

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: P453357

Luminaire Tested: **GALN-SA4B-827-U-SL2-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453357
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-15)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA4B-827-U-SL2-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 2700K, 800mA 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: 13543 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
BUG Rating: B1 - U0 - G2

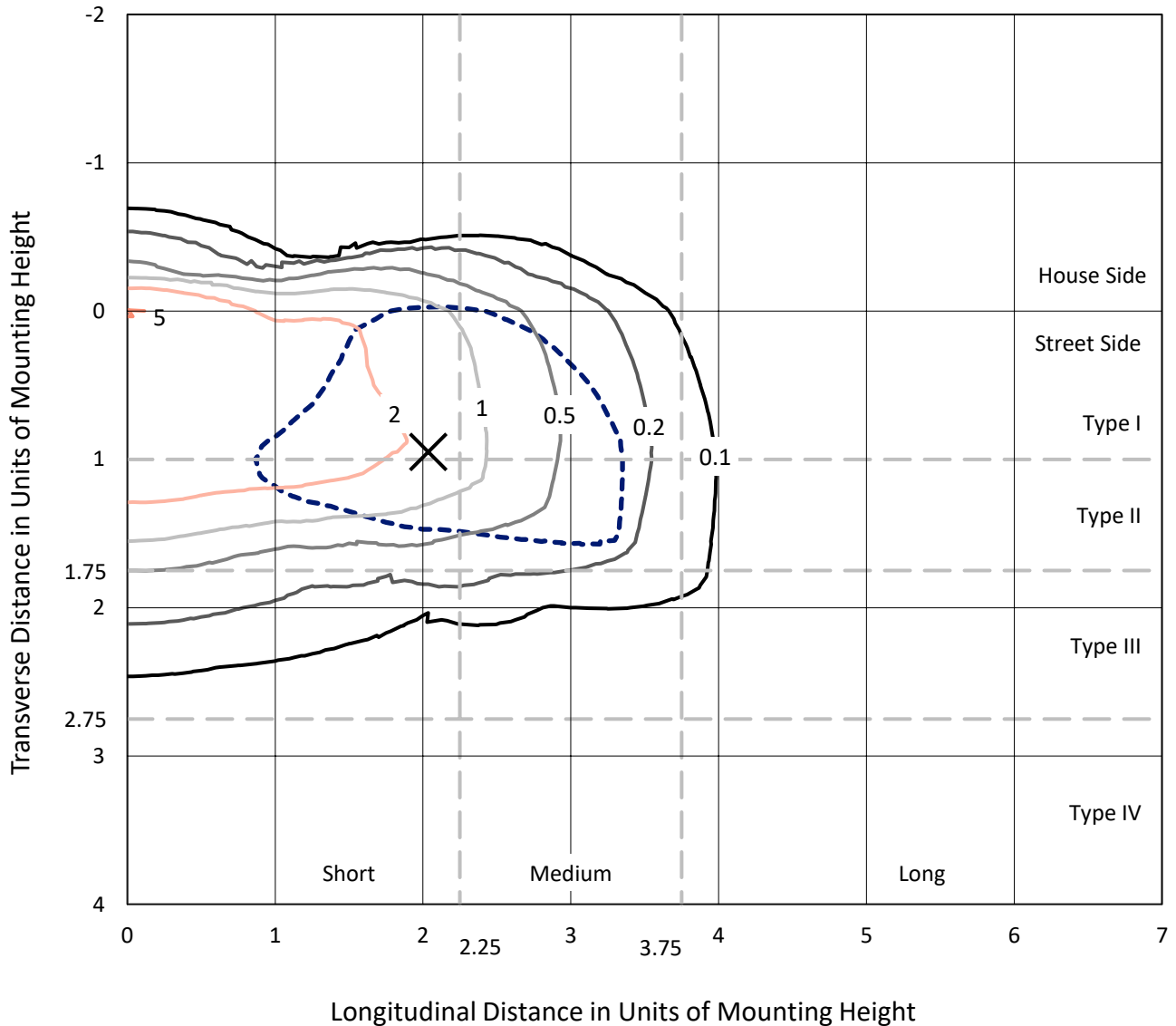
Input Watts (W): 164
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

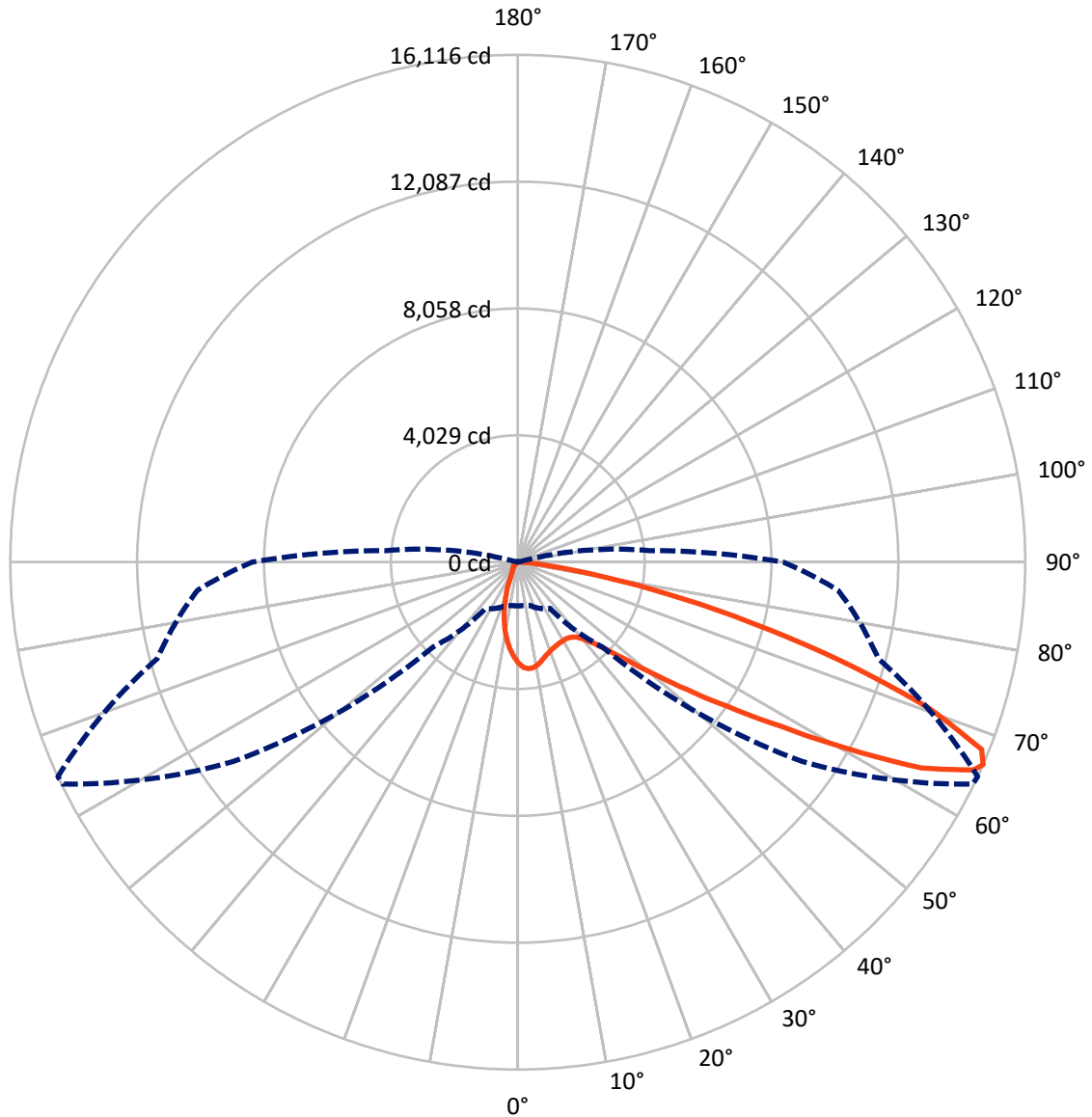
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.1 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1400.5	0.0	1400.5
	% Fixture	10.3	0.0	10.3
Street Side	Lumens	12142.5	0.0	12142.5
	% Fixture	89.7	0.0	89.7
Total	Lumens	13543.0	0.0	13543.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	262.7	1.9
10°-20°	572.3	4.2
20°-30°	819.8	6.1
30°-40°	1197.4	8.8
40°-50°	2007.8	14.8
50°-60°	3350.7	24.7
60°-70°	3556.7	26.3
70°-80°	1610.8	11.9
80°-90°	164.8	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°	13543.0	100.0
0°-180°	13543.0	100.0

Coefficient of Utilization



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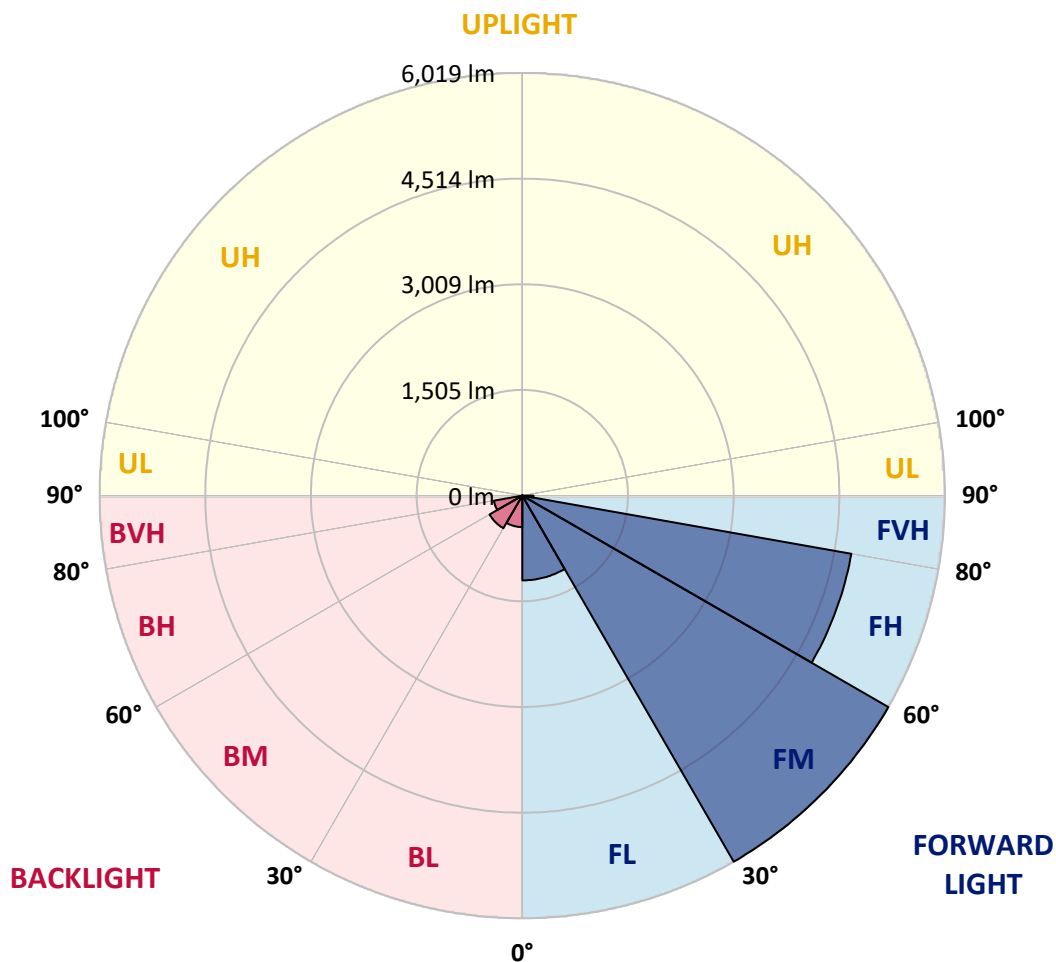
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1206.7	8.9			
FM (30°-60°)	6018.8	44.4			
FH (60°-80°)	4757.3	35.1			G2/5000
