

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: P299662

Luminaire Tested: **GLNA-AF-05-LED-E1-SL2-800-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299662
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-05-LED-E1-SL2-800-HSS
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 4000K CCT 800mA 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: 18083.4 lumens
Efficiency: N/A
Efficacy: 86.1 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G3

Input Watts (W): 210
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

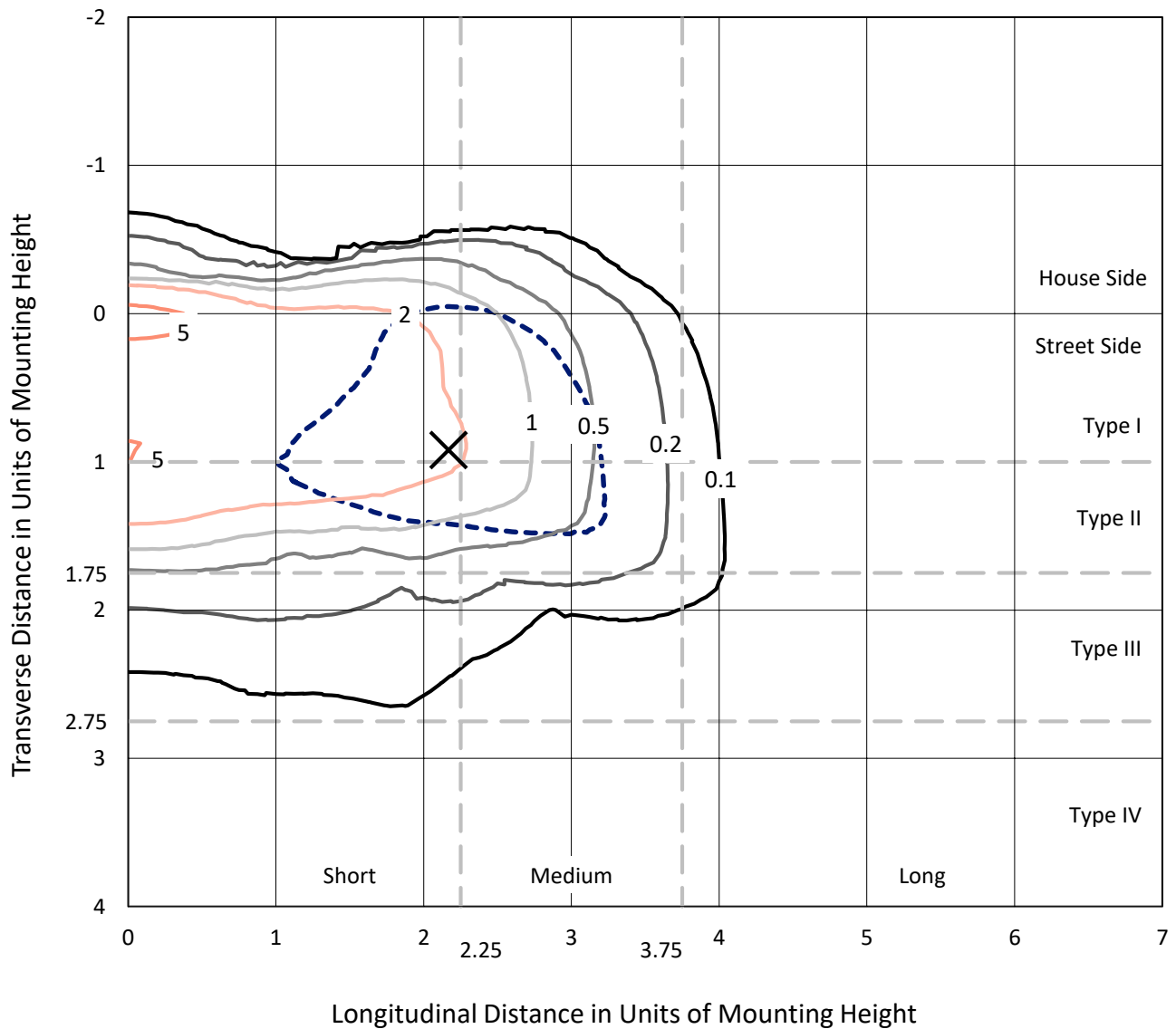


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

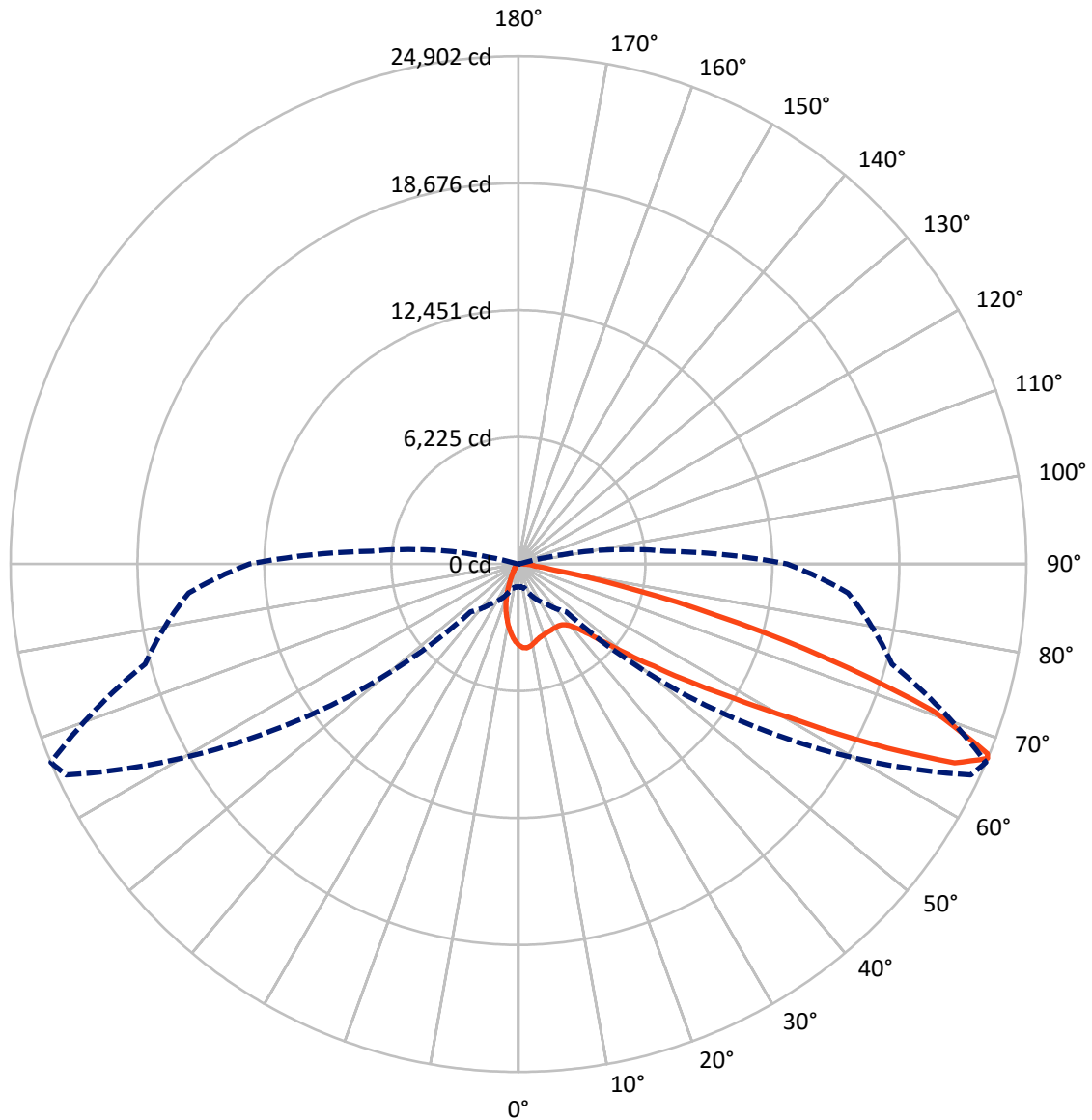


Based on 25 foot mounting height. Maximum calculated value = 6.4 fc
 Type II - Short - Semi-Cutoff

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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	1877.6	0.0	1877.6
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	16205.8	0.0	16205.8
	% Fixture	89.6	0.0	89.6
Total	Lumens	18083.4	0.0	18083.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	324.5	1.8
10°-20°	690.7	3.8
20°-30°	1004.2	5.6
30°-40°	1566.5	8.7
40°-50°	2775.0	15.3
50°-60°	4391.2	24.3
60°-70°	5029.5	27.8
70°-80°	2086.2	11.5
80°-90°	215.5	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°	18083.4	100.0
0°-180°	18083.4	100.0



