Appendix 7D: Road Receptor Glare (10 Deg)

ForgeSolar

Kingston Solar Farm

Kingston Solar Farm Road 10Deg

Created Aug. 10, 2021
Updated Aug. 11, 2021
Time-step 1 minute
Timezone offset UTC0
Site ID 57173.10138

Project type Advanced
Project status: active
Category 10 MW to 100 MW

Misc. Analysis Settings

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

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

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

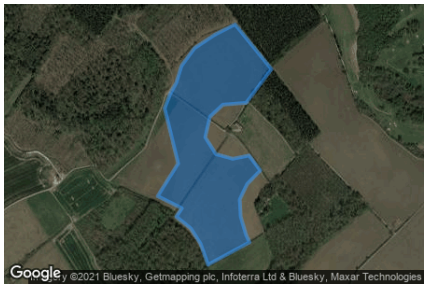
PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced
	deg	deg	min	min	kWh
Central PV Array	10.0	180.0	5,445	5,341	-
Eastern PV Array	10.0	180.0	3,071	5,427	-
Southern PV Array	10.0	180.0	1,553	239	-
Western PV Array	10.0	180.0	9,444	31,674	-

Component Data

PV Array(s)

Total PV footprint area: 652,007 m^2

Name: Central PV Array
Axis tracking: Fixed (no rotation)
Tilt: 10.0 deg
Orientation: 180.0 deg
Footprint area: 132,824 m^2
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



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	52.848987	-1.201839	96.58	2.80	99.38
2	52.847743	-1.200166	96.44	2.80	99.24
3	52.846810	-1.201324	93.14	2.80	95.94
4	52.846758	-1.202397	91.84	2.80	94.64
5	52.846421	-1.202998	90.05	2.80	92.85
6	52.845851	-1.203213	89.14	2.80	91.94
7	52.845385	-1.202719	89.74	2.80	92.54
8	52.845255	-1.201947	90.82	2.80	93.62
9	52.845346	-1.201196	92.07	2.80	94.87
10	52.844931	-1.200681	91.18	2.80	93.98
11	52.844555	-1.201282	89.97	2.80	92.77
12	52.844127	-1.201625	88.30	2.80	91.10
13	52.843648	-1.201582	86.48	2.80	89.28
14	52.843129	-1.201324	84.47	2.80	87.27
15	52.842935	-1.201174	82.65	2.80	85.45
16	52.842313	-1.203084	80.74	2.80	83.54
17	52.842896	-1.203427	84.27	2.80	87.07
18	52.843324	-1.203878	87.66	2.80	90.46
19	52.843648	-1.204543	86.76	2.80	89.56
20	52.843881	-1.204286	86.82	2.80	89.62
21	52.844218	-1.205401	81.43	2.80	84.23
22	52.845125	-1.204457	85.10	2.80	87.90
23	52.846655	-1.205080	82.01	2.80	84.81
24	52.847056	-1.204822	85.02	2.80	87.82
25	52.847367	-1.204543	86.44	2.80	89.24
26	52.847834	-1.204307	87.45	2.80	90.25
27	52.848326	-1.203706	91.82	2.80	94.62
28	52.848702	-1.202762	92.71	2.80	95.51

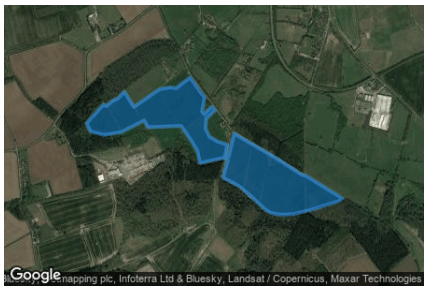
Name: Eastern PV Array
Axis tracking: Fixed (no rotation)
Tilt: 10.0 deg
Orientation: 180.0 deg
Footprint area: 105,300 m^2
Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	52.848995	-1.197688	96.44	2.80	99.24
2	52.848360	-1.197387	95.39	2.80	98.19
3	52.847479	-1.197044	94.28	2.80	97.08
4	52.846818	-1.196615	93.25	2.80	96.05
5	52.846325	-1.196164	92.60	2.80	95.40
6	52.846196	-1.195714	92.11	2.80	94.91
7	52.845807	-1.194877	92.17	2.80	94.97
8	52.845379	-1.194061	92.96	2.80	95.76
9	52.844991	-1.192388	93.06	2.80	95.86
10	52.844991	-1.191959	93.08	2.80	95.88
11	52.844330	-1.192688	93.00	2.80	95.80
12	52.843889	-1.193461	93.10	2.80	95.90
13	52.843254	-1.194469	92.64	2.80	95.44
14	52.845613	-1.198203	94.92	2.80	97.72
15	52.846001	-1.197580	95.01	2.80	97.81
16	52.847777	-1.199941	96.64	2.80	99.44

Name: Southern PV Array
Axis tracking: Fixed (no rotation)
Tilt: 10.0 deg
Orientation: 180.0 deg
Footprint area: 63,120 m^2
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

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	52.843772	-1.195693	91.46	2.80	94.26
2	52.843111	-1.194663	93.99	2.80	96.79
3	52.842683	-1.195564	92.28	2.80	95.08
4	52.842152	-1.196315	91.71	2.80	94.51
5	52.841426	-1.196980	91.38	2.80	94.18
6	52.840713	-1.197624	90.47	2.80	93.27
7	52.840441	-1.197838	90.31	2.80	93.11
8	52.840182	-1.199212	88.30	2.80	91.10
9	52.840013	-1.199641	87.99	2.80	90.79
10	52.839741	-1.199791	87.54	2.80	90.34
11	52.839443	-1.199984	88.09	2.80	90.89
12	52.840052	-1.201014	83.30	2.80	86.10
13	52.840480	-1.200993	78.20	2.80	81.00
14	52.840648	-1.200735	79.17	2.80	81.97
15	52.840804	-1.200134	82.43	2.80	85.23
16	52.841024	-1.199576	84.40	2.80	87.20
17	52.841452	-1.199104	85.12	2.80	87.92
18	52.841996	-1.198890	83.52	2.80	86.32
19	52.842359	-1.198418	85.08	2.80	87.88
20	52.842657	-1.197881	87.03	2.80	89.83

Name: Western PV Array
Axis tracking: Fixed (no rotation)
Tilt: 10.0 deg
Orientation: 180.0 deg
Footprint area: 350,763 m^2
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



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	52.857326	-1.226006	85.78	2.80	88.58
2	52.856276	-1.227551	83.98	2.80	86.78
3	52.855836	-1.227186	83.12	2.80	85.92
4	52.855641	-1.225941	78.84	2.80	81.64
5	52.855797	-1.224396	78.16	2.80	80.96
6	52.856445	-1.222251	83.48	2.80	86.28
7	52.856069	-1.221907	79.29	2.80	82.09
8	52.856147	-1.218860	82.71	2.80	85.51
9	52.855343	-1.217938	79.35	2.80	82.15
10	52.854760	-1.217358	81.43	2.80	84.23
11	52.854086	-1.217122	83.25	2.80	86.05
12	52.854281	-1.215706	85.51	2.80	88.31
13	52.854384	-1.214891	86.05	2.80	88.85
14	52.854247	-1.214556	86.06	2.80	88.86
15	52.853288	-1.215007	86.17	2.80	88.97
16	52.852861	-1.213676	85.74	2.80	88.54
17	52.852679	-1.213247	86.03	2.80	88.83
18	52.852096	-1.212153	85.92	2.80	88.72
19	52.851500	-1.211080	86.35	2.80	89.15
20	52.851332	-1.210608	86.08	2.80	88.88
21	52.851228	-1.209750	86.36	2.80	89.16
22	52.851254	-1.208591	87.09	2.80	89.89
23	52.851500	-1.206917	88.98	2.80	91.78
24	52.851993	-1.204342	93.00	2.80	95.80
25	52.852135	-1.204042	94.13	2.80	96.93
26	52.853392	-1.207411	90.98	2.80	93.78
27	52.853431	-1.207754	90.78	2.80	93.58
28	52.854364	-1.210114	89.71	2.80	92.51
29	52.855349	-1.212947	88.27	2.80	91.07
30	52.855723	-1.213975	88.26	2.80	91.06
31	52.854443	-1.214484	85.99	2.80	88.79
32	52.854502	-1.214806	85.93	2.80	88.73
33	52.855104	-1.214613	86.27	2.80	89.07
34	52.855273	-1.215471	85.97	2.80	88.77
35	52.855545	-1.216244	86.11	2.80	88.91
36	52.855985	-1.216619	86.33	2.80	89.13
37	52.856554	-1.216551	86.52	2.80	89.32
38	52.857007	-1.215735	84.90	2.80	87.70
39	52.857201	-1.216057	84.81	2.80	87.61
40	52.856787	-1.216723	86.58	2.80	89.38
41	52.856955	-1.216937	86.63	2.80	89.43
42	52.857694	-1.216701	81.71	2.80	84.51
43	52.858821	-1.218031	78.47	2.80	81.27
44	52.858225	-1.219319	86.14	2.80	88.94
45	52.858277	-1.219855	85.88	2.80	88.68
46	52.858173	-1.220842	86.53	2.80	89.33
47	52.857188	-1.223202	86.58	2.80	89.38
48	52.858031	-1.224082	87.46	2.80	90.26
49	52.857661	-1.224672	87.59	2.80	90.39
50	52.857532	-1.225155	86.72	2.80	89.52
51	52.857234	-1.225734	86.78	2.80	89.58

Discrete Observation Receptors

Number	Latitude	Longitude	Ground elevation	Height above ground	Total Elevation
	deg	deg	m	m	m
OP 1	52.861265	-1.239761	49.56	1.50	51.06
OP 2	52.860177	-1.237701	43.00	1.50	44.50
OP 3	52.858570	-1.236157	38.88	1.50	40.38
OP 4	52.856860	-1.235341	38.47	1.50	39.97
OP 5	52.855020	-1.234011	46.97	1.50	48.47
OP 6	52.853258	-1.233732	42.19	1.50	43.69
OP 7	52.851600	-1.233646	42.34	1.50	43.84
OP 8	52.849798	-1.232509	41.03	1.50	42.53
OP 9	52.848088	-1.231994	37.13	1.50	38.63
OP 10	52.853854	-1.239010	41.19	1.50	42.69
OP 11	52.854541	-1.236028	43.98	1.50	45.48
OP 12	52.854904	-1.233217	48.05	1.50	49.55
OP 13	52.856031	-1.230771	50.50	1.50	52.00
OP 14	52.857560	-1.228625	48.37	1.50	49.87
OP 15	52.858791	-1.227573	44.49	1.50	45.99
OP 16	52.860423	-1.227058	45.43	1.50	46.93
OP 17	52.861019	-1.210388	40.75	1.50	42.25
OP 18	52.859387	-1.209186	42.45	1.50	43.95
OP 19	52.858350	-1.206869	40.52	1.50	42.02
OP 20	52.858117	-1.204037	39.91	1.50	41.41
OP 21	52.858726	-1.201354	37.63	1.50	39.13
OP 22	52.861434	-1.204616	35.79	1.50	37.29
OP 23	52.859957	-1.202620	36.10	1.50	37.60
OP 24	52.857741	-1.198887	37.73	1.50	39.23
OP 25	52.856614	-1.197020	36.67	1.50	38.17
OP 26	52.855279	-1.194724	38.58	1.50	40.08
OP 27	52.854152	-1.192750	44.96	1.50	46.46
OP 28	52.852701	-1.190776	45.94	1.50	47.44
OP 29	52.851055	-1.189102	41.82	1.50	43.32
OP 30	52.849617	-1.187676	42.73	1.50	44.23
OP 31	52.848270	-1.186346	44.83	1.50	46.33
OP 32	52.846813	-1.183879	45.56	1.50	47.06
OP 33	52.845284	-1.182356	53.75	1.50	55.25
OP 34	52.843651	-1.182763	56.35	1.50	57.85
OP 35	52.842653	-1.180532	56.07	1.50	57.57
OP 36	52.841058	-1.179351	53.23	1.50	54.73
OP 37	52.847416	-1.182398	42.01	1.50	43.51
OP 38	52.849151	-1.180942	40.64	1.50	42.14

Summary of PV Glare Analysis

PV configuration and total predicted glare

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced	Data File
	deg	deg	min	min	kWh	
Central PV Array	10.0	180.0	5,445	5,341	-	-
Eastern PV Array	10.0	180.0	3,071	5,427	-	-
Southern PV Array	10.0	180.0	1,553	239	-	-
Western PV Array	10.0	180.0	9,444	31,674	-	-

Distinct glare per month

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

PV	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
central-pv-a (green)	0	0	50	268	314	346	324	324	117	0	0	0
central-pv-a (yellow)	0	0	0	75	286	471	392	122	23	0	0	0
eastern-pv-a (green)	0	0	6	89	199	248	235	124	22	0	0	0
eastern-pv-a (yellow)	0	0	0	83	341	381	384	185	0	0	0	0
southern-pv (green)	0	0	130	376	3	0	0	257	258	0	0	0
southern-pv (yellow)	0	0	0	100	7	0	0	105	0	0	0	0
western-pv-a (green)	0	0	3	110	309	328	347	190	16	0	0	0
western-pv-a (yellow)	0	0	1	217	760	1098	963	410	26	0	0	0

PV & Receptor Analysis Results

Results for each PV array and receptor

Central PV Array potential temporary after-image

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0

OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	86	26
OP: OP 32	279	241
OP: OP 33	550	529
OP: OP 34	835	1555
OP: OP 35	1305	1621
OP: OP 36	2114	1311
OP: OP 37	245	58
OP: OP 38	31	0

Central PV Array - OP Receptor (OP 1)

No glare found

Central PV Array - OP Receptor (OP 2)

No glare found

Central PV Array - OP Receptor (OP 3)

No glare found

Central PV Array - OP Receptor (OP 4)

No glare found

Central PV Array - OP Receptor (OP 5)

No glare found

Central PV Array - OP Receptor (OP 6)

No glare found

Central PV Array - OP Receptor (OP 7)

No glare found

Central PV Array - OP Receptor (OP 8)

No glare found

Central PV Array - OP Receptor (OP 9)

No glare found

Central PV Array - OP Receptor (OP 10)

No glare found

Central PV Array - OP Receptor (OP 11)

No glare found

Central PV Array - OP Receptor (OP 12)

No glare found

Central PV Array - OP Receptor (OP 13)

No glare found

Central PV Array - OP Receptor (OP 14)
No glare found

Central PV Array - OP Receptor (OP 15)
No glare found

Central PV Array - OP Receptor (OP 16)
No glare found

Central PV Array - OP Receptor (OP 17)
No glare found

Central PV Array - OP Receptor (OP 18)
No glare found

Central PV Array - OP Receptor (OP 19)
No glare found

Central PV Array - OP Receptor (OP 20)
No glare found

Central PV Array - OP Receptor (OP 21)
No glare found

Central PV Array - OP Receptor (OP 22)
No glare found

Central PV Array - OP Receptor (OP 23)
No glare found

Central PV Array - OP Receptor (OP 24)
No glare found

Central PV Array - OP Receptor (OP 25)
No glare found

Central PV Array - OP Receptor (OP 26)
No glare found

Central PV Array - OP Receptor (OP 27)
No glare found

Central PV Array - OP Receptor (OP 28)
No glare found

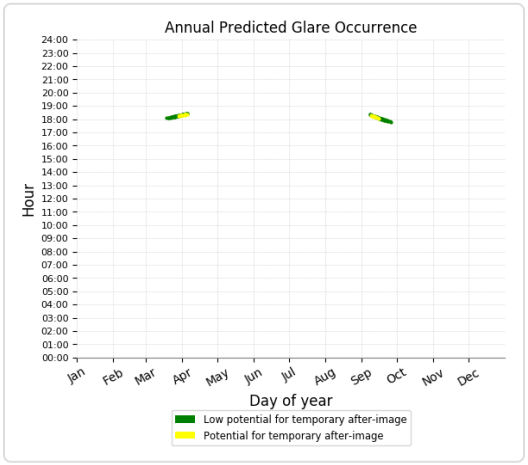
Central PV Array - OP Receptor (OP 29)
No glare found

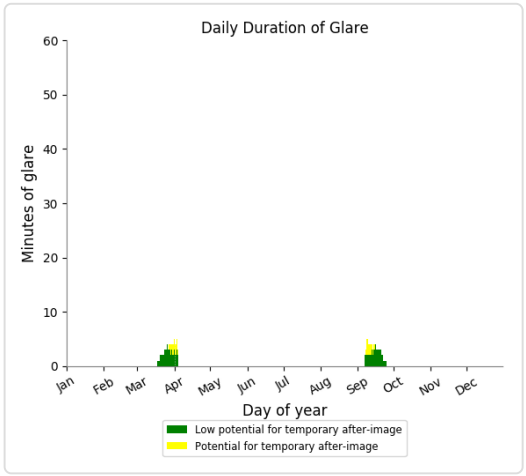
Central PV Array - OP Receptor (OP 30)
No glare found

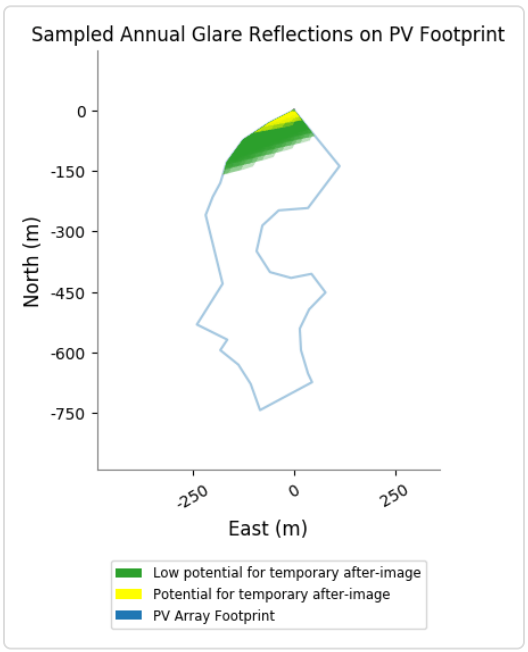
Central PV Array - OP Receptor (OP 31)

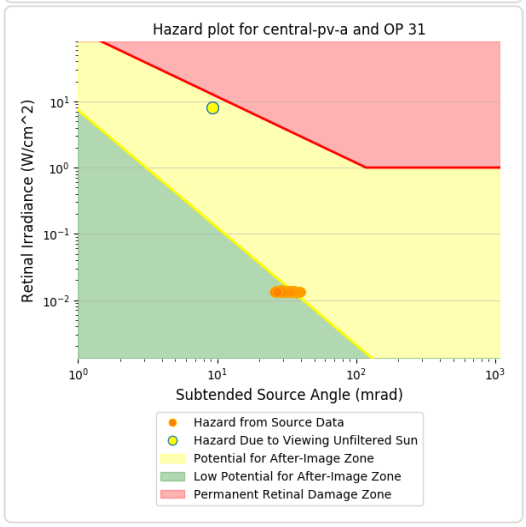
PV array is expected to produce the following glare for receptors at this location:

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





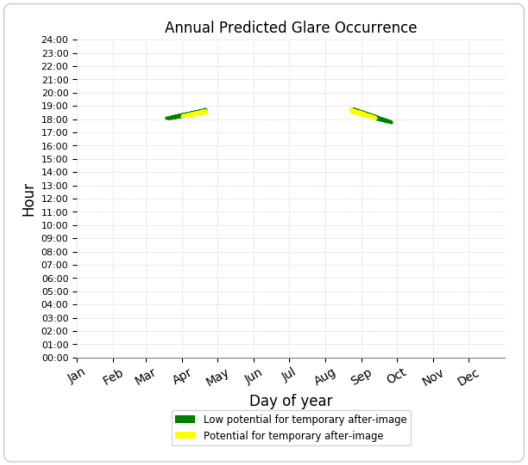


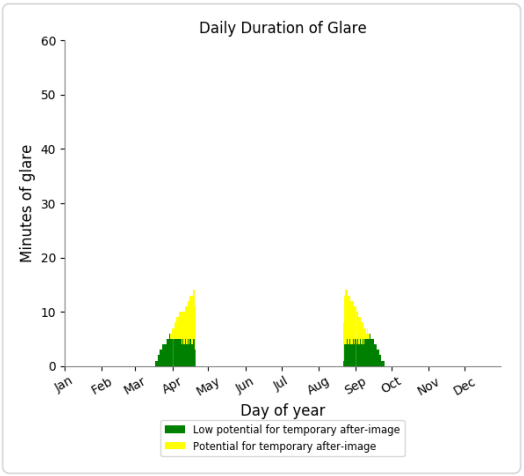


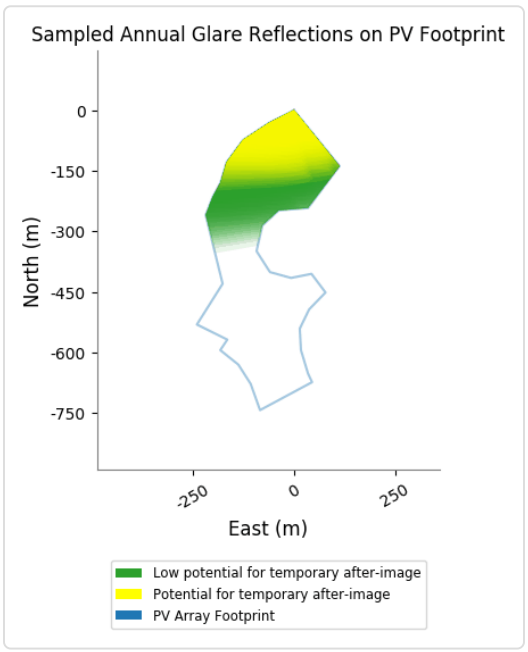
Central PV Array - OP Receptor (OP 32)

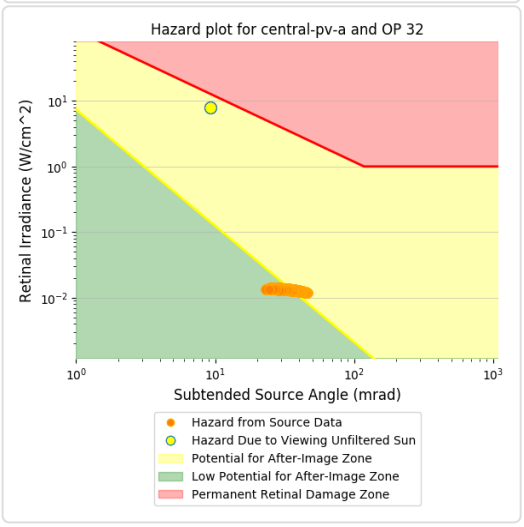
PV array is expected to produce the following glare for receptors at this location:

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





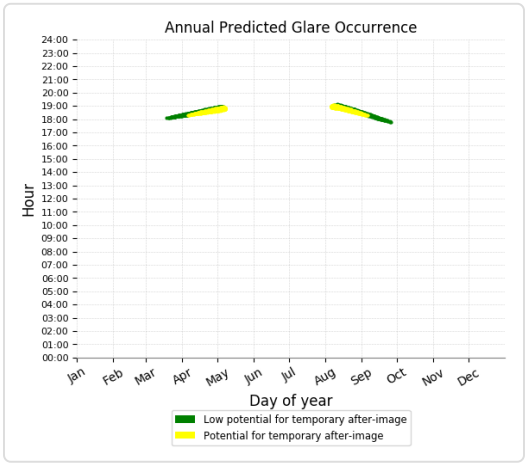


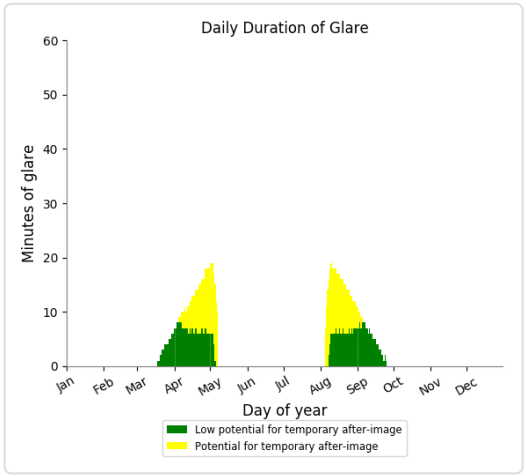


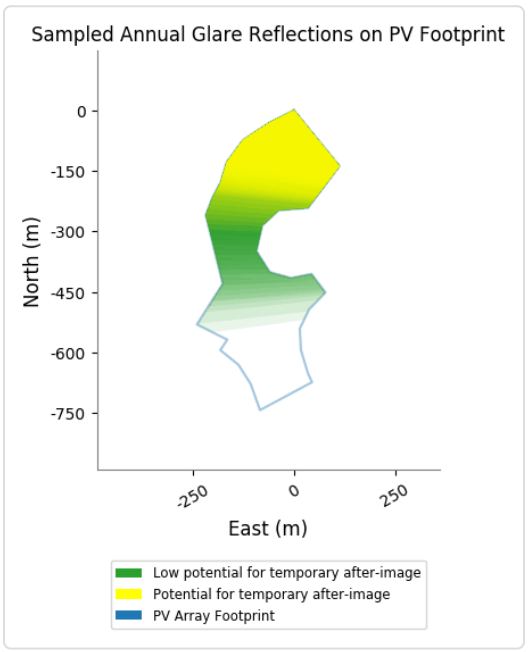
Central PV Array - OP Receptor (OP 33)

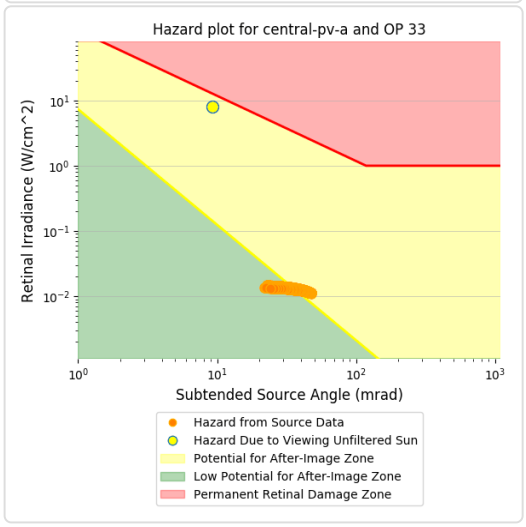
PV array is expected to produce the following glare for receptors at this location:

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





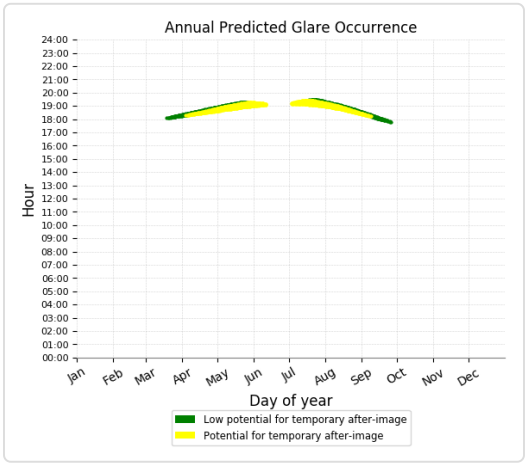


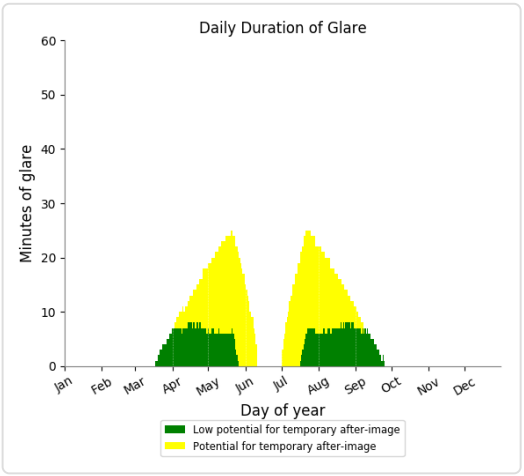


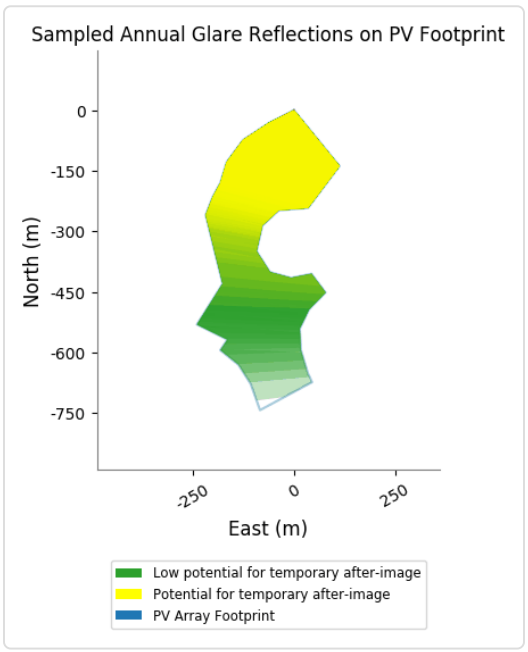
Central PV Array - OP Receptor (OP 34)

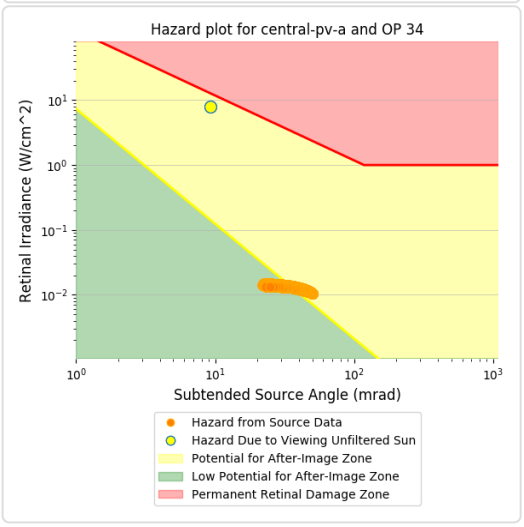
PV array is expected to produce the following glare for receptors at this location:

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





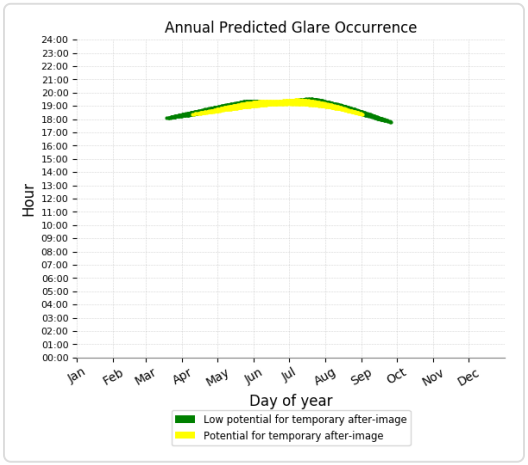


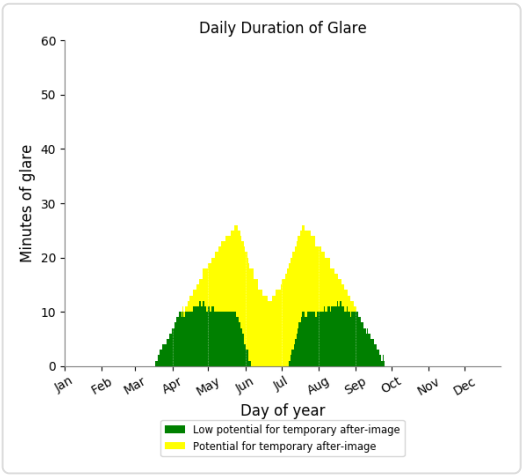


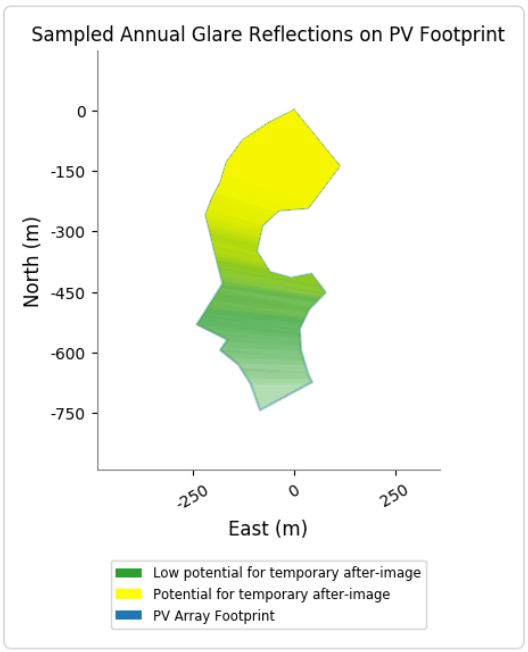
Central PV Array - OP Receptor (OP 35)

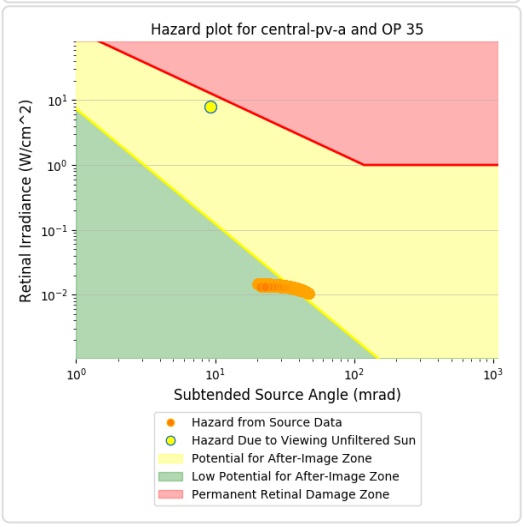
PV array is expected to produce the following glare for receptors at this location:

- 1,305 minutes of "green" glare with low potential to cause temporary after-image.
- 1,621 minutes of "yellow" glare with potential to cause temporary after-image.





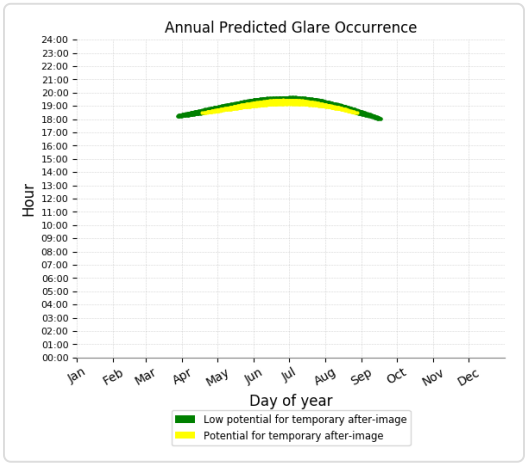


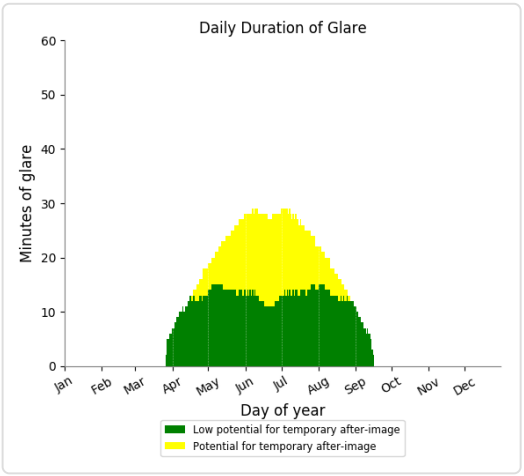


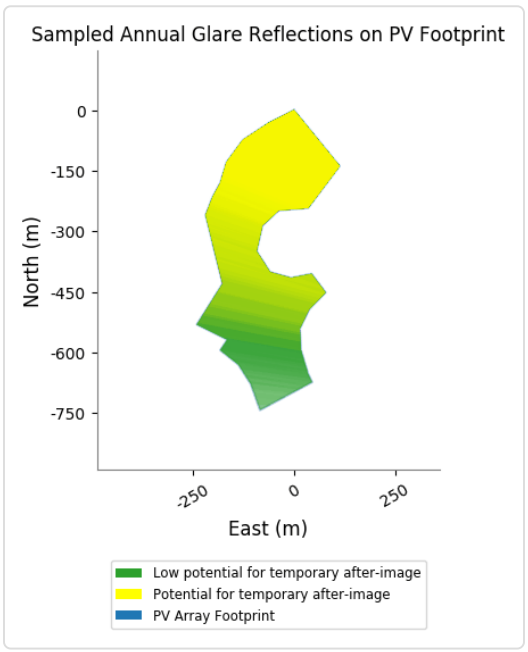
Central PV Array - OP Receptor (OP 36)

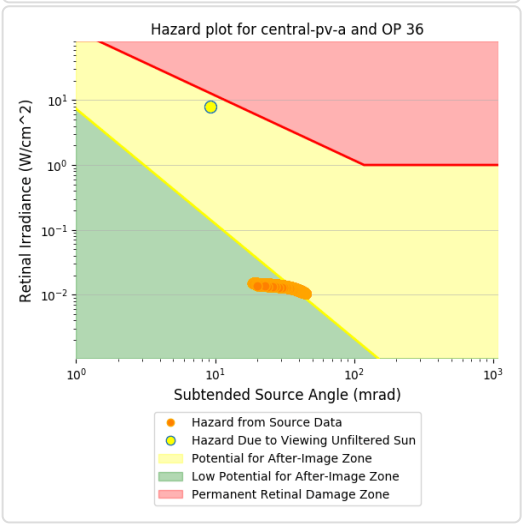
PV array is expected to produce the following glare for receptors at this location:

- 2,114 minutes of "green" glare with low potential to cause temporary after-image.
- 1,311 minutes of "yellow" glare with potential to cause temporary after-image.





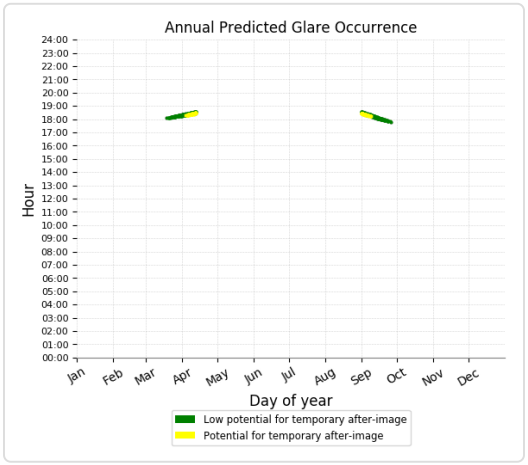


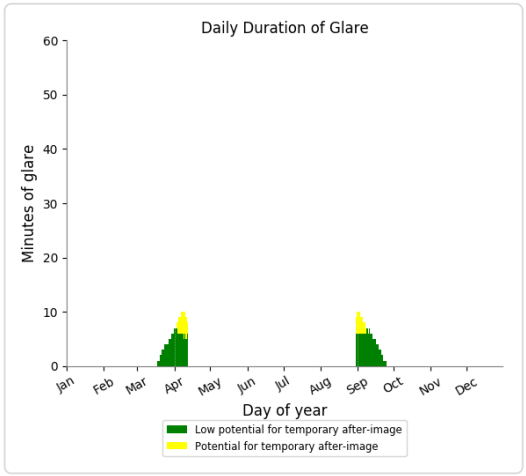


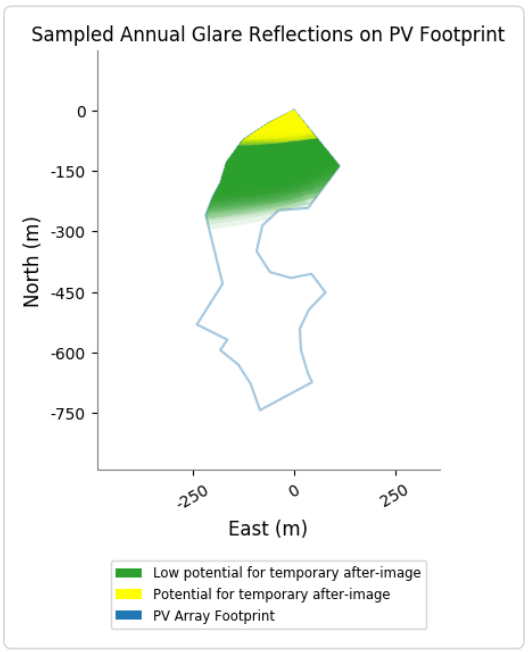
Central PV Array - OP Receptor (OP 37)

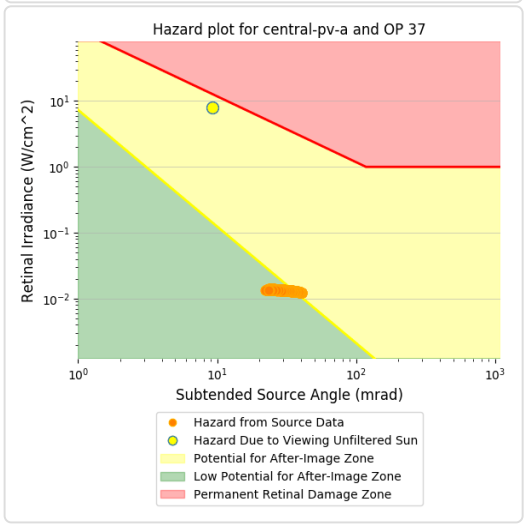
PV array is expected to produce the following glare for receptors at this location:

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





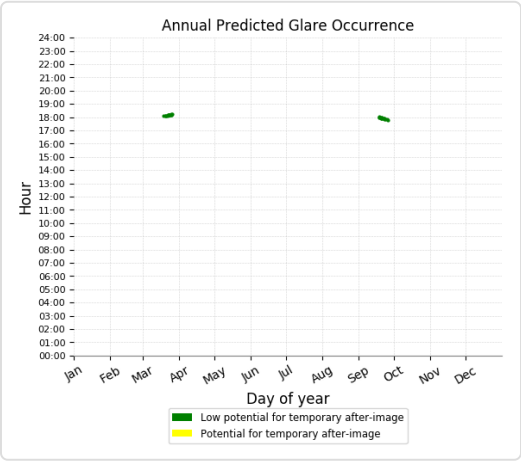


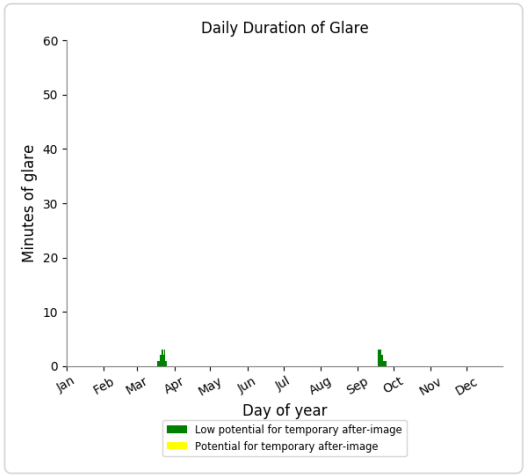


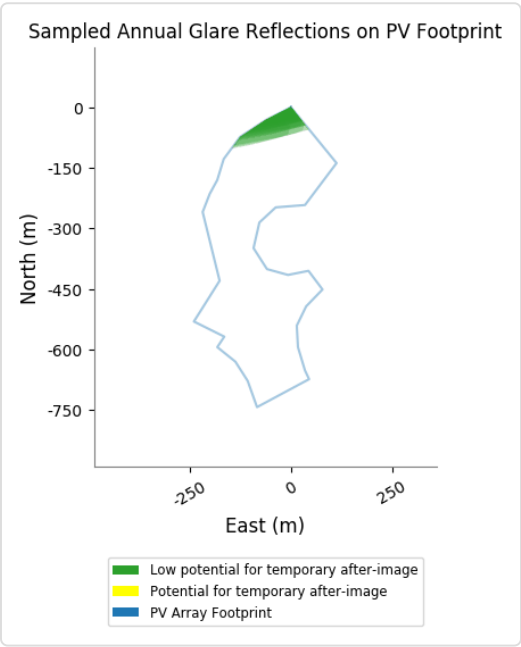
Central PV Array - OP Receptor (OP 38)

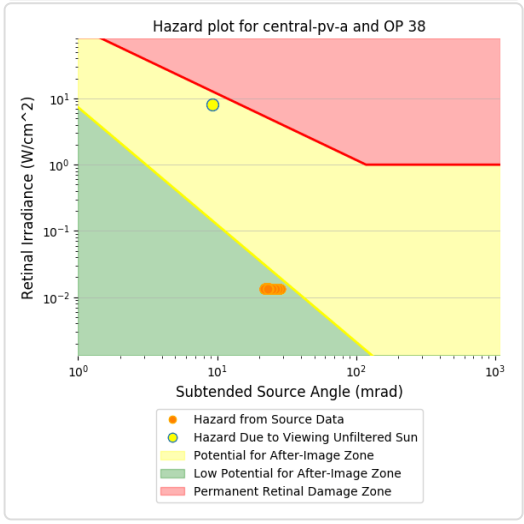
PV array is expected to produce the following glare for receptors at this location:

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









Eastern PV Array potential temporary after-image

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	19	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0

OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	2	0
OP: OP 32	113	175
OP: OP 33	326	583
OP: OP 34	592	1819
OP: OP 35	948	1463
OP: OP 36	996	1370
OP: OP 37	75	17
OP: OP 38	0	0

Eastern PV Array - OP Receptor (OP 1)

No glare found

Eastern PV Array - OP Receptor (OP 2)

No glare found

Eastern PV Array - OP Receptor (OP 3)

No glare found

Eastern PV Array - OP Receptor (OP 4)

No glare found

Eastern PV Array - OP Receptor (OP 5)

No glare found

Eastern PV Array - OP Receptor (OP 6)

No glare found

Eastern PV Array - OP Receptor (OP 7)

No glare found

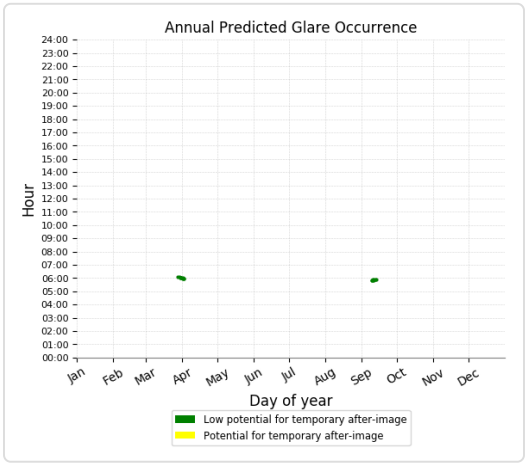
Eastern PV Array - OP Receptor (OP 8)

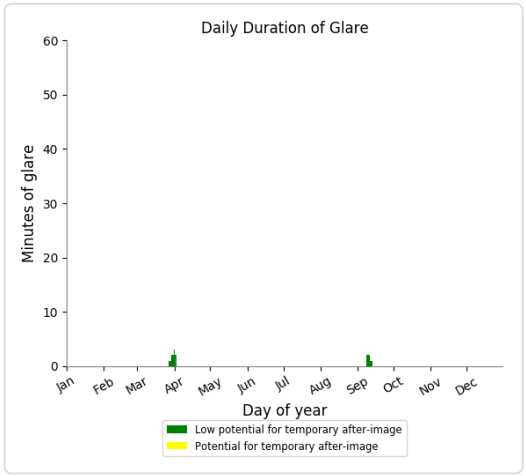
No glare found

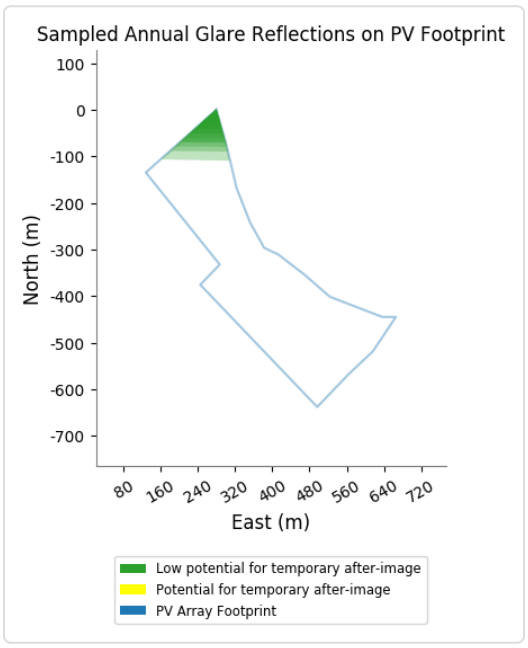
Eastern PV Array - OP Receptor (OP 9)

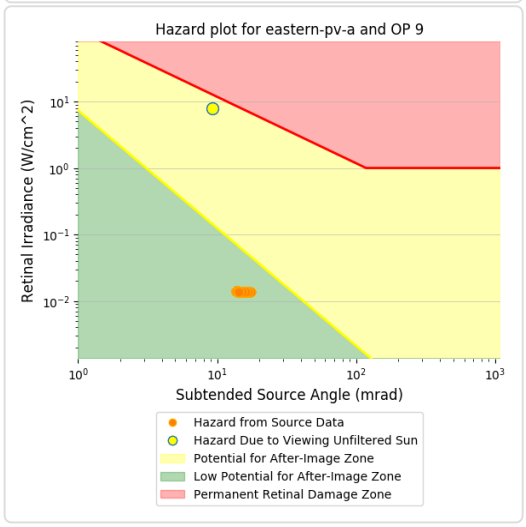
PV array is expected to produce the following glare for receptors at this location:

