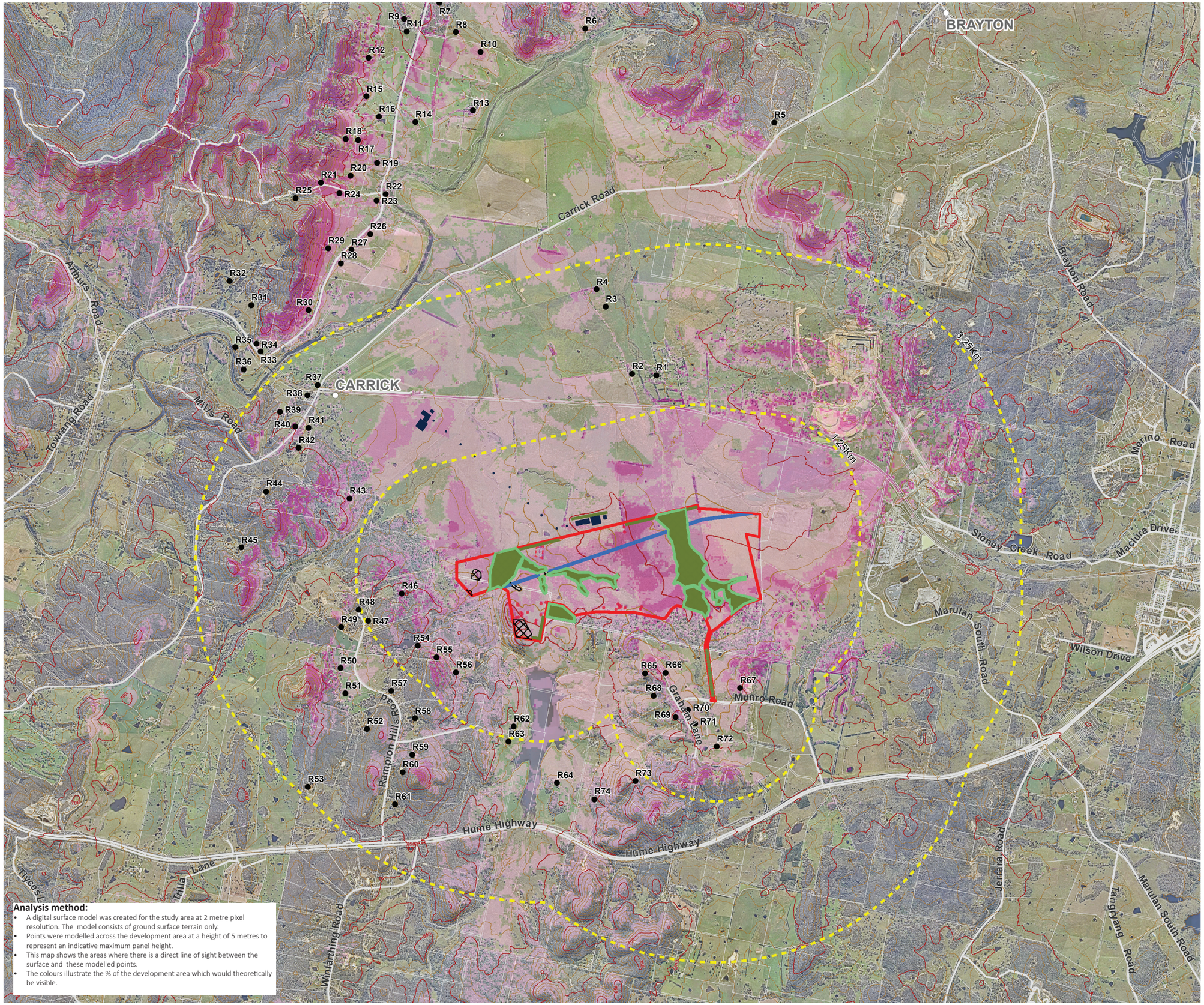

Analysis method:

- A digital surface model was created for the study area at 2 metre pixel resolution. The model consists of ground surface terrain only.
- Points were modelled across the development area at a height of 5 metres to represent an indicative maximum panel height.
- This map shows the areas where there is a direct line of sight between the surface and these modelled points.
- The colours illustrate the % of the development area which would theoretically be visible.

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Terrain Solar

Figure 8-1: Mitigation measures

- Project Area (including batteries and inverters)
- Exclusion Zone
- Existing 66kV line easement
- Grid connection infrastructure
- Contour (50m)
- Contour (10m)
- Receiver location
- Landscape areas (Refer Appendix B)

Visibility

- Low
- Low-moderate
- Moderate
- High

SOURCE:
Cadastral Boundary: NSW Department of Finance, Services and Innovation 2021
Surface analysis: Derived from LiDAR - GOULBURN 2013 (5m) & MOSSVALE 2018 (2m) Digital Elevation Model © Department Finance, Services and Innovation

N W E S

0 1 2
Kilometers

A3 Scale: 1:45,000

File:MarulanSolar-Fig25-RankedVisibility-220708_B Date: 8/07/2022

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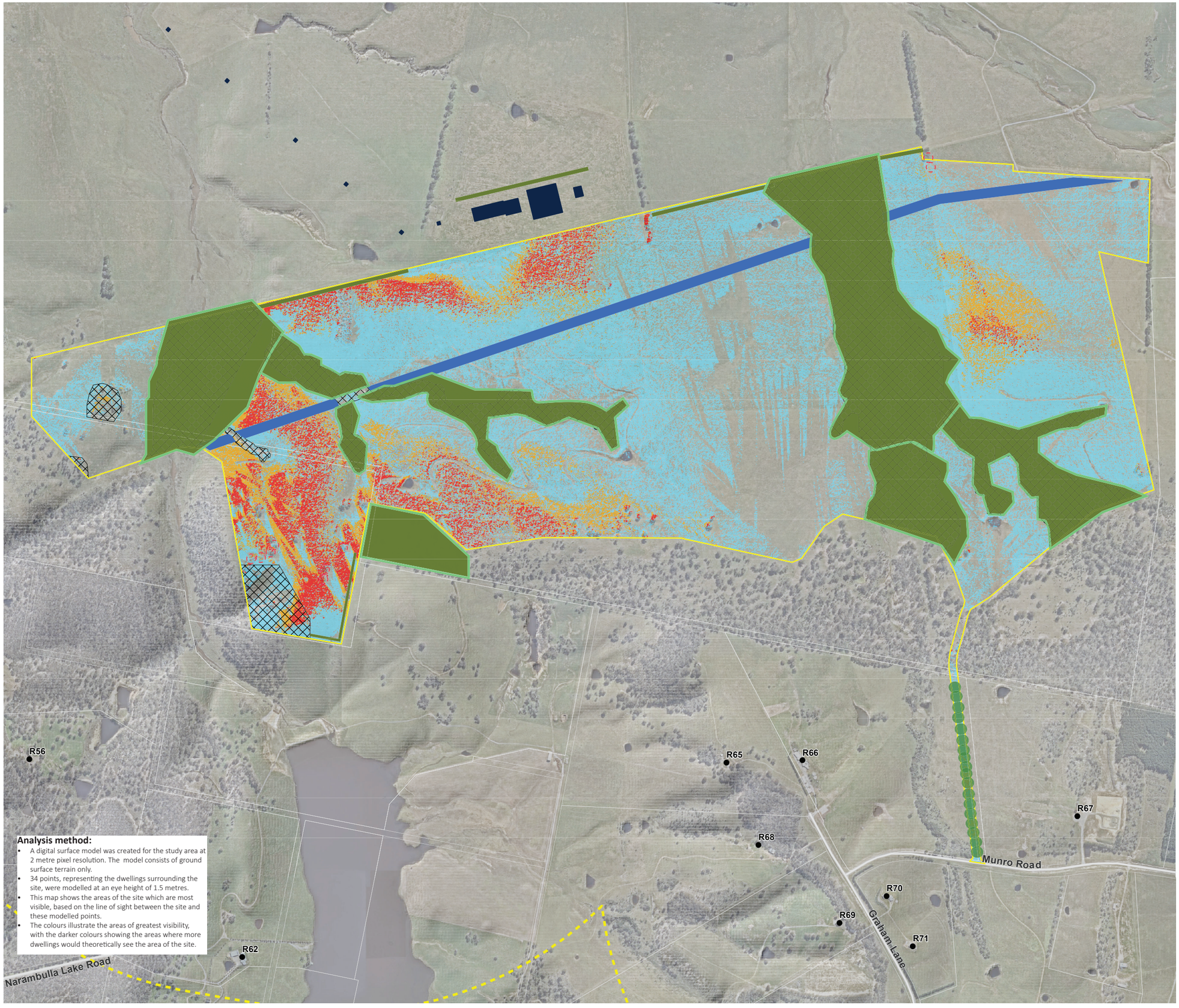

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Figure 8-2: Reverse viewshed diagram with landscape areas

Exclusion zone

Existing 66kV line easement

Grid connection infrastructure

Receiver (private dwelling)

Number of receiver points that see the site (based on topography only):

1-7

8-13

14-34

Landscape areas (Refer Appendix B)

SOURCE:
Cadastral Boundary: NSW Department of Finance, Services and Innovation 2021
Surface analysis: Derived from LiDAR - GOULBURN 2013 (5m) & MOSSVALE 2018 (2m) Digital Elevation Model © Department Finance, Services and Innovation

N W E S

0 0.2 0.4 0.6
Kilometers

A3 Scale: 1:12,000

File:MarulanSolar-Fig21-ReceptorsHeatSite-220708 Date: 8/07/2022

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In addition to the proposed landscape treatments, the following mitigation measures would further reduce the potential visual impacts identified in this assessment.

- Any temporary and permanent lighting required during construction and operation of the project would be designed and operated in accordance with AS4282-2019 Control of the obtrusive effects of outdoor lighting.
- Buildings and structures would be finished with a neutral colour.

References

NSW Office of Environment and Heritage, 2014, *Statement of Management Intent: Cookbundoon Nature Reserve*, URL: https://www.environment.nsw.gov.au/topics/parks-reserves-and-protected-areas/park-management/documents/cookbundoon-nature-reserve (accessed 01/12/2021).

South East and Tablelands Regional Plan 2036, URL: https://www.planning.nsw.gov.au/Plans-for-your-area/Regional-Plans/South-East-and-Tablelands

Goulburn Mulwaree Local Strategic Planning Statement, URL: https://www.goulburn.nsw.gov.au/Development/Plans-Strategies

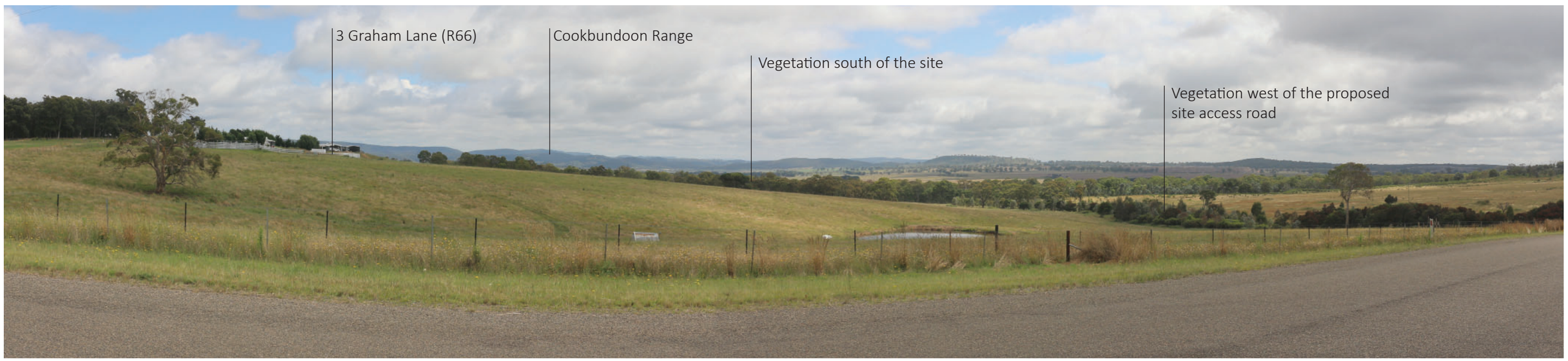
Appendix A – Site photographs

Views from the Hume Highway and Rampion Hills Road

1. View from the Hume Highway

2. Rampion Hills Road

Views from Munro Road and Graham Lane



3. View from Munro Road

4. Grahams Lane

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Figure A-2: Site photographs - Munro Road and Graham Lane
Date: 10 March 2022 Issue: Rev1

View north from Carrick Road

5. View east from Carrick Road from near the rail crossing

6. View southwest from Carrick Road

View south from Towrang Road

7. View southwest from Towrang Road

8. View southwest from Towrang Road

Appendix B – Landscape plan

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Marulan Solar Farm

740 Carrick Road, Terrain Solar Pty Ltd

Landscape Concept

July 2022

EXISTING CONDITIONS:

The site includes a few scattered trees but is otherwise cleared and has historically been used for grazing and cropping. There is a single row of mature trees along part of the eastern boundary of the site (image 1), and extending along fence lines, north of the site. These rows of trees, possibly planted as wind breaks, are a landscape feature in this area.

The gently undulating landform within the site descends to shallow gullies, creeks and dams, including Narambulla Creek and Lockyersleigh Creek, each containing a few low native shrubs and trees (image 2).

There is also some native vegetation on the adjoining low hills to the south of the site, which forms a visual screen (image 3). There are ornamental trees and gardens along the surrounding driveways and around the residential dwellings (image 4 and 5).

Image 4 - Ornamental trees at Lockyersleigh House, forming a parkland setting to the property

Image 5 - Poplar and other ornamental species forming a wind break and visual screen near Lockyersleigh House

LANDSCAPE STRATEGY:

A landscape concept plan has been developed based on consideration of the potential visibility of the site. The objectives of this landscape plan are to:

- Reduce the visibility of the site from adjacent sensitive recievers (including neighbouring residences, Carrick Road and the Hume Highway) over time
- Improve the character of the landscape through the restoration of native vegetation
- Provide habitat and increase local biodiversity through the use of local plant species.

The landscape plan identifies eight landscape treatments for the site. These are:

1. Native screen planting, lower slopes
2. Native screen planting, upper slopes
3. Riparian vegetation, dry lower slopes
4. Riparian vegetation, wet upper slopes
5. Scattered trees on upper slopes
6. River Tussock grassland
7. Access road tree planting
8. Pasture grasses

There would be no landscape works in the vicinity of the Ruins of Kyle.

To ensure the suitability of planting for the local conditions, the plant species proposed for these landscape treatments have been selected from the:

- *Goulburn Mulwaree Development Control Plan 2009*, Appendix B Preferred Planting Species
- *Planting your patch, A guide to revegetation on your property,* State of New South Wales Local Land Services, 2016.

Advice from the project ecologist has also been incorporated into the plant selection.

Further consultation with Council Officers and local land care groups would be undertaken during detail design.

Image 1 - Existing trees along fenceline, at eastern site boundary

Image 2 - Native planting along Lockyersleigh Creek, north of the site, viewed from Carrick Road

Image 3 - Native planting along southern site boundary, viewed from Munro Road

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Landscape Concept

FIGURE 1: EXISTING CONDITIONS & LANDSCAPE STRATEGY

Date: 4 July 2022 Drawn: FW/SR
Issue: Rev3

Key:

- Existing trees to be retained
- Vegetation to be removed
- **1.** Native screen planting- lower slopes
- **2.** Native screen planting- upper slopes
- **3.** Riparian vegetation- wet lower slopes
- **4.** Riparian vegetation- dry upper slopes
- **5.** Scattered trees- upper slopes
- **6.** River Tussock grassland
- **7.** Access road tree planting
- **8.** Pasture

Notes:

9. Ruins of Kyle - No landscape works proposed in this area

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Landscape Concept

FIGURE 2: LANDSCAPE PLAN

Date: 4 July 2022 Drawn: FW/SR
Issue: Rev4

NATIVE SCREEN PLANTING

A mix of native trees and shrubs with a dense and compact habit have been selected to provide a maximum screening effect.

The following plant list includes some acacias which are 'pioneer species'. These plants will establish quickly and form an effective visual screen in the short term. While these some of these pioneer species are relatively short lived (i.e. 7-12 years), they will disperse seed and new plants will regenerate so that a self-sustaining vegetation screen is maintained over the long term. Pioneer species assist with weed management and support the growth of longer lived species, such as Eucalypts.

1. NATIVE SCREEN PLANTING - Lower slopes

Plant list:

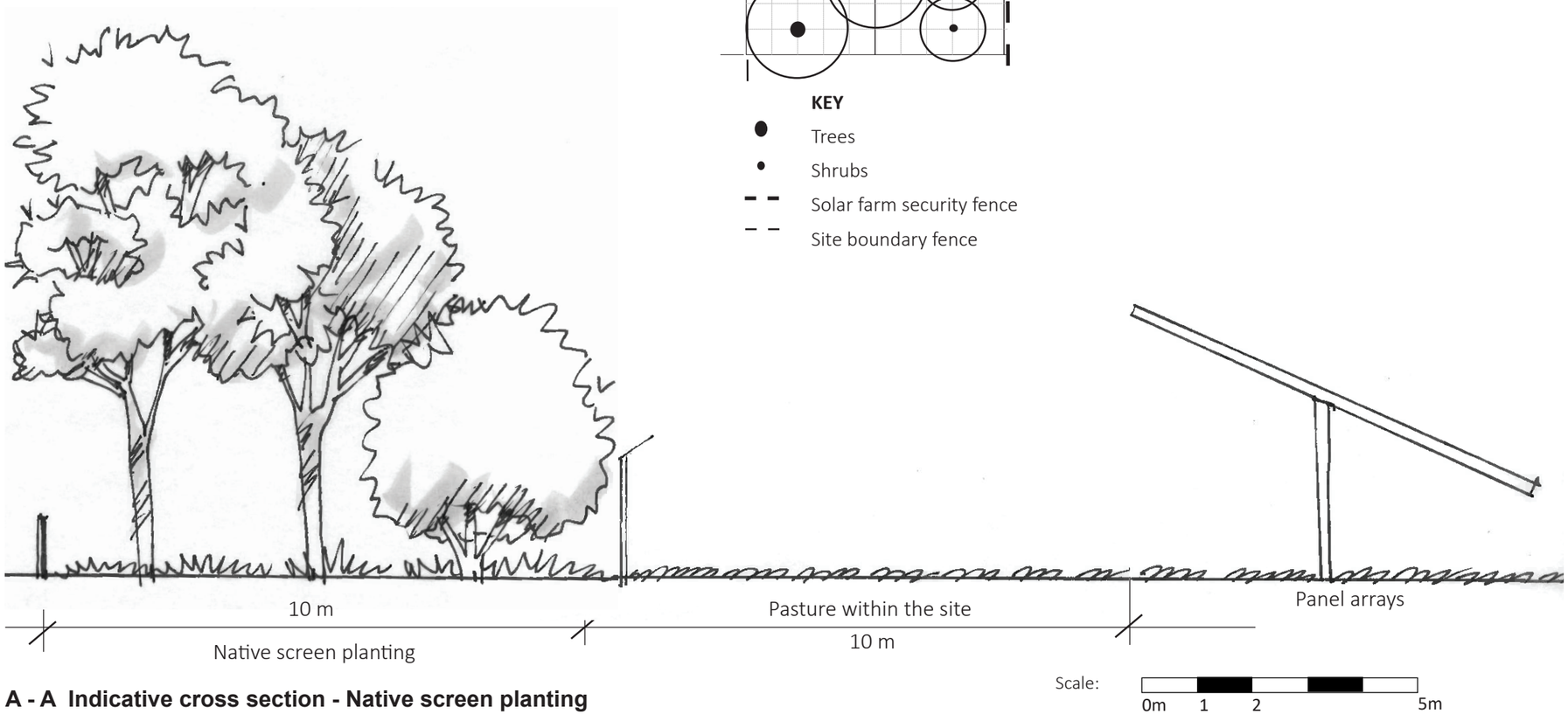
Species name, Common name	Mature height
Native trees	
*Acacia decurrens, Green Wattle**	*6m*
*Acacia mearnsii, Black wattle**	*6m*
*Acacia parramattensis, Tindale**	*10m*
*Acacia dealbata, Silver Wattle***	*30m*
*Allocasuarina luehmannii, Bull oak**	*10m*
*Allocasuarina verticalla, Drooping she-oak**	*10m*
*Eucalyptus amplifolia, Cabbage Gum **	*30m*
*Eucalyptus blakelyi, Blakely's Red Gum**	*25m*
*Eucalyptus bridgesiana, Apple Box**	*25m*
*Eucalyptus cinerea, Argyle apple***	*15-30m*
*Eucalyptus ovata, Black Gum**	*15-30m*
*Eucalyptus melliodora, Yellow Box**	*30m*
*Eucalyptus pauciflora, Snow Gum**	*15m*
*Eucalyptus stellulata, Black sallee**	*15m*
Native shrubs	
*Callistemon citrinus, Crimson Bottlebrush**	*1-2m*
*Jacksonia scoparia, Dogwood**	*4m*
*Leptospermum polygalfolium, Tea Tree**	*3m*

Source:
* *Goulburn Mulwaree Development Control Plan 2009*, Appendix B Preferred Planting Species
** Selected on advice from project ecologist

2. NATIVE SCREEN PLANTING - Upper slopes

Plant list:

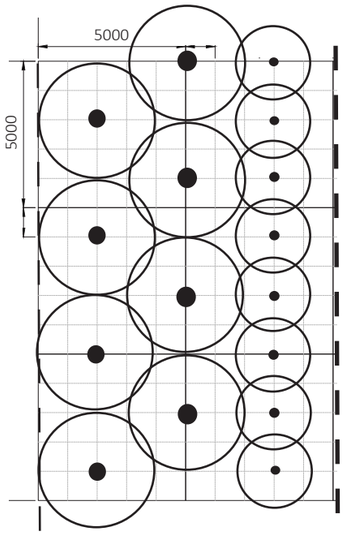
Species name, Common name	Mature height
Native trees	
*Eucalyptus blakelyi, Blakely's Red Gum**	*25m*
*Eucalyptus bridgesiana, Apple Box**	*25m*
*Eucalyptus cinerea, Argyle apple***	*15-30m*
*Eucalyptus pauciflora, Snow Gum**	*15m*
*Eucalyptus stellulata, Black sallee**	*15m*
*Eucalyptus tereticornis, Forest Red Gum***	*15-30m*
Native shrubs	
*Acacia decurrens, Green Wattle**	*6m*
*Acacia mearnsii, Black wattle**	*6m*
*Acacia parramattensis, Tindale**	*10m*
*Callistemon citrinus, Crimson Bottlebrush**	*1-2m*
*Jacksonia scoparia, Dogwood**	*4m*
*Leptospermum polygalfolium, Tea Tree**	*3m*



A - A Indicative cross section - Native screen planting

Plant set-out matrix

Trees and shrubs will be staggered to maximise the screening effect as per the following diagram.



Specification notes

- 12 week establishment followed by a 21 month monitoring period (total of 24 months)
- Activities during establishment would include watering, weed management and replacement of dead plant stock as required.
- Activities during the monitoring period would include weed management, topping up of mulch as required and replacing dead plant stock as soon as practicable.

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Marulan Solar Farm

Landscape Concept

FIGURE 3: NATIVE SCREEN PLANTING

Date: 4 July 2022 Drawn: FW/SR
Issue: Rev3

RIPIARIAN AREAS

Riparian areas would be revegetated with a mix of locally native trees and shrubs including species to provide habitat for native wildlife. This mix of trees will create a framework for natural regeneration.

Riparian vegetation would be planted along the first and second order streams in accordance with the *NRAR Guidelines for controlled activities on waterfront land* (2018). That is 10 metres above the top of bank (20 metre + channel width) for 1st order streams, and 2- metres above the top of bank (40 metres + channel width) for 2nd order streams.

