

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: P299381

Luminaire Tested: **GLNA-AF-08-LED-E1-5NQ-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299381  
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-7050  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(8) 70 CRI, 5000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

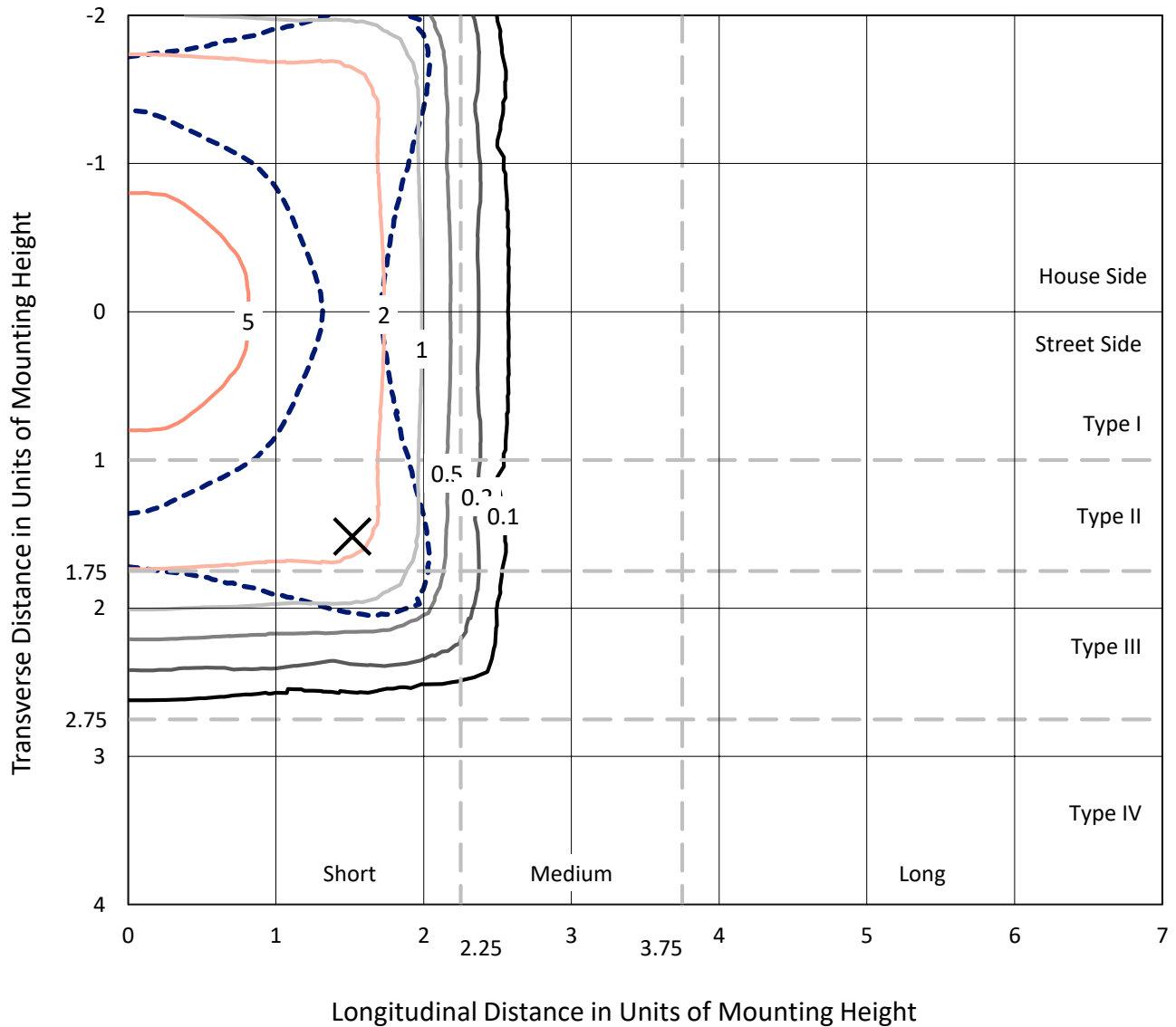
Lumens per Lamp: N/A  
Luminaire Lumens: 49039.1 lumens  
Efficiency: N/A  
Efficacy: 110.2 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B5 - U0 - G3  
  
Input Watts (W): 445  
Input Voltage (V): NR  
Input Current (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

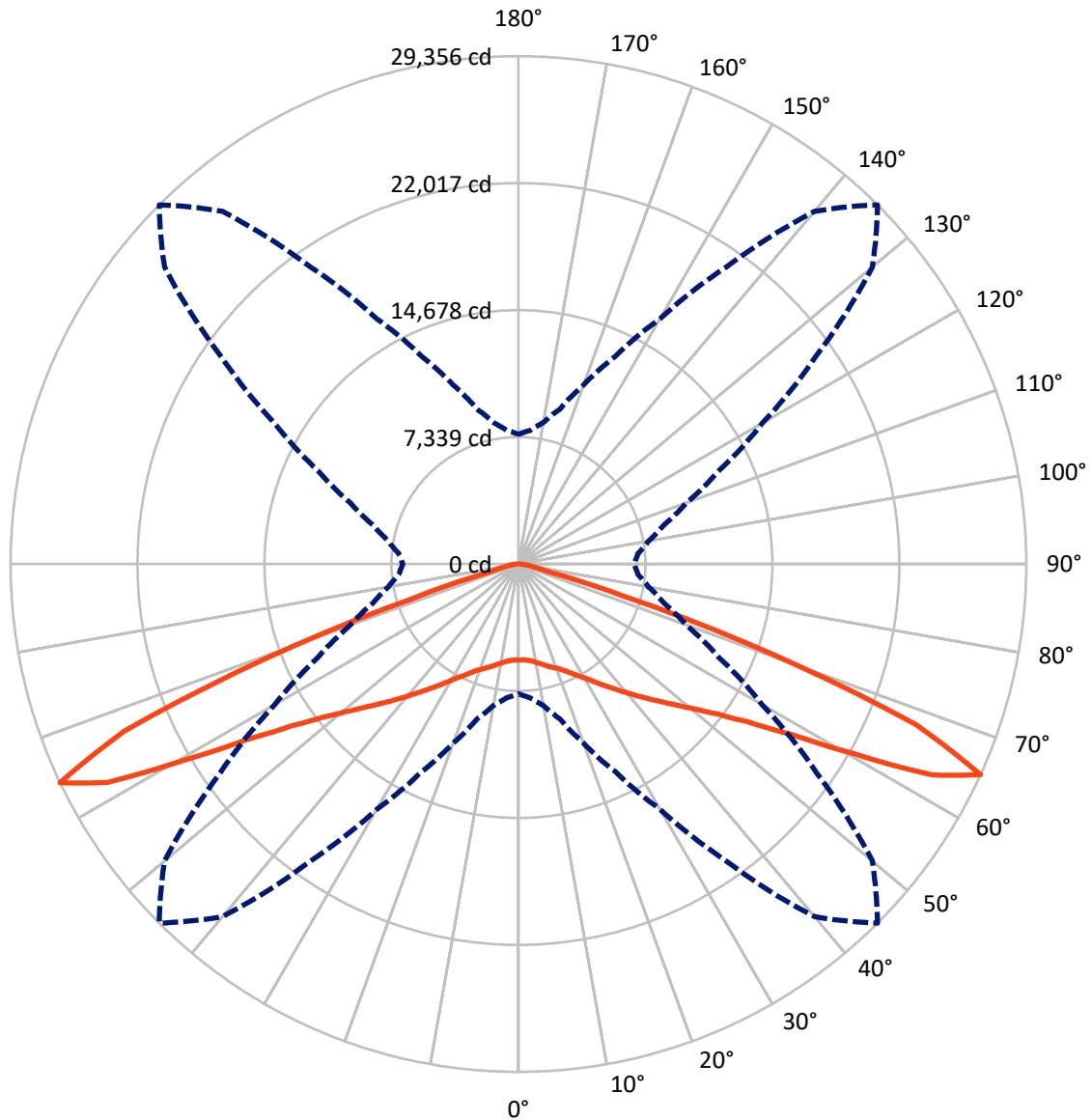
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.2 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	24519.5	0.0	24519.5
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	24519.5	0.0	24519.5
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	49039.1	0.0	49039.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	540.8	1.1
10°-20°	1734.5	3.5
20°-30°	3243.3	6.6
30°-40°	5485.2	11.2
40°-50°	8969.0	18.3
50°-60°	14262.1	29.1
60°-70°	12892.0	26.3
70°-80°	1631.5	3.3
80°-90°	280.7	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°	49039.1	100.0
0°-180°	49039.1	100.0



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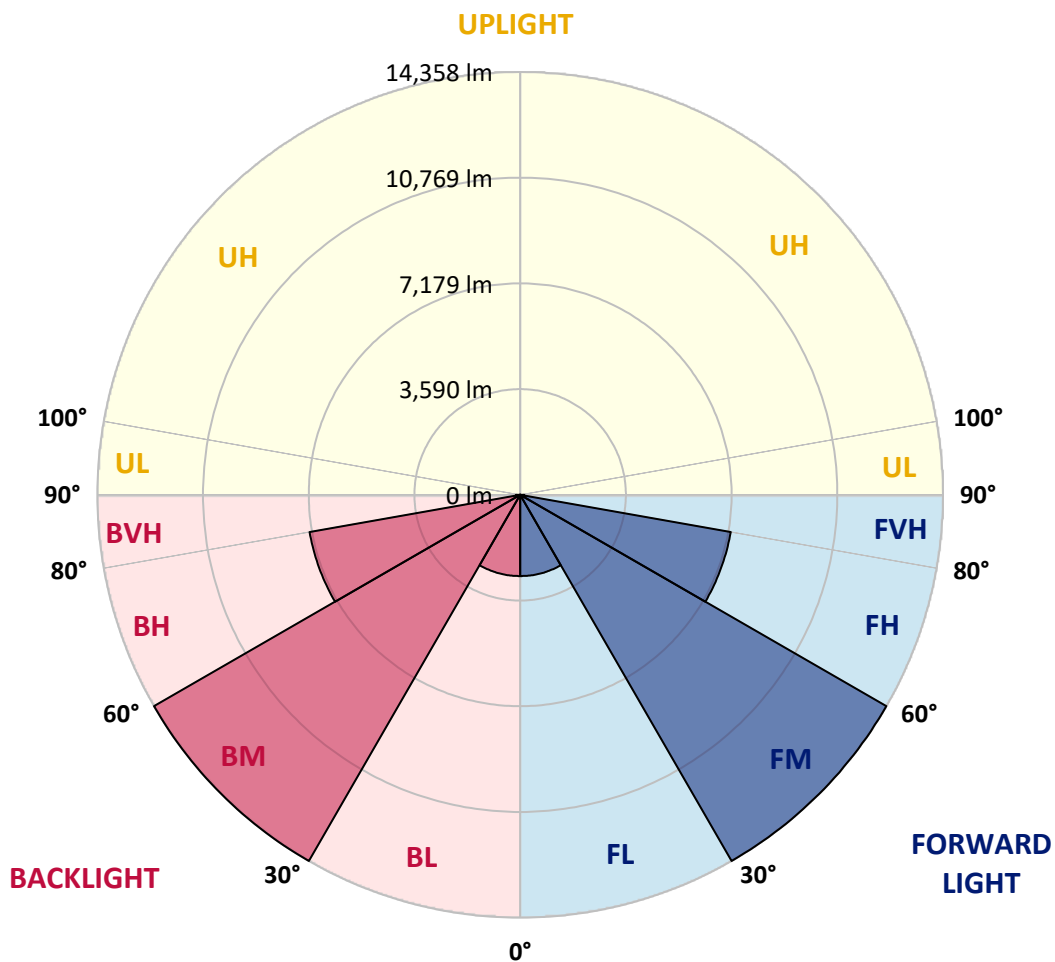
