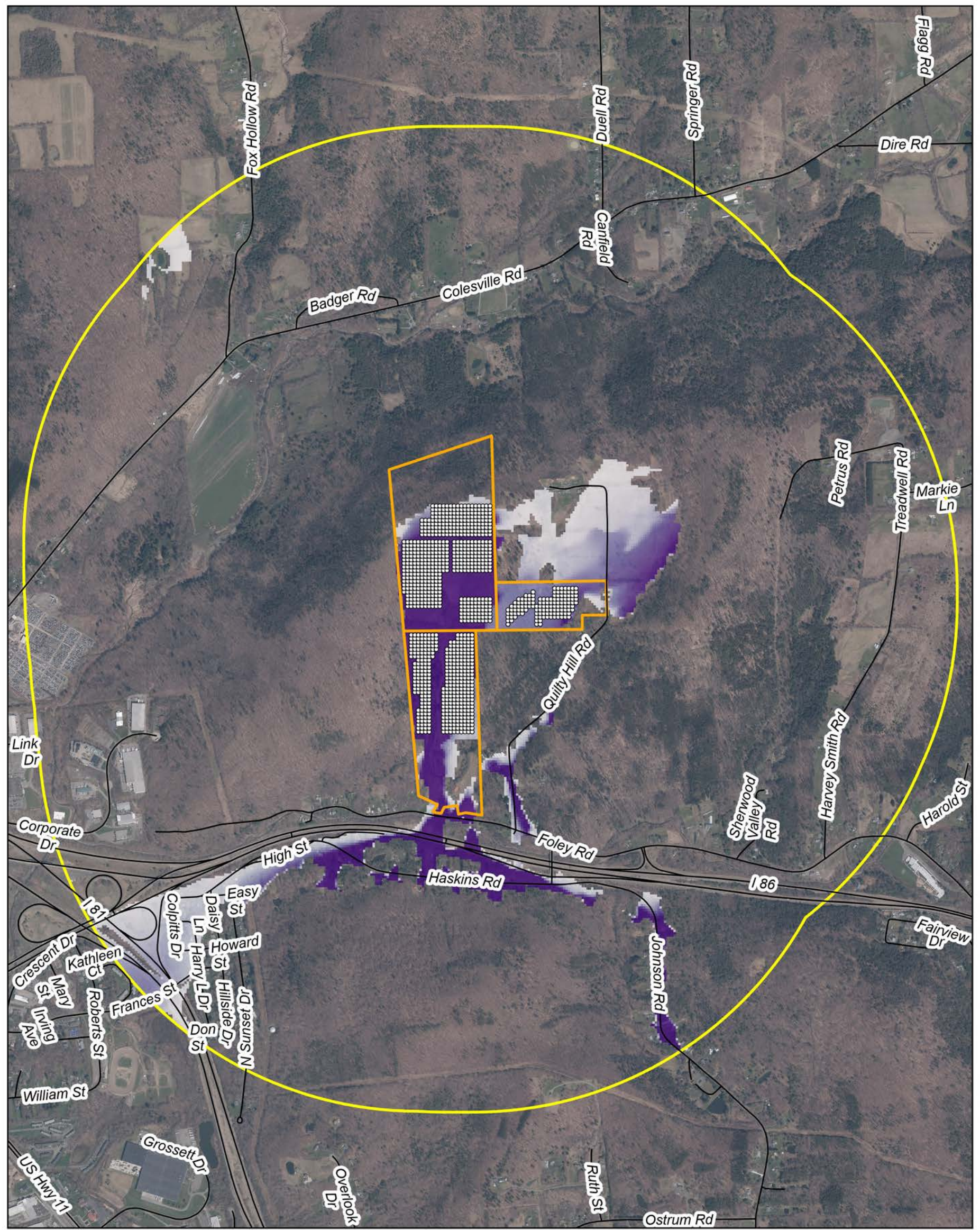


# **APPENDIX A**

## **Viewshed Analysis**

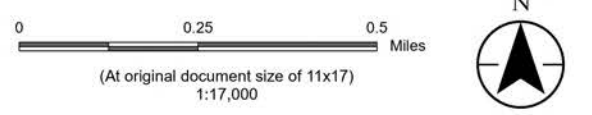




- Legend**
- Site Boundary
  - Solar Array 15-ft Buffer
  - 1-mi Buffer
  - Roads
- Visibility**
- More Visible
  - Less Visible

**Notes**

1. Coordinate System: NAD 1983 (2011) StatePlane New York Central FIPS 3102 (US Feet)
2. Data Sources: ESRI GIS Clearinghouse; Discover GIS Data NY 10m DEM; MRLC NLCD (2024); Solar Panels, Site Boundary, Fence Limits, Clearing Limits, and Proposed Treelines ship files provided by BME in "Kirkwood Survey w Array.dwg" on 2025-10-10.
3. Background: Discover GIS Data NY ortho (2022), ESRI Streets Basemap.



**Stantec**

**Project Location**  
149 Quilty Hill Road & 165 Foley Road  
Kirkwood, Broome Co., NY

**Client/Project**  
Norbut Solar Farms LLC  
NSF Kirkwood  
Solar Project Visibility Assessment

**Figure No.**  
**2**

**Title**  
**Vegetated Visibility 1-Mile Radius**

Prepared by RRR on 2025-10-29  
TR by ET on 2025-10-29  
IR by BW on 2025-10-29  
195603773

I:\s0275-ppfs071\shared\_projects\195603773\05\_report\_deliv\dwgs\_design\GIS\_figures\pro\_views\shdnms\_kirkwood\_views\shdn.aprx Revised: 2025-10-29 By: richelien

# **APPENDIX B**

## **ForgeSolar Reports**





# NSF Kirkwood Solar

## 5ft vehicles 3ft panels house gp 1

**Created** Oct 29, 2025  
**Updated** Oct 30, 2025  
**Time-step** 1 minute  
**Timezone offset** UTC-5  
**Minimum sun altitude** 0.0 deg  
**Site ID** 163159.27364

**Project type** Advanced  
**Project status:** active  
**Category** 1 MW to 5 MW

### Misc. Analysis Settings

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

PV Analysis Methodology: **Version 2**  
 Enhanced subtended angle calculation: **On**

### Summary of Results No glare predicted!

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced
	deg	deg	min	min	kWh
101	SA tracking	SA tracking	0	0	-
102	SA tracking	SA tracking	0	0	-
103	SA tracking	SA tracking	0	0	-
104	SA tracking	SA tracking	0	0	-
105	SA tracking	SA tracking	0	0	-
106	SA tracking	SA tracking	0	0	-
107	SA tracking	SA tracking	0	0	-
108	SA tracking	SA tracking	0	0	-
109	SA tracking	SA tracking	0	0	-
110	SA tracking	SA tracking	0	0	-
111	SA tracking	SA tracking	0	0	-

## Component Data

---

### PV Array(s)

Total PV footprint area: 55.9 acres

**Name:** 101  
**Footprint area:** 8.8 acres  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.112503	-75.797222	1461.38	3.00	1464.38
2	42.113677	-75.797211	1485.88	3.00	1488.88
3	42.113673	-75.800226	1475.48	3.00	1478.48
4	42.113104	-75.800242	1461.02	3.00	1464.02
5	42.113104	-75.800827	1451.03	3.00	1454.03
6	42.112507	-75.800848	1457.01	3.00	1460.01



**Name:** 102  
**Footprint area:** 5.2 acres  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.112350	-75.799102	1457.45	3.00	1460.45
2	42.112354	-75.797195	1453.43	3.00	1456.43
3	42.111170	-75.797163	1392.68	3.00	1395.68
4	42.111184	-75.799115	1398.71	3.00	1401.71



**Name:** 103  
**Footprint area:** 6.3 acres  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.112348	-75.799257	1456.55	3.00	1459.55
2	42.111178	-75.799252	1399.77	3.00	1402.77
3	42.111205	-75.801653	1431.55	3.00	1434.55
4	42.112360	-75.801647	1445.66	3.00	1448.66



**Name:** 104  
**Footprint area:** 3.5 acres  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.111199	-75.801583	1430.35	3.00	1433.35
2	42.110363	-75.801604	1408.28	3.00	1411.28
3	42.110379	-75.799748	1368.39	3.00	1371.39
4	42.111183	-75.799748	1407.12	3.00	1410.12



**Name:** 105  
**Footprint area:** 3.1 acres  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.110111	-75.798783	1352.65	3.00	1355.65
2	42.109267	-75.798769	1320.81	3.00	1323.81
3	42.109275	-75.797189	1313.41	3.00	1316.41
4	42.110117	-75.797187	1351.17	3.00	1354.17



**Name:** 106  
**Footprint area:** 8.1 acres  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.108818	-75.800006	1279.26	3.00	1282.26
2	42.108822	-75.801384	1334.02	3.00	1337.02
3	42.107922	-75.801411	1287.40	3.00	1290.40
4	42.107914	-75.801250	1283.15	3.00	1286.15
5	42.107656	-75.801245	1270.99	3.00	1273.99
6	42.107656	-75.801352	1274.44	3.00	1277.44
7	42.106446	-75.801352	1208.02	3.00	1211.02
8	42.106454	-75.800843	1180.87	3.00	1183.87
9	42.105916	-75.800864	1151.20	3.00	1154.20
10	42.105916	-75.800918	1151.88	3.00	1154.88
11	42.105674	-75.800928	1147.69	3.00	1150.69
12	42.105666	-75.800987	1149.90	3.00	1152.90
13	42.105017	-75.800982	1119.44	3.00	1122.44
14	42.105017	-75.800312	1120.66	3.00	1123.66
15	42.107918	-75.800269	1247.84	3.00	1250.84
16	42.107910	-75.800092	1247.91	3.00	1250.91
17	42.108197	-75.800092	1254.28	3.00	1257.28
18	42.108205	-75.800006	1256.60	3.00	1259.60



**Name:** 107  
**Footprint area:** 12.5 acres  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.108746	-75.798101	1325.13	3.00	1328.13
2	42.108762	-75.798960	1300.40	3.00	1303.40
3	42.108452	-75.798960	1291.36	3.00	1294.36
4	42.108459	-75.799389	1267.13	3.00	1270.13
5	42.108137	-75.799394	1259.53	3.00	1262.53
6	42.108145	-75.799523	1257.51	3.00	1260.51
7	42.106788	-75.799571	1193.96	3.00	1196.96
8	42.106788	-75.799636	1193.98	3.00	1196.98
9	42.104981	-75.799668	1113.09	3.00	1116.09
10	42.104973	-75.798026	1143.21	3.00	1146.21
11	42.106359	-75.798016	1273.32	3.00	1276.32
12	42.106355	-75.798091	1273.52	3.00	1276.52
13	42.107561	-75.798037	1327.59	3.00	1330.59
14	42.107561	-75.798123	1324.70	3.00	1327.70

**Name:** 108  
**Footprint area:** 0.54 acre  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.110255	-75.795339	1318.28	3.00	1321.28
2	42.110391	-75.794872	1319.69	3.00	1322.69
3	42.110164	-75.794883	1313.39	3.00	1316.39
4	42.110152	-75.794936	1310.31	3.00	1313.31
5	42.109774	-75.794947	1314.25	3.00	1317.25
6	42.109690	-75.795344	1294.16	3.00	1297.16

**Name:** 109  
**Footprint area:** 1.1 acres  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad

Vertex	Latitude deg	Longitude deg	Ground elevation ft	Height above ground ft	Total elevation ft
1	42.110156	-75.795537	1322.53	3.00	1325.53
2	42.109535	-75.795532	1321.50	3.00	1324.50
3	42.109030	-75.796342	1311.00	3.00	1314.00
4	42.109639	-75.796347	1329.24	3.00	1332.24



**Name:** 110  
**Footprint area:** 4.6 acres  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad

Vertex	Latitude deg	Longitude deg	Ground elevation ft	Height above ground ft	Total elevation ft
1	42.110482	-75.793976	1328.84	3.00	1331.84
2	42.110474	-75.792624	1342.92	3.00	1345.92
3	42.109838	-75.792651	1337.34	3.00	1340.34
4	42.109838	-75.792925	1337.32	3.00	1340.32
5	42.109527	-75.792919	1334.86	3.00	1337.86
6	42.109527	-75.793032	1334.73	3.00	1337.73
7	42.109288	-75.793021	1329.66	3.00	1332.66
8	42.109296	-75.794539	1327.14	3.00	1330.14
9	42.108982	-75.794545	1307.28	3.00	1310.28
10	42.108974	-75.794759	1311.48	3.00	1314.48
11	42.109296	-75.794759	1329.94	3.00	1332.94
12	42.109834	-75.794738	1318.63	3.00	1321.63
13	42.109841	-75.794529	1319.73	3.00	1322.73
14	42.110180	-75.794513	1320.86	3.00	1323.86
15	42.110168	-75.793982	1326.80	3.00	1329.80



**Name:** 111  
**Footprint area:** 2.2 acres  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad

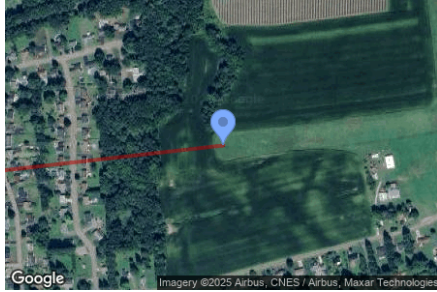
Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.110331	-75.801519	1391.74	3.00	1394.74
2	42.110371	-75.799759	1368.24	3.00	1371.24
3	42.109822	-75.799738	1334.68	3.00	1337.68
4	42.109822	-75.801551	1384.55	3.00	1387.55



## 2-Mile Flight Path Receptor(s)

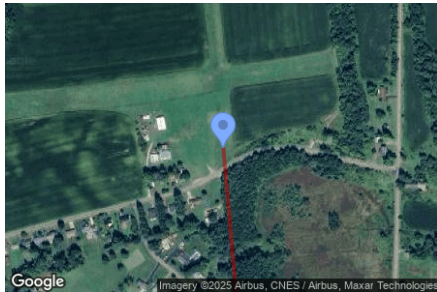
**Name:** Chenango Bridge Airport eastbound  
**Description:**  
**Threshold height :** 50 ft  
**Direction:** 83.5 deg  
**Glide slope:** 3.0 deg  
**Pilot view restricted?** Yes  
**Vertical view restriction:** 30.0 deg  
**Azimuthal view restriction:** 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	42.190262	-75.842572	928.88	50.00	978.88
2-mile point	42.186989	-75.881390	863.12	669.19	1532.31



**Name:** Chenango Bridge Airport northbound  
**Description:**  
**Threshold height :** 50 ft  
**Direction:** 355.1 deg  
**Glide slope:** 3.0 deg  
**Pilot view restricted?** Yes  
**Vertical view restriction:** 30.0 deg  
**Azimuthal view restriction:** 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	42.189578	-75.837508	932.51	50.00	982.51
2-mile point	42.160773	-75.834144	1019.51	516.42	1535.94



**Name:** Chenango Bridge Airport southbound  
**Description:**  
**Threshold height :** 50 ft  
**Direction:** 173.3 deg  
**Glide slope:** 3.0 deg  
**Pilot view restricted?** Yes  
**Vertical view restriction:** 30.0 deg  
**Azimuthal view restriction:** 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	42.194109	-75.838109	937.26	50.00	987.26
2-mile point	42.222824	-75.842674	1028.95	511.74	1540.69



**Name:** Chenango Bridge Airport westbound  
**Description:**  
**Threshold height :** 50 ft  
**Direction:** 261.9 deg  
**Glide slope:** 3.0 deg  
**Pilot view restricted?** Yes  
**Vertical view restriction:** 30.0 deg  
**Azimuthal view restriction:** 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	42.191009	-75.835212	932.78	50.00	982.78
2-mile point	42.195103	-75.796537	1193.94	342.26	1536.21



**Name:** Greater Binghamton Airport Runway 10  
**Description:**  
**Threshold height :** 50 ft  
**Direction:** 88.0 deg  
**Glide slope:** 3.0 deg  
**Pilot view restricted?** Yes  
**Vertical view restriction:** 30.0 deg  
**Azimuthal view restriction:** 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	42.205077	-75.988806	1588.13	50.00	1638.13
2-mile point	42.204058	-76.027860	1494.01	697.55	2191.56

