

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: P299654

Luminaire Tested: **GLNA-AF-04-LED-E1-SL2-7030-800-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299654
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-SL2-7030-800-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 3000K 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: 14117.4 lumens
Efficiency: N/A
Efficacy: 82.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G3

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

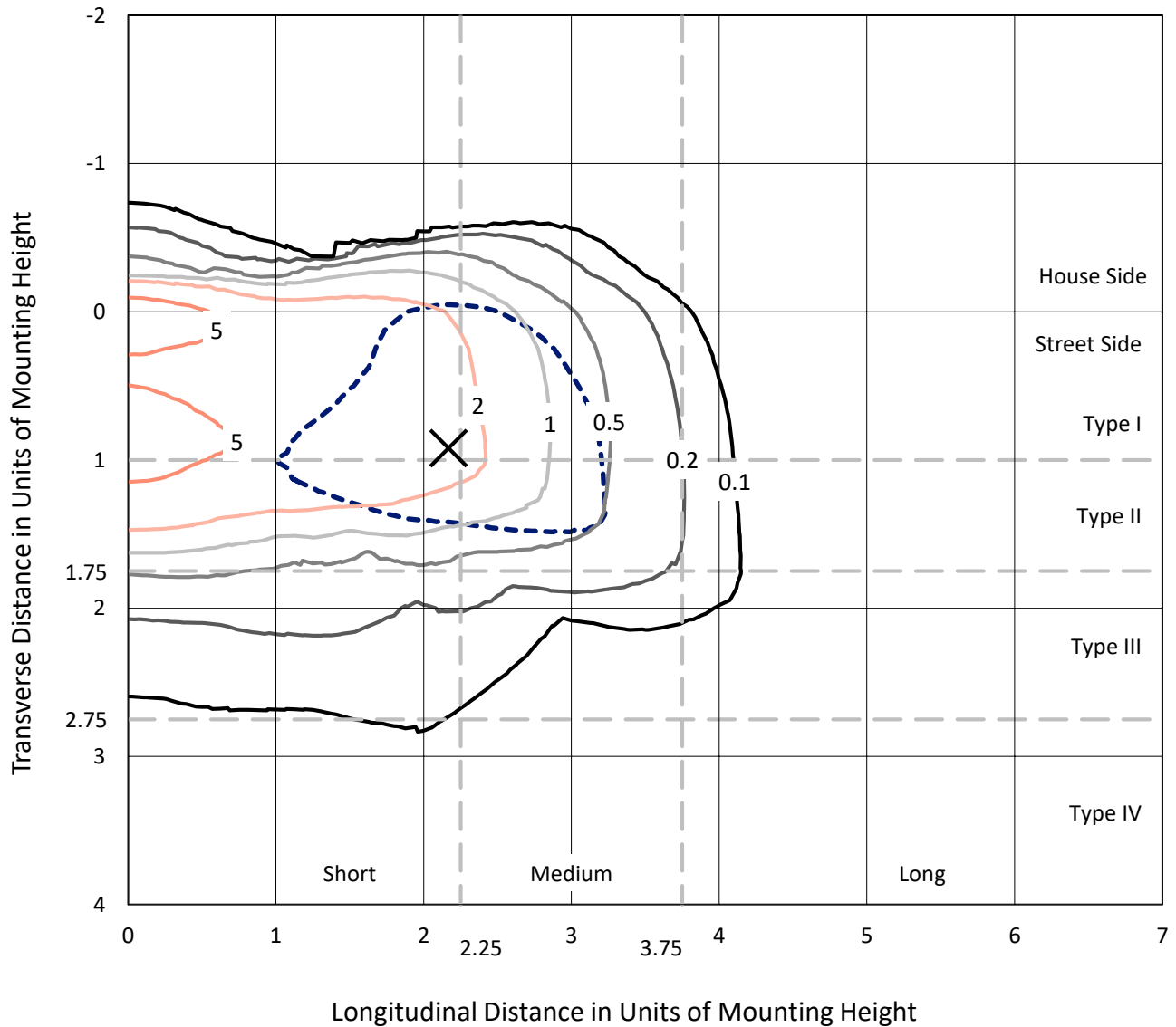


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

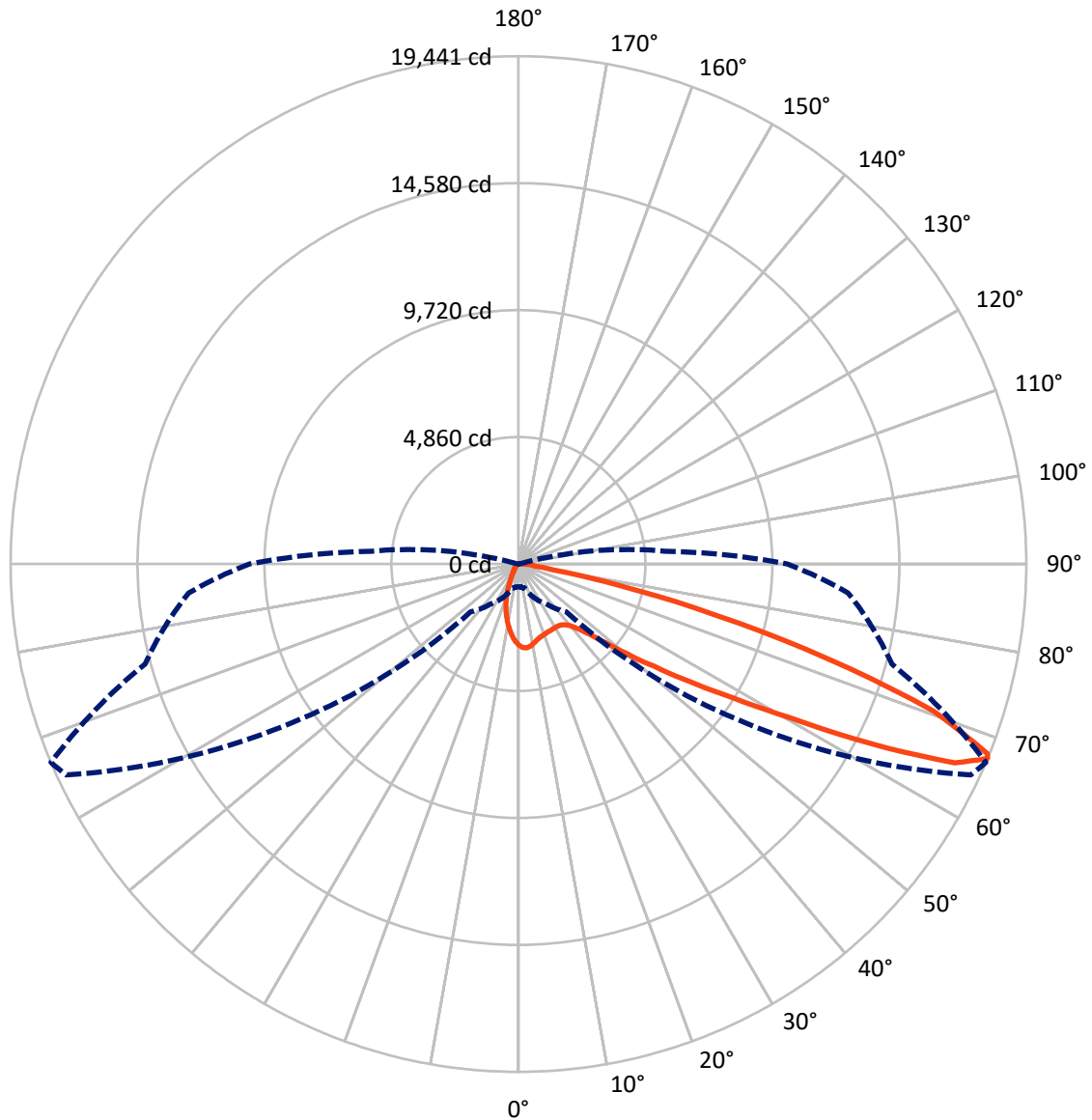


Based on 20 foot mounting height. Maximum calculated value = 7.8 fc
 Type II - Short - Semi-Cutoff

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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	1465.8	0.0	1465.8
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	12651.6	0.0	12651.6
	% Fixture	89.6	0.0	89.6
Total	Lumens	14117.4	0.0	14117.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	253.3	1.8
10°-20°	539.2	3.8
20°-30°	783.9	5.6
30°-40°	1223.0	8.7
40°-50°	2166.4	15.3
50°-60°	3428.1	24.3
60°-70°	3926.5	27.8
70°-80°	1628.7	11.5
80°-90°	168.2	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°	14117.4	100.0
0°-180°	14117.4	100.0



