

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: P299383

Luminaire Tested: **GLNA-AF-09-LED-E1-5NQ-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299383  
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-09-LED-E1-5NQ-7027  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 2700K 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: 47528.1 lumens  
Efficiency: N/A  
Efficacy: 94.9 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 - G3

Input Watts (W): 501  
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

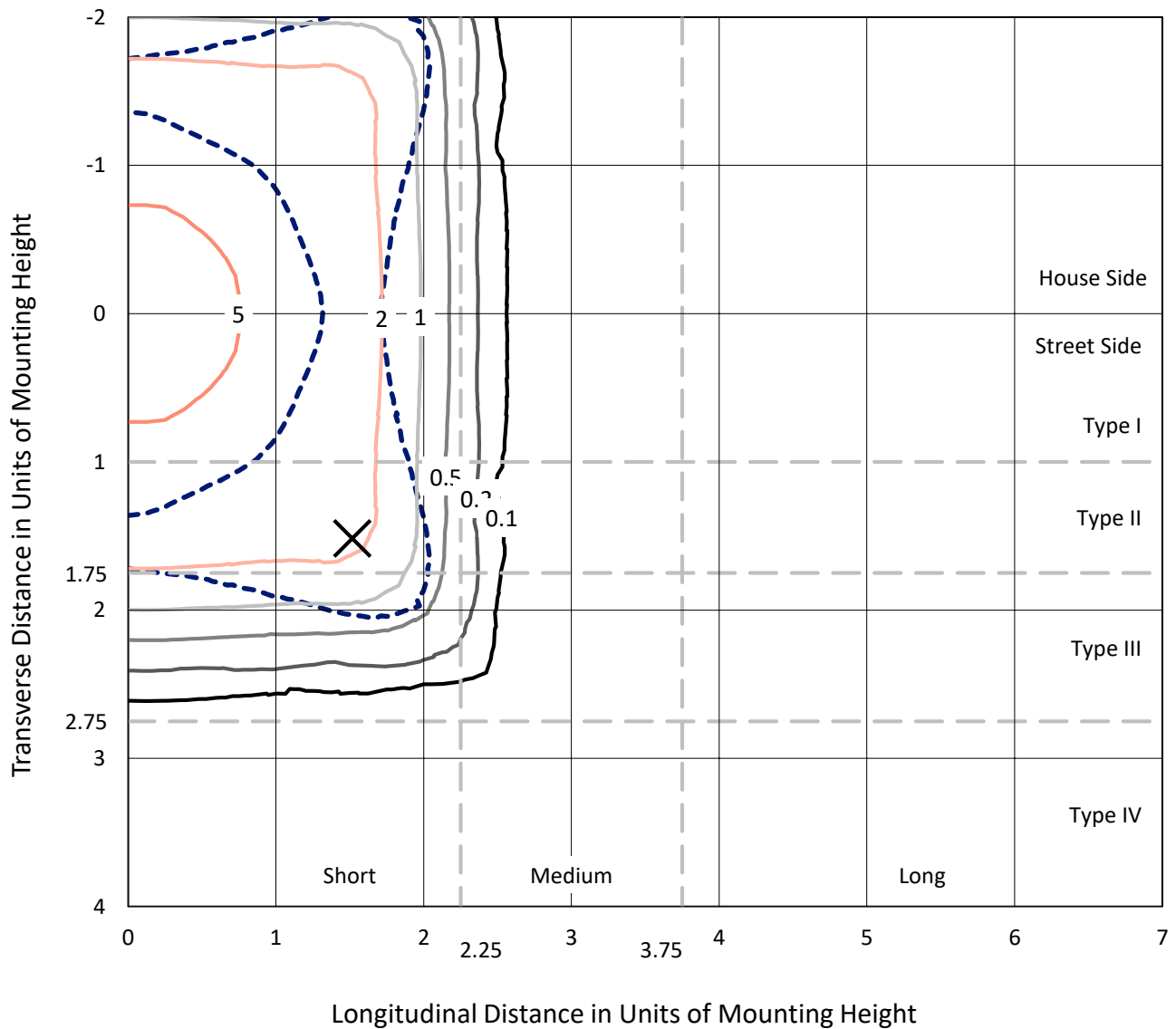


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### Iso-Footcandle Lines of Horizontal Illumination

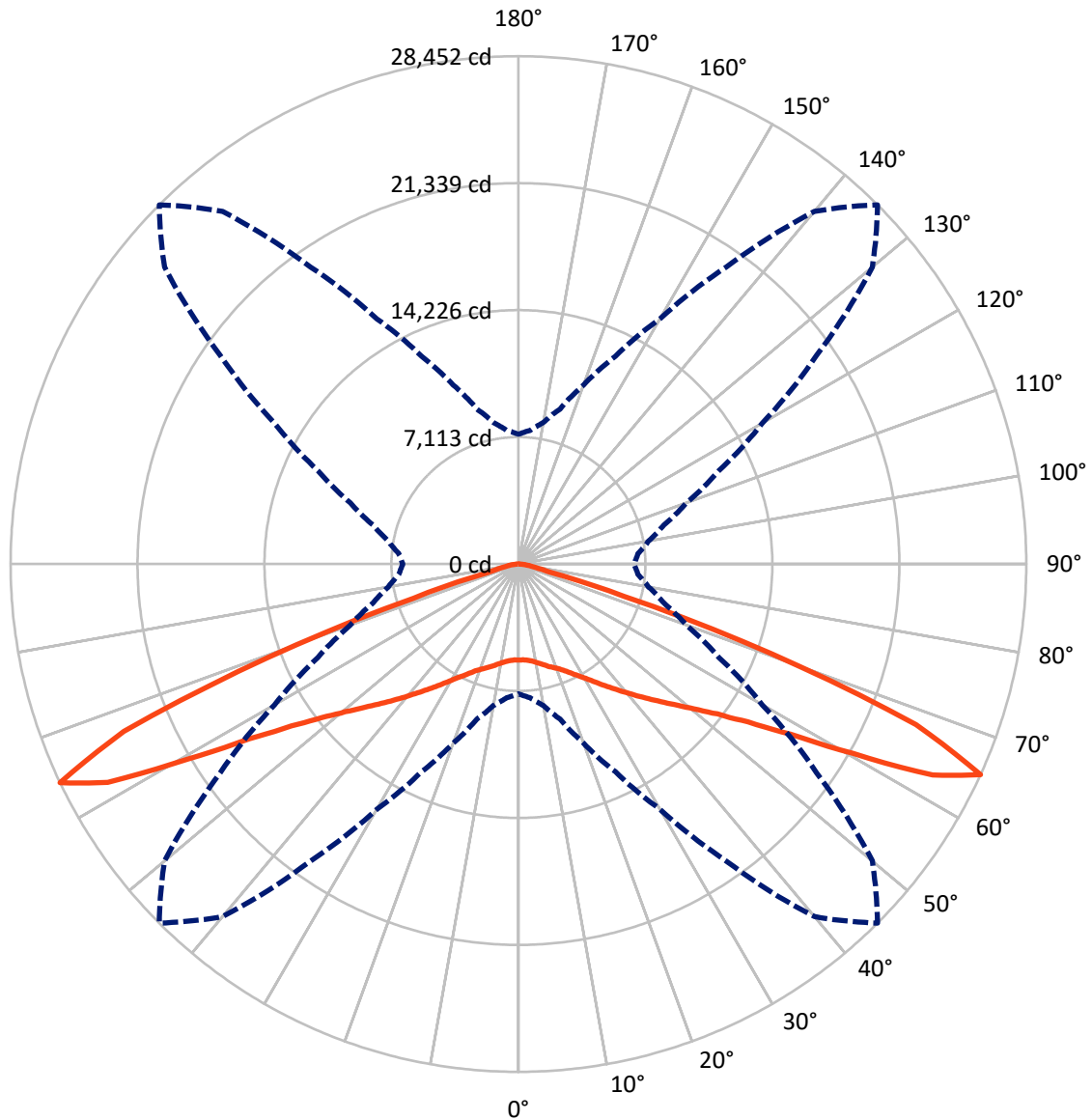
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6 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	23764.1	0.0	23764.1
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	23764.1	0.0	23764.1
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	47528.1	0.0	47528.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	524.2	1.1
10°-20°	1681.1	3.5
20°-30°	3143.3	6.6
30°-40°	5316.2	11.2
40°-50°	8692.6	18.3
50°-60°	13822.6	29.1
60°-70°	12494.8	26.3
70°-80°	1581.3	3.3
80°-90°	272.0	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°	47528.1	100.0
0°-180°	47528.1	100.0



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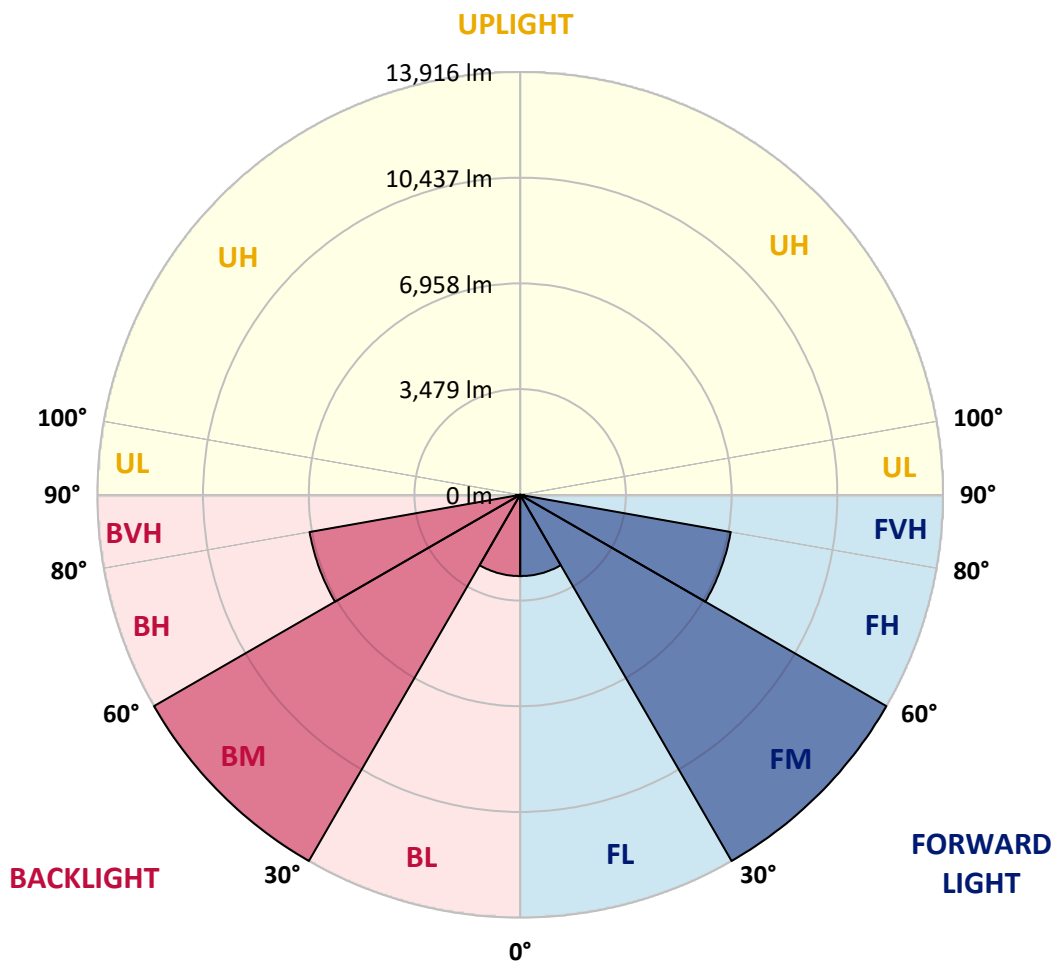
