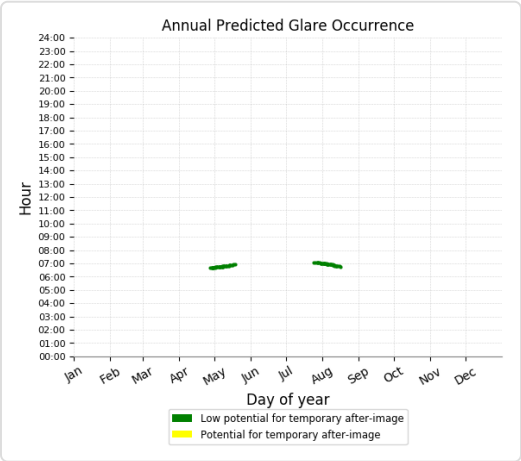
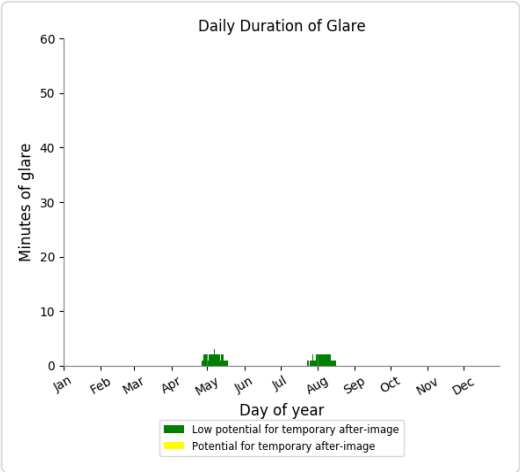
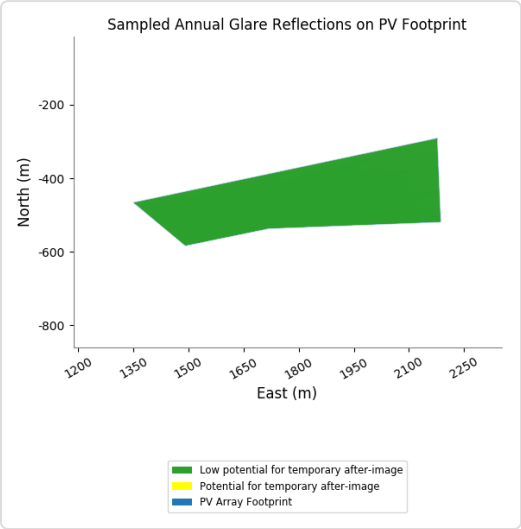
PV array 6 - OP Receptor (OP 13)

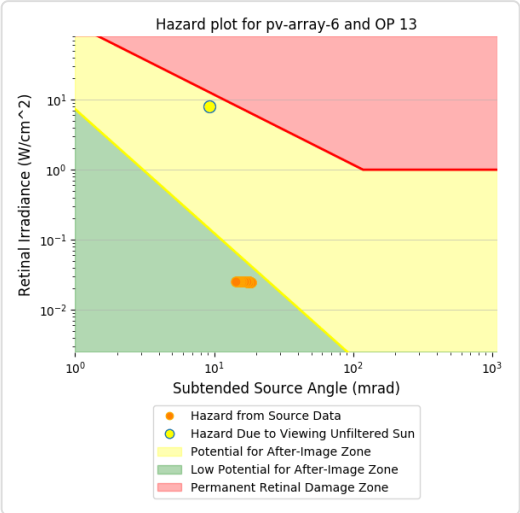
PV array is expected to produce the following glare for receptors at this location:

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





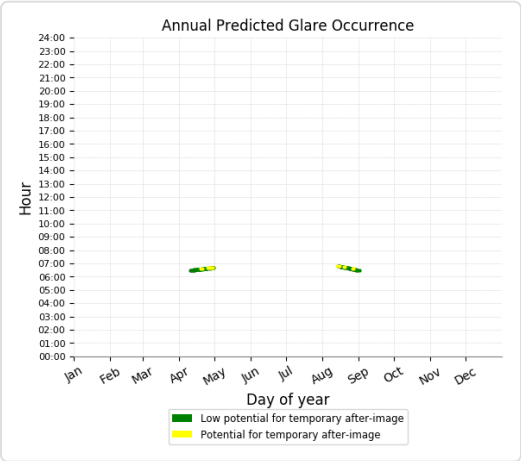


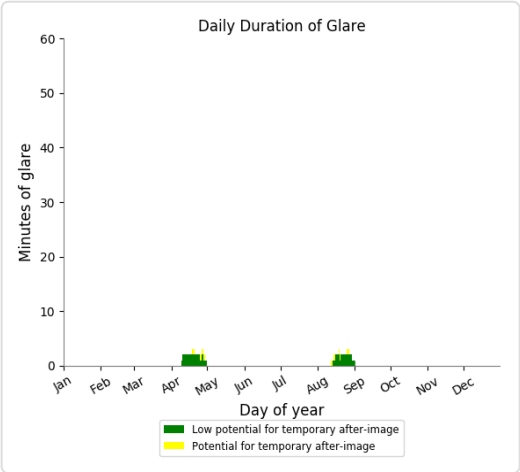


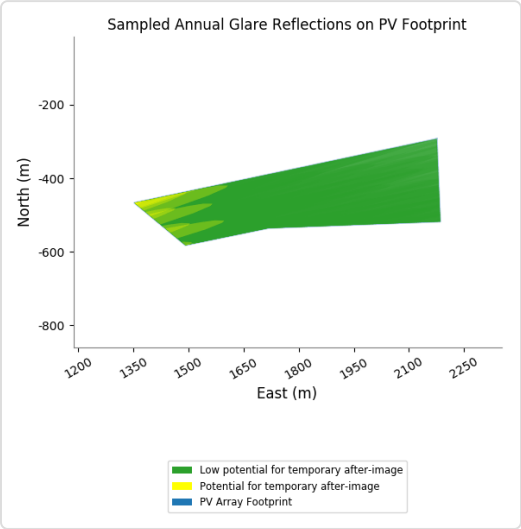
PV array 6 - OP Receptor (OP 14)

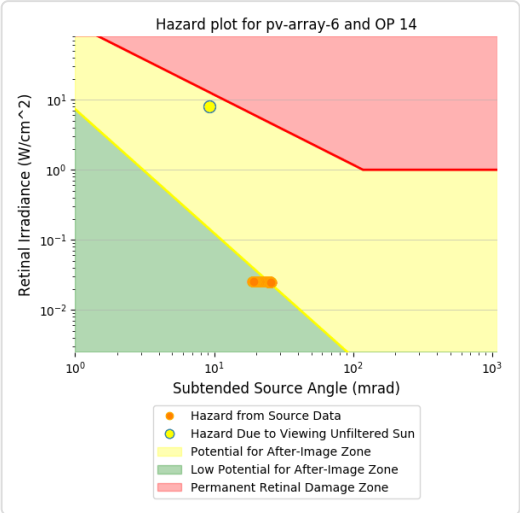
PV array is expected to produce the following glare for receptors at this location:

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





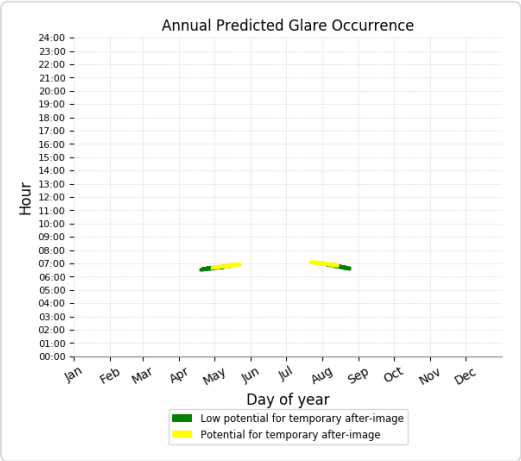


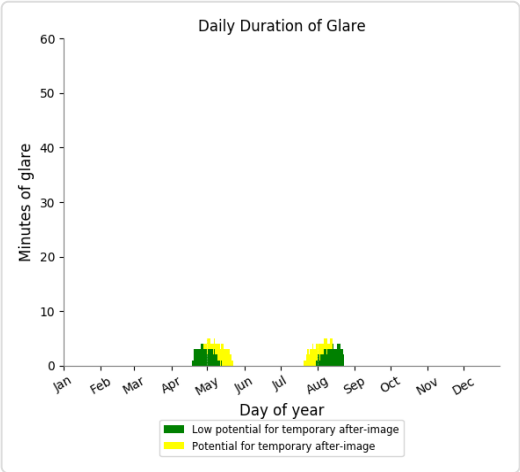


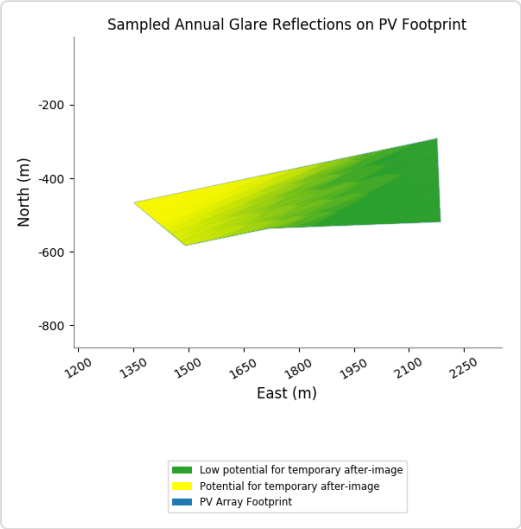
PV array 6 - OP Receptor (OP 15)

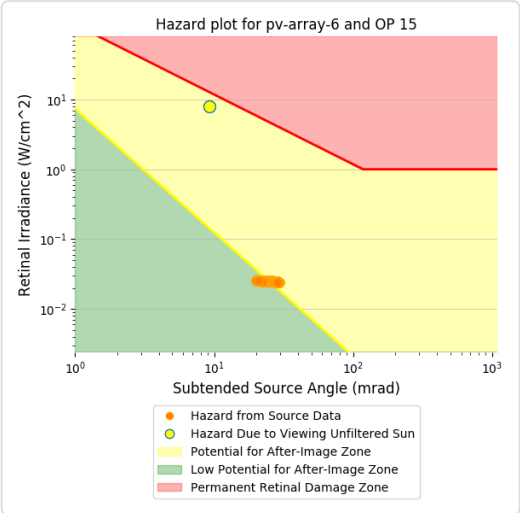
PV array is expected to produce the following glare for receptors at this location:

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









PV array 6 - OP Receptor (OP 16)

No glare found

PV array 6 - OP Receptor (OP 17)

No glare found

PV array 6 - OP Receptor (OP 18)

No glare found

PV array 6 - OP Receptor (OP 19)

No glare found

PV array 6 - OP Receptor (OP 20)

No glare found

PV array 6 - OP Receptor (OP 21)

No glare found

PV array 6 - OP Receptor (OP 22)

No glare found

PV array 6 - OP Receptor (OP 23)

No glare found

PV array 6 - OP Receptor (OP 24)

No glare found

PV array 6 - OP Receptor (OP 25)

No glare found

PV array 6 - OP Receptor (OP 26)

No glare found

PV array 6 - OP Receptor (OP 27)

No glare found

PV array 6 - OP Receptor (OP 28)

No glare found

PV array 6 - OP Receptor (OP 29)

No glare found

PV array 6 - OP Receptor (OP 30)

No glare found

PV array 6 - OP Receptor (OP 31)

No glare found

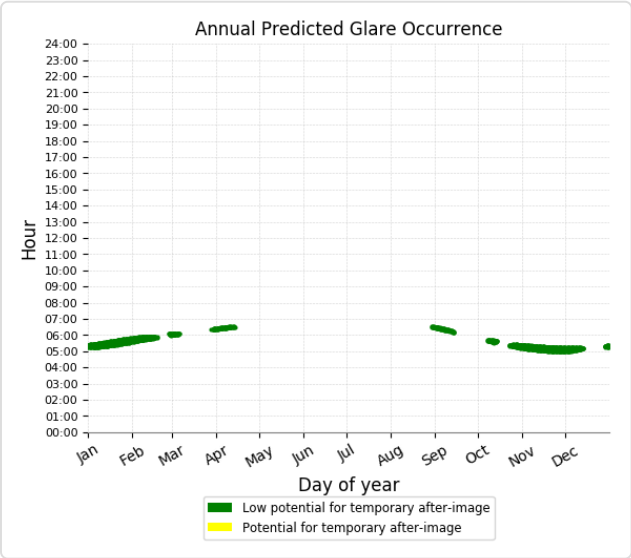
PV array 6 - OP Receptor (OP 32)

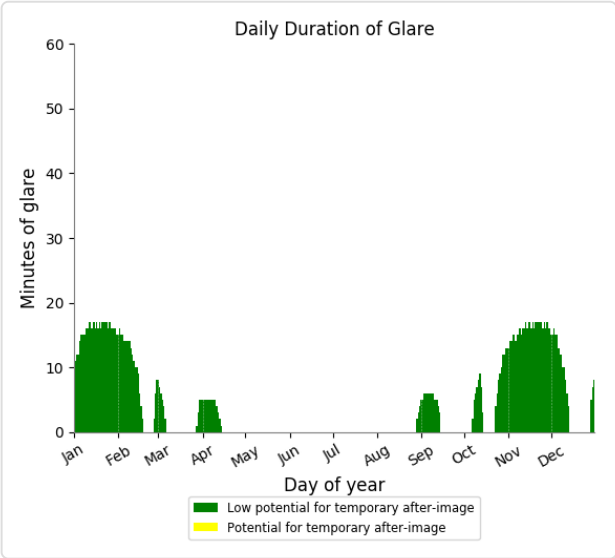
No glare found

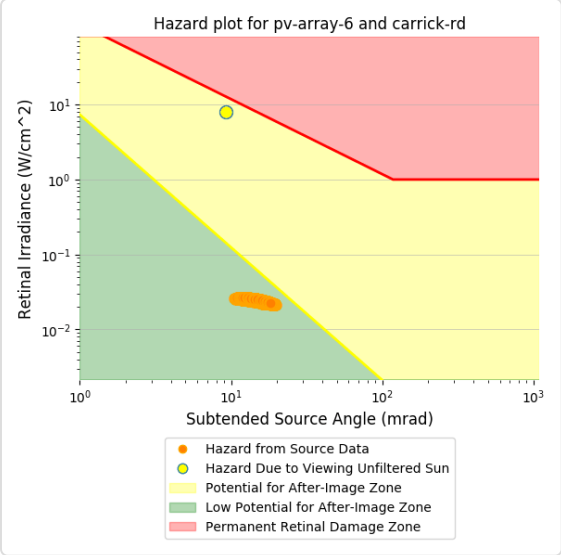
PV array 6 - Route Receptor (Carrick Rd)

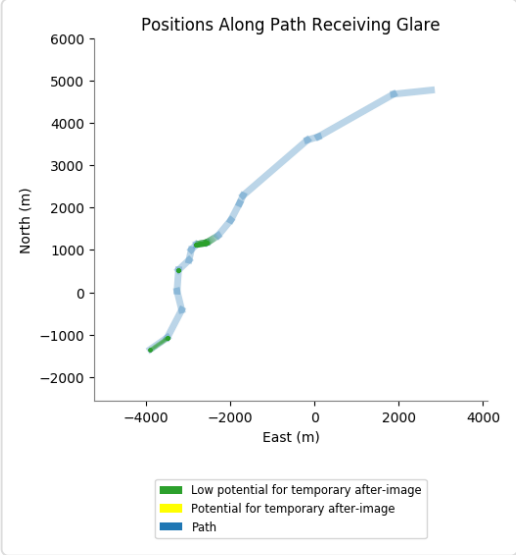
PV array is expected to produce the following glare for receptors at this location:

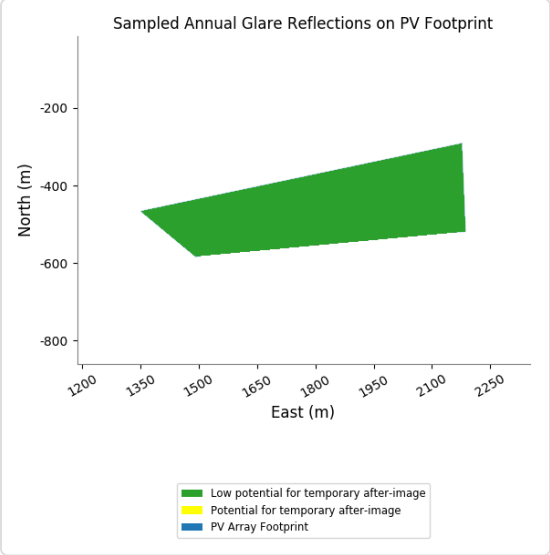
- 1,674 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.











