

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: P299602

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299602
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-HSS
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(5) 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: 22383.7 lumens
Efficiency: N/A
Efficacy: 80.2 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 - G4

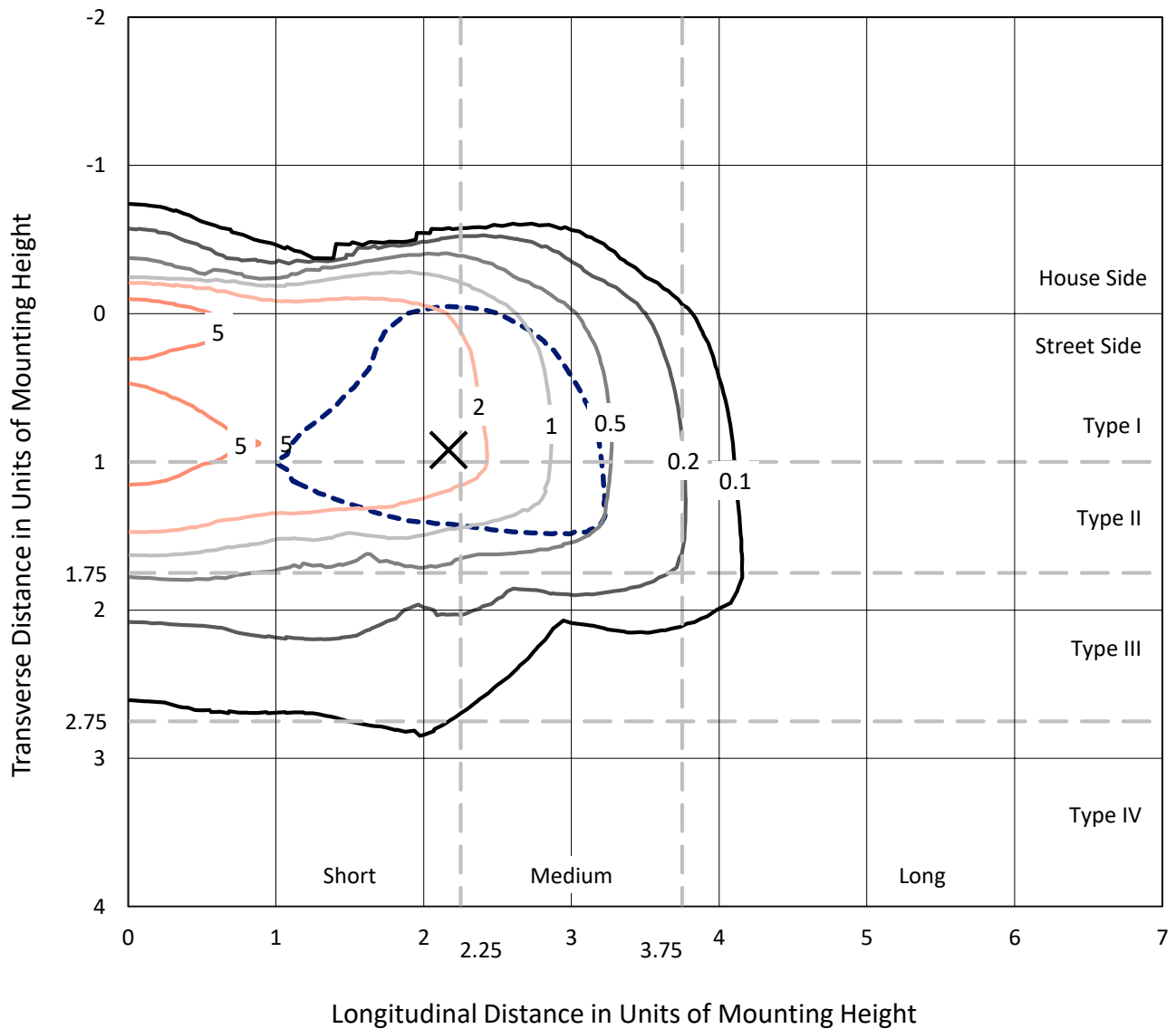
Input Watts (W): 279
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

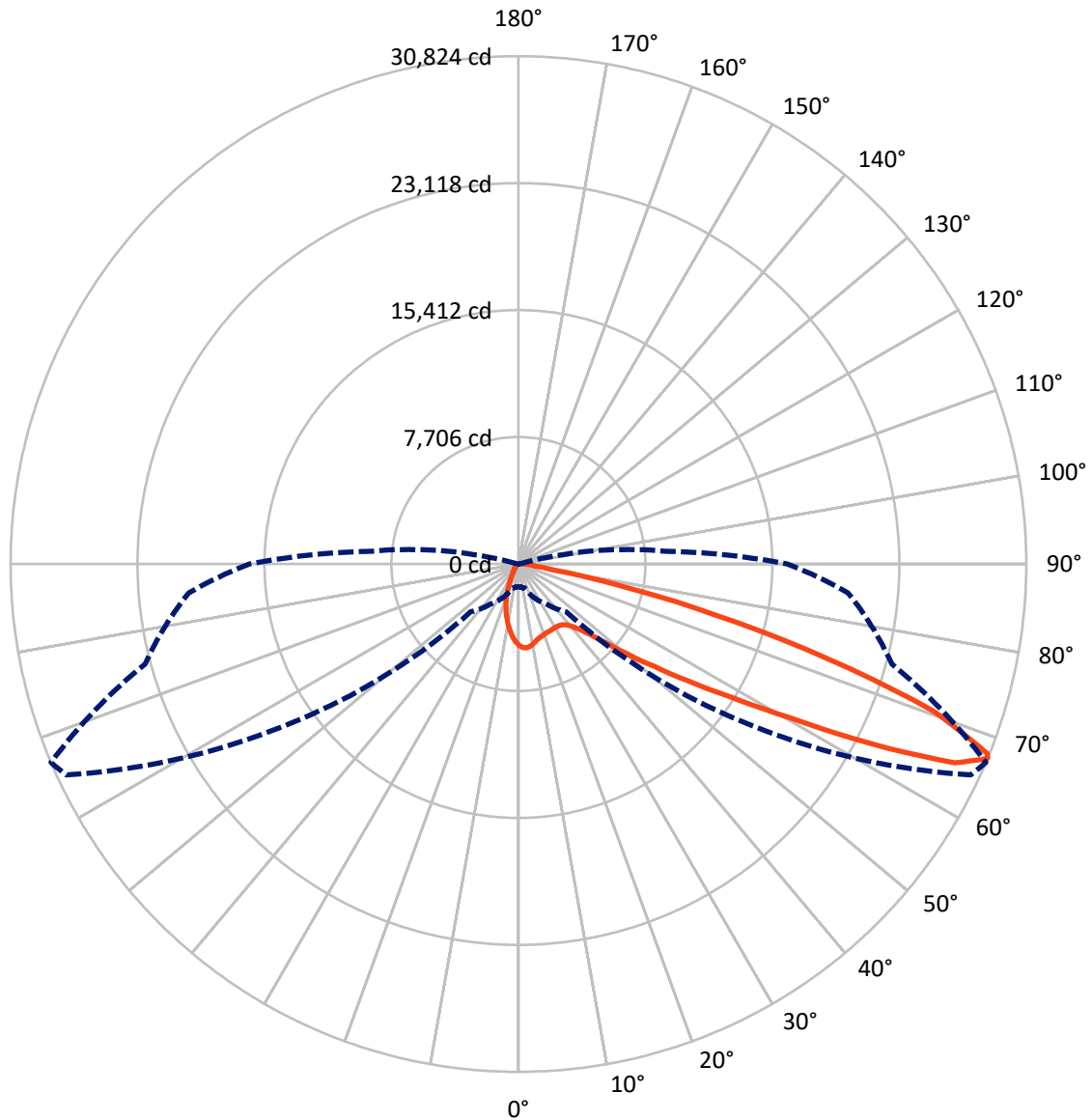
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.9 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	2324.1	0.0	2324.1
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	20059.6	0.0	20059.6
	% Fixture	89.6	0.0	89.6
Total	Lumens	22383.7	0.0	22383.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	401.7	1.8
10°-20°	854.9	3.8
20°-30°	1243.0	5.6
30°-40°	1939.1	8.7
40°-50°	3435.0	15.3
50°-60°	5435.5	24.3
60°-70°	6225.6	27.8
70°-80°	2582.3	11.5
80°-90°	266.7	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°	22383.7	100.0
0°-180°	22383.7	100.0



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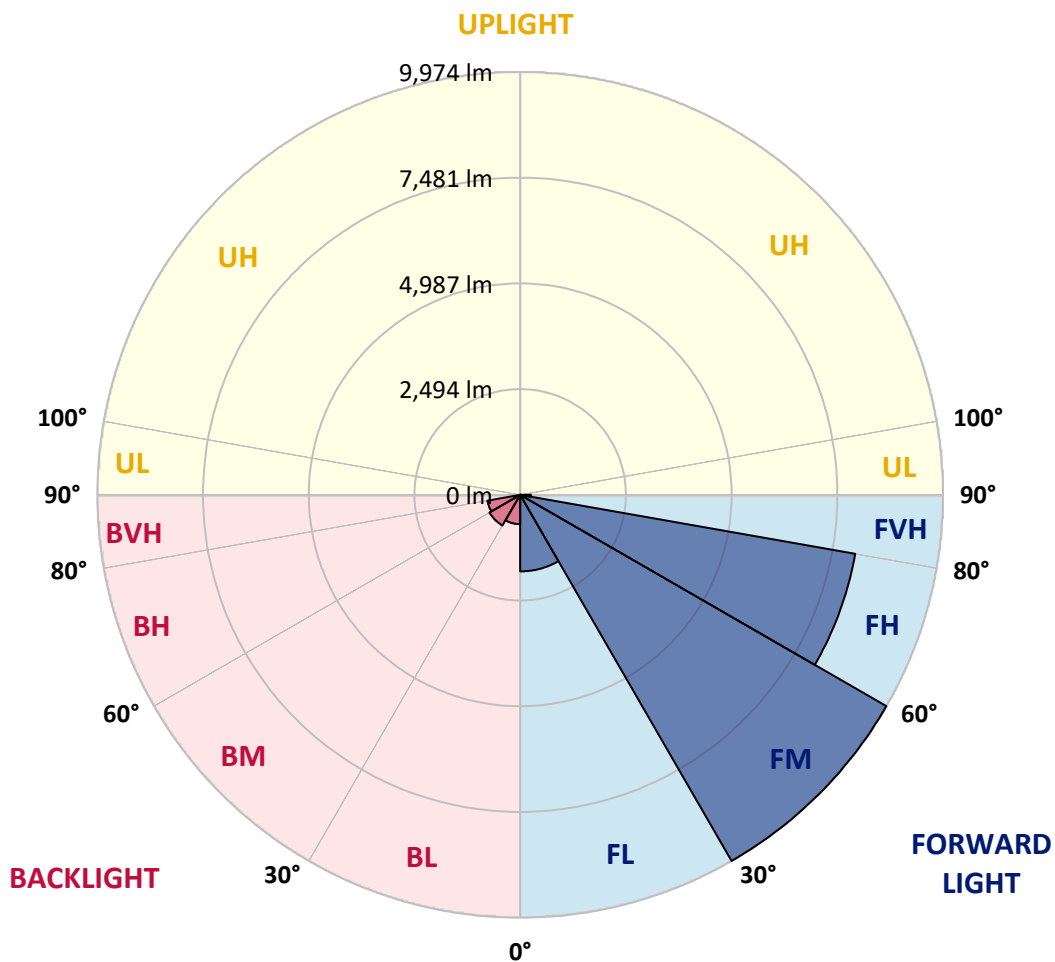
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1806.0	8.1			
FM	(30°-60°)	9974.2	44.6			
FH	(60°-80°)	8024.6	35.9			G4/12000
FVH	(80°-90°)	254.7	1.1			G3/500
BL	(0°-30°)	693.5	3.1	B2/1000		
BM	(30°-60°)	835.3	3.7	B1/1000		
