

# Appendix 7B: Residential Receptor Glare Results (10 Deg)





# Site Configuration: Derrill Water Solar Farm 10 Deg

Project site configuration details and results.



Created Jan. 18, 2021 9:04 a.m. Updated Jan. 29, 2021 4:08 a.m. DNI varies and peaks at 1,000.0 W/m^2 Analyze every 1 minute(s) 0.5 ocular transmission coefficient 0.002 m pupil diameter 0.017 m eye focal length 9.3 mrad sun subtended angle Timezone UTC0 Site Configuration ID: 48142.8678

## 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	10.0	180.0	1,483	48,697	-
PV array 2	10.0	180.0	1,204	29,998	-
PV array 3	10.0	180.0	18,675	21,230	-
PV array 4	10.0	180.0	2,293	98,710	-

# **Component Data**

PV Array(s)

Name: PV array 1
Axis tracking: Fixed (no rotation)
Tilt: 10.0 deg
Orientation: 180.0 deg
Rated power: -
Panel material: Light textured glass with AR
coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad
Approx. area: 104,635 sq-m



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	50.797429	-4.419972	109.23	2.80	112.03
2	50.797076	-4.421195	110.38	2.80	113.18
3	50.796263	-4.423405	113.22	2.80	116.02
4	50.795978	-4.423383	111.97	2.80	114.77
5	50.795625	-4.424564	114.77	2.80	117.57
6	50.794866	-4.424006	114.96	2.80	117.76
7	50.794160	-4.425143	117.83	2.80	120.63
8	50.793146	-4.424408	120.28	2.80	123.08
9	50.792180	-4.420680	118.45	2.80	121.25
10	50.792343	-4.419972	119.63	2.80	122.43
11	50.792085	-4.419628	119.51	2.80	122.31
12	50.791814	-4.418770	120.50	2.80	123.30
13	50.792004	-4.417504	122.88	2.80	125.68
14	50.793075	-4.418770	119.76	2.80	122.56
15	50.792492	-4.420186	119.57	2.80	122.37
16	50.793794	-4.421881	118.48	2.80	121.28
17	50.794906	-4.422718	116.38	2.80	119.18
18	50.795476	-4.421517	115.69	2.80	118.49
19	50.795788	-4.422353	112.48	2.80	115.28
20	50,796819	-4.419628	109.12	2.80	111.92

Name: PV array 2 Axis tracking: Fixed (no rotation) Tilt: 10.0 deg Orientation: 180.0 deg Rated power: -Panel material: Light textured glass with AR coating Vary reflectivity with sun position? Yes Correlate slope error with surface type? Yes Slope error: 9.16 mrad Approx. area: 123,469 sq-m



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	50.793017	-4.424714	121.10	2.80	123.90
2	50.792088	-4.424113	118.62	2.80	121.42
3	50.790324	-4.422901	114.55	2.80	117.35
4	50.789938	-4.424167	114.47	2.80	117.27
5	50.789314	-4.425604	114.51	2.80	117.31
6	50.788479	-4.424853	109.52	2.80	112.32
7	50.787530	-4.424810	113.00	2.80	115.80
8	50.786248	-4.424177	123.13	2.80	125.93
9	50.785855	-4.423362	123.52	2.80	126.32
10	50.785536	-4.422139	122.27	2.80	125.07
11	50.786953	-4.421291	114.55	2.80	117.35
12	50.787082	-4.421903	114.94	2.80	117.74
13	50.787367	-4.422407	114.49	2.80	117.29
14	50.788032	-4.422729	110.30	2.80	113.10
15	50.788771	-4.422418	107.16	2.80	109.96
16	50.790087	-4.423705	112.58	2.80	115.38
17	50.790162	-4.423008	113.20	2.80	116.00
18	50.788954	-4.422257	106.46	2.80	109.26
19	50.788839	-4.421012	104.92	2.80	107.72
20	50.789212	-4.420455	106.94	2.80	109.74
21	50.790148	-4.421109	111.73	2.80	114.53
22	50.790243	-4.421710	112.87	2.80	115.67
23	50.790840	-4.422182	117.46	2.80	120.26
24	50.791206	-4.421967	117.58	2.80	120.38
25	50.791776	-4.422613	117.19	2.80	119.99
26	50,792284	-4.421905	118.75	2.80	121.55

Name: PV array 3
Axis tracking: Fixed (no rotation)
Tilt: 10.0 deg
Orientation: 180.0 deg
Rated power: -
Panel material: Light textured glass with AR
coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad
Approx. area: 55,593 sq-m
and the set



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	50.795143	-4.415966	111.26	2.80	114.06
2	50.794139	-4.415215	114.25	2.80	117.05
3	50.794166	-4.414808	112.87	2.80	115.67
4	50.792877	-4.413542	118.54	2.80	121.34
5	50.793366	-4.411214	105.72	2.80	108.52
6	50.793434	-4.410935	103.79	2.80	106.59
7	50.794105	-4.410677	100.41	2.80	103.21
8	50.794641	-4.411374	101.20	2.80	104.00
9	50.794824	-4.411385	101.61	2.80	104.41
10	50.795122	-4.411825	102.45	2.80	105.25
11	50.795109	-4.412179	104.62	2.80	107.42
12	50.794620	-4.413220	106.82	2.80	109.62
13	50.794973	-4.413949	109.04	2.80	111.84
14	50.795163	-4.415054	109.12	2.80	111.92

Name: PV array 4 Axis tracking: Fixed (no rotation) Tilt: 10.0 deg Orientation: 180.0 deg Rated power: -Panel material: Light textured glass with AR coating Vary reflectivity with sun position? Yes Correlate slope error with surface type? Yes Slope error: 9.16 mrad Approx. area: 228,907 sq-m



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	50.793275	-4.410921	104.89	2.80	107.69
2	50.792597	-4.414462	121.95	2.80	124.75
3	50.791708	-4.413743	115.50	2.80	118.30
4	50.791152	-4.415556	117.59	2.80	120.39
5	50.790135	-4.417681	114.28	2.80	117.08
6	50.789339	-4.416457	110.99	2.80	113.79
7	50.787651	-4.415782	110.89	2.80	113.69
8	50.787311	-4.416683	109.86	2.80	112.66
9	50.786911	-4.417101	104.28	2.80	107.08
10	50.786592	-4.416597	101.77	2.80	104.57
11	50.786185	-4.416425	101.10	2.80	103.90
12	50.784273	-4.419344	115.39	2.80	118.19
13	50.783689	-4.418839	119.07	2.80	121.87
14	50.784605	-4.416329	111.10	2.80	113.90
15	50.784971	-4.413958	103.21	2.80	106.01
16	50.785358	-4.413089	97.54	2.80	100.34
17	50.786660	-4.414333	97.45	2.80	100.25
18	50.786796	-4.413925	97.08	2.80	99.88
19	50.787773	-4.413389	97.50	2.80	100.30
20	50.788580	-4.413507	99.59	2.80	102.39
21	50.790804	-4.411764	104.92	2.80	107.72
22	50.791759	-4.411405	104.86	2.80	107.66
23	50.791979	-4.411502	105.72	2.80	108.52
24	50.792118	-4.411298	105.52	2.80	108.32

## **Discrete Observation Receptors**

Number	Latitude	Longitude	Ground elevation	Height above ground	Total Elevation
	deg	deg	m	m	m
OP 1	50.795357	-4.435313	123.90	2.00	125.90
OP 2	50.792550	-4.435818	119.91	2.00	121.91
OP 3	50.792530	-4.434755	120.44	2.00	122.44
OP 4	50.791974	-4.431859	122.52	2.00	124.52
OP 5	50.791323	-4.430131	122.47	2.00	124.47
OP 6	50.792503	-4.428965	122.39	2.00	124.39
OP 7	50.793113	-4.427249	121.13	2.00	123.13
OP 8	50.793099	-4.426279	122.46	2.00	124.46
OP 9	50.791095	-4.431820	120.52	2.00	122.52
OP 10	50.790461	-4.431520	120.77	2.00	122.77
OP 11	50.789986	-4.431798	118.76	2.00	120.76
OP 12	50.786008	-4.436659	124.88	2.00	126.88
OP 13	50.785353	-4.438331	126.47	2.00	128.47
OP 14	50.783927	-4.433477	129.33	2.00	131.33
OP 15	50.780381	-4.434687	129.91	2.00	131.91
OP 16	50.780255	-4.433117	131.78	2.00	133.78
OP 17	50.782768	-4.426471	133.79	2.00	135.79
DP 18	50.782568	-4.426149	132.82	2.00	134.82
OP 19	50.782117	-4.423108	124.67	2.00	126.67
OP 20	50.781463	-4.424975	129.54	2.00	131.54
OP 21	50.782753	-4.414498	102.52	2.00	104.52
OP 22	50.782646	-4.414997	104.86	2.00	106.86
OP 23	50.783169	-4.414624	105.79	2.00	107.79
DF 23 DP 24	50.783586	-4.414024	109.49	2.00	111.49
OP 25	50.781390	-4.405301	123.59	2.00	125.59
OP 26	50.781150	-4.405070	120.95	2.00	122.95
OP 27	50.781351	-4.404375	121.80	2.00	123.80
OP 28	50.781548	-4.404188	124.26	2.00	126.26
OP 29	50.781841	-4.403901	124.62	2.00	126.62
OP 30	50.782142	-4.403791	126.41	2.00	128.41
OP 31	50.783693	-4.400170	125.06	2.00	127.06
DP 32	50.784035	-4.399370	125.46	2.00	127.46
OP 33	50.788166	-4.406510	111.21	2.00	113.21
OP 34	50.788404	-4.406757	112.31	2.00	114.31
OP 35	50.794278	-4.398003	131.39	2.00	133.39
OP 36	50.798774	-4.398647	140.98	2.00	142.98
OP 37	50.801268	-4.407179	125.76	2.00	127.76
OP 38	50.793359	-4.417654	119.09	2.00	121.09
OP 39	50.793515	-4.417936	118.06	2.00	120.06
OP 40	50.793791	-4.417778	118.55	2.00	120.55
OP 41	50.792418	-4.415943	123.54	2.00	125.54
OP 42	50.791242	-4.419860	120.24	2.00	122.24
OP 43	50.790775	-4.420383	117.60	2.00	119.60
OP 44	50.787947	-4.421177	111.03	2.00	113.03
OP 45	50.799832	-4.429250	137.37	2.00	139.37
OP 46	50.799730	-4.429465	136.70	2.00	138.70
OP 47	50.799598	-4.429792	136.94	2.00	138.94
OP 48	50.799476	-4.430082	137.18	2.00	139.18
OP 49	50.799462	-4.430323	137.53	2.00	139.53
DP 50	50.799374	-4.430779	136.47	2.00	138.47

# **PV Array Results**

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced	Data File 😧
	deg	deg	min	min	kWh	
PV array 1	10.0	180.0	1,483	48,697	-	-
PV array 2	10.0	180.0	1,204	29,998	-	-
PV array 3	10.0	180.0	18,675	21,230	-	-
PV array 4	10.0	180.0	2,293	98,710	-	-

# Summary of PV Glare Analysis PV configuration and predicted glare

Click the name of the PV array to scroll to its results

## PV & Receptor Analysis Results detailed results for each PV array and receptor

component	Green glare (min)	Yellow glare (min)
P: OP 1	47	1215
)P: OP 2	42	1538
)P: OP 3	46	1974
P: OP 4	33	2988
P: OP 5	4	2286
P: OP 6	7	4131
)P: OP 7	0	5154
P: OP 8	0	6658
P: OP 9	0	1635
)P: OP 10	0	1223
)P: OP 11	0	199
)P: OP 12	0	22
)P: OP 13	0	31
)P: OP 14	0	0
)P: OP 15	0	0
)P: OP 16	0	0
)P: OP 17	0	0
)P: OP 18	0	0
)P: OP 19	0	0
P: OP 20	0	0
)P: OP 21	0	0
)P: OP 22	0	0
)P: OP 23	0	0
P: OP 24	0	0
)P: OP 25	0	0
)P: OP 26	0	0
)P: OP 27	0	0

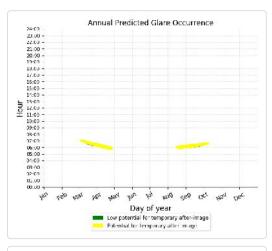
PV array 1 potential temporary after-image

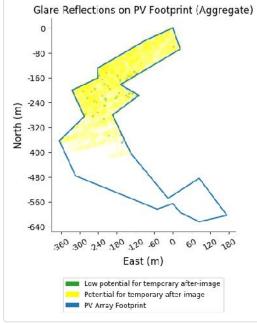
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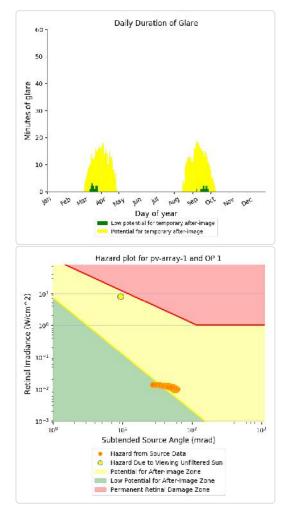
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OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	1	0
OP: OP 33	264	861
OP: OP 34	225	961
OP: OP 35	616	72
OP: OP 36	198	0
OP: OP 37	0	0
OP: OP 38	0	3987
OP: OP 39	0	3650
OP: OP 40	0	3727
OP: OP 41	0	5866
OP: OP 42	0	519
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0

#### PV array 1 - OP Receptor (OP 1)

- 47 minutes of "green" glare with low potential to cause temporary after-image.
  - 1,215 minutes of "yellow" glare with potential to cause temporary after-image.

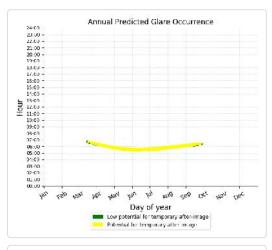


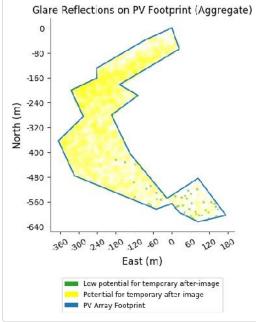


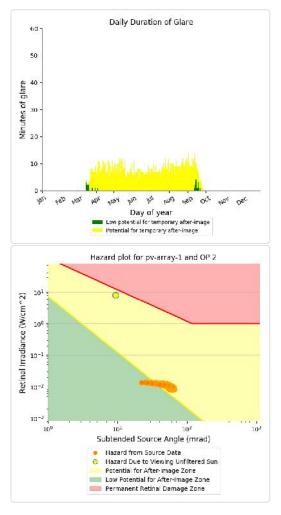


#### PV array 1 - OP Receptor (OP 2)

- 42 minutes of "green" glare with low potential to cause temporary after-image.
  - 1,538 minutes of "yellow" glare with potential to cause temporary after-image.

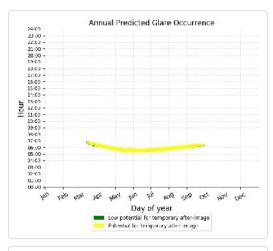


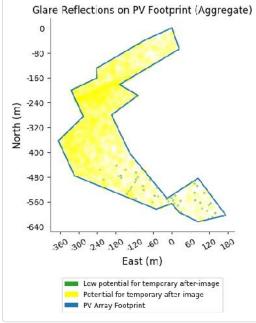


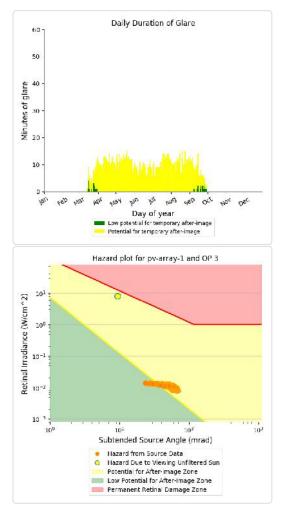


#### PV array 1 - OP Receptor (OP 3)

- 46 minutes of "green" glare with low potential to cause temporary after-image.
  - 1,974 minutes of "yellow" glare with potential to cause temporary after-image.

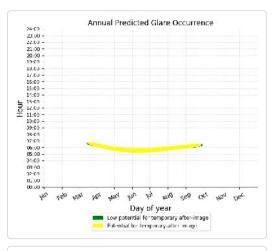


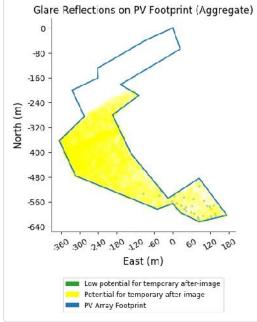


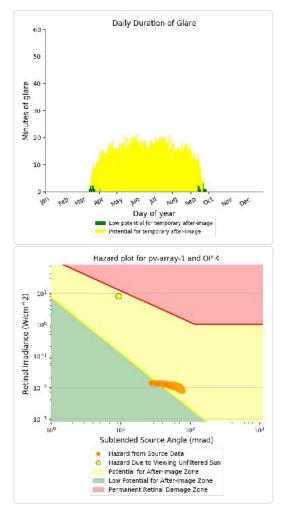


#### PV array 1 - OP Receptor (OP 4)

- 33 minutes of "green" glare with low potential to cause temporary after-image.
  - 2,988 minutes of "yellow" glare with potential to cause temporary after-image.

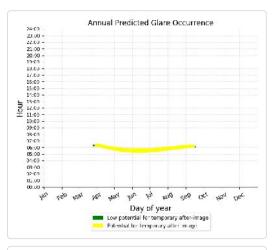


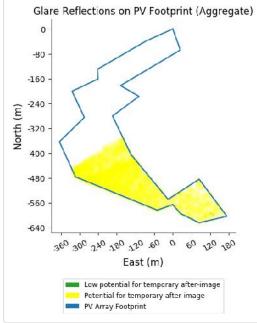


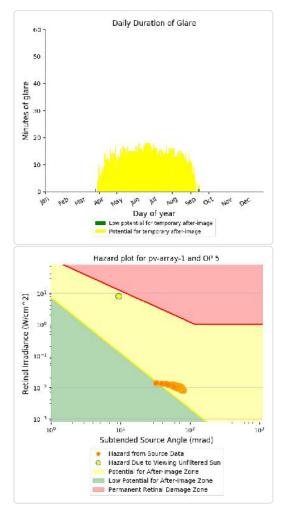


#### PV array 1 - OP Receptor (OP 5)

- 4 minutes of "green" glare with low potential to cause temporary after-image.
  - 2,286 minutes of "yellow" glare with potential to cause temporary after-image.

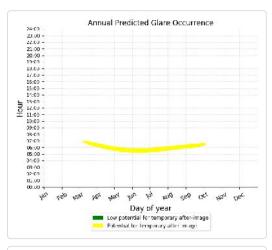


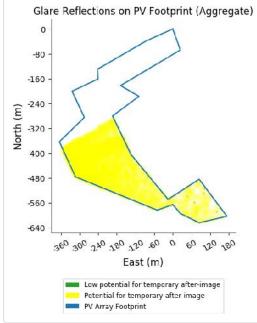


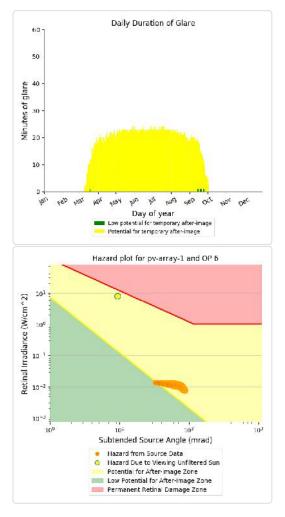


#### PV array 1 - OP Receptor (OP 6)

- 7 minutes of "green" glare with low potential to cause temporary after-image.
  - 4,131 minutes of "yellow" glare with potential to cause temporary after-image.

