

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: P299140

Luminaire Tested: **GLNA-AF-08-LED-E1-T3**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299140
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-08-LED-E1-T3
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(8) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 47550.4 lumens
Efficiency: N/A
Efficacy: 106.9 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B4 - U0 - G5

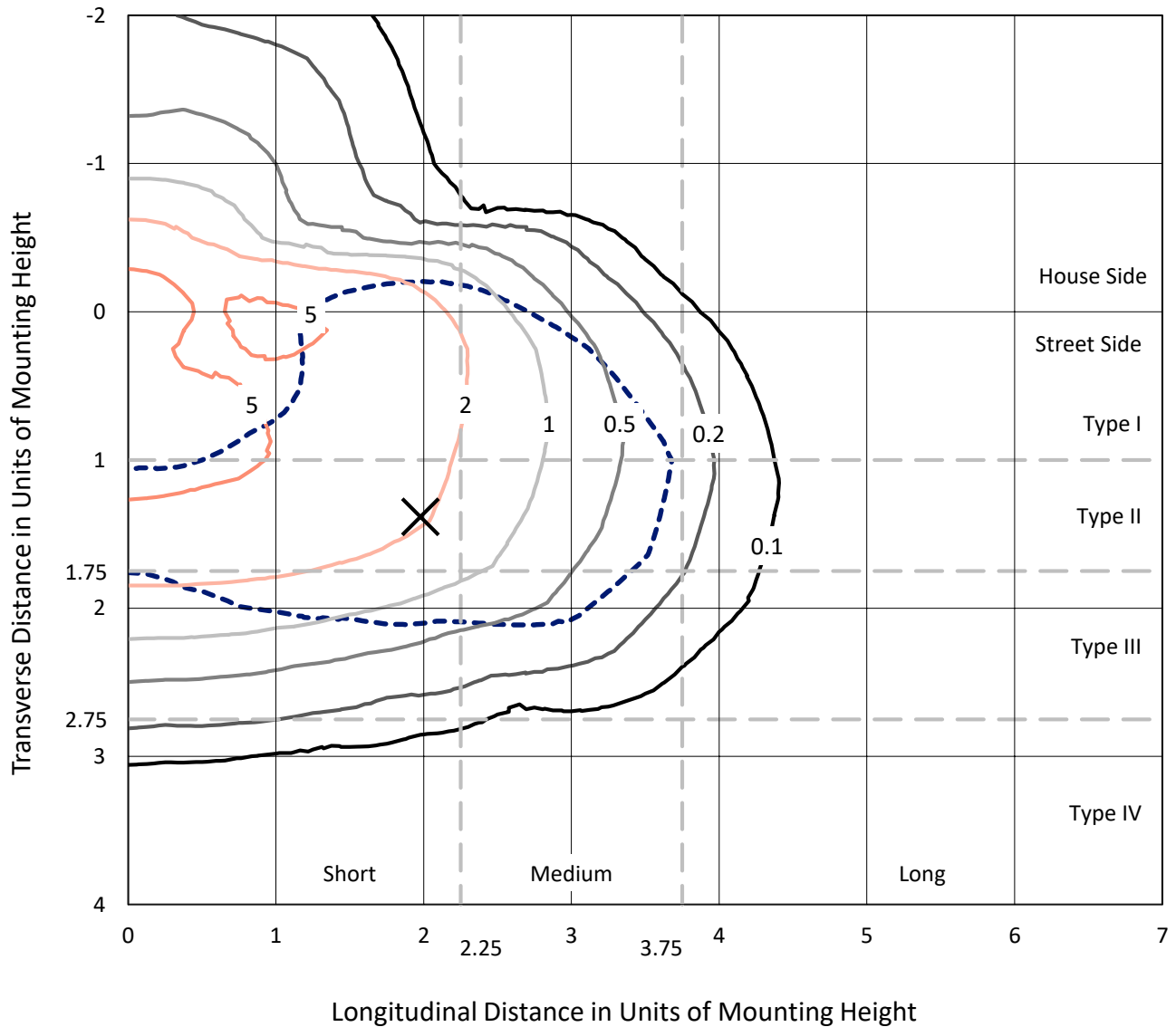
Input Watts (W): 445
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

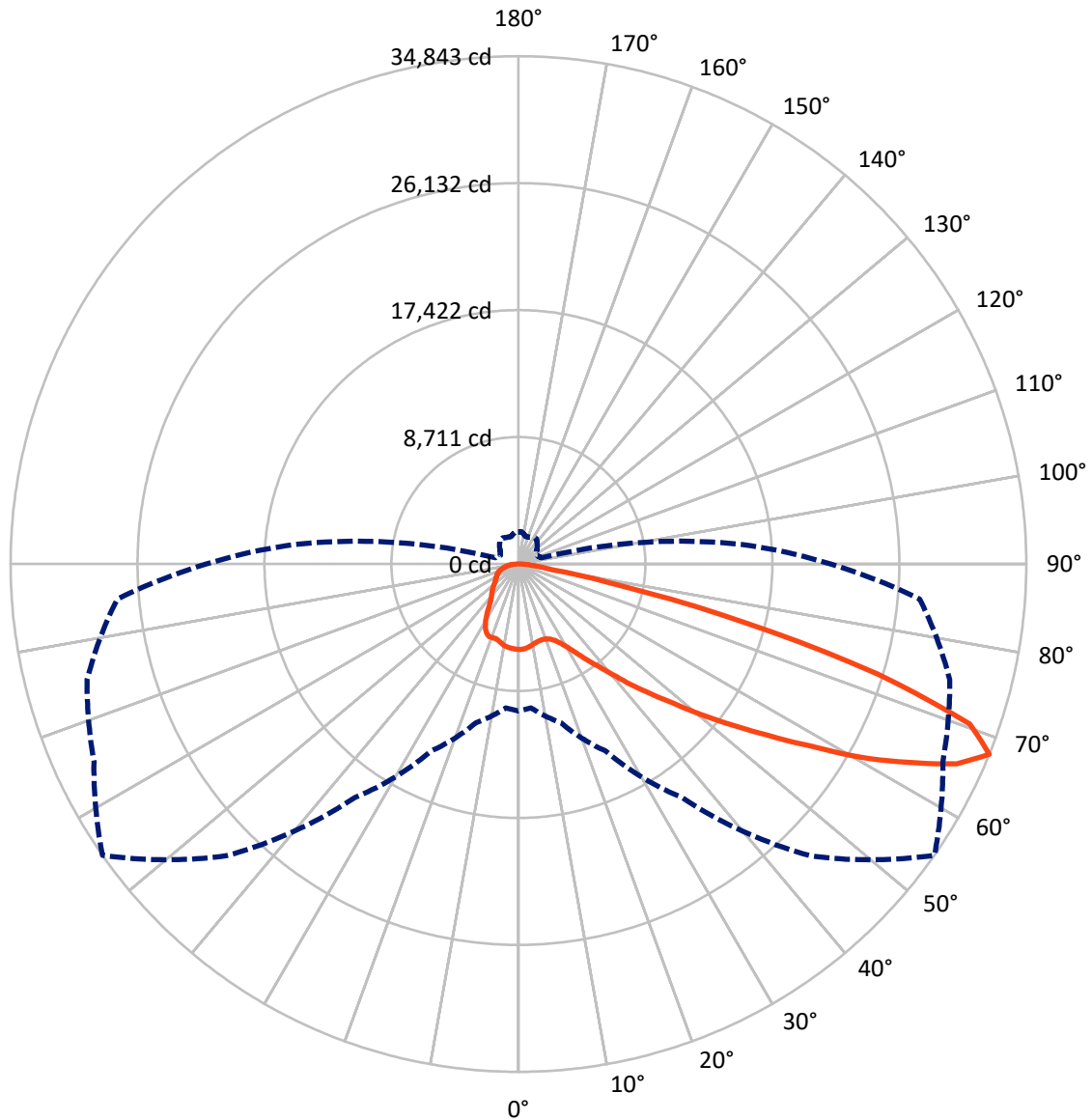
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.7 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	10271.9	0.0	10271.9
	% Fixture	21.6	0.0	21.6
Street Side	Lumens	37278.5	0.0	37278.5
	% Fixture	78.4	0.0	78.4
Total	Lumens	47550.4	0.0	47550.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	547.3	1.2
10°-20°	1550.0	3.3
20°-30°	2596.5	5.5
30°-40°	4269.7	9.0
40°-50°	7187.3	15.1
50°-60°	11312.2	23.8
60°-70°	13499.9	28.4
70°-80°	5797.1	12.2
80°-90°	790.4	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°	47550.4	100.0
0°-180°	47550.4	100.0



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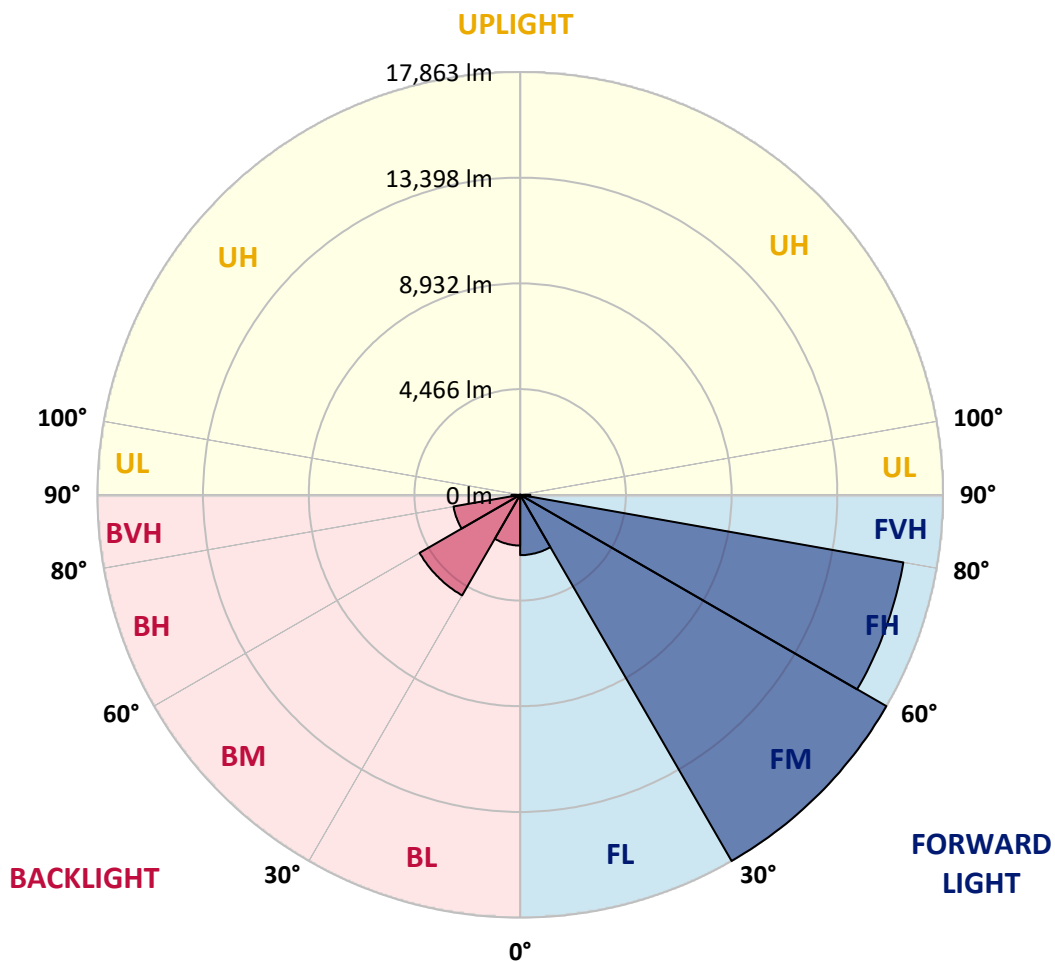
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2548.8	5.4			
FM (30°-60°)	17863.4	37.6			
FH (60°-80°)	16438.4	34.6			G5
FVH (80°-90°)	427.8	0.9			G3/500
BL (0°-30°)	2145.0	4.5	B3/2500		
BM (30°-60°)	4905.8	10.3	B3/5000		
