

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: P301259

Luminaire Tested: **GLNA-AF-10-LED-E1-T3R-7060-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301259
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194839)
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-T3R-7060-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 5700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 39544.1 lumens
Efficiency: N/A
Efficacy: 122.4 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B3 - U0 - G5

Input Watts (W): 323
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

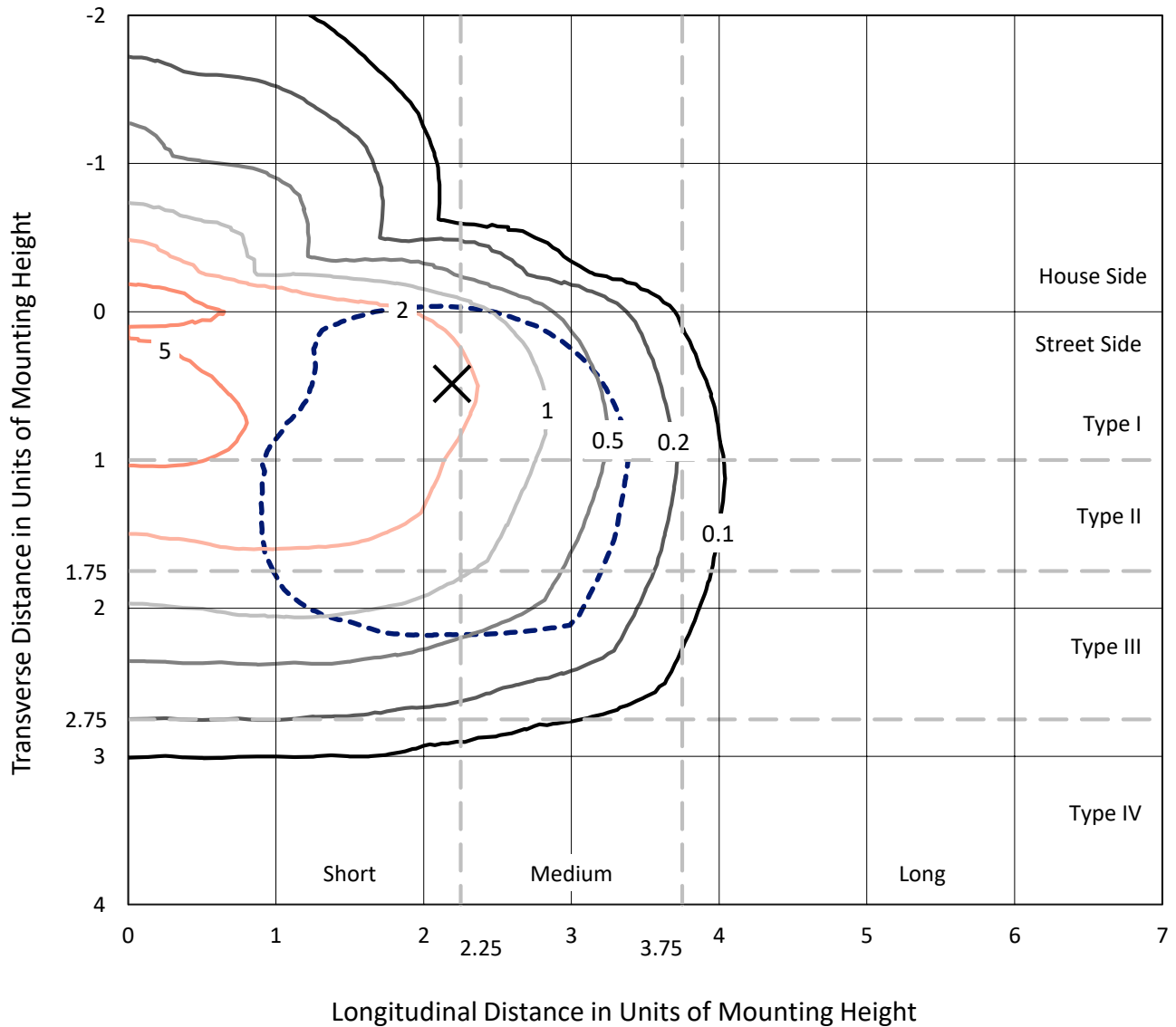


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Iso-Footcandle Lines of Horizontal Illumination

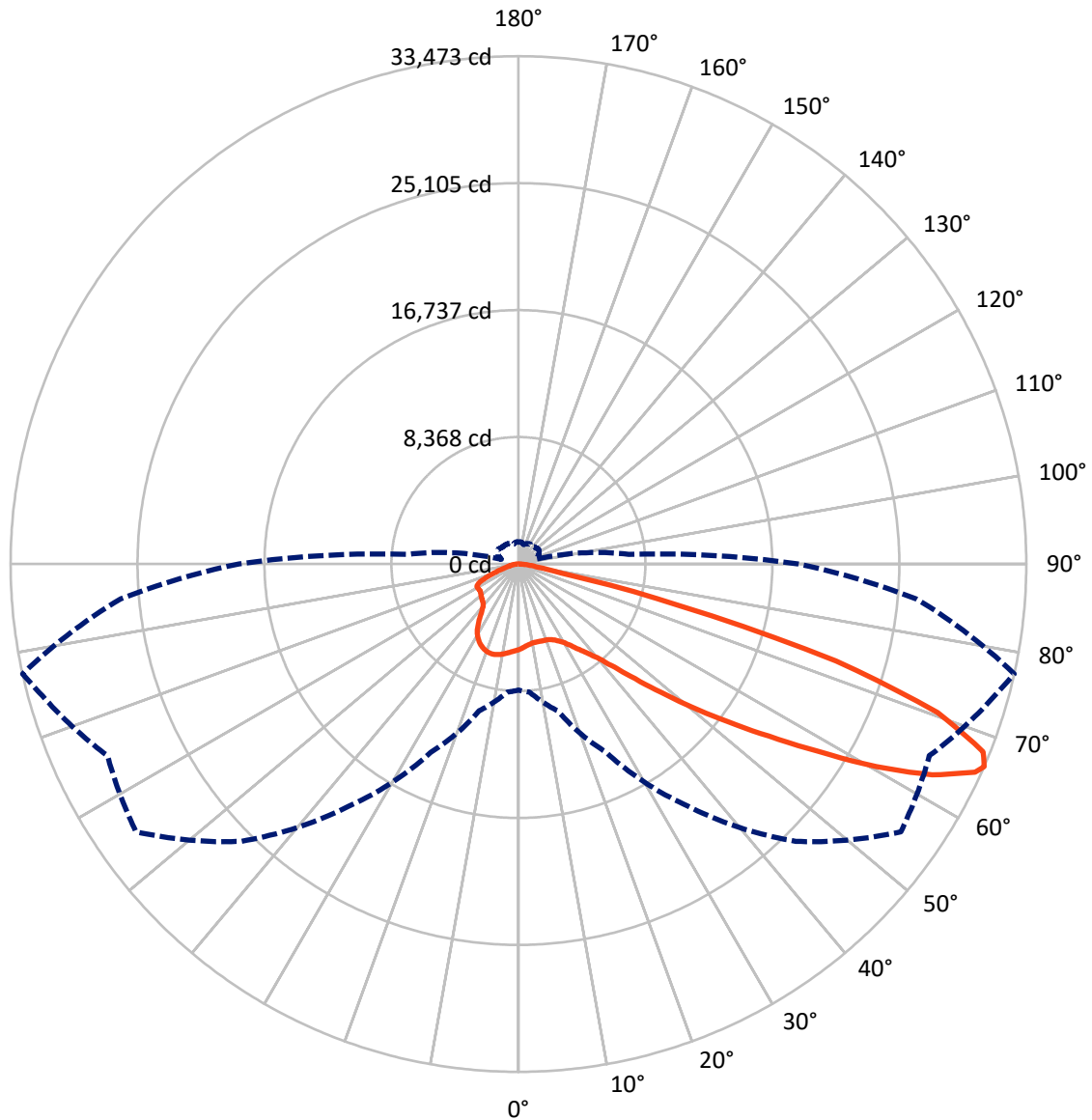
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.7 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6755.9	0.0	6755.9
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	32788.2	0.0	32788.2
	% Fixture	82.9	0.0	82.9
Total	Lumens	39544.1	0.0	39544.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	503.5	1.3
10°-20°	1420.4	3.6
20°-30°	2424.0	6.1
30°-40°	3880.4	9.8
40°-50°	5994.9	15.2
50°-60°	8502.9	21.5
60°-70°	11374.5	28.8
70°-80°	4939.8	12.5
80°-90°	503.7	1.3
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°	39544.1	100.0
