

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: P651374

Luminaire Tested: **GALN-SA4D-840-U-T4FT-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P651374
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-29)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA4D-840-U-T4FT-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18533.1 lumens
Efficiency: N/A
Efficacy: 75.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

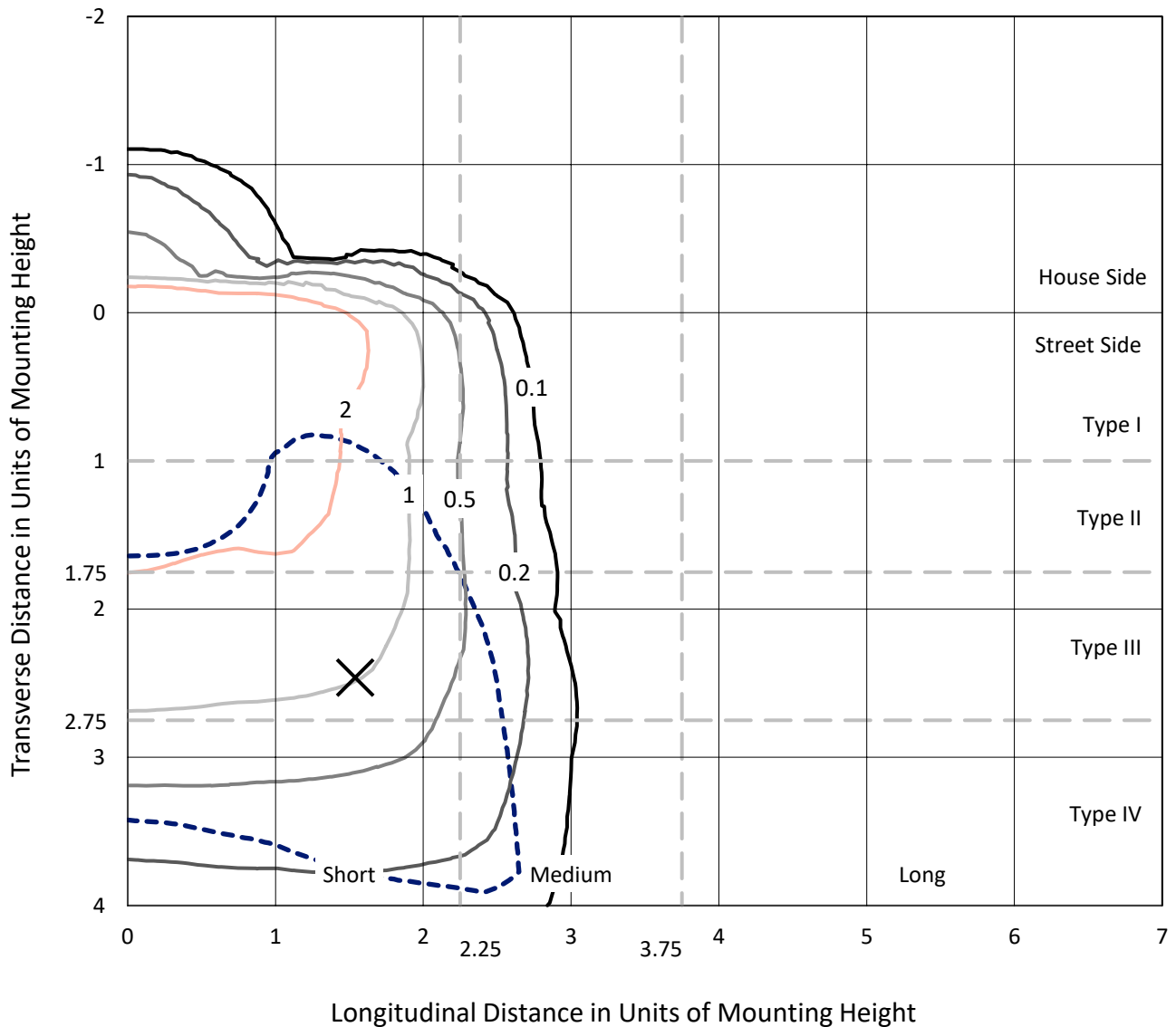
Input Watts (W): 245
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

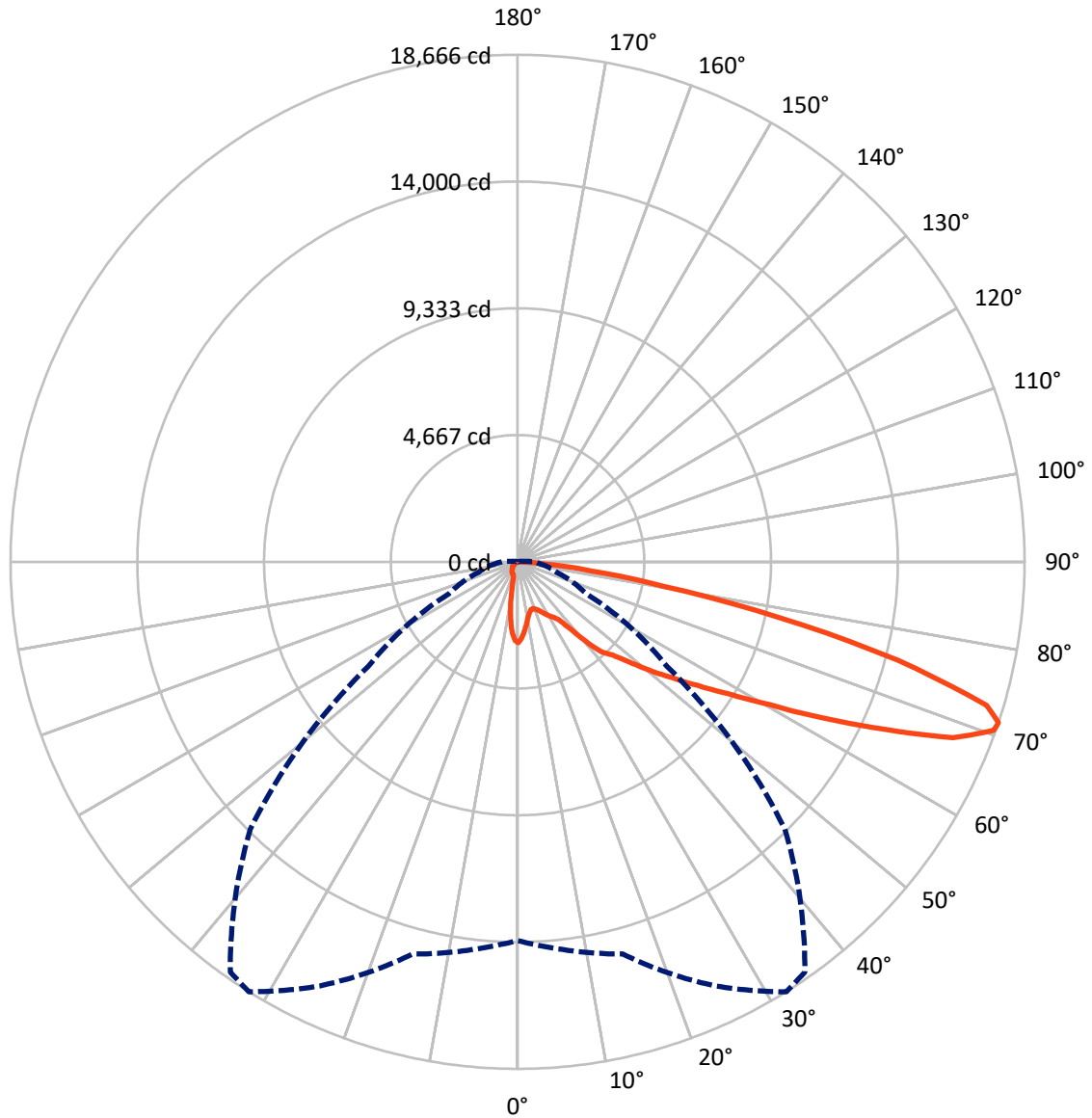
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.8 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 32-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1552.4	0.0	1552.4
	% Fixture	8.4	0.0	8.4
Street Side	Lumens	16980.8	0.0	16980.8
	% Fixture	91.6	0.0	91.6
Total	Lumens	18533.1	0.0	18533.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	242.3	1.3
10°-20°	526.0	2.8
20°-30°	818.2	4.4
30°-40°	1363.2	7.4
40°-50°	2535.8	13.7
50°-60°	4071.3	22.0
60°-70°	5476.1	29.5
70°-80°	3249.0	17.5
80°-90°	251.1	1.4
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°	18533.1	100.0
0°-180°	18533.1	100.0

Coefficient of Utilization



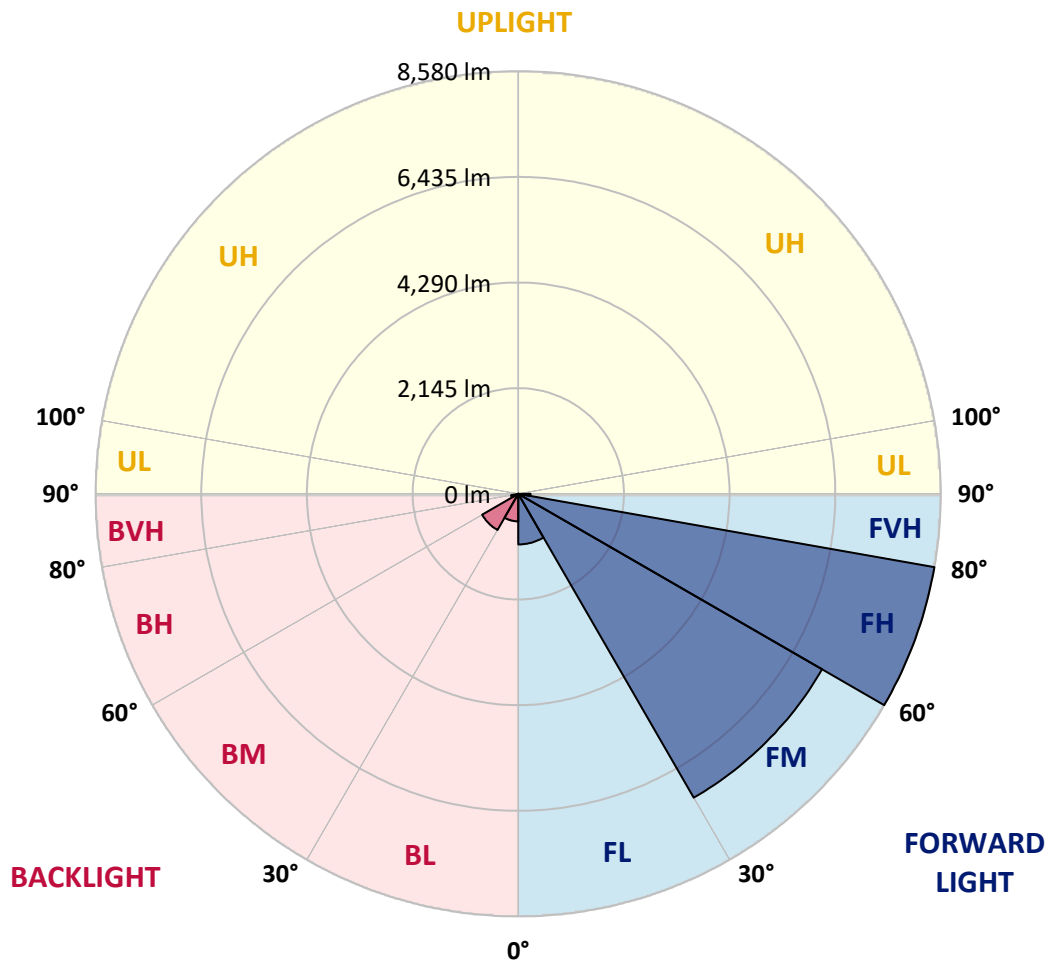
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1027.2	5.5			
FM (30°-60°)	7123.4	38.4			
FH (60°-80°)	8579.9	46.3			G4/12000
FVH (80°-90°)	250.2	1.3			G3/500
