

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: P300857

Luminaire Tested: **GLNA-AF-03-LED-E1-SL4-7060**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300857
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-03-LED-E1-SL4-7060
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 5700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Square Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17207.2 lumens
Efficiency: N/A
Efficacy: 103.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G3

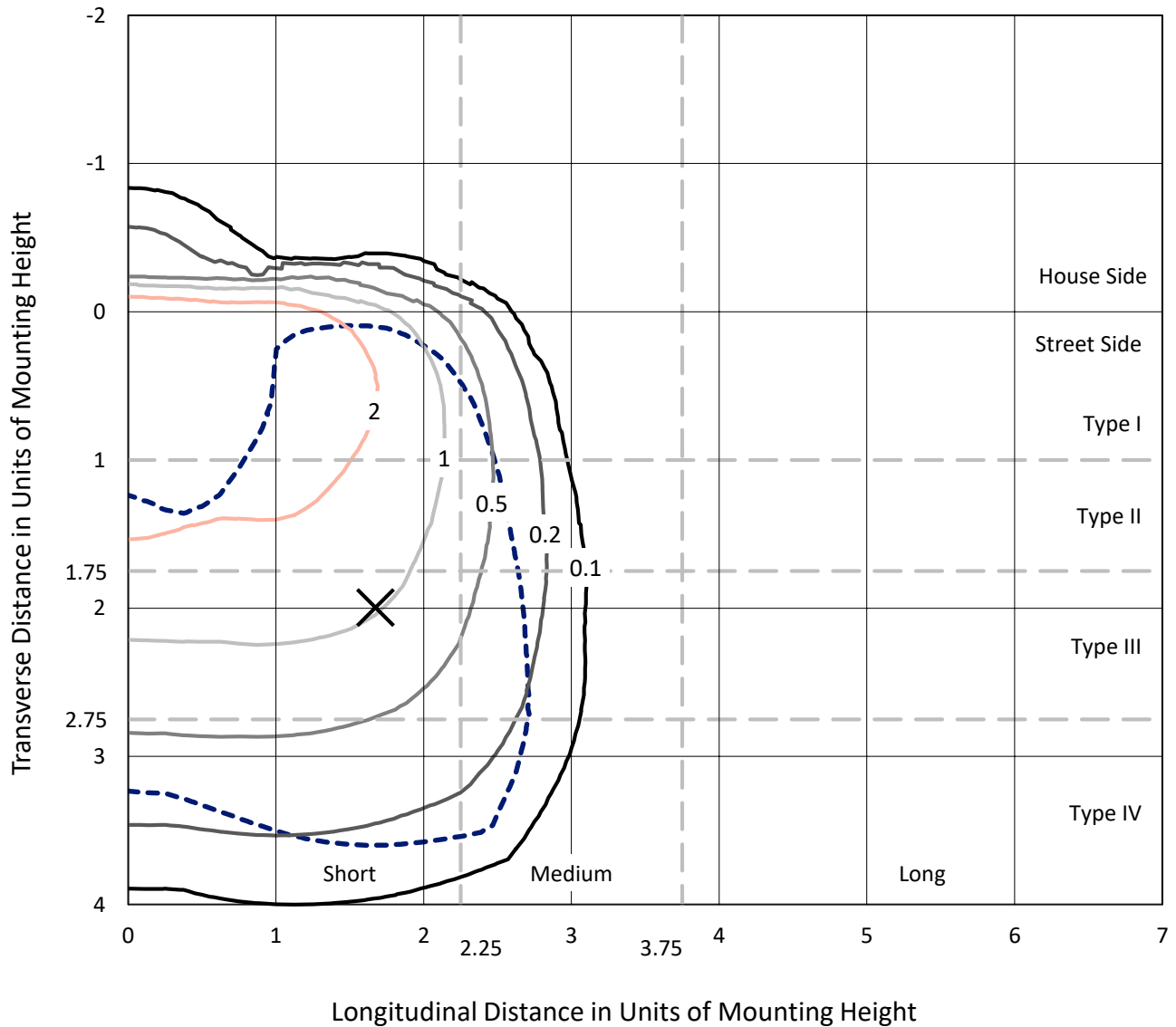
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

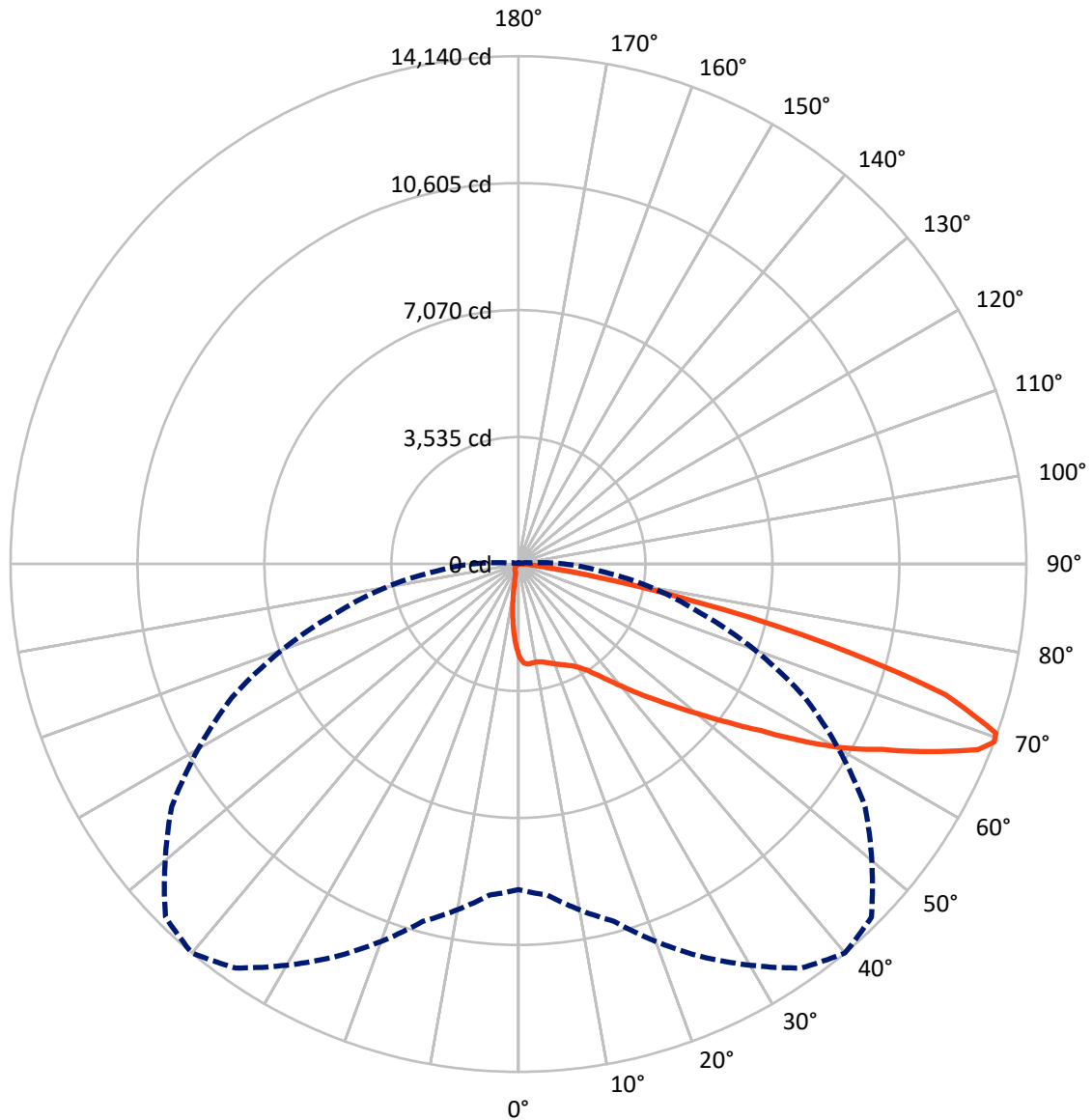
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.5 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1006.7	0.0	1006.7
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	16200.5	0.0	16200.5
	% Fixture	94.1	0.0	94.1
Total	Lumens	17207.2	0.0	17207.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	208.4	1.2
10°-20°	512.6	3.0
20°-30°	863.4	5.0
30°-40°	1413.4	8.2
40°-50°	2447.3	14.2
50°-60°	3854.7	22.4
60°-70°	5034.1	29.3
70°-80°	2592.8	15.1
80°-90°	280.5	1.6
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°	17207.2	100.0
0°-180°	17207.2	100.0



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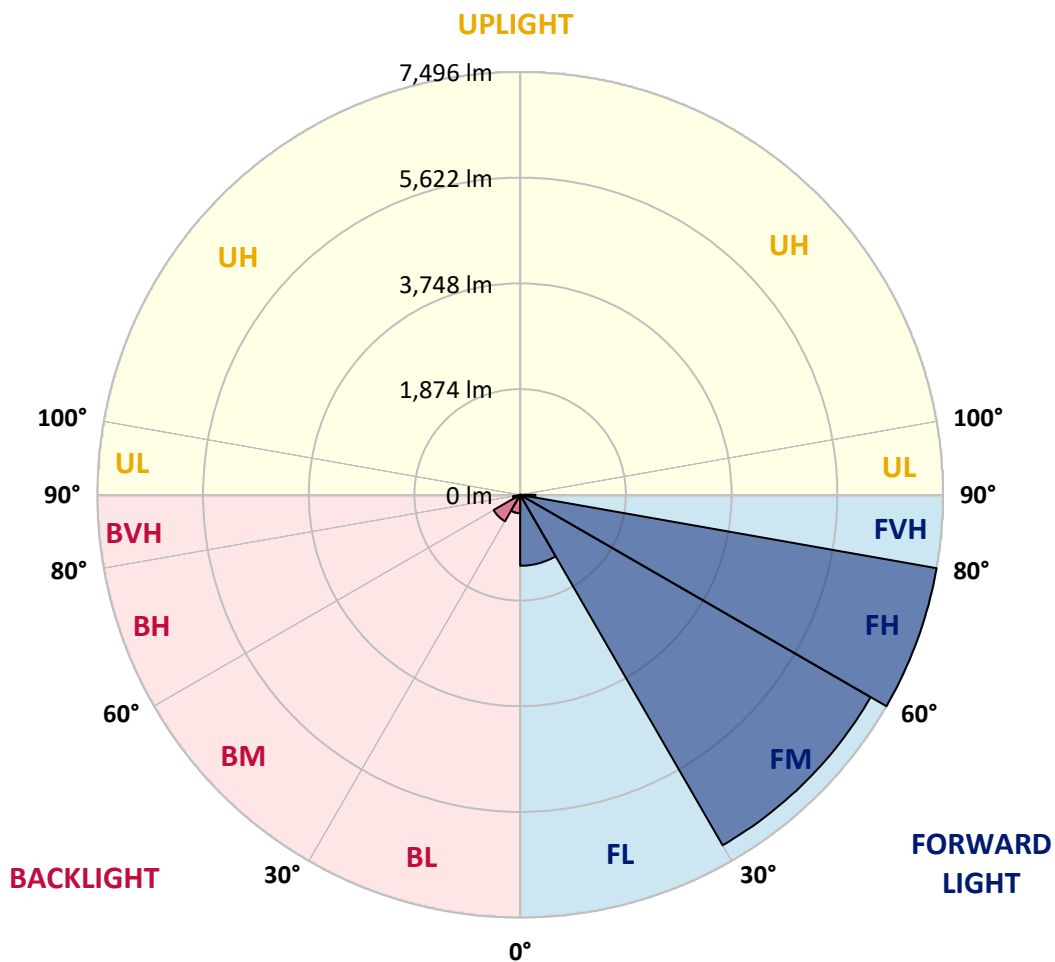
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1258.3	7.3			
FM	(30°-60°)	7174.3	41.7			
FH	(60°-80°)	7496.2	43.6			G3/7500
FVH	(80°-90°)	271.7	1.6			G3/500
