

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: P299995

Luminaire Tested: **GLNA-AF-07-LED-E1-SL3-600-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299995
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194479)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-07-LED-E1-SL3-600-HSS
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
w/Spill Control WITH HOUSESIDE SHEILD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21524.2 lumens
Efficiency: N/A
Efficacy: 95.2 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B2 - U0 - G4

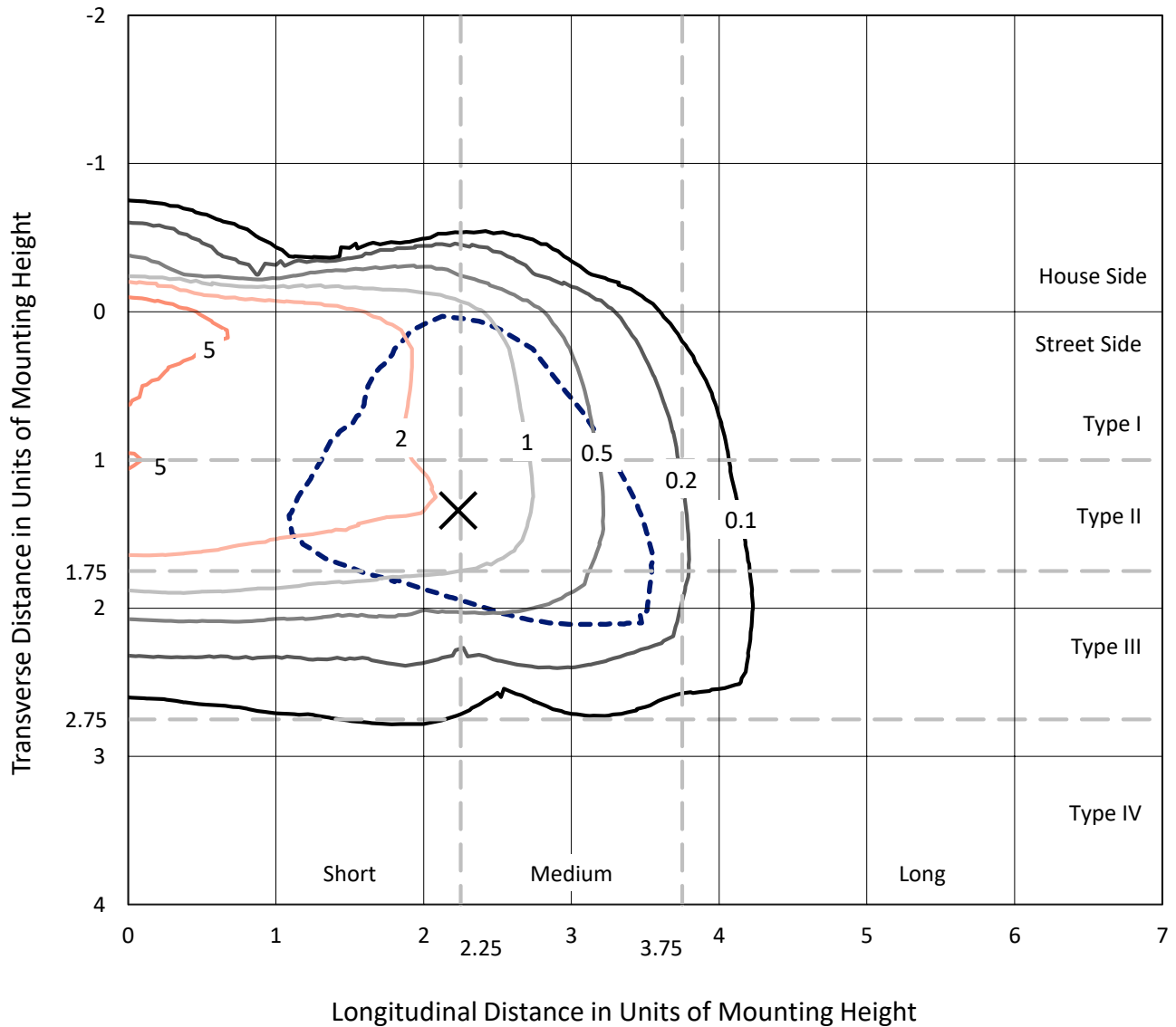
Input Watts (W): 226
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

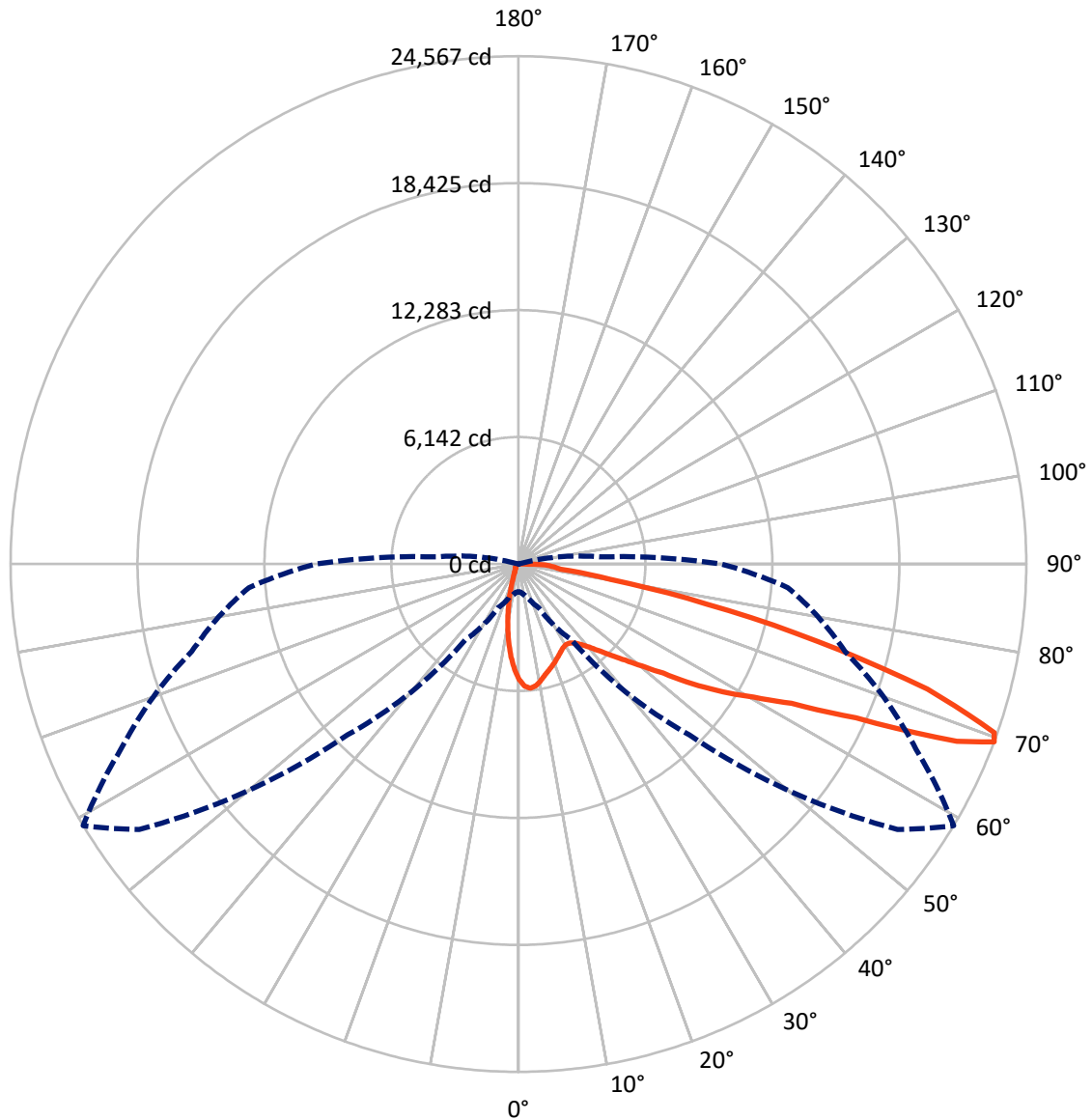


Based on 25 foot mounting height. Maximum calculated value = 9 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1752.8	0.0	1752.8
	% Fixture	8.1	0.0	8.1
Street Side	Lumens	19771.3	0.0	19771.3
	% Fixture	91.9	0.0	91.9
Total	Lumens	21524.2	0.0	21524.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	454.8	2.1
10°-20°	939.6	4.4
20°-30°	1264.4	5.9
30°-40°	1835.8	8.5
40°-50°	3056.8	14.2
50°-60°	4768.6	22.2
60°-70°	5900.8	27.4
70°-80°	2990.5	13.9
80°-90°	312.9	1.5
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°	21524.2	100.0
0°-180°	21524.2	100.0



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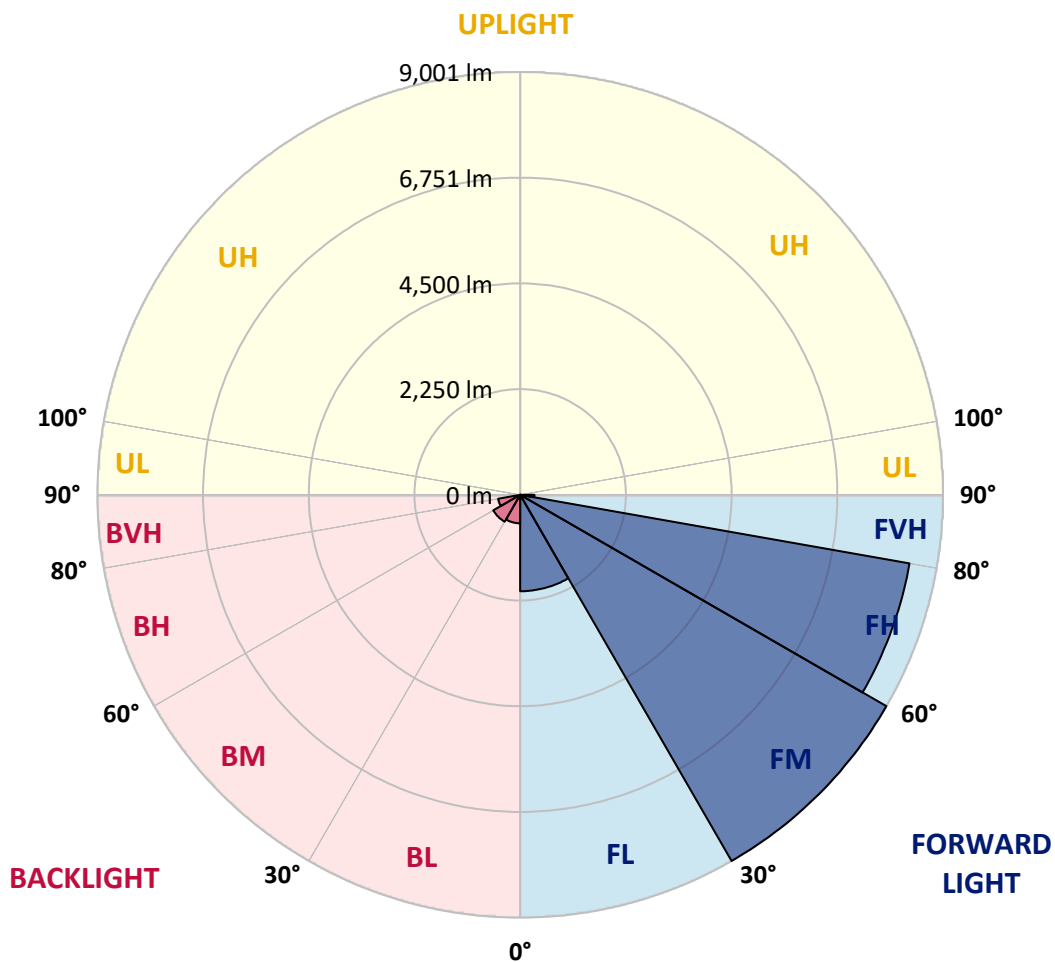
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2052.1	9.5			
FM	(30°-60°)	9000.8	41.8			