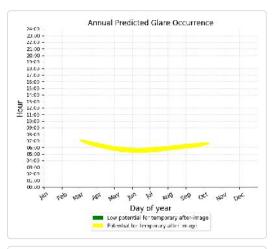


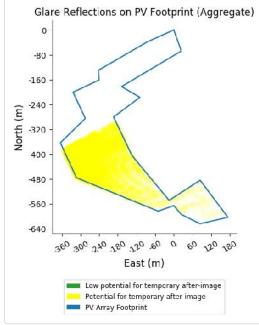


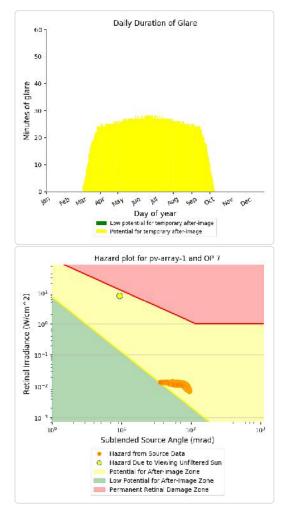


#### PV array 1 - OP Receptor (OP 7)

- 0 minutes of "green" glare with low potential to cause temporary after-image.
  - 5,154 minutes of "yellow" glare with potential to cause temporary after-image.

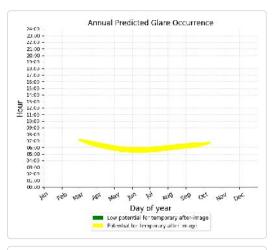


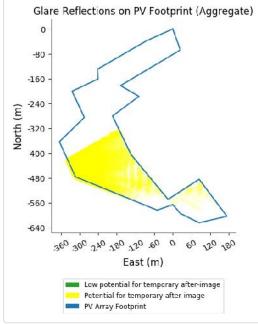


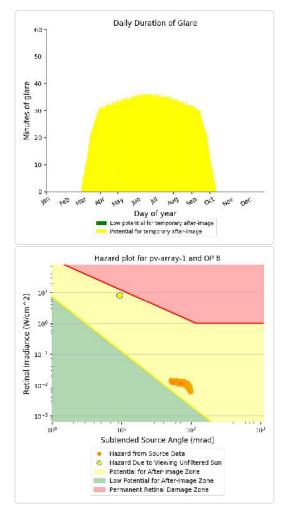


#### PV array 1 - OP Receptor (OP 8)

- 0 minutes of "green" glare with low potential to cause temporary after-image.
  - 6,658 minutes of "yellow" glare with potential to cause temporary after-image.

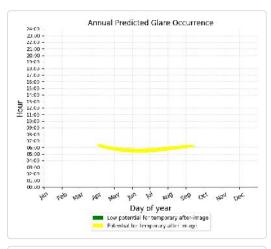


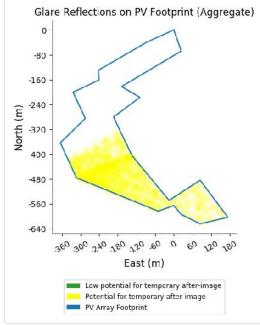


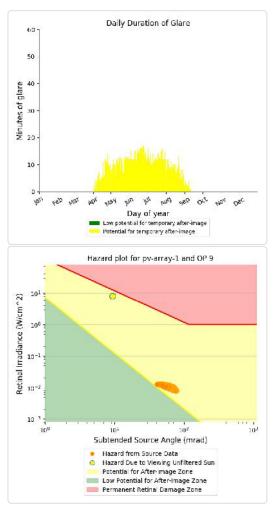


#### PV array 1 - OP Receptor (OP 9)

- 0 minutes of "green" glare with low potential to cause temporary after-image.
  - 1,635 minutes of "yellow" glare with potential to cause temporary after-image.

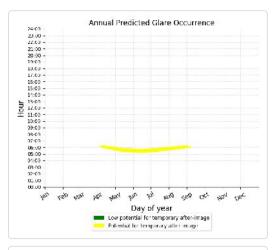


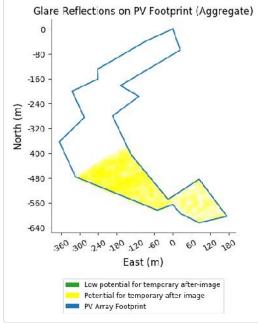


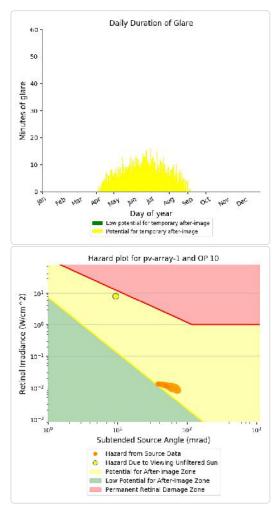


#### PV array 1 - OP Receptor (OP 10)

- 0 minutes of "green" glare with low potential to cause temporary after-image.
  - 1,223 minutes of "yellow" glare with potential to cause temporary after-image.

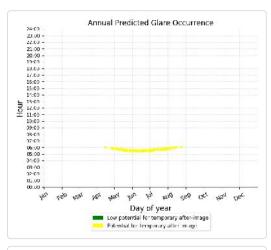


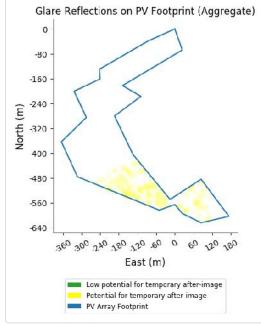


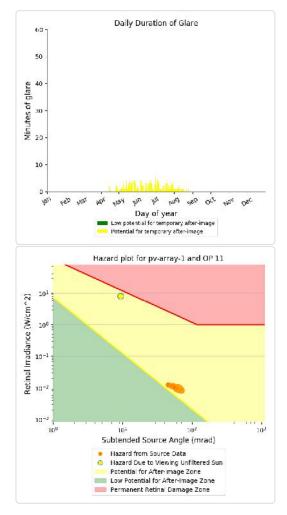


#### PV array 1 - OP Receptor (OP 11)

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

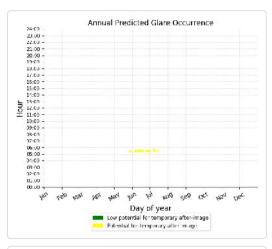


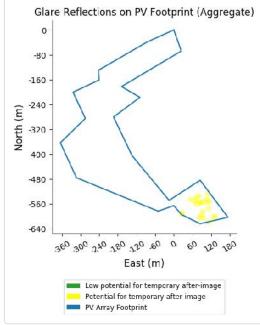


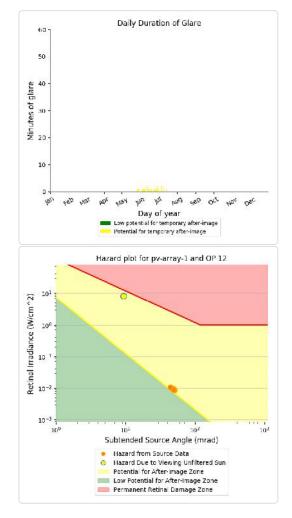


#### PV array 1 - OP Receptor (OP 12)

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



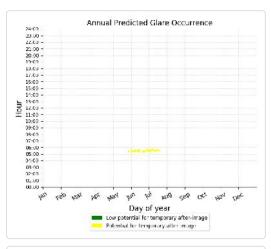


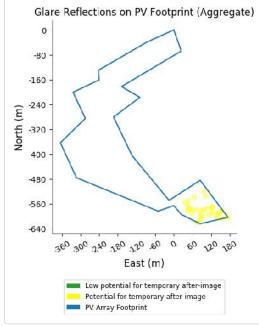


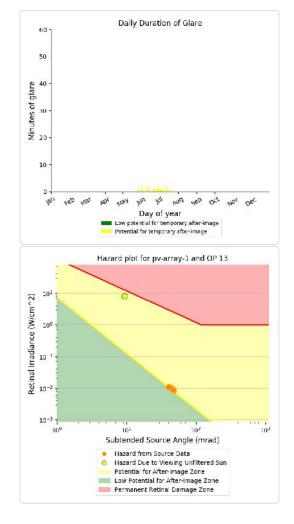
#### PV array 1 - OP Receptor (OP 13)

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.
  - 31 minutes of "yellow" glare with potential to cause temporary after-image.







#### 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) No glare found

PV array 1 - OP Receptor (OP 24) No glare found

PV array 1 - OP Receptor (OP 25) No glare found

PV array 1 - OP Receptor (OP 26)

No glare found

PV array 1 - OP Receptor (OP 27)

No glare found

PV array 1 - OP Receptor (OP 28)

No glare found

PV array 1 - OP Receptor (OP 29)

No glare found

PV array 1 - OP Receptor (OP 30)

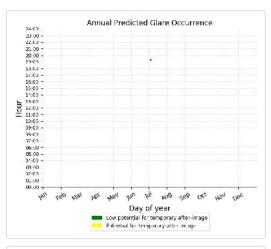
No glare found

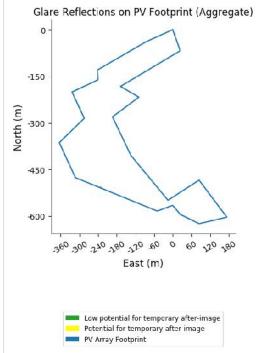
PV array 1 - OP Receptor (OP 31)

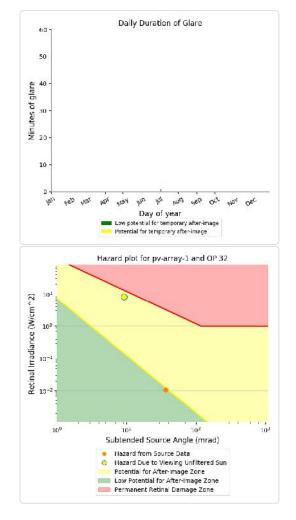
No glare found

#### PV array 1 - OP Receptor (OP 32)

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

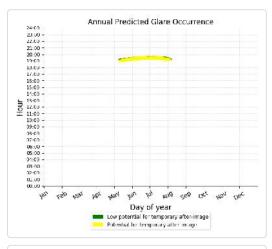


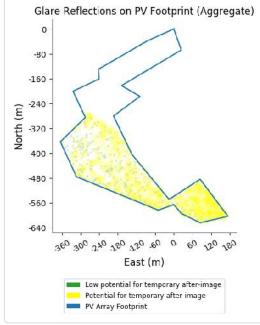


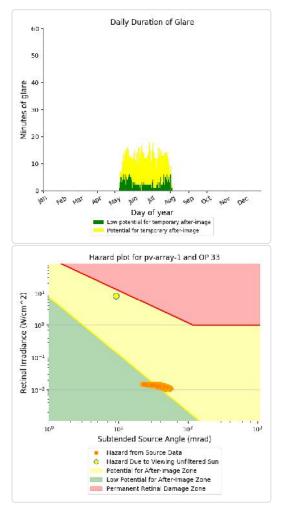


#### PV array 1 - OP Receptor (OP 33)

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

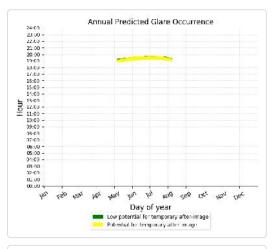


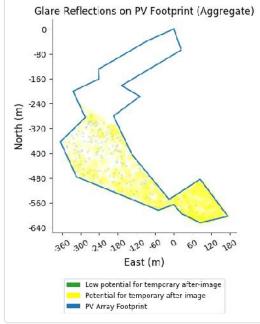


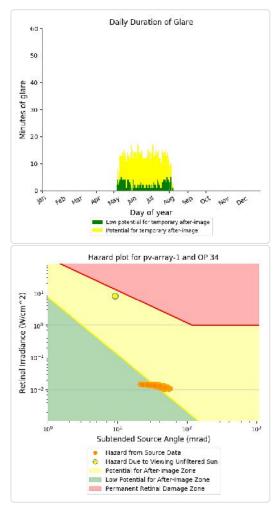


#### PV array 1 - OP Receptor (OP 34)

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

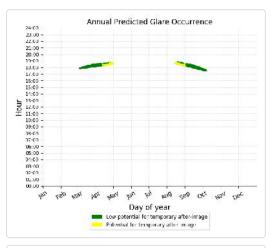


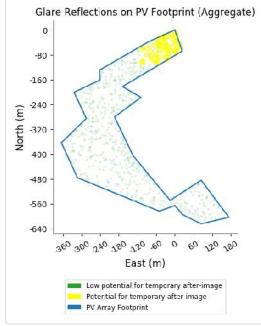


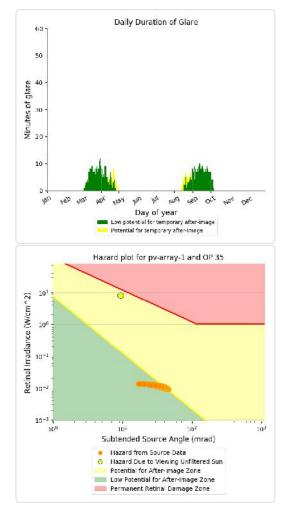


#### PV array 1 - OP Receptor (OP 35)

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



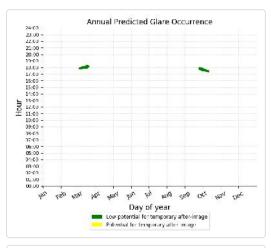


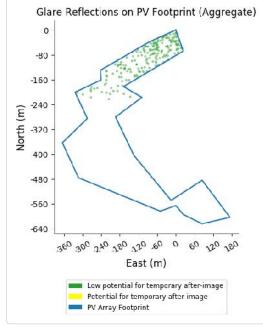


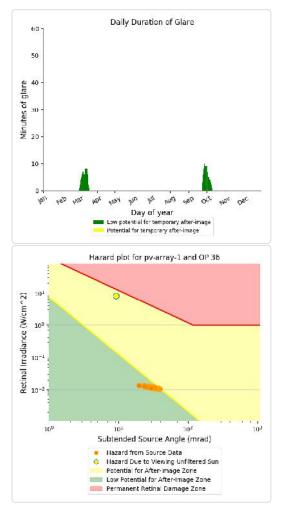
#### PV array 1 - OP Receptor (OP 36)

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

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





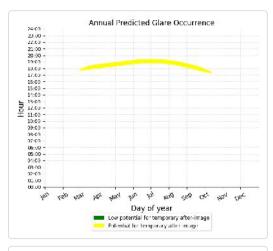


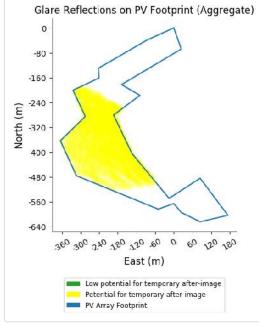
PV array 1 - OP Receptor (OP 37)

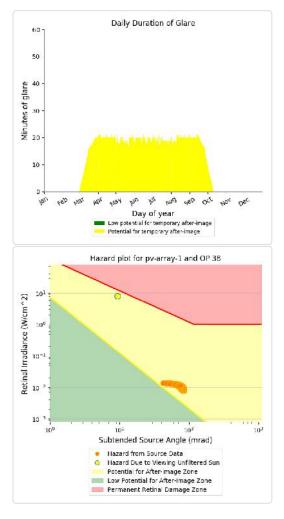
No glare found

#### PV array 1 - OP Receptor (OP 38)

- 0 minutes of "green" glare with low potential to cause temporary after-image.
  - 3,987 minutes of "yellow" glare with potential to cause temporary after-image.

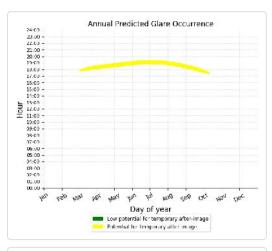


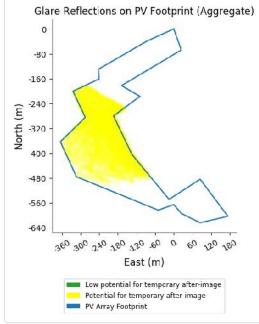


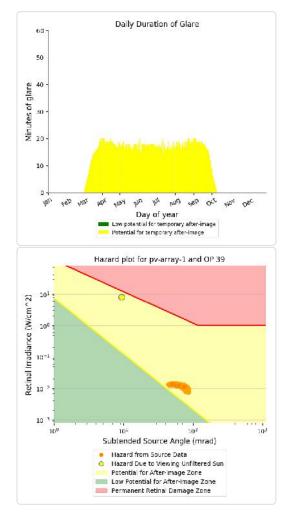


#### PV array 1 - OP Receptor (OP 39)

- 0 minutes of "green" glare with low potential to cause temporary after-image.
  - 3,650 minutes of "yellow" glare with potential to cause temporary after-image.

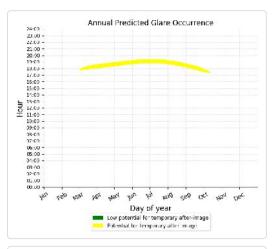


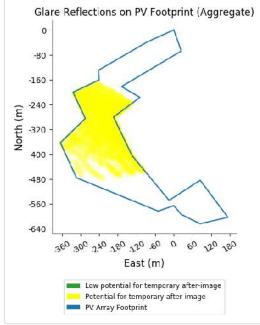


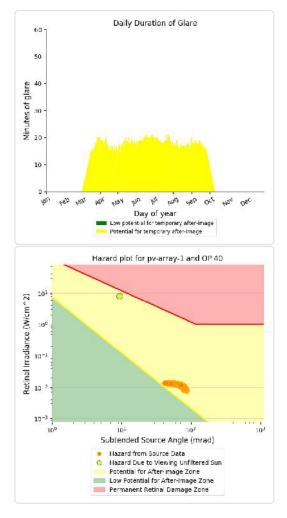


#### PV array 1 - OP Receptor (OP 40)

- 0 minutes of "green" glare with low potential to cause temporary after-image.
  - 3,727 minutes of "yellow" glare with potential to cause temporary after-image.

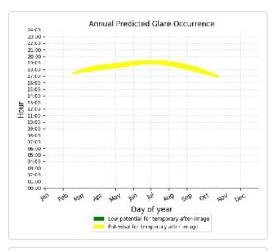


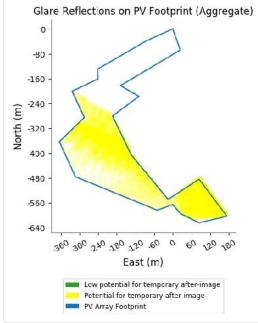


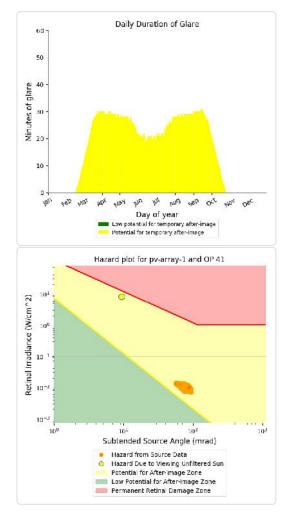


#### PV array 1 - OP Receptor (OP 41)

- 0 minutes of "green" glare with low potential to cause temporary after-image.
  - 5,866 minutes of "yellow" glare with potential to cause temporary after-image.



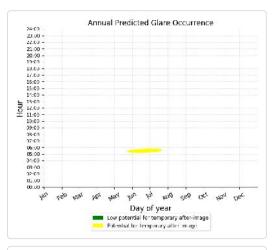


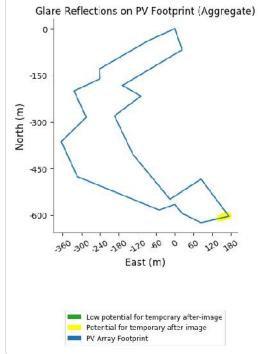


#### PV array 1 - OP Receptor (OP 42)

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.
  - 519 minutes of "yellow" glare with potential to cause temporary after-image.