BL (0°-30°)	559.3	3.0	B2/1000		
BM (30°-60°)	846.8	4.6	B1/1000		
BH (60°-80°)	145.2	0.8	B1/500		G1/500
BVH (80°-90°)	1.0	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	32°	35°	45°	55°	65°	75°	85°
0°	2980.4	2980.4	2980.4	2980.4	2980.4	2980.4	2980.4	2980.4	2980.4	2980.4	2980.4
2.5°	2764.2	2792.6	2788.3	2798.3	2822.5	2832.5	2859.5	2889.3	2930.6	2959.1	2977.6
5°	2475.4	2496.8	2499.5	2549.3	2573.5	2600.5	2680.3	2767.1	2863.8	2940.6	2991.8
7.5°	2166.7	2178.0	2200.8	2266.2	2327.5	2354.5	2475.4	2626.2	2778.4	2922.1	3014.6
10°	1912.0	1924.8	1966.1	2035.8	2092.7	2128.2	2296.1	2485.3	2698.8	2912.1	3047.3
12.5°	1766.9	1774.0	1789.6	1852.3	1924.8	1963.2	2143.9	2360.2	2634.7	2916.4	3102.8
15°	1756.9	1754.1	1735.6	1761.2	1826.7	1866.5	2042.9	2274.8	2577.8	2930.6	3168.2
17.5°	1809.6	1802.5	1758.4	1758.4	1812.4	1845.2	2000.2	2229.2	2549.3	2963.3	3260.6
20°	1890.7	1879.3	1806.7	1801.1	1853.6	1887.8	2025.8	2232.1	2555.0	3024.5	3384.4
22.5°	1993.1	1980.3	1870.7	1873.6	1930.5	1964.7	2099.8	2283.3	2590.6	3099.9	3516.7
25°	2126.8	2112.6	1983.2	1977.4	2037.2	2067.1	2209.3	2374.4	2640.4	3193.8	3690.3
27.5°	2304.7	2274.8	2119.7	2111.2	2175.2	2213.6	2341.7	2496.8	2728.6	3323.3	3923.6
30°	2451.2	2418.5	2270.5	2247.7	2316.0	2345.9	2478.3	2661.8	2902.2	3549.4	4246.5
32.5°	2643.3	2594.9	2421.3	2361.5	2434.1	2472.5	2676.0	2969.1	3159.6	3788.5	4630.6
35°	3075.7	3045.8	2833.9	2624.8	2620.5	2668.8	2967.6	3279.1	3424.3	4161.2	5154.2
37.5°	3694.6	3673.2	3448.4	3168.2	3087.1	3064.4	3321.9	3620.6	3846.8	4673.4	5763.1