BH	(60°-80°)	783.3	3.5	B2/1000		G2/1000
BVH	(80°-90°)	12.0	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°	4936.4	4936.4	4936.4	4936.4	4936.4	4936.4	4936.4	4936.4	4936.4	4936.4	4936.4
2.5°	5103.6	5114.0	5112.7	5120.5	5138.8	5140.1	5121.8	5086.6	5078.8	5033.1	4953.4
5°	4706.7	4736.7	4755.0	4829.4	4912.9	5013.5	5089.2	5116.6	5112.7	5080.1	4959.9
7.5°	4253.6	4283.6	4304.5	4392.0	4503.0	4675.3	4872.5	5034.4	5048.7	5084.0	4954.7
10°	3952.0	3957.2	3986.0	4069.5	4185.7	4362.0	4597.0	4880.3	4923.4	5052.6	4941.7
12.5°	3704.0	3707.9	3745.7	3835.8	3959.9	4137.4	4384.2	4711.9	4778.5	5013.5	4939.1
15°	3527.7	3542.1	3576.0	3670.0	3801.9	3978.1	4231.4	4587.8	4667.5	4999.1	4962.6
17.5°	3469.0	3484.6	3495.1	3563.0	3683.1	3855.4	4115.2	4506.9	4597.0	5006.9	5008.2
20°	3530.3	3542.1	3518.6	3535.5	3610.0	3764.0	4017.3	4437.7	4544.8	5016.1	5067.0
22.5°	3758.8	3764.0	3700.0	3625.6	3612.6	3697.4	3940.3	4382.9	4497.8	5040.9	5136.2
25°	4150.5	4141.3	4036.9	3876.3	3724.9	3685.7	3894.6	4348.9	4474.3	5067.0	5208.0
27.5°	4623.1	4636.2	4492.5	4258.8	3970.3	3764.0	3888.1	4334.6	4463.8	5085.3	5270.7
30°	5197.6	5215.8	5051.3	4757.6	4343.7	3957.2	3948.1	4332.0	4457.3	5073.5	5275.9
32.5°	5783.8	5806.0	5676.7	5373.8	4842.4	4281.0	4083.9	4360.7	4470.3	5033.1	5245.9
35°	6397.4	6428.7	6342.6	6082.8	5518.7	4748.4	4322.8	4448.2	4531.7	5029.1	5215.8
37.5°	7244.7	7273.5	7111.6	6836.1	6337.3	5375.1	4706.7	4612.7	4676.6	5091.8	5223.7
40°	8509.8	8505.9	8088.1	7666.4	7236.9	6171.5	5245.9	4910.3	4943.0	5281.1	5320.3
