

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: P299653

Luminaire Tested: **GLNA-AF-04-LED-E1-SL2-7027-800-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299653
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24287)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-04-LED-E1-SL2-7027-800-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
w/Spill Control WITH HOUSESIDE SHEILD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12680.7 lumens
Efficiency: N/A
Efficacy: 74.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 171
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

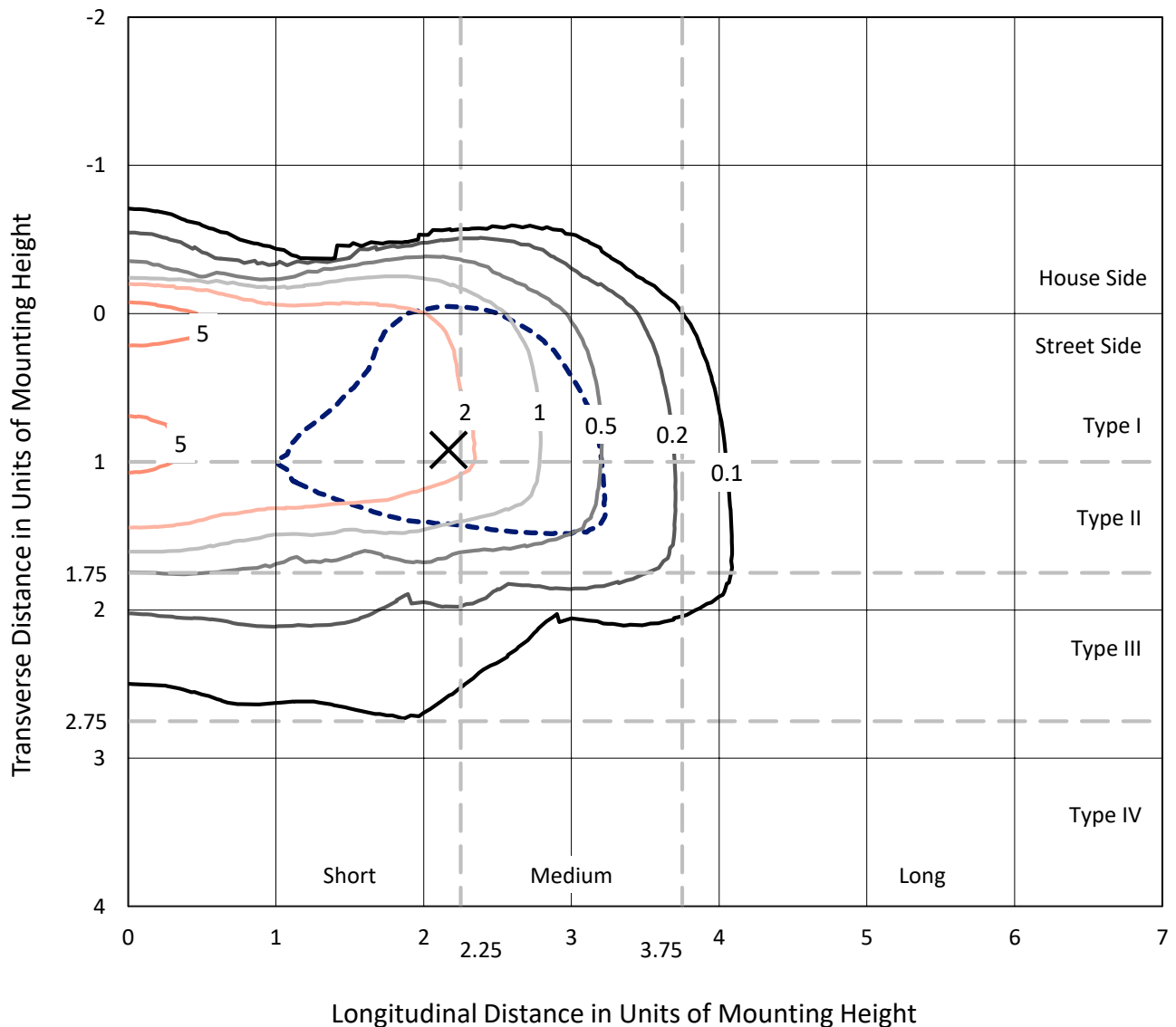


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

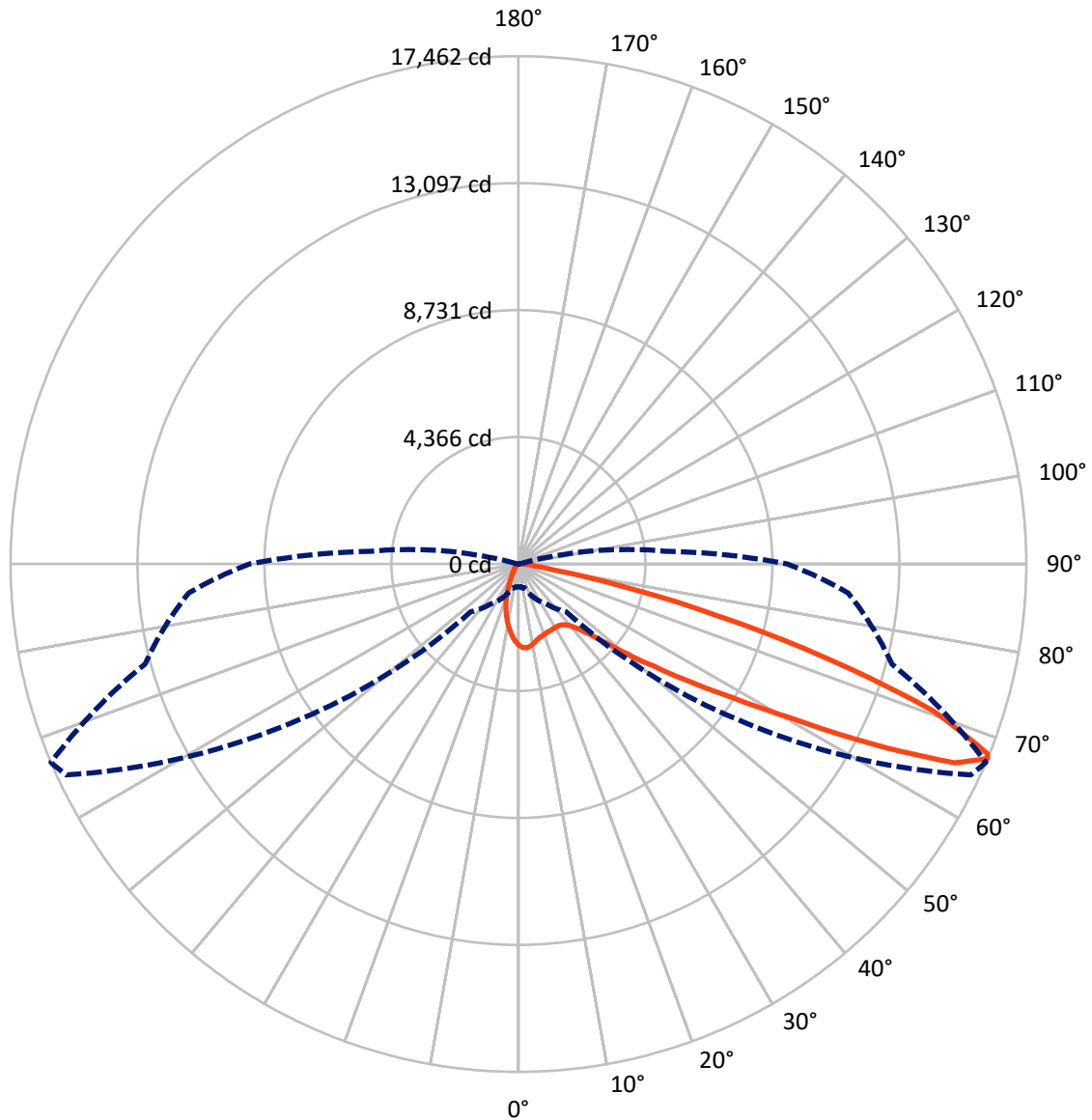


Based on 20 foot mounting height. Maximum calculated value = 7 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1316.6	0.0	1316.6
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	11364.0	0.0	11364.0
	% Fixture	89.6	0.0	89.6
Total	Lumens	12680.7	0.0	12680.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	227.6	1.8
10°-20°	484.3	3.8
20°-30°	704.2	5.6
30°-40°	1098.5	8.7
40°-50°	1946.0	15.3
50°-60°	3079.3	24.3
60°-70°	3526.9	27.8
70°-80°	1462.9	11.5
80°-90°	151.1	1.2
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°	12680.7	100.0
0°-180°	12680.7	100.0



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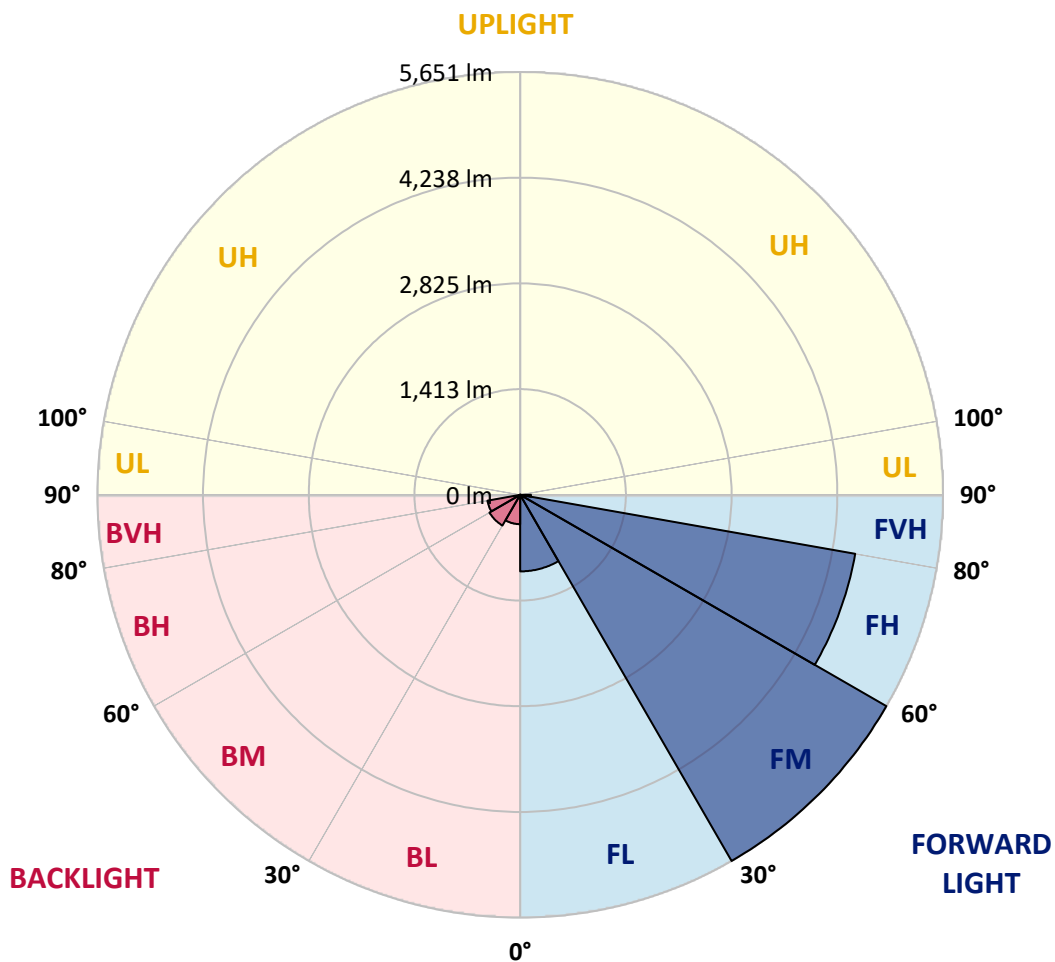
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1023.1	8.1			
