

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: P299596

Luminaire Tested: **GLNA-AF-04-LED-E1-SL2-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299596
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24287)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-04-LED-E1-SL2-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
w/Spill Control WITH HOUSESIDE SHEILD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18065.7 lumens
Efficiency: N/A
Efficacy: 80.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G3

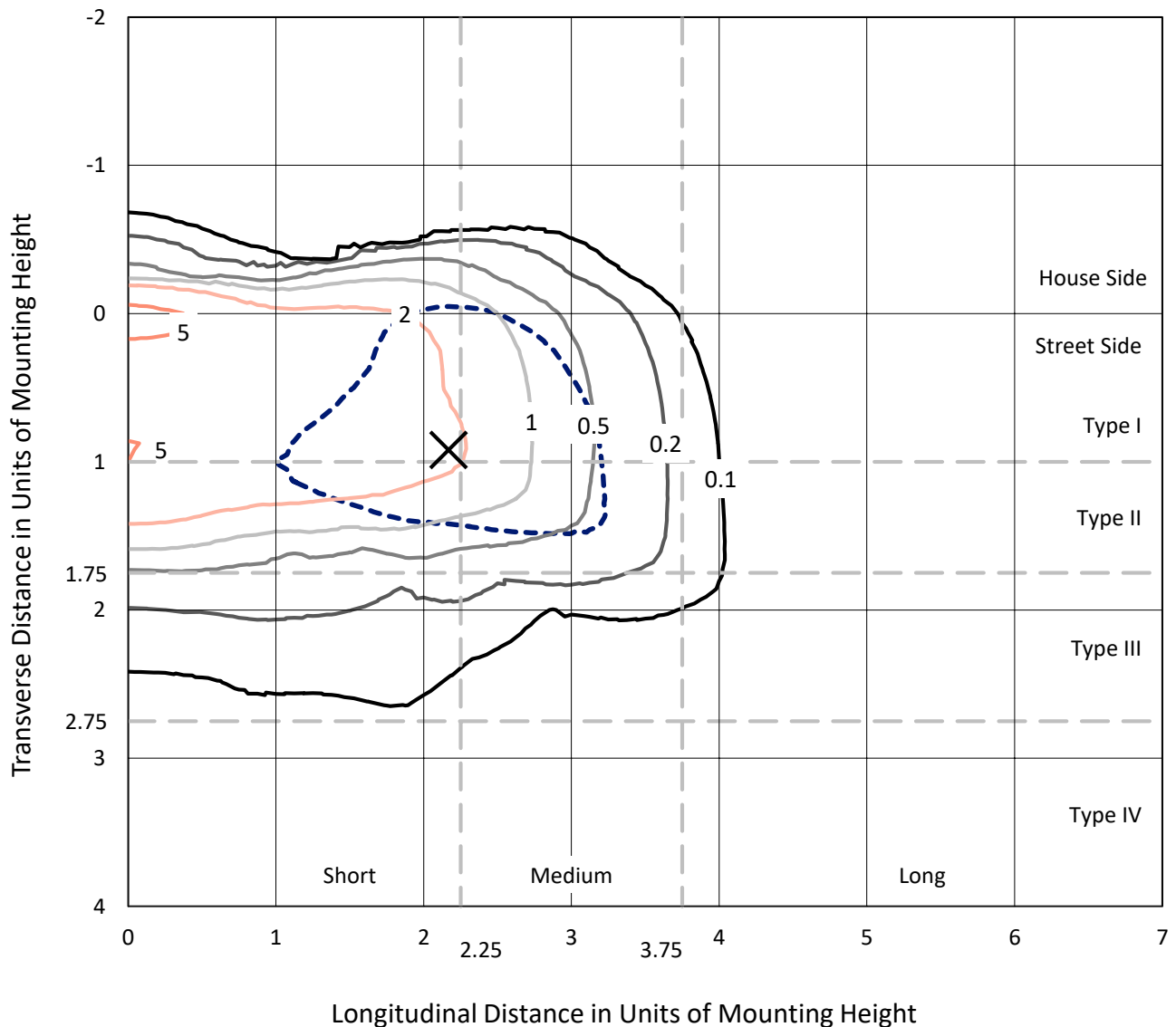
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

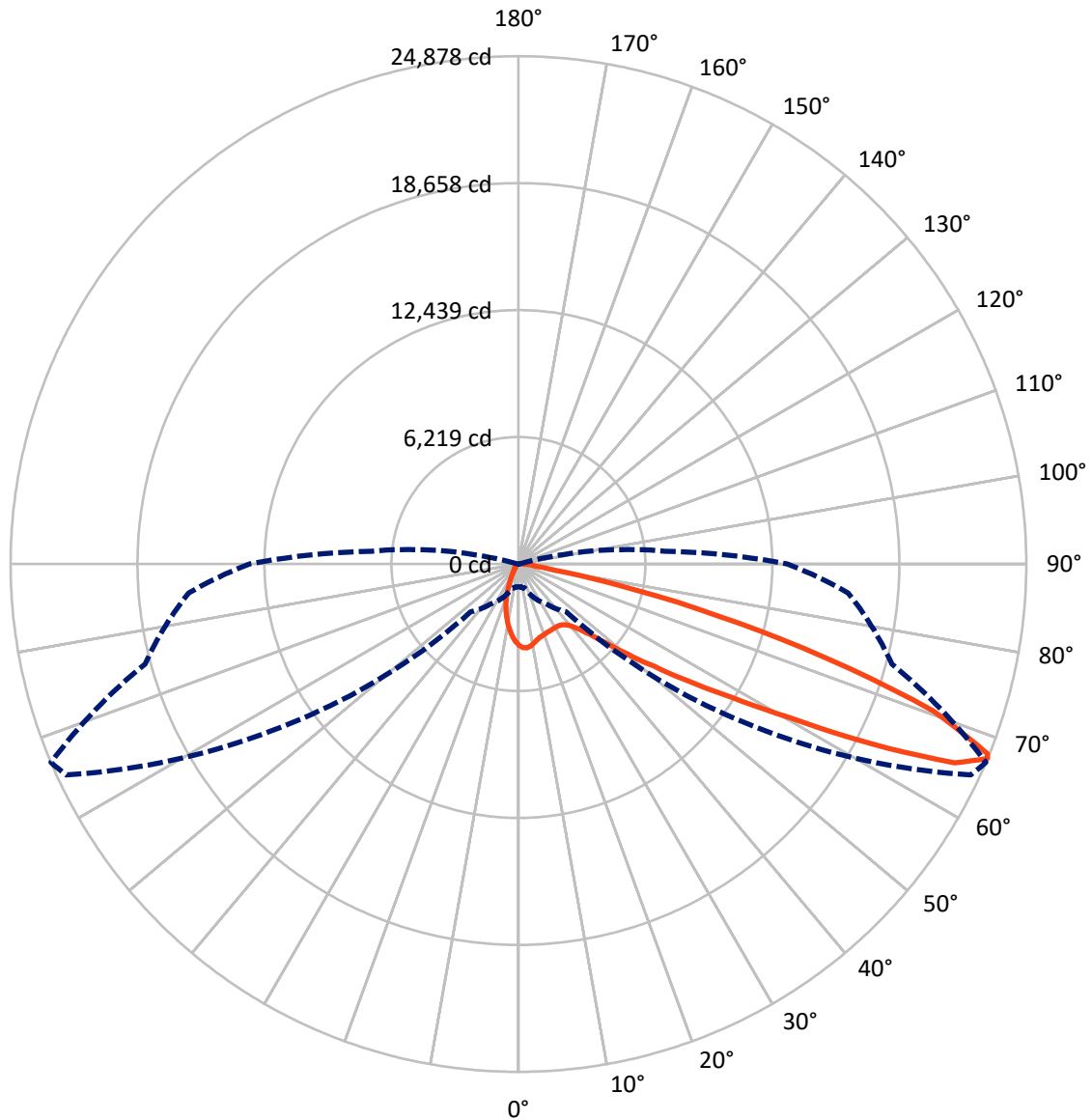
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.4 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1875.8	0.0	1875.8
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	16189.9	0.0	16189.9
	% Fixture	89.6	0.0	89.6
Total	Lumens	18065.7	0.0	18065.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	324.2	1.8
10°-20°	690.0	3.8
20°-30°	1003.2	5.6
30°-40°	1565.0	8.7
40°-50°	2772.3	15.3
50°-60°	4386.9	24.3
60°-70°	5024.6	27.8
70°-80°	2084.2	11.5
80°-90°	215.3	1.2
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°	18065.7	100.0
0°-180°	18065.7	100.0



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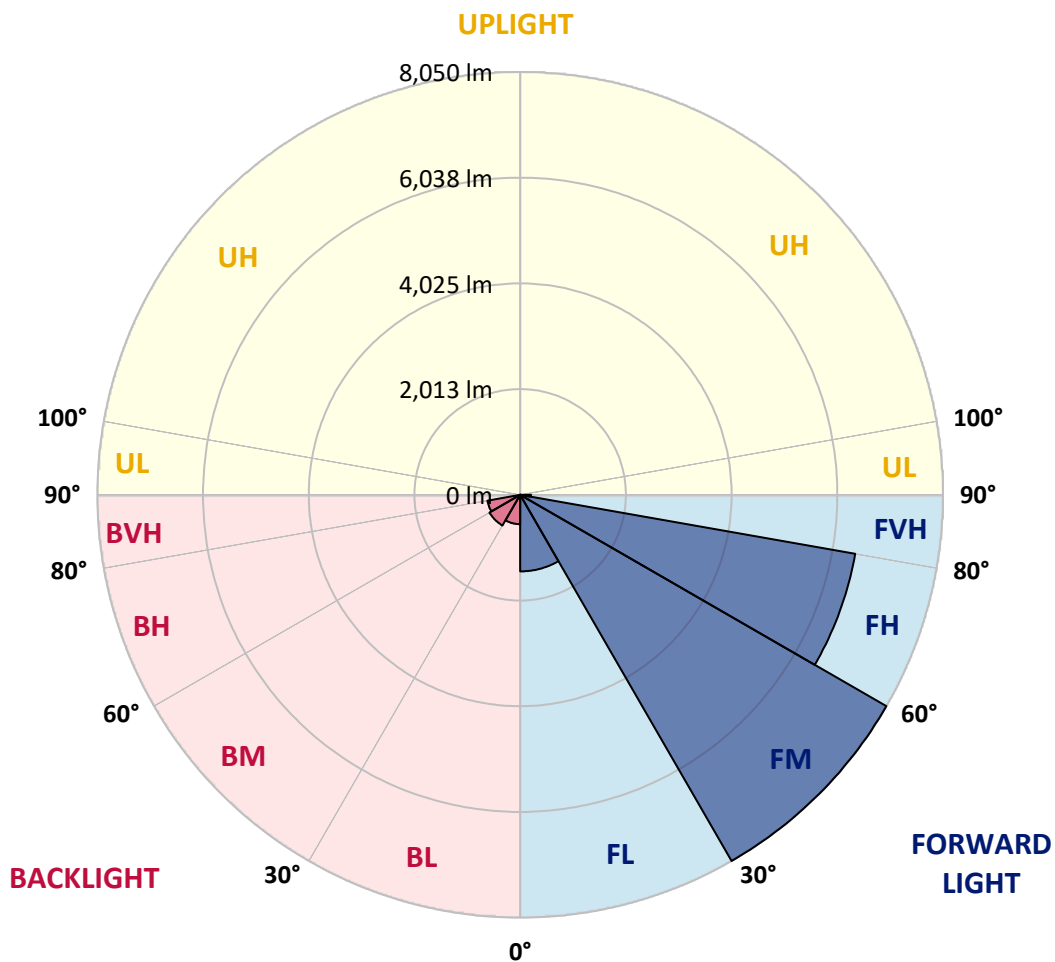
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1457.6	8.1			
FM (30°-60°)	8050.1	44.6			
FH (60°-80°)	6476.6	35.9			G3/7500