FVH (80°-90°)	159.6	1.2			G2/225
BL (0°-30°)	448.0	3.3	B1/500		
BM (30°-60°)	537.1	4.0	B1/1000		
BH (60°-80°)	410.2	3.0	B1/500		G1/500
BVH (80°-90°)	5.2	0.0			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°	64°	65°	75°	85°
0°	3211.5	3211.5	3211.5	3211.5	3211.5	3211.5	3211.5	3211.5	3211.5	3211.5	3211.5
2.5°	3384.4	3388.1	3392.7	3399.1	3403.6	3389.9	3370.7	3348.8	3344.2	3297.5	3240.8
5°	3203.3	3208.8	3249.0	3271.0	3320.4	3365.2	3393.6	3397.2	3395.4	3351.5	3260.9
7.5°	2945.4	2960.9	3000.2	3038.7	3131.1	3216.1	3316.7	3387.2	3391.7	3379.9	3267.3
10°	2735.9	2746.0	2766.1	2842.0	2918.8	3048.7	3189.6	3322.2	3333.2	3380.8	3261.9
12.5°	2572.2	2586.8	2611.5	2670.0	2762.4	2885.0	3045.1	3223.4	3246.3	3363.4	3246.3
15°	2457.8	2465.1	2489.8	2547.5	2637.1	2750.5	2912.4	3120.1	3140.2	3340.5	3243.6
17.5°	2403.9	2412.1	2429.5	2475.2	2549.3	2654.5	2812.7	3036.8	3062.4	3325.9	3253.6
20°	2418.5	2425.8	2426.7	2450.5	2500.8	2589.5	2739.6	2959.1	2992.0	3316.7	3270.1
22.5°	2501.7	2502.6	2491.7	2480.7	2498.1	2562.1	2694.7	2909.7	2943.5	3314.9	3289.3
25°	2626.1	2628.9	2610.6	2572.2	2537.4	2570.3	2684.7	2877.7	2907.9	3310.3	3301.2
27.5°	2798.1	2797.2	2791.7	2727.7	2628.9	2606.9	2692.9	2860.3	2885.9	3297.5	3305.8
30°	3038.7	3031.3	3019.5	2947.2	2796.3	2695.6	2727.7	2849.3	2873.1	3279.2	3293.9
32.5°	3275.6	3303.0	3301.2	3232.6	3044.2	2853.9	2799.9	2864.0	2881.3	3267.3	3276.5
35°	3551.8	3550.9	3621.3	3595.7	3375.3	3056.0	2923.4	2912.4	2926.2	3275.6	3268.3
