

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: P299144

Luminaire Tested: **GLNA-AF-09-LED-E1-T3-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299144
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24140)
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-T3-7030
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 51306.8 lumens
Efficiency: N/A
Efficacy: 102.4 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B4 - U0 - G5

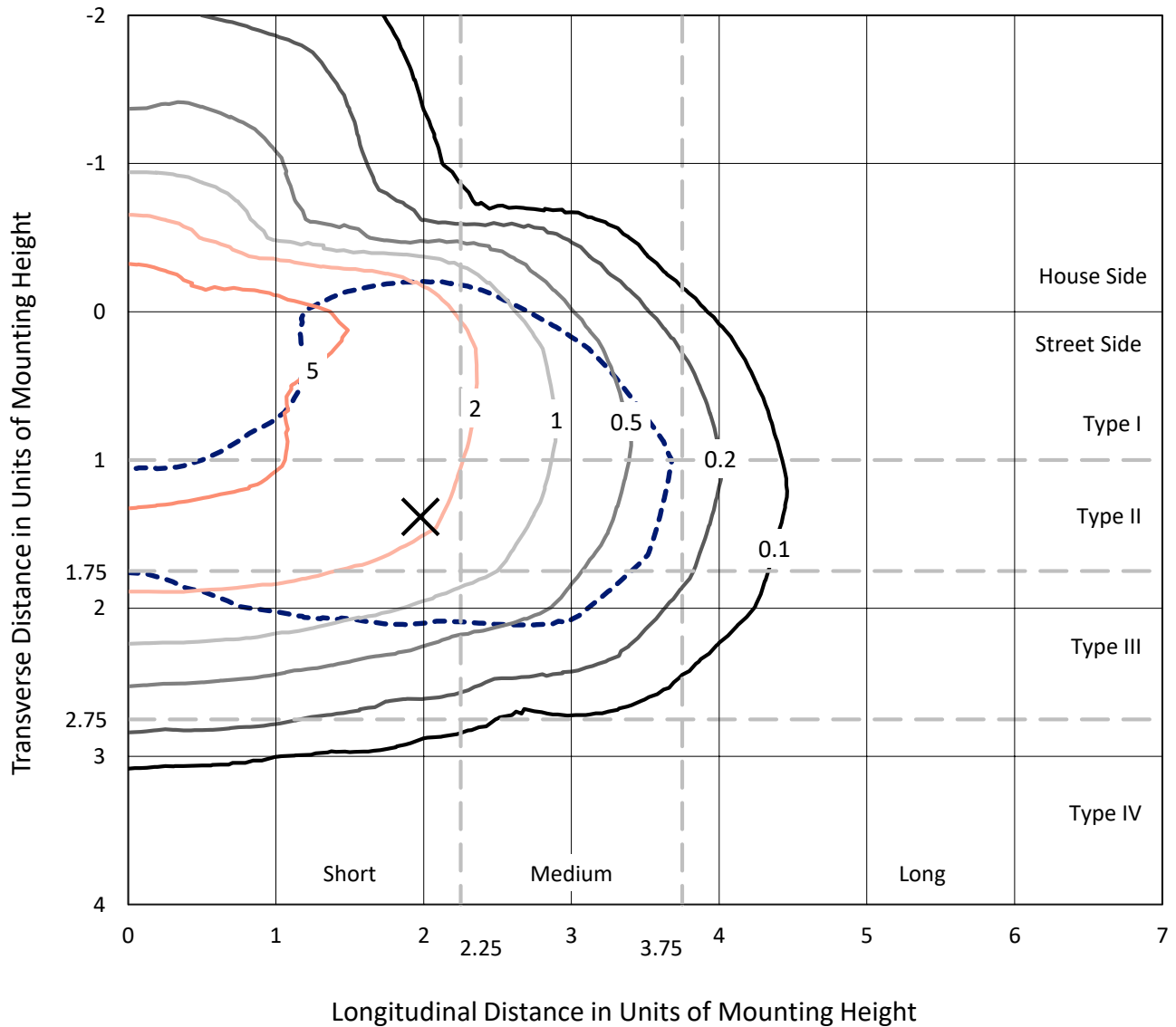
Input Watts (W): 501
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

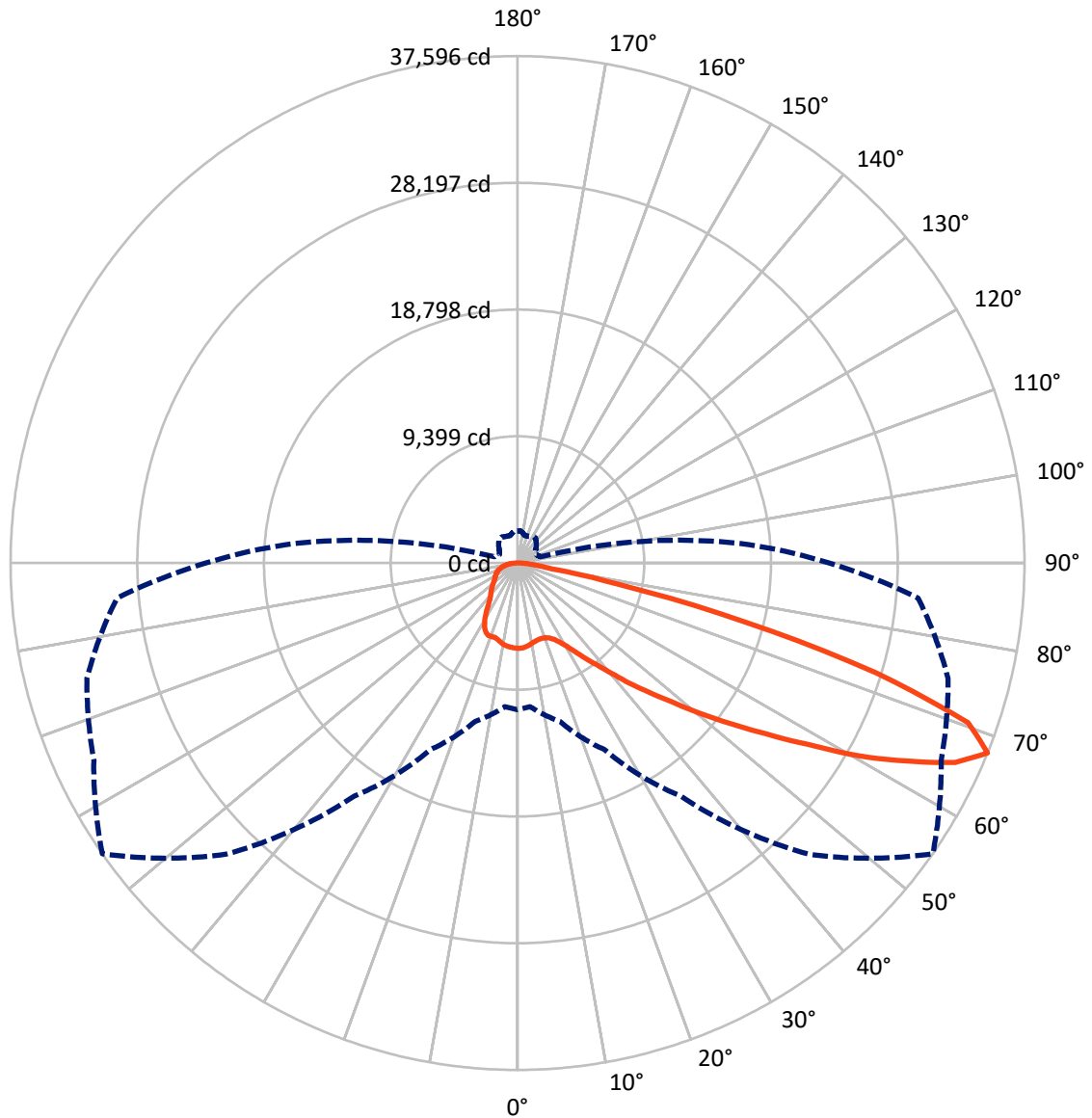
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.2 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11083.4	0.0	11083.4
	% Fixture	21.6	0.0	21.6
Street Side	Lumens	40223.5	0.0	40223.5
	% Fixture	78.4	0.0	78.4
Total	Lumens	51306.8	0.0	51306.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	590.5	1.2
10°-20°	1672.5	3.3
20°-30°	2801.6	5.5
30°-40°	4607.0	9.0
40°-50°	7755.0	15.1
50°-60°	12205.9	23.8
60°-70°	14566.4	28.4
70°-80°	6255.1	12.2
80°-90°	852.8	1.7
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°	51306.8	100.0
0°-180°	51306.8	100.0



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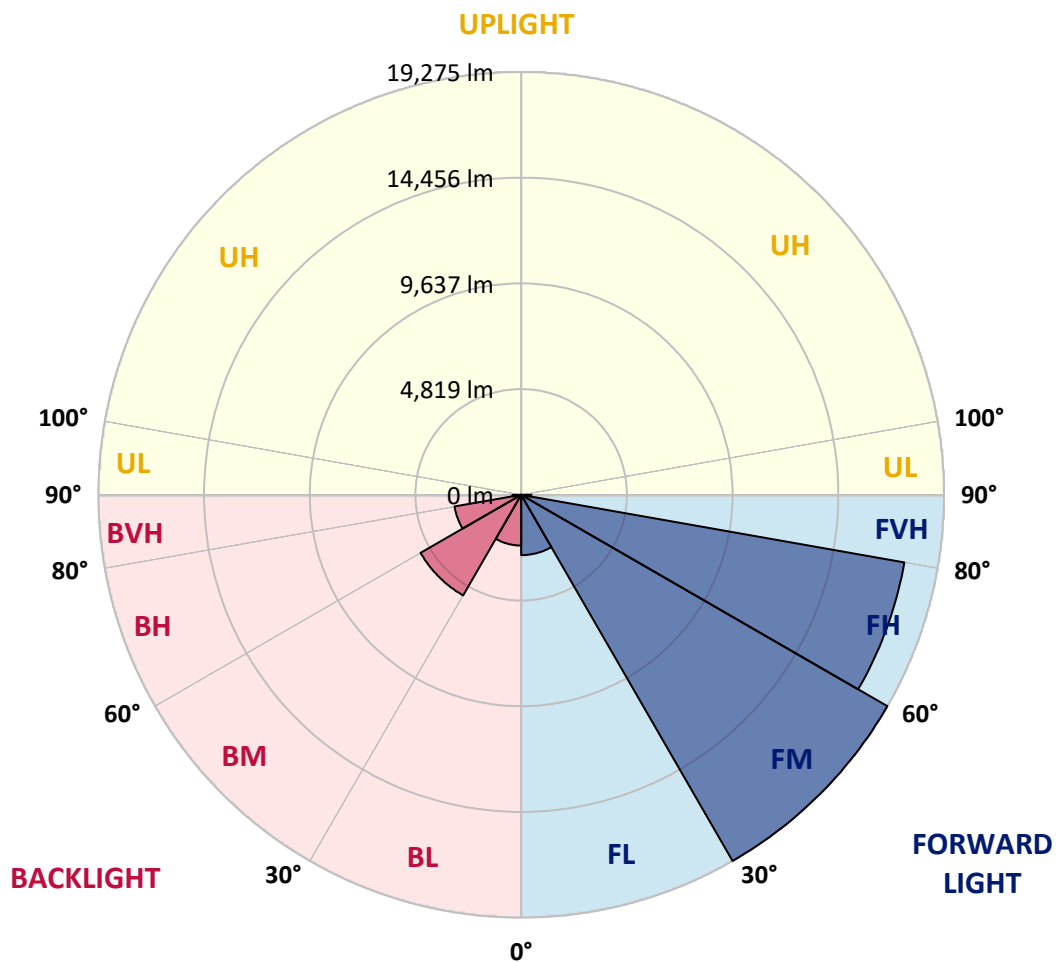
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2750.2	5.4			
FM	(30°-60°)	19274.6	37.6			
FH	(60°-80°)	17737.0	34.6			G5
FVH	(80°-90°)	461.6	0.9			G3/500
BL	(0°-30°)	2314.4	4.5	B3/2500		
BM	(30°-60°)	5293.3	10.3	B4/8500		