FVH (80°-90°)	205.6	1.1			G2/225
BL (0°-30°)	559.7	3.1	B2/1000		
BM (30°-60°)	674.1	3.7	B1/1000		
BH (60°-80°)	632.2	3.5	B2/1000		G2/1000
BVH (80°-90°)	9.7	0.1			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	3984.2	3984.2	3984.2	3984.2	3984.2	3984.2	3984.2	3984.2	3984.2	3984.2	3984.2
2.5°	4119.0	4127.5	4126.4	4132.7	4147.5	4148.5	4133.8	4105.3	4099.0	4062.1	3997.9
5°	3798.7	3822.9	3837.7	3897.7	3965.2	4046.3	4107.4	4129.6	4126.4	4100.1	4003.1
7.5°	3433.1	3457.3	3474.1	3544.7	3634.3	3773.4	3932.5	4063.2	4074.8	4103.2	3998.9
10°	3189.6	3193.9	3217.0	3284.5	3378.3	3520.5	3710.2	3938.8	3973.6	4077.9	3988.4
12.5°	2989.4	2992.6	3023.2	3095.9	3196.0	3339.3	3538.4	3802.9	3856.7	4046.3	3986.3
15°	2847.2	2858.8	2886.2	2962.0	3068.5	3210.7	3415.1	3702.8	3767.1	4034.7	4005.2
17.5°	2799.8	2812.4	2820.8	2875.6	2972.6	3111.7	3321.4	3637.5	3710.2	4041.1	4042.1
20°	2849.3	2858.8	2839.8	2853.5	2913.6	3037.9	3242.3	3581.6	3668.0	4048.4	4089.5
22.5°	3033.7	3037.9	2986.3	2926.2	2915.7	2984.2	3180.2	3537.4	3630.1	4068.5	4145.4
25°	3349.8	3342.4	3258.1	3128.5	3006.3	2974.7	3143.3	3510.0	3611.1	4089.5	4203.3
27.5°	3731.3	3741.8	3625.9	3437.3	3204.4	3037.9	3138.0	3498.4	3602.7	4104.3	4253.9
30°	4194.9	4209.7	4076.9	3839.8	3505.8	3193.9	3186.5	3496.3	3597.4	4094.8	4258.1
32.5°	4668.0	4685.9	4581.6	4337.2	3908.3	3455.2	3296.1	3519.5	3608.0	4062.1	4233.9
35°	5163.3	5188.6	5119.0	4909.3	4454.1	3832.4	3488.9	3590.1	3657.5	4059.0	4209.7
