

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: P299393

Luminaire Tested: **GLNA-AF-10-LED-E1-5NQ-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299393  
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-10-LED-E1-5NQ-7050  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(10) 70 CRI, 5000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

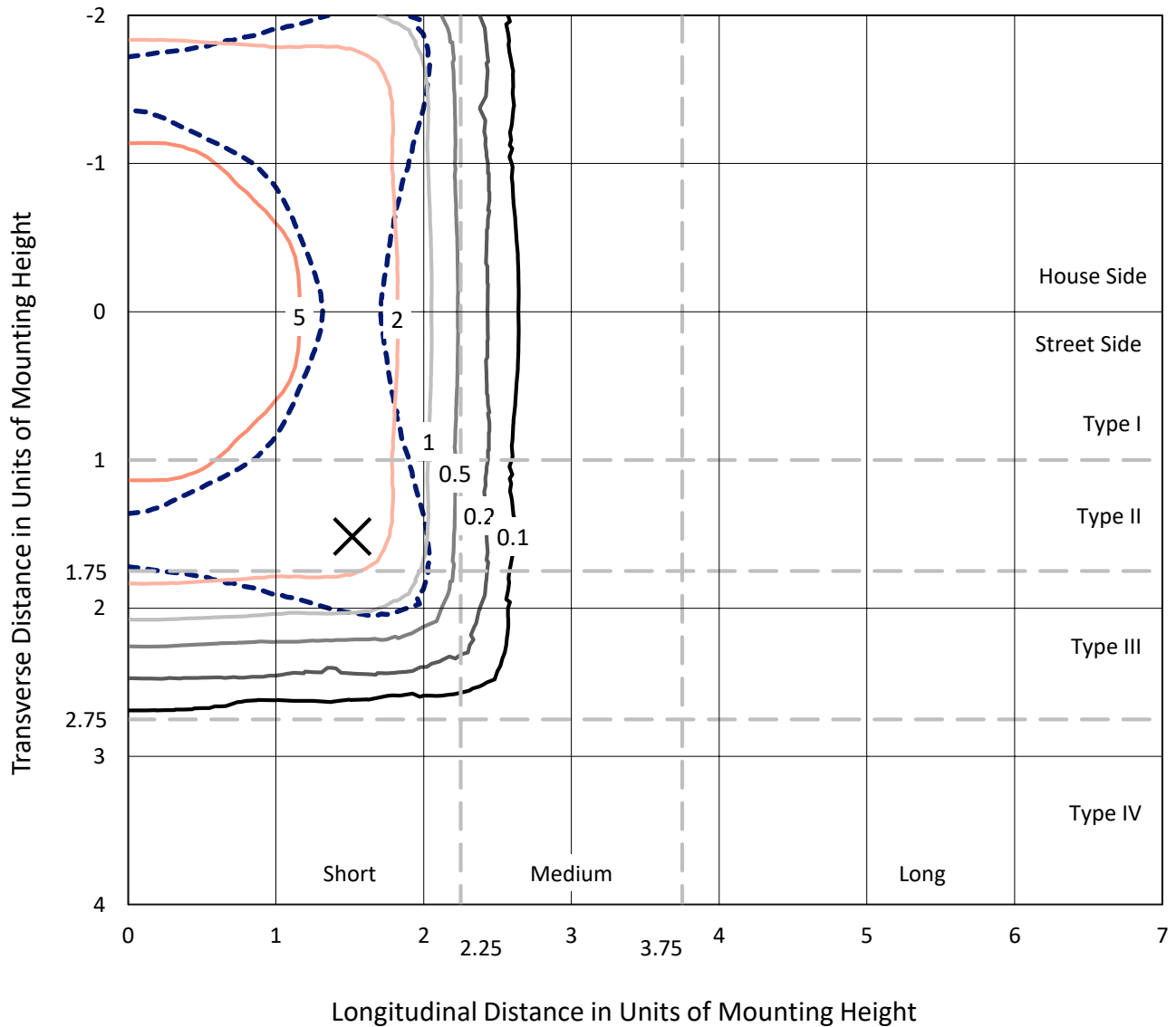
Lumens per Lamp: N/A  
Luminaire Lumens: 60565 lumens  
Efficiency: N/A  
Efficacy: 108.5 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B5 - U0 - G4  
  
Input Watts (W): 558  
Input Voltage (V): NR  
Input Current (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

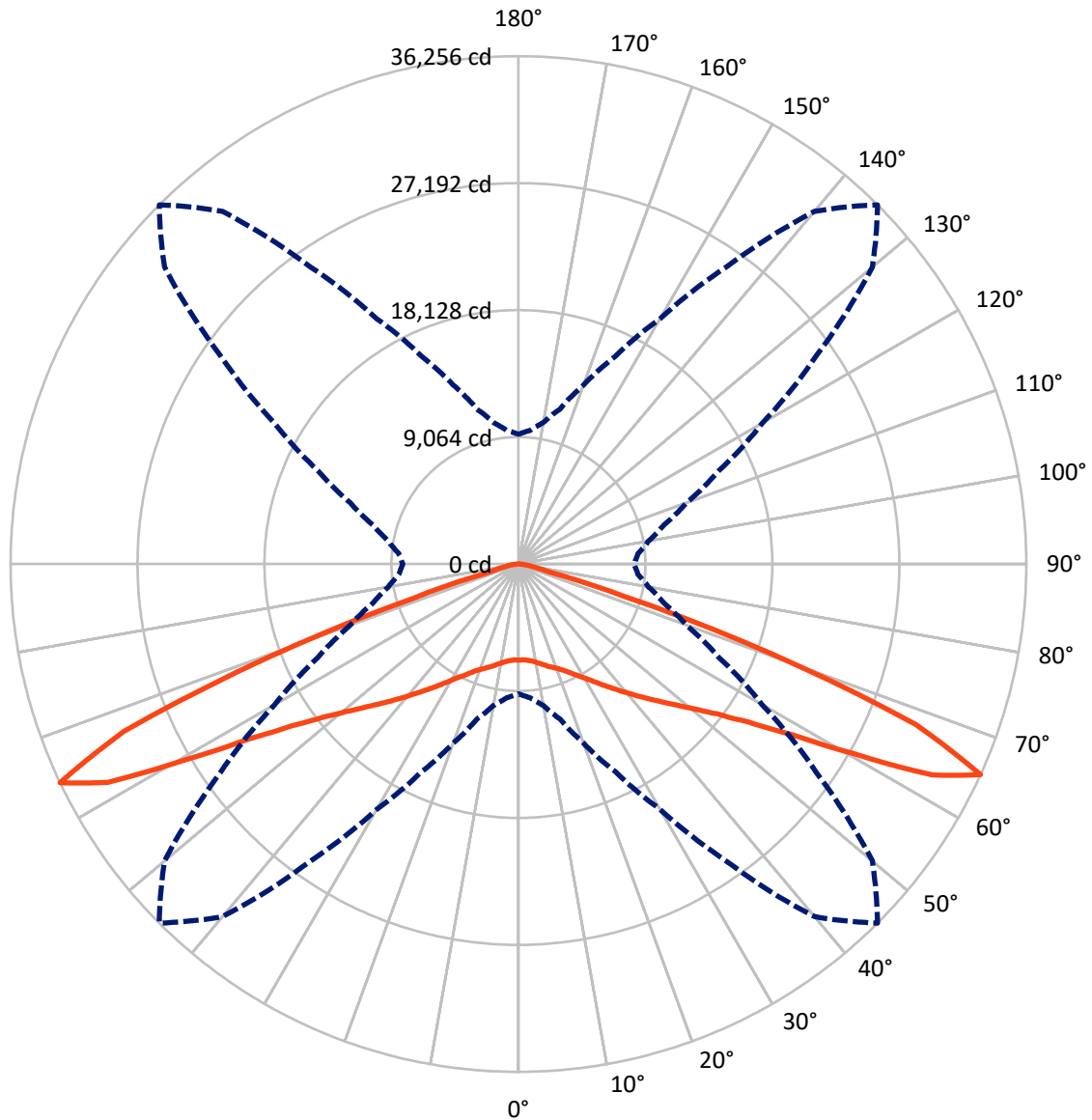
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.6 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	30282.5	0.0	30282.5
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	30282.5	0.0	30282.5
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	60565.0	0.0	60565.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	667.9	1.1
10°-20°	2142.2	3.5
20°-30°	4005.5	6.6
30°-40°	6774.5	11.2
40°-50°	11077.0	18.3
50°-60°	17614.2	29.1
60°-70°	15922.1	26.3
70°-80°	2015.0	3.3
80°-90°	346.6	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°	60565.0	100.0
0°-180°	60565.0	100.0



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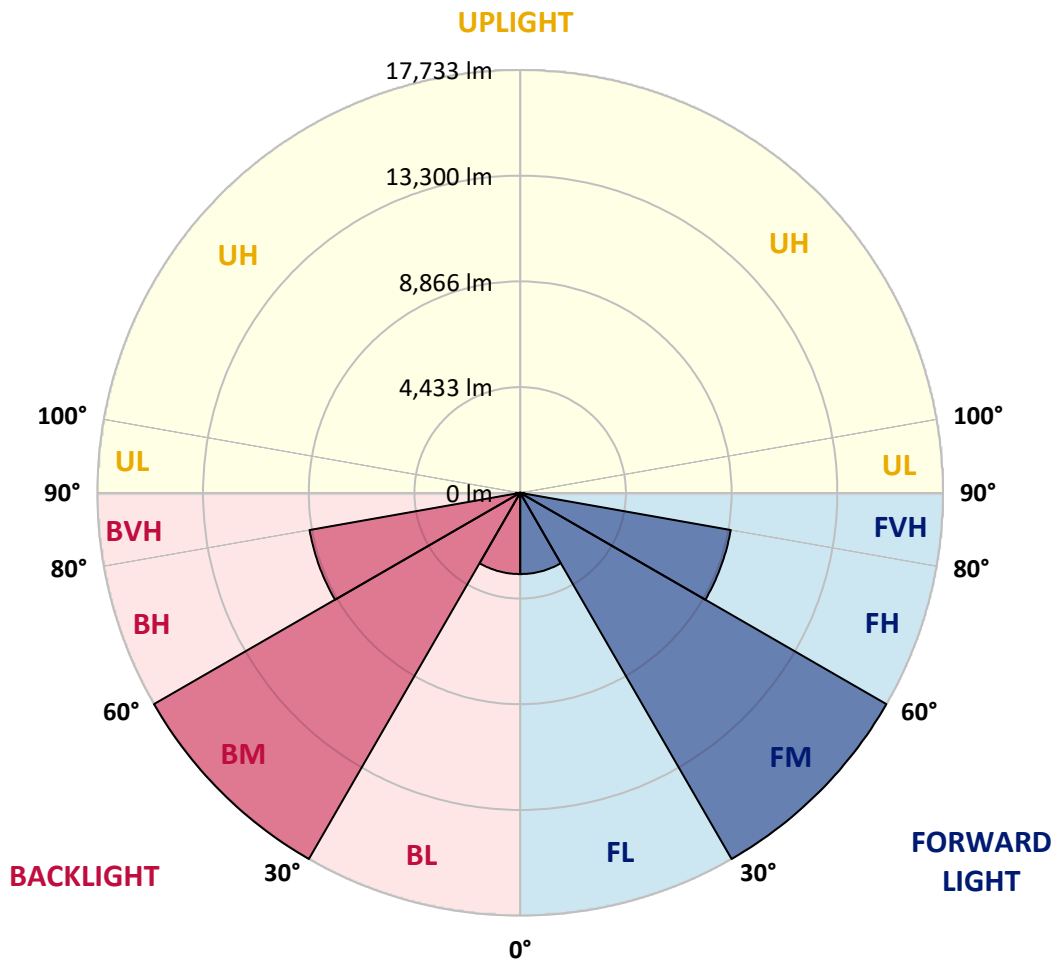