#### Daily Duration of Glare 60 50 Minutes of glare 40 10 0 Pater 100 135 Co2 .13 nu Pus 990 al ian POint Point Day of year Low potential for te noorary after-imag Potential for temporary after-image Hazard plot for pv-array-1 and OP 42 101 Retinal Irradiance (W/cm^2) 100 10-1 $10^{-2}$ 10-1 101 102 103 10 Subtended Source Angle (mrad) Hazard from Source Data Hazard Due to Viewing Unfiltered Sun Potential for After-Image Zone Low Potential for After-Image Zone Permanent Retinal Damage Zone

#### PV array 1 - OP Receptor (OP 43)

No glare found

#### PV array 1 - OP Receptor (OP 44)

No glare found

#### PV array 1 - OP Receptor (OP 45)

No glare found

#### PV array 1 - OP Receptor (OP 46)

No glare found

# PV array 1 - OP Receptor (OP 47)

No glare found

# PV array 1 - OP Receptor (OP 48)

No glare found

#### PV array 1 - OP Receptor (OP 49)

No glare found

#### PV array 1 - OP Receptor (OP 50)

No glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	8	12
OP: OP 3	0	4
OP: OP 4	0	78
OP: OP 5	0	705
OP: OP 6	0	45
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	476
OP: OP 10	0	1218
OP: OP 11	1	2030
OP: OP 12	99	1293
OP: OP 13	157	924
OP: OP 14	0	291
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	891
OP: OP 22	0	393
OP: OP 23	0	1198
OP: OP 24	0	1149
OP: OP 25	0	964
OP: OP 26	0	766
OP: OP 27	0	1051
OP: OP 28	0	1218
OP: OP 29	0	1476
OP: OP 30	4	1541
OP: OP 31	312	1439
OP: OP 32	433	1244
OP: OP 33	52	419
OP: OP 34	39	550
OP: OP 35	99	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	26
OP: OP 39	0	0
OP: OP 40	0	0
OP: OP 41	0	808
OP: OP 42	0	3543
OP: OP 43	0	2066
OP: OP 44	0	2180
OP: OP 45	0	0
OP: OP 46	0	0

## PV array 2 potential temporary after-image

~<

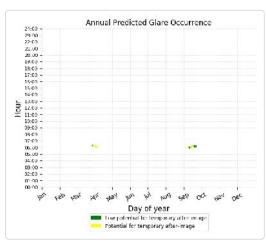
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0

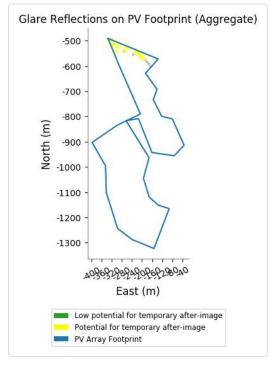
#### PV array 2 - OP Receptor (OP 1)

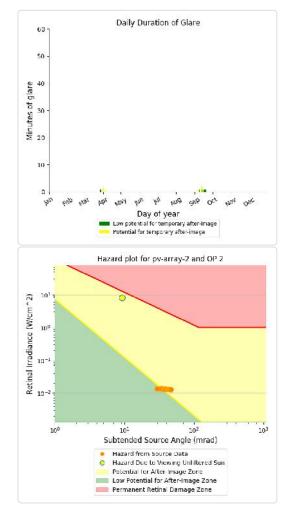
No glare found

#### PV array 2 - OP Receptor (OP 2)

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

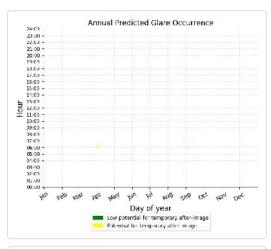


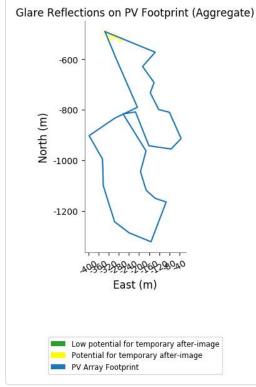


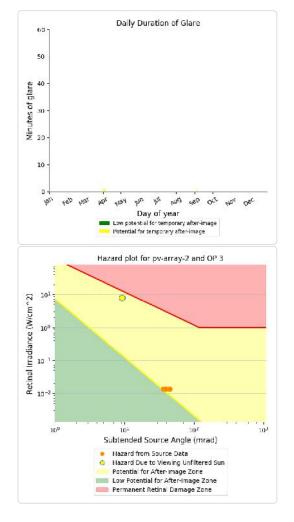


#### PV array 2 - OP Receptor (OP 3)

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

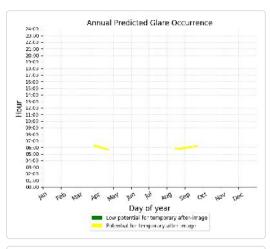


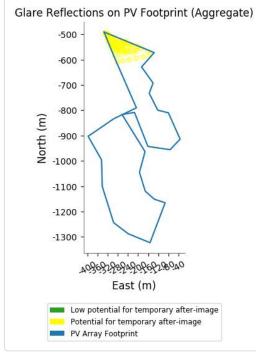


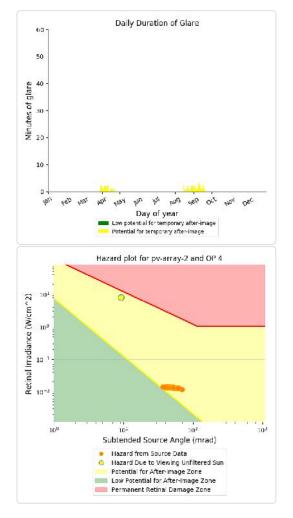


#### PV array 2 - OP Receptor (OP 4)

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

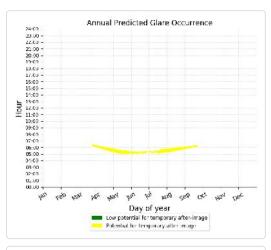


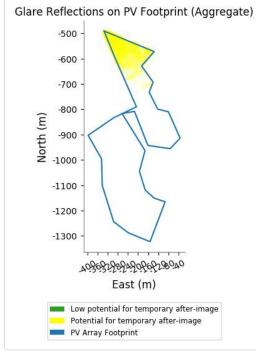


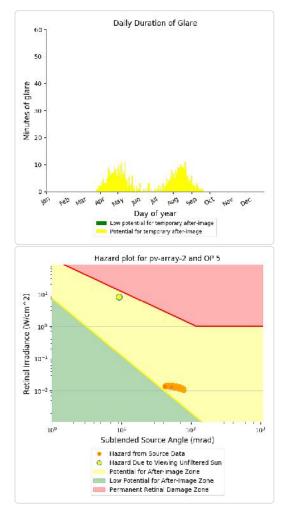


#### PV array 2 - OP Receptor (OP 5)

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



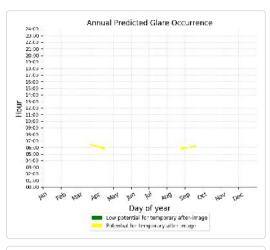


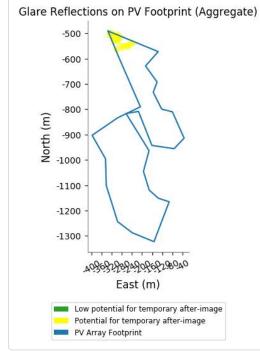


#### PV array 2 - OP Receptor (OP 6)

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.
  - 45 minutes of "yellow" glare with potential to cause temporary after-image.



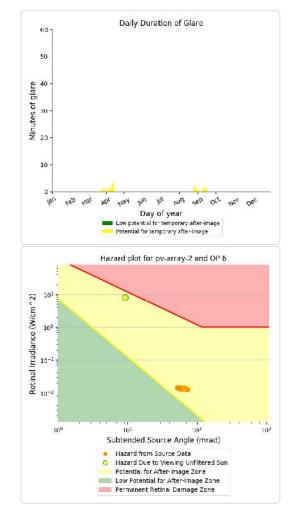


PV array 2 - OP Receptor (OP 7)

No glare found

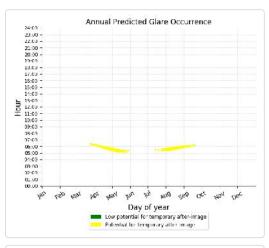
#### PV array 2 - OP Receptor (OP 8)

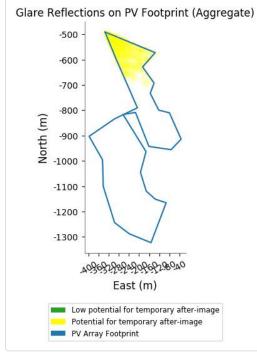
No glare found

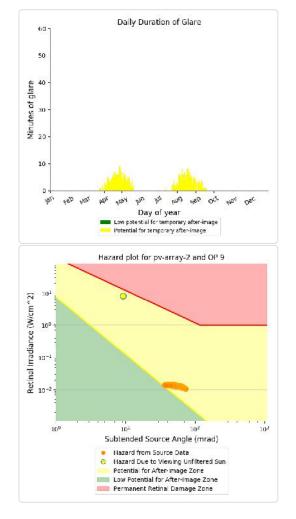


#### PV array 2 - OP Receptor (OP 9)

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

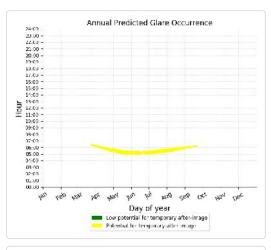


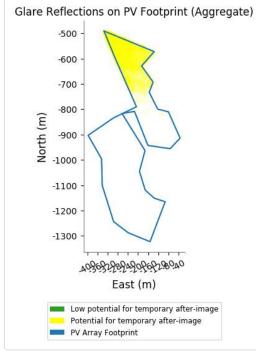


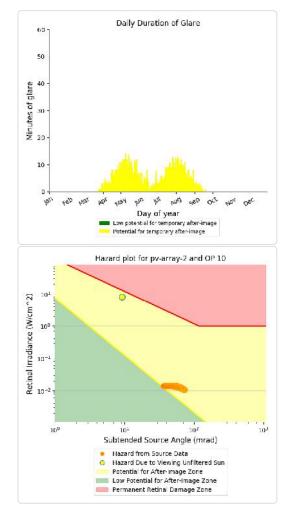


#### PV array 2 - OP Receptor (OP 10)

- 0 minutes of "green" glare with low potential to cause temporary after-image.
  - 1,218 minutes of "yellow" glare with potential to cause temporary after-image.

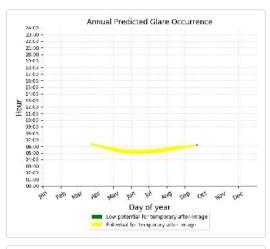


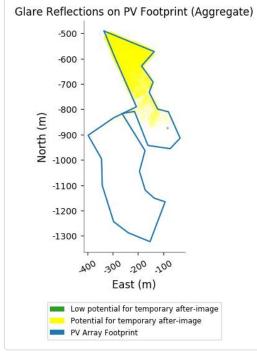


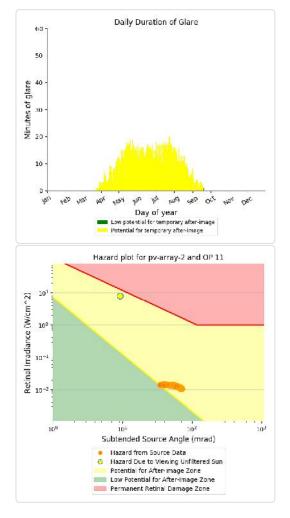


#### PV array 2 - OP Receptor (OP 11)

- 1 minutes of "green" glare with low potential to cause temporary after-image.
  - 2,030 minutes of "yellow" glare with potential to cause temporary after-image.

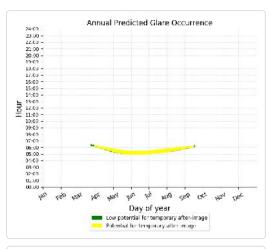


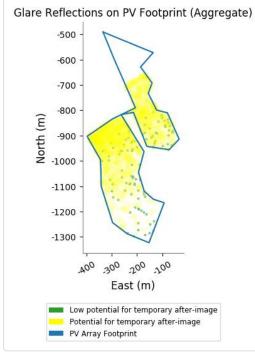


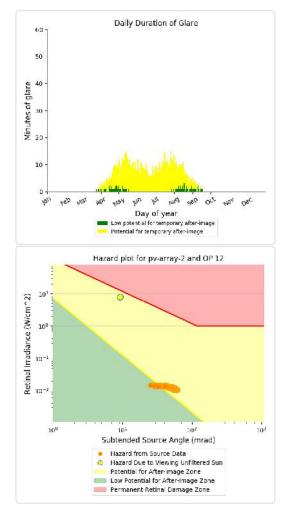


#### PV array 2 - OP Receptor (OP 12)

- 99 minutes of "green" glare with low potential to cause temporary after-image.
  - 1,293 minutes of "yellow" glare with potential to cause temporary after-image.

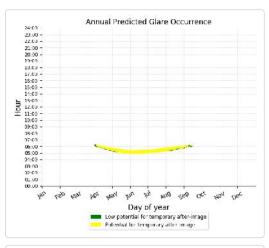


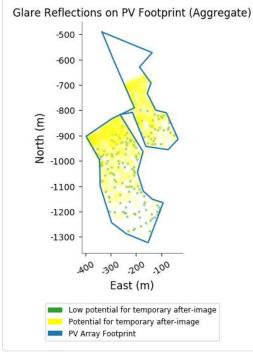


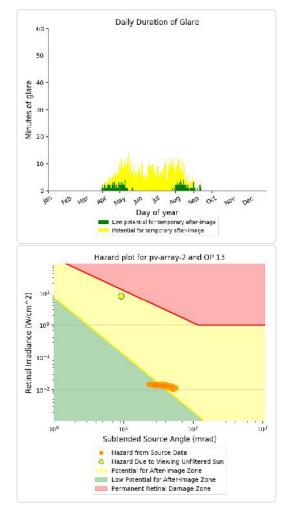


#### PV array 2 - OP Receptor (OP 13)

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



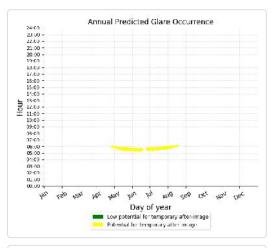


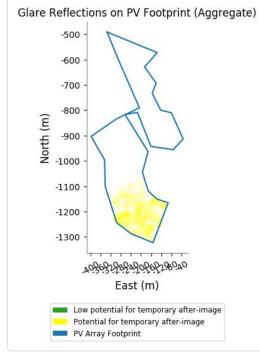


#### PV array 2 - OP Receptor (OP 14)

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.
  - 291 minutes of "yellow" glare with potential to cause temporary after-image.





PV array 2 - OP Receptor (OP 15) No glare found

#### PV array 2 - OP Receptor (OP 16)

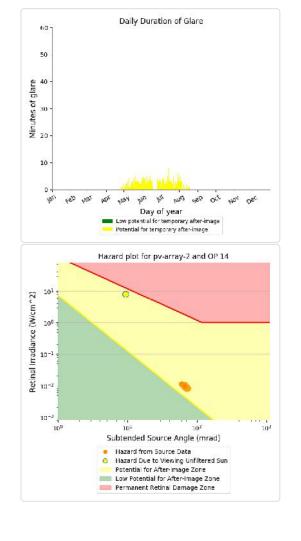
No glare found

#### 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)

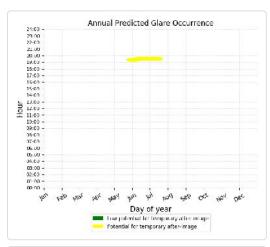
No glare found

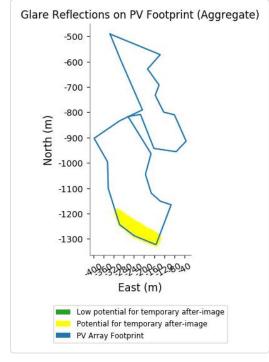
PV array 2 - OP Receptor (OP 20)

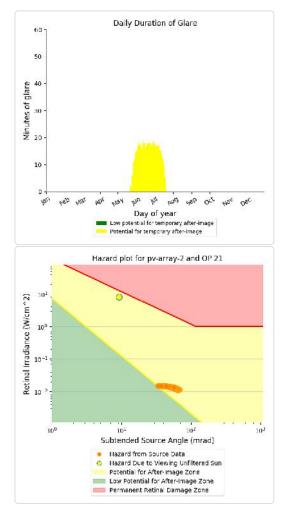
No glare found

#### PV array 2 - OP Receptor (OP 21)

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

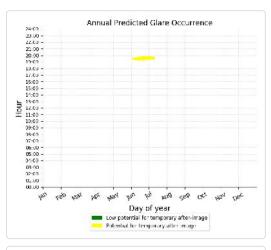


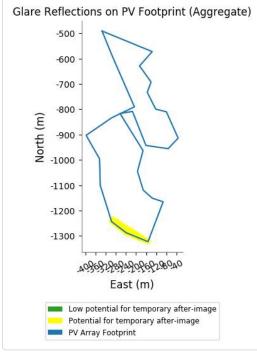


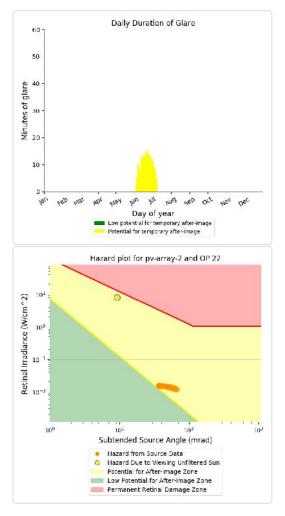


#### PV array 2 - OP Receptor (OP 22)

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

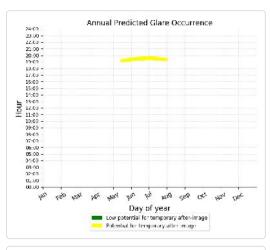


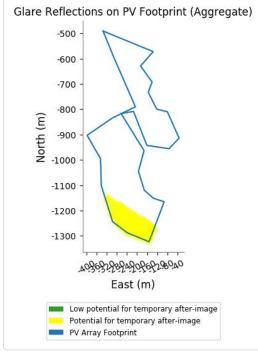


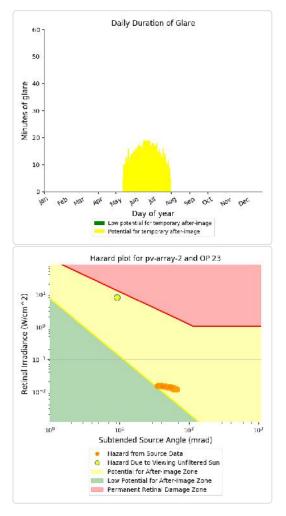


#### PV array 2 - OP Receptor (OP 23)

- 0 minutes of "green" glare with low potential to cause temporary after-image.
  - 1,198 minutes of "yellow" glare with potential to cause temporary after-image.