37.5°	5847.1	5870.3	5739.7	5517.3	5114.8	4338.2	3798.7	3722.8	3774.5	4109.5	4216.0
40°	6868.2	6865.1	6527.9	6187.5	5840.8	4981.0	4233.9	3963.1	3989.4	4262.3	4294.0
42.5°	7981.0	7975.7	7477.3	6959.9	6646.9	5772.3	4806.1	4378.2	4360.3	4543.7	4496.3
45°	8838.7	8837.6	8430.9	7848.2	7617.4	6680.7	5545.8	4955.7	4928.3	5001.0	4869.3
47.5°	9204.3	9210.7	9006.2	8596.3	8693.3	7909.3	6478.3	5792.4	5751.3	5721.8	5521.5
50°	8919.8	8932.5	8949.3	8869.2	9482.5	9560.5	7729.1	6971.5	6951.5	6819.7	6506.8
52.5°	7990.4	8054.7	8252.8	8506.8	9756.5	11145.3	9690.1	8436.2	8328.7	8188.5	7844.0
55°	6424.6	6495.2	6871.4	7487.8	9348.7	12186.4	12438.2	10324.4	10145.3	9727.0	9229.6
57.5°	4251.8	4361.4	4907.2	5691.2	8164.3	12353.9	15180.0	12945.1	12321.3	11175.9	10615.3
60°	2342.4	2447.8	3040.0	3750.2	5896.7	11525.7	17024.1	16357.1	15254.9	12795.4	12298.1
62.5°	1442.6	1499.5	1936.8	2597.4	3536.3	9096.9	17405.5	20644.7	19368.6	14880.8	14330.7
65°	1148.6	1172.8	1386.7	2123.3	2535.3	5410.9	16173.7	23913.4	23487.6	17405.5	16150.5
67°	1114.8	1124.3	1225.5	1823.0	2389.9	3317.1	13549.9	24445.5	24877.5	18933.4	16207.4
67.5°	1122.2	1132.8	1228.6	1739.7	2385.6	3048.4	12645.8	24235.8	24781.6	19054.6	15955.6
70°	1082.2	1114.8	1406.7	1738.7	2268.7	2533.2	7573.2	20998.7	21566.7	17704.8	13538.3
72.5°	383.6	385.7	608.0	1406.7	2466.8	2560.6	3802.9	15393.9	15814.4	13543.6	9760.7
75°	227.6	193.9	202.3	400.4	2357.2	2486.8	2193.9	9836.6	9993.6	7760.7	4943.0
77.5°	157.0	137.0	141.2	177.0	897.8	2452.0	1742.9	5129.6	4962.0	2721.8	1052.7
