

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: P299659

Luminaire Tested: **GLNA-AF-05-LED-E1-SL2-7027-800-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299659  
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-SL2-7027-800-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 2700K 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: 15711.6 lumens  
Efficiency: N/A  
Efficacy: 74.8 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

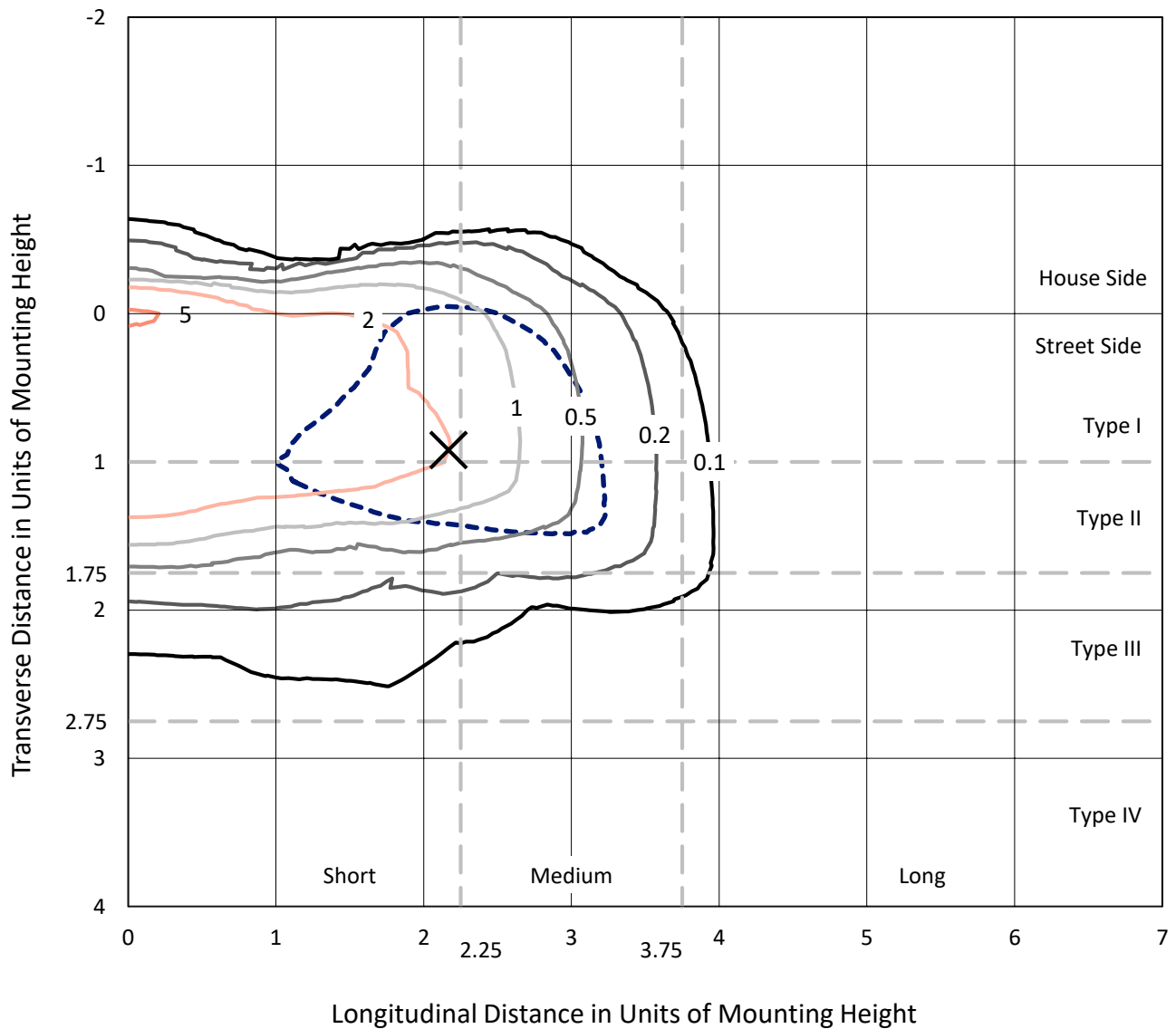


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

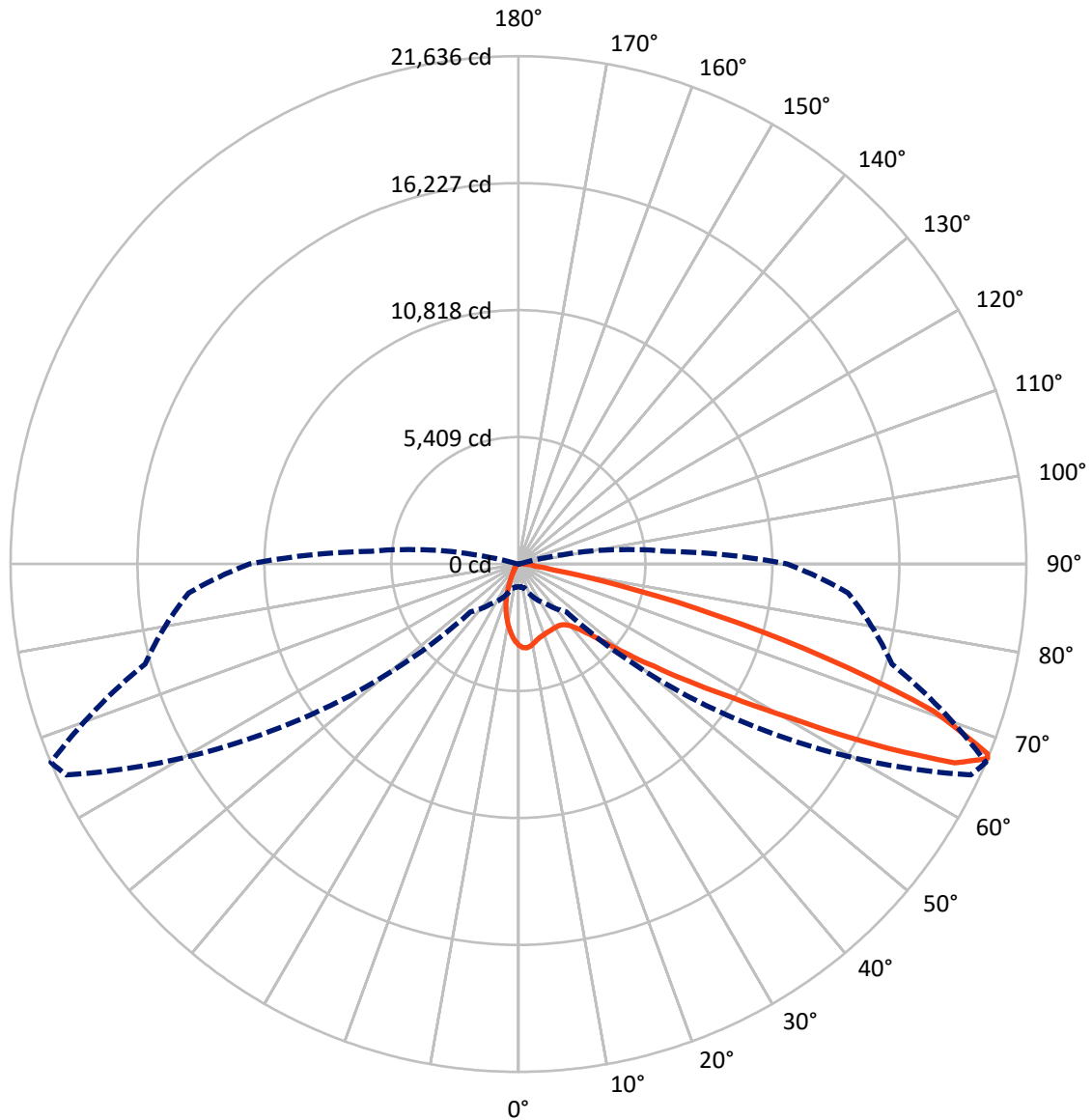


Based on 25 foot mounting height. Maximum calculated value = 5.5 fc  
 Type II - Short - Semi-Cutoff

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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
<b>House Side</b>	Lumens	1631.3	0.0	1631.3
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	14080.2	0.0	14080.2
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	15711.6	0.0	15711.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	281.9	1.8
10°-20°	600.1	3.8
20°-30°	872.5	5.6
30°-40°	1361.1	8.7
40°-50°	2411.1	15.3
50°-60°	3815.3	24.3
60°-70°	4369.9	27.8
70°-80°	1812.6	11.5
80°-90°	187.2	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°	15711.6	100.0
0°-180°	15711.6	100.0



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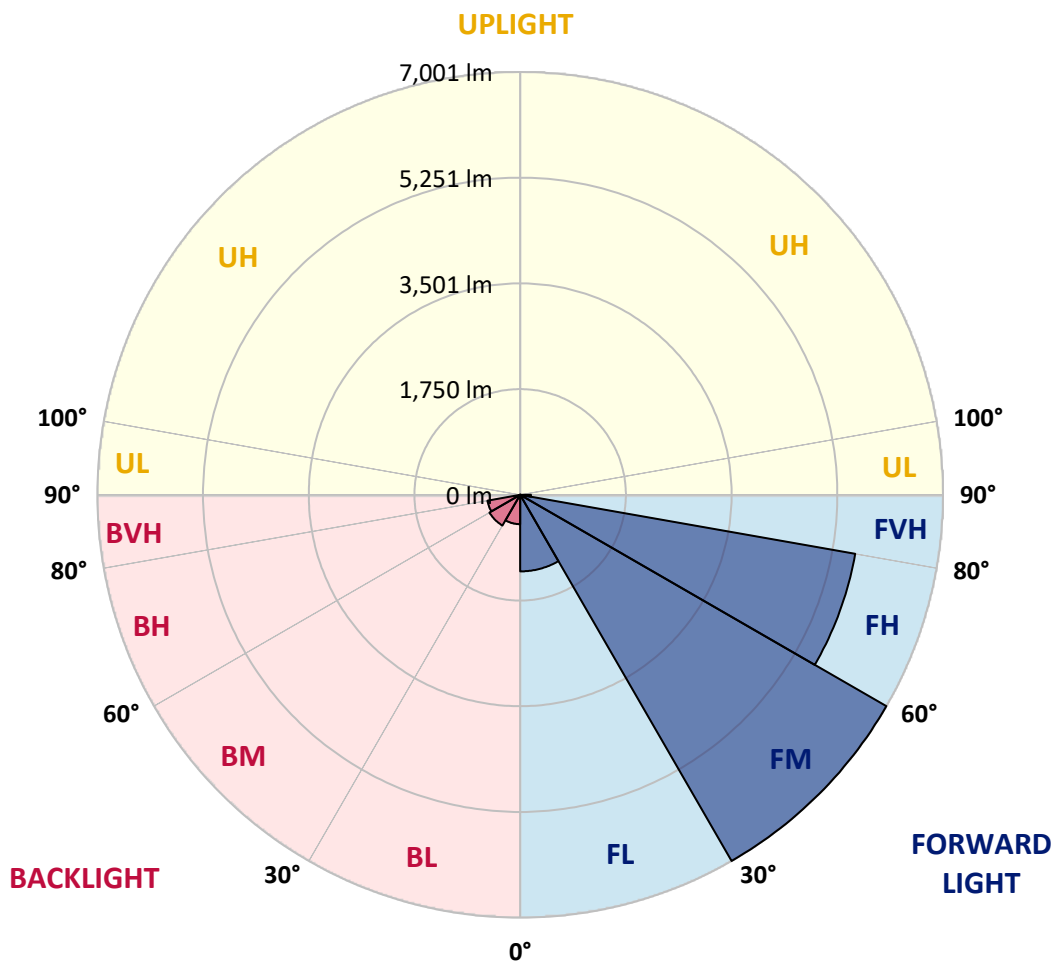
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1267.7	8.1			