PV array 6 - Route Receptor (Munro Rd)

No glare found

PV array 7 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	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	228

PV array 7 - Receptor (FP 1 Gliding Club Southern Approach)

No glare found

PV array 7 - Receptor (FP 2 Gliding Club Northern Approach)

No glare found

PV array 7 - OP Receptor (OP 1)

No glare found

PV array 7 - OP Receptor (OP 2)

No glare found

PV array 7 - OP Receptor (OP 3)

No glare found

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

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

PV array 7 - OP Receptor (OP 6)
No glare found

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

PV array 7 - OP Receptor (OP 8)
No glare found

PV array 7 - OP Receptor (OP 9)
No glare found

PV array 7 - OP Receptor (OP 10)
No glare found

PV array 7 - OP Receptor (OP 11)
No glare found

PV array 7 - OP Receptor (OP 12)
No glare found

PV array 7 - OP Receptor (OP 13)
No glare found

PV array 7 - OP Receptor (OP 14)
No glare found

PV array 7 - OP Receptor (OP 15)
No glare found

PV array 7 - OP Receptor (OP 16)
No glare found

PV array 7 - OP Receptor (OP 17)
No glare found

PV array 7 - OP Receptor (OP 18)
No glare found

PV array 7 - OP Receptor (OP 19)
No glare found

PV array 7 - OP Receptor (OP 20)
No glare found

PV array 7 - OP Receptor (OP 21)
No glare found

PV array 7 - OP Receptor (OP 22)
No glare found

PV array 7 - OP Receptor (OP 23)
No glare found

PV array 7 - OP Receptor (OP 24)

No glare found

PV array 7 - OP Receptor (OP 25)

No glare found

PV array 7 - OP Receptor (OP 26)

No glare found

PV array 7 - OP Receptor (OP 27)

No glare found

PV array 7 - OP Receptor (OP 28)

No glare found

PV array 7 - OP Receptor (OP 29)

No glare found

PV array 7 - OP Receptor (OP 30)

No glare found

PV array 7 - OP Receptor (OP 31)

No glare found

PV array 7 - OP Receptor (OP 32)

No glare found

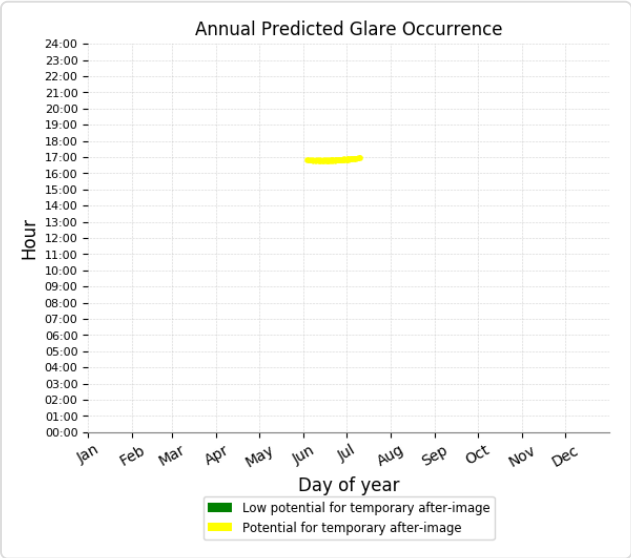
PV array 7 - Route Receptor (Carrick Rd)

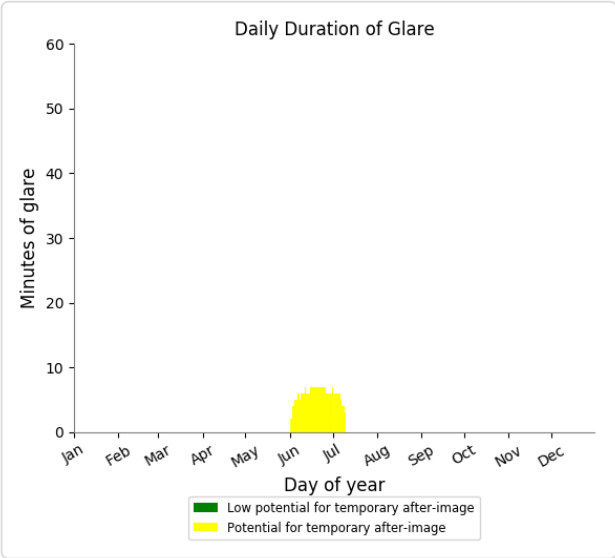
No glare found

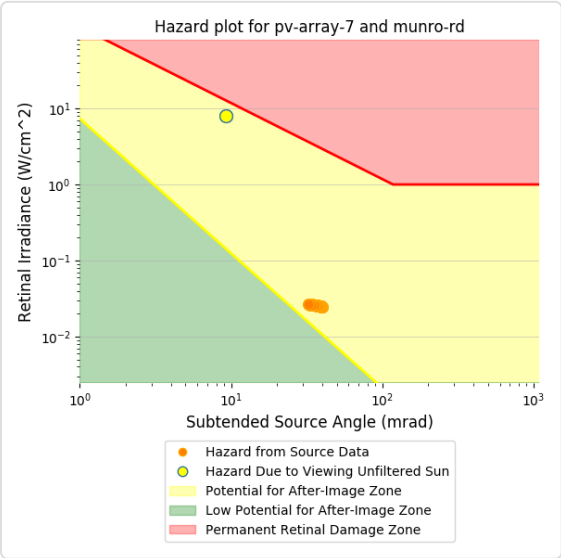
PV array 7 - Route Receptor (Munro Rd)

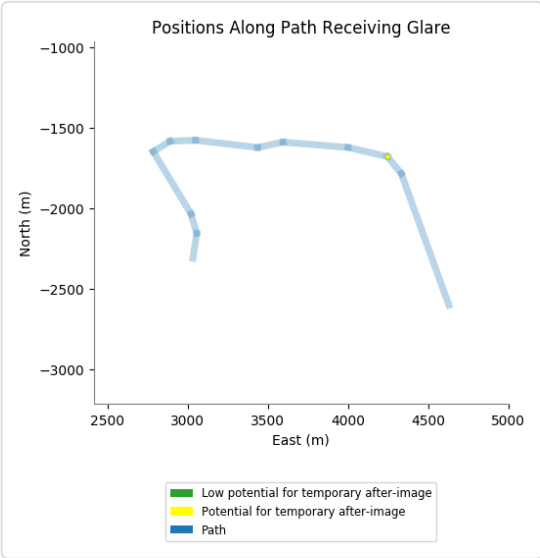
PV array is expected to produce the following glare for receptors at this location:

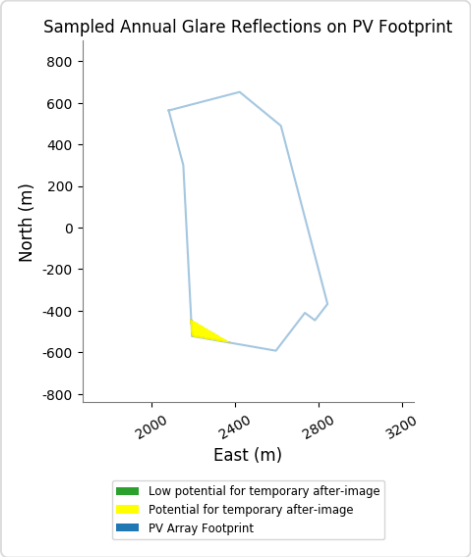
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 228 minutes of "yellow" glare with potential to cause temporary after-image.











PV array 8 low potential for temporary after-image

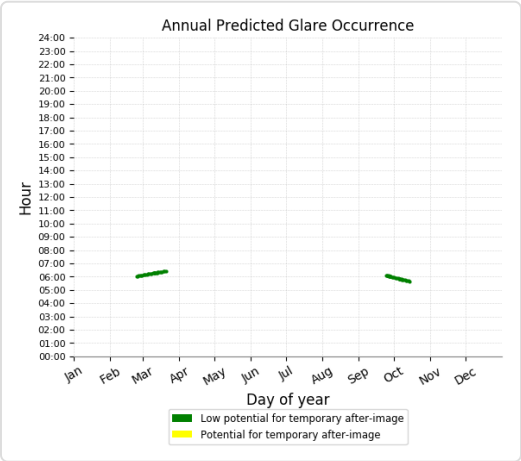
Component	Green glare (min)	Yellow glare (min)
FP: FP 1 Gliding Club Southern Approach	58	0

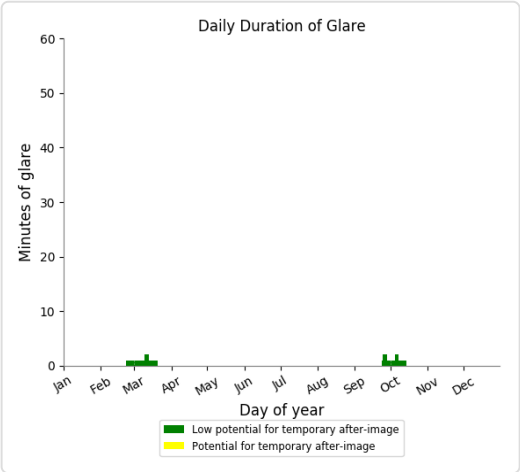
FP: FP 2 Gliding Club Northern Approach	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	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

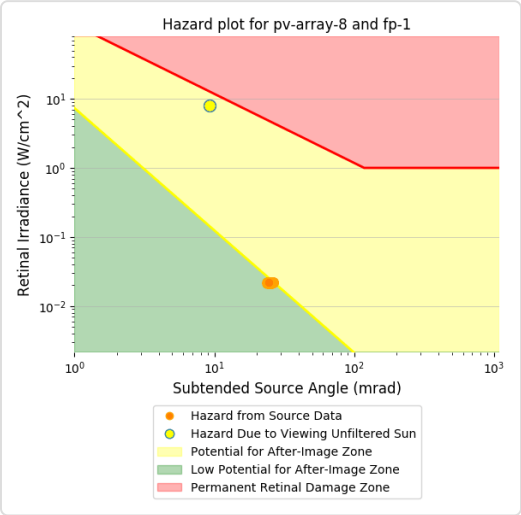
PV array 8 - Receptor (FP 1 Gliding Club Southern Approach)

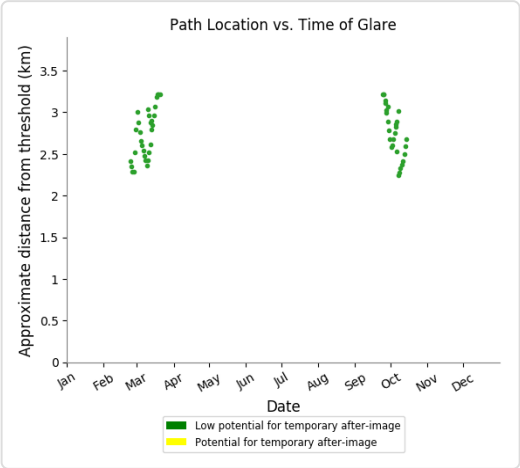
PV array is expected to produce the following glare for observers on this flight path:

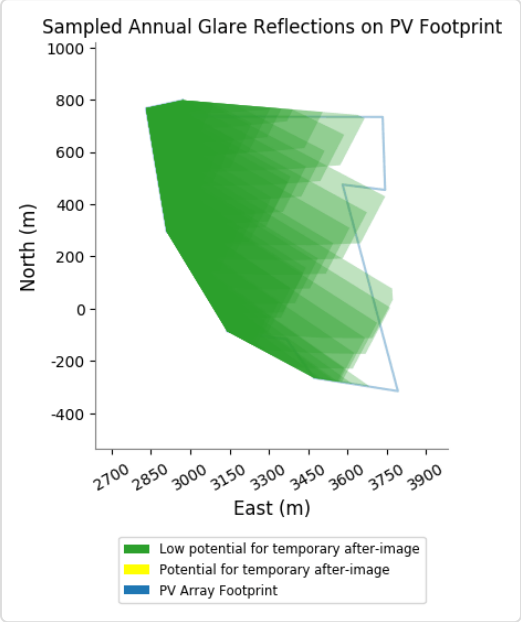
- 58 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.

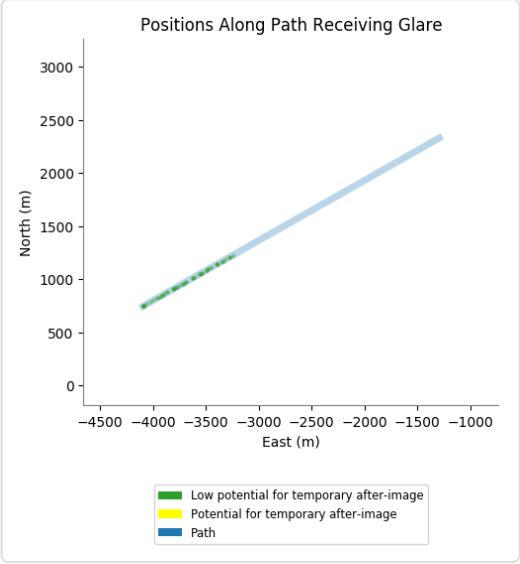












PV array 8 - Receptor (FP 2 Gliding Club Northern Approach)

No glare found

PV array 8 - OP Receptor (OP 1)

