

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: P298894

Luminaire Tested: **GLNA-AF-07-LED-E1-T2**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298894
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-07-LED-E1-T2
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 41175 lumens
Efficiency: N/A
Efficacy: 105.3 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B4 - U0 - G5

Input Watts (W): 391
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

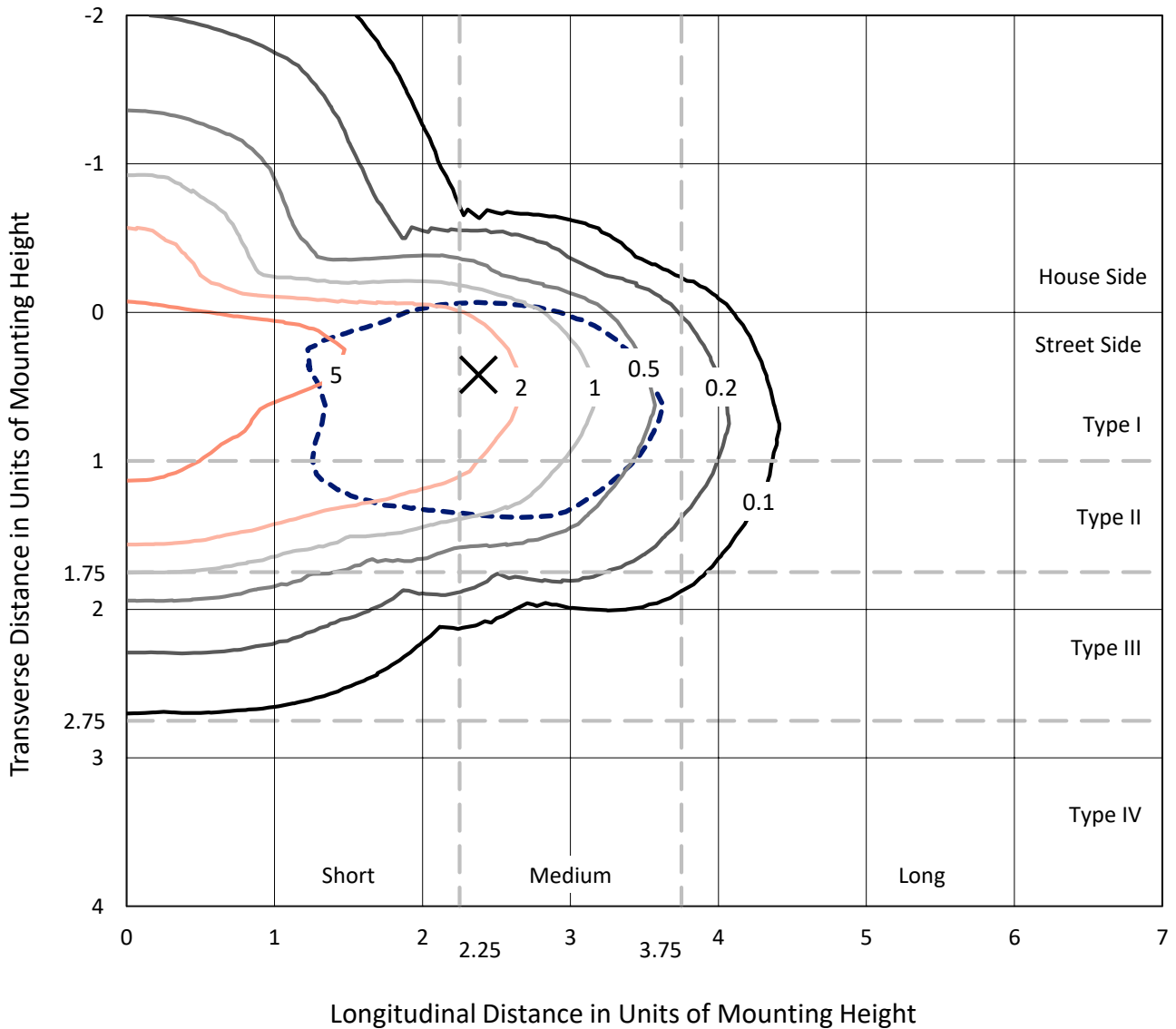


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

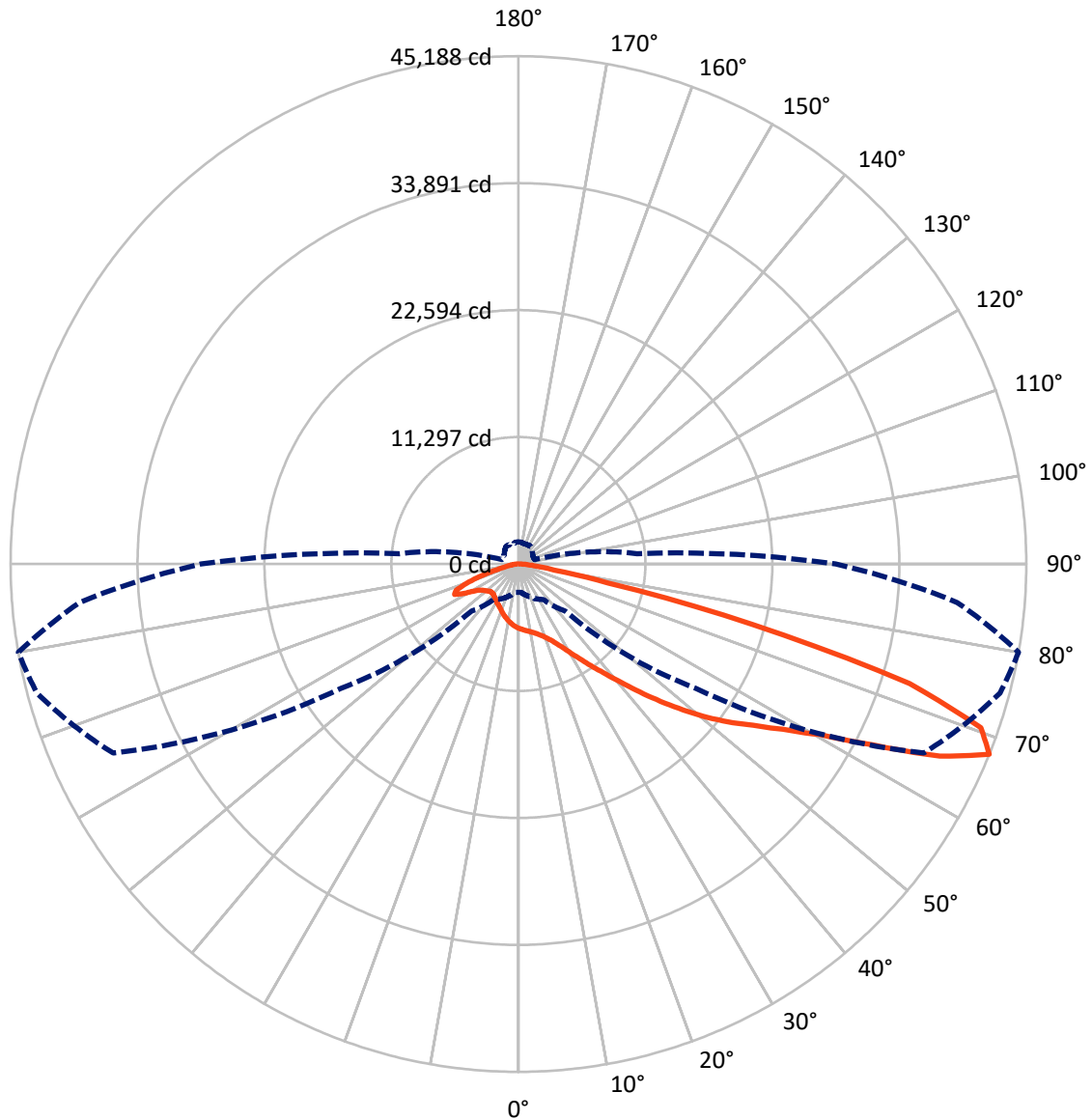


Based on 30 foot mounting height. Maximum calculated value = 7.7 fc
 Type II - Medium - Full Cutoff

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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	7582.9	0.0	7582.9
	% Fixture	18.4	0.0	18.4
Street Side	Lumens	33592.1	0.0	33592.1
	% Fixture	81.6	0.0	81.6
Total	Lumens	41175.0	0.0	41175.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	527.7	1.3
10°-20°	1520.1	3.7
20°-30°	2516.1	6.1
30°-40°	4115.7	10.0
40°-50°	6645.2	16.1
50°-60°	9593.7	23.3
60°-70°	10587.2	25.7
70°-80°	4880.0	11.9
80°-90°	789.3	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°	41175.0	100.0
0°-180°	41175.0	100.0