BH (60°-80°)	2858.6	6.0	B4/5000		G4/5000
BVH (80°-90°)	362.5	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°	5863.5	5863.5	5863.5	5863.5	5863.5	5863.5	5863.5	5863.5	5863.5	5863.5	5863.5
2.5°	5813.0	5815.2	5819.8	5838.2	5854.3	5849.7	5852.0	5842.8	5840.5	5826.7	5840.5
5°	5739.5	5746.3	5748.6	5778.5	5796.9	5801.5	5794.6	5783.1	5769.3	5755.5	5762.4
7.5°	5571.8	5590.2	5592.5	5633.8	5663.7	5702.7	5705.0	5707.3	5700.4	5691.2	5705.0
10°	5466.1	5470.7	5468.4	5498.3	5521.3	5564.9	5590.2	5633.8	5652.2	5656.8	5666.0
12.5°	5459.3	5454.7	5447.8	5447.8	5440.9	5459.3	5505.2	5567.2	5610.8	5624.6	5636.1
15°	5532.8	5530.5	5507.5	5473.0	5429.4	5415.6	5454.7	5523.6	5581.0	5610.8	5622.3
17.5°	5698.1	5684.3	5647.6	5569.5	5475.3	5438.6	5443.2	5500.6	5567.2	5606.2	5617.7
20°	6001.3	6001.3	5923.2	5776.2	5608.5	5521.3	5479.9	5514.4	5578.7	5631.5	5647.6
22.5°	6524.9	6529.5	6398.6	6157.5	5875.0	5688.9	5585.6	5578.7	5654.5	5714.2	5732.6
25°	7266.8	7248.4	7064.7	6720.1	6290.7	5982.9	5803.8	5762.4	5826.7	5893.3	5916.3
27.5°	8130.3	8063.7	7845.5	7429.8	6874.0	6423.9	6148.3	6081.7	6143.7	6219.5	6242.4
30°	8984.7	8915.8	8656.3	8201.5	7583.7	7014.1	6619.1	6511.1	6598.4	6706.4	6720.1
32.5°	9839.1	9839.1	9549.7	9019.1	8346.2	7719.2	7246.1	7117.5	7262.2	7393.1	7422.9
35°	10861.1	10865.7	10585.5	9947.0	9223.6	8559.8	8038.5	7944.3	8162.5	8254.3	8325.5
37.5°	12117.4	12142.7	11782.1	11010.4	10218.0	9519.8	8899.7	8771.1	8989.3	9239.6	9469.3
40°	13474.7	13506.9	13109.6	12158.7	11366.4	10636.0	9965.4	9733.4	10096.3	10574.0	10870.3
