

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: P299632

Luminaire Tested: **GLNA-AF-10-LED-E1-5MQ**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299632  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24142)  
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-E1-5MQ  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(10) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 61681.6 lumens  
Efficiency: N/A  
Efficacy: 110.5 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 - G5

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

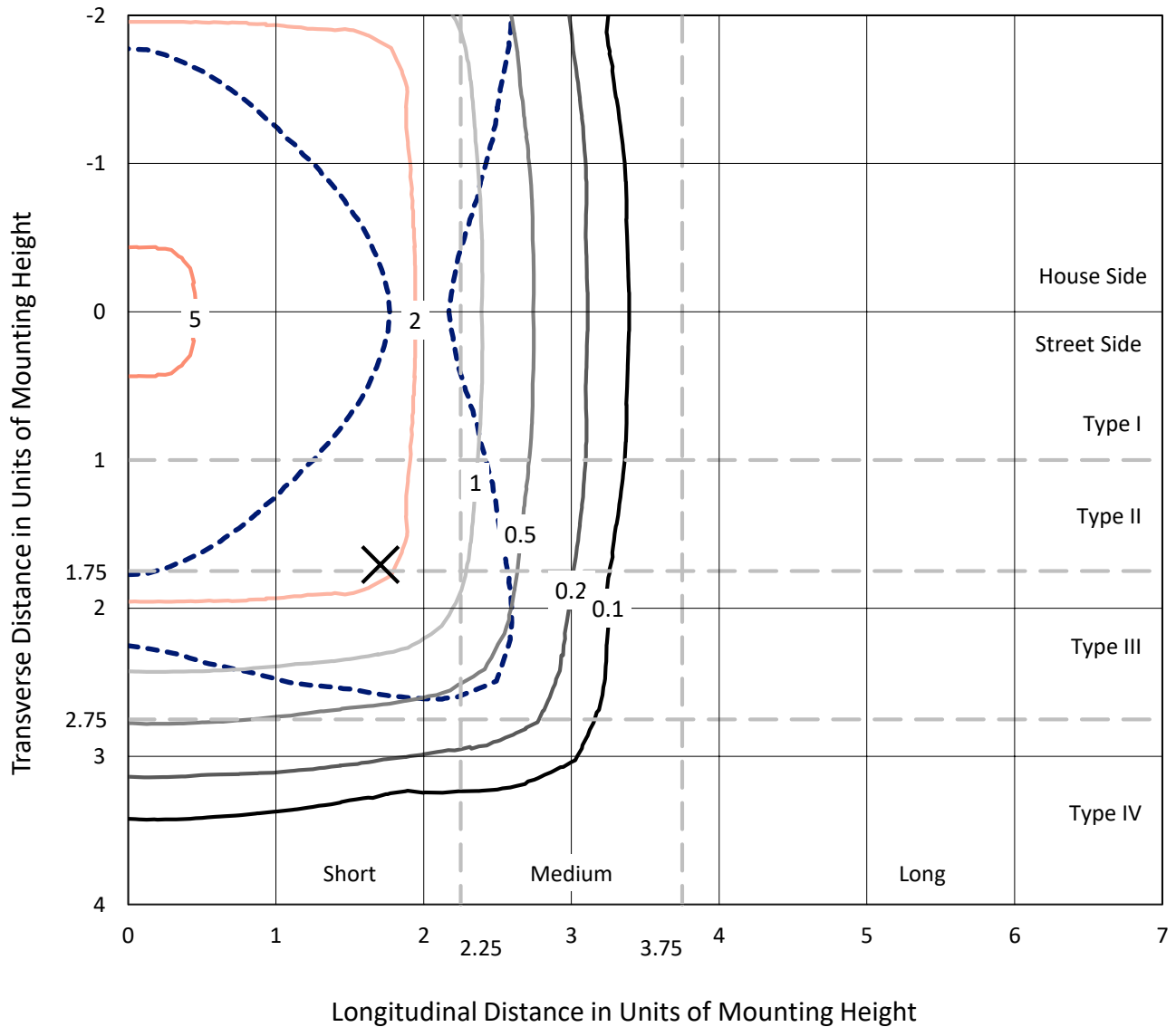


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

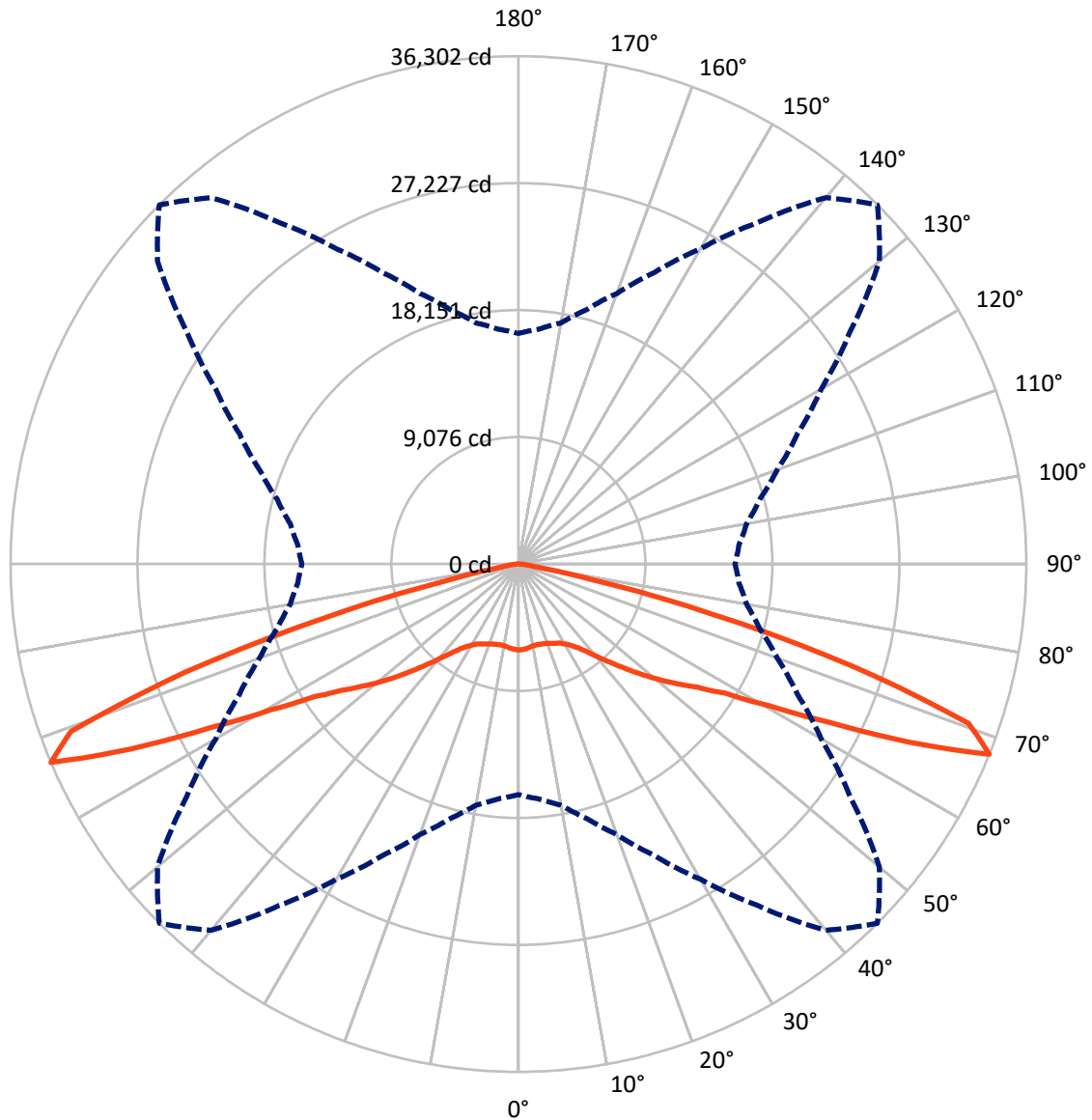


Based on 30 foot mounting height. Maximum calculated value = 6.8 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	30840.8	0.0	30840.8
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	30840.8	0.0	30840.8
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	61681.6	0.0	61681.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	575.3	0.9
10°-20°	1669.5	2.7
20°-30°	2838.0	4.6
30°-40°	4639.3	7.5
40°-50°	8282.0	13.4
50°-60°	13963.7	22.6
60°-70°	21669.7	35.1
70°-80°	7613.8	12.3
80°-90°	430.3	0.7
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°	61681.6	100.0
0°-180°	61681.6	100.0



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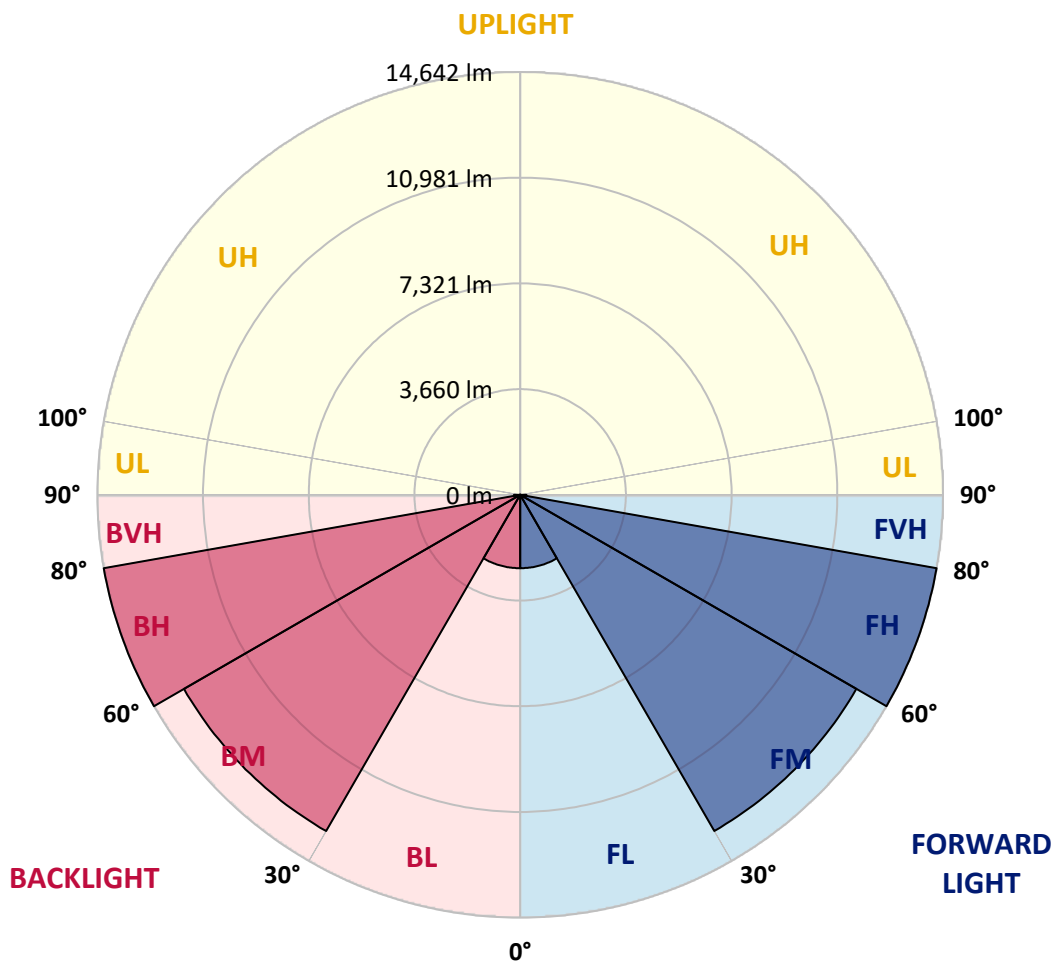