FM	(30°-60°)	7001.1	44.6			
FH	(60°-80°)	5632.6	35.9			G3/7500
FVH	(80°-90°)	178.8	1.1			G2/225
BL	(0°-30°)	486.8	3.1	B1/500		
BM	(30°-60°)	586.3	3.7	B1/1000		
BH	(60°-80°)	549.8	3.5	B2/1000		G2/1000
BVH	(80°-90°)	8.4	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°	3465.0	3465.0	3465.0	3465.0	3465.0	3465.0	3465.0	3465.0	3465.0	3465.0	3465.0
2.5°	3582.3	3589.6	3588.7	3594.2	3607.0	3607.9	3595.1	3570.4	3564.9	3532.8	3476.9
5°	3303.7	3324.8	3337.6	3389.8	3448.5	3519.0	3572.2	3591.4	3588.7	3565.8	3481.5
7.5°	2985.7	3006.8	3021.4	3082.8	3160.7	3281.7	3420.1	3533.7	3543.8	3568.5	3477.8
10°	2774.0	2777.7	2797.8	2856.5	2938.0	3061.8	3226.7	3425.6	3455.8	3546.5	3468.6
12.5°	2599.9	2602.6	2629.2	2692.4	2779.5	2904.1	3077.3	3307.4	3354.1	3519.0	3466.8
15°	2476.2	2486.2	2510.1	2576.1	2668.6	2792.3	2970.1	3220.3	3276.2	3509.0	3483.3
17.5°	2434.9	2445.9	2453.3	2500.9	2585.2	2706.2	2888.6	3163.5	3226.7	3514.5	3515.4
20°	2478.0	2486.2	2469.7	2481.7	2533.9	2642.0	2819.8	3114.9	3190.1	3520.9	3556.6
22.5°	2638.4	2642.0	2597.1	2544.9	2535.7	2595.3	2765.8	3076.4	3157.1	3538.3	3605.2
25°	2913.3	2906.9	2833.6	2720.8	2614.5	2587.1	2733.7	3052.6	3140.6	3556.6	3655.6
27.5°	3245.0	3254.2	3153.4	2989.4	2786.8	2642.0	2729.1	3042.5	3133.2	3569.5	3699.6
30°	3648.3	3661.1	3545.6	3339.4	3048.9	2777.7	2771.3	3040.7	3128.7	3561.2	3703.2
32.5°	4059.7	4075.3	3984.6	3772.0	3399.0	3004.9	2866.6	3060.8	3137.8	3532.8	3682.2
35°	4490.5	4512.4	4452.0	4269.6	3873.7	3333.0	3034.3	3122.2	3180.9	3530.0	3661.1
