

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: P453229

Luminaire Tested: **GALN-SA4B-727-U-T3R-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P453229  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA4B-727-U-T3R-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III  
ROADWAY OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14739 lumens  
Efficiency: N/A  
Efficacy: 89.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B1 - U0 - G3

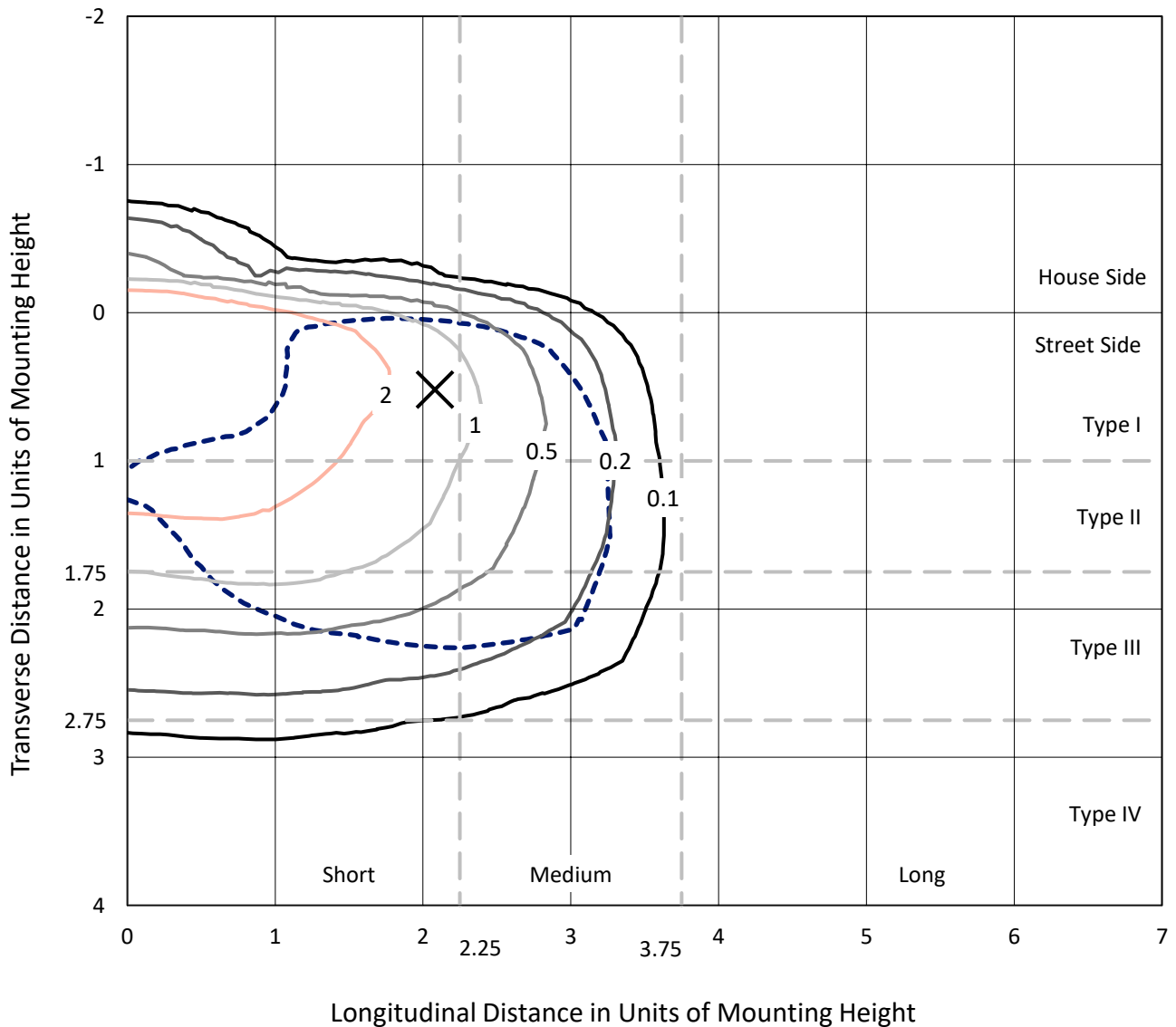
Input Watts (W): 164  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

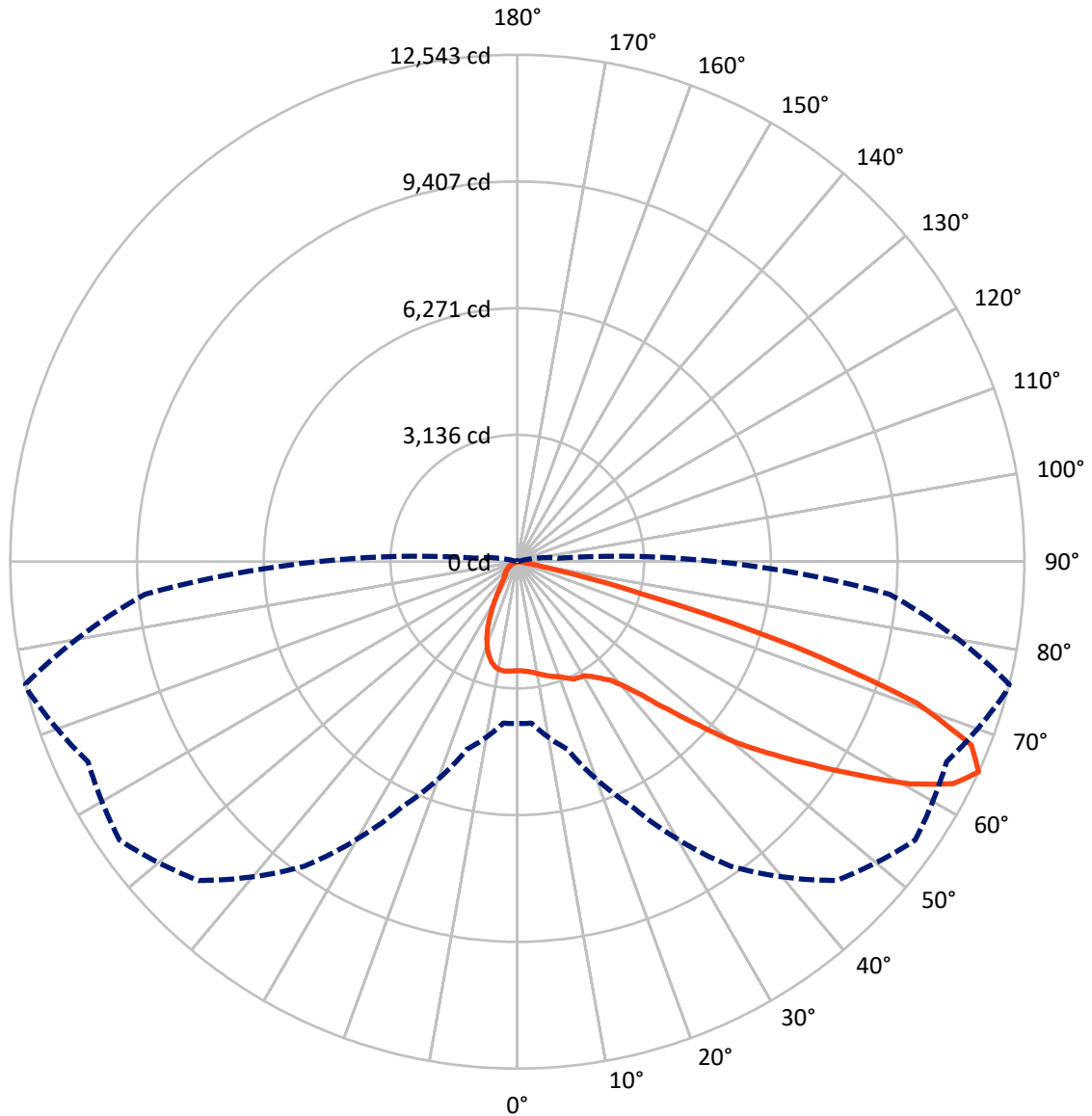
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.5 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 76-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1064.4	0.0	1064.4
	% Fixture	7.2	0.0	7.2
<b>Street Side</b>	Lumens	13674.6	0.0	13674.6
	% Fixture	92.8	0.0	92.8
<b>Total</b>	Lumens	14739.0	0.0	14739.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	222.1	1.5
10°-20°	494.5	3.4
20°-30°	796.9	5.4
30°-40°	1385.6	9.4
40°-50°	2289.7	15.5
50°-60°	3537.0	24.0
60°-70°	4319.2	29.3
70°-80°	1639.3	11.1
80°-90°	54.7	0.4
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°	14739.0	100.0
0°-180°	14739.0	100.0



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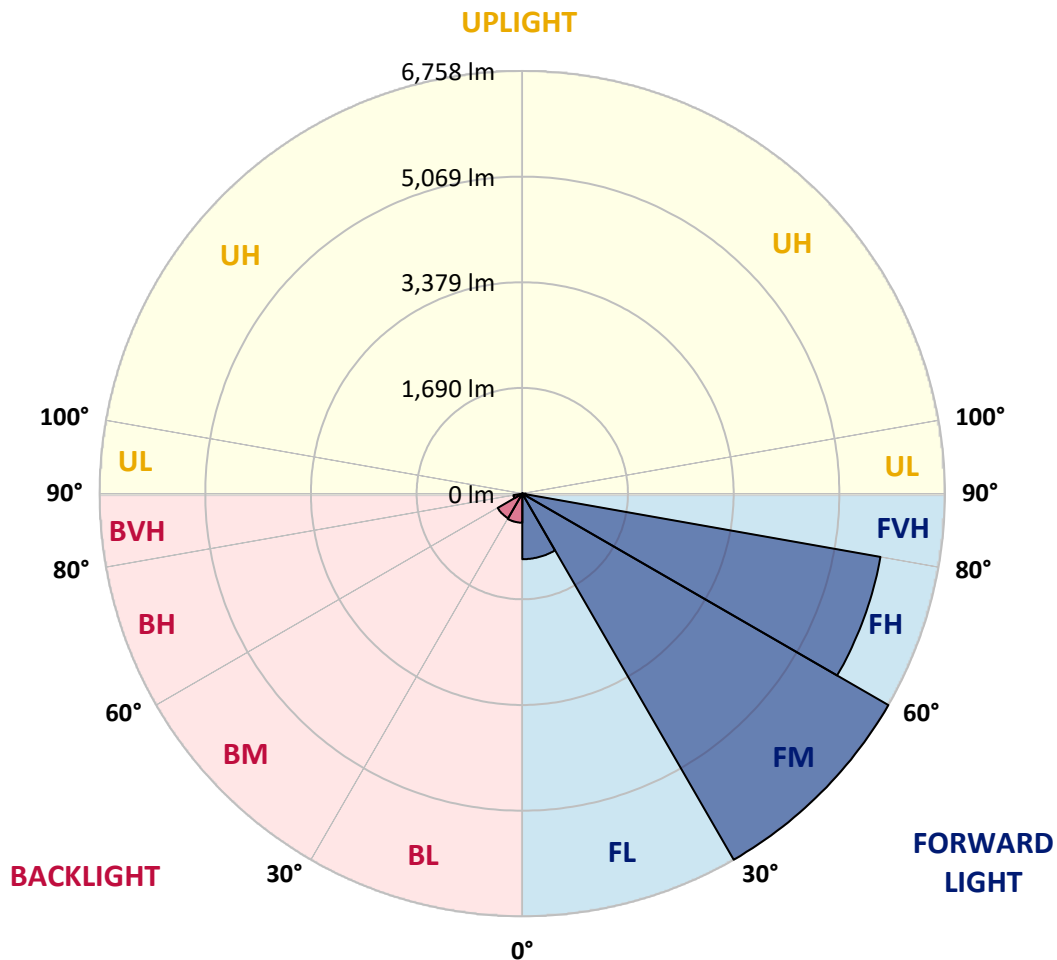
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1048.5	7.1			
FM (30°-60°)	6758.1	45.9			