FM (30°-60°)	5650.5	44.6			
FH (60°-80°)	4546.0	35.9			G2/5000
FVH (80°-90°)	144.3	1.1			G2/225
BL (0°-30°)	392.9	3.1	B1/500		
BM (30°-60°)	473.2	3.7	B1/1000		
BH (60°-80°)	443.8	3.5	B1/500		G1/500
BVH (80°-90°)	6.8	0.1			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	2796.6	2796.6	2796.6	2796.6	2796.6	2796.6	2796.6	2796.6	2796.6	2796.6	2796.6
2.5°	2891.2	2897.1	2896.4	2900.8	2911.2	2911.9	2901.6	2881.6	2877.2	2851.3	2806.2
5°	2666.4	2683.4	2693.7	2735.9	2783.2	2840.2	2883.1	2898.6	2896.4	2877.9	2809.9
7.5°	2409.7	2426.7	2438.6	2488.1	2551.0	2648.6	2760.3	2852.0	2860.2	2880.1	2806.9
10°	2238.9	2241.8	2258.1	2305.4	2371.3	2471.1	2604.2	2764.7	2789.2	2862.4	2799.5
12.5°	2098.3	2100.6	2122.0	2173.0	2243.3	2343.9	2483.7	2669.3	2707.1	2840.2	2798.0
15°	1998.5	2006.6	2025.9	2079.1	2153.8	2253.7	2397.1	2599.1	2644.2	2832.1	2811.3
17.5°	1965.2	1974.1	1980.0	2018.5	2086.5	2184.1	2331.3	2553.2	2604.2	2836.5	2837.2
20°	2000.0	2006.6	1993.3	2002.9	2045.1	2132.4	2275.8	2514.0	2574.7	2841.7	2870.5
22.5°	2129.4	2132.4	2096.1	2054.0	2046.6	2094.6	2232.2	2482.9	2548.0	2855.7	2909.7
25°	2351.3	2346.1	2286.9	2196.0	2110.2	2088.0	2206.3	2463.7	2534.7	2870.5	2950.4
27.5°	2619.0	2626.4	2545.1	2412.7	2249.2	2132.4	2202.6	2455.6	2528.8	2880.9	2985.9
30°	2944.5	2954.8	2861.6	2695.2	2460.8	2241.8	2236.6	2454.1	2525.1	2874.2	2988.9
32.5°	3276.6	3289.1	3215.9	3044.3	2743.3	2425.3	2313.6	2470.4	2532.5	2851.3	2971.8
