No glare found

PV array 23 and Route: Main Camp Road

No glare found

PV array 23 and OP 1

No glare found

PV array 23 and OP 2

No glare found

PV array 23 and OP 3

No glare found

PV array 23 and OP 4

No glare found

PV array 23 and OP 5

No glare found

PV array 23 and OP 6

No glare found

PV array 23 and OP 7

No glare found

PV array 23 and OP 8

No glare found

PV array 23 and OP 9

No glare found

PV array 23 and OP 10

No glare found

PV array 23 and OP 11

No glare found

PV array 23 and OP 12

No glare found

PV array 23 and OP 13

No glare found

PV array 23 and OP 14

No glare found

PV array 23 and OP 15

No glare found

PV array 23 and OP 16

No glare found

PV array 23 and OP 17

No glare found

PV array 23 and OP 18

No glare found

PV array 23 and OP 19

No glare found

PV array 23 and OP 20

No glare found

PV array 23 and OP 21

No glare found

PV array 23 and OP 22

No glare found

PV array 23 and OP 23

No glare found

PV array 23 and OP 24

No glare found

PV array 23 and OP 25

No glare found

PV array 23 and OP 26

No glare found

PV array 23 and OP 27

No glare found

PV array 23 and OP 28

No glare found

PV array 23 and OP 29

No glare found

PV array 23 and OP 30

No glare found

PV array 23 and OP 31

No glare found

PV array 23 and OP 32

No glare found

PV array 23 and OP 33

No glare found

PV: PV array 3 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 3 and Route: Avenue Road

No glare found

PV array 3 and Route: Main Camp Road

No glare found

PV array 3 and OP 1

No glare found

PV array 3 and OP 2

No glare found

PV array 3 and OP 3

No glare found

PV array 3 and OP 4

No glare found

PV array 3 and OP 5

No glare found

PV array 3 and OP 6

No glare found

PV array 3 and OP 7

No glare found

PV array 3 and OP 8

No glare found

PV array 3 and OP 9

No glare found

PV array 3 and OP 10

No glare found

PV array 3 and OP 11

No glare found

PV array 3 and OP 12

No glare found

PV array 3 and OP 13

No glare found

PV array 3 and OP 14

No glare found

PV array 3 and OP 15

No glare found

PV array 3 and OP 16

No glare found

PV array 3 and OP 17

No glare found

PV array 3 and OP 18

No glare found

PV array 3 and OP 19

No glare found

PV array 3 and OP 20

No glare found

PV array 3 and OP 21

No glare found

PV array 3 and OP 22

No glare found

PV array 3 and OP 23

No glare found

PV array 3 and OP 24

No glare found

PV array 3 and OP 25

No glare found

PV array 3 and OP 26

No glare found

PV array 3 and OP 27

No glare found

PV array 3 and OP 28

No glare found

PV array 3 and OP 29

No glare found

PV array 3 and OP 30

No glare found

PV array 3 and OP 31

No glare found

PV array 3 and OP 32

No glare found

PV array 3 and OP 33

No glare found

PV: PV array 4 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 4 and Route: Avenue Road

No glare found

PV array 4 and Route: Main Camp Road

No glare found

PV array 4 and OP 1

No glare found

PV array 4 and OP 2

No glare found

PV array 4 and OP 3

No glare found

PV array 4 and OP 4

No glare found

PV array 4 and OP 5

No glare found

PV array 4 and OP 6

No glare found

PV array 4 and OP 7

No glare found

PV array 4 and OP 8

No glare found

PV array 4 and OP 9

No glare found

PV array 4 and OP 10

No glare found

PV array 4 and OP 11

No glare found

PV array 4 and OP 12

No glare found

PV array 4 and OP 13

No glare found

PV array 4 and OP 14

No glare found

PV array 4 and OP 15

No glare found

PV array 4 and OP 16

No glare found

PV array 4 and OP 17

No glare found

PV array 4 and OP 18

No glare found

PV array 4 and OP 19

No glare found

PV array 4 and OP 20

No glare found

PV array 4 and OP 21

No glare found

PV array 4 and OP 22

No glare found

PV array 4 and OP 23

No glare found

PV array 4 and OP 24

No glare found

PV array 4 and OP 25

No glare found

PV array 4 and OP 26

No glare found

PV array 4 and OP 27

No glare found

PV array 4 and OP 28

No glare found

PV array 4 and OP 29

No glare found

PV array 4 and OP 30

No glare found

PV array 4 and OP 31

No glare found

PV array 4 and OP 32

No glare found

PV array 4 and OP 33

No glare found

PV: PV array 5 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 5 and Route: Avenue Road