FH	(60°-80°)	8415.2	39.1			G4/12000
FVH	(80°-90°)	303.3	1.4			G3/500
BL	(0°-30°)	606.7	2.8	B2/1000		
BM	(30°-60°)	660.5	3.1	B1/1000		
BH	(60°-80°)	476.0	2.2	B1/500		G1/500
BVH	(80°-90°)	9.6	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	5602.3	5602.3	5602.3	5602.3	5602.3	5602.3	5602.3	5602.3	5602.3	5602.3	5602.3
2.5°	6140.3	6138.1	6111.2	6099.1	6077.0	6030.9	5959.0	5921.5	5860.7	5754.5	5612.3
5°	6084.3	6113.8	6129.3	6130.8	6146.6	6129.3	6064.8	6033.5	5949.5	5778.8	5523.5
7.5°	5704.8	5715.5	5760.8	5799.5	5875.0	5946.9	5970.1	5956.5	5906.7	5724.3	5384.5
10°	5298.3	5309.0	5362.8	5413.7	5516.1	5626.7	5743.5	5768.2	5788.8	5646.2	5250.8
12.5°	4947.5	4958.6	5013.5	5080.2	5199.6	5335.9	5517.2	5557.4	5648.8	5572.1	5143.5
15°	4645.7	4650.5	4704.3	4786.8	4929.4	5104.5	5310.5	5375.0	5515.0	5519.8	5049.9
17.5°	4388.9	4401.0	4434.2	4513.0	4668.9	4885.6	5125.5	5218.0	5382.0	5475.9	4958.6
20°	4231.9	4244.0	4242.9	4286.8	4426.8	4657.9	4940.5	5051.1	5250.8	5431.0	4877.1
22.5°	4201.7	4201.7	4170.0	4163.7	4246.6	4440.1	4748.1	4883.0	5132.5	5411.4	4820.0
25°	4310.0	4304.8	4226.0	4161.5	4165.2	4280.5	4561.7	4722.3	5033.0	5424.7	4789.4
27.5°	4538.8	4532.6	4432.7	4310.0	4211.2	4210.1	4420.5	4593.4	4953.8	5488.1	4801.6
30°	4855.0	4852.8	4744.5	4589.7	4411.0	4246.6	4371.9	4528.9	4902.5	5602.3	4829.6
32.5°	5200.7	5197.0	5115.5	4952.7	4726.0	4411.0	4423.1	4554.7	4917.3	5754.5	4897.8
35°	5567.3	5561.1	5525.7	5383.4	5134.0	4713.9	4591.2	4693.2	5009.8	5982.3	5031.5