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2759.3	5.6			
FM	(30°-60°)	14358.1	29.3			
FH	(60°-80°)	7261.8	14.8			G3/7500
FVH	(80°-90°)	140.3	0.3			G2/225
BL	(0°-30°)	2759.3	5.6	B4/5000		
BM	(30°-60°)	14358.1	29.3	B5		
BH	(60°-80°)	7261.8	14.8	B5		G3/7500
BVH	(80°-90°)	140.3	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°	5548.8	5548.8	5548.8	5548.8	5548.8	5548.8	5548.8	5548.8	5548.8	5548.8	5548.8
2.5°	5553.4	5558.0	5562.6	5558.0	5562.6	5555.7	5551.1	5558.0	5551.1	5544.2	5548.8
5°	5601.6	5603.9	5603.9	5597.0	5603.9	5599.3	5592.4	5601.6	5594.7	5587.8	5592.4
7.5°	5682.0	5691.2	5684.3	5677.4	5682.0	5677.4	5672.8	5675.1	5672.8	5665.9	5668.2
10°	5789.9	5796.8	5792.2	5789.9	5794.5	5792.2	5787.7	5785.4	5787.7	5780.8	5780.8
12.5°	5920.9	5918.6	5916.3	5918.6	5925.5	5925.5	5923.2	5925.5	5930.0	5932.3	5927.8
15°	6049.5	6054.1	6054.1	6054.1	6067.8	6079.3	6086.2	6090.8	6100.0	6102.3	6093.1
17.5°	6210.2	6210.2	6207.9	6210.2	6224.0	6242.4	6249.3	6258.5	6267.7	6274.6	6263.1
20°	6389.4	6394.0	6394.0	6398.6	6416.9	6437.6	6437.6	6442.2	6437.6	6442.2	6435.3
22.5°	6607.6	6621.4	6621.4	6623.6	6642.0	6667.3	6660.4	6667.3	6655.8	6665.0	6655.8
25°	6892.4	6913.0	6908.4	6908.4	6922.2	6938.3	6940.6	6954.4	6952.1	6963.6	6956.7
27.5°	7213.9	7246.0	7255.2	7252.9	7262.1	7278.2	7282.8	7298.9	7289.7	7298.9	7294.3
30°	7599.7	7613.5	7631.9	7638.8	7650.3	7666.3	7666.3	7668.6	7657.2	7670.9	7677.8