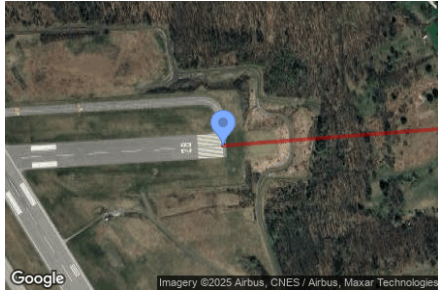


**Name:** Greater Binghamton Airport Runway 16  
**Description:**  
**Threshold height :** 50 ft  
**Direction:** 149.2 deg  
**Glide slope:** 3.0 deg  
**Pilot view restricted?** Yes  
**Vertical view restriction:** 30.0 deg  
**Azimuthal view restriction:** 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	42.218094	-75.985883	1631.16	50.00	1681.16
2-mile point	42.242926	-76.005902	1194.11	1040.48	2234.59



**Name:** Greater Binghamton Airport Runway 28  
**Description:**  
**Threshold height :** 50 ft  
**Direction:** 265.6 deg  
**Glide slope:** 3.0 deg  
**Pilot view restricted?** Yes  
**Vertical view restriction:** 30.0 deg  
**Azimuthal view restriction:** 50.0 deg



Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	42.205892	-75.970530	1570.29	50.00	1620.29
2-mile point	42.208125	-75.931569	1525.47	648.25	2173.72

**Name:** Greater Binghamton Airport Runway 34  
**Description:**  
**Threshold height :** 50 ft  
**Direction:** 328.5 deg  
**Glide slope:** 3.0 deg  
**Pilot view restricted?** Yes  
**Vertical view restriction:** 30.0 deg  
**Azimuthal view restriction:** 50.0 deg



Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	42.202455	-75.972880	1567.57	50.00	1617.57
2-mile point	42.177797	-75.952474	1164.27	1006.73	2171.00

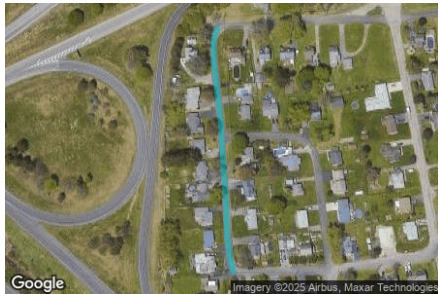
### Route Receptor(s)

**Name:** Blair Street Harry L Drive  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



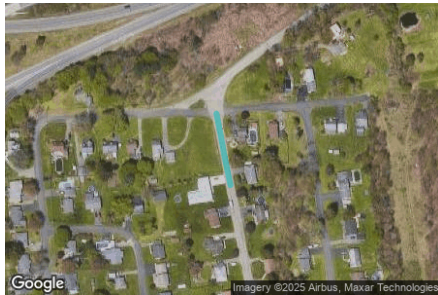
Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.097869	-75.813590	916.43	5.00	921.43
2	42.097877	-75.813209	918.50	5.00	923.50
3	42.097865	-75.812898	916.30	5.00	921.30
4	42.097845	-75.812732	916.06	5.00	921.06
5	42.097754	-75.812603	915.69	5.00	920.69
6	42.097579	-75.812550	912.85	5.00	917.85
7	42.097360	-75.812517	910.63	5.00	915.63
8	42.097085	-75.812469	910.47	5.00	915.47
9	42.096771	-75.812415	908.65	5.00	913.65

**Name:** Colpitts Drive  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.098753	-75.813660	917.72	5.00	922.72
2	42.098653	-75.813703	919.05	5.00	924.05
3	42.098466	-75.813698	917.46	5.00	922.46
4	42.097989	-75.813622	915.01	5.00	920.01
5	42.097642	-75.813596	912.99	5.00	917.99
6	42.097332	-75.813563	908.59	5.00	913.59
7	42.097045	-75.813553	901.72	5.00	906.72
8	42.096846	-75.813515	901.46	5.00	906.46
9	42.096763	-75.813483	900.00	5.00	905.00

**Name:** Daisy Lane  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.098818	-75.811713	928.42	5.00	933.42
2	42.098639	-75.811664	928.56	5.00	933.56
3	42.098460	-75.811622	928.51	5.00	933.51
4	42.098233	-75.811557	927.29	5.00	932.29

**Name:** Easy Street  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.098842	-75.811664	928.35	5.00	933.35
2	42.098854	-75.811267	933.12	5.00	938.12
3	42.098870	-75.810828	948.20	5.00	953.20
4	42.098910	-75.810415	961.32	5.00	966.32
5	42.098942	-75.810050	974.04	5.00	979.04

**Name:** Foley Road east  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.101376	-75.796390	1062.35	5.00	1067.35
2	42.101257	-75.795886	1067.40	5.00	1072.40
3	42.101098	-75.795328	1075.56	5.00	1080.56
4	42.100986	-75.794867	1079.08	5.00	1084.08

**Name:** Foley Road west  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.101997	-75.801164	985.43	5.00	990.43
2	42.101886	-75.800392	989.18	5.00	994.18
3	42.101798	-75.799662	995.98	5.00	1000.98
4	42.101719	-75.798901	1003.19	5.00	1008.19
5	42.101623	-75.797989	1018.24	5.00	1023.24

**Name:** Frances Street  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.096039	-75.812330	904.42	5.00	909.42
2	42.095824	-75.812813	904.75	5.00	909.75
3	42.095649	-75.813145	902.81	5.00	907.81
4	42.095509	-75.813457	901.65	5.00	906.65
5	42.095350	-75.813741	899.70	5.00	904.70
6	42.095155	-75.814143	907.10	5.00	912.10
7	42.094908	-75.814589	917.95	5.00	922.95
8	42.094813	-75.814803	920.46	5.00	925.46

**Name:** Haskins Johnson Road  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.099227	-75.792560	1069.26	5.00	1074.26
2	42.099171	-75.793257	1066.37	5.00	1071.37
3	42.099155	-75.794094	1066.84	5.00	1071.84
4	42.099203	-75.795521	1082.78	5.00	1087.78
5	42.099235	-75.796637	1099.39	5.00	1104.39
6	42.099338	-75.797796	1111.01	5.00	1116.01
7	42.099450	-75.798450	1102.53	5.00	1107.53
8	42.099450	-75.798901	1101.83	5.00	1106.83
9	42.099466	-75.799802	1086.65	5.00	1091.65
10	42.099498	-75.800596	1084.58	5.00	1089.58

**Name:** Haskins Road  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.099652	-75.802230	1050.49	5.00	1055.49
2	42.099668	-75.802606	1039.35	5.00	1044.35
3	42.099739	-75.803056	1029.58	5.00	1034.58
4	42.099891	-75.803539	1023.39	5.00	1028.39
5	42.100018	-75.803839	1017.85	5.00	1022.85
6	42.100193	-75.804194	1006.46	5.00	1011.46
7	42.100456	-75.804676	998.44	5.00	1003.44
8	42.100663	-75.805213	985.88	5.00	990.88
9	42.100774	-75.805470	981.10	5.00	986.10
10	42.100886	-75.805760	972.62	5.00	977.62
11	42.100918	-75.806082	968.21	5.00	973.21

**Name:** Haskins Road west  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



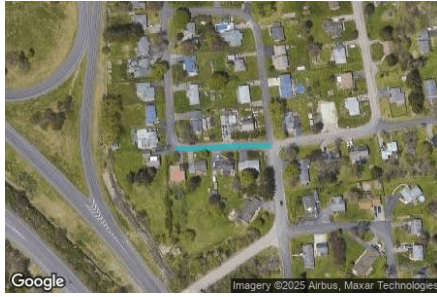
Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.099945	-75.810055	932.93	5.00	937.93
2	42.099758	-75.810398	944.39	5.00	949.39
3	42.099515	-75.810887	935.97	5.00	940.97
4	42.099264	-75.811348	929.98	5.00	934.98
5	42.098987	-75.811768	927.80	5.00	932.80
6	42.098820	-75.812338	927.92	5.00	932.92
7	42.098811	-75.812670	924.70	5.00	929.70
8	42.098802	-75.813109	922.26	5.00	927.26
9	42.098775	-75.813590	916.64	5.00	921.64

**Name:** High Street  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.100883	-75.806491	966.83	5.00	971.83
2	42.100779	-75.806701	969.11	5.00	974.11
3	42.100660	-75.807028	971.21	5.00	976.21
4	42.100552	-75.807275	972.52	5.00	977.52
5	42.100477	-75.807580	974.75	5.00	979.75
6	42.100369	-75.807999	978.63	5.00	983.63
7	42.100290	-75.808294	977.37	5.00	982.37
8	42.100218	-75.808680	970.81	5.00	975.81
9	42.100162	-75.809013	967.08	5.00	972.08
10	42.100126	-75.809324	956.32	5.00	961.32
11	42.100087	-75.809592	949.72	5.00	954.72
12	42.100103	-75.809672	944.45	5.00	949.45

**Name:** Howard Street  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.096751	-75.813456	899.65	5.00	904.65
2	42.096747	-75.813333	898.83	5.00	903.83
3	42.096755	-75.813145	902.92	5.00	907.92
4	42.096767	-75.812861	903.61	5.00	908.61
5	42.096775	-75.812603	905.58	5.00	910.58
6	42.096771	-75.812448	907.74	5.00	912.74

**Name:** I81 northbound  
**Route type:** One-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.094712	-75.812915	899.13	5.00	904.13
2	42.095294	-75.813440	899.64	5.00	904.64
3	42.095668	-75.813784	898.46	5.00	903.46
4	42.096122	-75.814288	901.87	5.00	906.87
5	42.096472	-75.814739	904.42	5.00	909.42
6	42.096798	-75.815179	906.27	5.00	911.27
7	42.097125	-75.815661	910.01	5.00	915.01
8	42.097300	-75.815951	911.02	5.00	916.02

**Name:** I81 southbound  
**Route type:** One-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



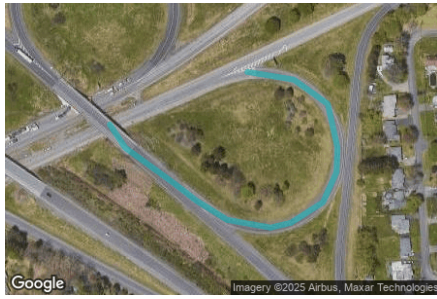
Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.097491	-75.817818	893.45	5.00	898.45
2	42.097141	-75.817067	899.51	5.00	904.51
3	42.096774	-75.816380	906.06	5.00	911.06
4	42.096368	-75.815629	904.81	5.00	909.81
5	42.095724	-75.814739	903.21	5.00	908.21
6	42.095333	-75.814245	904.51	5.00	909.51
7	42.094816	-75.813730	902.55	5.00	907.55
8	42.094378	-75.813376	902.10	5.00	907.10
9	42.093725	-75.812872	900.23	5.00	905.23

**Name:** I86 eastbound ramp  
**Route type:** One-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.096106	-75.814191	901.61	5.00	906.61
2	42.096456	-75.814385	902.30	5.00	907.30
3	42.096806	-75.814460	903.39	5.00	908.39
4	42.097141	-75.814428	905.76	5.00	910.76
5	42.097563	-75.814395	905.06	5.00	910.06
6	42.098080	-75.814342	910.51	5.00	915.51
7	42.098462	-75.814267	914.50	5.00	919.50
8	42.098804	-75.814127	909.17	5.00	914.17
9	42.099131	-75.813719	909.91	5.00	914.91

**Name:** I86 off ramp  
**Route type** One-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.098459	-75.815506	899.66	5.00	904.66
2	42.098395	-75.814991	901.05	5.00	906.05
3	42.098196	-75.814615	903.95	5.00	908.95
4	42.097838	-75.814508	904.37	5.00	909.37
5	42.097639	-75.814519	904.00	5.00	909.00
6	42.097392	-75.814669	903.84	5.00	908.84
7	42.097225	-75.815023	905.97	5.00	910.97
8	42.097185	-75.815248	906.84	5.00	911.84
9	42.097249	-75.815731	910.63	5.00	915.63
10	42.097408	-75.816074	907.05	5.00	912.05
11	42.097543	-75.816310	903.61	5.00	908.61
12	42.097838	-75.816858	899.06	5.00	904.06
13	42.098029	-75.817029	896.09	5.00	901.09

**Name:** Quilty Hill north  
**Route type** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.109989	-75.791187	1359.65	5.00	1364.65
2	42.111015	-75.791197	1372.65	5.00	1377.65
3	42.111923	-75.791154	1407.08	5.00	1412.08
4	42.112703	-75.791122	1425.95	5.00	1430.95
5	42.113618	-75.791165	1410.55	5.00	1415.55
6	42.114096	-75.791144	1406.04	5.00	1411.04
7	42.114287	-75.791219	1404.89	5.00	1409.89
8	42.114398	-75.791358	1402.53	5.00	1407.53
9	42.114438	-75.791863	1398.08	5.00	1403.08

**Name:** Quilty Hill Road south  
**Route type** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.101281	-75.795982	1066.44	5.00	1071.44
2	42.102212	-75.796036	1101.05	5.00	1106.05
3	42.103040	-75.796133	1106.39	5.00	1111.39
4	42.103979	-75.796283	1110.62	5.00	1115.62
5	42.104489	-75.796294	1117.82	5.00	1122.82
6	42.104680	-75.796133	1128.93	5.00	1133.93
7	42.105046	-75.795607	1150.39	5.00	1155.39
8	42.105754	-75.794545	1193.78	5.00	1198.78
9	42.106335	-75.793987	1221.28	5.00	1226.28
10	42.107092	-75.793483	1251.22	5.00	1256.22
11	42.107712	-75.793011	1281.61	5.00	1286.61
12	42.107927	-75.792850	1294.43	5.00	1299.43

**Name:** Ramp eastbound  
**Route type** One-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.097763	-75.817777	890.29	5.00	895.29
2	42.097970	-75.817101	895.95	5.00	900.95
3	42.098161	-75.816511	896.53	5.00	901.53
4	42.098432	-75.815771	898.47	5.00	903.47
5	42.098575	-75.815363	902.19	5.00	907.19
6	42.098830	-75.814633	905.51	5.00	910.51
7	42.099093	-75.813861	909.23	5.00	914.23

**Name:** Service Road  
**Route type** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.101145	-75.802752	984.55	5.00	989.55
2	42.101193	-75.803198	978.33	5.00	983.33
3	42.101217	-75.803632	975.11	5.00	980.11
4	42.101225	-75.803970	970.25	5.00	975.25
5	42.101229	-75.804308	965.25	5.00	970.25
6	42.101221	-75.804673	962.07	5.00	967.07
7	42.101213	-75.804780	962.29	5.00	967.29
8	42.101213	-75.804866	962.06	5.00	967.06
9	42.101125	-75.804995	967.01	5.00	972.01
10	42.101062	-75.805140	971.60	5.00	976.60
11	42.101034	-75.805300	970.05	5.00	975.05
12	42.101042	-75.805520	965.96	5.00	970.96
13	42.101062	-75.805740	967.79	5.00	972.79
14	42.101030	-75.805864	970.04	5.00	975.04
15	42.100934	-75.805944	970.41	5.00	975.41