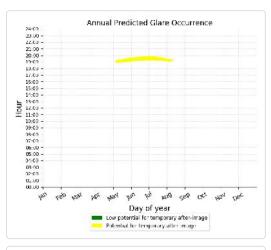


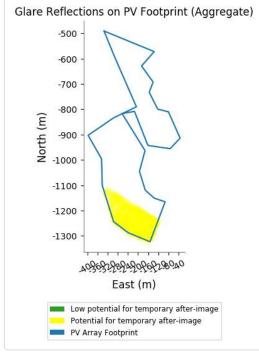


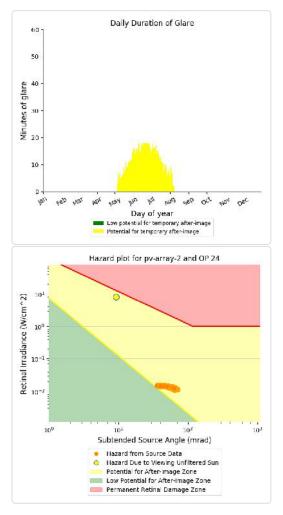


#### PV array 2 - OP Receptor (OP 24)

- 0 minutes of "green" glare with low potential to cause temporary after-image.
  - 1,149 minutes of "yellow" glare with potential to cause temporary after-image.

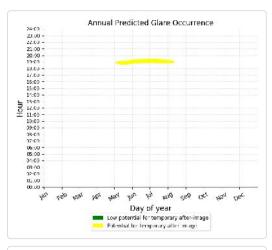


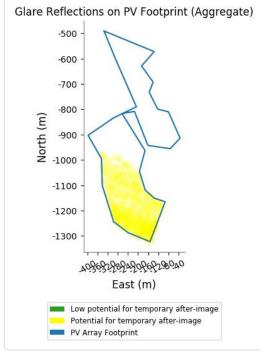


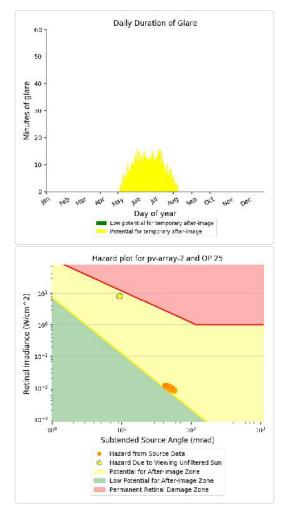


#### PV array 2 - OP Receptor (OP 25)

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

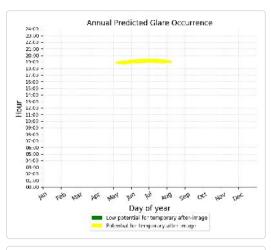


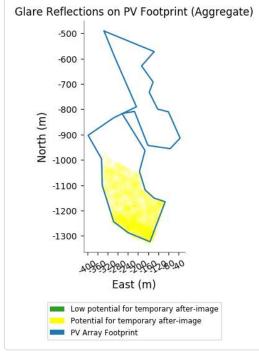


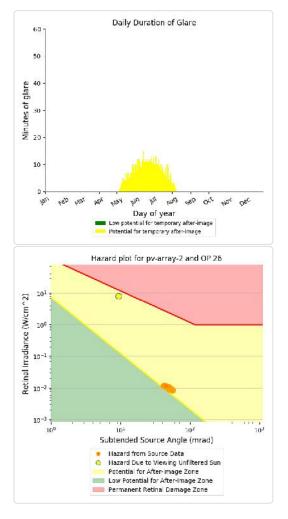


#### PV array 2 - OP Receptor (OP 26)

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

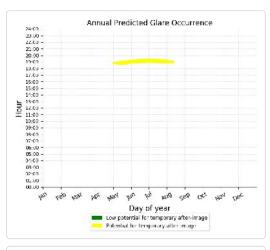


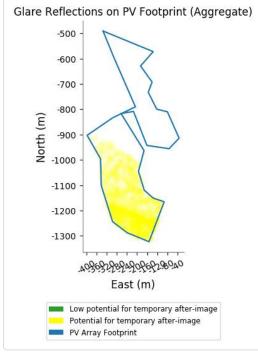


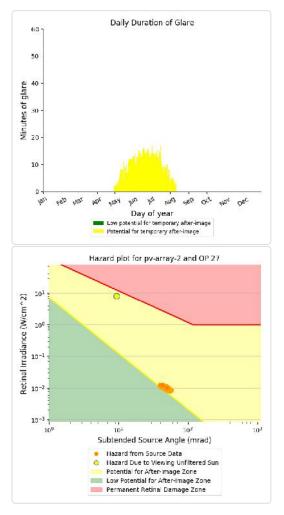


#### PV array 2 - OP Receptor (OP 27)

- 0 minutes of "green" glare with low potential to cause temporary after-image.
  - 1,051 minutes of "yellow" glare with potential to cause temporary after-image.

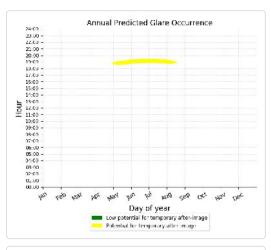


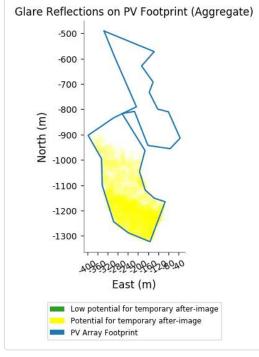


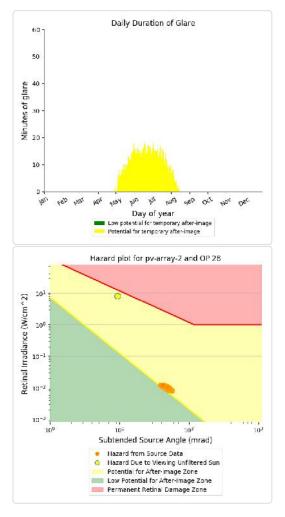


#### PV array 2 - OP Receptor (OP 28)

- 0 minutes of "green" glare with low potential to cause temporary after-image.
  - 1,218 minutes of "yellow" glare with potential to cause temporary after-image.

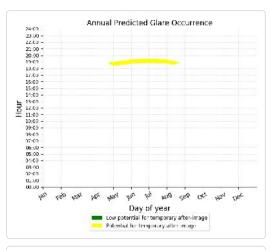


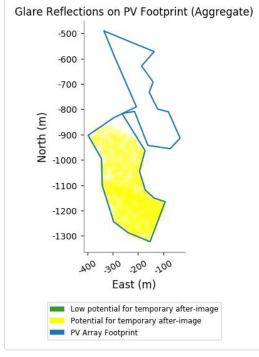


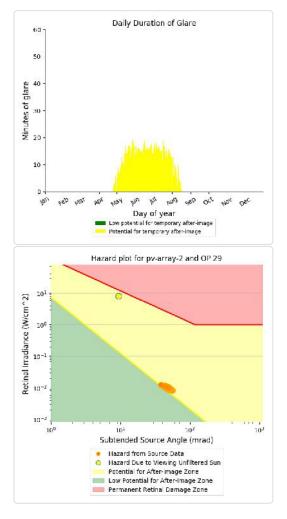


#### PV array 2 - OP Receptor (OP 29)

- 0 minutes of "green" glare with low potential to cause temporary after-image.
  - 1,476 minutes of "yellow" glare with potential to cause temporary after-image.

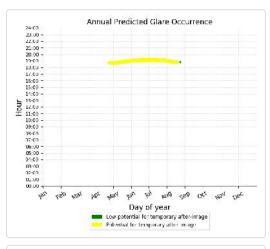


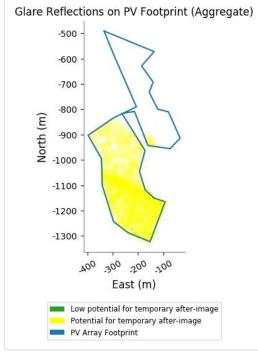


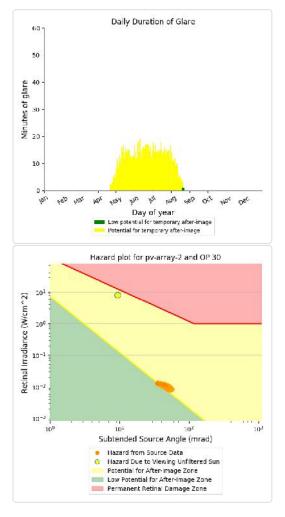


#### PV array 2 - OP Receptor (OP 30)

- 4 minutes of "green" glare with low potential to cause temporary after-image.
  - 1,541 minutes of "yellow" glare with potential to cause temporary after-image.

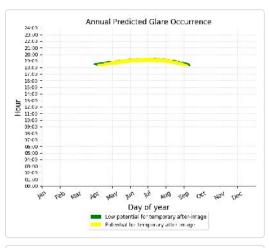


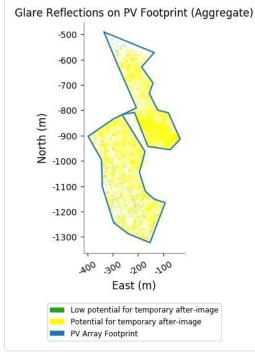


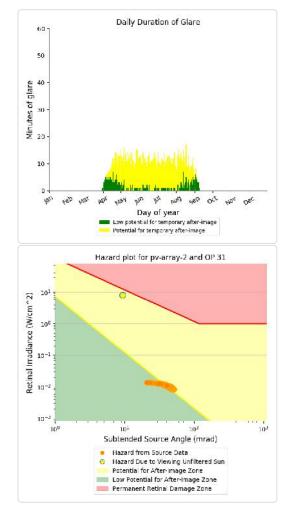


#### PV array 2 - OP Receptor (OP 31)

- 312 minutes of "green" glare with low potential to cause temporary after-image.
  - 1,439 minutes of "yellow" glare with potential to cause temporary after-image.

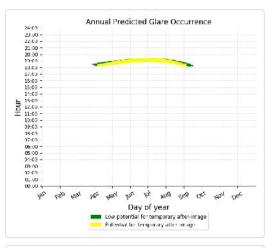


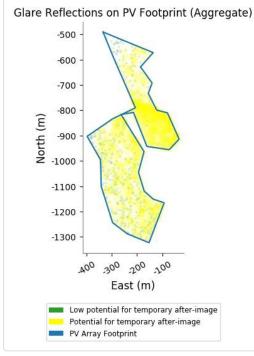


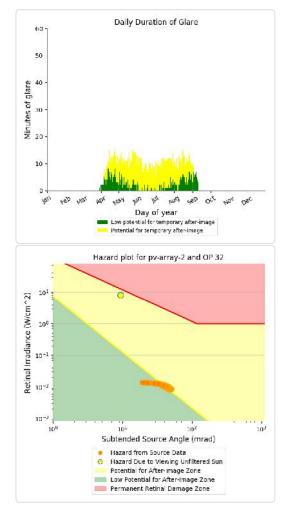


#### PV array 2 - OP Receptor (OP 32)

- 433 minutes of "green" glare with low potential to cause temporary after-image.
  - 1,244 minutes of "yellow" glare with potential to cause temporary after-image.

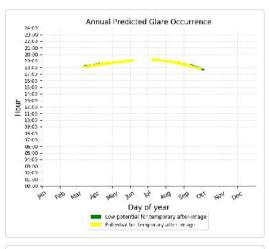


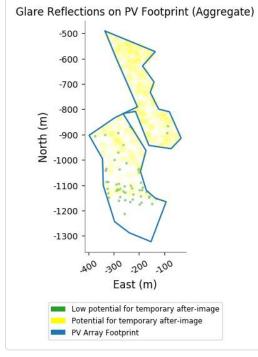


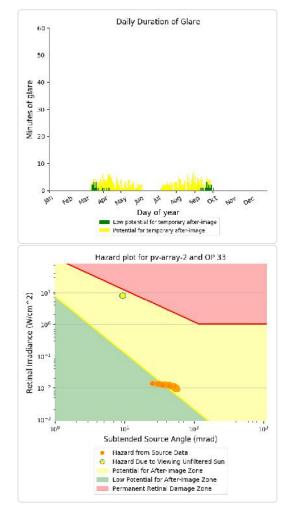


#### PV array 2 - OP Receptor (OP 33)

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

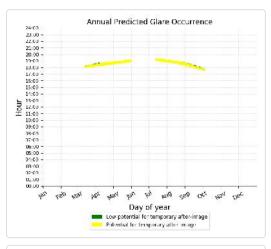


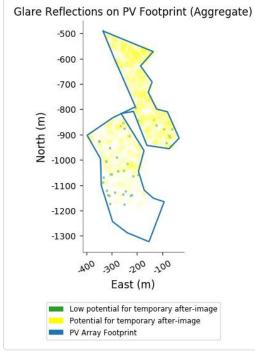


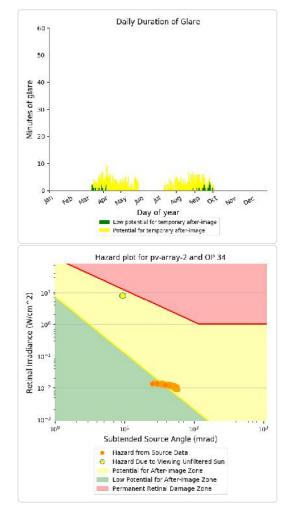


#### PV array 2 - OP Receptor (OP 34)

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



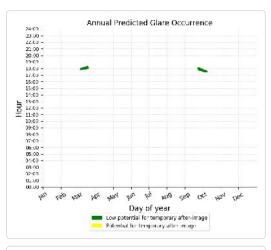


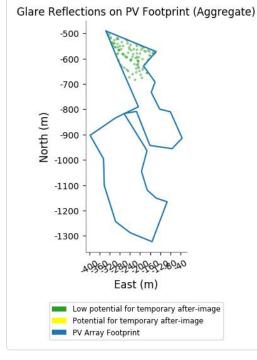


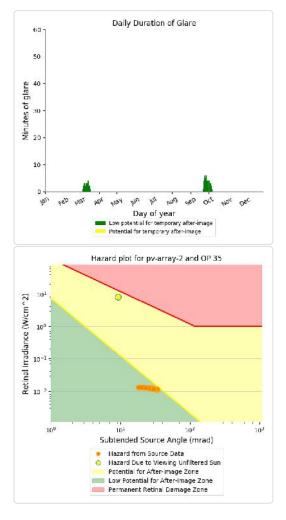
#### PV array 2 - OP Receptor (OP 35)

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

- 99 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 - OP Receptor (OP 36) No glare found

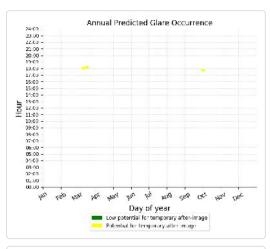
#### PV array 2 - OP Receptor (OP 37)

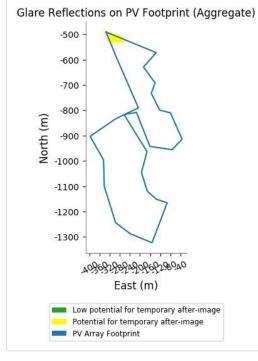
No glare found

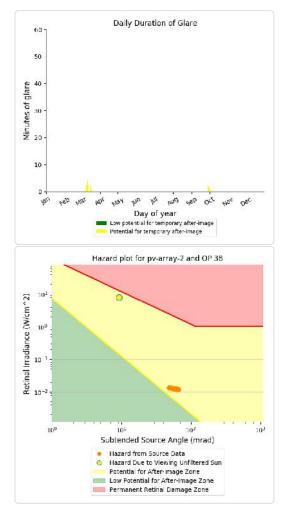
#### PV array 2 - OP Receptor (OP 38)

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.
  - 26 minutes of "yellow" glare with potential to cause temporary after-image.







# PV array 2 - OP Receptor (OP 39)

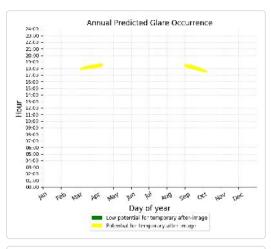
No glare found

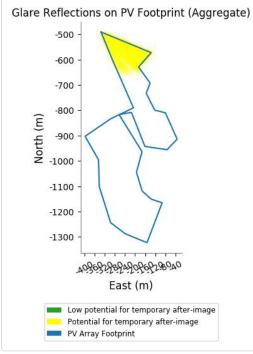
#### PV array 2 - OP Receptor (OP 40)

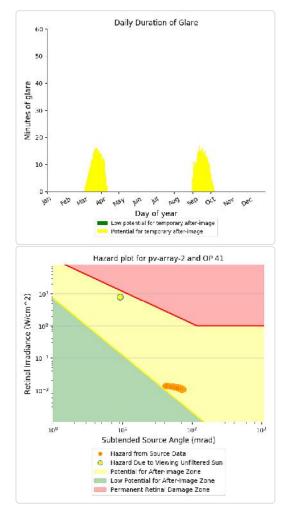
No glare found

#### PV array 2 - OP Receptor (OP 41)

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

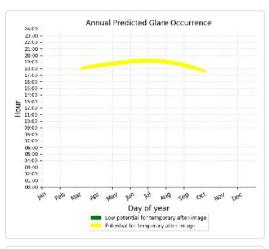


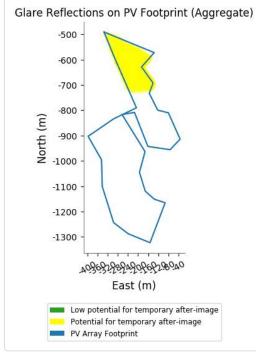


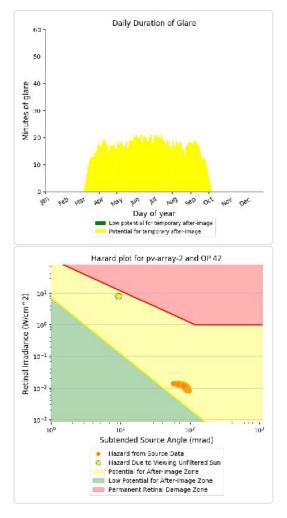


#### PV array 2 - OP Receptor (OP 42)

- 0 minutes of "green" glare with low potential to cause temporary after-image.
  - 3,543 minutes of "yellow" glare with potential to cause temporary after-image.

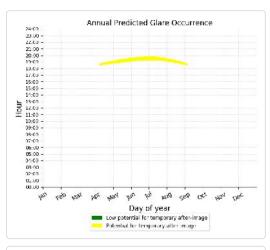


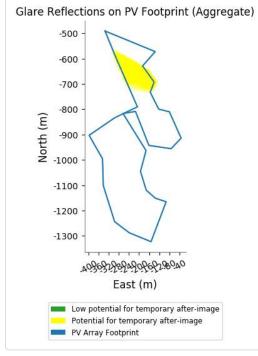


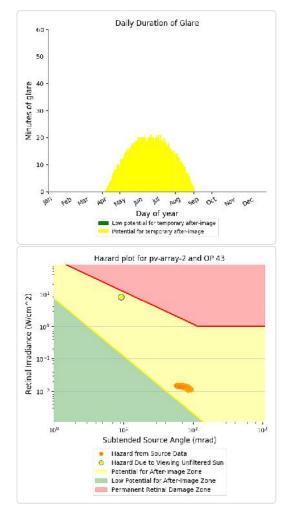


#### PV array 2 - OP Receptor (OP 43)

- 0 minutes of "green" glare with low potential to cause temporary after-image.
  - 2,066 minutes of "yellow" glare with potential to cause temporary after-image.



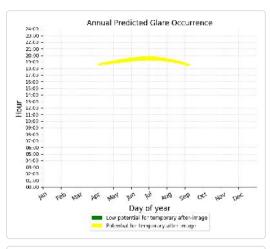


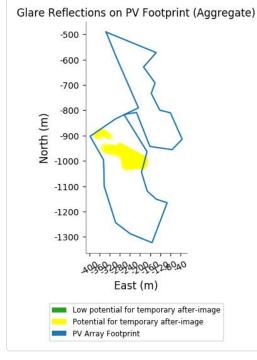


#### PV array 2 - OP Receptor (OP 44)

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.
  - 2,180 minutes of "yellow" glare with potential to cause temporary after-image.