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2674.3	5.6			
FM	(30°-60°)	13915.8	29.3			
FH	(60°-80°)	7038.0	14.8			G3/7500
FVH	(80°-90°)	136.0	0.3			G2/225
BL	(0°-30°)	2674.3	5.6	B4/5000		
BM	(30°-60°)	13915.8	29.3	B5		
BH	(60°-80°)	7038.0	14.8	B5		G3/7500
BVH	(80°-90°)	136.0	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°	5377.8	5377.8	5377.8	5377.8	5377.8	5377.8	5377.8	5377.8	5377.8	5377.8	5377.8
2.5°	5382.3	5386.7	5391.2	5386.7	5391.2	5384.5	5380.1	5386.7	5380.1	5373.4	5377.8
5°	5429.0	5431.3	5431.3	5424.6	5431.3	5426.8	5420.1	5429.0	5422.4	5415.7	5420.1
7.5°	5506.9	5515.8	5509.2	5502.5	5506.9	5502.5	5498.0	5500.3	5498.0	5491.4	5493.6
10°	5611.6	5618.2	5613.8	5611.6	5616.0	5613.8	5609.3	5607.1	5609.3	5602.7	5602.7
12.5°	5738.4	5736.2	5734.0	5736.2	5742.9	5742.9	5740.7	5742.9	5747.3	5749.6	5745.1
15°	5863.1	5867.5	5867.5	5867.5	5880.9	5892.0	5898.7	5903.2	5912.1	5914.3	5905.4
17.5°	6018.9	6018.9	6016.7	6018.9	6032.3	6050.1	6056.7	6065.6	6074.5	6081.2	6070.1
20°	6192.5	6197.0	6197.0	6201.4	6219.2	6239.3	6239.3	6243.7	6239.3	6243.7	6237.0
22.5°	6404.0	6417.3	6417.3	6419.6	6437.4	6461.9	6455.2	6461.9	6450.7	6459.6	6450.7
25°	6680.0	6700.0	6695.6	6695.6	6708.9	6724.5	6726.7	6740.1	6737.9	6749.0	6742.3
27.5°	6991.6	7022.8	7031.7	7029.5	7038.4	7054.0	7058.4	7074.0	7065.1	7074.0	7069.5
30°	7365.6	7378.9	7396.7	7403.4	7414.6	7430.1	7430.1	7432.4	7421.2	7434.6	7441.3