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









Eastern PV Array - OP Receptor (OP 10)

No glare found

Eastern PV Array - OP Receptor (OP 11)

No glare found

Eastern PV Array - OP Receptor (OP 12)

No glare found

Eastern PV Array - OP Receptor (OP 13)

No glare found

Eastern PV Array - OP Receptor (OP 14)

No glare found

Eastern PV Array - OP Receptor (OP 15)

No glare found

Eastern PV Array - OP Receptor (OP 16)

No glare found

Eastern PV Array - OP Receptor (OP 17)
No glare found

Eastern PV Array - OP Receptor (OP 18)
No glare found

Eastern PV Array - OP Receptor (OP 19)
No glare found

Eastern PV Array - OP Receptor (OP 20)
No glare found

Eastern PV Array - OP Receptor (OP 21)
No glare found

Eastern PV Array - OP Receptor (OP 22)
No glare found

Eastern PV Array - OP Receptor (OP 23)
No glare found

Eastern PV Array - OP Receptor (OP 24)
No glare found

Eastern PV Array - OP Receptor (OP 25)
No glare found

Eastern PV Array - OP Receptor (OP 26)
No glare found

Eastern PV Array - OP Receptor (OP 27)
No glare found

Eastern PV Array - OP Receptor (OP 28)
No glare found

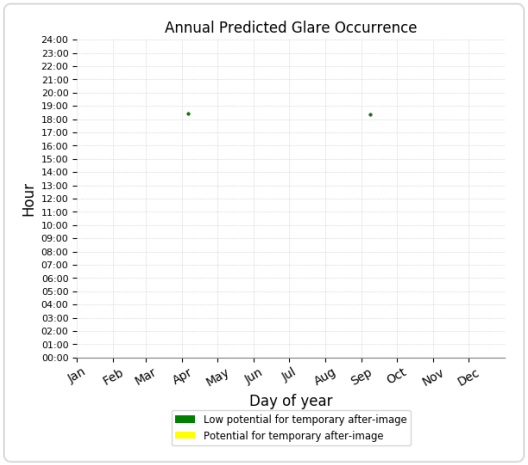
Eastern PV Array - OP Receptor (OP 29)
No glare found

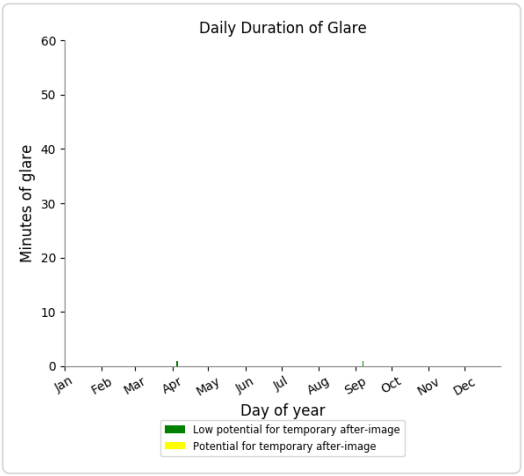
Eastern PV Array - OP Receptor (OP 30)
No glare found

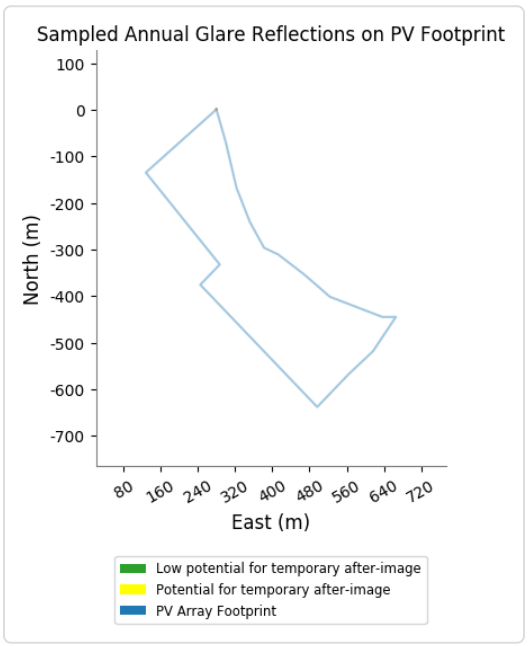
Eastern PV Array - OP Receptor (OP 31)

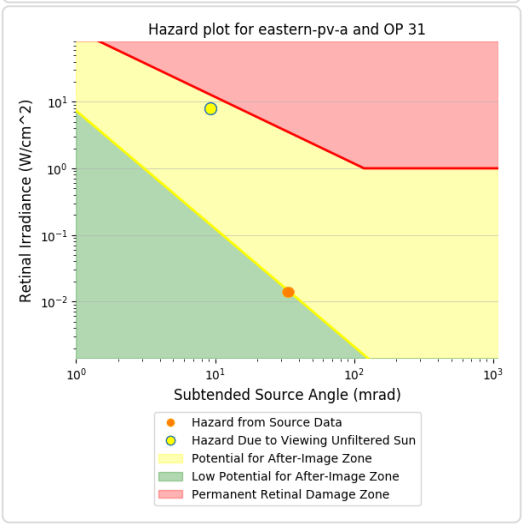
PV array is expected to produce the following glare for receptors at this location:

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





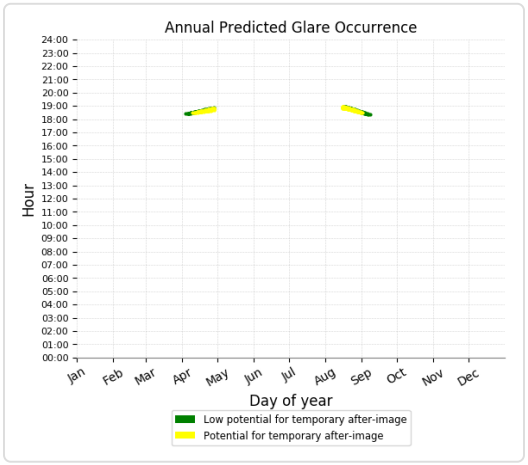


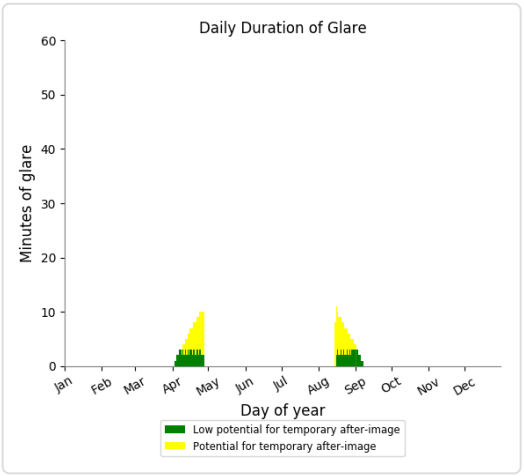


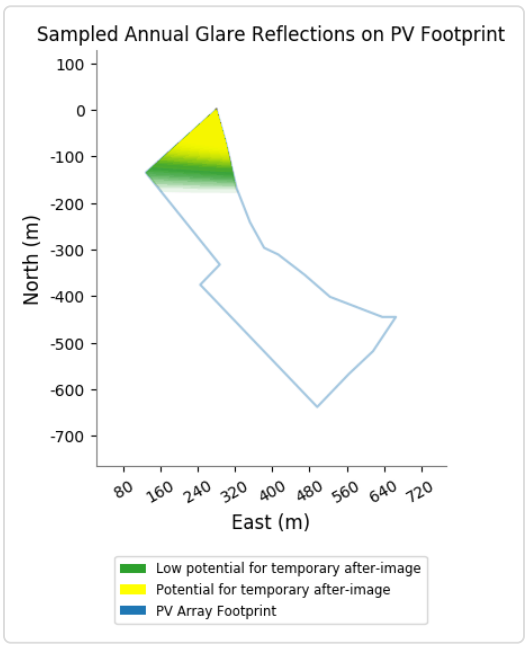
Eastern PV Array - OP Receptor (OP 32)

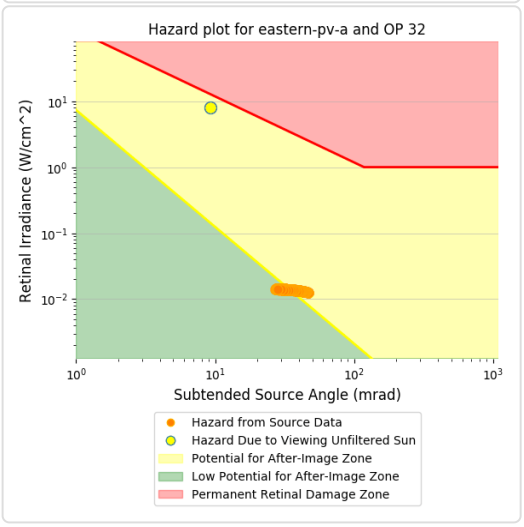
PV array is expected to produce the following glare for receptors at this location:

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





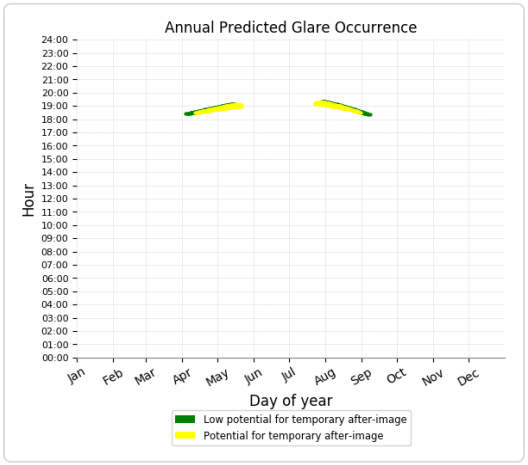


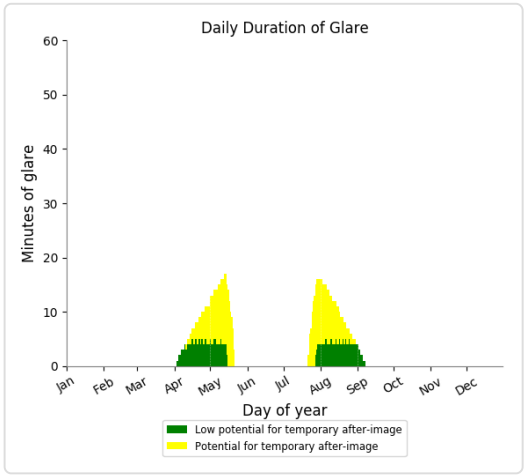


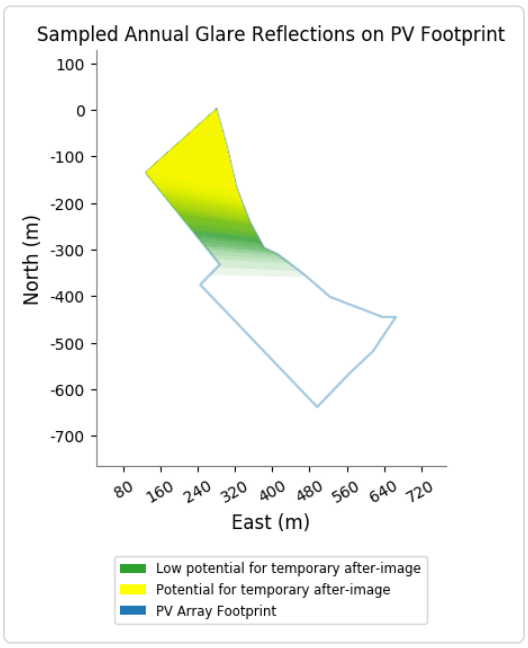
Eastern PV Array - OP Receptor (OP 33)

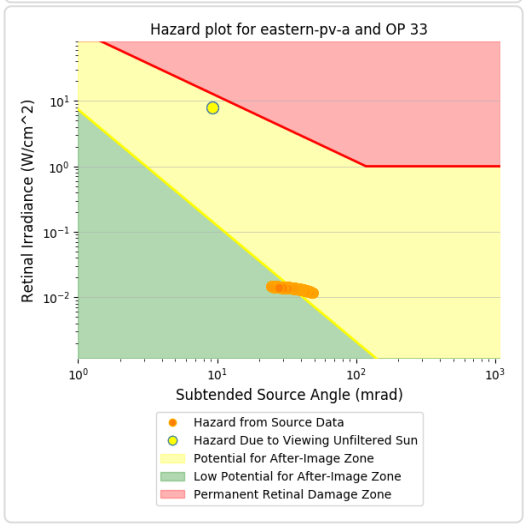
PV array is expected to produce the following glare for receptors at this location:

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





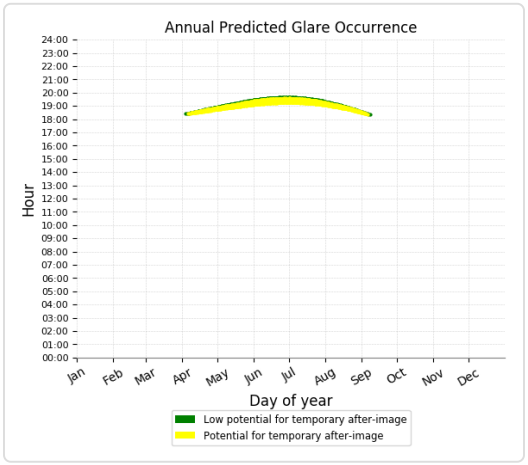


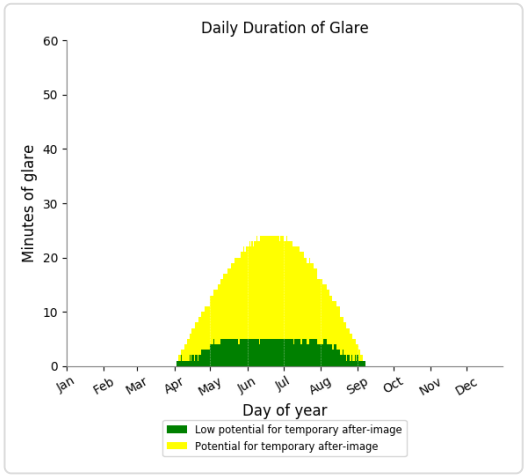


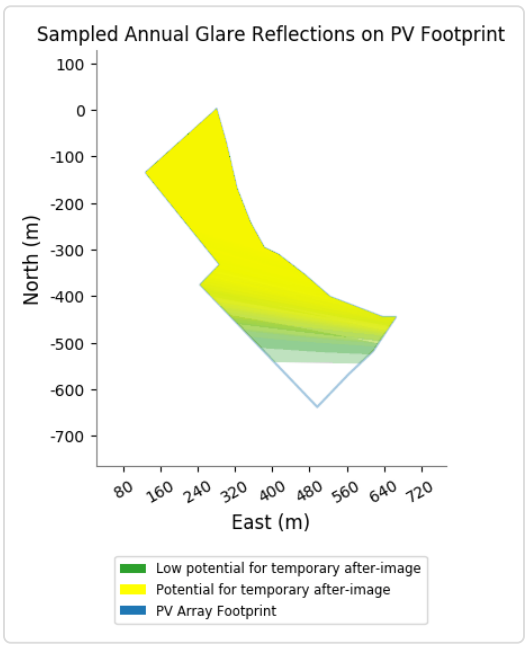
Eastern PV Array - OP Receptor (OP 34)

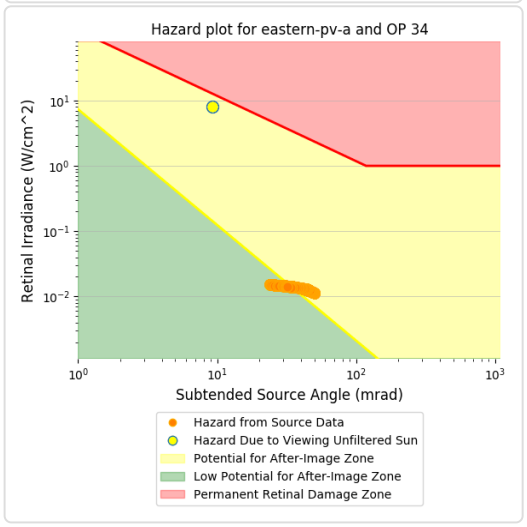
PV array is expected to produce the following glare for receptors at this location:

- 592 minutes of "green" glare with low potential to cause temporary after-image.
- 1,819 minutes of "yellow" glare with potential to cause temporary after-image.





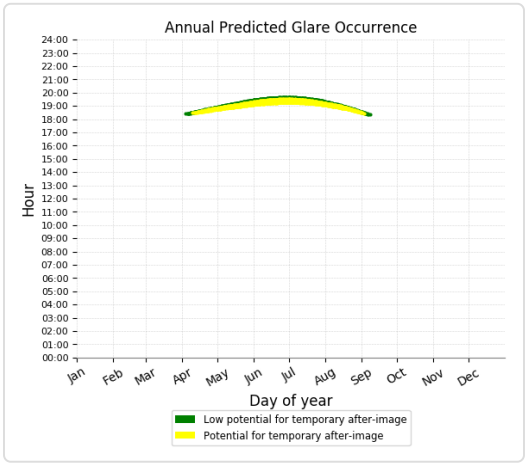


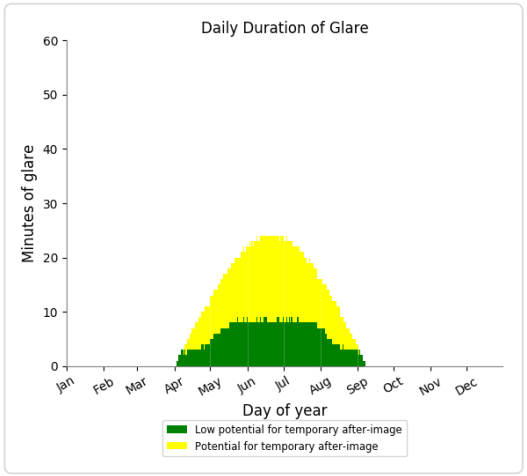


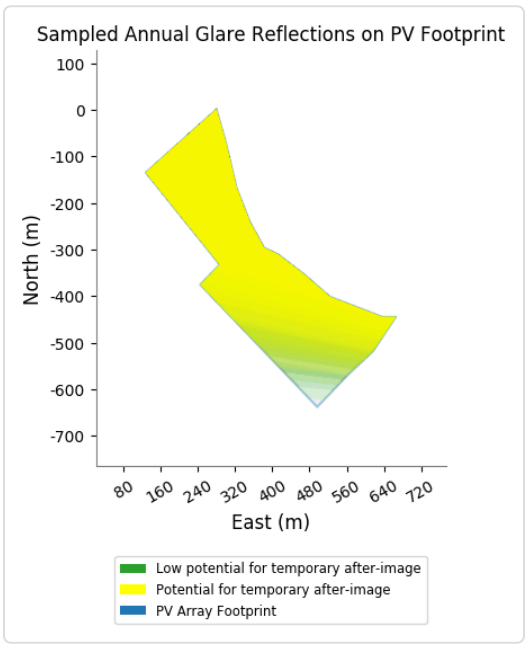
Eastern PV Array - OP Receptor (OP 35)

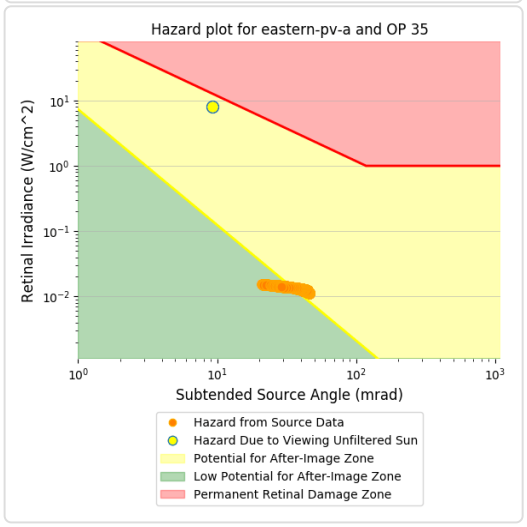
PV array is expected to produce the following glare for receptors at this location:

- 948 minutes of "green" glare with low potential to cause temporary after-image.
- 1,463 minutes of "yellow" glare with potential to cause temporary after-image.





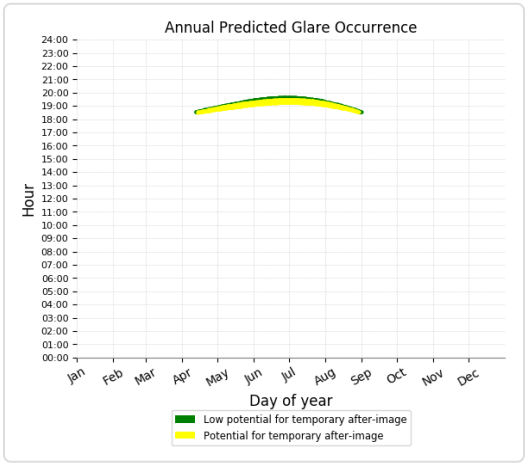


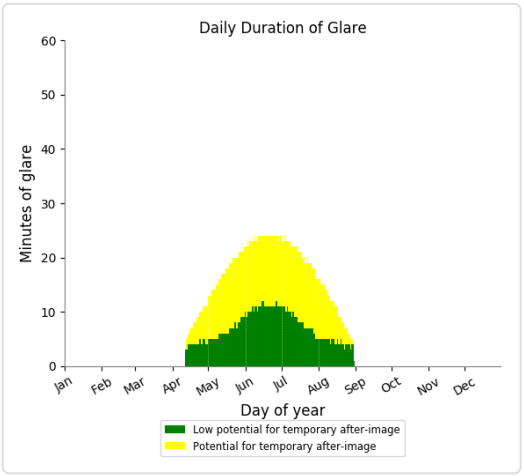


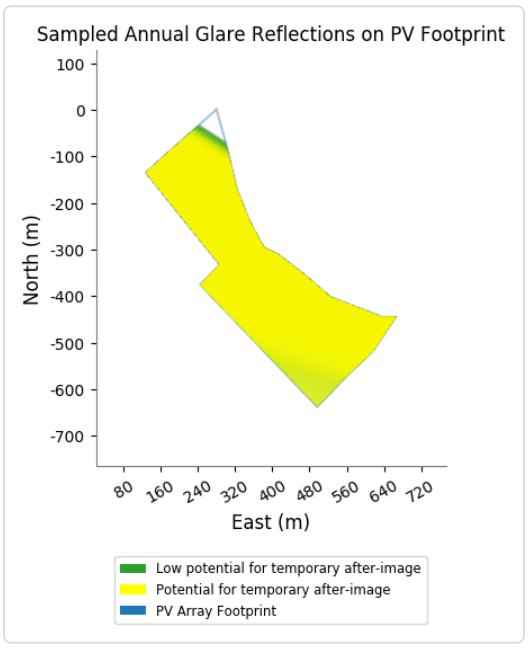
Eastern PV Array - OP Receptor (OP 36)

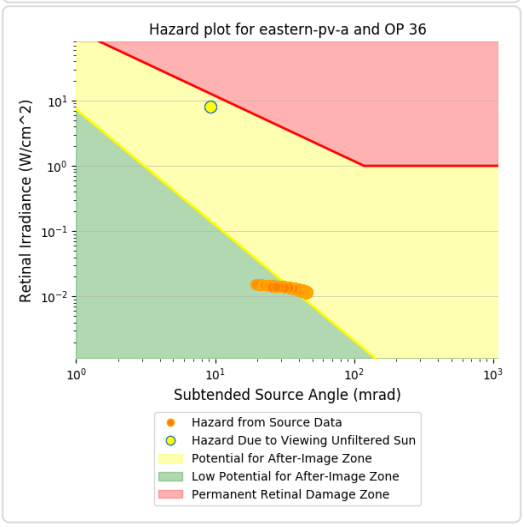
PV array is expected to produce the following glare for receptors at this location:

- 996 minutes of "green" glare with low potential to cause temporary after-image.
- 1,370 minutes of "yellow" glare with potential to cause temporary after-image.





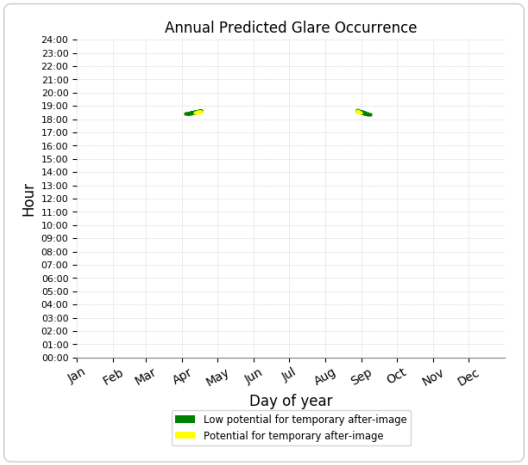


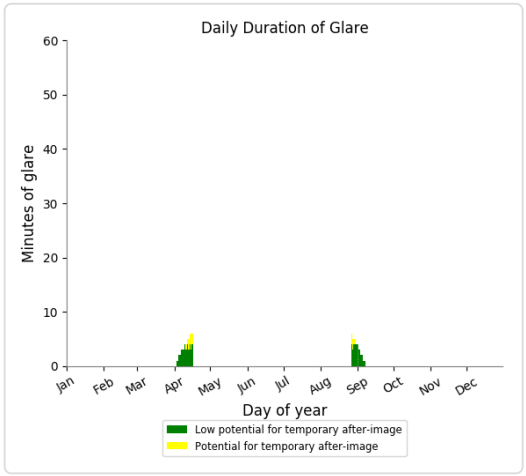


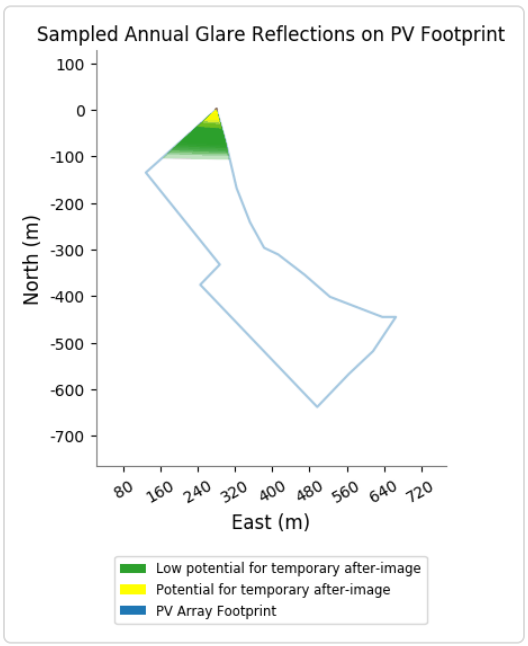
Eastern PV Array - OP Receptor (OP 37)

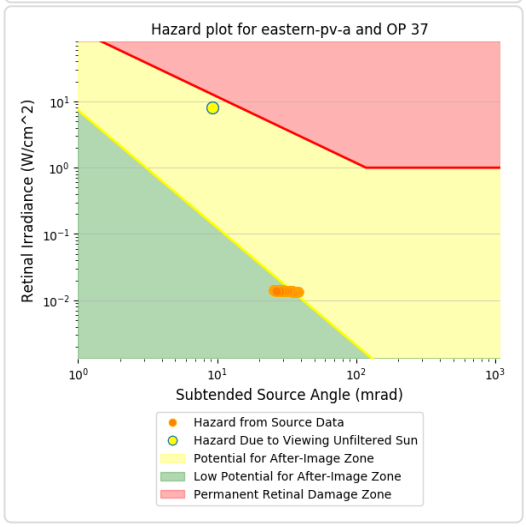
PV array is expected to produce the following glare for receptors at this location:

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









Eastern PV Array - OP Receptor (OP 38)

No glare found

Southern PV Array potential temporary after-image

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0

OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	74	0
OP: OP 35	428	27
OP: OP 36	1051	212
OP: OP 37	0	0
OP: OP 38	0	0

Southern PV Array - OP Receptor (OP 1)

No glare found

Southern PV Array - OP Receptor (OP 2)

No glare found

Southern PV Array - OP Receptor (OP 3)

No glare found

Southern PV Array - OP Receptor (OP 4)

No glare found

Southern PV Array - OP Receptor (OP 5)

No glare found

Southern PV Array - OP Receptor (OP 6)

No glare found

Southern PV Array - OP Receptor (OP 7)

No glare found

Southern PV Array - OP Receptor (OP 8)

No glare found

Southern PV Array - OP Receptor (OP 9)

No glare found

Southern PV Array - OP Receptor (OP 10)

No glare found

Southern PV Array - OP Receptor (OP 11)
No glare found

Southern PV Array - OP Receptor (OP 12)
No glare found

Southern PV Array - OP Receptor (OP 13)
No glare found

Southern PV Array - OP Receptor (OP 14)
No glare found

Southern PV Array - OP Receptor (OP 15)
No glare found

Southern PV Array - OP Receptor (OP 16)
No glare found

Southern PV Array - OP Receptor (OP 17)
No glare found

Southern PV Array - OP Receptor (OP 18)
No glare found

Southern PV Array - OP Receptor (OP 19)
No glare found

Southern PV Array - OP Receptor (OP 20)
No glare found

Southern PV Array - OP Receptor (OP 21)
No glare found

Southern PV Array - OP Receptor (OP 22)
No glare found

Southern PV Array - OP Receptor (OP 23)
No glare found

Southern PV Array - OP Receptor (OP 24)
No glare found

Southern PV Array - OP Receptor (OP 25)
No glare found

Southern PV Array - OP Receptor (OP 26)
No glare found

Southern PV Array - OP Receptor (OP 27)
No glare found

Southern PV Array - OP Receptor (OP 28)
No glare found

Southern PV Array - OP Receptor (OP 29)
No glare found

Southern PV Array - OP Receptor (OP 30)
No glare found

Southern PV Array - OP Receptor (OP 31)

No glare found

Southern PV Array - OP Receptor (OP 32)

No glare found

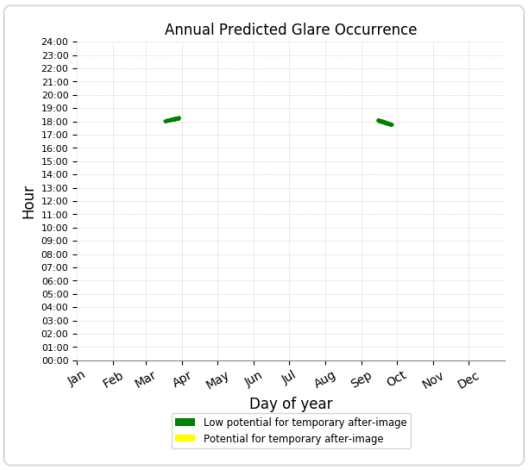
Southern PV Array - OP Receptor (OP 33)

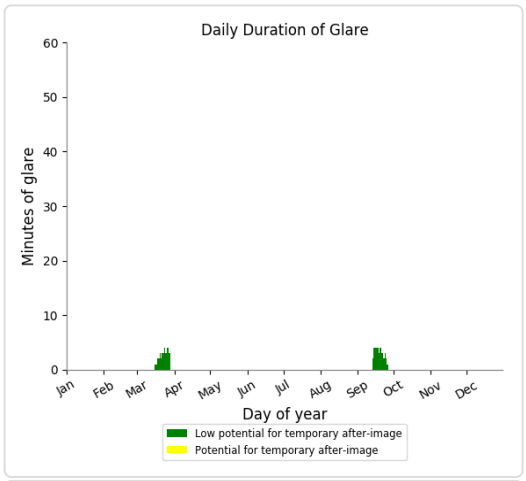
No glare found

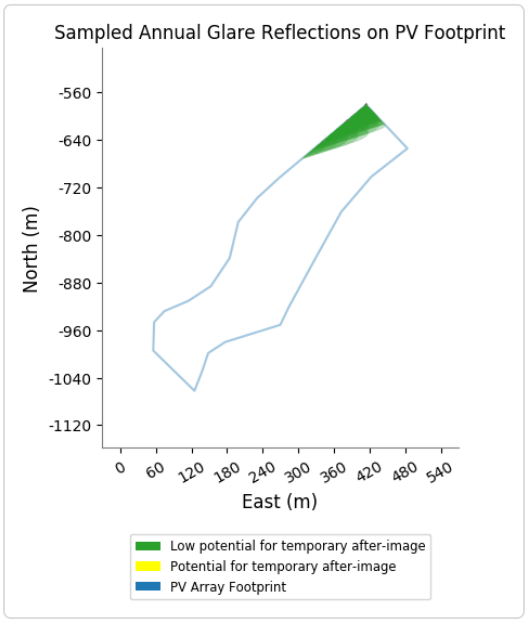
Southern PV Array - OP Receptor (OP 34)

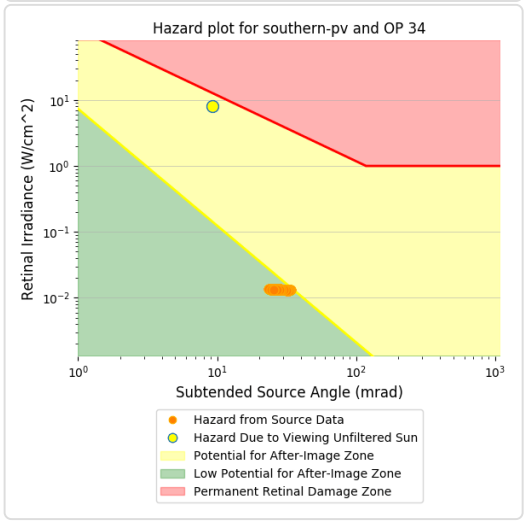
PV array is expected to produce the following glare for receptors at this location:

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





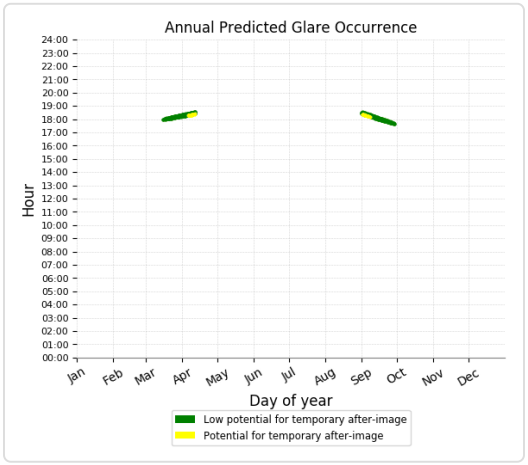


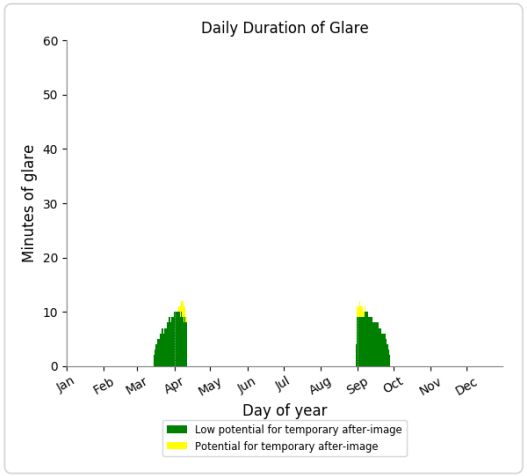


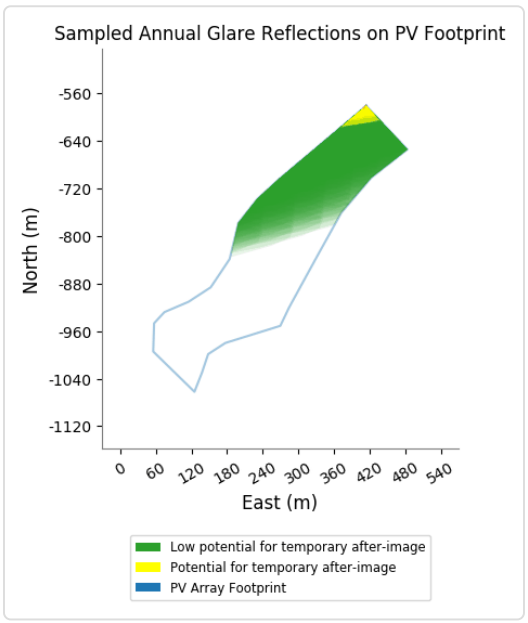
Southern PV Array - OP Receptor (OP 35)

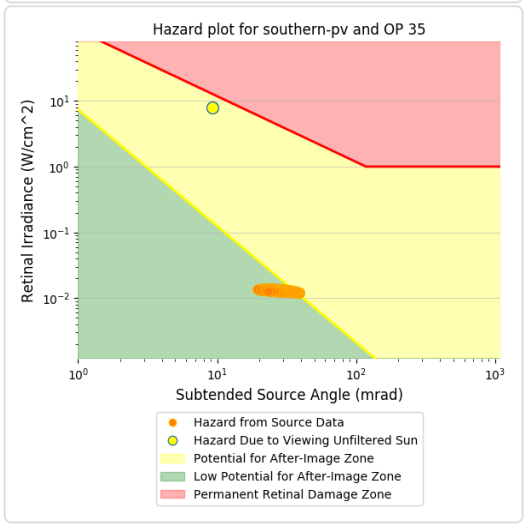
PV array is expected to produce the following glare for receptors at this location:

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





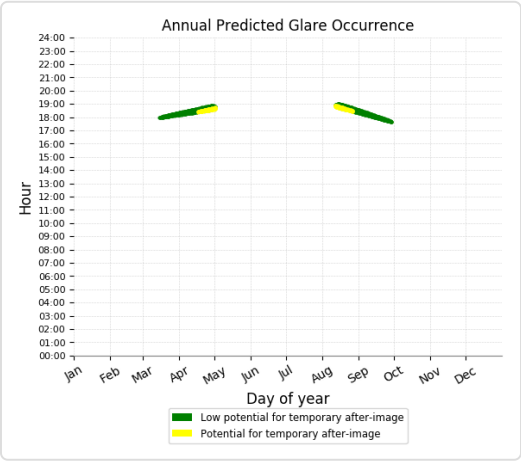


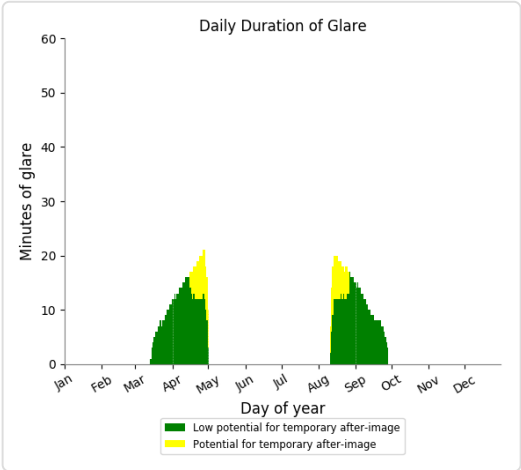


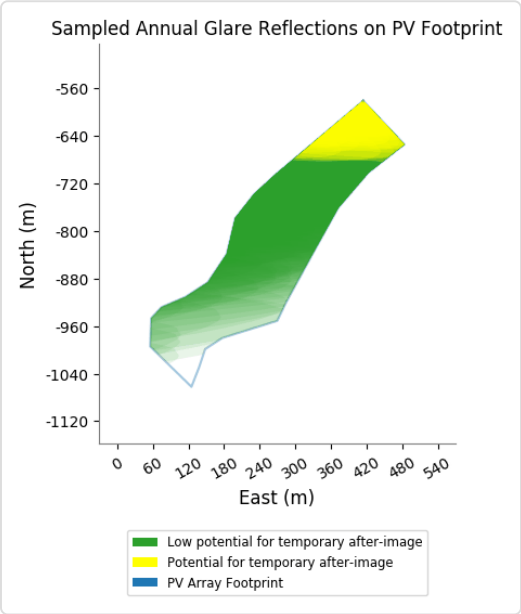
Southern PV Array - OP Receptor (OP 36)

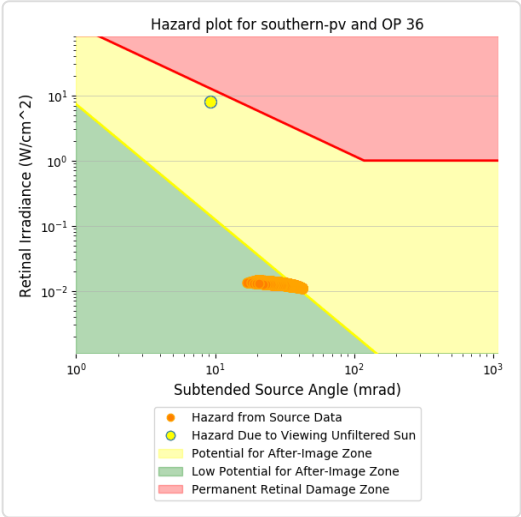
PV array is expected to produce the following glare for receptors at this location:

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









Southern PV Array - OP Receptor (OP 37)

No glare found

Southern PV Array - OP Receptor (OP 38)

No glare found

Western PV Array potential temporary after-image

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	113
OP: OP 5	0	1917
OP: OP 6	1	2307
OP: OP 7	22	2286
OP: OP 8	62	2245
OP: OP 9	112	2175
OP: OP 10	12	1329
OP: OP 11	0	1582
OP: OP 12	0	2309

OP: OP 13	0	1467
OP: OP 14	0	113
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	34
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	2	57
OP: OP 25	35	170
OP: OP 26	112	323
OP: OP 27	204	446
OP: OP 28	295	695
OP: OP 29	378	1162
OP: OP 30	496	1802
OP: OP 31	688	1881
OP: OP 32	931	1599
OP: OP 33	854	1459
OP: OP 34	893	1150
OP: OP 35	1125	814
OP: OP 36	1330	312
OP: OP 37	1002	1410
OP: OP 38	890	517

Western PV Array - OP Receptor (OP 1)

No glare found

Western PV Array - OP Receptor (OP 2)

No glare found

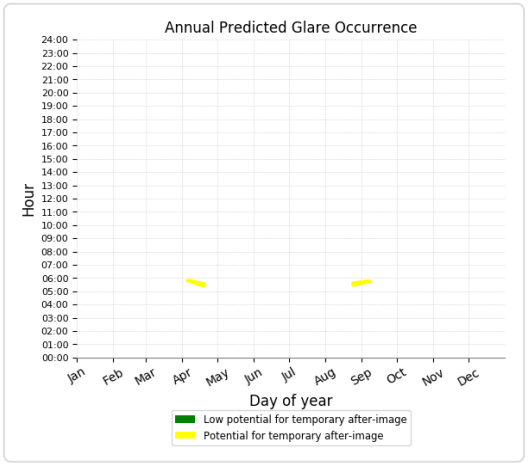
Western PV Array - OP Receptor (OP 3)

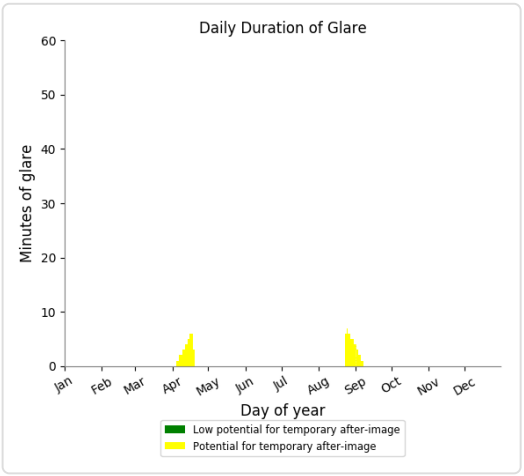
No glare found

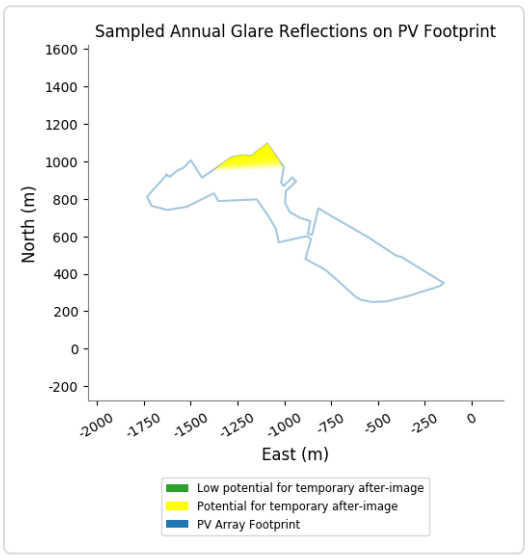
Western PV Array - OP Receptor (OP 4)

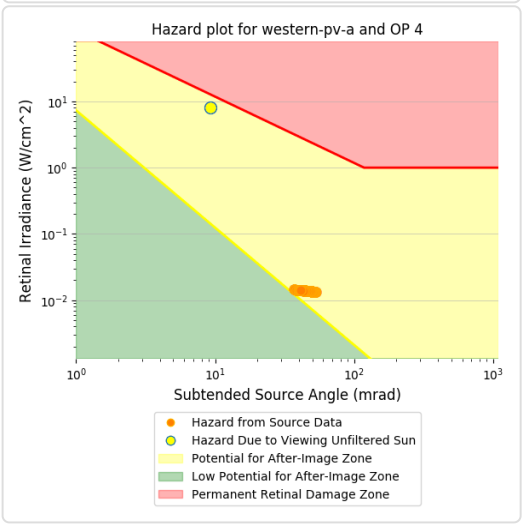
PV array is expected to produce the following glare for receptors at this location:

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





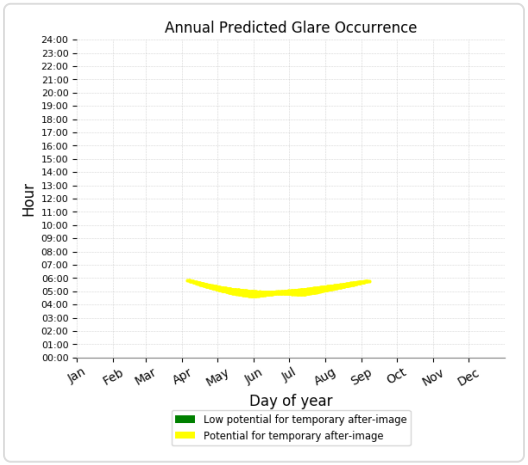


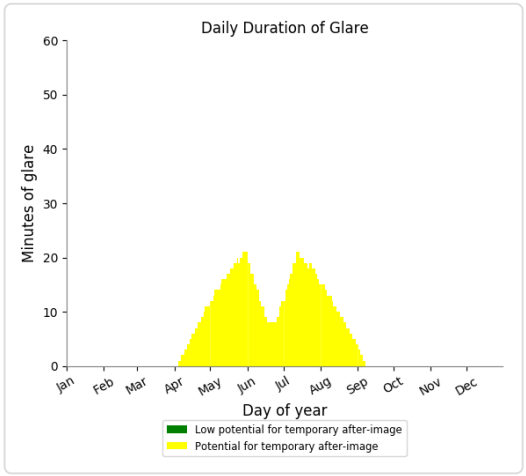


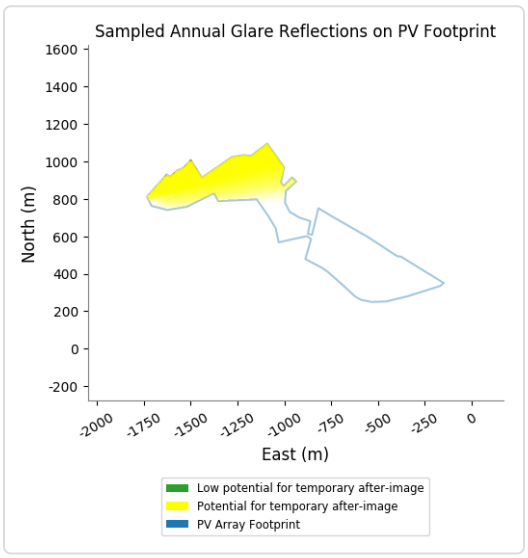
Western PV Array - OP Receptor (OP 5)

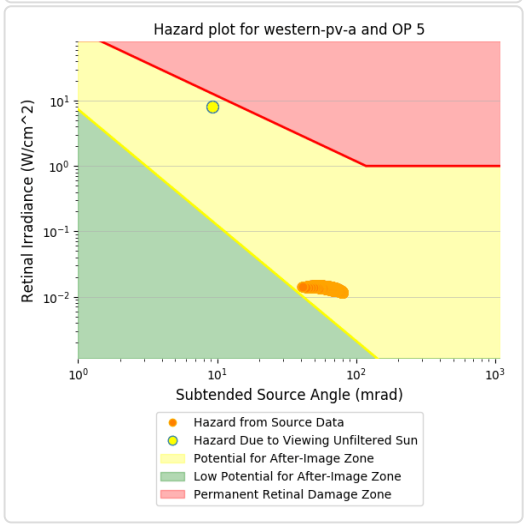
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 1,917 minutes of "yellow" glare with potential to cause temporary after-image.





