

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: P301911

Luminaire Tested: **GLNA-AF-09-LED-E1-SL4-800-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301911
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)
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-SL4-800-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control WITH HOUSESIDE SHEILD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31702.5 lumens
Efficiency: N/A
Efficacy: 84.8 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G5

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

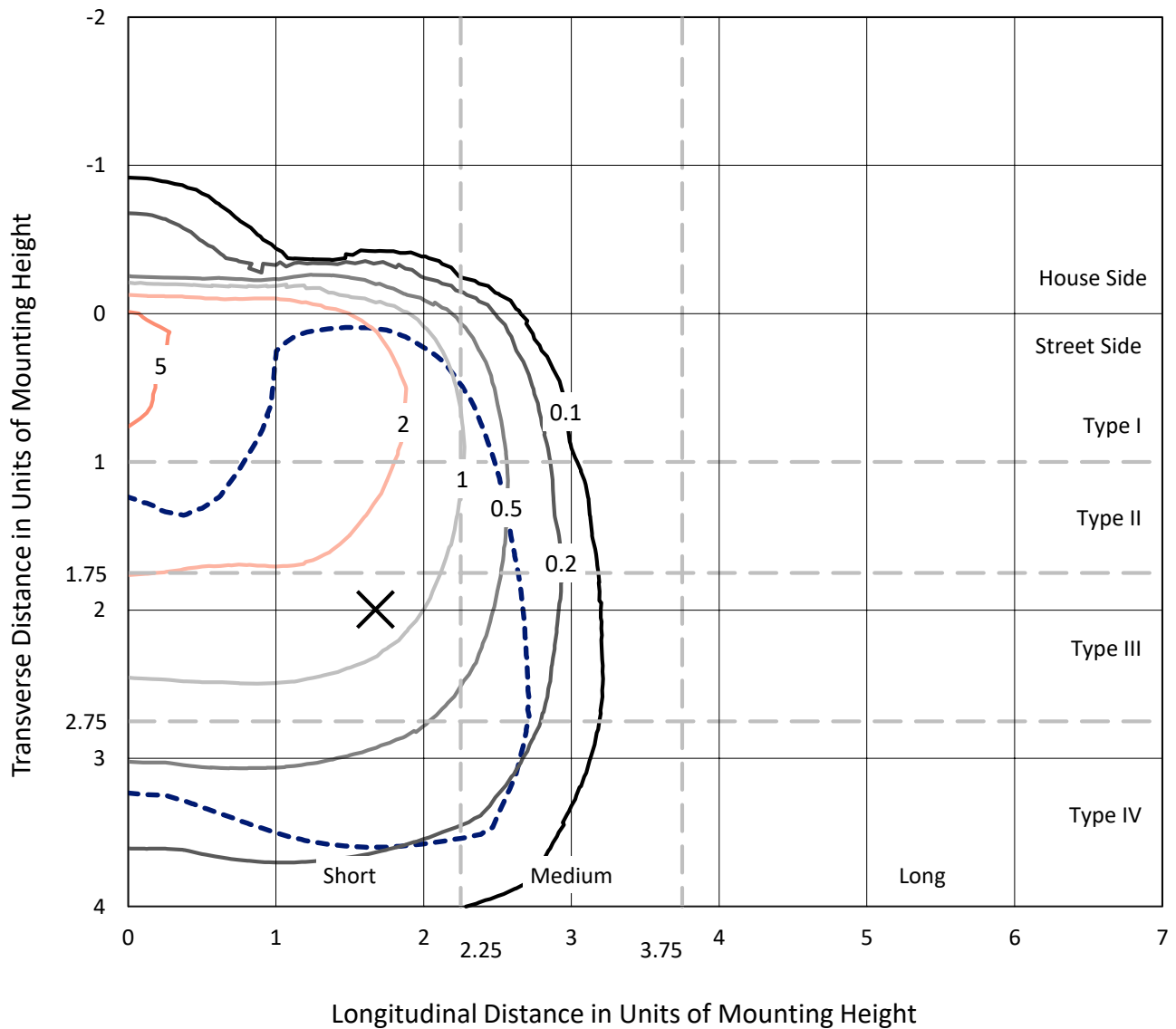