## Discrete Observation Receptors

Number	Latitude	Longitude	Ground elevation	Height above ground	Total Elevation
	deg	deg	ft	ft	ft
OP 1	42.113933	-75.957712	867.67	500.00	1367.67
OP 2	42.123278	-75.814484	1347.96	16.00	1363.96
OP 3	42.104105	-75.797155	1094.11	16.00	1110.11
OP 4	42.104117	-75.796989	1097.65	16.00	1113.65
OP 5	42.104109	-75.796844	1101.14	16.00	1117.14
OP 6	42.104132	-75.796715	1101.55	16.00	1117.55
OP 7	42.104124	-75.796597	1101.90	16.00	1117.90
OP 8	42.103878	-75.796726	1099.49	16.00	1115.49
OP 9	42.103874	-75.797058	1092.19	16.00	1108.19
OP 10	42.103874	-75.797198	1088.81	16.00	1104.81
OP 11	42.103695	-75.797418	1082.71	16.00	1098.71
OP 12	42.103683	-75.797225	1086.47	16.00	1102.47
OP 13	42.103663	-75.797048	1089.58	16.00	1105.58
OP 14	42.103691	-75.796790	1097.98	16.00	1113.98
OP 15	42.103233	-75.796399	1106.21	16.00	1122.21
OP 16	42.102926	-75.796377	1101.71	16.00	1117.71
OP 17	42.102560	-75.796324	1103.04	16.00	1119.04
OP 18	42.102298	-75.796302	1098.83	16.00	1114.83
OP 19	42.101593	-75.796248	1076.70	16.00	1092.70
OP 20	42.101490	-75.795497	1092.97	16.00	1108.97
OP 21	42.101044	-75.796254	1056.62	16.00	1072.62
OP 22	42.098656	-75.796721	1149.03	16.00	1165.03
OP 23	42.098723	-75.797359	1148.26	16.00	1164.26
OP 24	42.099655	-75.798550	1098.05	16.00	1114.05
OP 25	42.099671	-75.798839	1097.23	16.00	1113.23
OP 26	42.099651	-75.799242	1095.23	16.00	1111.23
OP 27	42.099022	-75.799172	1126.23	16.00	1142.23
OP 28	42.099699	-75.799730	1085.26	16.00	1101.26
OP 29	42.100359	-75.801152	1037.29	16.00	1053.29
OP 30	42.100658	-75.800830	1027.55	16.00	1043.55
OP 31	42.100300	-75.800320	1038.58	16.00	1054.58
OP 32	42.099396	-75.803077	1055.18	16.00	1071.18
OP 33	42.099269	-75.806049	1041.86	16.00	1057.86
OP 34	42.100093	-75.804542	1020.15	16.00	1036.15
OP 35	42.100260	-75.805110	1009.16	16.00	1025.16
OP 36	42.100606	-75.804467	989.80	16.00	1005.80
OP 37	42.101012	-75.802970	993.52	16.00	1009.52
OP 38	42.101030	-75.803214	989.30	16.00	1005.30
OP 39	42.100942	-75.803735	991.45	16.00	1007.45
OP 40	42.100956	-75.804078	984.11	16.00	1000.11
OP 41	42.100887	-75.804652	979.59	16.00	995.59
OP 42	42.100940	-75.804853	981.84	16.00	997.84
OP 43	42.100389	-75.806028	997.20	16.00	1013.20
OP 44	42.100357	-75.807170	989.91	16.00	1005.91
OP 45	42.100329	-75.807527	990.82	16.00	1006.82
OP 46	42.100280	-75.807795	991.33	16.00	1007.33
OP 47	42.100134	-75.808305	985.09	16.00	1001.09
OP 48	42.100071	-75.808517	981.31	16.00	997.31
OP 49	42.099999	-75.808967	977.60	16.00	993.60
OP 50	42.099878	-75.809625	959.44	16.00	975.44
OP 51	42.099131	-75.810655	953.57	16.00	969.57
OP 52	42.099476	-75.810397	952.38	16.00	968.38
OP 53	42.098753	-75.810086	982.64	16.00	998.64
OP 54	42.098672	-75.811422	934.36	16.00	950.36
OP 55	42.098701	-75.811065	942.75	16.00	958.75
OP 56	42.099243	-75.810998	943.79	16.00	959.79
OP 57	42.096976	-75.812194	913.76	16.00	929.76
OP 58	42.097245	-75.812245	914.85	16.00	930.85

OP 59	42.097495	-75.812296	916.17	16.00	932.17
OP 60	42.097692	-75.812328	919.59	16.00	935.59

## 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	
101	SA tracking	SA tracking	0	0	-	-
102	SA tracking	SA tracking	0	0	-	-
103	SA tracking	SA tracking	0	0	-	-
104	SA tracking	SA tracking	0	0	-	-
105	SA tracking	SA tracking	0	0	-	-
106	SA tracking	SA tracking	0	0	-	-
107	SA tracking	SA tracking	0	0	-	-
108	SA tracking	SA tracking	0	0	-	-
109	SA tracking	SA tracking	0	0	-	-
110	SA tracking	SA tracking	0	0	-	-
111	SA tracking	SA tracking	0	0	-	-

## PV & Receptor Analysis Results

*Results for each PV array and receptor*

**101** no glare found

<b>Component</b>	<b>Green glare (min)</b>	<b>Yellow glare (min)</b>
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0

OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0
Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

**102** no glare found

<b>Component</b>	<b>Green glare (min)</b>	<b>Yellow glare (min)</b>
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0

OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0
Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

**103** no glare found

<b>Component</b>	<b>Green glare (min)</b>	<b>Yellow glare (min)</b>
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0

OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0
Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

**104** no glare found

<b>Component</b>	<b>Green glare (min)</b>	<b>Yellow glare (min)</b>
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0

OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0
Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

**105** no glare found

<b>Component</b>	<b>Green glare (min)</b>	<b>Yellow glare (min)</b>
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0

OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0
Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

**106** no glare found

<b>Component</b>	<b>Green glare (min)</b>	<b>Yellow glare (min)</b>
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0

OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0
Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

**107** no glare found

<b>Component</b>	<b>Green glare (min)</b>	<b>Yellow glare (min)</b>
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0

OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0
Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

**108** no glare found

<b>Component</b>	<b>Green glare (min)</b>	<b>Yellow glare (min)</b>
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0

OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0
Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

**109** no glare found

<b>Component</b>	<b>Green glare (min)</b>	<b>Yellow glare (min)</b>
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0

OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0
Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

**110** no glare found

<b>Component</b>	<b>Green glare (min)</b>	<b>Yellow glare (min)</b>
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0

OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0
Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

**111** no glare found

<b>Component</b>	<b>Green glare (min)</b>	<b>Yellow glare (min)</b>
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0

OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0
Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

## Summary of Vertical Surface Glare Analysis

## Assumptions

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- Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
- Glare analyses do not automatically account for physical obstructions between reflectors and receptors. This includes buildings, tree cover and geographical 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 for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare.
- The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)
- Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.
- Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
- Refer to the **Help page** for detailed assumptions and limitations not listed here.



# NSF Kirkwood Solar

## 5ft vehicles 12\_5ft panels house gp 1

**Created** Oct 30, 2025  
**Updated** Oct 30, 2025  
**Time-step** 1 minute  
**Timezone offset** UTC-5  
**Minimum sun altitude** 0.0 deg  
**Site ID** 163241.27364

**Project type** Advanced  
**Project status:** active  
**Category** 1 MW to 5 MW

### Misc. Analysis Settings

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

PV Analysis Methodology: **Version 2**  
 Enhanced subtended angle calculation: **On**

### Summary of Results No glare predicted!

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced
	deg	deg	min	min	kWh
101	SA tracking	SA tracking	0	0	-
102	SA tracking	SA tracking	0	0	-
103	SA tracking	SA tracking	0	0	-
104	SA tracking	SA tracking	0	0	-
105	SA tracking	SA tracking	0	0	-
106	SA tracking	SA tracking	0	0	-
107	SA tracking	SA tracking	0	0	-
108	SA tracking	SA tracking	0	0	-
109	SA tracking	SA tracking	0	0	-
110	SA tracking	SA tracking	0	0	-
111	SA tracking	SA tracking	0	0	-

## Component Data

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### PV Array(s)

Total PV footprint area: 55.9 acres

**Name:** 101  
**Footprint area:** 8.8 acres  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.112503	-75.797222	1461.38	12.50	1473.88
2	42.113677	-75.797211	1485.88	12.50	1498.38
3	42.113673	-75.800226	1475.48	12.50	1487.98
4	42.113104	-75.800242	1461.02	12.50	1473.52
5	42.113104	-75.800827	1451.03	12.50	1463.53
6	42.112507	-75.800848	1457.01	12.50	1469.51



**Name:** 102  
**Footprint area:** 5.2 acres  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.112350	-75.799102	1457.45	12.50	1469.95
2	42.112354	-75.797195	1453.43	12.50	1465.93
3	42.111170	-75.797163	1392.68	12.50	1405.18
4	42.111184	-75.799115	1398.71	12.50	1411.21



**Name:** 103  
**Footprint area:** 6.3 acres  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.112348	-75.799257	1456.55	12.50	1469.05
2	42.111178	-75.799252	1399.77	12.50	1412.27
3	42.111205	-75.801653	1431.55	12.50	1444.05
4	42.112360	-75.801647	1445.66	12.50	1458.16



**Name:** 104  
**Footprint area:** 3.4 acres  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.110363	-75.801615	1414.20	12.50	1426.70
2	42.111191	-75.801594	1430.26	12.50	1442.76
3	42.111183	-75.799748	1407.12	12.50	1419.62
4	42.110411	-75.799770	1369.64	12.50	1382.14



**Name:** 105  
**Footprint area:** 3.1 acres  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.110111	-75.798783	1352.65	12.50	1365.15
2	42.109267	-75.798769	1320.81	12.50	1333.31
3	42.109275	-75.797189	1313.41	12.50	1325.91
4	42.110117	-75.797187	1351.17	12.50	1363.67



**Name:** 106  
**Footprint area:** 8.1 acres  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.108818	-75.800006	1279.26	12.50	1291.76
2	42.108822	-75.801384	1334.02	12.50	1346.52
3	42.107922	-75.801411	1287.40	12.50	1299.90
4	42.107914	-75.801250	1283.15	12.50	1295.65
5	42.107656	-75.801245	1270.99	12.50	1283.49
6	42.107656	-75.801352	1274.44	12.50	1286.94
7	42.106446	-75.801352	1208.02	12.50	1220.52
8	42.106454	-75.800843	1180.87	12.50	1193.37
9	42.105916	-75.800864	1151.20	12.50	1163.70
10	42.105916	-75.800918	1151.88	12.50	1164.38
11	42.105674	-75.800928	1147.69	12.50	1160.19
12	42.105666	-75.800987	1149.90	12.50	1162.40
13	42.105017	-75.800982	1119.44	12.50	1131.94
14	42.105017	-75.800312	1120.66	12.50	1133.16
15	42.107918	-75.800269	1247.84	12.50	1260.34
16	42.107910	-75.800092	1247.91	12.50	1260.41
17	42.108197	-75.800092	1254.28	12.50	1266.78
18	42.108205	-75.800006	1256.60	12.50	1269.10



**Name:** 107  
**Footprint area:** 12.5 acres  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.108746	-75.798101	1325.13	12.50	1337.63
2	42.108762	-75.798960	1300.40	12.50	1312.90
3	42.108452	-75.798960	1291.36	12.50	1303.86
4	42.108459	-75.799389	1267.13	12.50	1279.63
5	42.108137	-75.799394	1259.53	12.50	1272.03
6	42.108145	-75.799523	1257.51	12.50	1270.01
7	42.106788	-75.799571	1193.96	12.50	1206.46
8	42.106788	-75.799636	1193.98	12.50	1206.48
9	42.104981	-75.799668	1113.09	12.50	1125.59
10	42.104973	-75.798026	1143.21	12.50	1155.71
11	42.106359	-75.798016	1273.32	12.50	1285.82
12	42.106355	-75.798091	1273.52	12.50	1286.02
13	42.107561	-75.798037	1327.59	12.50	1340.09
14	42.107561	-75.798123	1324.70	12.50	1337.20

**Name:** 108  
**Footprint area:** 0.54 acre  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.110255	-75.795339	1318.28	12.50	1330.78
2	42.110391	-75.794872	1319.69	12.50	1332.19
3	42.110164	-75.794883	1313.39	12.50	1325.89
4	42.110152	-75.794936	1310.31	12.50	1322.81
5	42.109774	-75.794947	1314.25	12.50	1326.75
6	42.109690	-75.795344	1294.16	12.50	1306.66

**Name:** 109  
**Footprint area:** 1.1 acres  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.110156	-75.795537	1322.53	12.50	1335.03
2	42.109535	-75.795532	1321.50	12.50	1334.00
3	42.109030	-75.796342	1311.00	12.50	1323.50
4	42.109639	-75.796347	1329.24	12.50	1341.74



**Name:** 110  
**Footprint area:** 4.6 acres  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.110482	-75.793976	1328.84	12.50	1341.34
2	42.110474	-75.792624	1342.92	12.50	1355.42
3	42.109838	-75.792651	1337.34	12.50	1349.84
4	42.109838	-75.792925	1337.32	12.50	1349.82
5	42.109527	-75.792919	1334.86	12.50	1347.36
6	42.109527	-75.793032	1334.73	12.50	1347.23
7	42.109288	-75.793021	1329.66	12.50	1342.16
8	42.109296	-75.794539	1327.14	12.50	1339.64
9	42.108982	-75.794545	1307.28	12.50	1319.78
10	42.108974	-75.794759	1311.48	12.50	1323.98
11	42.109296	-75.794759	1329.94	12.50	1342.44
12	42.109834	-75.794738	1318.63	12.50	1331.13
13	42.109841	-75.794529	1319.73	12.50	1332.23
14	42.110180	-75.794513	1320.86	12.50	1333.36
15	42.110168	-75.793982	1326.80	12.50	1339.30



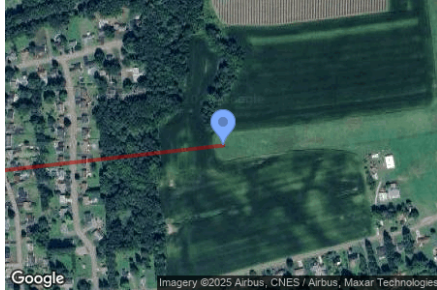
**Name:** 111  
**Footprint area:** 2.2 acres  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.110355	-75.801551	1396.37	12.50	1408.87
2	42.110395	-75.799748	1368.73	12.50	1381.23
3	42.109830	-75.799759	1335.53	12.50	1348.03
4	42.109838	-75.801551	1385.93	12.50	1398.43



## 2-Mile Flight Path Receptor(s)

**Name:** Chenango Bridge Airport eastbound  
**Description:**  
**Threshold height :** 50 ft  
**Direction:** 83.5 deg  
**Glide slope:** 3.0 deg  
**Pilot view restricted?** Yes  
**Vertical view restriction:** 30.0 deg  
**Azimuthal view restriction:** 50.0 deg



Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	42.190262	-75.842572	928.88	50.00	978.88
2-mile point	42.186989	-75.881390	863.12	669.19	1532.31

**Name:** Chenango Bridge Airport northbound  
**Description:**  
**Threshold height :** 50 ft  
**Direction:** 355.1 deg  
**Glide slope:** 3.0 deg  
**Pilot view restricted?** Yes  
**Vertical view restriction:** 30.0 deg  
**Azimuthal view restriction:** 50.0 deg



Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	42.189578	-75.837508	932.51	50.00	982.51
2-mile point	42.160773	-75.834144	1019.51	516.42	1535.94

**Name:** Chenango Bridge Airport southbound  
**Description:**  
**Threshold height :** 50 ft  
**Direction:** 173.3 deg  
**Glide slope:** 3.0 deg  
**Pilot view restricted?** Yes  
**Vertical view restriction:** 30.0 deg  
**Azimuthal view restriction:** 50.0 deg



Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	42.194109	-75.838109	937.26	50.00	987.26
2-mile point	42.222824	-75.842674	1028.95	511.74	1540.69

**Name:** Chenango Bridge Airport westbound  
**Description:**  
**Threshold height :** 50 ft  
**Direction:** 261.9 deg  
**Glide slope:** 3.0 deg  
**Pilot view restricted?** Yes  
**Vertical view restriction:** 30.0 deg  
**Azimuthal view restriction:** 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	42.191009	-75.835212	932.78	50.00	982.78
2-mile point	42.195103	-75.796537	1193.94	342.26	1536.21



**Name:** Greater Binghamton Airport Runway 10  
**Description:**  
**Threshold height :** 50 ft  
**Direction:** 88.0 deg  
**Glide slope:** 3.0 deg  
**Pilot view restricted?** Yes  
**Vertical view restriction:** 30.0 deg  
**Azimuthal view restriction:** 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	42.205077	-75.988806	1588.13	50.00	1638.13
2-mile point	42.204058	-76.027860	1494.01	697.55	2191.56



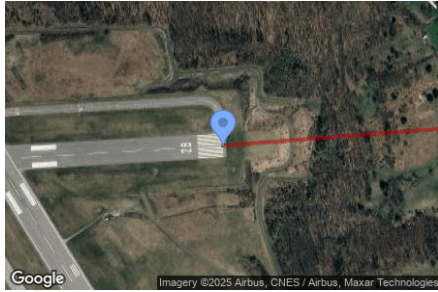
**Name:** Greater Binghamton Airport Runway 16  
**Description:**  
**Threshold height :** 50 ft  
**Direction:** 149.2 deg  
**Glide slope:** 3.0 deg  
**Pilot view restricted?** Yes  
**Vertical view restriction:** 30.0 deg  
**Azimuthal view restriction:** 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	42.218094	-75.985883	1631.16	50.00	1681.16
2-mile point	42.242926	-76.005902	1194.11	1040.48	2234.59