42.5°	14770.1	14935.4	14551.9	13573.5	12721.4	11965.8	11286.0	10948.4	11403.1	12124.3	12381.5
45°	16641.9	16761.3	16093.0	15206.5	14404.9	13559.7	12659.4	12303.4	12939.6	13849.1	13901.9
47.5°	17889.0	17799.4	17459.5	16908.3	16400.7	15610.7	14255.6	13865.2	14710.4	15780.6	15484.4
50°	18552.8	18580.3	18534.4	18566.5	18584.9	18088.8	16212.4	15677.3	16685.5	17978.6	17296.5
52.5°	19172.9	18989.1	19140.7	19894.0	20803.5	20619.8	18341.5	17783.4	18803.1	20417.7	19211.9
55°	19159.1	18878.9	19372.7	20702.5	22675.3	22886.6	20732.3	20089.2	21042.4	23033.6	21242.2
57.5°	18481.6	18495.3	19255.5	20996.4	23979.9	25018.0	23506.7	22542.1	23417.2	25684.0	23095.6
60°	17549.1	17675.4	18770.9	20948.2	25024.9	26765.8	26910.5	25185.6	25743.7	28093.3	24629.8
62.5°	16044.8	16178.0	17689.2	20447.5	24866.4	28449.2	29988.0	28185.1	28175.9	29554.0	25080.0
65°	13672.3	13633.2	15220.2	18575.7	23536.6	29694.1	33044.9	30778.1	30008.7	29576.9	24175.1
67.5°	10082.5	9908.0	11269.9	14147.7	19563.3	28300.0	34843.3	32128.6	30633.4	27631.6	21409.9
70°	5231.9	5057.3	6159.8	8261.2	12866.1	22087.4	32852.0	31430.4	29253.1	23162.2	16772.8
72.5°	2237.0	2207.1	2655.0	3624.2	6224.1	12739.8	25759.8	27204.4	25100.6	17257.4	11531.7
75°	1504.3	1495.2	1662.8	1975.2	2799.7	5169.9	16120.5	19310.7	18364.4	10700.3	6485.9
77.5°	1180.5	1169.0	1267.8	1419.4	1814.4	2039.5	7154.2	10367.3	9595.6	4657.7	2838.7
80°	923.3	914.1	976.1	1058.8	1304.5	1286.2	2354.1	4124.9	3192.4	1784.5	1380.3