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

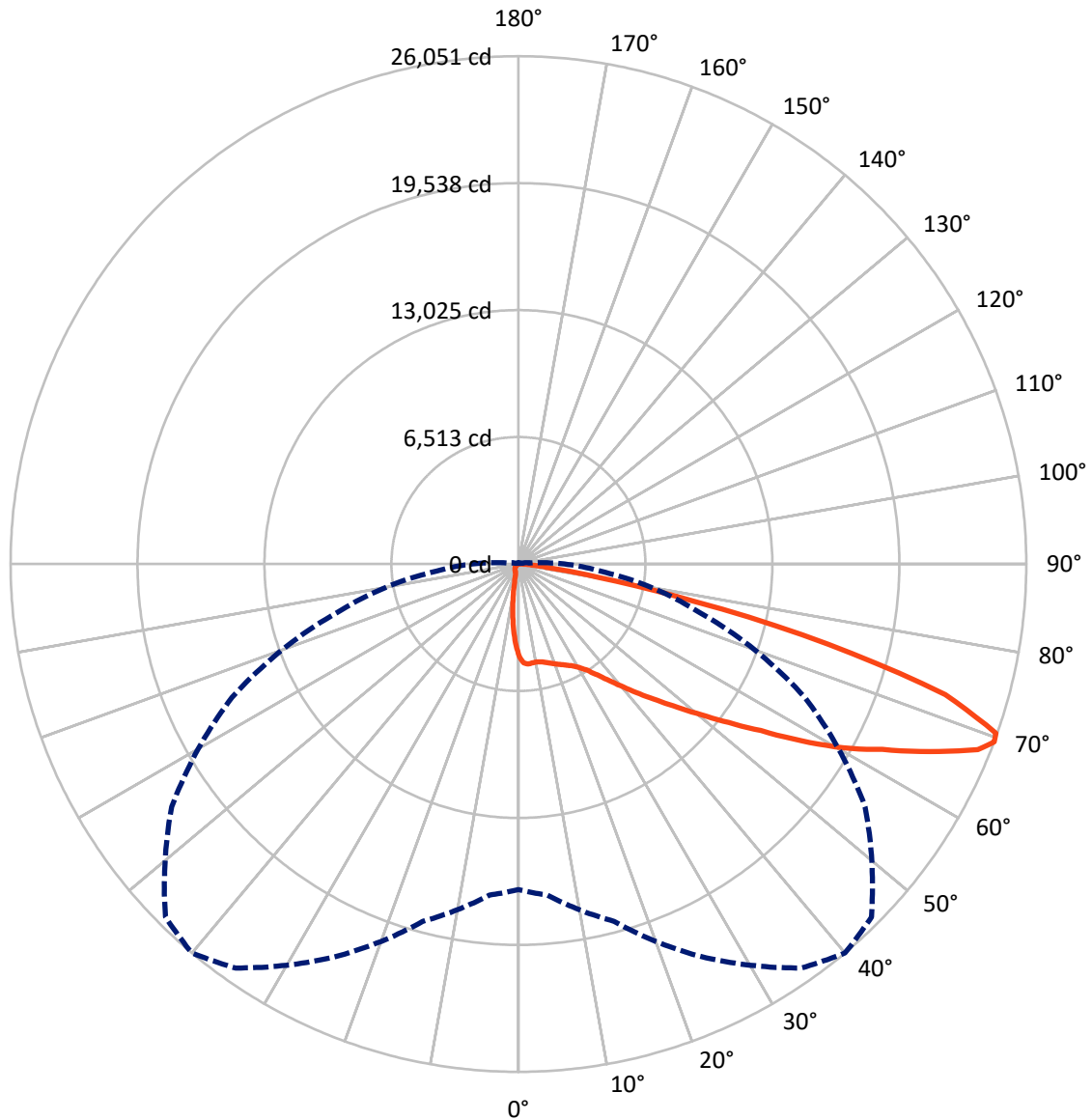


Based on 30 foot mounting height. Maximum calculated value = 5.8 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1854.8	0.0	1854.8
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	29847.7	0.0	29847.7
	% Fixture	94.1	0.0	94.1
Total	Lumens	31702.5	0.0	31702.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	384.0	1.2
10°-20°	944.4	3.0
20°-30°	1590.7	5.0
30°-40°	2604.1	8.2
40°-50°	4508.9	14.2
50°-60°	7101.9	22.4
60°-70°	9274.8	29.3
70°-80°	4776.9	15.1
80°-90°	516.7	1.6
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°	31702.5	100.0
0°-180°	31702.5	100.0