BH	(60°-80°)	3084.5	6.0	B4/5000		G4/5000
BVH	(80°-90°)	391.2	0.8			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	6326.7	6326.7	6326.7	6326.7	6326.7	6326.7	6326.7	6326.7	6326.7	6326.7	6326.7
2.5°	6272.2	6274.7	6279.6	6299.4	6316.8	6311.8	6314.3	6304.4	6301.9	6287.0	6301.9
5°	6192.9	6200.3	6202.8	6235.0	6254.8	6259.8	6252.3	6240.0	6225.1	6210.2	6217.7
7.5°	6012.0	6031.8	6034.3	6078.9	6111.1	6153.2	6155.7	6158.2	6150.7	6140.8	6155.7
10°	5898.0	5902.9	5900.5	5932.7	5957.4	6004.5	6031.8	6078.9	6098.7	6103.7	6113.6
12.5°	5890.5	5885.6	5878.1	5878.1	5870.7	5890.5	5940.1	6007.0	6054.1	6069.0	6081.4
15°	5969.8	5967.4	5942.6	5905.4	5858.3	5843.5	5885.6	5959.9	6021.9	6054.1	6066.5
17.5°	6148.3	6133.4	6093.7	6009.5	5907.9	5868.2	5873.2	5935.1	6007.0	6049.1	6061.5
20°	6475.4	6475.4	6391.1	6232.5	6051.6	5957.4	5912.8	5950.0	6019.4	6076.4	6093.7
22.5°	7040.4	7045.4	6904.1	6643.9	6339.1	6138.4	6026.8	6019.4	6101.2	6165.6	6185.4
25°	7840.8	7821.0	7622.8	7251.0	6787.6	6455.6	6262.3	6217.7	6287.0	6358.9	6383.7
27.5°	8772.6	8700.8	8465.3	8016.8	7417.1	6931.4	6634.0	6562.1	6629.0	6710.8	6735.6
30°	9694.5	9620.1	9340.1	8849.4	8182.8	7568.2	7142.0	7025.5	7119.7	7236.2	7251.0
32.5°	10616.4	10616.4	10304.1	9731.7	9005.6	8329.0	7818.5	7679.8	7835.9	7977.1	8009.3
35°	11719.1	11724.1	11421.7	10732.8	9952.2	9236.0	8673.5	8571.9	8807.3	8906.4	8983.3
37.5°	13074.7	13101.9	12712.9	11880.2	11025.2	10271.9	9602.8	9464.0	9699.4	9969.6	10217.4
40°	14539.2	14573.9	14145.2	13119.3	12264.3	11476.3	10752.7	10502.4	10893.9	11409.4	11729.0