32.5°	7999.4	8024.6	8043.0	8084.3	8105.0	8116.5	8114.2	8118.8	8107.3	8125.7	8139.5
35°	8527.6	8546.0	8575.8	8608.0	8635.5	8633.2	8626.4	8628.7	8628.7	8644.7	8658.5
37.5°	9163.8	9168.4	9207.4	9253.4	9267.1	9253.4	9212.0	9202.8	9182.2	9202.8	9225.8
40°	9836.7	9852.8	9930.9	9960.7	9967.6	9942.4	9882.6	9848.2	9802.3	9827.5	9859.7
42.5°	10541.8	10573.9	10645.1	10698.0	10720.9	10704.9	10622.2	10569.4	10509.6	10523.4	10555.6
45°	11322.7	11361.7	11462.8	11513.3	11556.9	11531.7	11451.3	11370.9	11276.7	11283.6	11334.2
47.5°	12195.4	12234.5	12365.4	12450.3	12473.3	12468.7	12379.1	12268.9	12140.3	12135.7	12179.3
50°	13173.8	13212.8	13375.9	13506.8	13573.4	13566.5	13460.9	13304.7	13148.5	13150.8	13206.0
52.5°	14129.2	14177.5	14347.4	14572.5	14703.4	14797.6	14733.3	14586.3	14395.6	14400.2	14450.8
55°	15024.9	15105.3	15300.5	15606.0	15849.4	16113.6	16189.4	16184.8	16069.9	16102.1	16152.6
57.5°	15459.0	15578.4	15879.3	16361.6	16857.7	17395.1	17849.9	18189.8	18334.5	18552.6	18502.1
60°	14636.8	14827.4	15270.7	15980.4	16961.0	18081.8	19283.0	20456.6	21458.0	22213.6	21779.5
62.5°	11984.1	12232.2	12769.6	13679.1	15162.7	16956.4	19255.4	22029.8	25052.3	26875.8	25573.6
65°	7498.7	7755.9	8302.5	9276.3	11012.6	13242.7	16361.6	20959.6	26607.1	29356.3	26705.9
67.5°	2923.7	3063.8	3360.1	3982.5	5287.0	7271.3	10401.7	15619.8	22374.3	24783.6	21958.6
70°	1465.3	1479.1	1534.2	1649.0	1929.2	2505.7	3812.5	7241.5	12831.6	15498.0	12370.0
