

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: P299749

Luminaire Tested: **GLNA-AF-10-LED-E1-SL2-7027-600-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299749
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-10-LED-E1-SL2-7027-600-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 2700K CCT 600mA 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: 25371.7 lumens
Efficiency: N/A
Efficacy: 78.6 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): 323
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

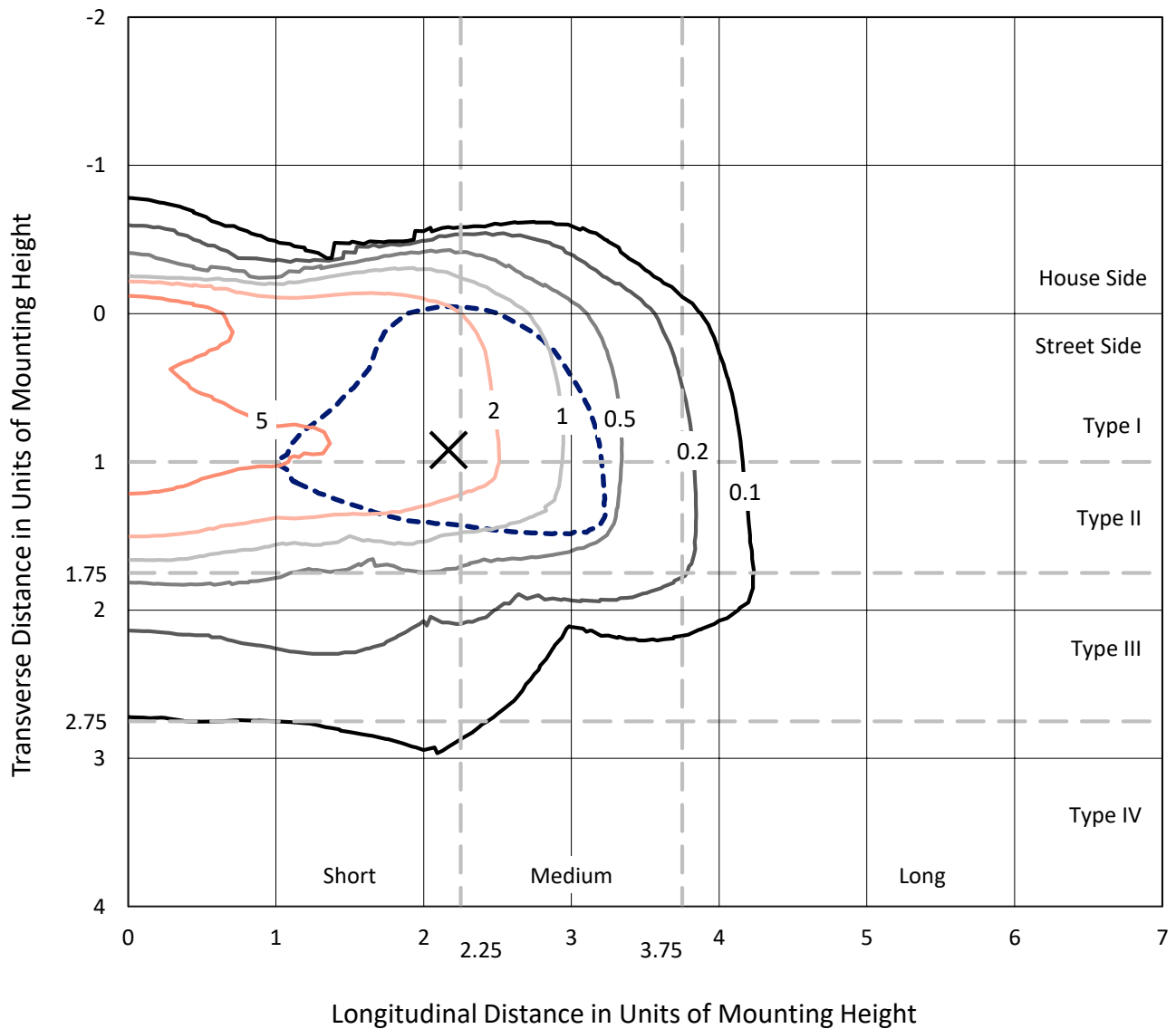


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

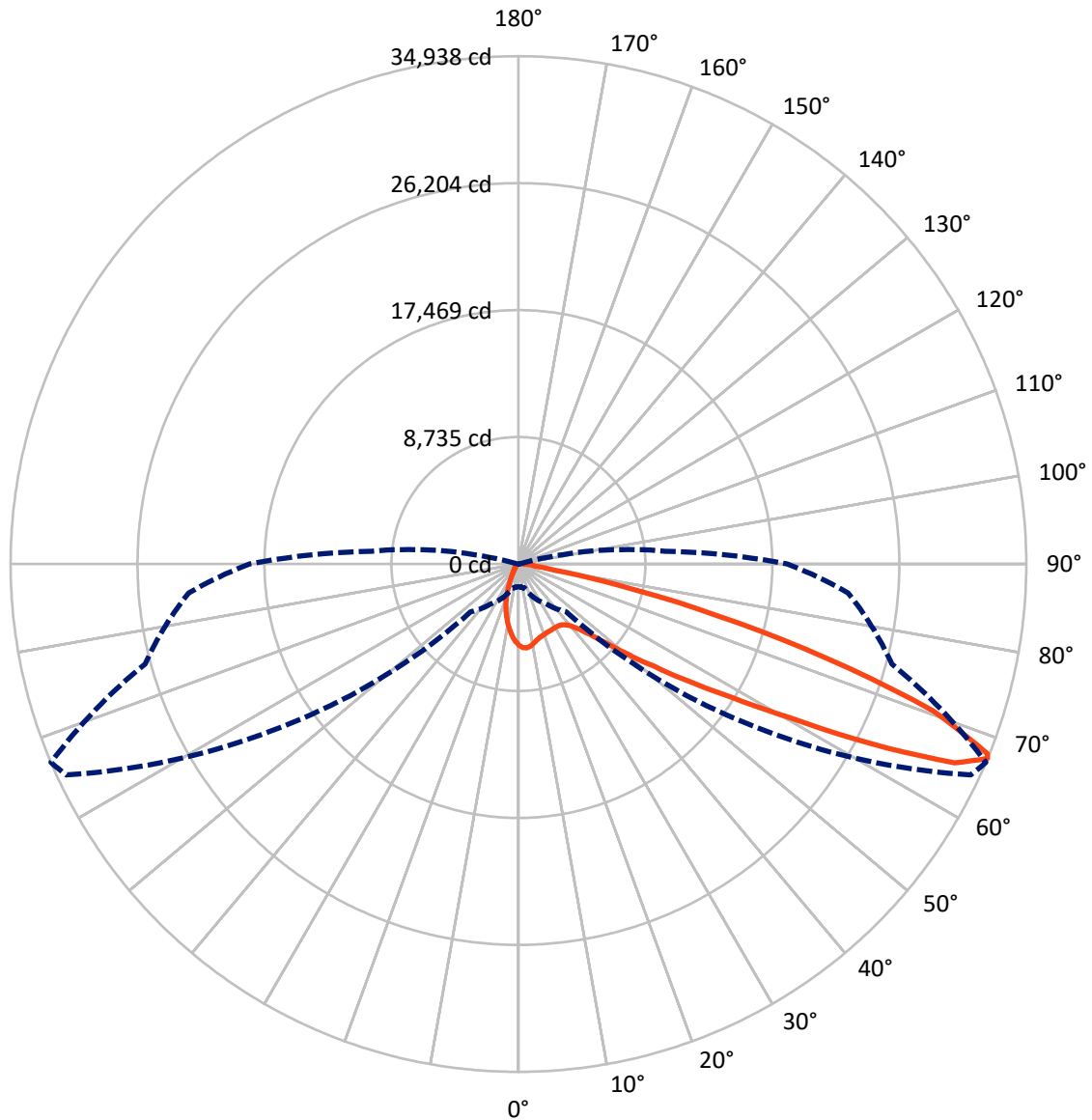


Based on 25 foot mounting height. Maximum calculated value = 9 fc
 Type II - Short - Semi-Cutoff

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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	2634.3	0.0	2634.3
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	22737.3	0.0	22737.3
	% Fixture	89.6	0.0	89.6
Total	Lumens	25371.7	0.0	25371.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	455.3	1.8
10°-20°	969.0	3.8
20°-30°	1408.9	5.6
30°-40°	2197.9	8.7
40°-50°	3893.5	15.3
50°-60°	6161.1	24.3
60°-70°	7056.6	27.8
70°-80°	2927.0	11.5
80°-90°	302.3	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°	25371.7	100.0
0°-180°	25371.7	100.0



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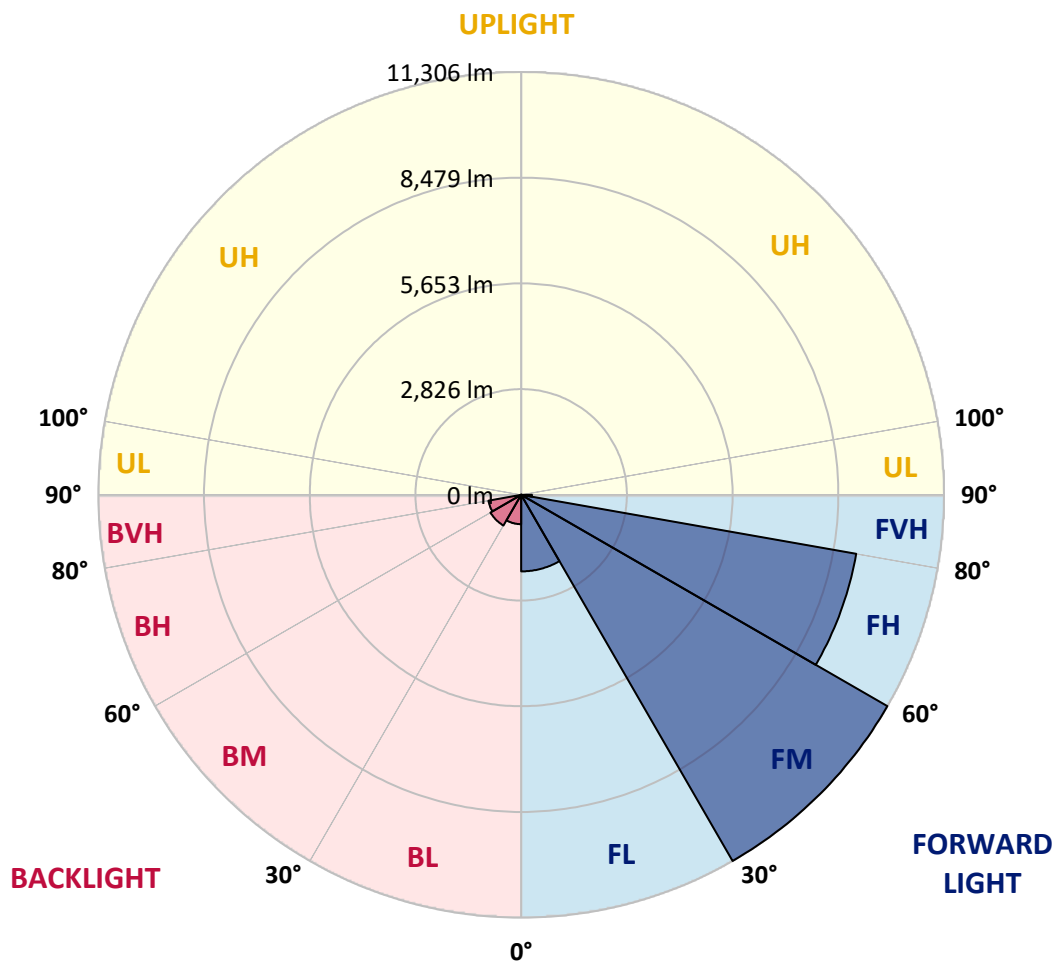
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2047.1	8.1			
