

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: P458967

Luminaire Tested: **GALN-SA4D-735-U-T2R-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P458967
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-7)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA4D-735-U-T2R-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 3500K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22824 lumens
Efficiency: N/A
Efficacy: 93.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G2

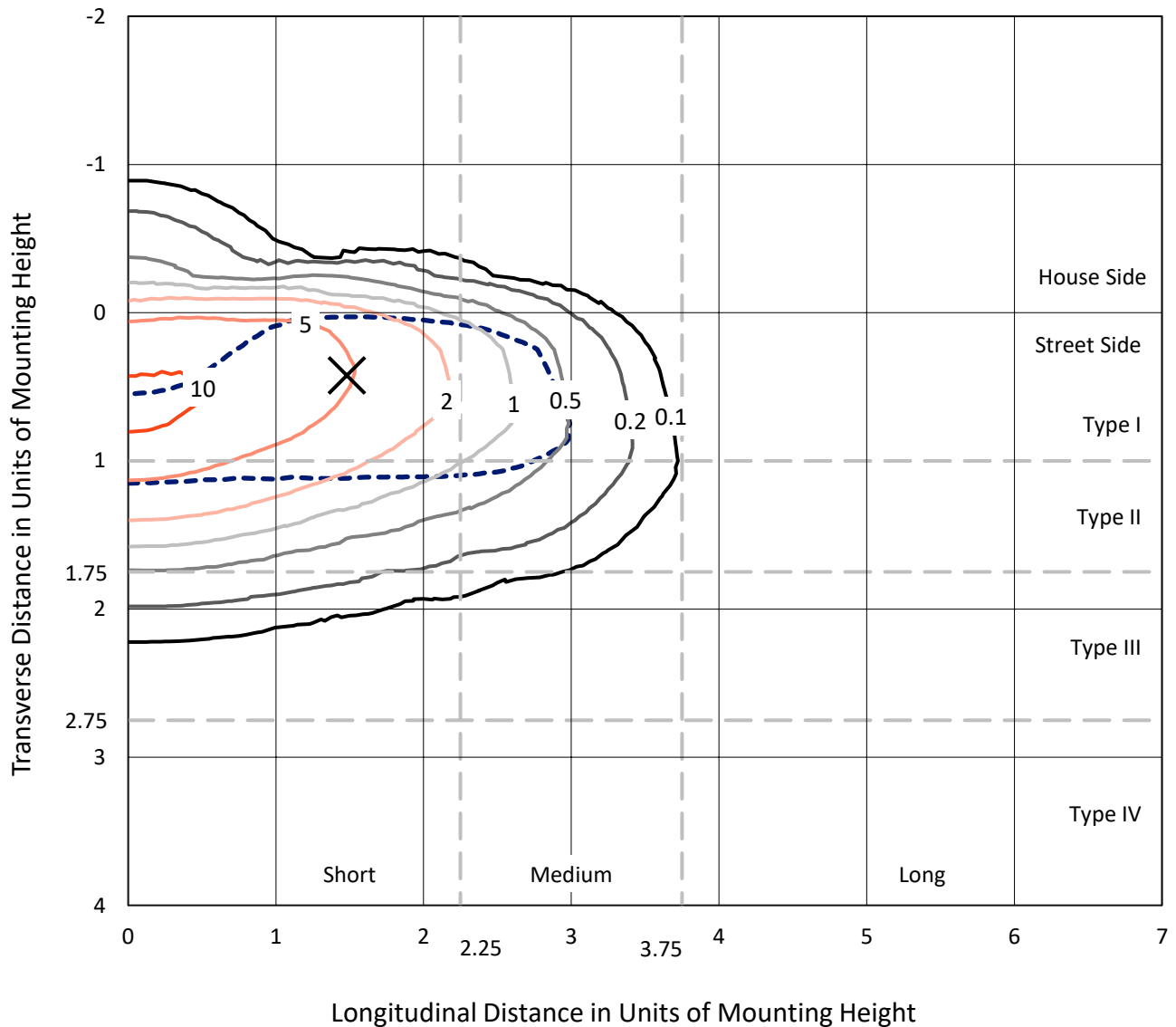
Input Watts (W): 245
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

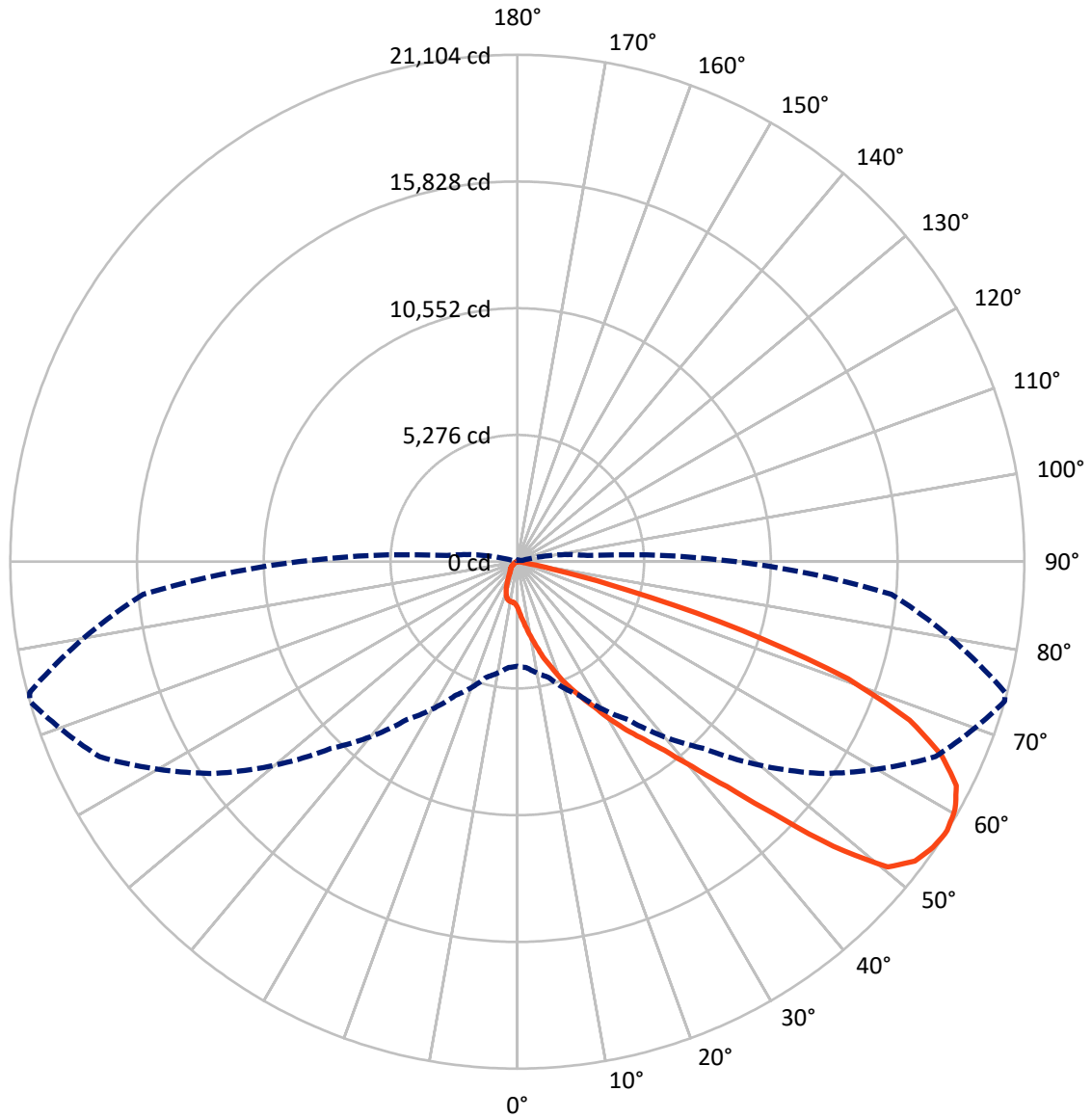
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.6 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 74-Deg Lateral - - - Horizontal Cone Through 57-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1316.4	0.0	1316.4
	% Fixture	5.8	0.0	5.8
Street Side	Lumens	21507.6	0.0	21507.6
	% Fixture	94.2	0.0	94.2
Total	Lumens	22824.0	0.0	22824.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	230.7	1.0
10°-20°	909.4	4.0
20°-30°	1945.9	8.5
30°-40°	3576.6	15.7
40°-50°	5482.9	24.0
50°-60°	5800.2	25.4
60°-70°	3787.7	16.6
70°-80°	1034.9	4.5
80°-90°	55.7	0.2
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°	22824.0	100.0
0°-180°	22824.0	100.0

Coefficient of Utilization



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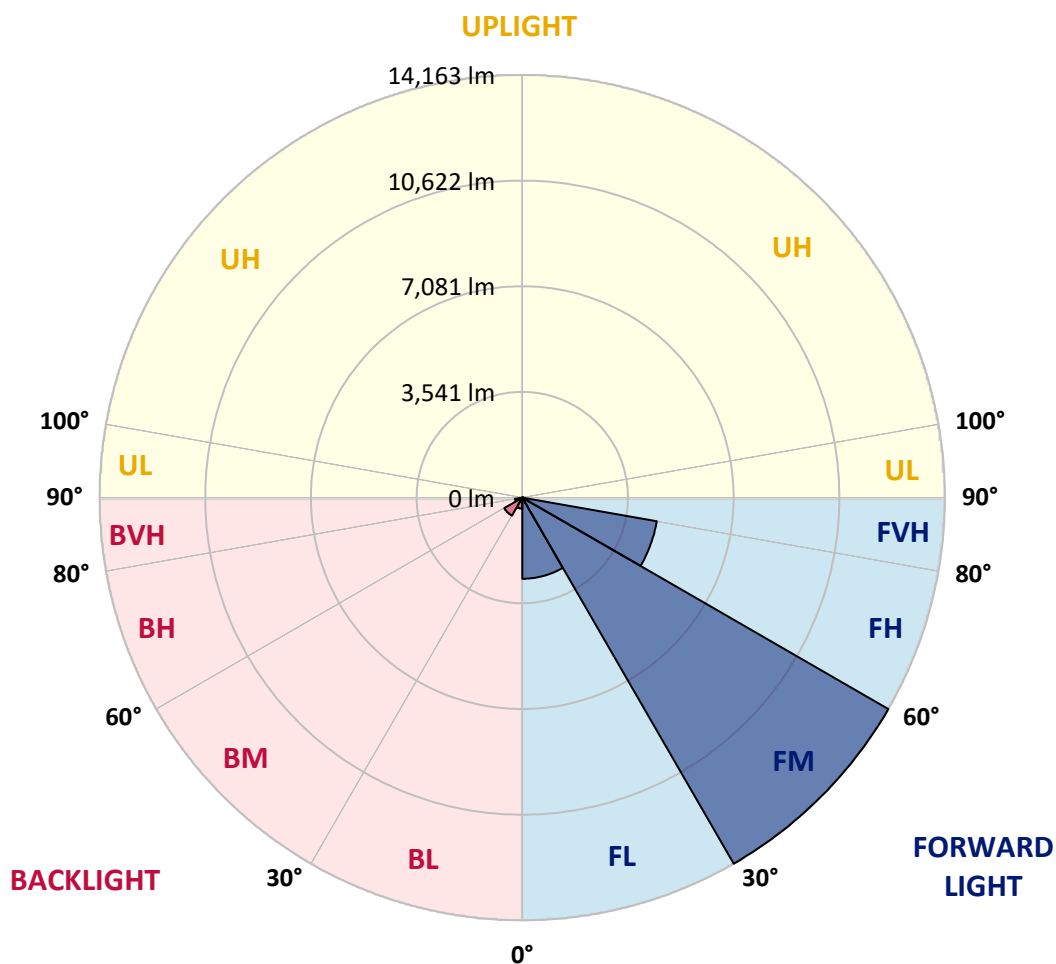
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2718.3	11.9			