37.5°	5963.8	5970.1	5995.5	5859.2	5597.5	5138.8	4872.3	4941.6	5195.9	6291.4	5249.3
40°	6549.4	6548.3	6556.8	6377.7	6126.0	5658.3	5265.2	5287.3	5507.6	6701.6	5580.6
42.5°	7611.8	7537.7	7312.5	6947.4	6694.2	6252.4	5760.8	5737.6	5888.7	7209.0	6044.2
45°	9039.7	8881.3	8297.2	7597.4	7273.5	6921.9	6370.3	6296.2	6392.4	7818.9	6616.4
47.5°	10267.6	10103.2	9277.0	8274.0	7888.1	7557.2	7084.8	6951.0	6982.7	8501.7	7341.7
50°	10685.1	10604.7	9883.2	8863.2	8483.3	8356.9	7913.9	7750.7	7705.7	9291.4	8182.6
52.5°	10540.3	10534.4	10053.5	9245.3	9028.7	9184.5	8956.8	8768.1	8602.7	10124.2	9038.2
55°	10307.7	10338.3	10122.7	9579.9	9572.6	9940.3	10383.3	10226.3	9746.9	11028.5	9776.0
57.5°	9666.5	9796.6	10084.0	10213.0	10512.2	10888.5	11571.3	11663.8	11096.7	11720.9	10388.1
60°	7843.2	8129.1	9068.8	10304.0	11723.5	12660.6	13005.2	13084.0	12204.0	12296.5	11214.6
62.5°	5567.3	5859.2	7050.9	9140.7	11741.6	14988.8	15141.0	14830.7	13423.8	13150.0	12640.0
65°	2955.0	3180.5	4154.1	6598.0	10180.2	15529.4	18876.5	17951.6	15575.5	14828.1	14481.4
67.5°	1511.6	1579.8	1967.1	3229.2	6998.6	13793.8	22224.7	22875.8	19284.1	16493.4	14392.6
69°	1337.7	1377.8	1634.7	2334.5	4481.3	11683.3	22388.0	24566.5	21225.7	16354.5	13079.2
70°	1294.9	1330.3	1563.9	2113.0	3503.0	9797.7	21763.3	24418.0	21722.1	15826.4	12098.3
72.5°	1099.2	1129.5	1392.6	1867.2	2847.0	4863.5	17678.9	20691.4	19492.3	13183.9	8757.1
75°	735.2	835.0	1336.6	1750.4	2648.4	2763.0	11655.3	14952.3	13889.9	8892.3	4561.7
77.5°	176.5	189.8	377.3	1392.6	2422.2	2431.7	5994.4	9295.1	7581.6	3169.5	1078.2