42.5°	9888.6	9882.0	9264.5	8623.4	8235.7	7152.0	5954.8	5424.7	5402.5	5629.7	5571.0
45°	10951.3	10950.0	10446.0	9724.0	9438.1	8277.5	6871.3	6140.2	6106.3	6196.3	6033.1
47.5°	11404.3	11412.2	11158.9	10651.0	10771.1	9799.8	8026.8	7176.8	7125.9	7089.4	6841.3
50°	11051.8	11067.5	11088.4	10989.2	11749.0	11845.6	9576.5	8637.8	8613.0	8449.8	8062.0
52.5°	9900.3	9979.9	10225.4	10540.0	12088.5	13809.2	12006.2	10452.6	10319.4	10145.8	9718.8
55°	7960.2	8047.7	8513.8	9277.5	11583.2	15099.2	15411.2	12792.2	12570.2	12051.9	11435.7
57.5°	5268.1	5403.8	6080.1	7051.5	10115.7	15306.8	18808.4	16039.2	15266.3	13847.1	13152.5
60°	2902.3	3032.9	3766.6	4646.6	7306.1	14280.6	21093.1	20266.7	18901.1	15853.8	15237.6
62.5°	1787.4	1857.9	2399.7	3218.3	4381.6	11271.2	21565.8	25579.2	23998.1	18437.6	17756.0
65°	1423.1	1453.1	1718.2	2630.8	3141.3	6704.2	20039.5	29629.1	29101.6	21565.8	20010.8
67°	1381.3	1393.1	1518.4	2258.7	2961.1	4110.0	16788.6	30288.4	30823.7	23458.9	20081.3
67.5°	1390.5	1403.5	1522.3	2155.5	2955.9	3777.1	15668.4	30028.6	30704.9	23609.0	19769.3
70°	1340.8	1381.3	1743.0	2154.2	2810.9	3138.6	9383.3	26017.8	26721.5	21936.6	16774.2
72.5°	475.2	477.8	753.3	1743.0	3056.4	3172.6	4711.9	19073.4	19594.3	16780.8	12093.7
75°	282.0	240.2	250.7	496.1	2920.6	3081.2	2718.2	12187.7	12382.2	9615.7	6124.5
77.5°	194.5	169.7	174.9	219.3	1112.4	3038.1	2159.4	6355.6	6148.0	3372.3	1304.3
80°	111.0	97.9	104.4	191.9	404.7	2834.4	2036.7	2577.2	2197.3	571.8	360.3
