

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: P299683

Luminaire Tested: **GLNA-AF-09-LED-E1-SL2-7027-800-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299683  
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-09-LED-E1-SL2-7027-800-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(9) 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: 28103.2 lumens  
Efficiency: N/A  
Efficacy: 75.1 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
BUG Rating: B2 - U0 - G4

Input Watts (W): 374  
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

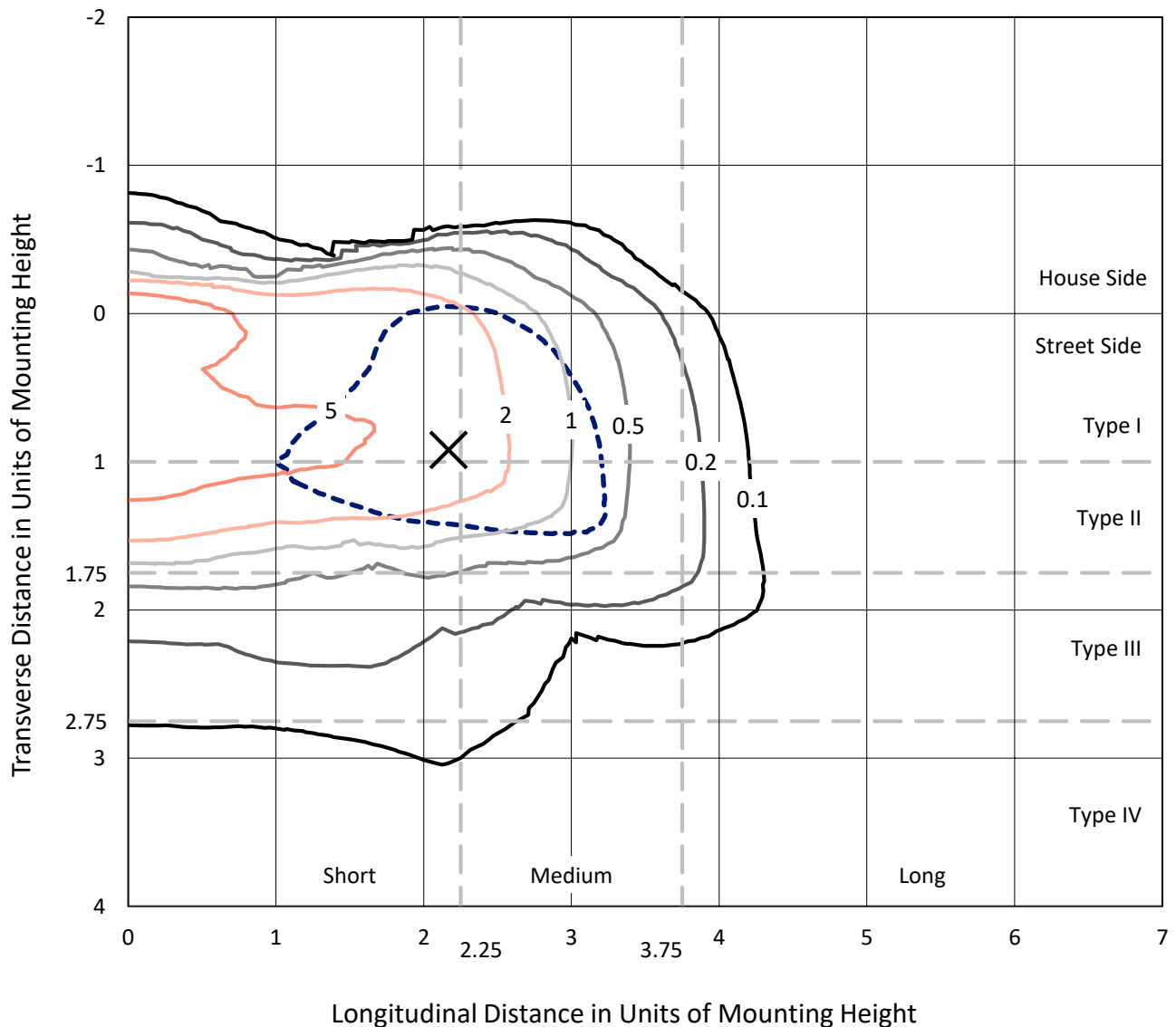


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

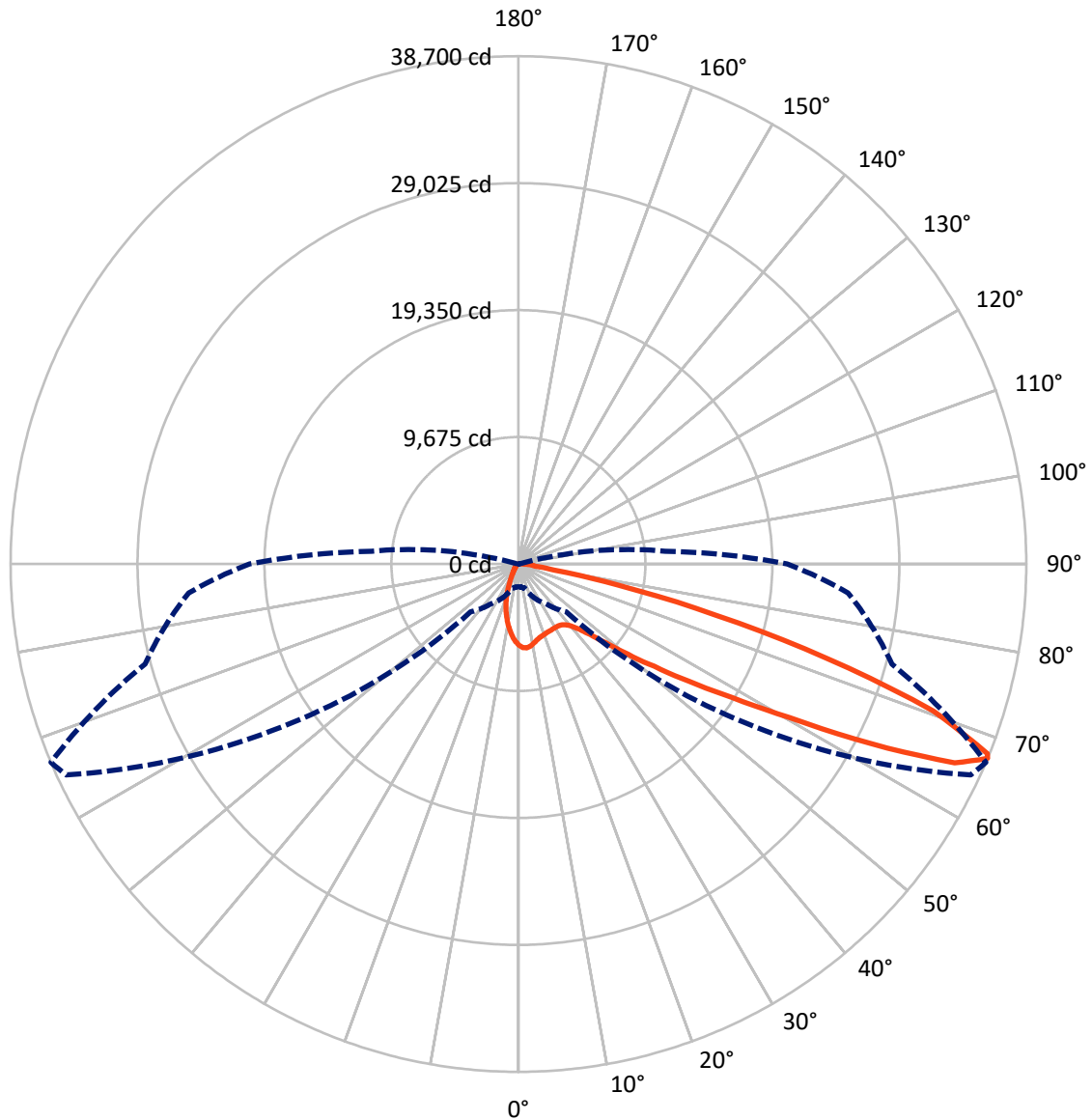


Based on 25 foot mounting height. Maximum calculated value = 9.9 fc  
 Type II - Short - Semi-Cutoff

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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	2918.0	0.0	2918.0
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	25185.3	0.0	25185.3
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	28103.2	0.0	28103.2
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	504.3	1.8
10°-20°	1073.4	3.8
20°-30°	1560.6	5.6
30°-40°	2434.5	8.7
40°-50°	4312.7	15.3
50°-60°	6824.4	24.3
60°-70°	7816.4	27.8
70°-80°	3242.2	11.5
80°-90°	334.9	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°	28103.2	100.0
0°-180°	28103.2	100.0