FH (60°-80°)	5814.0	39.4			G3/7500
FVH (80°-90°)	54.0	0.4			G1/100
BL (0°-30°)	465.0	3.2	B1/500		
BM (30°-60°)	454.2	3.1	B1/1000		
BH (60°-80°)	144.4	1.0	B1/500		G1/500
BVH (80°-90°)	0.8	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-G3**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	2696.2	2696.2	2696.2	2696.2	2696.2	2696.2	2696.2	2696.2	2696.2	2696.2	2696.2
2.5°	2576.6	2577.6	2583.8	2599.5	2623.4	2643.2	2659.8	2686.9	2705.6	2707.7	2713.9
5°	2398.6	2386.1	2398.6	2439.2	2475.6	2530.8	2598.4	2666.1	2726.4	2730.6	2759.7
7.5°	2198.8	2209.2	2229.0	2270.6	2339.3	2423.6	2521.4	2642.1	2756.6	2767.0	2824.2
10°	1995.9	2018.8	2051.1	2114.5	2210.3	2319.5	2452.7	2625.5	2804.5	2819.0	2917.9
12.5°	1808.6	1819.0	1858.5	1943.9	2062.5	2216.5	2400.7	2616.1	2857.5	2875.2	3017.8
15°	1665.0	1678.5	1712.9	1789.9	1922.0	2119.7	2358.0	2613.0	2909.6	2934.5	3117.7
17.5°	1637.9	1646.3	1660.8	1712.9	1828.4	2042.7	2319.5	2611.9	2959.5	2989.7	3210.3
20°	1749.3	1742.0	1727.4	1722.2	1785.7	1983.4	2291.4	2620.3	3007.4	3041.7	3308.1
22.5°	2028.2	2037.5	1952.2	1851.3	1830.4	1974.0	2287.3	2659.8	3083.3	3123.9	3417.4
25°	2620.3	2548.5	2415.3	2173.8	1991.7	2031.3	2334.1	2753.5	3171.8	3216.5	3516.2
27.5°	3274.8	3253.0	3045.9	2648.4	2309.1	2152.0	2417.3	2825.3	3200.9	3246.7	3572.4
30°	3917.9	3943.9	3706.7	3267.5	2770.1	2375.7	2495.4	2852.3	3226.9	3274.8	3644.2
32.5°	4514.2	4545.4	4337.3	3902.3	3313.3	2762.8	2629.6	2957.4	3336.2	3385.1	3763.9