40°	4413.0	4363.2	4156.9	3919.3	3814.1	3747.2	3740.1	4128.5	4398.8	5369.0	6397.6
42.5°	4928.0	4836.9	4586.6	4569.5	4546.7	4477.1	4275.0	4871.1	5111.5	6117.3	7076.2
45°	5468.6	5330.6	4957.9	4893.9	4885.3	4881.1	5083.1	5750.3	5888.3	6928.2	7773.3
47.5°	5888.3	5778.8	5472.9	5444.4	5480.0	5576.8	6151.5	6683.5	6655.1	7650.9	8357.9
50°	6447.4	6364.9	6024.8	6078.9	6262.4	6420.4	7356.4	7700.7	7285.3	8219.9	8783.3
52.5°	7107.5	6955.2	6639.4	6785.9	7067.6	7330.8	8635.4	8591.2	7727.7	8648.2	9100.5
55°	7679.3	7571.3	7463.1	7615.3	8036.4	8365.1	9790.6	9258.5	8049.3	8992.5	9240.0
57.5°	8646.7	8621.2	8510.2	8665.2	9176.0	9517.4	10824.8	9776.3	8255.5	9171.7	9076.4
60°	10078.0	10036.7	9830.4	10028.2	10693.9	11230.3	11778.0	10241.5	8302.5	9102.0	8605.5
62.5°	11799.3	11658.4	11482.1	11773.7	12687.1	12923.2	12675.6	10517.5	8127.5	8547.2	7470.3
65°	13406.9	13261.8	13266.0	13880.6	14875.0	15035.8	13722.7	10476.3	7615.3	7157.2	5509.9
67.5°	14637.4	14613.3	14786.8	15986.1	17286.4	17175.4	14658.8	9858.9	6097.4	4639.2	2927.8
70°	14700.1	14747.0	15244.9	17269.3	18589.5	18413.1	14579.2	8013.7	3801.2	2134.0	1153.8
71°	13943.2	14259.1	14947.6	17229.5	18666.3	18437.3	13907.6	6712.0	2788.3	1488.1	832.3
72.5°	11881.8	12048.3	13536.3	16215.2	18058.9	17569.5	12204.8	4704.6	1785.4	910.5	478.0
75°	6544.1	6953.8	9065.1	12721.2	14444.0	14014.3	7953.9	2235.0	890.5	498.0	197.7
77.5°	3115.6	3035.9	4423.0	7565.6	9793.4	9770.7	4007.5	993.0	519.2	337.2	99.6