No glare found

PV array 5 and Route: Main Camp Road

No glare found

PV array 5 and OP 1

No glare found

PV array 5 and OP 2

No glare found

PV array 5 and OP 3

No glare found

PV array 5 and OP 4

No glare found

PV array 5 and OP 5

No glare found

PV array 5 and OP 6

No glare found

PV array 5 and OP 7

No glare found

PV array 5 and OP 8

No glare found

PV array 5 and OP 9

No glare found

PV array 5 and OP 10

No glare found

PV array 5 and OP 11

No glare found

PV array 5 and OP 12

No glare found

PV array 5 and OP 13

No glare found

PV array 5 and OP 14

No glare found

PV array 5 and OP 15

No glare found

PV array 5 and OP 16

No glare found

PV array 5 and OP 17

No glare found

PV array 5 and OP 18

No glare found

PV array 5 and OP 19

No glare found

PV array 5 and OP 20

No glare found

PV array 5 and OP 21

No glare found

PV array 5 and OP 22

No glare found

PV array 5 and OP 23

No glare found

PV array 5 and OP 24

No glare found

PV array 5 and OP 25

No glare found

PV array 5 and OP 26

No glare found

PV array 5 and OP 27

No glare found

PV array 5 and OP 28

No glare found

PV array 5 and OP 29

No glare found

PV array 5 and OP 30

No glare found

PV array 5 and OP 31

No glare found

PV array 5 and OP 32

No glare found

PV array 5 and OP 33

No glare found

PV: PV array 6 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 6 and Route: Avenue Road

No glare found

PV array 6 and Route: Main Camp Road

No glare found

PV array 6 and OP 1

No glare found

PV array 6 and OP 2

No glare found

PV array 6 and OP 3

No glare found

PV array 6 and OP 4

No glare found

PV array 6 and OP 5

No glare found

PV array 6 and OP 6

No glare found

PV array 6 and OP 7

No glare found

PV array 6 and OP 8

No glare found

PV array 6 and OP 9

No glare found

PV array 6 and OP 10

No glare found

PV array 6 and OP 11

No glare found

PV array 6 and OP 12

No glare found

PV array 6 and OP 13

No glare found

PV array 6 and OP 14

No glare found

PV array 6 and OP 15

No glare found

PV array 6 and OP 16

No glare found

PV array 6 and OP 17

No glare found

PV array 6 and OP 18

No glare found

PV array 6 and OP 19

No glare found

PV array 6 and OP 20

No glare found

PV array 6 and OP 21

No glare found

PV array 6 and OP 22

No glare found

PV array 6 and OP 23

No glare found

PV array 6 and OP 24

No glare found

PV array 6 and OP 25

No glare found

PV array 6 and OP 26

No glare found

PV array 6 and OP 27

No glare found

PV array 6 and OP 28

No glare found

PV array 6 and OP 29

No glare found

PV array 6 and OP 30

No glare found

PV array 6 and OP 31

No glare found

PV array 6 and OP 32

No glare found

PV array 6 and OP 33

No glare found

PV: PV array 7 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 7 and Route: Avenue Road

No glare found

PV array 7 and Route: Main Camp Road

No glare found

PV array 7 and OP 1

No glare found

PV array 7 and OP 2

No glare found

PV array 7 and OP 3

No glare found

PV array 7 and OP 4

No glare found

PV array 7 and OP 5

No glare found

PV array 7 and OP 6

No glare found

PV array 7 and OP 7

No glare found

PV array 7 and OP 8

No glare found

PV array 7 and OP 9

No glare found

PV array 7 and OP 10

No glare found

PV array 7 and OP 11

No glare found

PV array 7 and OP 12

No glare found

PV array 7 and OP 13

No glare found

PV array 7 and OP 14

No glare found

PV array 7 and OP 15

No glare found

PV array 7 and OP 16

No glare found

PV array 7 and OP 17

No glare found

PV array 7 and OP 18

No glare found

PV array 7 and OP 19

No glare found

PV array 7 and OP 20

No glare found

PV array 7 and OP 21

No glare found

PV array 7 and OP 22

No glare found

PV array 7 and OP 23

No glare found

PV array 7 and OP 24

No glare found

PV array 7 and OP 25

No glare found

PV array 7 and OP 26

No glare found

PV array 7 and OP 27

No glare found

PV array 7 and OP 28

No glare found

PV array 7 and OP 29

No glare found

PV array 7 and OP 30

No glare found

PV array 7 and OP 31

No glare found

PV array 7 and OP 32

No glare found

PV array 7 and OP 33

No glare found

PV: PV array 8 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 8 and Route: Avenue Road

