

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: P458871

Luminaire Tested: **GALN-SA4A-735-U-SL4-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P458871
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-735-U-SL4-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 3500K, 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: 13862 lumens
Efficiency: N/A
Efficacy: 114.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

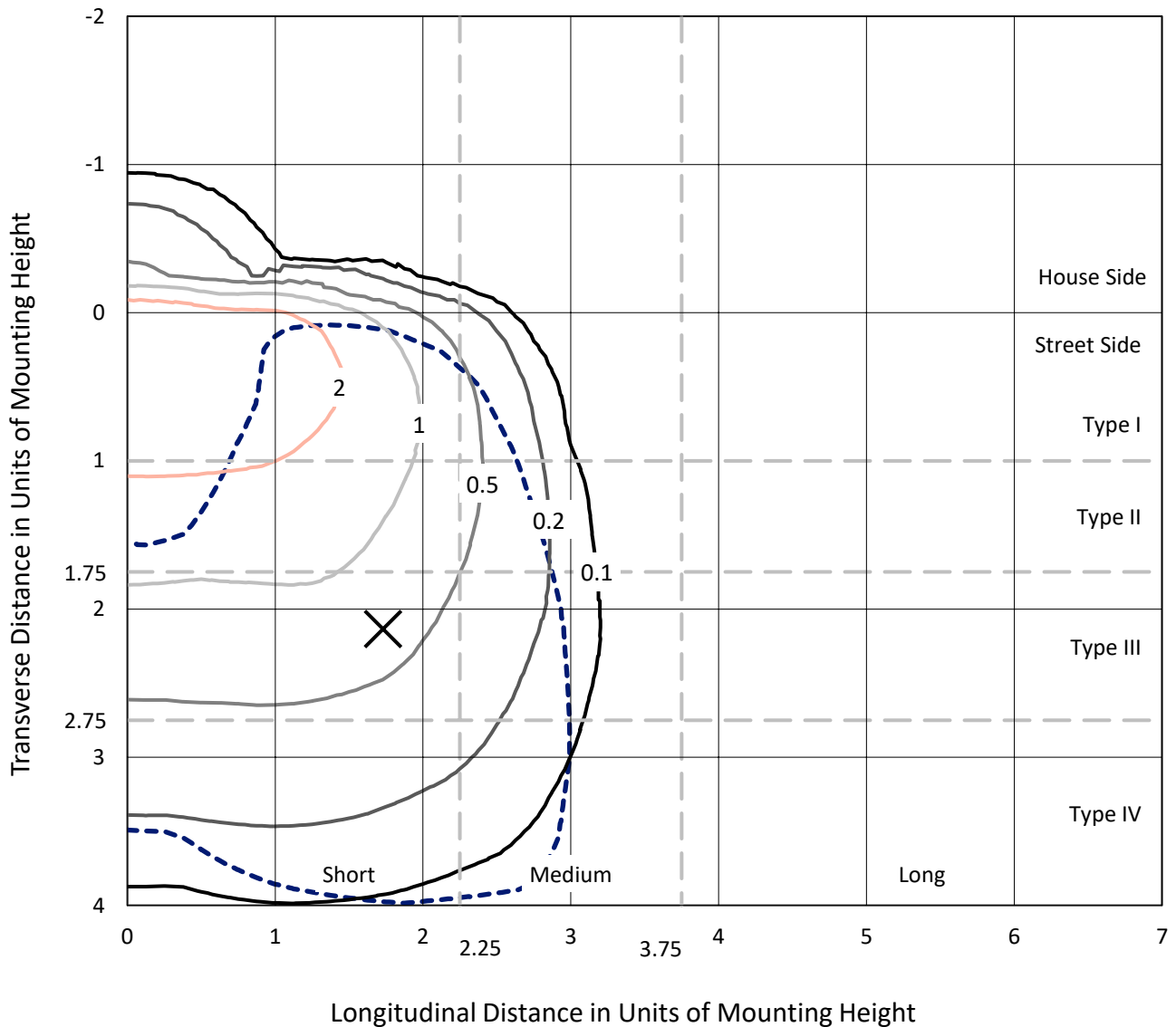
Input Watts (W): 121
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

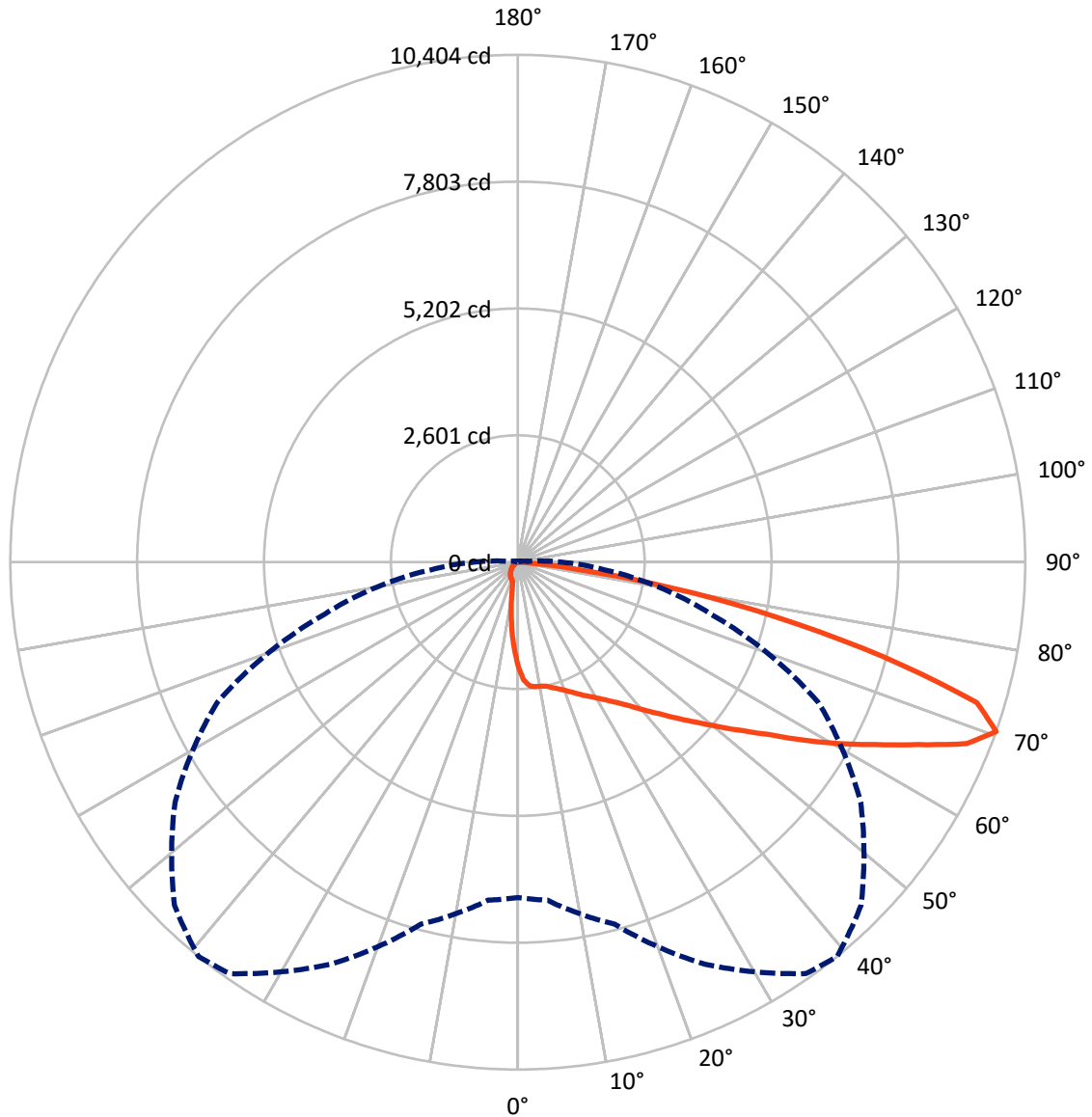
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.1 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
House Side	Lumens	903.9	0.0	903.9
	% Fixture	6.5	0.0	6.5
Street Side	Lumens	12958.1	0.0	12958.1
	% Fixture	93.5	0.0	93.5
Total	Lumens	13862.0	0.0	13862.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.5	1.3
10°-20°	479.4	3.5
20°-30°	803.2	5.8
30°-40°	1245.6	9.0
40°-50°	1973.9	14.2
50°-60°	2893.5	20.9
60°-70°	3708.7	26.8
70°-80°	2330.4	16.8
80°-90°	242.8	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°	13862.0	100.0
0°-180°	13862.0	100.0

Coefficient of Utilization



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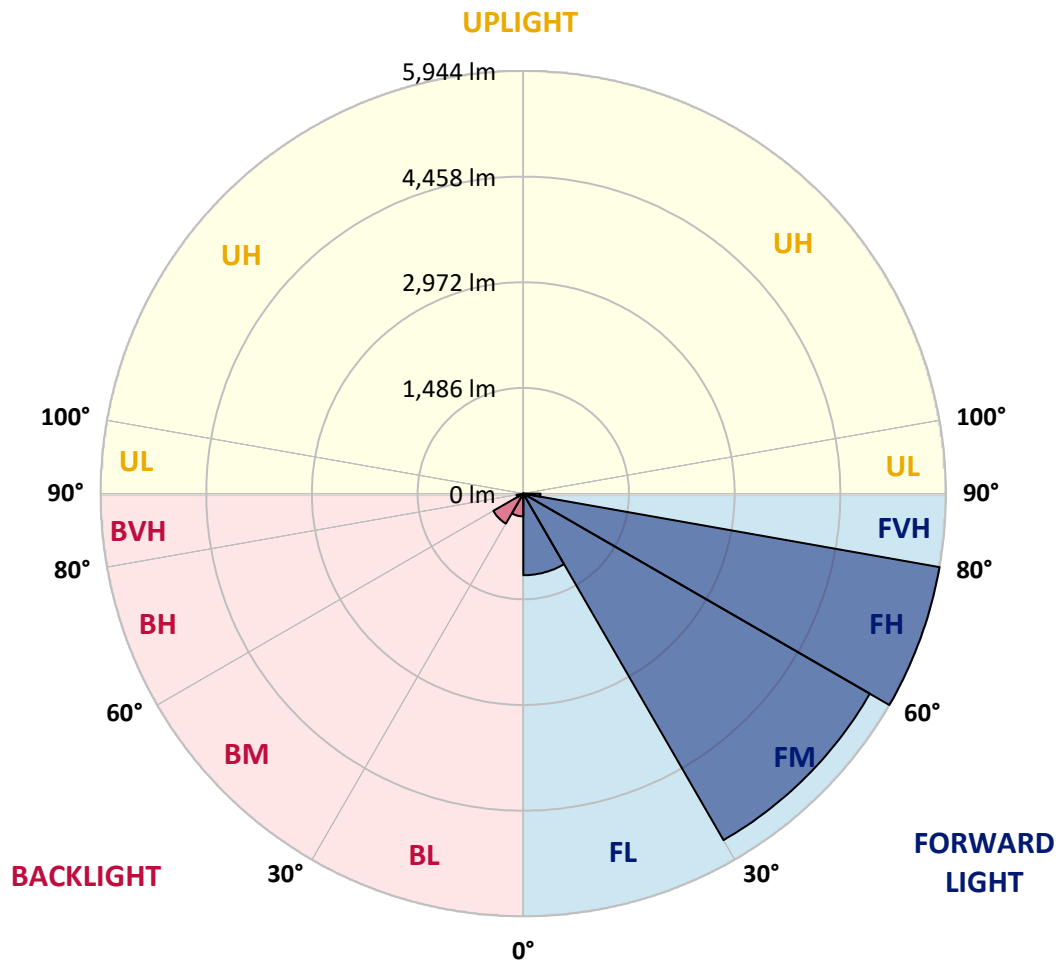
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1147.0	8.3			
FM (30°-60°)	5626.6	40.6			
FH (60°-80°)	5943.6	42.9			G3/7500