No glare found

PV array 8 - OP Receptor (OP 2)
No glare found

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

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

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

PV array 8 - OP Receptor (OP 6)
No glare found

PV array 8 - OP Receptor (OP 7)
No glare found

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

PV array 8 - OP Receptor (OP 9)
No glare found

PV array 8 - OP Receptor (OP 10)
No glare found

PV array 8 - OP Receptor (OP 11)
No glare found

PV array 8 - OP Receptor (OP 12)
No glare found

PV array 8 - OP Receptor (OP 13)
No glare found

PV array 8 - OP Receptor (OP 14)
No glare found

PV array 8 - OP Receptor (OP 15)
No glare found

PV array 8 - OP Receptor (OP 16)
No glare found

PV array 8 - OP Receptor (OP 17)
No glare found

PV array 8 - OP Receptor (OP 18)
No glare found

PV array 8 - OP Receptor (OP 19)
No glare found

PV array 8 - OP Receptor (OP 20)
No glare found

PV array 8 - OP Receptor (OP 21)
No glare found

PV array 8 - OP Receptor (OP 22)
No glare found

PV array 8 - OP Receptor (OP 23)
No glare found

PV array 8 - OP Receptor (OP 24)
No glare found

PV array 8 - OP Receptor (OP 25)
No glare found

PV array 8 - OP Receptor (OP 26)
No glare found

PV array 8 - OP Receptor (OP 27)
No glare found

PV array 8 - OP Receptor (OP 28)
No glare found

PV array 8 - OP Receptor (OP 29)
No glare found

PV array 8 - OP Receptor (OP 30)
No glare found

PV array 8 - OP Receptor (OP 31)
No glare found

PV array 8 - OP Receptor (OP 32)
No glare found

PV array 8 - Route Receptor (Carrick Rd)
No glare found

PV array 8 - Route Receptor (Munro Rd)
No glare found

PV array 9 low potential for temporary after-image

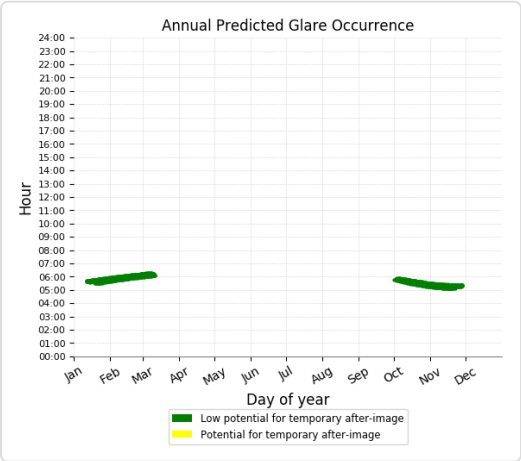
Component	Green glare (min)	Yellow glare (min)
FP: FP 1 Gliding Club Southern Approach	1622	0
FP: FP 2 Gliding Club Northern Approach	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	455	0
OP: OP 7	368	0
OP: OP 8	1018	0
OP: OP 9	961	0
OP: OP 10	846	0
OP: OP 11	476	0
OP: OP 12	35	0
OP: OP 13	0	0

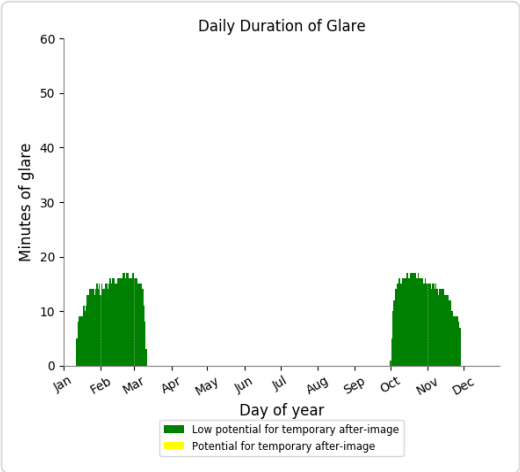
OP: OP 14	64	0
OP: OP 15	46	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
Route: Carrick Rd	1305	0
Route: Munro Rd	0	0

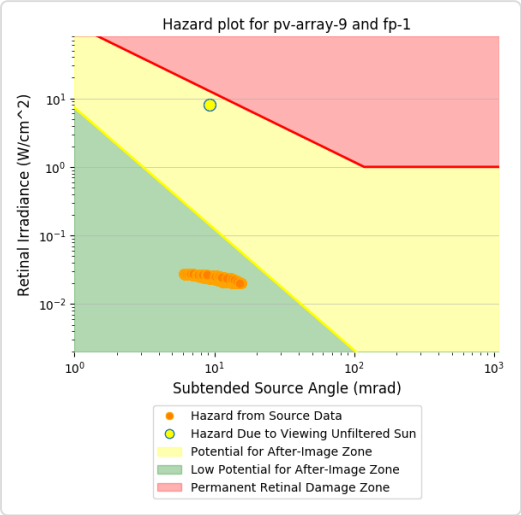
PV array 9 - Receptor (FP 1 Gliding Club Southern Approach)

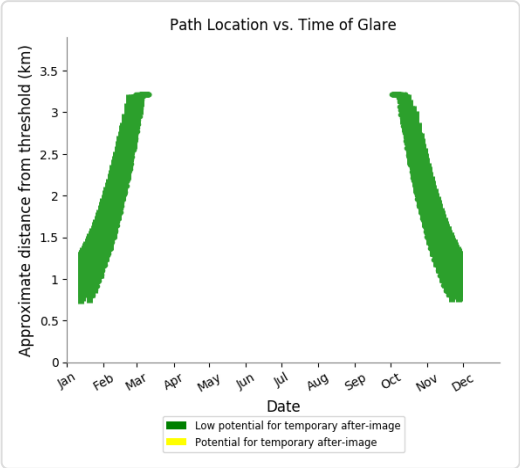
PV array is expected to produce the following glare for observers on this flight path:

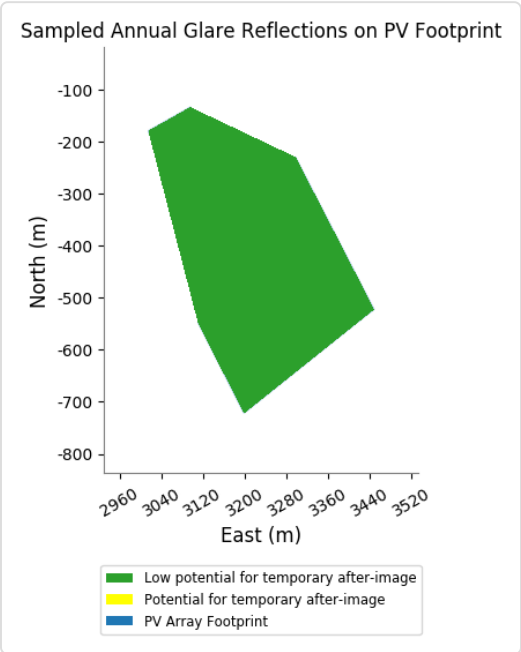
- 1,622 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.

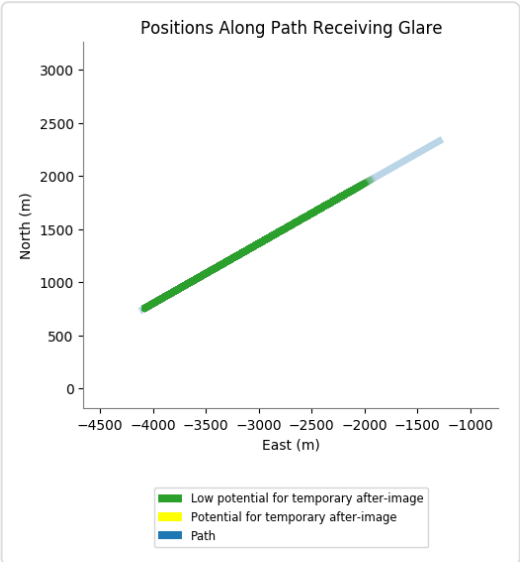












PV array 9 - Receptor (FP 2 Gliding Club Northern Approach)

No glare found

PV array 9 - OP Receptor (OP 1)

No glare found

PV array 9 - OP Receptor (OP 2)

No glare found

PV array 9 - OP Receptor (OP 3)

No glare found

PV array 9 - OP Receptor (OP 4)

No glare found

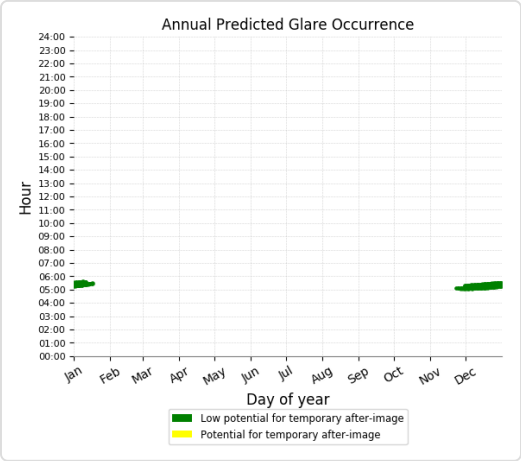
PV array 9 - OP Receptor (OP 5)

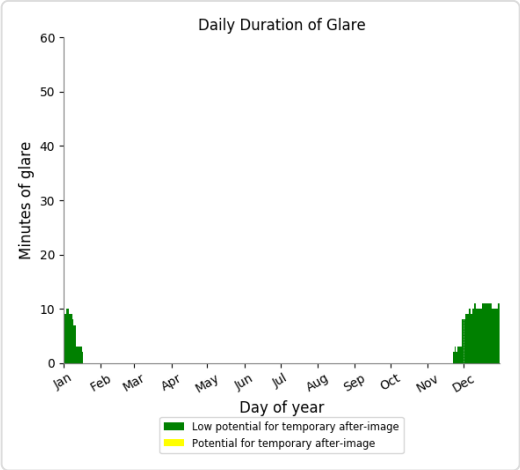
No glare found

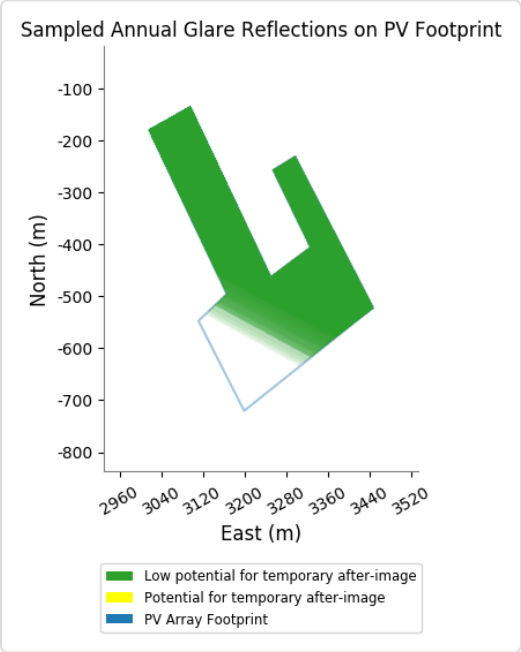
PV array 9 - OP Receptor (OP 6)

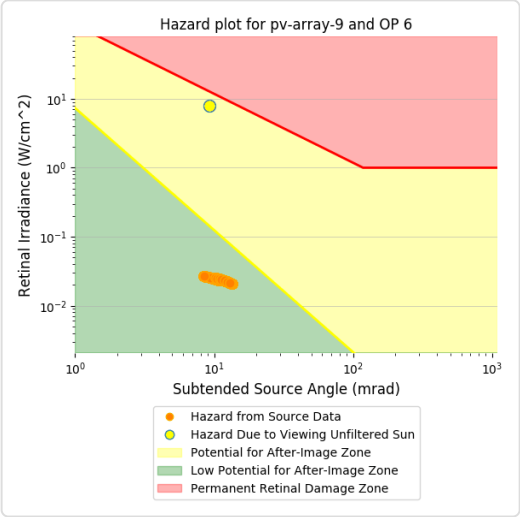
PV array is expected to produce the following glare for receptors at this location:

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





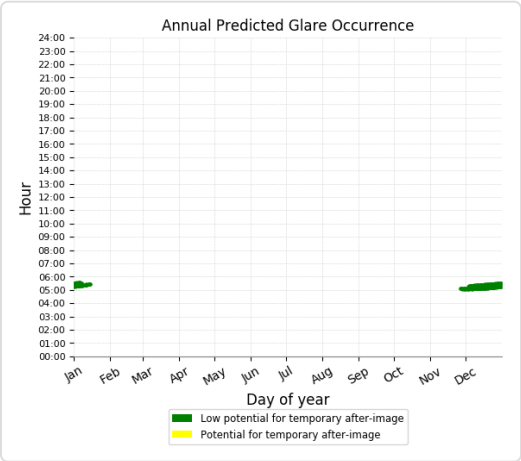


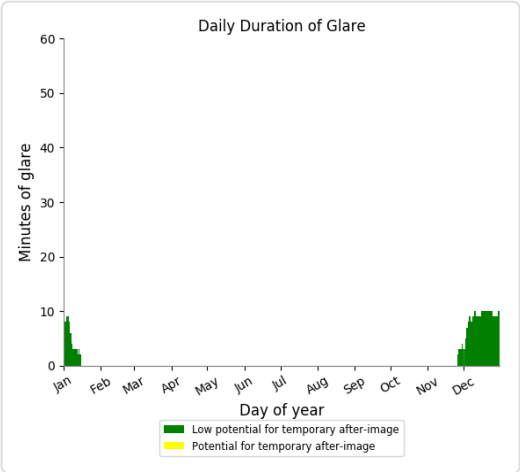


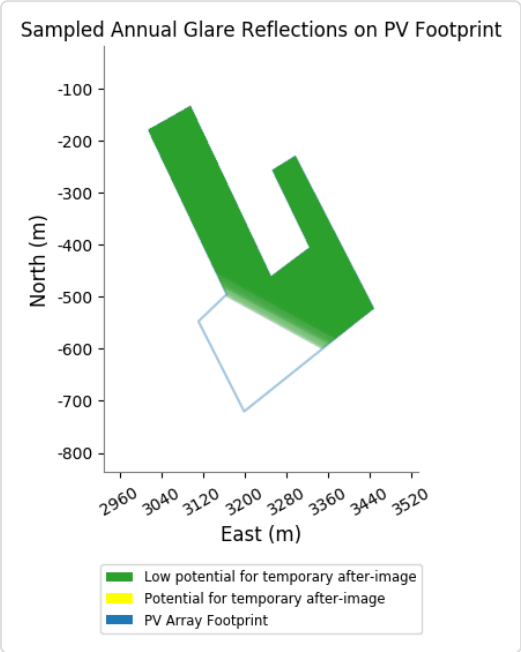
PV array 9 - OP Receptor (OP 7)

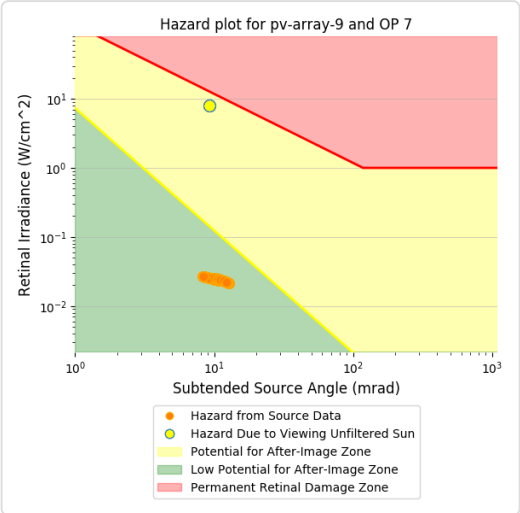
PV array is expected to produce the following glare for receptors at this location:

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





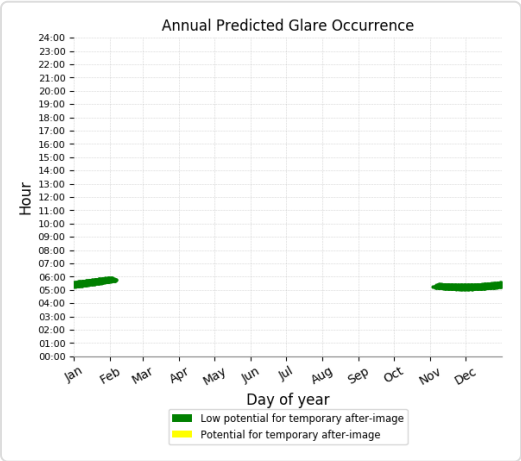


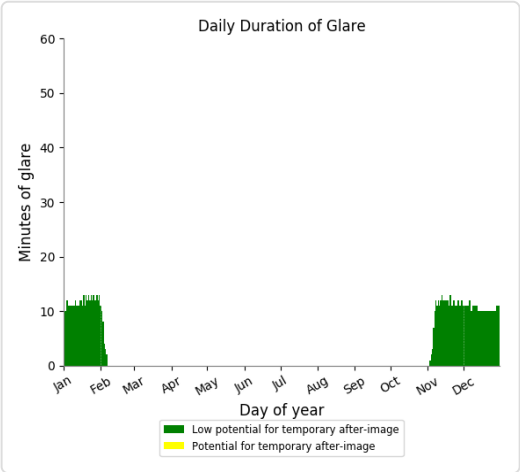


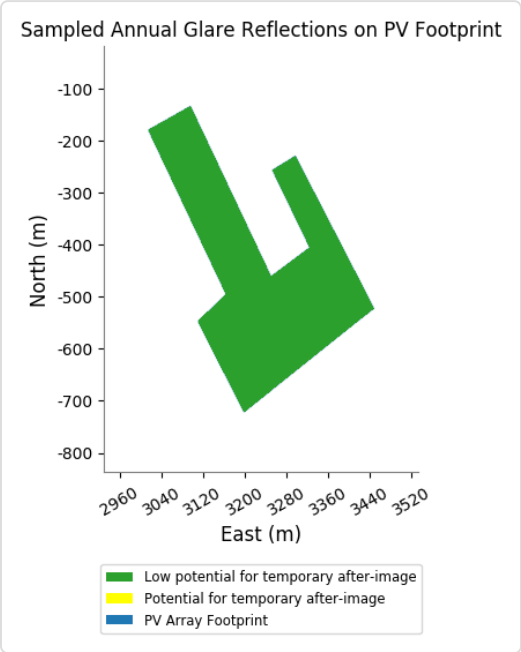
PV array 9 - OP Receptor (OP 8)

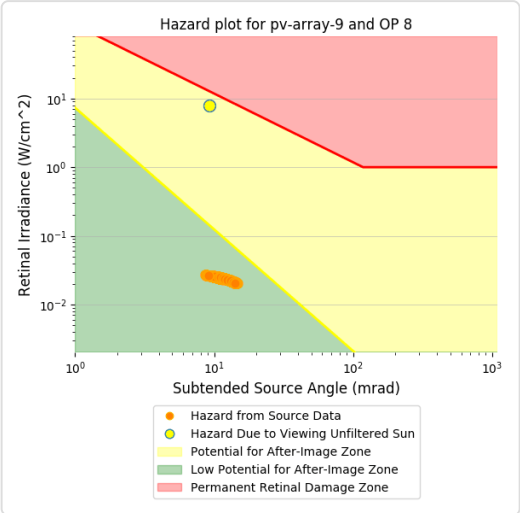
PV array is expected to produce the following glare for receptors at this location:

- 1,018 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.





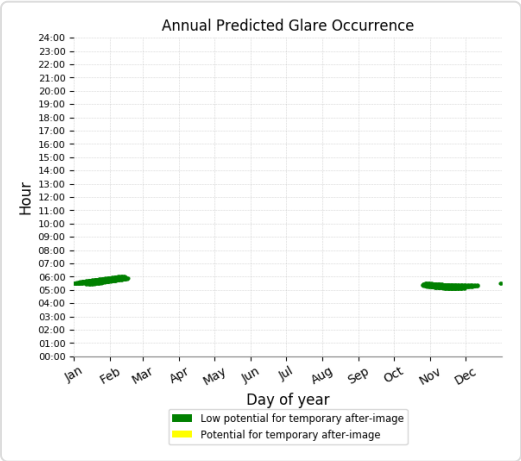


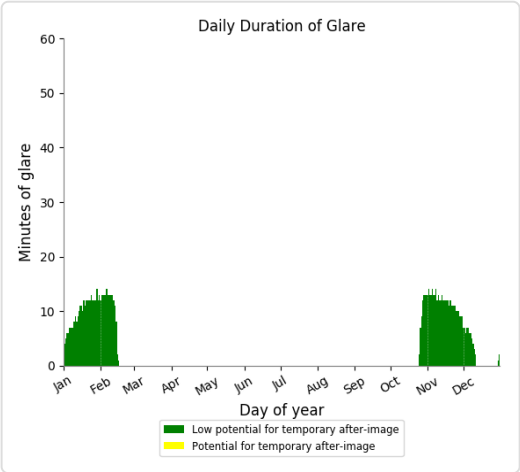


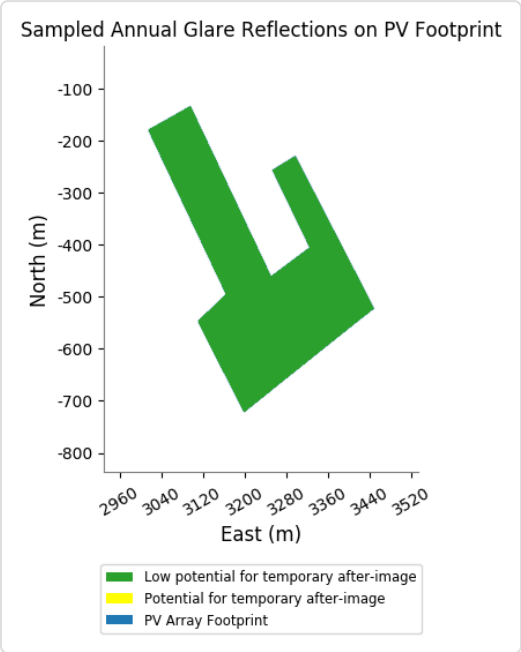
PV array 9 - OP Receptor (OP 9)

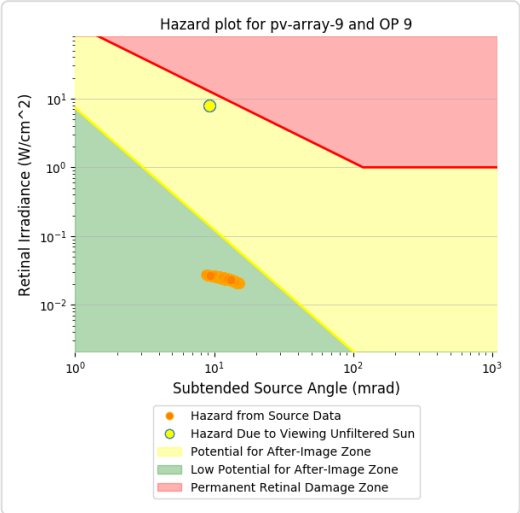
PV array is expected to produce the following glare for receptors at this location:

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





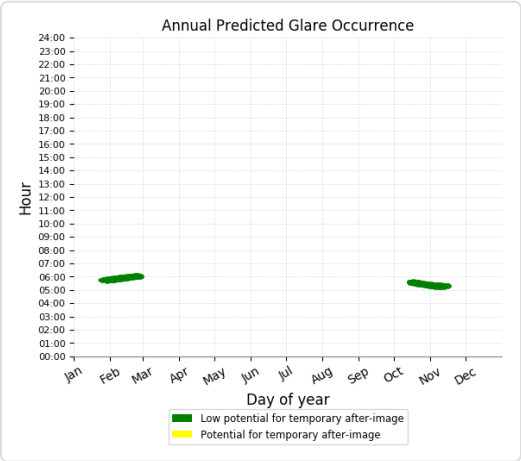


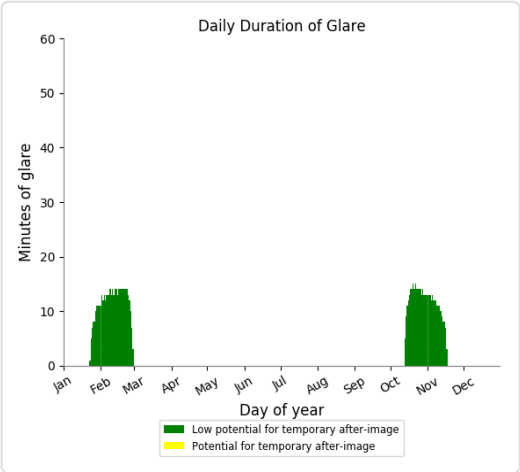


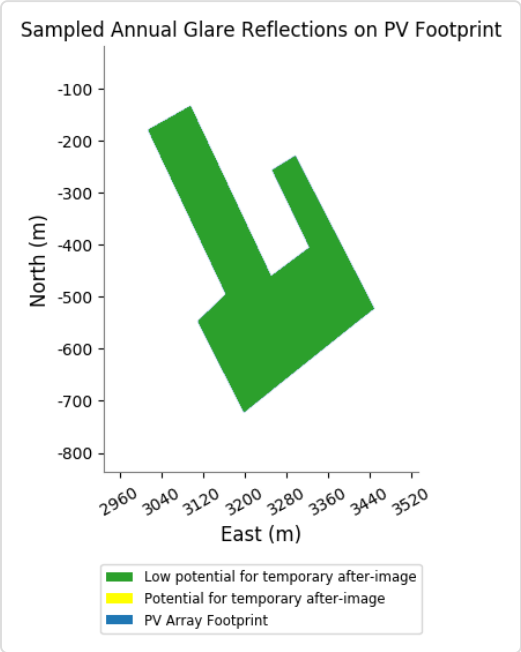
PV array 9 - OP Receptor (OP 10)

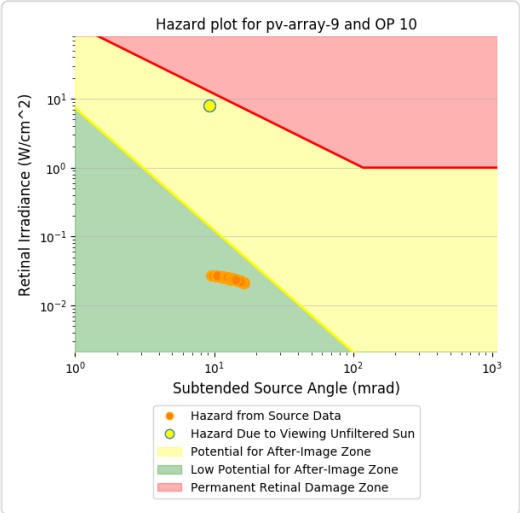
PV array is expected to produce the following glare for receptors at this location:

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





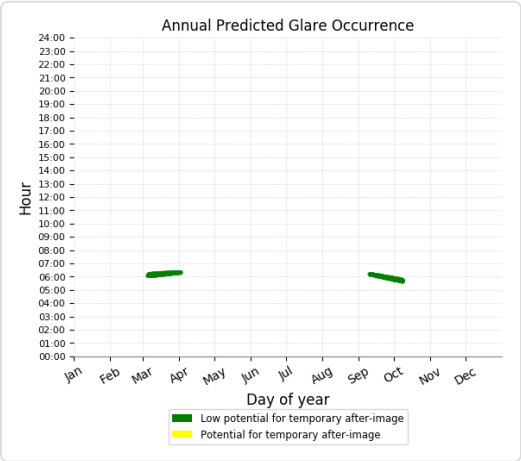


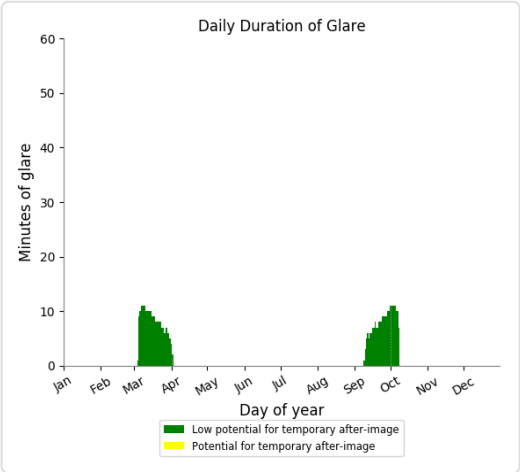


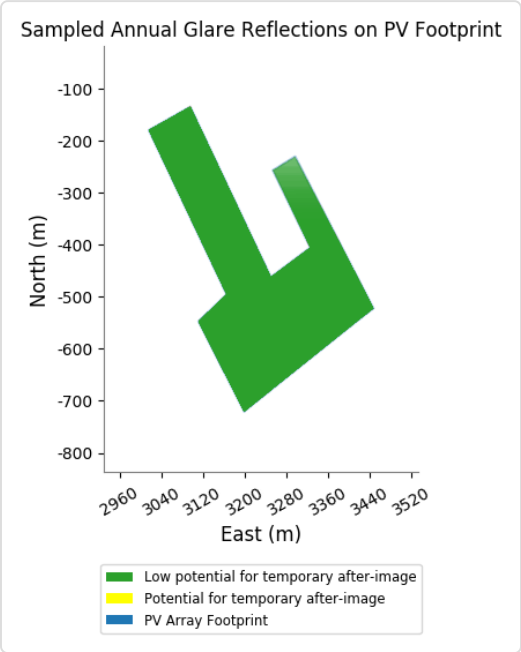
PV array 9 - OP Receptor (OP 11)

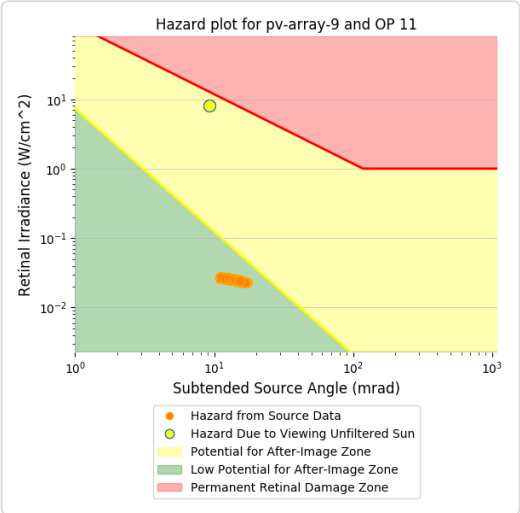
PV array is expected to produce the following glare for receptors at this location:

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





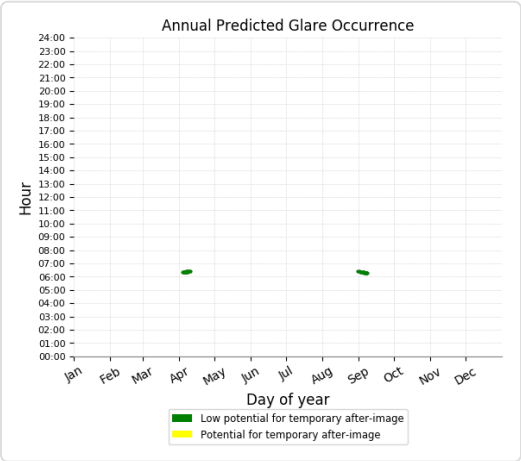


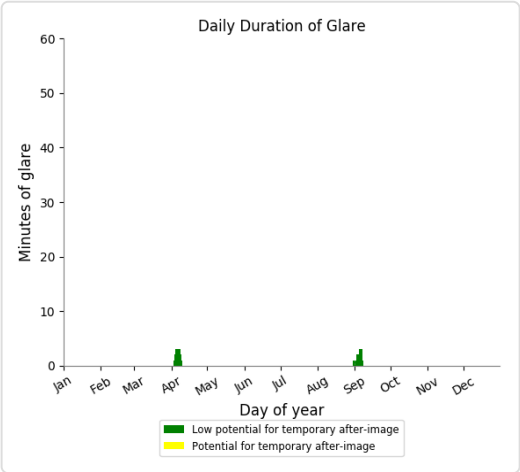


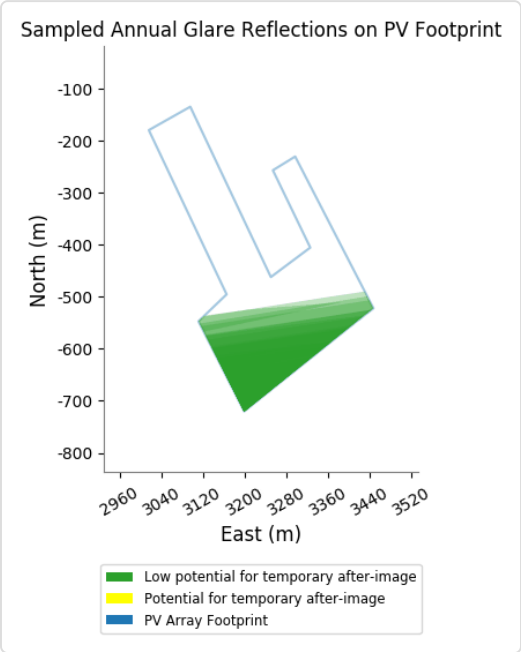
PV array 9 - OP Receptor (OP 12)