0°-180°	39544.1	100.0



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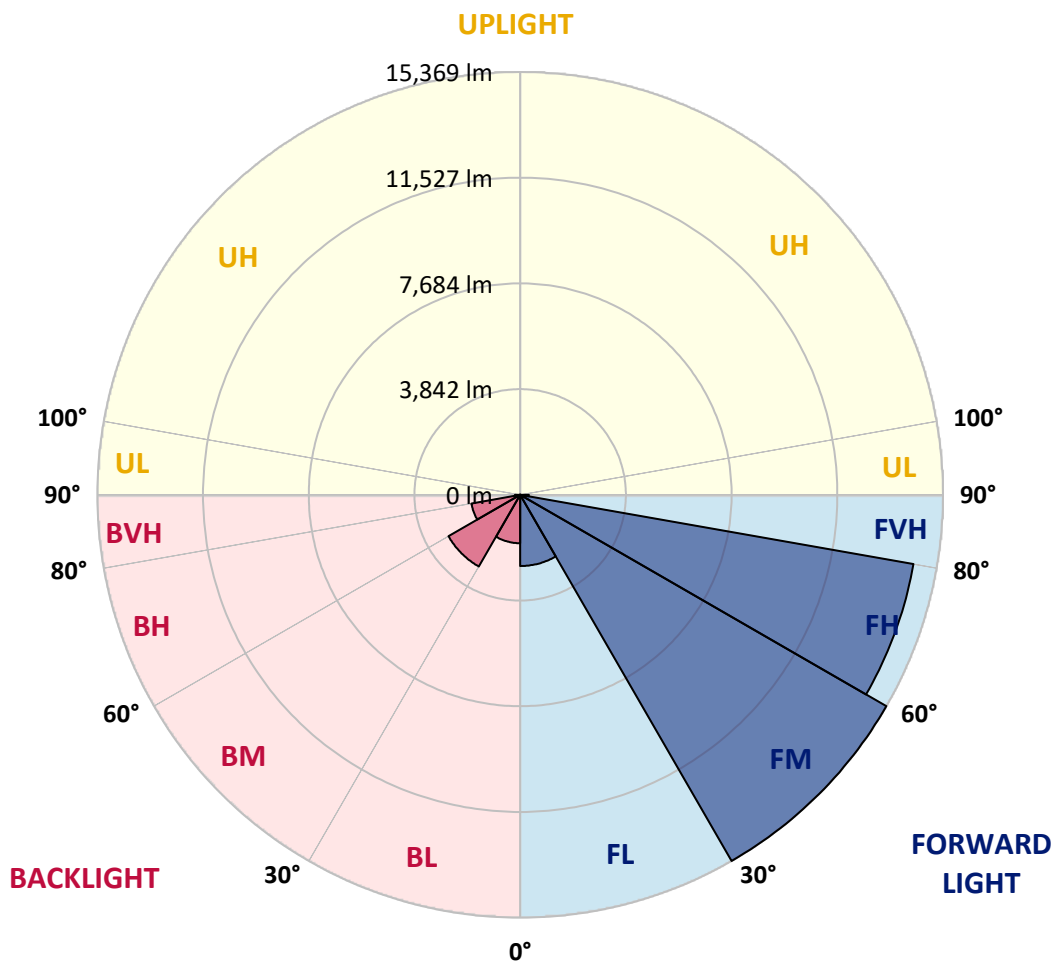
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2588.3	6.5			
FM	(30°-60°)	15368.9	38.9			
FH	(60°-80°)	14515.1	36.7			G5
FVH	(80°-90°)	315.9	0.8			G3/500
BL	(0°-30°)	1759.5	4.4	B3/2500		
BM	(30°-60°)	3009.4	7.6	B3/5000		
BH	(60°-80°)	1799.2	4.5	B3/2500		G3/2500
BVH	(80°-90°)	187.8	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	5635.2	5635.2	5635.2	5635.2	5635.2	5635.2	5635.2	5635.2	5635.2	5635.2	5635.2
2.5°	4985.1	5018.5	5046.8	5072.8	5124.9	5210.9	5309.9	5390.2	5506.2	5528.8	5590.5
5°	4527.5	4527.5	4549.5	4589.1	4659.9	4788.8	4923.5	5102.8	5355.1	5414.5	5579.2
7.5°	4305.2	4306.8	4319.9	4353.2	4414.9	4532.6	4680.2	4891.8	5233.5	5332.5	5612.5
10°	4387.2	4368.5	4340.2	4323.8	4332.9	4401.9	4542.2	4777.5	5158.8	5285.5	5687.8
12.5°	4846.5	4811.5	4714.2	4585.2	4461.9	4411.5	4493.5	4723.2	5127.1	5274.8	5786.8
15°	5597.8	5583.1	5401.5	5134.5	4835.8	4585.2	4529.2	4702.9	5130.5	5287.8	5904.4
17.5°	6539.8	6518.8	6280.1	5891.4	5403.8	4916.1	4654.2	4719.8	5143.6	5309.9	6018.2
20°	7490.7	7426.8	7169.4	6706.1	6079.8	5365.9	4861.8	4762.8	5160.5	5334.2	6138.1
22.5°	8200.7	8148.1	7916.7	7466.4	6745.1	5887.5	5140.2	4837.5	5214.8	5405.5	6285.2
25°	8824.7	8828.1	8598.4	8163.4	7417.8	6440.8	5498.8	5037.2	5352.9	5550.9	6487.1