82.5°	728.1	728.1	778.6	780.9	925.6	877.3	1228.7	1816.7	1593.9	1040.4	845.2
85°	666.0	666.0	718.9	583.4	604.0	553.5	762.5	1077.2	1010.5	427.2	367.5
87.5°	335.3	326.1	604.0	516.8	328.4	294.0	372.1	521.4	560.4	236.6	183.7
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°	5863.5	5863.5	5863.5	5863.5	5863.5	5863.5	5863.5	5863.5	5863.5	5863.5
2.5°	5835.9	5833.6	5838.2	5840.5	5858.9	5884.1	5895.6	5911.7	5920.9	5916.3
5°	5767.0	5771.6	5790.0	5803.8	5835.9	5877.3	5900.2	5918.6	5934.7	5927.8
7.5°	5709.6	5721.1	5748.6	5760.1	5778.5	5790.0	5787.7	5794.6	5808.4	5792.3
10°	5677.4	5691.2	5711.9	5695.8	5652.2	5590.2	5532.8	5502.9	5512.1	5500.6
12.5°	5645.3	5663.7	5647.6	5571.8	5450.1	5369.7	5326.1	5330.6	5351.3	5355.9
15°	5626.9	5633.8	5564.9	5422.5	5298.5	5287.0	5310.0	5305.4	5307.7	5307.7
17.5°	5626.9	5608.5	5479.9	5337.5	5284.7	5264.0	5192.8	5103.3	5064.2	5050.4
20°	5656.8	5608.5	5452.4	5358.2	5243.4	5066.5	4878.2	4712.8	4639.3	4618.7
22.5°	5746.3	5663.7	5530.5	5367.4	5041.3	4745.0	4446.4	4248.9	4115.7	4092.7
25°	5927.8	5835.9	5684.3	5245.7	4719.7	4297.1	3957.2	3736.7	3603.5	3585.2
27.5°	6244.7	6185.0	5767.0	4977.0	4292.5	3840.1	3525.4	3355.5	3256.7	3249.8
30°	6722.4	6692.6	5725.7	4579.6	3766.6	3396.8	3245.2	3146.5	3073.0	3070.7
32.5°	7484.9	7243.8	5590.2	4095.0	3286.6	3082.2	3020.2	2960.4	2903.0	2903.0
35°	8465.6	7689.4	5332.9	3576.0	2994.9	2907.6	2829.5	2735.4	2659.6	2655.0
37.5°	9618.6	7965.0	4871.3	3158.0	2857.1	2790.5	2675.7	2535.6	2402.3	2379.4
40°	10783.0	8047.6	4221.3	2900.7	2769.8	2673.4	2533.3	2367.9	2239.3	2232.4