35°	4983.5	4987.7	4830.5	4484.0	3906.5	3233.2	2920.0	3141.6	3484.0	3541.2	3890.9
37.5°	5414.3	5408.1	5223.9	4925.2	4400.8	3700.4	3285.2	3353.9	3652.6	3711.9	4074.0
40°	5733.8	5738.0	5678.6	5397.7	4861.8	4132.3	3574.5	3552.7	3935.6	4028.2	4340.4
42.5°	5947.1	5985.6	6014.8	5872.2	5441.4	4664.0	4018.9	3978.3	4426.8	4503.8	4717.1
45°	6119.9	6188.5	6334.2	6326.9	5998.1	5316.5	4628.7	4545.4	5122.9	5205.2	5196.8
47.5°	6245.8	6315.5	6556.9	6702.6	6521.5	5949.2	5395.6	5323.8	5954.4	6043.9	5726.5
50°	6310.3	6393.5	6701.6	6983.6	6930.5	6559.0	6269.7	6273.9	6958.6	7045.0	6340.5
52.5°	6159.4	6267.6	6778.6	7286.4	7389.4	7142.8	7088.7	7226.0	7852.5	7926.4	6895.1
55°	5677.6	5813.9	6673.5	7544.5	7921.2	7831.7	8019.0	8228.1	8829.6	8877.5	7464.3
57.5°	5372.7	5517.3	6363.4	7764.0	8560.1	8697.5	8994.0	9147.0	9838.0	9959.7	8117.8
60°	5115.7	5229.1	6108.4	7810.9	9209.4	9756.8	10045.1	10203.2	11082.5	11161.6	8836.9
62.5°	4688.0	4818.0	5677.6	7484.1	9536.2	10604.9	11202.2	11131.5	12045.1	12100.3	9278.1
65°	4000.1	4011.6	4803.5	6663.1	9199.0	11155.4	12014.9	11718.4	12505.1	12542.5	9243.8
67.5°	2985.5	3095.8	3695.2	5237.4	7770.3	10685.0	12278.2	11734.0	12214.7	12110.7	8510.1
70°	1923.1	2007.3	2504.8	3631.7	5602.7	8917.0	11405.1	10929.6	10720.4	10489.4	6965.9
72.5°	887.6	995.9	1488.1	2075.0	3322.7	6351.9	9258.4	8879.6	7716.2	7145.9	4427.8
75°	387.1	414.2	734.7	1094.7	1557.8	3359.1	6104.2	5512.1	3485.0	3183.2	1772.2