32.5°	7752.9	7777.4	7795.2	7835.3	7855.3	7866.4	7864.2	7868.6	7857.5	7875.3	7888.7
35°	8264.9	8282.7	8311.6	8342.8	8369.5	8367.3	8360.6	8362.8	8362.8	8378.4	8391.7
37.5°	8881.4	8885.9	8923.7	8968.3	8981.6	8968.3	8928.2	8919.3	8899.2	8919.3	8941.5
40°	9533.6	9549.2	9624.9	9653.8	9660.5	9636.0	9578.2	9544.8	9500.2	9524.7	9555.9
42.5°	10217.0	10248.2	10317.2	10368.4	10390.6	10375.0	10294.9	10243.7	10185.8	10199.2	10230.4
45°	10973.8	11011.7	11109.6	11158.6	11200.9	11176.4	11098.5	11020.6	10929.3	10936.0	10984.9
47.5°	11819.7	11857.5	11984.4	12066.7	12089.0	12084.5	11997.7	11890.9	11766.2	11761.8	11804.1
50°	12767.9	12805.7	12963.8	13090.7	13155.2	13148.5	13046.1	12894.8	12743.4	12745.6	12799.1
52.5°	13693.9	13740.6	13905.4	14123.5	14250.4	14341.6	14279.3	14136.8	13952.1	13956.5	14005.5
55°	14562.0	14639.9	14829.1	15125.2	15361.1	15617.1	15690.5	15686.1	15574.8	15606.0	15654.9
57.5°	14982.7	15098.4	15390.0	15857.5	16338.3	16859.2	17299.9	17629.3	17769.6	17981.0	17932.1
60°	14185.8	14370.6	14800.2	15488.0	16438.5	17524.7	18688.9	19826.3	20796.8	21529.1	21108.4
62.5°	11614.9	11855.3	12376.1	13257.6	14695.6	16434.0	18662.2	21351.1	24280.4	26047.8	24785.7
65°	7267.6	7516.9	8046.7	8990.5	10673.3	12834.7	15857.5	20313.8	25787.3	28451.8	25883.1
67.5°	2833.6	2969.4	3256.5	3859.8	5124.1	7047.3	10081.2	15138.5	21685.0	24020.0	21282.1
70°	1420.1	1433.5	1486.9	1598.2	1869.8	2428.5	3695.0	7018.3	12436.2	15020.5	11988.8