**Name:** Greater Binghamton Airport Runway 28  
**Description:**  
**Threshold height :** 50 ft  
**Direction:** 265.6 deg  
**Glide slope:** 3.0 deg  
**Pilot view restricted?** Yes  
**Vertical view restriction:** 30.0 deg  
**Azimuthal view restriction:** 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	42.205892	-75.970530	1570.29	50.00	1620.29
2-mile point	42.208125	-75.931569	1525.47	648.25	2173.72



**Name:** Greater Binghamton Airport Runway 34  
**Description:**  
**Threshold height :** 50 ft  
**Direction:** 328.5 deg  
**Glide slope:** 3.0 deg  
**Pilot view restricted?** Yes  
**Vertical view restriction:** 30.0 deg  
**Azimuthal view restriction:** 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	42.202455	-75.972880	1567.57	50.00	1617.57
2-mile point	42.177797	-75.952474	1164.27	1006.73	2171.00



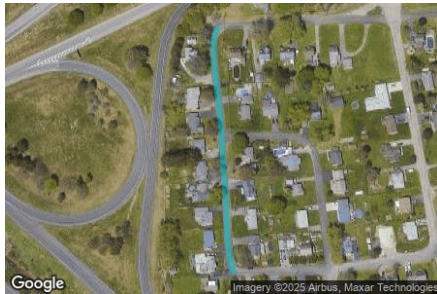
### Route Receptor(s)

**Name:** Blair Street Harry L Drive  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.097869	-75.813590	916.43	5.00	921.43
2	42.097877	-75.813209	918.50	5.00	923.50
3	42.097865	-75.812898	916.30	5.00	921.30
4	42.097845	-75.812732	916.06	5.00	921.06
5	42.097754	-75.812603	915.69	5.00	920.69
6	42.097579	-75.812550	912.85	5.00	917.85
7	42.097360	-75.812517	910.63	5.00	915.63
8	42.097085	-75.812469	910.47	5.00	915.47
9	42.096771	-75.812415	908.65	5.00	913.65

**Name:** Colpitts Drive  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



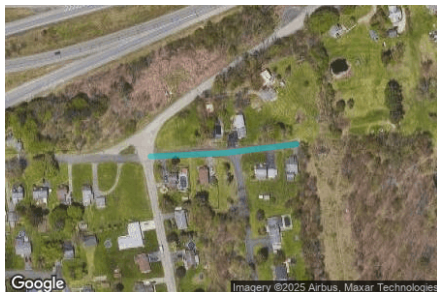
Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.098753	-75.813660	917.72	5.00	922.72
2	42.098653	-75.813703	919.05	5.00	924.05
3	42.098466	-75.813698	917.46	5.00	922.46
4	42.097989	-75.813622	915.01	5.00	920.01
5	42.097642	-75.813596	912.99	5.00	917.99
6	42.097332	-75.813563	908.59	5.00	913.59
7	42.097045	-75.813553	901.72	5.00	906.72
8	42.096846	-75.813515	901.46	5.00	906.46
9	42.096763	-75.813483	900.00	5.00	905.00

**Name:** Daisy Lane  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.098818	-75.811713	928.42	5.00	933.42
2	42.098639	-75.811664	928.56	5.00	933.56
3	42.098460	-75.811622	928.51	5.00	933.51
4	42.098233	-75.811557	927.29	5.00	932.29

**Name:** Easy Street  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.098842	-75.811664	928.35	5.00	933.35
2	42.098854	-75.811267	933.12	5.00	938.12
3	42.098870	-75.810828	948.20	5.00	953.20
4	42.098910	-75.810415	961.32	5.00	966.32
5	42.098942	-75.810050	974.04	5.00	979.04

**Name:** Foley Road east  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.101376	-75.796390	1062.35	5.00	1067.35
2	42.101257	-75.795886	1067.40	5.00	1072.40
3	42.101098	-75.795328	1075.56	5.00	1080.56
4	42.100986	-75.794867	1079.08	5.00	1084.08

**Name:** Foley Road west  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.101997	-75.801164	985.43	5.00	990.43
2	42.101886	-75.800392	989.18	5.00	994.18
3	42.101798	-75.799662	995.98	5.00	1000.98
4	42.101719	-75.798901	1003.19	5.00	1008.19
5	42.101623	-75.797989	1018.24	5.00	1023.24

**Name:** Frances Street  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.096039	-75.812330	904.42	5.00	909.42
2	42.095824	-75.812813	904.75	5.00	909.75
3	42.095649	-75.813145	902.81	5.00	907.81
4	42.095509	-75.813457	901.65	5.00	906.65
5	42.095350	-75.813741	899.70	5.00	904.70
6	42.095155	-75.814143	907.10	5.00	912.10
7	42.094908	-75.814589	917.95	5.00	922.95
8	42.094813	-75.814803	920.46	5.00	925.46

**Name:** Haskins Johnson Road  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.099227	-75.792560	1069.26	5.00	1074.26
2	42.099171	-75.793257	1066.37	5.00	1071.37
3	42.099155	-75.794094	1066.84	5.00	1071.84
4	42.099203	-75.795521	1082.78	5.00	1087.78
5	42.099235	-75.796637	1099.39	5.00	1104.39
6	42.099338	-75.797796	1111.01	5.00	1116.01
7	42.099450	-75.798450	1102.53	5.00	1107.53
8	42.099450	-75.798901	1101.83	5.00	1106.83
9	42.099466	-75.799802	1086.65	5.00	1091.65
10	42.099498	-75.800596	1084.58	5.00	1089.58

**Name:** Haskins Road  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.099652	-75.802230	1050.49	5.00	1055.49
2	42.099668	-75.802606	1039.35	5.00	1044.35
3	42.099739	-75.803056	1029.58	5.00	1034.58
4	42.099891	-75.803539	1023.39	5.00	1028.39
5	42.100018	-75.803839	1017.85	5.00	1022.85
6	42.100193	-75.804194	1006.46	5.00	1011.46
7	42.100456	-75.804676	998.44	5.00	1003.44
8	42.100663	-75.805213	985.88	5.00	990.88
9	42.100774	-75.805470	981.10	5.00	986.10
10	42.100886	-75.805760	972.62	5.00	977.62
11	42.100918	-75.806082	968.21	5.00	973.21

**Name:** Haskins Road west  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.099945	-75.810055	932.93	5.00	937.93
2	42.099758	-75.810398	944.39	5.00	949.39
3	42.099515	-75.810887	935.97	5.00	940.97
4	42.099264	-75.811348	929.98	5.00	934.98
5	42.098987	-75.811768	927.80	5.00	932.80
6	42.098820	-75.812338	927.92	5.00	932.92
7	42.098811	-75.812670	924.70	5.00	929.70
8	42.098802	-75.813109	922.26	5.00	927.26
9	42.098775	-75.813590	916.64	5.00	921.64

**Name:** High Street  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.100883	-75.806491	966.83	5.00	971.83
2	42.100779	-75.806701	969.11	5.00	974.11
3	42.100660	-75.807028	971.21	5.00	976.21
4	42.100552	-75.807275	972.52	5.00	977.52
5	42.100477	-75.807580	974.75	5.00	979.75
6	42.100369	-75.807999	978.63	5.00	983.63
7	42.100290	-75.808294	977.37	5.00	982.37
8	42.100218	-75.808680	970.81	5.00	975.81
9	42.100162	-75.809013	967.08	5.00	972.08
10	42.100126	-75.809324	956.32	5.00	961.32
11	42.100087	-75.809592	949.72	5.00	954.72
12	42.100103	-75.809672	944.45	5.00	949.45

**Name:** Howard Street  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.096751	-75.813456	899.65	5.00	904.65
2	42.096747	-75.813333	898.83	5.00	903.83
3	42.096755	-75.813145	902.92	5.00	907.92
4	42.096767	-75.812861	903.61	5.00	908.61
5	42.096775	-75.812603	905.58	5.00	910.58
6	42.096771	-75.812448	907.74	5.00	912.74

**Name:** I81 northbound  
**Route type:** One-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.094712	-75.812915	899.13	5.00	904.13
2	42.095294	-75.813440	899.64	5.00	904.64
3	42.095668	-75.813784	898.46	5.00	903.46
4	42.096122	-75.814288	901.87	5.00	906.87
5	42.096472	-75.814739	904.42	5.00	909.42
6	42.096798	-75.815179	906.27	5.00	911.27
7	42.097125	-75.815661	910.01	5.00	915.01
8	42.097300	-75.815951	911.02	5.00	916.02

**Name:** I81 southbound  
**Route type:** One-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



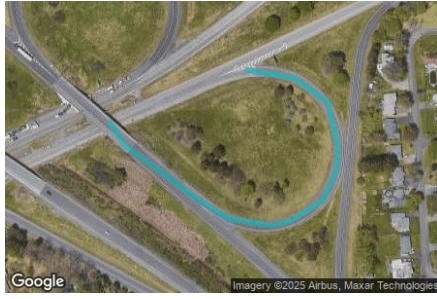
Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.097491	-75.817818	893.45	5.00	898.45
2	42.097141	-75.817067	899.51	5.00	904.51
3	42.096774	-75.816380	906.06	5.00	911.06
4	42.096368	-75.815629	904.81	5.00	909.81
5	42.095724	-75.814739	903.21	5.00	908.21
6	42.095333	-75.814245	904.51	5.00	909.51
7	42.094816	-75.813730	902.55	5.00	907.55
8	42.094378	-75.813376	902.10	5.00	907.10
9	42.093725	-75.812872	900.23	5.00	905.23

**Name:** I86 eastbound ramp  
**Route type:** One-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.096106	-75.814191	901.61	5.00	906.61
2	42.096456	-75.814385	902.30	5.00	907.30
3	42.096806	-75.814460	903.39	5.00	908.39
4	42.097141	-75.814428	905.76	5.00	910.76
5	42.097563	-75.814395	905.06	5.00	910.06
6	42.098080	-75.814342	910.51	5.00	915.51
7	42.098462	-75.814267	914.50	5.00	919.50
8	42.098804	-75.814127	909.17	5.00	914.17
9	42.099131	-75.813719	909.91	5.00	914.91

**Name:** I86 off ramp  
**Route type:** One-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.098459	-75.815506	899.66	5.00	904.66
2	42.098395	-75.814991	901.05	5.00	906.05
3	42.098196	-75.814615	903.95	5.00	908.95
4	42.097838	-75.814508	904.37	5.00	909.37
5	42.097639	-75.814519	904.00	5.00	909.00
6	42.097392	-75.814669	903.84	5.00	908.84
7	42.097225	-75.815023	905.97	5.00	910.97
8	42.097185	-75.815248	906.84	5.00	911.84
9	42.097249	-75.815731	910.63	5.00	915.63
10	42.097408	-75.816074	907.05	5.00	912.05
11	42.097543	-75.816310	903.61	5.00	908.61
12	42.097838	-75.816858	899.06	5.00	904.06
13	42.098029	-75.817029	896.09	5.00	901.09

**Name:** Quilty Hill north  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.109989	-75.791187	1359.65	5.00	1364.65
2	42.111015	-75.791197	1372.65	5.00	1377.65
3	42.111923	-75.791154	1407.08	5.00	1412.08
4	42.112703	-75.791122	1425.95	5.00	1430.95
5	42.113618	-75.791165	1410.55	5.00	1415.55
6	42.114096	-75.791144	1406.04	5.00	1411.04
7	42.114287	-75.791219	1404.89	5.00	1409.89
8	42.114398	-75.791358	1402.53	5.00	1407.53
9	42.114438	-75.791863	1398.08	5.00	1403.08

**Name:** Quilty Hill Road south  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.101281	-75.795982	1066.44	5.00	1071.44
2	42.102212	-75.796036	1101.05	5.00	1106.05
3	42.103040	-75.796133	1106.39	5.00	1111.39
4	42.103979	-75.796283	1110.62	5.00	1115.62
5	42.104489	-75.796294	1117.82	5.00	1122.82
6	42.104680	-75.796133	1128.93	5.00	1133.93
7	42.105046	-75.795607	1150.39	5.00	1155.39
8	42.105754	-75.794545	1193.78	5.00	1198.78
9	42.106335	-75.793987	1221.28	5.00	1226.28
10	42.107092	-75.793483	1251.22	5.00	1256.22
11	42.107712	-75.793011	1281.61	5.00	1286.61
12	42.107927	-75.792850	1294.43	5.00	1299.43

**Name:** Ramp eastbound  
**Route type** One-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.097763	-75.817777	890.29	5.00	895.29
2	42.097970	-75.817101	895.95	5.00	900.95
3	42.098161	-75.816511	896.53	5.00	901.53
4	42.098432	-75.815771	898.47	5.00	903.47
5	42.098575	-75.815363	902.19	5.00	907.19
6	42.098830	-75.814633	905.51	5.00	910.51
7	42.099093	-75.813861	909.23	5.00	914.23

**Name:** Service Road  
**Route type** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.101145	-75.802752	984.55	5.00	989.55
2	42.101193	-75.803198	978.33	5.00	983.33
3	42.101217	-75.803632	975.11	5.00	980.11
4	42.101225	-75.803970	970.25	5.00	975.25
5	42.101229	-75.804308	965.25	5.00	970.25
6	42.101221	-75.804673	962.07	5.00	967.07
7	42.101213	-75.804780	962.29	5.00	967.29
8	42.101213	-75.804866	962.06	5.00	967.06
9	42.101125	-75.804995	967.01	5.00	972.01
10	42.101062	-75.805140	971.60	5.00	976.60
11	42.101034	-75.805300	970.05	5.00	975.05
12	42.101042	-75.805520	965.96	5.00	970.96
13	42.101062	-75.805740	967.79	5.00	972.79
14	42.101030	-75.805864	970.04	5.00	975.04
15	42.100934	-75.805944	970.41	5.00	975.41

### Discrete Observation Receptors

Number	Latitude	Longitude	Ground elevation	Height above ground	Total Elevation
	deg	deg	ft	ft	ft
OP 1	42.113933	-75.957712	867.67	500.00	1367.67
OP 2	42.123278	-75.814484	1347.96	16.00	1363.96
OP 3	42.104105	-75.797155	1094.11	16.00	1110.11
OP 4	42.104117	-75.796989	1097.65	16.00	1113.65
OP 5	42.104109	-75.796844	1101.14	16.00	1117.14
OP 6	42.104132	-75.796715	1101.55	16.00	1117.55
OP 7	42.104124	-75.796597	1101.90	16.00	1117.90
OP 8	42.103878	-75.796726	1099.49	16.00	1115.49
OP 9	42.103874	-75.797058	1092.19	16.00	1108.19
OP 10	42.103874	-75.797198	1088.81	16.00	1104.81
OP 11	42.103695	-75.797418	1082.71	16.00	1098.71
OP 12	42.103683	-75.797225	1086.47	16.00	1102.47
OP 13	42.103663	-75.797048	1089.58	16.00	1105.58
OP 14	42.103691	-75.796790	1097.98	16.00	1113.98
OP 15	42.103233	-75.796399	1106.21	16.00	1122.21
OP 16	42.102926	-75.796377	1101.71	16.00	1117.71
OP 17	42.102560	-75.796324	1103.04	16.00	1119.04
OP 18	42.102298	-75.796302	1098.83	16.00	1114.83
OP 19	42.101593	-75.796248	1076.70	16.00	1092.70
OP 20	42.101490	-75.795497	1092.97	16.00	1108.97
OP 21	42.101044	-75.796254	1056.62	16.00	1072.62
OP 22	42.098656	-75.796721	1149.03	16.00	1165.03
OP 23	42.098723	-75.797359	1148.26	16.00	1164.26
OP 24	42.099655	-75.798550	1098.05	16.00	1114.05
OP 25	42.099671	-75.798839	1097.23	16.00	1113.23
OP 26	42.099651	-75.799242	1095.23	16.00	1111.23
OP 27	42.099022	-75.799172	1126.23	16.00	1142.23
OP 28	42.099699	-75.799730	1085.26	16.00	1101.26
OP 29	42.100359	-75.801152	1037.29	16.00	1053.29
OP 30	42.100658	-75.800830	1027.55	16.00	1043.55
OP 31	42.100300	-75.800320	1038.58	16.00	1054.58
OP 32	42.099396	-75.803077	1055.18	16.00	1071.18
OP 33	42.099269	-75.806049	1041.86	16.00	1057.86
OP 34	42.100093	-75.804542	1020.15	16.00	1036.15
OP 35	42.100260	-75.805110	1009.16	16.00	1025.16
OP 36	42.100606	-75.804467	989.80	16.00	1005.80
OP 37	42.101012	-75.802970	993.52	16.00	1009.52
OP 38	42.101030	-75.803214	989.30	16.00	1005.30
OP 39	42.100942	-75.803735	991.45	16.00	1007.45
OP 40	42.100956	-75.804078	984.11	16.00	1000.11
OP 41	42.100887	-75.804652	979.59	16.00	995.59
OP 42	42.100940	-75.804853	981.84	16.00	997.84
OP 43	42.100389	-75.806028	997.20	16.00	1013.20
OP 44	42.100357	-75.807170	989.91	16.00	1005.91
OP 45	42.100329	-75.807527	990.82	16.00	1006.82
OP 46	42.100280	-75.807795	991.33	16.00	1007.33
OP 47	42.100134	-75.808305	985.09	16.00	1001.09
OP 48	42.100071	-75.808517	981.31	16.00	997.31
OP 49	42.099999	-75.808967	977.60	16.00	993.60
OP 50	42.099878	-75.809625	959.44	16.00	975.44
OP 51	42.099131	-75.810655	953.57	16.00	969.57
OP 52	42.099476	-75.810397	952.38	16.00	968.38
OP 53	42.098753	-75.810086	982.64	16.00	998.64
OP 54	42.098672	-75.811422	934.36	16.00	950.36
OP 55	42.098701	-75.811065	942.75	16.00	958.75
OP 56	42.099243	-75.810998	943.79	16.00	959.79
OP 57	42.096976	-75.812194	913.76	16.00	929.76
OP 58	42.097245	-75.812245	914.85	16.00	930.85

