

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: P299657

Luminaire Tested: **GLNA-AF-04-LED-E1-SL2-7050-800-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299657
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-SL2-7050-800-HSS
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 5000K 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: 14594.9 lumens
Efficiency: N/A
Efficacy: 85.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B2 - 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

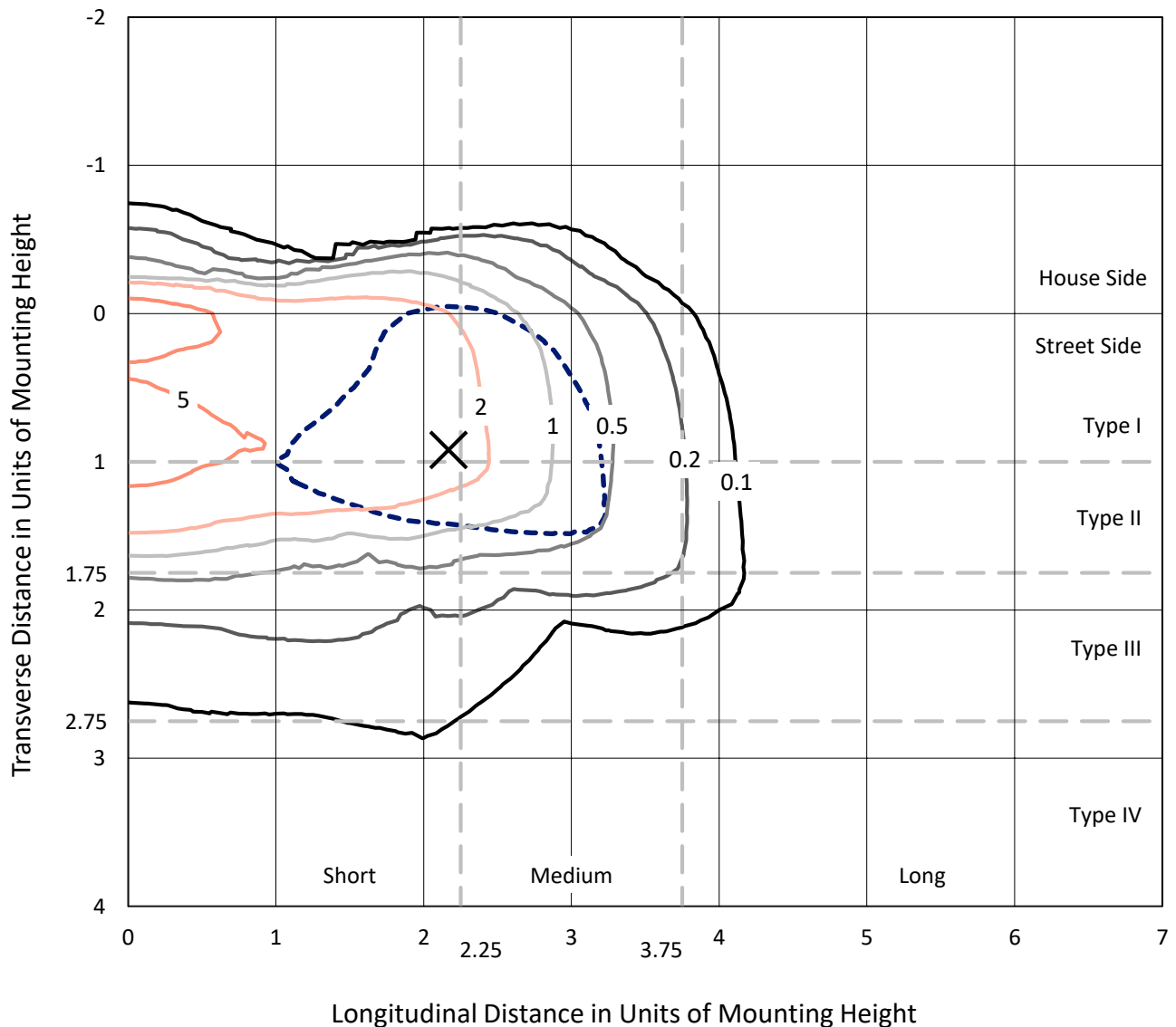


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

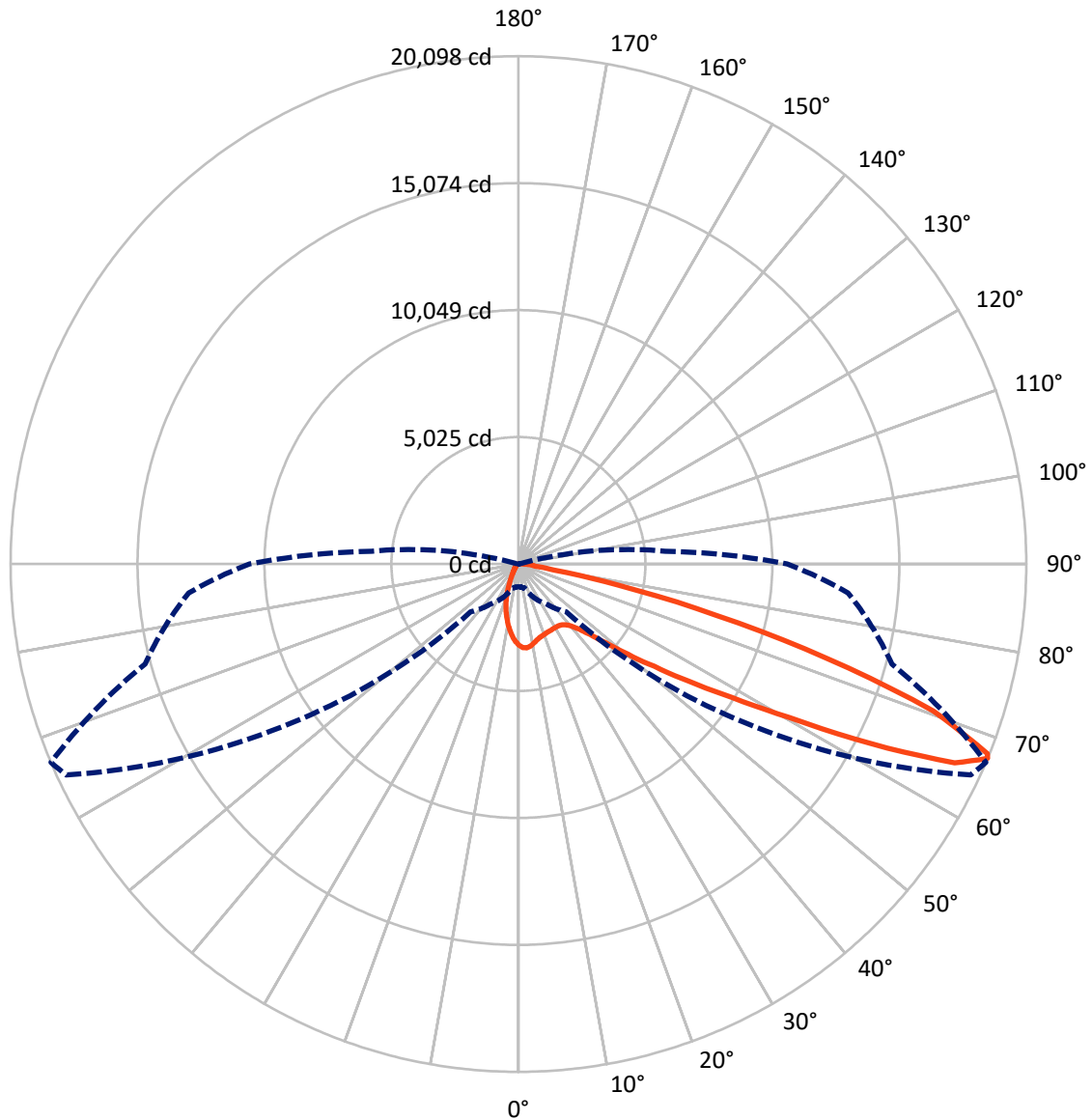


Based on 20 foot mounting height. Maximum calculated value = 8 fc
 Type II - Short - Semi-Cutoff

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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	1515.4	0.0	1515.4
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	13079.5	0.0	13079.5
	% Fixture	89.6	0.0	89.6
Total	Lumens	14594.9	0.0	14594.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	261.9	1.8
10°-20°	557.4	3.8
20°-30°	810.5	5.6
30°-40°	1264.3	8.7
40°-50°	2239.7	15.3
50°-60°	3544.1	24.3
60°-70°	4059.3	27.8
70°-80°	1683.8	11.5
80°-90°	173.9	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°	14594.9	100.0
0°-180°	14594.9	100.0



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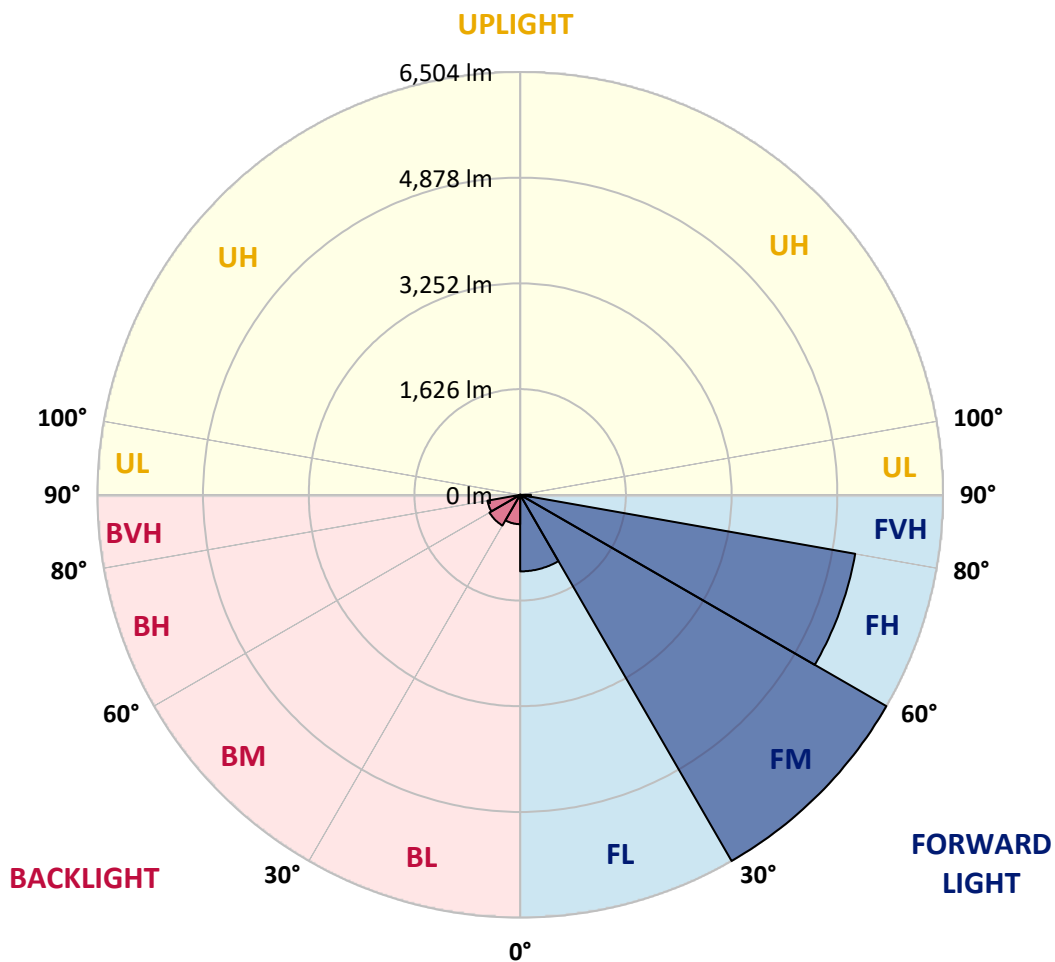
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1177.6	8.1			
