

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: P453013

Luminaire Tested: **GALN-SA4A-730-U-SL4-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P453013  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GALN-SA4A-730-U-SL4-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL  
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13552 lumens  
Efficiency: N/A  
Efficacy: 112.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G3

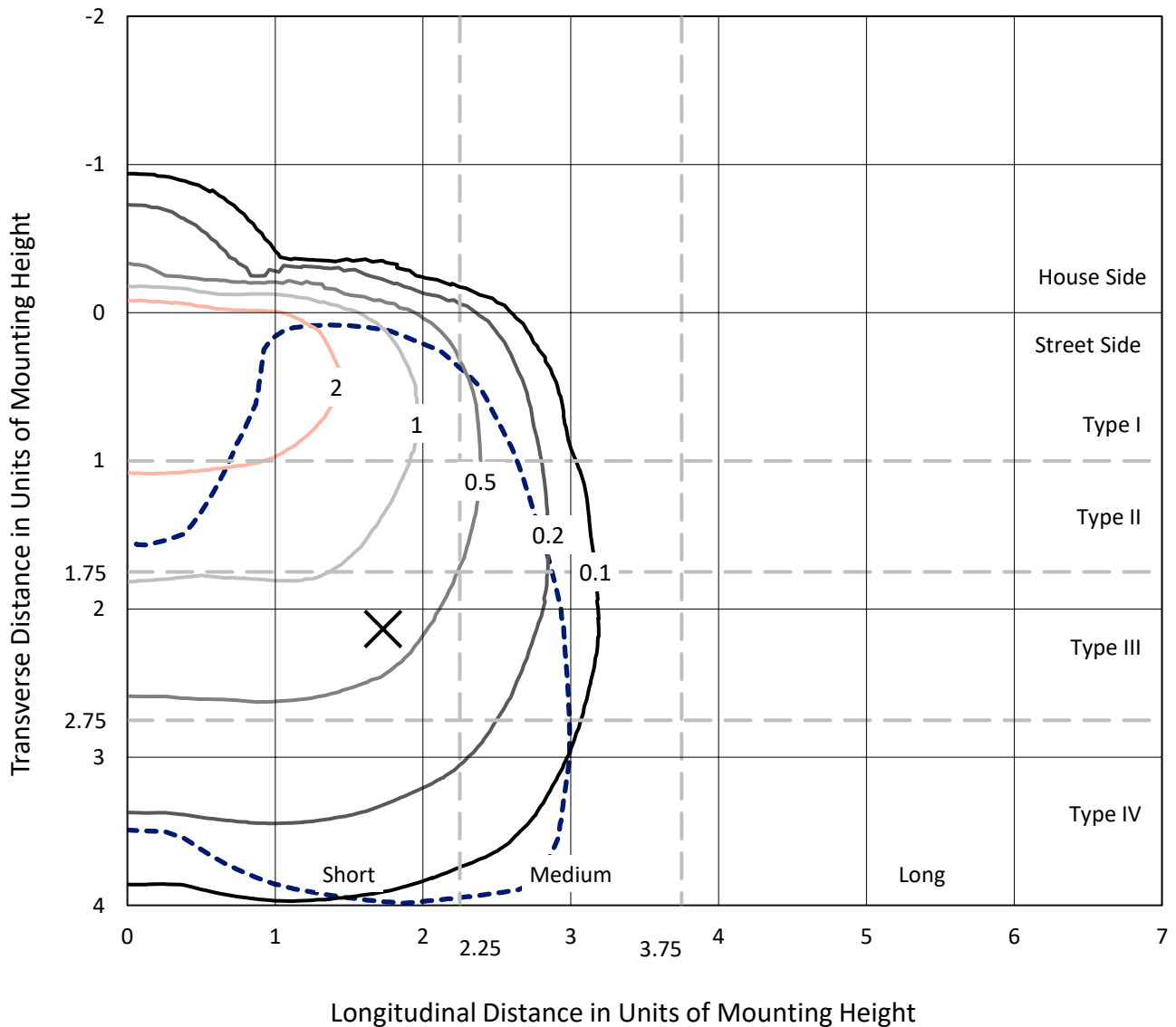
Input Watts (W): 121  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

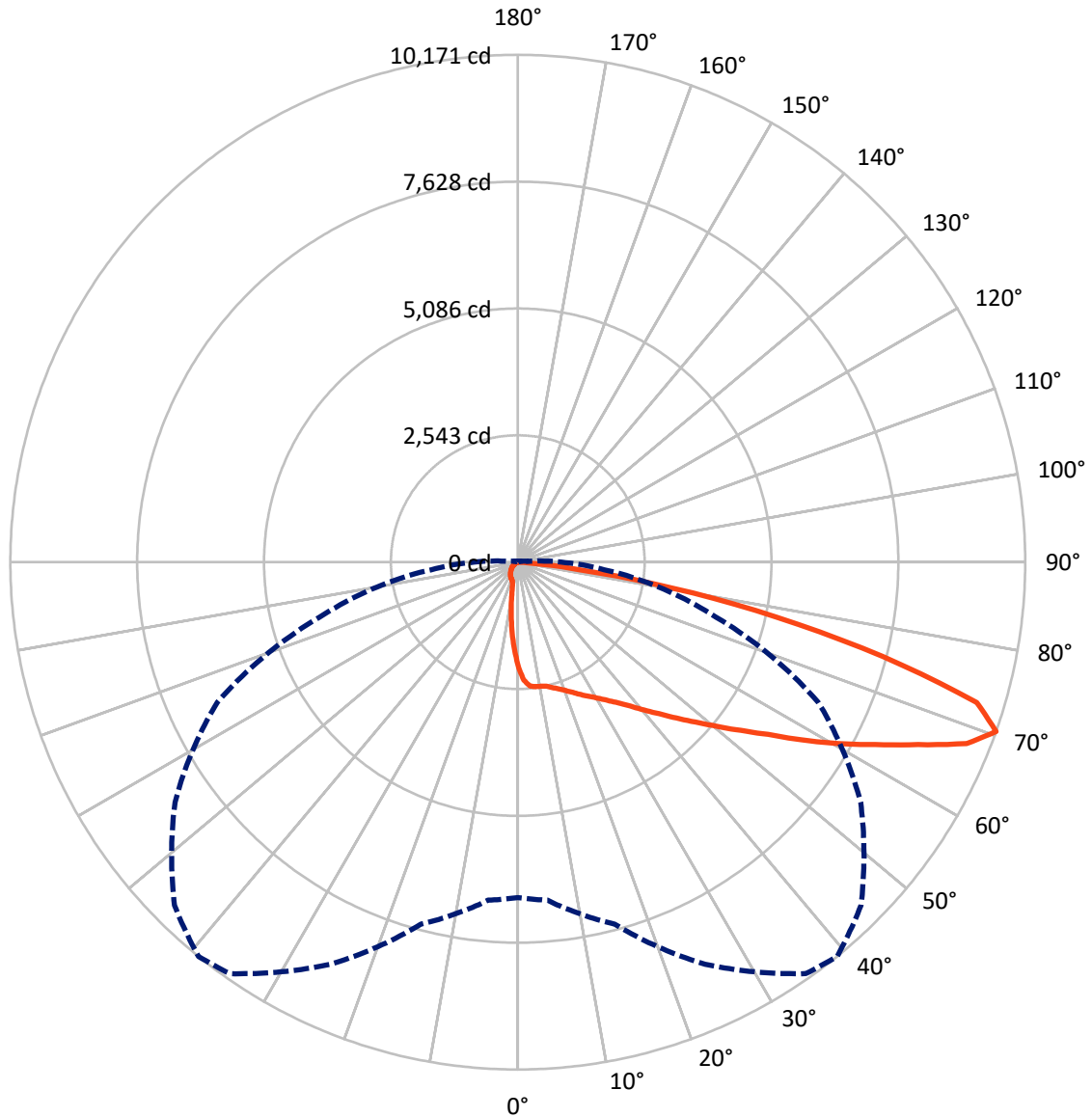
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	883.6	0.0	883.6
	% Fixture	6.5	0.0	6.5
<b>Street Side</b>	Lumens	12668.4	0.0	12668.4
	% Fixture	93.5	0.0	93.5
<b>Total</b>	Lumens	13552.0	0.0	13552.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	180.4	1.3
10°-20°	468.7	3.5
20°-30°	785.2	5.8
30°-40°	1217.8	9.0
40°-50°	1929.8	14.2
50°-60°	2828.8	20.9
60°-70°	3625.8	26.8
70°-80°	2278.3	16.8
80°-90°	237.3	1.8
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°	13552.0	100.0
0°-180°	13552.0	100.0

**Coefficient of Utilization**



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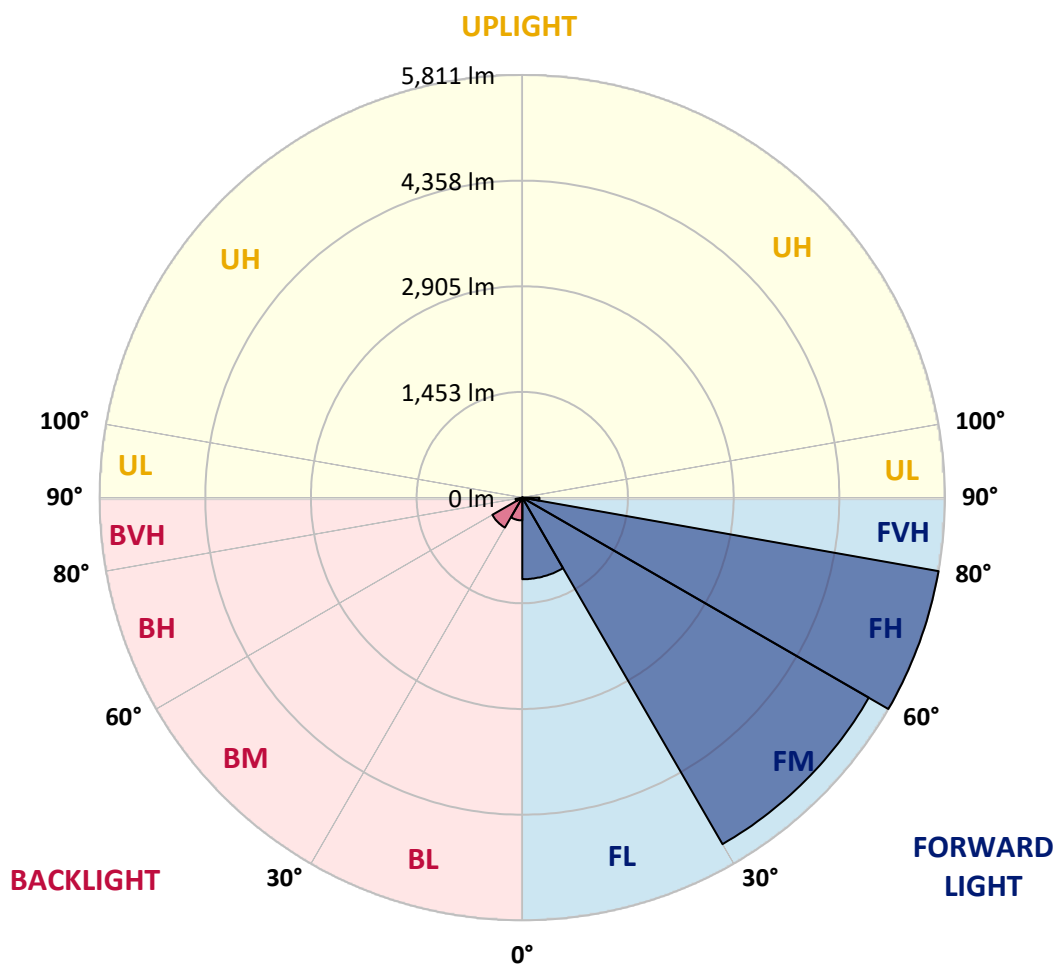
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1121.4	8.3			
FM (30°-60°)	5500.7	40.6			
FH (60°-80°)	5810.7	42.9			G3/7500
FVH (80°-90°)	235.6	1.7			G3/500
