

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: P298970

Luminaire Tested: **GLNA-AF-10-LED-E1-T2-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298970
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-10-LED-E1-T2-7030-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 3000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 45025.6 lumens
Efficiency: N/A
Efficacy: 107.5 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B4 - U0 - G5

Input Watts (W): 419
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

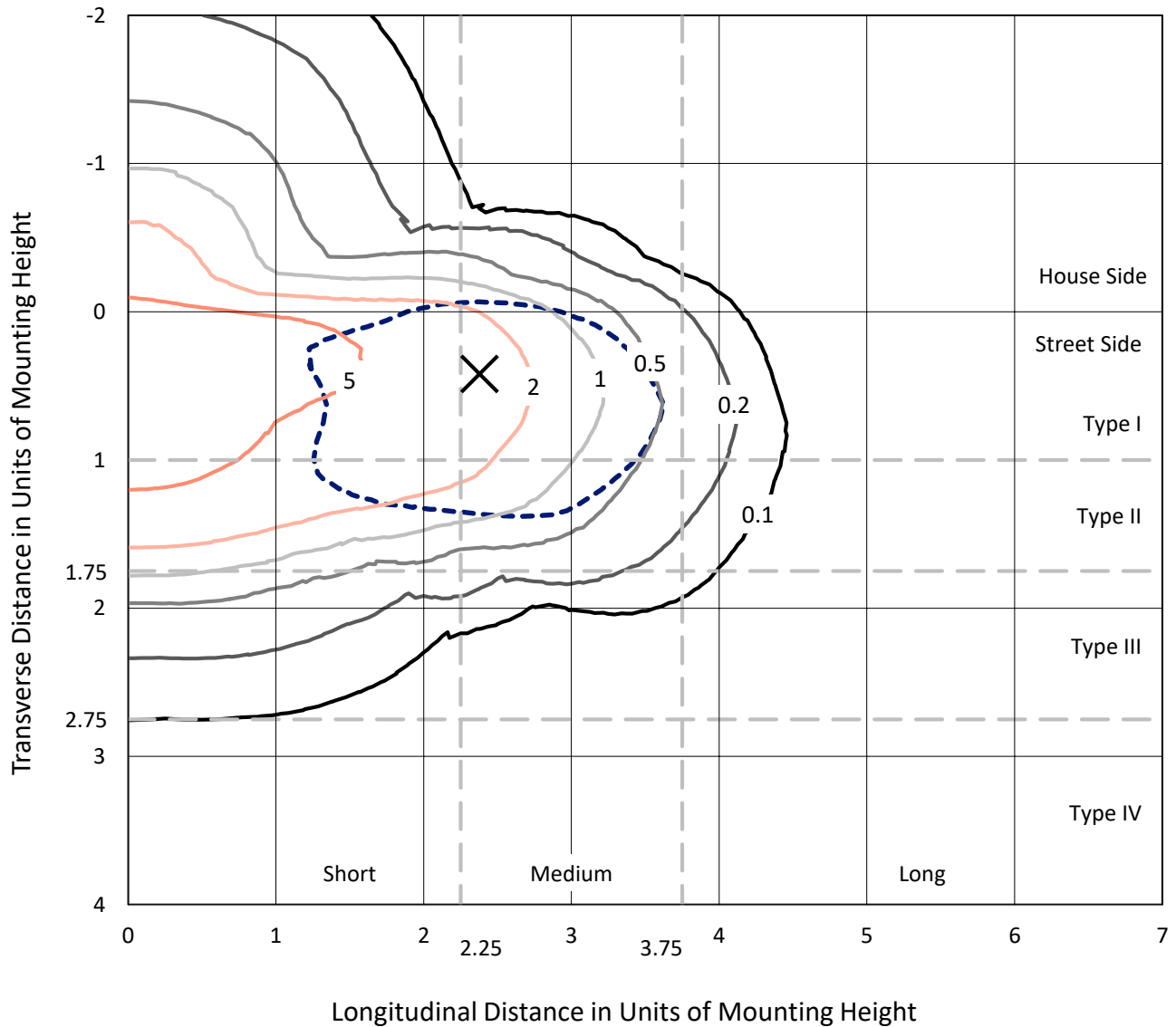


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Iso-Footcandle Lines of Horizontal Illumination

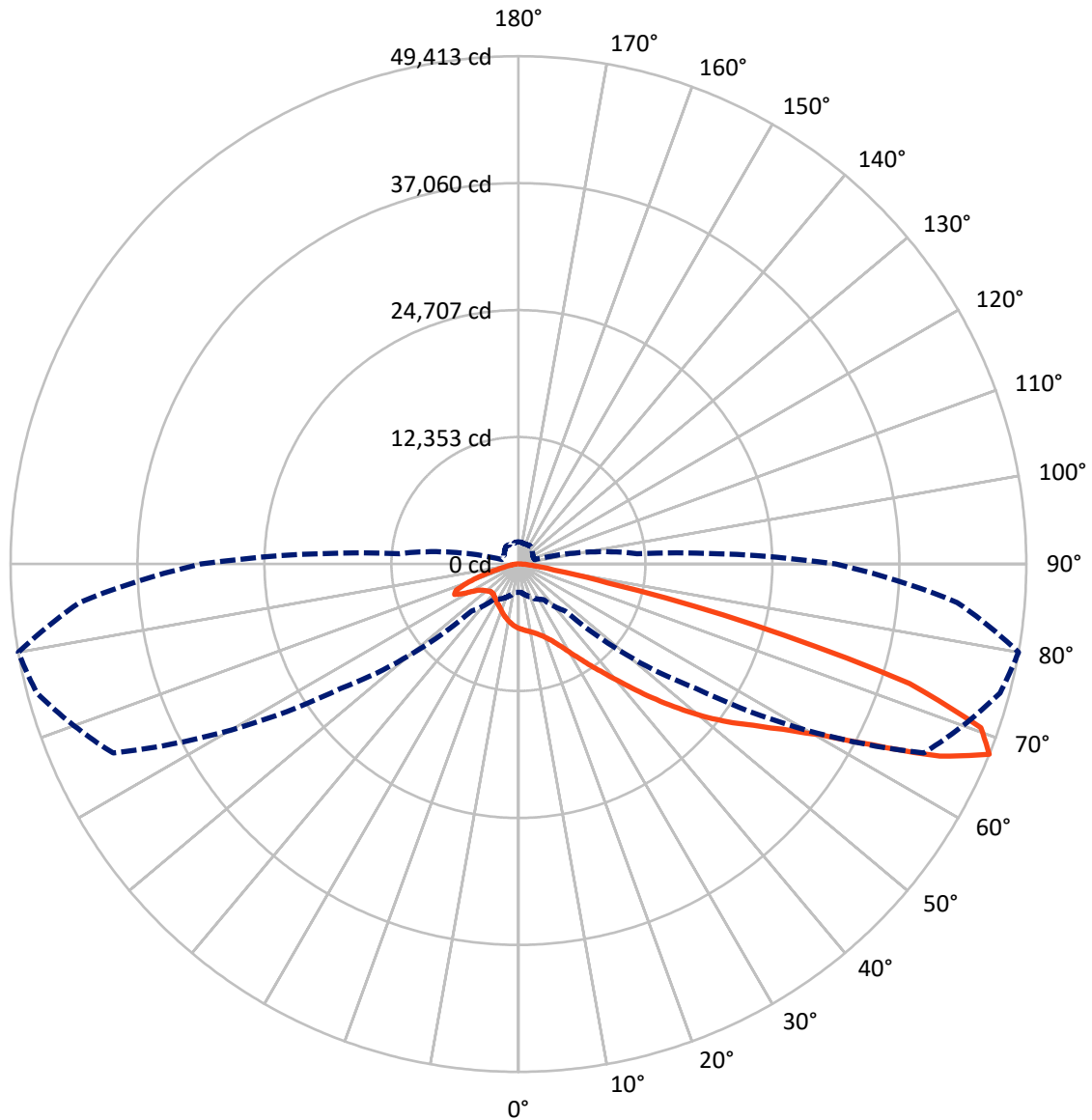
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8.4 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
House Side	Lumens	8292.0	0.0	8292.0
	% Fixture	18.4	0.0	18.4
Street Side	Lumens	36733.6	0.0	36733.6
	% Fixture	81.6	0.0	81.6
Total	Lumens	45025.6	0.0	45025.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	577.0	1.3
10°-20°	1662.3	3.7
20°-30°	2751.4	6.1
30°-40°	4500.6	10.0
40°-50°	7266.6	16.1
50°-60°	10490.9	23.3
60°-70°	11577.3	25.7
70°-80°	5336.4	11.9
80°-90°	863.1	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°	45025.6	100.0
0°-180°	45025.6	100.0