72.5°	1026.2	1028.4	1055.1	1104.1	1190.9	1315.5	1555.9	2148.0	4044.5	6181.4	3790.8
75°	785.8	794.7	810.2	836.9	883.7	946.0	1032.8	1237.6	1533.7	1778.5	1495.8
77.5°	605.5	623.3	634.4	658.9	687.8	730.1	754.6	832.5	968.3	1019.5	1003.9
80°	460.8	476.3	500.8	520.9	540.9	560.9	552.0	587.6	658.9	701.2	678.9
82.5°	293.8	311.6	382.9	400.7	409.6	422.9	407.3	409.6	440.7	467.4	440.7
85°	189.2	200.3	242.6	264.9	267.1	276.0	269.3	253.8	253.8	231.5	260.4
87.5°	86.8	89.0	109.1	129.1	133.6	120.2	118.0	113.5	91.3	86.8	93.5
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°	5377.8	5377.8	5377.8	5377.8	5377.8	5377.8	5377.8	5377.8
2.5°	5375.6	5380.1	5382.3	5389.0	5391.2	5391.2	5393.4	5397.9
5°	5417.9	5424.6	5426.8	5435.7	5437.9	5435.7	5440.2	5442.4
7.5°	5493.6	5504.7	5509.2	5518.1	5511.4	5520.3	5522.5	5522.5
10°	5604.9	5616.0	5618.2	5627.1	5622.7	5627.1	5627.1	5622.7
12.5°	5751.8	5754.0	5747.3	5754.0	5745.1	5749.6	5742.9	5738.4
15°	5914.3	5907.6	5892.0	5892.0	5878.7	5880.9	5878.7	5876.4
17.5°	6072.3	6059.0	6047.8	6043.4	6032.3	6030.0	6023.4	6023.4
20°	6245.9	6239.3	6232.6	6223.7	6212.6	6201.4	6199.2	6203.7
22.5°	6455.2	6453.0	6453.0	6448.5	6432.9	6421.8	6415.1	6415.1
25°	6735.6	6715.6	6715.6	6713.4	6706.7	6700.0	6686.7	6693.4
27.5°	7051.7	7040.6	7049.5	7047.3	7040.6	7040.6	7031.7	7031.7
30°	7441.3	7436.8	7450.2	7439.0	7416.8	7414.6	7405.7	7394.5
32.5°	7890.9	7886.5	7906.5	7893.1	7857.5	7837.5	7819.7	7810.8