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2541.4	4.1			
FM	(30°-60°)	13442.6	21.8			
FH	(60°-80°)	14641.7	23.7			G5
FVH	(80°-90°)	215.1	0.3			G2/225
BL	(0°-30°)	2541.4	4.1	B4/5000		
BM	(30°-60°)	13442.6	21.8	B5		
BH	(60°-80°)	14641.7	23.7	B5		G5
BVH	(80°-90°)	215.1	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-G5**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	6146.8	6146.8	6146.8	6146.8	6146.8	6146.8	6146.8	6146.8	6146.8	6146.8	6146.8
2.5°	6124.1	6129.8	6129.8	6129.8	6127.0	6127.0	6121.3	6127.0	6124.1	6115.6	6118.5
5°	6073.1	6078.8	6078.8	6075.9	6084.4	6081.6	6073.1	6078.8	6075.9	6070.2	6073.1
7.5°	5999.3	6007.8	6007.8	6005.0	6013.5	6010.7	6005.0	6007.8	6007.8	5999.3	5999.3
10°	5917.1	5922.7	5922.7	5919.9	5934.1	5934.1	5931.3	5939.8	5942.6	5934.1	5928.4
12.5°	5840.5	5849.0	5849.0	5860.3	5874.5	5880.2	5894.4	5905.7	5917.1	5914.2	5902.9
15°	5795.1	5800.8	5812.1	5826.3	5849.0	5868.9	5891.5	5917.1	5939.8	5945.4	5928.4
17.5°	5766.7	5775.2	5792.3	5812.1	5843.3	5877.4	5911.4	5945.4	5976.6	5988.0	5968.1
20°	5758.2	5763.9	5780.9	5815.0	5857.5	5908.6	5956.8	5996.5	6039.0	6053.2	6039.0
22.5°	5775.2	5786.6	5806.4	5846.2	5902.9	5968.1	6024.9	6078.8	6132.7	6158.2	6138.3
25°	5851.8	5863.2	5888.7	5939.8	6002.2	6070.2	6135.5	6197.9	6246.1	6271.6	6257.5
27.5°	5993.7	6007.8	6039.0	6090.1	6158.2	6231.9	6302.8	6353.9	6393.6	6402.1	6385.1
30°	6206.4	6237.6	6274.5	6331.2	6410.6	6473.0	6544.0	6589.3	6637.6	6637.6	6623.4