27.5°	9596.4	9551.7	9336.7	8905.0	8083.0	6999.1	5932.2	5312.1	5558.8	5758.5	6752.5
30°	10519.1	10487.4	10239.0	9749.7	8820.8	7598.8	6427.2	5631.2	5824.1	6031.2	7099.8
32.5°	11604.7	11590.0	11332.0	10702.3	9672.7	8305.4	7008.7	6053.8	6220.1	6435.1	7598.8
35°	12879.2	12880.9	12576.6	11819.6	10605.0	9127.4	7667.8	6597.5	6702.1	6926.1	8193.4
37.5°	13663.9	13758.9	13645.2	12873.6	11660.7	10046.7	8523.7	7318.8	7251.4	7477.7	8830.4
40°	13831.9	13947.9	14308.3	13916.2	12841.9	11059.3	9282.4	8011.8	7928.0	8204.1	9650.7
42.5°	13596.6	13757.2	14519.8	14795.9	14095.6	12307.3	10302.4	9041.4	8935.0	9306.7	10670.7
45°	13456.3	13576.2	14458.2	15254.2	15182.9	13718.2	11601.3	10334.1	10295.0	10782.7	11847.9
47.5°	13213.6	13322.2	14170.2	15360.5	15822.1	15010.9	13161.5	11915.3	11991.6	12630.9	13176.3
50°	13344.3	13389.0	13848.9	15089.5	16007.1	15958.5	14904.5	13745.9	14007.9	14805.5	14680.5
52.5°	13325.6	13441.6	13811.6	14644.9	16031.5	16543.4	16621.5	15788.2	16339.8	17255.1	16348.8
55°	10773.6	10986.3	13372.6	14532.9	16116.9	17116.5	18150.1	17940.8	18968.1	20035.1	18232.1
57.5°	10287.7	10422.3	11745.0	14768.2	16572.9	18211.7	19850.1	20310.0	22028.7	23267.6	20526.7
60°	10192.1	10358.4	11728.0	15056.1	17497.8	19996.0	22370.9	23178.2	25752.8	27109.4	23187.3
62.5°	9895.1	10074.4	11617.7	15018.2	18811.4	22464.3	25597.8	26227.5	29284.1	30603.3	25412.8