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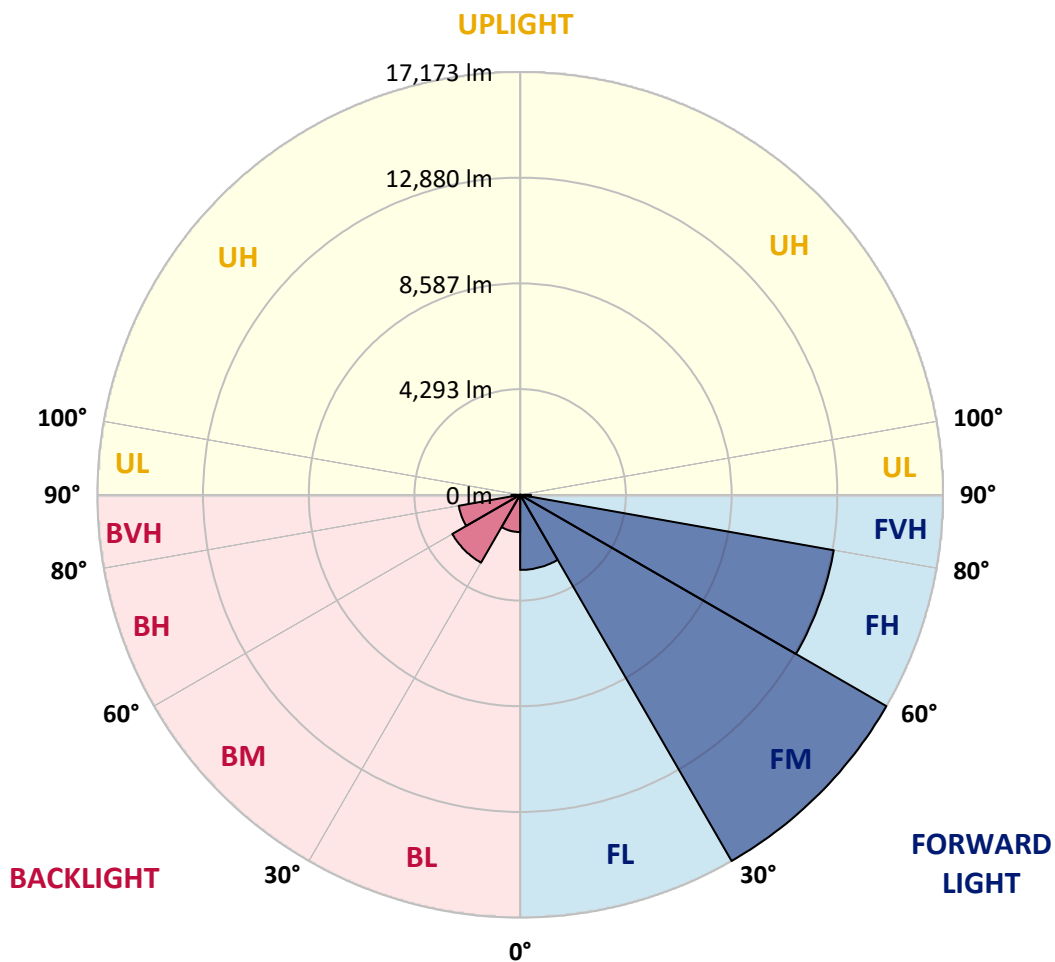
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3051.0	7.4			
FM (30°-60°)	17173.0	41.7			
FH (60°-80°)	12934.1	31.4			G5
FVH (80°-90°)	434.0	1.1			G3/500
BL (0°-30°)	1512.9	3.7	B3/2500		
BM (30°-60°)	3181.5	7.7	B3/5000		
BH (60°-80°)	2533.1	6.2	B4/5000		G4/5000
BVH (80°-90°)	355.4	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°	5720.4	5720.4	5720.4	5720.4	5720.4	5720.4	5720.4	5720.4	5720.4	5720.4	5720.4
2.5°	6257.6	6221.1	6227.2	6217.0	6186.6	6133.9	6077.2	5973.8	5866.3	5809.6	5765.0
5°	6780.6	6770.4	6756.2	6723.8	6646.8	6537.3	6401.5	6219.1	6022.4	5919.1	5819.7
7.5°	7171.8	7165.7	7147.5	7127.2	7052.2	6920.4	6715.7	6456.2	6170.4	6028.5	5874.5
10°	7204.2	7214.4	7228.5	7283.3	7293.4	7222.5	7013.7	6699.5	6324.5	6142.0	5945.4
12.5°	6928.5	6950.8	7005.6	7145.4	7293.4	7380.6	7273.1	6954.9	6504.9	6283.9	6034.6
15°	6563.7	6575.8	6642.7	6835.3	7100.8	7370.4	7471.8	7236.6	6738.0	6466.4	6168.4
17.5°	6407.6	6413.7	6460.3	6588.0	6835.3	7220.4	7583.3	7542.7	7023.8	6693.4	6332.6
20°	6328.5	6342.7	6409.6	6535.3	6691.4	7027.9	7599.5	7873.1	7364.4	6977.2	6539.3
22.5°	6553.5	6547.4	6571.8	6634.6	6766.4	6969.1	7587.3	8213.7	7798.1	7342.1	6808.9
25°	7078.5	7100.8	7058.3	6987.3	7029.9	7171.8	7652.2	8582.6	8341.4	7810.3	7161.6