37.5°	3807.9	3831.7	3941.5	3968.0	3766.8	3341.4	3098.1	3016.7	3021.3	3331.4	3288.4
40°	4127.2	4172.9	4336.6	4425.4	4247.9	3764.9	3356.1	3207.9	3208.8	3468.6	3364.3
42.5°	4538.8	4611.1	4763.8	4912.0	4816.9	4266.2	3743.0	3510.7	3508.8	3710.1	3538.1
45°	5039.1	5089.4	5263.2	5498.3	5437.9	4966.0	4306.5	3979.9	3956.1	4106.1	3846.4
47.5°	5470.9	5539.5	5716.0	5984.0	6258.4	5820.3	4979.7	4624.8	4609.2	4736.4	4375.1
50°	5659.3	5719.7	5905.4	6281.3	6946.3	6941.7	5982.2	5566.0	5539.5	5608.1	5192.8
52.5°	5452.6	5509.3	5696.8	6165.1	7270.1	8308.3	7434.8	6746.9	6714.9	6627.1	6169.7
55°	4744.6	4791.2	5068.4	5606.3	7145.7	9219.4	9436.1	8205.9	8081.5	7740.3	7275.6
57.5°	3777.7	3754.0	3925.9	4550.7	6415.8	9524.9	11490.6	10023.4	9801.1	8702.5	8211.3
60°	2617.9	2691.1	2760.6	3172.2	4824.2	8995.3	12768.4	12308.3	12015.6	9649.3	9107.8
62.5°	1924.5	1973.0	2018.8	2209.0	3033.2	7182.3	12994.4	14655.5	14395.7	10654.5	9963.0
65°	1522.1	1525.7	1544.0	1731.5	1998.6	4670.5	11908.6	15979.1	15912.3	11622.3	10309.7
66°	1386.7	1387.6	1416.0	1617.2	1793.7	3803.4	11038.7	16079.7	16116.3	11854.6	10208.2
67.5°	1212.0	1208.3	1249.5	1453.5	1633.7	2742.3	9481.9	15671.7	15888.5	12033.0	9843.2
70°	939.4	934.8	985.1	1219.3	1504.7	1829.4	6302.3	13456.3	13805.7	11668.0	8708.9
72.5°	625.7	629.3	715.3	962.3	1436.1	1610.8	3791.5	10236.5	10730.5	9635.5	6851.2
75°	365.0	371.4	469.2	715.3	1246.7	1535.8	2145.9	7299.4	7615.0	6653.6	4268.0