FVH (80°-90°)	241.0	1.7			G3/500
BL (0°-30°)	320.1	2.3	B1/500		
BM (30°-60°)	486.4	3.5	B1/1000		
BH (60°-80°)	95.6	0.7	B0/110		G0/110
BVH (80°-90°)	1.8	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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	39°	45°	55°	65°	75°	85°
0°	2162.9	2162.9	2162.9	2162.9	2162.9	2162.9	2162.9	2162.9	2162.9	2162.9	2162.9
2.5°	2499.2	2490.8	2479.7	2466.6	2429.4	2422.8	2400.5	2353.0	2296.2	2249.6	2185.3
5°	2617.5	2622.2	2613.8	2590.5	2563.5	2547.7	2519.7	2446.1	2372.5	2278.5	2173.2
7.5°	2644.5	2653.8	2643.6	2621.2	2595.2	2578.4	2556.0	2492.7	2407.0	2299.9	2155.5
10°	2641.7	2652.9	2646.4	2625.9	2604.5	2588.6	2564.4	2514.1	2445.2	2332.5	2161.1
12.5°	2637.1	2652.0	2651.1	2640.8	2623.1	2611.0	2596.1	2551.4	2487.1	2380.0	2191.8
15°	2624.0	2642.7	2659.4	2667.8	2668.8	2668.8	2650.1	2602.6	2541.1	2442.4	2231.9
17.5°	2629.6	2651.1	2693.0	2717.2	2734.0	2732.1	2712.5	2661.3	2593.3	2506.7	2273.8
20°	2664.1	2693.0	2751.7	2800.1	2816.9	2811.3	2785.2	2725.6	2648.3	2561.6	2314.8
22.5°	2748.9	2774.9	2848.5	2905.4	2917.5	2902.6	2865.3	2784.3	2714.4	2621.2	2364.2
25°	2875.5	2906.3	2974.3	3017.1	3017.1	3008.8	2956.6	2861.6	2788.9	2704.2	2428.4
27.5°	3029.2	3055.3	3122.4	3160.6	3138.2	3114.0	3061.8	2947.3	2877.4	2808.5	2505.7
30°	3184.8	3201.6	3272.4	3289.1	3265.8	3235.1	3179.2	3064.6	3003.2	2950.1	2617.5
32.5°	3332.0	3368.3	3427.0	3423.3	3391.6	3376.7	3325.5	3203.4	3169.0	3163.4	2774.0