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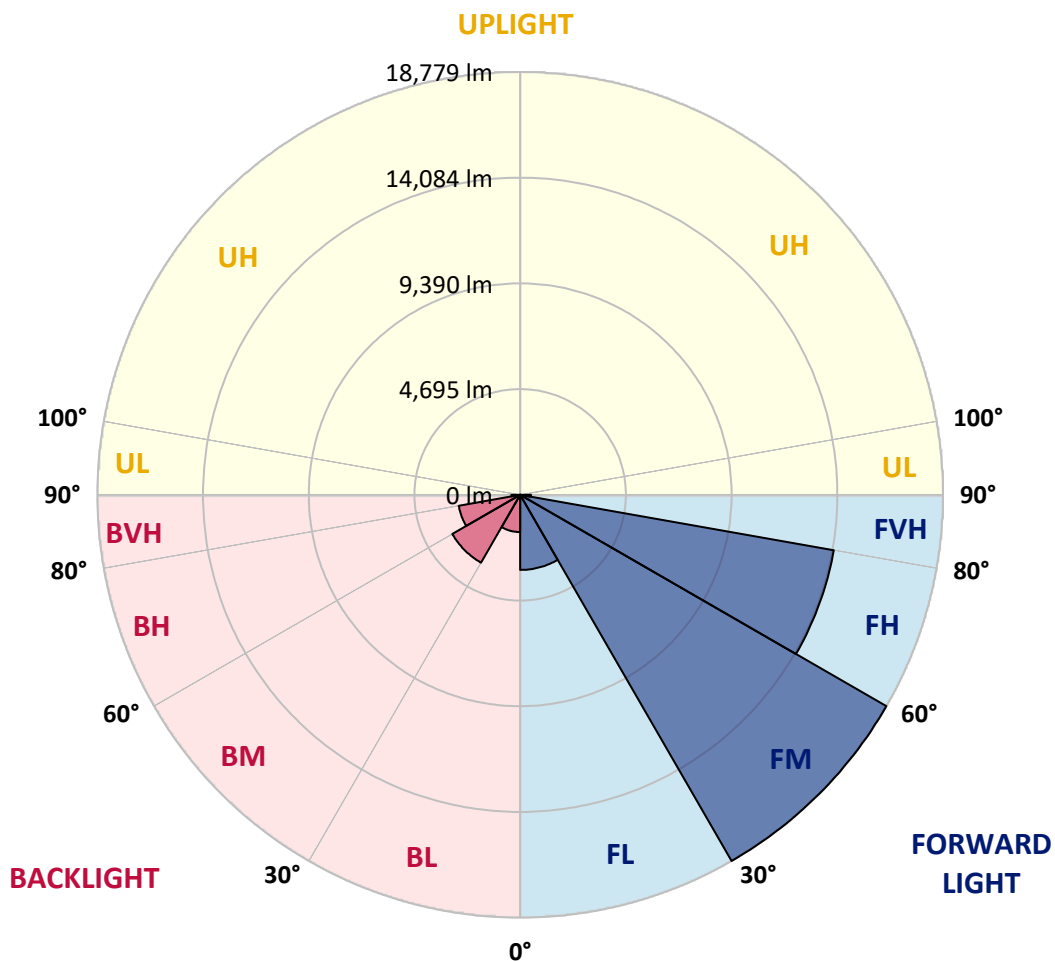
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3336.3	7.4			
FM (30°-60°)	18779.0	41.7			
FH (60°-80°)	14143.7	31.4			G5
FVH (80°-90°)	474.5	1.1			G3/500
BL (0°-30°)	1654.4	3.7	B3/2500		
BM (30°-60°)	3479.0	7.7	B3/5000		
BH (60°-80°)	2770.0	6.2	B4/5000		G4/5000
BVH (80°-90°)	388.6	0.9			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 II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	80°	85°
0°	6255.4	6255.4	6255.4	6255.4	6255.4	6255.4	6255.4	6255.4	6255.4	6255.4	6255.4
2.5°	6842.8	6802.9	6809.5	6798.4	6765.2	6707.6	6645.5	6532.4	6415.0	6352.9	6304.1
5°	7414.7	7403.6	7388.1	7352.6	7268.4	7148.7	7000.2	6800.7	6585.6	6472.6	6364.0
7.5°	7842.5	7835.8	7815.9	7793.7	7711.7	7567.6	7343.7	7060.0	6747.5	6592.3	6423.8
10°	7877.9	7889.0	7904.5	7964.4	7975.5	7897.9	7669.6	7326.0	6915.9	6716.4	6501.4
12.5°	7576.5	7600.9	7660.7	7813.7	7975.5	8070.8	7953.3	7605.3	7113.2	6871.6	6598.9
15°	7177.5	7190.8	7263.9	7474.5	7764.9	8059.7	8170.5	7913.4	7368.1	7071.1	6745.2
17.5°	7006.8	7013.5	7064.4	7204.1	7474.5	7895.7	8292.5	8248.1	7680.7	7319.3	6924.8
20°	6920.4	6935.9	7009.0	7146.4	7317.1	7685.1	8310.2	8609.4	8053.1	7629.7	7150.9
22.5°	7166.4	7159.7	7186.3	7255.1	7399.1	7620.8	8296.9	8981.8	8527.4	8028.7	7445.7