80°	890.5	1001.5	1692.9	3596.5	5437.3	5497.0	1539.3	479.5	359.9	263.1	51.2
82.5°	268.9	274.6	621.7	1590.5	2704.4	2549.3	577.6	244.7	258.9	209.2	29.9
85°	46.9	58.4	183.5	560.5	1031.4	782.5	145.1	116.6	170.7	138.0	17.1
87.5°	2.9	4.3	61.1	64.0	91.1	52.6	25.6	17.1	37.0	37.0	9.9
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°	2980.4	2980.4	2980.4	2980.4	2980.4	2980.4	2980.4	2980.4	2980.4	2980.4	2980.4
2.5°	2990.3	2998.9	2993.2	2980.4	2959.1	2933.5	2899.3	2870.8	2846.7	2833.9	2849.6
5°	3008.8	3020.3	2991.8	2927.8	2831.1	2725.8	2606.3	2513.8	2441.3	2418.5	2410.0
7.5°	3037.4	3044.4	2967.6	2825.3	2620.5	2371.5	2153.9	1970.4	1828.1	1785.4	1722.8
10°	3074.3	3070.1	2924.9	2660.3	2300.4	1926.2	1589.1	1338.7	1149.5	1081.2	1075.5
12.5°	3131.2	3108.4	2870.8	2435.5	1919.2	1429.8	1012.9	792.4	672.9	633.1	624.5
15°	3202.4	3148.3	2785.5	2172.4	1469.6	923.2	624.5	557.7	542.0	539.2	536.3
17.5°	3286.3	3200.9	2673.1	1849.4	1032.8	599.0	522.1	520.7	522.1	519.2	517.8
20°	3400.1	3256.4	2539.4	1466.7	682.9	505.0	498.0	498.0	499.4	498.0	498.0
22.5°	3521.0	3321.9	2374.4	1119.6	515.0	479.5	478.0	480.9	483.7	482.3	482.3
25°	3670.4	3407.2	2156.7	766.8	461.0	458.1	459.5	465.2	470.9	472.3	470.9
27.5°	3886.6	3512.5	1923.4	527.8	422.5	425.4	439.6	453.8	462.4	463.8	463.8
30°	4129.9	3629.2	1618.9	428.2	391.2	391.2	408.3	435.3	453.8	456.7	458.1
32.5°	4442.9	3764.3	1281.8	385.5	361.4	358.5	374.2	406.9	441.0	450.9	450.9
35°	4829.9	3923.6	953.2	358.5	340.0	332.9	341.4	368.4	412.6	441.0	443.9