35°	3479.2	3507.1	3559.3	3572.3	3544.4	3541.6	3504.3	3414.0	3414.9	3451.2	3018.1
37.5°	3605.8	3631.0	3692.5	3721.4	3726.9	3740.9	3726.0	3666.4	3751.2	3850.8	3341.3
40°	3712.0	3747.4	3825.7	3876.0	3933.7	3985.0	3987.8	4000.8	4171.3	4342.7	3763.3
42.5°	3794.9	3844.3	3958.0	4051.1	4183.4	4248.6	4300.7	4372.5	4659.4	4915.5	4260.7
45°	3903.0	3959.8	4101.4	4247.6	4454.4	4561.6	4634.2	4826.1	5233.2	5582.5	4771.2
47.5°	4081.8	4111.6	4256.0	4469.3	4741.3	4894.1	5035.7	5326.3	5848.9	6161.9	5195.9
50°	4311.9	4331.5	4440.5	4736.7	5088.8	5290.0	5548.0	5889.9	6487.9	6642.5	5436.2
52.5°	4566.2	4572.7	4654.7	5031.0	5478.2	5731.5	6020.3	6442.3	7008.6	6985.3	5595.5
55°	4861.5	4852.2	4922.1	5350.5	5939.3	6229.0	6565.2	7007.7	7460.4	7228.5	5686.8
57.5°	5199.6	5174.5	5242.5	5774.4	6529.8	6876.3	7218.2	7495.8	7810.6	7432.5	5730.6
60°	5553.6	5503.3	5584.4	6250.4	7225.7	7554.5	7838.6	7913.1	8179.5	7594.5	5655.1
62.5°	5835.9	5836.8	5987.7	6757.1	7941.1	8228.9	8379.8	8446.9	8497.2	7559.1	5258.3
65°	6276.5	6291.4	6532.6	7460.4	8769.2	9018.8	9122.2	8904.2	8511.1	7119.5	4662.2
67.5°	6731.0	6778.5	7220.1	8429.2	9725.8	9927.0	9793.8	8992.7	8131.1	6116.2	3535.0
70°	6879.1	6957.4	7684.9	9096.1	10299.6	10403.9	9953.1	8580.1	6797.2	4089.3	1779.2
72.5°	6303.5	6430.2	7417.5	8853.0	9933.5	9843.2	8905.2	7195.9	4321.2	1552.8	543.1
75°	4445.1	4501.0	6164.7	7344.0	7989.5	7733.3	6773.9	4638.9	1777.3	435.9	186.3