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3407.9	5.6			
FM (30°-60°)	17732.8	29.3			
FH (60°-80°)	8968.5	14.8			G4/12000
FVH (80°-90°)	173.3	0.3			G2/225
BL (0°-30°)	3407.9	5.6	B4/5000		
BM (30°-60°)	17732.8	29.3	B5		
BH (60°-80°)	8968.5	14.8	B5		G4/12000
BVH (80°-90°)	173.3	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-G4**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	6853.0	6853.0	6853.0	6853.0	6853.0	6853.0	6853.0	6853.0	6853.0	6853.0	6853.0
2.5°	6858.6	6864.3	6870.0	6864.3	6870.0	6861.5	6855.8	6864.3	6855.8	6847.3	6853.0
5°	6918.2	6921.0	6921.0	6912.5	6921.0	6915.4	6906.9	6918.2	6909.7	6901.2	6906.9
7.5°	7017.5	7028.8	7020.3	7011.8	7017.5	7011.8	7006.1	7009.0	7006.1	6997.6	7000.5
10°	7150.8	7159.3	7153.6	7150.8	7156.5	7153.6	7148.0	7145.1	7148.0	7139.5	7139.5
12.5°	7312.5	7309.6	7306.8	7309.6	7318.2	7318.2	7315.3	7318.2	7323.8	7326.7	7321.0
15°	7471.3	7477.0	7477.0	7477.0	7494.0	7508.2	7516.7	7522.4	7533.7	7536.6	7525.2
17.5°	7669.9	7669.9	7667.0	7669.9	7686.9	7709.6	7718.1	7729.4	7740.8	7749.3	7735.1
20°	7891.1	7896.8	7896.8	7902.5	7925.2	7950.7	7950.7	7956.4	7950.7	7956.4	7947.9
22.5°	8160.6	8177.6	8177.6	8180.4	8203.1	8234.3	8225.8	8234.3	8220.2	8231.5	8220.2
25°	8512.3	8537.8	8532.2	8532.2	8549.2	8569.0	8571.9	8588.9	8586.1	8600.2	8591.7
27.5°	8909.4	8949.1	8960.5	8957.6	8969.0	8988.8	8994.5	9014.4	9003.0	9014.4	9008.7
30°	9386.0	9403.0	9425.7	9434.2	9448.4	9468.2	9468.2	9471.1	9456.9	9473.9	9482.4
