

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-09-LED-E1-SL3-7030-600-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-09-LED-E1-SL3-7030-600-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 3000K 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: 26314.5 lumens
Efficiency: N/A
Efficacy: 90.7 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B2 - U0 - G4

Input Watts (W): 290
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

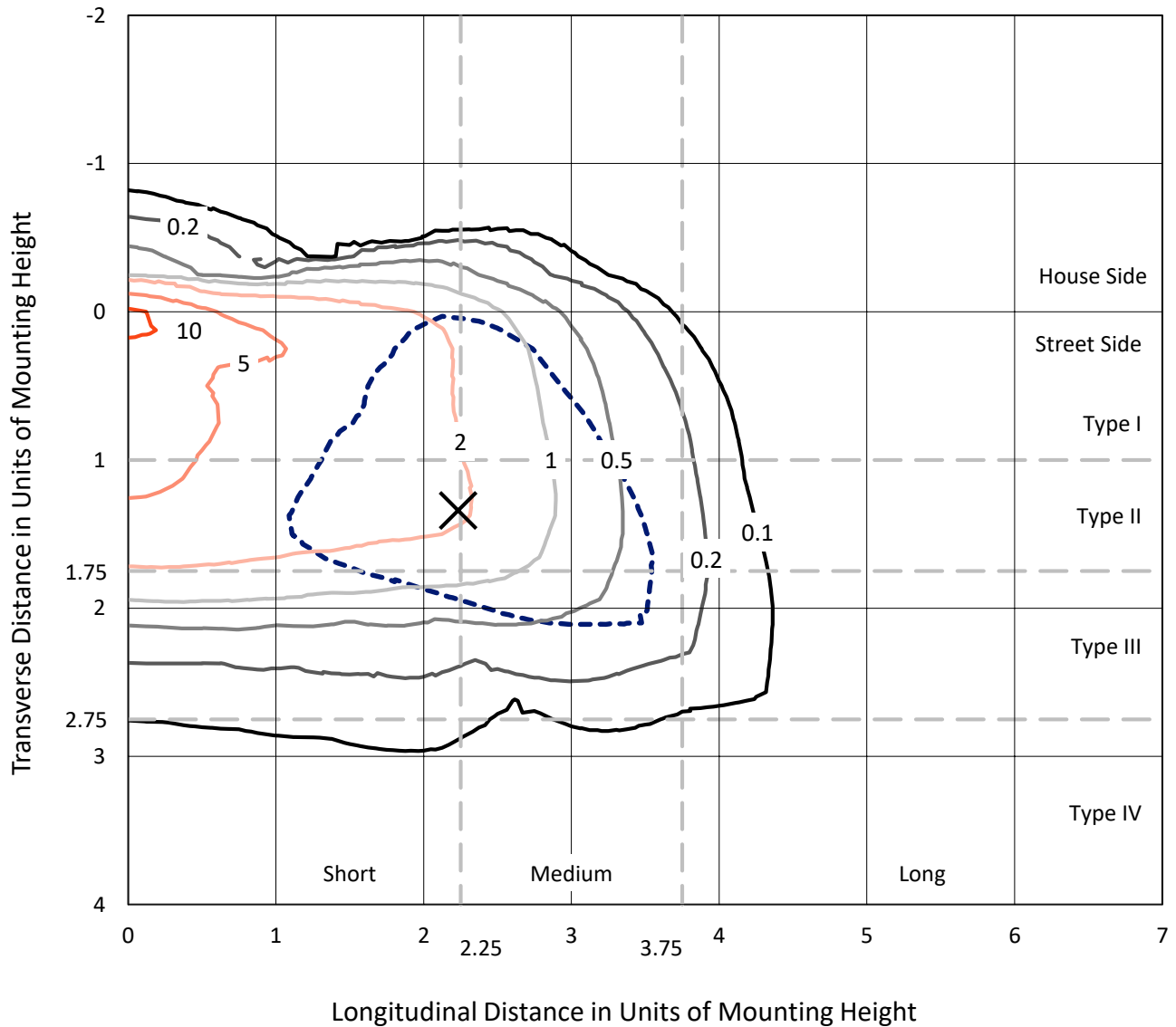


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

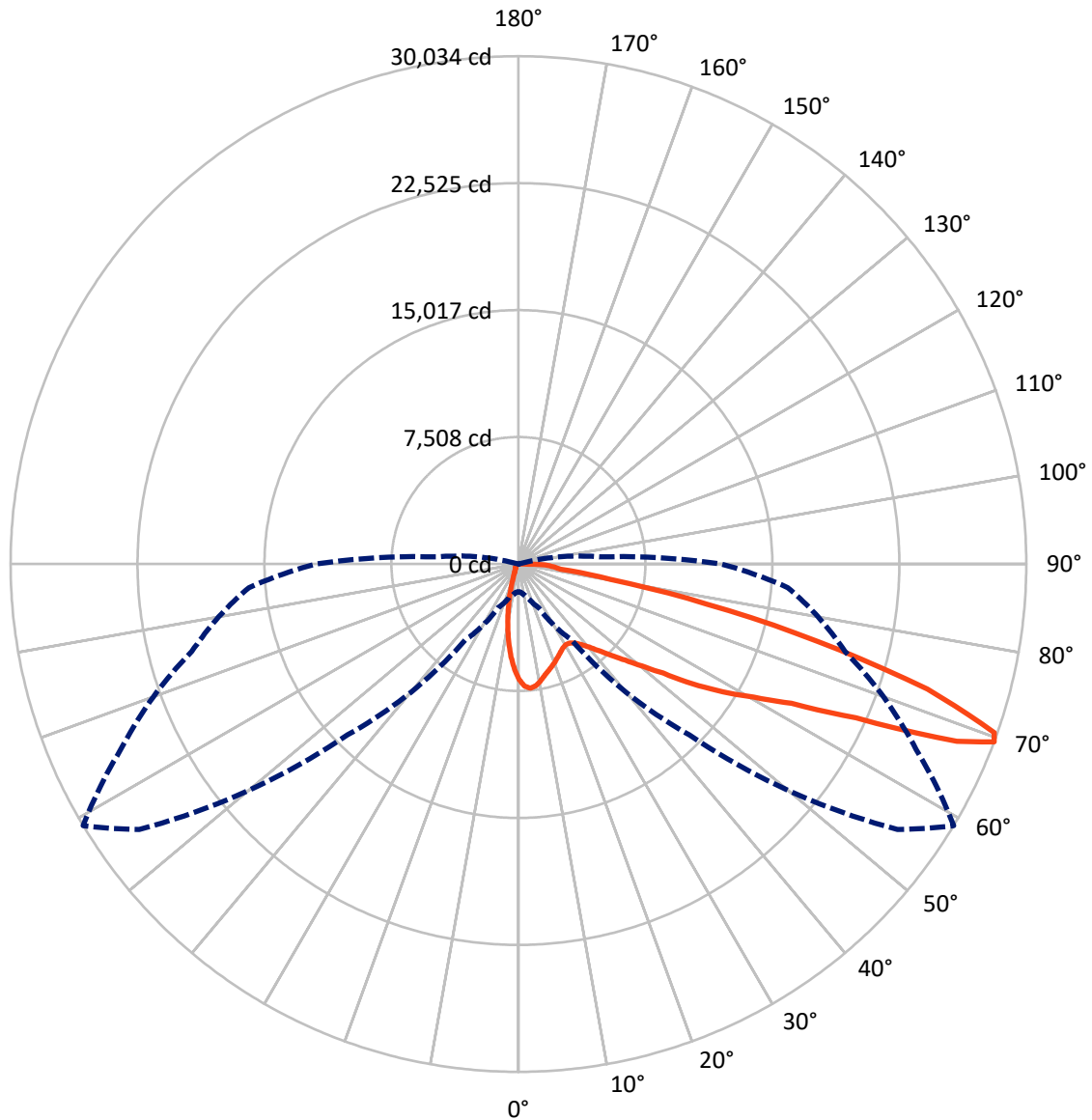


Based on 25 foot mounting height. Maximum calculated value = 11 fc
 Type III - Short - Non-Cutoff

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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	2142.9	0.0	2142.9
	% Fixture	8.1	0.0	8.1
Street Side	Lumens	24171.5	0.0	24171.5
	% Fixture	91.9	0.0	91.9
Total	Lumens	26314.5	0.0	26314.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	556.0	2.1
10°-20°	1148.8	4.4
20°-30°	1545.8	5.9
30°-40°	2244.4	8.5
40°-50°	3737.1	14.2
50°-60°	5829.9	22.2
60°-70°	7214.0	27.4
70°-80°	3656.0	13.9
80°-90°	382.5	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°	26314.5	100.0
0°-180°	26314.5	100.0



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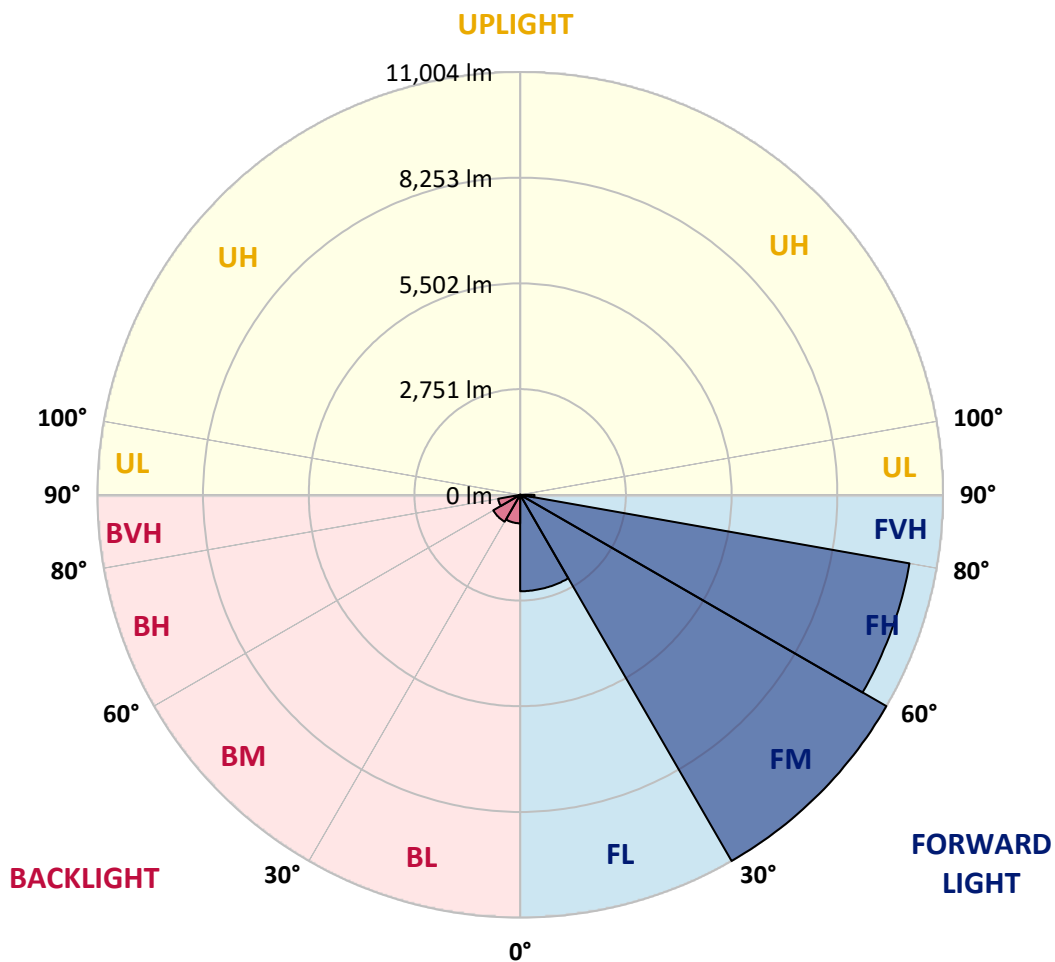
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2508.8	9.5			
FM (30°-60°)	11004.0	41.8			
FH (60°-80°)	10288.0	39.1			G4/12000
FVH (80°-90°)	370.8	1.4			G3/500
