

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-SL3-7027-600-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-SL3-7027-600-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 2700K 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: 18701 lumens
Efficiency: N/A
Efficacy: 82.7 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B2 - U0 - G3

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

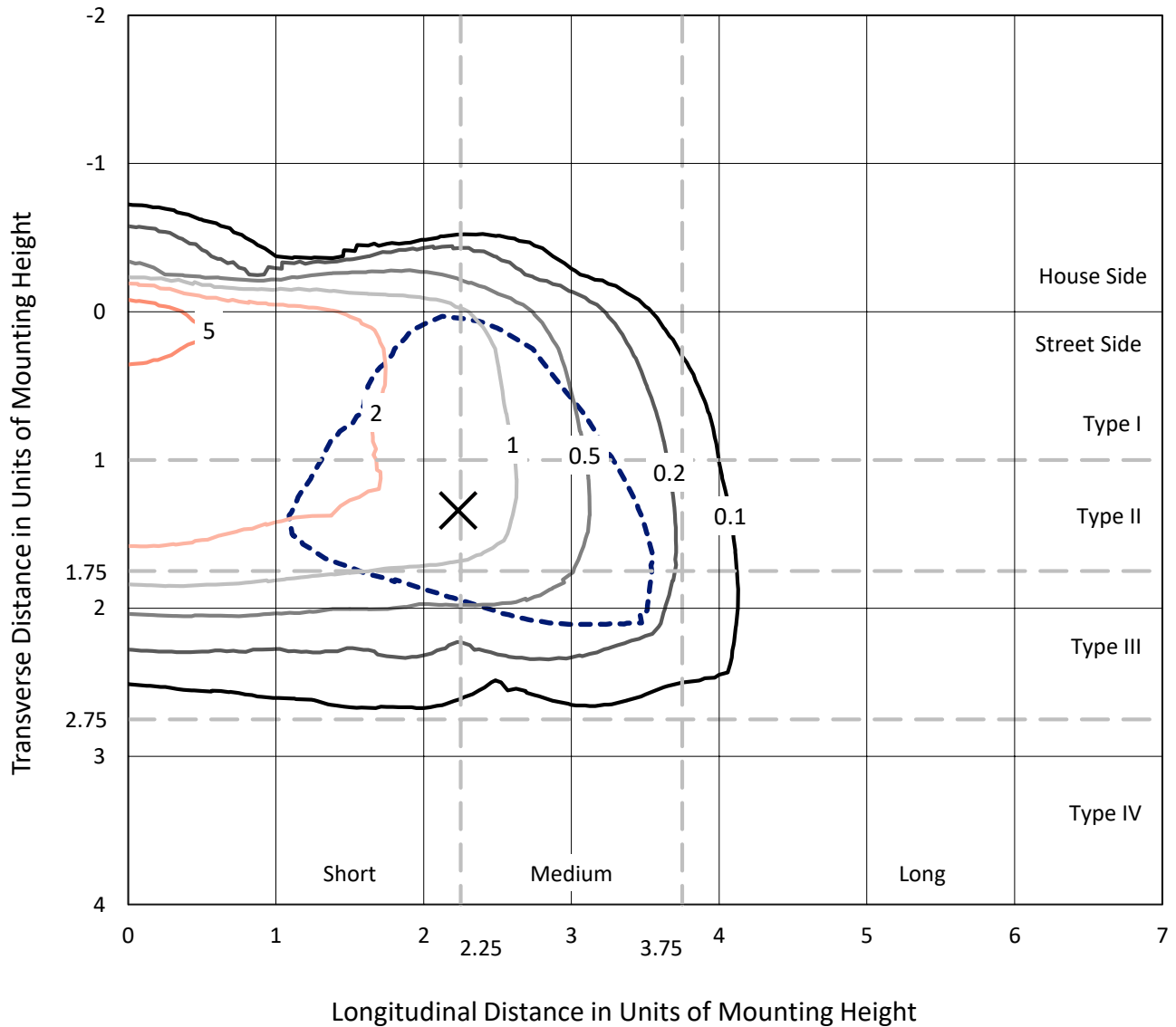


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

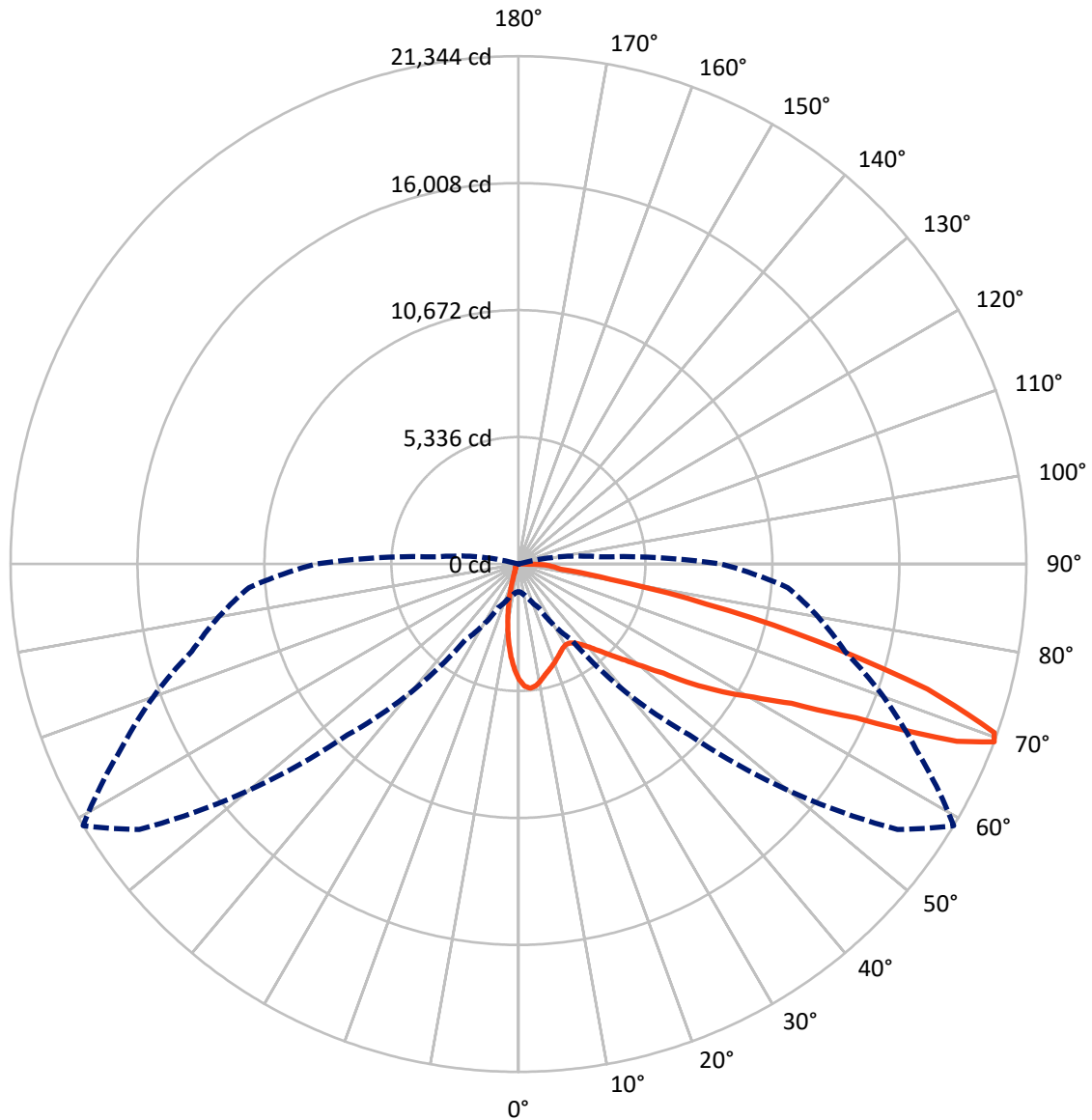


Based on 25 foot mounting height. Maximum calculated value = 7.8 fc
 Type III - Short - Non-Cutoff

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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	1522.9	0.0	1522.9
	% Fixture	8.1	0.0	8.1
Street Side	Lumens	17178.1	0.0	17178.1
	% Fixture	91.9	0.0	91.9
Total	Lumens	18701.0	0.0	18701.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	395.1	2.1
10°-20°	816.4	4.4
20°-30°	1098.6	5.9
30°-40°	1595.1	8.5
40°-50°	2655.9	14.2
50°-60°	4143.1	22.2
60°-70°	5126.8	27.4
70°-80°	2598.2	13.9
80°-90°	271.9	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°	18701.0	100.0
0°-180°	18701.0	100.0



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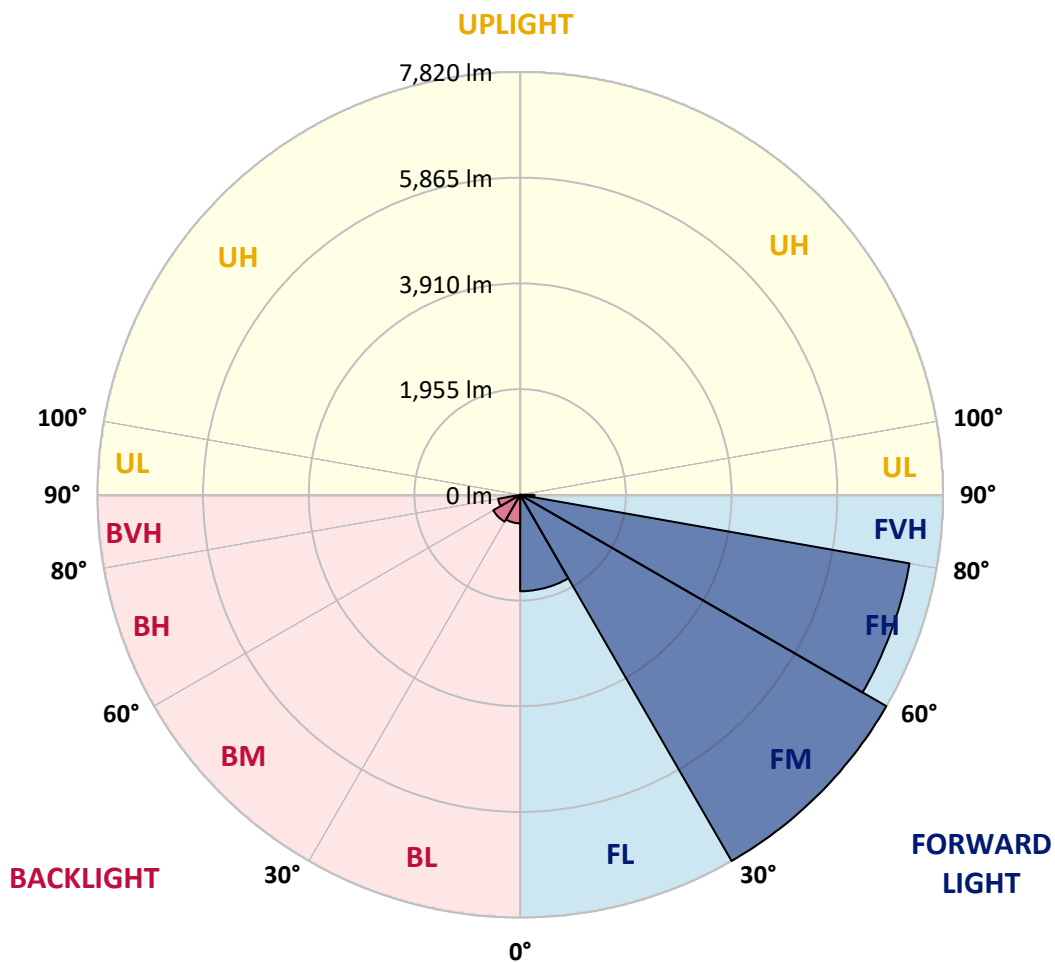
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1782.9	9.5			
FM	(30°-60°)	7820.2	41.8			
FH	(60°-80°)	7311.4	39.1			G3/7500
FVH	(80°-90°)	263.5	1.4			G3/500
