

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: P298897

Luminaire Tested: **GLNA-AF-08-LED-E1-T2-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P298897  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24139)  
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-T2-7027  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(8) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 40534 lumens  
Efficiency: N/A  
Efficacy: 91.1 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B3 - U0 - G5

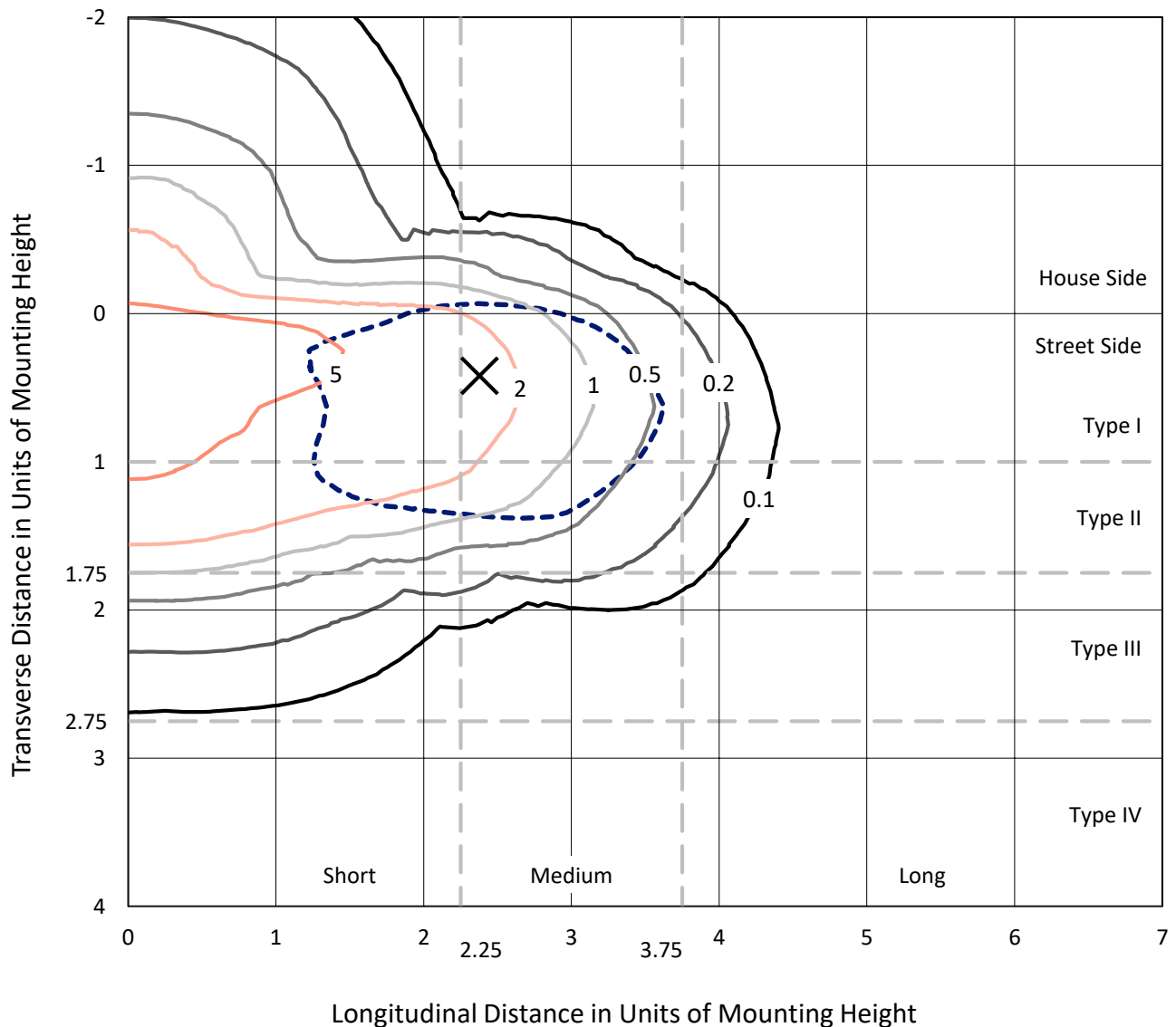
Input Watts (W): 445  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

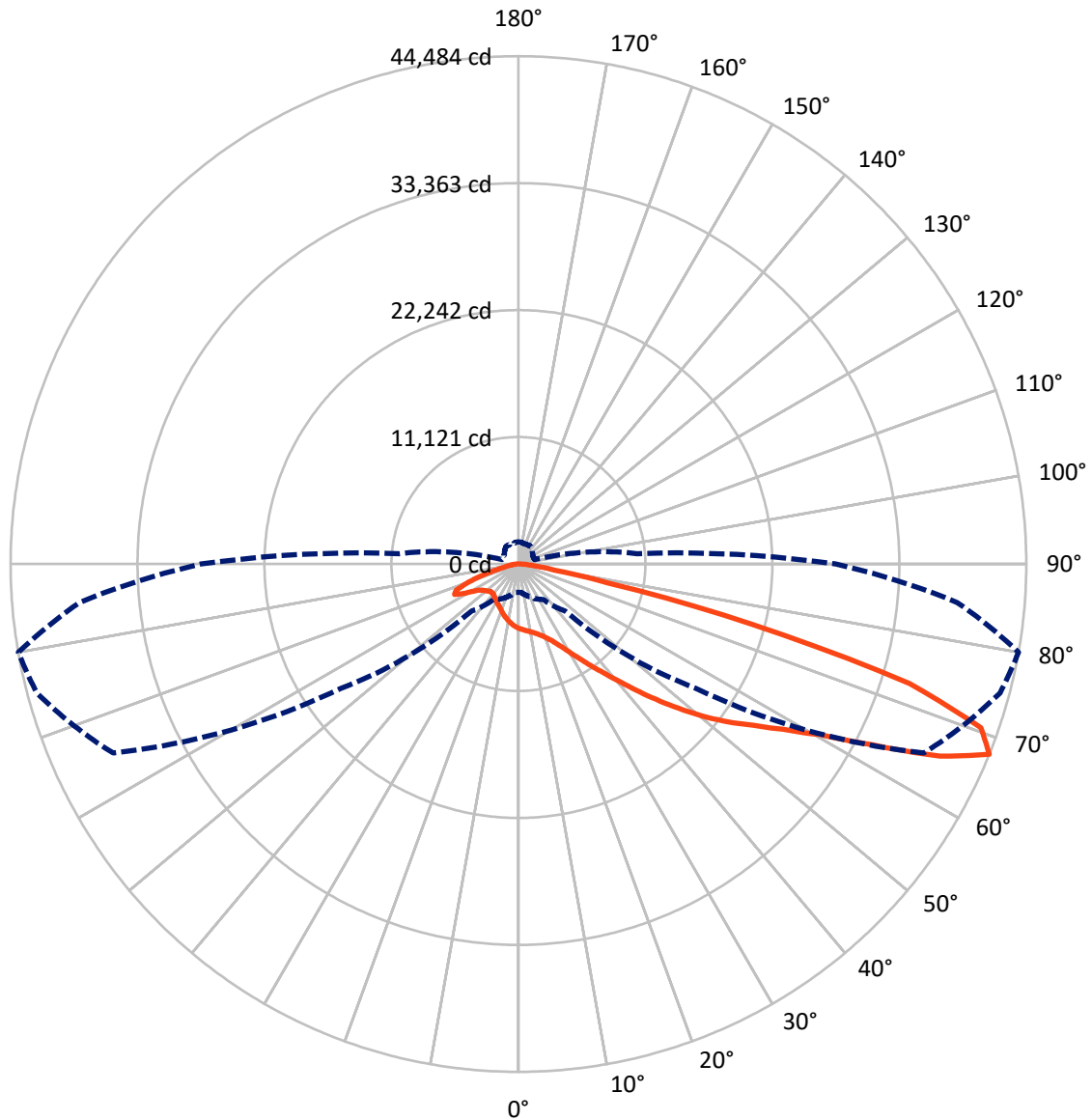
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.6 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 80-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7464.8	0.0	7464.8
	% Fixture	18.4	0.0	18.4
<b>Street Side</b>	Lumens	33069.2	0.0	33069.2
	% Fixture	81.6	0.0	81.6
<b>Total</b>	Lumens	40534.0	0.0	40534.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	519.5	1.3
10°-20°	1496.4	3.7
20°-30°	2476.9	6.1
30°-40°	4051.6	10.0
40°-50°	6541.7	16.1
50°-60°	9444.3	23.3
60°-70°	10422.4	25.7
70°-80°	4804.1	11.9
80°-90°	777.0	1.9
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°	40534.0	100.0
0°-180°	40534.0	100.0