FM (30°-60°)	11305.7	44.6			
FH (60°-80°)	9095.8	35.9			G4/12000
FVH (80°-90°)	288.7	1.1			G3/500
BL (0°-30°)	786.1	3.1	B2/1000		
BM (30°-60°)	946.8	3.7	B1/1000		
BH (60°-80°)	887.9	3.5	B2/1000		G2/1000
BVH (80°-90°)	13.6	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°	5595.4	5595.4	5595.4	5595.4	5595.4	5595.4	5595.4	5595.4	5595.4	5595.4	5595.4
2.5°	5784.8	5796.6	5795.2	5804.0	5824.8	5826.2	5805.5	5765.6	5756.7	5704.9	5614.6
5°	5334.9	5369.0	5389.7	5474.0	5568.7	5682.7	5768.5	5799.6	5795.2	5758.2	5622.0
7.5°	4821.4	4855.5	4879.1	4978.3	5104.1	5299.4	5522.9	5706.4	5722.7	5762.6	5616.1
10°	4479.6	4485.5	4518.0	4612.8	4744.5	4944.2	5210.6	5531.8	5580.6	5727.1	5601.3
12.5°	4198.4	4202.8	4245.7	4347.9	4488.4	4689.7	4969.4	5340.8	5416.3	5682.7	5598.3
15°	3998.6	4014.9	4053.4	4159.9	4309.4	4509.2	4796.3	5200.3	5290.5	5666.4	5625.0
17.5°	3932.0	3949.8	3961.6	4038.6	4174.7	4370.1	4664.5	5108.5	5210.6	5675.3	5676.8
20°	4001.6	4014.9	3988.2	4007.5	4091.8	4266.5	4553.6	5030.1	5151.4	5685.7	5743.4
22.5°	4260.5	4266.5	4194.0	4109.6	4094.8	4191.0	4466.2	4967.9	5098.2	5713.8	5821.8
25°	4704.5	4694.1	4575.8	4393.7	4222.1	4177.7	4414.5	4929.4	5071.5	5743.4	5903.2
27.5°	5240.2	5255.0	5092.2	4827.3	4500.3	4266.5	4407.1	4913.2	5059.7	5764.1	5974.2
30°	5891.4	5912.1	5725.6	5392.6	4923.5	4485.5	4475.1	4910.2	5052.3	5750.8	5980.2
32.5°	6555.8	6581.0	6434.5	6091.1	5488.8	4852.5	4629.0	4942.8	5067.1	5704.9	5946.1
35°	7251.4	7286.9	7189.2	6894.7	6255.4	5382.3	4899.8	5041.9	5136.6	5700.5	5912.1