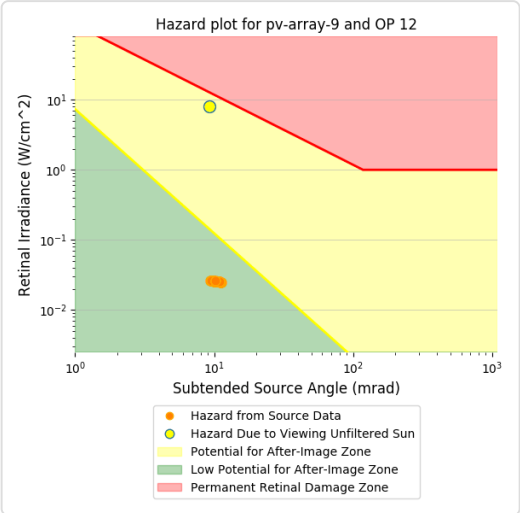
PV array is expected to produce the following glare for receptors at this location:

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









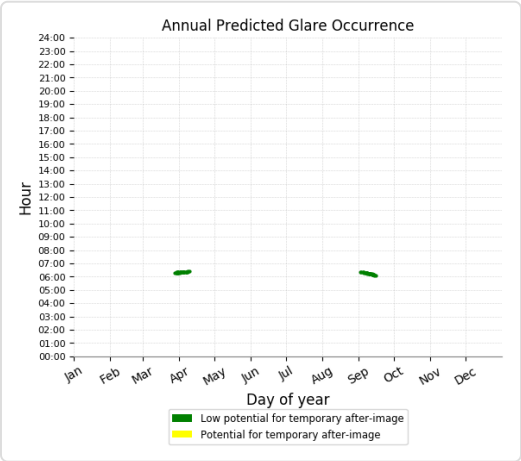
PV array 9 - OP Receptor (OP 13)

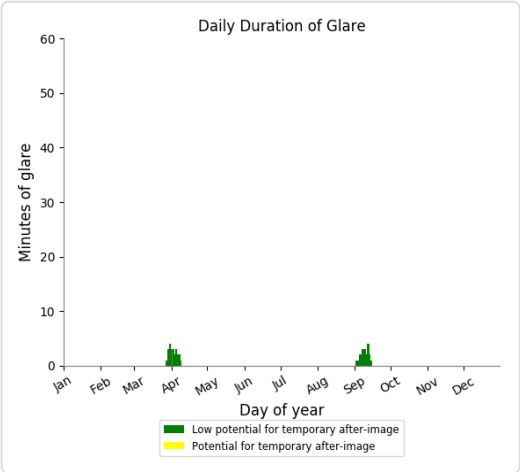
No glare found

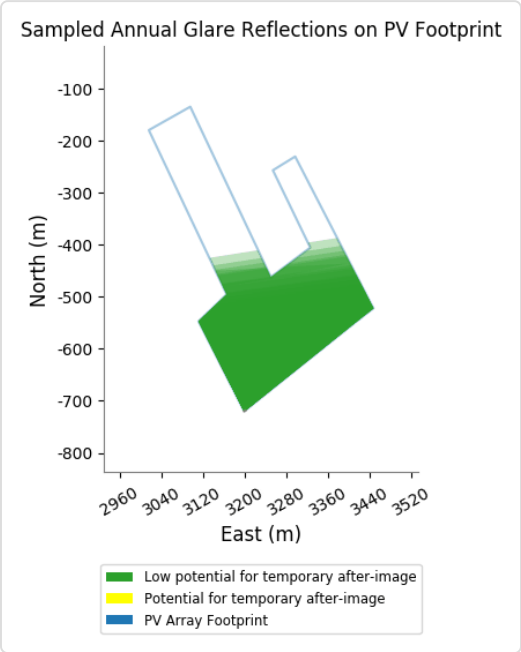
PV array 9 - OP Receptor (OP 14)

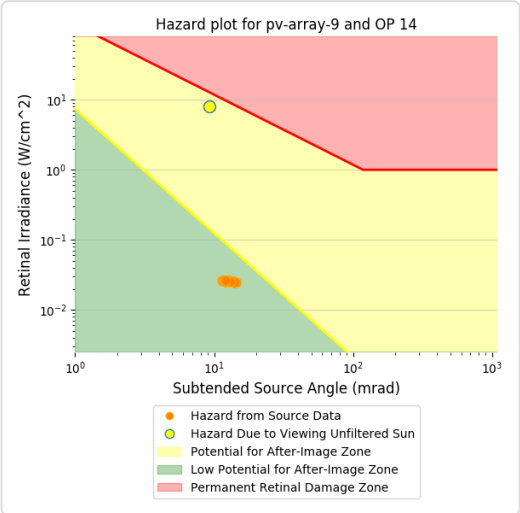
PV array is expected to produce the following glare for receptors at this location:

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





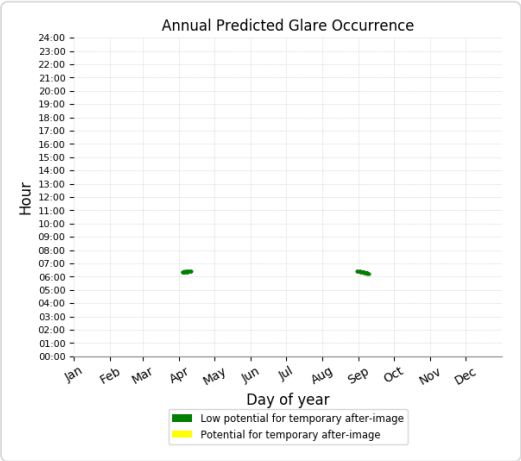


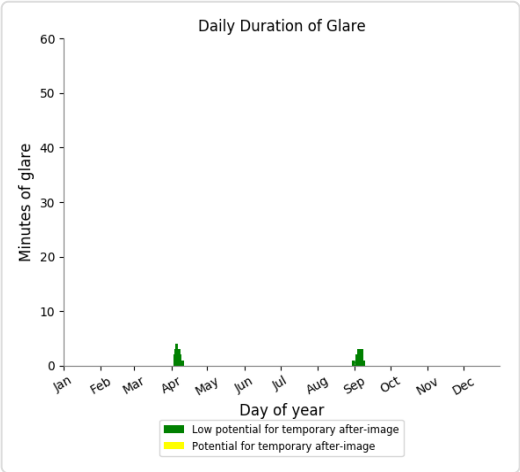


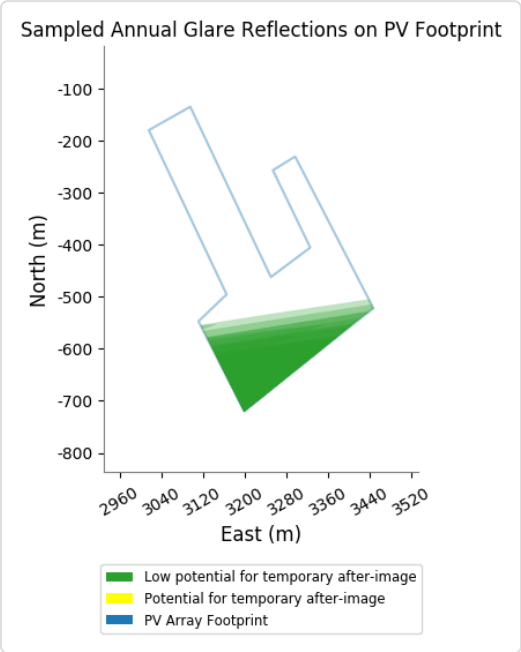
PV array 9 - OP Receptor (OP 15)

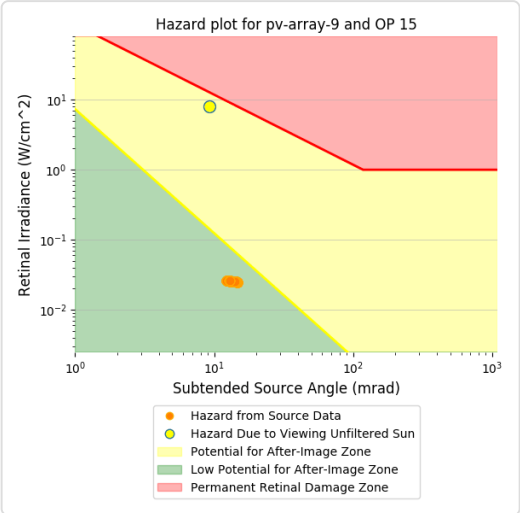
PV array is expected to produce the following glare for receptors at this location:

- 46 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 9 - OP Receptor (OP 16)

No glare found

PV array 9 - OP Receptor (OP 17)

No glare found

PV array 9 - OP Receptor (OP 18)

No glare found

PV array 9 - OP Receptor (OP 19)

No glare found

PV array 9 - OP Receptor (OP 20)

No glare found

PV array 9 - OP Receptor (OP 21)

No glare found

PV array 9 - OP Receptor (OP 22)

No glare found

PV array 9 - OP Receptor (OP 23)

No glare found

PV array 9 - OP Receptor (OP 24)

No glare found

PV array 9 - OP Receptor (OP 25)

No glare found

PV array 9 - OP Receptor (OP 26)

No glare found

PV array 9 - OP Receptor (OP 27)

No glare found

PV array 9 - OP Receptor (OP 28)

No glare found

PV array 9 - OP Receptor (OP 29)

No glare found

PV array 9 - OP Receptor (OP 30)

No glare found

PV array 9 - OP Receptor (OP 31)

No glare found

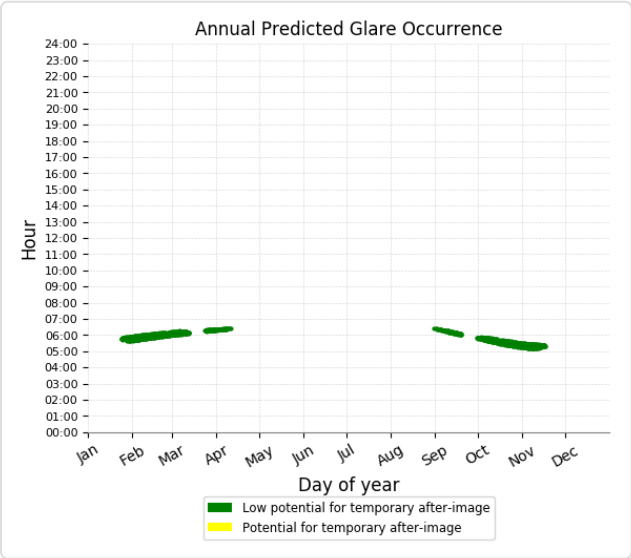
PV array 9 - OP Receptor (OP 32)

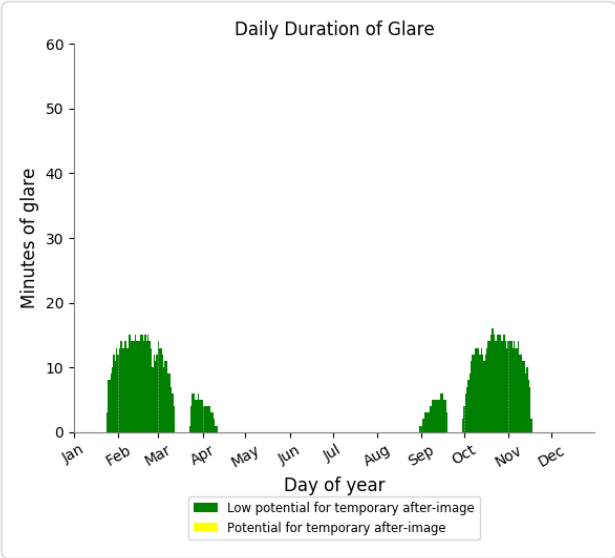
No glare found

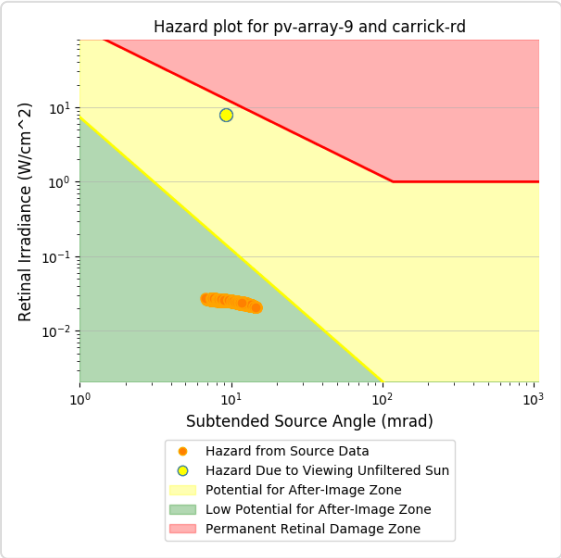
PV array 9 - Route Receptor (Carrick Rd)

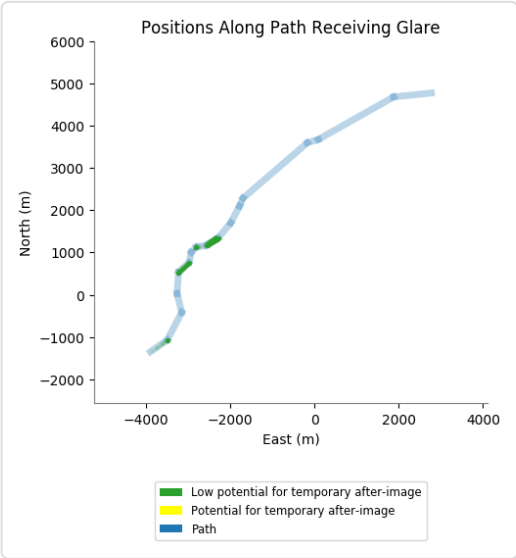
PV array is expected to produce the following glare for receptors at this location:

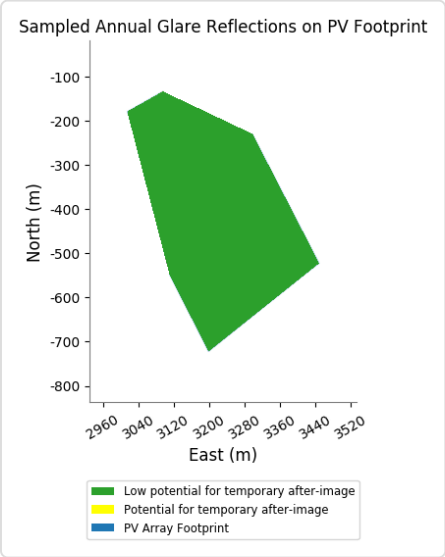
- 1,305 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.