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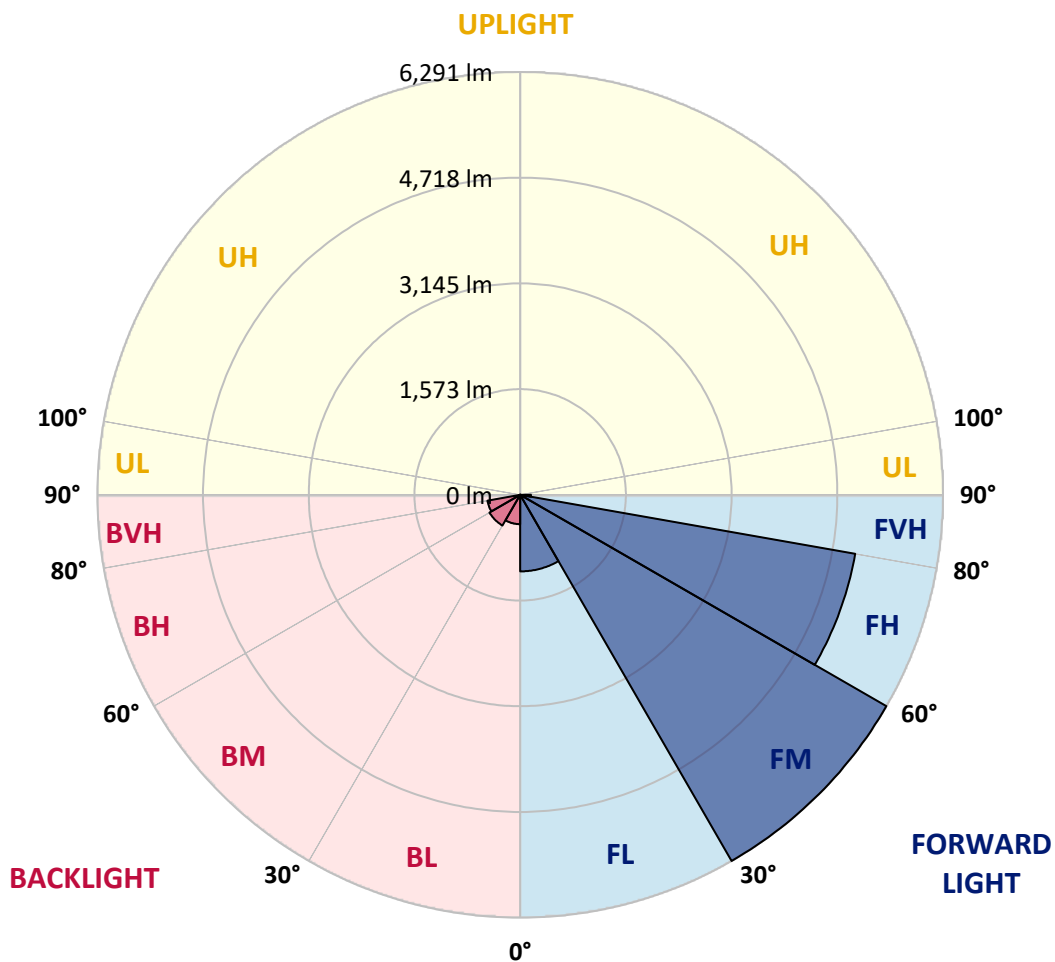
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1139.1	8.1			
FM (30°-60°)	6290.7	44.6			
FH (60°-80°)	5061.1	35.9			G3/7500
FVH (80°-90°)	160.7	1.1			G2/225
BL (0°-30°)	437.4	3.1	B1/500		
BM (30°-60°)	526.8	3.7	B1/1000		
BH (60°-80°)	494.0	3.5	B1/500		G1/500
BVH (80°-90°)	7.6	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-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	3113.4	3113.4	3113.4	3113.4	3113.4	3113.4	3113.4	3113.4	3113.4	3113.4	3113.4
2.5°	3218.8	3225.4	3224.6	3229.5	3241.0	3241.9	3230.3	3208.1	3203.2	3174.3	3124.1
5°	2968.5	2987.4	2998.9	3045.9	3098.6	3162.0	3209.7	3227.0	3224.6	3204.0	3128.2
7.5°	2682.7	2701.7	2714.9	2770.0	2840.0	2948.7	3073.1	3175.2	3184.2	3206.5	3124.9
10°	2492.5	2495.8	2513.9	2566.6	2639.9	2751.1	2899.3	3078.0	3105.2	3186.7	3116.7
12.5°	2336.1	2338.6	2362.4	2419.2	2497.5	2609.5	2765.1	2971.8	3013.8	3162.0	3115.1
15°	2224.9	2234.0	2255.4	2314.7	2397.8	2509.0	2668.7	2893.5	2943.8	3152.9	3129.9
17.5°	2187.9	2197.7	2204.3	2247.2	2322.9	2431.6	2595.5	2842.5	2899.3	3157.9	3158.7
20°	2226.6	2234.0	2219.2	2229.9	2276.8	2374.0	2533.7	2798.9	2866.4	3163.6	3195.7
22.5°	2370.7	2374.0	2333.6	2286.7	2278.4	2332.0	2485.1	2764.3	2836.7	3179.3	3239.4
25°	2617.7	2611.9	2546.1	2444.8	2349.3	2324.6	2456.3	2742.9	2821.9	3195.7	3284.7
27.5°	2915.8	2924.0	2833.4	2686.0	2504.1	2374.0	2452.2	2733.8	2815.3	3207.3	3324.2
30°	3278.1	3289.6	3185.9	3000.6	2739.6	2495.8	2490.1	2732.2	2811.2	3199.9	3327.5
32.5°	3647.8	3661.8	3580.3	3389.3	3054.1	2700.0	2575.7	2750.3	2819.4	3174.3	3308.6
35°	4034.8	4054.6	4000.2	3836.4	3480.7	2994.8	2726.4	2805.4	2858.1	3171.9	3289.6
37.5°	4569.2	4587.4	4485.2	4311.5	3996.9	3390.1	2968.5	2909.2	2949.5	3211.4	3294.6
40°	5367.1	5364.7	5101.2	4835.2	4564.3	3892.4	3308.6	3096.9	3117.5	3330.8	3355.5
42.5°	6236.7	6232.6	5843.1	5438.8	5194.2	4510.8	3755.7	3421.4	3407.4	3550.6	3513.6
45°	6907.0	6906.1	6588.3	6132.9	5952.6	5220.6	4333.7	3872.6	3851.2	3908.0	3805.1