82.5°	58.8	49.6	60.1	158.0	282.0	1766.5	2040.6	1245.5	987.0	193.2	245.5
85°	20.9	17.0	28.7	108.4	188.0	541.8	1891.8	1047.1	822.5	94.0	186.7
87.5°	3.9	3.9	11.8	44.4	75.7	165.8	1118.9	621.5	416.5	56.1	127.9
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°	4936.4	4936.4	4936.4	4936.4	4936.4	4936.4	4936.4	4936.4	4936.4	4936.4	4936.4
2.5°	4920.8	4864.6	4788.9	4696.2	4586.5	4489.9	4418.1	4343.7	4328.0	4301.9	4298.0
5°	4888.1	4791.5	4603.5	4388.1	4158.3	3950.7	3782.3	3632.2	3565.6	3508.1	3501.6
7.5°	4839.8	4694.9	4375.0	4027.8	3668.7	3342.3	3065.5	2869.7	2689.5	2603.3	2590.3
10°	4783.7	4576.1	4117.8	3636.1	3139.9	2679.1	2267.8	1923.1	1714.2	1590.2	1574.5
12.5°	4731.5	4459.9	3855.4	3230.0	2570.7	1954.5	1425.7	1096.7	877.4	788.6	778.1
15°	4706.7	4365.9	3610.0	2814.9	1975.4	1244.2	779.4	603.2	531.4	510.5	509.2
17.5°	4704.0	4286.3	3369.7	2385.3	1383.9	723.3	507.9	463.5	449.1	443.9	443.9
20°	4702.7	4210.5	3129.5	1940.1	878.7	481.8	423.0	412.6	402.1	395.6	395.6
22.5°	4717.1	4142.6	2878.8	1485.8	553.6	390.4	372.1	361.6	348.6	339.5	338.1
25°	4731.5	4090.4	2622.9	1057.5	400.8	339.5	321.2	306.8	288.5	276.8	275.5
27.5°	4734.1	4025.1	2348.8	707.6	335.5	296.4	272.9	250.7	229.8	218.0	216.7
30°	4694.9	3915.5	2044.6	477.8	296.4	257.2	225.9	202.4	182.8	173.6	173.6
32.5°	4617.9	3779.7	1710.3	360.3	263.7	220.6	186.7	164.5	151.4	147.5	146.2
35°	4548.7	3633.5	1367.0	305.5	236.3	186.7	152.8	138.4	130.6	129.3	127.9