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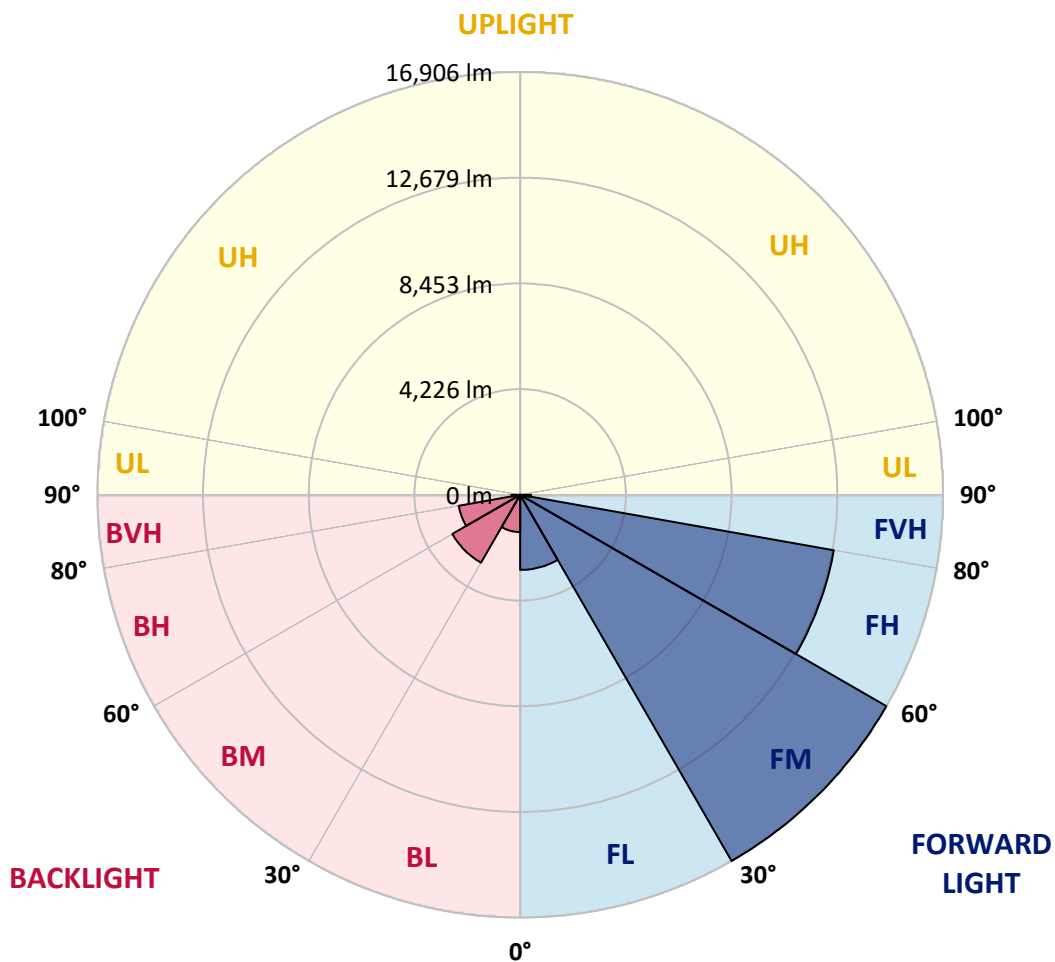
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3003.5	7.4			
FM	(30°-60°)	16905.7	41.7			
FH	(60°-80°)	12732.8	31.4			G5
FVH	(80°-90°)	427.2	1.1			G3/500
BL	(0°-30°)	1489.3	3.7	B3/2500		
BM	(30°-60°)	3132.0	7.7	B3/5000		
BH	(60°-80°)	2493.7	6.2	B3/2500		G3/2500
BVH	(80°-90°)	349.8	0.9			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G5**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	80°	85°
0°	5631.3	5631.3	5631.3	5631.3	5631.3	5631.3	5631.3	5631.3	5631.3	5631.3	5631.3
2.5°	6160.2	6124.2	6130.2	6120.3	6090.3	6038.4	5982.6	5880.8	5775.0	5719.2	5675.3
5°	6675.0	6665.0	6651.1	6619.1	6543.3	6435.5	6301.8	6122.2	5928.7	5826.9	5729.1
7.5°	7060.1	7054.2	7036.2	7016.2	6942.4	6812.7	6611.1	6355.7	6074.4	5934.7	5783.0
10°	7092.1	7102.0	7116.0	7169.9	7179.9	7110.0	6904.5	6595.2	6226.0	6046.4	5852.9
12.5°	6820.7	6842.6	6896.5	7034.2	7179.9	7265.7	7159.9	6846.6	6403.6	6186.1	5940.7
15°	6461.5	6473.5	6539.3	6728.9	6990.3	7255.7	7355.5	7124.0	6633.1	6365.7	6072.4
17.5°	6307.8	6313.8	6359.7	6485.4	6728.9	7108.0	7465.2	7425.3	6914.5	6589.2	6234.0
20°	6230.0	6244.0	6309.8	6433.5	6587.2	6918.5	7481.2	7750.6	7249.7	6868.6	6437.5
22.5°	6451.5	6445.5	6469.5	6531.3	6661.0	6860.6	7469.2	8085.8	7676.8	7227.8	6702.9
