

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: P299686

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299686
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-SL2-800-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 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: 32345.7 lumens
Efficiency: N/A
Efficacy: 86.5 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B3 - 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

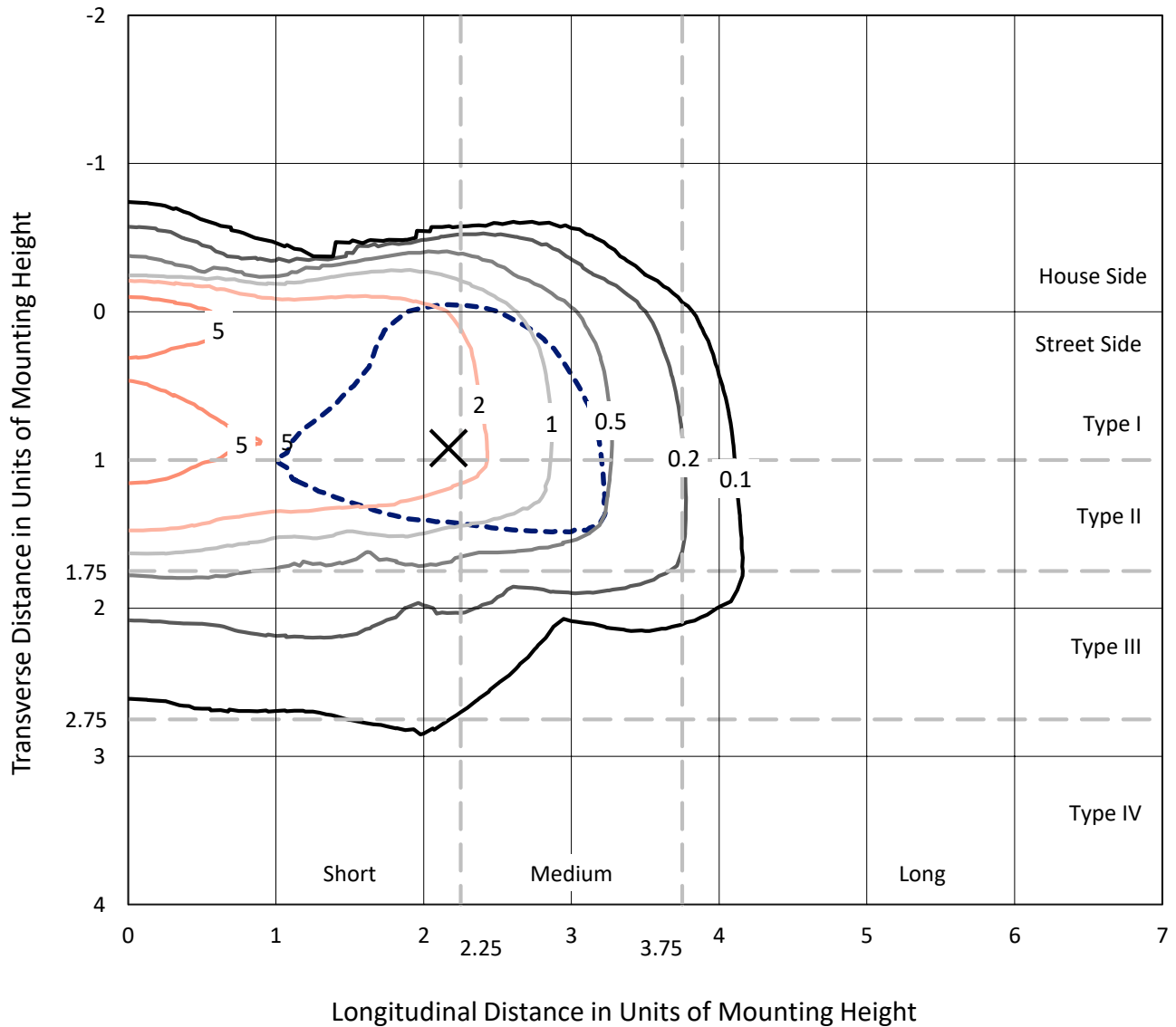


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

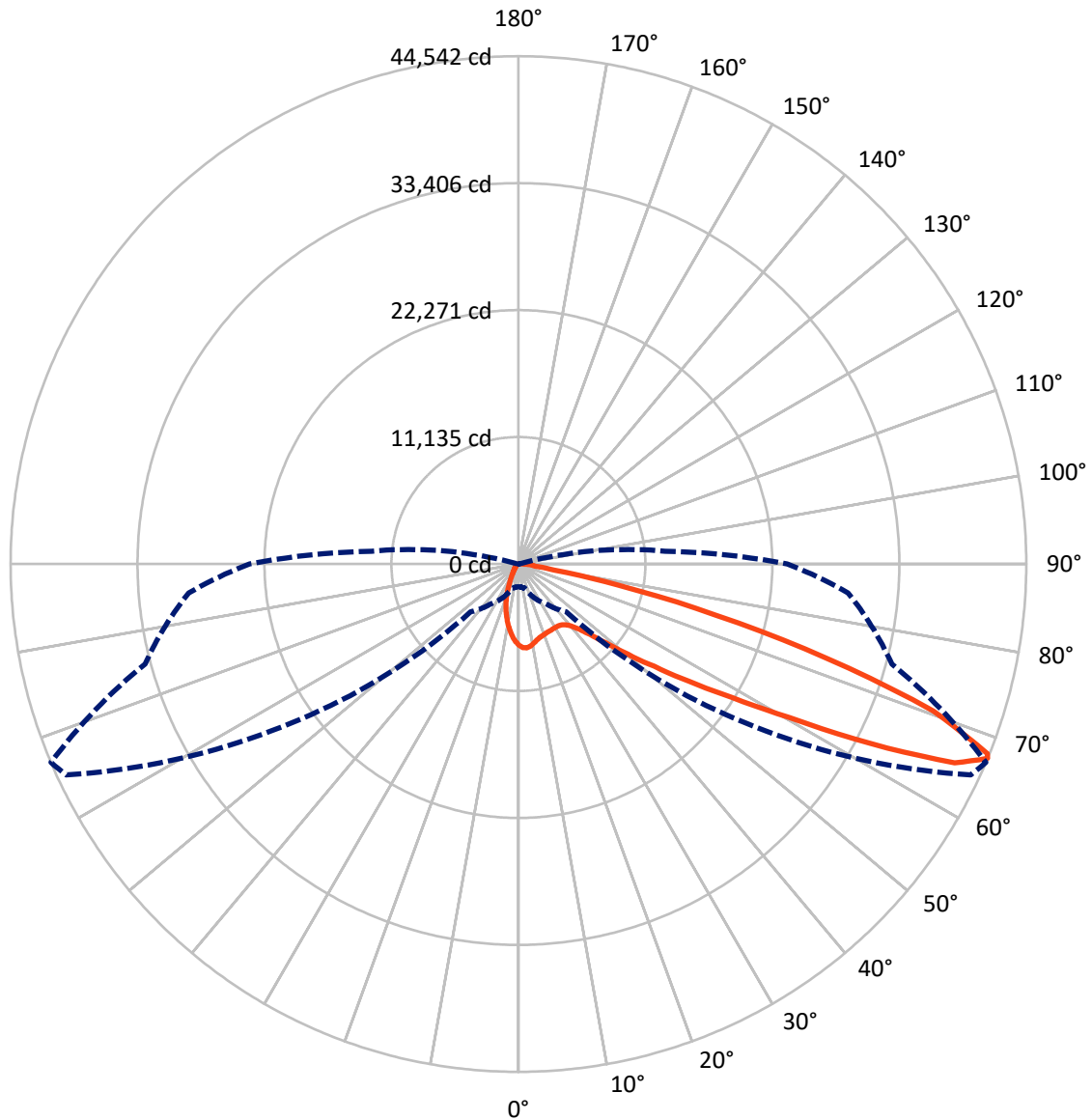


Based on 30 foot mounting height. Maximum calculated value = 7.9 fc
 Type II - Short - Semi-Cutoff

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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	3358.5	0.0	3358.5
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	28987.3	0.0	28987.3
	% Fixture	89.6	0.0	89.6
Total	Lumens	32345.7	0.0	32345.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	580.4	1.8
10°-20°	1235.4	3.8
20°-30°	1796.2	5.6
30°-40°	2802.1	8.7
40°-50°	4963.7	15.3
50°-60°	7854.6	24.3
60°-70°	8996.3	27.8
70°-80°	3731.6	11.5
80°-90°	385.5	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°	32345.7	100.0
0°-180°	32345.7	100.0

