

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: P191032

Luminaire Tested: **GLEON-AF-04-LED-E1-SL2-600-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P191032  
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: GLEON-AF-04-LED-E1-SL2-600-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 4000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL  
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13404.8 lumens  
Efficiency: N/A  
Efficacy: 103.9 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

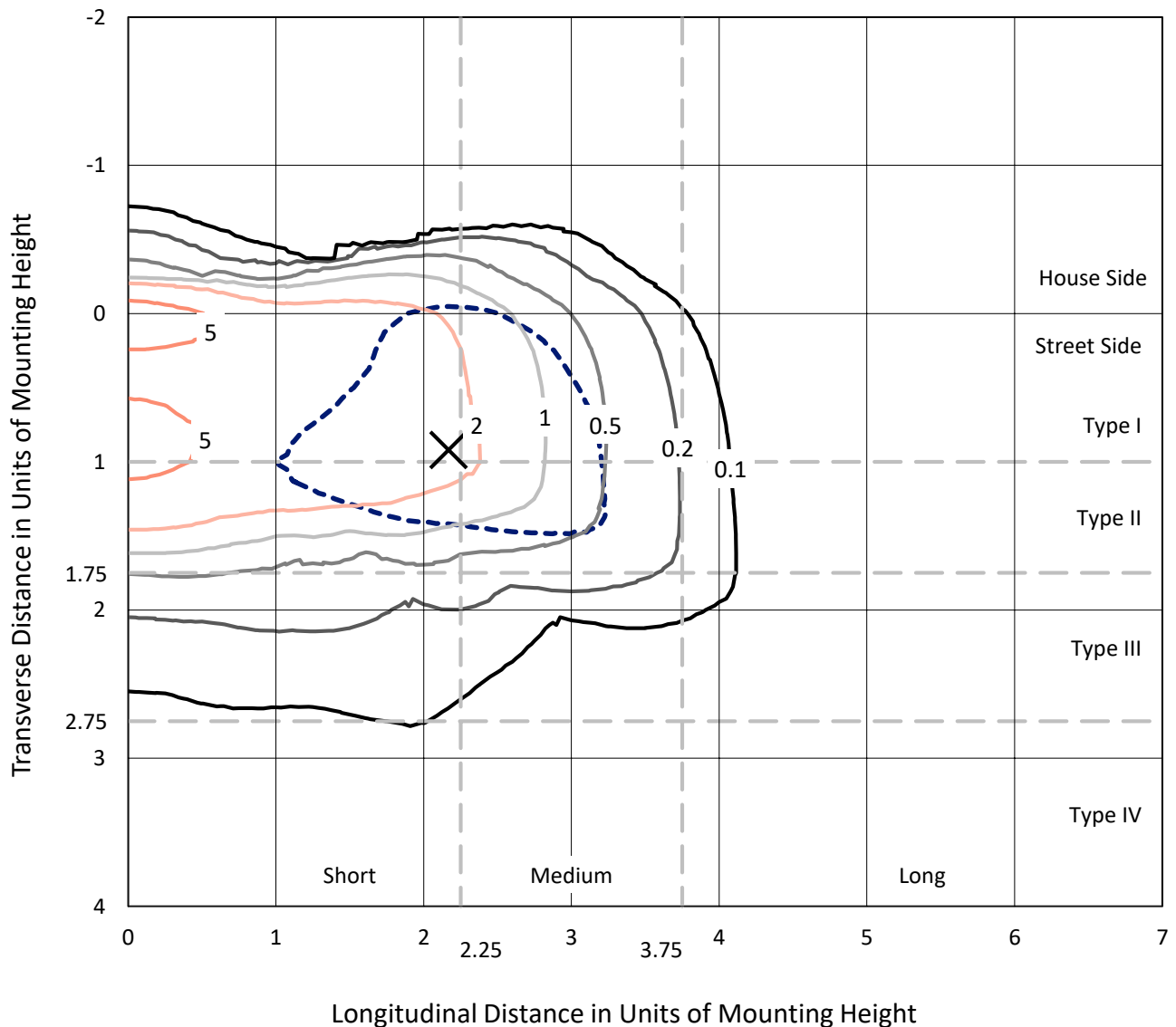
Input Watts (W): 129  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

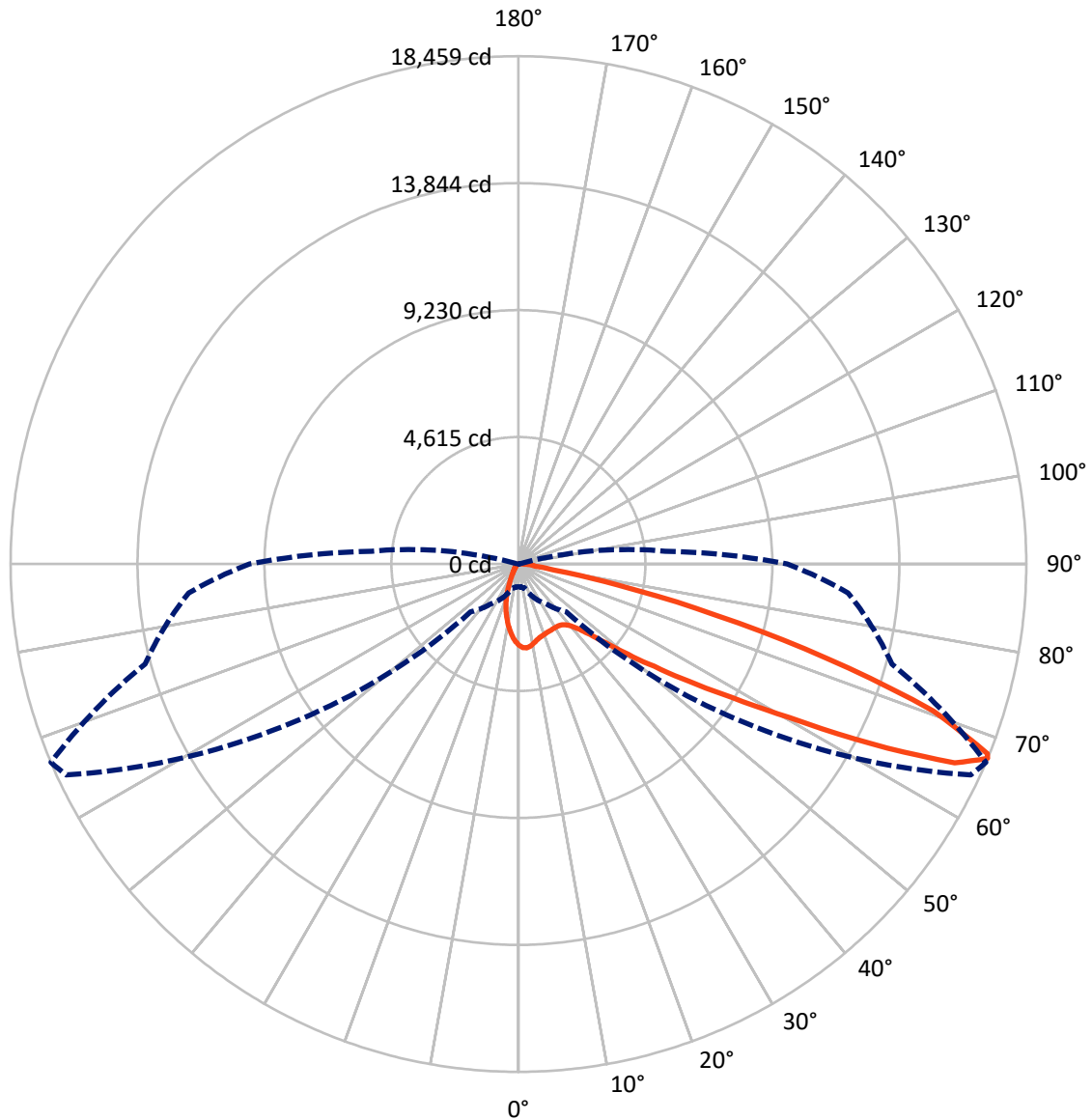
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 7.4 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
<b>House Side</b>	Lumens	1391.8	0.0	1391.8
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	12012.9	0.0	12012.9
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	13404.8	0.0	13404.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	240.5	1.8
10°-20°	512.0	3.8
20°-30°	744.4	5.6
30°-40°	1161.2	8.7
40°-50°	2057.1	15.3
50°-60°	3255.1	24.3
60°-70°	3728.3	27.8
70°-80°	1546.5	11.5
80°-90°	159.7	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°	13404.8	100.0
0°-180°	13404.8	100.0



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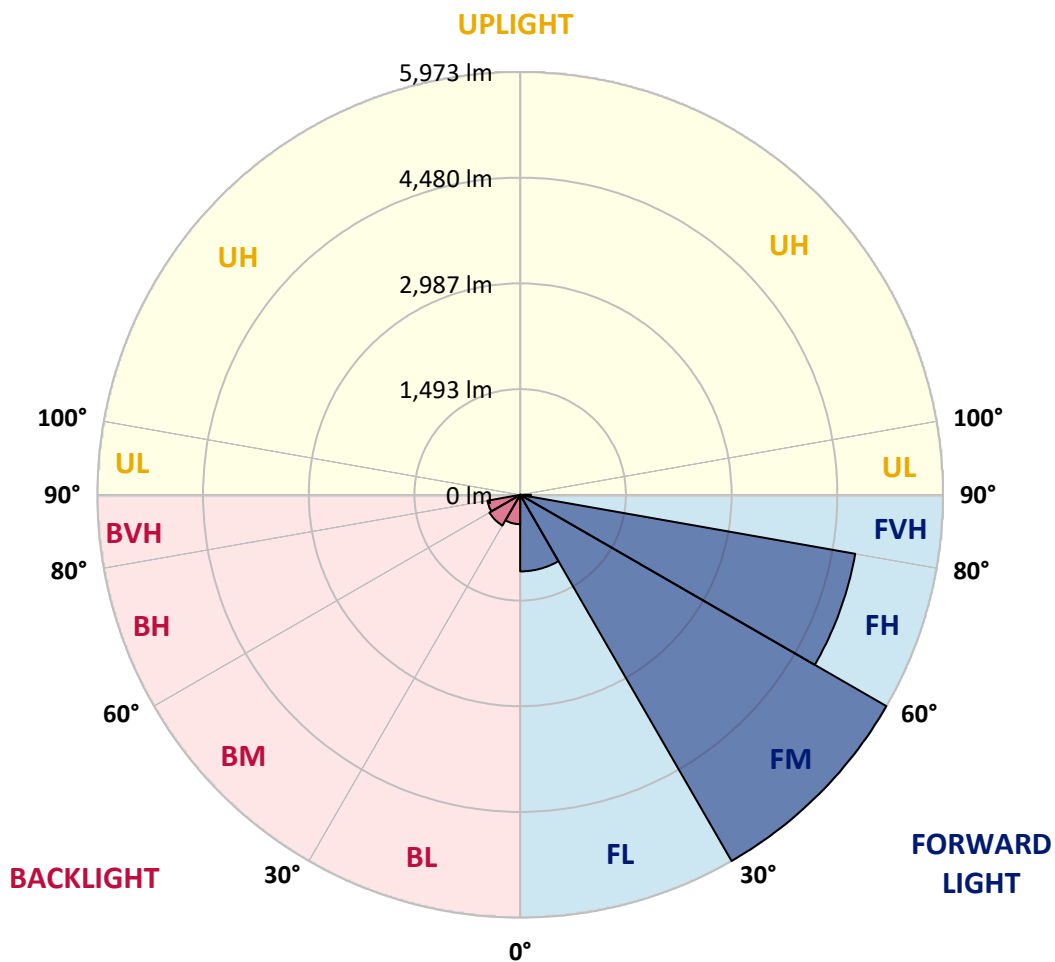
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1081.6	8.1			