35°	3624.2	3642.0	3593.1	3445.9	3126.4	2690.0	2448.9	2519.9	2567.3	2849.1	2954.8
37.5°	4104.2	4120.5	4028.8	3872.7	3590.2	3045.1	2666.4	2613.1	2649.4	2884.6	2959.3
40°	4820.9	4818.7	4582.0	4343.1	4099.8	3496.2	2971.8	2781.8	2800.2	2991.8	3014.0
42.5°	5602.0	5598.3	5248.4	4885.3	4665.6	4051.7	3373.5	3073.2	3060.6	3189.3	3156.0
45°	6204.0	6203.3	5917.8	5508.8	5346.8	4689.3	3892.7	3478.5	3459.3	3510.3	3417.8
47.5°	6460.7	6465.1	6321.6	6033.9	6102.0	5551.7	4547.3	4065.8	4036.9	4016.2	3875.7
50°	6261.0	6269.9	6281.7	6225.5	6656.0	6710.7	5425.2	4893.4	4879.4	4786.9	4567.2
52.5°	5608.6	5653.8	5792.8	5971.1	6848.3	7823.1	6801.7	5921.5	5846.1	5747.7	5505.8
55°	4509.5	4559.1	4823.1	5255.8	6562.0	8553.9	8730.6	7246.9	7121.2	6827.5	6478.4
57.5°	2984.4	3061.3	3444.5	3994.8	5730.7	8671.5	10655.1	9086.4	8648.5	7844.5	7451.1
60°	1644.2	1718.2	2133.8	2632.4	4139.0	8090.1	11949.5	11481.3	10707.7	8981.4	8632.3
62.5°	1012.6	1052.5	1359.4	1823.2	2482.2	6385.2	12217.3	14490.9	13595.2	10445.1	10059.0
65°	806.2	823.2	973.4	1490.4	1779.6	3798.0	11352.6	16785.2	16486.4	12217.3	11336.3
67°	782.5	789.2	860.2	1279.6	1677.5	2328.4	9510.9	17158.7	17462.0	13289.7	11376.3
67.5°	787.7	795.1	862.4	1221.1	1674.5	2139.8	8876.3	17011.6	17394.7	13374.8	11199.5
70°	759.6	782.5	987.4	1220.4	1592.4	1778.1	5315.7	14739.4	15138.1	12427.3	9502.8
72.5°	269.2	270.7	426.8	987.4	1731.5	1797.3	2669.3	10805.3	11100.4	9506.5	6851.2
75°	159.8	136.1	142.0	281.1	1654.6	1745.5	1539.9	6904.5	7014.7	5447.4	3469.6