OP 59	42.097495	-75.812296	916.17	16.00	932.17
OP 60	42.097692	-75.812328	919.59	16.00	935.59

## 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	
101	SA tracking	SA tracking	0	0	-	-
102	SA tracking	SA tracking	0	0	-	-
103	SA tracking	SA tracking	0	0	-	-
104	SA tracking	SA tracking	0	0	-	-
105	SA tracking	SA tracking	0	0	-	-
106	SA tracking	SA tracking	0	0	-	-
107	SA tracking	SA tracking	0	0	-	-
108	SA tracking	SA tracking	0	0	-	-
109	SA tracking	SA tracking	0	0	-	-
110	SA tracking	SA tracking	0	0	-	-
111	SA tracking	SA tracking	0	0	-	-

## PV & Receptor Analysis Results

*Results for each PV array and receptor*

**101** no glare found

<b>Component</b>	<b>Green glare (min)</b>	<b>Yellow glare (min)</b>
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0

OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0
Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

**102** no glare found

Component	Green glare (min)	Yellow glare (min)
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0

OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0
Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

**103** no glare found

<b>Component</b>	<b>Green glare (min)</b>	<b>Yellow glare (min)</b>
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0

OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0
Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

**104** no glare found

<b>Component</b>	<b>Green glare (min)</b>	<b>Yellow glare (min)</b>
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0

OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0
Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

**105** no glare found

<b>Component</b>	<b>Green glare (min)</b>	<b>Yellow glare (min)</b>
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0

OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0
Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

**106** no glare found

Component	Green glare (min)	Yellow glare (min)
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0

OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0
Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

**107** no glare found

<b>Component</b>	<b>Green glare (min)</b>	<b>Yellow glare (min)</b>
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0

OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0
Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

**108** no glare found

<b>Component</b>	<b>Green glare (min)</b>	<b>Yellow glare (min)</b>
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0

OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0
Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

**109** no glare found

<b>Component</b>	<b>Green glare (min)</b>	<b>Yellow glare (min)</b>
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0

OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0
Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

**110** no glare found

<b>Component</b>	<b>Green glare (min)</b>	<b>Yellow glare (min)</b>
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0

OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0
Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

**111** no glare found

<b>Component</b>	<b>Green glare (min)</b>	<b>Yellow glare (min)</b>
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
OP: OP 31	0	0
OP: OP 32	0	0
OP: OP 33	0	0
OP: OP 34	0	0
OP: OP 35	0	0
OP: OP 36	0	0
OP: OP 37	0	0
OP: OP 38	0	0
OP: OP 39	0	0
OP: OP 40	0	0

OP: OP 41	0	0
OP: OP 42	0	0
OP: OP 43	0	0
OP: OP 44	0	0
OP: OP 45	0	0
OP: OP 46	0	0
OP: OP 47	0	0
OP: OP 48	0	0
OP: OP 49	0	0
OP: OP 50	0	0
OP: OP 51	0	0
OP: OP 52	0	0
OP: OP 53	0	0
OP: OP 54	0	0
OP: OP 55	0	0
OP: OP 56	0	0
OP: OP 57	0	0
OP: OP 58	0	0
OP: OP 59	0	0
OP: OP 60	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0
Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

No glare found

## Summary of Vertical Surface Glare Analysis

## Assumptions

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- Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
- Glare analyses do not automatically account for physical obstructions between reflectors and receptors. This includes buildings, tree cover and geographical 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 for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare.
- The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)
- Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.
- Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
- Refer to the **Help page** for detailed assumptions and limitations not listed here.



# NSF Kirkwood Solar

## 9ft vehicles 3ft panels house gp 2

**Created** Oct 30, 2025  
**Updated** Oct 30, 2025  
**Time-step** 1 minute  
**Timezone offset** UTC-5  
**Minimum sun altitude** 0.0 deg  
**Site ID** 163242.27364

**Project type** Advanced  
**Project status:** active  
**Category** 1 MW to 5 MW

### Misc. Analysis Settings

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

PV Analysis Methodology: **Version 2**  
 Enhanced subtended angle calculation: **On**

### Summary of Results No glare predicted!

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced
	deg	deg	min	min	kWh
101	SA tracking	SA tracking	0	0	-
102	SA tracking	SA tracking	0	0	-
103	SA tracking	SA tracking	0	0	-
104	SA tracking	SA tracking	0	0	-
105	SA tracking	SA tracking	0	0	-
106	SA tracking	SA tracking	0	0	-
107	SA tracking	SA tracking	0	0	-
108	SA tracking	SA tracking	0	0	-
109	SA tracking	SA tracking	0	0	-
110	SA tracking	SA tracking	0	0	-
111	SA tracking	SA tracking	0	0	-

## Component Data

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### PV Array(s)

Total PV footprint area: 55.9 acres

**Name:** 101  
**Footprint area:** 8.8 acres  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.112503	-75.797222	1461.38	3.00	1464.38
2	42.113677	-75.797211	1485.88	3.00	1488.88
3	42.113673	-75.800226	1475.48	3.00	1478.48
4	42.113104	-75.800242	1461.02	3.00	1464.02
5	42.113104	-75.800827	1451.03	3.00	1454.03
6	42.112507	-75.800848	1457.01	3.00	1460.01



**Name:** 102  
**Footprint area:** 5.2 acres  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.112350	-75.799102	1457.45	3.00	1460.45
2	42.112354	-75.797195	1453.43	3.00	1456.43
3	42.111170	-75.797163	1392.68	3.00	1395.68
4	42.111184	-75.799115	1398.71	3.00	1401.71



**Name:** 103  
**Footprint area:** 6.3 acres  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.112348	-75.799257	1456.55	3.00	1459.55
2	42.111178	-75.799252	1399.77	3.00	1402.77
3	42.111205	-75.801653	1431.55	3.00	1434.55
4	42.112360	-75.801647	1445.66	3.00	1448.66



**Name:** 104  
**Footprint area:** 3.5 acres  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.110359	-75.801620	1414.20	3.00	1417.20
2	42.111191	-75.801588	1430.26	3.00	1433.26
3	42.111175	-75.799759	1406.25	3.00	1409.25
4	42.110355	-75.799754	1367.52	3.00	1370.52



**Name:** 105  
**Footprint area:** 3.1 acres  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.110111	-75.798783	1352.65	3.00	1355.65
2	42.109267	-75.798769	1320.81	3.00	1323.81
3	42.109275	-75.797189	1313.41	3.00	1316.41
4	42.110117	-75.797187	1351.17	3.00	1354.17



**Name:** 106  
**Footprint area:** 8.1 acres  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.108818	-75.800006	1279.26	3.00	1282.26
2	42.108822	-75.801384	1334.02	3.00	1337.02
3	42.107922	-75.801411	1287.40	3.00	1290.40
4	42.107914	-75.801250	1283.15	3.00	1286.15
5	42.107656	-75.801245	1270.99	3.00	1273.99
6	42.107656	-75.801352	1274.44	3.00	1277.44
7	42.106446	-75.801352	1208.02	3.00	1211.02
8	42.106454	-75.800843	1180.87	3.00	1183.87
9	42.105916	-75.800864	1151.20	3.00	1154.20
10	42.105916	-75.800918	1151.88	3.00	1154.88
11	42.105674	-75.800928	1147.69	3.00	1150.69
12	42.105666	-75.800987	1149.90	3.00	1152.90
13	42.105017	-75.800982	1119.44	3.00	1122.44
14	42.105017	-75.800312	1120.66	3.00	1123.66
15	42.107918	-75.800269	1247.84	3.00	1250.84
16	42.107910	-75.800092	1247.91	3.00	1250.91
17	42.108197	-75.800092	1254.28	3.00	1257.28
18	42.108205	-75.800006	1256.60	3.00	1259.60



**Name:** 107  
**Footprint area:** 12.5 acres  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.108746	-75.798101	1325.13	3.00	1328.13
2	42.108762	-75.798960	1300.40	3.00	1303.40
3	42.108452	-75.798960	1291.36	3.00	1294.36
4	42.108459	-75.799389	1267.13	3.00	1270.13
5	42.108137	-75.799394	1259.53	3.00	1262.53
6	42.108145	-75.799523	1257.51	3.00	1260.51
7	42.106788	-75.799571	1193.96	3.00	1196.96
8	42.106788	-75.799636	1193.98	3.00	1196.98
9	42.104981	-75.799668	1113.09	3.00	1116.09
10	42.104973	-75.798026	1143.21	3.00	1146.21
11	42.106359	-75.798016	1273.32	3.00	1276.32
12	42.106355	-75.798091	1273.52	3.00	1276.52
13	42.107561	-75.798037	1327.59	3.00	1330.59
14	42.107561	-75.798123	1324.70	3.00	1327.70

**Name:** 108  
**Footprint area:** 0.54 acre  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.110255	-75.795339	1318.28	3.00	1321.28
2	42.110391	-75.794872	1319.69	3.00	1322.69
3	42.110164	-75.794883	1313.39	3.00	1316.39
4	42.110152	-75.794936	1310.31	3.00	1313.31
5	42.109774	-75.794947	1314.25	3.00	1317.25
6	42.109690	-75.795344	1294.16	3.00	1297.16

**Name:** 109  
**Footprint area:** 1.1 acres  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.110156	-75.795537	1322.53	3.00	1325.53
2	42.109535	-75.795532	1321.50	3.00	1324.50
3	42.109030	-75.796342	1311.00	3.00	1314.00
4	42.109639	-75.796347	1329.24	3.00	1332.24



**Name:** 110  
**Footprint area:** 4.6 acres  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.110482	-75.793976	1328.84	3.00	1331.84
2	42.110474	-75.792624	1342.92	3.00	1345.92
3	42.109838	-75.792651	1337.34	3.00	1340.34
4	42.109838	-75.792925	1337.32	3.00	1340.32
5	42.109527	-75.792919	1334.86	3.00	1337.86
6	42.109527	-75.793032	1334.73	3.00	1337.73
7	42.109288	-75.793021	1329.66	3.00	1332.66
8	42.109296	-75.794539	1327.14	3.00	1330.14
9	42.108982	-75.794545	1307.28	3.00	1310.28
10	42.108974	-75.794759	1311.48	3.00	1314.48
11	42.109296	-75.794759	1329.94	3.00	1332.94
12	42.109834	-75.794738	1318.63	3.00	1321.63
13	42.109841	-75.794529	1319.73	3.00	1322.73
14	42.110180	-75.794513	1320.86	3.00	1323.86
15	42.110168	-75.793982	1326.80	3.00	1329.80



**Name:** 111  
**Footprint area:** 2.1 acres  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.110339	-75.801567	1401.80	3.00	1404.80
2	42.110347	-75.799754	1367.52	3.00	1370.52
3	42.109822	-75.799754	1334.77	3.00	1337.77
4	42.109838	-75.801578	1390.41	3.00	1393.41



## 2-Mile Flight Path Receptor(s)

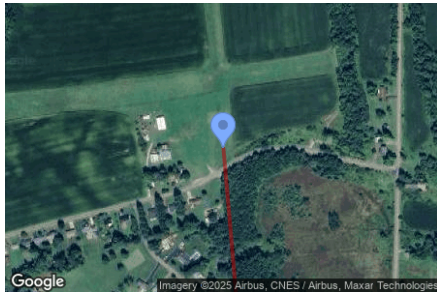
**Name:** Chenango Bridge Airport eastbound  
**Description:**  
**Threshold height :** 50 ft  
**Direction:** 83.5 deg  
**Glide slope:** 3.0 deg  
**Pilot view restricted?** Yes  
**Vertical view restriction:** 30.0 deg  
**Azimuthal view restriction:** 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	42.190262	-75.842572	928.88	50.00	978.88
2-mile point	42.186989	-75.881390	863.12	669.19	1532.31



**Name:** Chenango Bridge Airport northbound  
**Description:**  
**Threshold height :** 50 ft  
**Direction:** 355.1 deg  
**Glide slope:** 3.0 deg  
**Pilot view restricted?** Yes  
**Vertical view restriction:** 30.0 deg  
**Azimuthal view restriction:** 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	42.189578	-75.837508	932.51	50.00	982.51
2-mile point	42.160773	-75.834144	1019.51	516.42	1535.94



**Name:** Chenango Bridge Airport southbound  
**Description:**  
**Threshold height :** 50 ft  
**Direction:** 173.3 deg  
**Glide slope:** 3.0 deg  
**Pilot view restricted?** Yes  
**Vertical view restriction:** 30.0 deg  
**Azimuthal view restriction:** 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	42.194109	-75.838109	937.26	50.00	987.26
2-mile point	42.222824	-75.842674	1028.95	511.74	1540.69



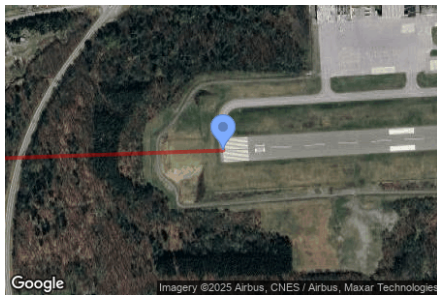
**Name:** Chenango Bridge Airport westbound  
**Description:**  
**Threshold height :** 50 ft  
**Direction:** 261.9 deg  
**Glide slope:** 3.0 deg  
**Pilot view restricted?** Yes  
**Vertical view restriction:** 30.0 deg  
**Azimuthal view restriction:** 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	42.191009	-75.835212	932.78	50.00	982.78
2-mile point	42.195103	-75.796537	1193.94	342.26	1536.21



**Name:** Greater Binghamton Airport Runway 10  
**Description:**  
**Threshold height :** 50 ft  
**Direction:** 88.0 deg  
**Glide slope:** 3.0 deg  
**Pilot view restricted?** Yes  
**Vertical view restriction:** 30.0 deg  
**Azimuthal view restriction:** 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	42.205077	-75.988806	1588.13	50.00	1638.13
2-mile point	42.204058	-76.027860	1494.01	697.55	2191.56