42.5°	15936.9	16115.3	15701.5	14645.8	13726.4	12911.1	12177.6	11813.3	12304.0	13082.1	13359.7
45°	17956.6	18085.5	17364.3	16407.8	15542.9	14630.9	13659.5	13275.4	13961.8	14943.2	15000.2
47.5°	19302.2	19205.6	18838.8	18244.1	17696.4	16843.9	15381.8	14960.5	15872.5	17027.3	16707.6
50°	20018.4	20048.2	19998.6	20033.3	20053.1	19517.8	17493.2	16915.8	18003.7	19398.9	18662.9
52.5°	20687.5	20489.3	20652.8	21465.7	22447.0	22248.7	19790.4	19188.2	20288.5	22030.7	20729.6
55°	20672.6	20370.3	20903.1	22338.0	24466.7	24694.7	22370.2	21676.3	22704.7	24853.3	22920.3
57.5°	19941.6	19956.5	20776.7	22655.2	25874.3	26994.4	25363.8	24322.9	25267.1	27713.0	24920.2
60°	18935.5	19071.8	20253.8	22603.1	27001.8	28880.2	29036.4	27175.3	27777.5	30312.6	26575.6
62.5°	17312.3	17456.0	19086.6	22062.9	26830.8	30696.7	32357.1	30411.7	30401.8	31888.7	27061.3
65°	14752.4	14710.2	16422.6	20043.2	25396.0	32039.9	35655.5	33209.6	32379.4	31913.5	26084.9
67.5°	10879.0	10690.7	12160.2	15265.3	21108.8	30535.6	37595.9	34666.7	33053.4	29814.5	23101.2
70°	5645.2	5456.9	6646.4	8913.9	13882.5	23832.3	35447.3	33913.3	31564.1	24992.0	18097.9
72.5°	2413.7	2381.5	2864.7	3910.5	6715.8	13746.2	27794.8	29353.6	27083.6	18620.7	12442.7
75°	1623.2	1613.3	1794.2	2131.2	3020.9	5578.3	17394.1	20836.2	19815.2	11545.7	6998.3
77.5°	1273.8	1261.4	1367.9	1531.5	1957.7	2200.6	7719.4	11186.3	10353.7	5025.7	3063.0
80°	996.2	986.3	1053.2	1142.4	1407.6	1387.8	2540.1	4450.7	3444.6	1925.5	1489.4