37.5°	8211.8	8244.4	8060.8	7748.6	7183.3	6092.6	5334.9	5228.4	5300.9	5771.5	5921.0
40°	9645.8	9641.4	9167.8	8689.8	8202.9	6995.3	5946.1	5565.8	5602.8	5986.1	6030.5
42.5°	11208.5	11201.1	10501.2	9774.5	9335.0	8106.7	6749.7	6148.9	6123.7	6381.2	6314.6
45°	12413.1	12411.7	11840.4	11022.1	10698.0	9382.4	7788.6	6959.8	6921.3	7023.5	6838.5
47.5°	12926.7	12935.5	12648.4	12072.8	12208.9	11107.9	9098.2	8134.8	8077.1	8035.7	7754.5
50°	12527.1	12544.9	12568.5	12456.1	13317.3	13426.9	10854.8	9790.8	9762.7	9577.7	9138.2
52.5°	11221.9	11312.1	11590.3	11947.0	13702.1	15652.6	13608.9	11847.8	11696.9	11500.1	11016.1
55°	9022.8	9121.9	9650.2	10516.0	13129.4	17114.7	17468.4	14499.8	14248.2	13660.7	12962.2
57.5°	5971.3	6125.2	6891.8	7992.8	11466.0	17350.0	21319.0	18180.2	17304.1	15695.5	14908.2
60°	3289.8	3437.7	4269.4	5266.9	8281.4	16186.8	23908.8	22972.0	21424.1	17970.1	17271.6
62.5°	2025.9	2105.9	2720.0	3647.9	4966.4	12775.7	24444.5	28993.6	27201.5	20898.7	20126.2
65°	1613.1	1647.1	1947.5	2981.9	3560.6	7599.1	22714.5	33584.2	32986.3	24444.5	22682.0
67°	1565.7	1579.0	1721.1	2560.2	3356.3	4658.6	19029.6	34331.5	34938.2	26590.3	22761.9
67.5°	1576.1	1590.9	1725.5	2443.3	3350.4	4281.3	17759.9	34037.0	34803.6	26760.5	22408.2
70°	1519.8	1565.7	1975.6	2441.8	3186.2	3557.6	10635.8	29490.8	30288.5	24864.8	19013.4
72.5°	538.7	541.6	853.9	1975.6	3464.4	3596.1	5340.8	21619.4	22209.9	19020.8	13708.0
75°	319.7	272.3	284.1	562.4	3310.5	3492.5	3081.1	13814.6	14035.1	10899.2	6942.1
77.5°	220.5	192.4	198.3	248.6	1260.8	3443.7	2447.7	7204.0	6968.7	3822.5	1478.4