BL (0°-30°)	741.7	2.8	B2/1000		
BM (30°-60°)	807.4	3.1	B1/1000		
BH (60°-80°)	582.0	2.2	B2/1000		G2/1000
BVH (80°-90°)	11.8	0.0			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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	6849.2	6849.2	6849.2	6849.2	6849.2	6849.2	6849.2	6849.2	6849.2	6849.2	6849.2
2.5°	7506.9	7504.2	7471.3	7456.4	7429.4	7373.1	7285.3	7239.3	7165.0	7035.2	6861.3
5°	7438.4	7474.5	7493.4	7495.2	7514.6	7493.4	7414.6	7376.3	7273.5	7065.0	6752.7
7.5°	6974.4	6987.5	7042.9	7090.2	7182.5	7270.4	7298.8	7282.1	7221.3	6998.3	6582.9
10°	6477.5	6490.5	6556.3	6618.5	6743.7	6878.9	7021.7	7051.9	7077.1	6902.8	6419.4
12.5°	6048.6	6062.1	6129.2	6210.8	6356.7	6523.4	6745.1	6794.2	6905.9	6812.2	6288.3
15°	5679.6	5685.5	5751.3	5852.2	6026.5	6240.5	6492.3	6571.2	6742.4	6748.2	6173.8
17.5°	5365.6	5380.5	5421.0	5517.4	5708.0	5972.9	6266.2	6379.3	6579.7	6694.6	6062.1
20°	5173.7	5188.6	5187.2	5240.8	5412.0	5694.5	6040.0	6175.2	6419.4	6639.7	5962.5
22.5°	5136.8	5136.8	5098.0	5090.4	5191.7	5428.2	5804.9	5969.8	6274.8	6615.8	5892.7
25°	5269.2	5262.9	5166.5	5087.6	5092.2	5233.2	5576.9	5773.3	6153.1	6632.0	5855.3
27.5°	5549.0	5541.3	5419.2	5269.2	5148.5	5147.1	5404.4	5615.7	6056.3	6709.5	5870.2
30°	5935.5	5932.8	5800.4	5611.1	5392.6	5191.7	5344.9	5536.8	5993.6	6849.2	5904.4
32.5°	6358.1	6353.6	6254.0	6054.9	5777.8	5392.6	5407.5	5568.3	6011.7	7035.2	5987.8
35°	6806.4	6798.7	6755.4	6581.6	6276.6	5763.0	5612.9	5737.7	6124.7	7313.6	6151.3
37.5°	7291.1	7298.8	7329.9	7163.2	6843.3	6282.4	5956.7	6041.4	6352.2	7691.6	6417.6