BL (0°-30°)	312.9	2.3	B1/500		
BM (30°-60°)	475.6	3.5	B1/1000		
BH (60°-80°)	93.5	0.7	B0/110		G0/110
BVH (80°-90°)	1.7	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 IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	39°	45°	55°	65°	75°	85°
0°	2114.6	2114.6	2114.6	2114.6	2114.6	2114.6	2114.6	2114.6	2114.6	2114.6	2114.6
2.5°	2443.3	2435.1	2424.2	2411.5	2375.0	2368.7	2346.8	2300.4	2244.8	2199.3	2136.4
5°	2559.0	2563.5	2555.3	2532.6	2506.2	2490.7	2463.4	2391.4	2319.5	2227.5	2124.6
7.5°	2585.4	2594.5	2584.5	2562.6	2537.1	2520.7	2498.9	2437.0	2353.2	2248.4	2107.3
10°	2582.7	2593.6	2587.2	2567.2	2546.2	2530.8	2507.1	2457.9	2390.5	2280.3	2112.8
12.5°	2578.1	2592.7	2591.8	2581.8	2564.4	2552.6	2538.0	2494.3	2431.5	2326.8	2142.8
15°	2565.4	2583.6	2600.0	2608.2	2609.1	2609.1	2590.9	2544.4	2484.3	2387.8	2182.0
17.5°	2570.8	2591.8	2632.7	2656.4	2672.8	2671.0	2651.9	2601.8	2535.3	2450.6	2222.9
20°	2604.5	2632.7	2690.1	2737.5	2753.9	2748.4	2722.9	2664.6	2589.0	2504.3	2263.0
22.5°	2687.4	2712.9	2784.8	2840.4	2852.2	2837.6	2801.2	2722.0	2653.7	2562.6	2311.3
25°	2811.2	2841.3	2907.8	2949.7	2949.7	2941.5	2890.5	2797.6	2726.5	2643.7	2374.1
27.5°	2961.5	2987.0	3052.6	3089.9	3068.0	3044.4	2993.4	2881.4	2813.1	2745.7	2449.7
30°	3113.6	3130.0	3199.2	3215.6	3192.8	3162.8	3108.1	2996.1	2936.0	2884.1	2559.0
32.5°	3257.5	3293.0	3350.4	3346.7	3315.8	3301.2	3251.1	3131.8	3098.1	3092.6	2712.0