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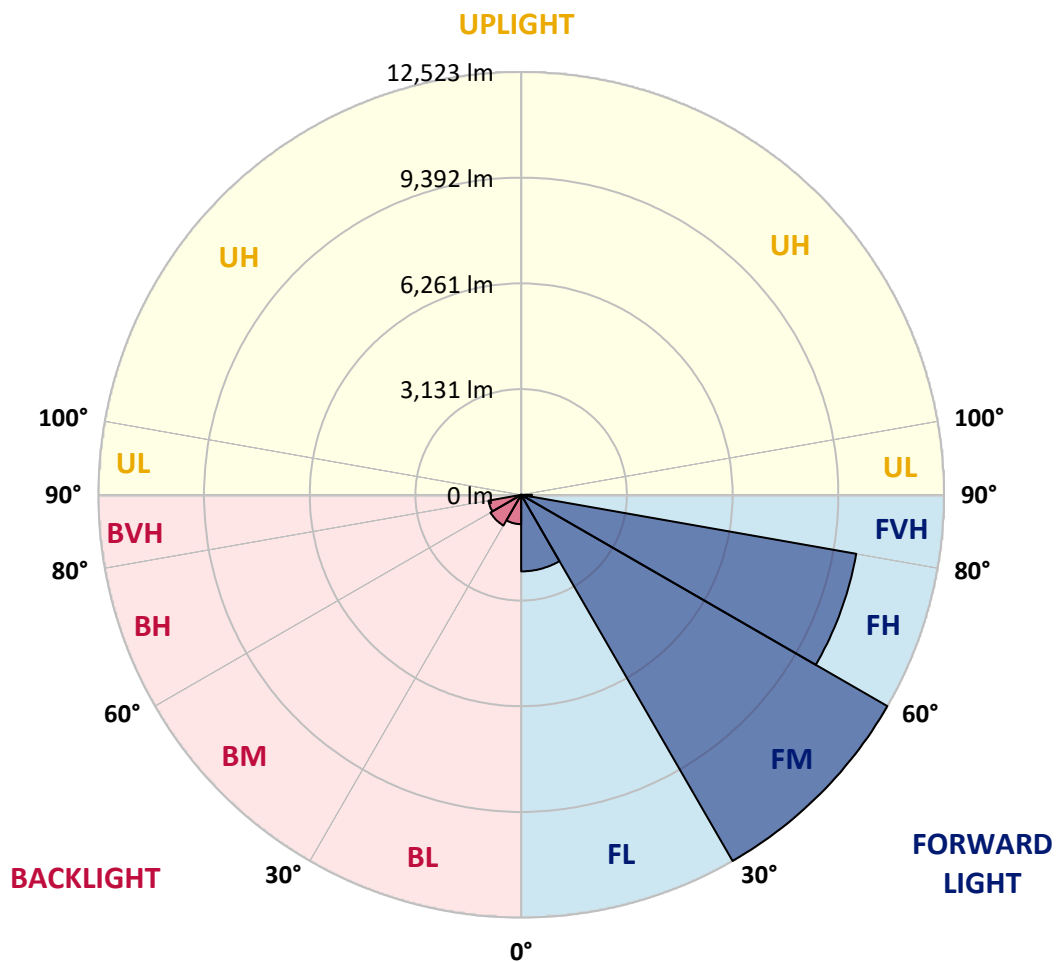
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2267.5	8.1			
FM (30°-60°)	12522.9	44.6			
FH (60°-80°)	10075.1	35.9			G4/12000
FVH (80°-90°)	319.8	1.1			G3/500
BL (0°-30°)	870.7	3.1	B2/1000		
BM (30°-60°)	1048.7	3.7	B2/2500		
BH (60°-80°)	983.5	3.5	B2/1000		G2/1000
BVH (80°-90°)	15.1	0.1			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G4**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	6197.8	6197.8	6197.8	6197.8	6197.8	6197.8	6197.8	6197.8	6197.8	6197.8	6197.8
2.5°	6407.6	6420.7	6419.1	6428.9	6451.9	6453.5	6430.6	6386.3	6376.5	6319.1	6219.1
5°	5909.3	5947.0	5969.9	6063.4	6168.3	6294.5	6389.6	6424.0	6419.1	6378.1	6227.3
7.5°	5340.5	5378.2	5404.4	5514.3	5653.6	5870.0	6117.5	6320.7	6338.8	6383.0	6220.7
10°	4961.8	4968.4	5004.5	5109.4	5255.3	5476.6	5771.6	6127.3	6181.4	6343.7	6204.4
12.5°	4650.4	4655.3	4702.9	4816.0	4971.7	5194.6	5504.4	5915.9	5999.5	6294.5	6201.1
15°	4429.1	4447.1	4489.8	4607.8	4773.3	4994.6	5312.6	5760.1	5860.1	6276.5	6230.6
17.5°	4355.3	4375.0	4388.1	4473.4	4624.2	4840.5	5166.7	5658.5	5771.6	6286.3	6288.0
20°	4432.4	4447.1	4417.6	4438.9	4532.4	4725.8	5043.8	5571.6	5706.0	6297.8	6361.7
22.5°	4719.2	4725.8	4645.5	4552.0	4535.7	4642.2	4947.1	5502.8	5647.0	6328.9	6448.6
25°	5211.0	5199.5	5068.4	4866.8	4676.6	4627.4	4889.7	5460.2	5617.5	6361.7	6538.7
27.5°	5804.4	5820.8	5640.5	5347.1	4984.8	4725.8	4881.5	5442.1	5604.4	6384.7	6617.4
30°	6525.6	6548.6	6342.0	5973.2	5453.6	4968.4	4956.9	5438.8	5596.2	6369.9	6624.0
32.5°	7261.6	7289.5	7127.2	6746.9	6079.8	5374.9	5127.4	5474.9	5612.6	6319.1	6586.3
35°	8032.1	8071.4	7963.2	7637.0	6928.9	5961.8	5427.4	5584.7	5689.6	6314.2	6548.6
37.5°	9095.9	9132.0	8928.7	8582.8	7956.7	6748.6	5909.3	5791.3	5871.6	6392.9	6558.4
40°	10684.3	10679.4	10154.8	9625.4	9086.1	7748.5	6586.3	6165.0	6206.0	6630.5	6679.7
42.5°	12415.3	12407.1	11631.7	10826.9	10340.0	8979.5	7476.4	6810.9	6783.0	7068.2	6994.4
45°	13749.6	13747.9	13115.2	12208.7	11849.7	10392.5	8627.1	7709.1	7666.5	7779.6	7574.7
