

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: P453361

Luminaire Tested: **GALN-SA4B-827-U-SL4-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453361
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-SA4B-827-U-SL4-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 2700K, 800mA 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: 13611 lumens
Efficiency: N/A
Efficacy: 83.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

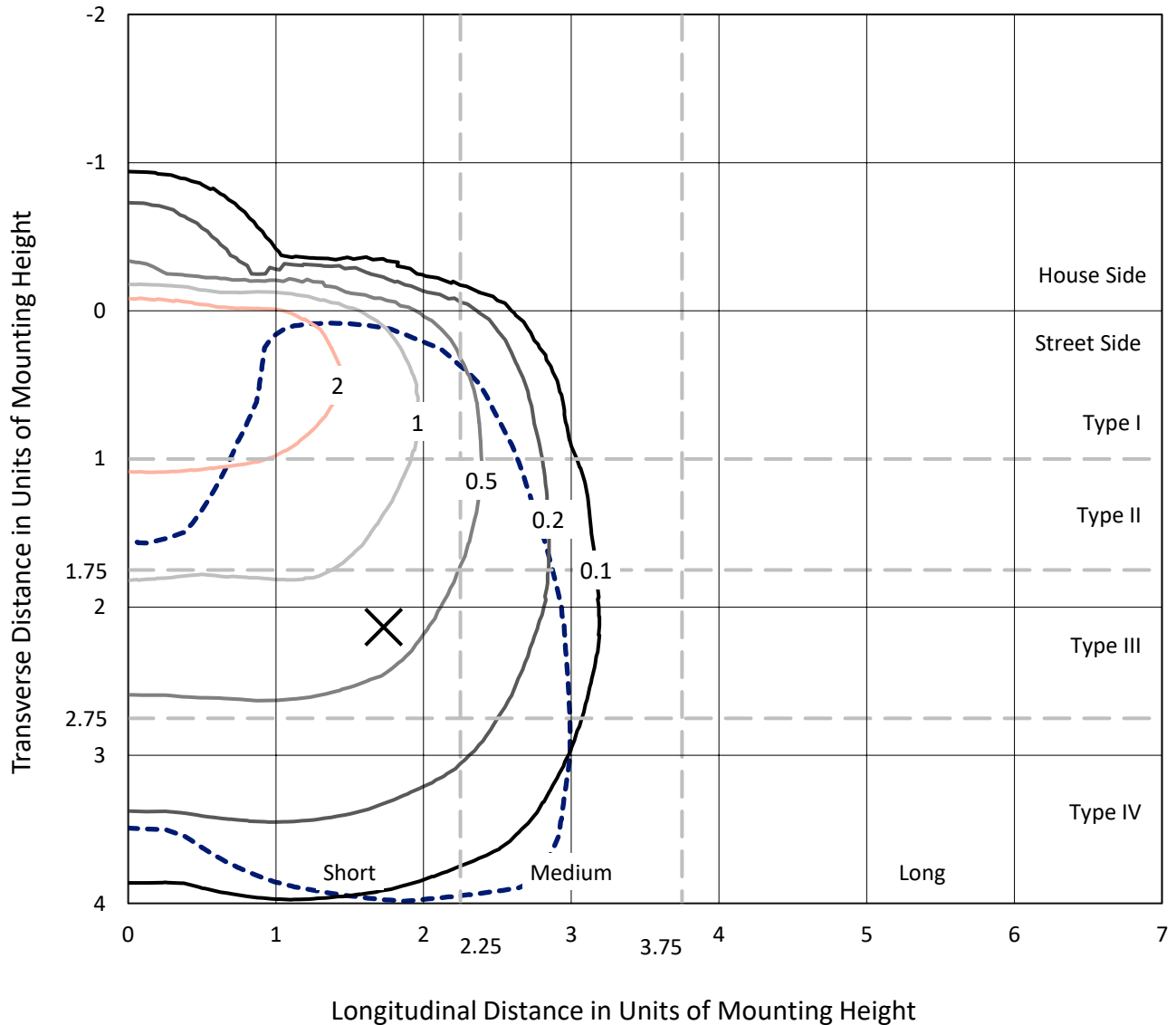
Input Watts (W): 164
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

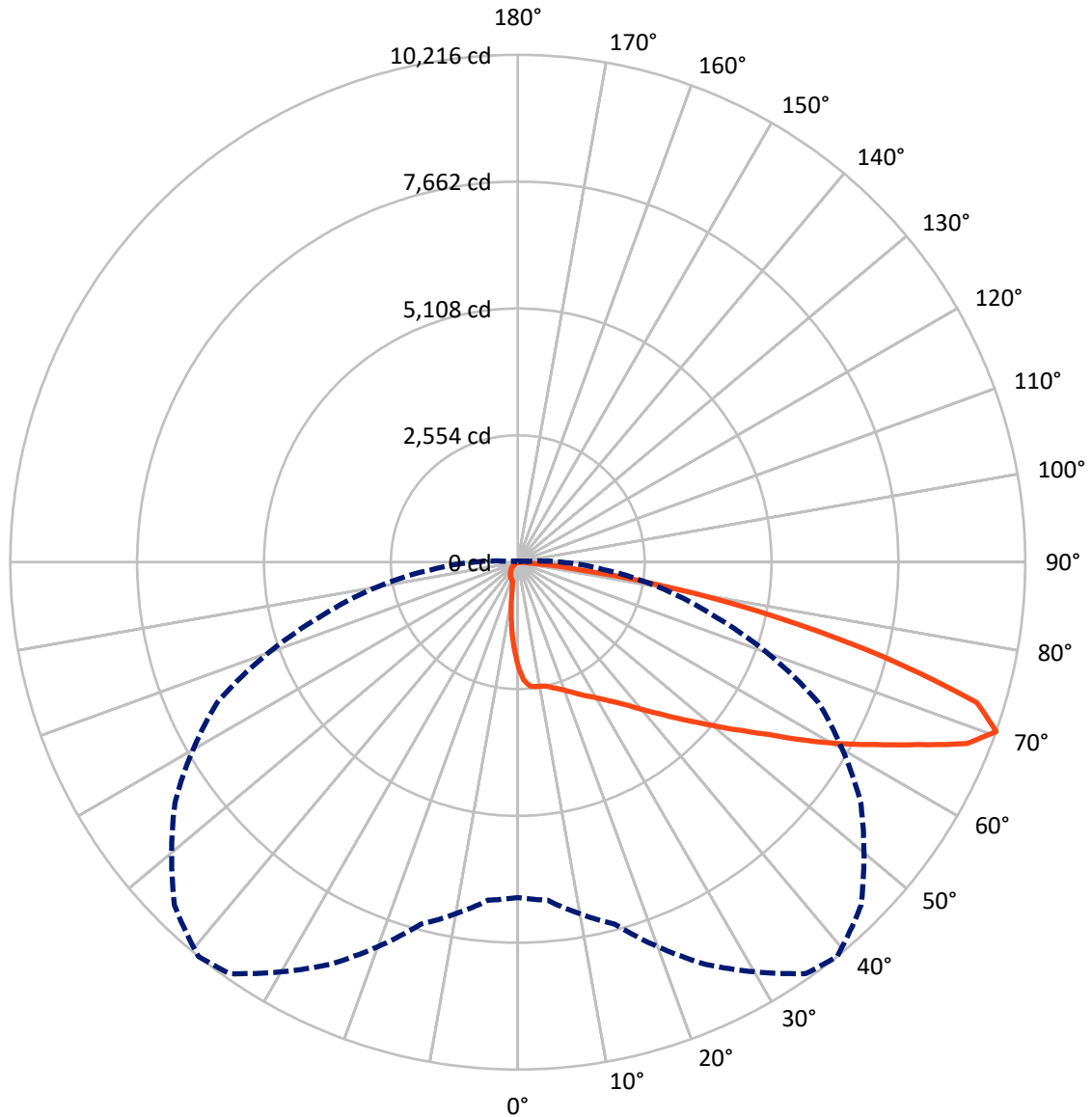
✕ Max cd
 - - - 1/2 Max cd



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	887.5	0.0	887.5
	% Fixture	6.5	0.0	6.5
Street Side	Lumens	12723.5	0.0	12723.5
	% Fixture	93.5	0.0	93.5
Total	Lumens	13611.0	0.0	13611.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	181.1	1.3
10°-20°	470.7	3.5
20°-30°	788.6	5.8
30°-40°	1223.1	9.0
40°-50°	1938.2	14.2
50°-60°	2841.1	20.9
60°-70°	3641.6	26.8
70°-80°	2288.2	16.8
80°-90°	238.4	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°	13611.0	100.0
0°-180°	13611.0	100.0

Coefficient of Utilization



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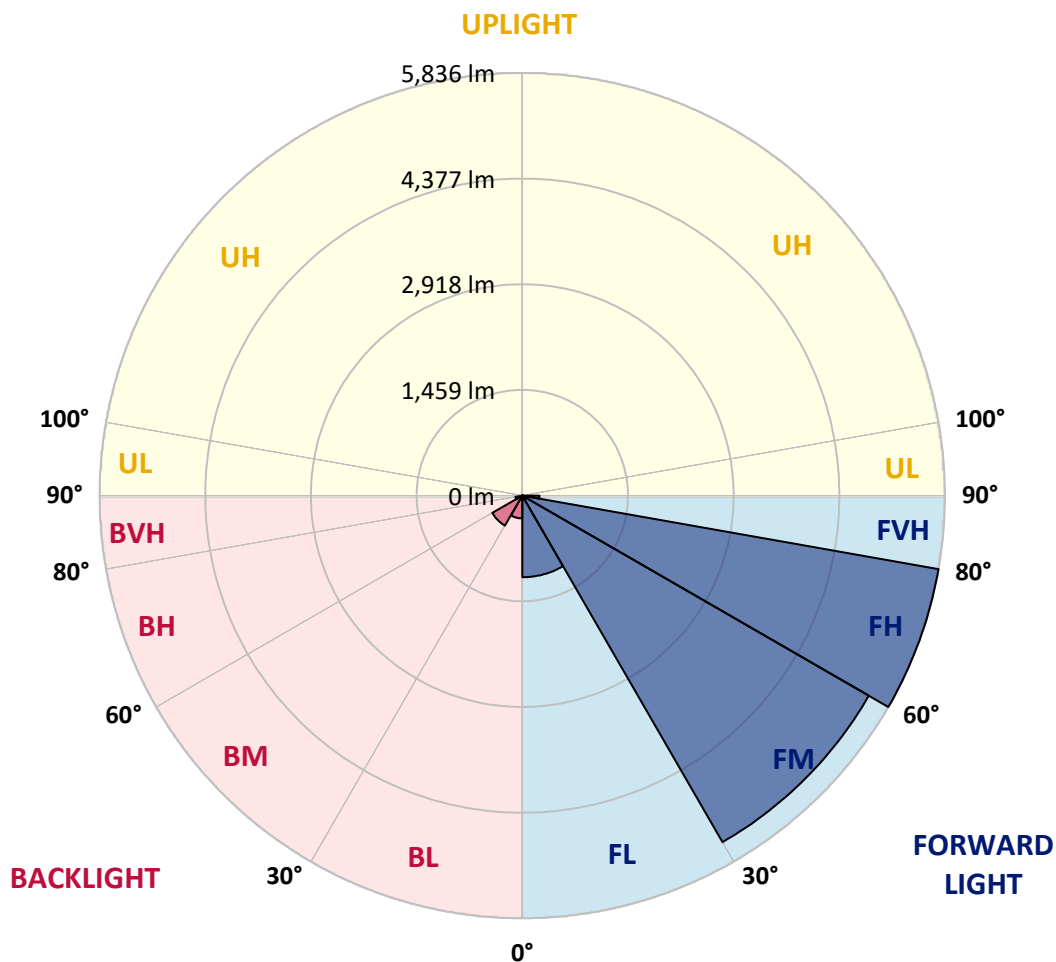
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1126.2	8.3			
FM	(30°-60°)	5524.7	40.6			
FH	(60°-80°)	5836.0	42.9			G3/7500