35°	3401.4	3428.7	3479.7	3492.4	3465.1	3462.4	3425.9	3337.6	3338.5	3374.0	2950.6
37.5°	3525.2	3549.8	3609.9	3638.1	3643.6	3657.3	3642.7	3584.4	3667.3	3764.7	3266.6
40°	3629.0	3663.6	3740.1	3789.3	3845.8	3895.8	3898.6	3911.3	4078.0	4245.5	3679.1
42.5°	3710.1	3758.3	3869.4	3960.5	4089.8	4153.6	4204.6	4274.7	4555.2	4805.6	4165.4
45°	3815.7	3871.3	4009.7	4152.7	4354.8	4459.6	4530.6	4718.2	5116.1	5457.6	4664.5
47.5°	3990.6	4019.7	4160.9	4369.4	4635.3	4784.7	4923.1	5207.2	5718.1	6024.1	5079.7
50°	4215.5	4234.6	4341.2	4630.8	4975.0	5171.7	5424.0	5758.2	6342.8	6494.0	5314.7
52.5°	4464.1	4470.5	4550.6	4918.5	5355.7	5603.4	5885.7	6298.2	6851.9	6829.1	5470.4
55°	4752.8	4743.7	4812.0	5230.9	5806.4	6089.7	6418.4	6851.0	7293.6	7066.8	5559.6
57.5°	5083.4	5058.8	5125.3	5645.2	6383.8	6722.6	7056.8	7328.2	7636.0	7266.2	5602.4
60°	5429.4	5380.2	5459.5	6110.6	7064.1	7385.5	7663.3	7736.1	7996.6	7424.7	5528.7
62.5°	5705.4	5706.3	5853.8	6606.0	7763.5	8044.9	8192.4	8258.0	8307.1	7390.1	5140.7
65°	6136.1	6150.7	6386.5	7293.6	8573.1	8817.1	8918.2	8705.1	8320.8	6960.3	4557.9
67.5°	6580.5	6626.9	7058.6	8240.7	9508.3	9705.0	9574.8	8791.6	7949.2	5979.5	3456.0
70°	6725.3	6801.8	7513.0	8892.7	10069.3	10171.3	9730.5	8388.2	6645.2	3997.8	1739.4
72.5°	6162.5	6286.4	7251.7	8655.0	9711.4	9623.1	8706.0	7034.9	4224.6	1518.1	530.9
75°	4345.7	4400.4	6026.8	7179.7	7810.8	7560.4	6622.4	4535.1	1737.6	426.2	182.1
77.5°	2243.9	2217.5	3584.4	4763.7	5570.6	5311.0	4336.6	2347.7	658.4	177.6	112.9