Coefficient of Utilization



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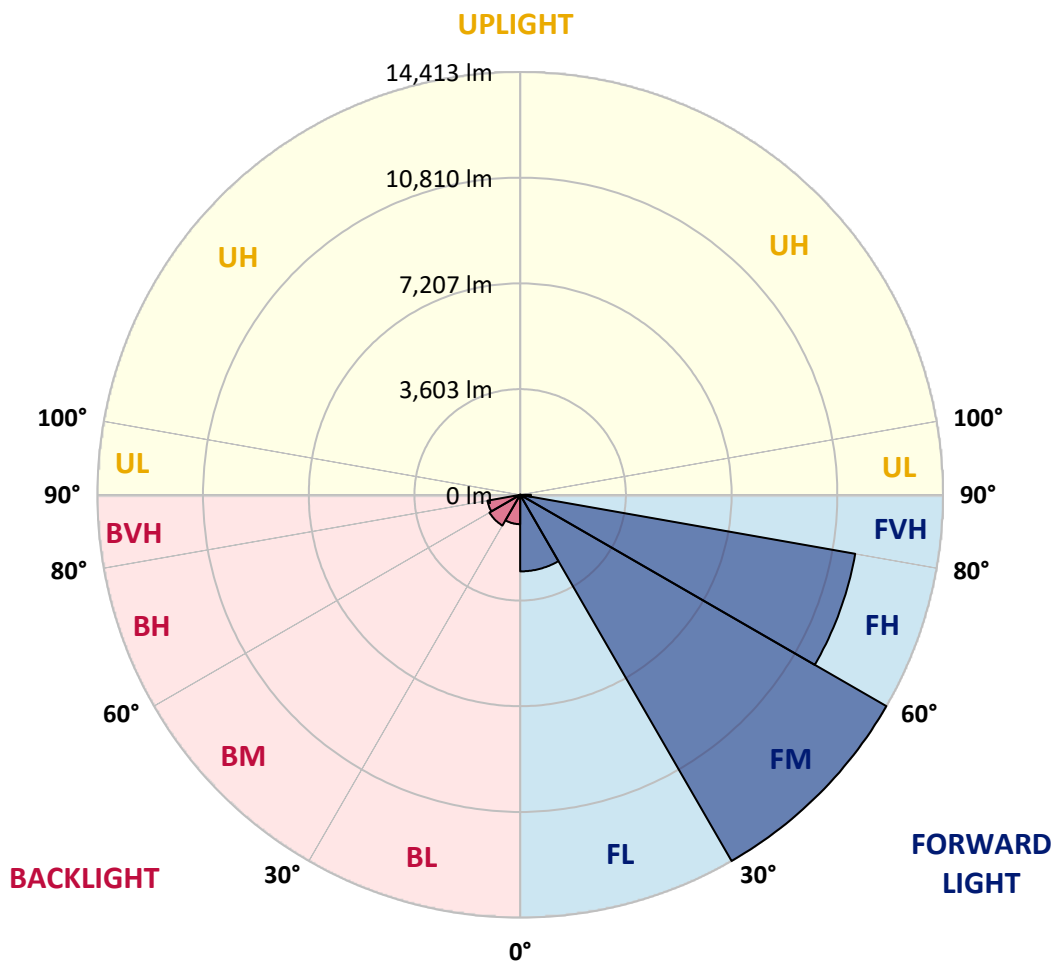
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2609.8	8.1			
FM	(30°-60°)	14413.3	44.6			
FH	(60°-80°)	11596.0	35.9			G4/12000
FVH	(80°-90°)	368.1	1.1			G3/500
BL	(0°-30°)	1002.2	3.1	B3/2500		
BM	(30°-60°)	1207.0	3.7	B2/2500		
BH	(60°-80°)	1131.9	3.5	B3/2500		G3/2500
BVH	(80°-90°)	17.4	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	7133.4	7133.4	7133.4	7133.4	7133.4	7133.4	7133.4	7133.4	7133.4	7133.4	7133.4
2.5°	7374.9	7390.0	7388.1	7399.4	7425.9	7427.7	7401.3	7350.4	7339.1	7273.0	7158.0
5°	6801.4	6844.8	6871.2	6978.7	7099.5	7244.7	7354.2	7393.8	7388.1	7341.0	7167.4
7.5°	6146.7	6190.1	6220.3	6346.7	6507.1	6756.1	7041.0	7274.9	7295.7	7346.6	7159.8
10°	5710.9	5718.4	5759.9	5880.7	6048.6	6303.3	6642.9	7052.3	7114.6	7301.3	7141.0
12.5°	5352.4	5358.1	5412.8	5543.0	5722.2	5978.8	6335.4	6808.9	6905.1	7244.7	7137.2
15°	5097.7	5118.5	5167.5	5303.4	5493.9	5748.6	6114.6	6629.7	6744.8	7224.0	7171.2
17.5°	5012.8	5035.5	5050.6	5148.7	5322.2	5571.3	5946.7	6512.7	6642.9	7235.3	7237.2
20°	5101.5	5118.5	5084.5	5109.0	5216.6	5439.2	5805.2	6412.7	6567.4	7248.5	7322.1
22.5°	5431.7	5439.2	5346.8	5239.2	5220.4	5343.0	5693.9	6333.5	6499.5	7284.4	7422.1
25°	5997.7	5984.5	5833.5	5601.5	5382.6	5326.0	5627.9	6284.4	6465.6	7322.1	7525.8
27.5°	6680.6	6699.5	6492.0	6154.3	5737.3	5439.2	5618.4	6263.7	6450.5	7348.5	7616.4
30°	7510.8	7537.2	7299.5	6875.0	6276.9	5718.4	5705.2	6259.9	6441.0	7331.5	7624.0
32.5°	8357.9	8389.9	8203.2	7765.5	6997.6	6186.3	5901.4	6301.4	6459.9	7273.0	7580.6
35°	9244.6	9289.9	9165.3	8789.9	7974.9	6861.7	6246.7	6427.8	6548.6	7267.4	7537.2
37.5°	10469.0	10510.5	10276.6	9878.5	9157.8	7767.3	6801.4	6665.5	6758.0	7357.9	7548.5
40°	12297.2	12291.5	11687.8	11078.4	10457.7	8918.2	7580.6	7095.7	7142.9	7631.5	7688.1
42.5°	14289.5	14280.1	13387.7	12461.3	11901.0	10335.1	8605.0	7839.0	7807.0	8135.2	8050.3
45°	15825.2	15823.3	15095.1	14051.8	13638.6	11961.4	9929.4	8872.9	8823.9	8954.0	8718.2
47.5°	16479.9	16491.2	16125.2	15391.3	15564.9	14161.2	11599.1	10370.9	10297.3	10244.5	9886.0