BL	(0°-30°)	326.1	1.9	B1/500		
BM	(30°-60°)	541.1	3.1	B1/1000		
BH	(60°-80°)	130.7	0.8	B1/500		G1/500
BVH	(80°-90°)	8.8	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-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	2570.8	2570.8	2570.8	2570.8	2570.8	2570.8	2570.8	2570.8	2570.8	2570.8	2570.8
2.5°	2822.8	2807.4	2798.2	2785.9	2770.6	2757.3	2752.1	2714.2	2678.4	2629.2	2572.9
5°	2875.0	2869.9	2853.5	2837.1	2818.7	2798.2	2787.0	2741.9	2690.7	2619.0	2520.7
7.5°	2880.2	2874.0	2853.5	2831.0	2805.4	2780.8	2761.3	2716.3	2669.2	2596.4	2476.6
10°	2872.0	2864.8	2849.4	2824.9	2793.1	2769.5	2750.1	2707.1	2667.1	2601.6	2468.4
12.5°	2862.7	2855.6	2848.4	2836.1	2808.5	2792.1	2775.7	2734.7	2698.9	2643.6	2498.1
15°	2872.0	2867.9	2876.1	2870.9	2855.6	2841.2	2824.9	2788.0	2755.2	2709.1	2552.4
17.5°	2910.9	2910.9	2936.5	2939.6	2925.2	2904.7	2881.2	2844.3	2816.7	2777.7	2616.9
20°	3002.0	2999.0	3031.7	3037.9	3003.1	2971.3	2936.5	2891.4	2869.9	2845.3	2680.4
22.5°	3158.8	3144.4	3163.9	3157.7	3089.1	3039.9	2996.9	2941.6	2930.3	2919.1	2751.1
25°	3362.6	3354.4	3367.7	3307.3	3186.4	3119.8	3068.6	3006.1	3006.1	3017.4	2831.0
27.5°	3658.6	3627.9	3582.8	3476.3	3295.0	3210.0	3154.7	3088.1	3105.5	3147.5	2936.5
30°	3961.8	3928.0	3824.5	3660.6	3427.1	3338.0	3273.5	3203.8	3244.8	3321.6	3077.8
32.5°	4260.8	4222.9	4076.5	3869.6	3616.6	3527.5	3465.0	3388.2	3456.8	3585.9	3284.7
35°	4550.7	4516.9	4347.9	4104.1	3868.6	3794.8	3737.5	3670.9	3759.0	3939.2	3576.6