PV array 9 - Route Receptor (Munro Rd)

No glare found

Assumptions

- Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
- Glare analyses do not account for physical obstructions between reflectors and receptors. This includes buildings, tree cover and geographic obstructions.
- Detailed system geometry is not rigorously simulated.
- The glare hazard determination relies on several approximations including observer eye characteristics, angle of view, and typical blink response time. Actual values and results may vary.
- 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.
- Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results fo large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare.
- 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.)
- Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.
- Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
- Glare vector plots are simplified representations of analysis data. Actual glare emanations and results may differ.
- Refer to the **Help page** for detailed assumptions and limitations not listed here.

ForgeSolar

Marulan

Marulan additional route analysis

Client: Terrain Solar

Created May 12, 2022
Updated May 13, 2022
Time-step 1 minute
Timezone offset UTC10
Site ID 68958.11539

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	2,003	0	-
PV array 2	SA tracking	SA tracking	277	0	-
PV array 3	SA tracking	SA tracking	738	0	-
PV array 4	SA tracking	SA tracking	0	0	-
PV array 5	SA tracking	SA tracking	0	0	-
PV array 6	SA tracking	SA tracking	50	0	-
PV array 7	SA tracking	SA tracking	0	1,815	-
PV array 8	SA tracking	SA tracking	0	0	-
PV array 9	SA tracking	SA tracking	585	0	-

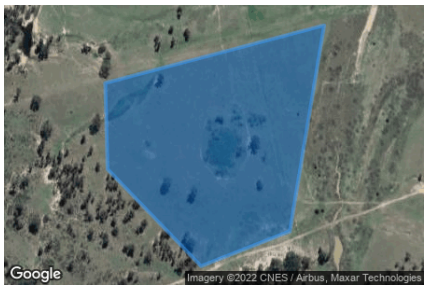
Component Data

PV Array(s)

Total PV footprint area: 2,767,193 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	2.40	631.83
2	-34.713970	149.900990	639.69	2.40	642.09
3	-34.715800	149.903140	630.72	2.40	633.12
4	-34.715141	149.905181	624.65	2.40	627.05
5	-34.711250	149.905970	618.31	2.40	620.71

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	2.40	623.79
2	-34.713152	149.912071	629.75	2.40	632.15
3	-34.716271	149.913276	640.40	2.40	642.80
4	-34.716673	149.908475	651.90	2.40	654.30
5	-34.715138	149.908088	629.75	2.40	632.15
6	-34.714675	149.907123	620.95	2.40	623.35

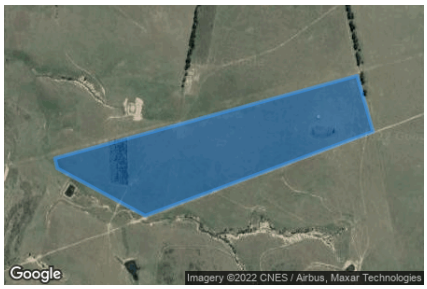
Name: PV array 3
Footprint area: 117,740 m^2
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 180.0 deg
Maximum tracking angle: 60.0 deg
Resting angle: 0.0 deg
Ground Coverage Ratio: 0.5

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	2.40	654.91
2	-34.716313	149.913278	640.76	2.40	643.16
3	-34.720522	149.912569	651.31	2.40	653.71
4	-34.720398	149.911464	653.00	2.40	655.40
5	-34.719819	149.911478	653.65	2.40	656.05
6	-34.718253	149.910300	652.22	2.40	654.62
7	-34.718315	149.908855	659.66	2.40	662.06

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	2.40	624.31
2	-34.710493	149.909307	621.63	2.40	624.03
3	-34.709320	149.914543	638.30	2.40	640.70
4	-34.707372	149.923207	654.41	2.40	656.81
5	-34.709484	149.923939	654.45	2.40	656.85
6	-34.712666	149.913460	629.64	2.40	632.04

Name: PV array 5
Footprint area: 428,540 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	2.40	633.33
2	-34.709626	149.924165	653.34	2.40	655.74
3	-34.714900	149.924572	657.72	2.40	660.12
4	-34.716470	149.915496	644.35	2.40	646.75
5	-34.716276	149.913500	640.57	2.40	642.97
6	-34.713128	149.912910	629.81	2.40	632.21
7	-34.713101	149.913436	630.89	2.40	633.29
8	-34.713079	149.914686	631.09	2.40	633.49
9	-34.712991	149.915276	631.95	2.40	634.35
10	-34.713145	149.915619	633.17	2.40	635.57
11	-34.713348	149.915710	633.18	2.40	635.58
12	-34.713630	149.916397	635.33	2.40	637.73
13	-34.713899	149.917003	636.54	2.40	638.94
14	-34.714292	149.917330	638.05	2.40	640.45
15	-34.714746	149.917657	640.48	2.40	642.88
16	-34.715077	149.917877	642.00	2.40	644.40
17	-34.715403	149.918398	643.44	2.40	645.84
18	-34.715588	149.918800	644.54	2.40	646.94
19	-34.715438	149.919031	644.45	2.40	646.85
20	-34.715108	149.918816	643.75	2.40	646.15
21	-34.714817	149.918446	642.31	2.40	644.71
22	-34.713675	149.917674	637.26	2.40	639.66
23	-34.713472	149.918918	639.76	2.40	642.16
24	-34.713604	149.919337	641.19	2.40	643.59
25	-34.713701	149.919621	642.50	2.40	644.90
26	-34.713860	149.919873	644.16	2.40	646.56
27	-34.713860	149.920152	644.93	2.40	647.33
28	-34.713761	149.920604	645.01	2.40	647.41
29	-34.713682	149.920974	645.21	2.40	647.61
30	-34.713699	149.921382	646.22	2.40	648.62
31	-34.714061	149.921940	648.04	2.40	650.44
32	-34.714330	149.922181	649.22	2.40	651.62
33	-34.714427	149.922439	650.38	2.40	652.78
34	-34.714374	149.922621	650.72	2.40	653.12
35	-34.714228	149.922643	650.44	2.40	652.84
36	-34.713580	149.922578	649.35	2.40	651.75
37	-34.713342	149.922771	649.79	2.40	652.19
38	-34.713170	149.923002	650.84	2.40	653.24
39	-34.712881	149.922806	651.24	2.40	653.64
40	-34.712947	149.922463	650.02	2.40	652.42
41	-34.713168	149.921986	647.81	2.40	650.21
42	-34.712983	149.921100	645.85	2.40	648.25
43	-34.713053	149.920156	643.45	2.40	645.85
44	-34.712899	149.919448	642.07	2.40	644.47
45	-34.712577	149.919024	642.36	2.40	644.76
46	-34.712489	149.918804	642.24	2.40	644.64
47	-34.712603	149.918445	641.02	2.40	643.42
48	-34.712846	149.917925	639.04	2.40	641.44
49	-34.712969	149.917335	637.63	2.40	640.03
50	-34.712961	149.916498	636.03	2.40	638.43
51	-34.712436	149.915870	636.00	2.40	638.40
52	-34.712348	149.915344	633.56	2.40	635.96

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	2.40	660.36
2	-34.717009	149.924788	663.54	2.40	665.94
3	-34.717168	149.919686	651.17	2.40	653.57
4	-34.717587	149.917219	652.45	2.40	654.85
5	-34.716548	149.915703	644.97	2.40	647.37

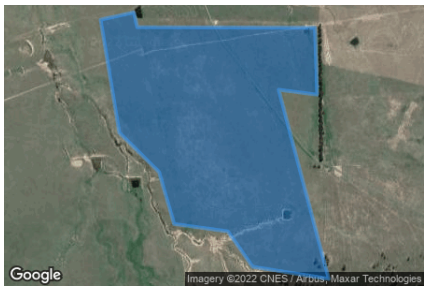
Name: PV array 7
Footprint area: 646,303 m^2
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 180.0 deg
Maximum tracking angle: 60.0 deg
Resting angle: 0.0 deg
Ground Coverage Ratio: 0.5

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	2.40	654.84
2	-34.706469	149.927365	639.91	2.40	642.31
3	-34.707933	149.929524	637.71	2.40	640.11
4	-34.715657	149.931965	648.36	2.40	650.76
5	-34.716362	149.931305	653.51	2.40	655.91
6	-34.716041	149.930779	652.74	2.40	655.14
7	-34.717681	149.929261	664.92	2.40	667.32
8	-34.717046	149.924873	664.07	2.40	666.47
9	-34.709642	149.924417	652.59	2.40	654.99

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	2.40	646.43
2	-34.705712	149.933521	644.88	2.40	647.28
3	-34.705734	149.941691	639.93	2.40	642.33
4	-34.708252	149.941793	646.60	2.40	649.00
5	-34.708066	149.940023	645.62	2.40	648.02
6	-34.715193	149.942324	659.44	2.40	661.84
7	-34.714734	149.938827	648.50	2.40	650.90
8	-34.713402	149.937690	648.00	2.40	650.40
9	-34.713124	149.935217	644.70	2.40	647.10
10	-34.711167	149.934525	647.08	2.40	649.48
11	-34.709685	149.932698	640.69	2.40	643.09
12	-34.705429	149.931837	639.17	2.40	641.57

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	2.40	658.14
2	-34.718838	149.935859	662.78	2.40	665.18
3	-34.717275	149.934901	654.11	2.40	656.51
4	-34.716808	149.935491	651.68	2.40	654.08
5	-34.713959	149.933860	646.60	2.40	649.00
6	-34.713554	149.934729	644.54	2.40	646.94
7	-34.716508	149.936419	649.84	2.40	652.24
8	-34.715997	149.937245	649.00	2.40	651.40
9	-34.714656	149.936462	647.11	2.40	649.51
10	-34.714418	149.936929	647.24	2.40	649.64
11	-34.717050	149.938570	655.53	2.40	657.93

Route Receptor(s)

Name: Route 1
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	-34.703179	149.960787	669.44	1.50	670.94
2	-34.701688	149.959607	665.04	1.50	666.54
3	-34.700833	149.958598	659.84	1.50	661.34
4	-34.699934	149.957277	657.13	1.50	658.63
5	-34.699219	149.955872	656.97	1.50	658.47
6	-34.698593	149.954069	657.53	1.50	659.03
7	-34.694553	149.933357	638.68	1.50	640.18
8	-34.694158	149.930929	633.68	1.50	635.18
9	-34.693903	149.927990	631.32	1.50	632.82
10	-34.693351	149.881656	624.86	1.50	626.36
11	-34.693350	149.881512	625.05	1.50	626.55

Name: Route 2
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	-34.744764	149.923063	665.60	1.50	667.10
2	-34.743865	149.920102	670.18	1.50	671.68
3	-34.742454	149.917184	655.70	1.50	657.20
4	-34.741812	149.915255	643.63	1.50	645.13
5	-34.741459	149.912766	635.35	1.50	636.85
6	-34.741424	149.911049	629.55	1.50	631.05
7	-34.741671	149.908710	635.35	1.50	636.85
8	-34.742085	149.906178	647.22	1.50	648.72
9	-34.743260	149.899231	660.66	1.50	662.16
10	-34.743242	149.899381	661.10	1.50	662.60

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	2,003	0	-	-
PV array 2	SA tracking	SA tracking	277	0	-	-
PV array 3	SA tracking	SA tracking	738	0	-	-
PV array 4	SA tracking	SA tracking	0	0	-	
PV array 5	SA tracking	SA tracking	0	0	-	
PV array 6	SA tracking	SA tracking	50	0	-	-
PV array 7	SA tracking	SA tracking	0	1,815	-	-
PV array 8	SA tracking	SA tracking	0	0	-	
PV array 9	SA tracking	SA tracking	585	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)	512	296	0	0	0	0	0	0	0	169	478	548
pv-array-1 (yellow)	0	0	0	0	0	0	0	0	0	0	0	0
pv-array-2 (green)	94	0	0	0	0	0	0	0	0	0	63	120
pv-array-2 (yellow)	0	0	0	0	0	0	0	0	0	0	0	0
pv-array-3 (green)	237	0	0	0	0	0	0	0	0	0	132	369
pv-array-3 (yellow)	0	0	0	0	0	0	0	0	0	0	0	0
pv-array-6 (green)	9	0	0	0	0	0	0	0	0	0	1	40
pv-array-6 (yellow)	0	0	0	0	0	0	0	0	0	0	0	0
pv-array-7 (green)	0	0	0	0	0	0	0	0	0	0	0	0
pv-array-7 (yellow)	441	311	0	0	0	0	0	0	0	195	416	452
pv-array-9 (green)	178	0	0	0	0	0	0	0	0	0	77	330
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

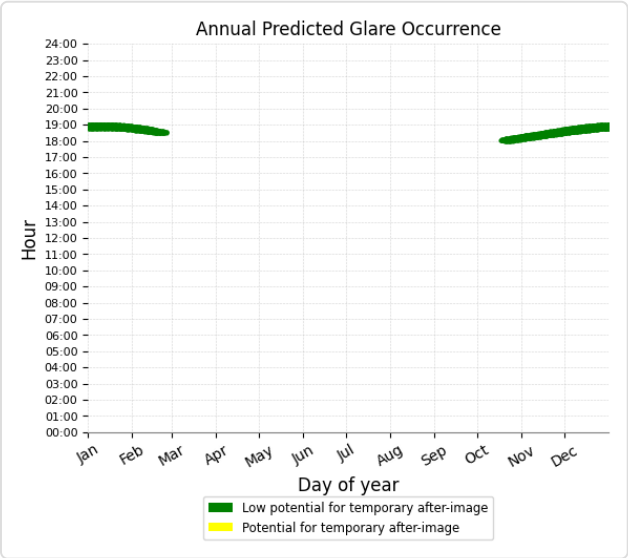
PV array 1 low potential for temporary after-image

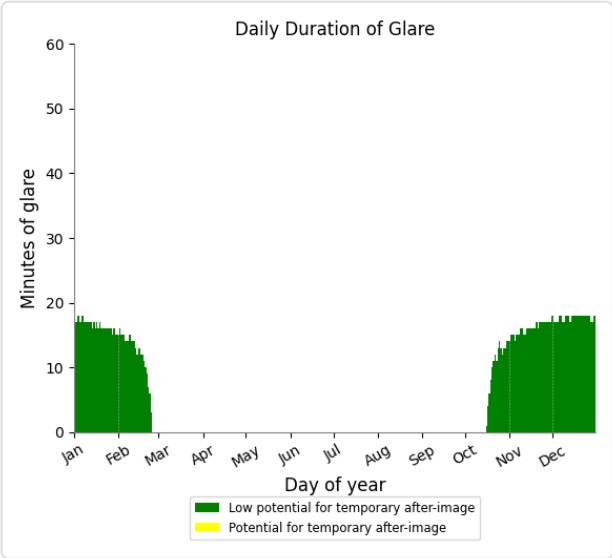
Component	Green glare (min)	Yellow glare (min)
Route: Route 1	2003	0
Route: Route 2	0	0

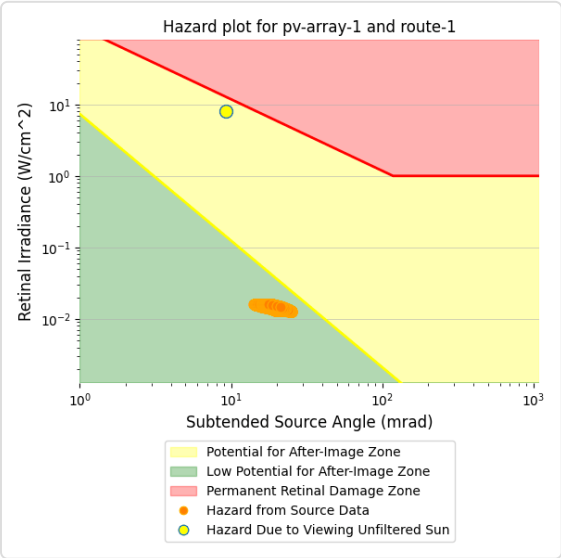
PV array 1 - Route Receptor (Route 1)

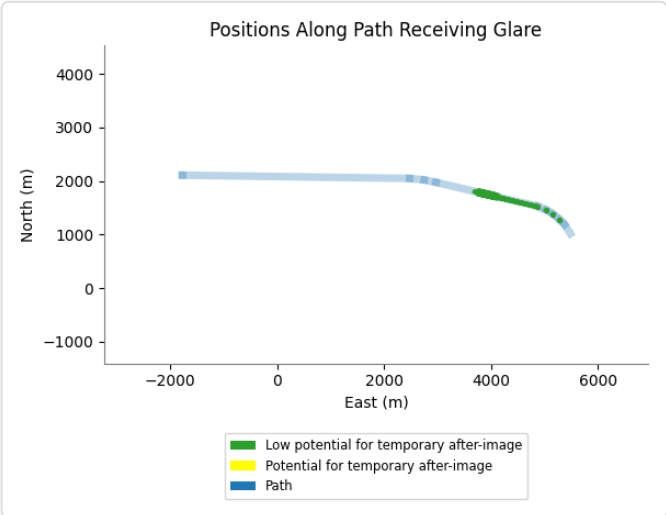
PV array is expected to produce the following glare for receptors at this location:

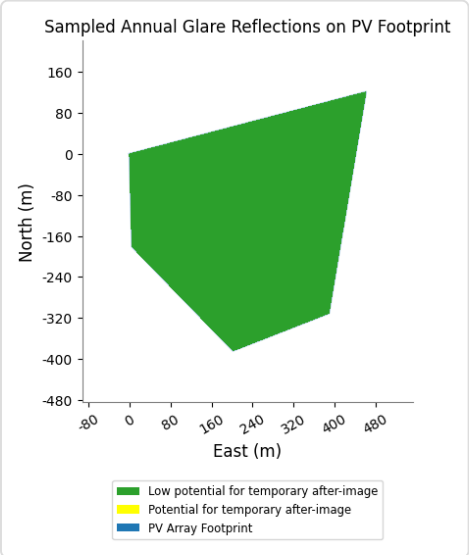
- 2,003 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.