80°	125.8	111.0	118.4	217.5	458.8	3212.8	2308.6	2921.3	2490.6	648.2	408.4
82.5°	66.6	56.2	68.1	179.1	319.7	2002.3	2313.0	1411.8	1118.8	219.0	278.2
85°	23.7	19.2	32.6	122.8	213.1	614.1	2144.3	1186.9	932.3	106.6	211.6
87.5°	4.4	4.4	13.3	50.3	85.8	187.9	1268.2	704.4	472.1	63.6	145.0
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°	5595.4	5595.4	5595.4	5595.4	5595.4	5595.4	5595.4	5595.4	5595.4	5595.4	5595.4
2.5°	5577.6	5514.0	5428.2	5323.1	5198.8	5089.3	5007.9	4923.5	4905.8	4876.2	4871.7
5°	5540.6	5431.1	5218.0	4973.8	4713.4	4478.1	4287.2	4117.0	4041.5	3976.4	3969.0
7.5°	5485.9	5321.6	4959.0	4565.4	4158.4	3788.5	3474.7	3252.8	3048.5	2950.9	2936.1
10°	5422.2	5186.9	4667.5	4121.4	3559.1	3036.7	2570.5	2179.8	1943.1	1802.5	1784.7
12.5°	5363.0	5055.2	4370.1	3661.2	2913.9	2215.4	1616.0	1243.1	994.5	893.8	882.0
15°	5334.9	4948.7	4091.8	3190.6	2239.0	1410.3	883.5	683.7	602.3	578.6	577.1
17.5°	5332.0	4858.4	3819.5	2703.7	1568.7	819.8	575.7	525.4	509.1	503.2	503.2
20°	5330.5	4772.6	3547.2	2199.1	996.0	546.1	479.5	467.6	455.8	448.4	448.4
22.5°	5346.8	4695.6	3263.1	1684.1	627.5	442.5	421.8	409.9	395.1	384.8	383.3
25°	5363.0	4636.4	2973.1	1198.7	454.3	384.8	364.0	347.8	327.1	313.7	312.3
27.5°	5366.0	4562.4	2662.3	802.1	380.3	335.9	309.3	284.1	260.5	247.1	245.7
30°	5321.6	4438.1	2317.5	541.6	335.9	291.5	256.0	229.4	207.2	196.8	196.8
32.5°	5234.3	4284.2	1938.6	408.4	298.9	250.1	211.6	186.5	171.7	167.2	165.7
35°	5155.9	4118.5	1549.4	346.3	267.9	211.6	173.1	156.9	148.0	146.5	145.0
