

Site Report

Report Name Customer Name
Report Date 12/1/2015
Declination -14d 53m
Location Customer Address
Lat/Long Site Location
Weather Station Barnstable-Boardman Poland AP, MA, Elevation: 56 Feet, (41.667 / -70.283)
Site Distance 3 Miles

Report Type PV

Array Type Fixed Angle
Tilt Angle 28.00 deg
Ideal Tilt Angle 41.66 deg
Azimuth 160.10 deg
Ideal Azimuth 180.00 deg

1) Tilt and Azimuth for all arrays must match the Tilt and Azimuth entered with the application. In this example, the Tilt would be 28° and the Azimuth would be 160.1°

Electric Cost 0.05 (\$/kWh)

Module Make Hyundai Heavy Industries
Module Model HiS-M260RG(BK)
Module Type Standard
Module Count 24
DC Rate (per module) 260.0 Watts
Unshaded Percent 79.7 %

STC System Size 6.24 kW
DC System Size 4.97 kW
AC System Size 4.31 kW

Inverter Make Enphase Energy
Inverter Model M215-60-SIE-S2X-ZC-NA (Microinverter)
Inverter Count 24
Inverter Efficiency 96.0 %
System Loss Percentage 9.6 %
AC Energy Efficiency 88.8 %

Layout Configuration Four Corner
Layout Point Count 4

2) Include enough skylines to accurately represent the system.

Notes: [None]

System Picture Layout

Layout Type

Four Corner

Layout Point Count

4



3) The System Picture Layout should accurately depict the array and the location of all layout points/skylines.

Summary Report

Solar Obstruction Data (Part 1 of 2)

Month	Unshaded % of Ideal Site Azimuth=180 Tilt=41.7	Ideal Unshaded Solar Radiation Azimuth=180.0 Tilt=41.7 kWh/m ² /day	Actual Unshaded Solar Radiation Azimuth=160.1 Tilt=28.0 kWh/m ² /day	Actual Shaded Solar Radiation Azimuth=160.1 Tilt=28.0 kWh/m ² /day	Unshaded % of Actual Site Azimuth=160.1 Tilt=28.0	AC Energy Efficiency Azimuth=160.1 Tilt=28.0	Actual Shaded AC Energy (kWh) Azimuth=160.1 Tilt=28.0
January	56.5 %	2.63	2.33	1.31	56.3 %	62.7 %	274.51
February	67.9 %	3.23	3.01	2.05	67.9 %	73.6 %	372.20
March	85.8 %	4.54	4.41	3.77	85.5 %	88.5 %	666.27
April	93.6 %	5.07	5.13	4.78	93.3 %	97.5 %	774.31
May	96.1 %	4.33	4.59	4.39	95.7 %	104.7 %	716.36
June	96.9 %	5.28	5.65	5.47	96.8 %	106.2 %	842.88
July	96.2 %	5.12	5.40	5.20	96.2 %	105.1 %	809.49
August	94.3 %	5.20	5.32	5.00	94.0 %	99.5 %	793.02
September	85.8 %	4.97	4.85	4.13	85.2 %	89.0 %	670.75
October	72.1 %	4.25	3.92	2.75	70.2 %	74.6 %	499.98
November	58.1 %	2.41	2.18	1.25	57.3 %	63.6 %	238.38
December	52.9 %	2.74	2.38	1.24	52.3 %	57.9 %	266.80
Totals	79.7 % Unweighted Yearly Avg	49.78 Effect: 100.0 % Sun Hrs: 4.15	49.17 Effect: 98.8 % Sun Hrs: 4.10	41.35 Effect: 83.1 % Sun Hrs: 3.45	84.1 % Unweighted Yearly Avg	88.8 %	6,924.95

Solar Obstruction Data (Part 2 of 2)