77.5°	110.2	96.2	99.1	124.3	630.2	1721.1	1223.4	3600.5	3482.9	1910.5	738.9
80°	62.9	55.5	59.2	108.7	229.3	1605.7	1153.8	1460.0	1244.8	324.0	204.1
82.5°	33.3	28.1	34.0	89.5	159.8	1000.7	1156.0	705.6	559.2	109.5	139.1
85°	11.8	9.6	16.3	61.4	106.5	306.9	1071.7	593.2	466.0	53.3	105.8
87.5°	2.2	2.2	6.7	25.1	42.9	93.9	633.9	352.1	235.9	31.8	72.5
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°	2796.6	2796.6	2796.6	2796.6	2796.6	2796.6	2796.6	2796.6	2796.6	2796.6	2796.6
2.5°	2787.7	2755.9	2713.0	2660.5	2598.3	2543.6	2502.9	2460.8	2451.9	2437.1	2434.9
5°	2769.2	2714.5	2607.9	2485.9	2355.7	2238.1	2142.7	2057.7	2019.9	1987.4	1983.7
7.5°	2741.8	2659.7	2478.5	2281.8	2078.4	1893.5	1736.7	1625.7	1523.6	1474.8	1467.4
10°	2710.0	2592.4	2332.8	2059.9	1778.8	1517.7	1284.7	1089.5	971.1	900.9	892.0
12.5°	2680.4	2526.6	2184.1	1829.9	1456.3	1107.2	807.7	621.3	497.0	446.7	440.8
15°	2666.4	2473.3	2045.1	1594.6	1119.1	704.9	441.6	341.7	301.0	289.2	288.5
17.5°	2664.9	2428.2	1909.0	1351.3	784.0	409.8	287.7	262.6	254.4	251.5	251.5
20°	2664.2	2385.3	1772.9	1099.1	497.8	272.9	239.6	233.7	227.8	224.1	224.1
22.5°	2672.3	2346.9	1630.9	841.7	313.6	221.2	210.8	204.9	197.5	192.3	191.6
25°	2680.4	2317.3	1485.9	599.1	227.1	192.3	181.9	173.8	163.5	156.8	156.1
27.5°	2681.9	2280.3	1330.6	400.9	190.1	167.9	154.6	142.0	130.2	123.5	122.8
30°	2659.7	2218.2	1158.3	270.7	167.9	145.7	128.0	114.6	103.5	98.4	98.4
32.5°	2616.1	2141.2	968.9	204.1	149.4	125.0	105.8	93.2	85.8	83.6	82.8