37.5°	5085.2	5105.4	4991.7	4798.4	4448.3	3772.9	3303.7	3237.7	3282.6	3574.0	3666.6
40°	5973.2	5970.5	5677.2	5381.2	5079.7	4331.9	3682.2	3446.7	3469.6	3706.9	3734.4
42.5°	6941.0	6936.4	6502.9	6052.9	5780.8	5020.1	4179.8	3807.7	3792.1	3951.6	3910.4
45°	7686.9	7686.0	7332.3	6825.5	6624.8	5810.1	4823.1	4309.9	4286.1	4349.3	4234.8
47.5°	8004.9	8010.4	7832.6	7476.1	7560.5	6878.6	5634.1	5037.6	5001.8	4976.2	4802.0
50°	7757.5	7768.5	7783.1	7713.5	8246.9	8314.7	6721.9	6063.0	6045.6	5931.1	5658.9
52.5°	6949.2	7005.1	7177.4	7398.2	8485.1	9693.0	8427.4	7336.8	7243.4	7121.5	6821.8
55°	5587.4	5648.8	5976.0	6512.1	8130.5	10598.4	10817.4	8979.1	8823.3	8459.5	8026.9
57.5°	3697.7	3793.1	4267.8	4949.6	7100.4	10744.1	13201.9	11258.2	10715.7	9719.5	9232.0
60°	2037.2	2128.8	2643.9	3261.5	5128.3	10023.8	14805.7	14225.6	13267.0	11128.1	10695.5
62.5°	1254.6	1304.1	1684.4	2259.0	3075.5	7911.4	15137.4	17954.5	16844.7	12941.7	12463.3
65°	998.9	1020.0	1206.0	1846.6	2204.9	4705.8	14066.1	20797.2	20427.0	15137.4	14045.9
67°	969.6	977.8	1065.8	1585.4	2078.4	2884.9	11784.2	21260.0	21635.7	16466.2	14095.4
67.5°	976.0	985.2	1068.5	1513.0	2074.8	2651.2	10997.9	21077.6	21552.3	16571.6	13876.4
70°	941.2	969.6	1223.4	1512.1	1973.0	2203.1	6586.3	18262.4	18756.3	15397.7	11774.1
72.5°	333.6	335.4	528.8	1223.4	2145.3	2226.9	3307.4	13388.0	13753.6	11778.7	8488.8
75°	197.9	168.6	176.0	348.2	2050.0	2162.7	1908.0	8554.8	8691.3	6749.4	4298.9
77.5°	136.5	119.1	122.8	154.0	780.8	2132.5	1515.8	4461.1	4315.4	2367.1	915.5