Month	Actual Unshaded AC Energy (kWh) Azimuth=160.1 Tilt=28.0	Ideal Unshaded AC Energy (kWh) Azimuth=180.0 Tilt=41.7	PV Solar Cost Savings 0.05 (\$/kWh)
January	387.00	438.00	\$13.73
February	469.00	506.00	\$18.61
March	733.00	753.00	\$33.31
April	803.00	794.00	\$38.72
May	728.00	684.00	\$35.82
June	854.00	794.00	\$42.14
July	821.00	770.00	\$40.47
August	820.00	797.00	\$39.65
September	735.00	754.00	\$33.54
October	622.00	670.00	\$25.00
November	333.00	375.00	\$11.92
December	391.00	461.00	\$13.34
Totals	7,696.00	7,796.00	\$346.25

4) The inverse of "Unshaded % of Actual Site" is the shading values to be entered on the application. In this example the shading percentage would be $100 - 84.1 = 15.9\%$.

Ensure that this column is included in the report.

Notes: [None]

Solar Site Analysis Report

Layout Point 1

Image File: IMG_20151119_133013285.jpg

Solar Obstruction Data (Part 1 of 2)

Month	Unshaded % of Ideal Site Azimuth=180 Tilt=41.7	Ideal Unshaded Solar Radiation Azimuth=180.0 Tilt=41.7 kWh/m ² /day	Actual Unshaded Solar Radiation Azimuth=160.1 Tilt=28.0 kWh/m ² /day	Actual Shaded Solar Radiation Azimuth=160.1 Tilt=28.0 kWh/m ² /day	Unshaded % of Actual Site Azimuth=160.1 Tilt=28.0	AC Energy Efficiency Azimuth=160.1 Tilt=28.0	Actual Shaded AC Energy (kWh) Azimuth=160.1 Tilt=28.0
January	63.1 %	2.63	2.33	1.47	62.9 %	66.8 %	292.37
February	56.4 %	3.23	3.01	1.69	55.9 %	66.2 %	334.78
March	61.4 %	4.54	4.41	2.69	60.9 %	72.2 %	543.86
April	91.7 %	5.07	5.13	4.72	92.1 %	96.8 %	768.69
May	97.7 %	4.33	4.59	4.49	97.9 %	106.1 %	725.86
June	95.6 %	5.28	5.65	5.45	96.4 %	106.1 %	842.35
July	96.5 %	5.12	5.40	5.25	97.1 %	105.7 %	813.81
August	93.3 %	5.20	5.32	4.97	93.5 %	99.3 %	791.27
September	65.2 %	4.97	4.85	3.12	64.2 %	75.1 %	566.57
October	57.6 %	4.25	3.92	2.11	53.8 %	64.4 %	431.41
November	59.0 %	2.41	2.18	1.22	56.1 %	63.1 %	236.74
December	62.2 %	2.74	2.38	1.44	60.6 %	62.9 %	289.80
Totals	75.0 % Unweighted Yearly Avg	49.78 Effect: 100% Sun Hrs: 4.15	49.17 Effect: 98.8 % Sun Hrs: 4.10	38.60 Effect: 77.5 % Sun Hrs: 3.22	78.5 % Unweighted Yearly Avg	85.1 %	6,637.50