47.5°	14318.4	14328.2	14010.2	13372.6	13523.4	12303.8	10077.8	9010.7	8946.7	8900.8	8589.4
50°	13875.8	13895.5	13921.7	13797.1	14751.1	14872.4	12023.5	10844.9	10813.8	10608.9	10122.0
52.5°	12430.0	12530.0	12838.2	13233.2	15177.3	17337.8	15074.0	13123.4	12956.2	12738.2	12202.2
55°	9994.2	10104.0	10689.2	11648.1	14542.9	18957.3	19349.1	16060.8	15782.2	15131.4	14357.7
57.5°	6614.2	6784.6	7633.7	8853.3	12700.5	19217.9	23614.2	20137.5	19167.1	17385.3	16513.3
60°	3643.9	3807.9	4729.1	5833.9	9172.9	17929.5	26482.8	25445.2	23730.6	19904.7	19131.0
62.5°	2244.1	2332.6	3012.8	4040.6	5501.1	14151.2	27076.2	32115.1	30130.0	23148.7	22293.1
65°	1786.7	1824.4	2157.2	3303.0	3943.9	8417.3	25160.0	37199.9	36537.7	27076.2	25123.9
67°	1734.3	1749.0	1906.4	2835.8	3717.7	5160.2	21078.4	38027.7	38699.8	29453.1	25212.5
67.5°	1745.7	1762.1	1911.3	2706.3	3711.1	4742.2	19672.0	37701.5	38550.6	29641.6	24820.7
70°	1683.5	1734.3	2188.3	2704.7	3529.2	3940.6	11780.9	32665.9	33549.4	27541.8	21060.4
72.5°	596.7	599.9	945.8	2188.3	3837.4	3983.2	5915.9	23947.0	24601.0	21068.6	15183.9
75°	354.1	301.6	314.7	622.9	3666.9	3868.5	3412.8	15301.9	15546.1	12072.7	7689.5
77.5°	244.2	213.1	219.7	275.4	1396.6	3814.4	2711.2	7979.6	7719.0	4234.0	1637.6
80°	139.3	122.9	131.1	241.0	508.2	3558.7	2557.1	3235.8	2758.8	718.0	452.4
82.5°	73.8	62.3	75.4	198.3	354.1	2217.8	2562.1	1563.8	1239.2	242.6	308.2
85°	26.2	21.3	36.1	136.1	236.0	680.3	2375.2	1314.6	1032.7	118.0	234.4
87.5°	4.9	4.9	14.8	55.7	95.1	208.2	1404.8	780.3	522.9	70.5	160.6
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°	6197.8	6197.8	6197.8	6197.8	6197.8	6197.8	6197.8	6197.8	6197.8	6197.8	6197.8
2.5°	6178.1	6107.6	6012.6	5896.2	5758.5	5637.2	5547.0	5453.6	5433.9	5401.1	5396.2
5°	6137.1	6015.8	5779.8	5509.3	5220.8	4960.2	4748.7	4560.2	4476.6	4404.5	4396.3
7.5°	6076.5	5894.5	5492.9	5056.9	4606.1	4196.3	3848.8	3603.0	3376.7	3268.6	3252.2
10°	6006.0	5745.4	5170.0	4565.2	3942.3	3363.6	2847.3	2414.5	2152.3	1996.5	1976.9
12.5°	5940.4	5599.5	4840.5	4055.4	3227.6	2453.9	1790.0	1376.9	1101.5	990.1	977.0
15°	5909.3	5481.5	4532.4	3534.1	2480.1	1562.2	978.6	757.3	667.2	640.9	639.3