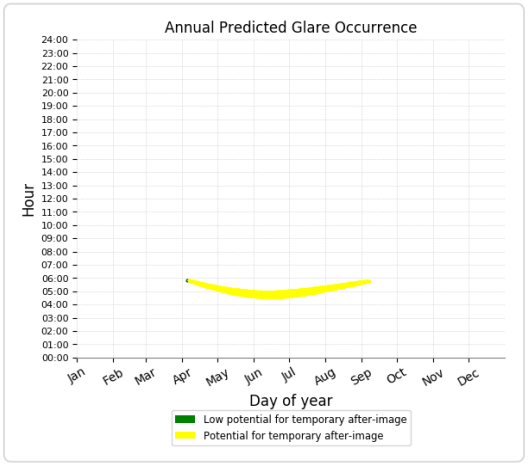


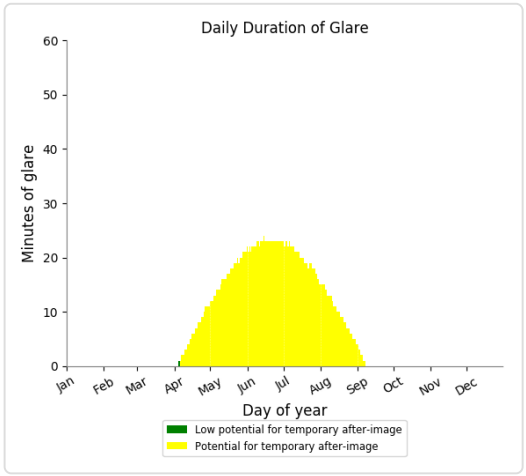


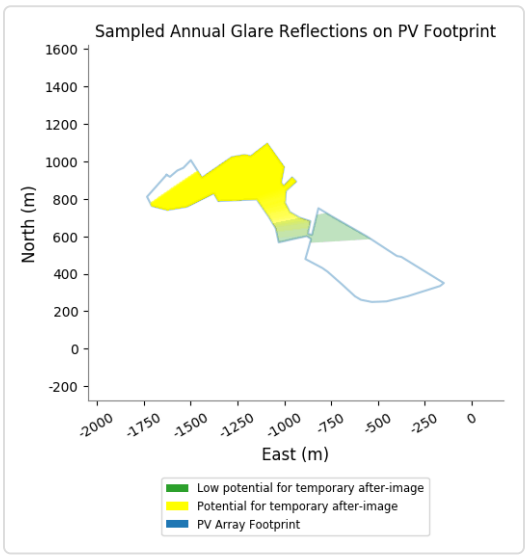
Western PV Array - OP Receptor (OP 6)

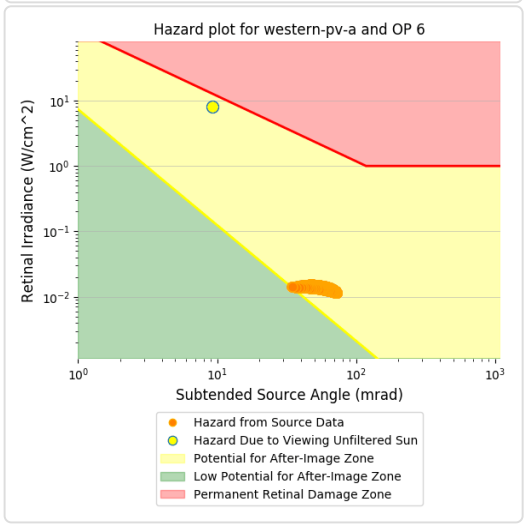
PV array is expected to produce the following glare for receptors at this location:

- 1 minutes of "green" glare with low potential to cause temporary after-image.
- 2,307 minutes of "yellow" glare with potential to cause temporary after-image.





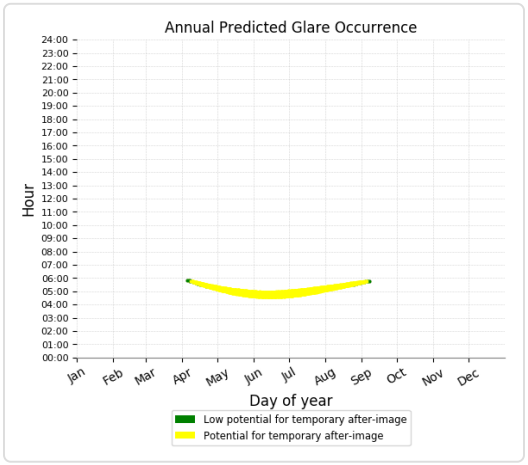


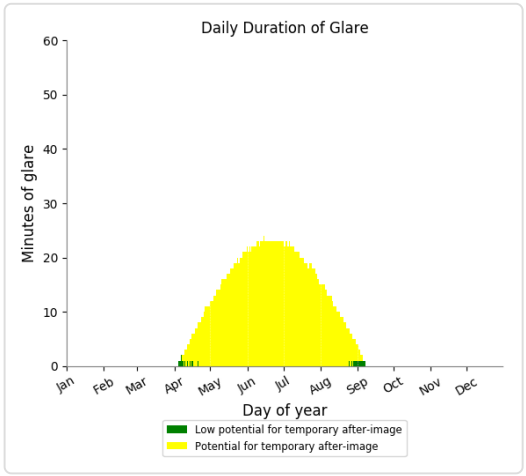


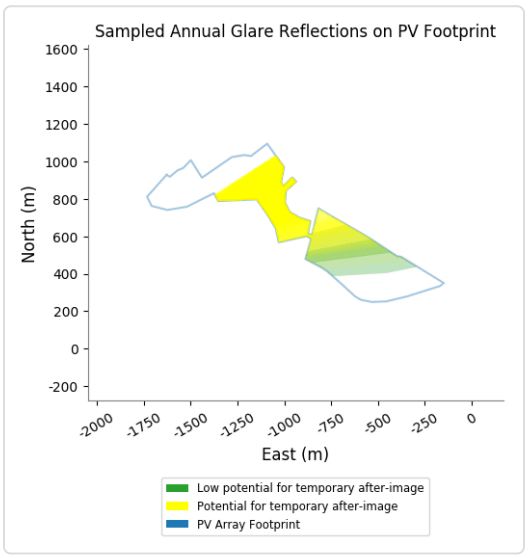
Western PV Array - OP Receptor (OP 7)

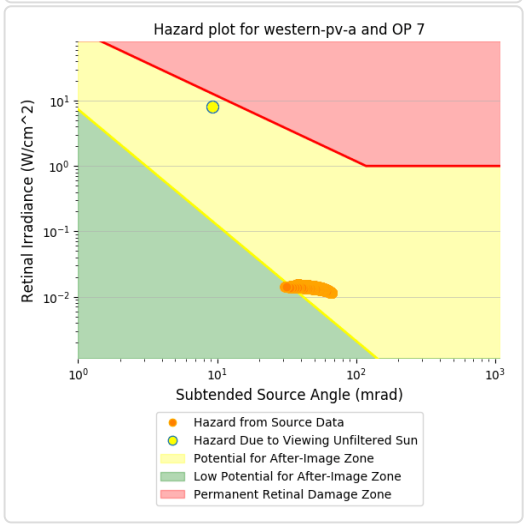
PV array is expected to produce the following glare for receptors at this location:

- 22 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.





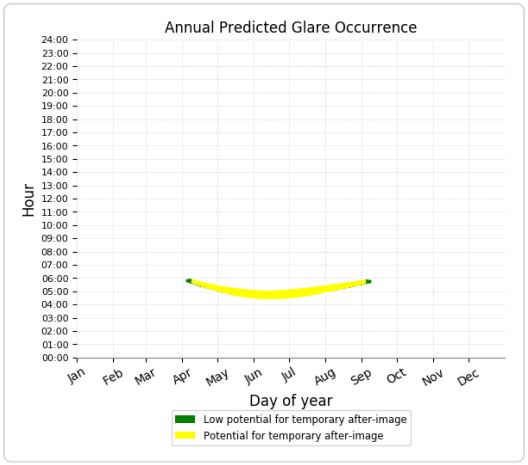


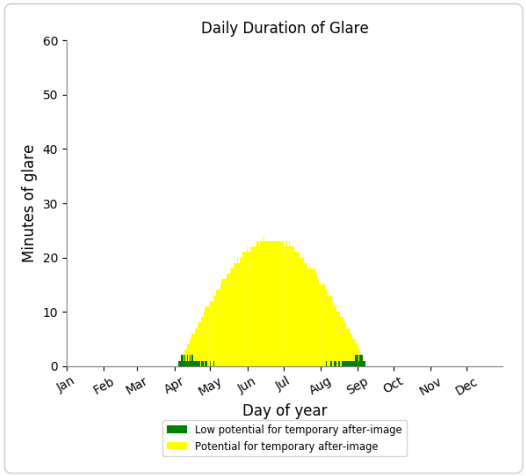


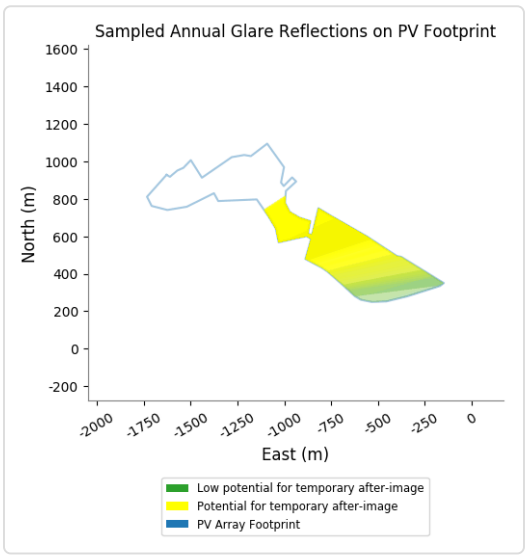
Western PV Array - OP Receptor (OP 8)

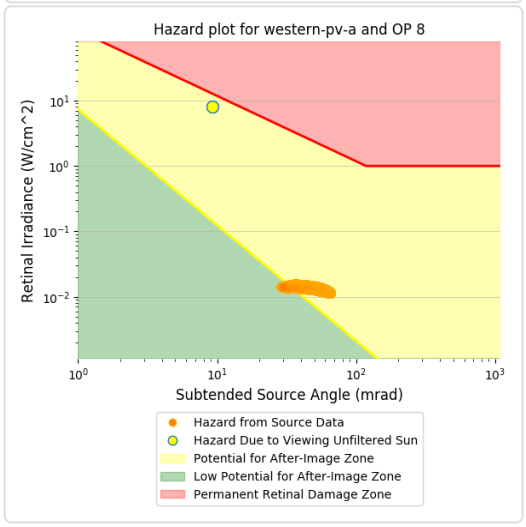
PV array is expected to produce the following glare for receptors at this location:

- 62 minutes of "green" glare with low potential to cause temporary after-image.
- 2,245 minutes of "yellow" glare with potential to cause temporary after-image.





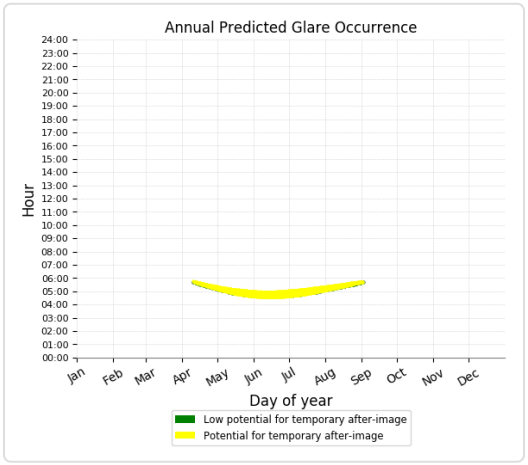


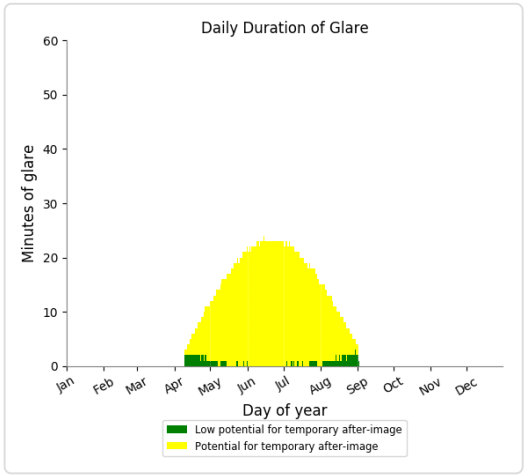


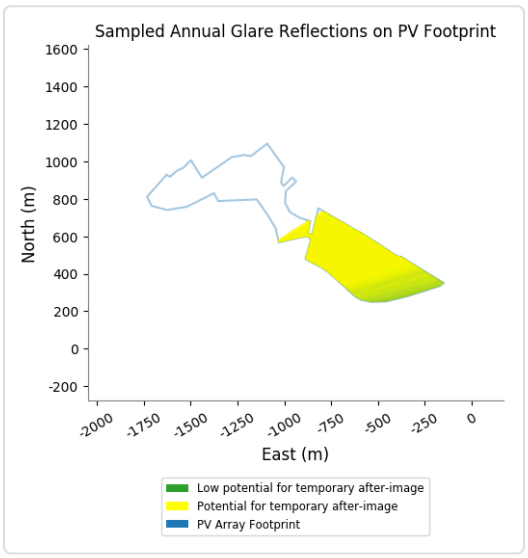
Western PV Array - OP Receptor (OP 9)

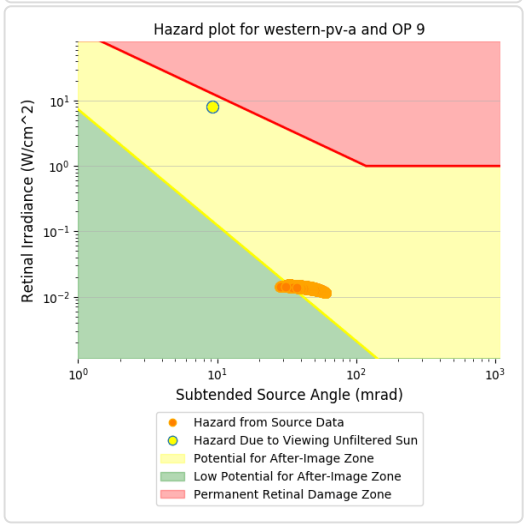
PV array is expected to produce the following glare for receptors at this location:

- 112 minutes of "green" glare with low potential to cause temporary after-image.
- 2,175 minutes of "yellow" glare with potential to cause temporary after-image.





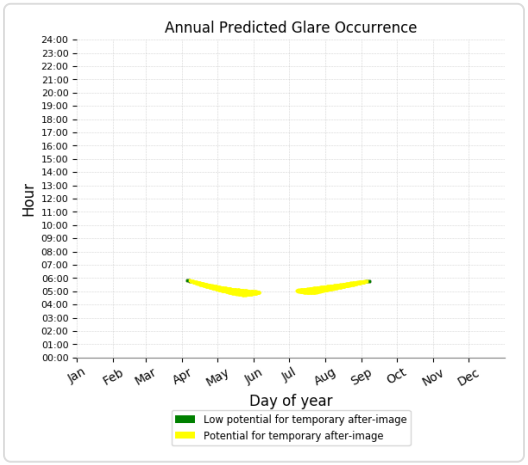


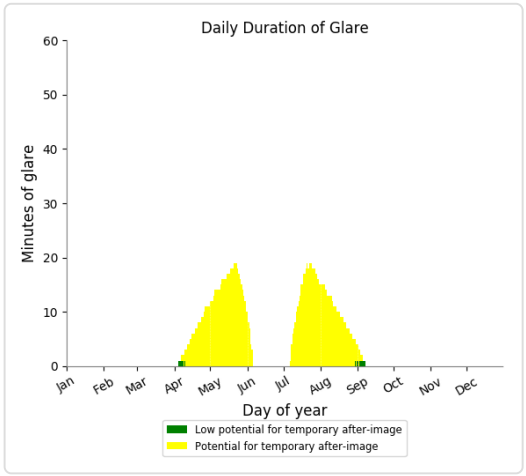


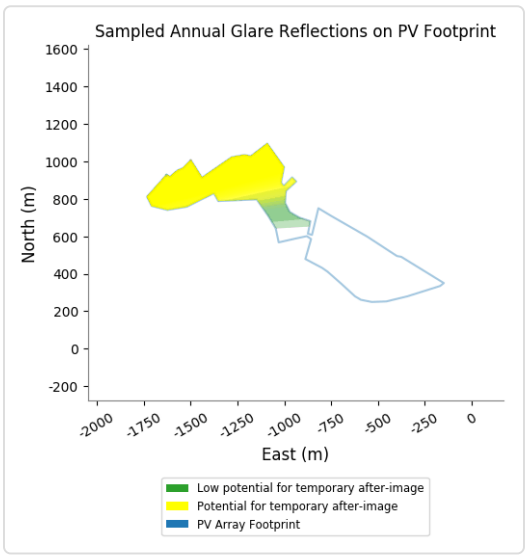
Western PV Array - OP Receptor (OP 10)

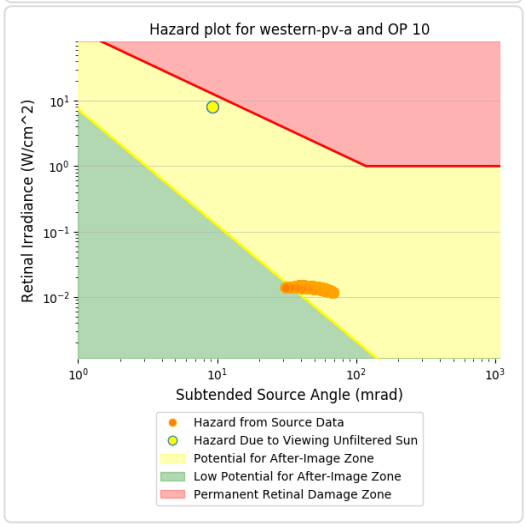
PV array is expected to produce the following glare for receptors at this location:

- 12 minutes of "green" glare with low potential to cause temporary after-image.
- 1,329 minutes of "yellow" glare with potential to cause temporary after-image.





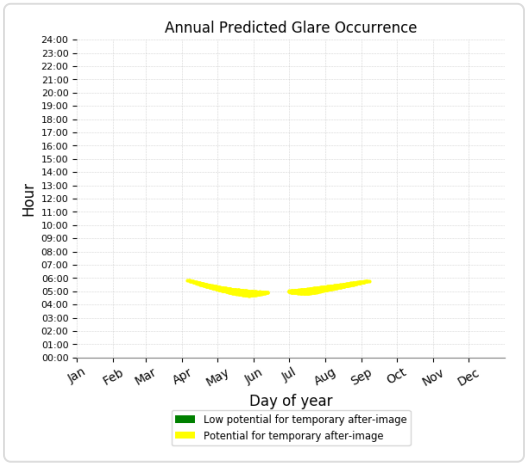


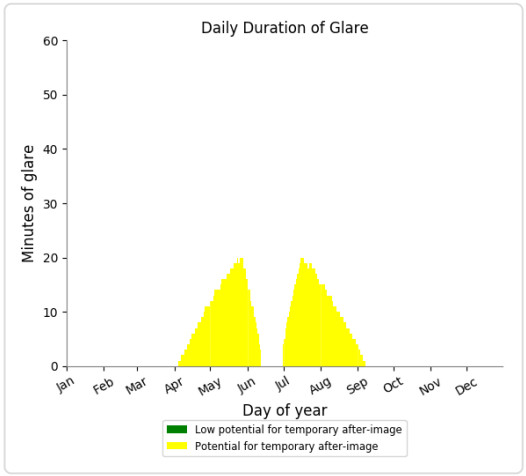


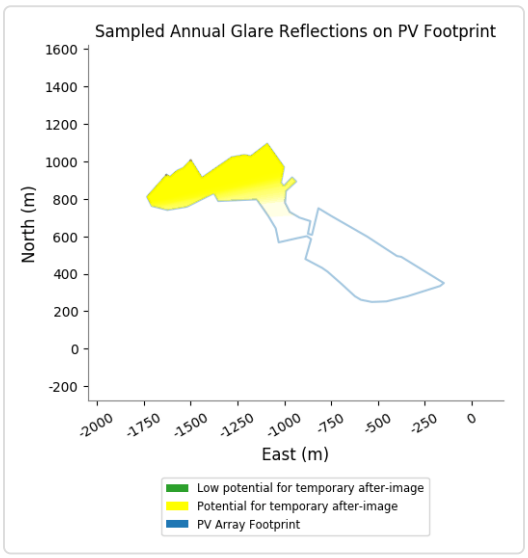
Western PV Array - OP Receptor (OP 11)

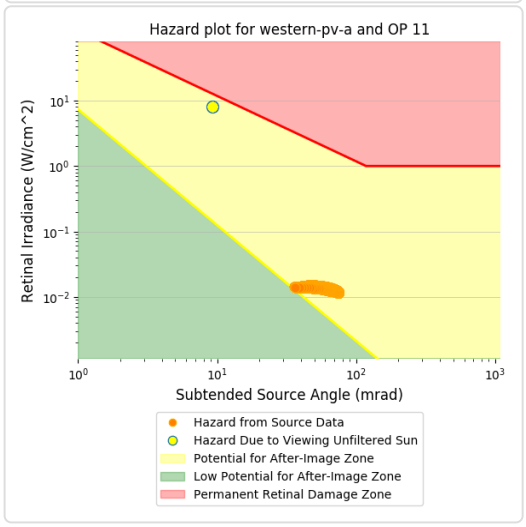
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 1,582 minutes of "yellow" glare with potential to cause temporary after-image.





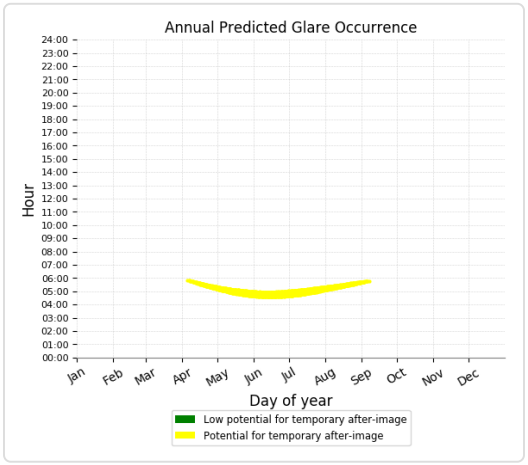


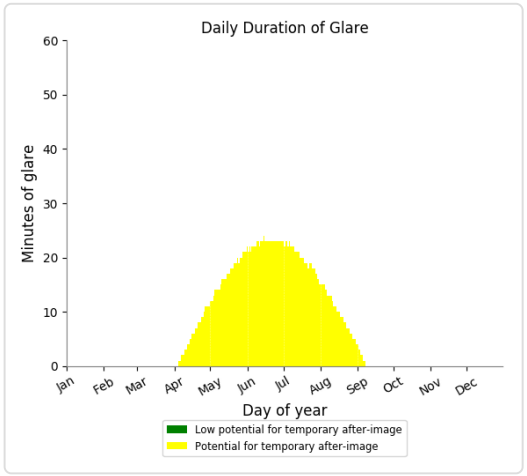


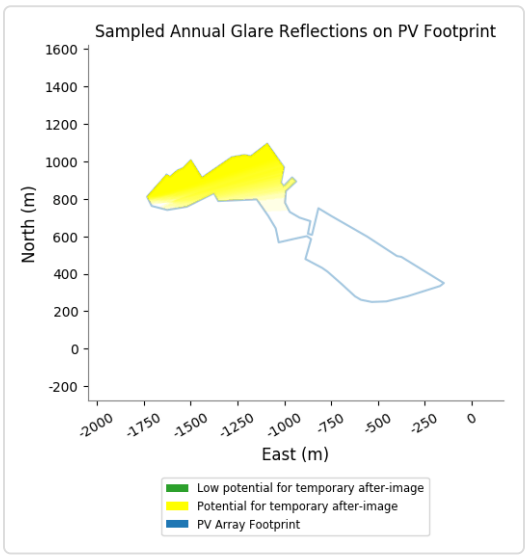
Western PV Array - OP Receptor (OP 12)

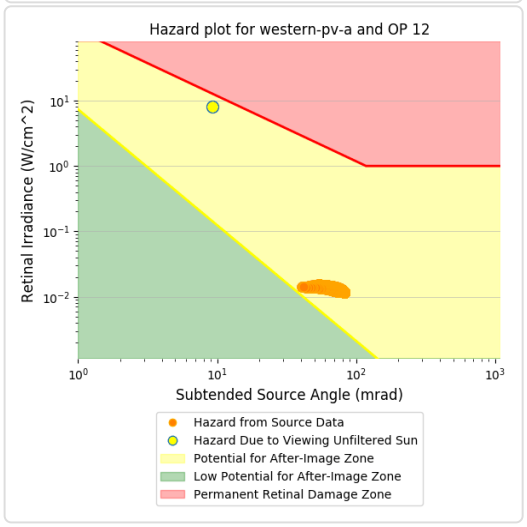
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 2,309 minutes of "yellow" glare with potential to cause temporary after-image.





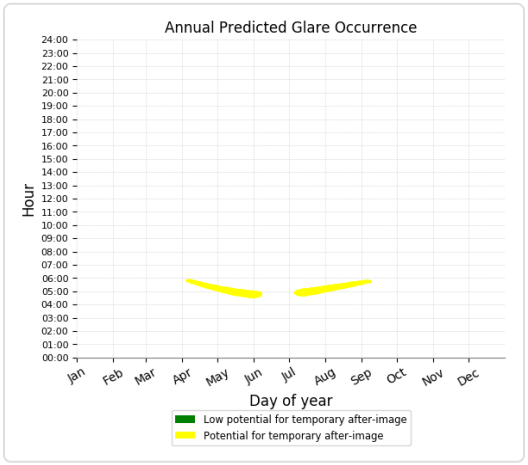


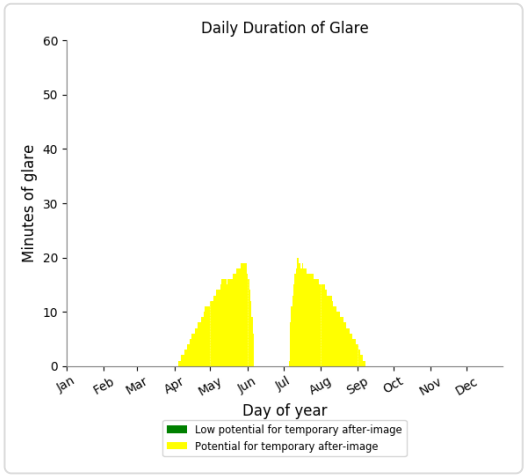


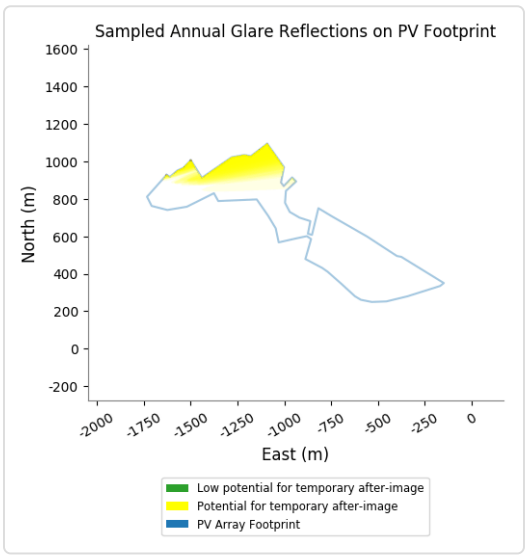
Western PV Array - OP Receptor (OP 13)

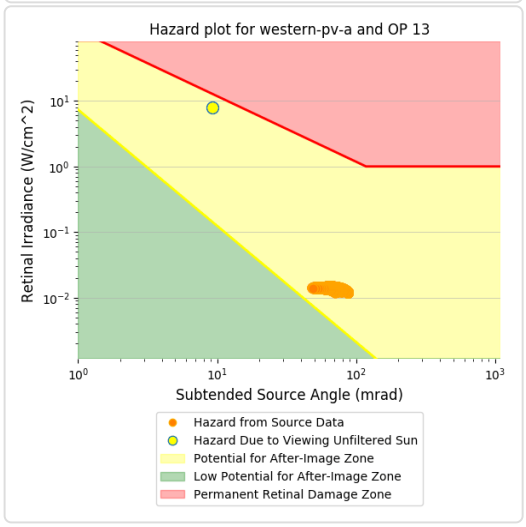
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 1,467 minutes of "yellow" glare with potential to cause temporary after-image.





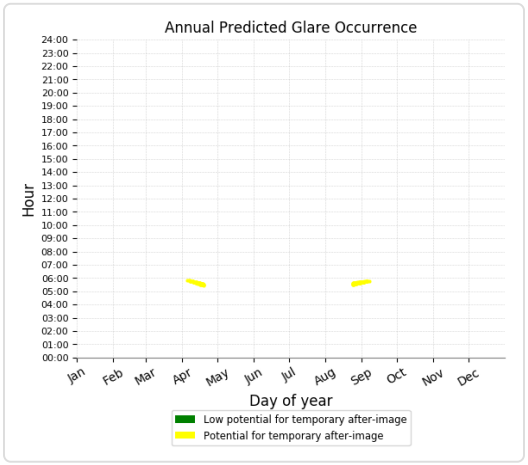


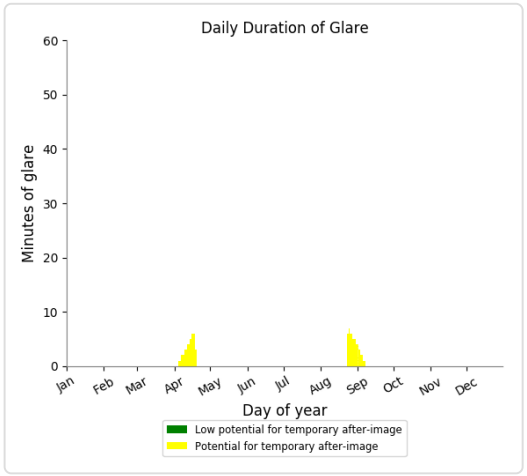


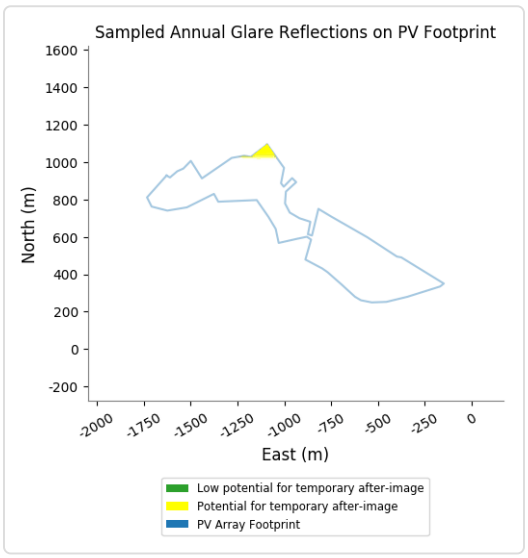
Western PV Array - OP Receptor (OP 14)

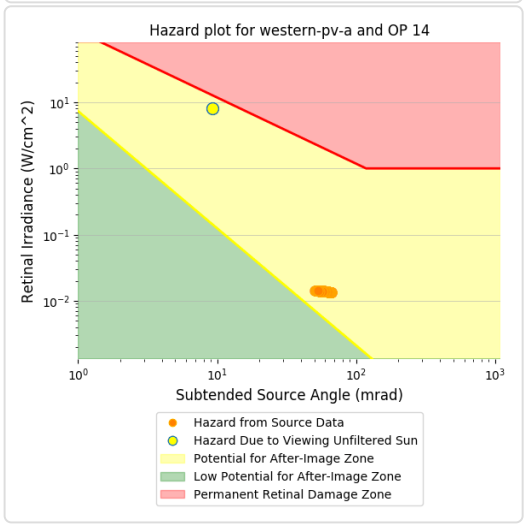
PV array is expected to produce the following glare for receptors at this location:

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









Western PV Array - OP Receptor (OP 15)

No glare found

Western PV Array - OP Receptor (OP 16)

No glare found

Western PV Array - OP Receptor (OP 17)

No glare found

Western PV Array - OP Receptor (OP 18)

No glare found

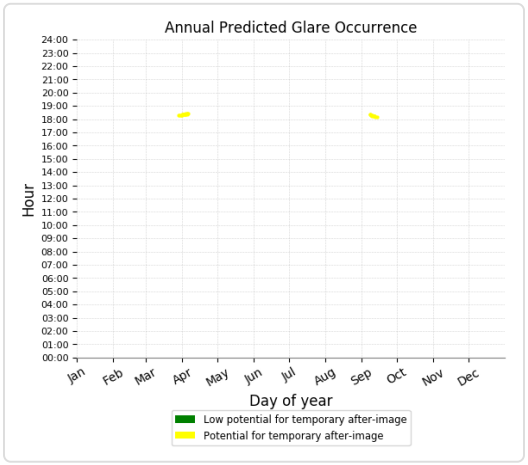
Western PV Array - OP Receptor (OP 19)

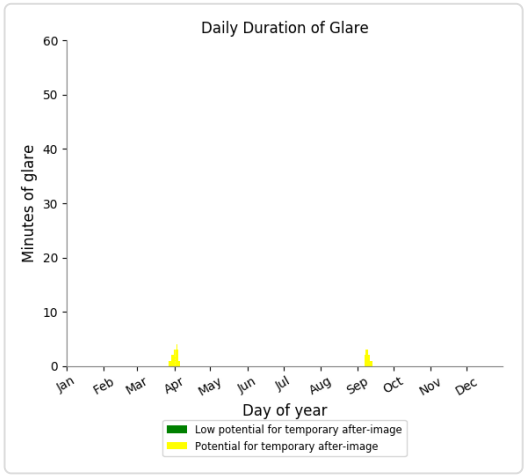
No glare found

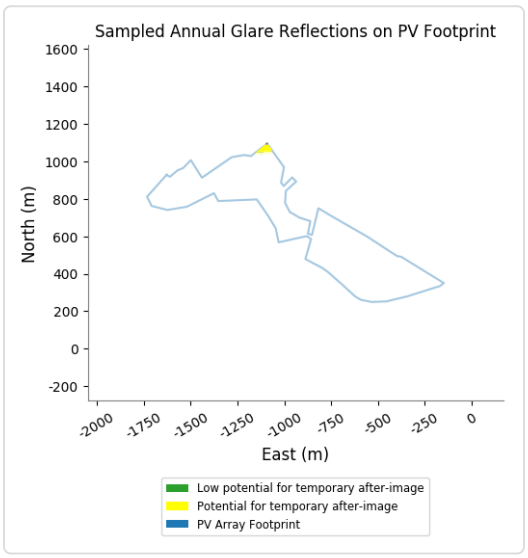
Western PV Array - OP Receptor (OP 20)

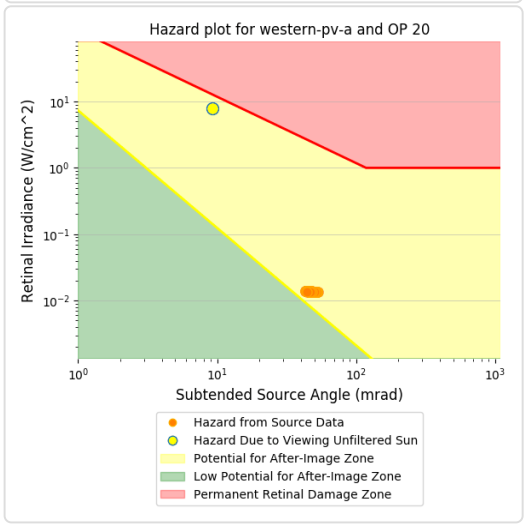
PV array is expected to produce the following glare for receptors at this location:

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









Western PV Array - OP Receptor (OP 21)

No glare found

Western PV Array - OP Receptor (OP 22)

No glare found

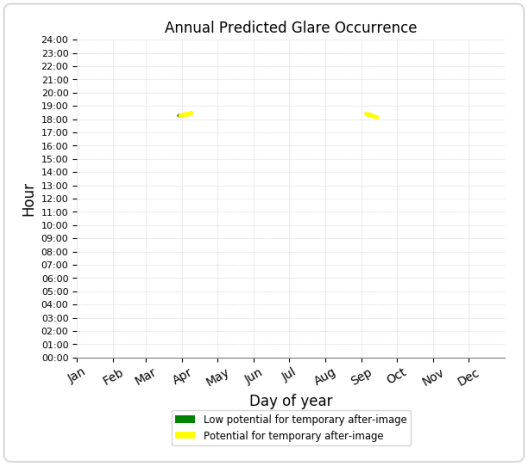
Western PV Array - OP Receptor (OP 23)

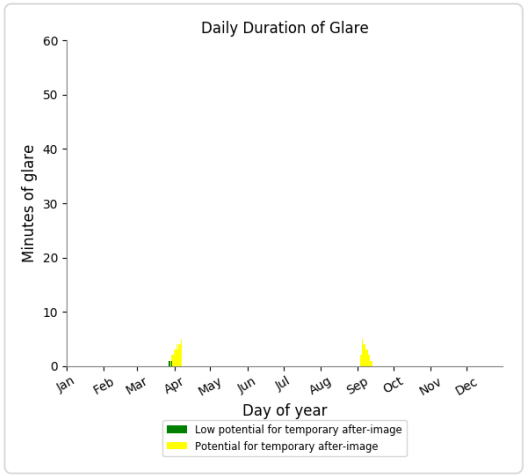
No glare found

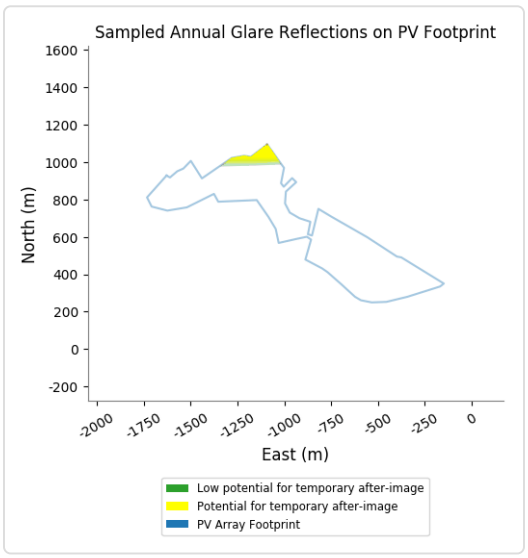
Western PV Array - OP Receptor (OP 24)

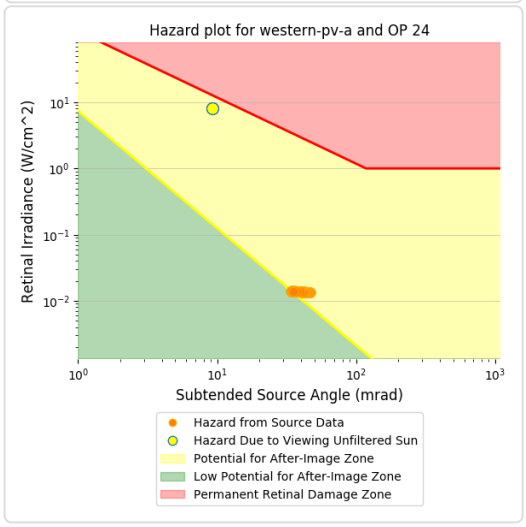
PV array is expected to produce the following glare for receptors at this location:

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





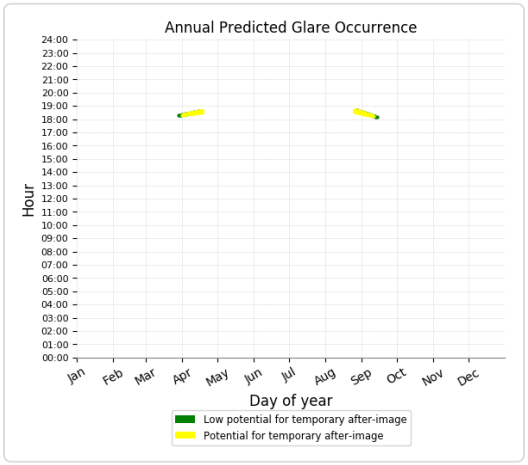


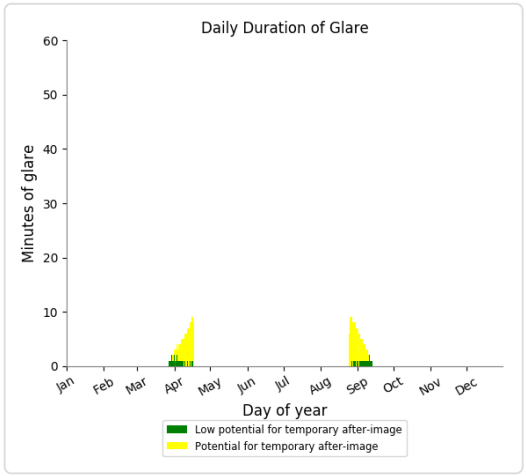


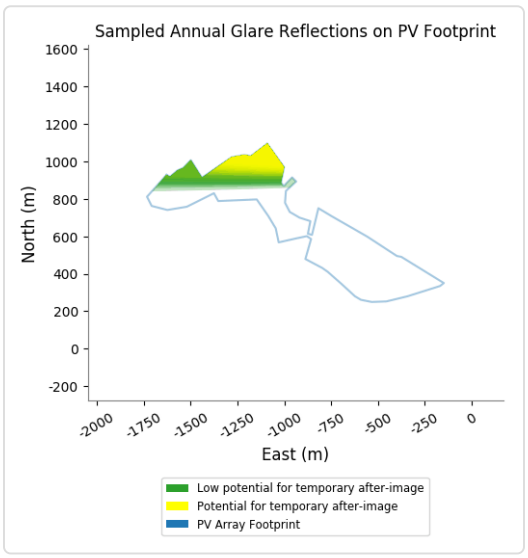
Western PV Array - OP Receptor (OP 25)

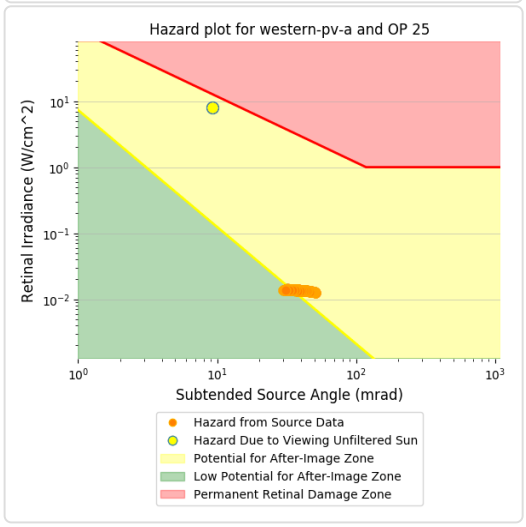
PV array is expected to produce the following glare for receptors at this location:

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





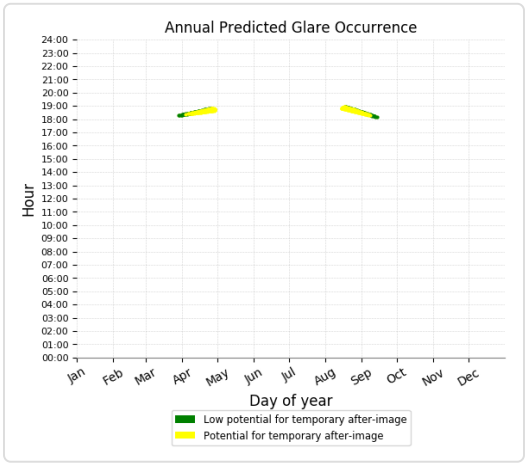


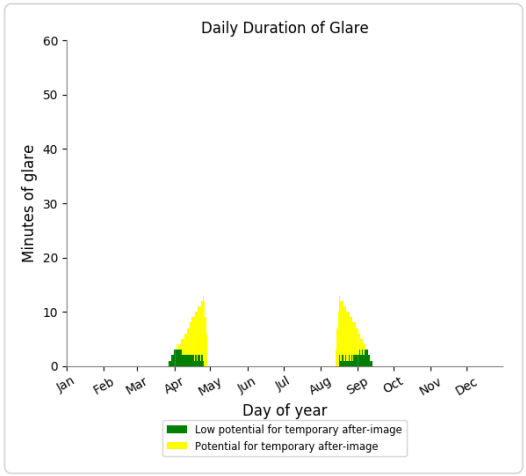


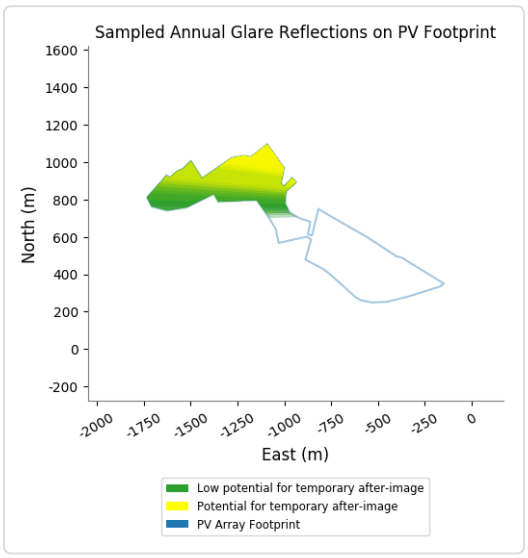
Western PV Array - OP Receptor (OP 26)

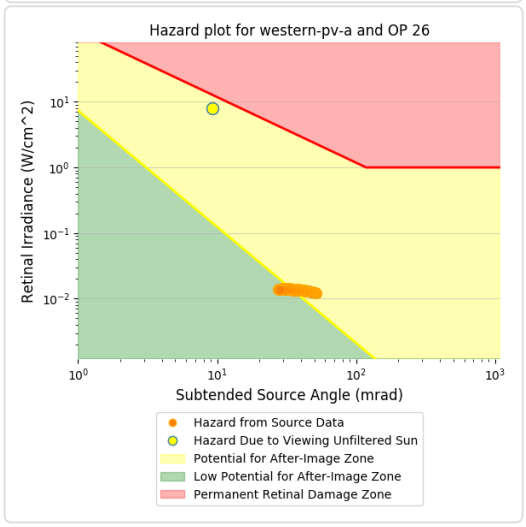
PV array is expected to produce the following glare for receptors at this location:

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





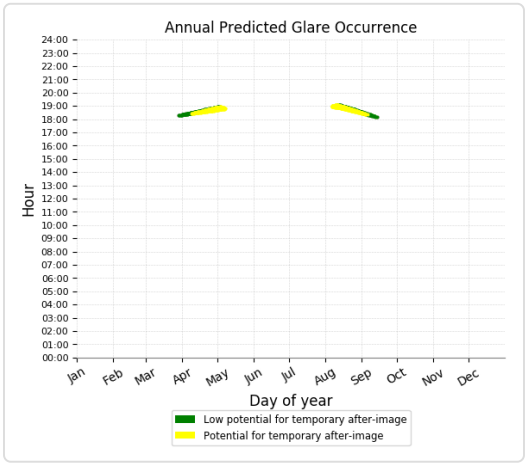


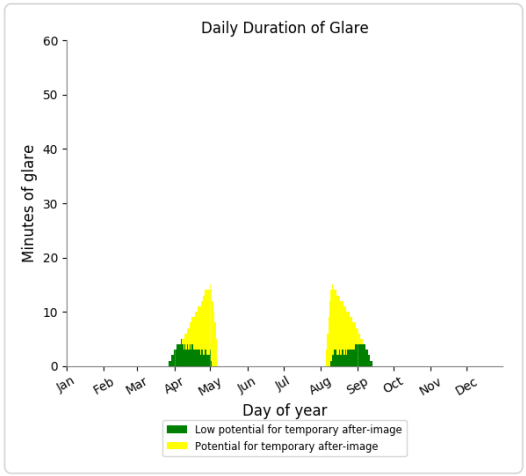


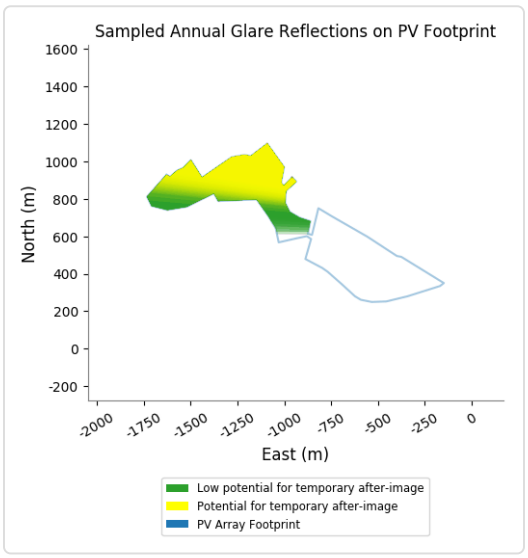
Western PV Array - OP Receptor (OP 27)

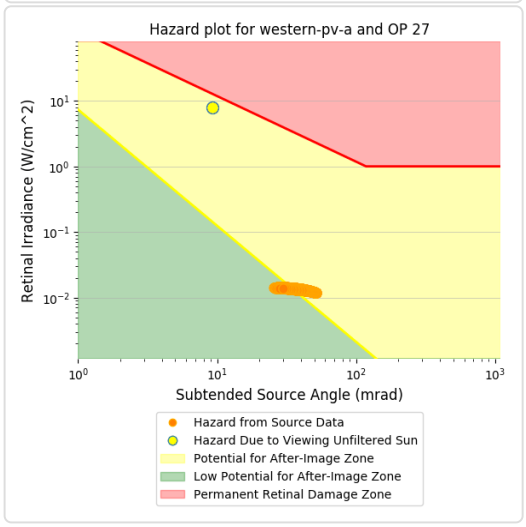
PV array is expected to produce the following glare for receptors at this location:

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





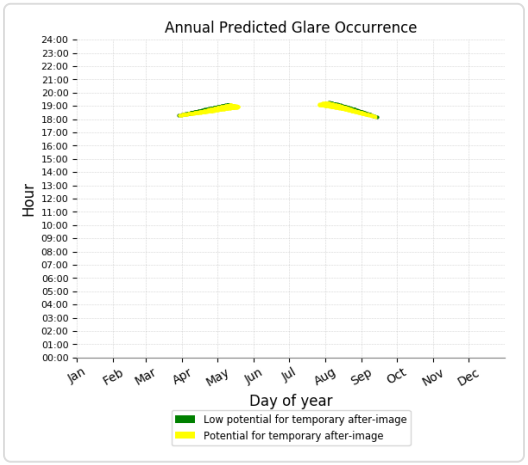


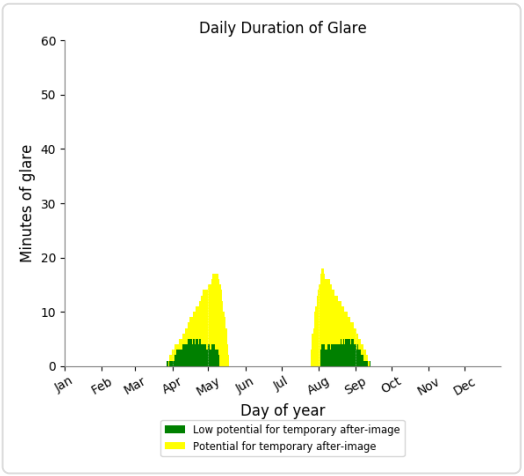


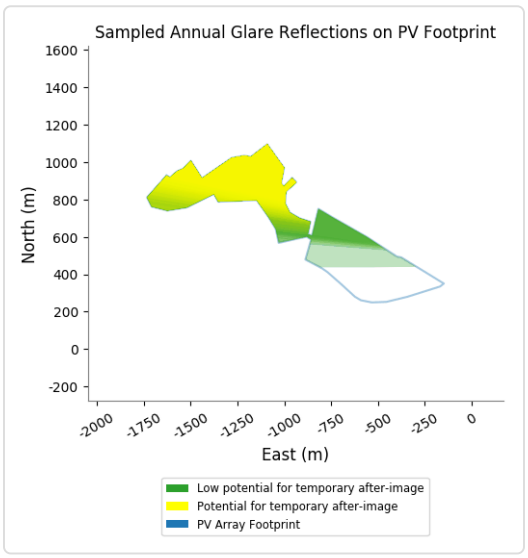
Western PV Array - OP Receptor (OP 28)

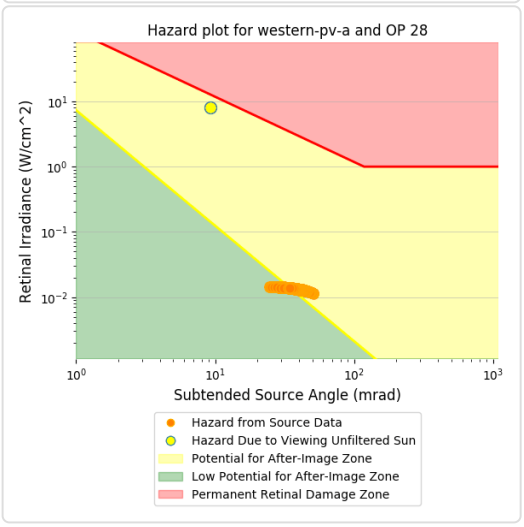
PV array is expected to produce the following glare for receptors at this location:

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





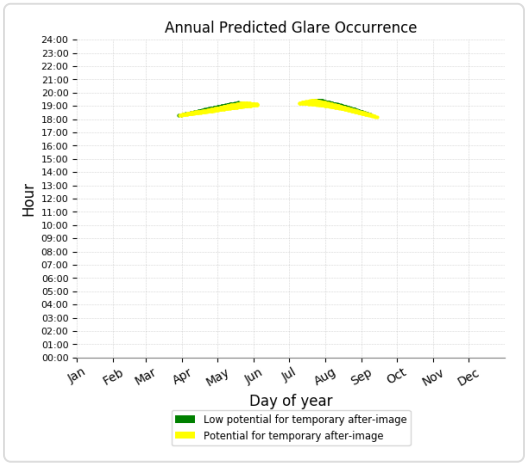


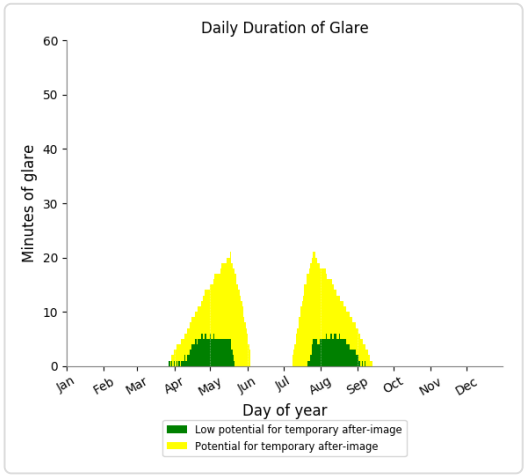


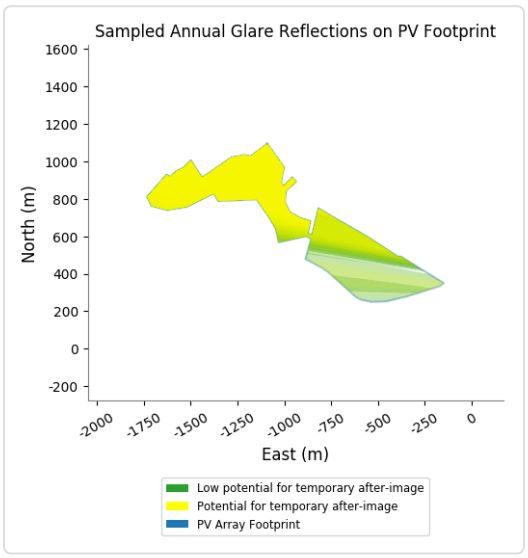
Western PV Array - OP Receptor (OP 29)

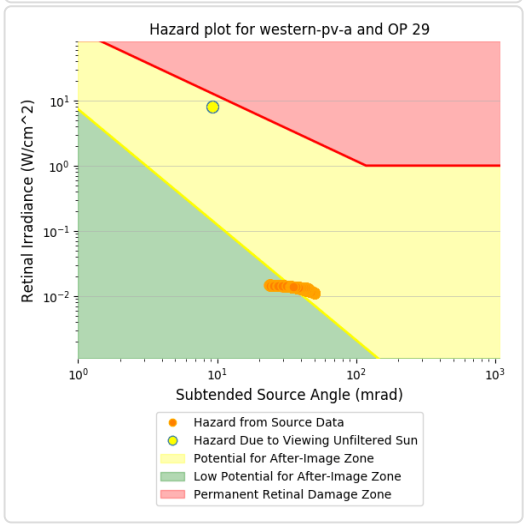
PV array is expected to produce the following glare for receptors at this location:

- 378 minutes of "green" glare with low potential to cause temporary after-image.
- 1,162 minutes of "yellow" glare with potential to cause temporary after-image.