35°	2576.9	2058.4	774.4	173.1	133.9	105.8	86.5	78.4	74.0	73.2	72.5
37.5°	2554.0	1991.8	591.7	156.8	119.1	88.8	73.2	67.3	65.1	63.6	64.3
40°	2571.7	1936.4	437.1	143.5	104.3	74.0	62.1	59.2	57.0	56.2	56.2
42.5°	2649.4	1926.7	324.7	131.7	90.2	61.4	54.0	51.8	50.3	49.6	50.3
45°	2853.5	1985.9	252.2	120.6	76.2	51.8	45.9	45.1	44.4	44.4	44.4
47.5°	3160.5	2108.0	210.1	108.0	63.6	44.4	39.9	39.2	38.5	39.2	39.2
50°	3680.4	2331.3	187.9	95.4	52.5	37.7	34.0	34.0	34.0	34.0	34.8
52.5°	4471.1	2770.7	173.1	82.8	42.9	31.8	28.8	28.8	29.6	29.6	30.3
55°	5352.0	3353.5	159.8	70.3	36.2	26.6	23.7	24.4	25.1	25.9	25.9
57.5°	6307.6	3999.2	148.7	57.7	31.1	21.4	20.0	20.7	21.4	22.9	22.9
60°	7460.7	4698.1	132.4	45.1	25.9	17.0	15.5	17.0	19.2	20.7	21.4
62.5°	8726.9	5374.2	111.7	35.5	21.4	13.3	12.6	15.5	18.5	20.0	20.7
65°	9592.3	5586.4	85.8	28.8	16.3	9.6	10.4	14.1	17.8	20.0	20.0
67°	9241.7	5065.0	70.3	24.4	13.3	7.4	9.6	14.1	17.8	19.2	20.0
67.5°	8998.4	4860.9	67.3	23.7	12.6	7.4	9.6	14.1	17.8	20.0	20.0
70°	7321.6	3651.6	56.2	17.8	10.4	6.7	8.1	13.3	17.0	19.2	19.2
72.5°	5087.2	2251.4	50.3	12.6	8.9	5.9	7.4	12.6	16.3	18.5	19.2
75°	2418.6	815.1	42.9	9.6	8.1	5.2	6.7	12.6	16.3	18.5	18.5
77.5°	493.3	189.3	34.8	8.1	6.7	5.2	5.9	11.8	15.5	17.8	17.8
80°	162.0	73.2	25.9	7.4	6.7	5.2	5.9	11.1	15.5	17.0	17.8
82.5°	116.9	37.0	17.0	7.4	6.7	5.2	5.2	11.1	14.8	17.0	17.0
85°	89.5	25.9	11.1	7.4	6.7	5.2	5.2	10.4	14.1	16.3	16.3
87.5°	59.2	10.4	8.9	7.4	6.7	5.2	5.2	10.4	13.3	15.5	16.3
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)