82.5°	785.6	785.6	840.1	842.6	998.7	946.6	1325.8	1960.2	1719.8	1122.6	912.0
85°	718.7	718.7	775.7	629.4	651.8	597.2	822.7	1162.2	1090.4	460.9	396.5
87.5°	361.8	351.9	651.8	557.6	354.4	317.2	401.5	562.5	604.7	255.2	198.3
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6326.7	6326.7	6326.7	6326.7	6326.7	6326.7	6326.7	6326.7	6326.7	6326.7
2.5°	6297.0	6294.5	6299.4	6301.9	6321.7	6349.0	6361.4	6378.7	6388.6	6383.7
5°	6222.6	6227.6	6247.4	6262.3	6297.0	6341.6	6366.3	6386.2	6403.5	6396.1
7.5°	6160.7	6173.0	6202.8	6215.2	6235.0	6247.4	6244.9	6252.3	6267.2	6249.9
10°	6126.0	6140.8	6163.1	6145.8	6098.7	6031.8	5969.8	5937.6	5947.5	5935.1
12.5°	6091.3	6111.1	6093.7	6012.0	5880.6	5793.9	5746.8	5751.8	5774.1	5779.0
15°	6071.4	6078.9	6004.5	5850.9	5717.1	5704.7	5729.5	5724.5	5727.0	5727.0
17.5°	6071.4	6051.6	5912.8	5759.2	5702.2	5679.9	5603.1	5506.4	5464.3	5449.4
20°	6103.7	6051.6	5883.1	5781.5	5657.6	5466.8	5263.6	5085.1	5005.8	4983.5
22.5°	6200.3	6111.1	5967.4	5791.4	5439.5	5119.8	4797.7	4584.6	4440.8	4416.0
25°	6396.1	6297.0	6133.4	5660.1	5092.6	4636.6	4269.8	4031.9	3888.2	3868.4
27.5°	6738.1	6673.6	6222.6	5370.1	4631.6	4143.5	3803.9	3620.6	3514.0	3506.6
30°	7253.5	7221.3	6178.0	4941.4	4064.1	3665.2	3501.6	3395.1	3315.8	3313.3
32.5°	8076.3	7816.1	6031.8	4418.5	3546.2	3325.7	3258.8	3194.3	3132.4	3132.4
35°	9134.4	8296.8	5754.2	3858.5	3231.5	3137.3	3053.1	2951.5	2869.7	2864.7
37.5°	10378.5	8594.2	5256.1	3407.4	3082.8	3010.9	2887.0	2735.9	2592.1	2567.4
40°	11634.9	8683.4	4554.8	3129.9	2988.6	2884.6	2733.4	2555.0	2416.2	2408.8