Larger trees would be setback from the solar farm fence to minimise overshadowing. There would be random distances between rows of trees (3 m to 10 m) and some rows would include curves to improve habitat complexity. Plant density and layout should be in accordance with the *Planting your patch, A guide to revegetation on your property.*

3. RIPARIAN AREAS - Wet lower slopes

Plant list:

Native trees

Species name, Common name	Mature height
*Acacia dealbata, Silver Wattle**	*8m*
Acacia mearnsii, Black Wattle	*15m*
Acacia melanoxylon, Blackwood	*20m*
Allocasuarina luehmannii, Bull oak	*10m*
*Eucalyptus amplifolia, Cabbage Gum **	*30m*
*Eualyptus blakelyi, Blakelys red gum**	*25m*
Eucalyptus pauciflora, Snow Gum	*20-30m*
Eucalyptus stellulata, Black Sallee	*15m*
*Eucalyptus ovata, Black Gum**	*15-30m*
Eucalyptus aggregata, Black Gum	*18m*
*Melaleuca ericifolia, Swamp Paperbark**	*4-5m*
*Melaleuca styphyloides, Prickly Paperbark**	*10m*

Shrubs & Grasses

Species name, Common name	Mature height
Callistemon sieberi, Swamp bottlebrush	*2m*
Hakea microcarpa, Small fruit Hakea	*2m*
Leptospermum polygalifolium, Yellow tea tree	*1-3m*
Leptospermum myrtifolium, Myrtle tea tree	*1-3m*
Lomandra longifolia, Spiny Matrush	*1m*
Poa labillardieri, common tussock grass	

4. RIPARIAN AREAS - Dry upper slopes

Plant list:

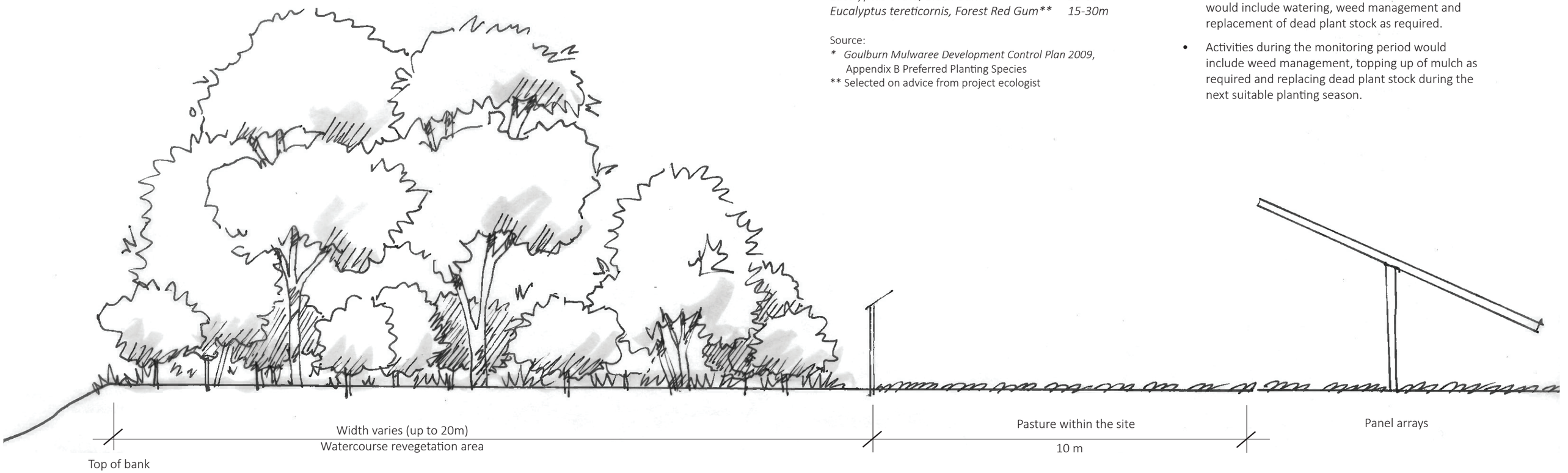
Native trees

Species name, Common name	Mature height
*Acacia dealbata, Silver Wattle**	*8m*
*Acacia mearnsii, Black Wattle***	*15m*
*Eucalyptus amplifolia, Cabbage Gum **	*30m*
*Eucalyptus bridgesiana, Apple box**	*25m*
*Eucalyptus cinerea, Argyle apple***	*15-30m*
*Eucalyptus ovata, Black Gum**	*15-30m*
*Eucalyptus tereticornis, Forest Red Gum***	*15-30m*

Source:
* *Goulburn Mulwaree Development Control Plan 2009*, Appendix B Preferred Planting Species
** Selected on advice from project ecologist

Specification notes

- Weeds, including *Juncus acutus* to be removed
- No trees or shrubs should be planted in the channel or main water flow area
- Trees to be setback from the solar farm fence by a minimum of 10 metres
- Spot planting technique to be used to retain groundcover and minimise site disturbance
- Plants will be 50 x 50 mm tubestock or similar
- Individual planting holes to be excavated, backfilled with ameliorated site soil and mulch to be applied across disturbed area
- Temporary fences and / or biodegradable tree guard sleeves and stakes to be installed and maintained as required.
- 12 week establishment followed by a 21 month monitoring period (total of 24 months)
- Activities during the establishment period would include watering, weed management and replacement of dead plant stock as required.
- Activities during the monitoring period would include weed management, topping up of mulch as required and replacing dead plant stock during the next suitable planting season.



B - B Indicative cross section - Riparian areas

Scale: 0m 1 2 5m

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Landscape Concept

FIGURE 4: RIPARIAN AREAS

Date: 4 July 2022 Drawn: FW/SR
Issue: Rev

5. SCATTERED TREES ON UPPER SLOPES

Groups and scattered individual trees would be located on the upper slopes of the site and within the adjacent field.

These trees will be local native species with a single trunk and open canopy. These trees will provide some filtering of views where the solar farm can be seen from elevated areas, provide tree canopy cover and habitat.

Plant list:

Large native trees

Species name, Common name	Mature height
Eucalyptus amplifolia, Cabbage Gum **	*30m*
*Eucalyptus bridgesiana, Apple box**	*25m*
*Eucalyptus cinerea, Argyle apple***	*15-30m*
*Eucalyptus melliodora, Yellow box**	*30m*
*Eucalyptus tereticornis, Forest Red Gum***	*15-30m*

Source:
* *Goulburn Mulwaree Development Control Plan 2009*, Appendix B Preferred Planting Species
** Ecologist advice

Plant set-out

Trees would be setout in an informal layout, with individual and groups of trees. All trees to be set back a minimum of 10 metres and larger trees by 20 metres from the solar farm fence to minimise overshadowing of the panel array area.

Specification notes

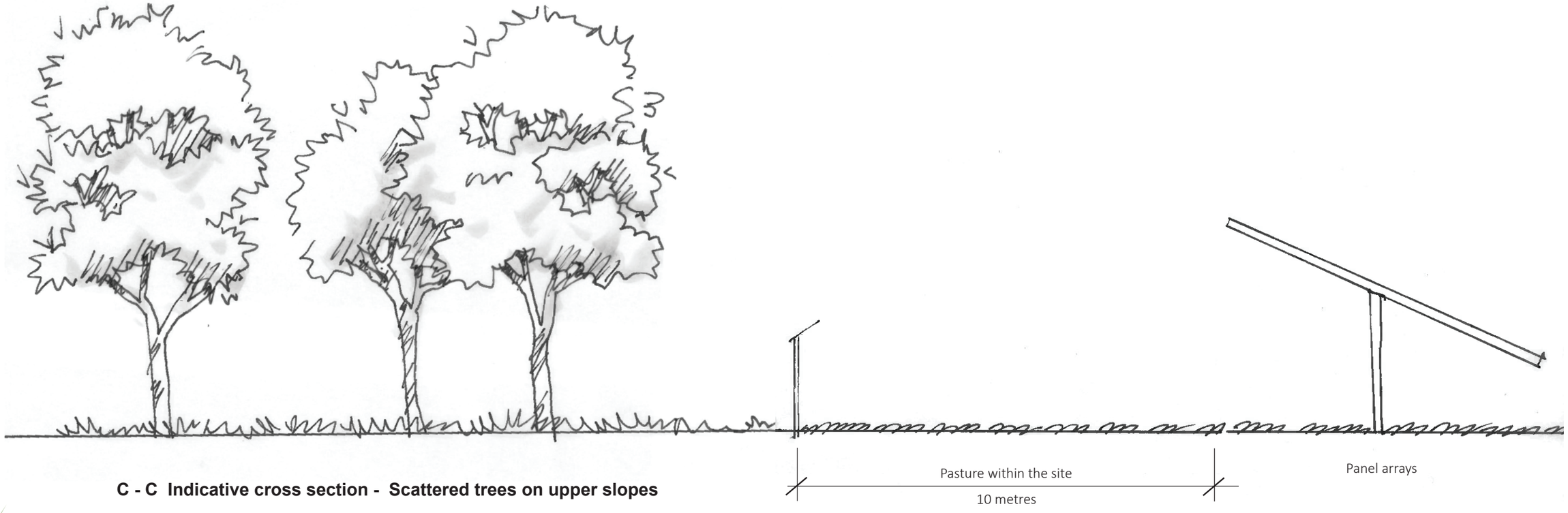
- Plants will be 50 x 50 mm tubestock or similar
- Individual planting holes to be excavated, backfilled with ameliorated site soil and mulch to be applied across disturbed area.
- Temporary fences and / or tree guard sleeves and stakes to be installed and maintained as necessary.
- 12 week establishment followed by a 21 month monitoring period (total of 24 months)
- Activities during establishment period would include watering, weed management and replacement of dead plant stock as required. Activities during monitoring would include weed management
- Activities during the monitoring period would include weed management, topping up of mulch as required and replacing dead plant stock during the next suitable planting season.

6. RIVER TUSSOCK GRASSLAND

The native Rivwer Tussock Grassland is part of a Critically Endangered Ecological community. Improvement of this zone would involve removal of weeds including Hawthorn and Blackberry.

8. PASTURE GRASSES

Areas within the solar farm fence will be sown with pasture grasses to allow for grazing of the property during operation.



C - C Indicative cross section - Scattered trees on upper slopes

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Marulan Solar Farm

Landscape Concept

FIGURE 5: SCATTERED TREES IN PASTURE AREAS

Date: 4 July 2022 Drawn: FW/SR
Issue: Rev3

7. ACCESS ROAD SCREENING

Groups and individual scattered trees would be located along the access road. These trees will be local native species with a single trunk and open canopy. These trees will filter and soften views to the access track as well as provide tree canopy cover and habitat.

Plant list:

Large native trees

Species name, Common name	Mature height
*Eucalyptus amplifolia, Cabbage Gum **	*30m*
*Eucalyptus bridgesiana, Apple box**	*25m*
*Eucalyptus cinerea, Argyle apple***	*15-30m*
*Eucalyptus melliodora, Yellow box**	*30m*
*Eucalyptus tereticornis, Forest Red Gum***	*15-30m*

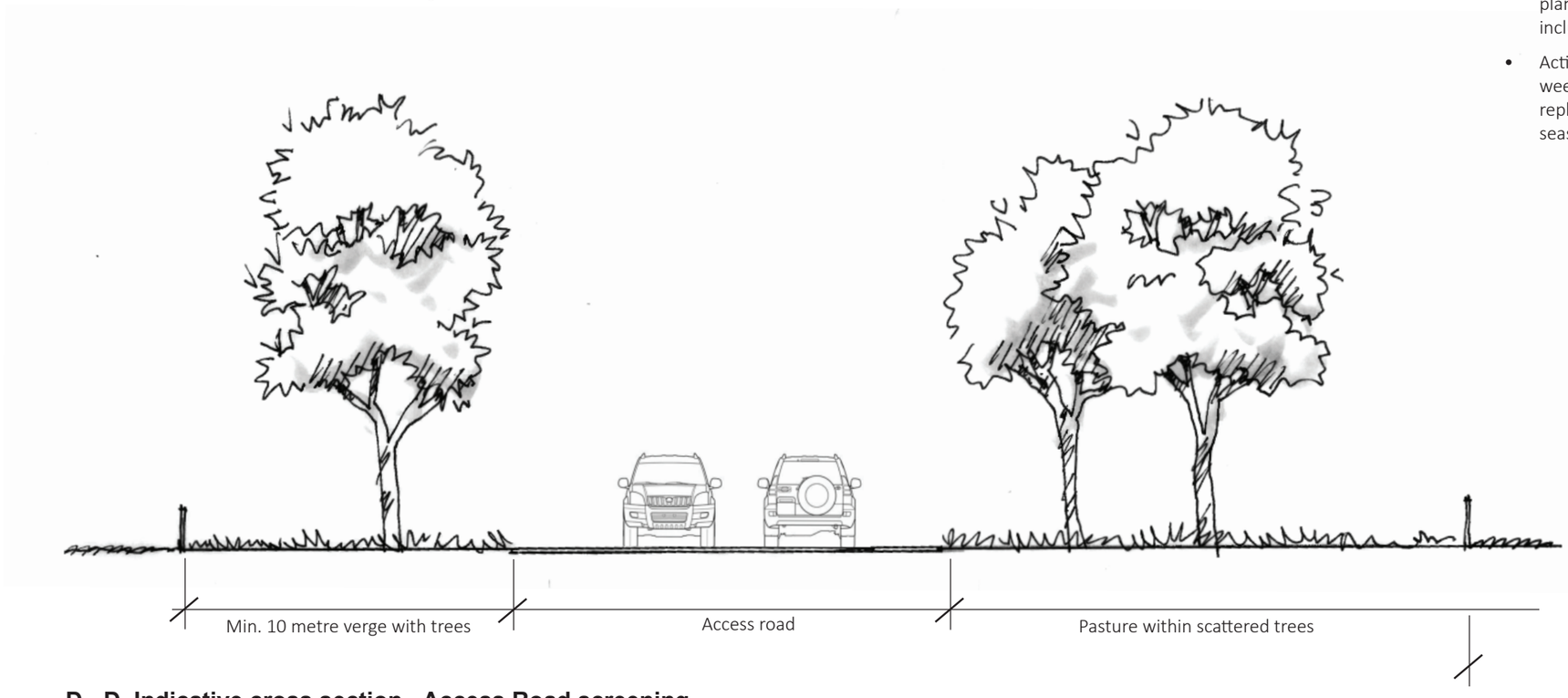
Source:
* *Goulburn Mulwaree Development Control Plan 2009*, Appendix B Preferred Planting Species
** Ecologist advice

Plant set-out

Trees would be setout in an informal layout, with individual and groups of trees. All trees to be set back a minimum of one metre from the access road and two metres from the site boundary.

Specification notes

- Plants will be 50 x 50 mm tubestock or similar
- Individual planting holes to be excavated, backfilled with ameliorated site soil and mulch to be applied across disturbed area.
- Temporary fences and / or tree guard sleeves and stakes to be installed and maintained as necessary.
- 12 week establishment followed by a 21 month monitoring period (total of 24 months)
- Activities during establishment period would include watering, weed management and replacement of dead plant stock as required. Activities during monitoring would include weed management
- Activities during the monitoring period would include weed management, topping up of mulch as required and replacing dead plant stock during the next suitable planting season.



D - D Indicative cross section - Access Road screening

Appendix C – Glare risk data

Marulan

Project area 1

Client: Terrain Solar

Created Feb. 17, 2022
Updated Feb. 22, 2022
Time-step 1 minute
Timezone offset UTC10
Site ID 65051.11539

Project type Advanced
Project status: active
Category 100 MW to 1 GW

Misc. Analysis Settings

DNI: **varies (1,000.0 W/m^2 peak)**
Ocular transmission coefficient: **0.5**
Pupil diameter: **0.002 m**
Eye focal length: **0.017 m**
Sun subtended angle: **9.3 mrad**

Analysis Methodologies:

- Observation point: **Version 2**
- 2-Mile Flight Path: **Version 2**
- Route: **Version 2**

Summary of Results Glare with potential for temporary after-image predicted

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced
	deg	deg	min	min	kWh
PV array 1	SA tracking	SA tracking	10,395	40	-
PV array 2	SA tracking	SA tracking	4,879	2,746	-
PV array 3	SA tracking	SA tracking	3,203	7,037	-
PV array 4	SA tracking	SA tracking	0	36	-
PV array 5	SA tracking	SA tracking	43	286	-
PV array 6	SA tracking	SA tracking	7,601	209	-
PV array 7	SA tracking	SA tracking	0	228	-
PV array 8	SA tracking	SA tracking	58	0	-
PV array 9	SA tracking	SA tracking	7,196	0	-

Component Data

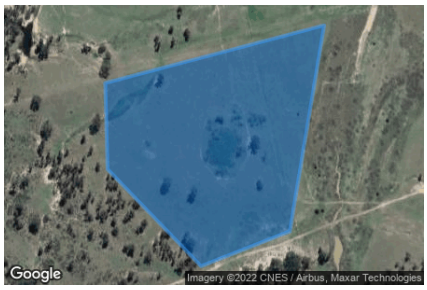
PV Array(s)

Total PV footprint area: 2,767,192 m^2

Name: PV array 1
Footprint area: 155,753 m^2
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 180.0 deg
Maximum tracking angle: 60.0 deg
Resting angle: 0.0 deg
Ground Coverage Ratio: 0.5

Rated power: -
Panel material: Smooth glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	-34.712340	149.900936	629.43	1.30	630.73
2	-34.713970	149.900990	639.69	1.30	640.99
3	-34.715800	149.903140	630.72	1.30	632.02
4	-34.715141	149.905181	624.65	1.30	625.95
5	-34.711250	149.905970	618.31	1.30	619.61



Name: PV array 2
Footprint area: 187,964 m^2
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 180.0 deg
Maximum tracking angle: 60.0 deg
Resting angle: 0.0 deg
Ground Coverage Ratio: 0.5

Rated power: -
Panel material: Smooth glass without AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 6.55 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	-34.711943	149.908785	621.39	1.30	622.69
2	-34.713152	149.912071	629.75	1.30	631.05
3	-34.716271	149.913276	640.40	1.30	641.70
4	-34.716673	149.908475	651.90	1.30	653.20
5	-34.715138	149.908088	629.75	1.30	631.05
6	-34.714675	149.907123	620.95	1.30	622.25

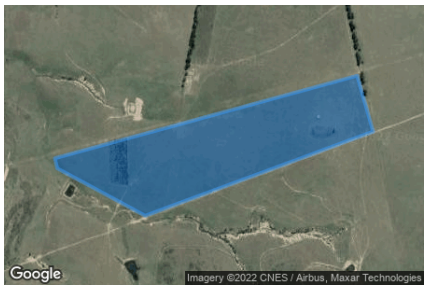
Name: PV array 3
Footprint area: 117,740 m^2
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 180.0 deg
Maximum tracking angle: 60.0 deg
Resting angle: 0.0 deg
Ground Coverage Ratio: 0.5

Rated power: -
Panel material: Smooth glass without AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 6.55 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	-34.716706	149.908482	652.51	1.30	653.81
2	-34.716313	149.913278	640.76	1.30	642.06
3	-34.720522	149.912569	651.31	1.30	652.61
4	-34.720398	149.911464	653.00	1.30	654.30
5	-34.719819	149.911478	653.65	1.30	654.95
6	-34.718253	149.910300	652.22	1.30	653.52
7	-34.718315	149.908855	659.66	1.30	660.96

Name: PV array 4
Footprint area: 333,854 m^2
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 180.0 deg
Maximum tracking angle: 60.0 deg
Resting angle: 0.0 deg
Ground Coverage Ratio: 0.5

Rated power: -
Panel material: Smooth glass without AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 6.55 mrad



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	-34.710873	149.909415	621.91	1.30	623.21
2	-34.710493	149.909307	621.63	1.30	622.93
3	-34.709320	149.914543	638.30	1.30	639.60
4	-34.707372	149.923207	654.41	1.30	655.71
5	-34.709484	149.923939	654.45	1.30	655.75
6	-34.712666	149.913460	629.64	1.30	630.94

Name: PV array 5
Footprint area: 428,539 m^2
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 180.0 deg
Maximum tracking angle: 60.0 deg
Resting angle: 0.0 deg
Ground Coverage Ratio: 0.5

Rated power: -
Panel material: Smooth glass without AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 6.55 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	-34.712748	149.913908	630.93	1.30	632.23
2	-34.709626	149.924165	653.34	1.30	654.64
3	-34.714900	149.924572	657.72	1.30	659.02
4	-34.716470	149.915496	644.35	1.30	645.65
5	-34.716276	149.913500	640.57	1.30	641.87
6	-34.713128	149.912910	629.81	1.30	631.11
7	-34.713101	149.913436	630.89	1.30	632.19
8	-34.713079	149.914686	631.09	1.30	632.39
9	-34.712991	149.915276	631.95	1.30	633.25
10	-34.713145	149.915619	633.17	1.30	634.47
11	-34.713348	149.915710	633.18	1.30	634.48
12	-34.713630	149.916397	635.33	1.30	636.63
13	-34.713899	149.917003	636.54	1.30	637.84
14	-34.714292	149.917330	638.05	1.30	639.35
15	-34.714746	149.917657	640.48	1.30	641.78
16	-34.715077	149.917877	642.00	1.30	643.30
17	-34.715403	149.918398	643.44	1.30	644.74
18	-34.715588	149.918800	644.54	1.30	645.84
19	-34.715438	149.919031	644.45	1.30	645.75
20	-34.715108	149.918816	643.75	1.30	645.05
21	-34.714817	149.918446	642.31	1.30	643.61
22	-34.713675	149.917674	637.26	1.30	638.56
23	-34.713472	149.918918	639.76	1.30	641.06
24	-34.713604	149.919337	641.19	1.30	642.49
25	-34.713701	149.919621	642.50	1.30	643.80
26	-34.713860	149.919873	644.16	1.30	645.46
27	-34.713860	149.920152	644.93	1.30	646.23
28	-34.713761	149.920604	645.01	1.30	646.31
29	-34.713682	149.920974	645.21	1.30	646.51
30	-34.713699	149.921382	646.22	1.30	647.52
31	-34.714061	149.921940	648.04	1.30	649.34
32	-34.714330	149.922181	649.22	1.30	650.52
33	-34.714427	149.922439	650.38	1.30	651.68
34	-34.714374	149.922621	650.72	1.30	652.02
35	-34.714228	149.922643	650.44	1.30	651.74
36	-34.713580	149.922578	649.35	1.30	650.65
37	-34.713342	149.922771	649.79	1.30	651.09
38	-34.713170	149.923002	650.84	1.30	652.14
39	-34.712881	149.922806	651.24	1.30	652.54
40	-34.712947	149.922463	650.02	1.30	651.32
41	-34.713168	149.921986	647.81	1.30	649.11
42	-34.712983	149.921100	645.85	1.30	647.15
43	-34.713053	149.920156	643.45	1.30	644.75
44	-34.712899	149.919448	642.07	1.30	643.37
45	-34.712577	149.919024	642.36	1.30	643.66
46	-34.712489	149.918804	642.24	1.30	643.54
47	-34.712603	149.918445	641.02	1.30	642.32
48	-34.712846	149.917925	639.04	1.30	640.34
49	-34.712969	149.917335	637.63	1.30	638.93
50	-34.712961	149.916498	636.03	1.30	637.33
51	-34.712436	149.915870	636.00	1.30	637.30
52	-34.712348	149.915344	633.56	1.30	634.86

Name: PV array 6
Footprint area: 128,703 m^2
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 180.0 deg
Maximum tracking angle: 60.0 deg
Resting angle: 0.0 deg
Ground Coverage Ratio: 0.5

Rated power: -
Panel material: Smooth glass without AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 6.55 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	-34.714981	149.924686	657.96	1.30	659.26
2	-34.717009	149.924788	663.54	1.30	664.84
3	-34.717168	149.919686	651.17	1.30	652.47
4	-34.717587	149.917219	652.45	1.30	653.75
5	-34.716548	149.915703	644.97	1.30	646.27

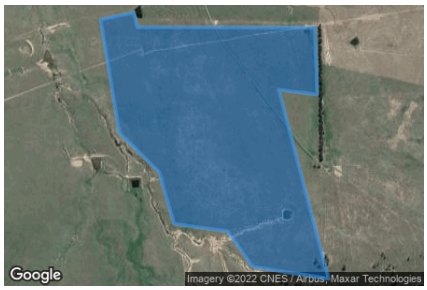
Name: PV array 7
Footprint area: 646,303 m^2
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 180.0 deg
Maximum tracking angle: 60.0 deg
Resting angle: 0.0 deg
Ground Coverage Ratio: 0.5