80°	77.9	68.7	73.3	134.7	284.1	1989.5	1429.6	1809.0	1542.3	401.4	252.9
82.5°	41.2	34.8	42.2	110.9	197.9	1239.9	1432.4	874.3	692.8	135.6	172.3
85°	14.7	11.9	20.2	76.1	132.0	380.3	1327.9	735.0	577.3	66.0	131.0
87.5°	2.7	2.7	8.2	31.2	53.2	116.4	785.4	436.2	292.3	39.4	89.8
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°	3465.0	3465.0	3465.0	3465.0	3465.0	3465.0	3465.0	3465.0	3465.0	3465.0	3465.0
2.5°	3454.0	3414.6	3361.4	3296.4	3219.4	3151.6	3101.2	3048.9	3037.9	3019.6	3016.9
5°	3431.1	3363.3	3231.3	3080.1	2918.8	2773.1	2654.9	2549.5	2502.7	2462.4	2457.8
7.5°	3397.2	3295.4	3070.9	2827.2	2575.1	2346.0	2151.8	2014.3	1887.8	1827.3	1818.2
10°	3357.8	3212.0	2890.4	2552.2	2204.0	1880.5	1591.8	1349.9	1203.3	1116.2	1105.2
12.5°	3321.1	3130.5	2706.2	2267.2	1804.4	1371.9	1000.7	769.8	615.8	553.5	546.2
15°	3303.7	3064.5	2533.9	1975.8	1386.5	873.3	547.1	423.4	373.0	358.3	357.4
17.5°	3301.9	3008.6	2365.3	1674.3	971.4	507.7	356.5	325.3	315.2	311.6	311.6
20°	3300.9	2955.5	2196.7	1361.8	616.7	338.2	296.9	289.6	282.3	277.7	277.7
22.5°	3311.0	2907.8	2020.7	1042.9	388.6	274.0	261.2	253.8	244.7	238.3	237.4
25°	3321.1	2871.1	1841.1	742.3	281.3	238.3	225.4	215.4	202.5	194.3	193.4
27.5°	3322.9	2825.3	1648.6	496.7	235.5	208.0	191.5	176.0	161.3	153.0	152.1
30°	3295.4	2748.3	1435.1	335.4	208.0	180.5	158.5	142.0	128.3	121.9	121.9
32.5°	3241.4	2653.0	1200.5	252.9	185.1	154.9	131.0	115.5	106.3	103.6	102.6
35°	3192.8	2550.4	959.5	214.4	165.9	131.0	107.2	97.1	91.6	90.7	89.8