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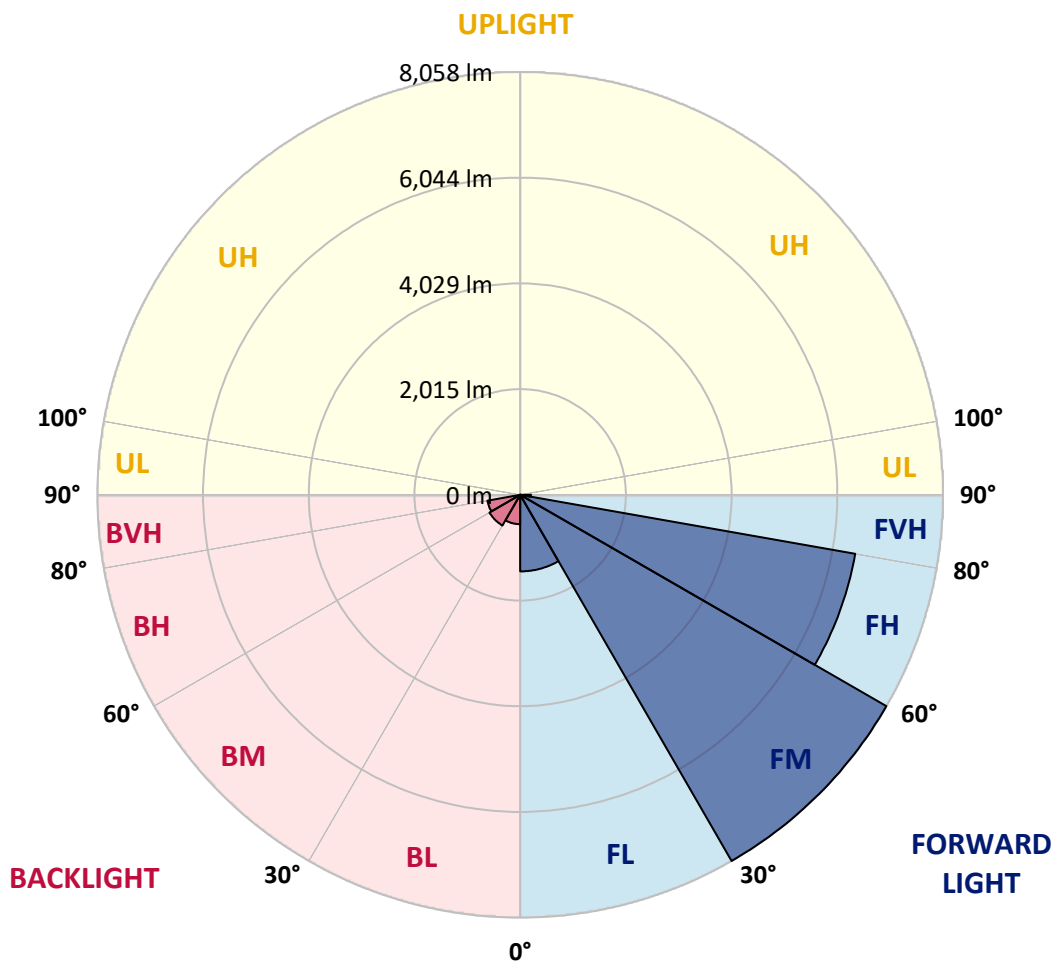
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1459.1	8.1			
FM	(30°-60°)	8058.0	44.6			
FH	(60°-80°)	6482.9	35.9			G3/7500
FVH	(80°-90°)	205.8	1.1			G2/225
BL	(0°-30°)	560.3	3.1	B2/1000		
BM	(30°-60°)	674.8	3.7	B1/1000		
BH	(60°-80°)	632.8	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°	3988.1	3988.1	3988.1	3988.1	3988.1	3988.1	3988.1	3988.1	3988.1	3988.1	3988.1
2.5°	4123.1	4131.5	4130.5	4136.8	4151.5	4152.6	4137.8	4109.4	4103.0	4066.1	4001.8
5°	3802.4	3826.7	3841.4	3901.6	3969.1	4050.3	4111.5	4133.6	4130.5	4104.1	4007.0
7.5°	3436.4	3460.7	3477.6	3548.2	3637.9	3777.1	3936.4	4067.2	4078.8	4107.2	4002.8
10°	3192.8	3197.0	3220.2	3287.7	3381.6	3524.0	3713.8	3942.7	3977.5	4081.9	3992.3
12.5°	2992.4	2995.5	3026.1	3098.9	3199.1	3342.5	3541.9	3806.6	3860.4	4050.3	3990.2
15°	2850.0	2861.6	2889.0	2964.9	3071.5	3213.9	3418.5	3706.4	3770.8	4038.7	4009.2
17.5°	2802.5	2815.2	2823.6	2878.4	2975.5	3114.7	3324.6	3641.0	3713.8	4045.0	4046.1
20°	2852.1	2861.6	2842.6	2856.3	2916.4	3040.9	3245.5	3585.1	3671.6	4052.4	4093.5
22.5°	3036.7	3040.9	2989.2	2929.1	2918.5	2987.1	3183.3	3540.8	3633.7	4072.4	4149.4
25°	3353.1	3345.7	3261.3	3131.6	3009.2	2977.6	3146.4	3513.4	3614.7	4093.5	4207.4
27.5°	3734.9	3745.5	3629.4	3440.6	3207.5	3040.9	3141.1	3501.8	3606.2	4108.3	4258.1
30°	4199.0	4213.8	4080.9	3843.6	3509.2	3197.0	3189.6	3499.7	3601.0	4098.8	4262.3
32.5°	4672.6	4690.5	4586.1	4341.4	3912.1	3458.6	3299.3	3522.9	3611.5	4066.1	4238.0
35°	5168.3	5193.7	5124.0	4914.1	4458.5	3836.2	3492.3	3593.6	3661.1	4062.9	4213.8
37.5°	5852.9	5876.1	5745.3	5522.7	5119.8	4342.5	3802.4	3726.5	3778.2	4113.6	4220.1
40°	6874.9	6871.8	6534.3	6193.6	5846.5	4985.9	4238.0	3967.0	3993.3	4266.5	4298.2
42.5°	7988.8	7983.5	7484.6	6966.7	6653.4	5778.0	4810.8	4382.5	4364.6	4548.1	4500.7
45°	8847.3	8846.3	8439.2	7855.9	7624.9	6687.2	5551.2	4960.5	4933.1	5005.9	4874.1
47.5°	9213.4	9219.7	9015.1	8604.8	8701.8	7917.0	6484.7	5798.0	5756.9	5727.4	5527.0