FM (30°-60°)	6503.5	44.6			
FH (60°-80°)	5232.3	35.9			G3/7500
FVH (80°-90°)	166.1	1.1			G2/225
BL (0°-30°)	452.2	3.1	B1/500		
BM (30°-60°)	544.6	3.7	B1/1000		
BH (60°-80°)	510.7	3.5	B2/1000		G2/1000
BVH (80°-90°)	7.8	0.1			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	3218.7	3218.7	3218.7	3218.7	3218.7	3218.7	3218.7	3218.7	3218.7	3218.7	3218.7
2.5°	3327.7	3334.5	3333.6	3338.8	3350.7	3351.5	3339.6	3316.6	3311.5	3281.7	3229.8
5°	3068.9	3088.5	3100.4	3148.9	3203.4	3268.9	3318.3	3336.2	3333.6	3312.4	3234.0
7.5°	2773.5	2793.1	2806.7	2863.7	2936.1	3048.5	3177.0	3282.6	3291.9	3314.9	3230.6
10°	2576.9	2580.3	2599.0	2653.5	2729.2	2844.2	2997.4	3182.1	3210.2	3294.5	3222.1
12.5°	2415.1	2417.7	2442.3	2501.1	2582.0	2697.7	2858.6	3072.3	3115.7	3268.9	3220.4
15°	2300.2	2309.5	2331.7	2393.0	2479.0	2593.9	2759.0	2991.4	3043.4	3259.6	3235.7
17.5°	2261.9	2272.1	2278.9	2323.2	2401.5	2513.9	2683.3	2938.6	2997.4	3264.7	3265.5
20°	2301.9	2309.5	2294.2	2305.3	2353.8	2454.3	2619.4	2893.5	2963.3	3270.7	3303.9
22.5°	2450.9	2454.3	2412.6	2364.0	2355.5	2410.8	2569.2	2857.8	2932.7	3286.8	3349.0
25°	2706.2	2700.3	2632.2	2527.5	2428.7	2403.2	2539.4	2835.6	2917.4	3303.9	3395.8
27.5°	3014.4	3022.9	2929.3	2776.9	2588.8	2454.3	2535.1	2826.3	2910.6	3315.8	3436.7
30°	3389.0	3400.9	3293.6	3102.1	2832.2	2580.3	2574.3	2824.6	2906.3	3308.1	3440.1
32.5°	3771.2	3785.7	3701.4	3503.9	3157.4	2791.4	2662.8	2843.3	2914.8	3281.7	3420.5
35°	4171.3	4191.7	4135.6	3966.2	3598.4	3096.1	2818.6	2900.3	2954.8	3279.2	3400.9
