

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P299440

Luminaire Tested: **GLNA-AF-08-LED-E1-5NQ-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299440  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24141)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-08-LED-E1-5NQ-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(8) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 39617.7 lumens  
Efficiency: N/A  
Efficacy: 118.6 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B5 - U0 - G3

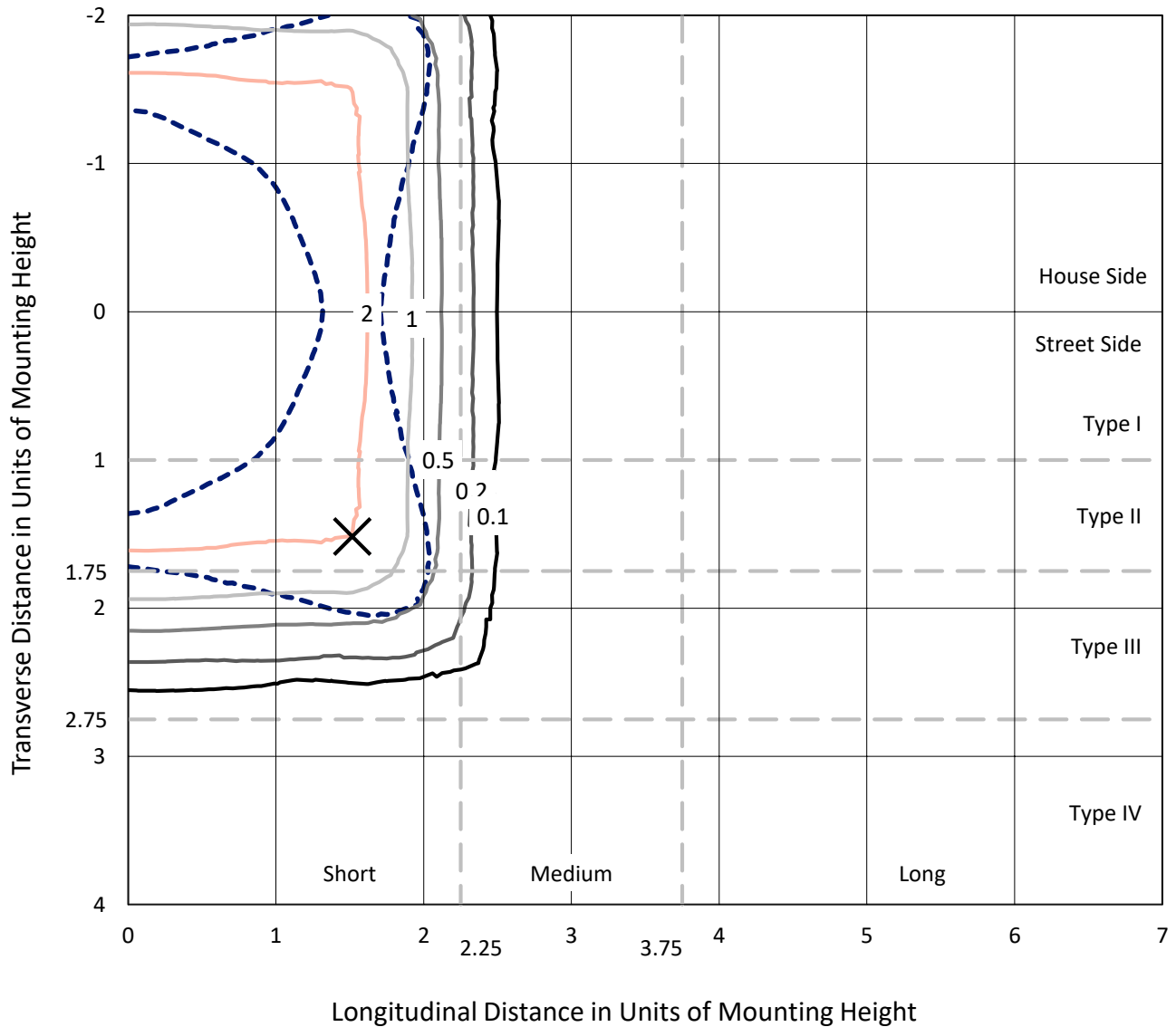
Input Watts (W): 334  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

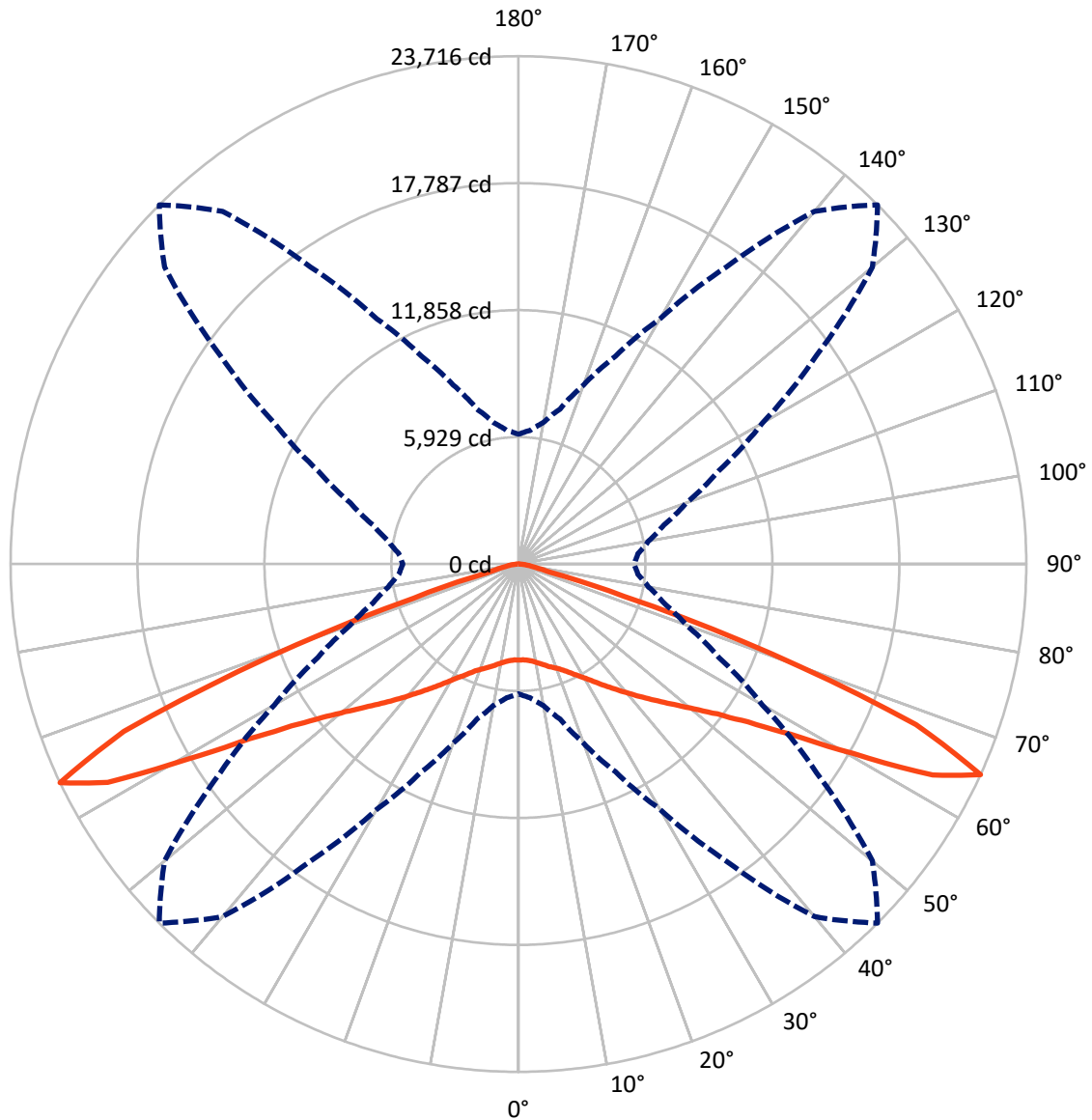
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	19808.9	0.0	19808.9
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	19808.9	0.0	19808.9
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	39617.7	0.0	39617.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	436.9	1.1
10°-20°	1401.3	3.5
20°-30°	2620.2	6.6
30°-40°	4431.4	11.2
40°-50°	7245.9	18.3
50°-60°	11522.1	29.1
60°-70°	10415.2	26.3
70°-80°	1318.1	3.3
80°-90°	226.7	0.6
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	39617.7	100.0
0°-180°	39617.7	100.0



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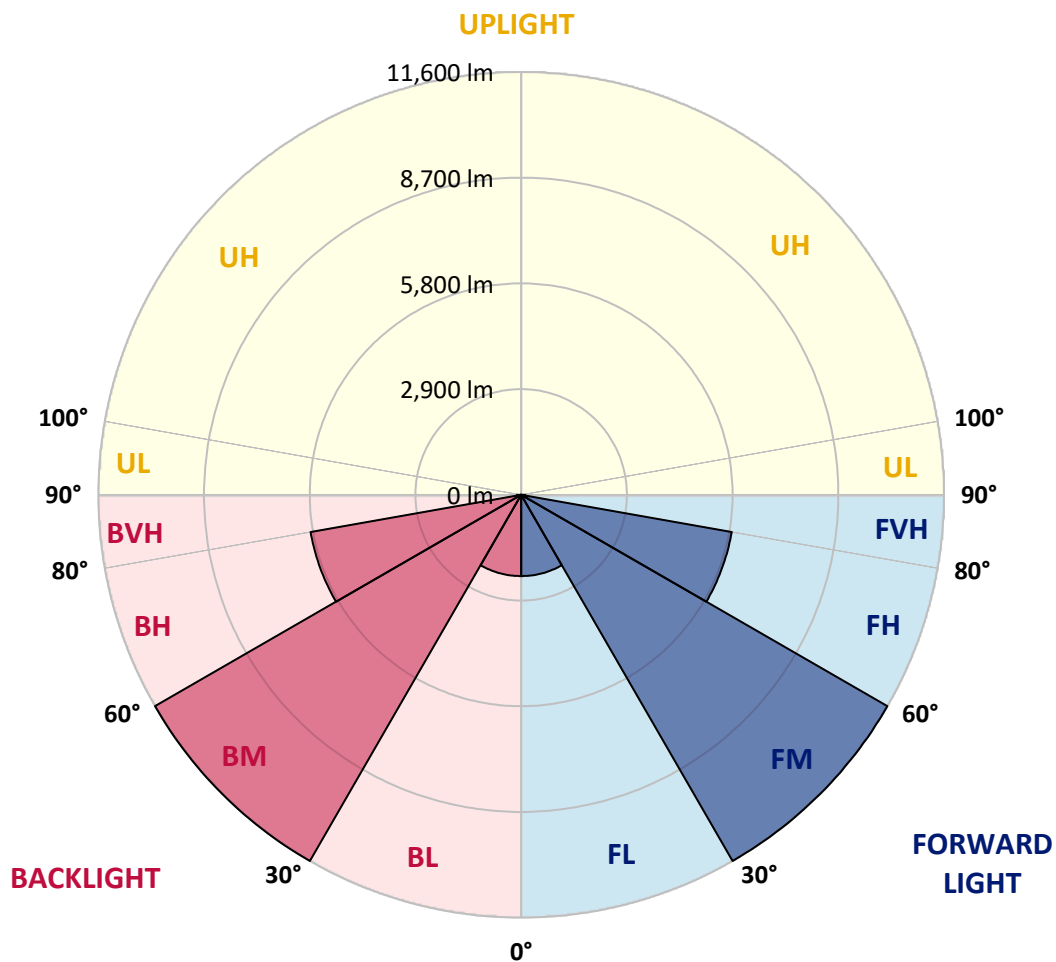
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2229.2	5.6			
FM (30°-60°)	11599.7	29.3			