77.5°	2295.2	2268.2	3666.4	4872.7	5698.0	5432.5	4435.8	2401.4	673.5	181.6	115.5
80°	1186.7	1206.3	1586.3	2553.2	3478.2	3200.6	2365.1	1113.1	358.6	100.6	88.5
82.5°	665.1	624.1	911.9	1115.0	1626.4	1275.2	907.3	788.1	156.5	60.5	83.8
85°	121.1	126.7	500.2	602.7	564.5	358.6	292.5	526.3	45.6	33.5	58.7
87.5°	1.9	1.9	96.9	173.3	109.9	50.3	92.2	75.5	9.3	13.0	10.2
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°	2162.9	2162.9	2162.9	2162.9	2162.9	2162.9	2162.9	2162.9	2162.9	2162.9	2162.9
2.5°	2152.7	2117.3	2051.2	1986.0	1903.1	1835.1	1789.4	1741.9	1693.5	1697.2	1708.4
5°	2115.4	2054.0	1923.6	1785.7	1653.4	1534.2	1416.8	1311.6	1268.7	1229.6	1231.4
7.5°	2078.2	1991.6	1800.6	1584.5	1384.2	1181.1	1034.0	912.9	848.6	800.2	786.2
10°	2061.4	1946.8	1687.9	1390.7	1106.6	884.9	695.8	597.1	520.7	496.5	503.0
12.5°	2068.9	1924.5	1586.3	1215.6	877.5	616.7	484.4	434.1	417.3	414.5	412.7
15°	2082.8	1908.6	1486.7	1021.9	644.6	458.3	407.1	397.8	395.9	394.0	395.0
17.5°	2101.5	1894.7	1380.5	840.2	494.6	400.5	385.6	381.0	380.1	380.1	380.1
20°	2120.1	1878.8	1262.2	678.1	412.7	378.2	368.9	366.1	365.1	365.1	364.2
22.5°	2141.5	1864.9	1142.0	532.8	380.1	362.4	354.0	352.1	351.2	350.2	350.2
25°	2172.3	1847.2	1014.4	435.9	359.6	347.5	339.1	337.2	336.3	332.5	333.5
27.5°	2213.2	1834.1	883.1	376.3	340.9	328.8	323.2	320.4	318.6	315.8	316.7
30°	2269.1	1822.9	743.3	343.7	319.5	309.3	303.7	301.8	299.9	297.1	297.1
32.5°	2366.0	1827.6	596.2	317.6	299.9	287.8	282.2	280.4	278.5	275.7	275.7