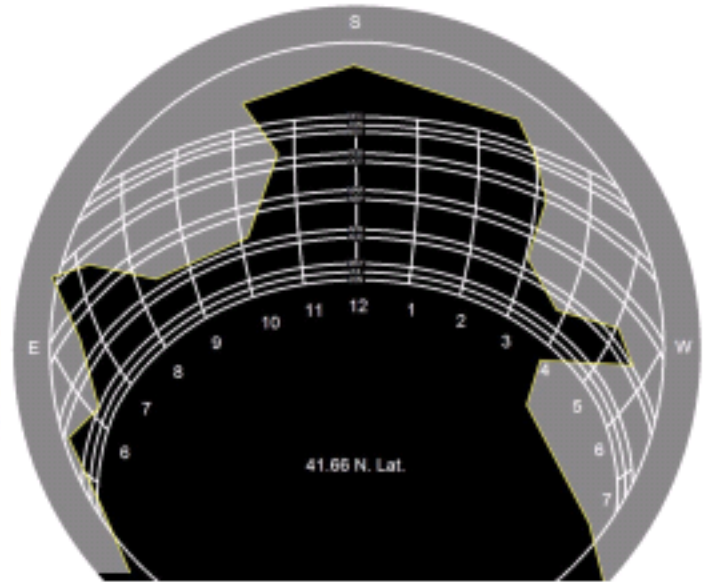
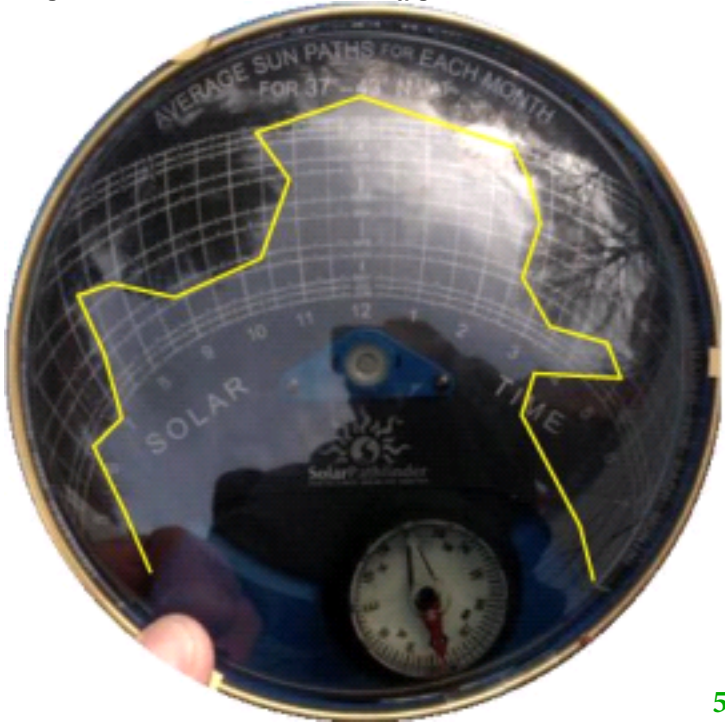
Solar Obstruction Data (Part 2 of 2)

Month	Actual Unshaded AC Energy (kWh) Azimuth=160.1 Tilt=28.0	Ideal Unshaded AC Energy (kWh) Azimuth=180.0 Tilt=41.7	PV Solar Cost Savings 0.05 (\$/kWh)
January	387.00	438.00	\$14.62
February	469.00	506.00	\$16.74
March	733.00	753.00	\$27.19
April	803.00	794.00	\$38.43
May	728.00	684.00	\$36.29
June	854.00	794.00	\$42.12
July	821.00	770.00	\$40.69
August	820.00	797.00	\$39.56
September	735.00	754.00	\$28.33
October	622.00	670.00	\$21.57
November	333.00	375.00	\$11.84
December	391.00	461.00	\$14.49
Totals	7,696.00	7,796.00	\$331.87

Solar Site Analysis Report

Layout Point 1

Image File: IMG_20151119_133013285.jpg



Notes: [None]

- 5) Each skyline image should be clear and all obstructions visible. Ensure that tracing accurately includes all obstructions.

Solar Site Analysis Report

Layout Point 2

Image File: IMG_20151119_133114301.jpg

Solar Obstruction Data (Part 1 of 2)