27.5°	7826.5	7804.2	7741.4	7575.2	7488.0	7548.8	7867.1	8979.9	9016.4	8426.5	7627.9
30°	8572.5	8554.2	8493.4	8290.7	8112.3	8061.7	8284.6	9436.0	9821.2	9166.4	8199.5
32.5°	9346.8	9326.6	9269.8	9067.1	8852.2	8734.7	8878.6	9963.1	10769.8	10050.2	8872.5
35°	10301.6	10263.1	10143.5	9861.7	9650.9	9559.7	9626.6	10625.9	11864.5	11096.2	9689.4
37.5°	11199.6	11258.4	11136.7	10747.5	10473.9	10441.5	10516.5	11434.7	13044.2	12265.8	10627.9
40°	12101.6	12111.8	12002.3	11684.0	11402.3	11349.6	11538.1	12415.8	14436.8	13664.5	11769.2
42.5°	13034.1	13054.3	12869.9	12576.0	12369.2	12379.3	12594.2	13565.2	16034.1	15312.5	13082.7
45°	14138.8	14169.2	13966.5	13581.4	13392.9	13771.9	13682.7	14854.4	17785.5	17185.5	14590.9
47.5°	15294.3	15340.9	15186.8	14826.0	14590.9	15111.8	14771.3	16283.5	19670.7	19194.3	16247.0
50°	15924.7	15991.6	16141.6	16115.2	16064.5	15977.4	15985.5	17815.9	21614.7	21286.3	17949.7
52.5°	15586.2	15584.1	16131.4	16796.3	17505.8	17558.5	17465.3	19431.5	23430.9	23331.6	19553.1
55°	14037.5	14142.9	14972.0	16259.1	18197.0	19407.2	19682.9	21282.2	25214.8	25330.3	21180.9
57.5°	11459.0	11546.2	12665.1	14459.1	17264.6	20505.9	22837.0	23972.2	27209.4	27748.6	23347.8
60°	7771.8	7877.2	9063.0	11217.8	14755.1	19893.7	25839.1	28772.3	29597.3	30823.7	26388.4