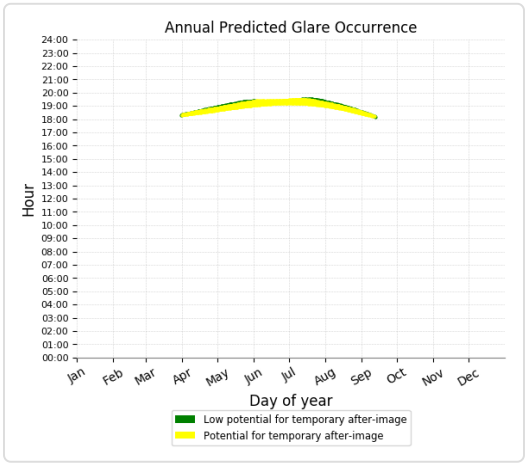


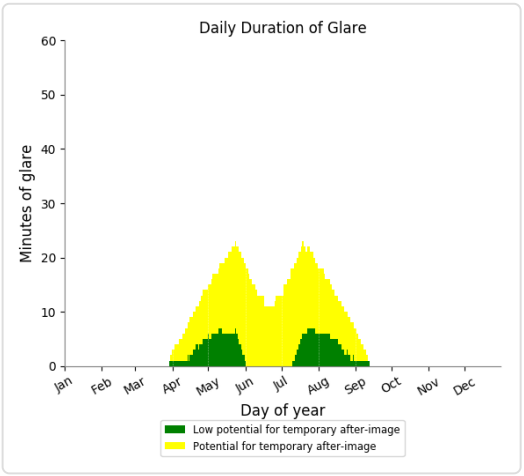


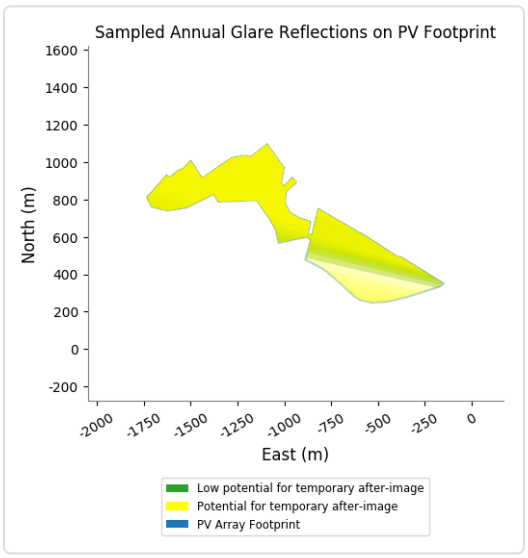
Western PV Array - OP Receptor (OP 30)

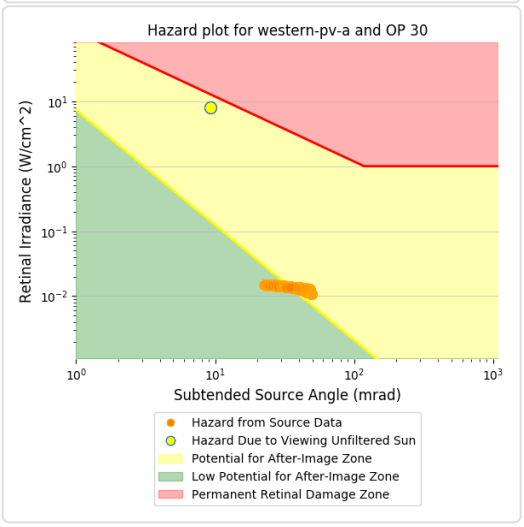
PV array is expected to produce the following glare for receptors at this location:

- 496 minutes of "green" glare with low potential to cause temporary after-image.
- 1,802 minutes of "yellow" glare with potential to cause temporary after-image.





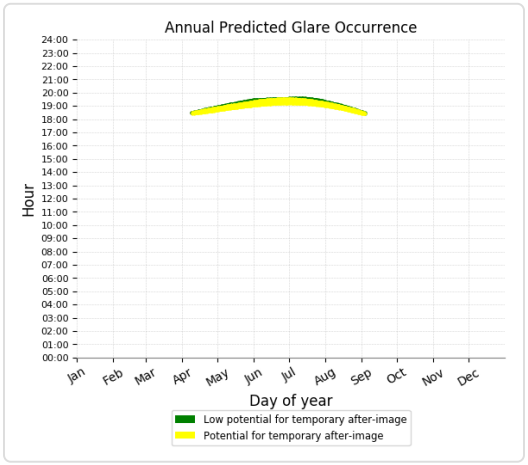


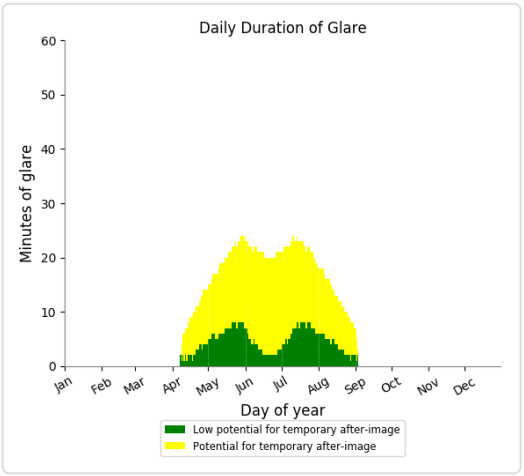


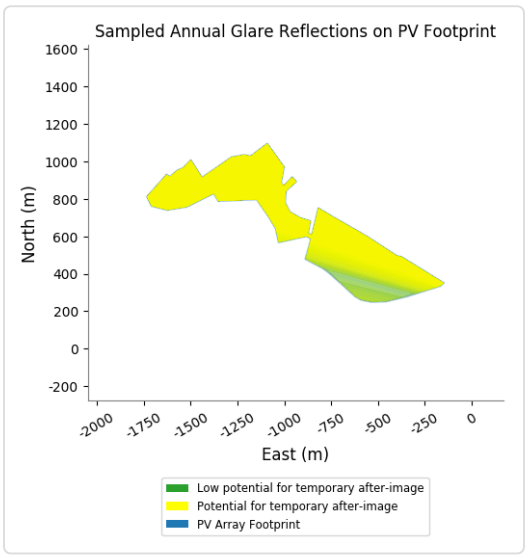
Western PV Array - OP Receptor (OP 31)

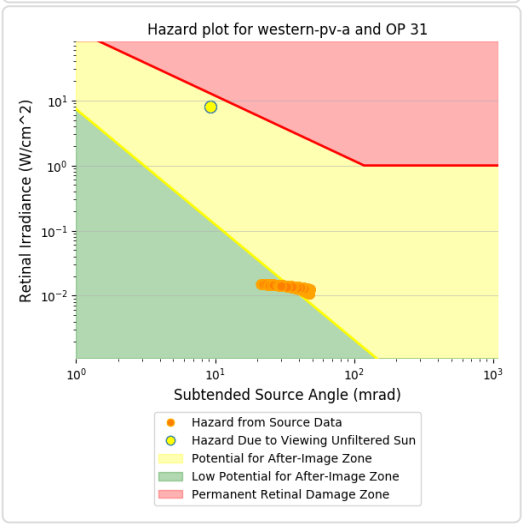
PV array is expected to produce the following glare for receptors at this location:

- 688 minutes of "green" glare with low potential to cause temporary after-image.
- 1,881 minutes of "yellow" glare with potential to cause temporary after-image.





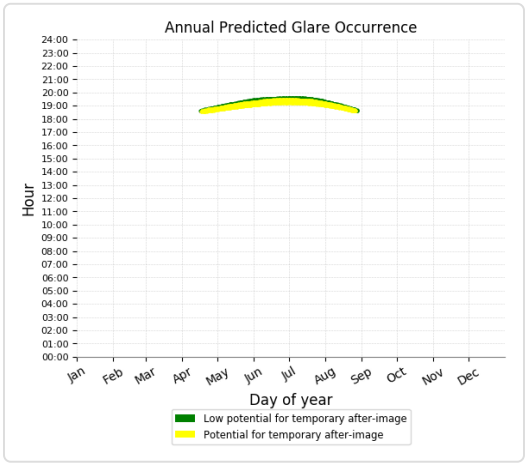


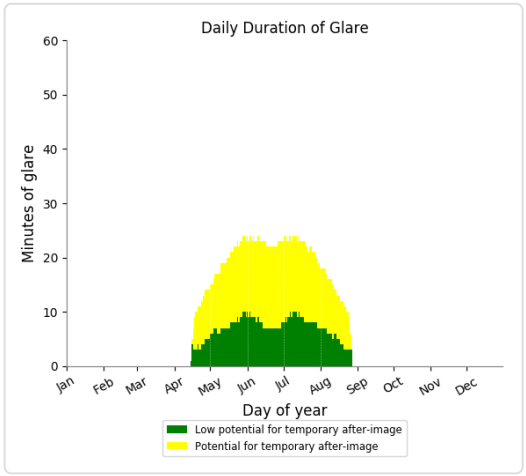


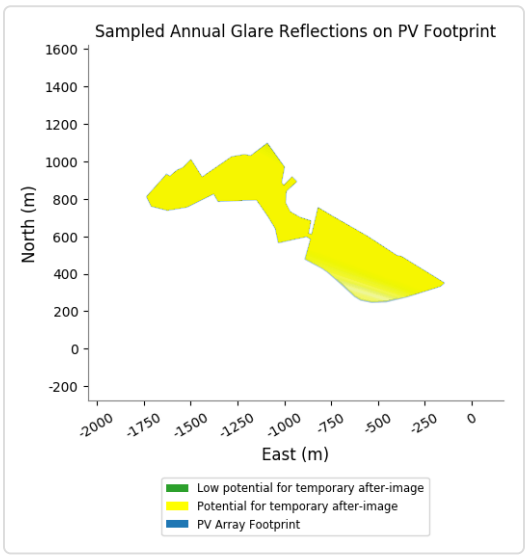
Western PV Array - OP Receptor (OP 32)

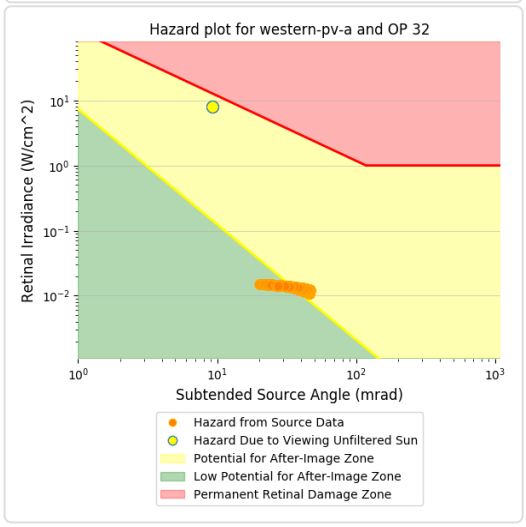
PV array is expected to produce the following glare for receptors at this location:

- 931 minutes of "green" glare with low potential to cause temporary after-image.
- 1,599 minutes of "yellow" glare with potential to cause temporary after-image.





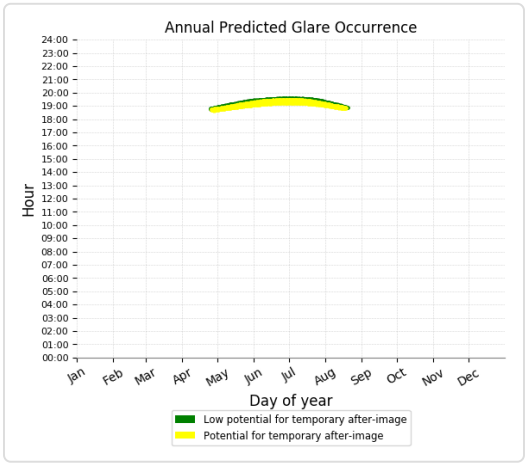


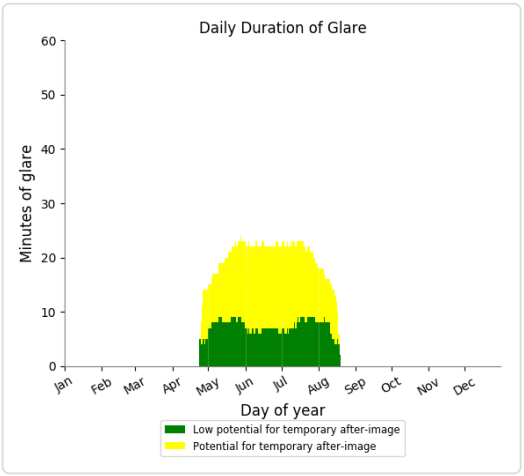


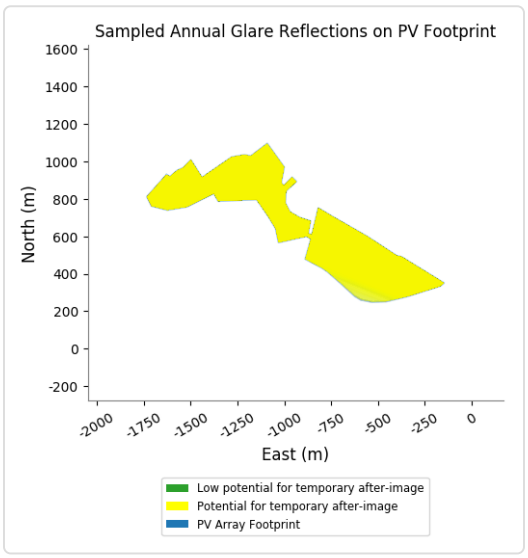
Western PV Array - OP Receptor (OP 33)

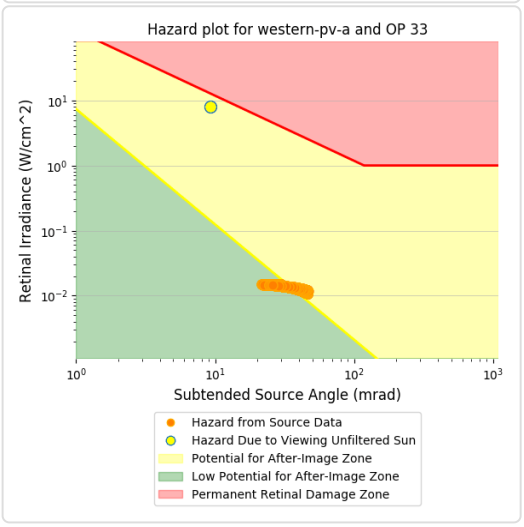
PV array is expected to produce the following glare for receptors at this location:

- 854 minutes of "green" glare with low potential to cause temporary after-image.
- 1,459 minutes of "yellow" glare with potential to cause temporary after-image.





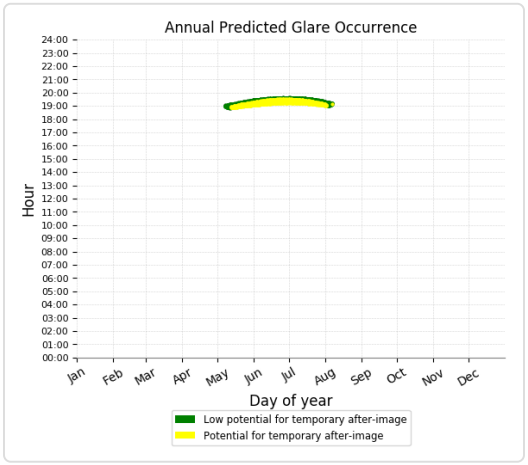


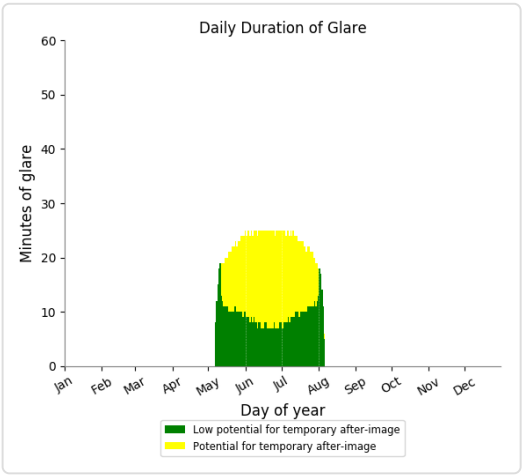


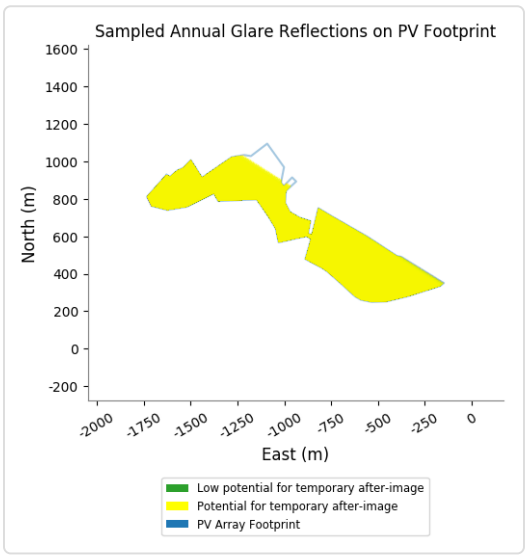
Western PV Array - OP Receptor (OP 34)

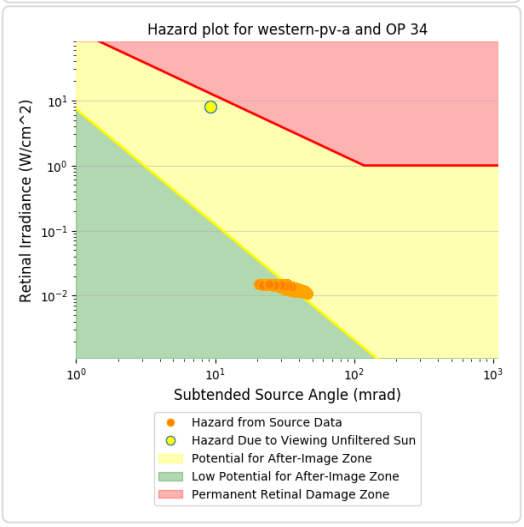
PV array is expected to produce the following glare for receptors at this location:

- 893 minutes of "green" glare with low potential to cause temporary after-image.
- 1,150 minutes of "yellow" glare with potential to cause temporary after-image.





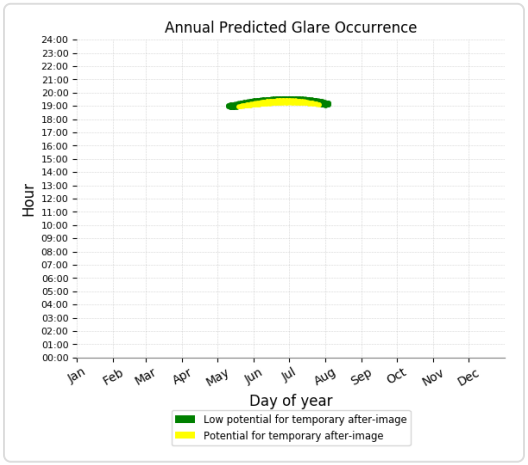


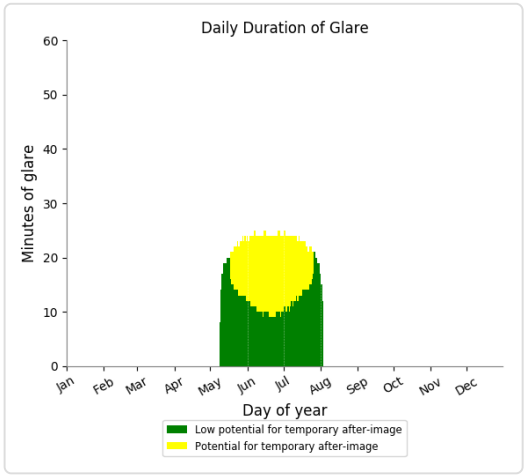


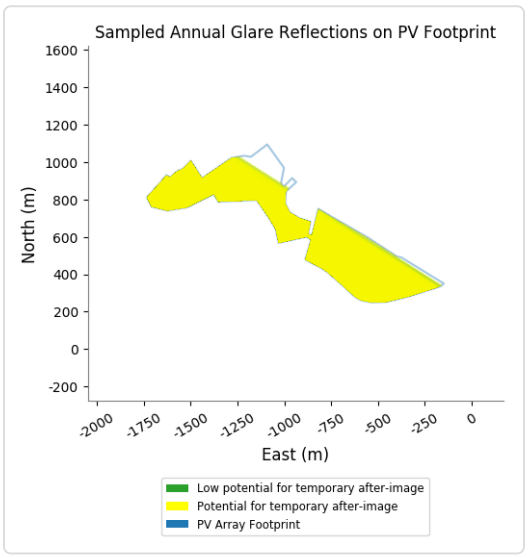
Western PV Array - OP Receptor (OP 35)

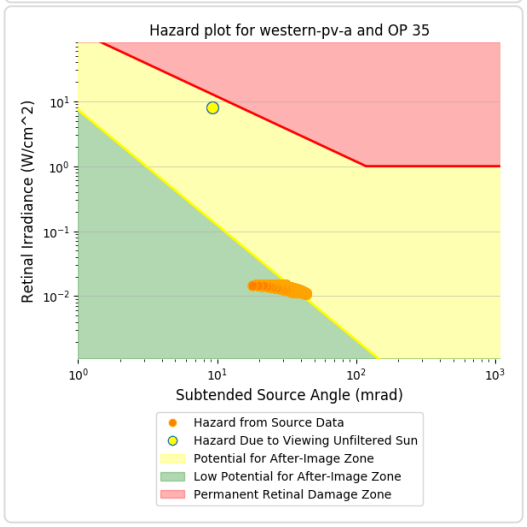
PV array is expected to produce the following glare for receptors at this location:

- 1,125 minutes of "green" glare with low potential to cause temporary after-image.
- 814 minutes of "yellow" glare with potential to cause temporary after-image.





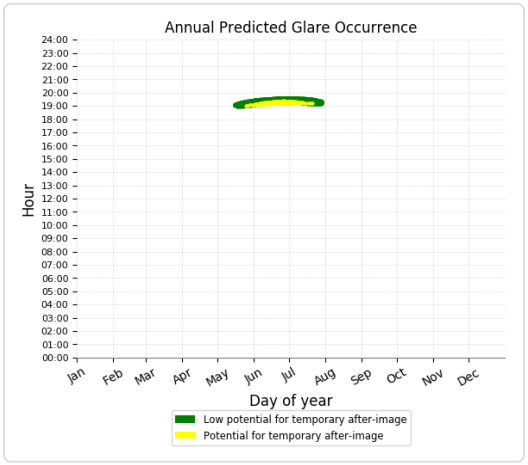


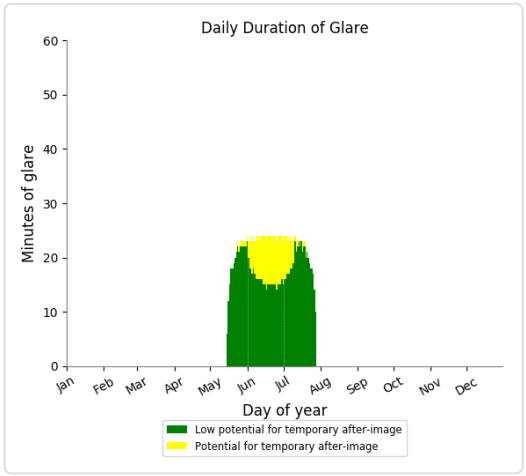


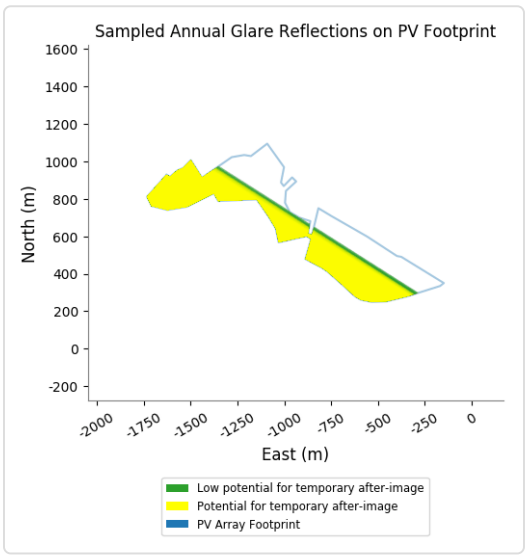
Western PV Array - OP Receptor (OP 36)

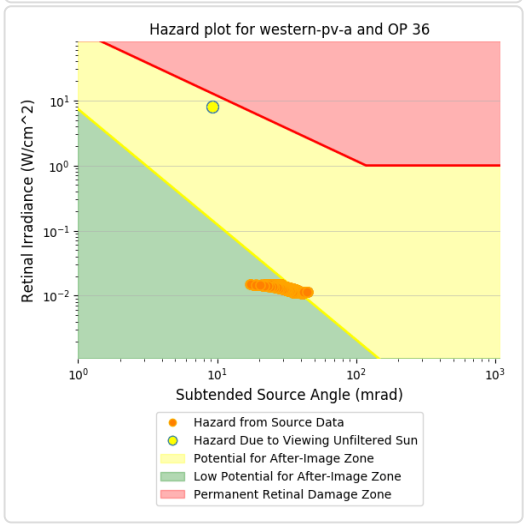
PV array is expected to produce the following glare for receptors at this location:

- 1,330 minutes of "green" glare with low potential to cause temporary after-image.
- 312 minutes of "yellow" glare with potential to cause temporary after-image.





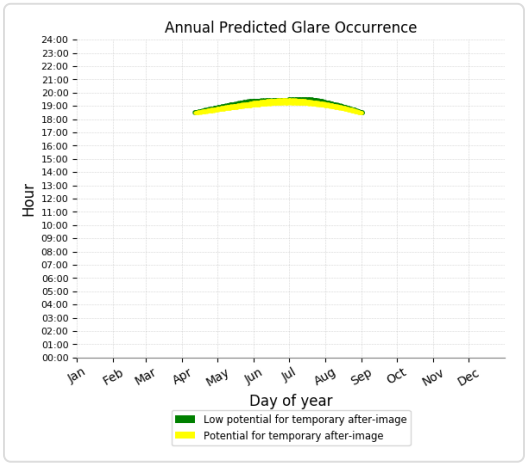


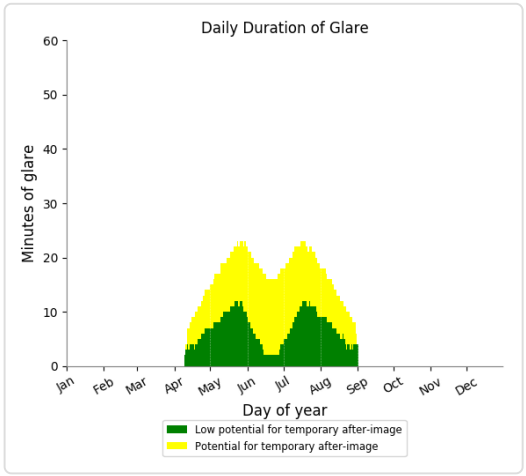


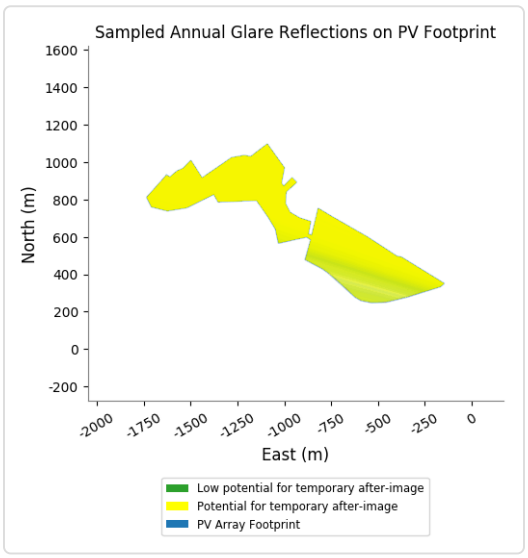
Western PV Array - OP Receptor (OP 37)

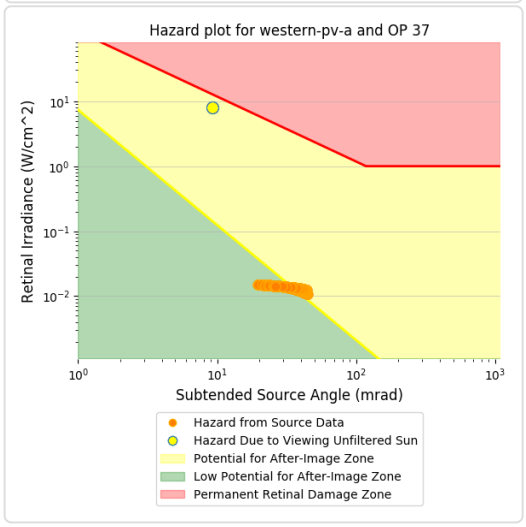
PV array is expected to produce the following glare for receptors at this location:

- 1,002 minutes of "green" glare with low potential to cause temporary after-image.
- 1,410 minutes of "yellow" glare with potential to cause temporary after-image.





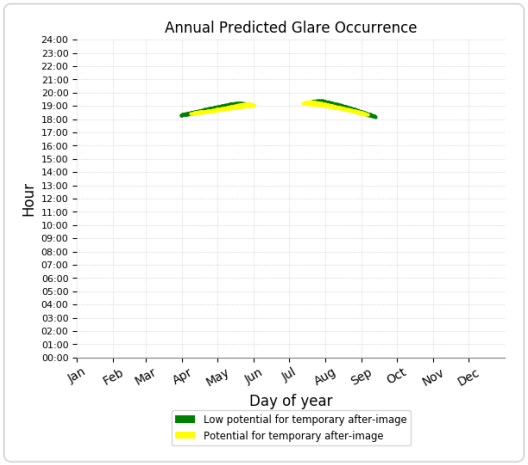


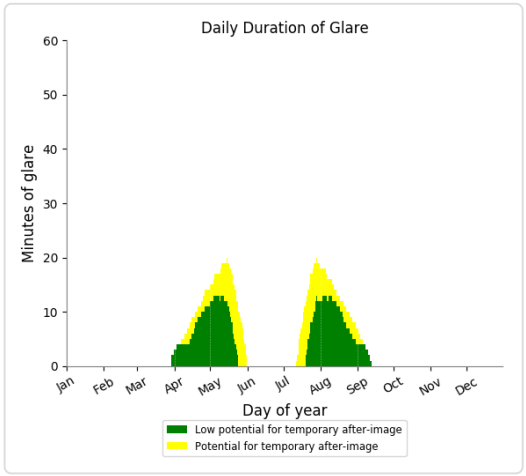


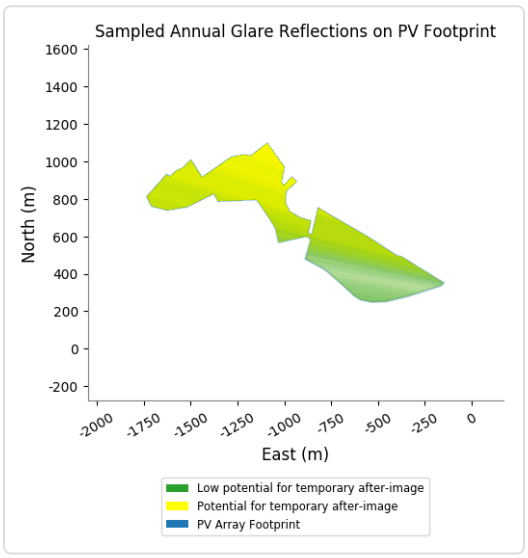
Western PV Array - OP Receptor (OP 38)

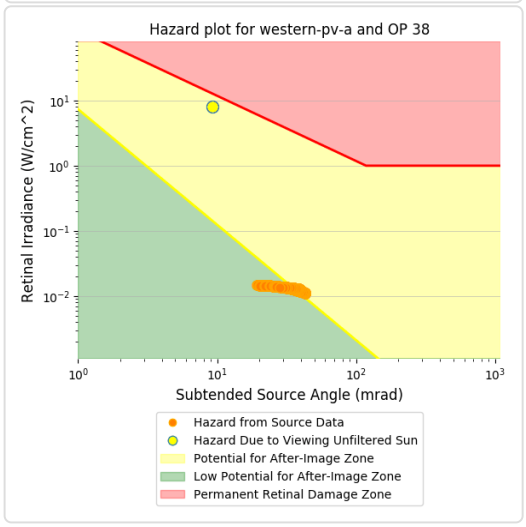
PV array is expected to produce the following glare for receptors at this location:

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









Assumptions

- Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
- Glare analyses do not account for physical obstructions between reflectors and receptors. This includes buildings, tree cover and geographic obstructions.
- Detailed system geometry is not rigorously simulated.
- The glare hazard determination relies on several approximations including observer eye characteristics, angle of view, and typical blink response time. Actual values and results may vary.
- The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.
- Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results fo large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare.
- The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)
- Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.
- Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
- Glare vector plots are simplified representations of analysis data. Actual glare emanations and results may differ.
- Refer to the **Help page** for detailed assumptions and limitations not listed here.

Appendix 7E: Road Receptor Glare (40 Deg)

ForgeSolar

Kingston Solar Farm

Kingston Solar Farm Road 40Deg

Created Aug. 10, 2021
Updated Aug. 10, 2021
Time-step 1 minute
Timezone offset UTC0
Site ID 57173.10138

Project type Advanced
Project status: active
Category 10 MW to 100 MW

Misc. Analysis Settings

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

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

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

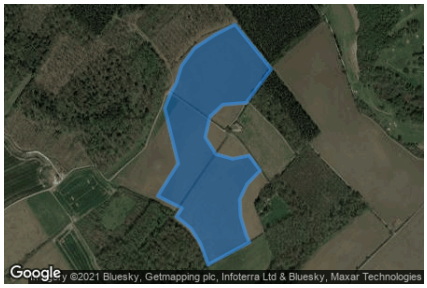
PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced
	deg	deg	min	min	kWh
Central PV Array	40.0	180.0	3,289	15,672	-
Eastern PV Array	40.0	180.0	625	17,709	-
Southern PV Array	40.0	180.0	1,056	2,556	-
Western PV Array	40.0	180.0	3,746	73,470	-

Component Data

PV Array(s)

Total PV footprint area: 652,007 m^2

Name: Central PV Array
Axis tracking: Fixed (no rotation)
Tilt: 40.0 deg
Orientation: 180.0 deg
Footprint area: 132,824 m^2
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



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	52.848987	-1.201839	96.58	2.80	99.38
2	52.847743	-1.200166	96.44	2.80	99.24
3	52.846810	-1.201324	93.14	2.80	95.94
4	52.846758	-1.202397	91.84	2.80	94.64
5	52.846421	-1.202998	90.05	2.80	92.85
6	52.845851	-1.203213	89.14	2.80	91.94
7	52.845385	-1.202719	89.74	2.80	92.54
8	52.845255	-1.201947	90.82	2.80	93.62
9	52.845346	-1.201196	92.07	2.80	94.87
10	52.844931	-1.200681	91.18	2.80	93.98
11	52.844555	-1.201282	89.97	2.80	92.77
12	52.844127	-1.201625	88.30	2.80	91.10
13	52.843648	-1.201582	86.48	2.80	89.28
14	52.843129	-1.201324	84.47	2.80	87.27
15	52.842935	-1.201174	82.65	2.80	85.45
16	52.842313	-1.203084	80.74	2.80	83.54
17	52.842896	-1.203427	84.27	2.80	87.07
18	52.843324	-1.203878	87.66	2.80	90.46
19	52.843648	-1.204543	86.76	2.80	89.56
20	52.843881	-1.204286	86.82	2.80	89.62
21	52.844218	-1.205401	81.43	2.80	84.23
22	52.845125	-1.204457	85.10	2.80	87.90
23	52.846655	-1.205080	82.01	2.80	84.81
24	52.847056	-1.204822	85.02	2.80	87.82
25	52.847367	-1.204543	86.44	2.80	89.24
26	52.847834	-1.204307	87.45	2.80	90.25
27	52.848326	-1.203706	91.82	2.80	94.62
28	52.848702	-1.202762	92.71	2.80	95.51

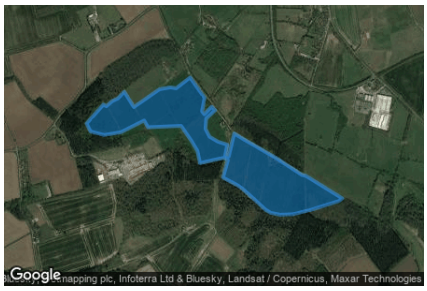
Name: Eastern PV Array
Axis tracking: Fixed (no rotation)
Tilt: 40.0 deg
Orientation: 180.0 deg
Footprint area: 105,300 m^2
Rated power: -
Panel material: Light textured glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 9.16 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	52.848995	-1.197688	96.44	2.80	99.24
2	52.848360	-1.197387	95.39	2.80	98.19
3	52.847479	-1.197044	94.28	2.80	97.08
4	52.846818	-1.196615	93.25	2.80	96.05
5	52.846325	-1.196164	92.60	2.80	95.40
6	52.846196	-1.195714	92.11	2.80	94.91
7	52.845807	-1.194877	92.17	2.80	94.97
8	52.845379	-1.194061	92.96	2.80	95.76
9	52.844991	-1.192388	93.06	2.80	95.86
10	52.844991	-1.191959	93.08	2.80	95.88
11	52.844330	-1.192688	93.00	2.80	95.80
12	52.843889	-1.193461	93.10	2.80	95.90
13	52.843254	-1.194469	92.64	2.80	95.44
14	52.845613	-1.198203	94.92	2.80	97.72
15	52.846001	-1.197580	95.01	2.80	97.81
16	52.847777	-1.199941	96.64	2.80	99.44

Name: Southern PV Array
Axis tracking: Fixed (no rotation)
Tilt: 40.0 deg
Orientation: 180.0 deg
Footprint area: 63,120 m^2
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

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	52.843772	-1.195693	91.46	2.80	94.26
2	52.843111	-1.194663	93.99	2.80	96.79
3	52.842683	-1.195564	92.28	2.80	95.08
4	52.842152	-1.196315	91.71	2.80	94.51
5	52.841426	-1.196980	91.38	2.80	94.18
6	52.840713	-1.197624	90.47	2.80	93.27
7	52.840441	-1.197838	90.31	2.80	93.11
8	52.840182	-1.199212	88.30	2.80	91.10
9	52.840013	-1.199641	87.99	2.80	90.79
10	52.839741	-1.199791	87.54	2.80	90.34
11	52.839443	-1.199984	88.09	2.80	90.89
12	52.840052	-1.201014	83.30	2.80	86.10
13	52.840480	-1.200993	78.20	2.80	81.00
14	52.840648	-1.200735	79.17	2.80	81.97
15	52.840804	-1.200134	82.43	2.80	85.23
16	52.841024	-1.199576	84.40	2.80	87.20
17	52.841452	-1.199104	85.12	2.80	87.92
18	52.841996	-1.198890	83.52	2.80	86.32
19	52.842359	-1.198418	85.08	2.80	87.88
20	52.842657	-1.197881	87.03	2.80	89.83

Name: Western PV Array
Axis tracking: Fixed (no rotation)
Tilt: 40.0 deg
Orientation: 180.0 deg
Footprint area: 350,763 m^2
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



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	m	m	m
1	52.857326	-1.226006	85.78	2.80	88.58
2	52.856276	-1.227551	83.98	2.80	86.78
3	52.855836	-1.227186	83.12	2.80	85.92
4	52.855641	-1.225941	78.84	2.80	81.64
5	52.855797	-1.224396	78.16	2.80	80.96
6	52.856445	-1.222251	83.48	2.80	86.28
7	52.856069	-1.221907	79.29	2.80	82.09
8	52.856147	-1.218860	82.71	2.80	85.51
9	52.855343	-1.217938	79.35	2.80	82.15
10	52.854760	-1.217358	81.43	2.80	84.23
11	52.854086	-1.217122	83.25	2.80	86.05
12	52.854281	-1.215706	85.51	2.80	88.31
13	52.854384	-1.214891	86.05	2.80	88.85
14	52.854247	-1.214556	86.06	2.80	88.86
15	52.853288	-1.215007	86.17	2.80	88.97
16	52.852861	-1.213676	85.74	2.80	88.54
17	52.852679	-1.213247	86.03	2.80	88.83
18	52.852096	-1.212153	85.92	2.80	88.72
19	52.851500	-1.211080	86.35	2.80	89.15
20	52.851332	-1.210608	86.08	2.80	88.88
21	52.851228	-1.209750	86.36	2.80	89.16
22	52.851254	-1.208591	87.09	2.80	89.89
23	52.851500	-1.206917	88.98	2.80	91.78
24	52.851993	-1.204342	93.00	2.80	95.80
25	52.852135	-1.204042	94.13	2.80	96.93
26	52.853392	-1.207411	90.98	2.80	93.78
27	52.853431	-1.207754	90.78	2.80	93.58
28	52.854364	-1.210114	89.71	2.80	92.51
29	52.855349	-1.212947	88.27	2.80	91.07
30	52.855723	-1.213975	88.26	2.80	91.06
31	52.854443	-1.214484	85.99	2.80	88.79
32	52.854502	-1.214806	85.93	2.80	88.73
33	52.855104	-1.214613	86.27	2.80	89.07
34	52.855273	-1.215471	85.97	2.80	88.77
35	52.855545	-1.216244	86.11	2.80	88.91
36	52.855985	-1.216619	86.33	2.80	89.13
37	52.856554	-1.216551	86.52	2.80	89.32
38	52.857007	-1.215735	84.90	2.80	87.70
39	52.857201	-1.216057	84.81	2.80	87.61
40	52.856787	-1.216723	86.58	2.80	89.38
41	52.856955	-1.216937	86.63	2.80	89.43
42	52.857694	-1.216701	81.71	2.80	84.51
43	52.858821	-1.218031	78.47	2.80	81.27
44	52.858225	-1.219319	86.14	2.80	88.94
45	52.858277	-1.219855	85.88	2.80	88.68
46	52.858173	-1.220842	86.53	2.80	89.33
47	52.857188	-1.223202	86.58	2.80	89.38
48	52.858031	-1.224082	87.46	2.80	90.26
49	52.857661	-1.224672	87.59	2.80	90.39
50	52.857532	-1.225155	86.72	2.80	89.52
51	52.857234	-1.225734	86.78	2.80	89.58