65°	8953.7	9121.7	10719.3	14415.2	19697.3	25098.9	29416.5	29022.7	32072.0	33063.7	26522.2
66°	8308.8	8473.4	10011.0	13705.2	19491.4	25846.2	30769.7	29887.7	32696.0	33473.3	26305.5
67.5°	7129.8	7258.8	8635.8	12115.0	18398.4	26055.5	31907.3	30537.7	32761.0	33036.0	25067.2
70°	4504.9	4542.2	5612.5	8363.1	13927.5	22596.7	30175.1	28923.7	30059.7	29315.8	21014.3
72.5°	1954.6	1941.6	2694.5	4254.2	7885.0	15162.5	24409.2	23865.6	23579.9	21883.3	14710.5
75°	1087.3	1102.6	1399.6	1974.9	3204.3	7447.7	15967.5	15280.2	12901.3	11009.0	6670.4
77.5°	872.3	893.3	1160.3	1401.3	1438.6	2597.2	7472.1	6079.8	3660.2	2937.2	1853.3
80°	689.6	727.0	1012.6	1091.3	969.6	1070.3	2413.9	1930.2	1448.3	1328.3	960.6
82.5°	545.4	571.9	869.0	826.0	678.3	721.3	1156.3	1126.9	941.9	857.6	555.0
85°	392.6	440.7	713.9	622.3	444.7	486.0	767.7	736.0	539.7	440.7	245.0
87.5°	160.7	209.3	504.6	413.0	248.4	226.3	383.0	360.4	255.7	186.7	121.6
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5635.2	5635.2	5635.2	5635.2	5635.2	5635.2	5635.2	5635.2	5635.2	5635.2	5635.2
2.5°	5629.5	5674.2	5732.5	5768.1	5786.8	5799.8	5820.2	5818.5	5824.1	5825.8	5833.2
5°	5666.8	5741.5	5825.8	5848.4	5848.4	5827.5	5807.1	5773.2	5760.2	5756.8	5760.2
7.5°	5764.1	5846.2	5919.2	5893.1	5837.1	5754.5	5648.2	5554.8	5504.5	5487.5	5484.1