Coefficient of Utilization



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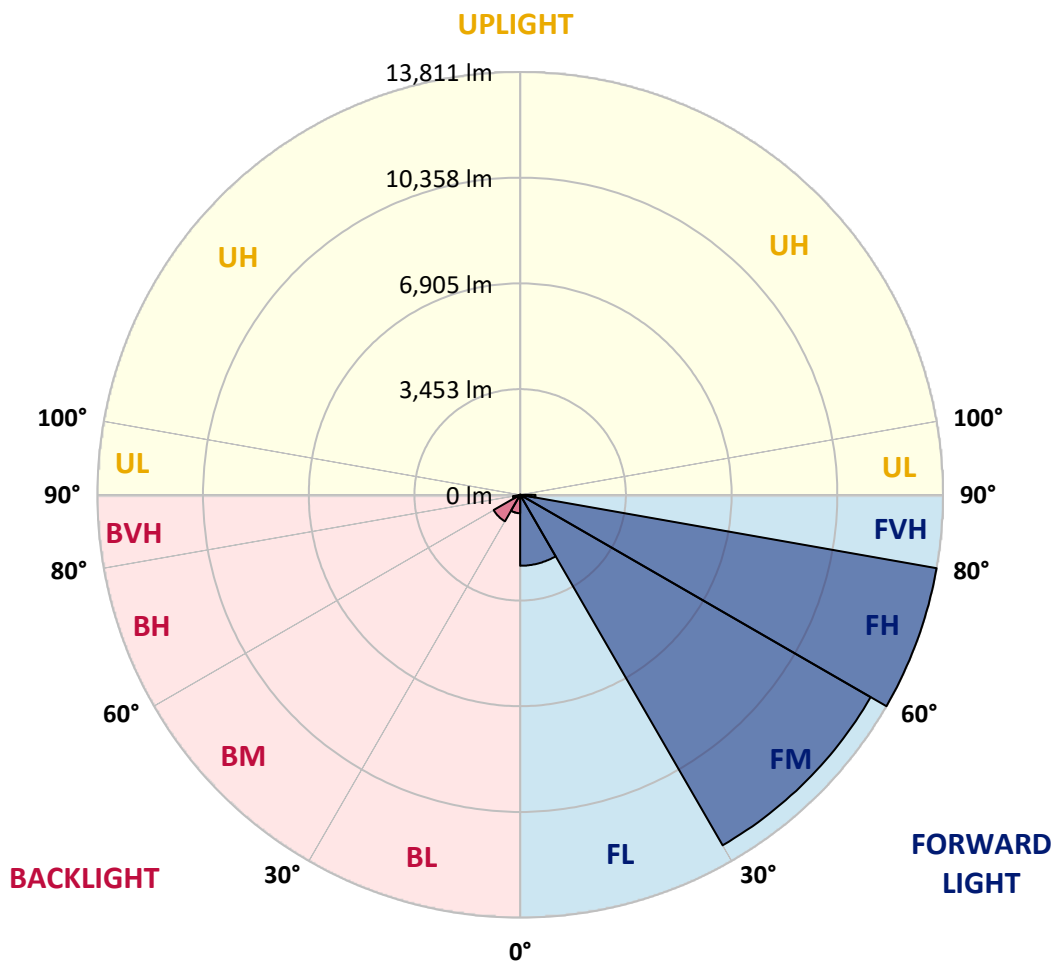
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2318.4	7.3			
FM	(30°-60°)	13217.9	41.7			
FH	(60°-80°)	13810.9	43.6			G5
FVH	(80°-90°)	500.5	1.6			G4/750
BL	(0°-30°)	600.8	1.9	B2/1000		
BM	(30°-60°)	996.9	3.1	B1/1000		
BH	(60°-80°)	240.8	0.8	B1/500		G1/500
BVH	(80°-90°)	16.2	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-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	4736.5	4736.5	4736.5	4736.5	4736.5	4736.5	4736.5	4736.5	4736.5	4736.5	4736.5
2.5°	5200.7	5172.4	5155.4	5132.8	5104.5	5080.0	5070.5	5000.7	4934.7	4844.1	4740.3
5°	5297.0	5287.5	5257.3	5227.1	5193.2	5155.4	5134.7	5051.7	4957.3	4825.2	4644.0
7.5°	5306.4	5295.1	5257.3	5215.8	5168.6	5123.4	5087.5	5004.5	4917.7	4783.7	4562.9
10°	5291.3	5278.1	5249.8	5204.5	5146.0	5102.6	5066.7	4987.5	4913.9	4793.1	4547.8
12.5°	5274.3	5261.1	5247.9	5225.3	5174.3	5144.1	5113.9	5038.4	4972.4	4870.5	4602.5
15°	5291.3	5283.8	5298.9	5289.4	5261.1	5234.7	5204.5	5136.6	5076.2	4991.3	4702.5
17.5°	5363.0	5363.0	5410.2	5415.9	5389.4	5351.7	5308.3	5240.4	5189.4	5117.7	4821.4
20°	5531.0	5525.3	5585.7	5597.0	5532.9	5474.4	5410.2	5327.2	5287.5	5242.2	4938.4
22.5°	5819.7	5793.3	5829.1	5817.8	5691.4	5600.8	5521.5	5419.6	5398.9	5378.1	5068.6
25°	6195.2	6180.1	6204.6	6093.3	5870.6	5748.0	5653.6	5538.5	5538.5	5559.3	5215.8
27.5°	6740.6	6684.0	6600.9	6404.7	6070.7	5914.0	5812.1	5689.5	5721.6	5798.9	5410.2
30°	7299.1	7236.9	7046.3	6744.3	6314.1	6149.9	6031.0	5902.7	5978.2	6119.7	5670.6
32.5°	7850.2	7780.3	7510.5	7129.3	6663.2	6499.0	6383.9	6242.4	6368.8	6606.6	6051.8
35°	8384.2	8321.9	8010.6	7561.4	7127.4	6991.5	6885.9	6763.2	6925.5	7257.6	6589.6
37.5°	8984.3	8916.3	8537.0	8050.2	7691.6	7593.5	7516.1	7393.5	7676.5	8163.4	7338.8
40°	9722.1	9607.0	9095.6	8610.6	8344.6	8297.4	8244.6	8227.6	8667.3	9340.9	8337.0
42.5°	10567.5	10378.8	9680.6	9201.3	9061.6	9095.6	9082.4	9157.9	9907.1	10805.3	9552.3
45°	11412.9	11169.5	10331.6	9831.6	9850.4	9969.3	10042.9	10344.8	11460.1	12484.8	10860.0
47.5°	12130.0	11890.3	10956.3	10512.8	10739.2	10973.2	11173.3	11745.0	13056.5	14137.8	11877.1