Discrete Observation Receptors

Number	Latitude	Longitude	Ground elevation	Height above ground	Total Elevation
	deg	deg	m	m	m
OP 1	52.861265	-1.239761	49.56	1.50	51.06
OP 2	52.860177	-1.237701	43.00	1.50	44.50
OP 3	52.858570	-1.236157	38.88	1.50	40.38
OP 4	52.856860	-1.235341	38.47	1.50	39.97
OP 5	52.855020	-1.234011	46.97	1.50	48.47
OP 6	52.853258	-1.233732	42.19	1.50	43.69
OP 7	52.851600	-1.233646	42.34	1.50	43.84
OP 8	52.849798	-1.232509	41.03	1.50	42.53
OP 9	52.848088	-1.231994	37.13	1.50	38.63
OP 10	52.853854	-1.239010	41.19	1.50	42.69
OP 11	52.854541	-1.236028	43.98	1.50	45.48
OP 12	52.854904	-1.233217	48.05	1.50	49.55
OP 13	52.856031	-1.230771	50.50	1.50	52.00
OP 14	52.857560	-1.228625	48.37	1.50	49.87
OP 15	52.858791	-1.227573	44.49	1.50	45.99
OP 16	52.860423	-1.227058	45.43	1.50	46.93
OP 17	52.861019	-1.210388	40.75	1.50	42.25
OP 18	52.859387	-1.209186	42.45	1.50	43.95
OP 19	52.858350	-1.206869	40.52	1.50	42.02
OP 20	52.858117	-1.204037	39.91	1.50	41.41
OP 21	52.858726	-1.201354	37.63	1.50	39.13
OP 22	52.861434	-1.204616	35.79	1.50	37.29
OP 23	52.859957	-1.202620	36.10	1.50	37.60
OP 24	52.857741	-1.198887	37.73	1.50	39.23
OP 25	52.856614	-1.197020	36.67	1.50	38.17
OP 26	52.855279	-1.194724	38.58	1.50	40.08
OP 27	52.854152	-1.192750	44.96	1.50	46.46
OP 28	52.852701	-1.190776	45.94	1.50	47.44
OP 29	52.851055	-1.189102	41.82	1.50	43.32
OP 30	52.849617	-1.187676	42.73	1.50	44.23
OP 31	52.848270	-1.186346	44.83	1.50	46.33
OP 32	52.846813	-1.183879	45.56	1.50	47.06
OP 33	52.845284	-1.182356	53.75	1.50	55.25
OP 34	52.843651	-1.182763	56.35	1.50	57.85
OP 35	52.842653	-1.180532	56.07	1.50	57.57
OP 36	52.841058	-1.179351	53.23	1.50	54.73
OP 37	52.847416	-1.182398	42.01	1.50	43.51
OP 38	52.849151	-1.180942	40.64	1.50	42.14

Summary of PV Glare Analysis

PV configuration and total predicted glare

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced	Data File
	deg	deg	min	min	kWh	
Central PV Array	40.0	180.0	3,289	15,672	-	-
Eastern PV Array	40.0	180.0	625	17,709	-	-
Southern PV Array	40.0	180.0	1,056	2,556	-	-
Western PV Array	40.0	180.0	3,746	73,470	-	-

Distinct glare per month

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

PV	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
central-pv-a (green)	0	0	49	100	52	300	154	19	134	0	0	0
central-pv-a (yellow)	0	0	36	733	700	395	542	888	205	0	0	0
eastern-pv-a (green)	0	0	49	86	0	6	0	6	131	0	0	0
eastern-pv-a (yellow)	0	0	8	620	843	795	826	834	119	0	0	0
southern-pv (green)	0	0	97	102	0	0	0	39	160	0	0	0
southern-pv (yellow)	0	0	0	707	246	0	0	821	128	0	0	0
western-pv-a (green)	0	0	1	5	23	259	102	0	6	0	0	0
western-pv-a (yellow)	0	0	59	1370	2234	1866	2135	1932	335	0	0	0

PV & Receptor Analysis Results

Results for each PV array and receptor

Central PV Array potential temporary after-image

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	91	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0

OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	74	379
OP: OP 32	170	1377
OP: OP 33	251	2330
OP: OP 34	366	4203
OP: OP 35	793	3631
OP: OP 36	1298	3009
OP: OP 37	212	743
OP: OP 38	34	0

Central PV Array - OP Receptor (OP 1)

No glare found

Central PV Array - OP Receptor (OP 2)

No glare found

Central PV Array - OP Receptor (OP 3)

No glare found

Central PV Array - OP Receptor (OP 4)

No glare found

Central PV Array - OP Receptor (OP 5)

No glare found

Central PV Array - OP Receptor (OP 6)

No glare found

Central PV Array - OP Receptor (OP 7)

No glare found

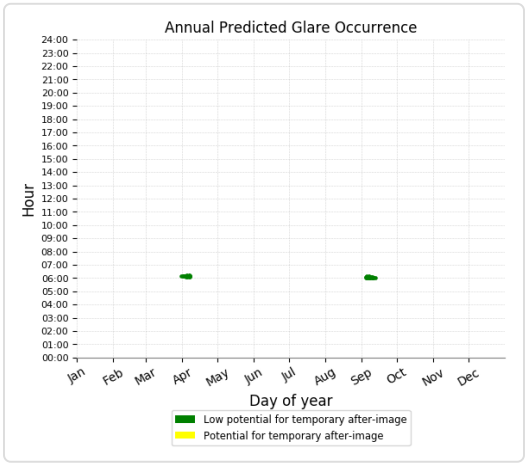
Central PV Array - OP Receptor (OP 8)

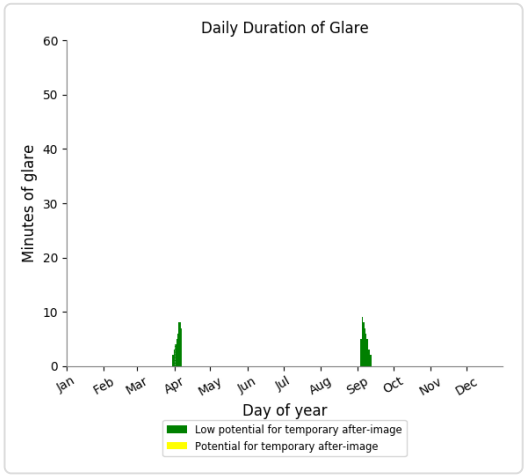
No glare found

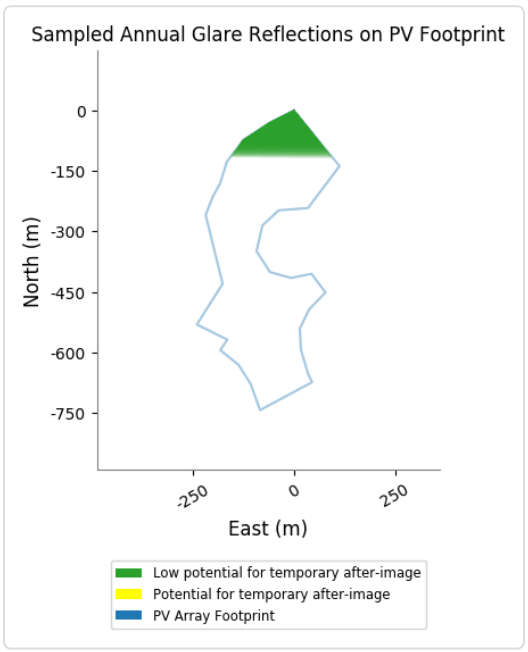
Central PV Array - OP Receptor (OP 9)

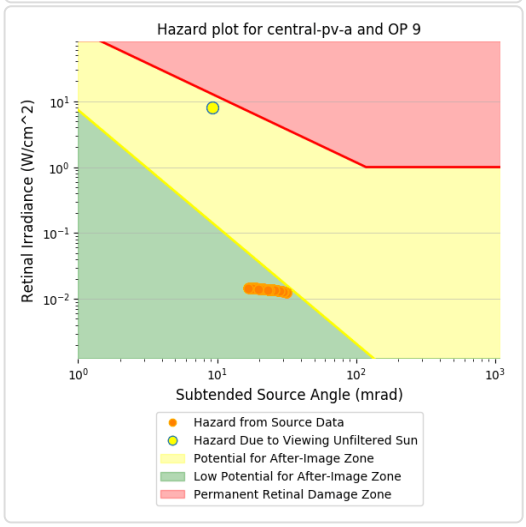
PV array is expected to produce the following glare for receptors at this location:

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









Central PV Array - OP Receptor (OP 10)

No glare found

Central PV Array - OP Receptor (OP 11)

No glare found

Central PV Array - OP Receptor (OP 12)

No glare found

Central PV Array - OP Receptor (OP 13)

No glare found

Central PV Array - OP Receptor (OP 14)

No glare found

Central PV Array - OP Receptor (OP 15)

No glare found

Central PV Array - OP Receptor (OP 16)

No glare found

Central PV Array - OP Receptor (OP 17)
No glare found

Central PV Array - OP Receptor (OP 18)
No glare found

Central PV Array - OP Receptor (OP 19)
No glare found

Central PV Array - OP Receptor (OP 20)
No glare found

Central PV Array - OP Receptor (OP 21)
No glare found

Central PV Array - OP Receptor (OP 22)
No glare found

Central PV Array - OP Receptor (OP 23)
No glare found

Central PV Array - OP Receptor (OP 24)
No glare found

Central PV Array - OP Receptor (OP 25)
No glare found

Central PV Array - OP Receptor (OP 26)
No glare found

Central PV Array - OP Receptor (OP 27)
No glare found

Central PV Array - OP Receptor (OP 28)
No glare found

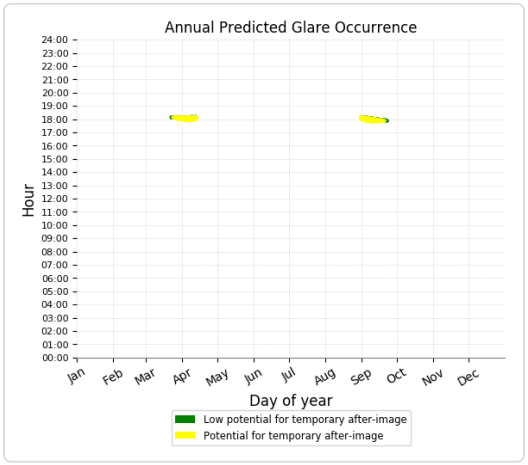
Central PV Array - OP Receptor (OP 29)
No glare found

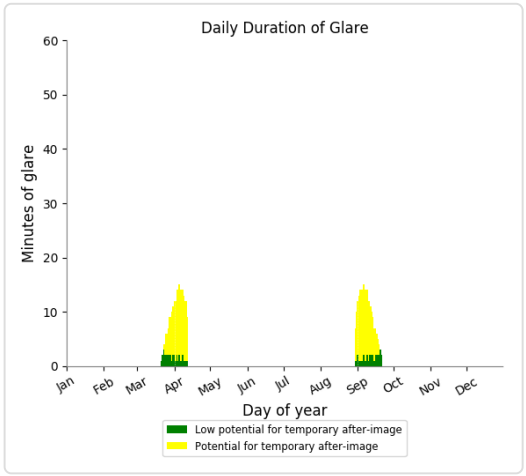
Central PV Array - OP Receptor (OP 30)
No glare found

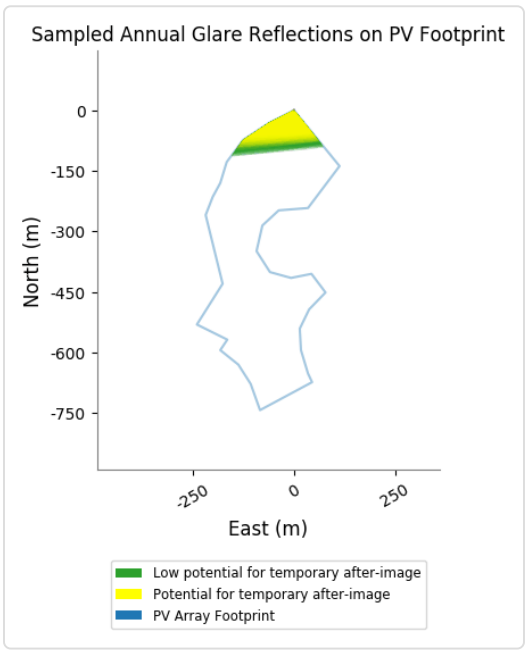
Central PV Array - OP Receptor (OP 31)

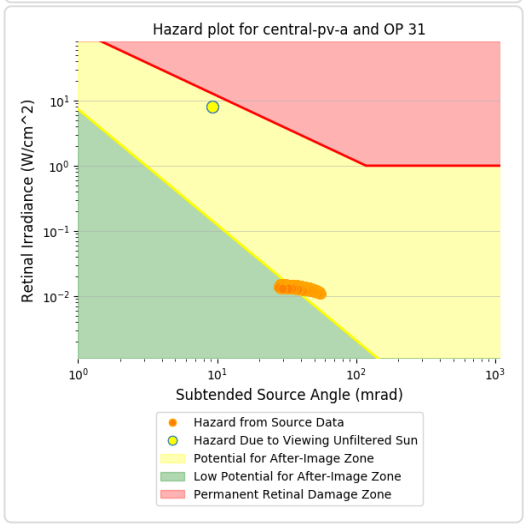
PV array is expected to produce the following glare for receptors at this location:

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





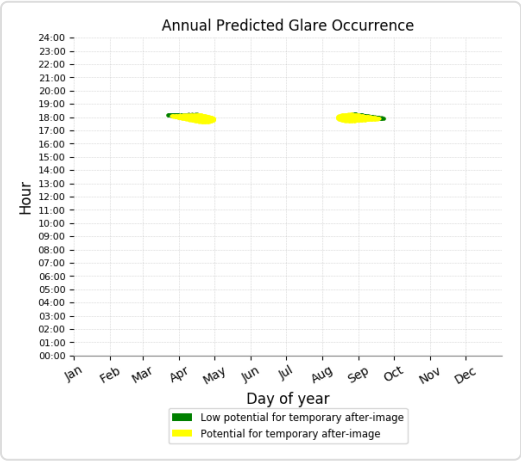


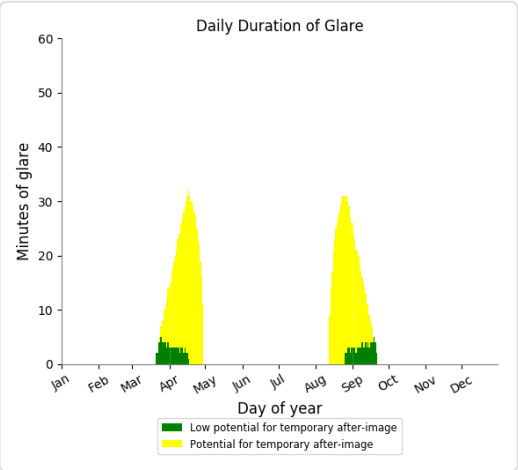


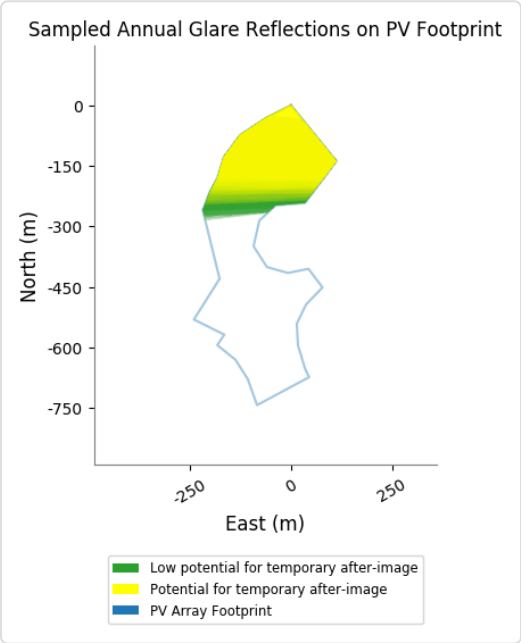
Central PV Array - OP Receptor (OP 32)

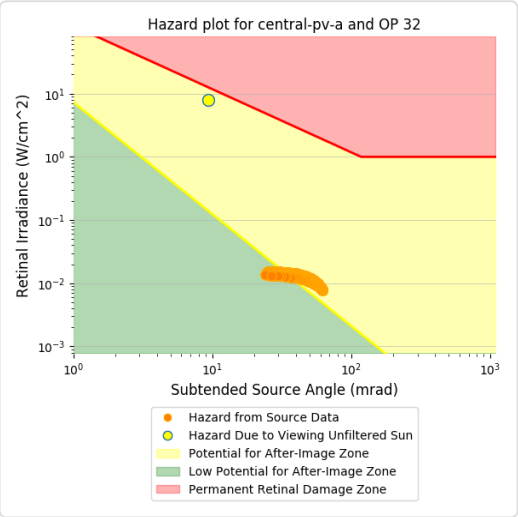
PV array is expected to produce the following glare for receptors at this location:

- 170 minutes of "green" glare with low potential to cause temporary after-image.
- 1,377 minutes of "yellow" glare with potential to cause temporary after-image.





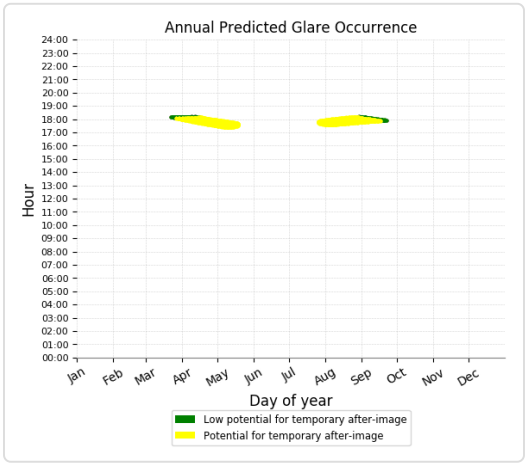


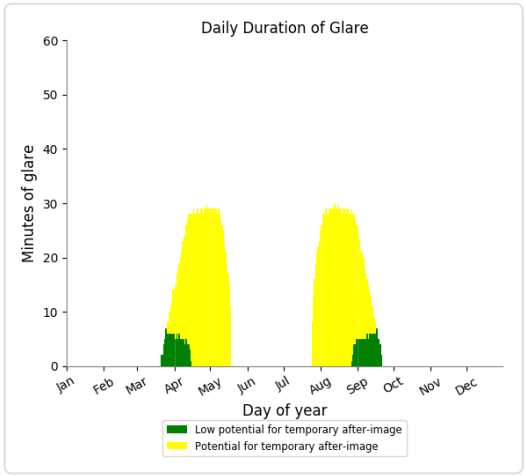


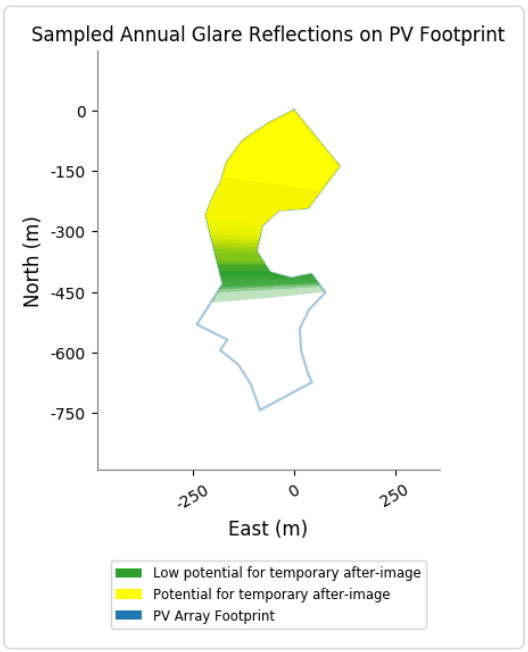
Central PV Array - OP Receptor (OP 33)

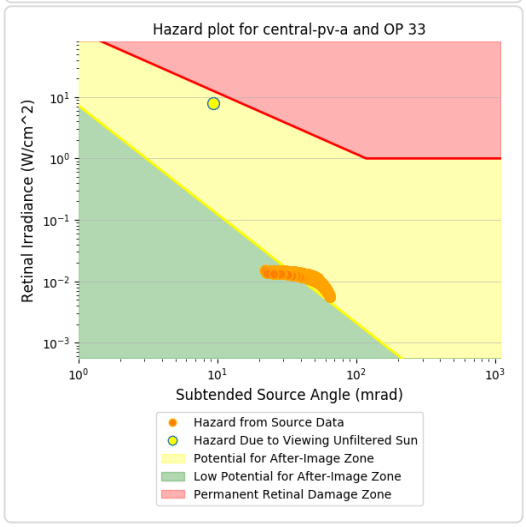
PV array is expected to produce the following glare for receptors at this location:

- 251 minutes of "green" glare with low potential to cause temporary after-image.
- 2,330 minutes of "yellow" glare with potential to cause temporary after-image.





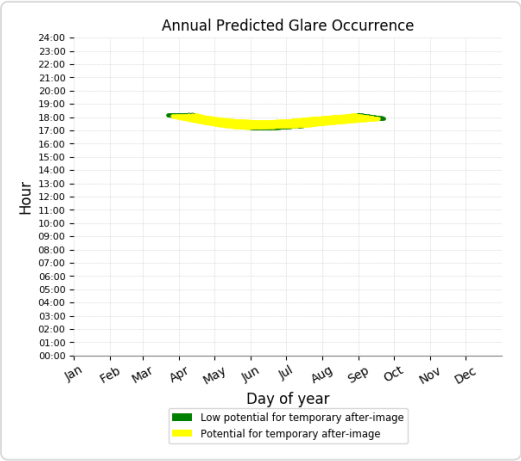


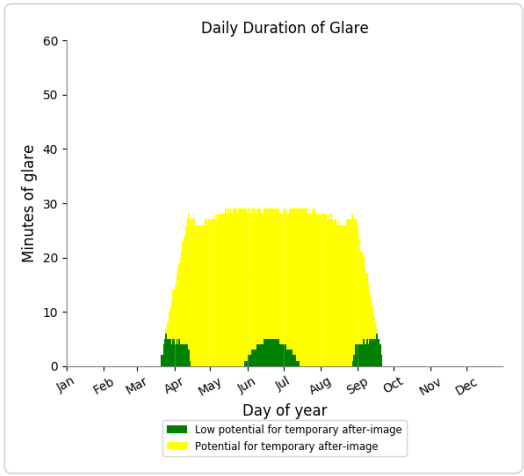


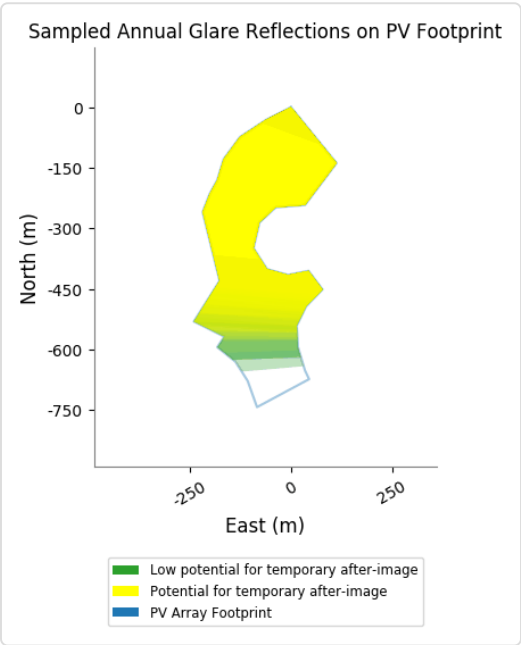
Central PV Array - OP Receptor (OP 34)

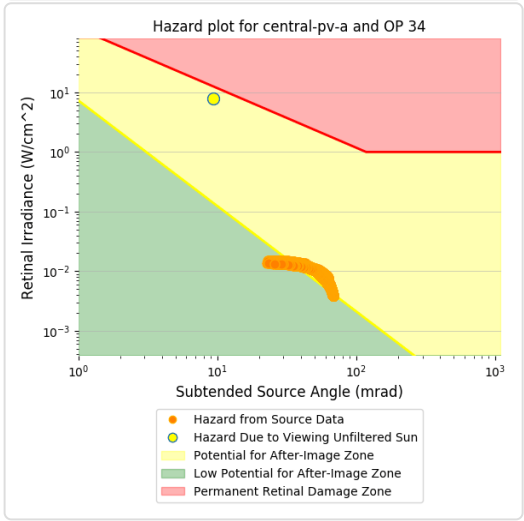
PV array is expected to produce the following glare for receptors at this location:

- 366 minutes of "green" glare with low potential to cause temporary after-image.
- 4,203 minutes of "yellow" glare with potential to cause temporary after-image.





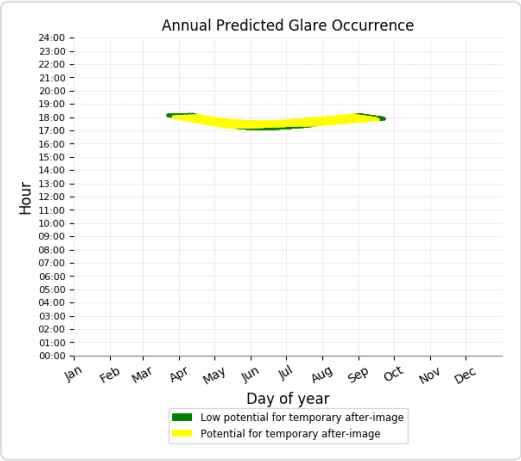


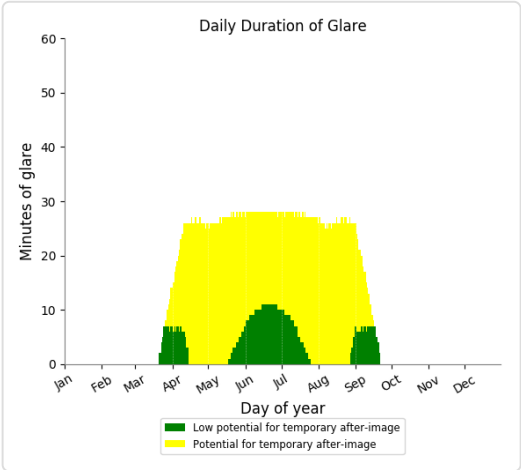


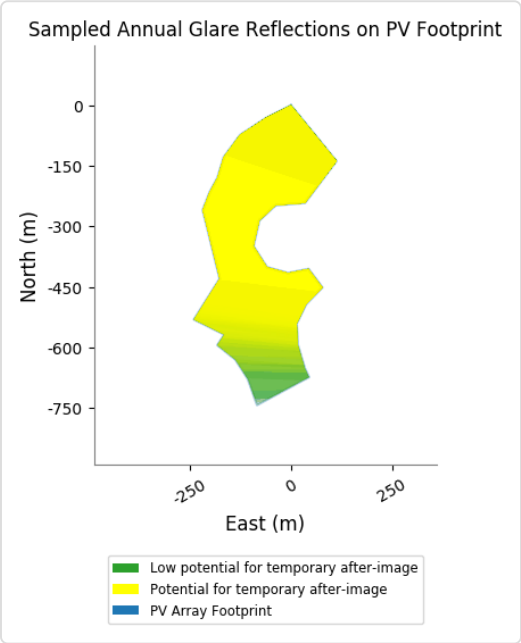
Central PV Array - OP Receptor (OP 35)

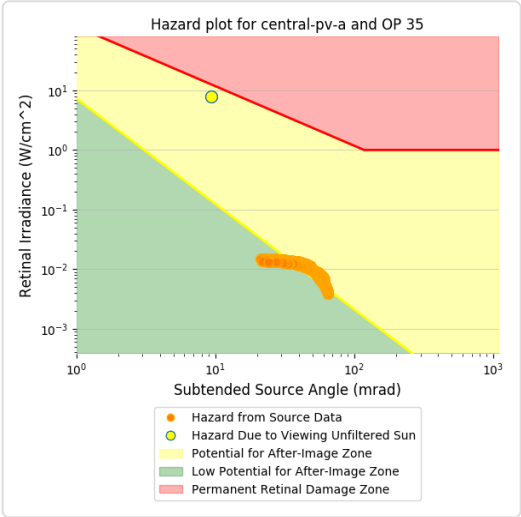
PV array is expected to produce the following glare for receptors at this location:

- 793 minutes of "green" glare with low potential to cause temporary after-image.
- 3,631 minutes of "yellow" glare with potential to cause temporary after-image.





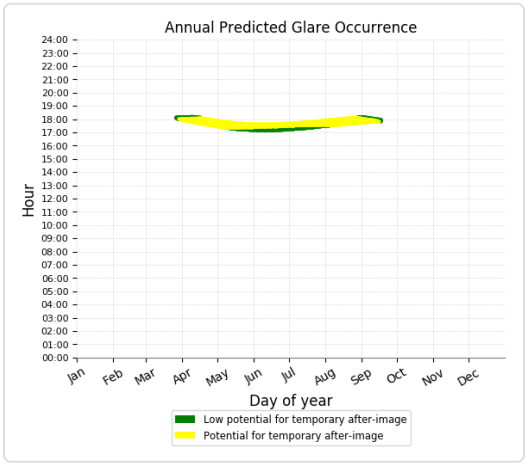


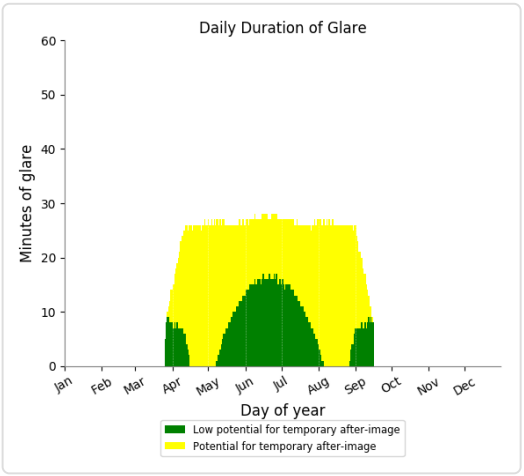


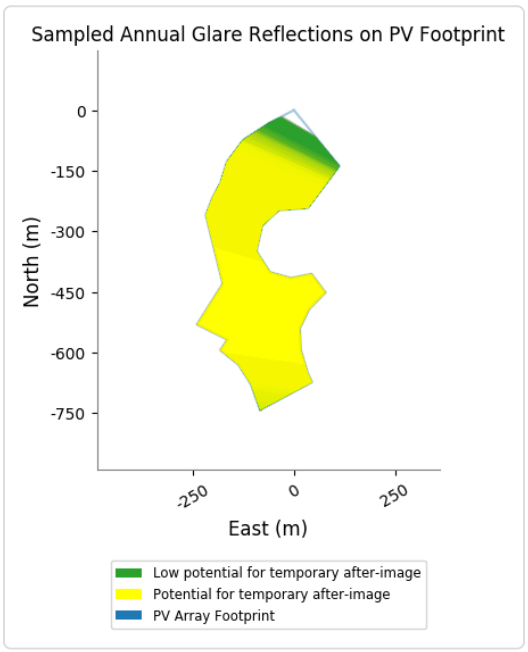
Central PV Array - OP Receptor (OP 36)

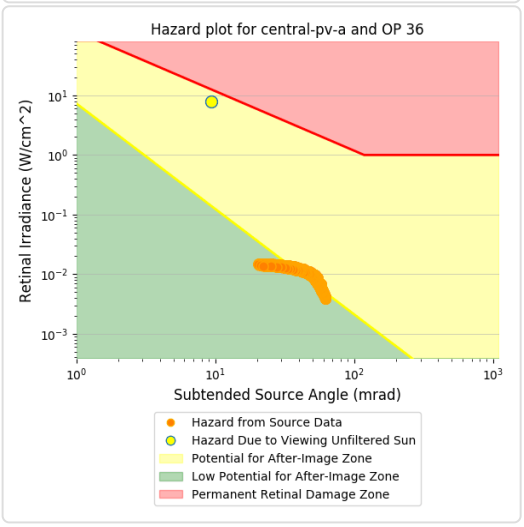
PV array is expected to produce the following glare for receptors at this location:

- 1,298 minutes of "green" glare with low potential to cause temporary after-image.
- 3,009 minutes of "yellow" glare with potential to cause temporary after-image.





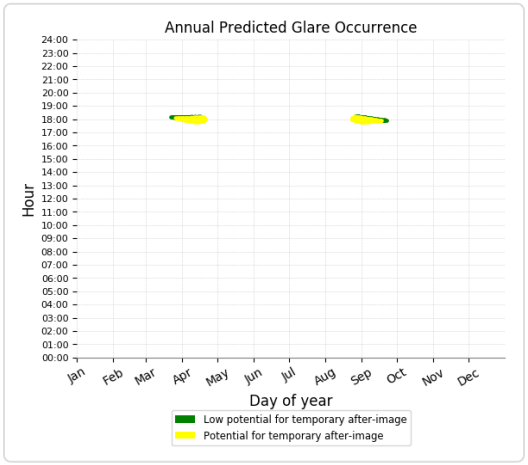


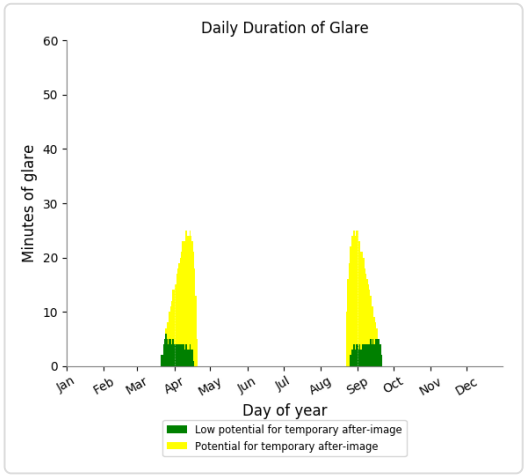


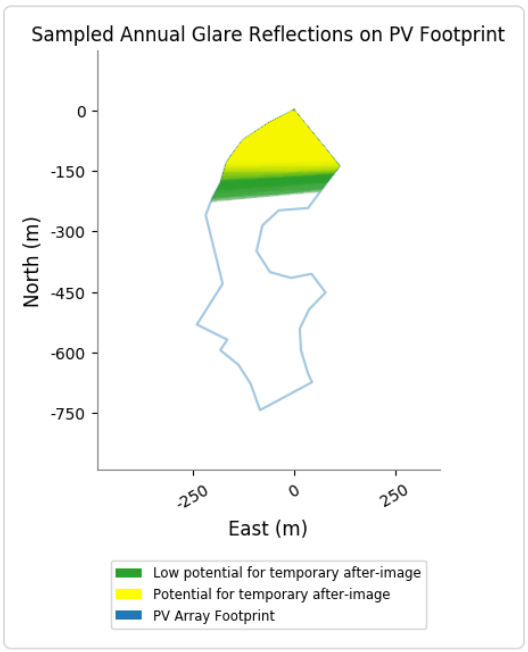
Central PV Array - OP Receptor (OP 37)

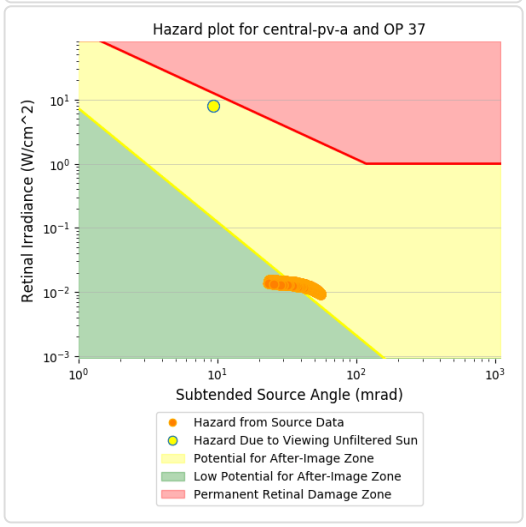
PV array is expected to produce the following glare for receptors at this location:

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





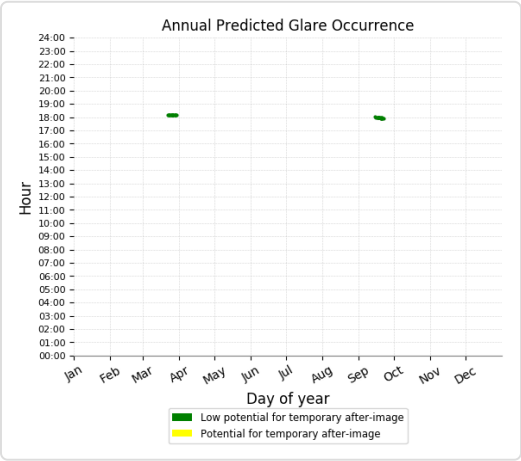


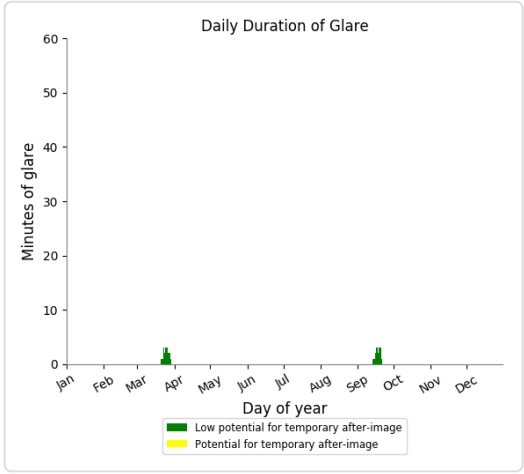


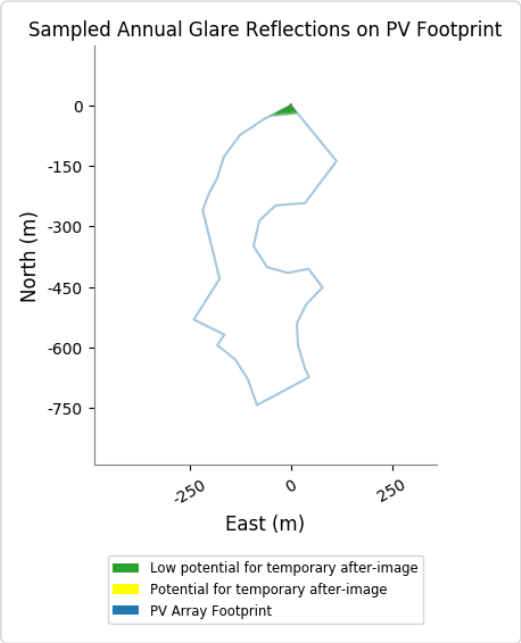
Central PV Array - OP Receptor (OP 38)

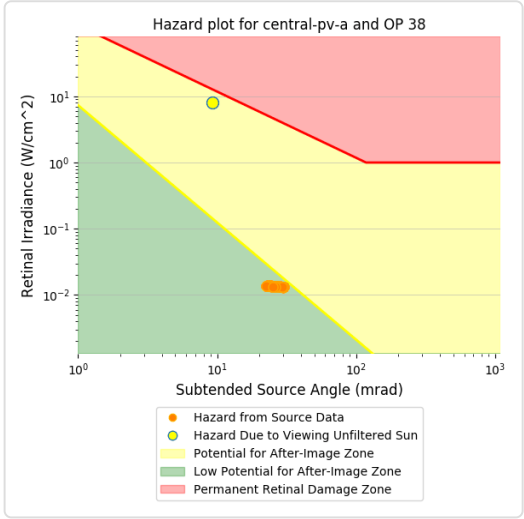
PV array is expected to produce the following glare for receptors at this location:

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









Eastern PV Array potential temporary after-image

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	212	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0

OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	11	477
OP: OP 32	77	1727
OP: OP 33	67	3526
OP: OP 34	16	4067
OP: OP 35	119	3793
OP: OP 36	6	3243
OP: OP 37	116	876
OP: OP 38	1	0

Eastern PV Array - OP Receptor (OP 1)

No glare found

Eastern PV Array - OP Receptor (OP 2)

No glare found

Eastern PV Array - OP Receptor (OP 3)

No glare found

Eastern PV Array - OP Receptor (OP 4)

No glare found

Eastern PV Array - OP Receptor (OP 5)

No glare found

Eastern PV Array - OP Receptor (OP 6)

No glare found

Eastern PV Array - OP Receptor (OP 7)

No glare found

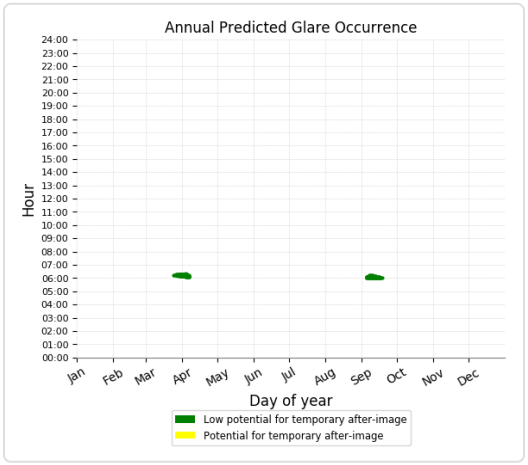
Eastern PV Array - OP Receptor (OP 8)

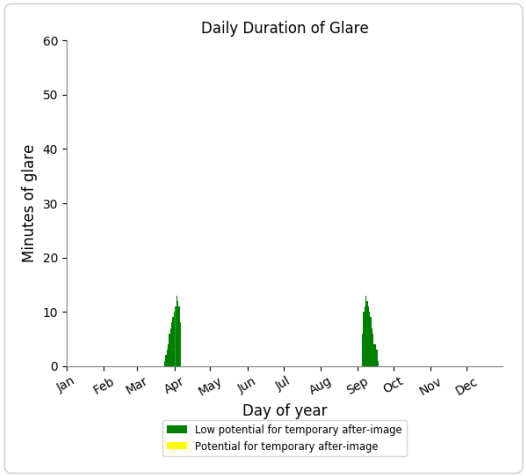
No glare found

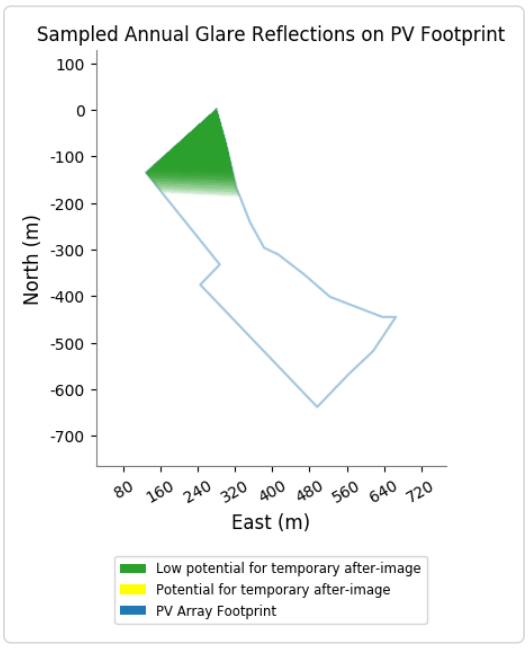
Eastern PV Array - OP Receptor (OP 9)

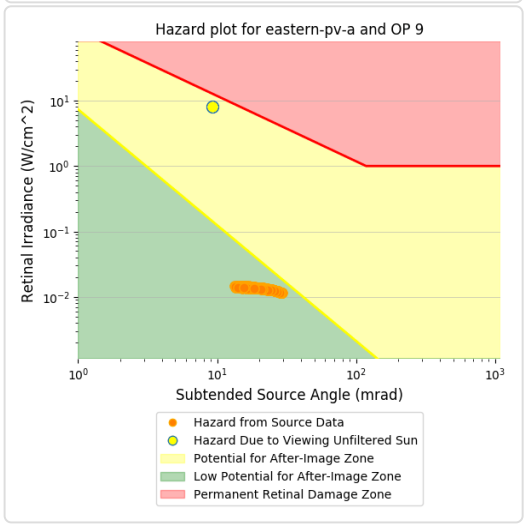
PV array is expected to produce the following glare for receptors at this location:

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









Eastern PV Array - OP Receptor (OP 10)

No glare found

Eastern PV Array - OP Receptor (OP 11)

No glare found

Eastern PV Array - OP Receptor (OP 12)

No glare found

Eastern PV Array - OP Receptor (OP 13)

No glare found

Eastern PV Array - OP Receptor (OP 14)

No glare found

Eastern PV Array - OP Receptor (OP 15)

No glare found

Eastern PV Array - OP Receptor (OP 16)

No glare found

Eastern PV Array - OP Receptor (OP 17)
No glare found

Eastern PV Array - OP Receptor (OP 18)
No glare found

Eastern PV Array - OP Receptor (OP 19)
No glare found

Eastern PV Array - OP Receptor (OP 20)
No glare found

Eastern PV Array - OP Receptor (OP 21)
No glare found

Eastern PV Array - OP Receptor (OP 22)
No glare found

Eastern PV Array - OP Receptor (OP 23)
No glare found

Eastern PV Array - OP Receptor (OP 24)
No glare found

Eastern PV Array - OP Receptor (OP 25)
No glare found

Eastern PV Array - OP Receptor (OP 26)
No glare found

Eastern PV Array - OP Receptor (OP 27)
No glare found

Eastern PV Array - OP Receptor (OP 28)
No glare found

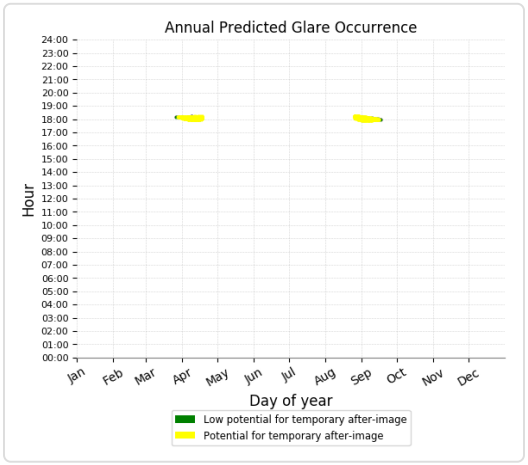
Eastern PV Array - OP Receptor (OP 29)
No glare found

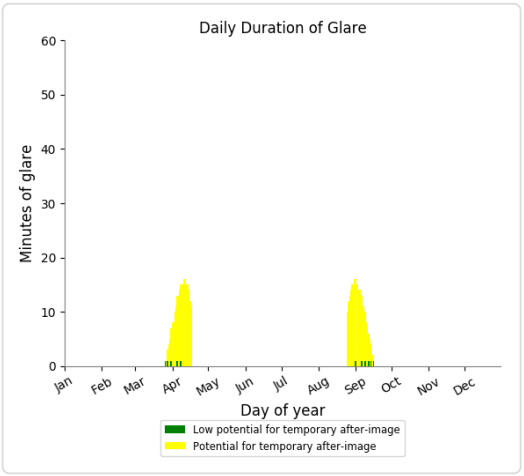
Eastern PV Array - OP Receptor (OP 30)
No glare found

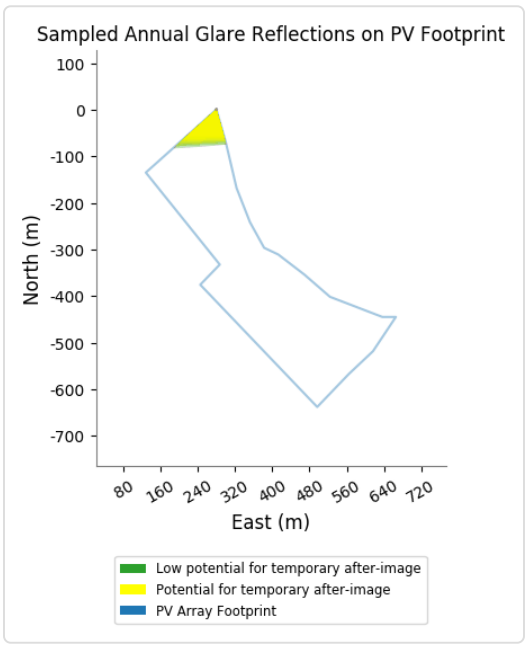
Eastern PV Array - OP Receptor (OP 31)

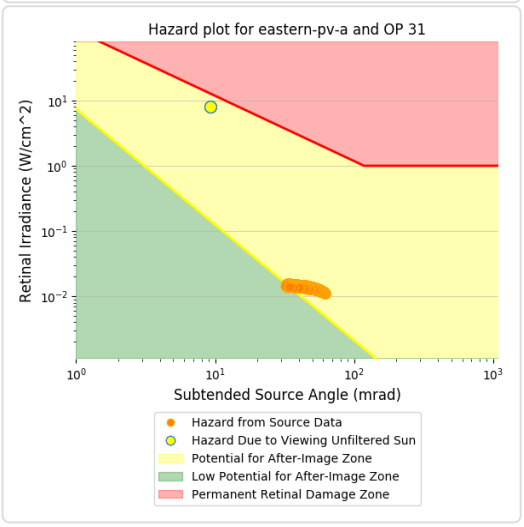
PV array is expected to produce the following glare for receptors at this location:

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





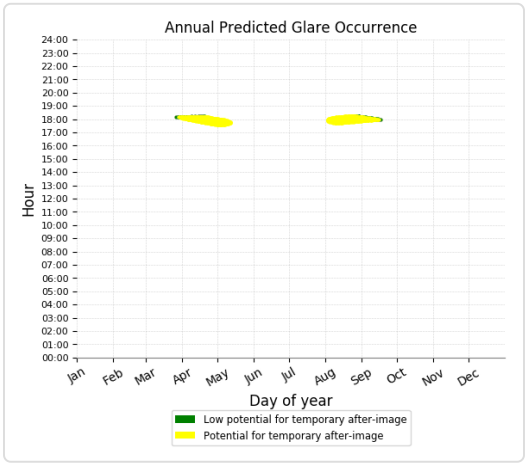


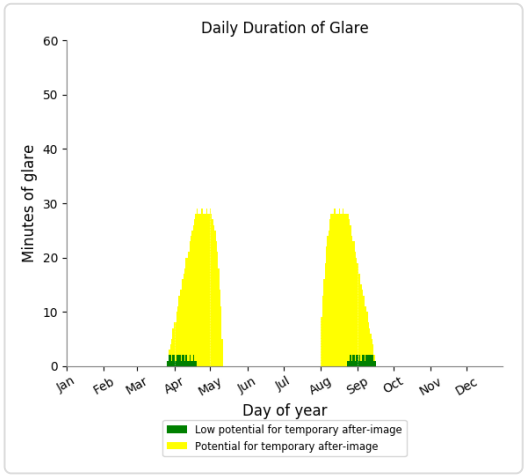


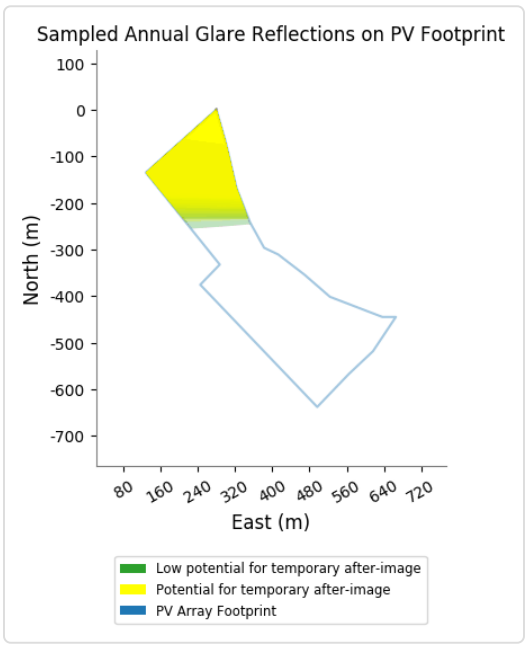
Eastern PV Array - OP Receptor (OP 32)

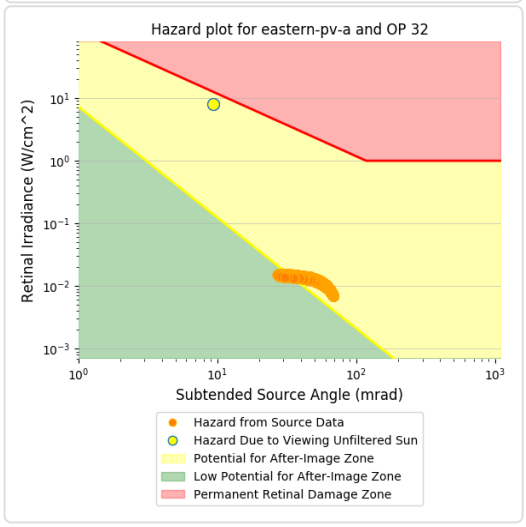
PV array is expected to produce the following glare for receptors at this location:

- 77 minutes of "green" glare with low potential to cause temporary after-image.
- 1,727 minutes of "yellow" glare with potential to cause temporary after-image.