PV array 1 - Route Receptor (Route 2)

No glare found

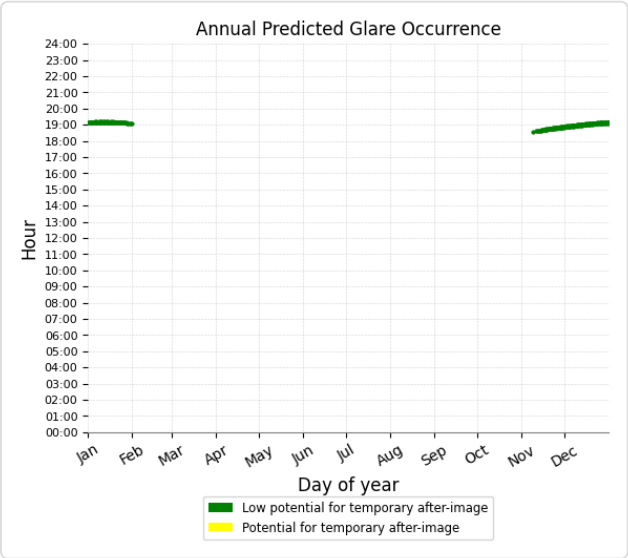
PV array 2 low potential for temporary after-image

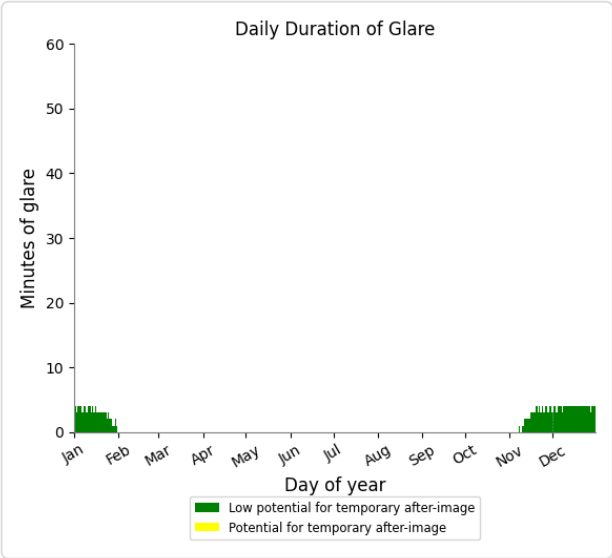
Component	Green glare (min)	Yellow glare (min)
Route: Route 1	277	0
Route: Route 2	0	0

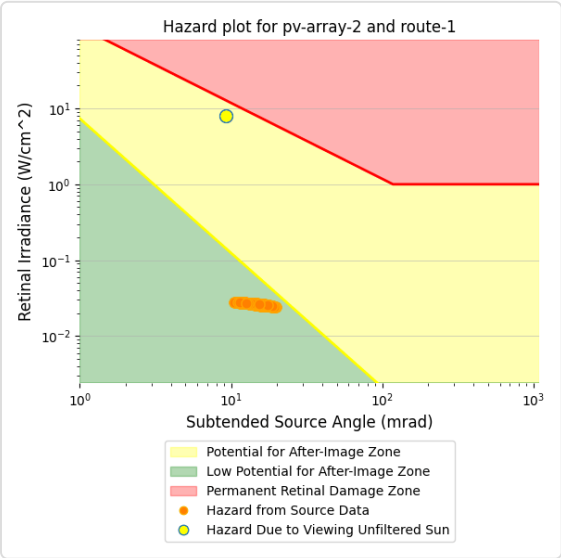
PV array 2 - Route Receptor (Route 1)

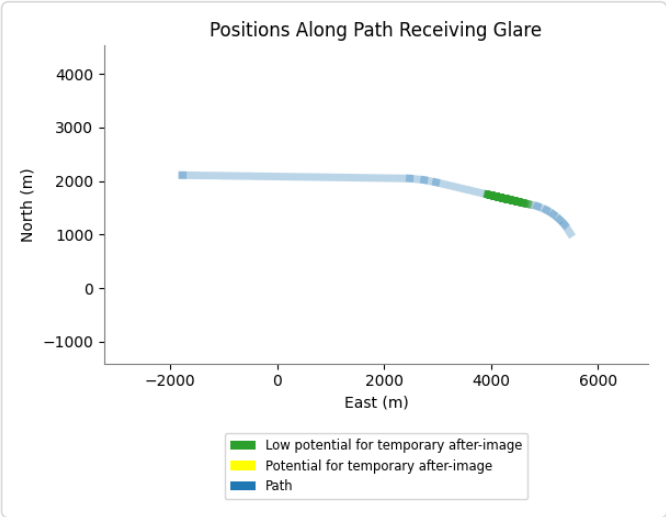
PV array is expected to produce the following glare for receptors at this location:

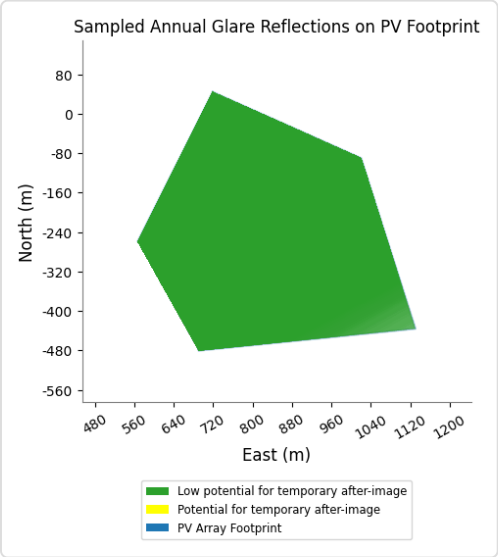
- 277 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.











PV array 2 - Route Receptor (Route 2)

No glare found

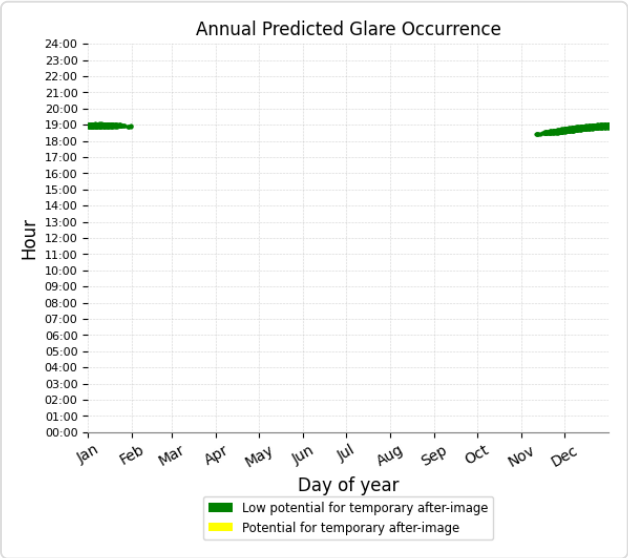
PV array 3 low potential for temporary after-image

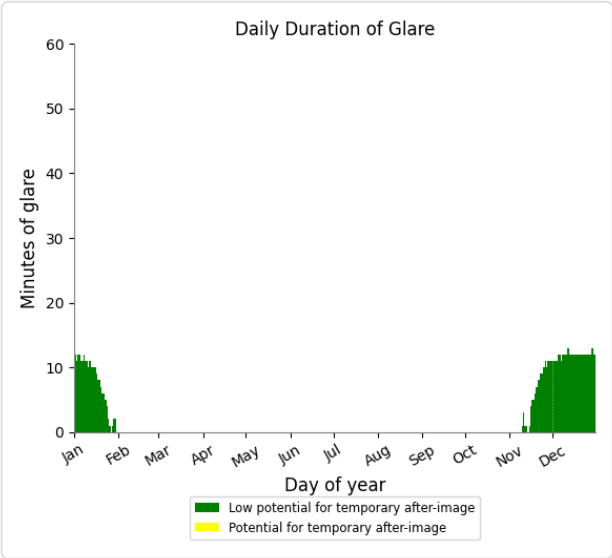
Component	Green glare (min)	Yellow glare (min)
Route: Route 1	738	0
Route: Route 2	0	0

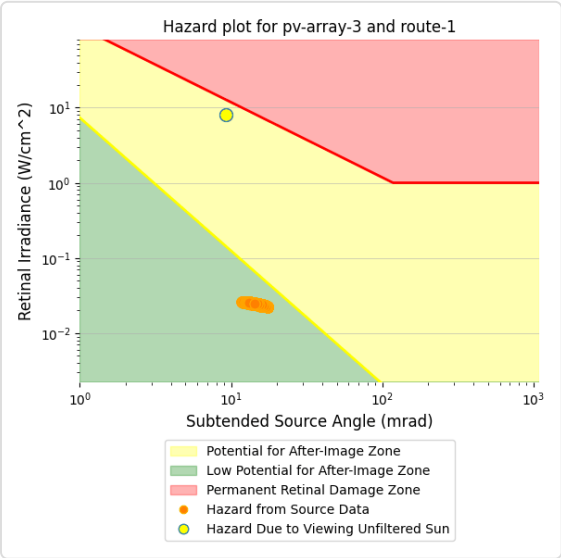
PV array 3 - Route Receptor (Route 1)

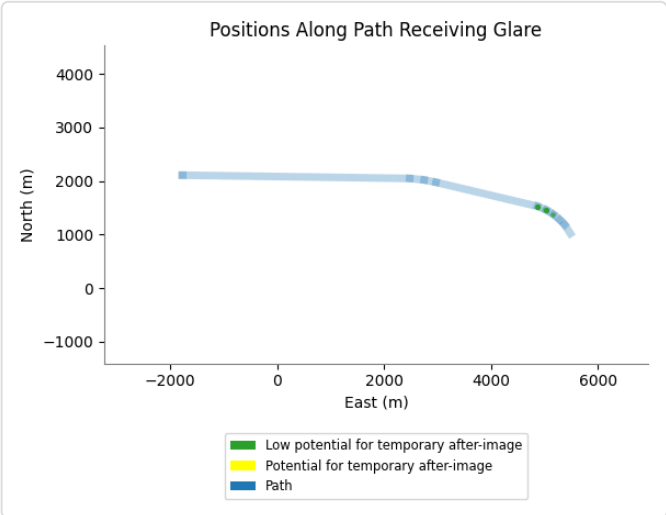
PV array is expected to produce the following glare for receptors at this location:

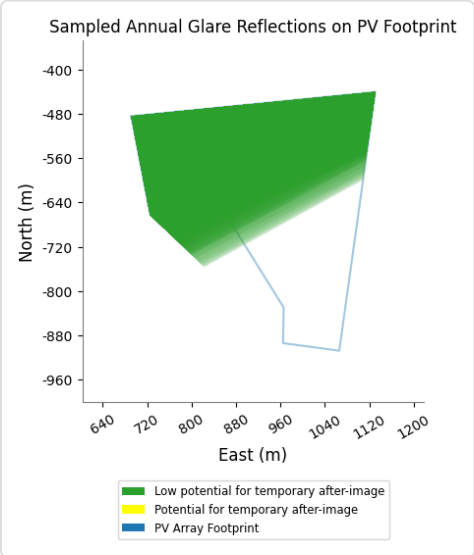
- 738 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.