FM	(30°-60°)	14162.7	62.1			
FH	(60°-80°)	4575.4	20.0			G2/5000
FVH	(80°-90°)	51.1	0.2			G1/100
BL	(0°-30°)	367.7	1.6	B1/500		
BM	(30°-60°)	696.9	3.1	B1/1000		
BH	(60°-80°)	247.2	1.1	B1/500		G1/500
BVH	(80°-90°)	4.6	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-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	1911.5	1911.5	1911.5	1911.5	1911.5	1911.5	1911.5	1911.5	1911.5	1911.5	1911.5
2.5°	2797.1	2771.9	2721.5	2704.1	2630.1	2515.0	2414.2	2278.6	2171.5	2160.5	2031.2
5°	3745.7	3689.0	3665.4	3551.9	3373.8	3206.8	2920.0	2702.5	2452.0	2433.1	2173.1
7.5°	4659.7	4580.9	4557.3	4450.1	4242.1	3979.0	3607.1	3211.5	2814.4	2778.2	2363.7
10°	5321.6	5332.6	5290.1	5219.1	5050.5	4782.6	4324.1	3783.6	3217.8	3172.1	2578.1
12.5°	5795.9	5794.3	5802.2	5800.6	5710.8	5507.5	5025.3	4402.9	3662.2	3572.4	2823.9
15°	6104.8	6109.5	6133.1	6215.1	6224.5	6098.5	5696.6	4995.4	4177.5	4065.6	3090.2
17.5°	6416.8	6449.9	6487.7	6564.9	6634.2	6583.8	6300.2	5613.1	4644.0	4560.4	3375.4
20°	6932.1	6977.8	6955.7	7003.0	7039.2	7044.0	6824.9	6183.6	5209.7	5069.4	3701.6
22.5°	7756.2	7754.7	7697.9	7612.8	7541.9	7538.8	7340.2	6769.8	5723.4	5587.9	4029.4
25°	8797.9	8802.6	8692.3	8449.6	8273.1	8057.2	7828.7	7283.5	6273.4	6106.3	4374.5
27.5°	9992.3	9962.4	9795.4	9461.3	9111.4	8742.7	8413.3	7880.7	6856.4	6717.8	4770.0
30°	11065.5	11054.4	10859.0	10450.9	9990.8	9620.4	9143.0	8629.2	7611.3	7441.1	5212.8
32.5°	12064.5	12080.3	11809.3	11386.9	10942.6	10515.5	10011.2	9344.7	8351.9	8110.8	5695.0