37.5°	4876.4	4839.5	4633.7	4369.4	4174.8	4121.5	4079.5	4013.0	4166.6	4430.9	3983.3
40°	5276.9	5214.4	4936.8	4673.6	4529.2	4503.6	4474.9	4465.7	4704.3	5070.0	4525.1
42.5°	5735.7	5633.3	5254.3	4994.2	4918.4	4936.8	4929.7	4970.6	5377.3	5864.8	5184.7
45°	6194.6	6062.5	5607.7	5336.3	5346.5	5411.1	5451.0	5614.9	6220.2	6776.4	5894.5
47.5°	6583.8	6453.7	5946.7	5706.0	5828.9	5956.0	6064.5	6374.9	7086.7	7673.6	6446.6
50°	6916.7	6793.8	6306.2	6112.7	6389.2	6594.1	6770.2	7230.1	8018.8	8356.8	6833.7
52.5°	7189.1	7107.2	6679.1	6578.7	7029.4	7329.5	7587.6	8138.6	8844.3	8911.9	7134.9
55°	7454.4	7396.0	7079.5	7132.8	7781.1	8189.8	8516.6	9102.4	9555.1	9374.9	7423.7
57.5°	7759.6	7706.4	7536.4	7835.4	8769.5	9283.7	9640.1	9956.6	10180.9	9848.1	7696.1
60°	8071.0	8040.3	8044.4	8615.9	9904.4	10398.1	10594.7	10676.7	10795.5	10293.6	7711.5
62.5°	8368.0	8426.4	8625.1	9484.5	10991.1	11370.1	11469.4	11550.3	11411.1	10364.3	7124.6
65°	8870.9	8966.2	9440.4	10647.0	12186.4	12592.0	12694.4	12416.9	11508.4	9450.7	5795.1
67.5°	9116.8	9290.9	10136.9	11730.6	13345.8	13796.5	13758.6	12473.2	10327.4	7206.5	3719.0
69°	9065.5	9250.9	10297.7	12062.5	13731.0	14139.6	13898.9	11783.9	8798.2	5220.5	2283.0
70°	8862.7	9050.2	10214.7	12050.2	13780.1	14103.8	13638.8	10932.7	7439.1	3817.3	1427.8
72.5°	7401.2	7563.0	9068.6	10891.8	12694.4	12431.2	11410.0	7574.3	3624.8	1039.6	321.6
75°	4555.8	4646.0	6507.0	8205.2	9587.9	8911.9	7601.9	3768.2	1080.6	294.0	178.2
77.5°	2407.0	2447.9	3562.3	4836.5	6077.8	5029.0	3896.2	1469.8	497.8	184.4	129.1