40°	8007.0	8005.6	8016.0	7797.0	7489.3	6917.6	6436.9	6464.0	6733.4	8193.0	6822.6
42.5°	9305.8	9215.3	8940.0	8493.5	8184.0	7643.9	7042.9	7014.5	7199.2	8813.4	7389.3
45°	11051.5	10857.8	10143.8	9288.2	8892.2	8462.4	7788.0	7697.5	7815.1	9559.0	8089.0
47.5°	12552.7	12351.7	11341.7	10115.4	9643.7	9239.1	8661.6	8498.0	8536.8	10393.8	8975.6
50°	13063.1	12964.9	12082.8	10835.8	10371.3	10216.7	9675.2	9475.7	9420.7	11359.2	10003.7
52.5°	12886.0	12878.8	12290.9	11302.9	11038.0	11228.6	10950.2	10719.5	10517.2	12377.4	11049.7
55°	12601.8	12639.2	12375.6	11712.0	11703.0	12152.6	12694.1	12502.2	11916.1	13483.0	11951.7
57.5°	11817.9	11976.9	12328.3	12486.0	12851.8	13311.8	14146.6	14259.7	13566.3	14329.5	12700.0
60°	9588.7	9938.3	11087.1	12597.3	14332.6	15478.3	15899.5	15995.9	14920.1	15033.2	13710.5
62.5°	6806.4	7163.2	8620.1	11175.0	14354.7	18324.6	18510.7	18131.4	16411.3	16076.6	15453.1
65°	3612.7	3888.4	5078.6	8066.4	12445.9	18985.5	23077.6	21946.8	19041.9	18128.2	17704.3
67.5°	1848.0	1931.4	2404.8	3947.8	8556.2	16863.6	27170.9	27967.0	23575.8	20164.1	17595.7
69°	1635.4	1684.5	1998.5	2854.0	5478.7	14283.5	27370.5	30033.9	25949.6	19994.2	15990.1
70°	1583.1	1626.4	1912.0	2583.2	4282.6	11978.3	26606.9	29852.4	26556.4	19348.7	14790.8
72.5°	1343.9	1380.8	1702.5	2282.8	3480.7	5945.9	21613.4	25296.3	23830.4	16118.0	10706.0
75°	898.8	1020.9	1634.0	2139.9	3237.8	3378.0	14249.3	18280.0	16981.2	10871.3	5576.9
77.5°	215.8	232.0	461.3	1702.5	2961.2	2972.9	7328.5	11363.8	9268.9	3874.9	1318.2