50°	15970.5	15993.1	16023.3	15879.9	16978.0	17117.6	13838.6	12482.1	12446.2	12210.4	11650.1
52.5°	14306.5	14421.6	14776.2	15230.9	17468.5	19955.1	17349.6	15104.5	14912.1	14661.2	14044.2
55°	11502.9	11629.3	12302.8	13406.5	16738.4	21819.1	22270.0	18485.4	18164.7	17415.7	16525.2
57.5°	7612.6	7808.8	8786.1	10189.8	14617.8	22119.1	27179.1	23177.5	22060.6	20009.8	19006.1
60°	4194.0	4382.7	5443.0	6714.6	10557.7	20636.2	30480.7	29286.5	27313.0	22909.6	22019.1
62.5°	2582.8	2684.7	3467.7	4650.6	6331.6	16287.5	31163.7	36963.3	34678.5	26643.3	25658.4
65°	2056.4	2099.8	2482.8	3801.6	4539.3	9688.0	28958.2	42815.6	42053.4	31163.7	28916.7
67°	1996.1	2013.1	2194.2	3263.9	4278.9	5939.2	24260.4	43768.4	44541.9	33899.3	29018.6
67.5°	2009.3	2028.1	2199.8	3114.9	4271.4	5458.1	22641.7	43393.0	44370.2	34116.3	28567.7
70°	1937.6	1996.1	2518.7	3113.0	4062.0	4535.5	13559.4	37597.2	38614.1	31699.5	24239.7
72.5°	686.7	690.5	1088.6	2518.7	4416.6	4584.6	6808.9	27562.1	28314.9	24249.1	17476.0
75°	407.5	347.1	362.2	716.9	4220.4	4452.5	3928.0	17611.9	17893.0	13895.2	8850.3
77.5°	281.1	245.3	252.8	317.0	1607.4	4390.2	3120.5	9184.2	8884.2	4873.2	1884.8
80°	160.4	141.5	150.9	277.3	584.9	4095.9	2943.2	3724.2	3175.2	826.4	520.7
82.5°	84.9	71.7	86.8	228.3	407.5	2552.6	2948.8	1799.9	1426.3	279.2	354.7
85°	30.2	24.5	41.5	156.6	271.7	783.0	2733.8	1513.1	1188.6	135.8	269.8
87.5°	5.7	5.7	17.0	64.1	109.4	239.6	1616.9	898.0	601.8	81.1	184.9
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°	7133.4	7133.4	7133.4	7133.4	7133.4	7133.4	7133.4	7133.4	7133.4	7133.4	7133.4
2.5°	7110.8	7029.7	6920.2	6786.3	6627.8	6488.2	6384.4	6276.9	6254.2	6216.5	6210.9
5°	7063.6	6924.0	6652.3	6341.0	6009.0	5709.0	5465.6	5248.7	5152.4	5069.4	5060.0
7.5°	6993.8	6784.4	6322.2	5820.3	5301.5	4829.8	4429.9	4146.9	3886.5	3762.0	3743.1
10°	6912.7	6612.7	5950.5	5254.3	4537.4	3871.4	3277.1	2779.0	2477.2	2297.9	2275.3
12.5°	6837.2	6444.8	5571.3	4667.6	3714.8	2824.3	2060.2	1584.8	1267.8	1139.5	1124.4
15°	6801.4	6309.0	5216.6	4067.6	2854.5	1798.0	1126.3	871.6	767.9	737.7	735.8