37.5°	4723.8	4742.5	4637.0	4457.3	4132.2	3504.8	3068.9	3007.6	3049.3	3320.0	3406.0
40°	5548.7	5546.1	5273.7	4998.8	4718.7	4024.0	3420.5	3201.7	3223.0	3443.5	3469.0
42.5°	6447.7	6443.4	6040.7	5622.8	5369.9	4663.4	3882.7	3537.1	3522.6	3670.8	3632.4
45°	7140.6	7139.8	6811.2	6340.4	6154.0	5397.2	4480.3	4003.6	3981.5	4040.2	3933.8
47.5°	7436.0	7441.1	7276.0	6944.8	7023.1	6389.8	5233.7	4679.5	4646.3	4622.5	4460.8
50°	7206.2	7216.4	7230.0	7165.3	7660.7	7723.7	6244.2	5632.1	5616.0	5509.5	5256.7
52.5°	6455.3	6507.3	6667.3	6872.5	7882.1	9004.1	7828.5	6815.4	6728.6	6615.4	6337.0
55°	5190.3	5247.3	5551.3	6049.3	7552.6	9845.2	10048.6	8340.9	8196.2	7858.2	7456.4
57.5°	3434.9	3523.5	3964.5	4597.8	6595.8	9980.5	12263.7	10458.1	9954.1	9028.8	8575.9
60°	1892.4	1977.5	2456.0	3029.7	4763.8	9311.4	13753.4	13214.6	12324.1	10337.2	9935.4
62.5°	1165.4	1211.4	1564.7	2098.4	2856.9	7349.2	14061.6	16678.4	15647.5	12021.9	11577.5
65°	927.9	947.5	1120.3	1715.3	2048.2	4371.4	13066.4	19319.1	18975.2	14061.6	13047.7
67°	900.7	908.3	990.0	1472.7	1930.7	2679.9	10946.7	19749.0	20098.1	15296.0	13093.7
67.5°	906.6	915.1	992.6	1405.5	1927.3	2462.8	10216.3	19579.6	20020.6	15393.9	12890.2
70°	874.3	900.7	1136.5	1404.6	1832.8	2046.5	6118.2	16964.5	17423.3	14303.4	10937.4
72.5°	309.9	311.6	491.2	1136.5	1992.9	2068.6	3072.3	12436.5	12776.1	10941.6	7885.5
75°	183.9	156.6	163.4	323.5	1904.3	2009.0	1772.4	7946.8	8073.6	6269.7	3993.4