BL	(0°-30°)	527.1	2.8	B2/1000		
BM	(30°-60°)	573.8	3.1	B1/1000		
BH	(60°-80°)	413.6	2.2	B1/500		G1/500
BVH	(80°-90°)	8.4	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-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	4867.5	4867.5	4867.5	4867.5	4867.5	4867.5	4867.5	4867.5	4867.5	4867.5	4867.5
2.5°	5335.0	5333.0	5309.7	5299.1	5279.9	5239.9	5177.4	5144.8	5092.0	4999.8	4876.2
5°	5286.3	5311.9	5325.4	5326.6	5340.4	5325.4	5269.3	5242.1	5169.1	5020.9	4799.0
7.5°	4956.5	4965.8	5005.2	5038.8	5104.4	5166.9	5187.1	5175.2	5132.0	4973.5	4678.3
10°	4603.4	4612.7	4659.4	4703.6	4792.6	4888.7	4990.1	5011.6	5029.5	4905.6	4562.1
12.5°	4298.6	4308.2	4355.9	4413.8	4517.6	4636.0	4793.6	4828.5	4907.9	4841.3	4468.9
15°	4036.4	4040.5	4087.3	4159.0	4282.9	4435.0	4613.9	4670.0	4791.6	4795.8	4387.6
17.5°	3813.2	3823.8	3852.6	3921.1	4056.5	4244.8	4453.2	4533.6	4676.1	4757.7	4308.2
20°	3676.8	3687.4	3686.4	3724.5	3846.2	4046.9	4292.5	4388.6	4562.1	4718.6	4237.4
22.5°	3650.6	3650.6	3623.0	3617.6	3689.6	3857.7	4125.4	4242.6	4459.3	4701.7	4187.8
25°	3744.7	3740.2	3671.7	3615.7	3618.9	3719.1	3963.4	4103.0	4372.9	4713.2	4161.2
27.5°	3943.5	3938.1	3851.3	3744.7	3658.9	3657.9	3840.7	3990.9	4304.0	4768.3	4171.8
30°	4218.2	4216.3	4122.2	3987.7	3832.4	3689.6	3798.5	3934.9	4259.5	4867.5	4196.1
32.5°	4518.5	4515.3	4444.6	4303.1	4106.2	3832.4	3843.0	3957.3	4272.3	4999.8	4255.4
35°	4837.1	4831.7	4800.9	4677.3	4460.6	4095.6	3989.0	4077.7	4352.7	5197.6	4371.6