Rated power: -
Panel material: Smooth glass without AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 6.55 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	-34.707270	149.923653	652.44	1.30	653.74
2	-34.706469	149.927365	639.91	1.30	641.21
3	-34.707933	149.929524	637.71	1.30	639.01
4	-34.715657	149.931965	648.36	1.30	649.66
5	-34.716362	149.931305	653.51	1.30	654.81
6	-34.716041	149.930779	652.74	1.30	654.04
7	-34.717681	149.929261	664.92	1.30	666.22
8	-34.717046	149.924873	664.07	1.30	665.37
9	-34.709642	149.924417	652.59	1.30	653.89

Name: PV array 8
Footprint area: 671,813 m^2
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 180.0 deg
Maximum tracking angle: 60.0 deg
Resting angle: 0.0 deg
Ground Coverage Ratio: 0.5

Rated power: -
Panel material: Smooth glass without AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 6.55 mrad

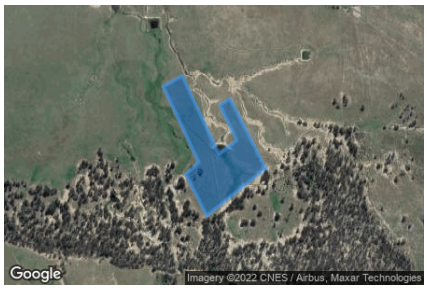


Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	-34.705156	149.933366	644.03	1.30	645.33
2	-34.705712	149.933521	644.88	1.30	646.18
3	-34.705734	149.941691	639.93	1.30	641.23
4	-34.708252	149.941793	646.60	1.30	647.90
5	-34.708066	149.940023	645.62	1.30	646.92
6	-34.715193	149.942324	659.44	1.30	660.74
7	-34.714734	149.938827	648.50	1.30	649.80
8	-34.713402	149.937690	648.00	1.30	649.30
9	-34.713124	149.935217	644.70	1.30	646.00
10	-34.711167	149.934525	647.08	1.30	648.38
11	-34.709685	149.932698	640.69	1.30	641.99
12	-34.705429	149.931837	639.17	1.30	640.47

Name: PV array 9
Footprint area: 96,524 m^2
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 180.0 deg
Maximum tracking angle: 60.0 deg
Resting angle: 0.0 deg
Ground Coverage Ratio: 0.5

Rated power: -
Panel material: Smooth glass without AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 6.55 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	-34.717227	149.938294	655.74	1.30	657.04
2	-34.718838	149.935859	662.78	1.30	664.08
3	-34.717275	149.934901	654.11	1.30	655.41
4	-34.716808	149.935491	651.68	1.30	652.98
5	-34.713959	149.933860	646.60	1.30	647.90
6	-34.713554	149.934729	644.54	1.30	645.84
7	-34.716508	149.936419	649.84	1.30	651.14
8	-34.715997	149.937245	649.00	1.30	650.30
9	-34.714656	149.936462	647.11	1.30	648.41
10	-34.714418	149.936929	647.24	1.30	648.54
11	-34.717050	149.938570	655.53	1.30	656.83



2-Mile Flight Path Receptor(s)

Name: FP 1 Gliding Club Southern Approach
Description:
Threshold height : 15 m
Direction: 60.4 deg
Glide slope: 3.0 deg
Pilot view restricted? Yes
Vertical view restriction: 30.0 deg
Azimuthal view restriction: 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
Threshold	-34.691338	149.886821	620.08	15.24	635.32
2-mile point	-34.705628	149.856216	625.46	178.55	804.00

Name: FP 2 Gliding Club Northern Approach
Description:
Threshold height : 15 m
Direction: 237.9 deg
Glide slope: 3.0 deg
Pilot view restricted? Yes
Vertical view restriction: 30.0 deg
Azimuthal view restriction: 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
Threshold	-34.686562	149.896245	620.00	15.24	635.24
2-mile point	-34.671211	149.926076	622.79	181.14	803.92

Route Receptor(s)

Name: Carrick Rd
Route type Two-way
View angle: 50.0 deg

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	-34.724504	149.858480	690.59	1.50	692.09
2	-34.722000	149.862858	672.95	1.50	674.45
3	-34.716109	149.866591	656.20	1.50	657.70
4	-34.712088	149.865390	644.90	1.50	646.40
5	-34.707572	149.865776	647.79	1.50	649.29
6	-34.705491	149.868480	661.19	1.50	662.69
7	-34.703268	149.869081	670.60	1.50	672.10
8	-34.702174	149.870368	673.46	1.50	674.96
9	-34.701786	149.873072	670.26	1.50	671.76
10	-34.700269	149.875990	667.89	1.50	669.39
11	-34.696988	149.879294	645.91	1.50	647.41
12	-34.693389	149.881569	625.04	1.50	626.54
13	-34.691730	149.882470	618.81	1.50	620.31
14	-34.679908	149.899121	611.27	1.50	612.77
15	-34.679203	149.901954	616.25	1.50	617.75
16	-34.670132	149.921437	612.05	1.50	613.55
17	-34.669285	149.931222	647.28	1.50	648.78

Name: Munro Rd
Route type Two-way
View angle: 50.0 deg

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	-34.735812	149.951478	705.95	1.50	707.45
2	-34.728441	149.948238	687.87	1.50	689.37
3	-34.727489	149.947294	684.57	1.50	686.07
4	-34.726977	149.944612	693.11	1.50	694.61
5	-34.726678	149.940191	701.55	1.50	703.05
6	-34.726977	149.938453	691.95	1.50	693.45
7	-34.726572	149.934226	680.27	1.50	681.77
8	-34.726625	149.932488	688.11	1.50	689.61
9	-34.727207	149.931346	697.04	1.50	698.54
10	-34.730698	149.933921	702.74	1.50	704.24
11	-34.731774	149.934307	701.95	1.50	703.45
12	-34.733167	149.934050	710.41	1.50	711.91

Discrete Observation Receptors

Number	Latitude	Longitude	Ground elevation	Height above ground	Total Elevation
	deg	deg	m	m	m
OP 1	-34.690467	149.927295	635.00	1.50	636.50
OP 2	-34.690403	149.924011	629.89	1.50	631.39
OP 3	-34.682973	149.920154	625.91	1.50	627.41
OP 4	-34.681057	149.918830	629.31	1.50	630.81
OP 5	-34.684338	149.879848	640.42	1.50	641.92
OP 6	-34.689111	149.873539	624.23	1.50	625.73
OP 7	-34.688251	149.872936	629.66	1.50	631.16
OP 8	-34.695777	149.876438	647.10	1.50	648.60
OP 9	-34.699802	149.879064	652.83	1.50	654.33
OP 10	-34.705279	149.886148	649.56	1.50	651.06
OP 11	-34.715854	149.893659	661.11	1.50	662.61
OP 12	-34.724314	149.885586	680.41	1.50	681.91
OP 13	-34.727119	149.886378	679.61	1.50	681.11
OP 14	-34.721510	149.896007	658.17	1.50	659.67
OP 15	-34.722803	149.898566	679.99	1.50	681.49
OP 16	-34.724408	149.901304	658.36	1.50	659.86
OP 17	-34.726653	149.892570	664.23	1.50	665.73
OP 18	-34.729680	149.895891	663.69	1.50	665.19
OP 19	-34.733752	149.895669	686.17	1.50	687.67
OP 20	-34.730175	149.909271	642.26	1.50	643.76
OP 21	-34.731925	149.908721	640.26	1.50	641.76
OP 22	-34.736510	149.915423	645.66	1.50	647.16
OP 23	-34.723877	149.926973	694.88	1.50	696.38
OP 24	-34.723734	149.929754	692.22	1.50	693.72
OP 25	-34.725232	149.939933	699.40	1.50	700.90
OP 26	-34.726380	149.928193	686.10	1.50	687.60
OP 27	-34.728684	149.931256	702.51	1.50	704.01
OP 28	-34.727798	149.932983	693.73	1.50	695.23
OP 29	-34.729306	149.934008	691.73	1.50	693.23
OP 30	-34.731801	149.936991	698.87	1.50	700.37
OP 31	-34.735963	149.926079	703.46	1.50	704.96
OP 32	-34.738139	149.920576	653.47	1.50	654.97

Summary of PV Glare Analysis

PV configuration and total predicted glare

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced	Data File
	deg	deg	min	min	kWh	
PV array 1	SA tracking	SA tracking	10,395	40	-	-
PV array 2	SA tracking	SA tracking	4,879	2,746	-	-
PV array 3	SA tracking	SA tracking	3,203	7,037	-	-
PV array 4	SA tracking	SA tracking	0	36	-	-
PV array 5	SA tracking	SA tracking	43	286	-	-
PV array 6	SA tracking	SA tracking	7,601	209	-	-
PV array 7	SA tracking	SA tracking	0	228	-	-
PV array 8	SA tracking	SA tracking	58	0	-	-
PV array 9	SA tracking	SA tracking	7,196	0	-	-

Distinct glare per month

Excludes overlapping glare from PV array for multiple receptors at matching time(s)

PV	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
pv-array-1 (green)	0	0	0	129	478	524	505	299	0	0	0	0
pv-array-1 (yellow)	0	0	0	0	16	5	19	0	0	0	0	0
pv-array-2 (green)	410	589	87	0	0	0	0	0	0	482	587	14
pv-array-2 (yellow)	41	0	118	105	1	0	0	56	151	17	32	129
pv-array-3 (green)	0	0	0	139	33	96	58	131	11	0	0	0
pv-array-3 (yellow)	0	0	0	109	443	388	431	260	1	0	0	0
pv-array-4 (green)	0	0	0	0	0	0	0	0	0	0	0	0
pv-array-4 (yellow)	13	0	0	0	0	0	0	0	0	0	1	22
pv-array-5 (green)	0	17	1	0	0	0	0	0	0	25	0	0
pv-array-5 (yellow)	77	67	0	0	0	0	0	0	0	37	105	0
pv-array-6 (green)	550	495	187	112	26	0	1	89	161	413	547	523
pv-array-6 (yellow)	0	0	39	4	53	0	28	29	15	29	0	0
pv-array-7 (green)	0	0	0	0	0	0	0	0	0	0	0	0
pv-array-7 (yellow)	0	0	0	0	0	175	53	0	0	0	0	0
pv-array-8 (green)	0	6	24	0	0	0	0	0	11	17	0	0
pv-array-8 (yellow)	0	0	0	0	0	0	0	0	0	0	0	0
pv-array-9 (green)	387	439	314	35	0	0	0	2	185	477	400	338
pv-array-9 (yellow)	0	0	0	0	0	0	0	0	0	0	0	0

PV & Receptor Analysis Results

Results for each PV array and receptor

PV array 1 potential temporary after-image

Component	Green glare (min)	Yellow glare (min)
FP: FP 1 Gliding Club Southern Approach	0	0
FP: FP 2 Gliding Club Northern Approach	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0

OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	1636	40
OP: OP 24	1758	0
OP: OP 25	1212	0
OP: OP 26	956	0
OP: OP 27	796	0
OP: OP 28	1042	0
OP: OP 29	789	0
OP: OP 30	553	0
OP: OP 31	0	0
OP: OP 32	0	0
Route: Carrick Rd	0	0
Route: Munro Rd	1653	0

PV array 1 - Receptor (FP 1 Gliding Club Southern Approach)

No glare found

PV array 1 - Receptor (FP 2 Gliding Club Northern Approach)

No glare found

PV array 1 - OP Receptor (OP 1)

No glare found

PV array 1 - OP Receptor (OP 2)

No glare found

PV array 1 - OP Receptor (OP 3)

No glare found

PV array 1 - OP Receptor (OP 4)

No glare found

PV array 1 - OP Receptor (OP 5)

No glare found

PV array 1 - OP Receptor (OP 6)

No glare found

PV array 1 - OP Receptor (OP 7)
No glare found

PV array 1 - OP Receptor (OP 8)
No glare found

PV array 1 - OP Receptor (OP 9)
No glare found

PV array 1 - OP Receptor (OP 10)
No glare found

PV array 1 - OP Receptor (OP 11)
No glare found

PV array 1 - OP Receptor (OP 12)
No glare found

PV array 1 - OP Receptor (OP 13)
No glare found

PV array 1 - OP Receptor (OP 14)
No glare found

PV array 1 - OP Receptor (OP 15)
No glare found

PV array 1 - OP Receptor (OP 16)
No glare found

PV array 1 - OP Receptor (OP 17)
No glare found

PV array 1 - OP Receptor (OP 18)
No glare found

PV array 1 - OP Receptor (OP 19)
No glare found

PV array 1 - OP Receptor (OP 20)
No glare found

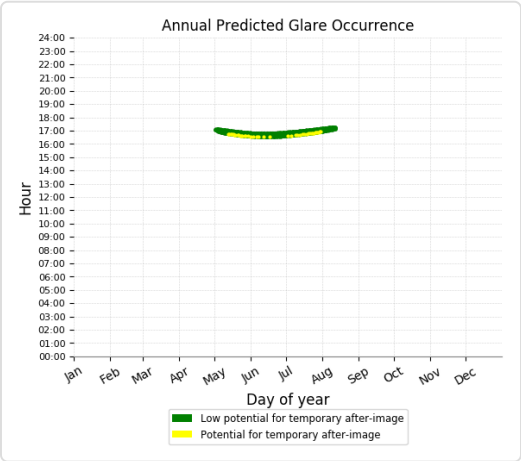
PV array 1 - OP Receptor (OP 21)
No glare found

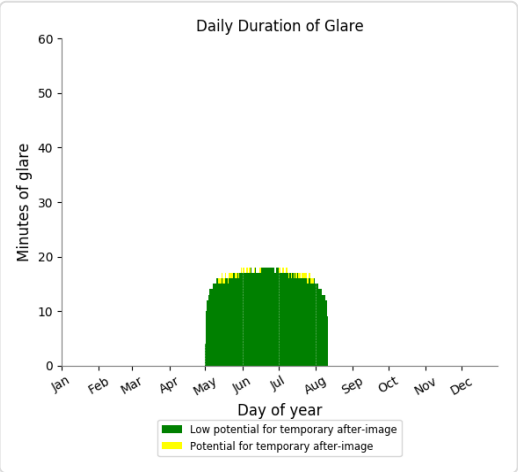
PV array 1 - OP Receptor (OP 22)
No glare found

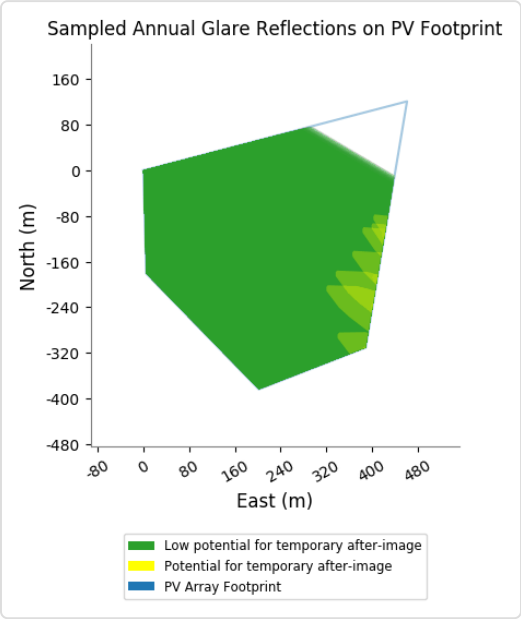
PV array 1 - OP Receptor (OP 23)

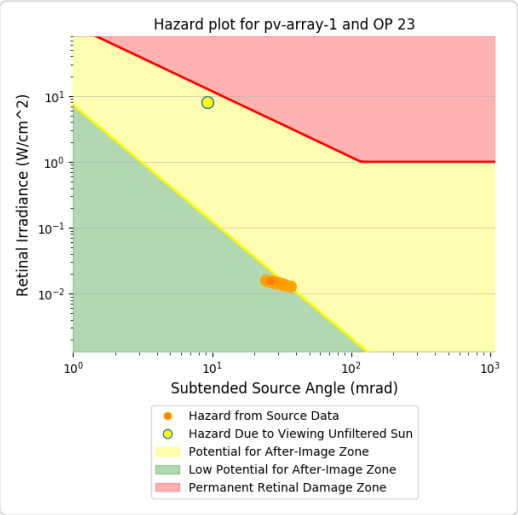
PV array is expected to produce the following glare for receptors at this location:

- 1,636 minutes of "green" glare with low potential to cause temporary after-image.
- 40 minutes of "yellow" glare with potential to cause temporary after-image.





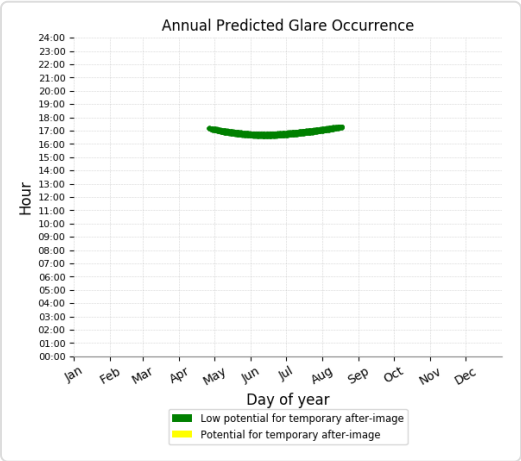


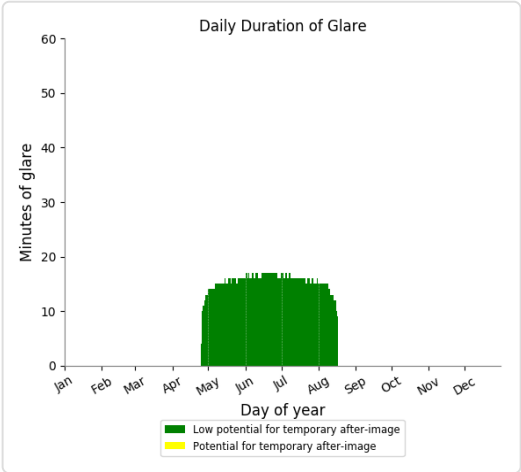


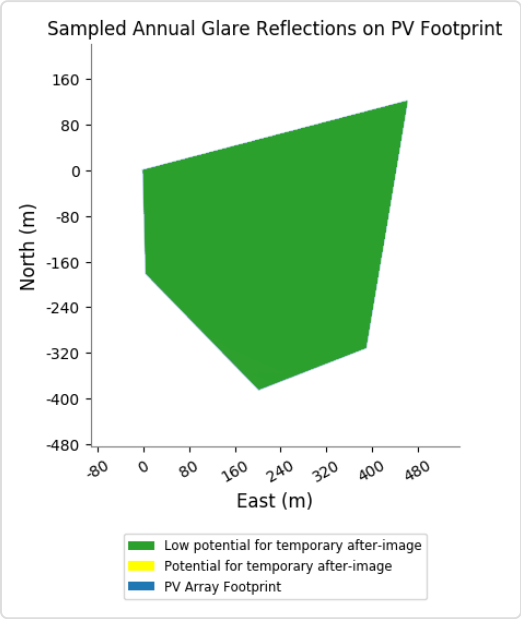
PV array 1 - OP Receptor (OP 24)

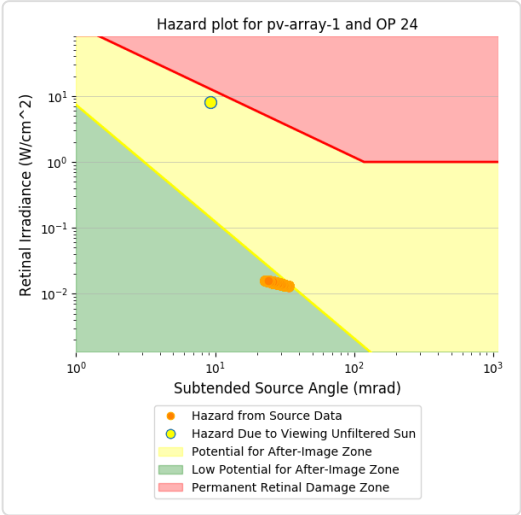
PV array is expected to produce the following glare for receptors at this location:

- 1,758 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.





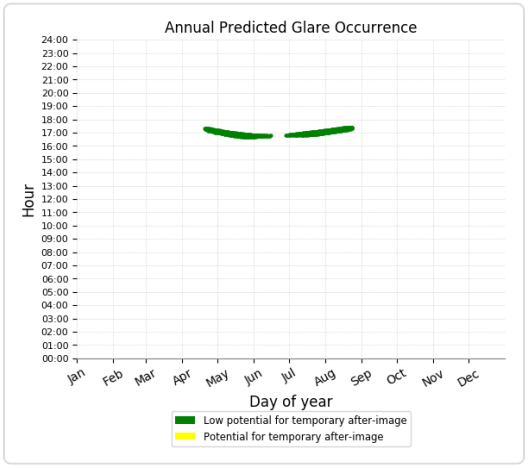


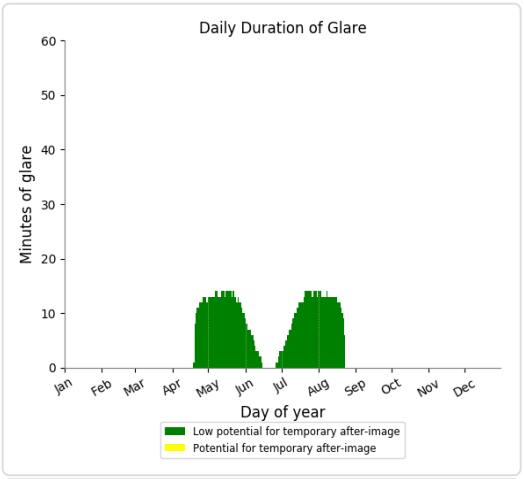


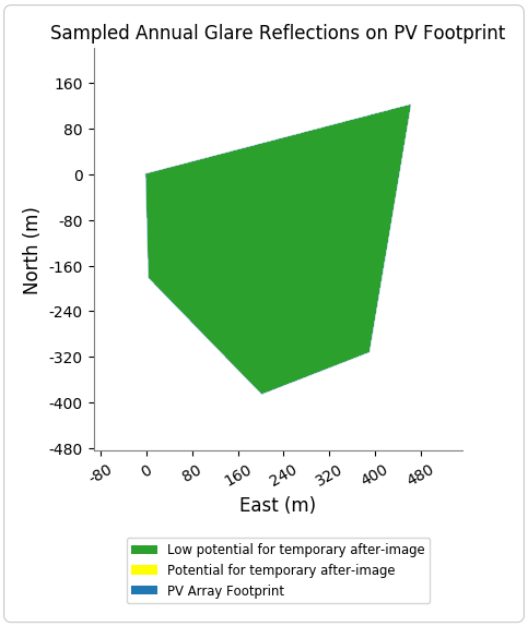
PV array 1 - OP Receptor (OP 25)

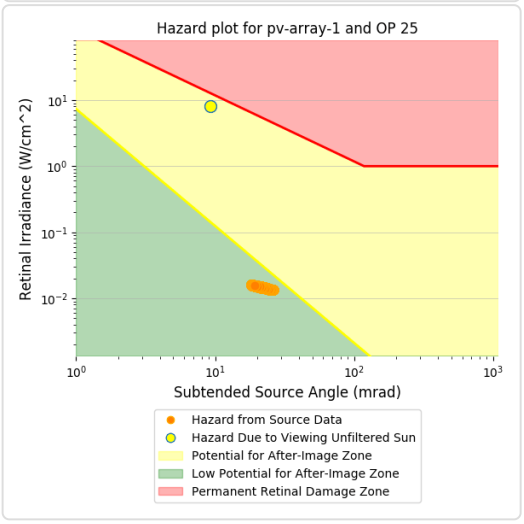
PV array is expected to produce the following glare for receptors at this location:

- 1,212 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.