35°	12844.6	12860.3	12579.8	12228.4	11771.4	11416.9	10936.3	10107.4	9083.1	8879.8	6249.7
37.5°	13260.6	13281.1	13118.8	12854.0	12568.8	12390.7	11943.2	11089.1	9971.8	9848.9	6905.3
40°	13339.4	13363.0	13292.1	13221.2	13205.4	13333.1	13202.3	12245.8	11204.1	11011.9	7882.3
42.5°	13103.0	13134.5	13166.0	13323.6	13645.1	14113.1	14568.5	13815.3	12791.0	12532.6	9076.8
45°	12482.1	12479.0	12603.5	13011.6	13731.8	14730.8	15996.2	15780.3	14953.0	14645.8	10764.5
47.5°	11420.0	11404.3	11673.7	12255.2	13377.2	14844.3	17160.8	18166.2	17712.3	17428.7	12578.3
50°	9801.7	9878.9	10302.8	11114.3	12496.3	14500.8	17520.1	19731.0	19976.8	19675.8	14043.8
52.5°	7905.9	7902.8	8567.8	9669.3	11191.5	13744.4	17269.5	20014.6	20712.7	20482.6	14765.5
55°	5851.1	5892.0	6583.8	7694.8	9497.5	12364.0	16451.7	19723.1	20993.2	20830.9	15241.4
57°	4352.4	4424.9	4979.6	6155.2	8022.5	10997.7	15362.8	19201.5	21103.5	21015.3	15636.9
57.5°	4062.5	4065.6	4606.1	5674.6	7590.8	10473.0	15050.7	18984.0	21100.3	21051.5	15701.6
60°	2500.8	2579.6	2953.1	3835.6	5556.4	8173.8	12959.6	17734.4	20936.5	21007.4	15977.3
62.5°	1497.0	1530.1	1772.8	2311.7	3581.9	5966.1	10605.3	16134.9	20509.4	20725.3	15958.4
65°	962.8	970.7	1081.0	1399.3	2239.3	4032.5	8172.2	14021.7	19404.8	19801.9	15334.4
67.5°	743.8	756.4	800.5	918.7	1298.5	2511.9	5780.1	11766.7	17617.8	18129.9	13821.6
70°	660.3	666.6	682.3	720.2	858.8	1418.2	3596.0	9191.8	14609.5	14754.5	10816.5
72.5°	538.9	556.3	605.1	617.7	680.8	885.6	2001.3	6169.4	9815.8	9852.1	6051.2