37.5°	3164.4	2467.9	733.1	194.3	147.5	110.0	90.7	83.4	80.6	78.8	79.7
40°	3186.4	2399.2	541.6	177.8	129.2	91.6	77.0	73.3	70.6	69.6	69.6
42.5°	3282.6	2387.3	402.3	163.1	111.8	76.1	66.9	64.1	62.3	61.4	62.3
45°	3535.5	2460.6	312.5	149.4	94.4	64.1	56.8	55.9	55.0	55.0	55.0
47.5°	3915.9	2611.8	260.3	133.8	78.8	55.0	49.5	48.6	47.7	48.6	48.6
50°	4560.1	2888.6	232.8	118.2	65.1	46.7	42.2	42.2	42.2	42.2	43.1
52.5°	5539.8	3432.9	214.4	102.6	53.2	39.4	35.7	35.7	36.7	36.7	37.6
55°	6631.2	4155.0	197.9	87.1	44.9	33.0	29.3	30.2	31.2	32.1	32.1
57.5°	7815.2	4955.1	184.2	71.5	38.5	26.6	24.7	25.7	26.6	28.4	28.4
60°	9243.9	5821.1	164.0	55.9	32.1	21.1	19.2	21.1	23.8	25.7	26.6
62.5°	10812.8	6658.7	138.4	44.0	26.6	16.5	15.6	19.2	22.9	24.7	25.7
65°	11885.0	6921.7	106.3	35.7	20.2	11.9	12.8	17.4	22.0	24.7	24.7
67°	11450.7	6275.6	87.1	30.2	16.5	9.2	11.9	17.4	22.0	23.8	24.7
67.5°	11149.2	6022.7	83.4	29.3	15.6	9.2	11.9	17.4	22.0	24.7	24.7
70°	9071.6	4524.4	69.6	22.0	12.8	8.2	10.1	16.5	21.1	23.8	23.8
72.5°	6303.1	2789.6	62.3	15.6	11.0	7.3	9.2	15.6	20.2	22.9	23.8
75°	2996.7	1009.9	53.2	11.9	10.1	6.4	8.2	15.6	20.2	22.9	22.9
77.5°	611.3	234.6	43.1	10.1	8.2	6.4	7.3	14.7	19.2	22.0	22.0
80°	200.7	90.7	32.1	9.2	8.2	6.4	7.3	13.7	19.2	21.1	22.0
82.5°	144.8	45.8	21.1	9.2	8.2	6.4	6.4	13.7	18.3	21.1	21.1
85°	110.9	32.1	13.7	9.2	8.2	6.4	6.4	12.8	17.4	20.2	20.2
87.5°	73.3	12.8	11.0	9.2	8.2	6.4	6.4	12.8	16.5	19.2	20.2
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)