32.5°	9879.5	9910.7	9933.4	9984.5	10010.0	10024.2	10021.3	10027.0	10012.8	10035.5	10052.5
35°	10531.9	10554.6	10591.5	10631.2	10665.2	10662.4	10653.9	10656.7	10656.7	10676.6	10693.6
37.5°	11317.6	11323.3	11371.5	11428.2	11445.2	11428.2	11377.2	11365.8	11340.3	11365.8	11394.2
40°	12148.7	12168.6	12265.0	12301.9	12310.4	12279.2	12205.4	12162.9	12106.2	12137.4	12177.1
42.5°	13019.5	13059.2	13147.1	13212.4	13240.7	13220.9	13118.8	13053.5	12979.8	12996.8	13036.5
45°	13983.9	14032.1	14156.9	14219.3	14273.2	14242.0	14142.8	14043.5	13927.2	13935.7	13998.1
47.5°	15061.8	15110.0	15271.7	15376.6	15405.0	15399.3	15288.7	15152.5	14993.7	14988.0	15041.9
50°	16270.1	16318.3	16519.7	16681.4	16763.7	16755.2	16624.7	16431.8	16238.9	16241.8	16309.8
52.5°	17450.1	17509.7	17719.6	17997.5	18159.2	18275.5	18196.1	18014.6	17779.1	17784.8	17847.2
55°	18556.3	18655.6	18896.7	19274.0	19574.6	19900.8	19994.4	19988.8	19846.9	19886.7	19949.1
57.5°	19092.4	19239.9	19611.5	20207.2	20819.9	21483.6	22045.2	22465.0	22643.7	22913.2	22850.8
60°	18077.0	18312.4	18859.8	19736.3	20947.5	22331.7	23815.2	25264.6	26501.4	27434.6	26898.5
62.5°	14800.8	15107.2	15770.9	16894.2	18726.5	20941.8	23781.2	27207.6	30940.5	33192.6	31584.3
65°	9261.1	9578.8	10253.9	11456.6	13601.0	16355.2	20207.2	25885.8	32860.8	36256.1	32982.7
67.5°	3610.9	3783.9	4149.8	4918.5	6529.6	8980.3	12846.5	19291.0	27633.1	30608.6	27119.7
70°	1809.7	1826.7	1894.8	2036.6	2382.7	3094.6	4708.6	8943.5	15847.5	19140.7	15277.4