FVH	(80°-90°)	236.6	1.7			G3/500
BL	(0°-30°)	314.3	2.3	B1/500		
BM	(30°-60°)	477.6	3.5	B1/1000		
BH	(60°-80°)	93.9	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°	2123.8	2123.8	2123.8	2123.8	2123.8	2123.8	2123.8	2123.8	2123.8	2123.8	2123.8
2.5°	2454.0	2445.7	2434.8	2422.0	2385.4	2379.0	2357.0	2310.4	2254.6	2208.8	2145.7
5°	2570.1	2574.7	2566.5	2543.6	2517.1	2501.5	2474.1	2401.8	2329.6	2237.2	2133.8
7.5°	2596.6	2605.8	2595.7	2573.8	2548.2	2531.7	2509.8	2447.6	2363.4	2258.2	2116.5
10°	2593.9	2604.9	2598.5	2578.4	2557.3	2541.8	2518.0	2468.6	2400.9	2290.2	2122.0
12.5°	2589.3	2604.0	2603.1	2593.0	2575.6	2563.7	2549.1	2505.2	2442.1	2336.9	2152.1
15°	2576.5	2594.8	2611.3	2619.5	2620.4	2620.4	2602.1	2555.5	2495.1	2398.2	2191.5
17.5°	2582.0	2603.1	2644.2	2668.0	2684.5	2682.6	2663.4	2613.1	2546.3	2461.3	2232.6
20°	2615.9	2644.2	2701.8	2749.4	2765.9	2760.4	2734.8	2676.2	2600.3	2515.2	2272.9
22.5°	2699.1	2724.7	2797.0	2852.7	2864.6	2850.0	2813.4	2733.8	2665.2	2573.8	2321.3
25°	2823.5	2853.7	2920.4	2962.5	2962.5	2954.3	2903.1	2809.8	2738.4	2655.2	2384.5
27.5°	2974.4	3000.0	3065.9	3103.4	3081.4	3057.6	3006.4	2893.9	2825.3	2757.6	2460.4
30°	3127.1	3143.6	3213.1	3229.6	3206.7	3176.5	3121.6	3009.1	2948.8	2896.6	2570.1
32.5°	3271.7	3307.3	3364.9	3361.3	3330.2	3315.6	3265.2	3145.4	3111.6	3106.1	2723.8
35°	3416.2	3443.6	3494.8	3507.6	3480.2	3477.4	3440.9	3352.1	3353.1	3388.7	2963.4