17.5°	6797.6	6193.9	4869.4	3446.9	1999.8	1045.2	733.9	669.8	649.0	641.5	641.5
20°	6795.7	6084.4	4522.3	2803.6	1269.7	696.2	611.3	596.2	581.1	571.7	571.7
22.5°	6816.5	5986.3	4160.1	2147.0	799.9	564.1	537.7	522.6	503.7	490.5	488.6
25°	6837.2	5910.9	3790.3	1528.2	579.2	490.5	464.1	443.4	416.9	400.0	398.1
27.5°	6841.0	5816.5	3394.1	1022.6	484.9	428.3	394.3	362.2	332.1	315.1	313.2
30°	6784.4	5658.1	2954.5	690.5	428.3	371.7	326.4	292.4	264.1	250.9	250.9
32.5°	6673.1	5461.9	2471.5	520.7	381.1	318.8	269.8	237.7	218.9	213.2	211.3
35°	6573.1	5250.5	1975.3	441.5	341.5	269.8	220.7	200.0	188.7	186.8	184.9
37.5°	6514.6	5080.7	1509.3	400.0	303.8	226.4	186.8	171.7	166.0	162.3	164.1
40°	6559.9	4939.3	1115.0	366.0	266.0	188.7	158.5	150.9	145.3	143.4	143.4
42.5°	6758.0	4914.7	828.2	335.8	230.2	156.6	137.7	132.1	128.3	126.4	128.3
45°	7278.7	5065.7	643.3	307.5	194.3	132.1	117.0	115.1	113.2	113.2	113.2
47.5°	8061.7	5377.0	535.8	275.5	162.3	113.2	101.9	100.0	98.1	100.0	100.0
50°	9388.0	5946.7	479.2	243.4	134.0	96.2	86.8	86.8	86.8	86.8	88.7
52.5°	11404.8	7067.4	441.5	211.3	109.4	81.1	73.6	73.6	75.5	75.5	77.4
55°	13651.8	8554.1	407.5	179.2	92.4	67.9	60.4	62.3	64.1	66.0	66.0
57.5°	16089.4	10201.1	379.2	147.2	79.2	54.7	50.9	52.8	54.7	58.5	58.5
60°	19030.6	11984.0	337.7	115.1	66.0	43.4	39.6	43.4	49.1	52.8	54.7
62.5°	22260.6	13708.4	284.9	90.6	54.7	34.0	32.1	39.6	47.2	50.9	52.8
65°	24468.0	14249.9	218.9	73.6	41.5	24.5	26.4	35.8	45.3	50.9	50.9
67°	23573.7	12919.8	179.2	62.3	34.0	18.9	24.5	35.8	45.3	49.1	50.9
67.5°	22953.0	12399.1	171.7	60.4	32.1	18.9	24.5	35.8	45.3	50.9	50.9
70°	18676.0	9314.4	143.4	45.3	26.4	17.0	20.8	34.0	43.4	49.1	49.1
72.5°	12976.4	5743.0	128.3	32.1	22.6	15.1	18.9	32.1	41.5	47.2	49.1
75°	6169.3	2079.1	109.4	24.5	20.8	13.2	17.0	32.1	41.5	47.2	47.2
77.5°	1258.4	483.0	88.7	20.8	17.0	13.2	15.1	30.2	39.6	45.3	45.3
80°	413.2	186.8	66.0	18.9	17.0	13.2	15.1	28.3	39.6	43.4	45.3
82.5°	298.1	94.3	43.4	18.9	17.0	13.2	13.2	28.3	37.7	43.4	43.4
85°	228.3	66.0	28.3	18.9	17.0	13.2	13.2	26.4	35.8	41.5	41.5
87.5°	150.9	26.4	22.6	18.9	17.0	13.2	13.2	26.4	34.0	39.6	41.5
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)