77.5°	191.2	193.9	262.5	472.0	955.9	1426.0	1429.7	4663.2	4811.4	3233.5	1689.5
80°	101.5	98.8	140.9	284.5	657.7	1252.2	1159.9	2468.8	2566.7	960.4	427.2
82.5°	38.4	42.1	75.0	186.6	388.8	899.2	998.9	1091.2	1057.4	211.3	179.3
85°	7.3	9.1	32.0	110.7	195.7	375.9	736.3	535.1	495.8	79.6	103.4
87.5°	0.9	1.8	9.1	26.5	28.4	127.1	217.7	148.2	128.1	29.3	43.0
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°	3211.5	3211.5	3211.5	3211.5	3211.5	3211.5	3211.5	3211.5	3211.5	3211.5	3211.5
2.5°	3213.4	3188.7	3106.4	3024.9	2941.7	2866.7	2815.5	2732.2	2711.2	2681.0	2663.6
5°	3207.0	3149.3	2991.1	2818.2	2657.2	2483.4	2350.8	2222.7	2154.1	2119.4	2106.6
7.5°	3188.7	3097.2	2850.2	2579.5	2321.5	2061.8	1835.8	1663.9	1553.2	1477.3	1426.0
10°	3152.1	3025.9	2686.5	2314.2	1924.5	1581.5	1295.2	1077.5	909.2	856.2	858.0
12.5°	3114.6	2946.3	2503.6	2019.7	1536.7	1104.1	800.4	628.4	547.9	521.4	515.9
15°	3079.8	2870.4	2324.3	1734.3	1144.3	715.3	515.9	455.5	433.6	429.0	428.1
17.5°	3061.5	2799.9	2133.1	1407.7	798.5	485.7	413.4	397.0	390.6	386.0	384.2
20°	3046.0	2738.6	1950.2	1102.2	546.1	397.9	370.5	354.9	343.9	339.4	336.6
22.5°	3035.0	2675.5	1760.8	853.4	418.0	353.1	328.4	308.3	292.7	287.2	283.6
25°	3018.5	2606.0	1569.6	623.8	352.2	313.7	285.4	261.6	241.5	231.4	229.6
27.5°	2994.8	2527.3	1360.2	461.9	314.7	279.0	244.2	215.0	194.8	183.9	184.8
30°	2956.3	2445.0	1150.7	366.8	284.5	243.3	205.8	177.5	158.2	150.0	149.1
32.5°	2910.6	2345.3	958.6	314.7	257.0	211.3	172.0	147.3	132.6	126.2	125.3