No glare found

PV array 8 and Route: Main Camp Road

No glare found

PV array 8 and OP 1

No glare found

PV array 8 and OP 2

No glare found

PV array 8 and OP 3

No glare found

PV array 8 and OP 4

No glare found

PV array 8 and OP 5

No glare found

PV array 8 and OP 6

No glare found

PV array 8 and OP 7

No glare found

PV array 8 and OP 8

No glare found

PV array 8 and OP 9

No glare found

PV array 8 and OP 10

No glare found

PV array 8 and OP 11

No glare found

PV array 8 and OP 12

No glare found

PV array 8 and OP 13

No glare found

PV array 8 and OP 14

No glare found

PV array 8 and OP 15

No glare found

PV array 8 and OP 16

No glare found

PV array 8 and OP 17

No glare found

PV array 8 and OP 18

No glare found

PV array 8 and OP 19

No glare found

PV array 8 and OP 20

No glare found

PV array 8 and OP 21

No glare found

PV array 8 and OP 22

No glare found

PV array 8 and OP 23

No glare found

PV array 8 and OP 24

No glare found

PV array 8 and OP 25

No glare found

PV array 8 and OP 26

No glare found

PV array 8 and OP 27

No glare found

PV array 8 and OP 28

No glare found

PV array 8 and OP 29

No glare found

PV array 8 and OP 30

No glare found

PV array 8 and OP 31

No glare found

PV array 8 and OP 32

No glare found

PV array 8 and OP 33

No glare found

PV: PV array 9 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Avenue Road	0	0.0	0	0.0
Main Camp Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0
OP 28	0	0.0	0	0.0
OP 29	0	0.0	0	0.0
OP 30	0	0.0	0	0.0
OP 31	0	0.0	0	0.0
OP 32	0	0.0	0	0.0
OP 33	0	0.0	0	0.0

PV array 9 and Route: Avenue Road

No glare found

PV array 9 and Route: Main Camp Road

No glare found

PV array 9 and OP 1

No glare found

PV array 9 and OP 2

No glare found

PV array 9 and OP 3

No glare found

PV array 9 and OP 4

No glare found

PV array 9 and OP 5

No glare found

PV array 9 and OP 6

No glare found

PV array 9 and OP 7

No glare found

PV array 9 and OP 8

No glare found

PV array 9 and OP 9

No glare found

PV array 9 and OP 10

No glare found

PV array 9 and OP 11

No glare found

PV array 9 and OP 12

No glare found

PV array 9 and OP 13

No glare found

PV array 9 and OP 14

No glare found

PV array 9 and OP 15

No glare found

PV array 9 and OP 16

No glare found

PV array 9 and OP 17

No glare found

PV array 9 and OP 18

No glare found

PV array 9 and OP 19

No glare found

PV array 9 and OP 20

No glare found

PV array 9 and OP 21

No glare found

PV array 9 and OP 22

No glare found

PV array 9 and OP 23

No glare found

PV array 9 and OP 24

No glare found

PV array 9 and OP 25

No glare found

PV array 9 and OP 26

No glare found

PV array 9 and OP 27

No glare found

PV array 9 and OP 28

No glare found

PV array 9 and OP 29

No glare found

PV array 9 and OP 30

No glare found

PV array 9 and OP 31

No glare found

PV array 9 and OP 32

No glare found

PV array 9 and OP 33

No glare found

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year.
Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare. This primarily affects V1 analyses of path receptors.
Random number computations are utilized by various steps of the annual hazard analysis algorithm. Predicted minutes of glare can vary between runs as a result. This limitation primarily affects analyses of Observation Point receptors, including ATCTs. Note that the SGHAT/ ForgeSolar methodology has always relied on an analytical, qualitative approach to accurately determine the overall hazard (i.e. green vs. yellow) of expected glare on an annual basis.
The analysis does not automatically consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.
The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)
The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.
The ocular hazard predicted by the tool depends on a number of environmental, optical, and human factors, which can be uncertain. We provide input fields and typical ranges of values for these factors so that the user can vary these parameters to see if they have an impact on the results. The speed of SGHAT allows expedited sensitivity and parametric analyses.
The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.
Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.
Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
Refer to the Help page at **www.forgesolar.com/help/** for assumptions and limitations not listed here.

Default glare analysis parameters and observer eye characteristics (for reference only):

- Analysis time interval: 1 minute
- Ocular transmission coefficient: 0.5
- Pupil diameter: 0.002 meters
- Eye focal length: 0.017 meters
- Sun subtended angle: 9.3 milliradians

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