80°	1160.2	1179.3	1550.9	2496.1	3400.4	3129.1	2312.2	1088.3	350.6	98.4	86.5
82.5°	650.2	610.1	891.5	1090.1	1590.0	1246.7	887.0	770.4	153.0	59.2	82.0
85°	118.4	123.9	489.0	589.2	551.9	350.6	286.0	514.5	44.6	32.8	57.4
87.5°	1.8	1.8	94.7	169.4	107.5	49.2	90.2	73.8	9.1	12.7	10.0
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°	2114.6	2114.6	2114.6	2114.6	2114.6	2114.6	2114.6	2114.6	2114.6	2114.6	2114.6
2.5°	2104.6	2070.0	2005.3	1941.5	1860.5	1794.0	1749.4	1703.0	1655.6	1659.2	1670.2
5°	2068.1	2008.0	1880.5	1745.8	1616.4	1499.9	1385.1	1282.2	1240.3	1202.1	1203.9
7.5°	2031.7	1947.0	1760.3	1549.1	1353.3	1154.7	1010.8	892.5	829.6	782.3	768.6
10°	2015.3	1903.3	1650.1	1359.6	1081.9	865.1	680.3	583.7	509.1	485.4	491.8
12.5°	2022.6	1881.4	1550.9	1188.4	857.9	602.9	473.5	424.4	408.0	405.2	403.4
15°	2036.3	1866.0	1453.4	999.0	630.2	448.0	398.0	388.9	387.0	385.2	386.1
17.5°	2054.5	1852.3	1349.6	821.4	483.6	391.6	377.0	372.5	371.6	371.6	371.6
20°	2072.7	1836.8	1234.0	663.0	403.4	369.7	360.6	357.9	357.0	357.0	356.1
22.5°	2093.6	1823.2	1116.5	520.9	371.6	354.3	346.1	344.2	343.3	342.4	342.4
25°	2123.7	1805.9	991.7	426.2	351.5	339.7	331.5	329.7	328.8	325.1	326.0
27.5°	2163.8	1793.1	863.3	367.9	333.3	321.5	316.0	313.3	311.4	308.7	309.6
30°	2218.4	1782.2	726.7	336.0	312.4	302.3	296.9	295.1	293.2	290.5	290.5
32.5°	2313.1	1786.7	582.8	310.5	293.2	281.4	275.9	274.1	272.3	269.6	269.6