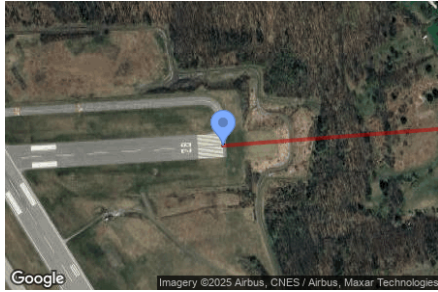
**Name:** Greater Binghamton Airport Runway 16  
**Description:**  
**Threshold height :** 50 ft  
**Direction:** 149.2 deg  
**Glide slope:** 3.0 deg  
**Pilot view restricted?** Yes  
**Vertical view restriction:** 30.0 deg  
**Azimuthal view restriction:** 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	42.218094	-75.985883	1631.16	50.00	1681.16
2-mile point	42.242926	-76.005902	1194.11	1040.48	2234.59



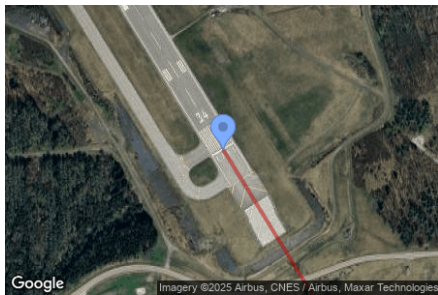
**Name:** Greater Binghamton Airport Runway 28  
**Description:**  
**Threshold height :** 50 ft  
**Direction:** 265.6 deg  
**Glide slope:** 3.0 deg  
**Pilot view restricted?** Yes  
**Vertical view restriction:** 30.0 deg  
**Azimuthal view restriction:** 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	42.205892	-75.970530	1570.29	50.00	1620.29
2-mile point	42.208125	-75.931569	1525.47	648.25	2173.72



**Name:** Greater Binghamton Airport Runway 34  
**Description:**  
**Threshold height :** 50 ft  
**Direction:** 328.5 deg  
**Glide slope:** 3.0 deg  
**Pilot view restricted?** Yes  
**Vertical view restriction:** 30.0 deg  
**Azimuthal view restriction:** 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	42.202455	-75.972880	1567.57	50.00	1617.57
2-mile point	42.177797	-75.952474	1164.27	1006.73	2171.00



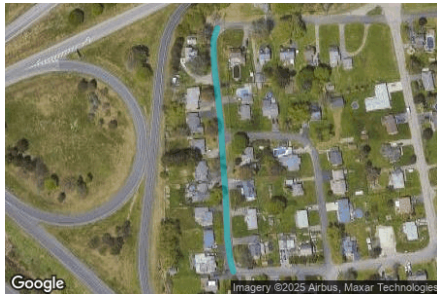
### Route Receptor(s)

**Name:** Blair Street Harry L Drive  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.097869	-75.813590	916.43	9.00	925.43
2	42.097877	-75.813209	918.50	9.00	927.50
3	42.097865	-75.812898	916.30	9.00	925.30
4	42.097845	-75.812732	916.06	9.00	925.06
5	42.097754	-75.812603	915.69	9.00	924.69
6	42.097579	-75.812550	912.85	9.00	921.85
7	42.097360	-75.812517	910.63	9.00	919.63
8	42.097085	-75.812469	910.47	9.00	919.47
9	42.096771	-75.812415	908.65	9.00	917.65

**Name:** Colpitts Drive  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.098753	-75.813660	917.72	9.00	926.72
2	42.098653	-75.813703	919.05	9.00	928.05
3	42.098466	-75.813698	917.46	9.00	926.46
4	42.097989	-75.813622	915.01	9.00	924.01
5	42.097642	-75.813596	912.99	9.00	921.99
6	42.097332	-75.813563	908.59	9.00	917.59
7	42.097045	-75.813553	901.72	9.00	910.72
8	42.096846	-75.813515	901.46	9.00	910.46
9	42.096763	-75.813483	900.00	9.00	909.00

**Name:** Daisy Lane  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.098818	-75.811713	928.42	9.00	937.42
2	42.098639	-75.811664	928.56	9.00	937.56
3	42.098460	-75.811622	928.51	9.00	937.51
4	42.098233	-75.811557	927.29	9.00	936.29

**Name:** Easy Street  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.098842	-75.811664	928.35	9.00	937.35
2	42.098854	-75.811267	933.12	9.00	942.12
3	42.098870	-75.810828	948.20	9.00	957.20
4	42.098910	-75.810415	961.32	9.00	970.32
5	42.098942	-75.810050	974.04	9.00	983.04

**Name:** Foley Road east  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.101376	-75.796390	1062.35	9.00	1071.35
2	42.101257	-75.795886	1067.40	9.00	1076.40
3	42.101098	-75.795328	1075.56	9.00	1084.56
4	42.100986	-75.794867	1079.08	9.00	1088.08

**Name:** Foley Road west  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.101997	-75.801164	985.43	9.00	994.43
2	42.101886	-75.800392	989.18	9.00	998.18
3	42.101798	-75.799662	995.98	9.00	1004.98
4	42.101719	-75.798901	1003.19	9.00	1012.19
5	42.101623	-75.797989	1018.24	9.00	1027.24

**Name:** Frances Street  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.096039	-75.812330	904.42	9.00	913.42
2	42.095824	-75.812813	904.75	9.00	913.75
3	42.095649	-75.813145	902.81	9.00	911.81
4	42.095509	-75.813457	901.65	9.00	910.65
5	42.095350	-75.813741	899.70	9.00	908.70
6	42.095155	-75.814143	907.10	9.00	916.10
7	42.094908	-75.814589	917.95	9.00	926.95
8	42.094813	-75.814803	920.46	9.00	929.46

**Name:** Haskins Johnson Road  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.099227	-75.792560	1069.26	9.00	1078.26
2	42.099171	-75.793257	1066.37	9.00	1075.37
3	42.099155	-75.794094	1066.84	9.00	1075.84
4	42.099203	-75.795521	1082.78	9.00	1091.78
5	42.099235	-75.796637	1099.39	9.00	1108.39
6	42.099338	-75.797796	1111.01	9.00	1120.01
7	42.099450	-75.798450	1102.53	9.00	1111.53
8	42.099450	-75.798901	1101.83	9.00	1110.83
9	42.099466	-75.799802	1086.65	9.00	1095.65
10	42.099498	-75.800596	1084.58	9.00	1093.58

**Name:** Haskins Road  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.099652	-75.802230	1050.49	9.00	1059.49
2	42.099668	-75.802606	1039.35	9.00	1048.35
3	42.099739	-75.803056	1029.58	9.00	1038.58
4	42.099891	-75.803539	1023.39	9.00	1032.39
5	42.100018	-75.803839	1017.85	9.00	1026.85
6	42.100193	-75.804194	1006.46	9.00	1015.46
7	42.100456	-75.804676	998.44	9.00	1007.44
8	42.100663	-75.805213	985.88	9.00	994.88
9	42.100774	-75.805470	981.10	9.00	990.10
10	42.100886	-75.805760	972.62	9.00	981.62
11	42.100918	-75.806082	968.21	9.00	977.21

**Name:** Haskins Road west  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.099945	-75.810055	932.93	9.00	941.93
2	42.099758	-75.810398	944.39	9.00	953.39
3	42.099515	-75.810887	935.97	9.00	944.97
4	42.099264	-75.811348	929.98	9.00	938.98
5	42.098987	-75.811768	927.80	9.00	936.80
6	42.098820	-75.812338	927.92	9.00	936.92
7	42.098811	-75.812670	924.70	9.00	933.70
8	42.098802	-75.813109	922.26	9.00	931.26
9	42.098775	-75.813590	916.64	9.00	925.64

**Name:** High Street  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.100883	-75.806491	966.83	9.00	975.83
2	42.100779	-75.806701	969.11	9.00	978.11
3	42.100660	-75.807028	971.21	9.00	980.21
4	42.100552	-75.807275	972.52	9.00	981.52
5	42.100477	-75.807580	974.75	9.00	983.75
6	42.100369	-75.807999	978.63	9.00	987.63
7	42.100290	-75.808294	977.37	9.00	986.37
8	42.100218	-75.808680	970.81	9.00	979.81
9	42.100162	-75.809013	967.08	9.00	976.08
10	42.100126	-75.809324	956.32	9.00	965.32
11	42.100087	-75.809592	949.72	9.00	958.72
12	42.100103	-75.809672	944.45	9.00	953.45

**Name:** Howard Street  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.096751	-75.813456	899.65	9.00	908.65
2	42.096747	-75.813333	898.83	9.00	907.83
3	42.096755	-75.813145	902.92	9.00	911.92
4	42.096767	-75.812861	903.61	9.00	912.61
5	42.096775	-75.812603	905.58	9.00	914.58
6	42.096771	-75.812448	907.74	9.00	916.74

**Name:** I81 northbound  
**Route type:** One-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.094712	-75.812915	899.13	9.00	908.13
2	42.095294	-75.813440	899.64	9.00	908.64
3	42.095668	-75.813784	898.46	9.00	907.46
4	42.096122	-75.814288	901.87	9.00	910.87
5	42.096472	-75.814739	904.42	9.00	913.42
6	42.096798	-75.815179	906.27	9.00	915.27
7	42.097125	-75.815661	910.01	9.00	919.01
8	42.097300	-75.815951	911.02	9.00	920.02

**Name:** I81 southbound  
**Route type:** One-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



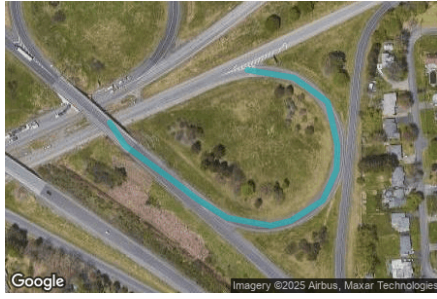
Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.097491	-75.817818	893.45	9.00	902.45
2	42.097141	-75.817067	899.51	9.00	908.51
3	42.096774	-75.816380	906.06	9.00	915.06
4	42.096368	-75.815629	904.81	9.00	913.81
5	42.095724	-75.814739	903.21	9.00	912.21
6	42.095333	-75.814245	904.51	9.00	913.51
7	42.094816	-75.813730	902.55	9.00	911.55
8	42.094378	-75.813376	902.10	9.00	911.10
9	42.093725	-75.812872	900.23	9.00	909.23

**Name:** I86 eastbound ramp  
**Route type:** One-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.096106	-75.814191	901.61	9.00	910.61
2	42.096456	-75.814385	902.30	9.00	911.30
3	42.096806	-75.814460	903.39	9.00	912.39
4	42.097141	-75.814428	905.76	9.00	914.76
5	42.097563	-75.814395	905.06	9.00	914.06
6	42.098080	-75.814342	910.51	9.00	919.51
7	42.098462	-75.814267	914.50	9.00	923.50
8	42.098804	-75.814127	909.17	9.00	918.17
9	42.099131	-75.813719	909.91	9.00	918.91

**Name:** I86 off ramp  
**Route type** One-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.098459	-75.815506	899.66	9.00	908.66
2	42.098395	-75.814991	901.05	9.00	910.05
3	42.098196	-75.814615	903.95	9.00	912.95
4	42.097838	-75.814508	904.37	9.00	913.37
5	42.097639	-75.814519	904.00	9.00	913.00
6	42.097392	-75.814669	903.84	9.00	912.84
7	42.097225	-75.815023	905.97	9.00	914.97
8	42.097185	-75.815248	906.84	9.00	915.84
9	42.097249	-75.815731	910.63	9.00	919.63
10	42.097408	-75.816074	907.05	9.00	916.05
11	42.097543	-75.816310	903.61	9.00	912.61
12	42.097838	-75.816858	899.06	9.00	908.06
13	42.098029	-75.817029	896.09	9.00	905.09

**Name:** Quilty Hill north  
**Route type** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.109989	-75.791187	1359.65	9.00	1368.65
2	42.111015	-75.791197	1372.65	9.00	1381.65
3	42.111923	-75.791154	1407.08	9.00	1416.08
4	42.112703	-75.791122	1425.95	9.00	1434.95
5	42.113618	-75.791165	1410.55	9.00	1419.55
6	42.114096	-75.791144	1406.04	9.00	1415.04
7	42.114287	-75.791219	1404.89	9.00	1413.89
8	42.114398	-75.791358	1402.53	9.00	1411.53
9	42.114438	-75.791863	1398.08	9.00	1407.08

**Name:** Quilty Hill Road south  
**Route type** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.101281	-75.795982	1066.44	9.00	1075.44
2	42.102212	-75.796036	1101.05	9.00	1110.05
3	42.103040	-75.796133	1106.39	9.00	1115.39
4	42.103979	-75.796283	1110.62	9.00	1119.62
5	42.104489	-75.796294	1117.82	9.00	1126.82
6	42.104680	-75.796133	1128.93	9.00	1137.93
7	42.105046	-75.795607	1150.39	9.00	1159.39
8	42.105754	-75.794545	1193.78	9.00	1202.78
9	42.106335	-75.793987	1221.28	9.00	1230.28
10	42.107092	-75.793483	1251.22	9.00	1260.22
11	42.107712	-75.793011	1281.61	9.00	1290.61
12	42.107927	-75.792850	1294.43	9.00	1303.43

**Name:** Ramp eastbound  
**Route type:** One-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.097763	-75.817777	890.29	9.00	899.29
2	42.097970	-75.817101	895.95	9.00	904.95
3	42.098161	-75.816511	896.53	9.00	905.53
4	42.098432	-75.815771	898.47	9.00	907.47
5	42.098575	-75.815363	902.19	9.00	911.19
6	42.098830	-75.814633	905.51	9.00	914.51
7	42.099093	-75.813861	909.23	9.00	918.23

**Name:** Service Road  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.101145	-75.802752	984.55	9.00	993.55
2	42.101193	-75.803198	978.33	9.00	987.33
3	42.101217	-75.803632	975.11	9.00	984.11
4	42.101225	-75.803970	970.25	9.00	979.25
5	42.101229	-75.804308	965.25	9.00	974.25
6	42.101221	-75.804673	962.07	9.00	971.07
7	42.101213	-75.804780	962.29	9.00	971.29
8	42.101213	-75.804866	962.06	9.00	971.06
9	42.101125	-75.804995	967.01	9.00	976.01
10	42.101062	-75.805140	971.60	9.00	980.60
11	42.101034	-75.805300	970.05	9.00	979.05
12	42.101042	-75.805520	965.96	9.00	974.96
13	42.101062	-75.805740	967.79	9.00	976.79
14	42.101030	-75.805864	970.04	9.00	979.04
15	42.100934	-75.805944	970.41	9.00	979.41

## Discrete Observation Receptors

Number	Latitude	Longitude	Ground elevation	Height above ground	Total Elevation
	deg	deg	ft	ft	ft
OP 1	42.113933	-75.957712	867.67	500.00	1367.67
OP 2	42.096257	-75.812630	907.14	16.00	923.14
OP 3	42.096607	-75.812706	909.19	16.00	925.19
OP 4	42.096607	-75.812958	906.25	16.00	922.25
OP 5	42.096607	-75.813188	902.71	16.00	918.71
OP 6	42.096543	-75.813483	903.29	16.00	919.29
OP 7	42.096631	-75.813698	902.89	16.00	918.89
OP 8	42.096842	-75.813832	904.46	16.00	920.46
OP 9	42.097025	-75.813768	904.58	16.00	920.58
OP 10	42.097232	-75.813789	909.92	16.00	925.92
OP 11	42.097415	-75.813811	911.93	16.00	927.93
OP 12	42.097622	-75.813800	913.04	16.00	929.04
OP 13	42.097785	-75.813837	916.39	16.00	932.39
OP 14	42.097714	-75.813328	917.89	16.00	933.89
OP 15	42.097658	-75.812850	917.48	16.00	933.48
OP 16	42.097435	-75.812770	912.20	16.00	928.20
OP 17	42.097204	-75.812706	911.88	16.00	927.88
OP 18	42.096941	-75.812695	911.03	16.00	927.03
OP 19	42.098040	-75.812566	922.80	16.00	938.80
OP 20	42.098084	-75.813076	926.88	16.00	942.88
OP 21	42.098076	-75.813322	923.23	16.00	939.23
OP 22	42.098207	-75.813918	920.56	16.00	936.56
OP 23	42.098533	-75.813451	920.86	16.00	936.86
OP 24	42.098510	-75.813092	927.11	16.00	943.11
OP 25	42.098526	-75.812845	926.48	16.00	942.48
OP 26	42.098518	-75.812652	926.04	16.00	942.04
OP 27	42.098506	-75.812357	929.42	16.00	945.42
OP 28	42.098024	-75.813950	917.20	16.00	933.20
OP 29	42.101970	-75.799350	1001.22	16.00	1017.22
OP 30	42.102145	-75.800348	999.98	16.00	1015.98

## 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	
101	SA tracking	SA tracking	0	0	-	-
102	SA tracking	SA tracking	0	0	-	-
103	SA tracking	SA tracking	0	0	-	-
104	SA tracking	SA tracking	0	0	-	-
105	SA tracking	SA tracking	0	0	-	-
106	SA tracking	SA tracking	0	0	-	-
107	SA tracking	SA tracking	0	0	-	-
108	SA tracking	SA tracking	0	0	-	-
109	SA tracking	SA tracking	0	0	-	-
110	SA tracking	SA tracking	0	0	-	-
111	SA tracking	SA tracking	0	0	-	-

## PV & Receptor Analysis Results

*Results for each PV array and receptor*

**101** no glare found

Component	Green glare (min)	Yellow glare (min)
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0

Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

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**102** no glare found

Component	Green glare (min)	Yellow glare (min)
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0

Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

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**103** no glare found

Component	Green glare (min)	Yellow glare (min)
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0

Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

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**104** no glare found

Component	Green glare (min)	Yellow glare (min)
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0

Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

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**105** no glare found

Component	Green glare (min)	Yellow glare (min)
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0

Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

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**106** no glare found

Component	Green glare (min)	Yellow glare (min)
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0

Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

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**107** no glare found

Component	Green glare (min)	Yellow glare (min)
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0

Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

---

**108** no glare found

Component	Green glare (min)	Yellow glare (min)
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0

Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

---

**109** no glare found

Component	Green glare (min)	Yellow glare (min)
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0

Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

---

**110** no glare found

Component	Green glare (min)	Yellow glare (min)
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0

Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

---

**111** no glare found

Component	Green glare (min)	Yellow glare (min)
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0

Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

No glare found

## Summary of Vertical Surface Glare Analysis

### Assumptions

- Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
- Glare analyses do not automatically account for physical obstructions between reflectors and receptors. This includes buildings, tree cover and geographical 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 for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare.
- The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)
- Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.
- Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
- Refer to the **Help page** for detailed assumptions and limitations not listed here.