80°	1422.7	1453.4	1918.4	2211.3	2630.2	2197.0	1557.9	902.4	356.4	115.7	114.7
82.5°	814.3	833.7	1390.9	1229.1	1036.5	884.9	775.3	855.2	214.1	77.8	118.8
85°	299.1	303.2	782.5	935.1	616.6	366.7	385.1	708.8	57.4	49.2	93.2
87.5°	139.3	136.2	402.5	572.5	360.5	232.5	300.1	155.7	22.5	31.8	25.6
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°	2570.8	2570.8	2570.8	2570.8	2570.8	2570.8	2570.8	2570.8	2570.8	2570.8	2570.8
2.5°	2540.1	2502.2	2433.6	2362.9	2291.2	2235.9	2181.6	2138.6	2124.3	2097.6	2099.7
5°	2462.3	2392.6	2249.2	2103.8	1952.2	1827.2	1709.5	1614.2	1568.1	1521.0	1521.0
7.5°	2394.7	2293.3	2069.0	1832.4	1587.6	1381.7	1196.3	1057.0	980.2	918.7	917.7
10°	2369.1	2231.8	1918.4	1579.4	1238.3	957.7	737.5	596.1	523.4	476.3	474.2
12.5°	2380.3	2210.3	1802.7	1345.9	917.7	615.6	427.1	336.0	305.2	290.9	290.9
15°	2413.1	2204.2	1686.9	1117.4	648.3	385.1	283.7	259.1	257.1	257.1	257.1
17.5°	2453.1	2206.2	1568.1	895.2	441.4	275.5	244.8	241.7	243.8	243.8	243.8
20°	2494.0	2207.2	1440.1	689.3	311.4	239.7	230.5	229.4	231.5	231.5	232.5
22.5°	2544.2	2212.4	1312.1	515.2	257.1	226.4	219.2	219.2	220.2	220.2	219.2
25°	2601.6	2222.6	1178.9	382.0	234.6	217.1	211.0	210.0	211.0	210.0	208.9
27.5°	2673.3	2236.9	1030.4	299.1	224.3	207.9	202.8	202.8	201.8	200.8	199.7
30°	2763.4	2253.3	863.4	254.0	214.1	199.7	194.6	193.6	192.6	190.5	190.5
32.5°	2900.6	2289.2	698.5	230.5	202.8	188.5	184.4	184.4	182.3	180.3	179.2
35°	3111.6	2359.8	551.0	216.1	190.5	176.2	171.0	171.0	169.0	168.0	167.0