FM (30°-60°)	5973.2	44.6			
FH (60°-80°)	4805.6	35.9			G2/5000
FVH (80°-90°)	152.5	1.1			G2/225
BL (0°-30°)	415.3	3.1	B1/500		
BM (30°-60°)	500.2	3.7	B1/1000		
BH (60°-80°)	469.1	3.5	B1/500		G1/500
BVH (80°-90°)	7.2	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°	2956.2	2956.2	2956.2	2956.2	2956.2	2956.2	2956.2	2956.2	2956.2	2956.2	2956.2
2.5°	3056.3	3062.6	3061.8	3066.5	3077.4	3078.3	3067.3	3046.1	3041.4	3014.1	2966.5
5°	2818.6	2836.6	2847.6	2892.1	2942.2	3002.4	3047.7	3064.1	3061.8	3042.3	2970.3
7.5°	2547.4	2565.4	2577.8	2630.2	2696.7	2799.9	2918.0	3014.8	3023.4	3044.6	2967.2
10°	2366.7	2369.9	2387.1	2437.1	2506.6	2612.2	2753.0	2922.6	2948.5	3025.8	2959.4
12.5°	2218.2	2220.5	2243.2	2297.1	2371.4	2477.7	2625.5	2821.8	2861.6	3002.4	2957.8
15°	2112.6	2121.2	2141.5	2197.8	2276.8	2382.4	2534.1	2747.4	2795.2	2993.8	2971.9
17.5°	2077.4	2086.8	2093.1	2133.7	2205.7	2308.9	2464.5	2699.1	2753.0	2998.5	2999.3
20°	2114.1	2121.2	2107.2	2117.3	2161.9	2254.2	2405.8	2657.5	2721.7	3003.9	3034.4
22.5°	2251.0	2254.2	2215.8	2171.2	2163.4	2214.3	2359.6	2624.7	2693.5	3018.8	3075.9
25°	2485.6	2480.0	2417.5	2321.4	2230.6	2207.2	2332.3	2604.4	2679.4	3034.4	3118.9
27.5°	2768.6	2776.4	2690.4	2550.4	2377.6	2254.2	2328.4	2595.8	2673.2	3045.3	3156.4
30°	3112.6	3123.6	3025.1	2849.1	2601.3	2369.9	2364.3	2594.2	2669.3	3038.4	3159.5
32.5°	3463.7	3477.0	3399.6	3218.2	2900.0	2563.7	2445.7	2611.4	2677.2	3014.1	3141.6
35°	3831.2	3849.9	3798.3	3642.7	3304.9	2843.7	2588.8	2663.9	2713.9	3011.8	3123.6