# NSF Kirkwood Solar

## 9ft vehicles 12\_5ft panels house gp 2

**Created** Oct 30, 2025  
**Updated** Oct 30, 2025  
**Time-step** 1 minute  
**Timezone offset** UTC-5  
**Minimum sun altitude** 0.0 deg  
**Site ID** 163249.27364

**Project type** Advanced  
**Project status:** active  
**Category** 1 MW to 5 MW

### Misc. Analysis Settings

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

PV Analysis Methodology: **Version 2**  
 Enhanced subtended angle calculation: **On**

### Summary of Results No glare predicted!

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced
	deg	deg	min	min	kWh
101	SA tracking	SA tracking	0	0	-
102	SA tracking	SA tracking	0	0	-
103	SA tracking	SA tracking	0	0	-
104	SA tracking	SA tracking	0	0	-
105	SA tracking	SA tracking	0	0	-
106	SA tracking	SA tracking	0	0	-
107	SA tracking	SA tracking	0	0	-
108	SA tracking	SA tracking	0	0	-
109	SA tracking	SA tracking	0	0	-
110	SA tracking	SA tracking	0	0	-
111	SA tracking	SA tracking	0	0	-

## Component Data

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### PV Array(s)

Total PV footprint area: 55.9 acres

**Name:** 101  
**Footprint area:** 8.8 acres  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.112503	-75.797222	1461.38	12.50	1473.88
2	42.113677	-75.797211	1485.88	12.50	1498.38
3	42.113673	-75.800226	1475.48	12.50	1487.98
4	42.113104	-75.800242	1461.02	12.50	1473.52
5	42.113104	-75.800827	1451.03	12.50	1463.53
6	42.112507	-75.800848	1457.01	12.50	1469.51



**Name:** 102  
**Footprint area:** 5.2 acres  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.112350	-75.799102	1457.45	12.50	1469.95
2	42.112354	-75.797195	1453.43	12.50	1465.93
3	42.111170	-75.797163	1392.68	12.50	1405.18
4	42.111184	-75.799115	1398.71	12.50	1411.21



**Name:** 103  
**Footprint area:** 6.3 acres  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.112348	-75.799257	1456.55	12.50	1469.05
2	42.111178	-75.799252	1399.77	12.50	1412.27
3	42.111205	-75.801653	1431.55	12.50	1444.05
4	42.112360	-75.801647	1445.66	12.50	1458.16



**Name:** 104  
**Footprint area:** 3.6 acres  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.110339	-75.801626	1417.26	12.50	1429.76
2	42.111199	-75.801604	1430.57	12.50	1443.07
3	42.111175	-75.799748	1406.29	12.50	1418.79
4	42.110355	-75.799759	1367.67	12.50	1380.17



**Name:** 105  
**Footprint area:** 3.1 acres  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.110111	-75.798783	1352.65	12.50	1365.15
2	42.109267	-75.798769	1320.81	12.50	1333.31
3	42.109275	-75.797189	1313.41	12.50	1325.91
4	42.110117	-75.797187	1351.17	12.50	1363.67



**Name:** 106  
**Footprint area:** 8.1 acres  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.108818	-75.800006	1279.26	12.50	1291.76
2	42.108822	-75.801384	1334.02	12.50	1346.52
3	42.107922	-75.801411	1287.40	12.50	1299.90
4	42.107914	-75.801250	1283.15	12.50	1295.65
5	42.107656	-75.801245	1270.99	12.50	1283.49
6	42.107656	-75.801352	1274.44	12.50	1286.94
7	42.106446	-75.801352	1208.02	12.50	1220.52
8	42.106454	-75.800843	1180.87	12.50	1193.37
9	42.105916	-75.800864	1151.20	12.50	1163.70
10	42.105916	-75.800918	1151.88	12.50	1164.38
11	42.105674	-75.800928	1147.69	12.50	1160.19
12	42.105666	-75.800987	1149.90	12.50	1162.40
13	42.105017	-75.800982	1119.44	12.50	1131.94
14	42.105017	-75.800312	1120.66	12.50	1133.16
15	42.107918	-75.800269	1247.84	12.50	1260.34
16	42.107910	-75.800092	1247.91	12.50	1260.41
17	42.108197	-75.800092	1254.28	12.50	1266.78
18	42.108205	-75.800006	1256.60	12.50	1269.10



**Name:** 107  
**Footprint area:** 12.5 acres  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.108746	-75.798101	1325.13	12.50	1337.63
2	42.108762	-75.798960	1300.40	12.50	1312.90
3	42.108452	-75.798960	1291.36	12.50	1303.86
4	42.108459	-75.799389	1267.13	12.50	1279.63
5	42.108137	-75.799394	1259.53	12.50	1272.03
6	42.108145	-75.799523	1257.51	12.50	1270.01
7	42.106788	-75.799571	1193.96	12.50	1206.46
8	42.106788	-75.799636	1193.98	12.50	1206.48
9	42.104981	-75.799668	1113.09	12.50	1125.59
10	42.104973	-75.798026	1143.21	12.50	1155.71
11	42.106359	-75.798016	1273.32	12.50	1285.82
12	42.106355	-75.798091	1273.52	12.50	1286.02
13	42.107561	-75.798037	1327.59	12.50	1340.09
14	42.107561	-75.798123	1324.70	12.50	1337.20

**Name:** 108  
**Footprint area:** 0.54 acre  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.110255	-75.795339	1318.28	12.50	1330.78
2	42.110391	-75.794872	1319.69	12.50	1332.19
3	42.110164	-75.794883	1313.39	12.50	1325.89
4	42.110152	-75.794936	1310.31	12.50	1322.81
5	42.109774	-75.794947	1314.25	12.50	1326.75
6	42.109690	-75.795344	1294.16	12.50	1306.66

**Name:** 109  
**Footprint area:** 1.1 acres  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.110156	-75.795537	1322.53	12.50	1335.03
2	42.109535	-75.795532	1321.50	12.50	1334.00
3	42.109030	-75.796342	1311.00	12.50	1323.50
4	42.109639	-75.796347	1329.24	12.50	1341.74



**Name:** 110  
**Footprint area:** 4.6 acres  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.110482	-75.793976	1328.84	12.50	1341.34
2	42.110474	-75.792624	1342.92	12.50	1355.42
3	42.109838	-75.792651	1337.34	12.50	1349.84
4	42.109838	-75.792925	1337.32	12.50	1349.82
5	42.109527	-75.792919	1334.86	12.50	1347.36
6	42.109527	-75.793032	1334.73	12.50	1347.23
7	42.109288	-75.793021	1329.66	12.50	1342.16
8	42.109296	-75.794539	1327.14	12.50	1339.64
9	42.108982	-75.794545	1307.28	12.50	1319.78
10	42.108974	-75.794759	1311.48	12.50	1323.98
11	42.109296	-75.794759	1329.94	12.50	1342.44
12	42.109834	-75.794738	1318.63	12.50	1331.13
13	42.109841	-75.794529	1319.73	12.50	1332.23
14	42.110180	-75.794513	1320.86	12.50	1333.36
15	42.110168	-75.793982	1326.80	12.50	1339.30



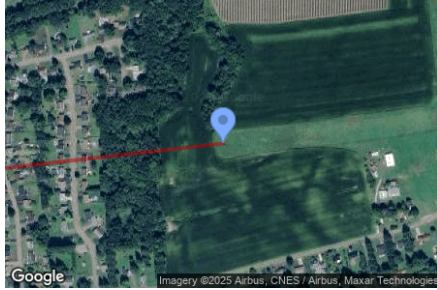
**Name:** 111  
**Footprint area:** 2.1 acres  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0 deg  
**Maximum tracking angle:** 60.0 deg  
**Resting angle:** 30.0 deg  
**Ground Coverage Ratio:** 0.49  
**Rated power:** -  
**Panel material:** Smooth glass with AR coating  
**Vary reflectivity with sun position?** Yes  
**Correlate slope error with surface type?** Yes  
**Slope error:** 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.110347	-75.801540	1394.37	12.50	1406.87
2	42.110347	-75.799748	1367.52	12.50	1380.02
3	42.109822	-75.799759	1334.86	12.50	1347.36
4	42.109845	-75.801551	1386.65	12.50	1399.15



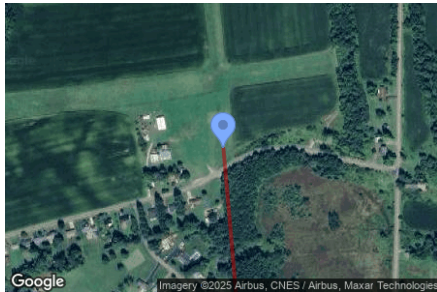
## 2-Mile Flight Path Receptor(s)

**Name:** Chenango Bridge Airport eastbound  
**Description:**  
**Threshold height :** 50 ft  
**Direction:** 83.5 deg  
**Glide slope:** 3.0 deg  
**Pilot view restricted?** Yes  
**Vertical view restriction:** 30.0 deg  
**Azimuthal view restriction:** 50.0 deg



Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	42.190262	-75.842572	928.88	50.00	978.88
2-mile point	42.186989	-75.881390	863.12	669.19	1532.31

**Name:** Chenango Bridge Airport northbound  
**Description:**  
**Threshold height :** 50 ft  
**Direction:** 355.1 deg  
**Glide slope:** 3.0 deg  
**Pilot view restricted?** Yes  
**Vertical view restriction:** 30.0 deg  
**Azimuthal view restriction:** 50.0 deg



Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	42.189578	-75.837508	932.51	50.00	982.51
2-mile point	42.160773	-75.834144	1019.51	516.42	1535.94

**Name:** Chenango Bridge Airport southbound  
**Description:**  
**Threshold height :** 50 ft  
**Direction:** 173.3 deg  
**Glide slope:** 3.0 deg  
**Pilot view restricted?** Yes  
**Vertical view restriction:** 30.0 deg  
**Azimuthal view restriction:** 50.0 deg



Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	42.194109	-75.838109	937.26	50.00	987.26
2-mile point	42.222824	-75.842674	1028.95	511.74	1540.69

**Name:** Chenango Bridge Airport westbound  
**Description:**  
**Threshold height :** 50 ft  
**Direction:** 261.9 deg  
**Glide slope:** 3.0 deg  
**Pilot view restricted?** Yes  
**Vertical view restriction:** 30.0 deg  
**Azimuthal view restriction:** 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	42.191009	-75.835212	932.78	50.00	982.78
2-mile point	42.195103	-75.796537	1193.94	342.26	1536.21



**Name:** Greater Binghamton Airport Runway 10  
**Description:**  
**Threshold height :** 50 ft  
**Direction:** 88.0 deg  
**Glide slope:** 3.0 deg  
**Pilot view restricted?** Yes  
**Vertical view restriction:** 30.0 deg  
**Azimuthal view restriction:** 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	42.205077	-75.988806	1588.13	50.00	1638.13
2-mile point	42.204058	-76.027860	1494.01	697.55	2191.56



**Name:** Greater Binghamton Airport Runway 16  
**Description:**  
**Threshold height :** 50 ft  
**Direction:** 149.2 deg  
**Glide slope:** 3.0 deg  
**Pilot view restricted?** Yes  
**Vertical view restriction:** 30.0 deg  
**Azimuthal view restriction:** 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	42.218094	-75.985883	1631.16	50.00	1681.16
2-mile point	42.242926	-76.005902	1194.11	1040.48	2234.59



**Name:** Greater Binghamton Airport Runway 28  
**Description:**  
**Threshold height :** 50 ft  
**Direction:** 265.6 deg  
**Glide slope:** 3.0 deg  
**Pilot view restricted?** Yes  
**Vertical view restriction:** 30.0 deg  
**Azimuthal view restriction:** 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	42.205892	-75.970530	1570.29	50.00	1620.29
2-mile point	42.208125	-75.931569	1525.47	648.25	2173.72



**Name:** Greater Binghamton Airport Runway 34  
**Description:**  
**Threshold height :** 50 ft  
**Direction:** 328.5 deg  
**Glide slope:** 3.0 deg  
**Pilot view restricted?** Yes  
**Vertical view restriction:** 30.0 deg  
**Azimuthal view restriction:** 50.0 deg

Point	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
Threshold	42.202455	-75.972880	1567.57	50.00	1617.57
2-mile point	42.177797	-75.952474	1164.27	1006.73	2171.00



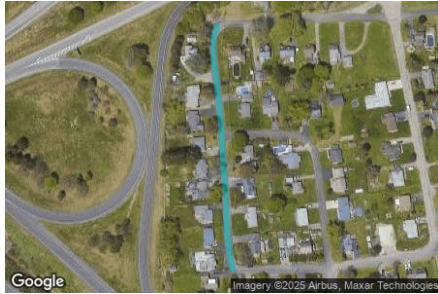
### Route Receptor(s)

**Name:** Blair Street Harry L Drive  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.097869	-75.813590	916.43	9.00	925.43
2	42.097877	-75.813209	918.50	9.00	927.50
3	42.097865	-75.812898	916.30	9.00	925.30
4	42.097845	-75.812732	916.06	9.00	925.06
5	42.097754	-75.812603	915.69	9.00	924.69
6	42.097579	-75.812550	912.85	9.00	921.85
7	42.097360	-75.812517	910.63	9.00	919.63
8	42.097085	-75.812469	910.47	9.00	919.47
9	42.096771	-75.812415	908.65	9.00	917.65

**Name:** Colpitts Drive  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.098753	-75.813660	917.72	9.00	926.72
2	42.098653	-75.813703	919.05	9.00	928.05
3	42.098466	-75.813698	917.46	9.00	926.46
4	42.097989	-75.813622	915.01	9.00	924.01
5	42.097642	-75.813596	912.99	9.00	921.99
6	42.097332	-75.813563	908.59	9.00	917.59
7	42.097045	-75.813553	901.72	9.00	910.72
8	42.096846	-75.813515	901.46	9.00	910.46
9	42.096763	-75.813483	900.00	9.00	909.00

**Name:** Daisy Lane  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.098818	-75.811713	928.42	9.00	937.42
2	42.098639	-75.811664	928.56	9.00	937.56
3	42.098460	-75.811622	928.51	9.00	937.51
4	42.098233	-75.811557	927.29	9.00	936.29