25°	6968.3	6990.3	6948.4	6878.5	6920.5	7060.1	7533.1	8449.0	8211.6	7688.7	7050.2
27.5°	7704.7	7682.7	7620.9	7457.2	7371.4	7431.3	7744.6	8840.1	8876.1	8295.4	7509.1
30°	8439.0	8421.1	8361.2	8161.7	7986.1	7936.2	8155.7	9289.1	9668.3	9023.7	8071.9
32.5°	9201.3	9181.4	9125.5	8925.9	8714.4	8598.7	8740.4	9808.0	10602.2	9893.8	8734.4
35°	10141.2	10103.3	9985.6	9708.2	9500.7	9410.9	9476.7	10460.5	11679.8	10923.5	9538.6
37.5°	11025.2	11083.1	10963.4	10580.2	10310.8	10278.9	10352.7	11256.7	12841.2	12074.9	10462.5
40°	11913.2	11923.2	11815.5	11502.2	11224.8	11172.9	11358.5	12222.5	14212.1	13451.8	11586.0
42.5°	12831.2	12851.1	12669.5	12380.2	12176.6	12186.6	12398.1	13354.0	15784.5	15074.1	12879.1
45°	13918.7	13948.7	13749.1	13370.0	13184.4	13557.5	13469.7	14623.1	17508.7	16918.0	14363.7
47.5°	15056.2	15102.1	14950.4	14595.2	14363.7	14876.6	14541.3	16030.0	19364.5	18895.6	15994.1
50°	15676.8	15742.6	15890.3	15864.4	15814.5	15728.7	15736.6	17538.6	21278.2	20954.9	17670.3
52.5°	15343.5	15341.5	15880.3	16534.9	17233.3	17285.2	17193.4	19129.0	23066.2	22968.4	19248.8
55°	13819.0	13922.7	14738.9	16006.0	17913.8	19105.1	19376.5	20950.9	24822.2	24936.0	20851.2
57.5°	11280.7	11366.5	12468.0	14234.0	16995.8	20186.7	22481.5	23599.0	26785.8	27316.6	22984.4
60°	7650.8	7754.6	8922.0	11043.2	14525.4	19584.0	25436.9	28324.4	29136.5	30343.8	25977.6