77.5°	236.2	253.9	385.0	586.9	611.9	1280.0	3288.3	2404.9	1077.0	950.1	480.8
80°	160.3	180.0	279.9	307.0	209.2	356.9	1234.2	642.1	217.5	208.1	103.0
82.5°	78.0	98.9	207.1	171.7	90.5	114.5	359.0	137.4	63.5	59.3	36.4
85°	11.4	19.8	116.5	112.4	40.6	27.1	63.5	34.3	21.9	20.8	16.6
87.5°	0.0	0.0	39.5	17.7	4.2	4.2	7.3	7.3	8.3	7.3	8.3
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°	2696.2	2696.2	2696.2	2696.2	2696.2	2696.2	2696.2	2696.2	2696.2	2696.2	2696.2
2.5°	2717.0	2722.2	2702.5	2674.4	2644.2	2614.0	2571.4	2532.9	2510.0	2523.5	2490.2
5°	2766.0	2761.8	2709.8	2624.4	2511.0	2374.7	2239.4	2123.9	2086.4	2030.2	2024.0
7.5°	2833.6	2822.1	2711.8	2516.2	2260.2	2004.2	1754.5	1589.0	1494.3	1414.2	1416.3
10°	2928.3	2895.0	2687.9	2325.8	1904.3	1518.3	1199.8	981.3	886.6	856.4	832.5
12.5°	3026.1	2961.6	2621.3	2068.7	1482.9	1037.5	729.5	596.3	538.0	519.3	517.2
15°	3113.5	3011.5	2504.8	1759.7	1078.1	662.9	497.4	453.7	446.4	447.5	446.4
17.5°	3199.9	3051.1	2343.5	1431.9	732.6	475.6	427.7	417.3	420.4	424.6	423.5
20°	3271.7	3059.4	2137.4	1092.6	518.2	417.3	401.7	399.6	402.7	405.8	405.8
22.5°	3349.7	3065.7	1892.9	756.5	423.5	388.1	379.8	379.8	384.0	388.1	389.2
25°	3408.0	3031.3	1600.5	543.2	373.6	360.1	355.9	356.9	361.1	363.2	362.1
27.5°	3417.4	2934.5	1290.4	416.2	339.2	325.7	321.6	325.7	320.5	323.6	321.6
30°	3425.7	2811.7	976.1	350.7	308.0	287.2	281.0	274.7	270.6	265.4	264.3
32.5°	3451.7	2667.1	712.8	315.3	278.9	256.0	241.4	223.7	210.2	206.0	205.0