32.5°	6538.3	6569.5	6609.2	6663.1	6725.5	6793.6	6856.0	6895.7	6946.7	6949.6	6915.5
35°	7034.7	7048.9	7082.9	7116.9	7173.7	7233.2	7287.1	7312.7	7355.2	7358.0	7326.8
37.5°	7689.9	7692.8	7715.5	7726.8	7777.9	7843.1	7894.2	7911.2	7950.9	7945.2	7914.0
40°	8453.0	8467.1	8475.7	8492.7	8546.6	8609.0	8662.9	8671.4	8713.9	8705.4	8665.7
42.5°	9335.1	9340.8	9389.0	9414.6	9465.6	9496.8	9564.9	9573.4	9624.5	9601.8	9556.4
45°	10325.1	10376.2	10421.5	10472.6	10526.5	10563.4	10617.3	10605.9	10640.0	10605.9	10580.4
47.5°	11366.1	11403.0	11505.1	11584.5	11672.5	11703.7	11780.3	11746.2	11780.3	11732.0	11723.5
50°	12512.1	12577.3	12665.3	12756.0	12849.6	12900.7	13000.0	12957.4	13002.8	12957.4	12931.9
52.5°	13641.0	13658.1	13850.9	13984.3	14114.7	14174.3	14233.9	14214.0	14216.9	14214.0	14188.5
55°	14713.3	14753.0	14945.9	15127.4	15354.3	15521.7	15623.8	15612.5	15586.9	15561.4	15518.8
57.5°	15921.6	15961.3	16182.6	16406.7	16664.8	16903.1	17110.2	17322.9	17405.2	17427.9	17334.2
60°	17555.5	17552.7	17847.7	18120.0	18488.7	18843.3	19297.1	19759.5	20289.9	20536.7	20210.5
62.5°	19217.7	19285.8	19711.3	20193.5	20953.7	21694.0	22530.8	23353.4	24193.1	24876.7	24150.5
65°	19019.2	19280.1	19912.7	21004.8	22408.9	24076.8	25880.8	27789.8	29514.5	30700.1	29369.8
67.5°	16483.3	16854.9	17498.8	18826.3	20582.1	22987.5	26017.0	29792.4	34180.6	36302.4	33672.9
70°	11947.6	12367.4	13042.5	14338.8	16077.6	18363.9	21654.3	26187.2	31996.5	34135.2	31239.1