62.5°	4567.0	4662.3	5629.2	7076.5	10388.7	17049.7	27156.7	35601.5	33389.9	35463.6	31026.4
65°	3144.0	3208.9	3679.1	4404.8	5969.7	11483.4	25522.9	40316.4	39225.9	41212.4	36404.2
67.5°	2529.8	2521.7	2894.7	3389.3	3843.3	5921.1	19299.8	39783.3	44358.4	45187.5	39195.5
70°	2083.8	2075.7	2329.1	2738.6	3071.0	3334.5	10512.4	33572.4	43312.5	43649.0	36625.1
72.5°	1743.3	1751.4	1913.6	2217.6	2519.7	2511.5	4619.7	23617.4	34073.1	36400.1	29195.9
75°	1471.7	1475.7	1583.1	1798.0	2045.3	2023.0	2505.5	12794.9	19806.5	21426.2	16184.1
77.5°	1252.7	1256.8	1325.7	1445.3	1621.7	1613.5	1828.4	5527.8	8262.3	8161.0	5535.9
80°	1116.9	1116.9	1149.4	1171.6	1268.9	1232.5	1356.1	2655.5	3492.6	3225.1	2209.5
82.5°	875.7	879.7	1078.4	1070.3	999.3	952.7	952.7	1564.9	1850.7	1710.8	1293.3
85°	492.6	490.6	695.3	839.2	879.7	671.0	664.9	875.7	1007.5	887.9	626.4
87.5°	210.8	214.9	322.3	373.0	498.7	417.6	411.5	452.0	512.8	443.9	289.9
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°	5720.4	5720.4	5720.4	5720.4	5720.4	5720.4	5720.4	5720.4	5720.4	5720.4	5720.4
2.5°	5722.4	5669.7	5554.2	5410.3	5280.5	5195.4	5118.4	5006.9	5013.0	4935.9	4879.2
5°	5718.4	5608.9	5341.3	5023.1	4717.0	4496.0	4329.8	4179.8	4143.3	4072.4	4029.8
7.5°	5722.4	5544.0	5094.0	4585.2	4206.2	3926.4	3784.5	3705.5	3687.2	3662.9	3664.9
10°	5736.6	5485.3	4822.4	4175.8	3778.5	3594.0	3559.5	3583.9	3612.2	3620.4	3622.4