10°	5887.5	5986.5	6016.5	5917.5	5752.8	5554.8	5343.8	5190.5	5102.8	5078.5	5071.1
12.5°	6036.8	6130.2	6089.4	5880.1	5575.2	5256.1	4964.2	4719.8	4536.5	4478.8	4474.9
15°	6201.5	6274.4	6130.2	5764.1	5309.9	4839.2	4319.9	3897.8	3669.8	3596.9	3591.2
17.5°	6354.8	6392.1	6105.8	5562.2	4919.5	4157.5	3467.9	3142.6	3064.5	3083.2	3086.6
20°	6485.4	6485.4	6023.8	5272.5	4305.2	3258.6	2823.0	2817.9	2873.9	2929.9	2941.2
22.5°	6629.1	6543.2	5880.1	4863.5	3433.9	2666.3	2602.9	2654.9	2718.3	2780.0	2789.6
25°	6806.8	6590.1	5679.9	4243.5	2699.6	2421.3	2445.6	2488.6	2520.3	2559.9	2565.6
27.5°	7004.8	6649.5	5416.8	3389.2	2343.2	2268.5	2287.2	2301.9	2298.0	2313.2	2316.6
30°	7241.8	6719.1	5055.9	2649.3	2195.6	2137.3	2103.9	2090.9	2090.9	2115.2	2124.3
32.5°	7559.8	6821.5	4538.2	2270.2	2124.3	2044.0	1935.9	1887.3	1905.9	1988.0	2006.6
35°	7909.4	6931.8	3837.9	2141.3	2109.6	2001.0	1832.9	1743.0	1745.3	1821.6	1846.0
37.5°	8290.1	7072.1	3069.6	2116.9	2143.0	2003.2	1778.6	1655.3	1605.0	1605.0	1614.6
40°	8777.8	7215.8	2485.2	2133.9	2214.2	2025.3	1750.9	1586.3	1444.3	1448.3	1455.6
42.5°	9413.1	7339.1	2171.2	2169.0	2300.2	2055.3	1748.6	1494.6	1371.3	1455.6	1532.0
45°	10119.7	7400.8	2032.6	2201.2	2369.2	2073.9	1719.2	1479.9	1380.9	1631.0	1776.9
47.5°	10932.0	7365.1	1956.3	2212.0	2386.2	2073.9	1685.3	1515.6	1446.0	1888.9	2059.2
50°	11823.6	7262.7	1881.6	2189.9	2380.6	2070.0	1717.0	1550.6	1470.3	1933.6	2051.3