37.5°	3540.6	3565.2	3625.6	3654.0	3659.5	3673.2	3658.5	3600.0	3683.2	3781.1	3280.8
40°	3644.8	3679.6	3756.4	3805.8	3862.5	3912.8	3915.6	3928.4	4095.7	4264.0	3695.1
42.5°	3726.2	3774.7	3886.3	3977.7	4107.6	4171.7	4222.9	4293.3	4575.0	4826.5	4183.5
45°	3832.3	3888.1	4027.1	4170.7	4373.8	4479.0	4550.3	4738.7	5138.4	5481.4	4684.8
47.5°	4007.9	4037.2	4179.0	4388.4	4655.5	4805.5	4944.5	5229.9	5743.0	6050.3	5101.8
50°	4233.8	4253.1	4360.1	4650.9	4996.7	5194.2	5447.6	5783.2	6370.4	6522.3	5337.8
52.5°	4483.5	4489.9	4570.4	4939.9	5379.0	5627.8	5911.3	6325.6	6881.7	6858.8	5494.2
55°	4773.5	4764.3	4832.9	5253.7	5831.7	6116.2	6446.3	6880.8	7325.3	7097.6	5583.8
57.5°	5105.5	5080.8	5147.6	5669.8	6411.6	6751.8	7087.5	7360.1	7669.2	7297.9	5626.8
60°	5453.1	5403.7	5483.2	6137.2	7094.8	7417.7	7696.7	7769.8	8031.4	7457.0	5552.8
62.5°	5730.2	5731.1	5879.3	6634.8	7797.3	8079.9	8228.1	8293.9	8343.3	7422.3	5163.1
65°	6162.8	6177.4	6414.3	7325.3	8610.4	8855.5	8957.0	8743.0	8357.0	6990.6	4577.7
67.5°	6609.2	6655.8	7089.3	8276.5	9549.7	9747.3	9616.5	8829.9	7983.9	6005.5	3471.0
70°	6754.6	6831.4	7545.7	8931.4	10113.1	10215.6	9772.9	8424.7	6674.1	4015.2	1747.0
72.5°	6189.3	6313.7	7283.2	8692.7	9753.7	9664.9	8743.9	7065.6	4243.0	1524.7	533.2
75°	4364.6	4419.5	6053.1	7211.0	7844.8	7593.3	6651.2	4554.9	1745.1	428.0	182.9
77.5°	2253.7	2227.1	3600.0	4784.5	5594.8	5334.2	4355.5	2357.9	661.3	178.4	113.4