Month	Unshaded % of Ideal Site Azimuth=180 Tilt=41.7	Ideal Unshaded Solar Radiation Azimuth=180.0 Tilt=41.7 kWh/m ² /day	Actual Unshaded Solar Radiation Azimuth=160.1 Tilt=28.0 kWh/m ² /day	Actual Shaded Solar Radiation Azimuth=160.1 Tilt=28.0 kWh/m ² /day	Unshaded % of Actual Site Azimuth=160.1 Tilt=28.0	AC Energy Efficiency Azimuth=160.1 Tilt=28.0	Actual Shaded AC Energy (kWh) Azimuth=160.1 Tilt=28.0
January	54.6 %	2.63	2.33	1.27	54.6 %	62.0 %	271.51
February	63.3 %	3.23	3.01	1.89	62.9 %	70.4 %	356.43
March	89.7 %	4.54	4.41	3.98	90.3 %	92.1 %	693.52
April	92.3 %	5.07	5.13	4.79	93.4 %	97.5 %	773.90
May	96.8 %	4.33	4.59	4.46	97.2 %	105.7 %	722.88
June	98.8 %	5.28	5.65	5.59	98.9 %	107.4 %	852.94
July	95.9 %	5.12	5.40	5.22	96.6 %	105.4 %	811.21
August	95.4 %	5.20	5.32	5.10	96.0 %	100.8 %	803.04
September	88.5 %	4.97	4.85	4.33	89.3 %	92.1 %	694.46
October	68.7 %	4.25	3.92	2.61	66.6 %	72.6 %	486.49
November	54.6 %	2.41	2.18	1.15	52.5 %	61.2 %	229.57
December	51.0 %	2.74	2.38	1.19	50.1 %	56.9 %	262.38
Totals	79.1 % Unweighted Yearly Avg	49.78 Effect: 100% Sun Hrs: 4.15	49.17 Effect: 98.8 % Sun Hrs: 4.10	41.59 Effect: 83.5 % Sun Hrs: 3.47	84.6 % Unweighted Yearly Avg	89.3 %	6,958.34

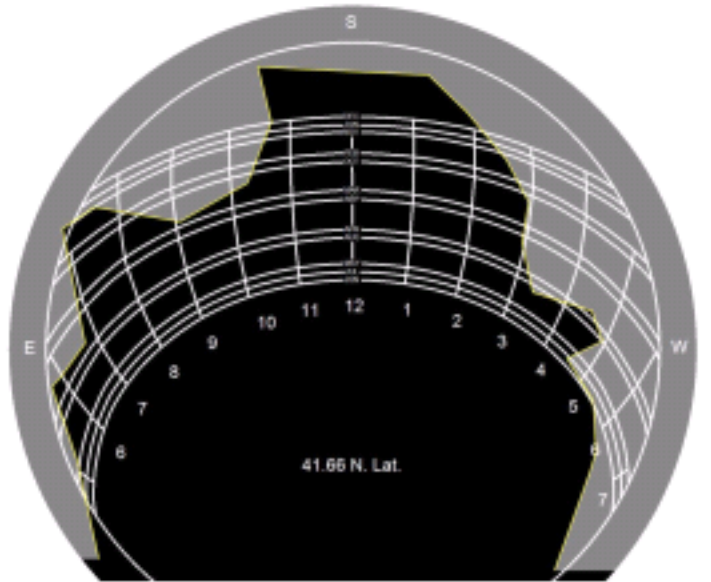
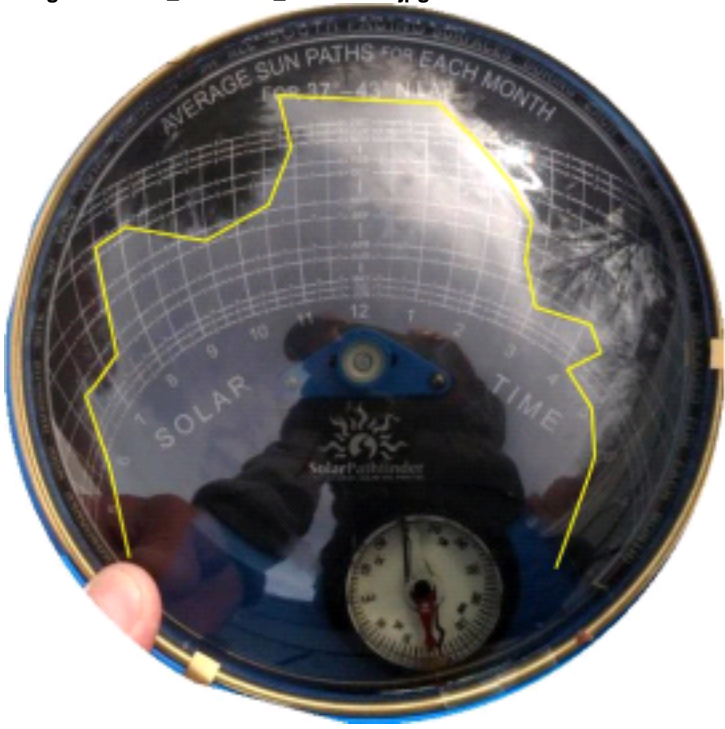
Solar Obstruction Data (Part 2 of 2)