FH (60°-80°)	5866.6	14.8			G3/7500
FVH (80°-90°)	113.4	0.3			G2/225
BL (0°-30°)	2229.2	5.6	B3/2500		
BM (30°-60°)	11599.7	29.3	B5		
BH (60°-80°)	5866.6	14.8	B5		G3/7500
BVH (80°-90°)	113.4	0.3			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G3**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	4482.8	4482.8	4482.8	4482.8	4482.8	4482.8	4482.8	4482.8	4482.8	4482.8	4482.8
2.5°	4486.5	4490.2	4493.9	4490.2	4493.9	4488.3	4484.6	4490.2	4484.6	4479.1	4482.8
5°	4525.4	4527.3	4527.3	4521.7	4527.3	4523.6	4518.0	4525.4	4519.9	4514.3	4518.0
7.5°	4590.4	4597.8	4592.2	4586.7	4590.4	4586.7	4583.0	4584.8	4583.0	4577.4	4579.3
10°	4677.6	4683.2	4679.4	4677.6	4681.3	4679.4	4675.7	4673.9	4675.7	4670.2	4670.2
12.5°	4783.4	4781.5	4779.6	4781.5	4787.1	4787.1	4785.2	4787.1	4790.8	4792.6	4788.9
15°	4887.3	4891.0	4891.0	4891.0	4902.1	4911.4	4916.9	4920.7	4928.1	4929.9	4922.5
17.5°	5017.1	5017.1	5015.3	5017.1	5028.3	5043.1	5048.7	5056.1	5063.5	5069.1	5059.8
20°	5161.9	5165.6	5165.6	5169.3	5184.1	5200.8	5200.8	5204.5	5200.8	5204.5	5199.0
22.5°	5338.1	5349.3	5349.3	5351.1	5366.0	5386.4	5380.8	5386.4	5377.1	5384.5	5377.1
25°	5568.2	5584.9	5581.2	5581.2	5592.3	5605.3	5607.2	5618.3	5616.4	5625.7	5620.2
27.5°	5828.0	5853.9	5861.4	5859.5	5866.9	5879.9	5883.6	5896.6	5889.2	5896.6	5892.9
30°	6139.7	6150.8	6165.7	6171.2	6180.5	6193.5	6193.5	6195.3	6186.1	6197.2	6202.8