72.5°	1307.6	1310.5	1344.5	1406.9	1517.5	1676.4	1982.7	2737.2	5153.9	7876.9	4830.5
75°	1001.3	1012.6	1032.5	1066.5	1126.1	1205.5	1316.1	1577.1	1954.3	2266.4	1906.1
77.5°	771.5	794.2	808.4	839.6	876.5	930.4	961.6	1060.8	1233.9	1299.1	1279.3
80°	587.2	607.0	638.2	663.7	689.3	714.8	703.5	748.8	839.6	893.5	865.1
82.5°	374.4	397.1	487.9	510.6	521.9	538.9	519.1	521.9	561.6	595.7	561.6
85°	241.1	255.3	309.2	337.5	340.4	351.7	343.2	323.4	323.4	295.0	331.9
87.5°	110.6	113.5	139.0	164.5	170.2	153.2	150.3	144.7	116.3	110.6	119.1
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°	6853.0	6853.0	6853.0	6853.0	6853.0	6853.0	6853.0	6853.0
2.5°	6850.1	6855.8	6858.6	6867.1	6870.0	6870.0	6872.8	6878.5
5°	6904.0	6912.5	6915.4	6926.7	6929.6	6926.7	6932.4	6935.2
7.5°	7000.5	7014.6	7020.3	7031.7	7023.2	7034.5	7037.3	7037.3
10°	7142.3	7156.5	7159.3	7170.7	7165.0	7170.7	7170.7	7165.0
12.5°	7329.5	7332.3	7323.8	7332.3	7321.0	7326.7	7318.2	7312.5
15°	7536.6	7528.1	7508.2	7508.2	7491.2	7494.0	7491.2	7488.3
17.5°	7738.0	7720.9	7706.8	7701.1	7686.9	7684.1	7675.5	7675.5
20°	7959.2	7950.7	7942.2	7930.8	7916.7	7902.5	7899.6	7905.3
22.5°	8225.8	8223.0	8223.0	8217.3	8197.5	8183.3	8174.8	8174.8
25°	8583.2	8557.7	8557.7	8554.9	8546.4	8537.8	8520.8	8529.3
27.5°	8986.0	8971.8	8983.2	8980.3	8971.8	8971.8	8960.5	8960.5
30°	9482.4	9476.7	9493.7	9479.6	9451.2	9448.4	9437.0	9422.8
32.5°	10055.4	10049.7	10075.2	10058.2	10012.8	9987.3	9964.6	9953.3