Month	Actual Unshaded AC Energy (kWh) Azimuth=160.1 Tilt=28.0	Ideal Unshaded AC Energy (kWh) Azimuth=180.0 Tilt=41.7	PV Solar Cost Savings 0.05 (\$/kWh)
January	387.00	438.00	\$13.58
February	469.00	506.00	\$17.82
March	733.00	753.00	\$34.68
April	803.00	794.00	\$38.70
May	728.00	684.00	\$36.14
June	854.00	794.00	\$42.65
July	821.00	770.00	\$40.56
August	820.00	797.00	\$40.15
September	735.00	754.00	\$34.72
October	622.00	670.00	\$24.32
November	333.00	375.00	\$11.48
December	391.00	461.00	\$13.12
Totals	7,696.00	7,796.00	\$347.92

Solar Site Analysis Report

Layout Point 2

Image File: IMG_20151119_133114301.jpg



Notes: [None]

Solar Site Analysis Report

Layout Point 3

Image File: IMG_20151119_133145494.jpg

Solar Obstruction Data (Part 1 of 2)

Month	Unshaded % of Ideal Site Azimuth=180 Tilt=41.7	Ideal Unshaded Solar Radiation Azimuth=180.0 Tilt=41.7 kWh/m ² /day	Actual Unshaded Solar Radiation Azimuth=160.1 Tilt=28.0 kWh/m ² /day	Actual Shaded Solar Radiation Azimuth=160.1 Tilt=28.0 kWh/m ² /day	Unshaded % of Actual Site Azimuth=160.1 Tilt=28.0	AC Energy Efficiency Azimuth=160.1 Tilt=28.0	Actual Shaded AC Energy (kWh) Azimuth=160.1 Tilt=28.0
January	60.3 %	2.63	2.33	1.40	60.0 %	64.8 %	283.83
February	95.1 %	3.23	3.01	2.88	95.4 %	91.1 %	460.78
March	98.4 %	4.54	4.41	4.31	97.7 %	96.2 %	724.15
April	95.3 %	5.07	5.13	4.83	94.2 %	98.2 %	779.65
May	95.5 %	4.33	4.59	4.34	94.6 %	104.2 %	712.43
June	97.1 %	5.28	5.65	5.47	96.8 %	106.3 %	844.18
July	96.4 %	5.12	5.40	5.19	96.1 %	105.2 %	809.87
August	94.2 %	5.20	5.32	4.96	93.3 %	99.1 %	789.61
September	96.9 %	4.97	4.85	4.64	95.7 %	95.3 %	718.74
October	97.8 %	4.25	3.92	3.78	96.5 %	91.2 %	611.36
November	67.1 %	2.41	2.18	1.47	67.5 %	69.6 %	261.01
December	58.4 %	2.74	2.38	1.39	58.4 %	61.3 %	282.74
Totals	87.7 % Unweighted Yearly Avg	49.78 Effect: 100% Sun Hrs: 4.15	49.17 Effect: 98.8 % Sun Hrs: 4.10	44.66 Effect: 89.7 % Sun Hrs: 3.72	90.8 % Unweighted Yearly Avg	93.4 %	7,278.36