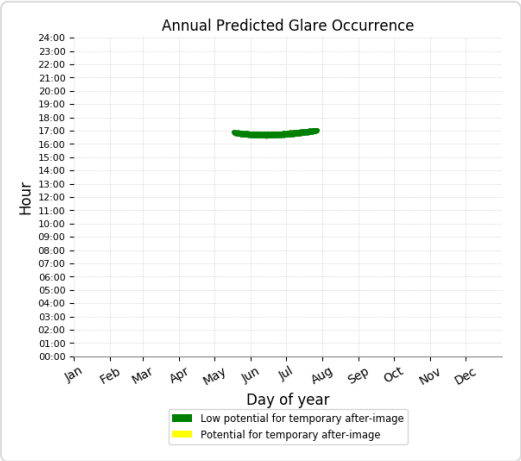


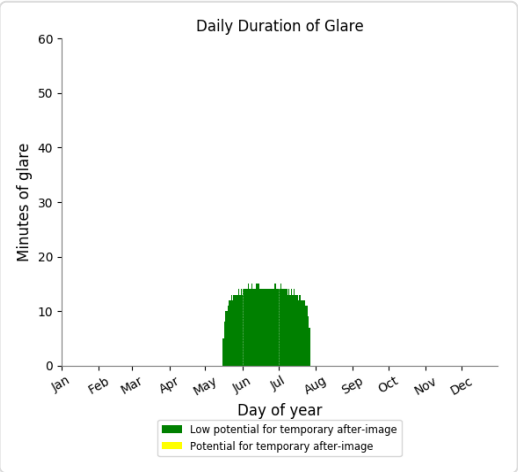


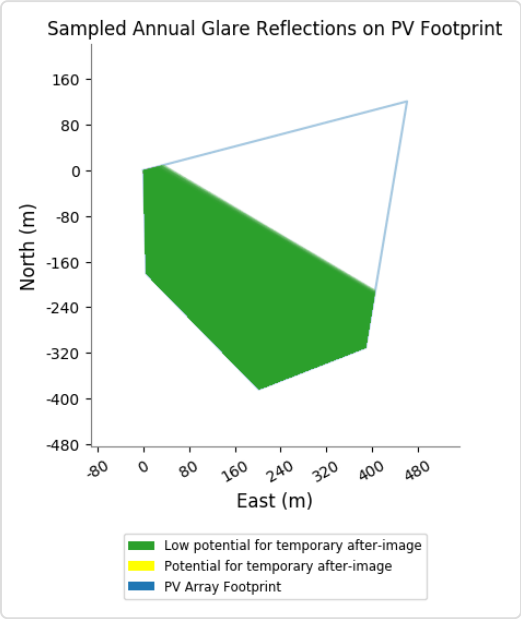
PV array 1 - OP Receptor (OP 26)

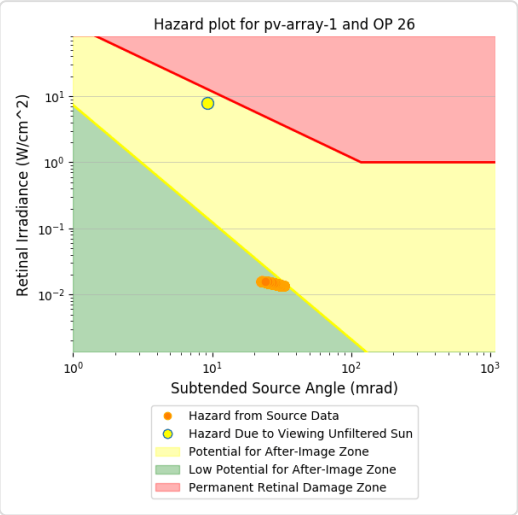
PV array is expected to produce the following glare for receptors at this location:

- 956 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.





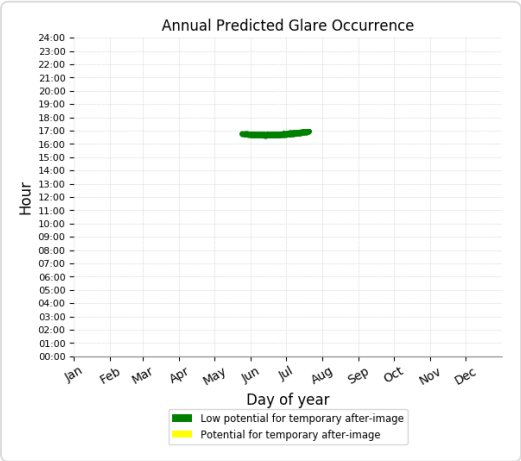


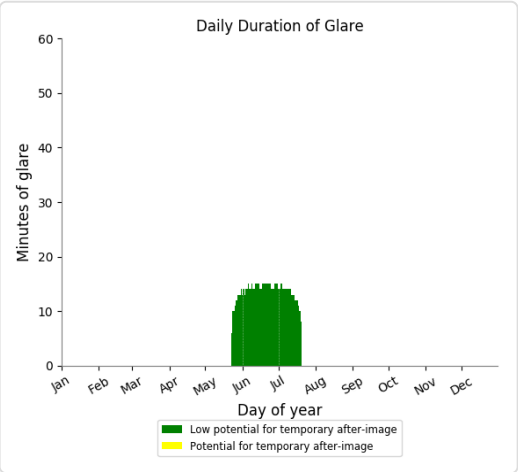


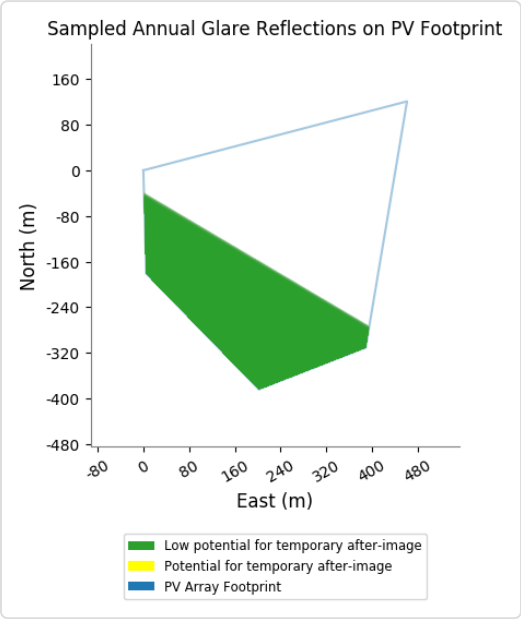
PV array 1 - OP Receptor (OP 27)

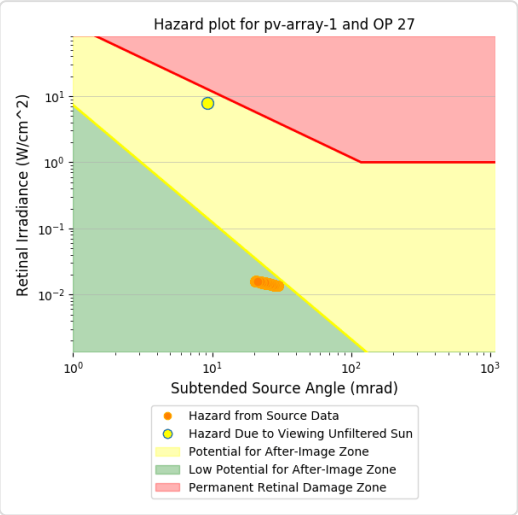
PV array is expected to produce the following glare for receptors at this location:

- 796 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.





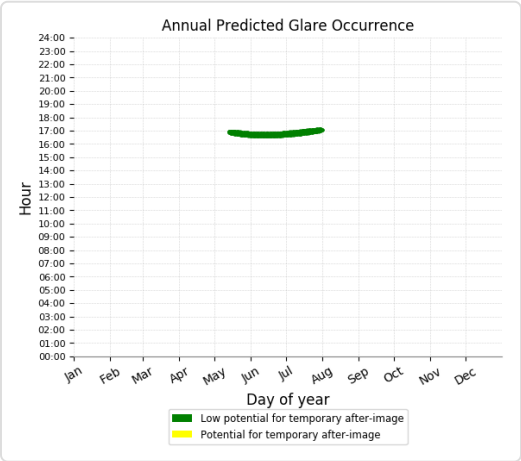


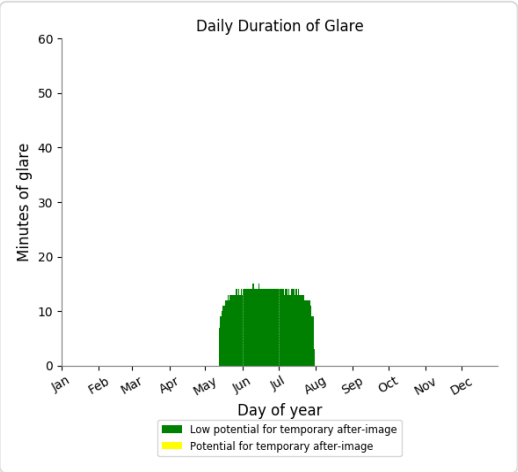


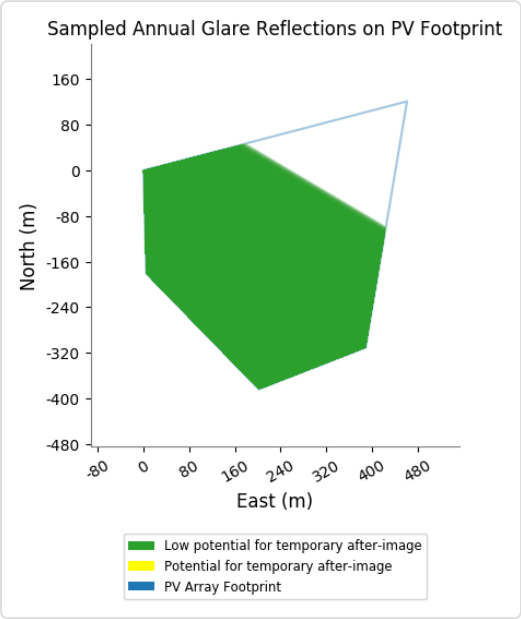
PV array 1 - OP Receptor (OP 28)

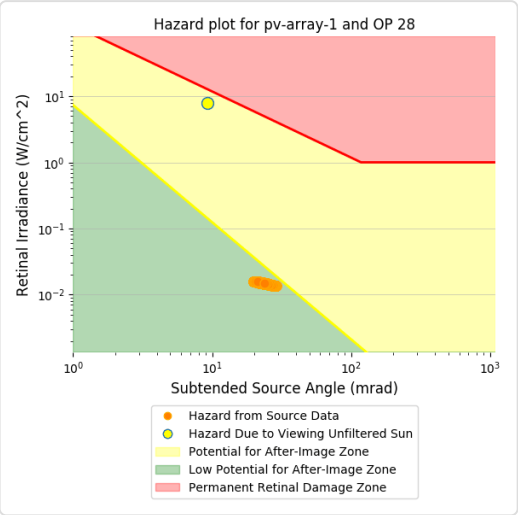
PV array is expected to produce the following glare for receptors at this location:

- 1,042 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.





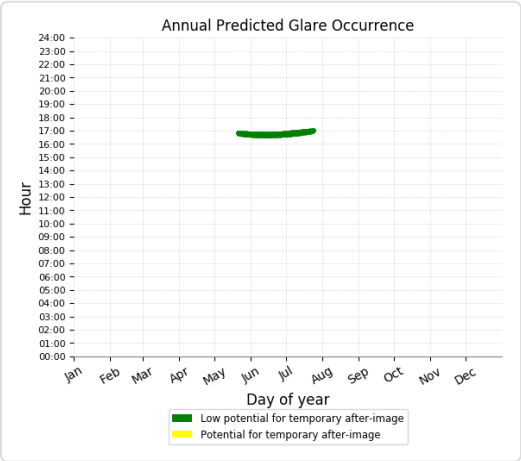


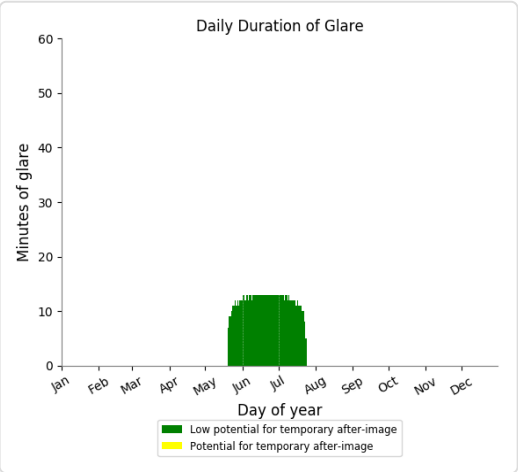


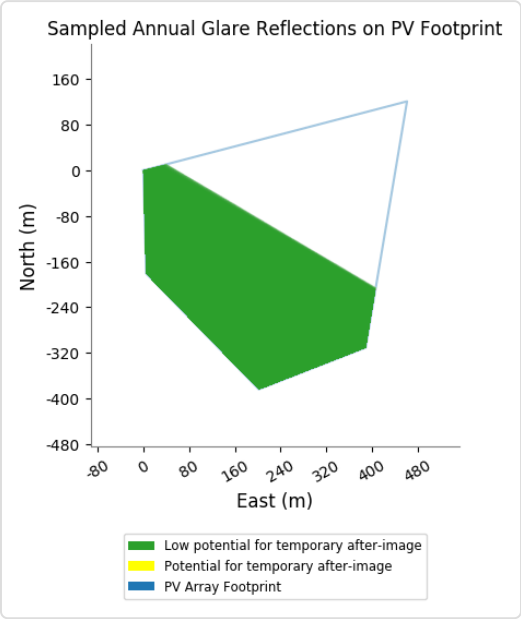
PV array 1 - OP Receptor (OP 29)

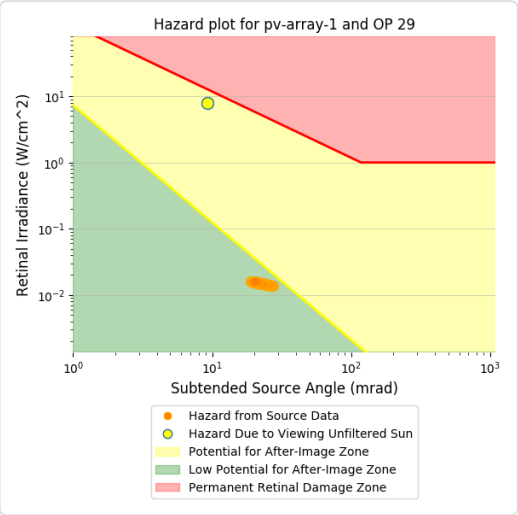
PV array is expected to produce the following glare for receptors at this location:

- 789 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.





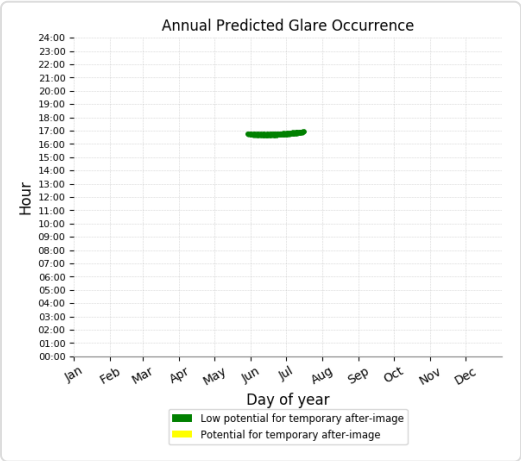


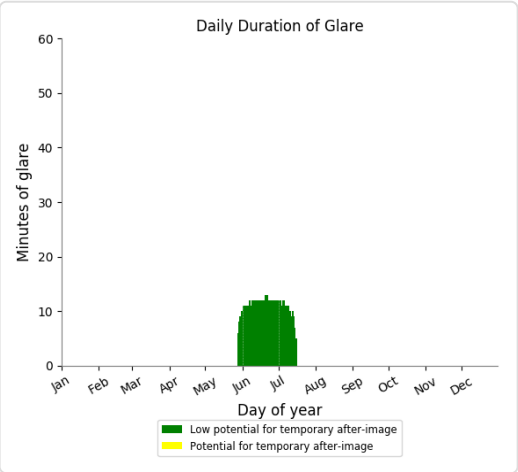


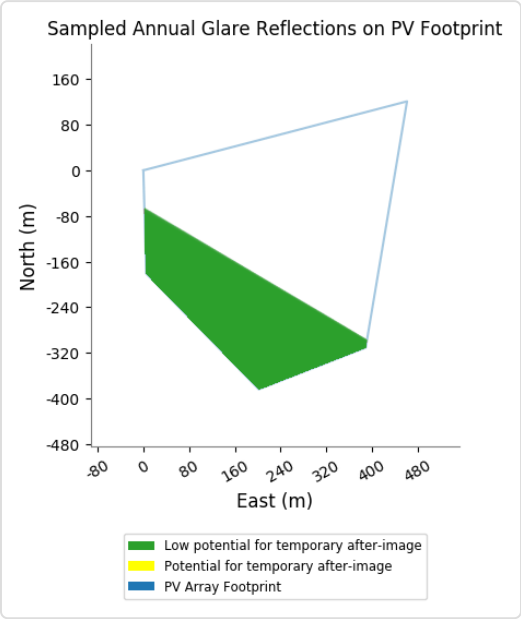
PV array 1 - OP Receptor (OP 30)

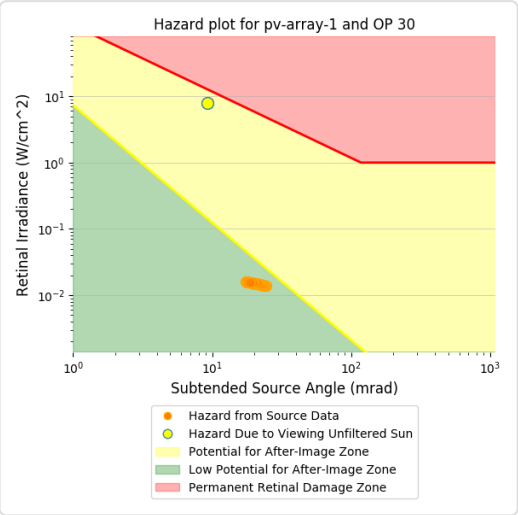
PV array is expected to produce the following glare for receptors at this location:

- 553 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.









PV array 1 - OP Receptor (OP 31)

No glare found

PV array 1 - OP Receptor (OP 32)

No glare found

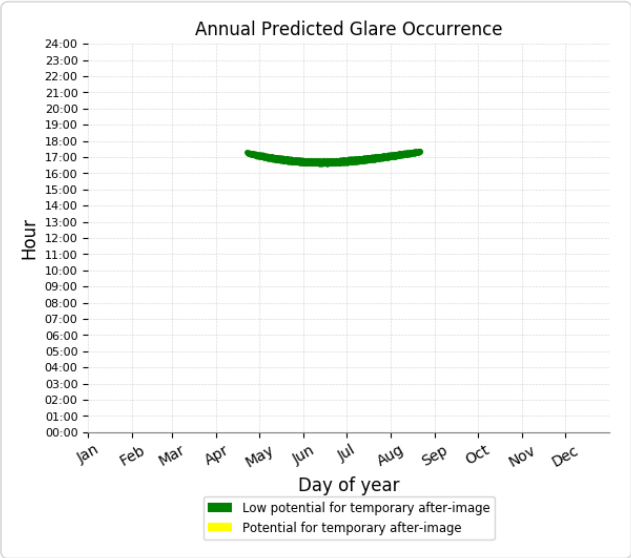
PV array 1 - Route Receptor (Carrick Rd)

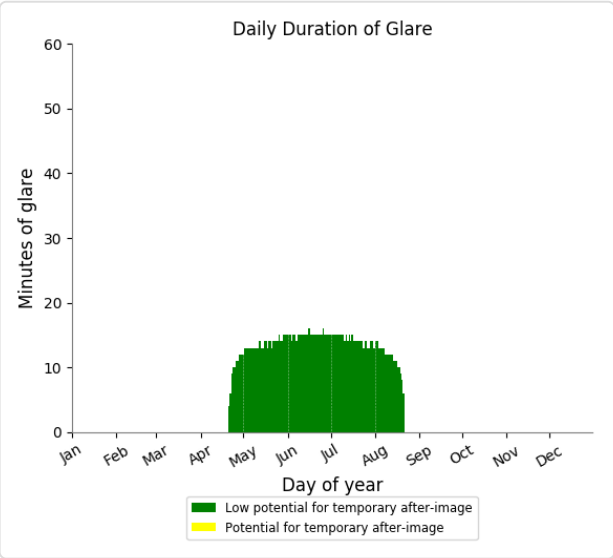
No glare found

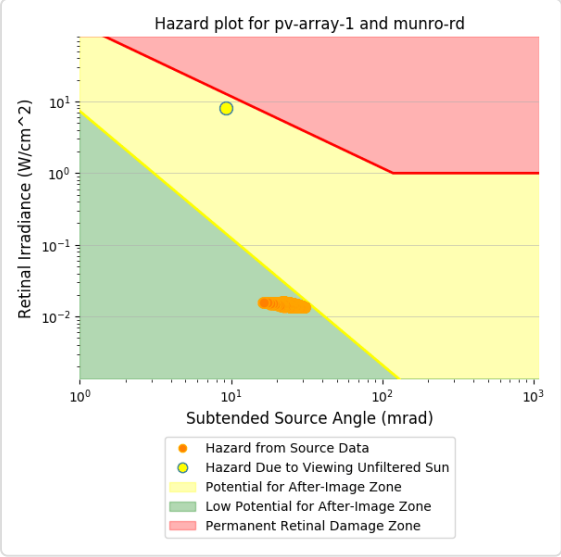
PV array 1 - Route Receptor (Munro Rd)

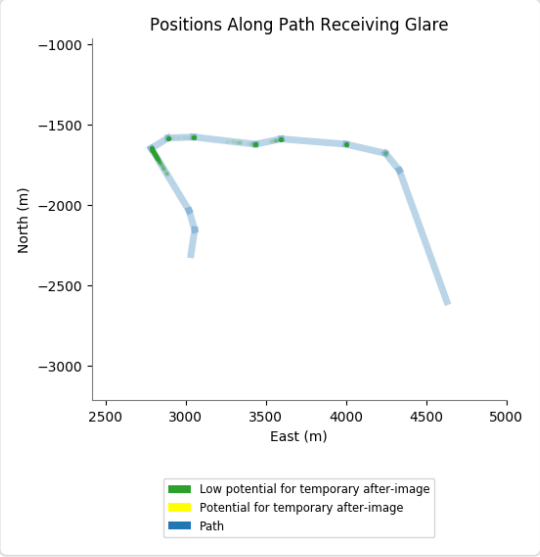
PV array is expected to produce the following glare for receptors at this location:

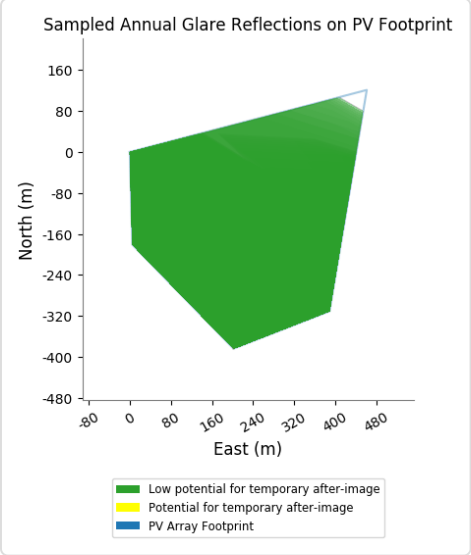
- 1,653 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.