25°	7740.5	7764.9	7718.3	7640.8	7687.3	7842.5	8367.8	9385.3	9121.5	8540.7	7831.4
27.5°	8558.5	8534.1	8465.4	8283.6	8188.3	8254.8	8602.8	9819.7	9859.6	9214.6	8341.2
30°	9374.2	9354.2	9287.7	9066.1	8871.0	8815.6	9059.4	10318.5	10739.6	10023.6	8966.3
32.5°	10220.9	10198.8	10136.7	9915.0	9680.1	9551.5	9708.9	10894.8	11777.0	10990.1	9702.2
35°	11265.0	11222.9	11092.1	10784.0	10553.4	10453.7	10526.8	11619.6	12974.0	12133.9	10595.5
37.5°	12246.9	12311.2	12178.2	11752.6	11453.4	11417.9	11499.9	12504.1	14264.1	13412.9	11621.8
40°	13233.3	13244.4	13124.7	12776.7	12468.6	12411.0	12617.1	13576.9	15786.9	14942.4	12869.8
42.5°	14253.0	14275.2	14073.5	13752.0	13525.9	13537.0	13772.0	14833.8	17533.6	16744.5	14306.2
45°	15461.1	15494.3	15272.7	14851.5	14645.3	15059.9	14962.3	16243.5	19448.8	18792.7	15955.4
47.5°	16724.6	16775.5	16607.1	16212.5	15955.4	16525.1	16152.7	17806.3	21510.3	20989.4	17766.4
50°	17413.9	17487.1	17651.1	17622.3	17566.9	17471.6	17480.4	19482.1	23636.0	23276.9	19628.4
52.5°	17043.8	17041.5	17640.0	18367.1	19142.9	19200.5	19098.6	21248.7	25622.2	25513.5	21381.7
55°	15350.2	15465.5	16372.1	17779.7	19898.8	21222.1	21523.6	23272.5	27572.8	27699.1	23161.7
57.5°	12530.7	12626.0	13849.6	15811.3	18879.1	22423.5	24972.7	26214.0	29754.0	30343.6	25531.3
60°	8498.6	8613.9	9910.6	12266.9	16134.9	21754.1	28255.5	31463.0	32365.2	33706.2	28856.2