50°	12743.3	12516.9	11618.6	11262.0	11771.5	12148.9	12473.4	13320.7	14773.8	15396.5	12590.4
52.5°	13245.3	13094.3	12305.5	12120.6	12950.9	13503.8	13979.3	14994.6	16294.7	16419.3	13145.2
55°	13734.0	13626.4	13043.3	13141.5	14336.0	15088.9	15690.9	16770.3	17604.4	17272.2	13677.4
57.5°	14296.3	14198.2	13885.0	14436.0	16157.0	17104.3	17761.0	18344.1	18757.3	18144.1	14179.3
60°	14870.0	14813.4	14820.9	15873.9	18247.8	19157.4	19519.7	19670.7	19889.6	18964.9	14207.7
62.5°	15417.3	15524.8	15890.9	17474.1	20250.0	20948.2	21131.3	21280.3	21023.7	19095.1	13126.4
65°	16343.8	16519.3	17393.0	19616.0	22452.2	23199.5	23388.2	22876.8	21203.0	17411.9	10677.0
67.5°	16796.7	17117.5	18676.2	21612.5	24588.4	25418.7	25348.8	22980.6	19027.2	13277.3	6851.9
69°	16702.3	17043.9	18972.5	22223.9	25297.9	26050.8	25607.4	21710.6	16209.8	9618.3	4206.3
70°	16328.7	16674.0	18819.6	22201.2	25388.5	25984.8	25128.1	20142.4	13705.7	7033.1	2630.6
72.5°	13635.9	13934.0	16708.0	20067.0	23388.2	22903.2	21021.8	13954.8	6678.3	1915.4	592.5
75°	8393.6	8559.7	11988.5	15117.2	17664.7	16419.3	14005.7	6942.5	1990.8	541.6	328.3
77.5°	4434.6	4510.1	6563.2	8910.7	11197.8	9265.5	7178.4	2707.9	917.1	339.7	237.8
80°	2621.1	2677.7	3534.5	4074.2	4846.0	4047.7	2870.2	1662.5	656.7	213.2	211.4
82.5°	1500.2	1536.1	2562.6	2264.5	1909.7	1630.4	1428.5	1575.7	394.4	143.4	218.9
85°	551.0	558.6	1441.7	1722.9	1136.0	675.6	709.5	1305.8	105.7	90.6	171.7
87.5°	256.6	251.0	741.6	1054.9	664.2	428.4	552.9	286.8	41.5	58.5	47.2
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°	4736.5	4736.5	4736.5	4736.5	4736.5	4736.5	4736.5	4736.5	4736.5	4736.5	4736.5
2.5°	4679.9	4610.1	4483.6	4353.4	4221.3	4119.4	4019.4	3940.2	3913.8	3864.7	3868.5
5°	4536.5	4408.2	4144.0	3876.0	3596.7	3366.5	3149.5	2974.0	2889.1	2802.3	2802.3
7.5°	4411.9	4225.1	3811.9	3375.9	2924.9	2545.6	2204.1	1947.4	1805.9	1692.7	1690.8
10°	4364.8	4111.9	3534.5	2909.8	2281.5	1764.4	1358.7	1098.3	964.3	877.5	873.7
12.5°	4385.5	4072.3	3321.2	2479.6	1690.8	1134.1	786.9	619.0	562.3	535.9	535.9
15°	4445.9	4060.9	3108.0	2058.8	1194.5	709.5	522.7	477.4	473.7	473.7	473.7