PV array 2 potential temporary after-image

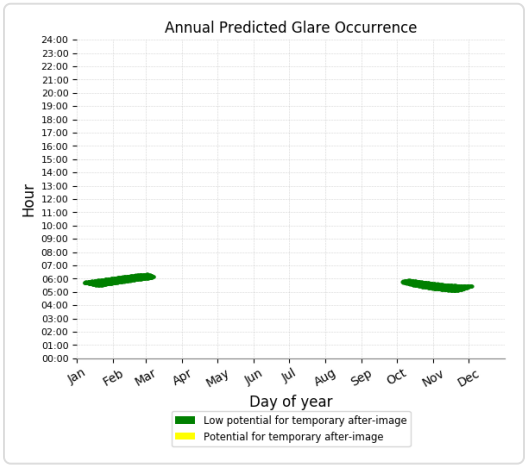
Component	Green glare (min)	Yellow glare (min)
FP: FP 1 Gliding Club Southern Approach	2225	0

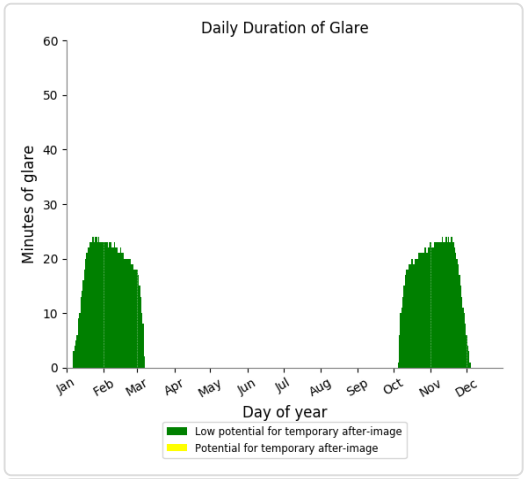
FP: FP 2 Gliding Club Northern Approach	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	513	207
OP: OP 10	0	1884
OP: OP 11	0	460
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
Route: Carrick Rd	2141	195
Route: Munro Rd	0	0

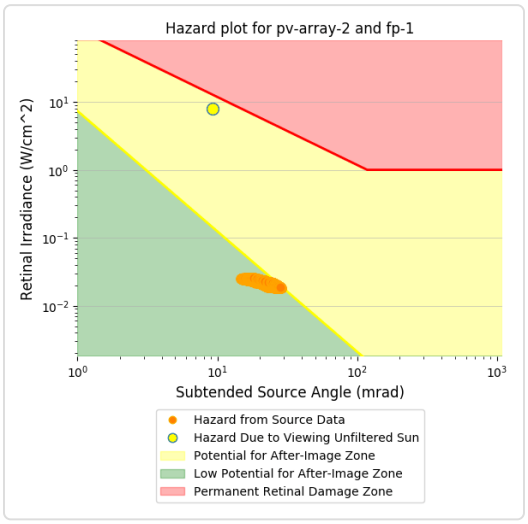
PV array 2 - Receptor (FP 1 Gliding Club Southern Approach)

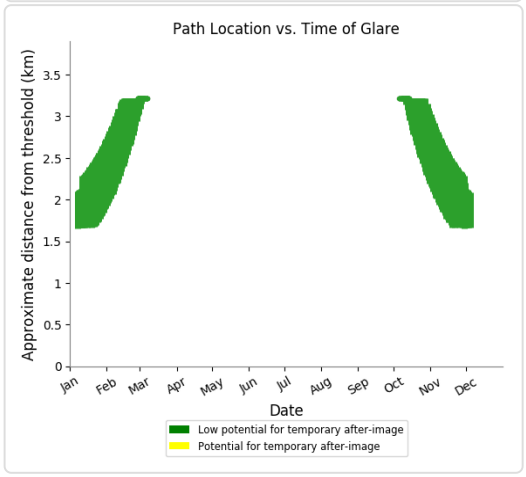
PV array is expected to produce the following glare for observers on this flight path:

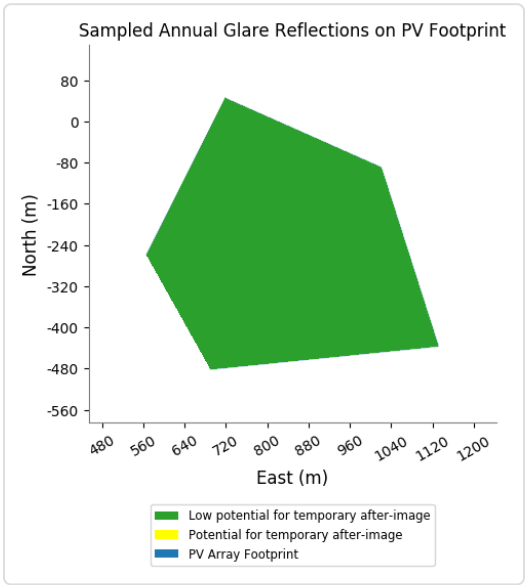
- 2,225 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.

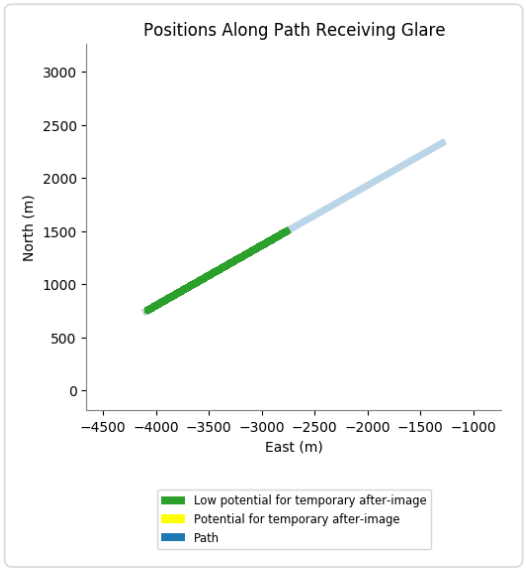












PV array 2 - Receptor (FP 2 Gliding Club Northern Approach)

No glare found

PV array 2 - OP Receptor (OP 1)

No glare found

PV array 2 - OP Receptor (OP 2)

No glare found

PV array 2 - OP Receptor (OP 3)

No glare found

PV array 2 - OP Receptor (OP 4)

No glare found

PV array 2 - OP Receptor (OP 5)

No glare found

PV array 2 - OP Receptor (OP 6)

No glare found

PV array 2 - OP Receptor (OP 7)

No glare found

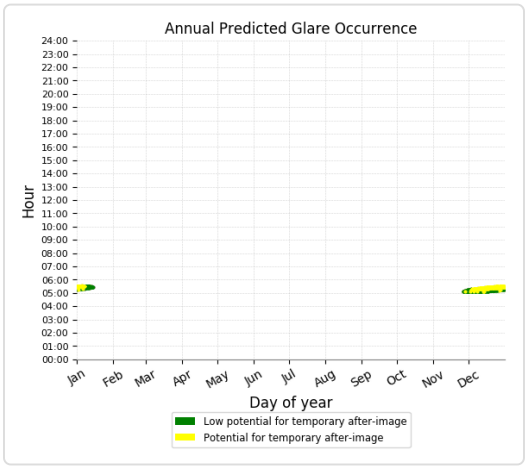
PV array 2 - OP Receptor (OP 8)

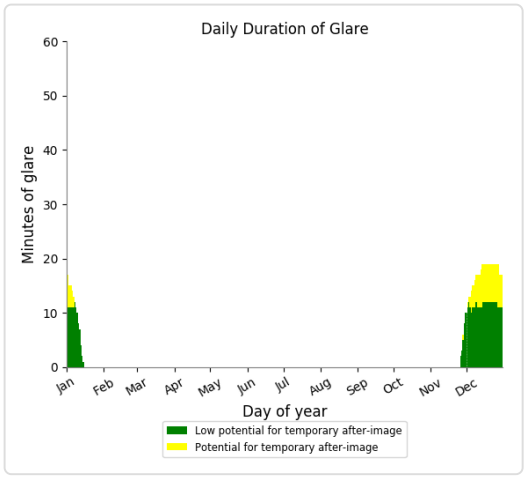
No glare found

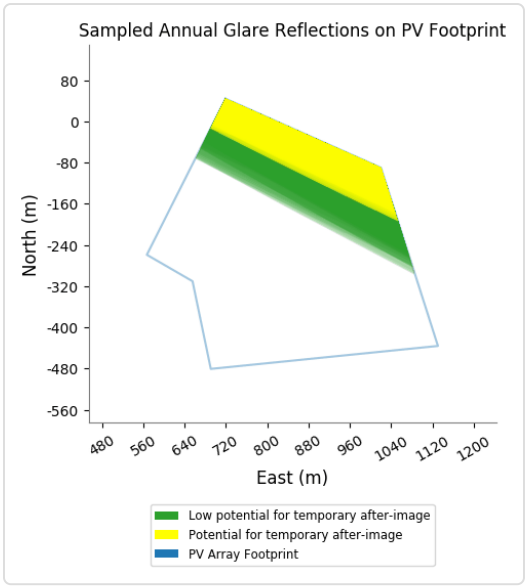
PV array 2 - OP Receptor (OP 9)

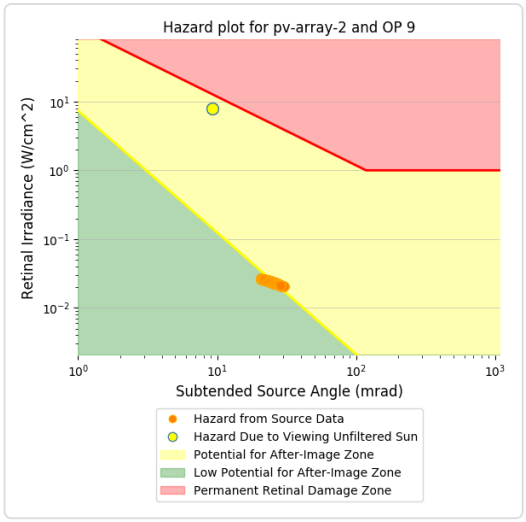
PV array is expected to produce the following glare for receptors at this location:

- 513 minutes of "green" glare with low potential to cause temporary after-image.
- 207 minutes of "yellow" glare with potential to cause temporary after-image.





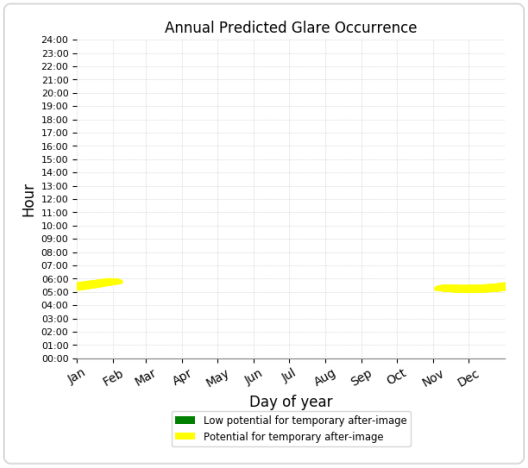


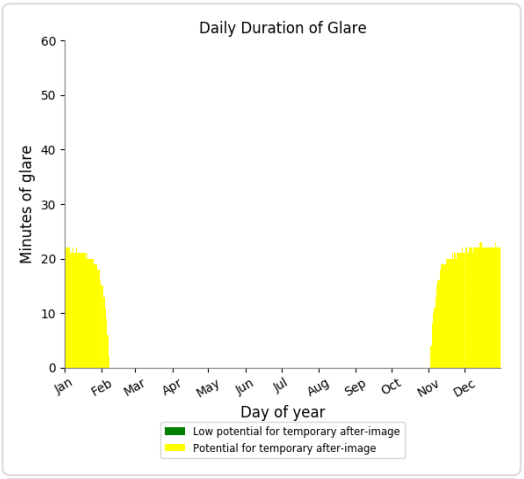


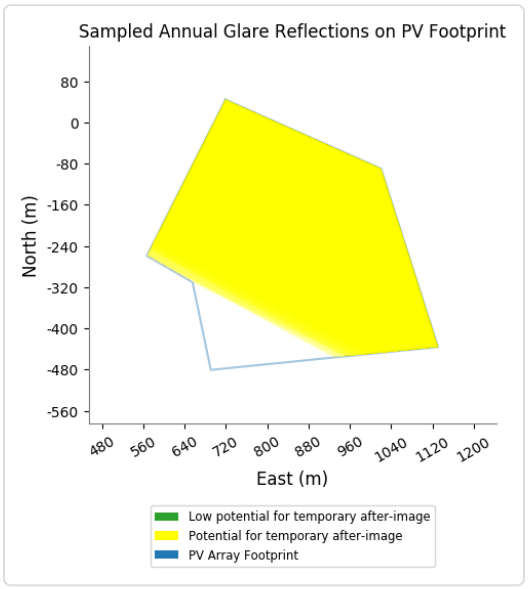
PV array 2 - OP Receptor (OP 10)

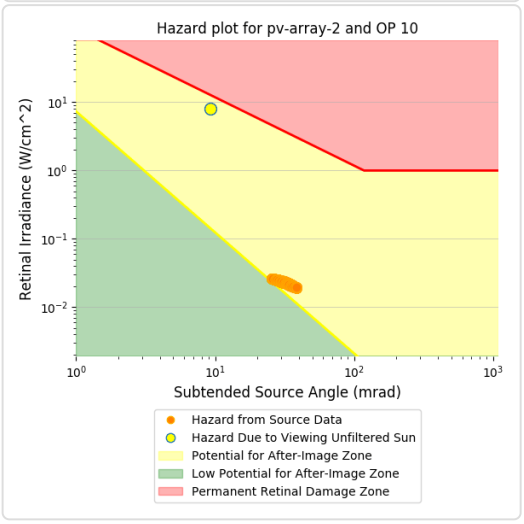
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 1,884 minutes of "yellow" glare with potential to cause temporary after-image.





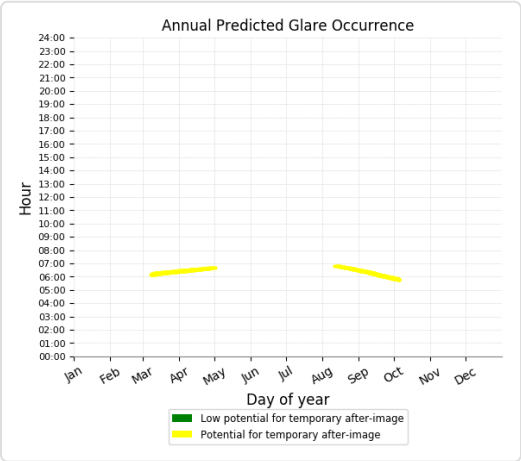


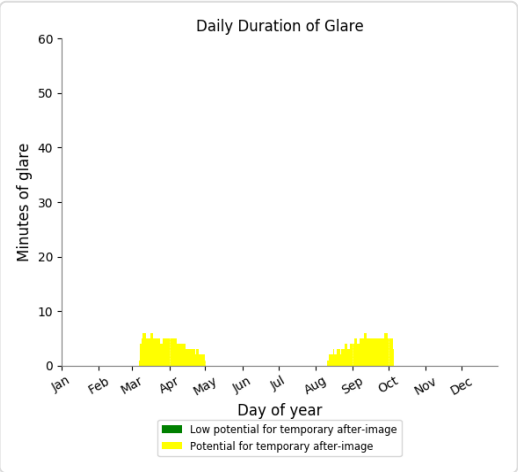


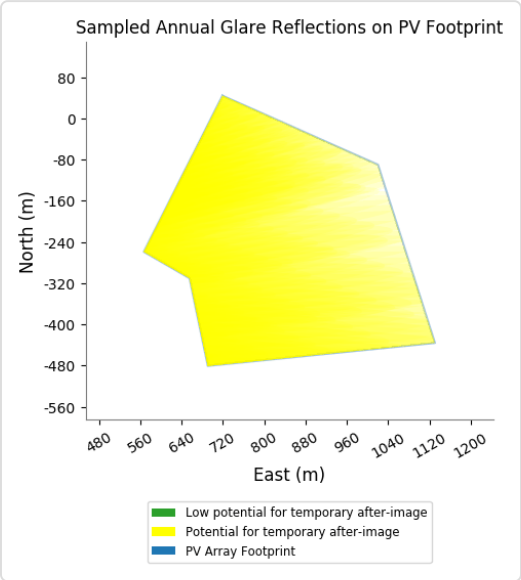
PV array 2 - OP Receptor (OP 11)

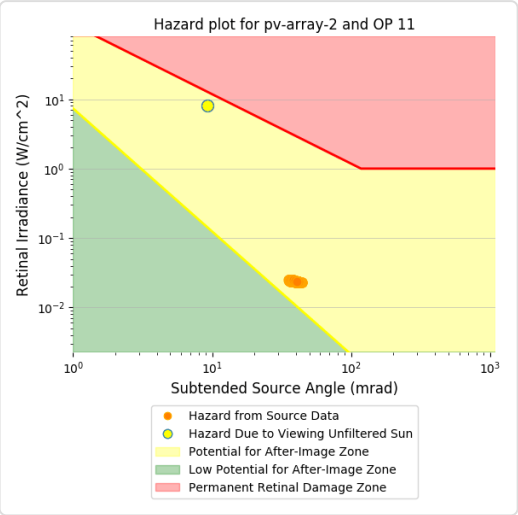
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 460 minutes of "yellow" glare with potential to cause temporary after-image.









PV array 2 - OP Receptor (OP 12)

No glare found

PV array 2 - OP Receptor (OP 13)

No glare found

PV array 2 - OP Receptor (OP 14)

No glare found

PV array 2 - OP Receptor (OP 15)

No glare found

PV array 2 - OP Receptor (OP 16)

No glare found

PV array 2 - OP Receptor (OP 17)

No glare found

PV array 2 - OP Receptor (OP 18)

No glare found

PV array 2 - OP Receptor (OP 19)

No glare found

PV array 2 - OP Receptor (OP 20)
No glare found

PV array 2 - OP Receptor (OP 21)
No glare found

PV array 2 - OP Receptor (OP 22)
No glare found

PV array 2 - OP Receptor (OP 23)
No glare found

PV array 2 - OP Receptor (OP 24)
No glare found

PV array 2 - OP Receptor (OP 25)
No glare found

PV array 2 - OP Receptor (OP 26)
No glare found

PV array 2 - OP Receptor (OP 27)
No glare found

PV array 2 - OP Receptor (OP 28)
No glare found

PV array 2 - OP Receptor (OP 29)
No glare found

PV array 2 - OP Receptor (OP 30)
No glare found

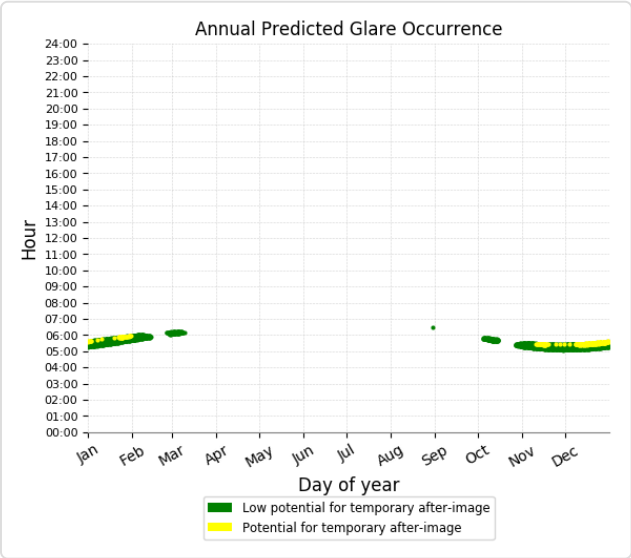
PV array 2 - OP Receptor (OP 31)
No glare found

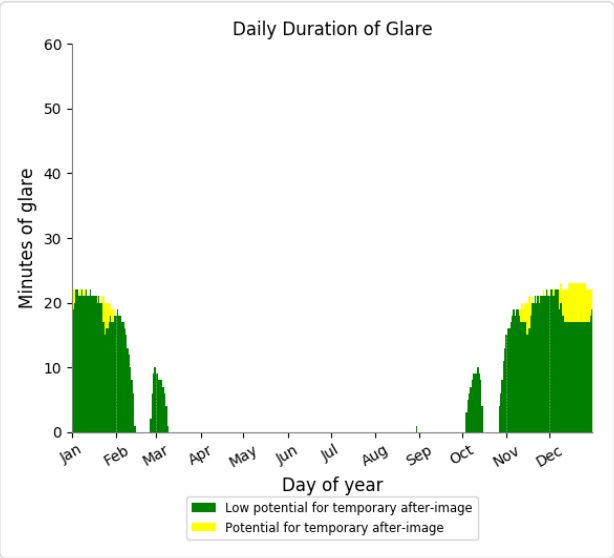
PV array 2 - OP Receptor (OP 32)
No glare found

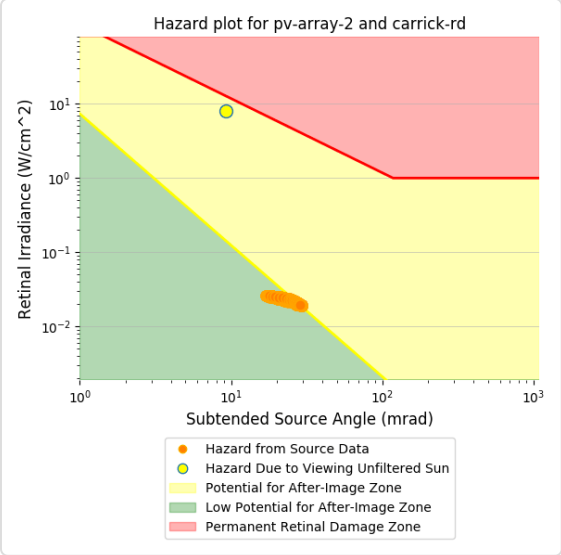
PV array 2 - Route Receptor (Carrick Rd)

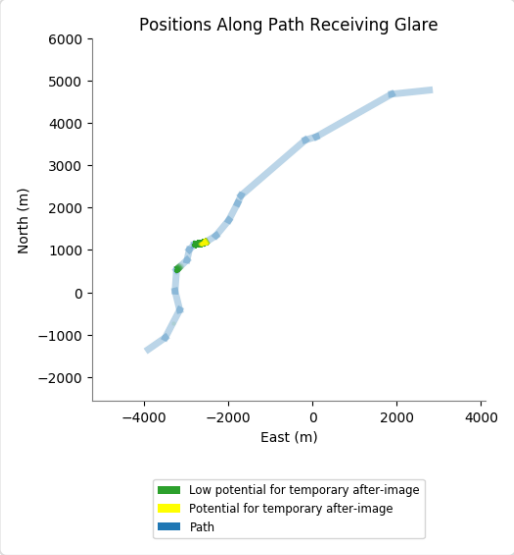
PV array is expected to produce the following glare for receptors at this location:

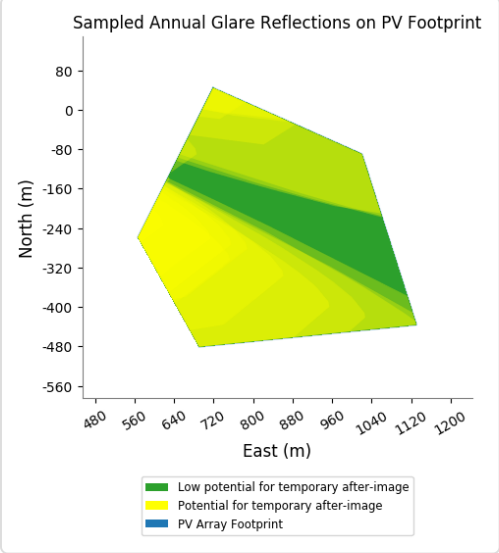
- 2,141 minutes of "green" glare with low potential to cause temporary after-image.
- 195 minutes of "yellow" glare with potential to cause temporary after-image.