80°	116.2	111.7	129.3	337.9	2757.1	2790.0	3299.1	5516.1	3309.5	642.9	434.3
82.5°	82.0	77.5	83.3	141.5	867.7	2541.3	2386.8	2496.7	1371.8	246.9	195.1
85°	29.7	28.4	46.0	127.9	272.1	1461.0	2452.1	2059.3	1111.4	113.1	142.8
87.5°	10.4	9.0	18.0	69.8	83.3	622.2	1513.3	1556.5	437.4	68.5	67.1
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°	6849.2	6849.2	6849.2	6849.2	6849.2	6849.2	6849.2	6849.2	6849.2	6849.2	6849.2
2.5°	6788.3	6696.0	6526.6	6352.2	6191.4	5998.1	5901.3	5806.2	5766.1	5751.3	5681.4
5°	6591.9	6435.6	6075.6	5713.9	5380.5	5026.4	4793.0	4605.6	4495.2	4441.6	4356.9
7.5°	6340.5	6084.6	5538.2	4980.4	4461.0	3949.2	3569.9	3277.9	3077.0	2980.6	2892.7
10°	6096.3	5755.8	4979.1	4218.6	3513.1	2834.6	2310.7	1931.4	1689.0	1577.2	1506.1
12.5°	5877.8	5435.9	4438.9	3476.2	2590.5	1796.2	1263.2	961.4	810.9	758.7	733.4
15°	5682.8	5141.3	3928.5	2770.7	1754.3	1026.7	690.6	587.9	564.0	564.0	560.9
17.5°	5498.1	4852.5	3435.6	2108.4	1101.1	628.0	525.3	511.8	511.8	517.6	517.6
20°	5321.0	4577.2	2959.4	1513.3	693.3	498.3	474.8	471.7	474.8	482.0	482.0
22.5°	5169.2	4327.2	2514.8	1038.4	514.9	449.2	437.4	432.9	434.3	438.8	442.0
25°	5056.1	4115.9	2095.3	703.7	443.3	409.1	396.0	388.3	382.5	382.5	385.2
27.5°	4984.9	3937.5	1689.0	511.8	398.7	372.1	351.0	339.2	325.7	318.5	321.2
30°	4932.7	3767.6	1307.8	418.1	357.3	330.2	303.6	284.3	264.9	255.9	259.0
32.5°	4913.3	3630.7	977.6	369.0	319.9	290.1	257.2	232.0	211.3	203.6	205.4
35°	4965.6	3522.1	715.9	333.4	290.1	252.7	215.8	187.4	171.2	166.7	168.0