75°	417.6	420.7	493.2	529.5	573.6	609.8	893.5	3110.7	4714.9	4462.7	2332.2
77.5°	312.0	326.2	359.3	405.0	468.0	436.5	400.3	1172.4	1463.9	1437.2	677.6
80°	200.1	208.0	250.6	304.1	364.0	285.2	225.3	343.5	321.5	330.9	162.3
82.5°	100.9	102.4	160.7	247.4	231.6	143.4	141.8	140.2	119.8	118.2	75.6
85°	11.0	23.6	104.0	141.8	104.0	47.3	66.2	64.6	63.0	64.6	44.1
87.5°	1.6	1.6	17.3	20.5	14.2	15.8	18.9	20.5	25.2	23.6	18.9
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°	1911.5	1911.5	1911.5	1911.5	1911.5	1911.5	1911.5	1911.5	1911.5	1911.5	1911.5
2.5°	1968.2	1905.2	1788.6	1676.7	1593.2	1539.6	1470.2	1445.0	1408.8	1404.1	1386.7
5°	2053.3	1933.5	1730.3	1569.5	1440.3	1342.6	1257.5	1186.6	1129.9	1117.3	1123.6
7.5°	2174.6	1996.6	1712.9	1493.9	1314.2	1147.2	1011.7	928.2	868.3	846.2	849.4
10°	2311.7	2080.1	1709.8	1413.5	1139.3	934.5	786.3	712.3	677.6	665.0	650.8
12.5°	2474.1	2176.2	1701.9	1289.0	947.1	745.4	639.8	595.7	562.6	553.1	553.1
15°	2656.8	2278.6	1664.1	1134.6	769.0	616.1	545.2	510.6	499.5	490.1	490.1
17.5°	2847.5	2379.5	1585.3	943.9	638.2	527.9	483.8	463.3	447.5	436.5	436.5
20°	3065.0	2478.8	1459.2	775.3	538.9	471.2	436.5	412.9	400.3	390.8	387.7
22.5°	3271.4	2559.1	1298.5	636.6	469.6	423.9	392.4	367.2	354.6	349.8	349.8
25°	3485.7	2608.0	1104.7	526.3	428.6	384.5	349.8	329.3	318.3	315.2	313.6
27.5°	3693.7	2636.4	934.5	460.1	390.8	348.3	315.2	299.4	288.4	285.2	286.8
30°	3945.9	2641.1	769.0	412.9	357.7	313.6	283.6	269.5	263.2	260.0	258.4
32.5°	4201.2	2634.8	646.1	384.5	326.2	283.6	258.4	247.4	242.7	238.0	238.0