PV array 2 - Route Receptor (Munro Rd)

No glare found

PV array 3 potential temporary after-image

Component	Green glare (min)	Yellow glare (min)
FP: FP 1 Gliding Club Southern Approach	0	0
FP: FP 2 Gliding Club Northern Approach	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	2053
OP: OP 24	0	1780
OP: OP 25	733	0
OP: OP 26	0	997
OP: OP 27	273	582
OP: OP 28	634	382
OP: OP 29	605	128
OP: OP 30	509	0
OP: OP 31	0	0
OP: OP 32	0	0
Route: Carrick Rd	0	0
Route: Munro Rd	449	1115

PV array 3 - Receptor (FP 1 Gliding Club Southern Approach)

No glare found

PV array 3 - Receptor (FP 2 Gliding Club Northern Approach)

No glare found

PV array 3 - OP Receptor (OP 1)

No glare found

PV array 3 - OP Receptor (OP 2)

No glare found

PV array 3 - OP Receptor (OP 3)

No glare found

PV array 3 - OP Receptor (OP 4)
No glare found

PV array 3 - OP Receptor (OP 5)
No glare found

PV array 3 - OP Receptor (OP 6)
No glare found

PV array 3 - OP Receptor (OP 7)
No glare found

PV array 3 - OP Receptor (OP 8)
No glare found

PV array 3 - OP Receptor (OP 9)
No glare found

PV array 3 - OP Receptor (OP 10)
No glare found

PV array 3 - OP Receptor (OP 11)
No glare found

PV array 3 - OP Receptor (OP 12)
No glare found

PV array 3 - OP Receptor (OP 13)
No glare found

PV array 3 - OP Receptor (OP 14)
No glare found

PV array 3 - OP Receptor (OP 15)
No glare found

PV array 3 - OP Receptor (OP 16)
No glare found

PV array 3 - OP Receptor (OP 17)
No glare found

PV array 3 - OP Receptor (OP 18)
No glare found

PV array 3 - OP Receptor (OP 19)
No glare found

PV array 3 - OP Receptor (OP 20)
No glare found

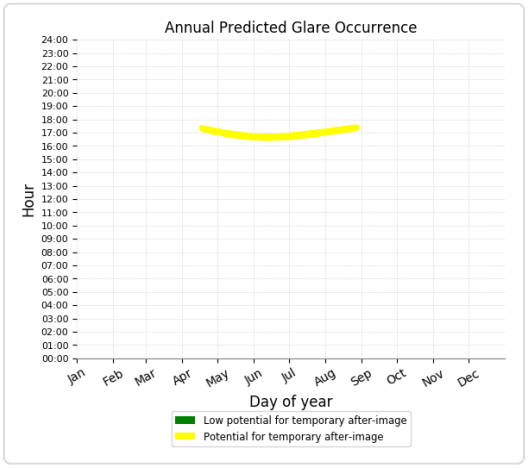
PV array 3 - OP Receptor (OP 21)
No glare found

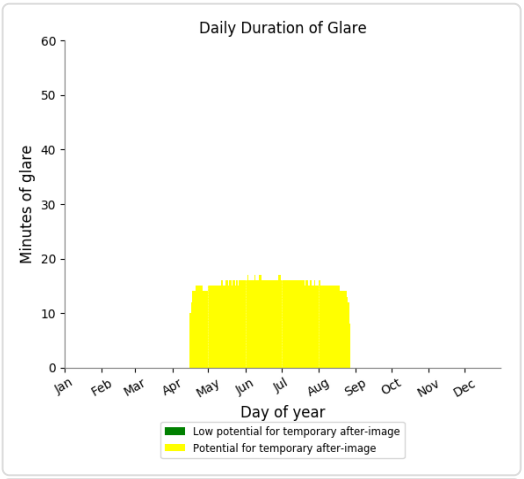
PV array 3 - OP Receptor (OP 22)
No glare found

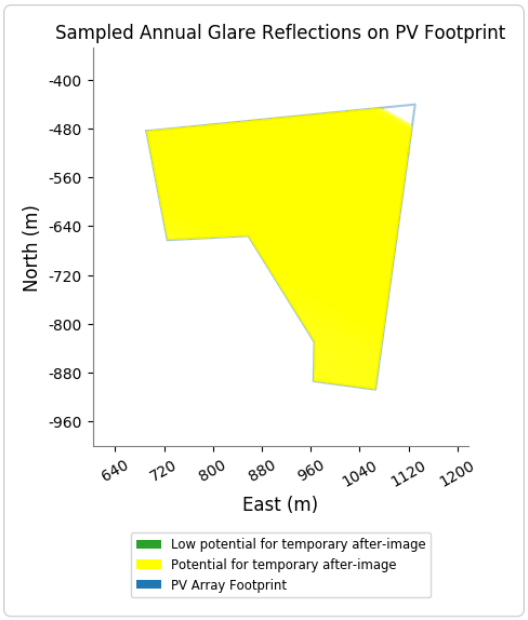
PV array 3 - OP Receptor (OP 23)

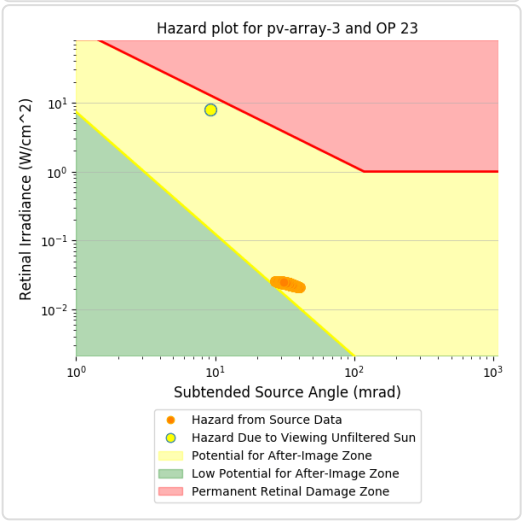
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 2,053 minutes of "yellow" glare with potential to cause temporary after-image.





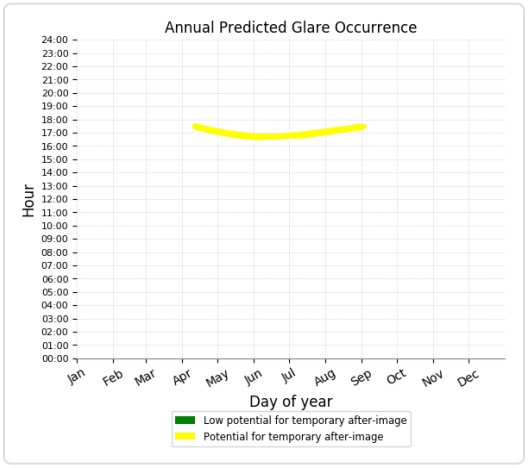


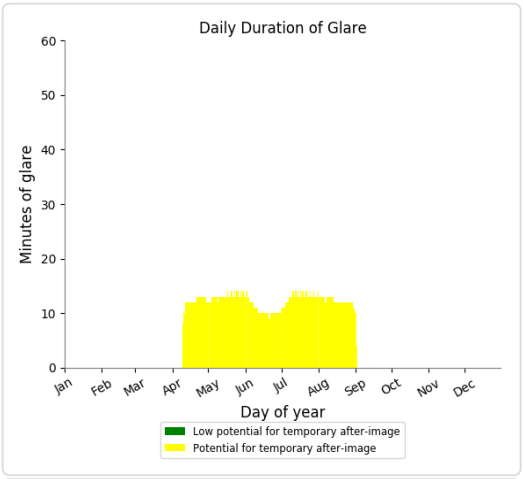


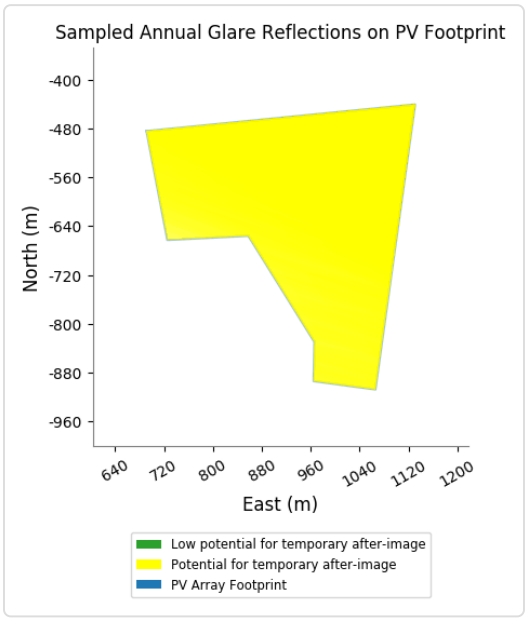
PV array 3 - OP Receptor (OP 24)

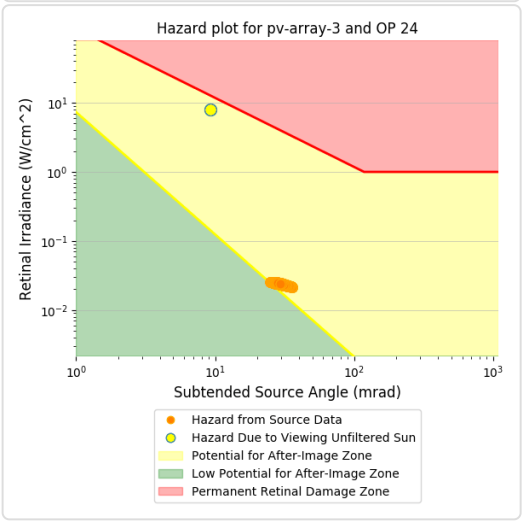
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 1,780 minutes of "yellow" glare with potential to cause temporary after-image.





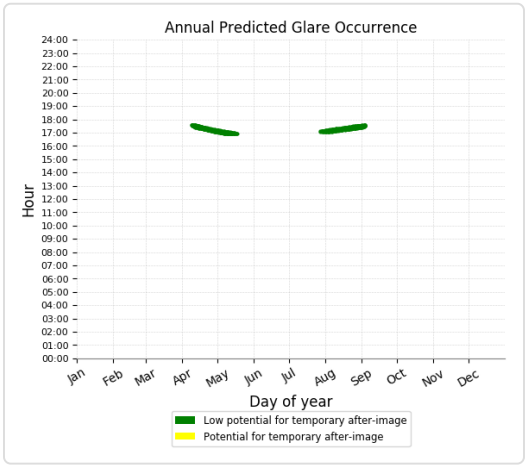


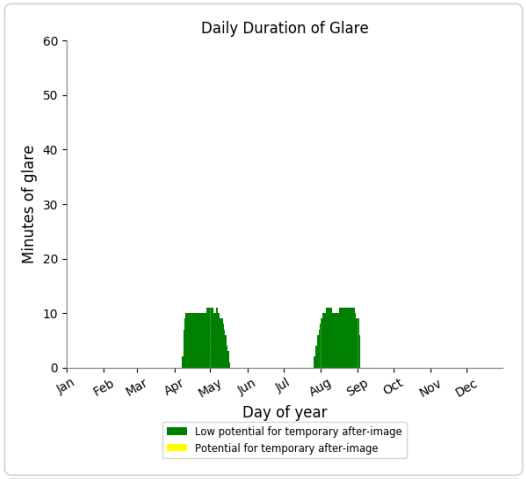


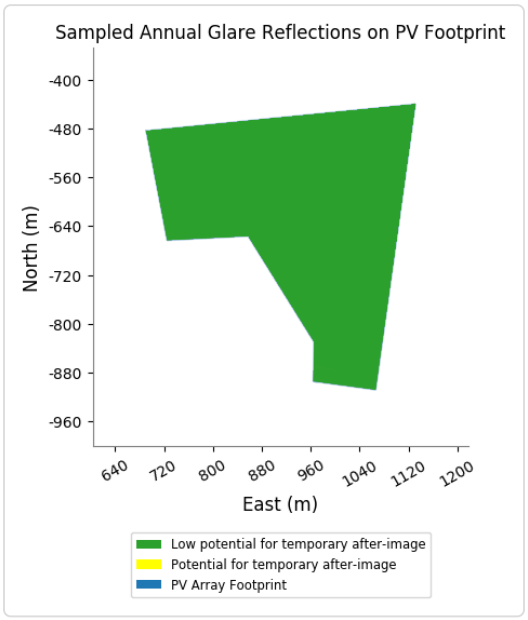
PV array 3 - OP Receptor (OP 25)

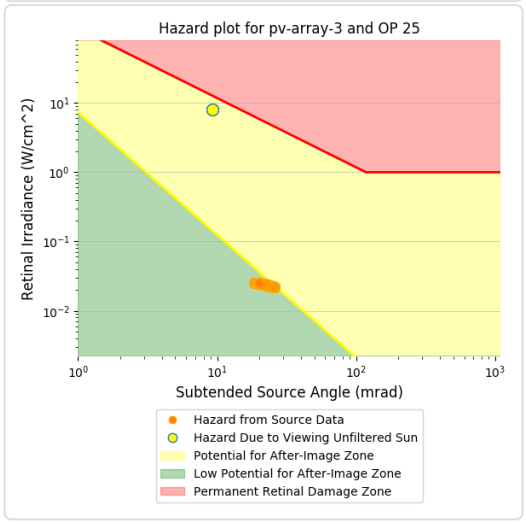
PV array is expected to produce the following glare for receptors at this location:

- 733 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.





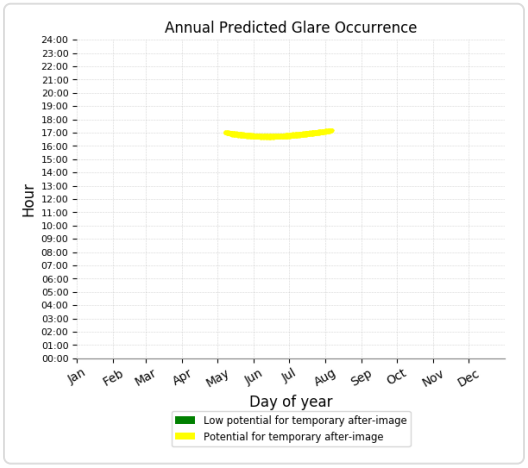


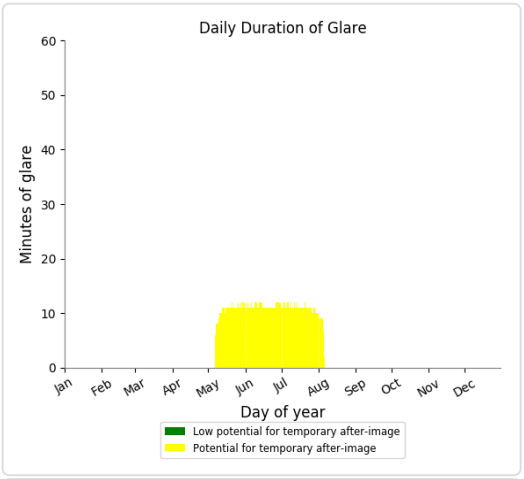


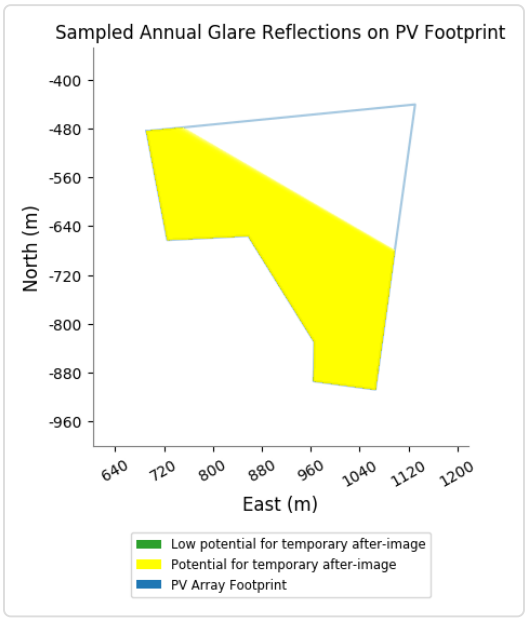
PV array 3 - OP Receptor (OP 26)

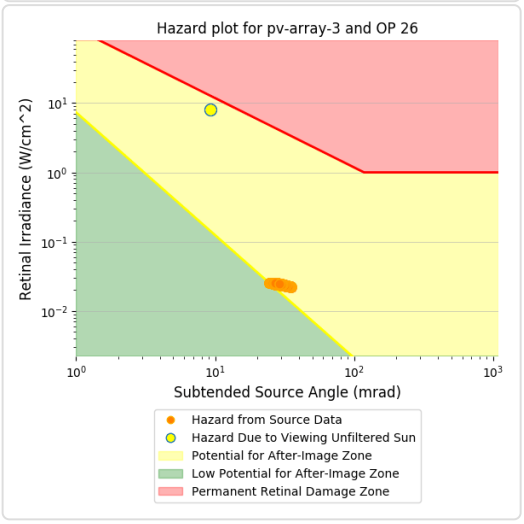
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 997 minutes of "yellow" glare with potential to cause temporary after-image.





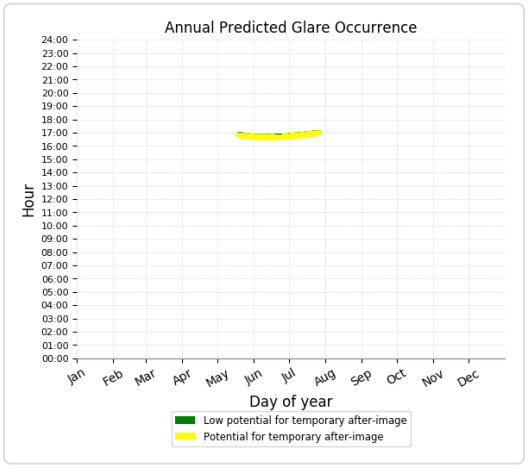


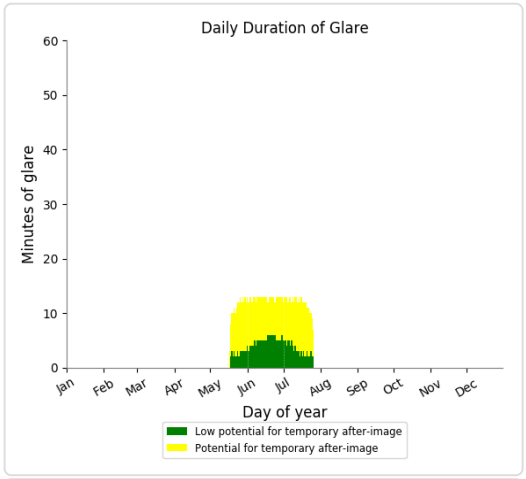


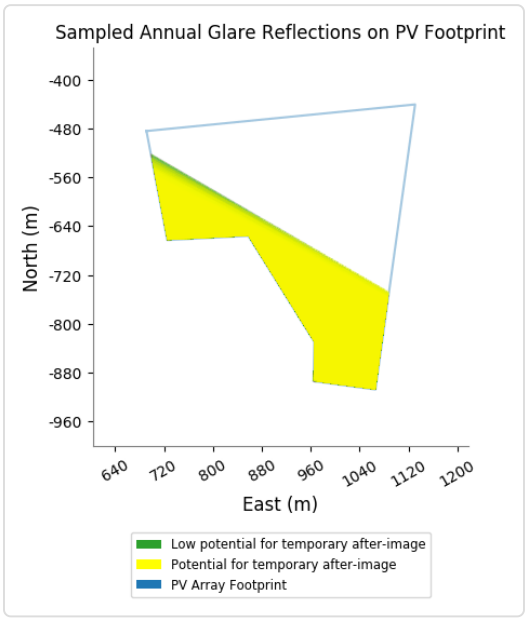
PV array 3 - OP Receptor (OP 27)

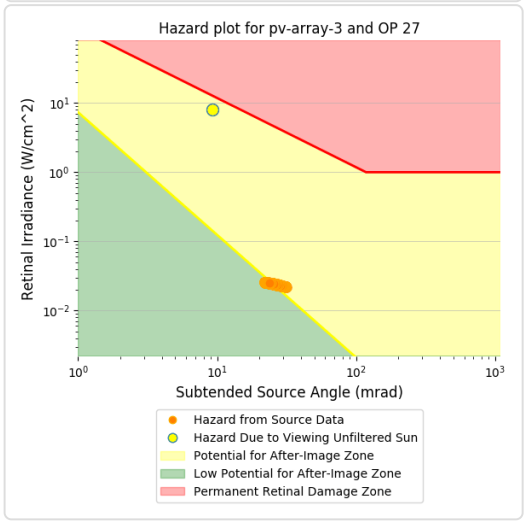
PV array is expected to produce the following glare for receptors at this location:

- 273 minutes of "green" glare with low potential to cause temporary after-image.
- 582 minutes of "yellow" glare with potential to cause temporary after-image.





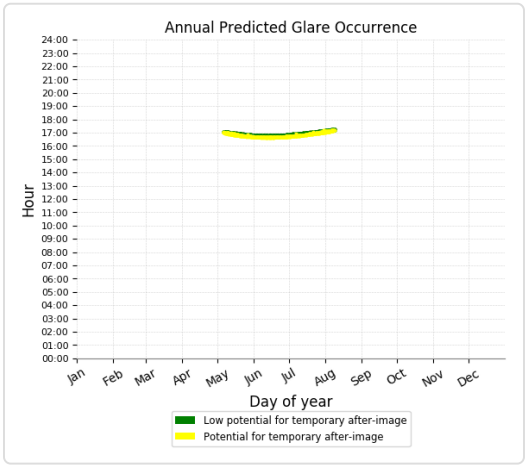


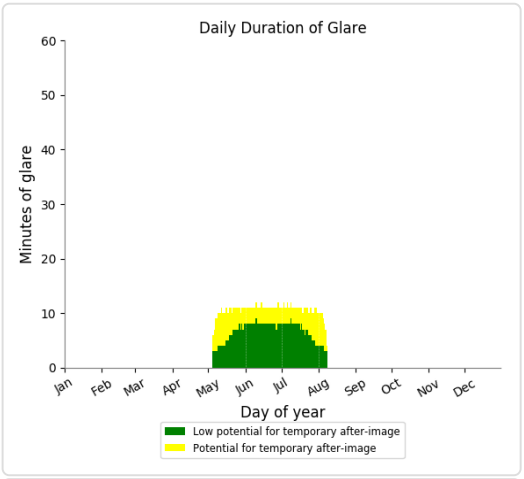


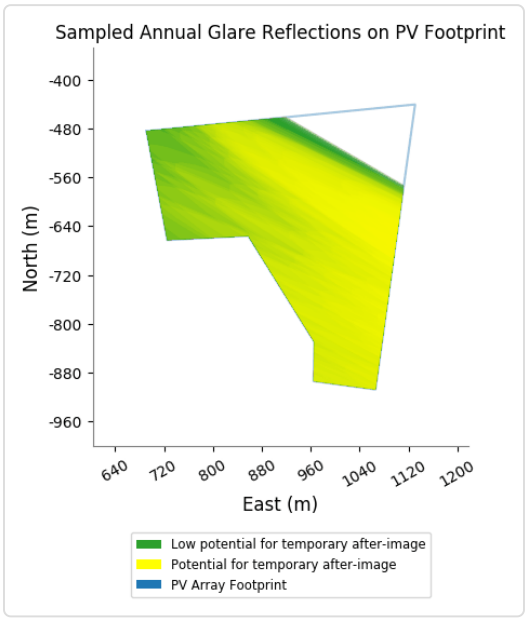
PV array 3 - OP Receptor (OP 28)

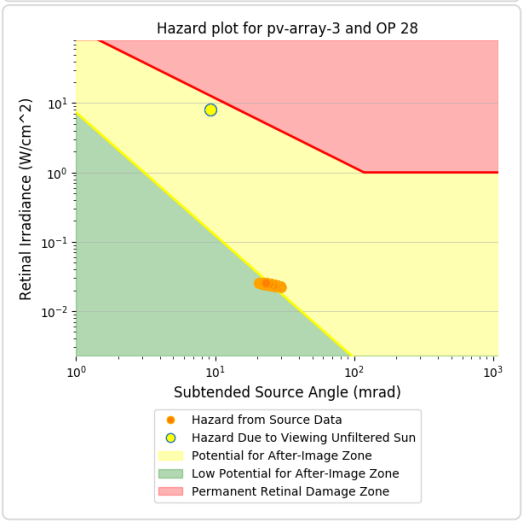
PV array is expected to produce the following glare for receptors at this location:

- 634 minutes of "green" glare with low potential to cause temporary after-image.
- 382 minutes of "yellow" glare with potential to cause temporary after-image.