PV array 2 - OP Receptor (OP 45) No glare found

#### PV array 2 - OP Receptor (OP 46)

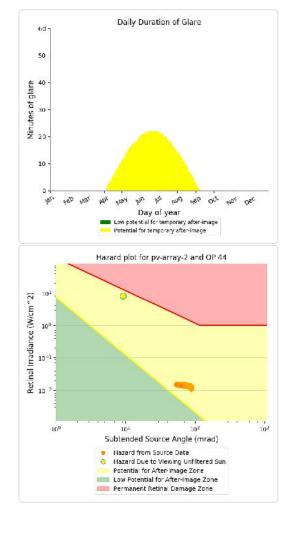
No glare found

#### PV array 2 - OP Receptor (OP 47)

No glare found

#### PV array 2 - OP Receptor (OP 48)

No glare found



## PV array 2 - OP Receptor (OP 49)

No glare found

### PV array 2 - OP Receptor (OP 50)

No glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	119	0
OP: OP 2	766	0
OP: OP 3	852	0
OP: OP 4	1275	34
OP: OP 5	1669	555
OP: OP 6	1137	396
OP: OP 7	790	584
OP: OP 8	697	839
OP: OP 9	1976	74
OP: OP 10	2128	125
OP: OP 11	2796	10
OP: OP 12	1874	0
OP: OP 13	1623	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
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	949	504
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	6	3669
OP: OP 39	8	3945
OP: OP 40	10	3675
OP: OP 41	0	2126
OP: OP 42	0	2430
OP: OP 43	0	2264
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0

## PV array 3 potential temporary after-image

~<

OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0

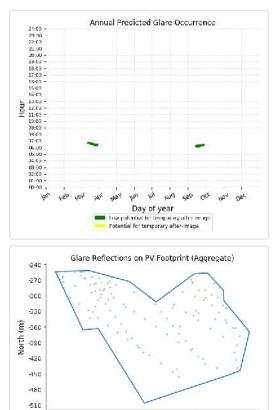
#### PV array 3 - OP Receptor (OP 1)

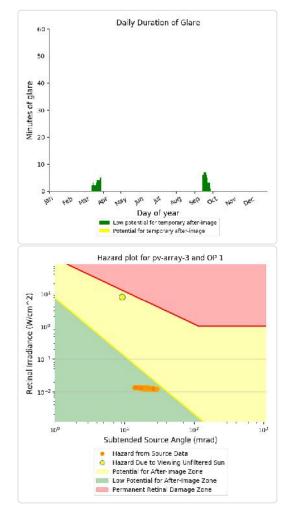
PV array is expected to produce the following glare for receptors at this location:

• 119 minutes of "green" glare with low potential to cause temporary after-image.

600 650

• 0 minutes of "yellow" glare with potential to cause temporary after-image.





300 350

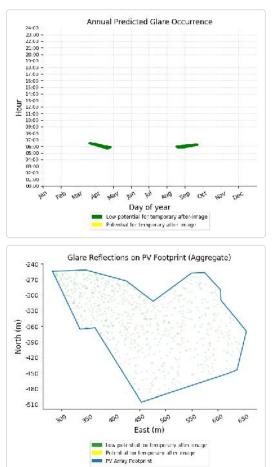
100 150 GD GD 100

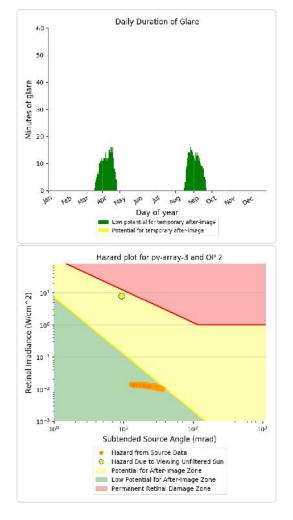
East (m)

Low potential for temporary after image
 Potential for temporary after image
 PV Array Festprint

#### PV array 3 - OP Receptor (OP 2)

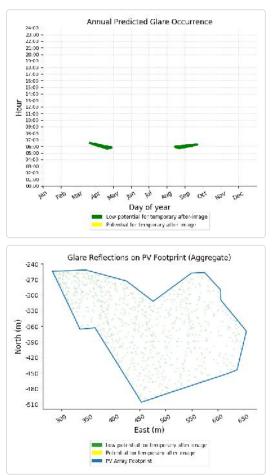
- 766 minutes of "green" glare with low potential to cause temporary after-image.
  - 0 minutes of "yellow" glare with potential to cause temporary after-image.

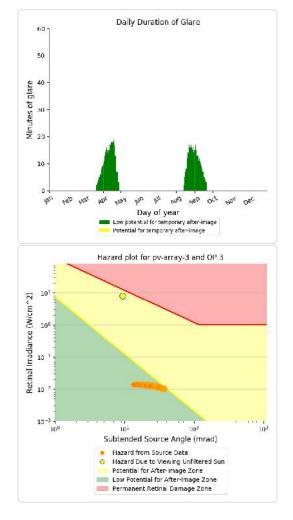




#### PV array 3 - OP Receptor (OP 3)

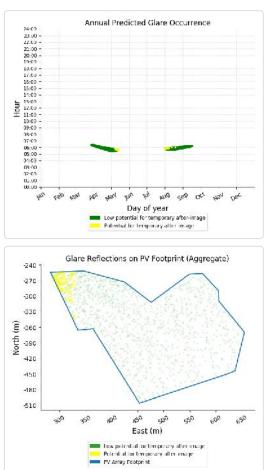
- 852 minutes of "green" glare with low potential to cause temporary after-image.
  - 0 minutes of "yellow" glare with potential to cause temporary after-image.

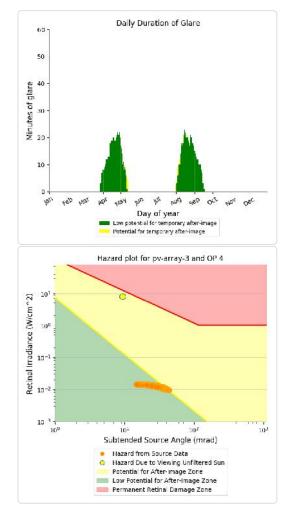




#### PV array 3 - OP Receptor (OP 4)

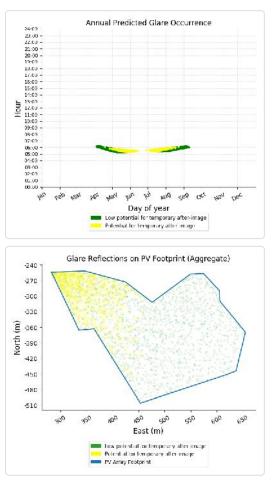
- 1,275 minutes of "green" glare with low potential to cause temporary after-image.
  - 34 minutes of "yellow" glare with potential to cause temporary after-image.

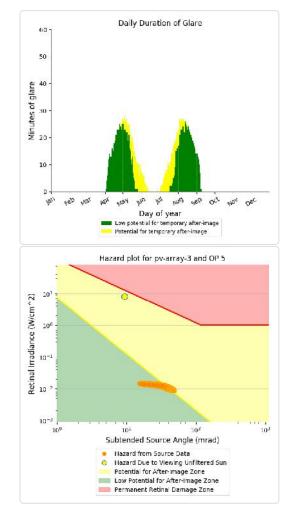




#### PV array 3 - OP Receptor (OP 5)

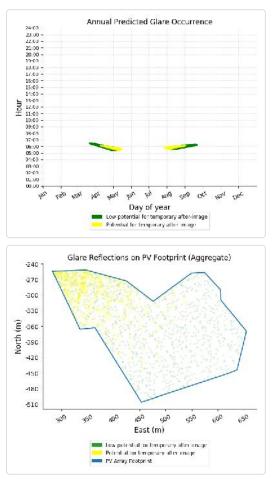
- 1,669 minutes of "green" glare with low potential to cause temporary after-image.
  - 555 minutes of "yellow" glare with potential to cause temporary after-image.

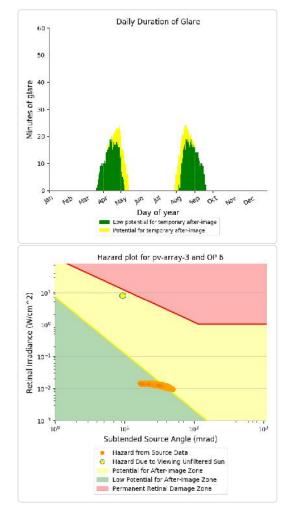




#### PV array 3 - OP Receptor (OP 6)

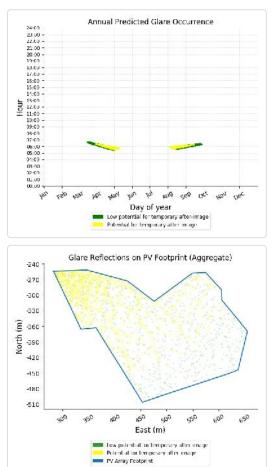
- 1,137 minutes of "green" glare with low potential to cause temporary after-image.
  - 396 minutes of "yellow" glare with potential to cause temporary after-image.

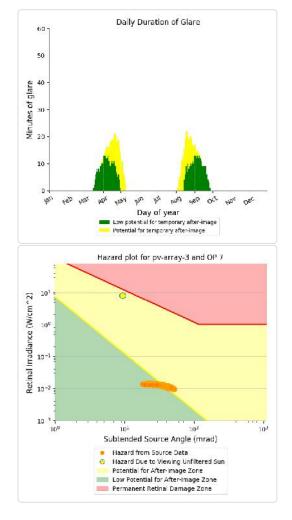




#### PV array 3 - OP Receptor (OP 7)

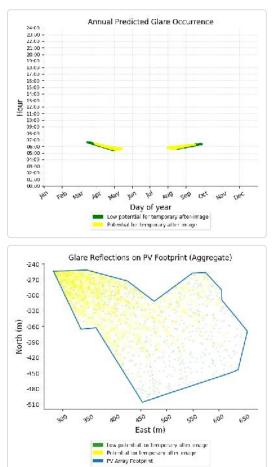
- 790 minutes of "green" glare with low potential to cause temporary after-image.
  - 584 minutes of "yellow" glare with potential to cause temporary after-image.

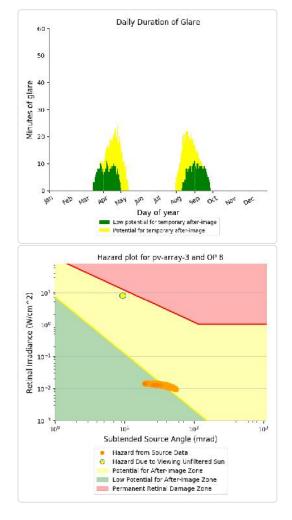




#### PV array 3 - OP Receptor (OP 8)

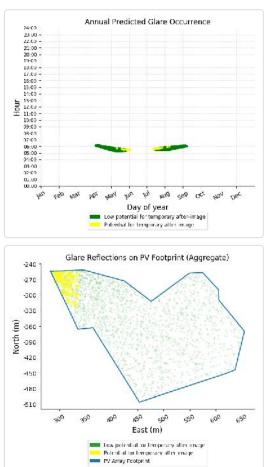
- 697 minutes of "green" glare with low potential to cause temporary after-image.
  - 839 minutes of "yellow" glare with potential to cause temporary after-image.

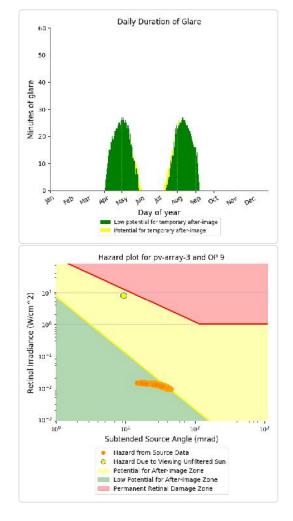




#### PV array 3 - OP Receptor (OP 9)

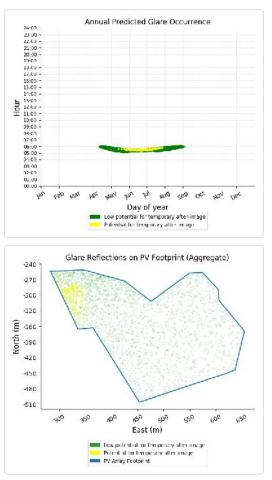
- 1,976 minutes of "green" glare with low potential to cause temporary after-image.
  - 74 minutes of "yellow" glare with potential to cause temporary after-image.

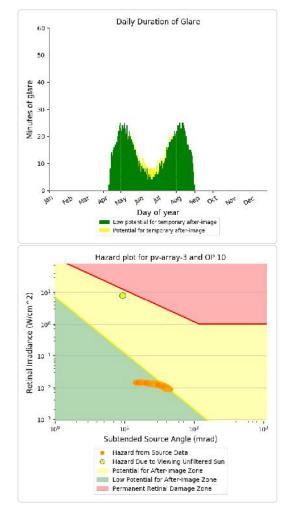




#### PV array 3 - OP Receptor (OP 10)

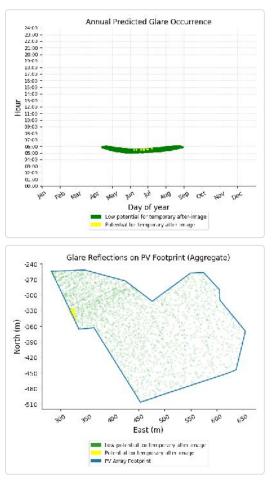
- 2,128 minutes of "green" glare with low potential to cause temporary after-image.
  - 125 minutes of "yellow" glare with potential to cause temporary after-image.

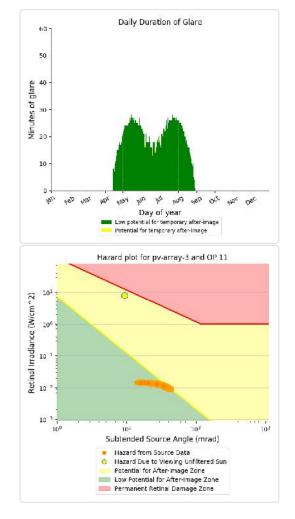




#### PV array 3 - OP Receptor (OP 11)

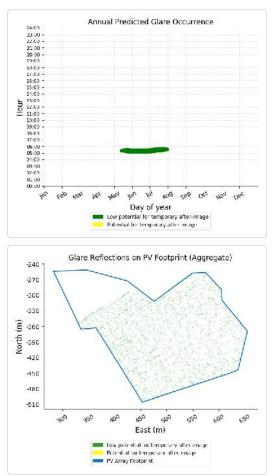
- 2,796 minutes of "green" glare with low potential to cause temporary after-image.
  - 10 minutes of "yellow" glare with potential to cause temporary after-image.

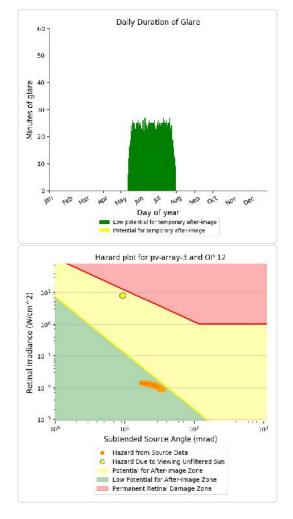




#### PV array 3 - OP Receptor (OP 12)

- 1,874 minutes of "green" glare with low potential to cause temporary after-image.
  - 0 minutes of "yellow" glare with potential to cause temporary after-image.





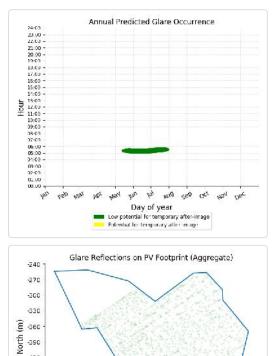
#### PV array 3 - OP Receptor (OP 13)

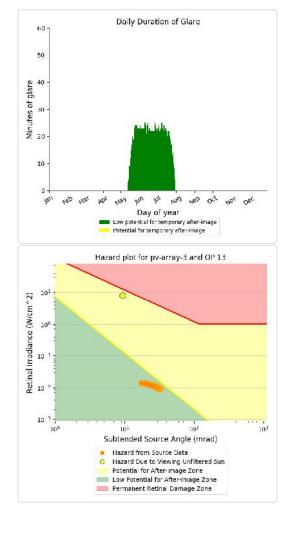
PV array is expected to produce the following glare for receptors at this location:

• 1,623 minutes of "green" glare with low potential to cause temporary after-image.

600 650

• 0 minutes of "yellow" glare with potential to cause temporary after-image.





PV array 3 - OP Receptor (OP 14)

East (m)

Potential for temperary after image
 PV Array Feotprint

Low potential for temporary after image

No glare found

-390

-420 -150

-180 -510

> 200 250 000 50 00, 450

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

no giaro rouna

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)

No glare found

PV array 3 - OP Receptor (OP 24)

No glare found

PV array 3 - OP Receptor (OP 25) No glare found

PV array 3 - OP Receptor (OP 26) No glare found

PV array 3 - OP Receptor (OP 27)

No glare found

PV array 3 - OP Receptor (OP 28) No glare found

PV array 3 - OP Receptor (OP 29)

No glare found

PV array 3 - OP Receptor (OP 30)

No glare found

PV array 3 - OP Receptor (OP 31) No glare found

PV array 3 - OP Receptor (OP 32) No glare found

PV array 3 - OP Receptor (OP 33)

No glare found

PV array 3 - OP Receptor (OP 34) No glare found

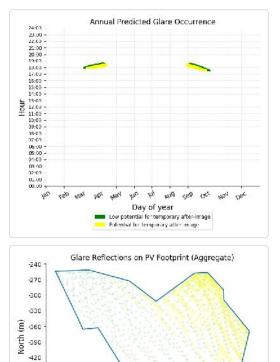
#### PV array 3 - OP Receptor (OP 35)

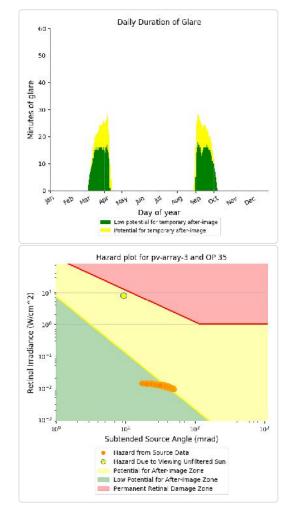
PV array is expected to produce the following glare for receptors at this location:

• 949 minutes of "green" glare with low potential to cause temporary after-image.

650

• 504 minutes of "yellow" glare with potential to cause temporary after-image.





#### PV array 3 - OP Receptor (OP 36)

100 100

400 450 600

East (m)

Low potential for temporary after image Potential for temporary after image PV Array Footprint

No glare found

-150

-180 -510

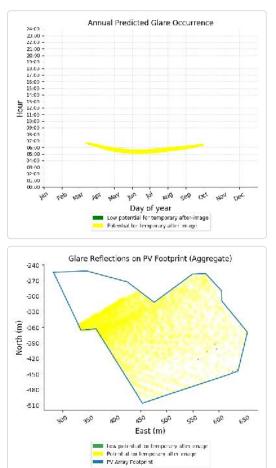
300 350

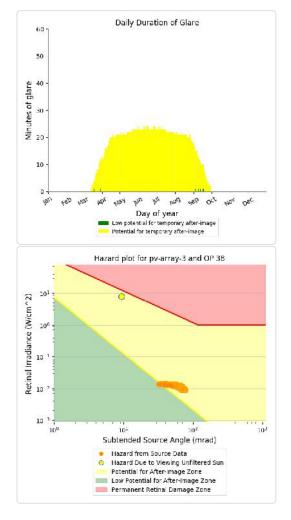
#### PV array 3 - OP Receptor (OP 37)

No glare found

#### PV array 3 - OP Receptor (OP 38)

- 6 minutes of "green" glare with low potential to cause temporary after-image.
  - 3,669 minutes of "yellow" glare with potential to cause temporary after-image.