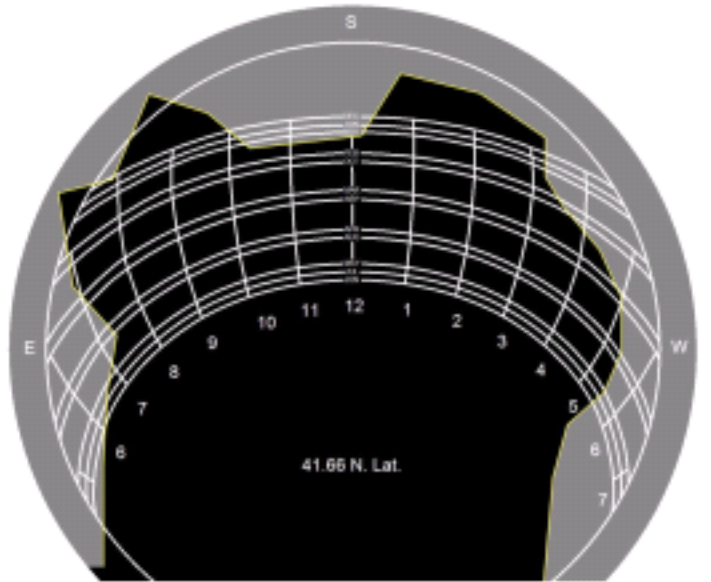
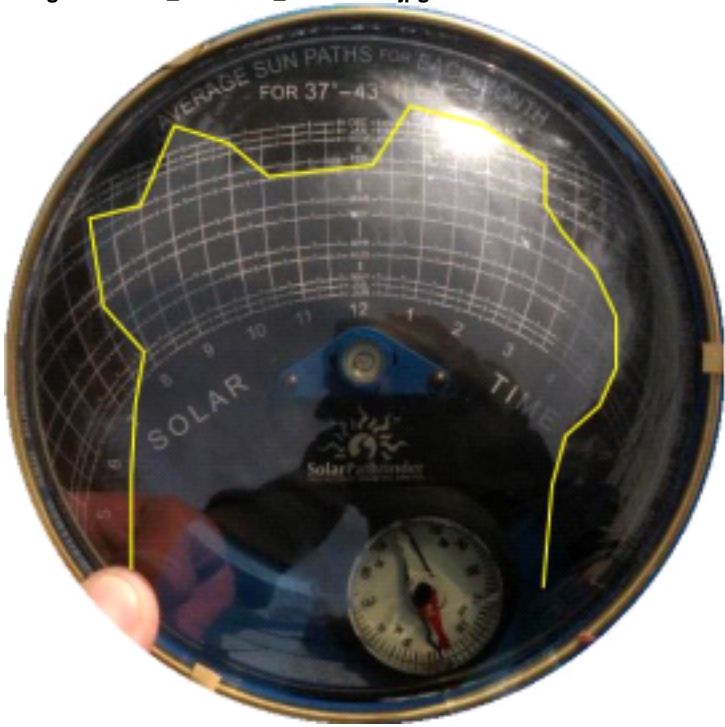
Solar Obstruction Data (Part 2 of 2)

Month	Actual Unshaded AC Energy (kWh) Azimuth=160.1 Tilt=28.0	Ideal Unshaded AC Energy (kWh) Azimuth=180.0 Tilt=41.7	PV Solar Cost Savings 0.05 (\$/kWh)
January	387.00	438.00	\$14.19
February	469.00	506.00	\$23.04
March	733.00	753.00	\$36.21
April	803.00	794.00	\$38.98
May	728.00	684.00	\$35.62
June	854.00	794.00	\$42.21
July	821.00	770.00	\$40.49
August	820.00	797.00	\$39.48
September	735.00	754.00	\$35.94
October	622.00	670.00	\$30.57
November	333.00	375.00	\$13.05
December	391.00	461.00	\$14.14
Totals	7,696.00	7,796.00	\$363.92

Solar Site Analysis Report

Layout Point 3

Image File: IMG_20151119_133145494.jpg



Notes: [None]

Solar Site Analysis Report

Layout Point 4

Image File: IMG_20151119_133221193.jpg

Solar Obstruction Data (Part 1 of 2)