17.5°	4519.5	4064.7	2889.1	1649.3	813.3	507.6	451.0	445.3	449.1	449.1	449.1
20°	4595.0	4066.6	2653.2	1270.0	573.7	441.6	424.6	422.7	426.5	426.5	428.4
22.5°	4687.5	4076.0	2417.3	949.2	473.7	417.0	403.8	403.8	405.7	405.7	403.8
25°	4793.1	4094.9	2172.0	703.9	432.1	400.1	388.7	386.8	388.7	386.8	385.0
27.5°	4925.2	4121.3	1898.4	551.0	413.3	383.1	373.6	373.6	371.8	369.9	368.0
30°	5091.3	4151.5	1590.8	468.0	394.4	368.0	358.5	356.7	354.8	351.0	351.0
32.5°	5344.1	4217.6	1287.0	424.6	373.6	347.2	339.7	339.7	335.9	332.1	330.2
35°	5732.9	4347.8	1015.2	398.2	351.0	324.6	315.1	315.1	311.4	309.5	307.6
37.5°	6270.7	4545.9	788.8	373.6	328.3	300.0	290.6	288.7	284.9	281.2	279.3
40°	6985.9	4791.2	620.8	351.0	305.7	275.5	268.0	264.2	256.6	251.0	251.0
42.5°	7884.1	5070.5	503.8	326.5	279.3	252.9	247.2	241.5	228.3	222.7	220.8
45°	8823.9	5321.5	426.5	298.2	252.9	230.2	226.4	217.0	200.0	194.4	194.4
47.5°	9501.3	5380.0	375.5	271.7	228.3	205.7	203.8	186.8	171.7	167.9	166.1
50°	9924.0	5264.9	334.0	245.3	205.7	183.0	177.4	156.6	147.2	143.4	141.5
52.5°	10209.0	5059.2	300.0	222.7	184.9	162.3	149.1	134.0	126.4	122.7	122.7
55°	10437.3	4768.6	266.1	201.9	167.9	145.3	126.4	115.1	107.6	103.8	103.8
57.5°	10501.5	4374.2	232.1	184.9	151.0	128.3	107.6	100.0	90.6	88.7	88.7
60°	10035.4	3662.8	205.7	164.2	135.9	111.3	94.4	84.9	75.5	73.6	71.7
62.5°	8806.9	2834.4	181.2	145.3	118.9	96.2	81.1	69.8	62.3	62.3	62.3
65°	6717.9	1900.3	158.5	126.4	103.8	81.1	69.8	56.6	52.8	52.8	54.7
67.5°	4021.3	1034.1	135.9	107.6	88.7	67.9	58.5	49.1	47.2	49.1	49.1
69°	2356.9	607.6	122.7	96.2	77.4	60.4	51.0	43.4	47.2	49.1	49.1
70°	1454.9	409.5	113.2	86.8	69.8	54.7	47.2	41.5	45.3	47.2	47.2
72.5°	405.7	211.4	90.6	67.9	56.6	45.3	37.7	37.7	43.4	45.3	45.3
75°	264.2	156.6	69.8	51.0	43.4	35.9	32.1	35.9	41.5	43.4	43.4
77.5°	218.9	128.3	56.6	41.5	35.9	34.0	30.2	32.1	37.7	39.6	39.6
80°	200.0	90.6	45.3	37.7	32.1	30.2	28.3	26.4	34.0	35.9	35.9
82.5°	190.6	71.7	39.6	34.0	30.2	26.4	24.5	26.4	30.2	32.1	34.0
85°	118.9	47.2	35.9	32.1	26.4	24.5	24.5	24.5	28.3	30.2	30.2
87.5°	43.4	37.7	32.1	26.4	22.6	22.6	22.6	22.6	24.5	28.3	28.3
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)