32.5°	6462.5	6482.9	6497.8	6531.2	6547.9	6557.2	6555.3	6559.0	6549.7	6564.6	6575.7
35°	6889.3	6904.1	6928.3	6954.2	6976.5	6974.6	6969.1	6970.9	6970.9	6983.9	6995.0
37.5°	7403.2	7407.0	7438.5	7475.6	7486.7	7475.6	7442.2	7434.8	7418.1	7434.8	7453.3
40°	7946.9	7959.9	8023.0	8047.1	8052.7	8032.2	7984.0	7956.2	7919.1	7939.5	7965.4
42.5°	8516.5	8542.5	8600.0	8642.7	8661.2	8648.3	8581.5	8538.8	8490.5	8501.7	8527.6
45°	9147.4	9178.9	9260.6	9301.4	9336.6	9316.2	9251.3	9186.3	9110.3	9115.8	9156.6
47.5°	9852.4	9884.0	9989.7	10058.4	10076.9	10073.2	10000.9	9911.8	9807.9	9804.2	9839.5
50°	10642.9	10674.4	10806.1	10911.9	10965.7	10960.1	10874.8	10748.6	10622.5	10624.3	10668.8
52.5°	11414.7	11453.7	11591.0	11772.8	11878.6	11954.7	11902.7	11784.0	11630.0	11633.7	11674.5
55°	12138.4	12203.3	12361.0	12607.8	12804.5	13017.8	13079.1	13075.4	12982.6	13008.6	13049.4
57.5°	12489.0	12585.5	12828.6	13218.2	13619.0	14053.2	14420.6	14695.2	14812.1	14988.3	14947.5
60°	11824.8	11978.8	12336.9	12910.2	13702.5	14608.0	15578.4	16526.5	17335.5	17945.9	17595.2
62.5°	9681.7	9882.1	10316.3	11051.1	12249.7	13698.8	15556.1	17797.5	20239.3	21712.5	20660.4
65°	6058.0	6265.9	6707.5	7494.2	8896.9	10698.5	13218.2	16932.8	21495.4	23716.4	21575.2
67.5°	2362.0	2475.2	2714.5	3217.4	4271.2	5874.4	8403.3	12618.9	18075.8	20022.2	17740.0
70°	1183.8	1194.9	1239.4	1332.2	1558.6	2024.3	3080.0	5850.2	10366.4	12520.6	9993.5