47.5°	7192.7	7197.6	7037.9	6717.6	6793.3	6180.7	5062.5	4526.4	4494.3	4471.2	4314.8
50°	6970.4	6980.2	6993.4	6930.8	7410.1	7471.0	6039.9	5447.8	5432.2	5329.3	5084.7
52.5°	6244.1	6294.3	6449.1	6647.6	7624.2	8709.5	7572.3	6592.4	6508.4	6398.9	6129.6
55°	5020.5	5075.6	5369.6	5851.3	7305.5	9523.0	9719.8	8068.0	7928.0	7601.1	7212.5
57.5°	3322.6	3408.2	3834.7	4447.4	6380.0	9653.9	11862.4	10115.9	9628.4	8733.3	8295.3
60°	1830.5	1912.8	2375.6	2930.6	4607.9	9006.7	13303.4	12782.2	11920.9	9999.0	9610.3
62.5°	1127.3	1171.7	1513.5	2029.8	2763.4	7108.7	13601.5	16132.7	15135.5	11628.5	11198.7
65°	897.5	916.5	1083.6	1659.2	1981.2	4228.3	12638.9	18687.0	18354.3	13601.5	12620.8
67°	871.2	878.6	957.7	1424.5	1867.5	2592.2	10588.5	19102.8	19440.5	14795.5	12665.2
67.5°	877.0	885.2	960.1	1359.5	1864.3	2382.2	9882.0	18939.0	19365.5	14890.2	12468.4
70°	845.7	871.2	1099.3	1358.7	1772.9	1979.5	5918.0	16409.4	16853.2	13835.3	10579.5
72.5°	299.7	301.4	475.1	1099.3	1927.7	2000.9	2971.8	12029.5	12358.1	10583.6	7627.5
75°	177.9	151.5	158.1	312.9	1842.0	1943.3	1714.4	7686.8	7809.4	6064.6	3862.7
77.5°	122.7	107.0	110.3	138.3	701.6	1916.1	1362.0	4008.5	3877.6	2126.9	822.6
80°	70.0	61.8	65.9	121.0	255.3	1787.7	1284.6	1625.5	1385.8	360.7	227.3
82.5°	37.1	31.3	37.9	99.6	177.9	1114.1	1287.0	785.6	622.5	121.9	154.8
85°	13.2	10.7	18.1	68.3	118.6	341.7	1193.2	660.4	518.8	59.3	117.8
87.5°	2.5	2.5	7.4	28.0	47.8	104.6	705.7	392.0	262.7	35.4	80.7
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°	3113.4	3113.4	3113.4	3113.4	3113.4	3113.4	3113.4	3113.4	3113.4	3113.4	3113.4
2.5°	3103.5	3068.1	3020.4	2961.9	2892.7	2831.8	2786.5	2739.6	2729.7	2713.2	2710.7
5°	3082.9	3022.0	2903.4	2767.6	2622.6	2491.7	2385.5	2290.8	2248.8	2212.6	2208.4
7.5°	3052.5	2961.1	2759.3	2540.3	2313.8	2108.0	1933.4	1809.9	1696.3	1641.9	1633.7
10°	3017.1	2886.1	2597.1	2293.3	1980.4	1689.7	1430.3	1212.9	1081.2	1002.9	993.1
12.5°	2984.1	2812.9	2431.6	2037.2	1621.3	1232.7	899.2	691.7	553.3	497.4	490.8
15°	2968.5	2753.6	2276.8	1775.3	1245.9	784.7	491.6	380.4	335.1	322.0	321.1