72.5°	1058.8	1061.1	1088.6	1139.2	1228.7	1357.3	1605.4	2216.3	4173.1	6377.9	3911.3
75°	810.7	819.9	836.0	863.6	911.8	976.1	1065.7	1277.0	1582.4	1835.1	1543.4
77.5°	624.7	643.1	654.6	679.8	709.7	753.3	778.6	859.0	999.1	1051.9	1035.8
80°	475.4	491.5	516.8	537.4	558.1	578.8	569.6	606.3	679.8	723.5	700.5
82.5°	303.2	321.5	395.0	413.4	422.6	436.4	420.3	422.6	454.7	482.3	454.7
85°	195.2	206.7	250.3	273.3	275.6	284.8	277.9	261.8	261.8	238.9	268.7
87.5°	89.6	91.9	112.5	133.2	137.8	124.0	121.7	117.1	94.2	89.6	96.5
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°	5548.8	5548.8	5548.8	5548.8	5548.8	5548.8	5548.8	5548.8
2.5°	5546.5	5551.1	5553.4	5560.3	5562.6	5562.6	5564.9	5569.5
5°	5590.1	5597.0	5599.3	5608.5	5610.8	5608.5	5613.1	5615.4
7.5°	5668.2	5679.7	5684.3	5693.5	5686.6	5695.8	5698.1	5698.1
10°	5783.1	5794.5	5796.8	5806.0	5801.4	5806.0	5806.0	5801.4
12.5°	5934.6	5936.9	5930.0	5936.9	5927.8	5932.3	5925.5	5920.9
15°	6102.3	6095.4	6079.3	6079.3	6065.6	6067.8	6065.6	6063.3
17.5°	6265.4	6251.6	6240.1	6235.5	6224.0	6221.7	6214.8	6214.8
20°	6444.5	6437.6	6430.7	6421.5	6410.1	6398.6	6396.3	6400.9
22.5°	6660.4	6658.1	6658.1	6653.5	6637.4	6625.9	6619.1	6619.1
25°	6949.8	6929.1	6929.1	6926.8	6919.9	6913.0	6899.2	6906.1
27.5°	7275.9	7264.4	7273.6	7271.3	7264.4	7264.4	7255.2	7255.2
30°	7677.8	7673.2	7687.0	7675.5	7652.6	7650.3	7641.1	7629.6
32.5°	8141.8	8137.2	8157.8	8144.1	8107.3	8086.6	8068.3	8059.1