80°	89.6	79.0	84.3	154.9	326.7	2287.6	1643.8	2080.1	1773.4	461.5	290.8
82.5°	47.4	40.0	48.5	127.5	227.6	1425.7	1647.0	1005.3	796.6	156.0	198.1
85°	16.9	13.7	23.2	87.5	151.7	437.3	1526.9	845.1	663.9	75.9	150.7
87.5°	3.2	3.2	9.5	35.8	61.1	133.8	903.0	501.6	336.1	45.3	103.3
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°	3984.2	3984.2	3984.2	3984.2	3984.2	3984.2	3984.2	3984.2	3984.2	3984.2	3984.2
2.5°	3971.5	3926.2	3865.1	3790.3	3701.8	3623.8	3565.8	3505.8	3493.1	3472.0	3468.9
5°	3945.2	3867.2	3715.5	3541.6	3356.1	3188.6	3052.7	2931.5	2877.7	2831.4	2826.1
7.5°	3906.2	3789.2	3531.1	3250.8	2961.0	2697.5	2474.2	2316.1	2170.7	2101.1	2090.6
10°	3860.9	3693.3	3323.5	2934.6	2534.2	2162.3	1830.3	1552.1	1383.5	1283.4	1270.8
12.5°	3818.7	3599.5	3111.7	2606.9	2074.8	1577.4	1150.7	885.1	708.1	636.5	628.0
15°	3798.7	3523.7	2913.6	2271.8	1594.3	1004.2	629.1	486.8	428.9	412.0	411.0
17.5°	3796.6	3459.4	2719.7	1925.2	1117.0	583.8	409.9	374.1	362.5	358.3	358.3
20°	3795.5	3398.3	2525.8	1565.8	709.2	388.8	341.4	333.0	324.5	319.3	319.3
22.5°	3807.1	3343.5	2323.5	1199.1	446.8	315.1	300.3	291.9	281.3	274.0	272.9
25°	3818.7	3301.3	2116.9	853.5	323.5	274.0	259.2	247.6	232.9	223.4	222.3
27.5°	3820.8	3248.7	1895.7	571.1	270.8	239.2	220.2	202.3	185.5	176.0	174.9
30°	3789.2	3160.1	1650.1	385.7	239.2	207.6	182.3	163.3	147.5	140.1	140.1
32.5°	3727.0	3050.5	1380.4	290.8	212.9	178.1	150.7	132.8	122.2	119.1	118.0
35°	3671.2	2932.5	1103.3	246.6	190.7	150.7	123.3	111.7	105.4	104.3	103.3