37.5°	4338.5	4355.8	4258.9	4093.8	3795.1	3218.9	2818.6	2762.4	2800.6	3049.3	3128.3
40°	5096.2	5093.9	4843.7	4591.1	4333.9	3695.9	3141.6	2940.6	2960.1	3162.7	3186.1
42.5°	5921.9	5918.0	5548.2	5164.3	4932.1	4283.1	3566.1	3248.7	3235.4	3371.4	3336.3
45°	6558.3	6557.5	6255.8	5823.4	5652.1	4957.0	4114.9	3677.1	3656.8	3710.8	3613.0
47.5°	6829.6	6834.3	6682.6	6378.5	6450.4	5868.7	4806.9	4297.9	4267.4	4245.6	4097.0
50°	6618.5	6627.9	6640.4	6580.9	7036.1	7093.9	5735.0	5172.9	5158.0	5060.2	4828.0
52.5°	5928.9	5976.6	6123.6	6312.0	7239.3	8269.8	7190.0	6259.6	6179.9	6075.9	5820.2
55°	4767.1	4819.4	5098.6	5556.0	6936.7	9042.3	9229.2	7660.8	7527.8	7217.4	6848.3
57.5°	3154.9	3236.1	3641.2	4222.8	6057.9	9166.7	11263.6	9605.2	9142.4	8292.4	7876.5
60°	1738.1	1816.2	2255.7	2782.6	4375.4	8552.1	12631.8	12136.9	11319.1	9494.2	9125.1
62.5°	1070.4	1112.6	1437.0	1927.3	2624.0	6749.8	12914.9	15318.4	14371.5	11041.5	10633.4
65°	852.2	870.2	1029.0	1575.4	1881.2	4014.9	12000.8	17743.7	17427.8	12914.9	11983.7
67°	827.3	834.2	909.3	1352.6	1773.3	2461.3	10054.1	18138.6	18459.1	14048.6	12025.9
67.5°	832.7	840.6	911.7	1290.9	1770.1	2261.9	9383.2	17983.0	18388.0	14138.5	11839.0
70°	803.0	827.3	1043.8	1290.0	1683.4	1879.6	5619.3	15581.1	16002.5	13136.9	10045.5
72.5°	284.6	286.1	451.1	1043.8	1830.4	1899.9	2821.8	11422.3	11734.3	10049.4	7242.5
75°	168.9	143.8	150.2	297.1	1749.0	1845.2	1627.8	7298.8	7415.3	5758.5	3667.8
77.5°	116.5	101.7	104.8	131.3	666.1	1819.4	1293.2	3806.1	3681.8	2019.6	781.1