35°	8658.5	8660.8	8686.1	8676.9	8635.5	8621.8	8589.6	8585.0
37.5°	9223.5	9260.2	9303.9	9313.1	9278.6	9269.4	9235.0	9216.6
40°	9887.2	9935.5	10002.1	10018.2	9981.4	9974.5	9926.3	9901.0
42.5°	10594.6	10677.3	10760.0	10773.8	10737.0	10700.3	10654.3	10636.0
45°	11384.7	11483.4	11591.4	11618.9	11563.8	11520.2	11460.5	11460.5
47.5°	12271.2	12395.2	12516.9	12592.7	12542.2	12496.3	12425.1	12379.1
50°	13318.5	13488.4	13646.9	13725.0	13644.6	13557.3	13433.3	13392.0
52.5°	14632.2	14815.9	14953.7	14912.4	14788.4	14666.6	14531.1	14476.0
55°	16308.8	16370.8	16370.8	16214.6	15966.6	15762.2	15548.6	15477.4
57.5°	18405.7	18166.8	17799.3	17333.1	16747.4	16237.6	15893.1	15730.0
60°	20870.0	19721.7	18424.0	17149.4	16102.1	15238.5	14726.4	14492.1
62.5°	22512.1	19508.1	16908.2	14861.9	13355.2	12314.8	11607.5	11331.9
65°	21040.0	16269.7	12788.0	10339.7	8697.6	7638.8	6938.3	6681.1
67.5°	15410.8	10195.0	6809.7	4880.5	3575.9	2852.5	2565.4	2446.0
70°	6917.6	3589.7	2200.2	1717.9	1481.4	1359.6	1306.8	1288.4
72.5°	2085.4	1508.9	1272.4	1148.3	1054.2	994.5	950.8	946.2
75°	1258.6	1047.3	930.2	856.7	797.0	748.7	725.8	718.9
77.5°	879.6	769.4	714.3	661.4	615.5	578.8	558.1	542.0
80°	617.8	565.0	539.7	509.9	480.0	445.6	415.7	401.9
82.5°	413.4	401.9	401.9	383.5	358.3	326.1	266.4	252.6
85°	266.4	264.1	268.7	261.8	243.4	209.0	172.3	163.1
87.5°	124.0	126.3	140.1	137.8	133.2	110.2	87.3	82.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)