35°	4488.0	2601.7	550.0	356.1	296.3	258.4	236.4	226.9	220.6	215.9	214.3
37.5°	4844.1	2584.4	494.8	324.6	269.5	234.8	214.3	204.9	200.1	193.8	192.3
40°	5405.1	2661.6	477.5	296.3	242.7	212.7	193.8	182.8	176.5	170.2	168.6
42.5°	6104.8	2797.1	449.1	267.9	219.0	192.3	173.3	160.7	149.7	141.8	138.7
45°	7010.9	2975.2	405.0	238.0	198.6	170.2	152.9	137.1	122.9	116.6	115.0
47.5°	7961.1	3146.9	365.6	214.3	176.5	151.3	132.4	115.0	102.4	97.7	96.1
50°	8544.1	3181.6	340.4	187.5	154.4	130.8	111.9	96.1	88.2	83.5	83.5
52.5°	8810.5	3126.4	305.7	163.9	133.9	115.0	96.1	83.5	78.8	75.6	74.1
55°	8996.4	3041.3	260.0	141.8	115.0	97.7	85.1	75.6	69.3	66.2	64.6
57°	9105.1	2926.3	225.3	124.5	99.3	85.1	75.6	67.8	61.5	55.2	55.2
57.5°	9109.9	2882.2	215.9	122.9	94.5	81.9	74.1	66.2	58.3	52.0	50.4
60°	8969.6	2579.6	173.3	104.0	75.6	69.3	61.5	52.0	41.0	34.7	33.1
62.5°	8518.9	2195.1	143.4	88.2	61.5	53.6	44.1	39.4	28.4	20.5	20.5
65°	7836.6	1780.7	122.9	70.9	50.4	39.4	29.9	28.4	17.3	9.5	7.9
67.5°	6850.1	1386.7	104.0	58.3	42.5	28.4	20.5	18.9	9.5	3.2	0.0
70°	5219.1	945.5	86.7	47.3	31.5	20.5	14.2	11.0	6.3	1.6	0.0
72.5°	3008.3	520.0	72.5	36.2	23.6	15.8	11.0	6.3	6.3	0.0	0.0
75°	1074.7	223.8	55.2	26.8	18.9	12.6	7.9	3.2	4.7	1.6	0.0
77.5°	342.0	119.8	36.2	20.5	15.8	9.5	6.3	3.2	3.2	1.6	0.0
80°	100.9	63.0	22.1	17.3	11.0	7.9	4.7	1.6	3.2	1.6	0.0
82.5°	55.2	31.5	17.3	12.6	11.0	6.3	4.7	1.6	1.6	1.6	0.0
85°	28.4	18.9	14.2	12.6	11.0	6.3	4.7	1.6	0.0	1.6	1.6
87.5°	15.8	14.2	14.2	12.6	11.0	7.9	4.7	1.6	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)