37.5°	5283.7	4074.4	697.1	334.3	320.1	310.2	315.8	337.2	372.7	415.4	426.8
40°	5703.3	4208.1	520.7	314.4	300.2	293.1	297.3	307.3	337.2	377.0	384.1
42.5°	6161.4	4312.0	414.0	293.1	280.2	277.4	277.4	281.7	301.6	324.4	325.8
45°	6618.1	4349.0	347.1	267.4	258.9	261.8	260.4	257.5	266.0	263.1	263.1
47.5°	6943.9	4304.9	287.4	243.3	243.3	247.5	240.4	230.4	226.2	209.2	210.6
50°	7167.3	4144.1	236.2	214.8	226.2	231.9	217.7	202.0	186.4	167.9	163.6
52.5°	7259.7	3858.2	193.5	177.8	200.6	207.7	190.7	172.2	147.9	132.3	128.0
55°	7200.0	3505.4	160.8	145.1	169.3	177.8	160.8	139.4	112.4	95.3	92.5
57.5°	6936.7	3084.3	136.6	115.2	135.1	140.9	129.4	106.7	79.6	62.6	62.6
60°	6481.5	2649.0	110.9	91.1	101.0	109.6	98.1	76.8	54.1	38.4	35.6
62.5°	5558.3	2151.0	89.7	71.1	71.1	78.2	68.3	55.5	34.1	19.9	18.5
65°	4013.3	1475.3	71.1	52.6	51.2	51.2	42.6	37.0	19.9	8.5	5.7
67.5°	2180.9	832.3	56.9	39.9	35.6	34.1	27.0	21.4	8.5	1.4	0.0
70°	857.8	320.1	44.1	27.0	22.8	21.4	14.2	9.9	5.7	0.0	0.0
71°	581.9	220.5	38.4	22.8	18.5	15.6	11.4	8.5	4.3	0.0	0.0
72.5°	332.9	136.6	29.9	17.1	14.2	11.4	8.5	5.7	4.3	0.0	0.0
75°	145.1	69.7	18.5	12.8	9.9	7.1	5.7	4.3	1.4	0.0	0.0
77.5°	74.0	38.4	12.8	9.9	5.7	4.3	2.9	1.4	0.0	0.0	0.0
80°	41.3	19.9	8.5	5.7	4.3	2.9	1.4	1.4	0.0	0.0	0.0
82.5°	22.8	11.4	4.3	2.9	1.4	0.0	0.0	0.0	0.0	0.0	0.0
85°	14.2	7.1	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	7.1	2.9	0.0	0.0	0.0	0.0	1.4	1.4	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)