37.5°	5102.5	3464.0	535.7	303.6	263.6	221.7	180.2	153.2	142.8	142.8	144.2
40°	5361.1	3462.6	430.2	282.9	239.7	191.9	148.7	129.3	123.4	126.6	127.9
42.5°	5739.1	3541.5	374.8	263.6	218.9	163.5	123.4	109.9	108.6	111.7	113.1
45°	6255.4	3685.7	345.1	246.9	196.4	137.0	104.1	95.1	95.1	99.6	101.4
47.5°	6887.9	3896.9	319.9	230.7	173.9	114.4	89.2	83.3	84.7	89.2	90.6
50°	7649.7	4163.6	294.6	212.6	157.7	95.1	77.5	73.0	74.3	80.2	82.0
52.5°	8517.4	4522.3	273.9	196.4	137.0	78.8	65.3	62.6	65.3	71.6	73.0
55°	9261.2	4843.5	248.7	182.9	109.9	65.3	53.6	53.6	56.8	64.0	65.3
57.5°	9977.1	5179.6	226.2	157.7	86.5	52.3	44.6	46.0	50.5	58.1	59.5
60°	11027.7	5749.5	199.6	132.5	65.3	41.4	37.4	38.7	44.6	52.3	53.6
62.5°	12811.7	6617.1	172.5	109.9	50.5	32.9	29.7	32.9	40.1	49.1	50.5
65°	14421.8	6969.9	141.5	92.4	38.7	25.2	25.2	29.7	38.7	47.8	49.1
67.5°	13524.4	5867.0	109.9	73.0	29.7	19.4	20.7	28.4	37.4	47.8	49.1
69°	11960.7	4797.5	93.7	58.1	25.2	18.0	19.4	28.4	37.4	46.0	47.8
70°	10742.0	4050.6	83.3	49.1	22.5	18.0	19.4	26.6	37.4	46.0	47.8
72.5°	7194.7	2187.2	67.1	35.6	20.7	16.2	16.2	26.6	35.6	44.6	46.0
75°	3091.9	604.1	53.6	25.2	18.0	14.9	14.9	25.2	34.2	43.2	46.0
77.5°	565.4	153.2	43.2	22.5	18.0	14.9	13.5	23.9	32.9	41.4	43.2
80°	224.8	75.7	34.2	19.4	16.2	13.5	11.7	22.5	31.1	40.1	41.4
82.5°	135.6	43.2	28.4	18.0	16.2	11.7	10.4	19.4	29.7	38.7	40.1
85°	109.9	29.7	22.5	18.0	14.9	11.7	9.0	18.0	26.6	37.4	38.7
87.5°	53.6	20.7	20.7	16.2	14.9	11.7	9.0	16.2	25.2	35.6	37.4
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)