35°	3463.2	2493.3	523.4	287.2	252.9	227.9	201.9	176.9	157.1	149.8	155.1
37.5°	3506.9	2324.7	405.8	266.4	230.0	198.8	165.5	134.2	115.5	111.3	113.4
40°	3596.4	2141.6	340.3	248.7	210.2	171.7	131.1	100.9	88.5	84.3	83.2
42.5°	3740.0	1959.5	302.8	232.1	190.4	144.6	103.0	79.1	68.7	65.6	65.6
45°	3914.8	1784.7	276.8	214.4	169.6	116.5	81.2	63.5	57.2	55.2	55.2
47.5°	4144.8	1631.7	255.0	196.7	146.7	92.6	65.6	55.2	51.0	52.0	53.1
50°	4377.9	1518.3	231.0	176.9	120.7	76.0	56.2	48.9	47.9	48.9	48.9
52.5°	4553.7	1451.7	198.8	149.8	94.7	63.5	49.9	45.8	44.7	42.7	42.7
55°	4791.0	1437.1	158.2	121.8	74.9	53.1	44.7	41.6	38.5	36.4	35.4
57.5°	5095.9	1453.7	121.8	94.7	58.3	43.7	39.5	34.3	30.2	26.0	26.0
60°	5285.3	1416.3	94.7	72.8	42.7	35.4	30.2	25.0	19.8	16.6	15.6
62.5°	5224.9	1258.1	74.9	54.1	30.2	26.0	19.8	16.6	11.4	8.3	7.3
65°	4913.8	1015.6	60.4	37.5	21.9	15.6	10.4	10.4	5.2	1.0	0.0
67.5°	4300.9	752.4	47.9	25.0	12.5	7.3	5.2	3.1	0.0	0.0	0.0
70°	3500.6	543.2	37.5	15.6	7.3	5.2	2.1	1.0	0.0	0.0	0.0
72.5°	2222.8	311.1	29.1	9.4	5.2	2.1	0.0	0.0	0.0	0.0	0.0
75°	859.5	121.8	19.8	6.2	2.1	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	243.5	57.2	11.4	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	63.5	25.0	6.2	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	30.2	10.4	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	17.7	4.2	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	8.3	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)