72.5°	5945.4	6172.4	6589.3	7414.8	8730.9	10586.1	13570.1	17927.1	23066.9	25029.8	22383.3
75°	2019.6	2124.6	2195.5	2465.0	2881.9	3610.9	5094.5	7837.4	11956.1	14333.2	11785.9
77.5°	1165.8	1168.7	1216.9	1265.1	1336.0	1415.4	1614.0	2118.9	3664.8	5205.1	3792.5
80°	754.5	751.7	791.4	828.3	876.5	916.2	927.6	981.5	1131.8	1341.7	1199.9
82.5°	391.4	439.7	527.6	575.8	666.6	683.6	660.9	641.1	677.9	703.5	720.5
85°	215.6	187.2	280.8	363.1	402.8	408.5	408.5	385.8	400.0	391.4	425.5
87.5°	99.3	90.8	110.6	178.7	190.0	161.7	170.2	150.3	107.8	105.0	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°	6146.8	6146.8	6146.8	6146.8	6146.8	6146.8	6146.8	6146.8
2.5°	6118.5	6121.3	6121.3	6129.8	6132.7	6138.3	6144.0	6146.8
5°	6070.2	6078.8	6073.1	6081.6	6081.6	6087.3	6087.3	6090.1
7.5°	5999.3	6007.8	6007.8	6007.8	6005.0	6013.5	6013.5	6013.5
10°	5925.6	5931.3	5928.4	5922.7	5917.1	5925.6	5922.7	5919.9
12.5°	5902.9	5888.7	5877.4	5871.7	5860.3	5863.2	5854.7	5854.7
15°	5917.1	5891.5	5871.7	5863.2	5851.8	5846.2	5840.5	5843.3
17.5°	5953.9	5922.7	5897.2	5883.0	5868.9	5860.3	5849.0	5851.8
20°	6019.2	5982.3	5945.4	5917.1	5891.5	5877.4	5868.9	5866.0
22.5°	6115.6	6061.7	6007.8	5965.3	5931.3	5911.4	5902.9	5897.2
25°	6226.3	6166.7	6104.3	6056.1	6022.0	5996.5	5979.5	5979.5
27.5°	6365.3	6317.0	6260.3	6203.6	6172.4	6146.8	6135.5	6129.8
30°	6597.8	6552.5	6507.1	6453.2	6413.5	6387.9	6368.1	6351.1
32.5°	6895.7	6858.8	6821.9	6782.2	6745.4	6711.3	6680.1	6665.9