35°	10693.6	10696.4	10727.6	10716.3	10665.2	10648.2	10608.5	10602.8
37.5°	11391.4	11436.7	11490.6	11502.0	11459.4	11448.1	11405.5	11382.8
40°	12211.1	12270.7	12352.9	12372.8	12327.4	12318.9	12259.3	12228.1
42.5°	13084.7	13186.9	13289.0	13306.0	13260.6	13215.2	13158.5	13135.8
45°	14060.5	14182.5	14315.8	14349.8	14281.7	14227.8	14154.1	14154.1
47.5°	15155.4	15308.6	15458.9	15552.5	15490.1	15433.4	15345.4	15288.7
50°	16448.8	16658.7	16854.4	16950.9	16851.6	16743.8	16590.6	16539.6
52.5°	18071.3	18298.2	18468.4	18417.3	18264.2	18113.8	17946.5	17878.4
55°	20141.9	20218.5	20218.5	20025.6	19719.3	19466.9	19203.1	19115.1
57.5°	22731.7	22436.7	21982.8	21407.0	20683.7	20054.0	19628.5	19427.1
60°	25775.2	24357.0	22754.3	21180.1	19886.7	18820.1	18187.6	17898.3
62.5°	27803.3	24093.2	20882.3	18354.9	16494.2	15209.3	14335.6	13995.3
65°	25985.1	20093.7	15793.6	12769.9	10741.8	9434.2	8569.0	8251.4
67.5°	19032.9	12591.2	8410.2	6027.5	4416.4	3522.9	3168.4	3020.9
70°	8543.5	4433.4	2717.4	2121.7	1829.5	1679.2	1614.0	1591.3
72.5°	2575.5	1863.6	1571.4	1418.2	1302.0	1228.2	1174.3	1168.6
75°	1554.4	1293.4	1148.8	1058.0	984.3	924.7	896.3	887.8
77.5°	1086.4	950.2	882.1	816.9	760.2	714.8	689.3	669.4
80°	763.0	697.8	666.6	629.7	592.8	550.3	513.4	496.4
82.5°	510.6	496.4	496.4	473.7	442.5	402.8	329.0	312.0
85°	329.0	326.2	331.9	323.4	300.7	258.1	212.7	201.4
87.5°	153.2	156.0	173.0	170.2	164.5	136.2	107.8	102.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)