62.5°	4994.1	5098.3	6155.6	7738.3	11360.3	18644.2	29696.3	38930.9	36512.5	38780.1	33927.9
65°	3438.0	3508.9	4023.2	4816.8	6528.0	12557.3	27909.7	44086.8	42894.2	45066.5	39808.7
67.5°	2766.4	2757.5	3165.4	3706.2	4202.8	6474.8	21104.6	43503.8	48506.8	49413.4	42861.0
70°	2278.7	2269.8	2546.9	2994.7	3358.2	3646.4	11495.5	36712.0	47363.0	47730.9	40050.3
72.5°	1906.3	1915.2	2092.5	2425.0	2755.3	2746.4	5051.7	25826.1	37259.5	39804.2	31926.3
75°	1609.3	1613.7	1731.2	1966.2	2236.6	2212.2	2739.8	13991.4	21658.8	23429.9	17697.7
77.5°	1369.9	1374.3	1449.7	1580.5	1773.3	1764.4	1999.4	6044.8	9035.0	8924.2	6053.6
80°	1221.4	1221.4	1256.8	1281.2	1387.6	1347.7	1482.9	2903.8	3819.3	3526.7	2416.1
82.5°	957.6	962.0	1179.3	1170.4	1092.8	1041.8	1041.8	1711.2	2023.8	1870.8	1414.2
85°	538.6	536.4	760.3	917.7	962.0	733.7	727.1	957.6	1101.7	970.9	684.9
87.5°	230.5	235.0	352.4	407.9	545.3	456.6	450.0	494.3	560.8	485.4	317.0
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°	6255.4	6255.4	6255.4	6255.4	6255.4	6255.4	6255.4	6255.4	6255.4	6255.4	6255.4
2.5°	6257.6	6199.9	6073.6	5916.2	5774.3	5681.3	5597.0	5475.1	5481.8	5397.5	5335.5
5°	6253.1	6133.4	5840.8	5492.8	5158.1	4916.5	4734.7	4570.7	4530.8	4453.2	4406.7
7.5°	6257.6	6062.5	5570.4	5014.0	4599.5	4293.6	4138.5	4052.0	4032.1	4005.5	4007.7