80°	66.5	58.6	62.5	115.0	242.3	1697.5	1219.7	1543.4	1315.9	342.5	215.8
82.5°	35.2	29.7	36.0	94.6	168.9	1057.8	1222.0	745.9	591.1	115.7	147.0
85°	12.5	10.1	17.2	64.9	112.6	324.5	1132.9	627.1	492.6	56.3	111.8
87.5°	2.4	2.4	7.1	26.6	45.3	99.3	670.0	372.1	249.4	33.7	76.6
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°	2956.2	2956.2	2956.2	2956.2	2956.2	2956.2	2956.2	2956.2	2956.2	2956.2	2956.2
2.5°	2946.8	2913.3	2867.8	2812.4	2746.7	2688.8	2645.9	2601.3	2591.9	2576.3	2573.9
5°	2927.3	2869.5	2756.9	2627.9	2490.3	2365.9	2265.1	2175.2	2135.3	2100.8	2096.9
7.5°	2898.4	2811.6	2620.1	2412.0	2197.1	2001.6	1835.8	1718.6	1610.6	1559.1	1551.2
10°	2864.8	2740.5	2466.0	2177.5	1880.4	1604.4	1358.1	1151.7	1026.6	952.3	943.0
12.5°	2833.5	2670.8	2308.9	1934.3	1539.5	1170.5	853.8	656.7	525.4	472.3	466.0
15°	2818.6	2614.6	2161.9	1685.7	1182.9	745.1	466.8	361.2	318.2	305.8	304.9
17.5°	2817.1	2566.9	2018.0	1428.4	828.8	433.1	304.1	277.5	268.9	265.9	265.9
20°	2816.3	2521.6	1874.1	1161.9	526.2	288.5	253.3	247.0	240.8	236.9	236.9
22.5°	2824.9	2480.9	1724.0	889.8	331.5	233.7	222.8	216.6	208.8	203.3	202.5
25°	2833.5	2449.6	1570.7	633.3	240.0	203.3	192.3	183.7	172.8	165.7	165.0
27.5°	2835.0	2410.5	1406.6	423.8	200.9	177.5	163.4	150.2	137.6	130.5	129.8
30°	2811.6	2344.8	1224.4	286.1	177.5	154.1	135.2	121.2	109.5	104.0	104.0
32.5°	2765.4	2263.5	1024.3	215.8	157.9	132.2	111.8	98.5	90.7	88.4	87.6
35°	2724.0	2175.9	818.6	183.0	141.5	111.8	91.5	82.9	78.2	77.4	76.6