80°	95.1	91.4	105.8	276.4	2255.2	2282.1	2698.5	4511.9	2707.0	525.9	355.2
82.5°	67.1	63.4	68.2	115.7	709.7	2078.7	1952.3	2042.2	1122.1	201.9	159.6
85°	24.3	23.2	37.6	104.7	222.6	1195.1	2005.8	1684.4	909.1	92.5	116.8
87.5°	8.5	7.4	14.7	57.1	68.2	508.9	1237.8	1273.2	357.8	56.0	54.9
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°	5602.3	5602.3	5602.3	5602.3	5602.3	5602.3	5602.3	5602.3	5602.3	5602.3	5602.3
2.5°	5552.6	5477.0	5338.5	5195.9	5064.3	4906.2	4827.0	4749.2	4716.5	4704.3	4647.2
5°	5391.9	5264.0	4969.6	4673.7	4401.0	4111.4	3920.5	3767.2	3676.9	3633.1	3563.8
7.5°	5186.3	4977.0	4530.0	4073.8	3648.9	3230.3	2920.0	2681.2	2516.9	2438.0	2366.1
10°	4986.6	4708.0	4072.7	3450.6	2873.6	2318.6	1890.0	1579.8	1381.5	1290.1	1231.9
12.5°	4807.8	4446.3	3630.8	2843.4	2118.9	1469.2	1033.3	786.4	663.3	620.6	599.9
15°	4648.3	4205.3	3213.3	2266.3	1434.9	839.8	564.9	480.9	461.4	461.4	458.8
17.5°	4497.2	3969.1	2810.2	1724.6	900.6	513.7	429.7	418.6	418.6	423.4	423.4
20°	4352.4	3744.0	2420.7	1237.8	567.1	407.6	388.4	385.8	388.4	394.3	394.3
22.5°	4228.2	3539.5	2057.0	849.4	421.2	367.4	357.8	354.1	355.2	358.9	361.5
25°	4135.7	3366.6	1713.9	575.6	362.6	334.6	323.9	317.6	312.9	312.9	315.1
27.5°	4077.5	3220.7	1381.5	418.6	326.1	304.4	287.1	277.5	266.4	260.5	262.7
30°	4034.7	3081.8	1069.8	342.0	292.2	270.1	248.4	232.5	216.7	209.3	211.9
32.5°	4018.9	2969.8	799.6	301.8	261.6	237.3	210.4	189.8	172.8	166.6	168.0
35°	4061.6	2880.9	585.5	272.7	237.3	206.7	176.5	153.3	140.0	136.3	137.5