**Name:** Easy Street  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.098842	-75.811664	928.35	9.00	937.35
2	42.098854	-75.811267	933.12	9.00	942.12
3	42.098870	-75.810828	948.20	9.00	957.20
4	42.098910	-75.810415	961.32	9.00	970.32
5	42.098942	-75.810050	974.04	9.00	983.04

**Name:** Foley Road east  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.101376	-75.796390	1062.35	9.00	1071.35
2	42.101257	-75.795886	1067.40	9.00	1076.40
3	42.101098	-75.795328	1075.56	9.00	1084.56
4	42.100986	-75.794867	1079.08	9.00	1088.08

**Name:** Foley Road west  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.101997	-75.801164	985.43	9.00	994.43
2	42.101886	-75.800392	989.18	9.00	998.18
3	42.101798	-75.799662	995.98	9.00	1004.98
4	42.101719	-75.798901	1003.19	9.00	1012.19
5	42.101623	-75.797989	1018.24	9.00	1027.24

**Name:** Frances Street  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.096039	-75.812330	904.42	9.00	913.42
2	42.095824	-75.812813	904.75	9.00	913.75
3	42.095649	-75.813145	902.81	9.00	911.81
4	42.095509	-75.813457	901.65	9.00	910.65
5	42.095350	-75.813741	899.70	9.00	908.70
6	42.095155	-75.814143	907.10	9.00	916.10
7	42.094908	-75.814589	917.95	9.00	926.95
8	42.094813	-75.814803	920.46	9.00	929.46

**Name:** Haskins Johnson Road  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.099227	-75.792560	1069.26	9.00	1078.26
2	42.099171	-75.793257	1066.37	9.00	1075.37
3	42.099155	-75.794094	1066.84	9.00	1075.84
4	42.099203	-75.795521	1082.78	9.00	1091.78
5	42.099235	-75.796637	1099.39	9.00	1108.39
6	42.099338	-75.797796	1111.01	9.00	1120.01
7	42.099450	-75.798450	1102.53	9.00	1111.53
8	42.099450	-75.798901	1101.83	9.00	1110.83
9	42.099466	-75.799802	1086.65	9.00	1095.65
10	42.099498	-75.800596	1084.58	9.00	1093.58

**Name:** Haskins Road  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.099652	-75.802230	1050.49	9.00	1059.49
2	42.099668	-75.802606	1039.35	9.00	1048.35
3	42.099739	-75.803056	1029.58	9.00	1038.58
4	42.099891	-75.803539	1023.39	9.00	1032.39
5	42.100018	-75.803839	1017.85	9.00	1026.85
6	42.100193	-75.804194	1006.46	9.00	1015.46
7	42.100456	-75.804676	998.44	9.00	1007.44
8	42.100663	-75.805213	985.88	9.00	994.88
9	42.100774	-75.805470	981.10	9.00	990.10
10	42.100886	-75.805760	972.62	9.00	981.62
11	42.100918	-75.806082	968.21	9.00	977.21

**Name:** Haskins Road west  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.099945	-75.810055	932.93	9.00	941.93
2	42.099758	-75.810398	944.39	9.00	953.39
3	42.099515	-75.810887	935.97	9.00	944.97
4	42.099264	-75.811348	929.98	9.00	938.98
5	42.098987	-75.811768	927.80	9.00	936.80
6	42.098820	-75.812338	927.92	9.00	936.92
7	42.098811	-75.812670	924.70	9.00	933.70
8	42.098802	-75.813109	922.26	9.00	931.26
9	42.098775	-75.813590	916.64	9.00	925.64

**Name:** High Street  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.100883	-75.806491	966.83	9.00	975.83
2	42.100779	-75.806701	969.11	9.00	978.11
3	42.100660	-75.807028	971.21	9.00	980.21
4	42.100552	-75.807275	972.52	9.00	981.52
5	42.100477	-75.807580	974.75	9.00	983.75
6	42.100369	-75.807999	978.63	9.00	987.63
7	42.100290	-75.808294	977.37	9.00	986.37
8	42.100218	-75.808680	970.81	9.00	979.81
9	42.100162	-75.809013	967.08	9.00	976.08
10	42.100126	-75.809324	956.32	9.00	965.32
11	42.100087	-75.809592	949.72	9.00	958.72
12	42.100103	-75.809672	944.45	9.00	953.45

**Name:** Howard Street  
**Route type:** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.096751	-75.813456	899.65	9.00	908.65
2	42.096747	-75.813333	898.83	9.00	907.83
3	42.096755	-75.813145	902.92	9.00	911.92
4	42.096767	-75.812861	903.61	9.00	912.61
5	42.096775	-75.812603	905.58	9.00	914.58
6	42.096771	-75.812448	907.74	9.00	916.74

**Name:** I81 northbound  
**Route type:** One-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.094712	-75.812915	899.13	9.00	908.13
2	42.095294	-75.813440	899.64	9.00	908.64
3	42.095668	-75.813784	898.46	9.00	907.46
4	42.096122	-75.814288	901.87	9.00	910.87
5	42.096472	-75.814739	904.42	9.00	913.42
6	42.096798	-75.815179	906.27	9.00	915.27
7	42.097125	-75.815661	910.01	9.00	919.01
8	42.097300	-75.815951	911.02	9.00	920.02

**Name:** I81 southbound  
**Route type:** One-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.097491	-75.817818	893.45	9.00	902.45
2	42.097141	-75.817067	899.51	9.00	908.51
3	42.096774	-75.816380	906.06	9.00	915.06
4	42.096368	-75.815629	904.81	9.00	913.81
5	42.095724	-75.814739	903.21	9.00	912.21
6	42.095333	-75.814245	904.51	9.00	913.51
7	42.094816	-75.813730	902.55	9.00	911.55
8	42.094378	-75.813376	902.10	9.00	911.10
9	42.093725	-75.812872	900.23	9.00	909.23

**Name:** I86 eastbound ramp  
**Route type:** One-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.096106	-75.814191	901.61	9.00	910.61
2	42.096456	-75.814385	902.30	9.00	911.30
3	42.096806	-75.814460	903.39	9.00	912.39
4	42.097141	-75.814428	905.76	9.00	914.76
5	42.097563	-75.814395	905.06	9.00	914.06
6	42.098080	-75.814342	910.51	9.00	919.51
7	42.098462	-75.814267	914.50	9.00	923.50
8	42.098804	-75.814127	909.17	9.00	918.17
9	42.099131	-75.813719	909.91	9.00	918.91

**Name:** I86 off ramp  
**Route type** One-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.098459	-75.815506	899.66	9.00	908.66
2	42.098395	-75.814991	901.05	9.00	910.05
3	42.098196	-75.814615	903.95	9.00	912.95
4	42.097838	-75.814508	904.37	9.00	913.37
5	42.097639	-75.814519	904.00	9.00	913.00
6	42.097392	-75.814669	903.84	9.00	912.84
7	42.097225	-75.815023	905.97	9.00	914.97
8	42.097185	-75.815248	906.84	9.00	915.84
9	42.097249	-75.815731	910.63	9.00	919.63
10	42.097408	-75.816074	907.05	9.00	916.05
11	42.097543	-75.816310	903.61	9.00	912.61
12	42.097838	-75.816858	899.06	9.00	908.06
13	42.098029	-75.817029	896.09	9.00	905.09

**Name:** Quilty Hill north  
**Route type** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.109989	-75.791187	1359.65	9.00	1368.65
2	42.111015	-75.791197	1372.65	9.00	1381.65
3	42.111923	-75.791154	1407.08	9.00	1416.08
4	42.112703	-75.791122	1425.95	9.00	1434.95
5	42.113618	-75.791165	1410.55	9.00	1419.55
6	42.114096	-75.791144	1406.04	9.00	1415.04
7	42.114287	-75.791219	1404.89	9.00	1413.89
8	42.114398	-75.791358	1402.53	9.00	1411.53
9	42.114438	-75.791863	1398.08	9.00	1407.08

**Name:** Quilty Hill Road south  
**Route type** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.101281	-75.795982	1066.44	9.00	1075.44
2	42.102212	-75.796036	1101.05	9.00	1110.05
3	42.103040	-75.796133	1106.39	9.00	1115.39
4	42.103979	-75.796283	1110.62	9.00	1119.62
5	42.104489	-75.796294	1117.82	9.00	1126.82
6	42.104680	-75.796133	1128.93	9.00	1137.93
7	42.105046	-75.795607	1150.39	9.00	1159.39
8	42.105754	-75.794545	1193.78	9.00	1202.78
9	42.106335	-75.793987	1221.28	9.00	1230.28
10	42.107092	-75.793483	1251.22	9.00	1260.22
11	42.107712	-75.793011	1281.61	9.00	1290.61
12	42.107927	-75.792850	1294.43	9.00	1303.43

**Name:** Ramp eastbound  
**Route type** One-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.097763	-75.817777	890.29	9.00	899.29
2	42.097970	-75.817101	895.95	9.00	904.95
3	42.098161	-75.816511	896.53	9.00	905.53
4	42.098432	-75.815771	898.47	9.00	907.47
5	42.098575	-75.815363	902.19	9.00	911.19
6	42.098830	-75.814633	905.51	9.00	914.51
7	42.099093	-75.813861	909.23	9.00	918.23

**Name:** Service Road  
**Route type** Two-way  
**Azimuthal view angle:** 50.0 deg  
**Downward view angle:** 90.0 deg



Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.101145	-75.802752	984.55	9.00	993.55
2	42.101193	-75.803198	978.33	9.00	987.33
3	42.101217	-75.803632	975.11	9.00	984.11
4	42.101225	-75.803970	970.25	9.00	979.25
5	42.101229	-75.804308	965.25	9.00	974.25
6	42.101221	-75.804673	962.07	9.00	971.07
7	42.101213	-75.804780	962.29	9.00	971.29
8	42.101213	-75.804866	962.06	9.00	971.06
9	42.101125	-75.804995	967.01	9.00	976.01
10	42.101062	-75.805140	971.60	9.00	980.60
11	42.101034	-75.805300	970.05	9.00	979.05
12	42.101042	-75.805520	965.96	9.00	974.96
13	42.101062	-75.805740	967.79	9.00	976.79
14	42.101030	-75.805864	970.04	9.00	979.04
15	42.100934	-75.805944	970.41	9.00	979.41

## Discrete Observation Receptors

Number	Latitude	Longitude	Ground elevation	Height above ground	Total Elevation
	deg	deg	ft	ft	ft
OP 1	42.113933	-75.957712	867.67	500.00	1367.67
OP 2	42.096257	-75.812630	907.14	16.00	923.14
OP 3	42.096607	-75.812706	909.19	16.00	925.19
OP 4	42.096607	-75.812958	906.25	16.00	922.25
OP 5	42.096607	-75.813188	902.71	16.00	918.71
OP 6	42.096543	-75.813483	903.29	16.00	919.29
OP 7	42.096631	-75.813698	902.89	16.00	918.89
OP 8	42.096842	-75.813832	904.46	16.00	920.46
OP 9	42.097025	-75.813768	904.58	16.00	920.58
OP 10	42.097232	-75.813789	909.92	16.00	925.92
OP 11	42.097415	-75.813811	911.93	16.00	927.93
OP 12	42.097622	-75.813800	913.04	16.00	929.04
OP 13	42.097785	-75.813837	916.39	16.00	932.39
OP 14	42.097714	-75.813328	917.89	16.00	933.89
OP 15	42.097658	-75.812850	917.48	16.00	933.48
OP 16	42.097435	-75.812770	912.20	16.00	928.20
OP 17	42.097204	-75.812706	911.88	16.00	927.88
OP 18	42.096941	-75.812695	911.03	16.00	927.03
OP 19	42.098040	-75.812566	922.80	16.00	938.80
OP 20	42.098084	-75.813076	926.88	16.00	942.88
OP 21	42.098076	-75.813322	923.23	16.00	939.23
OP 22	42.098207	-75.813918	920.56	16.00	936.56
OP 23	42.098533	-75.813451	920.86	16.00	936.86
OP 24	42.098510	-75.813092	927.11	16.00	943.11
OP 25	42.098526	-75.812845	926.48	16.00	942.48
OP 26	42.098518	-75.812652	926.04	16.00	942.04
OP 27	42.098506	-75.812357	929.42	16.00	945.42
OP 28	42.098024	-75.813950	917.20	16.00	933.20
OP 29	42.101970	-75.799350	1001.22	16.00	1017.22
OP 30	42.102145	-75.800348	999.98	16.00	1015.98

## 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	
101	SA tracking	SA tracking	0	0	-	-
102	SA tracking	SA tracking	0	0	-	-
103	SA tracking	SA tracking	0	0	-	-
104	SA tracking	SA tracking	0	0	-	-
105	SA tracking	SA tracking	0	0	-	-
106	SA tracking	SA tracking	0	0	-	-
107	SA tracking	SA tracking	0	0	-	-
108	SA tracking	SA tracking	0	0	-	-
109	SA tracking	SA tracking	0	0	-	-
110	SA tracking	SA tracking	0	0	-	-
111	SA tracking	SA tracking	0	0	-	-

## PV & Receptor Analysis Results

*Results for each PV array and receptor*

**101** no glare found

Component	Green glare (min)	Yellow glare (min)
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0

Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

---

**102** no glare found

Component	Green glare (min)	Yellow glare (min)
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0

Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

---

**103** no glare found

Component	Green glare (min)	Yellow glare (min)
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0

Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

---

**104** no glare found

Component	Green glare (min)	Yellow glare (min)
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0

Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

---

**105** no glare found

Component	Green glare (min)	Yellow glare (min)
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0

Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

---

**106** no glare found

Component	Green glare (min)	Yellow glare (min)
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0

Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

---

**107** no glare found

Component	Green glare (min)	Yellow glare (min)
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0

Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

---

**108** no glare found

Component	Green glare (min)	Yellow glare (min)
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0

Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

---

**109** no glare found

Component	Green glare (min)	Yellow glare (min)
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0

Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

---

**110** no glare found

Component	Green glare (min)	Yellow glare (min)
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0

Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

---

**111** no glare found

Component	Green glare (min)	Yellow glare (min)
FP: Chenango Bridge Airport eastbound	0	0
FP: Chenango Bridge Airport northbound	0	0
FP: Chenango Bridge Airport southbound	0	0
FP: Chenango Bridge Airport westbound	0	0
FP: Greater Binghamton Airport Runway 10	0	0
FP: Greater Binghamton Airport Runway 16	0	0
FP: Greater Binghamton Airport Runway 28	0	0
FP: Greater Binghamton Airport Runway 34	0	0
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0
OP: OP 5	0	0
OP: OP 6	0	0
OP: OP 7	0	0
OP: OP 8	0	0
OP: OP 9	0	0
OP: OP 10	0	0
OP: OP 11	0	0
OP: OP 12	0	0
OP: OP 13	0	0
OP: OP 14	0	0
OP: OP 15	0	0
OP: OP 16	0	0
OP: OP 17	0	0
OP: OP 18	0	0
OP: OP 19	0	0
OP: OP 20	0	0
OP: OP 21	0	0
OP: OP 22	0	0
OP: OP 23	0	0
OP: OP 24	0	0
OP: OP 25	0	0
OP: OP 26	0	0
OP: OP 27	0	0
OP: OP 28	0	0
OP: OP 29	0	0
OP: OP 30	0	0
Route: Blair Street Harry L Drive	0	0
Route: Colpitts Drive	0	0
Route: Daisy Lane	0	0
Route: Easy Street	0	0
Route: Foley Road east	0	0
Route: Foley Road west	0	0
Route: Frances Street	0	0
Route: Haskins Johnson Road	0	0
Route: Haskins Road	0	0
Route: Haskins Road west	0	0

Route: High Street	0	0
Route: Howard Street	0	0
Route: I81 northbound	0	0
Route: I81 southbound	0	0
Route: I86 eastbound ramp	0	0
Route: I86 off ramp	0	0
Route: Quilty Hill north	0	0
Route: Quilty Hill Road south	0	0
Route: Ramp eastbound	0	0
Route: Service Road	0	0

*No glare found*

## Summary of Vertical Surface Glare Analysis

### Assumptions

- Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
- Glare analyses do not automatically account for physical obstructions between reflectors and receptors. This includes buildings, tree cover and geographical 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 for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare.
- The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)
- Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.
- Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
- Refer to the **Help page** for detailed assumptions and limitations not listed here.