12.5°	5769.0	5432.6	4524.4	3810.9	3510.9	3454.1	3512.9	3596.0	3650.8	3677.1	3675.1
15°	5842.0	5392.0	4238.6	3525.1	3362.9	3393.3	3502.8	3620.4	3699.4	3735.9	3737.9
17.5°	5921.1	5333.2	3944.7	3306.2	3253.5	3330.5	3466.3	3604.1	3701.4	3742.0	3750.1
20°	6024.5	5260.3	3636.6	3142.0	3150.1	3237.2	3364.9	3502.8	3610.2	3644.7	3660.9
22.5°	6160.3	5181.2	3367.0	3008.2	3032.5	3099.4	3198.7	3318.3	3411.6	3427.8	3442.0
25°	6342.7	5096.1	3152.1	2886.6	2896.7	2935.2	3002.1	3073.0	3137.9	3119.7	3133.9
27.5°	6588.0	5023.1	2992.0	2775.1	2756.8	2764.9	2799.4	2821.7	2856.1	2805.5	2811.5
30°	6875.8	4944.0	2868.3	2677.8	2627.1	2612.9	2621.0	2633.2	2659.5	2590.6	2580.5
32.5°	7210.3	4848.8	2752.8	2592.6	2521.7	2493.3	2497.4	2529.8	2631.1	2588.6	2566.3
35°	7599.5	4741.3	2631.1	2499.4	2450.7	2410.2	2406.1	2507.5	2809.5	2783.2	2762.9
37.5°	8055.6	4633.9	2509.5	2394.0	2398.0	2353.4	2339.2	2454.8	2844.0	2740.6	2726.4
40°	8635.3	4577.1	2406.1	2282.5	2333.2	2327.1	2298.7	2357.5	2617.0	2428.4	2404.1
42.5°	9352.9	4585.2	2329.1	2162.9	2256.1	2321.0	2276.4	2278.4	2371.7	2229.8	2207.5
45°	10238.7	4680.5	2274.4	2067.6	2169.0	2314.9	2268.3	2235.9	2244.0	2169.0	2156.8
47.5°	11272.6	4877.1	2235.9	1988.6	2085.9	2292.6	2266.3	2223.7	2205.5	2164.9	2154.8
50°	12421.9	5163.0	2207.5	1913.6	2010.9	2256.1	2268.3	2211.5	2191.3	2175.0	2169.0