72.5°	855.4	857.2	879.5	920.3	992.7	1096.6	1297.0	1790.5	3371.4	5152.6	3159.8
75°	655.0	662.4	675.4	697.6	736.6	788.6	860.9	1031.6	1278.4	1482.5	1246.9
77.5°	504.7	519.5	528.8	549.2	573.3	608.6	629.0	693.9	807.1	849.8	836.8
80°	384.1	397.1	417.5	434.2	450.9	467.6	460.2	489.8	549.2	584.5	565.9
82.5°	244.9	259.8	319.1	334.0	341.4	352.5	339.5	341.4	367.4	389.6	367.4
85°	157.7	167.0	202.2	220.8	222.7	230.1	224.5	211.5	211.5	193.0	217.1
87.5°	72.4	74.2	90.9	107.6	111.3	100.2	98.3	94.6	76.1	72.4	77.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	4482.8	4482.8	4482.8	4482.8	4482.8	4482.8	4482.8	4482.8
2.5°	4480.9	4484.6	4486.5	4492.0	4493.9	4493.9	4495.8	4499.5
5°	4516.2	4521.7	4523.6	4531.0	4532.9	4531.0	4534.7	4536.6
7.5°	4579.3	4588.5	4592.2	4599.7	4594.1	4601.5	4603.4	4603.4
10°	4672.0	4681.3	4683.2	4690.6	4686.9	4690.6	4690.6	4686.9
12.5°	4794.5	4796.3	4790.8	4796.3	4788.9	4792.6	4787.1	4783.4
15°	4929.9	4924.4	4911.4	4911.4	4900.2	4902.1	4900.2	4898.4
17.5°	5061.7	5050.5	5041.3	5037.5	5028.3	5026.4	5020.8	5020.8
20°	5206.4	5200.8	5195.3	5187.8	5178.6	5169.3	5167.4	5171.1
22.5°	5380.8	5378.9	5378.9	5375.2	5362.3	5353.0	5347.4	5347.4
25°	5614.6	5597.9	5597.9	5596.0	5590.5	5584.9	5573.8	5579.3
27.5°	5878.1	5868.8	5876.2	5874.4	5868.8	5868.8	5861.4	5861.4
30°	6202.8	6199.1	6210.2	6200.9	6182.4	6180.5	6173.1	6163.8
32.5°	6577.6	6573.9	6590.6	6579.4	6549.7	6533.0	6518.2	6510.8