42.5°	12787.2	8512.4	3811.4	2939.1	2894.5	2755.7	2597.1	2438.5	2329.5	2327.0
45°	13753.7	8068.8	3186.9	2758.2	2795.3	2639.2	2498.0	2369.1	2284.8	2267.5
47.5°	14663.2	7441.9	2748.3	2567.4	2696.2	2574.8	2455.8	2334.4	2252.6	2240.2
50°	15718.8	6765.3	2441.0	2381.5	2609.5	2552.5	2490.5	2364.1	2227.8	2213.0
52.5°	16997.6	6180.5	2200.6	2217.9	2542.6	2582.2	2579.7	2448.4	2210.5	2190.7
55°	18425.0	5531.2	2019.7	2084.1	2515.3	2636.7	2602.0	2527.7	2225.4	2195.6
57.5°	19830.1	4772.9	1893.3	1982.5	2475.7	2631.8	2495.5	2388.9	2260.1	2217.9
60°	20883.3	3754.4	1796.7	1893.3	2388.9	2550.0	2379.0	2237.8	2252.6	2220.4
62.5°	20952.7	2901.9	1680.2	1816.5	2257.6	2468.2	2302.2	2170.9	2284.8	2255.1
65°	19721.0	2193.2	1568.7	1724.8	2116.3	2416.2	2227.8	2133.7	2351.8	2319.5
67.5°	16603.5	1764.4	1474.5	1630.6	1975.1	2307.1	2160.9	2099.0	2411.2	2354.2
70°	11986.8	1504.2	1382.8	1516.6	1848.7	2183.2	2101.5	2037.0	2250.2	2160.9
72.5°	7379.9	1303.5	1278.7	1365.5	1752.0	2054.4	2012.2	1920.6	2027.1	1955.3
75°	3685.0	1130.0	1162.2	1216.8	1615.7	1908.2	1863.6	1771.9	1786.7	1771.9
77.5°	1764.4	966.5	1026.0	1068.1	1439.8	1742.1	1695.0	1600.9	1583.5	1586.0
80°	1117.6	807.9	864.9	894.6	1286.2	1548.8	1501.8	1407.6	1605.8	1489.4
82.5°	698.8	656.7	671.6	726.1	1120.1	1348.1	1286.2	1201.9	1447.2	1144.9
85°	386.6	458.5	478.3	525.4	862.4	1127.6	1065.6	959.0	859.9	845.0
87.5°	230.5	272.6	280.0	314.7	579.9	815.3	721.1	684.0	567.5	565.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)