17.5°	2966.8	2703.3	2125.3	1504.4	872.8	456.2	320.3	292.3	283.3	280.0	280.0
20°	2966.0	2655.6	1973.8	1223.6	554.2	303.8	266.8	260.2	253.6	249.5	249.5
22.5°	2975.1	2612.8	1815.7	937.1	349.1	246.2	234.7	228.1	219.9	214.1	213.3
25°	2984.1	2579.8	1654.3	667.0	252.8	214.1	202.6	193.5	182.0	174.6	173.7
27.5°	2985.8	2538.6	1481.4	446.3	211.6	186.9	172.1	158.1	144.9	137.5	136.7
30°	2961.1	2469.5	1289.5	301.4	186.9	162.2	142.5	127.6	115.3	109.5	109.5
32.5°	2912.5	2383.8	1078.7	227.3	166.3	139.2	117.8	103.8	95.5	93.0	92.2
35°	2868.8	2291.6	862.1	192.7	149.0	117.8	96.3	87.3	82.3	81.5	80.7
37.5°	2843.3	2217.5	658.7	174.6	132.6	98.8	81.5	74.9	72.5	70.8	71.6
40°	2863.1	2155.8	486.6	159.7	116.1	82.3	69.2	65.9	63.4	62.6	62.6
42.5°	2949.5	2145.0	361.5	146.6	100.5	68.3	60.1	57.6	56.0	55.2	56.0
45°	3176.8	2210.9	280.8	134.2	84.8	57.6	51.1	50.2	49.4	49.4	49.4
47.5°	3518.5	2346.8	233.9	120.2	70.8	49.4	44.5	43.6	42.8	43.6	43.6
50°	4097.4	2595.5	209.2	106.2	58.5	42.0	37.9	37.9	37.9	37.9	38.7
52.5°	4977.7	3084.6	192.7	92.2	47.8	35.4	32.1	32.1	32.9	32.9	33.8
55°	5958.4	3733.4	177.9	78.2	40.3	29.6	26.3	27.2	28.0	28.8	28.8
57.5°	7022.2	4452.3	165.5	64.2	34.6	23.9	22.2	23.1	23.9	25.5	25.5
60°	8306.0	5230.5	147.4	50.2	28.8	18.9	17.3	18.9	21.4	23.1	23.9
62.5°	9715.7	5983.1	124.3	39.5	23.9	14.8	14.0	17.3	20.6	22.2	23.1
65°	10679.1	6219.4	95.5	32.1	18.1	10.7	11.5	15.6	19.8	22.2	22.2
67°	10288.8	5638.9	78.2	27.2	14.8	8.2	10.7	15.6	19.8	21.4	22.2
67.5°	10017.9	5411.6	74.9	26.3	14.0	8.2	10.7	15.6	19.8	22.2	22.2
70°	8151.2	4065.3	62.6	19.8	11.5	7.4	9.1	14.8	18.9	21.4	21.4
72.5°	5663.6	2506.5	56.0	14.0	9.9	6.6	8.2	14.0	18.1	20.6	21.4
75°	2692.6	907.4	47.8	10.7	9.1	5.8	7.4	14.0	18.1	20.6	20.6
77.5°	549.2	210.8	38.7	9.1	7.4	5.8	6.6	13.2	17.3	19.8	19.8
80°	180.3	81.5	28.8	8.2	7.4	5.8	6.6	12.4	17.3	18.9	19.8
82.5°	130.1	41.2	18.9	8.2	7.4	5.8	5.8	12.4	16.5	18.9	18.9
85°	99.6	28.8	12.4	8.2	7.4	5.8	5.8	11.5	15.6	18.1	18.1
87.5°	65.9	11.5	9.9	8.2	7.4	5.8	5.8	11.5	14.8	17.3	18.1
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)