50°	8928.6	8941.2	8958.1	8877.9	9491.8	9569.9	7736.7	6978.3	6958.3	6826.4	6513.2
52.5°	7998.3	8062.6	8260.9	8515.1	9766.0	11156.2	9699.6	8444.4	8336.8	8196.6	7851.7
55°	6430.9	6501.6	6878.1	7495.1	9357.9	12198.3	12450.4	10334.6	10155.3	9736.5	9238.7
57.5°	4256.0	4365.7	4912.0	5696.8	8172.3	12366.0	15194.9	12957.8	12333.3	11186.8	10625.7
60°	2344.7	2450.2	3043.0	3753.9	5902.5	11537.0	17040.7	16373.1	15269.8	12808.0	12310.1
62.5°	1444.0	1500.9	1938.7	2600.0	3539.8	9105.8	17422.6	20664.9	19387.6	14895.4	14344.8
65°	1149.7	1174.0	1388.1	2125.3	2537.8	5416.2	16189.6	23936.8	23510.7	17422.6	16166.3
67°	1115.9	1125.4	1226.7	1824.7	2392.2	3320.4	13563.2	24469.4	24901.9	18952.0	16223.3
67.5°	1123.3	1133.9	1229.9	1741.4	2388.0	3051.4	12658.2	24259.5	24805.9	19073.3	15971.2
70°	1083.2	1115.9	1408.1	1740.4	2270.9	2535.6	7580.6	21019.3	21587.8	17722.1	13551.6
72.5°	383.9	386.0	608.6	1408.1	2469.2	2563.1	3806.6	15409.0	15829.9	13556.9	9770.3
75°	227.8	194.1	202.5	400.8	2359.5	2489.2	2196.0	9846.2	10003.4	7768.3	4947.9
77.5°	157.2	137.1	141.3	177.2	898.7	2454.4	1744.6	5134.6	4966.9	2724.5	1053.7
80°	89.7	79.1	84.4	155.1	327.0	2289.9	1645.4	2082.1	1775.2	462.0	291.1
82.5°	47.5	40.1	48.5	127.6	227.8	1427.1	1648.6	1006.2	797.4	156.1	198.3
85°	16.9	13.7	23.2	87.5	151.9	437.7	1528.4	845.9	664.5	75.9	150.8
87.5°	3.2	3.2	9.5	35.9	61.2	134.0	903.9	502.1	336.5	45.4	103.4
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°	3988.1	3988.1	3988.1	3988.1	3988.1	3988.1	3988.1	3988.1	3988.1	3988.1	3988.1
2.5°	3975.4	3930.0	3868.9	3794.0	3705.4	3627.3	3569.3	3509.2	3496.5	3475.4	3472.3
5°	3949.0	3871.0	3719.1	3545.1	3359.4	3191.7	3055.6	2934.3	2880.6	2834.1	2828.9
7.5°	3910.0	3792.9	3534.5	3253.9	2963.9	2700.2	2476.6	2318.4	2172.8	2103.2	2092.6
10°	3864.7	3696.9	3326.7	2937.5	2536.7	2164.4	1832.1	1553.7	1384.9	1284.7	1272.0
12.5°	3822.5	3603.1	3114.7	2609.5	2076.8	1579.0	1151.8	886.0	708.8	637.1	628.6
15°	3802.4	3527.1	2916.4	2274.1	1595.9	1005.2	629.7	487.3	429.3	412.4	411.4