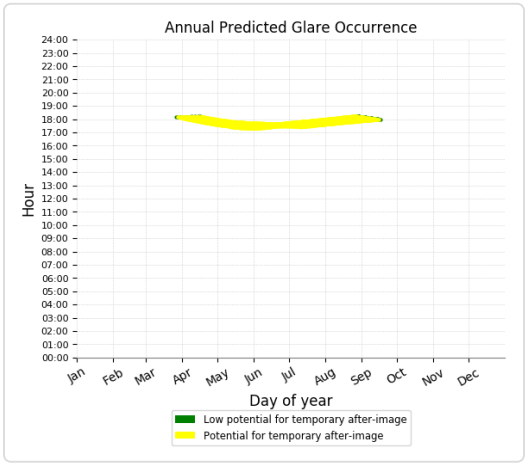


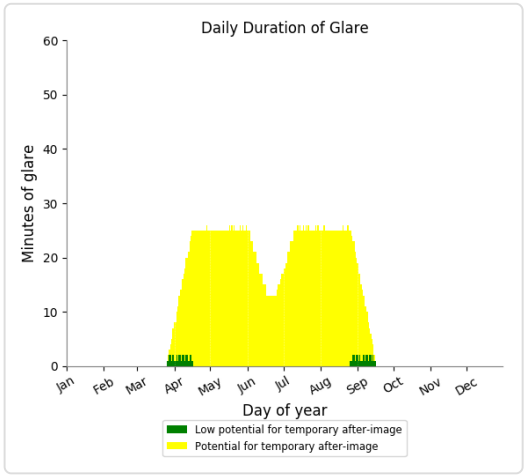


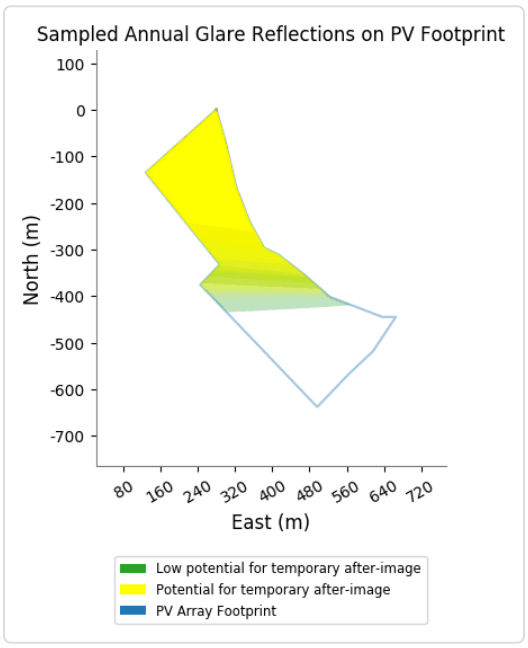
Eastern PV Array - OP Receptor (OP 33)

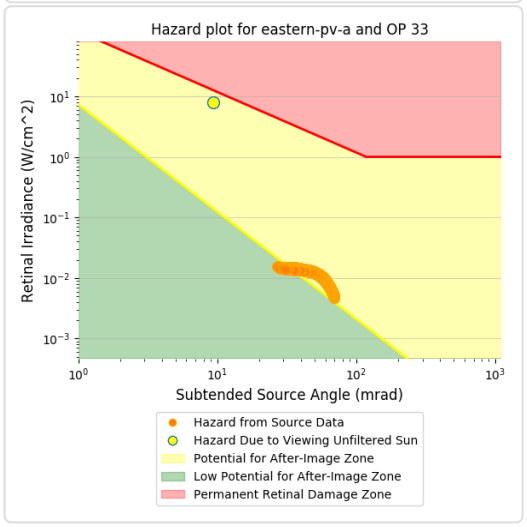
PV array is expected to produce the following glare for receptors at this location:

- 67 minutes of "green" glare with low potential to cause temporary after-image.
- 3,526 minutes of "yellow" glare with potential to cause temporary after-image.





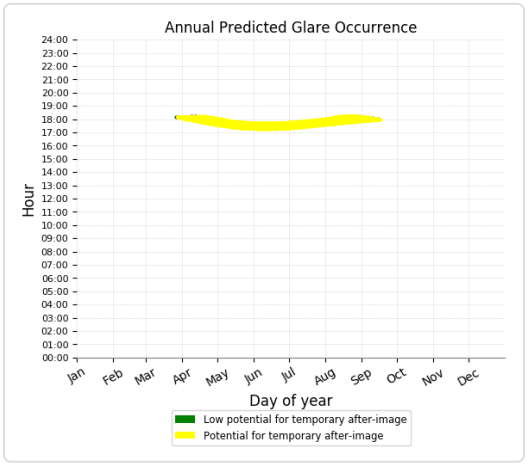


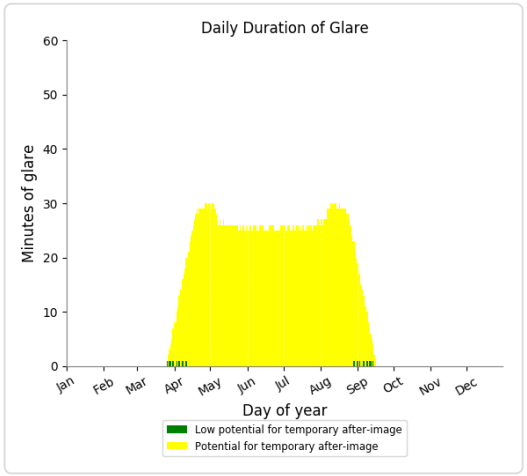


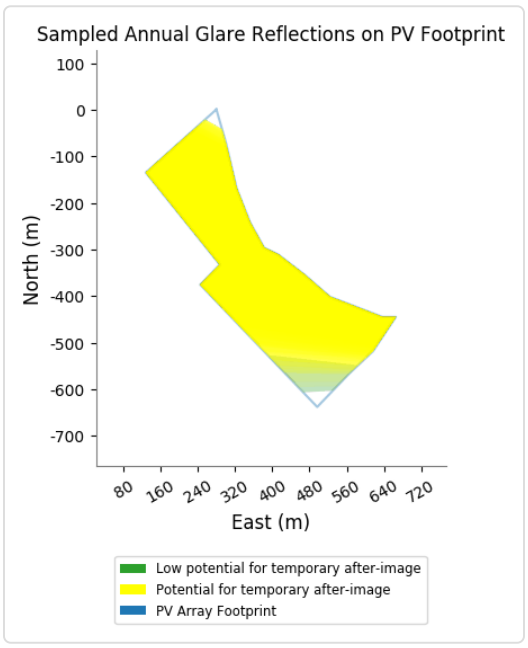
Eastern PV Array - OP Receptor (OP 34)

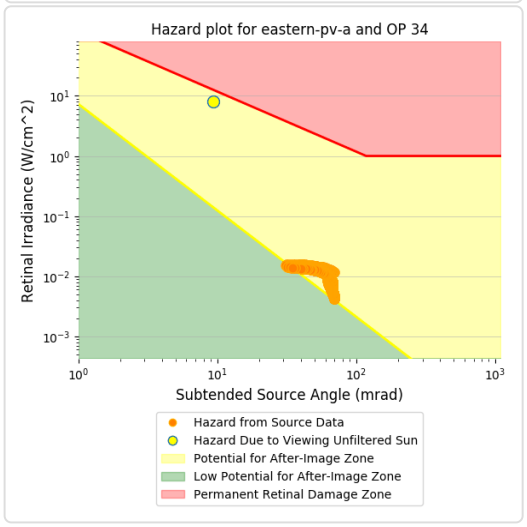
PV array is expected to produce the following glare for receptors at this location:

- 16 minutes of "green" glare with low potential to cause temporary after-image.
- 4,067 minutes of "yellow" glare with potential to cause temporary after-image.





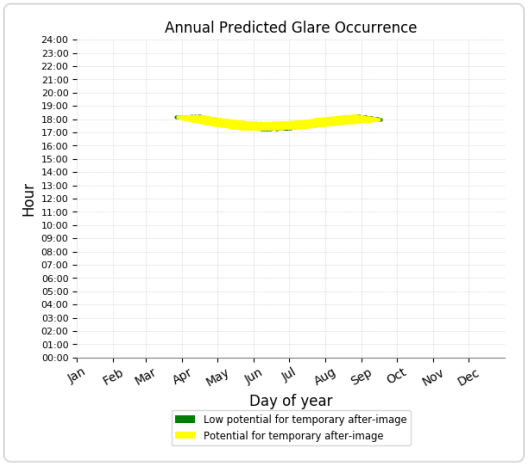


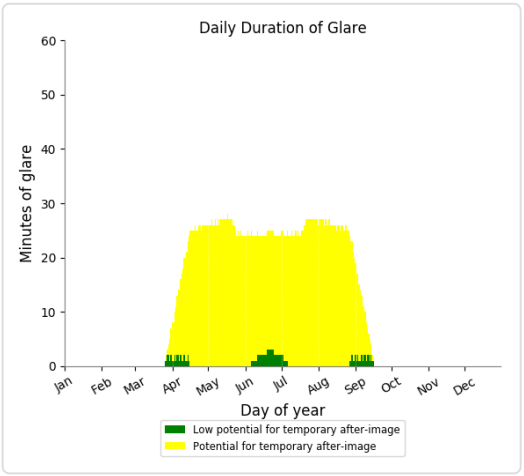


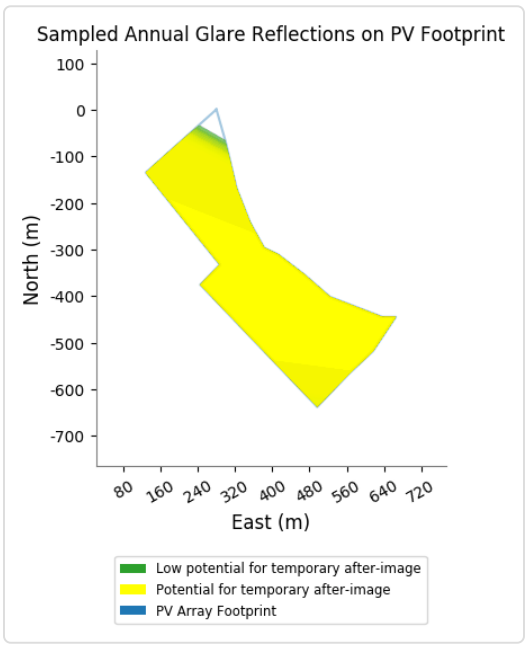
Eastern PV Array - OP Receptor (OP 35)

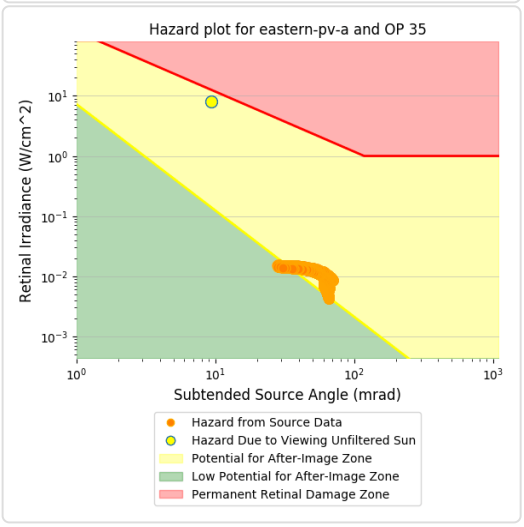
PV array is expected to produce the following glare for receptors at this location:

- 119 minutes of "green" glare with low potential to cause temporary after-image.
- 3,793 minutes of "yellow" glare with potential to cause temporary after-image.





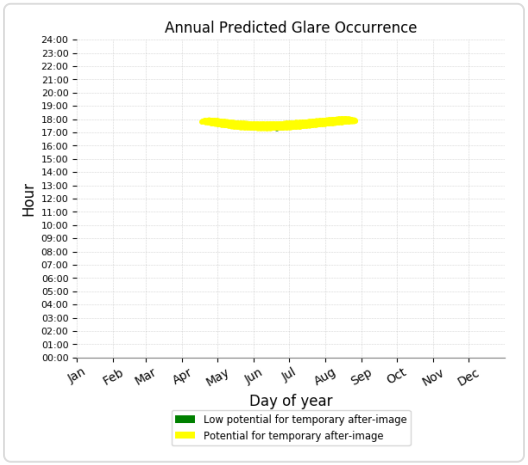


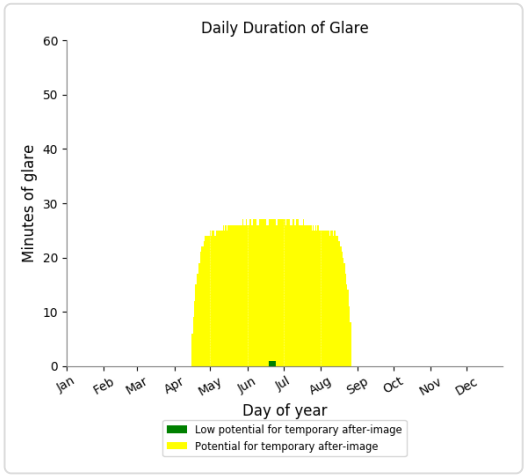


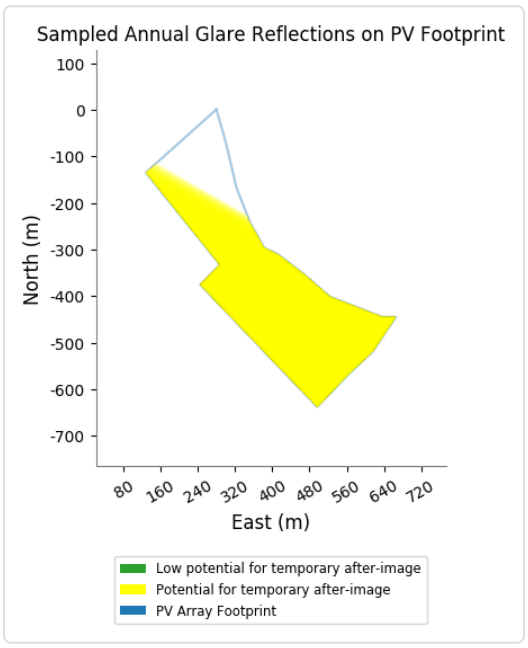
Eastern PV Array - OP Receptor (OP 36)

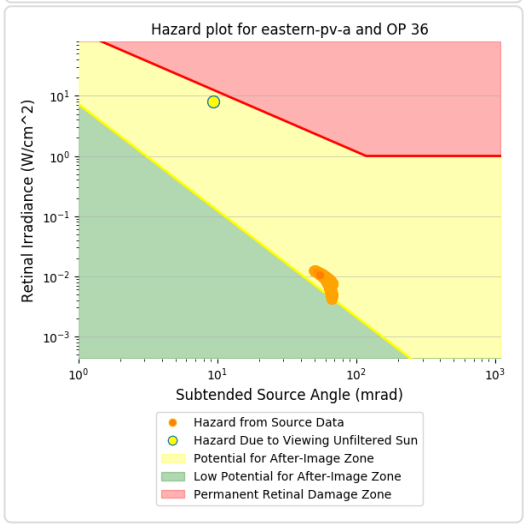
PV array is expected to produce the following glare for receptors at this location:

- 6 minutes of "green" glare with low potential to cause temporary after-image.
- 3,243 minutes of "yellow" glare with potential to cause temporary after-image.





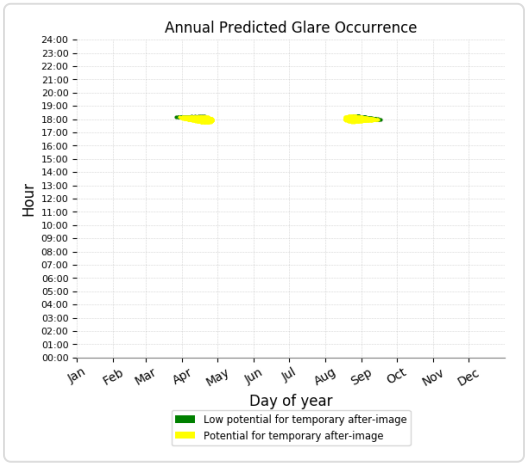


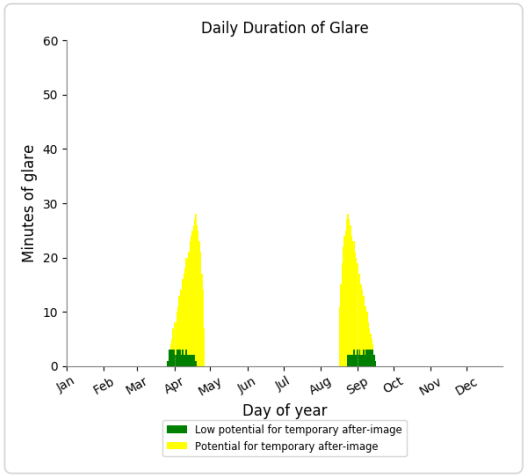


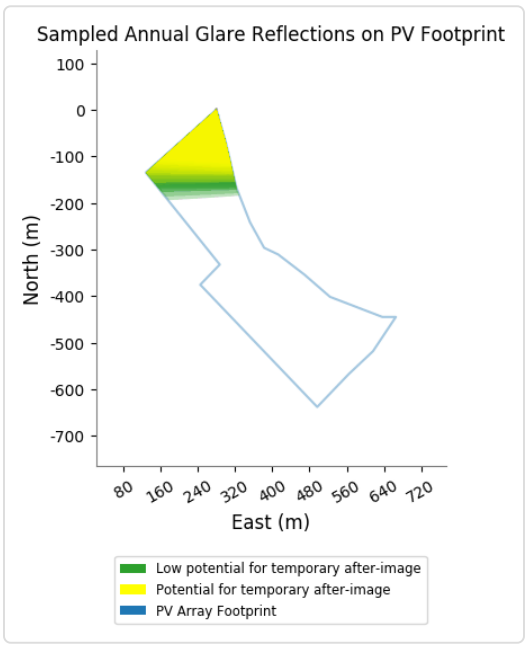
Eastern PV Array - OP Receptor (OP 37)

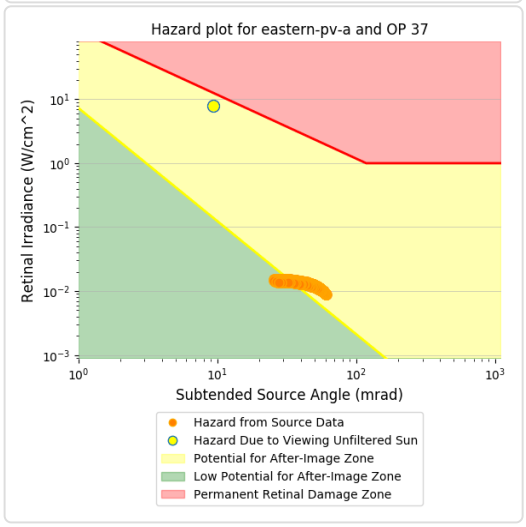
PV array is expected to produce the following glare for receptors at this location:

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





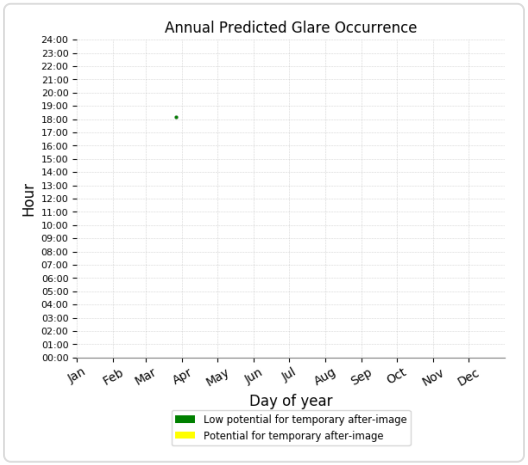


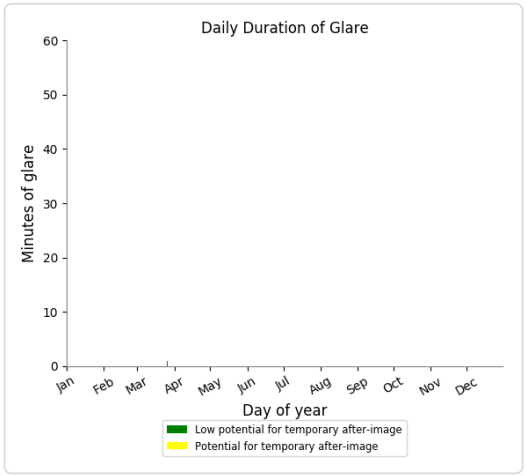


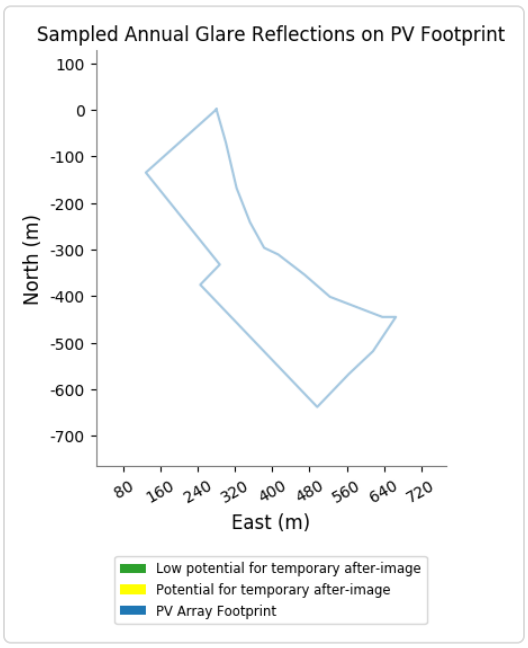
Eastern PV Array - OP Receptor (OP 38)

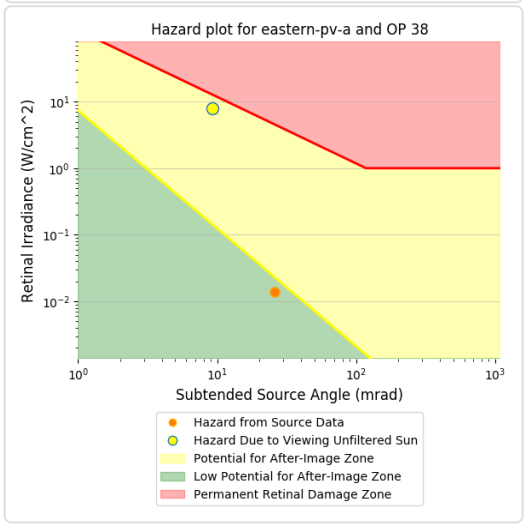
PV array is expected to produce the following glare for receptors at this location:

- 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.









Southern PV Array potential temporary after-image

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0

OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	93	42
OP: OP 35	335	612
OP: OP 36	628	1902
OP: OP 37	0	0
OP: OP 38	0	0

Southern PV Array - OP Receptor (OP 1)
No glare found

Southern PV Array - OP Receptor (OP 2)
No glare found

Southern PV Array - OP Receptor (OP 3)
No glare found

Southern PV Array - OP Receptor (OP 4)
No glare found

Southern PV Array - OP Receptor (OP 5)
No glare found

Southern PV Array - OP Receptor (OP 6)
No glare found

Southern PV Array - OP Receptor (OP 7)
No glare found

Southern PV Array - OP Receptor (OP 8)
No glare found

Southern PV Array - OP Receptor (OP 9)
No glare found

Southern PV Array - OP Receptor (OP 10)
No glare found

Southern PV Array - OP Receptor (OP 11)
No glare found

Southern PV Array - OP Receptor (OP 12)
No glare found

Southern PV Array - OP Receptor (OP 13)
No glare found

Southern PV Array - OP Receptor (OP 14)
No glare found

Southern PV Array - OP Receptor (OP 15)
No glare found

Southern PV Array - OP Receptor (OP 16)
No glare found

Southern PV Array - OP Receptor (OP 17)
No glare found

Southern PV Array - OP Receptor (OP 18)
No glare found

Southern PV Array - OP Receptor (OP 19)
No glare found

Southern PV Array - OP Receptor (OP 20)
No glare found

Southern PV Array - OP Receptor (OP 21)
No glare found

Southern PV Array - OP Receptor (OP 22)
No glare found

Southern PV Array - OP Receptor (OP 23)
No glare found

Southern PV Array - OP Receptor (OP 24)
No glare found

Southern PV Array - OP Receptor (OP 25)
No glare found

Southern PV Array - OP Receptor (OP 26)
No glare found

Southern PV Array - OP Receptor (OP 27)
No glare found

Southern PV Array - OP Receptor (OP 28)
No glare found

Southern PV Array - OP Receptor (OP 29)
No glare found

Southern PV Array - OP Receptor (OP 30)
No glare found

Southern PV Array - OP Receptor (OP 31)
No glare found

Southern PV Array - OP Receptor (OP 32)

No glare found

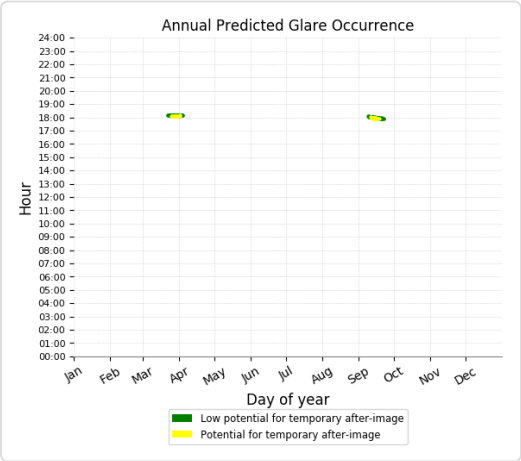
Southern PV Array - OP Receptor (OP 33)

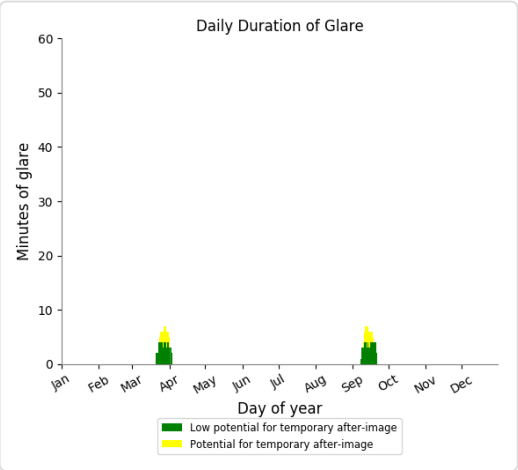
No glare found

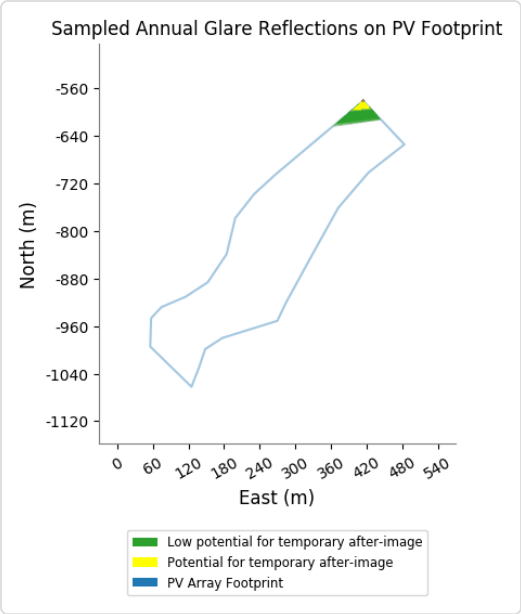
Southern PV Array - OP Receptor (OP 34)

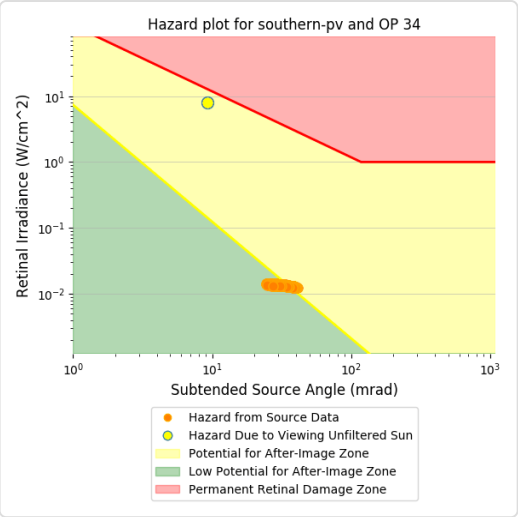
PV array is expected to produce the following glare for receptors at this location:

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





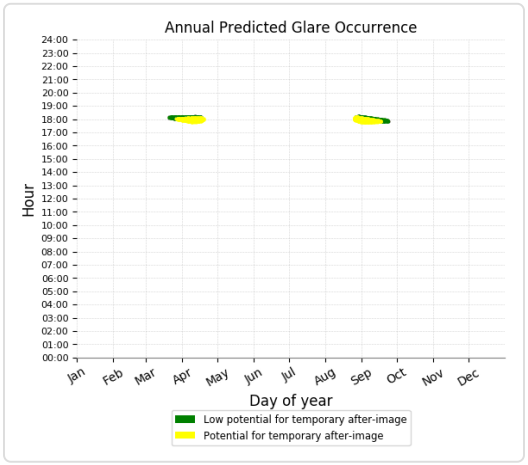


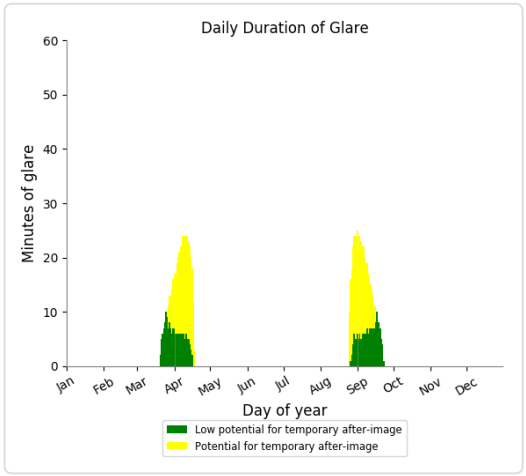


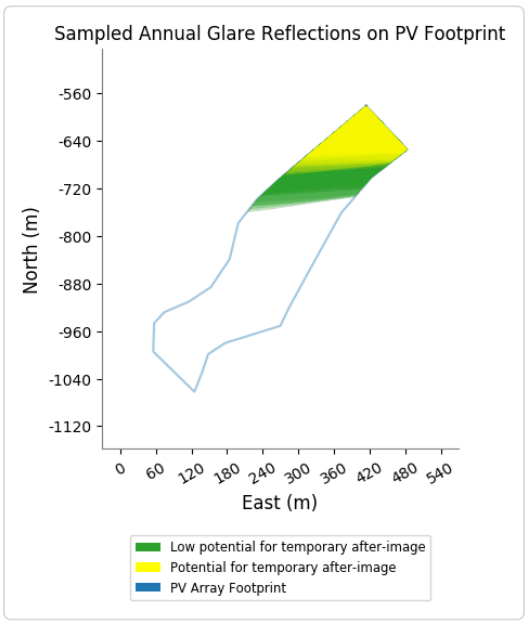
Southern PV Array - OP Receptor (OP 35)

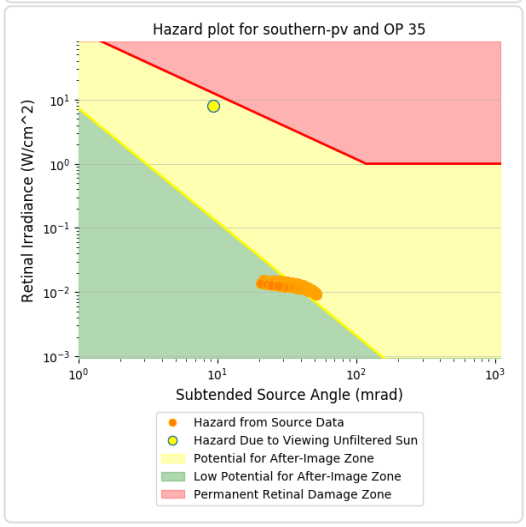
PV array is expected to produce the following glare for receptors at this location:

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





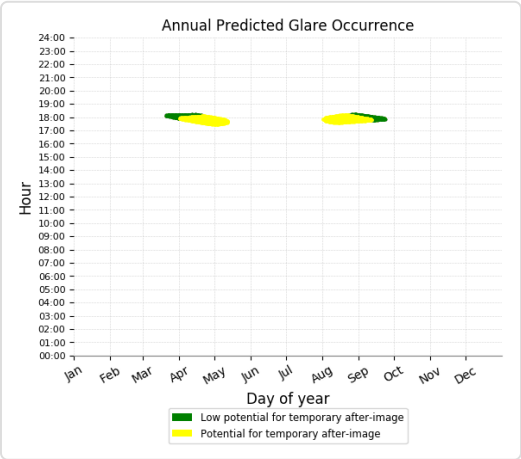


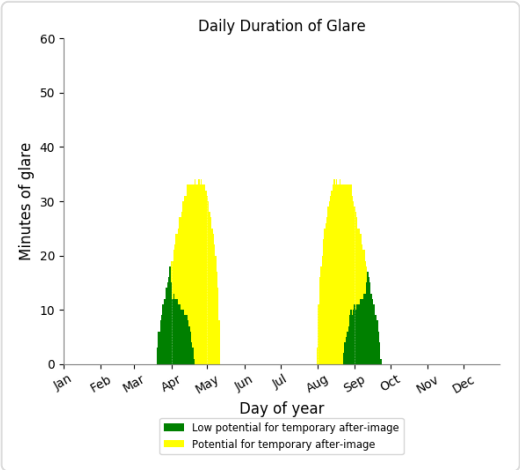


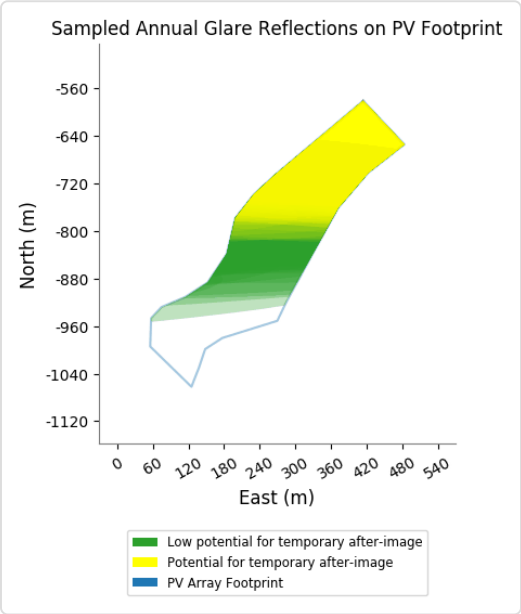
Southern PV Array - OP Receptor (OP 36)

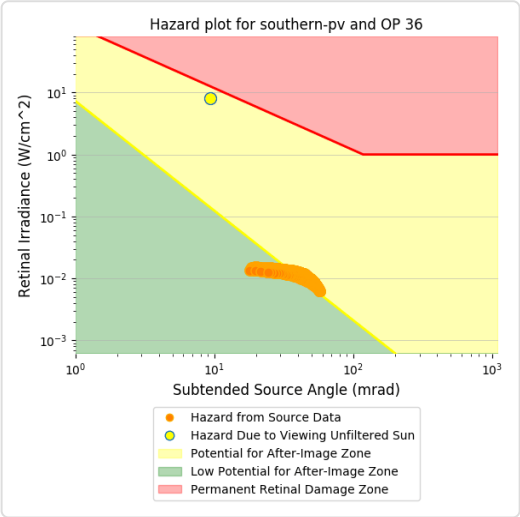
PV array is expected to produce the following glare for receptors at this location:

- 628 minutes of "green" glare with low potential to cause temporary after-image.
- 1,902 minutes of "yellow" glare with potential to cause temporary after-image.









Southern PV Array - OP Receptor (OP 37)

No glare found

Southern PV Array - OP Receptor (OP 38)

No glare found

Western PV Array potential temporary after-image

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	85
OP: OP 4	0	1144
OP: OP 5	0	5127
OP: OP 6	10	4072
OP: OP 7	35	3727
OP: OP 8	32	3613
OP: OP 9	0	3072
OP: OP 10	37	4068
OP: OP 11	5	4649
OP: OP 12	0	5429

OP: OP 13	0	6262
OP: OP 14	0	1401
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	273
OP: OP 20	0	422
OP: OP 21	0	66
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	5	486
OP: OP 25	36	1030
OP: OP 26	75	1557
OP: OP 27	55	1936
OP: OP 28	8	2669
OP: OP 29	4	3902
OP: OP 30	45	3846
OP: OP 31	99	3288
OP: OP 32	140	2718
OP: OP 33	200	1917
OP: OP 34	465	833
OP: OP 35	928	159
OP: OP 36	606	0
OP: OP 37	380	2728
OP: OP 38	581	2991

Western PV Array - OP Receptor (OP 1)

No glare found

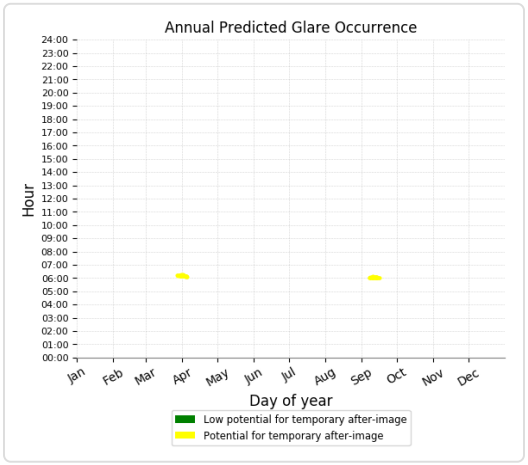
Western PV Array - OP Receptor (OP 2)

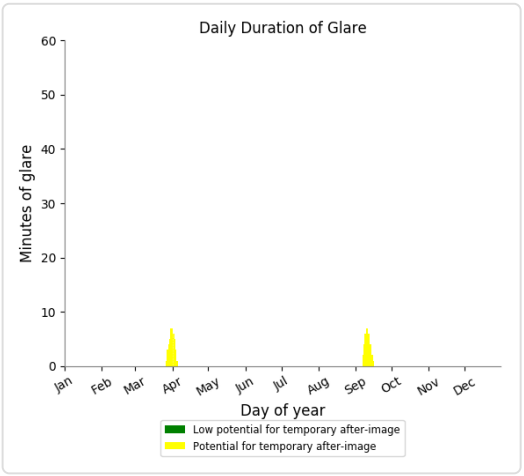
No glare found

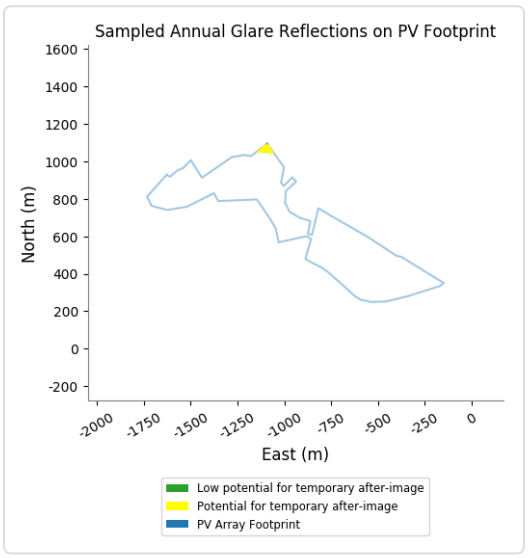
Western PV Array - OP Receptor (OP 3)

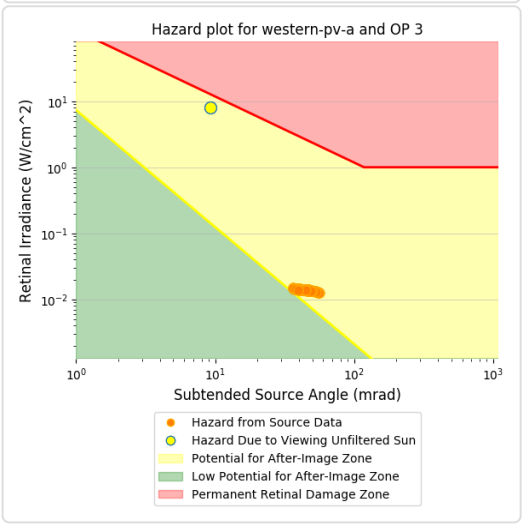
PV array is expected to produce the following glare for receptors at this location:

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





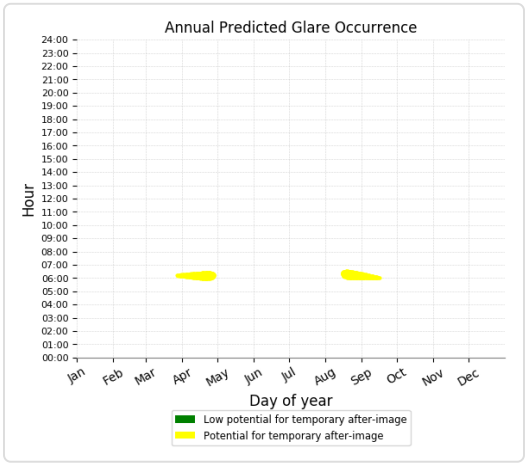


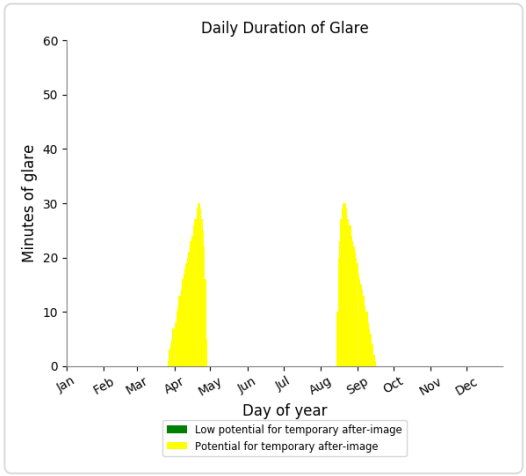


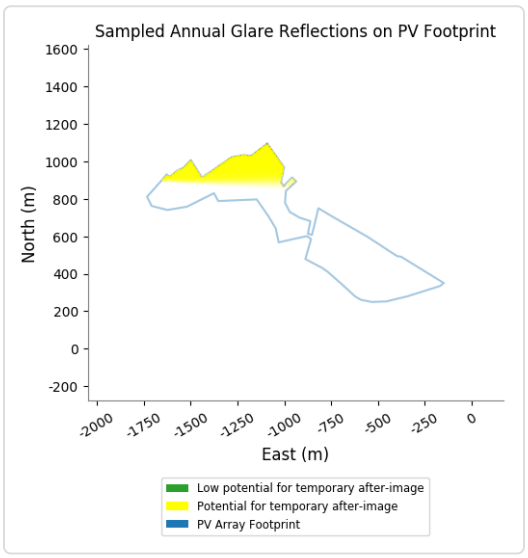
Western PV Array - OP Receptor (OP 4)

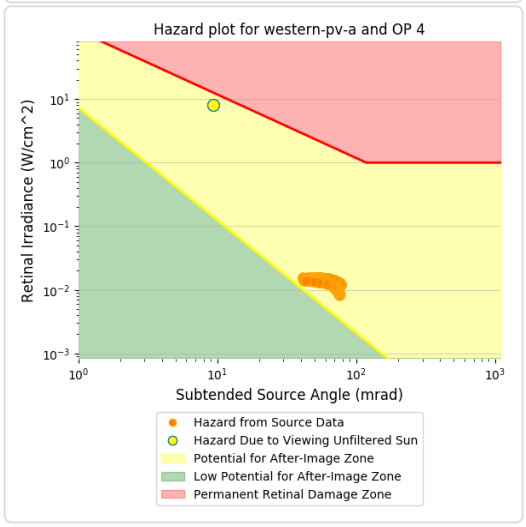
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 1,144 minutes of "yellow" glare with potential to cause temporary after-image.





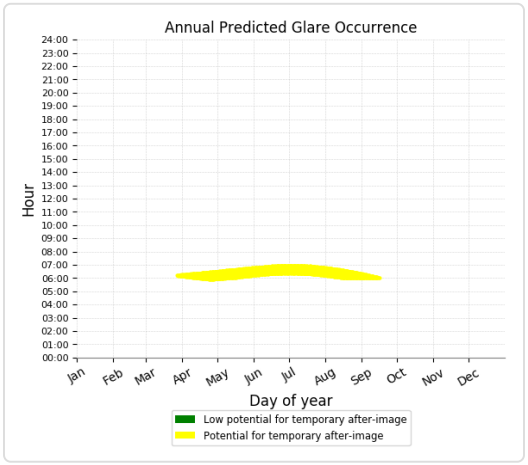


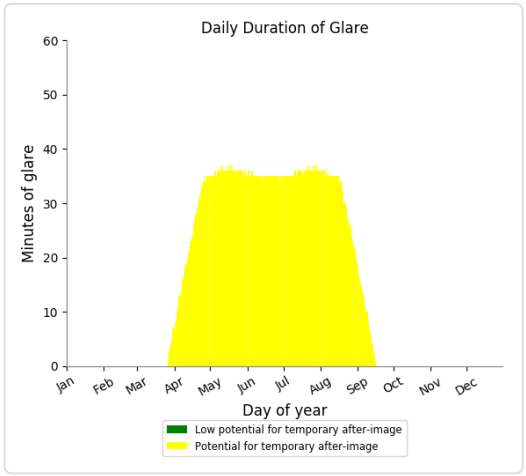


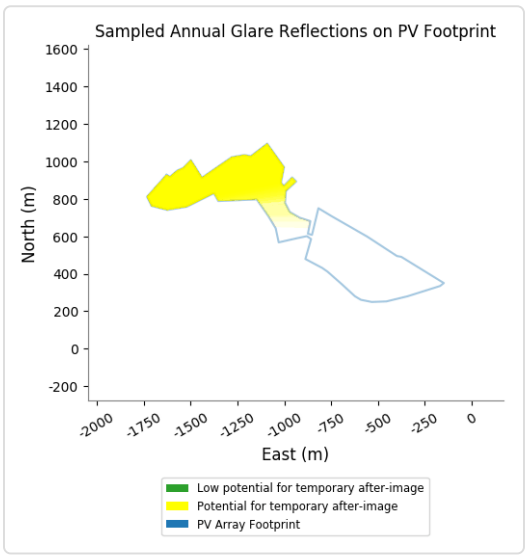
Western PV Array - OP Receptor (OP 5)

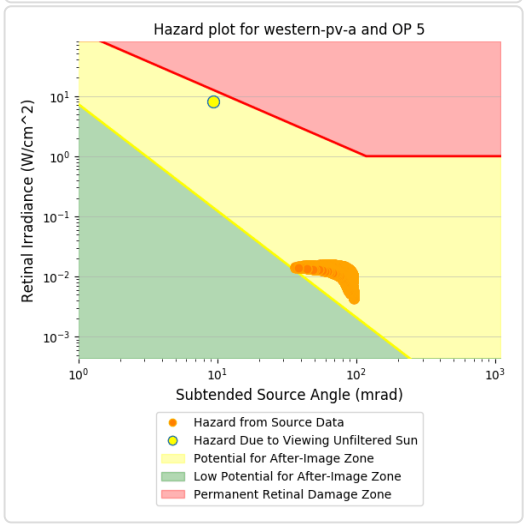
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 5,127 minutes of "yellow" glare with potential to cause temporary after-image.