35°	2511.3	1854.6	476.9	295.3	276.7	264.5	259.0	259.0	256.2	252.4	251.5
37.5°	2748.9	1923.6	382.8	273.9	254.3	243.1	236.6	234.7	231.9	226.4	225.4
40°	3029.2	2030.7	322.3	252.4	233.8	222.6	217.0	211.5	204.0	198.4	197.5
42.5°	3381.4	2140.6	279.5	231.0	214.2	204.0	197.5	188.2	177.0	169.5	168.6
45°	3748.4	2241.2	250.6	211.5	195.6	187.2	179.8	164.9	150.9	141.6	140.7
47.5°	4022.2	2259.8	227.3	192.8	179.8	171.4	161.1	142.5	123.9	115.5	112.7
50°	4151.7	2169.5	203.1	174.2	163.9	154.6	141.6	120.2	99.7	89.4	87.6
52.5°	4197.3	2013.0	183.5	157.4	148.1	136.9	121.1	96.9	78.2	68.0	67.1
55°	4178.7	1815.5	165.8	141.6	129.5	116.4	100.6	77.3	57.8	49.4	47.5
57.5°	4080.9	1564.0	148.1	125.8	110.8	97.8	80.1	57.8	39.1	31.7	30.7
60°	3817.3	1221.2	130.4	108.1	94.1	80.1	63.3	41.0	24.2	17.7	17.7
62.5°	3372.0	906.4	113.6	90.4	79.2	64.3	44.7	26.1	13.0	9.3	8.4
65°	2817.8	668.8	95.0	76.4	66.1	50.3	31.7	15.8	6.5	2.8	1.9
67.5°	1966.4	412.7	79.2	62.4	54.0	36.3	19.6	6.5	2.8	0.0	0.0
70°	893.3	196.5	60.5	47.5	41.0	26.1	10.2	3.7	1.9	0.0	0.0
72.5°	277.6	103.4	42.8	34.5	27.9	16.8	5.6	2.8	1.9	0.0	0.0
75°	128.5	66.1	27.0	18.6	15.8	8.4	3.7	1.9	0.9	0.0	0.0
77.5°	95.9	51.2	15.8	10.2	8.4	5.6	2.8	1.9	0.9	0.0	0.0
80°	83.8	26.1	9.3	6.5	4.7	3.7	1.9	0.9	0.0	0.0	0.0
82.5°	75.5	13.0	5.6	3.7	2.8	1.9	0.9	0.9	0.0	0.0	0.0
85°	41.0	7.5	3.7	2.8	1.9	0.9	0.9	0.0	0.0	0.0	0.0
87.5°	7.5	3.7	2.8	1.9	1.9	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)