62.5°	4495.9	4589.7	5541.6	6966.3	10227.0	16784.3	26733.9	35047.3	32870.2	34911.6	30543.4
65°	3095.0	3158.9	3621.9	4336.3	5876.8	11304.6	25125.6	39688.8	38615.2	40570.9	35837.5
67.5°	2490.4	2482.4	2849.6	3336.5	3783.5	5828.9	18999.3	39164.0	43667.9	44484.1	38585.3
70°	2051.4	2043.4	2292.8	2695.9	3023.2	3282.6	10348.8	33049.8	42638.2	42969.5	36055.0
72.5°	1716.1	1724.1	1883.8	2183.1	2480.4	2472.4	4547.8	23249.8	33542.6	35833.5	28741.4
75°	1448.7	1452.7	1558.5	1770.0	2013.5	1991.5	2466.5	12595.7	19498.2	21092.6	15932.2
77.5°	1233.2	1237.2	1305.1	1422.8	1596.4	1588.4	1800.0	5441.8	8133.7	8034.0	5449.8
80°	1099.5	1099.5	1131.5	1153.4	1249.2	1213.3	1335.0	2614.1	3438.3	3174.9	2175.1
82.5°	862.1	866.1	1061.6	1053.6	983.8	937.9	937.9	1540.5	1821.9	1684.2	1273.1
85°	484.9	482.9	684.5	826.1	866.1	660.5	654.5	862.1	991.8	874.0	616.6
87.5°	207.5	211.5	317.3	367.2	490.9	411.1	405.1	445.0	504.9	437.0	285.4
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°	5631.3	5631.3	5631.3	5631.3	5631.3	5631.3	5631.3	5631.3	5631.3	5631.3	5631.3
2.5°	5633.3	5581.5	5467.7	5326.0	5198.3	5114.5	5038.7	4928.9	4934.9	4859.1	4803.2
5°	5629.4	5521.6	5258.2	4944.9	4643.6	4426.1	4262.4	4114.8	4078.8	4009.0	3967.1
7.5°	5633.3	5457.7	5014.7	4513.9	4140.7	3865.3	3725.6	3647.8	3629.8	3605.9	3607.9