#### PV array 3 - OP Receptor (OP 39)

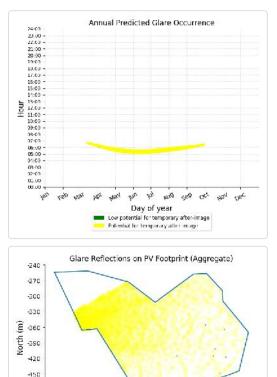
PV array is expected to produce the following glare for receptors at this location:

- 8 minutes of "green" glare with low potential to cause temporary after-image.
  - 3,945 minutes of "yellow" glare with potential to cause temporary after-image.

650

550

600



-180

-510

300

350

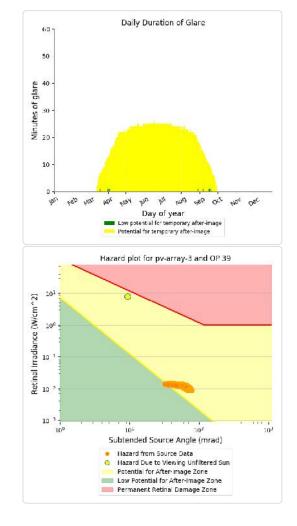
<sup>a</sup>q<sub>n</sub>

50

East (m)

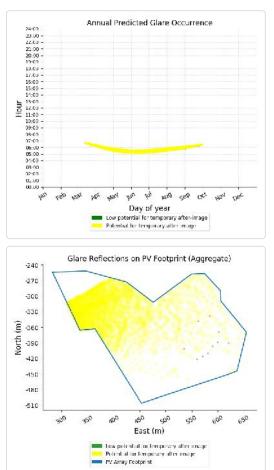
Low potential for temporary after image Potential for temporary after image PV Array Footprint

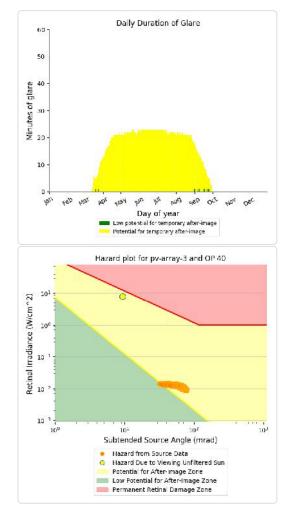
00,



#### PV array 3 - OP Receptor (OP 40)

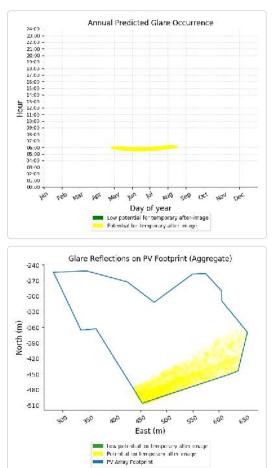
- 10 minutes of "green" glare with low potential to cause temporary after-image.
  - 3,675 minutes of "yellow" glare with potential to cause temporary after-image.

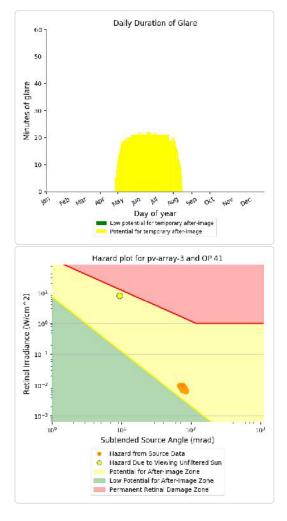




#### PV array 3 - OP Receptor (OP 41)

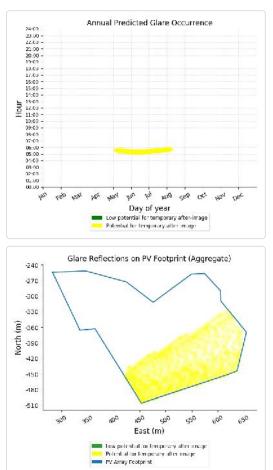
- 0 minutes of "green" glare with low potential to cause temporary after-image.
  - 2,126 minutes of "yellow" glare with potential to cause temporary after-image.

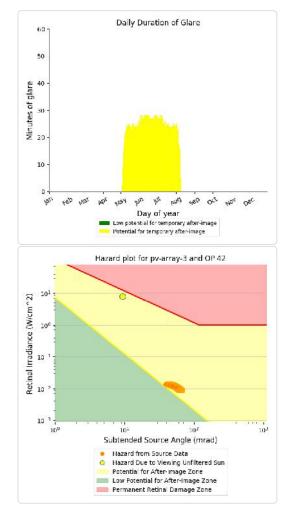




#### PV array 3 - OP Receptor (OP 42)

- 0 minutes of "green" glare with low potential to cause temporary after-image.
  - 2,430 minutes of "yellow" glare with potential to cause temporary after-image.

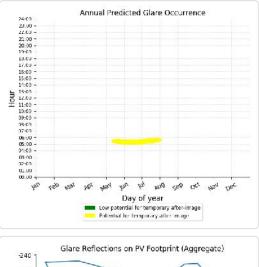


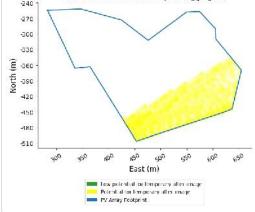


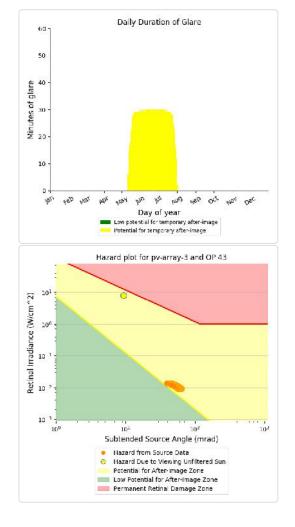
#### PV array 3 - OP Receptor (OP 43)

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.
  - 2,264 minutes of "yellow" glare with potential to cause temporary after-image.







PV array 3 - OP Receptor (OP 44)

No glare found

PV array 3 - OP Receptor (OP 45)

No glare found

PV array 3 - OP Receptor (OP 46)

No glare found

### PV array 3 - OP Receptor (OP 47)

No glare found

### PV array 3 - OP Receptor (OP 48)

No glare found

PV array 3 - OP Receptor (OP 49)

No glare found

PV array 3 - OP Receptor (OP 50)

No glare found

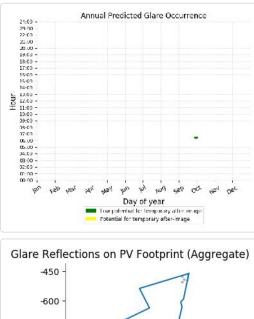
Component	Green glare (min)	Yellow glare (min)
OP: OP 1	6	0
OP: OP 2	144	143
OP: OP 3	130	137
OP: OP 4	87	318
OP: OP 5	45	358
OP: OP 6	28	345
OP: OP 7	6	136
OP: OP 8	2	234
OP: OP 9	98	623
OP: OP 10	139	691
OP: OP 11	147	888
OP: OP 12	477	1929
OP: OP 13	606	2125
OP: OP 14	122	2602
OP: OP 15	0	1384
OP: OP 16	0	1019
OP: OP 17	0	2432
OP: OP 18	0	2305
OP: OP 19	0	448
OP: OP 20	0	290
OP: OP 21	0	2540
OP: OP 22	0	1846
OP: OP 23	0	3995
OP: OP 24	0	5985
OP: OP 25	1	4130
OP: OP 26	0	3918
OP: OP 27	8	4244
OP: OP 28	11	4571
OP: OP 29	15	4900
OP: OP 30	17	5297
OP: OP 31	90	6050
OP: OP 32	114	6085
OP: OP 33	0	6333
OP: OP 34	0	6526
OP: OP 35	0	300
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	73
OP: OP 39	0	29
OP: OP 40	0	3
OP: OP 41	0	4079
OP: OP 42	0	1990
OP: OP 43	0	3193
OP: OP 44	0	4216
OP: OP 45	0	0
OP: OP 46	0	0

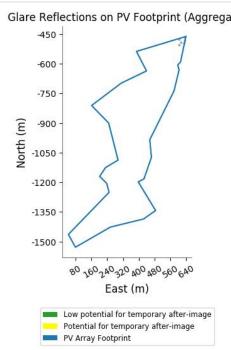
# PV array 4 potential temporary after-image

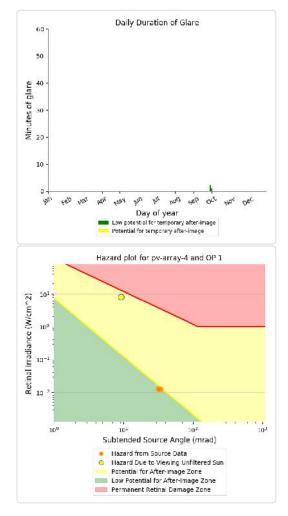
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0

#### PV array 4 - OP Receptor (OP 1)

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

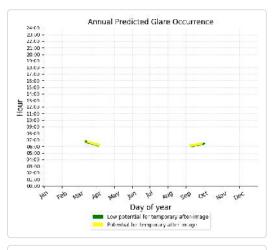


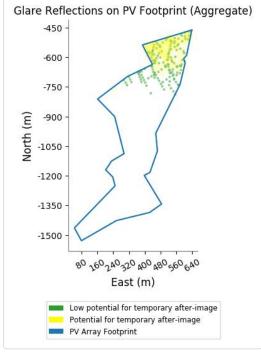


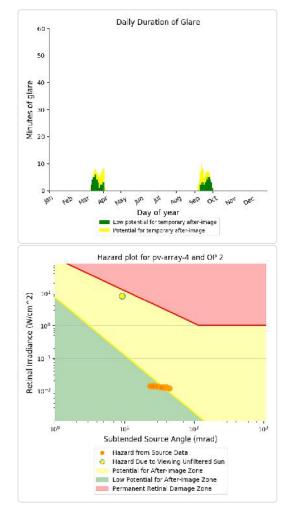


#### PV array 4 - OP Receptor (OP 2)

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

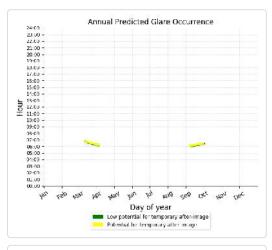


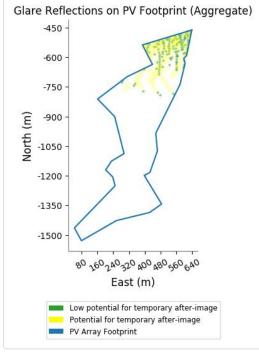


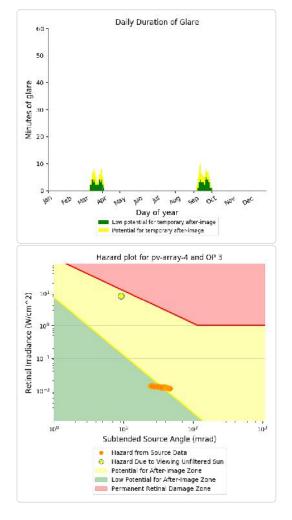


#### PV array 4 - OP Receptor (OP 3)

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

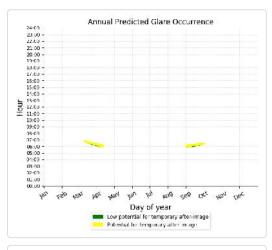


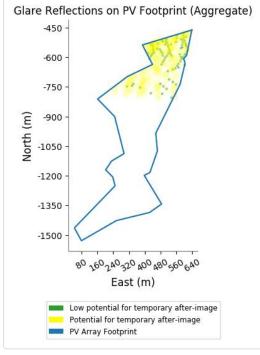


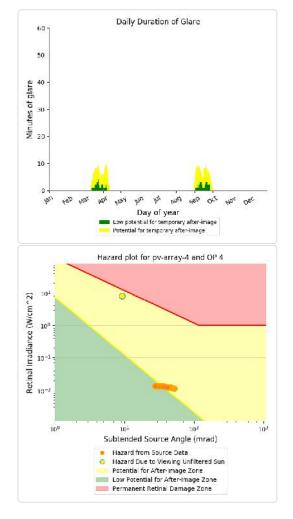


#### PV array 4 - OP Receptor (OP 4)

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

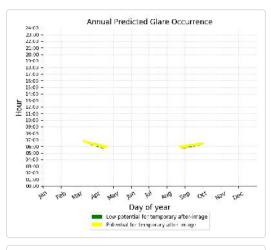


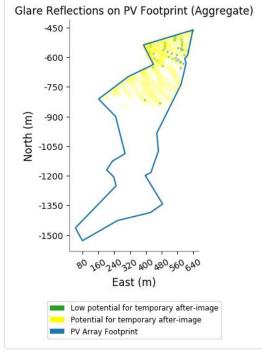


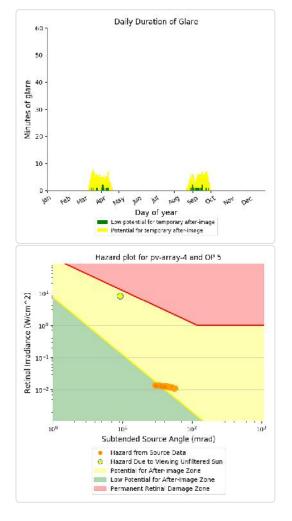


#### PV array 4 - OP Receptor (OP 5)

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

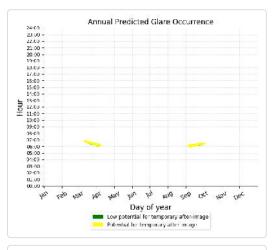


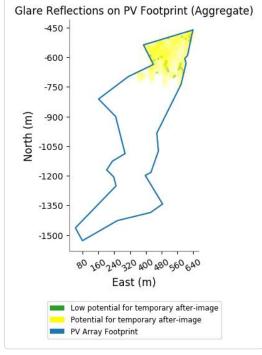


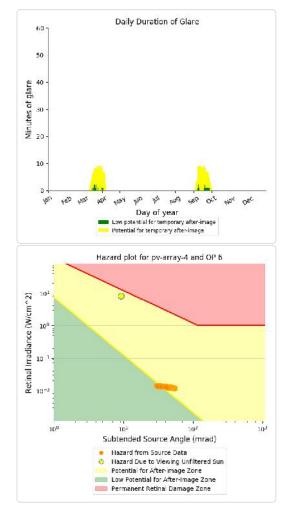


#### PV array 4 - OP Receptor (OP 6)

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

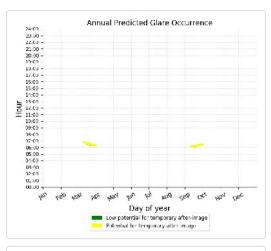


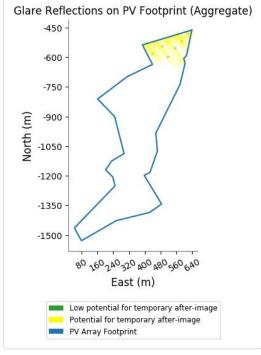


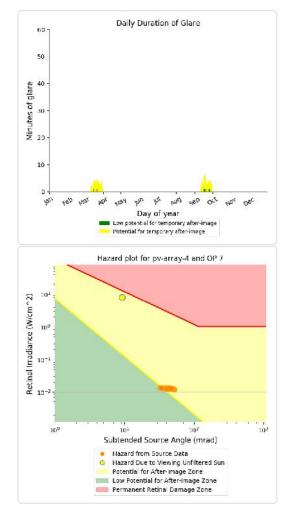


#### PV array 4 - OP Receptor (OP 7)

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

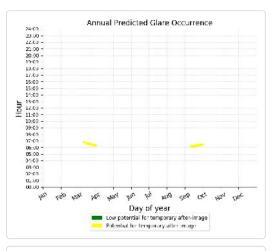


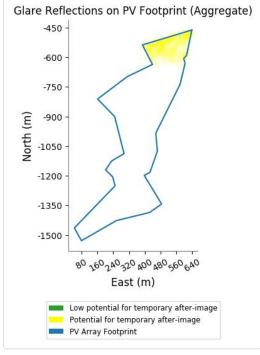


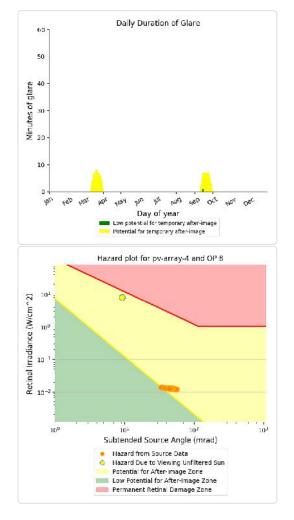


#### PV array 4 - OP Receptor (OP 8)

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

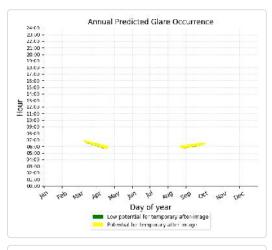


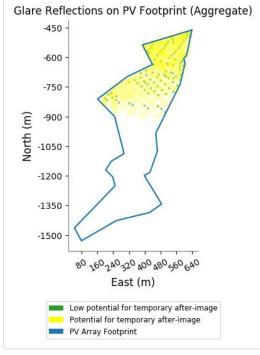


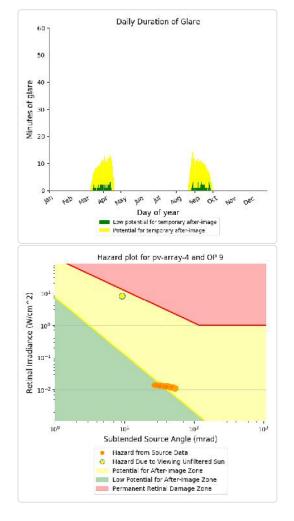


#### PV array 4 - OP Receptor (OP 9)

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

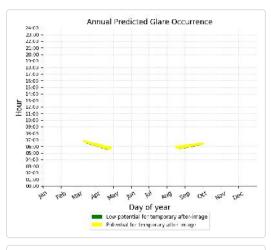


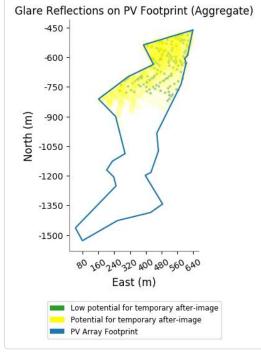


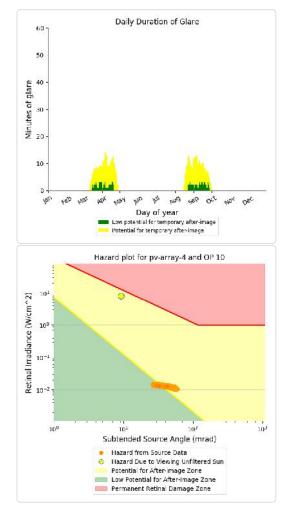


#### PV array 4 - OP Receptor (OP 10)

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

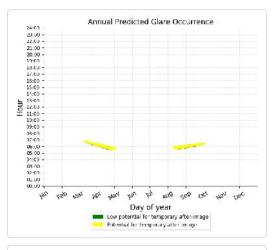


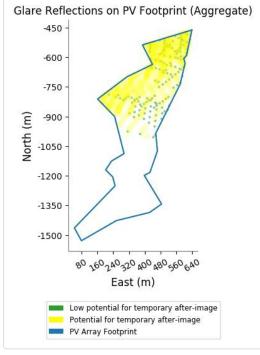


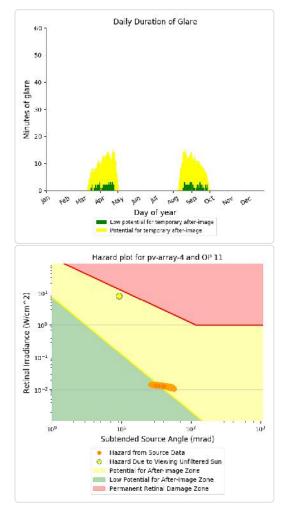


#### PV array 4 - OP Receptor (OP 11)

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

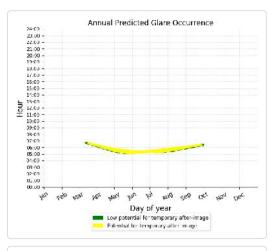


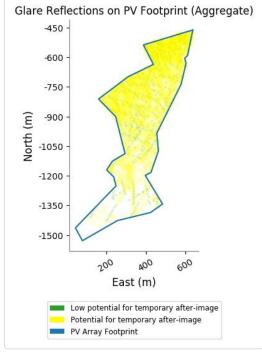


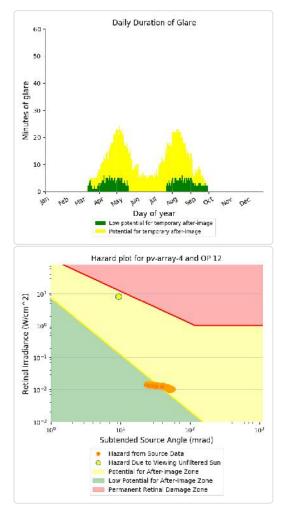


#### PV array 4 - OP Receptor (OP 12)

- 477 minutes of "green" glare with low potential to cause temporary after-image.
  - 1,929 minutes of "yellow" glare with potential to cause temporary after-image.