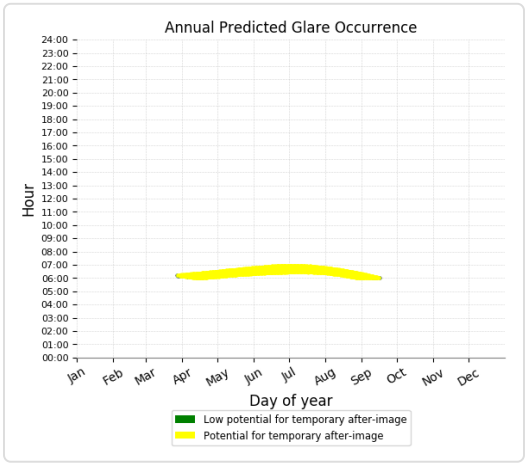


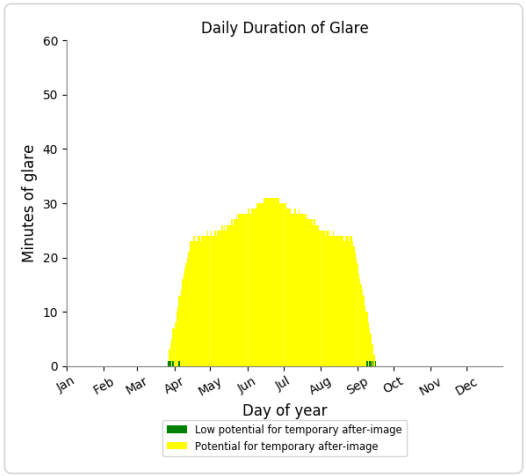


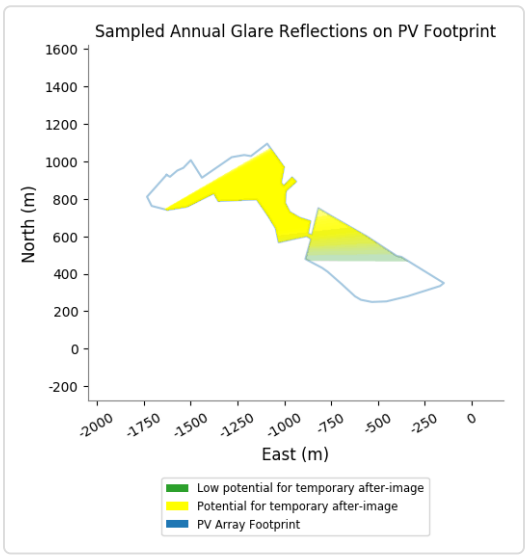
Western PV Array - OP Receptor (OP 6)

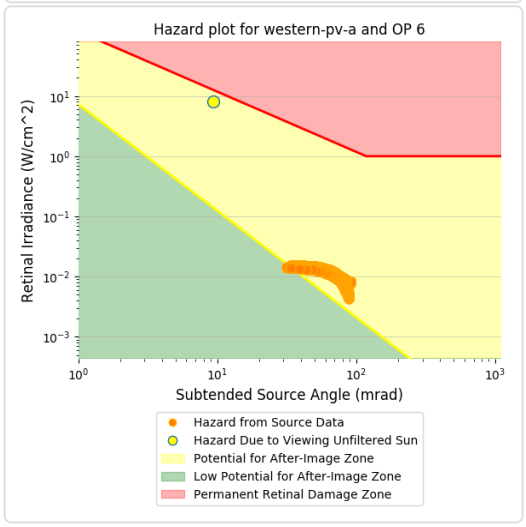
PV array is expected to produce the following glare for receptors at this location:

- 10 minutes of "green" glare with low potential to cause temporary after-image.
- 4,072 minutes of "yellow" glare with potential to cause temporary after-image.





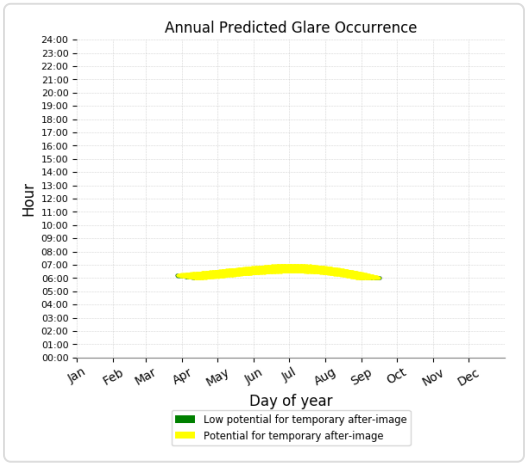


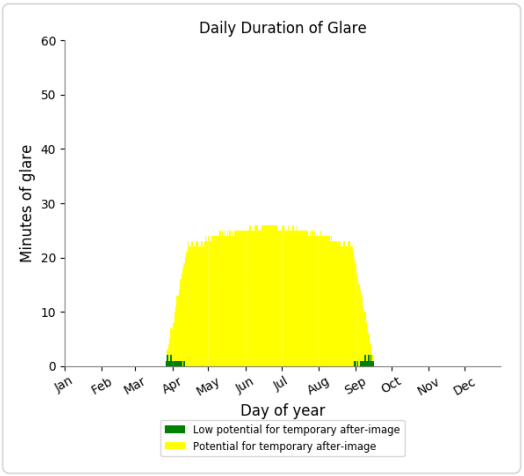


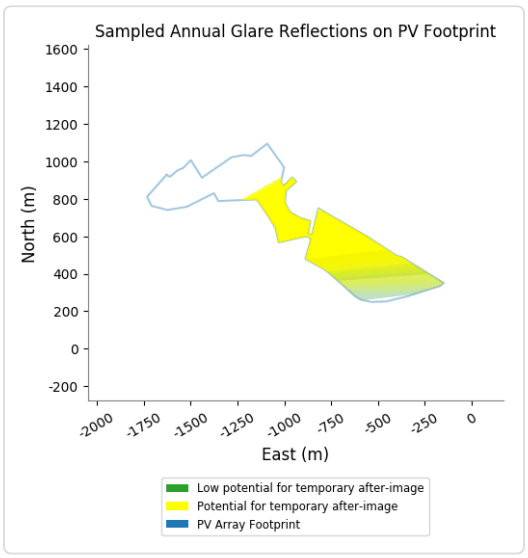
Western PV Array - OP Receptor (OP 7)

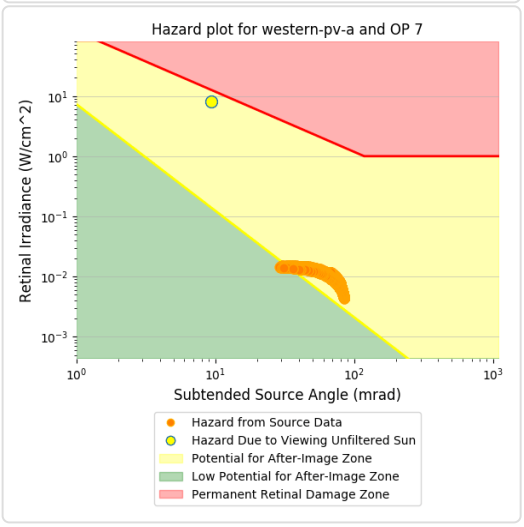
PV array is expected to produce the following glare for receptors at this location:

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





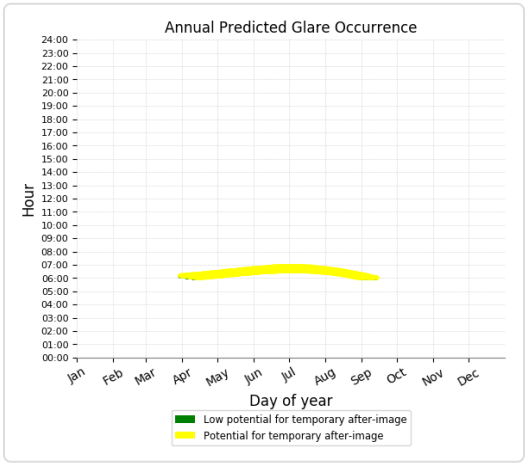


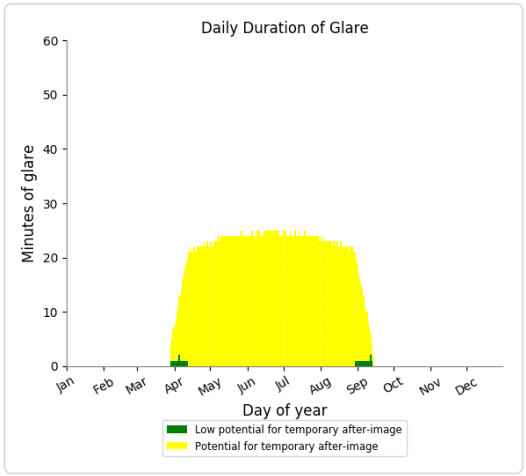


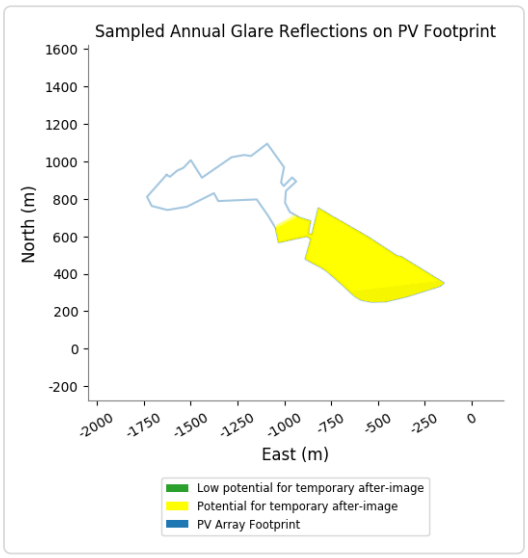
Western PV Array - OP Receptor (OP 8)

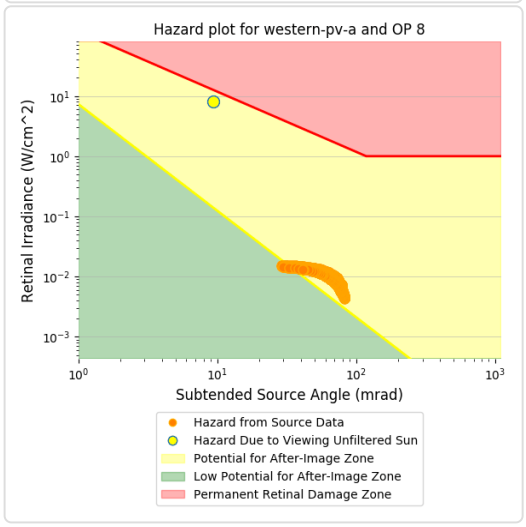
PV array is expected to produce the following glare for receptors at this location:

- 32 minutes of "green" glare with low potential to cause temporary after-image.
- 3,613 minutes of "yellow" glare with potential to cause temporary after-image.





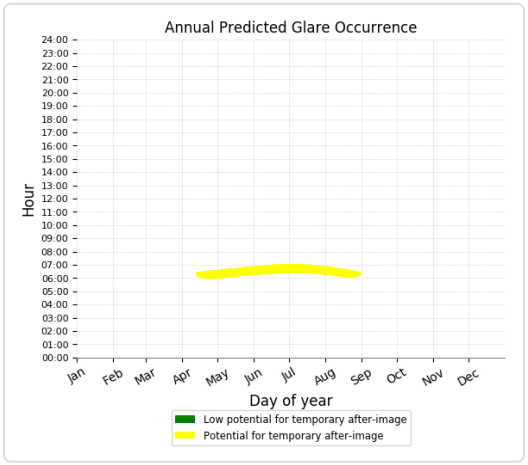


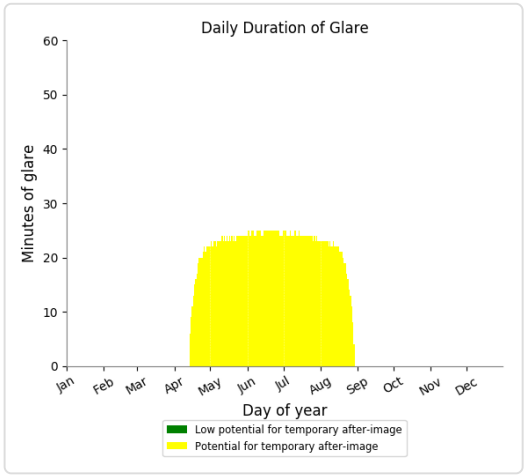


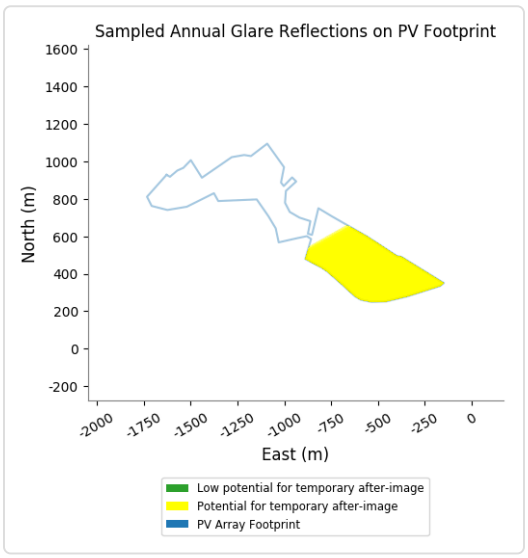
Western PV Array - OP Receptor (OP 9)

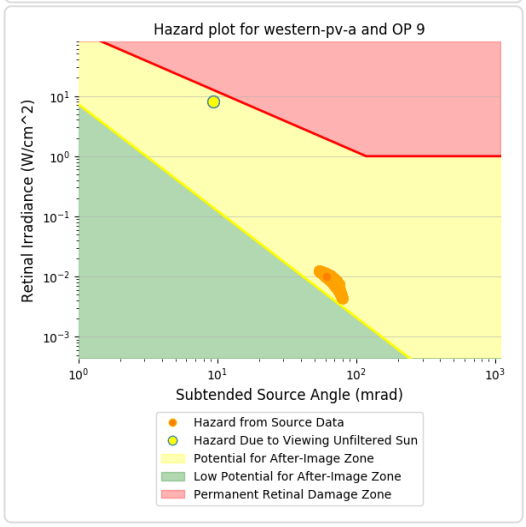
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 3,072 minutes of "yellow" glare with potential to cause temporary after-image.





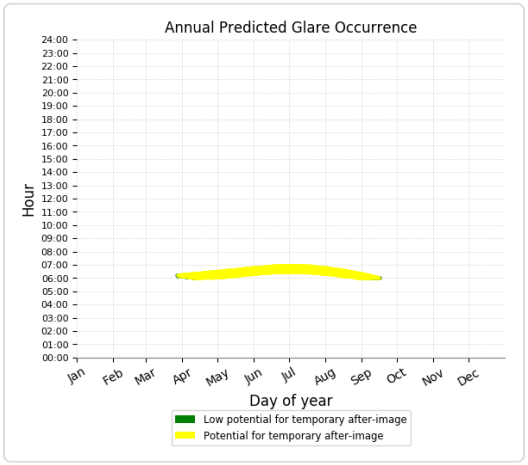


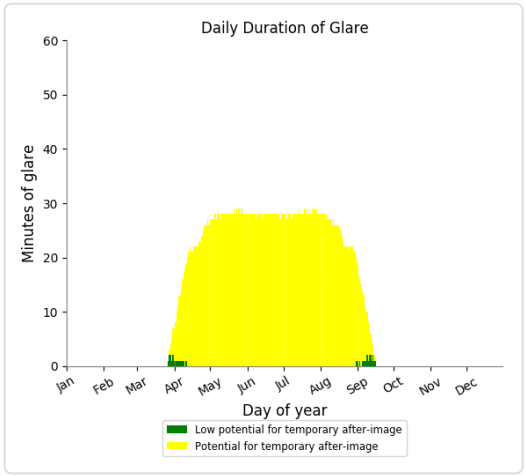


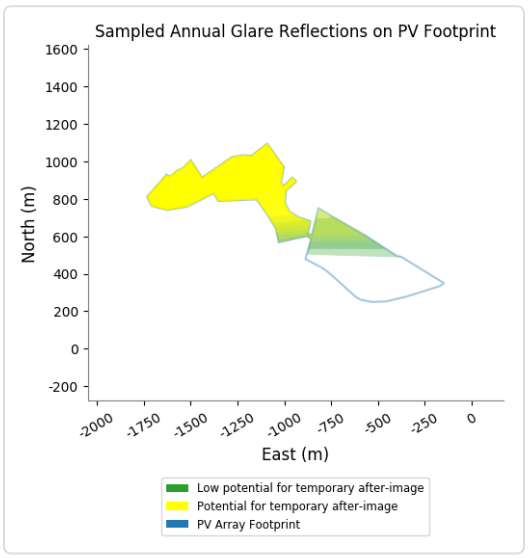
Western PV Array - OP Receptor (OP 10)

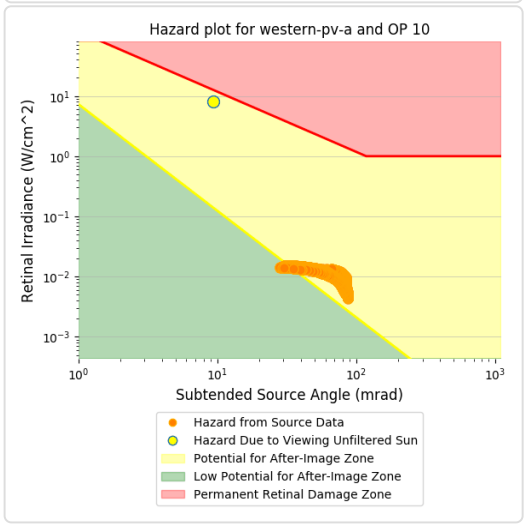
PV array is expected to produce the following glare for receptors at this location:

- 37 minutes of "green" glare with low potential to cause temporary after-image.
- 4,068 minutes of "yellow" glare with potential to cause temporary after-image.





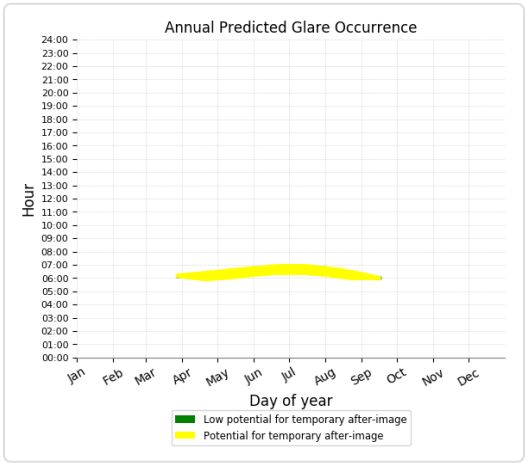


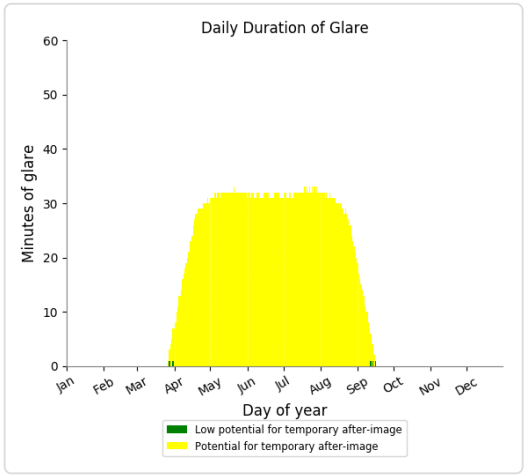


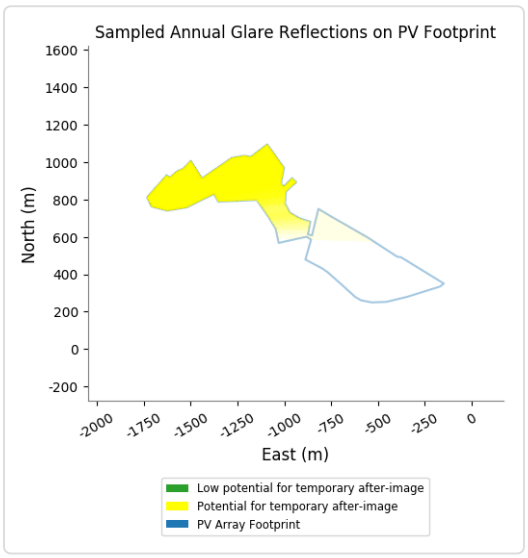
Western PV Array - OP Receptor (OP 11)

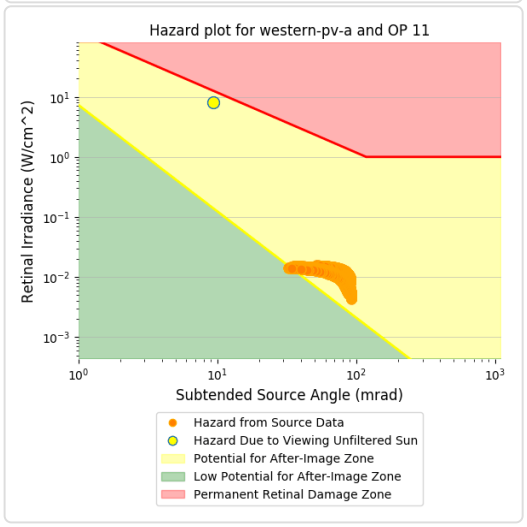
PV array is expected to produce the following glare for receptors at this location:

- 5 minutes of "green" glare with low potential to cause temporary after-image.
- 4,649 minutes of "yellow" glare with potential to cause temporary after-image.





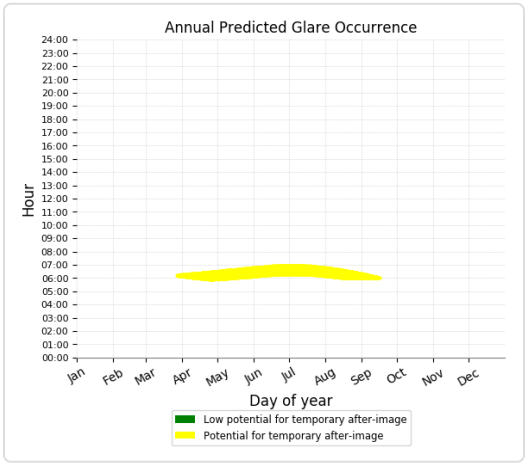


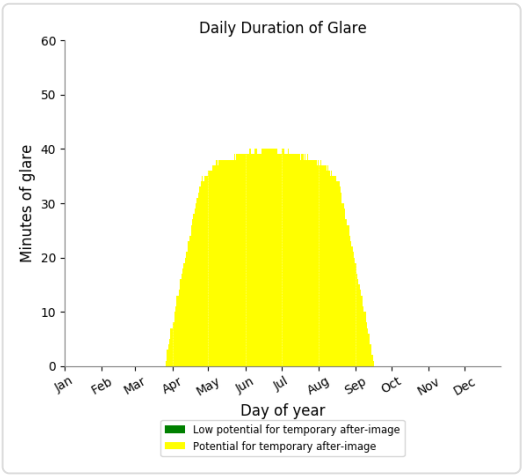


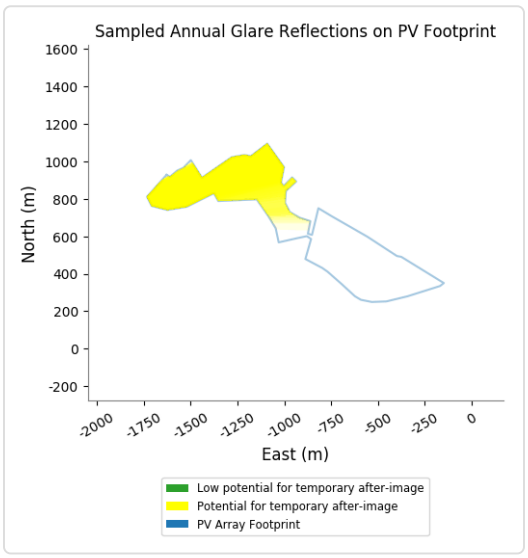
Western PV Array - OP Receptor (OP 12)

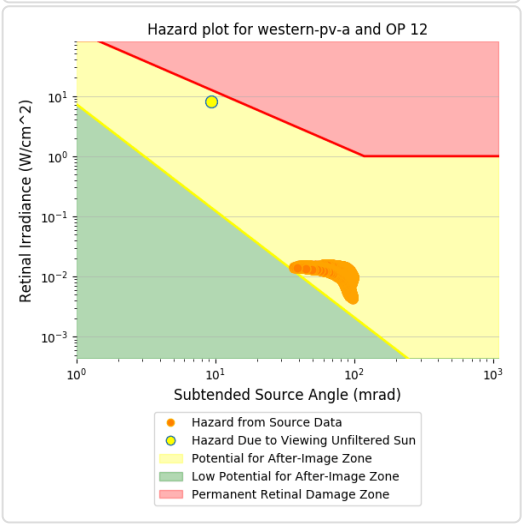
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 5,429 minutes of "yellow" glare with potential to cause temporary after-image.





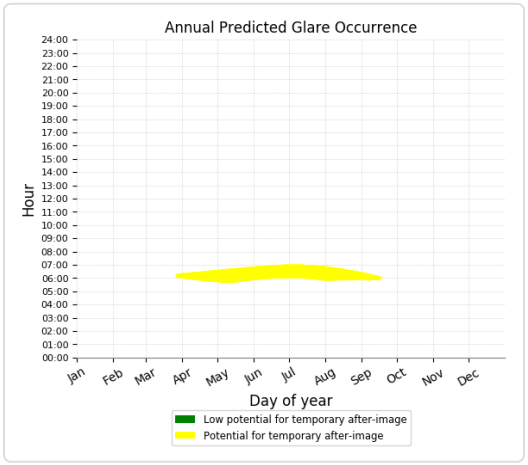


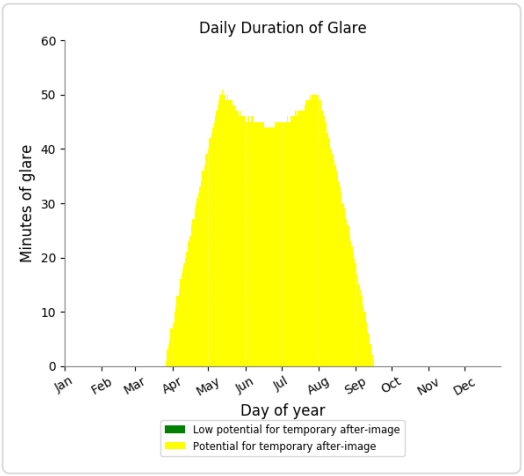


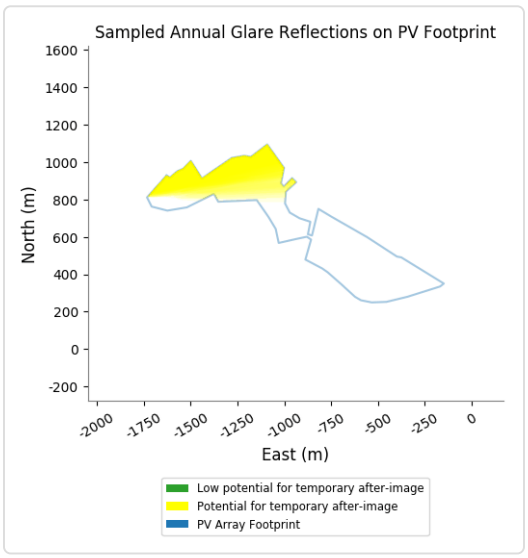
Western PV Array - OP Receptor (OP 13)

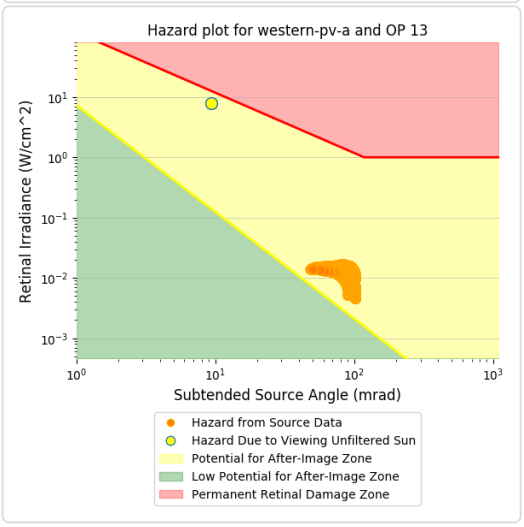
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 6,262 minutes of "yellow" glare with potential to cause temporary after-image.





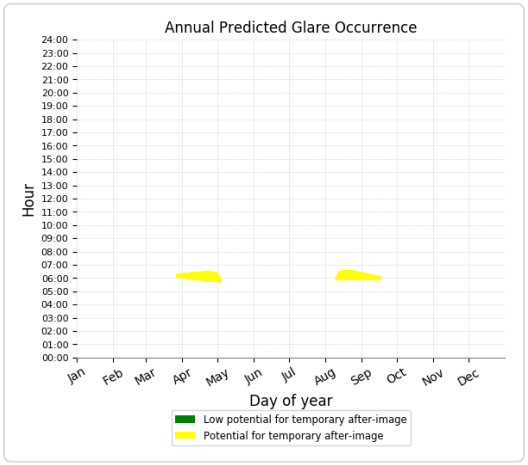


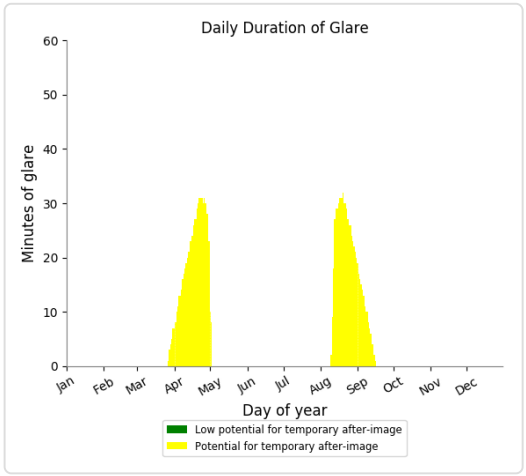


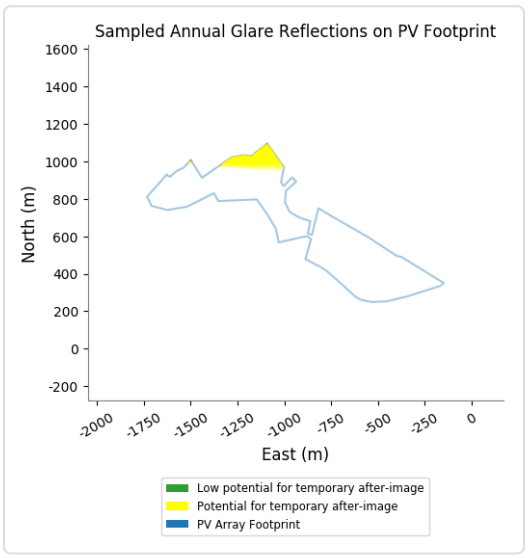
Western PV Array - OP Receptor (OP 14)

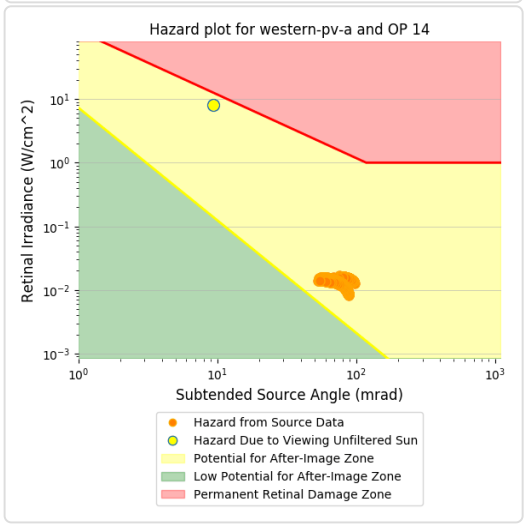
PV array is expected to produce the following glare for receptors at this location:

- 0 minutes of "green" glare with low potential to cause temporary after-image.
- 1,401 minutes of "yellow" glare with potential to cause temporary after-image.









Western PV Array - OP Receptor (OP 15)

No glare found

Western PV Array - OP Receptor (OP 16)

No glare found

Western PV Array - OP Receptor (OP 17)

No glare found

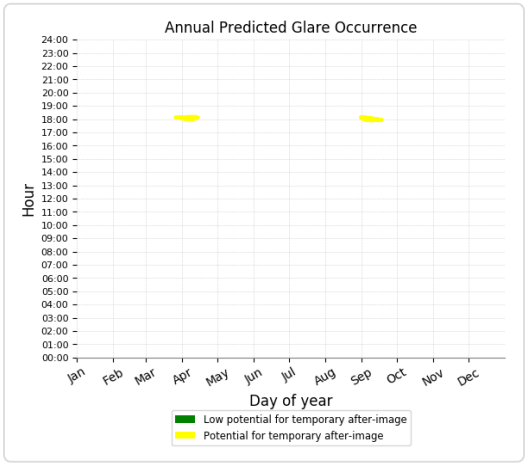
Western PV Array - OP Receptor (OP 18)

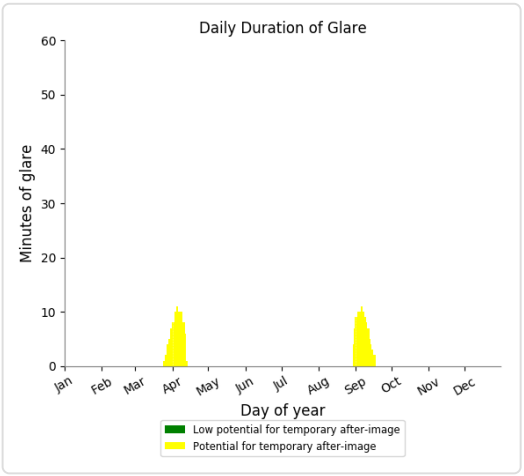
No glare found

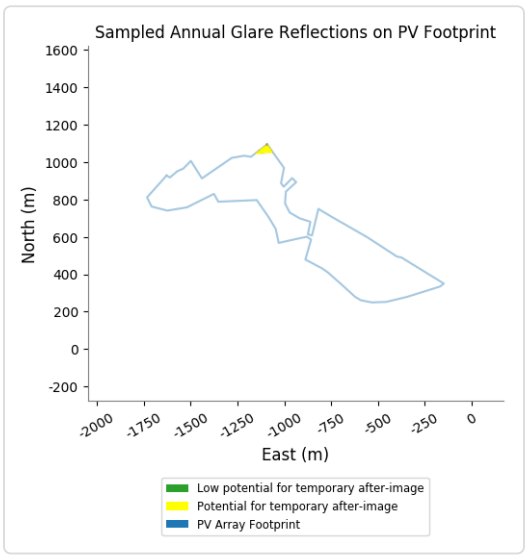
Western PV Array - OP Receptor (OP 19)

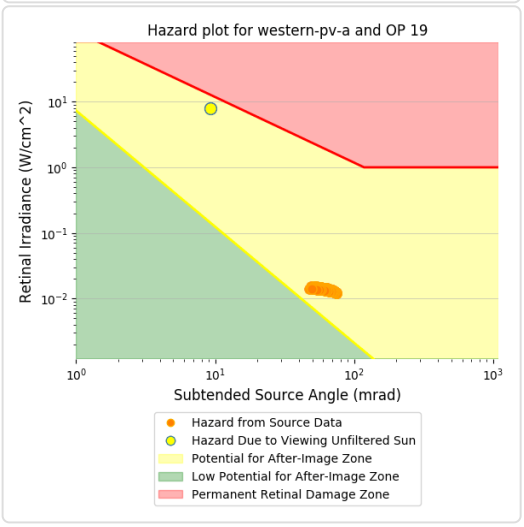
PV array is expected to produce the following glare for receptors at this location:

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





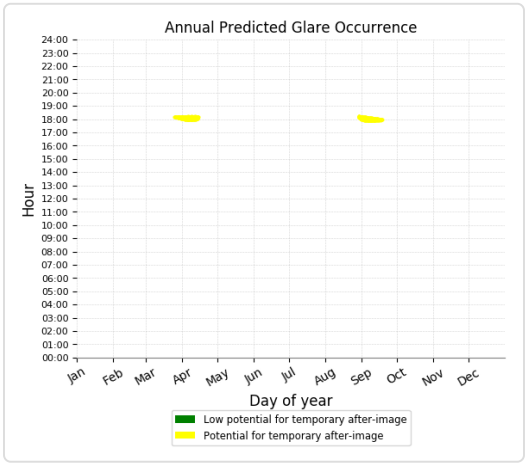


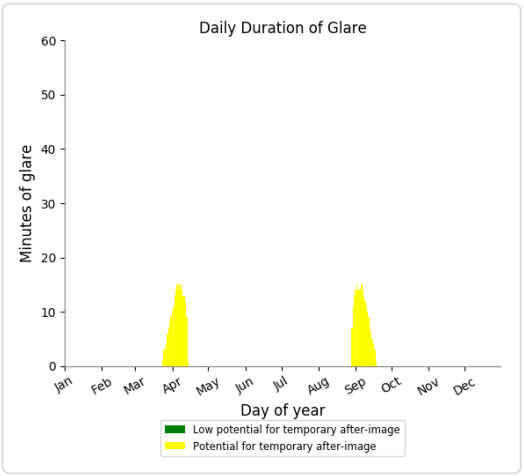


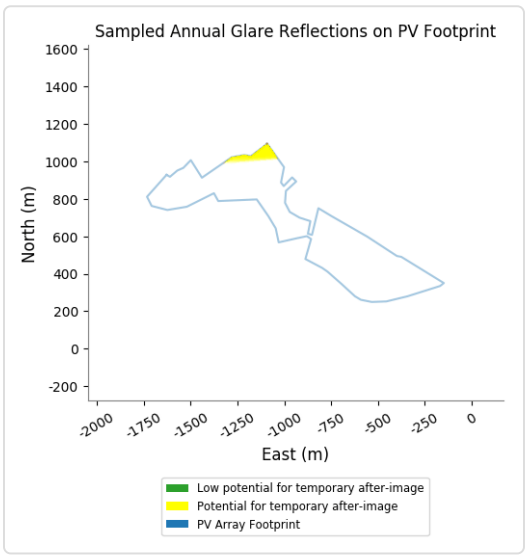
Western PV Array - OP Receptor (OP 20)

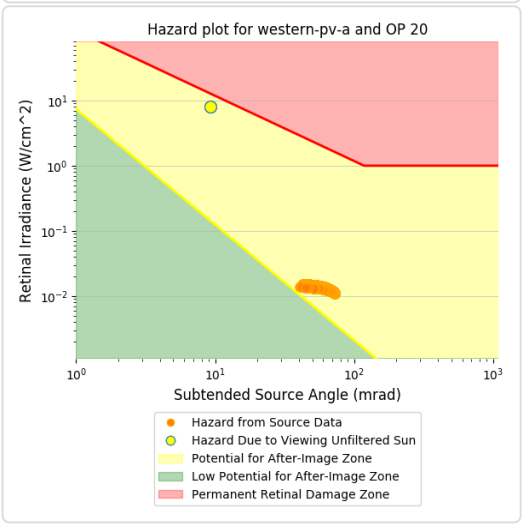
PV array is expected to produce the following glare for receptors at this location:

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





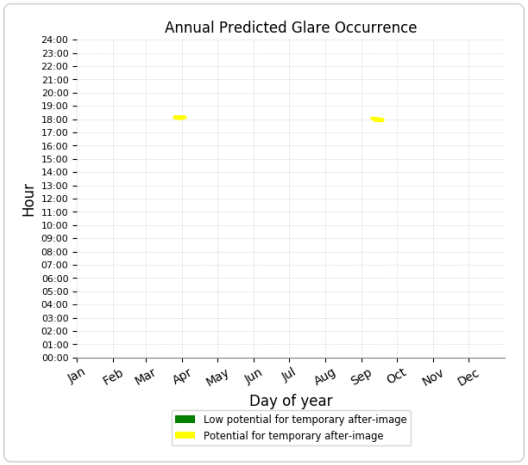


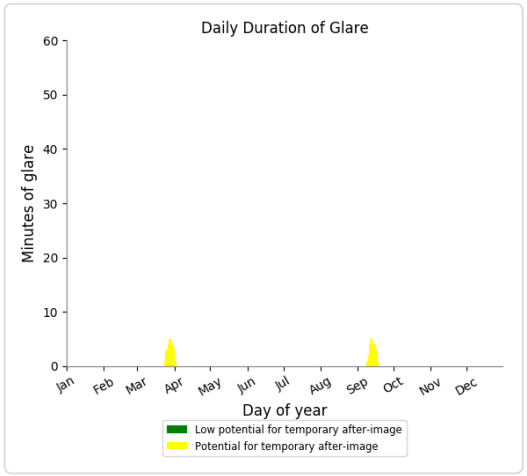


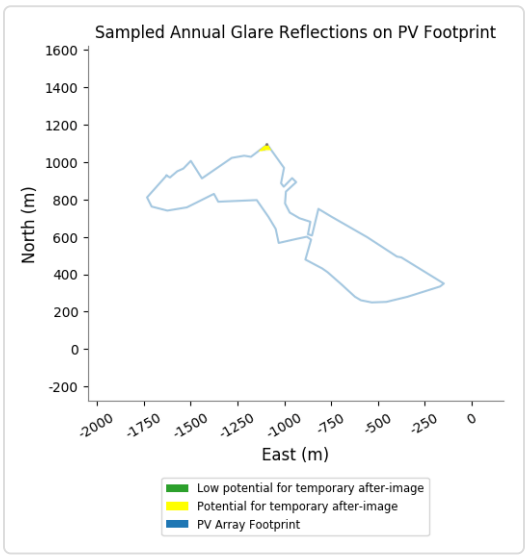
Western PV Array - OP Receptor (OP 21)

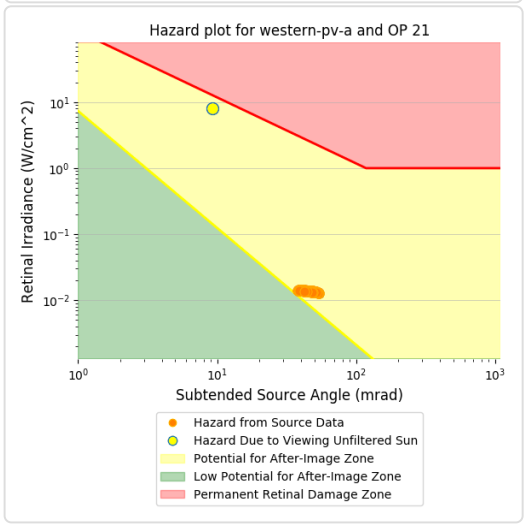
PV array is expected to produce the following glare for receptors at this location:

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









Western PV Array - OP Receptor (OP 22)

No glare found

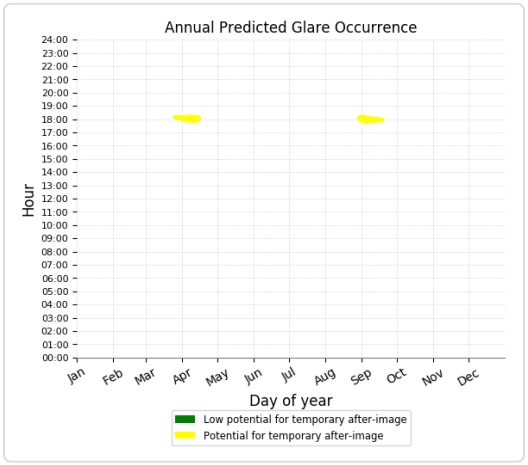
Western PV Array - OP Receptor (OP 23)

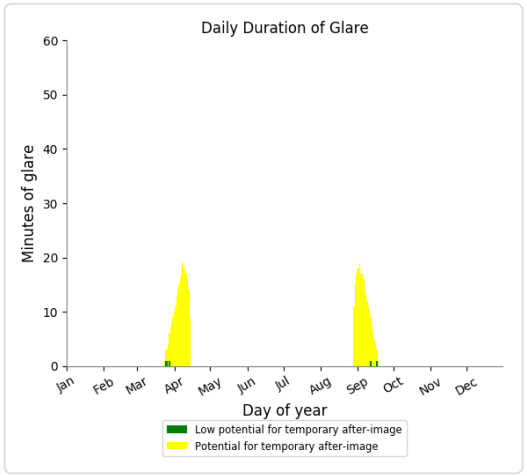
No glare found

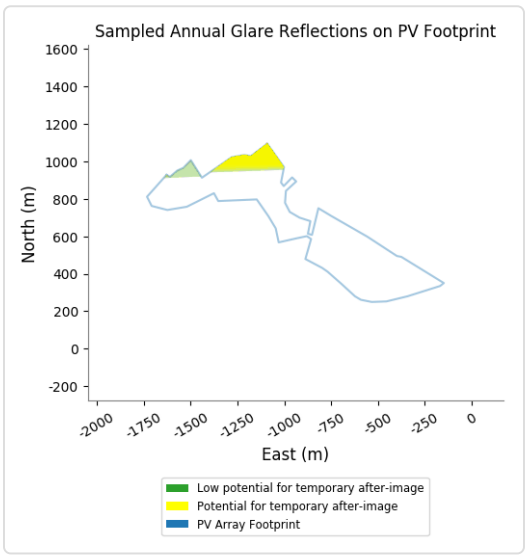
Western PV Array - OP Receptor (OP 24)

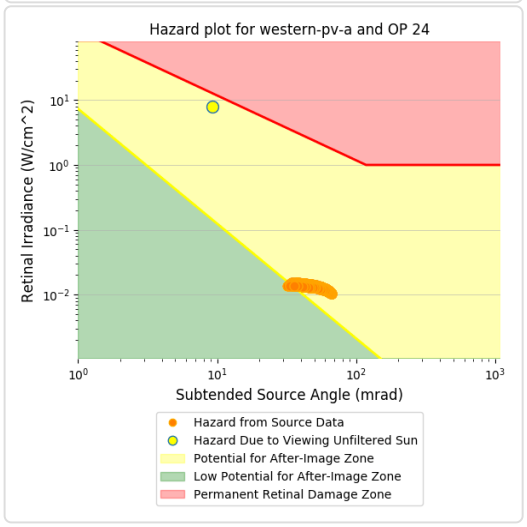
PV array is expected to produce the following glare for receptors at this location:

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





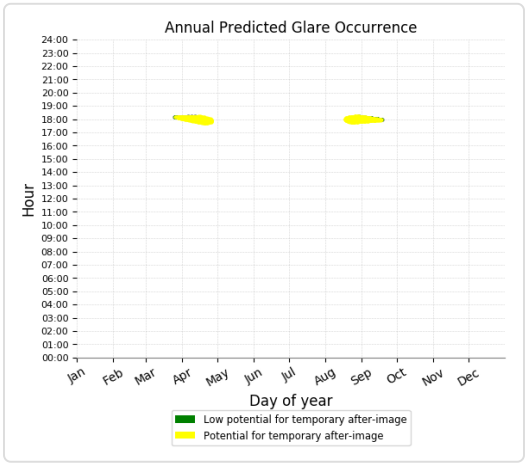


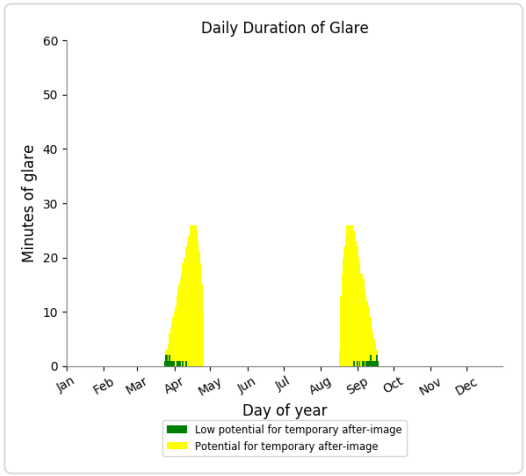


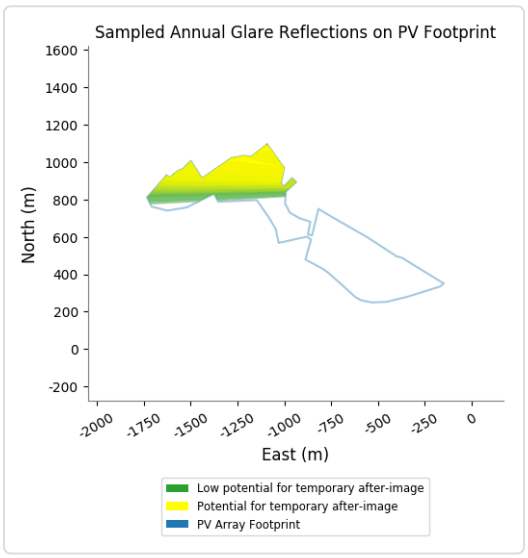
Western PV Array - OP Receptor (OP 25)

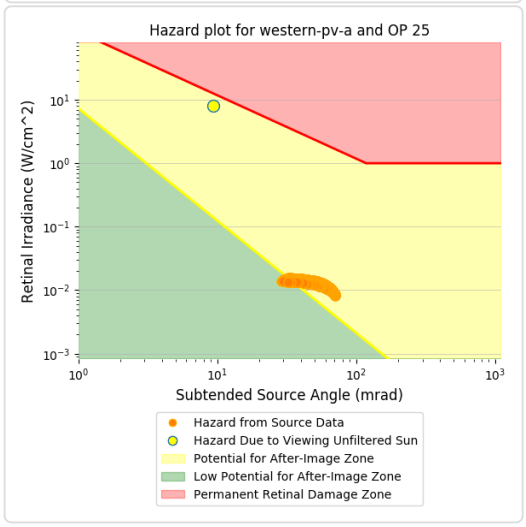
PV array is expected to produce the following glare for receptors at this location:

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





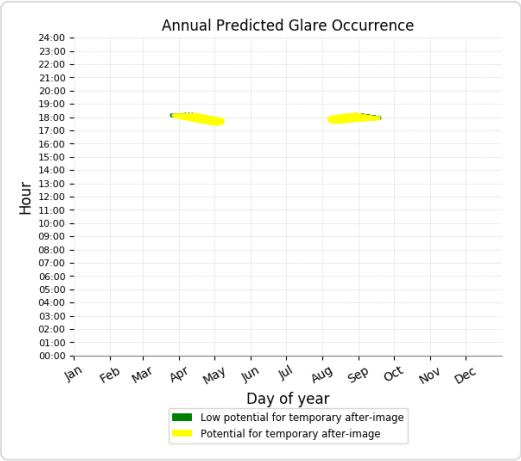


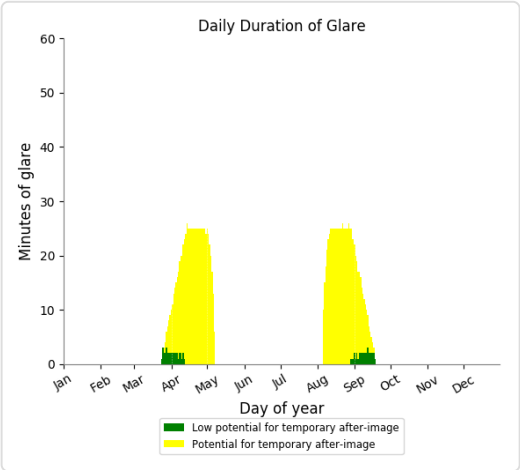


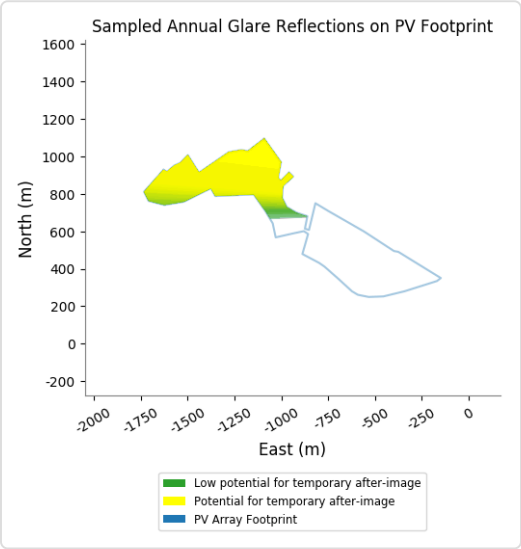
Western PV Array - OP Receptor (OP 26)

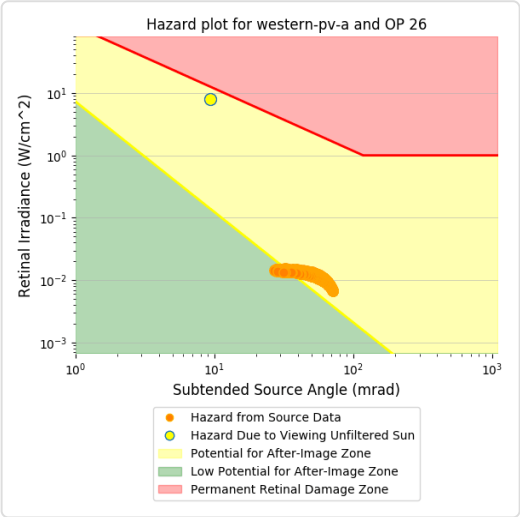
PV array is expected to produce the following glare for receptors at this location:

- 75 minutes of "green" glare with low potential to cause temporary after-image.
- 1,557 minutes of "yellow" glare with potential to cause temporary after-image.