77.5°	126.8	110.7	114.1	143.0	725.3	1980.9	1408.0	4144.1	4008.7	2198.9	850.4
80°	72.4	63.8	68.1	125.1	263.9	1848.1	1328.0	1680.4	1432.7	372.9	235.0
82.5°	38.3	32.3	39.2	103.0	183.9	1151.8	1330.6	812.1	643.6	126.0	160.0
85°	13.6	11.1	18.7	70.7	122.6	353.3	1233.5	682.7	536.3	61.3	121.7
87.5°	2.6	2.6	7.7	28.9	49.4	108.1	729.6	405.2	271.6	36.6	83.4
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°	3218.7	3218.7	3218.7	3218.7	3218.7	3218.7	3218.7	3218.7	3218.7	3218.7	3218.7
2.5°	3208.5	3171.9	3122.5	3062.1	2990.6	2927.6	2880.8	2832.2	2822.0	2805.0	2802.4
5°	3187.2	3124.2	3001.6	2861.2	2711.4	2576.0	2466.2	2368.3	2324.9	2287.4	2283.2
7.5°	3155.7	3061.2	2852.7	2626.2	2392.1	2179.3	1998.8	1871.1	1753.7	1697.5	1689.0
10°	3119.1	2983.8	2685.0	2370.8	2047.3	1746.8	1478.7	1253.9	1117.7	1036.9	1026.7
12.5°	3085.1	2908.0	2513.9	2106.1	1676.2	1274.4	929.6	715.1	572.1	514.2	507.4
15°	3068.9	2846.7	2353.8	1835.4	1288.0	811.3	508.2	393.3	346.5	332.9	332.0
17.5°	3067.2	2794.8	2197.2	1555.3	902.4	471.6	331.2	302.2	292.8	289.4	289.4
20°	3066.3	2745.4	2040.5	1265.0	572.9	314.1	275.8	269.0	262.2	257.9	257.9
22.5°	3075.7	2701.1	1877.1	968.8	360.9	254.5	242.6	235.8	227.3	221.3	220.5
25°	3085.1	2667.1	1710.2	689.5	261.3	221.3	209.4	200.1	188.1	180.5	179.6
27.5°	3086.8	2624.5	1531.5	461.4	218.8	193.2	177.9	163.4	149.8	142.2	141.3
30°	3061.2	2553.0	1333.1	311.6	193.2	167.7	147.3	131.9	119.2	113.2	113.2
32.5°	3011.0	2464.5	1115.2	235.0	172.0	143.9	121.7	107.3	98.7	96.2	95.3
35°	2965.9	2369.1	891.3	199.2	154.1	121.7	99.6	90.2	85.1	84.3	83.4