Month	Unshaded % of Ideal Site Azimuth=180 Tilt=41.7	Ideal Unshaded Solar Radiation Azimuth=180.0 Tilt=41.7 kWh/m ² /day	Actual Unshaded Solar Radiation Azimuth=160.1 Tilt=28.0 kWh/m ² /day	Actual Shaded Solar Radiation Azimuth=160.1 Tilt=28.0 kWh/m ² /day	Unshaded % of Actual Site Azimuth=160.1 Tilt=28.0	AC Energy Efficiency Azimuth=160.1 Tilt=28.0	Actual Shaded AC Energy (kWh) Azimuth=160.1 Tilt=28.0
January	48.1 %	2.63	2.33	1.12	47.9 %	57.2 %	250.32
February	56.8 %	3.23	3.01	1.73	57.3 %	66.6 %	336.80
March	93.5 %	4.54	4.41	4.09	92.9 %	93.4 %	703.53
April	94.9 %	5.07	5.13	4.80	93.6 %	97.6 %	775.01
May	94.5 %	4.33	4.59	4.28	93.3 %	103.0 %	704.28
June	95.9 %	5.28	5.65	5.37	95.0 %	104.8 %	832.05
July	95.9 %	5.12	5.40	5.14	95.2 %	104.3 %	803.09
August	94.4 %	5.20	5.32	4.96	93.3 %	98.9 %	788.15
September	92.7 %	4.97	4.85	4.45	91.7 %	93.3 %	703.23
October	64.2 %	4.25	3.92	2.50	63.8 %	70.2 %	470.66
November	51.8 %	2.41	2.18	1.16	53.1 %	60.3 %	226.17
December	40.1 %	2.74	2.38	0.96	40.3 %	50.4 %	232.28
Totals	76.9 % Unweighted Yearly Avg	49.78 Effect: 100% Sun Hrs: 4.15	49.17 Effect: 98.8 % Sun Hrs: 4.10	40.55 Effect: 81.5 % Sun Hrs: 3.38	82.5 % Unweighted Yearly Avg	87.6 %	6,825.58

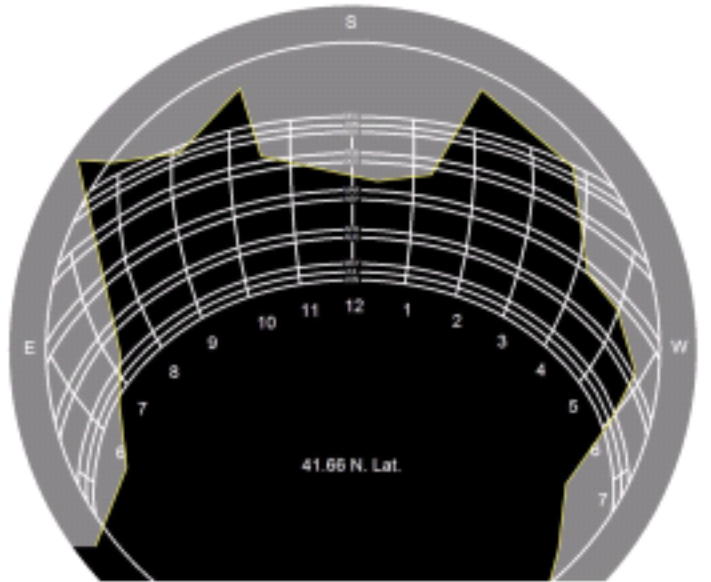
Solar Obstruction Data (Part 2 of 2)

Month	Actual Unshaded AC Energy (kWh) Azimuth=160.1 Tilt=28.0	Ideal Unshaded AC Energy (kWh) Azimuth=180.0 Tilt=41.7	PV Solar Cost Savings 0.05 (\$/kWh)
January	387.00	438.00	\$12.52
February	469.00	506.00	\$16.84
March	733.00	753.00	\$35.18
April	803.00	794.00	\$38.75
May	728.00	684.00	\$35.21
June	854.00	794.00	\$41.60
July	821.00	770.00	\$40.15
August	820.00	797.00	\$39.41
September	735.00	754.00	\$35.16
October	622.00	670.00	\$23.53
November	333.00	375.00	\$11.31
December	391.00	461.00	\$11.61
Totals	7,696.00	7,796.00	\$341.28

Solar Site Analysis Report

Layout Point 4

Image File: IMG_20151119_133221193.jpg



Notes: [None]