35°	6995.0	6996.9	7017.3	7009.9	6976.5	6965.4	6939.4	6935.7
37.5°	7451.5	7481.2	7516.4	7523.9	7496.0	7488.6	7460.8	7445.9
40°	7987.7	8026.7	8080.5	8093.5	8063.8	8058.2	8019.3	7998.8
42.5°	8559.2	8626.0	8692.8	8703.9	8674.2	8644.5	8607.4	8592.6
45°	9197.5	9277.3	9364.5	9386.7	9342.2	9306.9	9258.7	9258.7
47.5°	9913.7	10013.9	10112.2	10173.4	10132.6	10095.5	10038.0	10000.9
50°	10759.8	10897.1	11025.1	11088.2	11023.2	10952.7	10852.5	10819.1
52.5°	11821.1	11969.5	12080.8	12047.4	11947.2	11848.9	11739.4	11694.9
55°	13175.6	13225.6	13225.6	13099.5	12899.1	12734.0	12561.4	12503.9
57.5°	14869.6	14676.6	14379.7	14003.1	13529.9	13118.0	12839.7	12708.0
60°	16860.5	15932.8	14884.4	13854.6	13008.6	12310.9	11897.1	11707.9
62.5°	18187.1	15760.2	13659.8	12006.6	10789.4	9948.9	9377.4	9154.8
65°	16997.8	13144.0	10331.1	8353.2	7026.6	6171.2	5605.3	5397.5
67.5°	12450.1	8236.3	5501.4	3942.8	2888.9	2304.5	2072.5	1976.1
70°	5588.6	2900.1	1777.5	1387.9	1196.8	1098.4	1055.8	1040.9
72.5°	1684.7	1219.0	1027.9	927.7	851.7	803.4	768.2	764.4
75°	1016.8	846.1	751.5	692.1	643.8	604.9	586.3	580.8
77.5°	710.6	621.6	577.0	534.4	497.3	467.6	450.9	437.9
80°	499.1	456.4	436.0	411.9	387.8	360.0	335.8	324.7
82.5°	334.0	324.7	324.7	309.9	289.5	263.5	215.2	204.1
85°	215.2	213.4	217.1	211.5	196.7	168.8	139.2	131.7
87.5°	100.2	102.0	113.2	111.3	107.6	89.1	70.5	66.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)