37.5°	3403.5	2467.4	428.1	202.8	178.2	162.9	157.7	156.7	154.7	152.6	151.6
40°	3791.7	2600.5	337.0	190.5	165.9	149.5	145.4	143.4	139.3	136.2	136.2
42.5°	4279.3	2752.1	273.5	177.2	151.6	137.2	134.2	131.1	123.9	120.9	119.8
45°	4789.3	2888.4	231.5	161.8	137.2	125.0	122.9	117.8	108.6	105.5	105.5
47.5°	5157.0	2920.1	203.8	147.5	123.9	111.6	110.6	101.4	93.2	91.2	90.1
50°	5386.5	2857.6	181.3	133.2	111.6	99.4	96.3	85.0	79.9	77.8	76.8
52.5°	5541.1	2746.0	162.9	120.9	100.4	88.1	80.9	72.7	68.6	66.6	66.6
55°	5665.1	2588.3	144.4	109.6	91.2	78.9	68.6	62.5	58.4	56.3	56.3
57.5°	5699.9	2374.2	126.0	100.4	81.9	69.6	58.4	54.3	49.2	48.1	48.1
60°	5446.9	1988.0	111.6	89.1	73.7	60.4	51.2	46.1	41.0	39.9	38.9
62.5°	4780.1	1538.4	98.3	78.9	64.5	52.2	44.0	37.9	33.8	33.8	33.8
65°	3646.3	1031.4	86.0	68.6	56.3	44.0	37.9	30.7	28.7	28.7	29.7
67.5°	2182.7	561.3	73.7	58.4	48.1	36.9	31.8	26.6	25.6	26.6	26.6
69°	1279.3	329.8	66.6	52.2	42.0	32.8	27.7	23.6	25.6	26.6	26.6
70°	789.7	222.3	61.5	47.1	37.9	29.7	25.6	22.5	24.6	25.6	25.6
72.5°	220.2	114.7	49.2	36.9	30.7	24.6	20.5	20.5	23.6	24.6	24.6
75°	143.4	85.0	37.9	27.7	23.6	19.5	17.4	19.5	22.5	23.6	23.6
77.5°	118.8	69.6	30.7	22.5	19.5	18.4	16.4	17.4	20.5	21.5	21.5
80°	108.6	49.2	24.6	20.5	17.4	16.4	15.4	14.3	18.4	19.5	19.5
82.5°	103.4	38.9	21.5	18.4	16.4	14.3	13.3	14.3	16.4	17.4	18.4
85°	64.5	25.6	19.5	17.4	14.3	13.3	13.3	13.3	15.4	16.4	16.4
87.5°	23.6	20.5	17.4	14.3	12.3	12.3	12.3	12.3	13.3	15.4	15.4
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)