37.5°	3638.5	2837.7	843.0	223.4	169.7	126.4	104.3	95.9	92.7	90.6	91.7
40°	3663.8	2758.7	622.8	204.4	148.6	105.4	88.5	84.3	81.1	80.1	80.1
42.5°	3774.5	2745.0	462.6	187.6	128.6	87.5	76.9	73.8	71.7	70.6	71.7
45°	4065.3	2829.3	359.3	171.8	108.5	73.8	65.3	64.3	63.2	63.2	63.2
47.5°	4502.6	3003.1	299.3	153.8	90.6	63.2	56.9	55.8	54.8	55.8	55.8
50°	5243.4	3321.4	267.6	135.9	74.8	53.7	48.5	48.5	48.5	48.5	49.5
52.5°	6369.8	3947.3	246.6	118.0	61.1	45.3	41.1	41.1	42.1	42.1	43.2
55°	7624.8	4777.6	227.6	100.1	51.6	37.9	33.7	34.8	35.8	36.9	36.9
57.5°	8986.2	5697.5	211.8	82.2	44.3	30.6	28.5	29.5	30.6	32.7	32.7
60°	10629.0	6693.3	188.6	64.3	36.9	24.2	22.1	24.2	27.4	29.5	30.6
62.5°	12433.0	7656.4	159.1	50.6	30.6	19.0	17.9	22.1	26.3	28.5	29.5
65°	13665.8	7958.8	122.2	41.1	23.2	13.7	14.8	20.0	25.3	28.5	28.5
67°	13166.4	7215.9	100.1	34.8	19.0	10.5	13.7	20.0	25.3	27.4	28.5
67.5°	12819.7	6925.1	95.9	33.7	17.9	10.5	13.7	20.0	25.3	28.5	28.5
70°	10430.9	5202.3	80.1	25.3	14.8	9.5	11.6	19.0	24.2	27.4	27.4
72.5°	7247.6	3207.6	71.7	17.9	12.6	8.4	10.5	17.9	23.2	26.3	27.4
75°	3445.7	1161.2	61.1	13.7	11.6	7.4	9.5	17.9	23.2	26.3	26.3
77.5°	702.8	269.8	49.5	11.6	9.5	7.4	8.4	16.9	22.1	25.3	25.3
80°	230.8	104.3	36.9	10.5	9.5	7.4	8.4	15.8	22.1	24.2	25.3
82.5°	166.5	52.7	24.2	10.5	9.5	7.4	7.4	15.8	21.1	24.2	24.2
85°	127.5	36.9	15.8	10.5	9.5	7.4	7.4	14.8	20.0	23.2	23.2
87.5°	84.3	14.8	12.6	10.5	9.5	7.4	7.4	14.8	19.0	22.1	23.2
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)