80°	1165.2	1184.5	1557.6	2507.0	3415.2	3142.7	2322.3	1093.0	352.1	98.8	86.9
82.5°	653.0	612.8	895.4	1094.8	1597.0	1252.1	890.9	773.8	153.7	59.5	82.3
85°	118.9	124.4	491.2	591.8	554.3	352.1	287.2	516.8	44.8	32.9	57.6
87.5°	1.8	1.8	95.1	170.1	107.9	49.4	90.5	74.1	9.1	12.8	10.1
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°	2123.8	2123.8	2123.8	2123.8	2123.8	2123.8	2123.8	2123.8	2123.8	2123.8	2123.8
2.5°	2113.7	2079.0	2014.0	1950.0	1868.6	1801.8	1757.0	1710.4	1662.8	1666.5	1677.4
5°	2077.1	2016.8	1888.7	1753.4	1623.5	1506.4	1391.2	1287.8	1245.7	1207.3	1209.1
7.5°	2040.6	1955.5	1768.0	1555.8	1359.1	1159.8	1015.2	896.3	833.2	785.7	772.0
10°	2024.1	1911.6	1657.3	1365.6	1086.6	868.9	683.2	586.3	511.3	487.5	493.9
12.5°	2031.4	1889.6	1557.6	1193.6	861.6	605.5	475.6	426.2	409.8	407.0	405.2
15°	2045.1	1874.1	1459.8	1003.4	632.9	450.0	399.7	390.5	388.7	386.9	387.8
17.5°	2063.4	1860.4	1355.5	825.0	485.7	393.3	378.7	374.1	373.2	373.2	373.2
20°	2081.7	1844.8	1239.3	665.9	405.2	371.3	362.2	359.5	358.5	358.5	357.6
22.5°	2102.7	1831.1	1121.3	523.2	373.2	355.8	347.6	345.7	344.8	343.9	343.9
25°	2132.9	1813.7	996.0	428.0	353.0	341.2	332.9	331.1	330.2	326.5	327.4
27.5°	2173.2	1800.9	867.1	369.5	334.8	322.9	317.4	314.6	312.8	310.1	311.0
30°	2228.1	1789.9	729.9	337.5	313.7	303.7	298.2	296.3	294.5	291.8	291.8
32.5°	2323.2	1794.5	585.4	311.9	294.5	282.6	277.1	275.3	273.5	270.7	270.7