17.5°	5906.0	5381.5	4230.8	2994.8	1737.5	908.1	637.6	581.9	563.9	557.3	557.3
20°	5904.4	5286.4	3929.2	2435.8	1103.2	604.9	531.1	518.0	504.9	496.7	496.7
22.5°	5922.4	5201.2	3614.4	1865.4	695.0	490.1	467.2	454.1	437.7	426.2	424.6
25°	5940.4	5135.6	3293.1	1327.7	503.2	426.2	403.2	385.2	362.3	347.5	345.9
27.5°	5943.7	5053.6	2948.9	888.4	421.3	372.1	342.6	314.7	288.5	273.7	272.1
30°	5894.5	4915.9	2567.0	599.9	372.1	322.9	283.6	254.1	229.5	218.0	218.0
32.5°	5797.8	4745.5	2147.3	452.4	331.1	277.0	234.4	206.5	190.1	185.2	183.6
35°	5711.0	4561.9	1716.2	383.6	296.7	234.4	191.8	173.8	163.9	162.3	160.6
37.5°	5660.1	4414.4	1311.4	347.5	263.9	196.7	162.3	149.2	144.2	141.0	142.6
40°	5699.5	4291.4	968.8	318.0	231.1	163.9	137.7	131.1	126.2	124.6	124.6
42.5°	5871.6	4270.1	719.6	291.8	200.0	136.1	119.7	114.7	111.5	109.8	111.5
45°	6324.0	4401.2	559.0	267.2	168.8	114.7	101.6	100.0	98.4	98.4	98.4
47.5°	7004.3	4671.7	465.5	239.3	141.0	98.4	88.5	86.9	85.2	86.9	86.9
50°	8156.6	5166.7	416.4	211.5	116.4	83.6	75.4	75.4	75.4	75.4	77.0
52.5°	9908.9	6140.4	383.6	183.6	95.1	70.5	63.9	63.9	65.6	65.6	67.2
55°	11861.2	7432.1	354.1	155.7	80.3	59.0	52.5	54.1	55.7	57.4	57.4
57.5°	13979.1	8863.1	329.5	127.9	68.8	47.5	44.3	45.9	47.5	50.8	50.8
60°	16534.6	10412.2	293.4	100.0	57.4	37.7	34.4	37.7	42.6	45.9	47.5
62.5°	19340.9	11910.4	247.5	78.7	47.5	29.5	27.9	34.4	41.0	44.3	45.9
65°	21258.7	12380.8	190.1	63.9	36.1	21.3	22.9	31.1	39.3	44.3	44.3
67°	20481.7	11225.2	155.7	54.1	29.5	16.4	21.3	31.1	39.3	42.6	44.3
67.5°	19942.4	10772.8	149.2	52.5	27.9	16.4	21.3	31.1	39.3	44.3	44.3
70°	16226.4	8092.7	124.6	39.3	22.9	14.8	18.0	29.5	37.7	42.6	42.6
72.5°	11274.4	4989.7	111.5	27.9	19.7	13.1	16.4	27.9	36.1	41.0	42.6
75°	5360.2	1806.4	95.1	21.3	18.0	11.5	14.8	27.9	36.1	41.0	41.0
77.5°	1093.3	419.6	77.0	18.0	14.8	11.5	13.1	26.2	34.4	39.3	39.3
80°	359.0	162.3	57.4	16.4	14.8	11.5	13.1	24.6	34.4	37.7	39.3
82.5°	259.0	82.0	37.7	16.4	14.8	11.5	11.5	24.6	32.8	37.7	37.7
85°	198.3	57.4	24.6	16.4	14.8	11.5	11.5	22.9	31.1	36.1	36.1
87.5°	131.1	22.9	19.7	16.4	14.8	11.5	11.5	22.9	29.5	34.4	36.1
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)