37.5°	4173.7	2833.4	438.1	248.4	215.6	181.3	147.4	125.3	116.8	116.8	117.9
40°	4385.2	2832.3	351.9	231.4	196.0	157.0	121.6	105.8	101.0	103.5	104.7
42.5°	4694.3	2896.8	306.6	215.6	179.1	133.8	101.0	89.9	88.8	91.4	92.5
45°	5116.6	3014.7	282.3	201.9	160.7	112.0	85.1	77.8	77.8	81.4	82.9
47.5°	5634.0	3187.5	261.6	188.7	142.2	93.6	73.0	68.2	69.3	73.0	74.1
50°	6257.2	3405.7	241.0	173.9	129.0	77.8	63.4	59.7	60.8	65.6	67.1
52.5°	6966.9	3699.0	224.0	160.7	112.0	64.5	53.4	51.2	53.4	58.6	59.7
55°	7575.3	3961.8	203.4	149.6	89.9	53.4	43.9	43.9	46.4	52.3	53.4
57.5°	8160.8	4236.7	185.0	129.0	70.8	42.7	36.5	37.6	41.3	47.5	48.6
60°	9020.2	4702.8	163.2	108.3	53.4	33.9	30.6	31.7	36.5	42.7	43.9
62.5°	10479.5	5412.6	141.1	89.9	41.3	26.9	24.3	26.9	32.8	40.2	41.3
65°	11796.5	5701.1	115.7	75.5	31.7	20.6	20.6	24.3	31.7	39.1	40.2
67.5°	11062.4	4799.0	89.9	59.7	24.3	15.8	17.0	23.2	30.6	39.1	40.2
69°	9783.4	3924.2	76.6	47.5	20.6	14.7	15.8	23.2	30.6	37.6	39.1
70°	8786.6	3313.2	68.2	40.2	18.4	14.7	15.8	21.7	30.6	37.6	39.1
72.5°	5885.0	1789.1	54.9	29.1	17.0	13.3	13.3	21.7	29.1	36.5	37.6
75°	2529.0	494.2	43.9	20.6	14.7	12.2	12.2	20.6	28.0	35.4	37.6
77.5°	462.5	125.3	35.4	18.4	14.7	12.2	11.1	19.5	26.9	33.9	35.4
80°	183.9	61.9	28.0	15.8	13.3	11.1	9.6	18.4	25.4	32.8	33.9
82.5°	110.9	35.4	23.2	14.7	13.3	9.6	8.5	15.8	24.3	31.7	32.8
85°	89.9	24.3	18.4	14.7	12.2	9.6	7.4	14.7	21.7	30.6	31.7
87.5°	43.9	17.0	17.0	13.3	12.2	9.6	7.4	13.3	20.6	29.1	30.6
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)