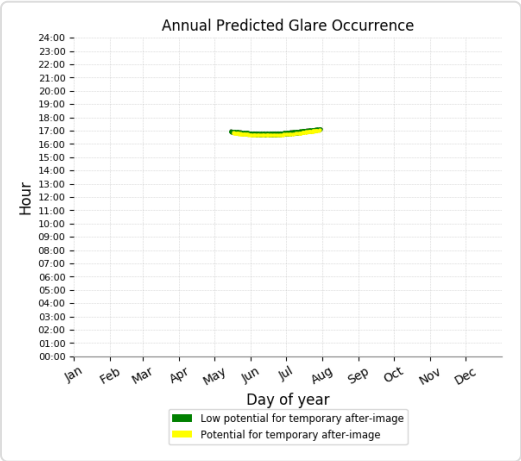


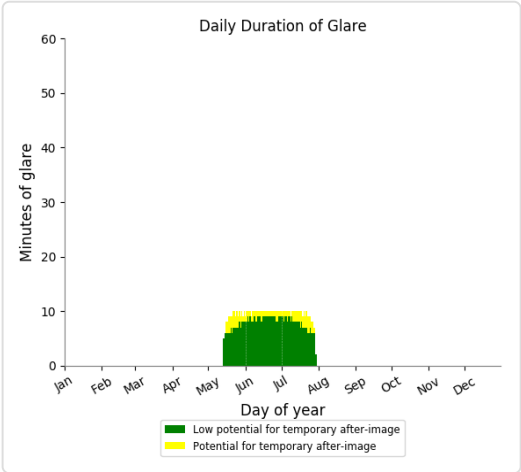


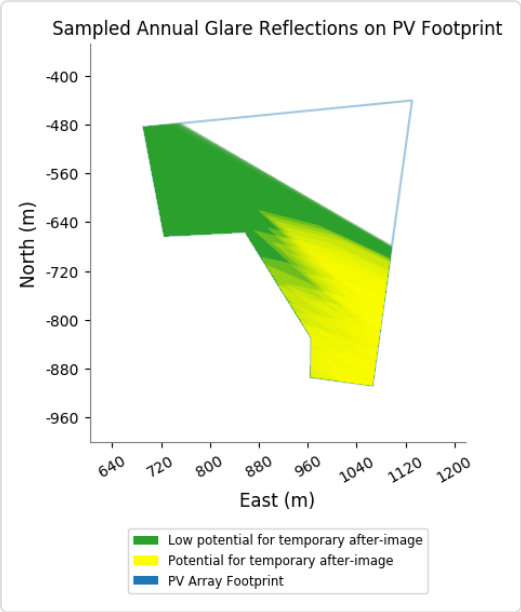
PV array 3 - OP Receptor (OP 29)

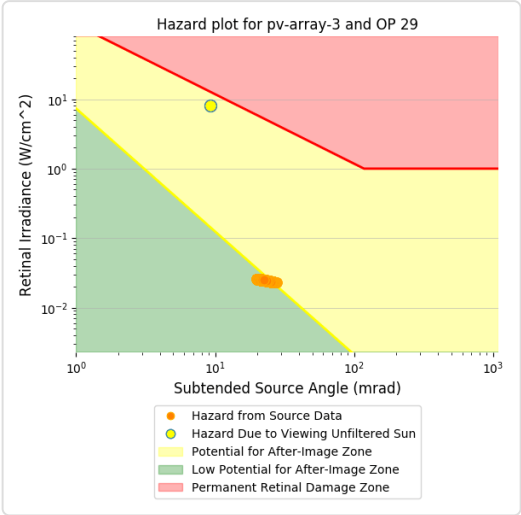
PV array is expected to produce the following glare for receptors at this location:

- 605 minutes of "green" glare with low potential to cause temporary after-image.
- 128 minutes of "yellow" glare with potential to cause temporary after-image.





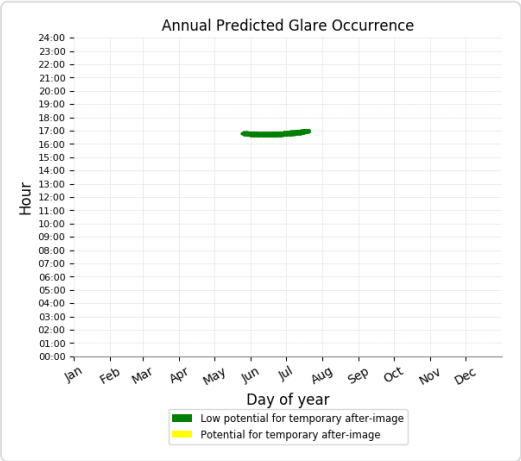


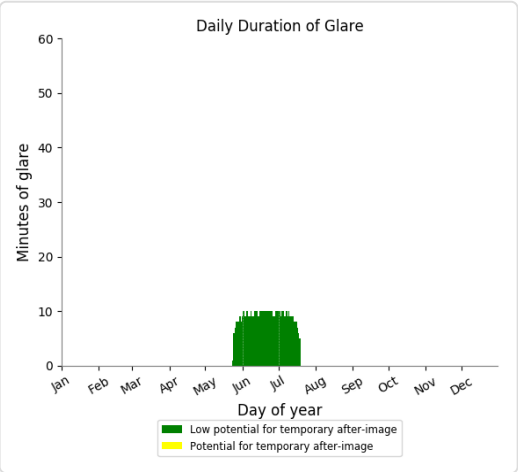


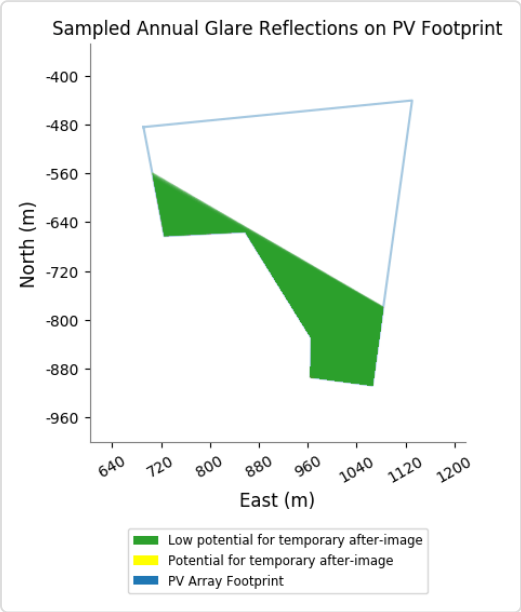
PV array 3 - OP Receptor (OP 30)

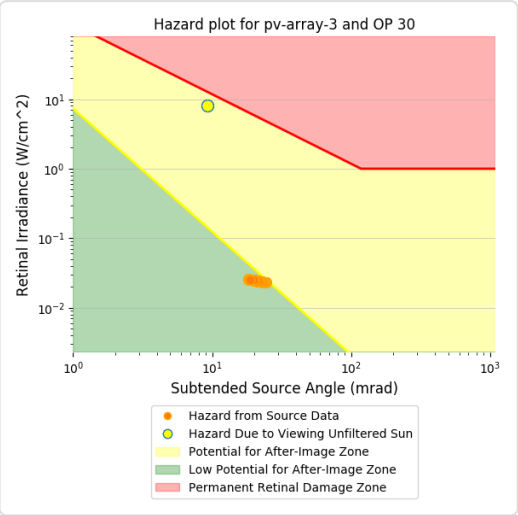
PV array is expected to produce the following glare for receptors at this location:

- 509 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.









PV array 3 - OP Receptor (OP 31)

No glare found

PV array 3 - OP Receptor (OP 32)

No glare found

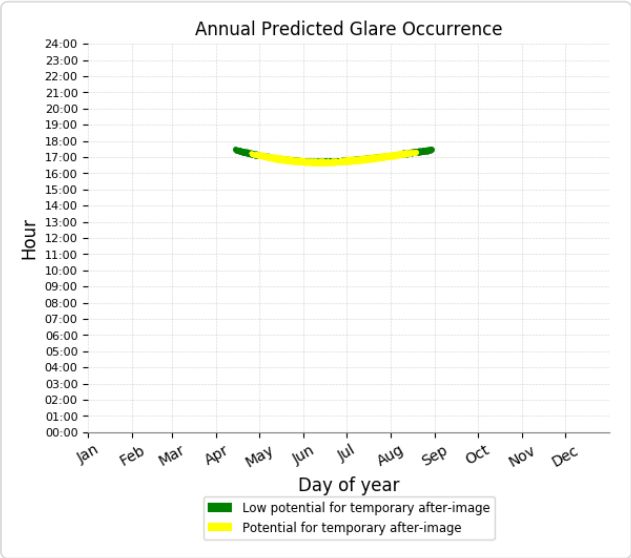
PV array 3 - Route Receptor (Carrick Rd)

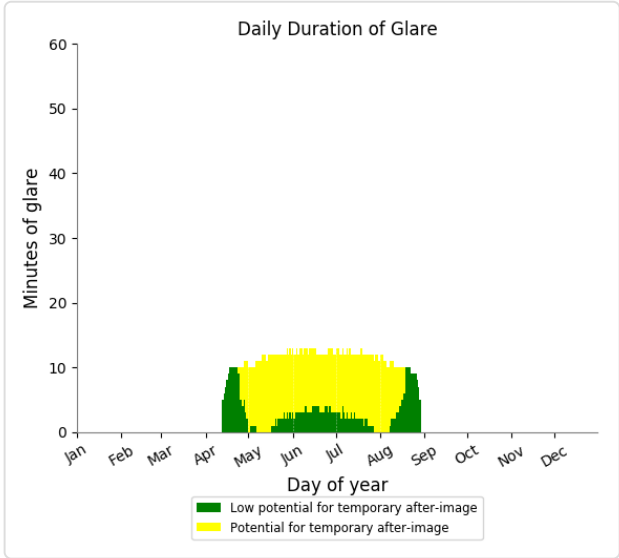
No glare found

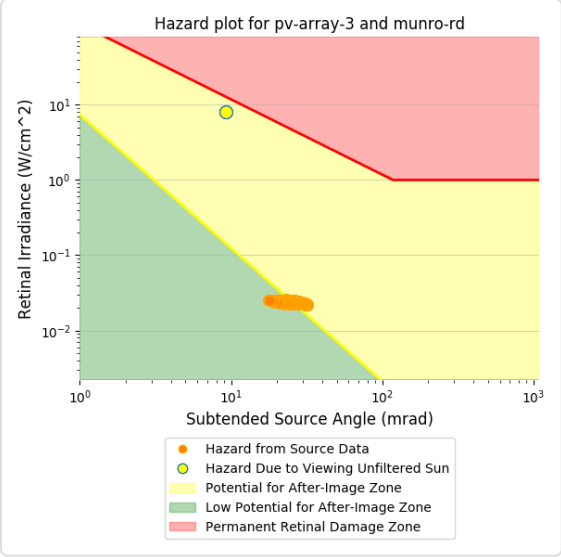
PV array 3 - Route Receptor (Munro Rd)

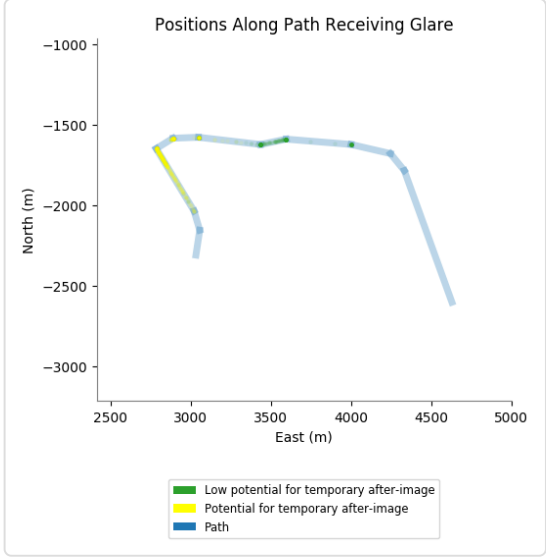
PV array is expected to produce the following glare for receptors at this location:

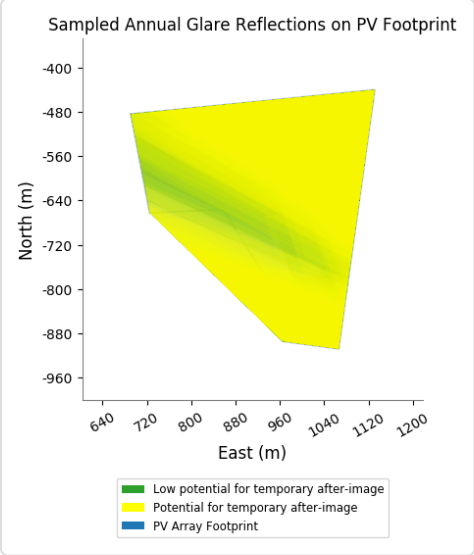
- 449 minutes of "green" glare with low potential to cause temporary after-image.
- 1,115 minutes of "yellow" glare with potential to cause temporary after-image.











PV array 4 potential temporary after-image

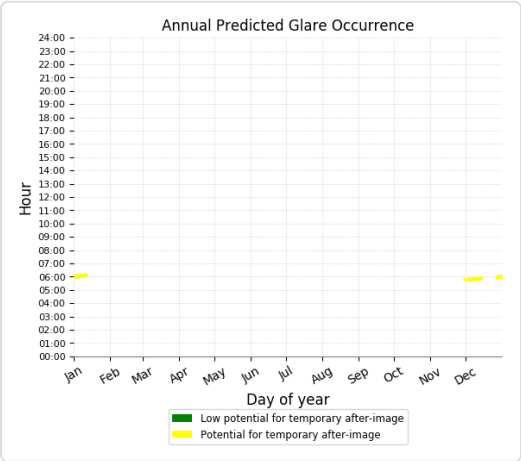
Component	Green glare (min)	Yellow glare (min)
FP: FP 1 Gliding Club Southern Approach	0	36

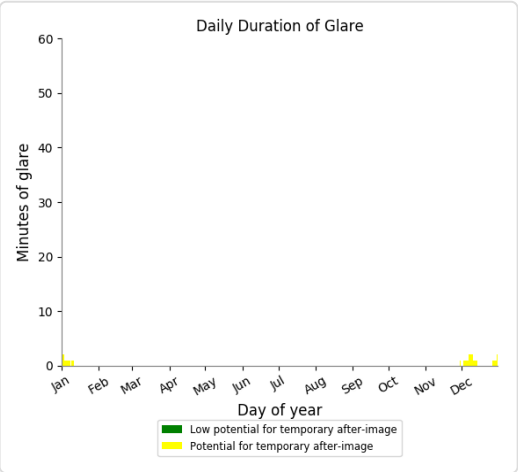
FP: FP 2 Gliding Club Northern Approach	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
Route: Carrick Rd	0	0
Route: Munro Rd	0	0

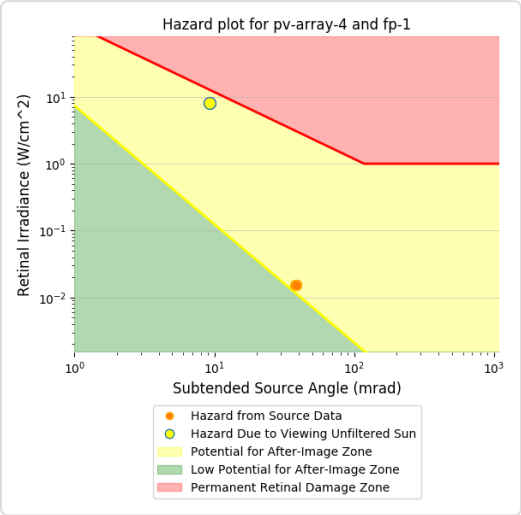
PV array 4 - Receptor (FP 1 Gliding Club Southern Approach)

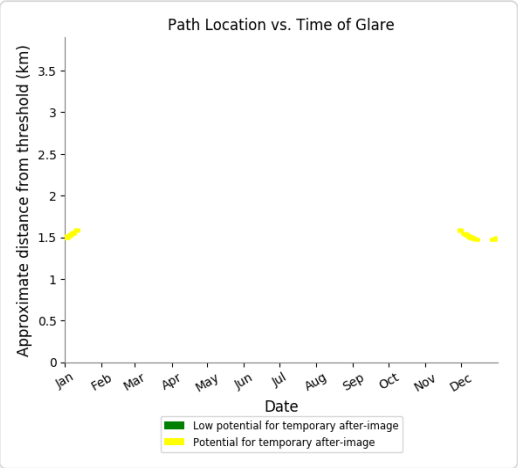
PV array is expected to produce the following glare for observers on this flight path:

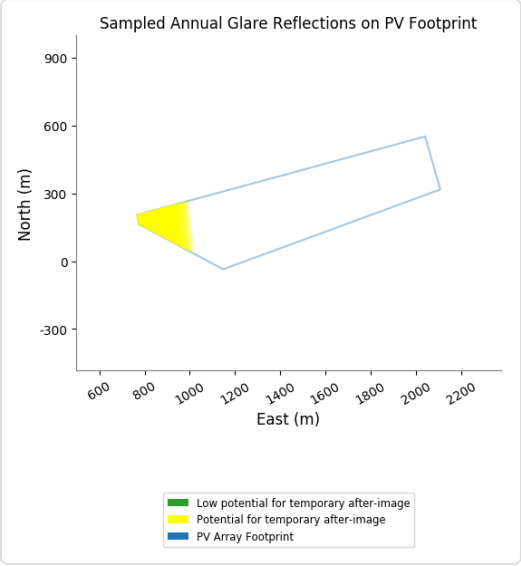
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 36 minutes of "yellow" glare with potential to cause temporary after-image.

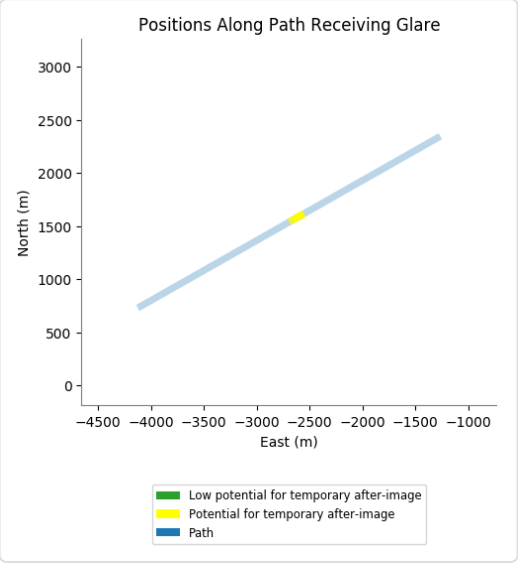












PV array 4 - Receptor (FP 2 Gliding Club Northern Approach)

No glare found

PV array 4 - OP Receptor (OP 1)

No glare found

PV array 4 - OP Receptor (OP 2)
No glare found

PV array 4 - OP Receptor (OP 3)
No glare found

PV array 4 - OP Receptor (OP 4)
No glare found

PV array 4 - OP Receptor (OP 5)
No glare found

PV array 4 - OP Receptor (OP 6)
No glare found

PV array 4 - OP Receptor (OP 7)
No glare found

PV array 4 - OP Receptor (OP 8)
No glare found

PV array 4 - OP Receptor (OP 9)
No glare found

PV array 4 - OP Receptor (OP 10)
No glare found

PV array 4 - OP Receptor (OP 11)
No glare found

PV array 4 - OP Receptor (OP 12)
No glare found

PV array 4 - OP Receptor (OP 13)
No glare found

PV array 4 - OP Receptor (OP 14)
No glare found

PV array 4 - OP Receptor (OP 15)
No glare found

PV array 4 - OP Receptor (OP 16)
No glare found

PV array 4 - OP Receptor (OP 17)
No glare found

PV array 4 - OP Receptor (OP 18)
No glare found

PV array 4 - OP Receptor (OP 19)
No glare found

PV array 4 - OP Receptor (OP 20)
No glare found

PV array 4 - OP Receptor (OP 21)
No glare found

PV array 4 - OP Receptor (OP 22)
No glare found

PV array 4 - OP Receptor (OP 23)
No glare found

PV array 4 - OP Receptor (OP 24)
No glare found

PV array 4 - OP Receptor (OP 25)
No glare found

PV array 4 - OP Receptor (OP 26)
No glare found

PV array 4 - OP Receptor (OP 27)
No glare found

PV array 4 - OP Receptor (OP 28)
No glare found

PV array 4 - OP Receptor (OP 29)
No glare found

PV array 4 - OP Receptor (OP 30)
No glare found

PV array 4 - OP Receptor (OP 31)
No glare found

PV array 4 - OP Receptor (OP 32)
No glare found

PV array 4 - Route Receptor (Carrick Rd)
No glare found

PV array 4 - Route Receptor (Munro Rd)
No glare found

PV array 5 potential temporary after-image

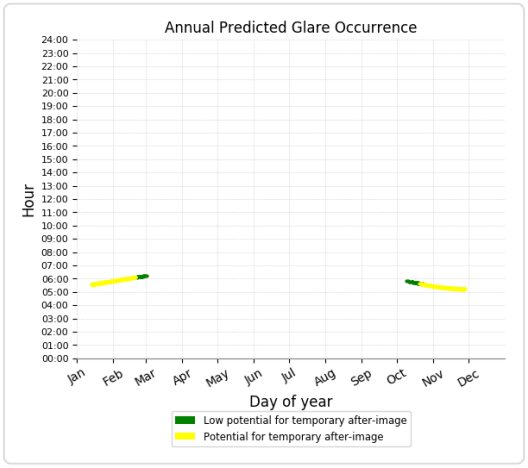
Component	Green glare (min)	Yellow glare (min)
FP: FP 1 Gliding Club Southern Approach	43	286
FP: FP 2 Gliding Club Northern Approach	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0

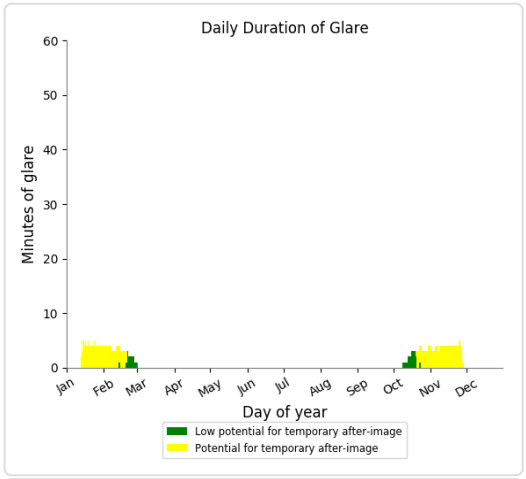
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
Route: Carrick Rd	0	0
Route: Munro Rd	0	0

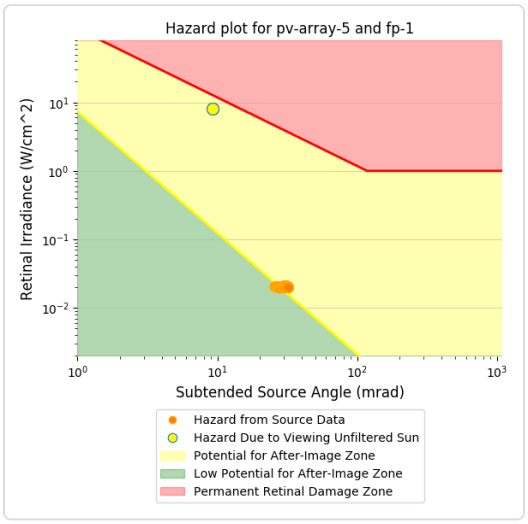
PV array 5 - Receptor (FP 1 Gliding Club Southern Approach)

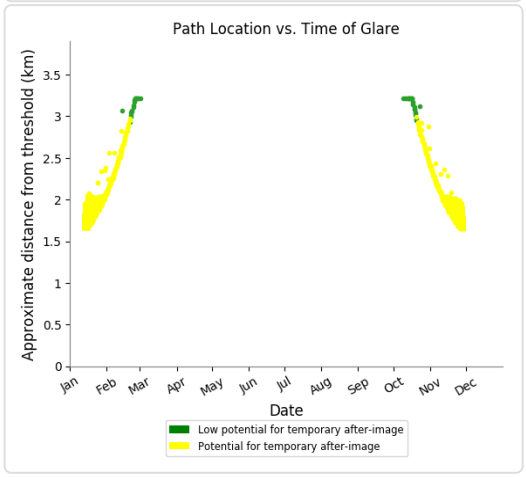
PV array is expected to produce the following glare for observers on this flight path:

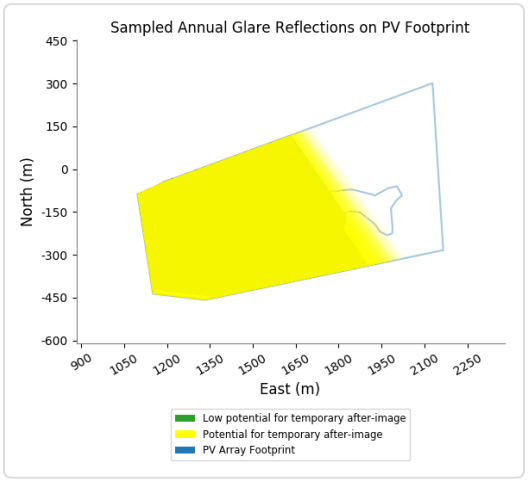
- 43 minutes of "green" glare with low potential to cause temporary after-image.
- 286 minutes of "yellow" glare with potential to cause temporary after-image.