37.5°	5110.0	3985.3	1183.9	313.7	238.3	177.6	146.5	134.7	130.2	127.3	128.7
40°	5145.5	3874.3	874.6	287.1	208.7	148.0	124.3	118.4	113.9	112.5	112.5
42.5°	5300.9	3855.1	649.7	263.4	180.5	122.8	108.0	103.6	100.6	99.2	100.6
45°	5709.3	3973.4	504.6	241.2	152.4	103.6	91.8	90.3	88.8	88.8	88.8
47.5°	6323.5	4217.6	420.3	216.1	127.3	88.8	79.9	78.4	77.0	78.4	78.4
50°	7363.8	4664.5	375.9	190.9	105.1	75.5	68.1	68.1	68.1	68.1	69.6
52.5°	8945.8	5543.6	346.3	165.7	85.8	63.6	57.7	57.7	59.2	59.2	60.7
55°	10708.3	6709.7	319.7	140.6	72.5	53.3	47.4	48.8	50.3	51.8	51.8
57.5°	12620.3	8001.7	297.5	115.4	62.2	42.9	40.0	41.4	42.9	45.9	45.9
60°	14927.4	9400.1	264.9	90.3	51.8	34.0	31.1	34.0	38.5	41.4	42.9
62.5°	17461.0	10752.7	223.5	71.0	42.9	26.6	25.2	31.1	37.0	40.0	41.4
65°	19192.4	11177.5	171.7	57.7	32.6	19.2	20.7	28.1	35.5	40.0	40.0
67°	18491.0	10134.1	140.6	48.8	26.6	14.8	19.2	28.1	35.5	38.5	40.0
67.5°	18004.1	9725.7	134.7	47.4	25.2	14.8	19.2	28.1	35.5	40.0	40.0
70°	14649.2	7306.1	112.5	35.5	20.7	13.3	16.3	26.6	34.0	38.5	38.5
72.5°	10178.5	4504.7	100.6	25.2	17.8	11.8	14.8	25.2	32.6	37.0	38.5
75°	4839.2	1630.8	85.8	19.2	16.3	10.4	13.3	25.2	32.6	37.0	37.0
77.5°	987.1	378.8	69.6	16.3	13.3	10.4	11.8	23.7	31.1	35.5	35.5
80°	324.1	146.5	51.8	14.8	13.3	10.4	11.8	22.2	31.1	34.0	35.5
82.5°	233.8	74.0	34.0	14.8	13.3	10.4	10.4	22.2	29.6	34.0	34.0
85°	179.1	51.8	22.2	14.8	13.3	10.4	10.4	20.7	28.1	32.6	32.6
87.5°	118.4	20.7	17.8	14.8	13.3	10.4	10.4	20.7	26.6	31.1	32.6
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)