37.5°	5181.6	5187.1	5209.1	5090.7	4863.4	4464.8	4233.3	4293.5	4514.4	5466.2	4560.8
40°	5690.4	5689.4	5696.8	5541.2	5322.5	4916.2	4574.6	4593.8	4785.2	5822.6	4848.6
42.5°	6613.4	6549.0	6353.4	6036.1	5816.2	5432.3	5005.2	4985.0	5116.3	6263.5	5251.4
45°	7854.1	7716.4	7208.9	6600.9	6319.5	6014.0	5534.8	5470.4	5554.0	6793.3	5748.6
47.5°	8920.9	8778.1	8060.2	7188.7	6853.5	6566.0	6155.6	6039.3	6066.9	7386.6	6378.7
50°	9283.6	9213.8	8586.9	7700.7	7370.6	7260.8	6875.9	6734.1	6695.0	8072.7	7109.3
52.5°	9157.8	9152.7	8734.8	8032.7	7844.4	7979.9	7782.0	7618.1	7474.3	8796.3	7852.8
55°	8955.8	8982.3	8795.0	8323.4	8317.0	8636.5	9021.4	8885.0	8468.5	9582.0	8493.8
57.5°	8398.7	8511.7	8761.4	8873.5	9133.4	9460.3	10053.6	10134.0	9641.2	10183.6	9025.6
60°	6814.5	7062.9	7879.3	8952.6	10185.8	11000.0	11299.4	11367.9	10603.3	10683.7	9743.7
62.5°	4837.1	5090.7	6126.1	7941.8	10201.5	13022.9	13155.1	12885.5	11663.1	11425.2	10982.1
65°	2567.4	2763.4	3609.3	5732.6	8845.0	13492.5	16400.6	15597.0	13532.6	12883.3	12582.0
67.5°	1313.3	1372.6	1709.1	2805.6	6080.6	11984.5	19309.7	19875.4	16754.7	14330.1	12504.8
69°	1162.2	1197.1	1420.3	2028.3	3893.6	10150.9	19451.5	21344.4	18441.7	14209.4	11363.7
70°	1125.1	1155.8	1358.8	1835.8	3043.5	8512.6	18908.8	21215.3	18873.0	13750.6	10511.5
72.5°	955.1	981.3	1209.9	1622.3	2473.6	4225.6	15360.1	17977.5	16935.6	11454.7	7608.5
75°	638.7	725.5	1161.3	1520.8	2301.1	2400.6	10126.6	12991.2	12068.1	7726.0	3963.4
77.5°	153.4	164.9	327.9	1209.9	2104.5	2112.8	5208.2	8075.9	6587.1	2753.8	936.8