10°	5647.3	5399.9	4747.3	4110.8	3719.6	3538.1	3504.1	3528.1	3556.0	3564.0	3566.0
12.5°	5679.2	5348.0	4454.0	3751.6	3456.2	3400.4	3458.2	3540.0	3593.9	3619.9	3617.9
15°	5751.1	5308.1	4172.6	3470.2	3310.6	3340.5	3448.3	3564.0	3641.8	3677.7	3679.7
17.5°	5828.9	5250.2	3883.3	3254.7	3202.8	3278.6	3412.3	3548.0	3643.8	3683.7	3691.7
20°	5930.7	5178.4	3580.0	3093.1	3101.0	3186.8	3312.6	3448.3	3554.0	3587.9	3603.9
22.5°	6064.4	5100.5	3314.6	2961.3	2985.3	3051.1	3148.9	3266.7	3358.5	3374.4	3388.4
25°	6244.0	5016.7	3103.0	2841.6	2851.6	2889.5	2955.4	3025.2	3089.1	3071.1	3085.1
27.5°	6485.4	4944.9	2945.4	2731.9	2713.9	2721.9	2755.8	2777.8	2811.7	2761.8	2767.8
30°	6768.8	4867.1	2823.7	2636.1	2586.2	2572.2	2580.2	2592.2	2618.1	2550.3	2540.3
32.5°	7098.1	4773.3	2709.9	2552.3	2482.4	2454.5	2458.5	2490.4	2590.2	2548.3	2526.3
35°	7481.2	4667.5	2590.2	2460.5	2412.6	2372.7	2368.7	2468.5	2765.8	2739.8	2719.9
37.5°	7930.2	4561.8	2470.5	2356.7	2360.7	2316.8	2302.8	2416.6	2799.7	2697.9	2684.0
40°	8500.9	4505.9	2368.7	2247.0	2296.8	2290.9	2262.9	2320.8	2576.2	2390.6	2366.7
42.5°	9207.3	4513.9	2292.8	2129.2	2221.0	2284.9	2241.0	2243.0	2334.8	2195.1	2173.1
45°	10079.4	4607.6	2239.0	2035.4	2135.2	2278.9	2233.0	2201.1	2209.0	2135.2	2123.2
47.5°	11097.1	4801.2	2201.1	1957.6	2053.4	2256.9	2231.0	2189.1	2171.1	2131.2	2121.2