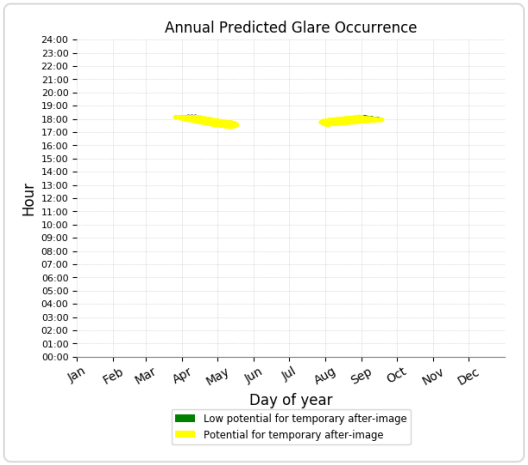


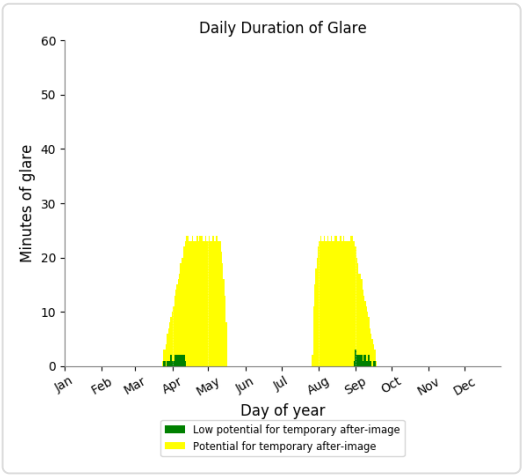


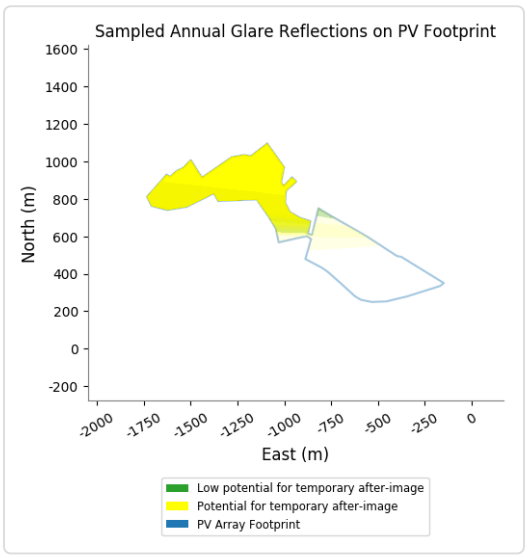
Western PV Array - OP Receptor (OP 27)

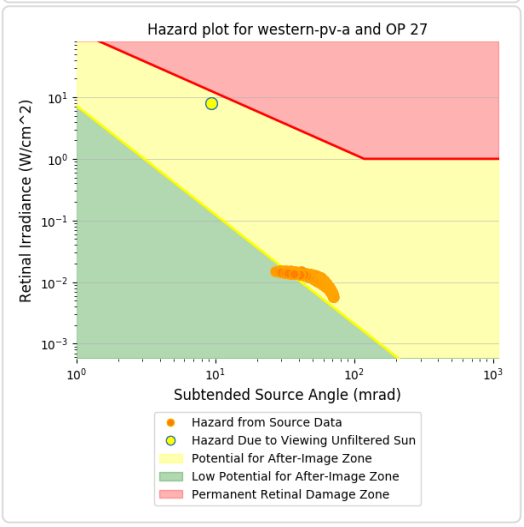
PV array is expected to produce the following glare for receptors at this location:

- 55 minutes of "green" glare with low potential to cause temporary after-image.
- 1,936 minutes of "yellow" glare with potential to cause temporary after-image.





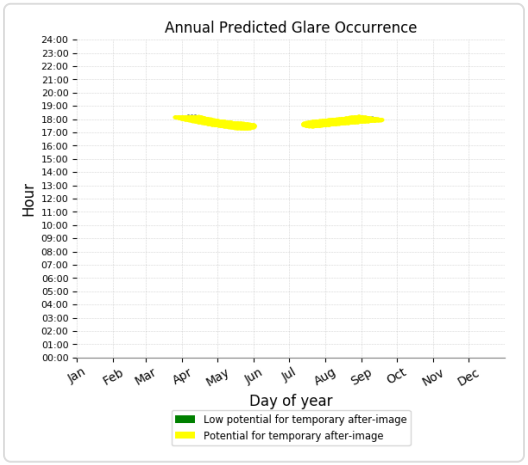


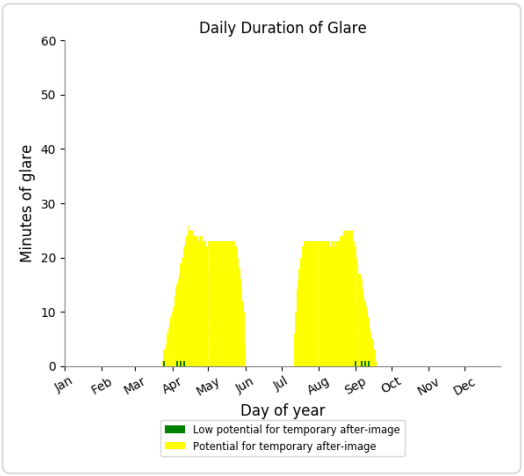


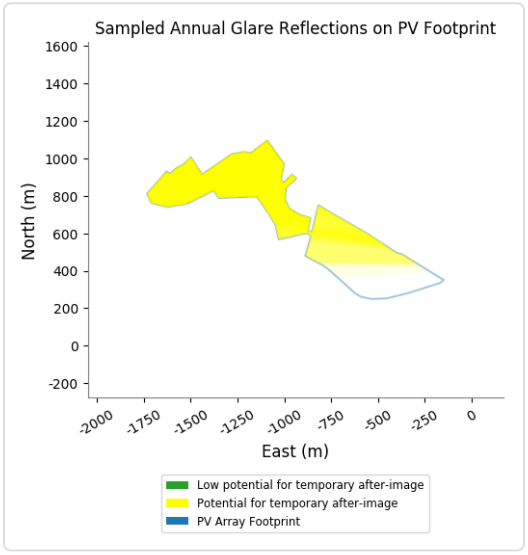
Western PV Array - OP Receptor (OP 28)

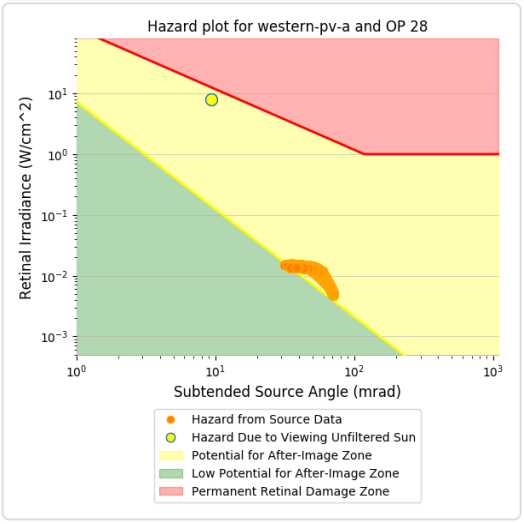
PV array is expected to produce the following glare for receptors at this location:

- 8 minutes of "green" glare with low potential to cause temporary after-image.
- 2,669 minutes of "yellow" glare with potential to cause temporary after-image.





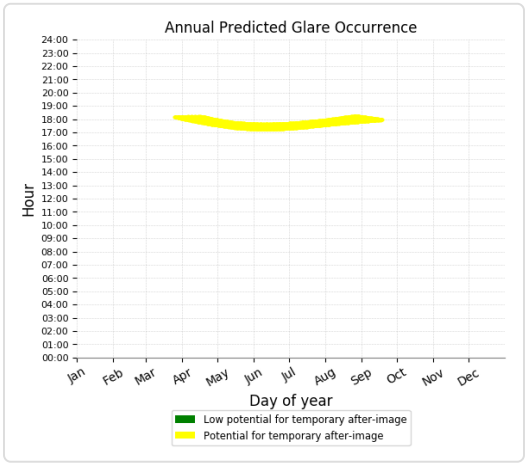


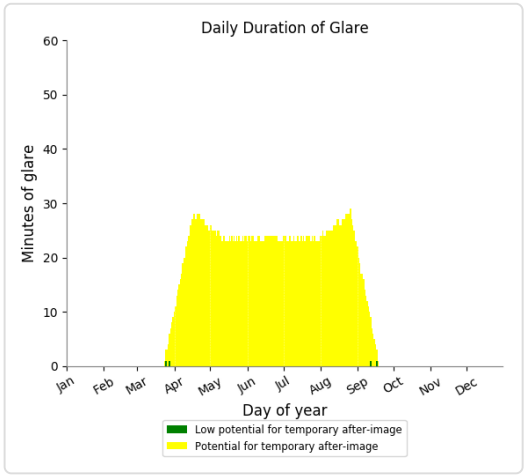


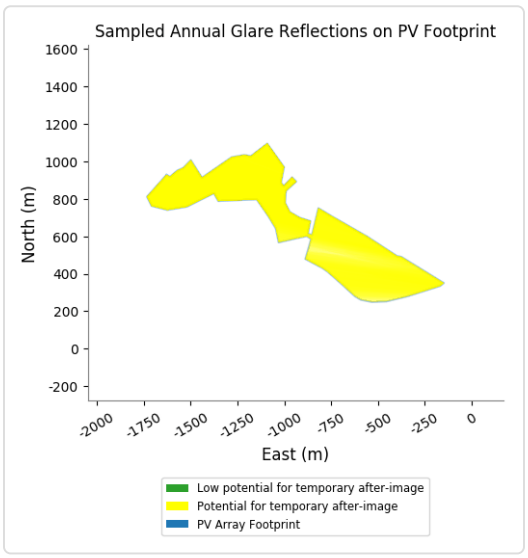
Western PV Array - OP Receptor (OP 29)

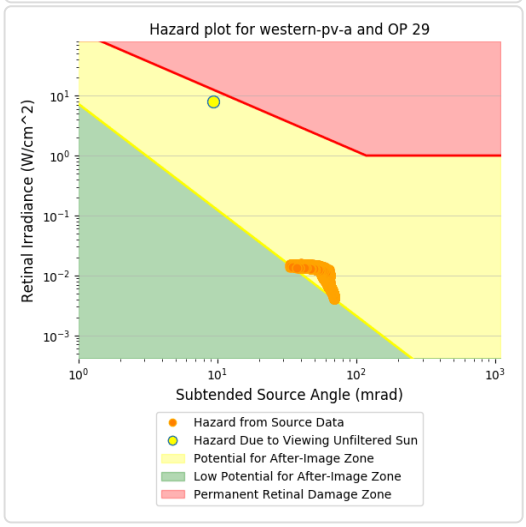
PV array is expected to produce the following glare for receptors at this location:

- 4 minutes of "green" glare with low potential to cause temporary after-image.
- 3,902 minutes of "yellow" glare with potential to cause temporary after-image.





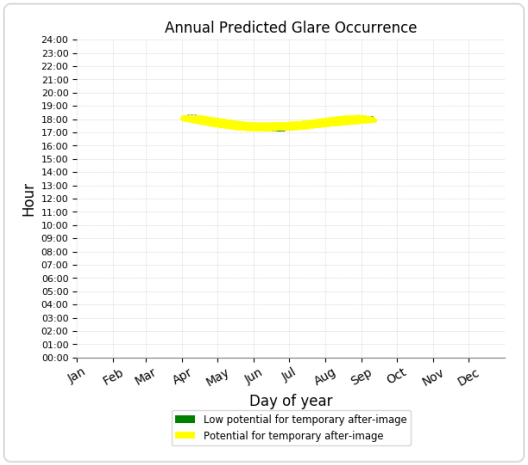


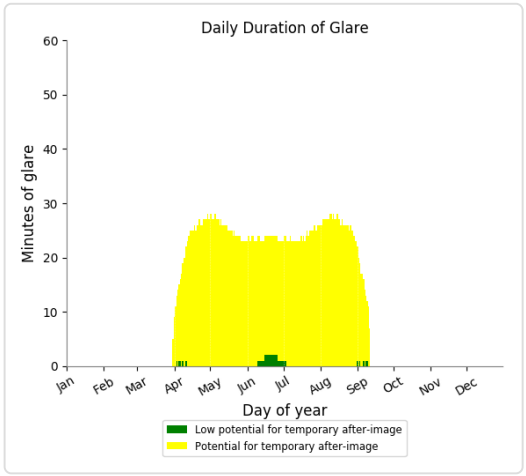


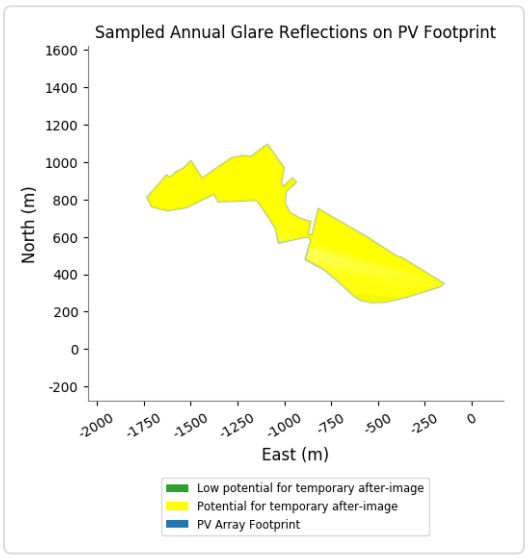
Western PV Array - OP Receptor (OP 30)

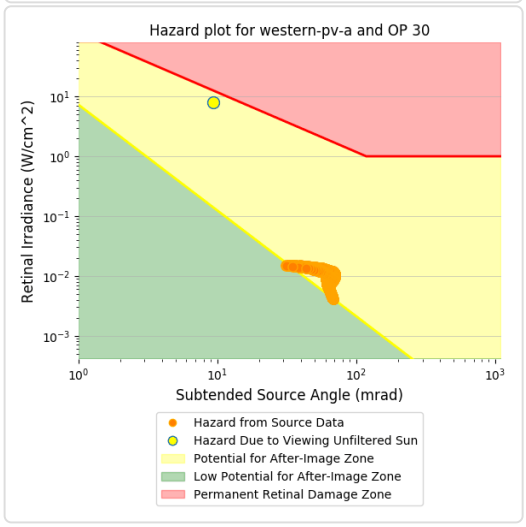
PV array is expected to produce the following glare for receptors at this location:

- 45 minutes of "green" glare with low potential to cause temporary after-image.
- 3,846 minutes of "yellow" glare with potential to cause temporary after-image.





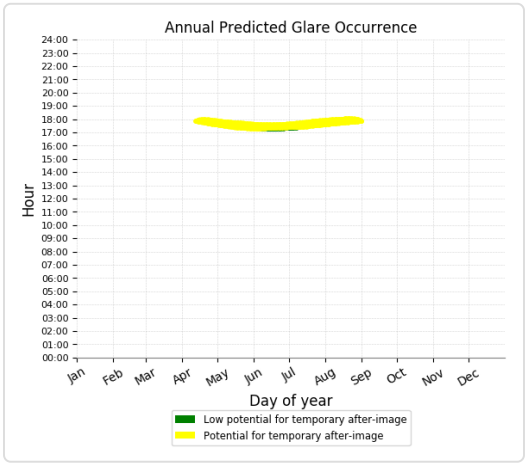


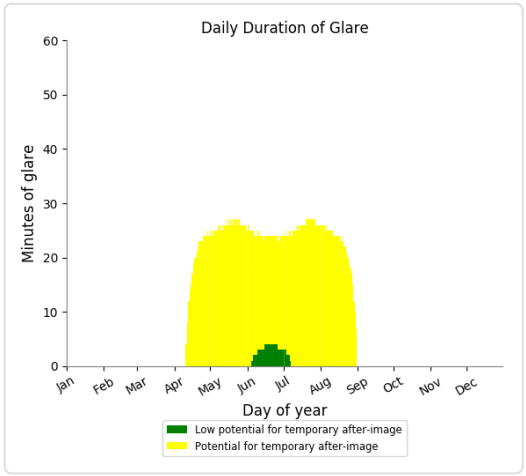


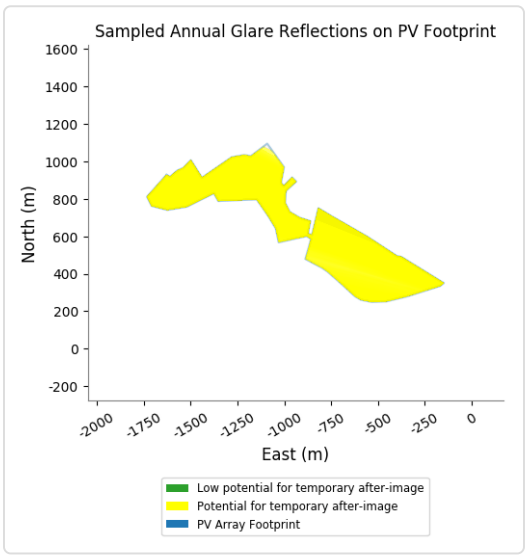
Western PV Array - OP Receptor (OP 31)

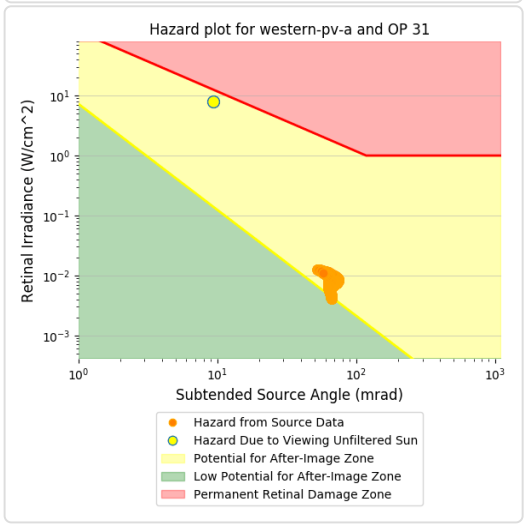
PV array is expected to produce the following glare for receptors at this location:

- 99 minutes of "green" glare with low potential to cause temporary after-image.
- 3,288 minutes of "yellow" glare with potential to cause temporary after-image.





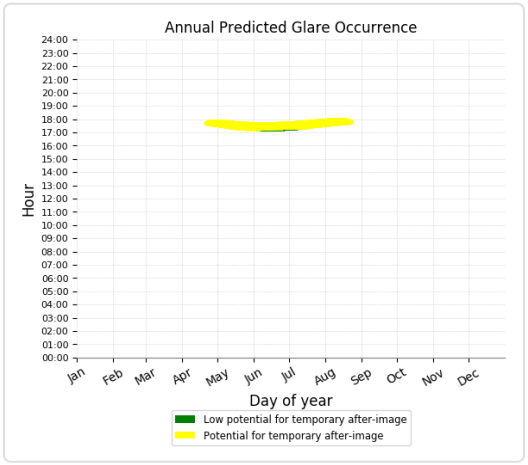


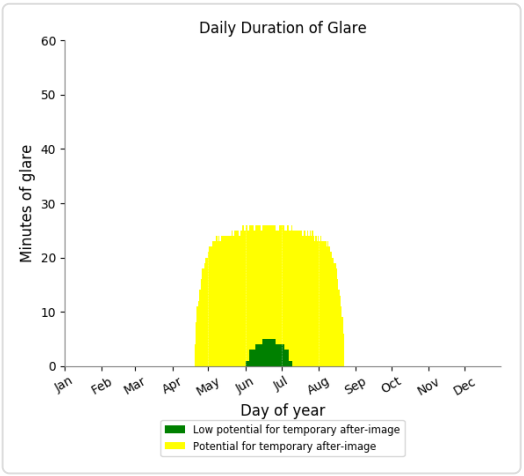


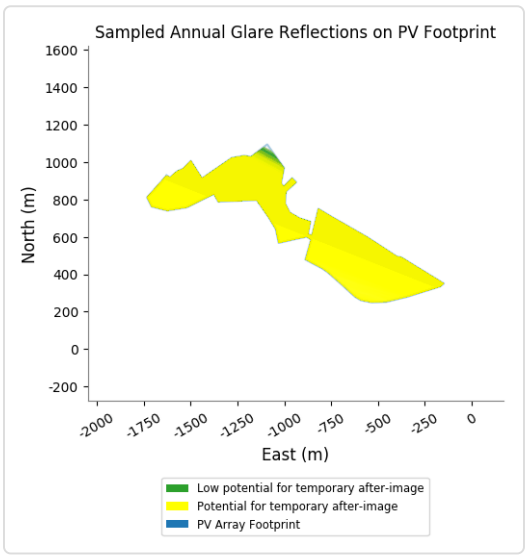
Western PV Array - OP Receptor (OP 32)

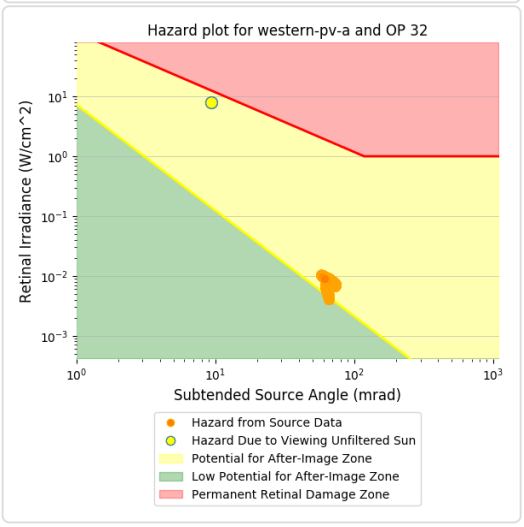
PV array is expected to produce the following glare for receptors at this location:

- 140 minutes of "green" glare with low potential to cause temporary after-image.
- 2,718 minutes of "yellow" glare with potential to cause temporary after-image.





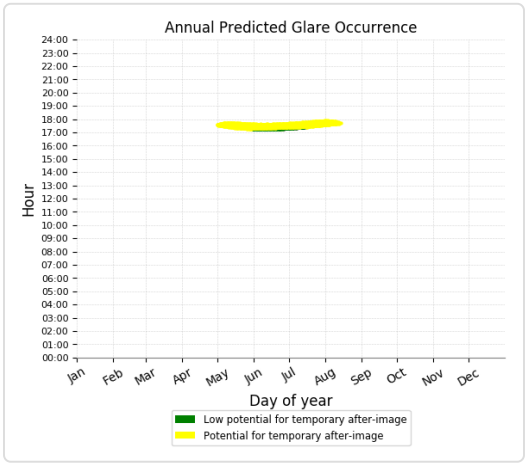


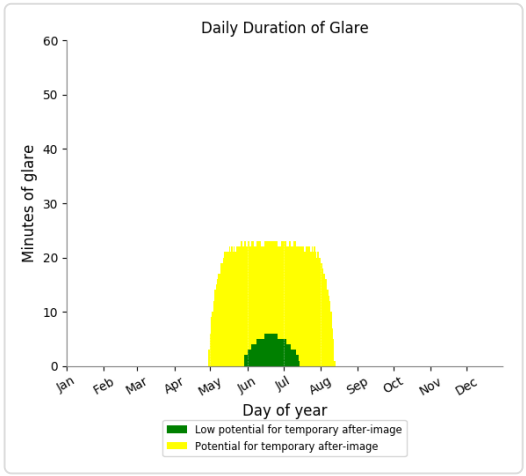


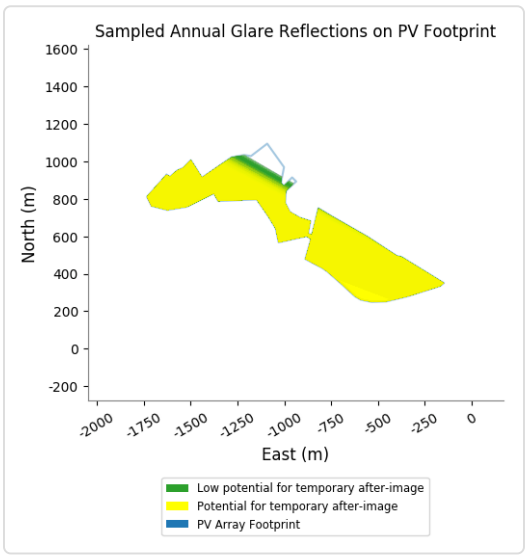
Western PV Array - OP Receptor (OP 33)

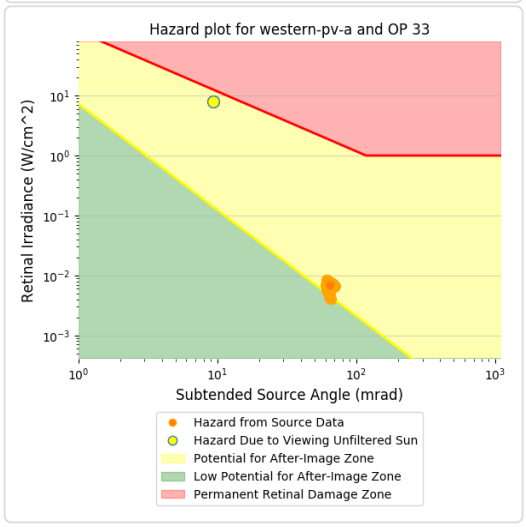
PV array is expected to produce the following glare for receptors at this location:

- 200 minutes of "green" glare with low potential to cause temporary after-image.
- 1,917 minutes of "yellow" glare with potential to cause temporary after-image.





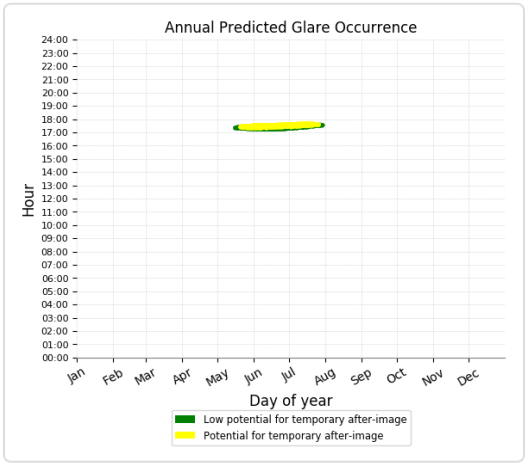


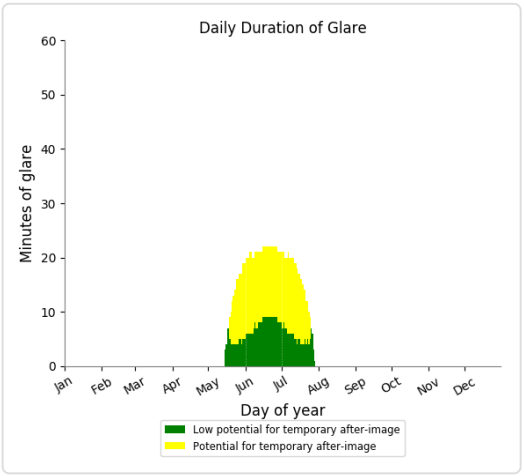


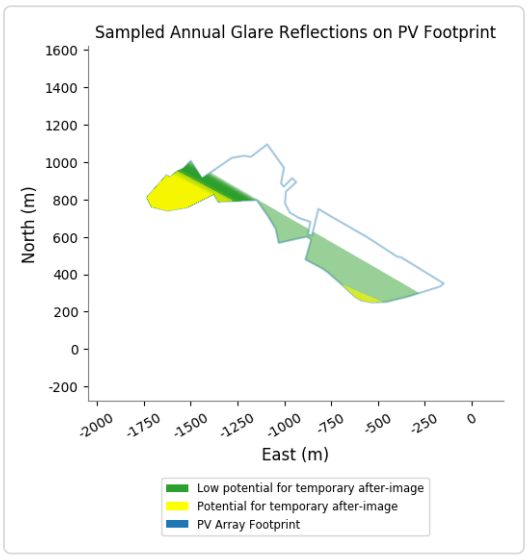
Western PV Array - OP Receptor (OP 34)

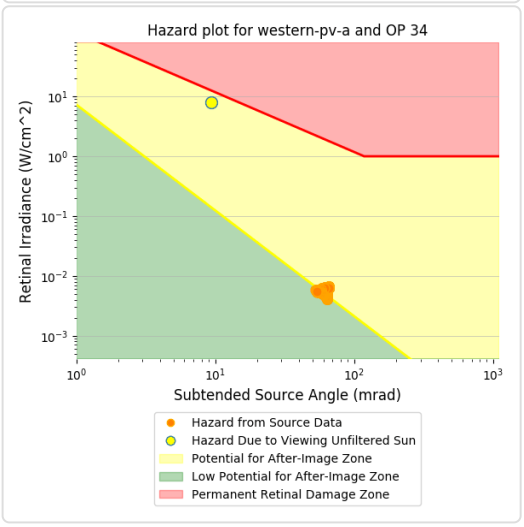
PV array is expected to produce the following glare for receptors at this location:

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





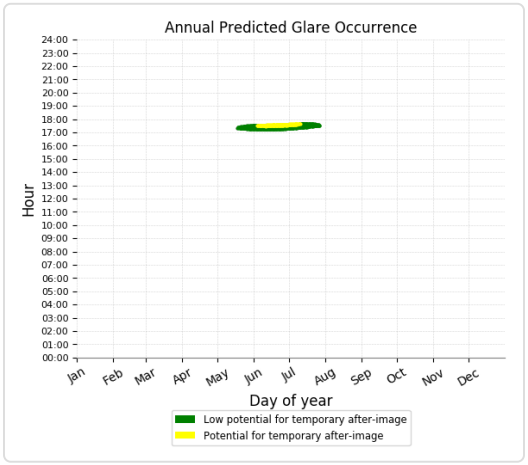


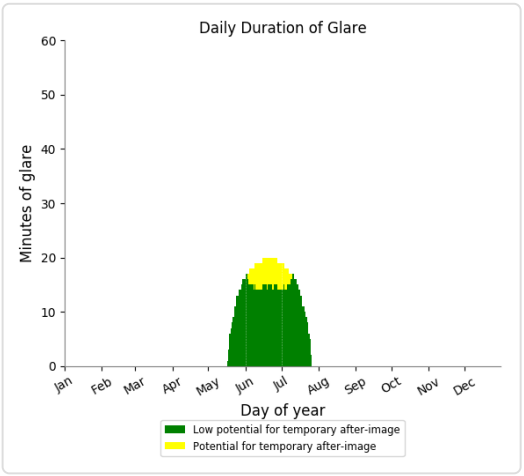


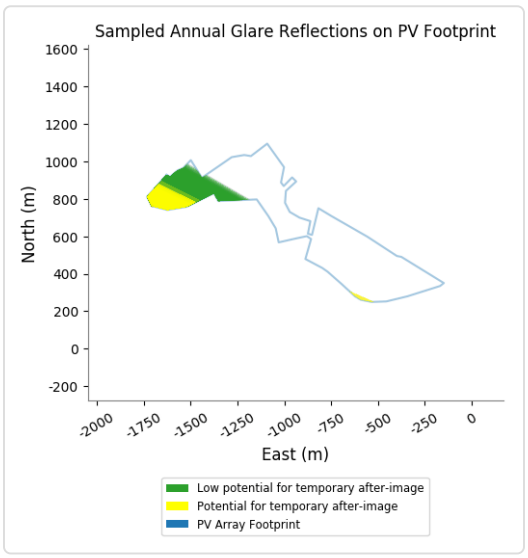
Western PV Array - OP Receptor (OP 35)

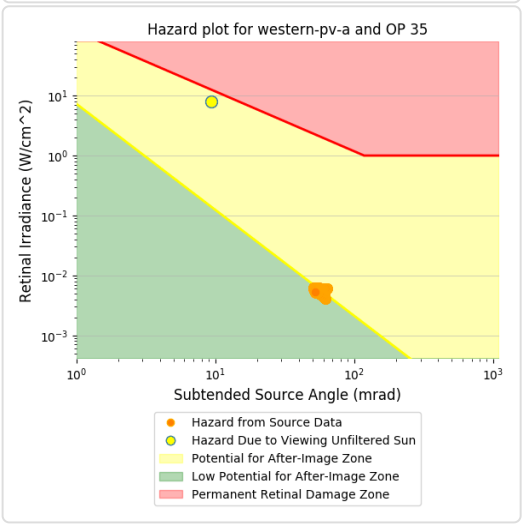
PV array is expected to produce the following glare for receptors at this location:

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





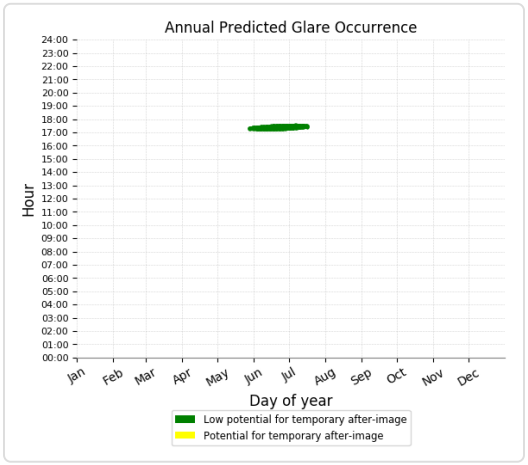


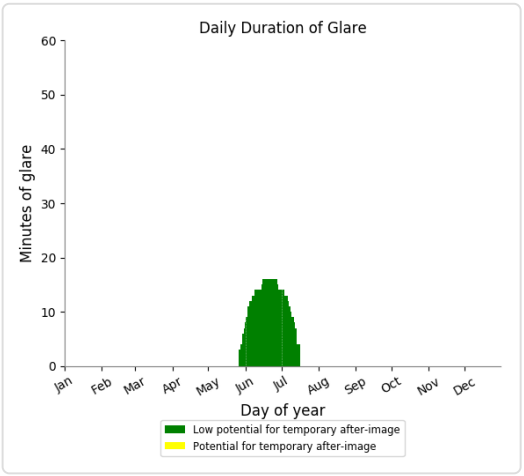


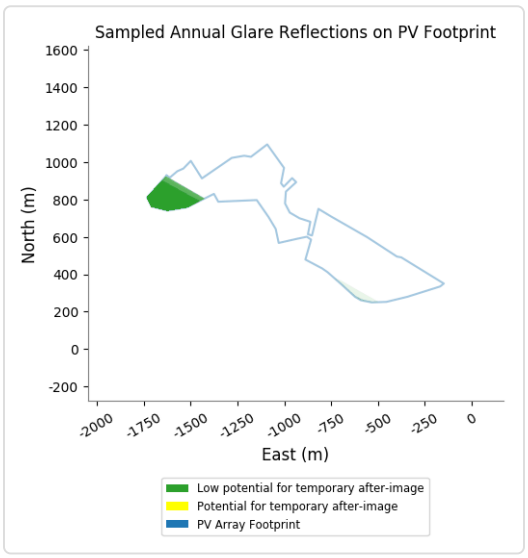
Western PV Array - OP Receptor (OP 36)

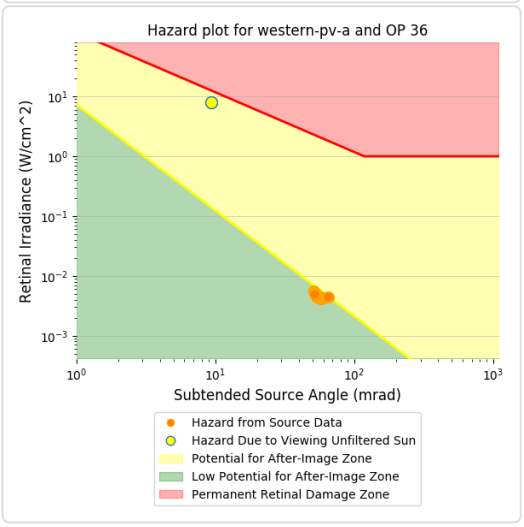
PV array is expected to produce the following glare for receptors at this location:

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





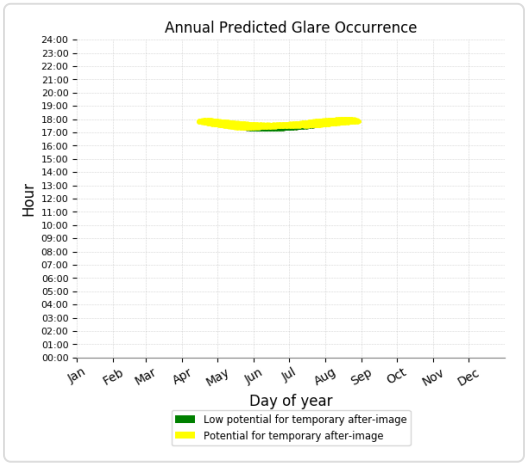


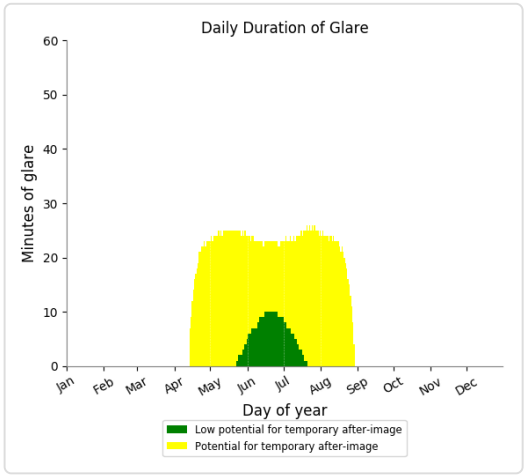


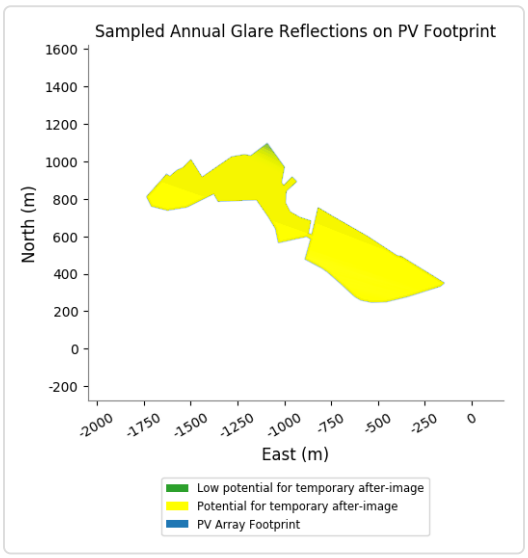
Western PV Array - OP Receptor (OP 37)

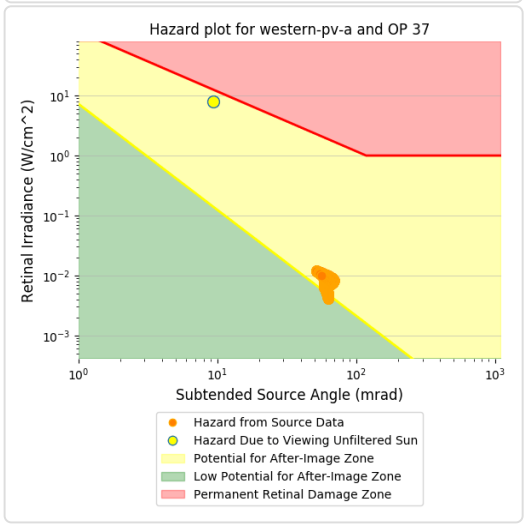
PV array is expected to produce the following glare for receptors at this location:

- 380 minutes of "green" glare with low potential to cause temporary after-image.
- 2,728 minutes of "yellow" glare with potential to cause temporary after-image.





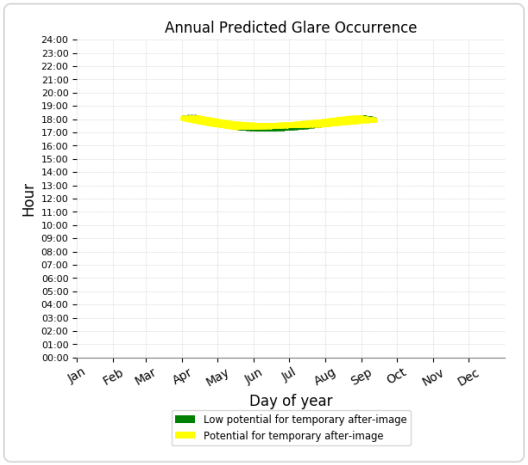


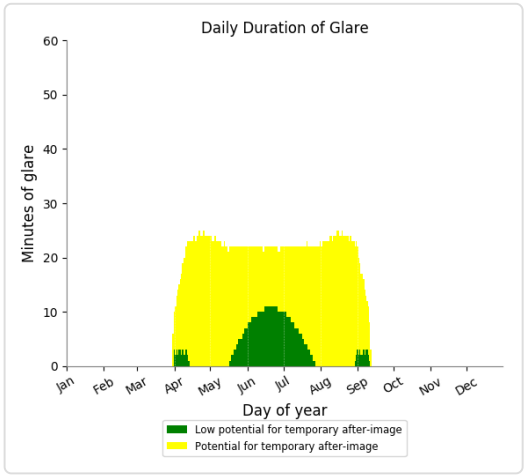


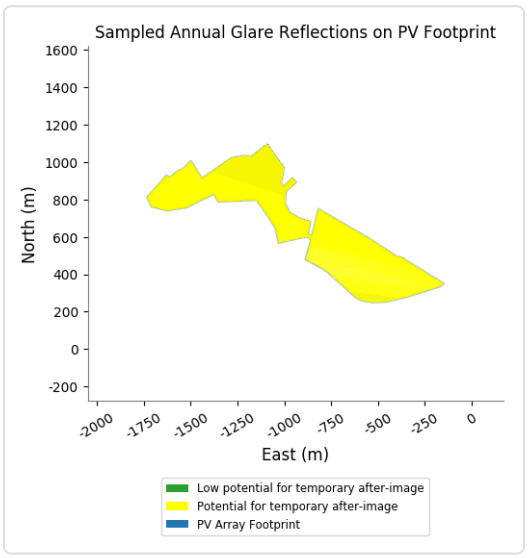
Western PV Array - OP Receptor (OP 38)

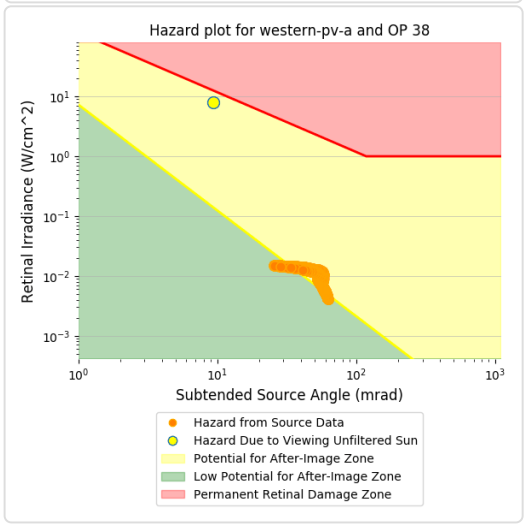
PV array is expected to produce the following glare for receptors at this location:

- 581 minutes of "green" glare with low potential to cause temporary after-image.
- 2,991 minutes of "yellow" glare with potential to cause temporary after-image.









Assumptions

- Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
- Glare analyses do not account for physical obstructions between reflectors and receptors. This includes buildings, tree cover and geographic obstructions.
- Detailed system geometry is not rigorously simulated.
- The glare hazard determination relies on several approximations including observer eye characteristics, angle of view, and typical blink response time. Actual values and results may vary.
- The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.
- Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results fo large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare.
- The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)
- Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.
- Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
- Glare vector plots are simplified representations of analysis data. Actual glare emanations and results may differ.
- Refer to the **Help page** for detailed assumptions and limitations not listed here.