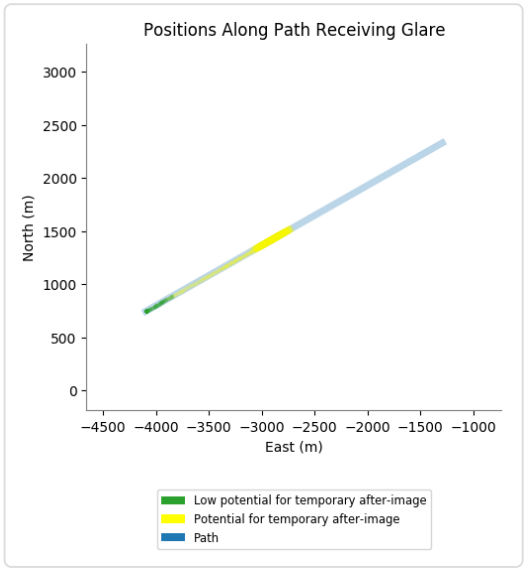












PV array 5 - Receptor (FP 2 Gliding Club Northern Approach)

No glare found

PV array 5 - OP Receptor (OP 1)

No glare found

PV array 5 - OP Receptor (OP 2)
No glare found

PV array 5 - OP Receptor (OP 3)
No glare found

PV array 5 - OP Receptor (OP 4)
No glare found

PV array 5 - OP Receptor (OP 5)
No glare found

PV array 5 - OP Receptor (OP 6)
No glare found

PV array 5 - OP Receptor (OP 7)
No glare found

PV array 5 - OP Receptor (OP 8)
No glare found

PV array 5 - OP Receptor (OP 9)
No glare found

PV array 5 - OP Receptor (OP 10)
No glare found

PV array 5 - OP Receptor (OP 11)
No glare found

PV array 5 - OP Receptor (OP 12)
No glare found

PV array 5 - OP Receptor (OP 13)
No glare found

PV array 5 - OP Receptor (OP 14)
No glare found

PV array 5 - OP Receptor (OP 15)
No glare found

PV array 5 - OP Receptor (OP 16)
No glare found

PV array 5 - OP Receptor (OP 17)
No glare found

PV array 5 - OP Receptor (OP 18)
No glare found

PV array 5 - OP Receptor (OP 19)
No glare found

PV array 5 - OP Receptor (OP 20)
No glare found

PV array 5 - OP Receptor (OP 21)
No glare found

PV array 5 - OP Receptor (OP 22)
No glare found

PV array 5 - OP Receptor (OP 23)
No glare found

PV array 5 - OP Receptor (OP 24)
No glare found

PV array 5 - OP Receptor (OP 25)
No glare found

PV array 5 - OP Receptor (OP 26)
No glare found

PV array 5 - OP Receptor (OP 27)
No glare found

PV array 5 - OP Receptor (OP 28)
No glare found

PV array 5 - OP Receptor (OP 29)
No glare found

PV array 5 - OP Receptor (OP 30)
No glare found

PV array 5 - OP Receptor (OP 31)
No glare found

PV array 5 - OP Receptor (OP 32)
No glare found

PV array 5 - Route Receptor (Carrick Rd)
No glare found

PV array 5 - Route Receptor (Munro Rd)
No glare found

PV array 6 potential temporary after-image

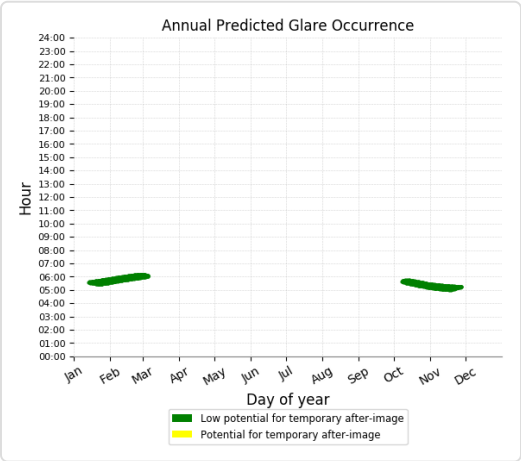
Component	Green glare (min)	Yellow glare (min)
FP: FP 1 Gliding Club Southern Approach	1609	0
FP: FP 2 Gliding Club Northern Approach	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	784	0
OP: OP 9	1271	0
OP: OP 10	1614	0
OP: OP 11	250	85
OP: OP 12	130	0
OP: OP 13	75	0

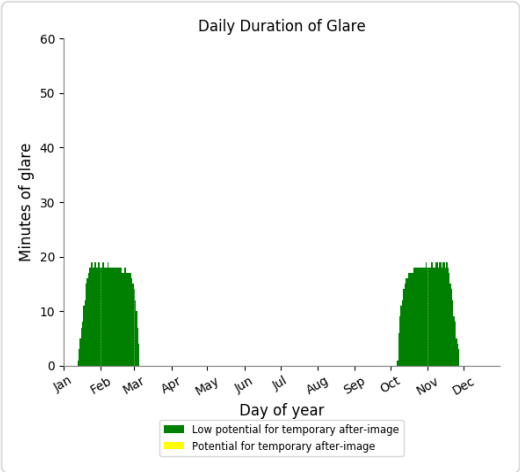
OP: OP 14	68	13
OP: OP 15	126	111
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
Route: Carrick Rd	1674	0
Route: Munro Rd	0	0

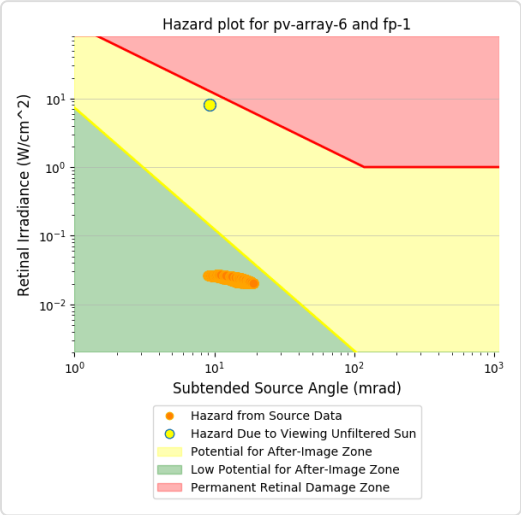
PV array 6 - Receptor (FP 1 Gliding Club Southern Approach)

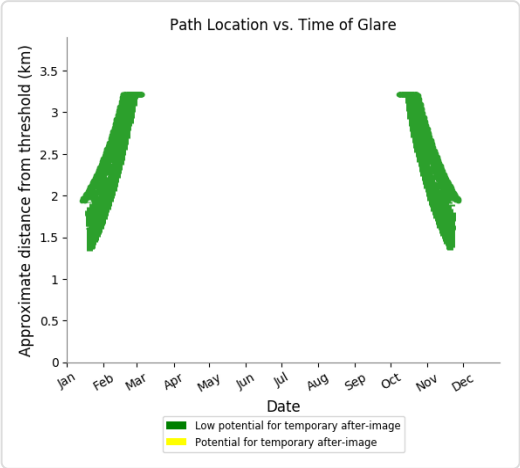
PV array is expected to produce the following glare for observers on this flight path:

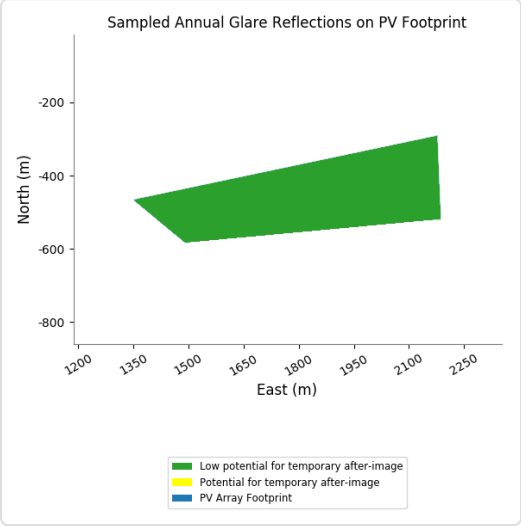
- 1,609 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.

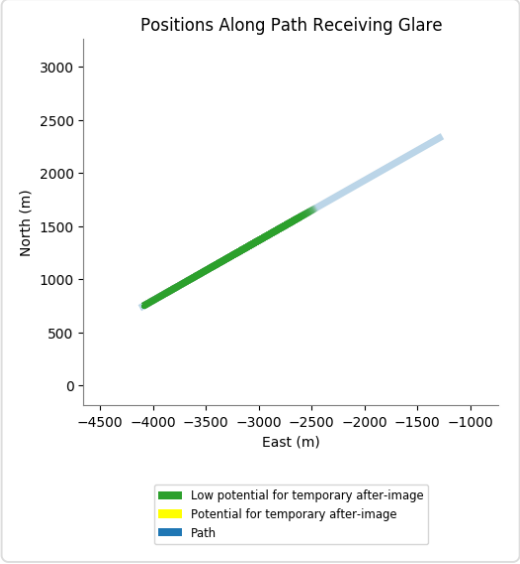












PV array 6 - Receptor (FP 2 Gliding Club Northern Approach)

No glare found

PV array 6 - OP Receptor (OP 1)

No glare found

PV array 6 - OP Receptor (OP 2)

No glare found

PV array 6 - OP Receptor (OP 3)

No glare found

PV array 6 - OP Receptor (OP 4)

No glare found

PV array 6 - OP Receptor (OP 5)

No glare found

PV array 6 - OP Receptor (OP 6)

No glare found

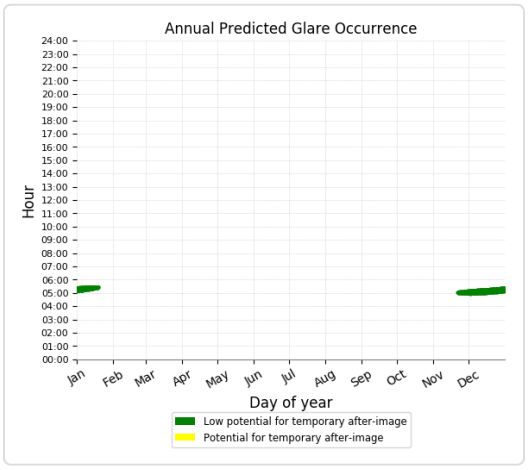
PV array 6 - OP Receptor (OP 7)

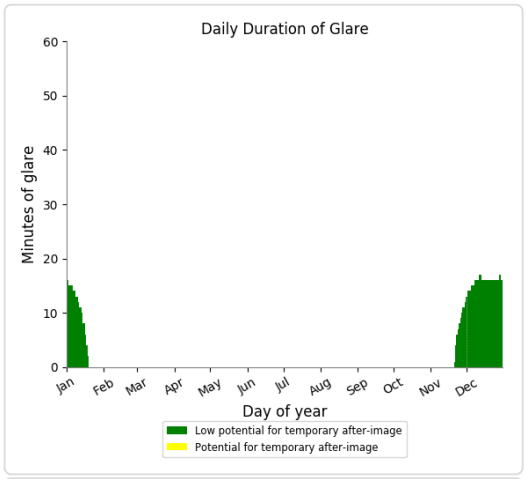
No glare found

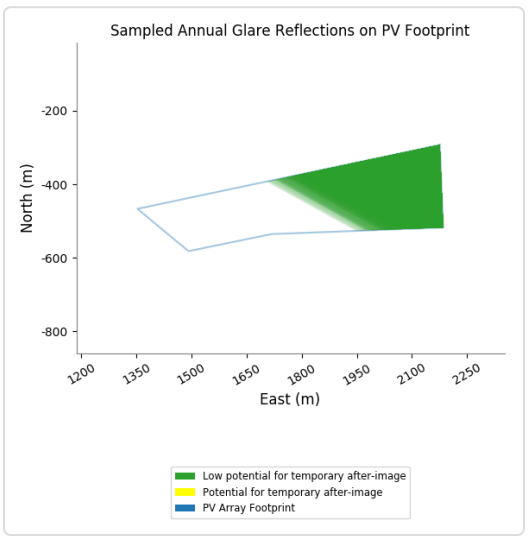
PV array 6 - OP Receptor (OP 8)

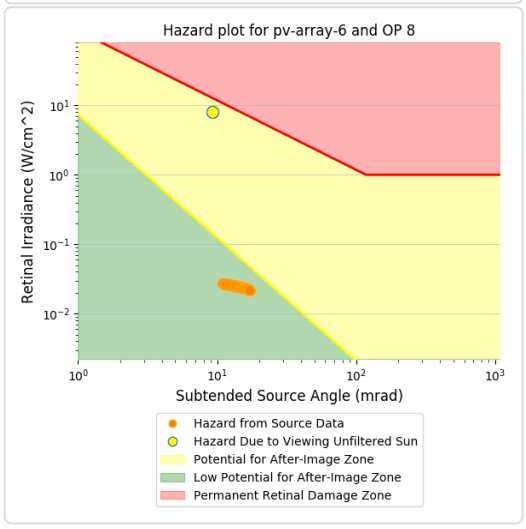
PV array is expected to produce the following glare for receptors at this location:

- 784 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.





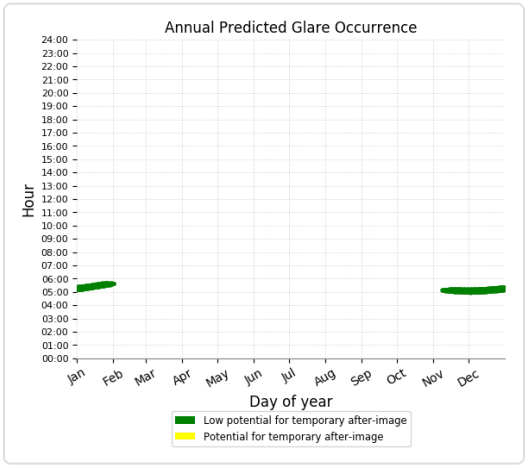


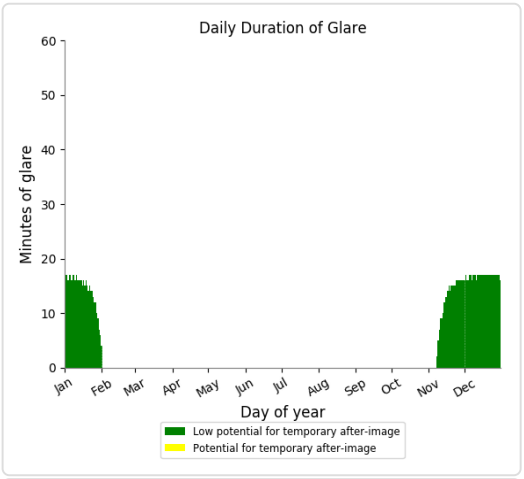


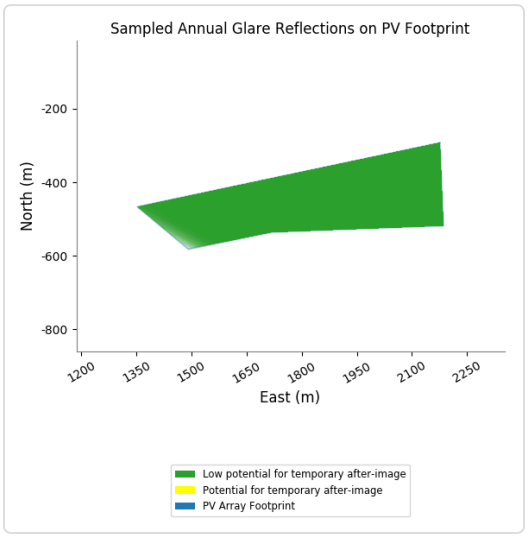
PV array 6 - OP Receptor (OP 9)

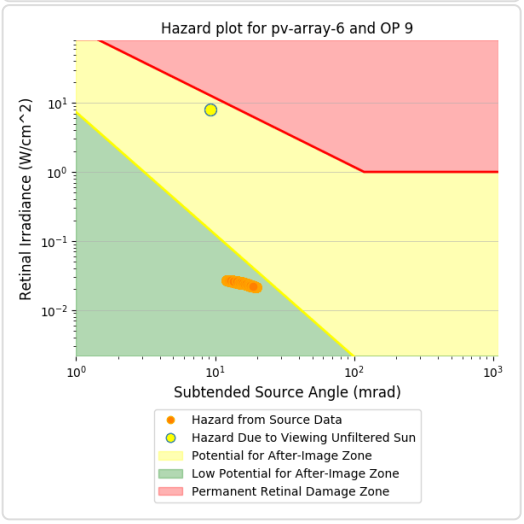
PV array is expected to produce the following glare for receptors at this location:

- 1,271 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.





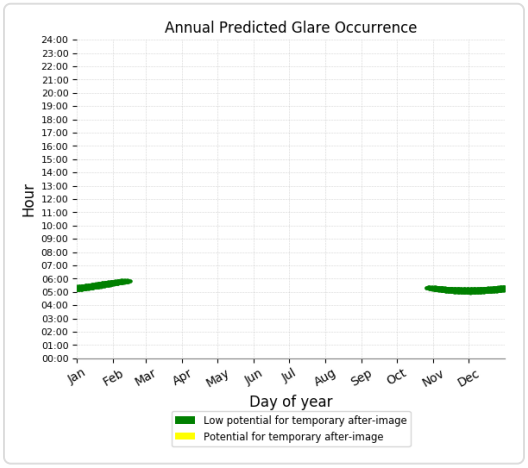


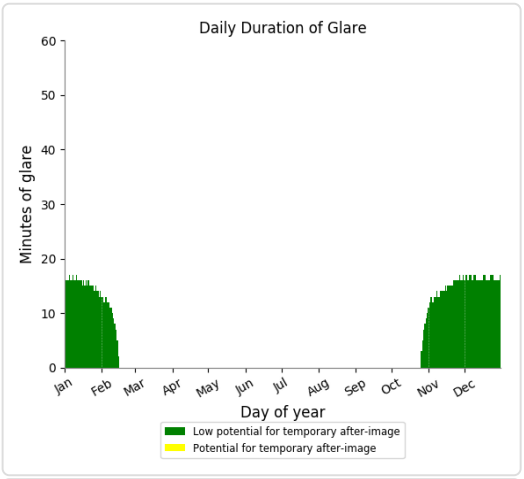


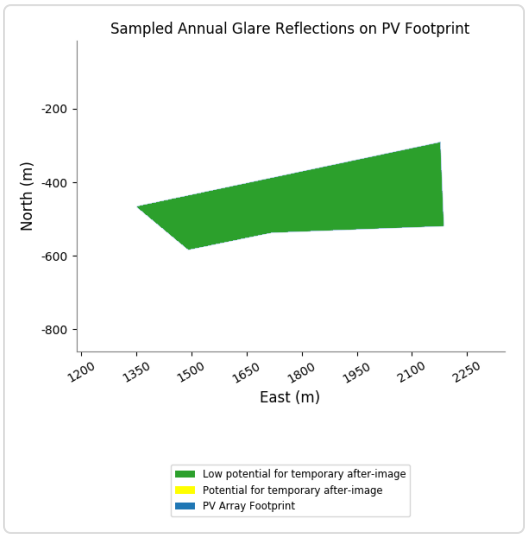
PV array 6 - OP Receptor (OP 10)

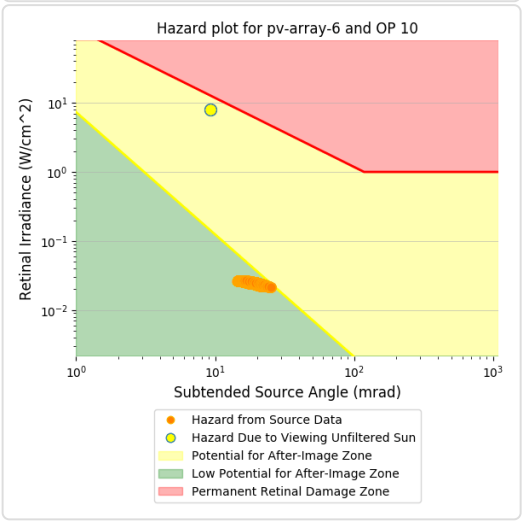
PV array is expected to produce the following glare for receptors at this location:

- 1,614 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.





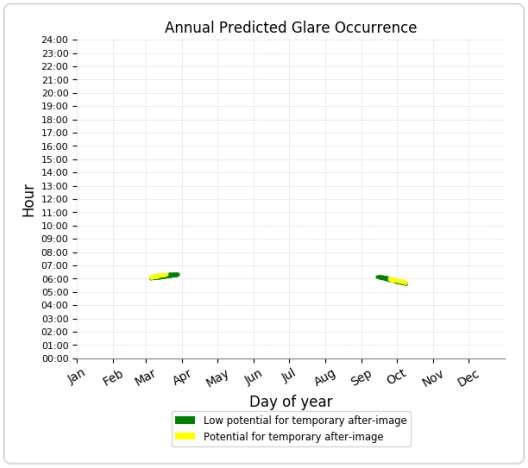


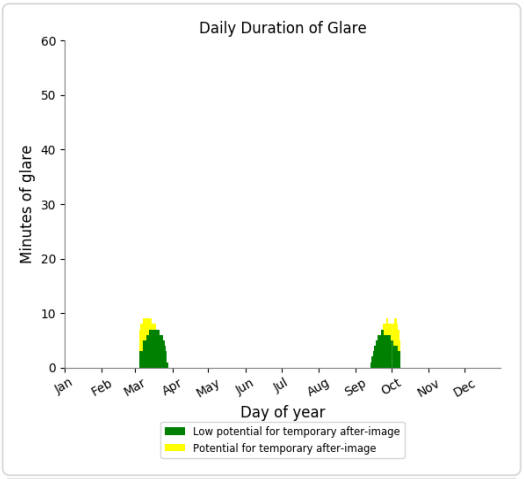


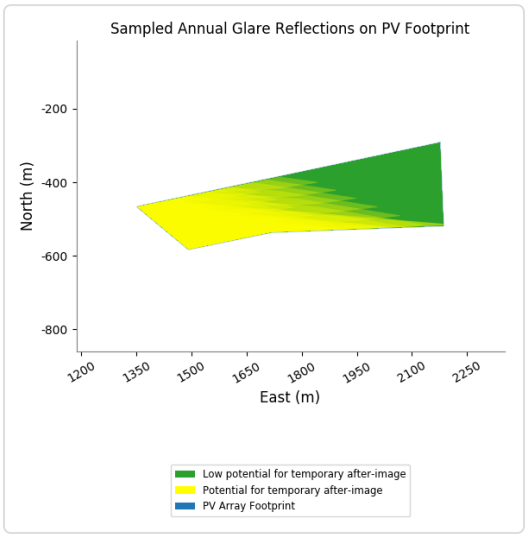
PV array 6 - OP Receptor (OP 11)

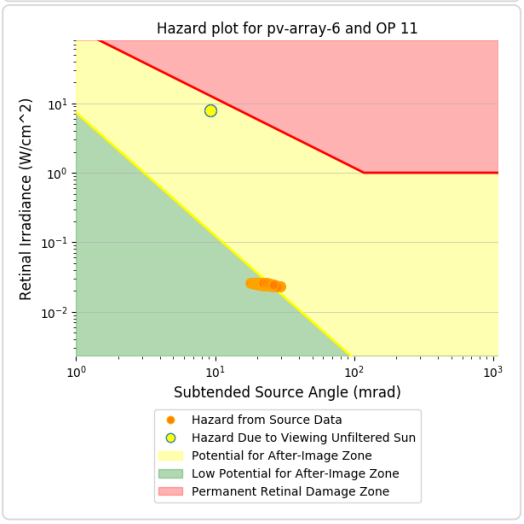
PV array is expected to produce the following glare for receptors at this location:

- 250 minutes of "green" glare with low potential to cause temporary after-image.
- 85 minutes of "yellow" glare with potential to cause temporary after-image.









PV array 6 - OP Receptor (OP 12)

PV array is expected to produce the following glare for receptors at this location:

- 130 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.