17.5°	3800.3	3462.8	2722.3	1927.1	1118.0	584.3	410.3	374.4	362.8	358.6	358.6
20°	3799.3	3401.6	2528.3	1567.4	709.9	389.2	341.7	333.3	324.9	319.6	319.6
22.5°	3810.9	3346.8	2325.8	1200.3	447.2	315.4	300.6	292.2	281.6	274.2	273.2
25°	3822.5	3304.6	2119.0	854.4	323.8	274.2	259.5	247.9	233.1	223.6	222.6
27.5°	3824.6	3251.8	1897.5	571.7	271.1	239.4	220.4	202.5	185.6	176.1	175.1
30°	3792.9	3163.2	1651.8	386.0	239.4	207.8	182.5	163.5	147.7	140.3	140.3
32.5°	3730.7	3053.5	1381.7	291.1	213.1	178.3	150.8	132.9	122.4	119.2	118.1
35°	3674.8	2935.4	1104.3	246.8	190.9	150.8	123.4	111.8	105.5	104.4	103.4
37.5°	3642.1	2840.5	843.8	223.6	169.8	126.6	104.4	96.0	92.8	90.7	91.8
40°	3667.4	2761.4	623.4	204.6	148.7	105.5	88.6	84.4	81.2	80.2	80.2
42.5°	3778.2	2747.7	463.0	187.7	128.7	87.5	77.0	73.8	71.7	70.7	71.7
45°	4069.3	2832.0	359.7	171.9	108.6	73.8	65.4	64.3	63.3	63.3	63.3
47.5°	4507.0	3006.1	299.6	154.0	90.7	63.3	57.0	55.9	54.8	55.9	55.9
50°	5248.5	3324.6	267.9	136.1	74.9	53.8	48.5	48.5	48.5	48.5	49.6
52.5°	6376.0	3951.1	246.8	118.1	61.2	45.4	41.1	41.1	42.2	42.2	43.2
55°	7632.3	4782.3	227.8	100.2	51.7	38.0	33.8	34.8	35.9	36.9	36.9
57.5°	8995.0	5703.1	212.0	82.3	44.3	30.6	28.5	29.5	30.6	32.7	32.7
60°	10639.4	6699.9	188.8	64.3	36.9	24.3	22.2	24.3	27.4	29.5	30.6
62.5°	12445.1	7663.9	159.3	50.6	30.6	19.0	17.9	22.2	26.4	28.5	29.5
65°	13679.2	7966.6	122.4	41.1	23.2	13.7	14.8	20.0	25.3	28.5	28.5
67°	13179.3	7223.0	100.2	34.8	19.0	10.5	13.7	20.0	25.3	27.4	28.5
67.5°	12832.2	6931.9	96.0	33.8	17.9	10.5	13.7	20.0	25.3	28.5	28.5
70°	10441.1	5207.4	80.2	25.3	14.8	9.5	11.6	19.0	24.3	27.4	27.4
72.5°	7254.7	3210.7	71.7	17.9	12.7	8.4	10.5	17.9	23.2	26.4	27.4
75°	3449.1	1162.3	61.2	13.7	11.6	7.4	9.5	17.9	23.2	26.4	26.4
77.5°	703.5	270.0	49.6	11.6	9.5	7.4	8.4	16.9	22.2	25.3	25.3
80°	231.0	104.4	36.9	10.5	9.5	7.4	8.4	15.8	22.2	24.3	25.3
82.5°	166.7	52.7	24.3	10.5	9.5	7.4	7.4	15.8	21.1	24.3	24.3
85°	127.6	36.9	15.8	10.5	9.5	7.4	7.4	14.8	20.0	23.2	23.2
87.5°	84.4	14.8	12.7	10.5	9.5	7.4	7.4	14.8	19.0	22.2	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)