35°	8391.7	8394.0	8418.4	8409.5	8369.5	8356.1	8325.0	8320.5
37.5°	8939.3	8974.9	9017.2	9026.1	8992.7	8983.8	8950.4	8932.6
40°	9582.6	9629.4	9693.9	9709.5	9673.9	9667.2	9620.4	9596.0
42.5°	10268.2	10348.3	10428.5	10441.8	10406.2	10370.6	10326.1	10308.3
45°	11033.9	11129.6	11234.2	11261.0	11207.5	11165.2	11107.4	11107.4
47.5°	11893.1	12013.3	12131.3	12204.7	12155.8	12111.3	12042.3	11997.7
50°	12908.1	13072.9	13226.4	13302.1	13224.2	13139.6	13019.4	12979.4
52.5°	14181.4	14359.4	14493.0	14452.9	14332.7	14214.8	14083.4	14030.0
55°	15806.3	15866.4	15866.4	15715.0	15474.6	15276.5	15069.5	15000.5
57.5°	17838.6	17607.1	17250.9	16799.1	16231.4	15737.3	15403.4	15245.4
60°	20227.0	19114.0	17856.4	16621.0	15606.0	14769.0	14272.6	14045.6
62.5°	21818.5	18907.0	16387.3	14404.0	12943.8	11935.4	11249.8	10982.7
65°	20391.7	15768.5	12394.0	10021.1	8429.6	7403.4	6724.5	6475.2
67.5°	14936.0	9880.9	6599.9	4730.1	3465.8	2764.6	2486.4	2370.6
70°	6704.5	3479.1	2132.4	1665.0	1435.7	1317.7	1266.6	1248.7
72.5°	2021.1	1462.4	1233.2	1113.0	1021.7	963.8	921.5	917.1
75°	1219.8	1015.0	901.5	830.3	772.4	725.7	703.4	696.7
77.5°	852.5	745.7	692.3	641.1	596.5	560.9	540.9	525.3
80°	598.8	547.6	523.1	494.2	465.2	431.8	402.9	389.5
82.5°	400.7	389.5	389.5	371.7	347.2	316.1	258.2	244.9
85°	258.2	256.0	260.4	253.8	235.9	202.6	166.9	158.0
87.5°	120.2	122.4	135.8	133.6	129.1	106.8	84.6	80.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)