52.5°	13551.0	5489.3	2164.9	1848.7	1952.1	2211.5	2274.4	2199.4	2177.1	2164.9	2158.8
55°	14809.8	5896.8	2100.0	1794.0	1903.4	2154.8	2274.4	2181.1	2156.8	2158.8	2156.8
57.5°	16510.5	6555.6	2023.0	1747.3	1844.6	2085.9	2235.9	2160.9	2130.5	2132.5	2134.5
60°	19168.0	7717.1	1929.8	1700.7	1771.7	2004.8	2183.2	2116.3	2085.9	2094.0	2096.0
62.5°	23076.2	9421.8	1808.1	1631.8	1694.6	1917.6	2110.2	2059.5	2029.1	2049.4	2049.4
65°	27138.4	10925.9	1658.1	1544.6	1613.5	1822.3	2019.0	1988.6	1958.2	2004.8	2002.7
67.5°	28231.0	10589.4	1508.1	1449.4	1532.5	1716.9	1909.5	1893.3	1877.1	1958.2	1954.1
70°	25078.9	8501.5	1370.3	1352.1	1443.3	1603.4	1791.9	1791.9	1781.8	1842.6	1828.4
72.5°	19107.2	6028.5	1238.5	1248.7	1341.9	1479.8	1664.2	1678.4	1662.2	1692.6	1680.4
75°	10228.6	3450.1	1106.8	1135.2	1216.2	1354.1	1522.3	1536.5	1526.4	1524.4	1530.4
77.5°	3399.4	1686.5	968.9	1013.5	1084.5	1224.4	1374.4	1396.7	1372.3	1368.3	1366.2
80°	1514.2	1060.2	816.9	875.7	938.5	1076.4	1218.3	1236.5	1210.2	1246.6	1200.0
82.5°	973.0	697.3	654.7	719.6	780.4	928.4	1062.2	1066.2	1041.9	1210.2	1031.8
85°	472.3	431.8	492.6	551.4	604.1	729.7	879.7	881.8	821.0	748.0	721.6
87.5°	235.1	251.4	328.4	381.1	407.4	500.7	640.6	628.4	602.0	547.3	504.7
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)