37.5°	2939.5	2292.5	681.0	180.5	137.1	102.2	84.3	77.5	74.9	73.2	74.1
40°	2959.9	2228.7	503.1	165.2	120.0	85.1	71.5	68.1	65.5	64.7	64.7
42.5°	3049.3	2217.6	373.7	151.5	103.9	70.7	62.1	59.6	57.9	57.0	57.9
45°	3284.3	2285.7	290.3	138.8	87.7	59.6	52.8	51.9	51.1	51.1	51.1
47.5°	3637.6	2426.2	241.8	124.3	73.2	51.1	46.0	45.1	44.3	45.1	45.1
50°	4236.0	2683.3	216.2	109.8	60.4	43.4	39.2	39.2	39.2	39.2	40.0
52.5°	5146.0	3188.9	199.2	95.3	49.4	36.6	33.2	33.2	34.1	34.1	34.9
55°	6159.9	3859.7	183.9	80.9	41.7	30.6	27.2	28.1	28.9	29.8	29.8
57.5°	7259.8	4602.9	171.1	66.4	35.8	24.7	23.0	23.8	24.7	26.4	26.4
60°	8586.9	5407.4	152.4	51.9	29.8	19.6	17.9	19.6	22.1	23.8	24.7
62.5°	10044.4	6185.5	128.5	40.9	24.7	15.3	14.5	17.9	21.3	23.0	23.8
65°	11040.4	6429.8	98.7	33.2	18.7	11.1	11.9	16.2	20.4	23.0	23.0
67°	10636.9	5829.6	80.9	28.1	15.3	8.5	11.1	16.2	20.4	22.1	23.0
67.5°	10356.8	5594.7	77.5	27.2	14.5	8.5	11.1	16.2	20.4	23.0	23.0
70°	8426.9	4202.8	64.7	20.4	11.9	7.7	9.4	15.3	19.6	22.1	22.1
72.5°	5855.2	2591.3	57.9	14.5	10.2	6.8	8.5	14.5	18.7	21.3	22.1
75°	2783.7	938.1	49.4	11.1	9.4	6.0	7.7	14.5	18.7	21.3	21.3
77.5°	567.8	217.9	40.0	9.4	7.7	6.0	6.8	13.6	17.9	20.4	20.4
80°	186.4	84.3	29.8	8.5	7.7	6.0	6.8	12.8	17.9	19.6	20.4
82.5°	134.5	42.6	19.6	8.5	7.7	6.0	6.0	12.8	17.0	19.6	19.6
85°	103.0	29.8	12.8	8.5	7.7	6.0	6.0	11.9	16.2	18.7	18.7
87.5°	68.1	11.9	10.2	8.5	7.7	6.0	6.0	11.9	15.3	17.9	18.7
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)