35°	2867.6	2244.7	762.9	282.6	228.7	182.0	144.5	123.5	112.5	107.0	107.9
37.5°	2843.8	2155.1	594.6	257.0	205.8	156.4	124.4	106.1	96.0	91.5	90.6
40°	2859.4	2081.9	472.9	234.2	180.2	134.5	107.0	91.5	81.4	75.0	75.0
42.5°	2932.6	2049.9	381.4	212.2	156.4	116.2	93.3	78.7	67.7	61.3	62.2
45°	3155.7	2083.7	319.2	192.1	134.5	100.6	80.5	64.9	54.9	50.3	49.4
47.5°	3526.2	2210.9	276.2	171.1	115.3	86.0	67.7	54.0	43.9	40.2	39.3
50°	4173.8	2473.4	244.2	150.0	97.9	73.2	55.8	43.0	34.8	31.1	31.1
52.5°	5064.7	3046.0	221.4	126.2	82.3	62.2	45.7	34.8	27.4	24.7	23.8
55°	5995.9	3649.7	209.5	106.1	68.6	51.2	36.6	27.4	21.0	18.3	17.4
57.5°	6891.4	4123.5	195.7	86.0	54.9	39.3	28.4	21.0	14.6	12.8	11.9
60°	7750.3	4506.8	166.5	68.6	43.0	28.4	21.0	14.6	10.1	8.2	8.2
62.5°	8518.7	4730.0	130.8	54.9	32.9	20.1	13.7	11.0	7.3	5.5	5.5
65°	8608.3	4440.0	98.8	42.1	23.8	12.8	8.2	8.2	5.5	3.7	3.7
66°	8428.1	4193.9	86.9	38.4	21.0	11.0	7.3	6.4	4.6	2.7	2.7
67.5°	8025.7	3774.1	75.0	32.9	17.4	8.2	5.5	5.5	3.7	1.8	1.8
70°	6934.4	3082.6	59.5	24.7	12.8	6.4	3.7	3.7	2.7	1.8	1.8
72.5°	5285.2	2301.4	48.5	18.3	9.1	4.6	2.7	2.7	2.7	1.8	1.8
75°	3187.8	1239.4	37.5	13.7	8.2	3.7	1.8	2.7	3.7	2.7	1.8
77.5°	1174.5	421.7	29.3	11.0	6.4	3.7	1.8	1.8	3.7	2.7	2.7
80°	288.1	109.8	21.0	9.1	6.4	3.7	1.8	1.8	3.7	3.7	3.7
82.5°	133.5	46.7	14.6	8.2	6.4	3.7	1.8	1.8	2.7	3.7	3.7
85°	76.8	22.0	11.9	9.1	6.4	3.7	1.8	1.8	2.7	3.7	3.7
87.5°	31.1	11.0	11.0	9.1	7.3	4.6	1.8	1.8	1.8	2.7	2.7
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)