50°	12228.5	5082.6	2173.1	1883.8	1979.6	2221.0	2233.0	2177.1	2157.2	2141.2	2135.2
52.5°	13340.0	5403.9	2131.2	1819.9	1921.7	2177.1	2239.0	2165.1	2143.2	2131.2	2125.2
55°	14579.2	5805.0	2067.4	1766.0	1873.8	2121.2	2239.0	2147.2	2123.2	2125.2	2123.2
57.5°	16253.5	6453.5	1991.5	1720.1	1815.9	2053.4	2201.1	2127.2	2097.3	2099.3	2101.3
60°	18869.6	7596.9	1899.7	1674.2	1744.1	1973.6	2149.2	2083.3	2053.4	2061.4	2063.4
62.5°	22717.0	9275.2	1780.0	1606.4	1668.3	1887.8	2077.3	2027.4	1997.5	2017.5	2017.5
65°	26716.0	10755.8	1632.3	1520.6	1588.4	1794.0	1987.5	1957.6	1927.7	1973.6	1971.6
67.5°	27791.6	10424.6	1484.7	1426.8	1508.6	1690.2	1879.8	1863.8	1847.8	1927.7	1923.7
70°	24688.5	8369.2	1349.0	1331.0	1420.8	1578.5	1764.0	1764.0	1754.1	1813.9	1800.0
72.5°	18809.7	5934.7	1219.3	1229.2	1321.0	1456.7	1638.3	1652.3	1636.3	1666.3	1654.3
75°	10069.4	3396.4	1089.6	1117.5	1197.3	1333.0	1498.6	1512.6	1502.6	1500.6	1506.6
77.5°	3346.5	1660.3	953.9	997.8	1067.6	1205.3	1353.0	1374.9	1351.0	1347.0	1345.0
80°	1490.7	1043.7	804.2	862.1	923.9	1059.6	1199.3	1217.3	1191.3	1227.2	1181.3
82.5°	957.8	686.5	644.6	708.4	768.3	913.9	1045.7	1049.6	1025.7	1191.3	1015.7
85°	465.0	425.0	484.9	542.8	594.7	718.4	866.1	868.0	808.2	736.3	710.4
87.5°	231.5	247.4	323.3	375.2	401.1	492.9	630.6	618.6	592.7	538.8	496.9
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)