80°	82.6	79.4	91.9	240.1	1959.4	1982.8	2344.6	3920.1	2352.0	456.9	308.6
82.5°	58.3	55.1	59.2	100.5	616.6	1806.1	1696.3	1774.4	974.9	175.5	138.6
85°	21.1	20.2	32.7	90.9	193.4	1038.3	1742.7	1463.5	789.9	80.4	101.5
87.5°	7.4	6.4	12.8	49.6	59.2	442.2	1075.4	1106.2	310.9	48.7	47.7
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°	4867.5	4867.5	4867.5	4867.5	4867.5	4867.5	4867.5	4867.5	4867.5	4867.5	4867.5
2.5°	4824.3	4758.7	4638.3	4514.4	4400.1	4262.7	4193.9	4126.3	4097.8	4087.3	4037.6
5°	4684.7	4573.6	4317.8	4060.7	3823.8	3572.1	3406.3	3273.1	3194.6	3156.5	3096.4
7.5°	4506.1	4324.2	3935.8	3539.5	3170.3	2806.6	2537.0	2329.5	2186.8	2118.2	2055.8
10°	4332.5	4090.5	3538.5	2998.1	2496.7	2014.5	1642.1	1372.6	1200.3	1120.9	1070.3
12.5°	4177.2	3863.2	3154.6	2470.4	1841.0	1276.5	897.8	683.2	576.3	539.2	521.2
15°	4038.6	3653.8	2791.9	1969.0	1246.7	729.7	490.8	417.8	400.9	400.9	398.6
17.5°	3907.3	3448.5	2441.6	1498.4	782.5	446.3	373.3	363.7	363.7	367.9	367.9
20°	3781.5	3252.9	2103.2	1075.4	492.7	354.1	337.5	335.2	337.5	342.6	342.6
22.5°	3673.6	3075.2	1787.2	738.0	366.0	319.2	310.9	307.7	308.6	311.8	314.1
25°	3593.3	2925.1	1489.1	500.1	315.0	290.7	281.4	276.0	271.8	271.8	273.7
27.5°	3542.7	2798.3	1200.3	363.7	283.3	264.5	249.4	241.1	231.5	226.4	228.3
30°	3505.5	2677.6	929.4	297.1	253.9	234.7	215.8	202.0	188.3	181.9	184.1
32.5°	3491.8	2580.2	694.8	262.2	227.3	206.2	182.8	164.9	150.2	144.7	146.0
35°	3528.9	2503.1	508.7	236.9	206.2	179.6	153.4	133.2	121.7	118.5	119.4