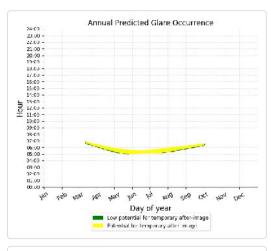


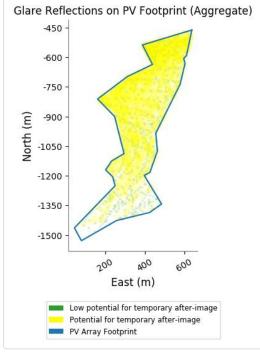


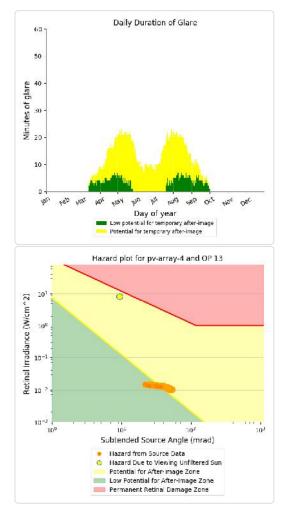


#### PV array 4 - OP Receptor (OP 13)

- 606 minutes of "green" glare with low potential to cause temporary after-image.
  - 2,125 minutes of "yellow" glare with potential to cause temporary after-image.

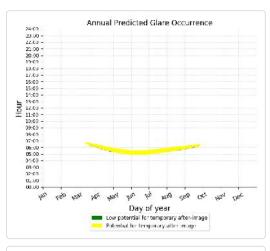


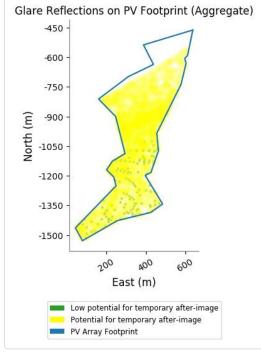


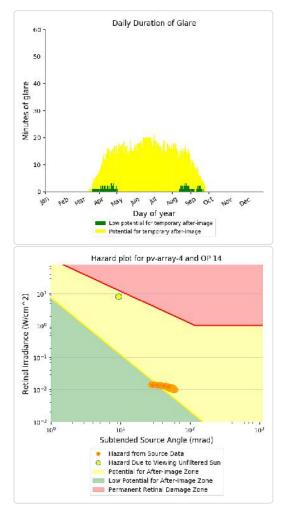


#### PV array 4 - OP Receptor (OP 14)

- 122 minutes of "green" glare with low potential to cause temporary after-image.
  - 2,602 minutes of "yellow" glare with potential to cause temporary after-image.

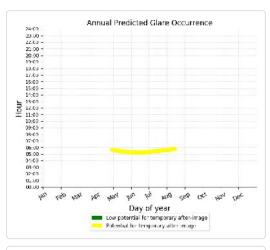


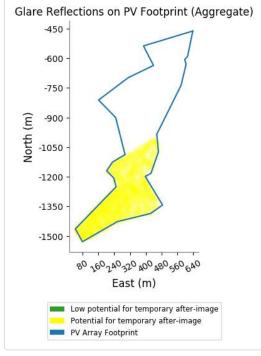


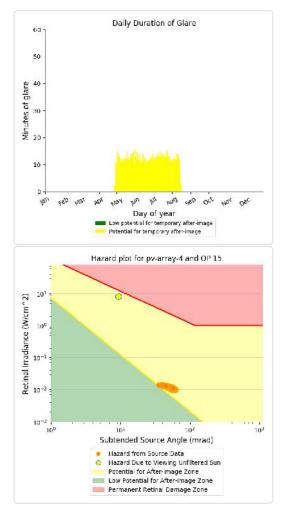


#### PV array 4 - OP Receptor (OP 15)

- 0 minutes of "green" glare with low potential to cause temporary after-image.
  - 1,384 minutes of "yellow" glare with potential to cause temporary after-image.

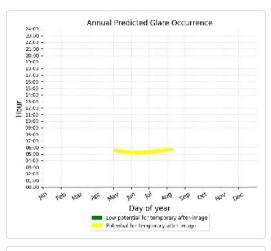


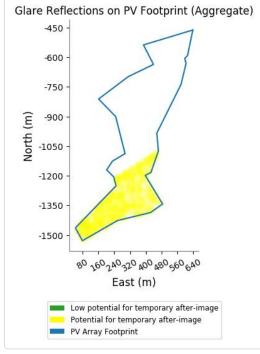


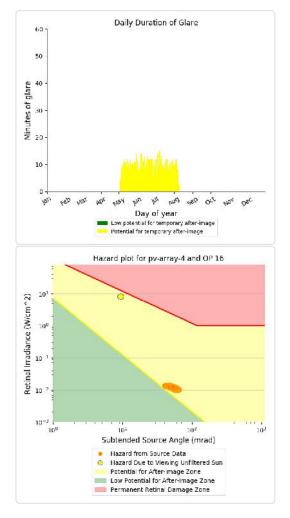


#### PV array 4 - OP Receptor (OP 16)

- 0 minutes of "green" glare with low potential to cause temporary after-image.
  - 1,019 minutes of "yellow" glare with potential to cause temporary after-image.

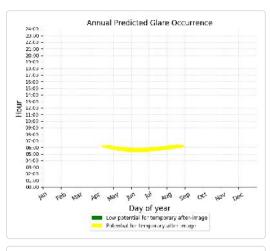


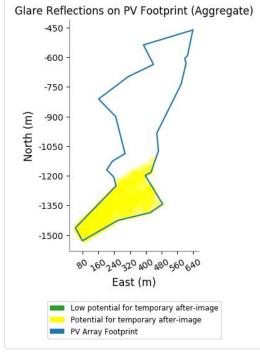


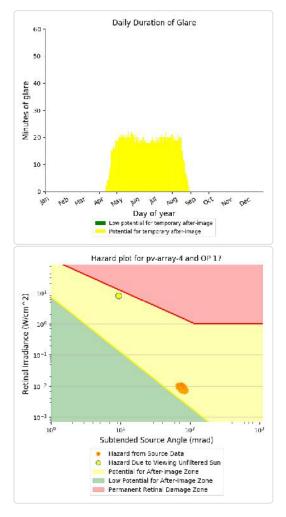


#### PV array 4 - OP Receptor (OP 17)

- 0 minutes of "green" glare with low potential to cause temporary after-image.
  - 2,432 minutes of "yellow" glare with potential to cause temporary after-image.

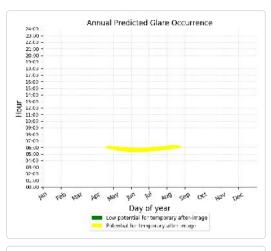


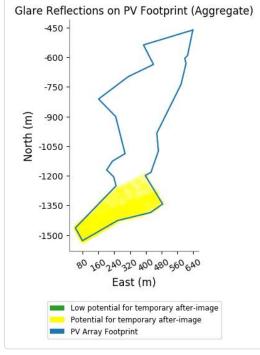


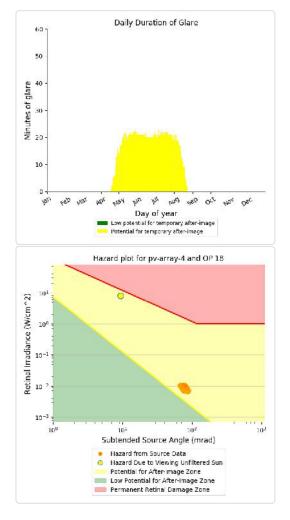


#### PV array 4 - OP Receptor (OP 18)

- 0 minutes of "green" glare with low potential to cause temporary after-image.
  - 2,305 minutes of "yellow" glare with potential to cause temporary after-image.

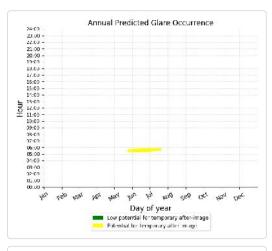


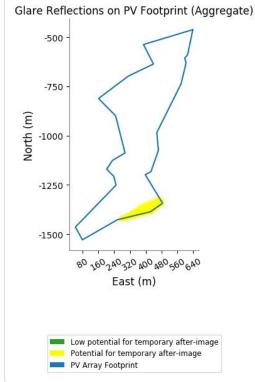


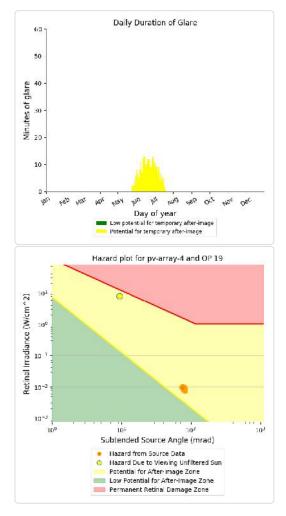


#### PV array 4 - OP Receptor (OP 19)

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

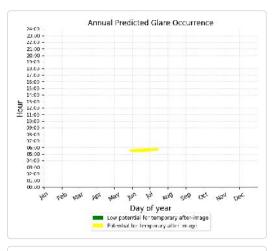


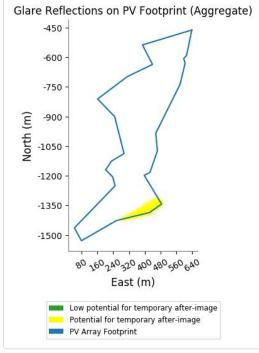


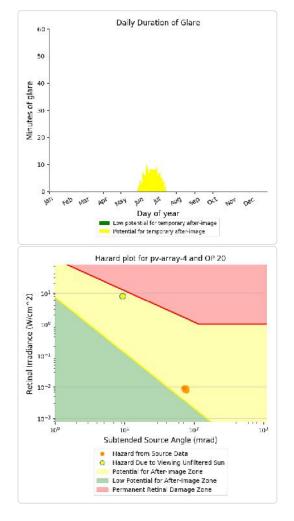


#### PV array 4 - OP Receptor (OP 20)

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

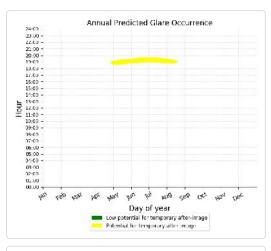


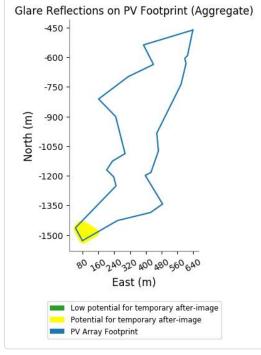


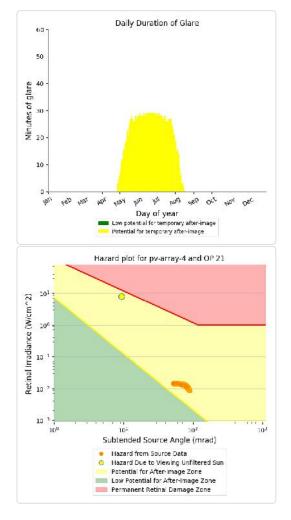


### PV array 4 - OP Receptor (OP 21)

- 0 minutes of "green" glare with low potential to cause temporary after-image.
  - 2,540 minutes of "yellow" glare with potential to cause temporary after-image.

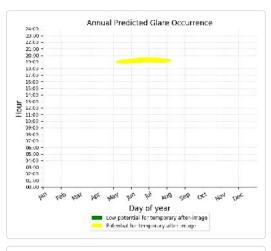


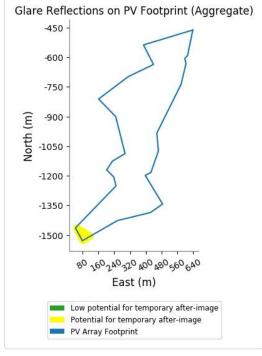


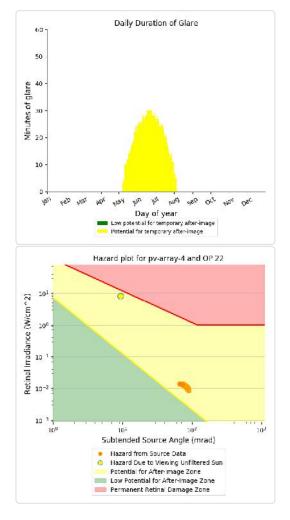


### PV array 4 - OP Receptor (OP 22)

- 0 minutes of "green" glare with low potential to cause temporary after-image.
  - 1,846 minutes of "yellow" glare with potential to cause temporary after-image.

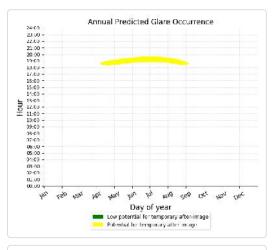


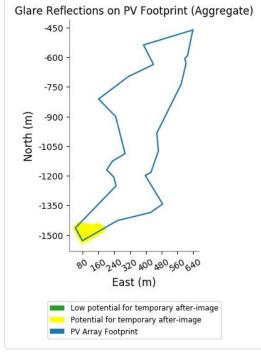


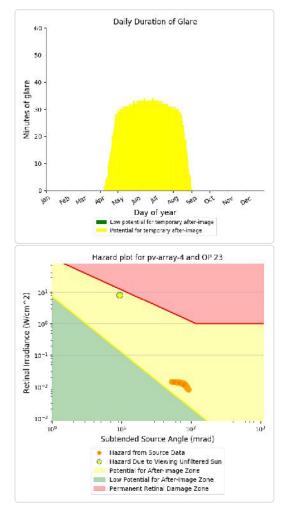


### PV array 4 - OP Receptor (OP 23)

- 0 minutes of "green" glare with low potential to cause temporary after-image.
  - 3,995 minutes of "yellow" glare with potential to cause temporary after-image.

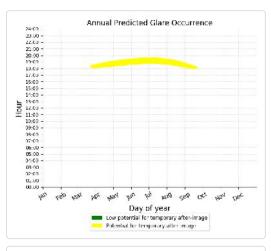


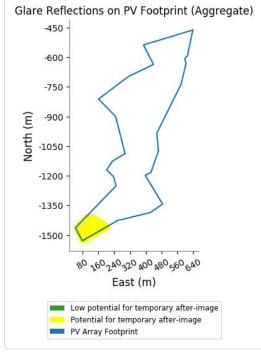


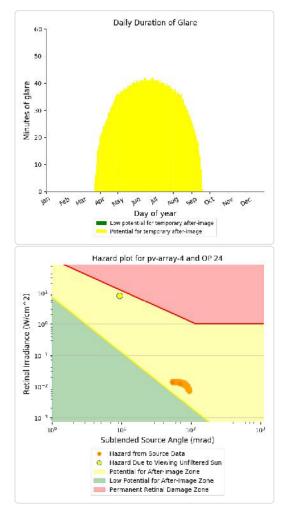


### PV array 4 - OP Receptor (OP 24)

- 0 minutes of "green" glare with low potential to cause temporary after-image.
  - 5,985 minutes of "yellow" glare with potential to cause temporary after-image.

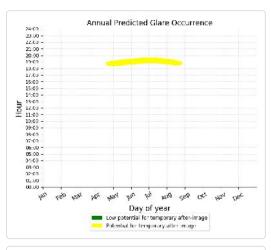


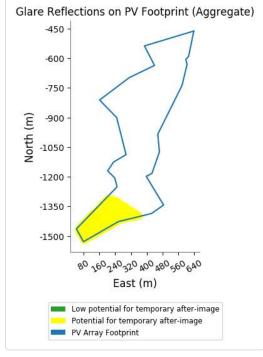


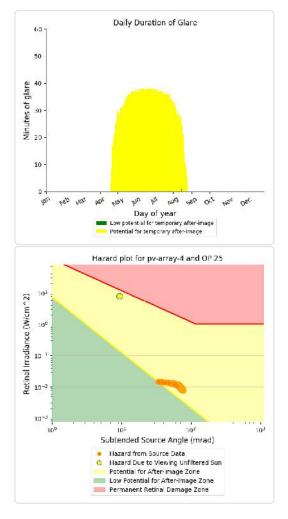


### PV array 4 - OP Receptor (OP 25)

- 1 minutes of "green" glare with low potential to cause temporary after-image.
  - 4,130 minutes of "yellow" glare with potential to cause temporary after-image.

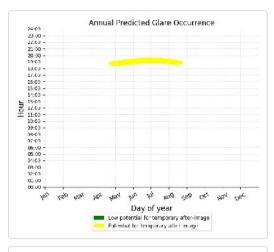


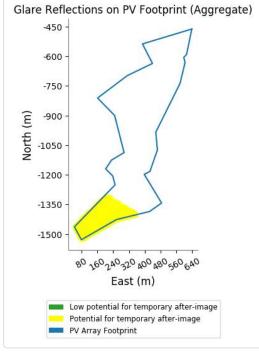


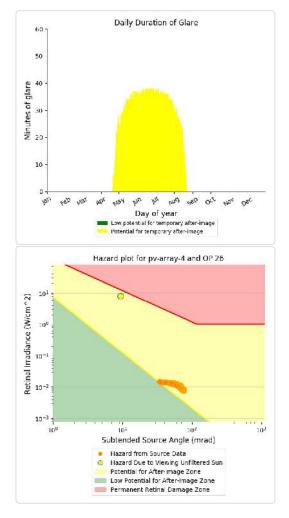


#### PV array 4 - OP Receptor (OP 26)

- 0 minutes of "green" glare with low potential to cause temporary after-image.
  - 3,918 minutes of "yellow" glare with potential to cause temporary after-image.

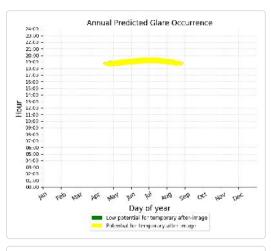


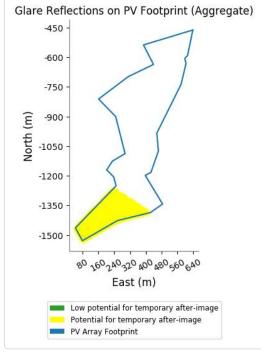


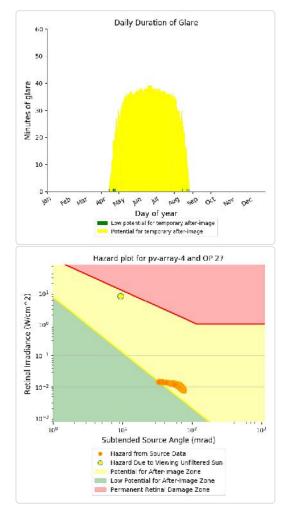


### PV array 4 - OP Receptor (OP 27)

- 8 minutes of "green" glare with low potential to cause temporary after-image.
  - 4,244 minutes of "yellow" glare with potential to cause temporary after-image.