42.5°	11851.0	7889.2	3532.3	2723.9	2682.5	2553.9	2406.9	2260.0	2158.9	2156.6
45°	12746.7	7478.1	2953.6	2556.2	2590.7	2446.0	2315.1	2195.6	2117.6	2101.5
47.5°	13589.6	6897.0	2547.0	2379.4	2498.8	2386.3	2276.0	2163.5	2087.7	2076.2
50°	14568.0	6270.0	2262.3	2207.1	2418.4	2365.6	2308.2	2191.1	2064.7	2051.0
52.5°	15753.1	5728.0	2039.5	2055.5	2356.4	2393.2	2390.9	2269.1	2048.7	2030.3
55°	17076.0	5126.2	1871.8	1931.5	2331.2	2443.7	2411.5	2342.6	2062.4	2034.9
57.5°	18378.2	4423.4	1754.7	1837.4	2294.4	2439.1	2312.8	2214.0	2094.6	2055.5
60°	19354.3	3479.5	1665.1	1754.7	2214.0	2363.3	2204.8	2073.9	2087.7	2057.8
62.5°	19418.6	2689.4	1557.2	1683.5	2092.3	2287.5	2133.6	2011.9	2117.6	2090.0
65°	18277.1	2032.6	1453.8	1598.5	1961.4	2239.3	2064.7	1977.5	2179.6	2149.7
67.5°	15387.9	1635.3	1366.5	1511.2	1830.5	2138.2	2002.7	1945.3	2234.7	2181.9
70°	11109.1	1394.1	1281.6	1405.6	1713.3	2023.4	1947.6	1887.9	2085.4	2002.7
72.5°	6839.6	1208.1	1185.1	1265.5	1623.8	1904.0	1864.9	1779.9	1878.7	1812.1
75°	3415.2	1047.3	1077.2	1127.7	1497.4	1768.5	1727.1	1642.1	1655.9	1642.1
77.5°	1635.3	895.7	950.8	989.9	1334.4	1614.6	1570.9	1483.7	1467.6	1469.9
80°	1035.8	748.7	801.5	829.1	1192.0	1435.4	1391.8	1304.5	1488.3	1380.3
82.5°	647.7	608.6	622.4	672.9	1038.1	1249.4	1192.0	1113.9	1341.3	1061.1
85°	358.3	424.9	443.3	486.9	799.3	1045.0	987.6	888.8	797.0	783.2
87.5°	213.6	252.6	259.5	291.7	537.4	755.6	668.3	633.9	525.9	523.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)