10°	6273.1	5998.2	5273.4	4566.3	4131.8	3930.1	3892.4	3919.0	3950.1	3958.9	3961.1
12.5°	6308.6	5940.6	4947.5	4167.3	3839.2	3777.2	3841.4	3932.3	3992.2	4021.0	4018.8
15°	6388.4	5896.3	4635.0	3854.7	3677.4	3710.7	3830.4	3958.9	4045.4	4085.3	4087.5
17.5°	6474.8	5832.0	4313.6	3615.3	3557.7	3641.9	3790.5	3941.2	4047.6	4091.9	4100.8
20°	6587.9	5752.2	3976.7	3435.8	3444.7	3540.0	3679.6	3830.4	3947.8	3985.5	4003.3
22.5°	6736.4	5665.7	3681.8	3289.5	3316.1	3389.2	3497.9	3628.6	3730.6	3748.3	3763.9
25°	6935.9	5572.6	3446.9	3156.5	3167.6	3209.7	3282.8	3360.4	3431.4	3411.4	3426.9
27.5°	7204.1	5492.8	3271.8	3034.6	3014.6	3023.5	3061.2	3085.6	3123.2	3067.8	3074.5
30°	7518.8	5406.4	3136.5	2928.2	2872.8	2857.3	2866.1	2879.4	2908.2	2832.9	2821.8
32.5°	7884.6	5302.2	3010.2	2835.1	2757.5	2726.5	2730.9	2766.4	2877.2	2830.7	2806.3
35°	8310.2	5184.7	2877.2	2733.1	2679.9	2635.6	2631.2	2742.0	3072.3	3043.4	3021.3
37.5°	8808.9	5067.2	2744.2	2617.9	2622.3	2573.5	2558.0	2684.4	3109.9	2996.9	2981.4
40°	9442.9	5005.2	2631.2	2495.9	2551.4	2544.7	2513.7	2578.0	2861.7	2655.5	2628.9
42.5°	10227.6	5014.0	2546.9	2365.2	2467.1	2538.1	2489.3	2491.5	2593.5	2438.3	2413.9
45°	11196.3	5118.2	2487.1	2261.0	2371.8	2531.4	2480.4	2445.0	2453.8	2371.8	2358.5
47.5°	12326.7	5333.2	2445.0	2174.5	2280.9	2507.0	2478.2	2431.7	2411.7	2367.4	2356.3