52.5°	12871.9	7176.8	1803.0	2141.3	2341.0	2049.6	1754.3	1535.9	1393.9	1758.3	1840.3
55°	14067.3	7201.1	1715.3	2072.2	2279.3	2010.6	1741.3	1476.0	1313.6	1548.9	1599.3
57.5°	15595.8	7490.7	1610.6	1984.6	2195.6	1945.0	1694.9	1448.3	1289.3	1405.3	1435.2
60°	17301.5	7994.8	1479.9	1896.3	2090.9	1840.3	1659.3	1461.3	1300.6	1393.9	1408.6
62.5°	18553.4	8288.4	1367.9	1767.3	1948.9	1724.3	1614.6	1477.7	1330.6	1433.0	1429.6
65°	18893.4	7806.4	1227.6	1578.9	1756.6	1603.3	1558.0	1496.3	1343.6	1464.7	1448.3
66°	18417.1	7287.1	1166.0	1491.2	1659.3	1543.3	1530.3	1494.6	1337.9	1468.6	1440.3
67.5°	17260.8	6221.8	1059.6	1362.3	1504.3	1453.9	1485.6	1477.7	1322.7	1464.7	1425.6
70°	14076.9	4245.2	906.3	1134.3	1251.9	1279.7	1399.6	1418.3	1274.0	1399.6	1313.6
72.5°	9835.7	2585.9	801.6	880.3	1012.6	1091.3	1281.9	1335.7	1208.9	1222.0	1139.9
75°	4753.2	1373.6	727.0	682.3	786.4	911.9	1139.9	1223.7	1106.0	1022.3	992.3
77.5°	1481.6	839.0	616.6	549.3	616.6	736.0	952.7	1072.6	984.9	855.9	844.6
80°	796.0	616.6	474.6	440.7	487.7	577.6	749.0	895.0	846.3	767.7	685.7
82.5°	525.0	400.0	351.3	341.7	371.7	440.7	556.7	741.7	741.7	657.9	478.6
85°	271.0	245.0	241.0	241.0	259.7	293.6	379.0	571.9	609.3	347.4	288.0
87.5°	134.6	140.3	130.7	136.3	146.0	143.7	181.0	288.0	344.0	211.0	175.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)