37.5°	4508.2	3516.0	1044.5	276.8	210.2	156.7	129.3	118.8	114.9	112.3	113.6
40°	4539.5	3418.0	771.6	253.3	184.1	130.6	109.7	104.4	100.5	99.2	99.2
42.5°	4676.6	3401.1	573.2	232.4	159.3	108.4	95.3	91.4	88.8	87.5	88.8
45°	5037.0	3505.5	445.2	212.8	134.5	91.4	80.9	79.6	78.3	78.3	78.3
47.5°	5578.8	3720.9	370.8	190.6	112.3	78.3	70.5	69.2	67.9	69.2	69.2
50°	6496.6	4115.2	331.6	168.4	92.7	66.6	60.1	60.1	60.1	60.1	61.4
52.5°	7892.3	4890.7	305.5	146.2	75.7	56.1	50.9	50.9	52.2	52.2	53.5
55°	9447.3	5919.6	282.0	124.0	64.0	47.0	41.8	43.1	44.4	45.7	45.7
57.5°	11134.1	7059.3	262.4	101.8	54.8	37.9	35.3	36.6	37.9	40.5	40.5
60°	13169.5	8293.1	233.7	79.6	45.7	30.0	27.4	30.0	33.9	36.6	37.9
62.5°	15404.7	9486.4	197.1	62.7	37.9	23.5	22.2	27.4	32.6	35.3	36.6
65°	16932.2	9861.1	151.4	50.9	28.7	17.0	18.3	24.8	31.3	35.3	35.3
67°	16313.4	8940.7	124.0	43.1	23.5	13.1	17.0	24.8	31.3	33.9	35.3
67.5°	15883.8	8580.3	118.8	41.8	22.2	13.1	17.0	24.8	31.3	35.3	35.3
70°	12924.1	6445.7	99.2	31.3	18.3	11.8	14.4	23.5	30.0	33.9	33.9
72.5°	8979.9	3974.2	88.8	22.2	15.7	10.4	13.1	22.2	28.7	32.6	33.9
75°	4269.3	1438.8	75.7	17.0	14.4	9.1	11.8	22.2	28.7	32.6	32.6
77.5°	870.8	334.2	61.4	14.4	11.8	9.1	10.4	20.9	27.4	31.3	31.3
80°	285.9	129.3	45.7	13.1	11.8	9.1	10.4	19.6	27.4	30.0	31.3
82.5°	206.3	65.3	30.0	13.1	11.8	9.1	9.1	19.6	26.1	30.0	30.0
85°	158.0	45.7	19.6	13.1	11.8	9.1	9.1	18.3	24.8	28.7	28.7
87.5°	104.4	18.3	15.7	13.1	11.8	9.1	9.1	18.3	23.5	27.4	28.7
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)