PV array 3 - Route Receptor (Route 2)

No glare found

PV array 4 no glare found

Component	Green glare (min)	Yellow glare (min)
Route: Route 1	0	0
Route: Route 2	0	0

No glare found

PV array 5 no glare found

Component	Green glare (min)	Yellow glare (min)
Route: Route 1	0	0
Route: Route 2	0	0

No glare found

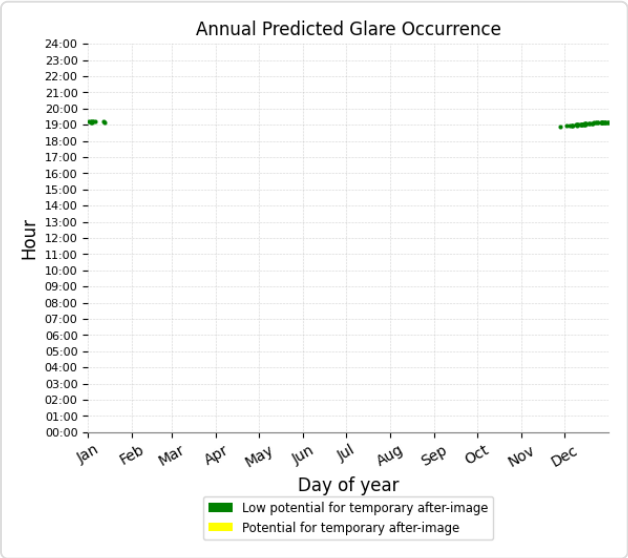
PV array 6 low potential for temporary after-image

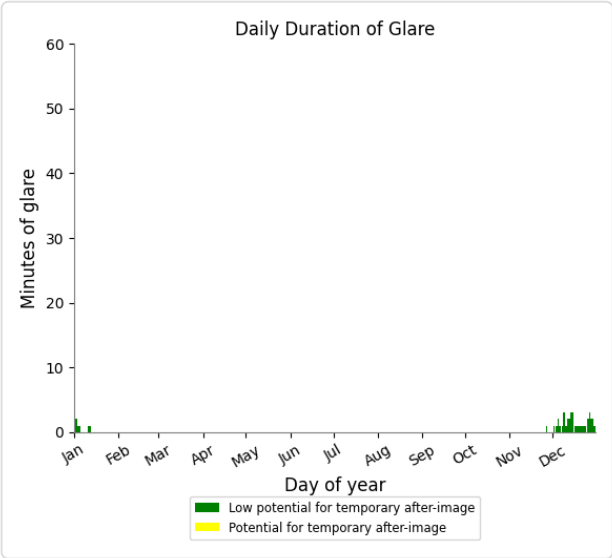
Component	Green glare (min)	Yellow glare (min)
Route: Route 1	50	0
Route: Route 2	0	0

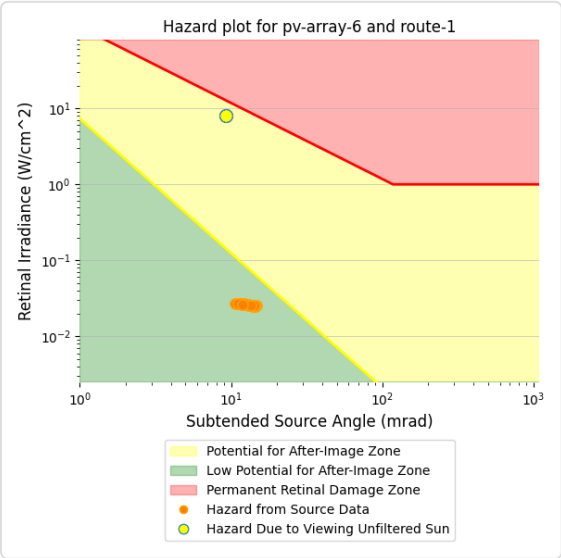
PV array 6 - Route Receptor (Route 1)

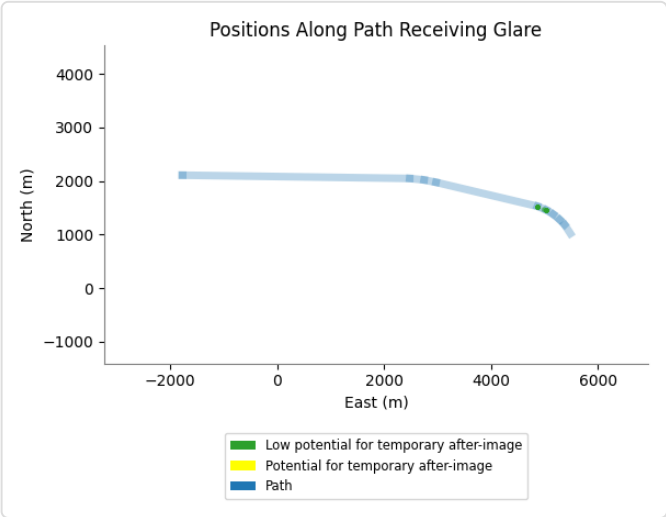
PV array is expected to produce the following glare for receptors at this location:

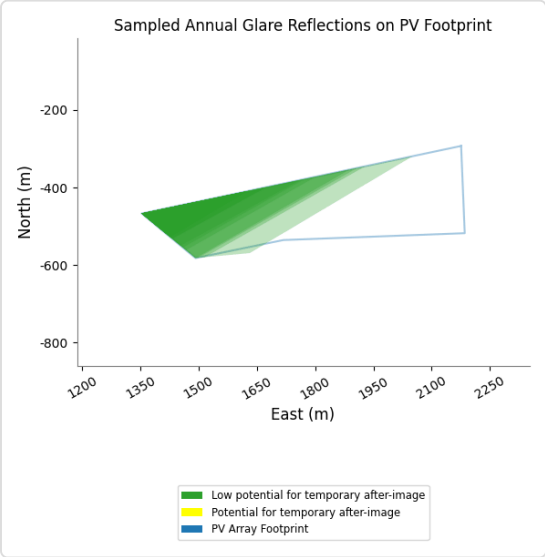
- 50 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.











PV array 6 - Route Receptor (Route 2)

No glare found

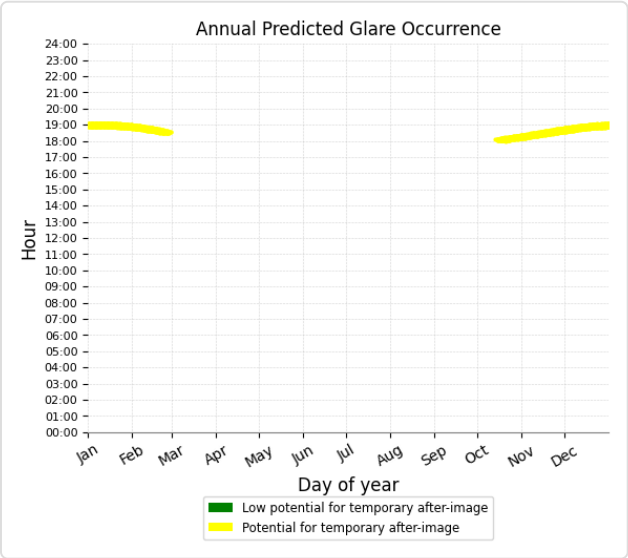
PV array 7 potential temporary after-image

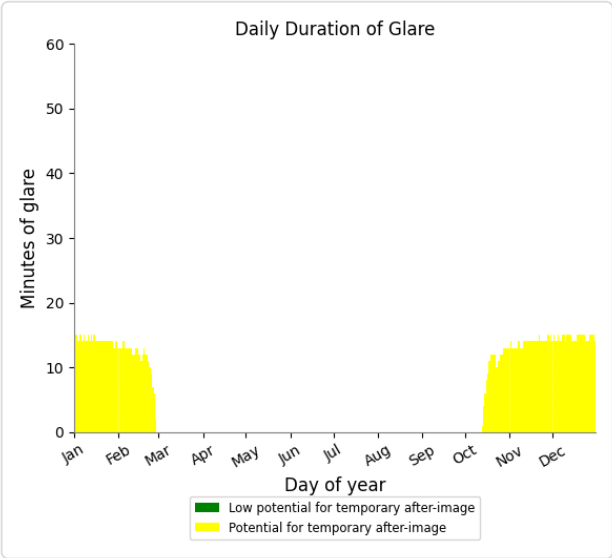
Component	Green glare (min)	Yellow glare (min)
Route: Route 1	0	1815
Route: Route 2	0	0

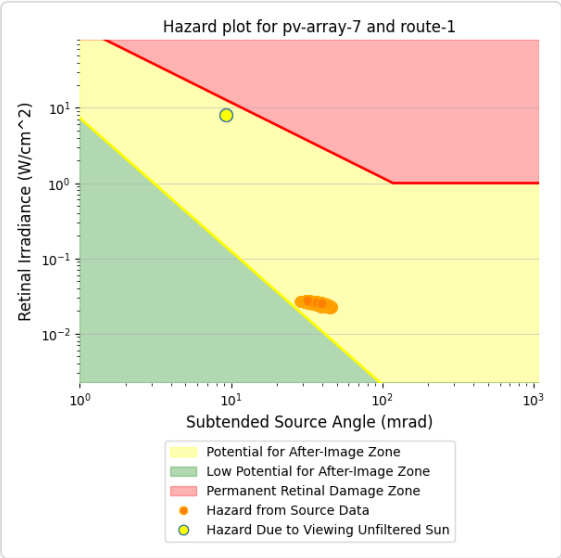
PV array 7 - Route Receptor (Route 1)

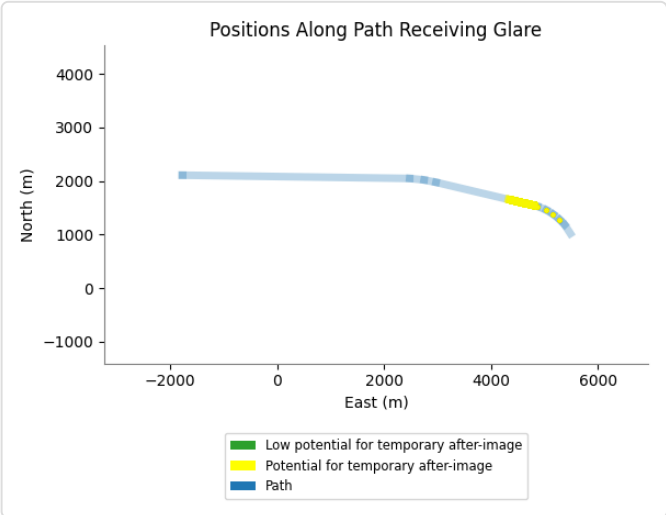
PV array is expected to produce the following glare for receptors at this location:

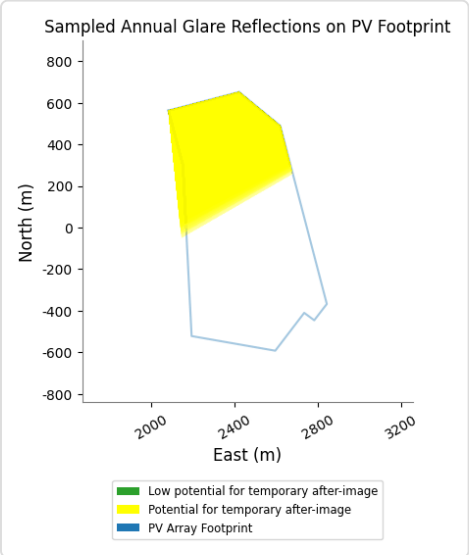
- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 1,815 minutes of "yellow" glare with potential to cause temporary after-image.











PV array 7 - Route Receptor (Route 2)

No glare found

PV array 8 no glare found

Component	Green glare (min)	Yellow glare (min)
Route: Route 1	0	0
Route: Route 2	0	0

No glare found

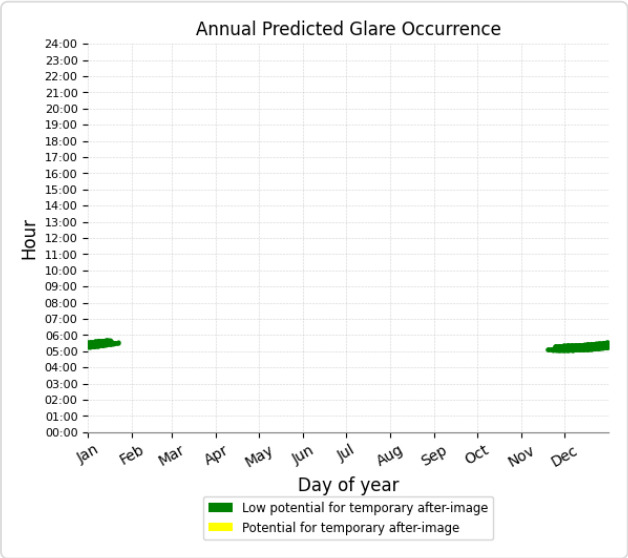
PV array 9 low potential for temporary after-image

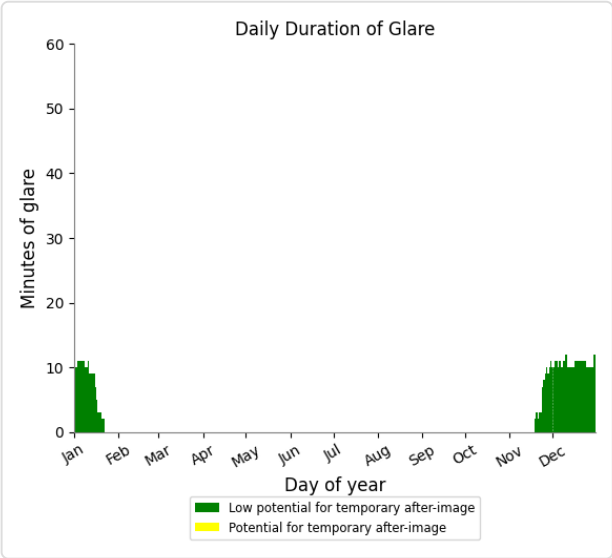
Component	Green glare (min)	Yellow glare (min)
Route: Route 1	585	0
Route: Route 2	0	0

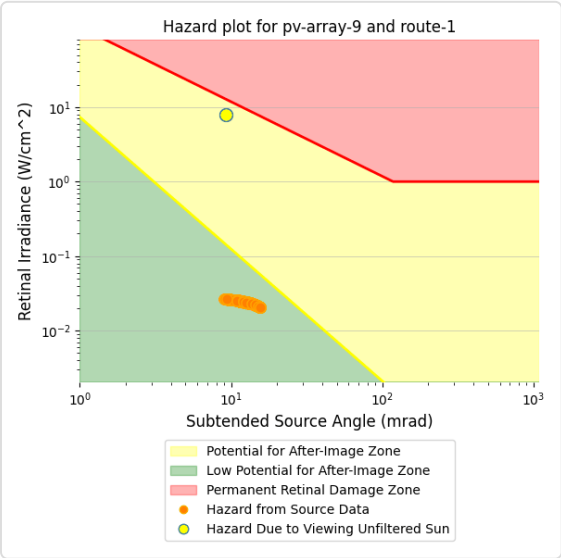
PV array 9 - Route Receptor (Route 1)

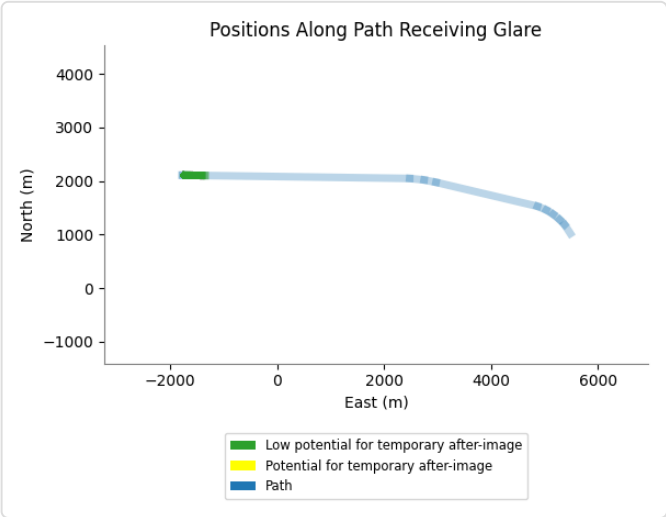
PV array is expected to produce the following glare for receptors at this location:

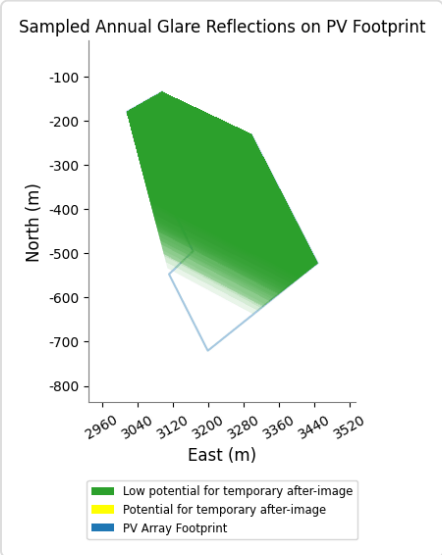
- 585 minutes of "green" glare with low potential to cause temporary after-image.
- 0 minutes of "yellow" glare with potential to cause temporary after-image.











PV array 9 - Route Receptor (Route 2)

No glare found

Assumptions

- Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
- Glare analyses do not account for physical obstructions between reflectors and receptors. This includes buildings, tree cover and geographic obstructions.
- Detailed system geometry is not rigorously simulated.
- The glare hazard determination relies on several approximations including observer eye characteristics, angle of view, and typical blink response time. Actual values and results may vary.
- 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.
- Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results fo large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare.
- 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.)
- Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.
- Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
- Glare vector plots are simplified representations of analysis data. Actual glare emanations and results may differ.
- Refer to the **Help page** for detailed assumptions and limitations not listed here.