35°	7315.5	7287.1	7261.6	7216.2	7202.0	7182.2	7165.2	7151.0
37.5°	7894.2	7882.8	7882.8	7834.6	7823.2	7814.7	7797.7	7800.6
40°	8654.4	8665.7	8651.5	8634.5	8626.0	8603.3	8603.3	8623.2
42.5°	9553.6	9562.1	9593.3	9564.9	9596.1	9567.7	9550.7	9564.9
45°	10597.4	10628.6	10691.0	10662.6	10682.5	10634.3	10574.7	10577.5
47.5°	11768.9	11797.3	11822.8	11802.9	11805.8	11726.4	11646.9	11627.1
50°	12985.8	12997.1	13011.3	12983.0	12988.6	12900.7	12809.9	12812.8
52.5°	14188.5	14242.4	14299.1	14222.5	14205.5	14106.2	13978.6	13927.5
55°	15564.2	15640.8	15575.6	15442.3	15308.9	15175.6	15008.3	14979.9
57.5°	17260.5	17130.0	16925.8	16673.3	16489.0	16301.7	16131.5	16060.6
60°	19620.5	19129.8	18761.0	18386.6	18151.2	17921.4	17697.3	17663.3
62.5°	22956.3	22108.2	21373.5	20599.1	19966.6	19473.0	19078.7	18968.1
65°	27137.4	25132.0	23393.1	21770.6	20360.9	19297.1	18627.7	18332.7
67.5°	28935.8	24976.0	21994.7	19691.4	17847.7	16559.9	15836.5	15476.3
70°	25427.0	20712.6	17470.4	15164.3	13485.0	12112.1	11456.9	11071.1
72.5°	17493.1	13175.8	10418.7	8504.0	7162.3	6013.5	5559.7	5525.6
75°	7854.4	5202.3	3585.4	2762.8	2326.0	2022.5	1928.9	1857.9
77.5°	2198.3	1625.4	1449.5	1355.9	1265.1	1160.2	1120.4	1129.0
80°	1069.4	1009.8	970.1	910.5	828.3	740.3	700.6	717.7
82.5°	709.1	700.6	726.2	683.6	564.5	479.4	402.8	368.8
85°	431.2	436.8	445.3	448.2	380.1	266.6	181.5	204.2
87.5°	170.2	195.7	212.7	221.3	207.1	127.6	102.1	105.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)