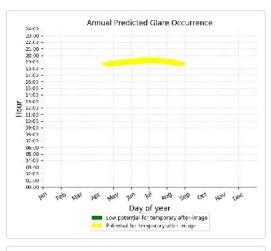


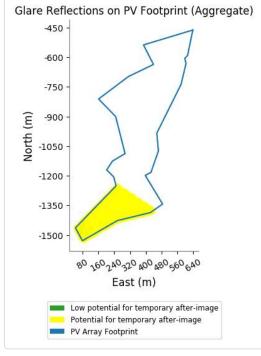


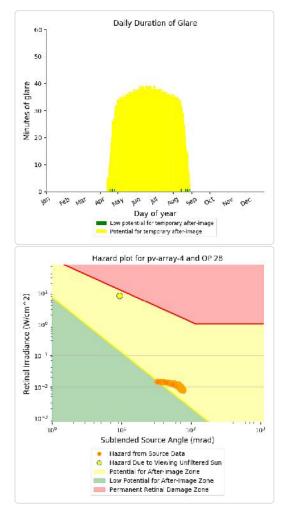


#### PV array 4 - OP Receptor (OP 28)

- 11 minutes of "green" glare with low potential to cause temporary after-image.
  - 4,571 minutes of "yellow" glare with potential to cause temporary after-image.

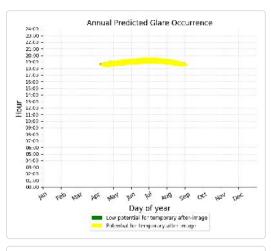


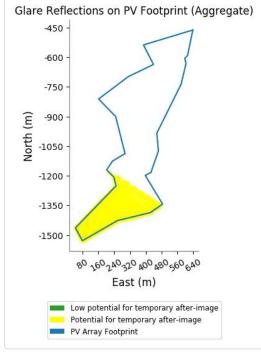


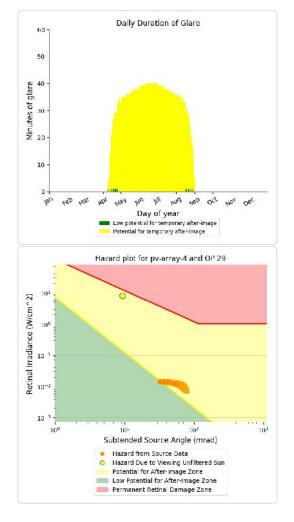


### PV array 4 - OP Receptor (OP 29)

- 15 minutes of "green" glare with low potential to cause temporary after-image.
  - 4,900 minutes of "yellow" glare with potential to cause temporary after-image.

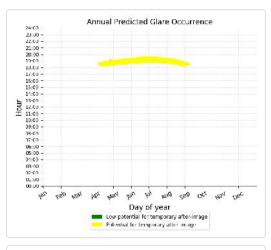


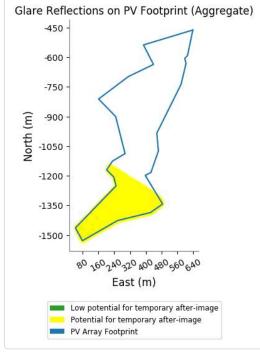


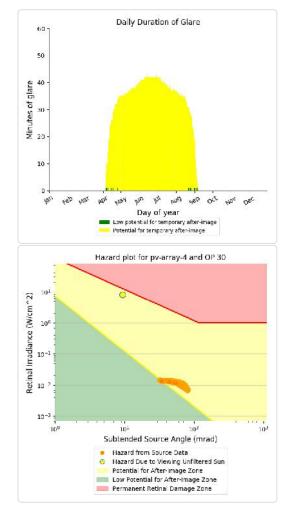


### PV array 4 - OP Receptor (OP 30)

- 17 minutes of "green" glare with low potential to cause temporary after-image.
  - 5,297 minutes of "yellow" glare with potential to cause temporary after-image.

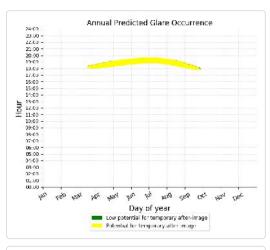


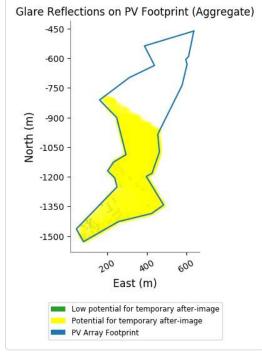


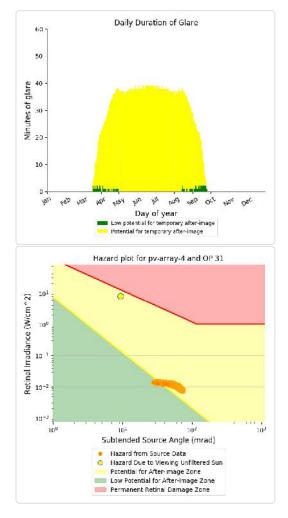


### PV array 4 - OP Receptor (OP 31)

- 90 minutes of "green" glare with low potential to cause temporary after-image.
  - 6,050 minutes of "yellow" glare with potential to cause temporary after-image.

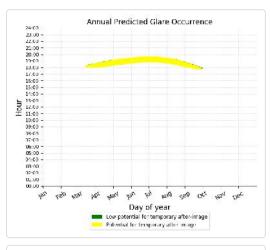


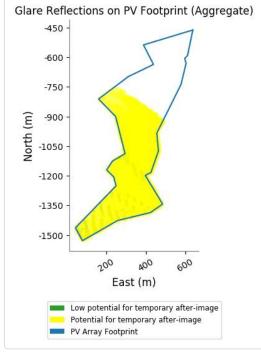


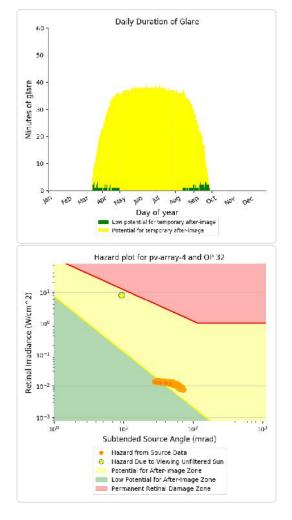


### PV array 4 - OP Receptor (OP 32)

- 114 minutes of "green" glare with low potential to cause temporary after-image.
  - 6,085 minutes of "yellow" glare with potential to cause temporary after-image.

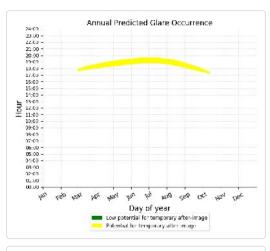


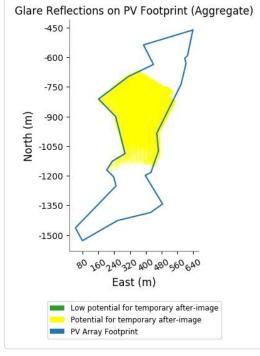


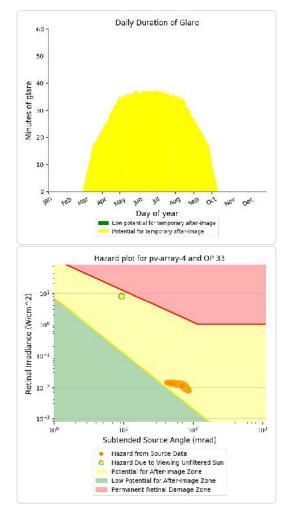


### PV array 4 - OP Receptor (OP 33)

- 0 minutes of "green" glare with low potential to cause temporary after-image.
  - 6,333 minutes of "yellow" glare with potential to cause temporary after-image.

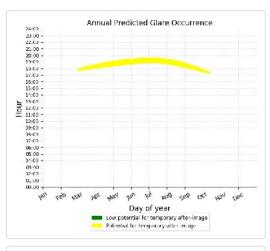


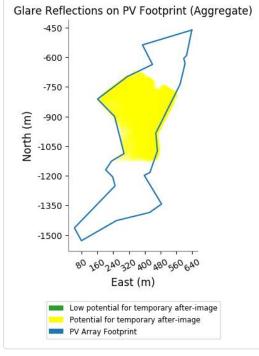


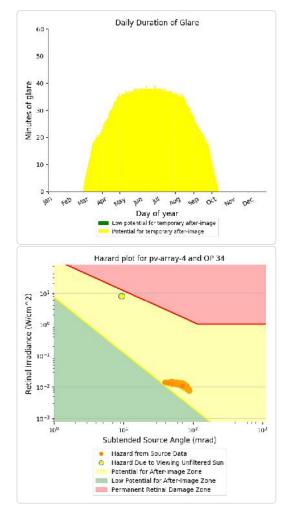


### PV array 4 - OP Receptor (OP 34)

- 0 minutes of "green" glare with low potential to cause temporary after-image.
  - 6,526 minutes of "yellow" glare with potential to cause temporary after-image.



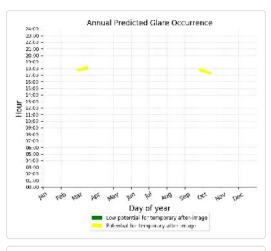


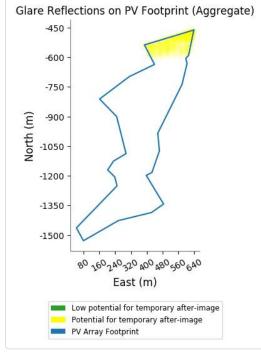


#### PV array 4 - OP Receptor (OP 35)

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.
  - 300 minutes of "yellow" glare with potential to cause temporary after-image.

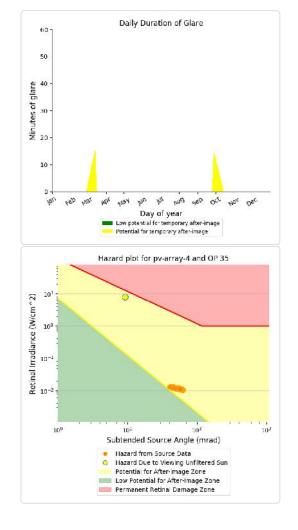




PV array 4 - OP Receptor (OP 36) No glare found

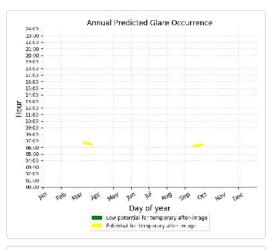
#### PV array 4 - OP Receptor (OP 37)

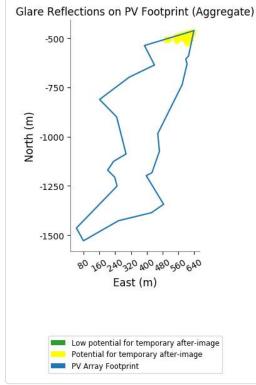
No glare found

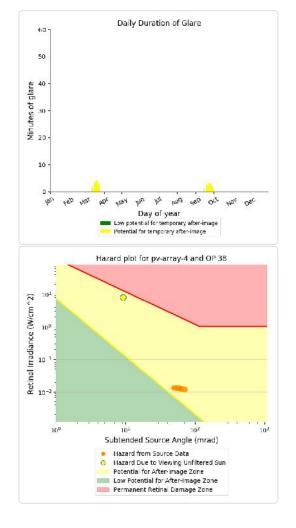


#### PV array 4 - OP Receptor (OP 38)

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

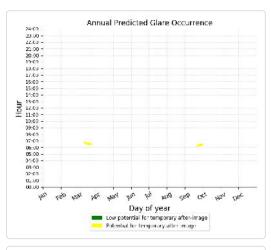


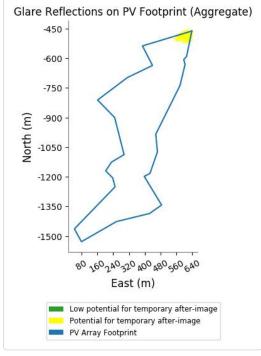


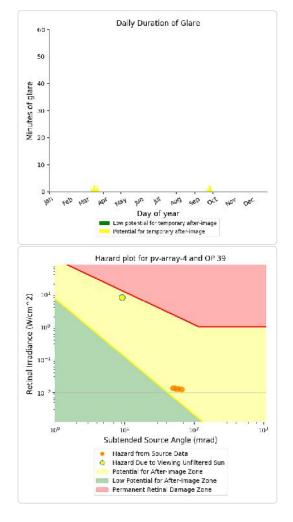


#### PV array 4 - OP Receptor (OP 39)

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

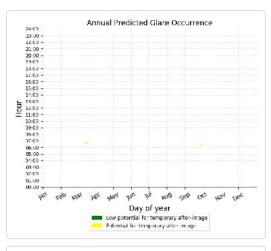


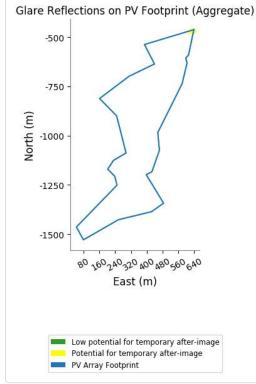


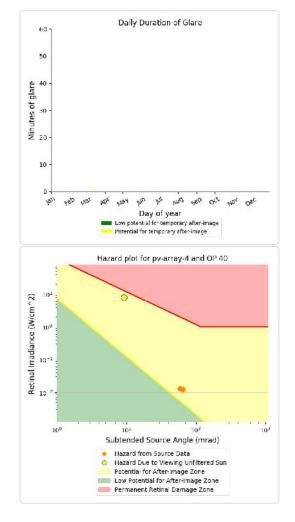


#### PV array 4 - OP Receptor (OP 40)

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

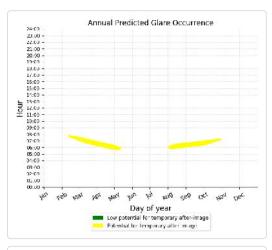


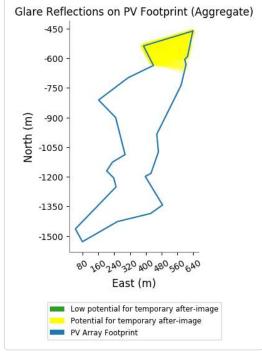


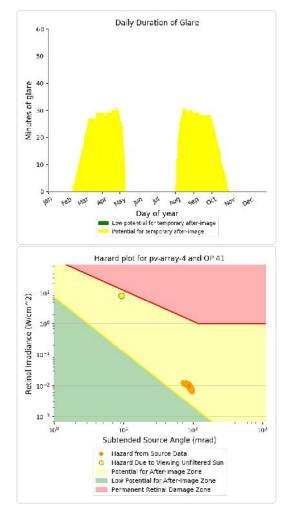


### PV array 4 - OP Receptor (OP 41)

- 0 minutes of "green" glare with low potential to cause temporary after-image.
  - 4,079 minutes of "yellow" glare with potential to cause temporary after-image.

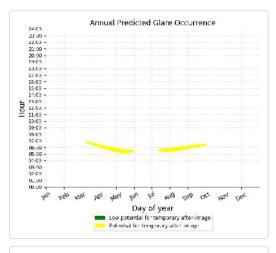


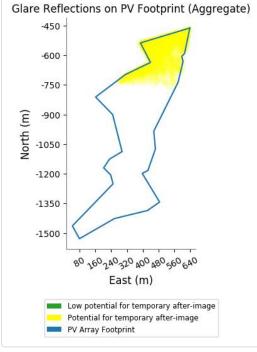


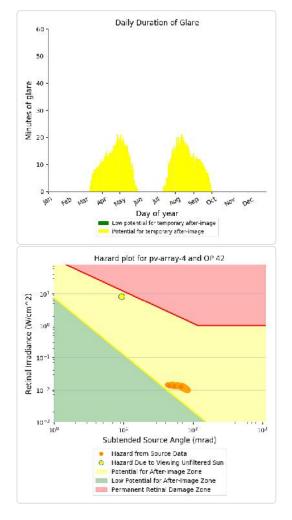


#### PV array 4 - OP Receptor (OP 42)

- 0 minutes of "green" glare with low potential to cause temporary after-image.
  - 1,990 minutes of "yellow" glare with potential to cause temporary after-image.

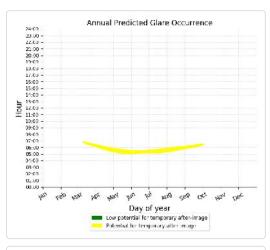


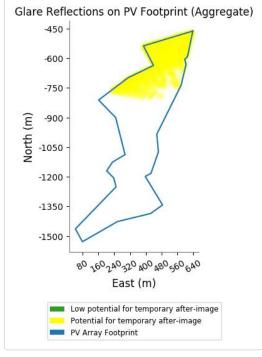


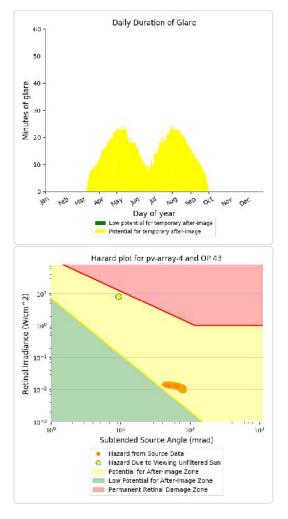


### PV array 4 - OP Receptor (OP 43)

- 0 minutes of "green" glare with low potential to cause temporary after-image.
  - 3,193 minutes of "yellow" glare with potential to cause temporary after-image.



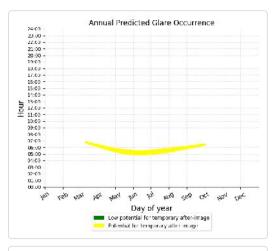


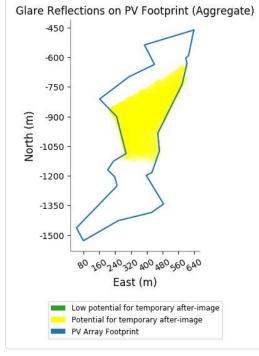


#### PV array 4 - OP Receptor (OP 44)

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.
  - 4,216 minutes of "yellow" glare with potential to cause temporary after-image.





PV array 4 - OP Receptor (OP 45) No glare found

#### PV array 4 - OP Receptor (OP 46)

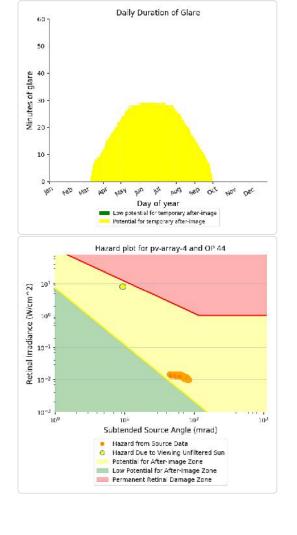
No glare found

## PV array 4 - OP Receptor (OP 47)

No glare found

#### PV array 4 - OP Receptor (OP 48)

No glare found



# PV array 4 - OP Receptor (OP 49)

No glare found

## PV array 4 - OP Receptor (OP 50)

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 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare.
- 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.
- Glare analysis methods used: OP V1, FP V1, Route V1
- Refer to the **Help page** for assumptions and limitations not listed here.