35°	2465.9	1821.0	468.3	289.9	271.6	259.8	254.3	254.3	251.5	247.9	247.0
37.5°	2699.1	1888.7	375.9	268.9	249.7	238.7	232.3	230.5	227.7	222.3	221.3
40°	2974.4	1993.9	316.5	247.9	229.6	218.6	213.1	207.6	200.3	194.8	193.9
42.5°	3320.1	2101.8	274.4	226.8	210.4	200.3	193.9	184.8	173.8	166.5	165.5
45°	3680.5	2200.6	246.0	207.6	192.1	183.8	176.5	161.9	148.2	139.0	138.1
47.5°	3949.4	2218.9	223.2	189.3	176.5	168.3	158.2	139.9	121.6	113.4	110.7
50°	4076.5	2130.2	199.4	171.0	161.0	151.8	139.0	118.0	97.9	87.8	86.0
52.5°	4121.3	1976.5	180.2	154.6	145.4	134.5	118.9	95.1	76.8	66.8	65.9
55°	4103.1	1782.6	162.8	139.0	127.1	114.3	98.8	75.9	56.7	48.5	46.6
57.5°	4007.0	1535.7	145.4	123.5	108.8	96.0	78.7	56.7	38.4	31.1	30.2
60°	3748.2	1199.1	128.0	106.1	92.4	78.7	62.2	40.2	23.8	17.4	17.4
62.5°	3311.0	889.9	111.6	88.7	77.7	63.1	43.9	25.6	12.8	9.1	8.2
65°	2766.8	656.7	93.3	75.0	64.9	49.4	31.1	15.5	6.4	2.7	1.8
67.5°	1930.8	405.2	77.7	61.3	53.0	35.7	19.2	6.4	2.7	0.0	0.0
70°	877.1	193.0	59.5	46.6	40.2	25.6	10.1	3.7	1.8	0.0	0.0
72.5°	272.6	101.5	42.1	33.8	27.4	16.5	5.5	2.7	1.8	0.0	0.0
75°	126.2	64.9	26.5	18.3	15.5	8.2	3.7	1.8	0.9	0.0	0.0
77.5°	94.2	50.3	15.5	10.1	8.2	5.5	2.7	1.8	0.9	0.0	0.0
80°	82.3	25.6	9.1	6.4	4.6	3.7	1.8	0.9	0.0	0.0	0.0
82.5°	74.1	12.8	5.5	3.7	2.7	1.8	0.9	0.9	0.0	0.0	0.0
85°	40.2	7.3	3.7	2.7	1.8	0.9	0.9	0.0	0.0	0.0	0.0
87.5°	7.3	3.7	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)