37.5°	3626.2	2461.8	380.7	215.8	187.3	157.5	128.1	108.9	101.5	101.5	102.5
40°	3810.0	2460.8	305.8	201.1	170.3	136.4	105.7	91.9	87.7	90.0	90.9
42.5°	4078.6	2516.8	266.4	187.3	155.6	116.2	87.7	78.1	77.2	79.4	80.4
45°	4445.5	2619.3	245.2	175.5	139.6	97.3	74.0	67.6	67.6	70.8	72.0
47.5°	4895.1	2769.5	227.3	163.9	123.6	81.3	63.4	59.2	60.2	63.4	64.4
50°	5436.5	2959.0	209.4	151.1	112.1	67.6	55.1	51.9	52.8	57.0	58.3
52.5°	6053.1	3213.9	194.7	139.6	97.3	56.0	46.4	44.5	46.4	50.9	51.9
55°	6581.7	3442.1	176.7	130.0	78.1	46.4	38.1	38.1	40.3	45.5	46.4
57.5°	7090.5	3681.0	160.7	112.1	61.5	37.1	31.7	32.7	35.9	41.3	42.3
60°	7837.1	4086.0	141.8	94.1	46.4	29.5	26.6	27.5	31.7	37.1	38.1
62.5°	9105.0	4702.6	122.6	78.1	35.9	23.4	21.1	23.4	28.5	34.9	35.9
65°	10249.2	4953.3	100.5	65.6	27.5	17.9	17.9	21.1	27.5	33.9	34.9
67.5°	9611.5	4169.6	78.1	51.9	21.1	13.8	14.7	20.2	26.6	33.9	34.9
69°	8500.2	3409.5	66.6	41.3	17.9	12.8	13.8	20.2	26.6	32.7	33.9
70°	7634.1	2878.6	59.2	34.9	16.0	12.8	13.8	18.9	26.6	32.7	33.9
72.5°	5113.1	1554.4	47.7	25.3	14.7	11.5	11.5	18.9	25.3	31.7	32.7
75°	2197.3	429.3	38.1	17.9	12.8	10.6	10.6	17.9	24.3	30.7	32.7
77.5°	401.8	108.9	30.7	16.0	12.8	10.6	9.6	17.0	23.4	29.5	30.7
80°	159.8	53.8	24.3	13.8	11.5	9.6	8.3	16.0	22.1	28.5	29.5
82.5°	96.4	30.7	20.2	12.8	11.5	8.3	7.4	13.8	21.1	27.5	28.5
85°	78.1	21.1	16.0	12.8	10.6	8.3	6.4	12.8	18.9	26.6	27.5
87.5°	38.1	14.7	14.7	11.5	10.6	8.3	6.4	11.5	17.9	25.3	26.6
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)