37.5°	2699.8	2105.5	625.5	165.7	125.9	93.8	77.4	71.2	68.8	67.2	68.0
40°	2718.6	2046.9	462.1	151.7	110.3	78.2	65.7	62.5	60.3	59.4	59.4
42.5°	2800.6	2036.8	343.2	139.1	95.3	64.9	57.1	54.7	53.2	52.4	53.2
45°	3016.5	2099.3	266.6	127.5	80.5	54.7	48.5	47.7	47.0	47.0	47.0
47.5°	3341.0	2228.3	222.1	114.2	67.2	47.0	42.2	41.4	40.6	41.4	41.4
50°	3890.6	2464.5	198.6	100.9	55.5	39.9	36.0	36.0	36.0	36.0	36.7
52.5°	4726.3	2928.9	183.0	87.6	45.3	33.7	30.5	30.5	31.3	31.3	32.0
55°	5657.6	3545.0	168.9	74.3	38.4	28.1	25.1	25.8	26.6	27.4	27.4
57.5°	6667.8	4227.5	157.1	61.0	32.8	22.7	21.1	21.9	22.7	24.2	24.2
60°	7886.7	4966.4	139.9	47.7	27.4	18.0	16.5	18.0	20.4	21.9	22.7
62.5°	9225.3	5681.1	118.0	37.5	22.7	14.1	13.3	16.5	19.5	21.1	21.9
65°	10140.0	5905.5	90.7	30.5	17.2	10.1	10.9	14.8	18.7	21.1	21.1
67°	9769.5	5354.2	74.3	25.8	14.1	7.8	10.1	14.8	18.7	20.4	21.1
67.5°	9512.2	5138.4	71.2	25.1	13.3	7.8	10.1	14.8	18.7	21.1	21.1
70°	7739.7	3860.1	59.4	18.7	10.9	7.1	8.6	14.1	18.0	20.4	20.4
72.5°	5377.7	2380.0	53.2	13.3	9.4	6.2	7.8	13.3	17.2	19.5	20.4
75°	2556.7	861.6	45.3	10.1	8.6	5.5	7.1	13.3	17.2	19.5	19.5
77.5°	521.5	200.2	36.7	8.6	7.1	5.5	6.2	12.5	16.5	18.7	18.7
80°	171.2	77.4	27.4	7.8	7.1	5.5	6.2	11.8	16.5	18.0	18.7
82.5°	123.6	39.1	18.0	7.8	7.1	5.5	5.5	11.8	15.7	18.0	18.0
85°	94.6	27.4	11.8	7.8	7.1	5.5	5.5	10.9	14.8	17.2	17.2
87.5°	62.5	10.9	9.4	7.8	7.1	5.5	5.5	10.9	14.1	16.5	17.2
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)