50°	13583.6	5645.8	2413.9	2092.5	2198.9	2467.1	2480.4	2418.4	2396.2	2378.5	2371.8
52.5°	14818.2	6002.7	2367.4	2021.6	2134.6	2418.4	2487.1	2405.1	2380.7	2367.4	2360.7
55°	16194.8	6448.2	2296.4	1961.7	2081.4	2356.3	2487.1	2385.1	2358.5	2360.7	2358.5
57.5°	18054.5	7168.6	2212.2	1910.7	2017.1	2280.9	2445.0	2362.9	2329.7	2331.9	2334.1
60°	20960.6	8438.8	2110.2	1859.8	1937.3	2192.3	2387.3	2314.2	2280.9	2289.8	2292.0
62.5°	25234.2	10302.9	1977.2	1784.4	1853.1	2096.9	2307.5	2252.1	2218.9	2241.0	2241.0
65°	29676.4	11947.7	1813.2	1689.1	1764.4	1992.8	2207.8	2174.5	2141.3	2192.3	2190.0
67.5°	30871.2	11579.7	1649.2	1584.9	1675.8	1877.5	2088.1	2070.3	2052.6	2141.3	2136.8
70°	27424.3	9296.6	1498.4	1478.5	1578.2	1753.4	1959.5	1959.5	1948.4	2014.9	1999.4
72.5°	20894.1	6592.3	1354.4	1365.5	1467.4	1618.1	1819.9	1835.4	1817.6	1850.9	1837.6
75°	11185.2	3772.7	1210.3	1241.3	1330.0	1480.7	1664.7	1680.2	1669.1	1666.9	1673.6
77.5°	3717.3	1844.2	1059.6	1108.3	1185.9	1338.9	1502.9	1527.3	1500.7	1496.2	1494.0
80°	1655.8	1159.3	893.3	957.6	1026.3	1177.0	1332.2	1352.2	1323.3	1363.2	1312.3
82.5°	1064.0	762.5	716.0	786.9	853.4	1015.2	1161.5	1166.0	1139.4	1323.3	1128.3
85°	516.5	472.1	538.6	602.9	660.6	798.0	962.0	964.2	897.7	817.9	789.1
87.5°	257.1	274.9	359.1	416.7	445.5	547.5	700.5	687.2	658.3	598.5	551.9
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)