35°	2455.2	1813.1	466.3	288.7	270.5	258.6	253.2	253.2	250.4	246.8	245.9
37.5°	2687.4	1880.5	374.3	267.7	248.6	237.7	231.3	229.5	226.8	221.3	220.4
40°	2961.5	1985.3	315.1	246.8	228.6	217.7	212.2	206.7	199.4	194.0	193.1
42.5°	3305.7	2092.7	273.2	225.8	209.5	199.4	193.1	184.0	173.0	165.7	164.8
45°	3664.5	2191.1	245.0	206.7	191.2	183.0	175.8	161.2	147.5	138.4	137.5
47.5°	3932.3	2209.3	222.2	188.5	175.8	167.6	157.5	139.3	121.1	112.9	110.2
50°	4058.9	2121.0	198.5	170.3	160.3	151.2	138.4	117.5	97.4	87.4	85.6
52.5°	4103.5	1968.0	179.4	153.9	144.8	133.9	118.4	94.7	76.5	66.5	65.6
55°	4085.3	1774.9	162.1	138.4	126.6	113.8	98.4	75.6	56.5	48.3	46.4
57.5°	3989.6	1529.0	144.8	122.9	108.4	95.6	78.3	56.5	38.2	31.0	30.1
60°	3731.9	1193.9	127.5	105.6	92.0	78.3	61.9	40.1	23.7	17.3	17.3
62.5°	3296.6	886.1	111.1	88.3	77.4	62.8	43.7	25.5	12.7	9.1	8.2
65°	2754.8	653.9	92.9	74.7	64.7	49.2	31.0	15.5	6.4	2.7	1.8
67.5°	1922.4	403.4	77.4	61.0	52.8	35.5	19.1	6.4	2.7	0.0	0.0
70°	873.3	192.2	59.2	46.4	40.1	25.5	10.0	3.6	1.8	0.0	0.0
72.5°	271.4	101.1	41.9	33.7	27.3	16.4	5.5	2.7	1.8	0.0	0.0
75°	125.7	64.7	26.4	18.2	15.5	8.2	3.6	1.8	0.9	0.0	0.0
77.5°	93.8	50.1	15.5	10.0	8.2	5.5	2.7	1.8	0.9	0.0	0.0
80°	82.0	25.5	9.1	6.4	4.6	3.6	1.8	0.9	0.0	0.0	0.0
82.5°	73.8	12.7	5.5	3.6	2.7	1.8	0.9	0.9	0.0	0.0	0.0
85°	40.1	7.3	3.6	2.7	1.8	0.9	0.9	0.0	0.0	0.0	0.0
87.5°	7.3	3.6	2.7	1.8	1.8	0.9	0.9	0.9	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)