

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: P299614

Luminaire Tested: **GLNA-AF-07-LED-E1-SL2-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299614  
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-07-LED-E1-SL2-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(7) 70 CRI, 4000K CCT 1050mA 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: 31677.7 lumens  
Efficiency: N/A  
Efficacy: 81.0 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G4

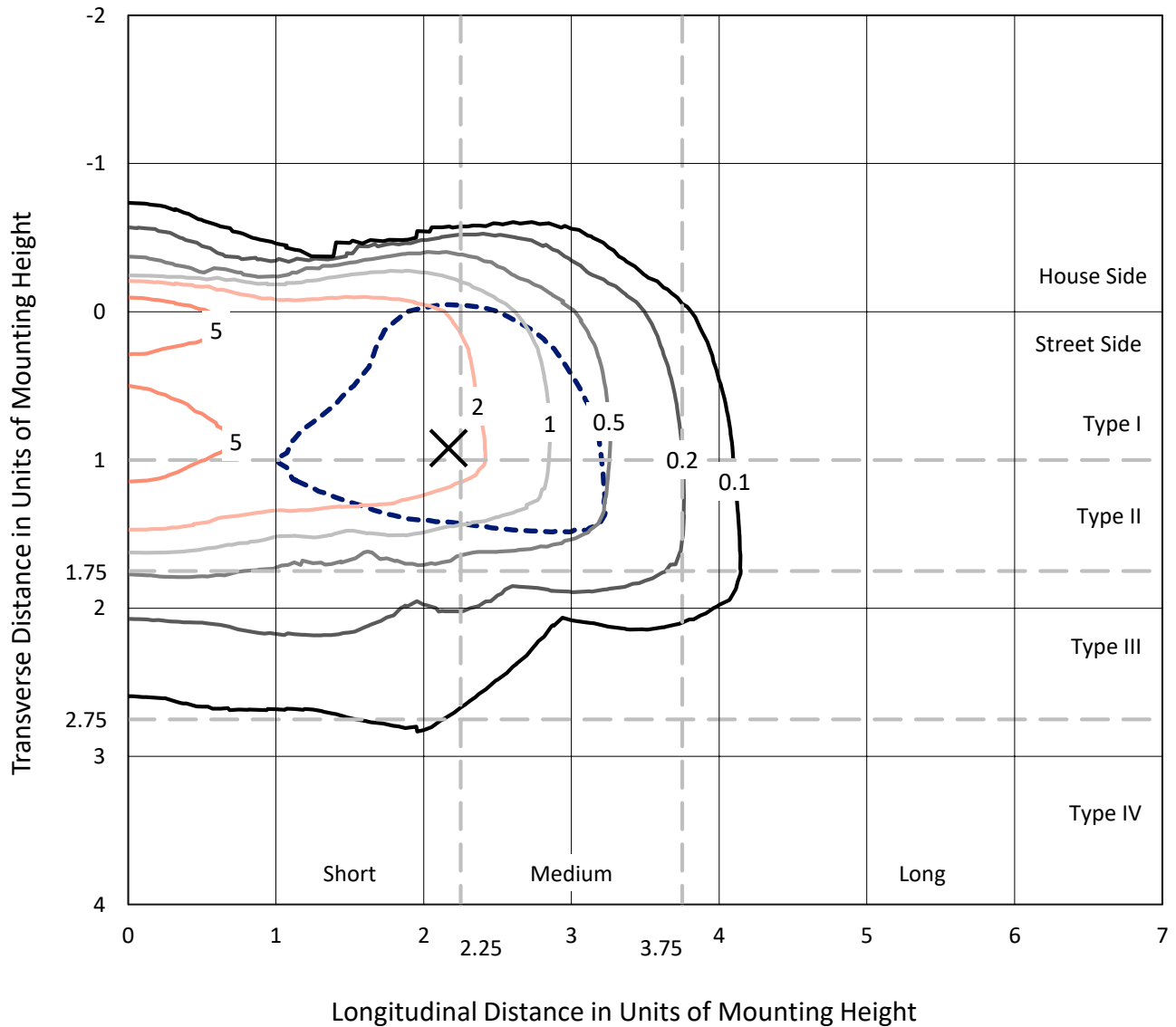
Input Watts (W): 391  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

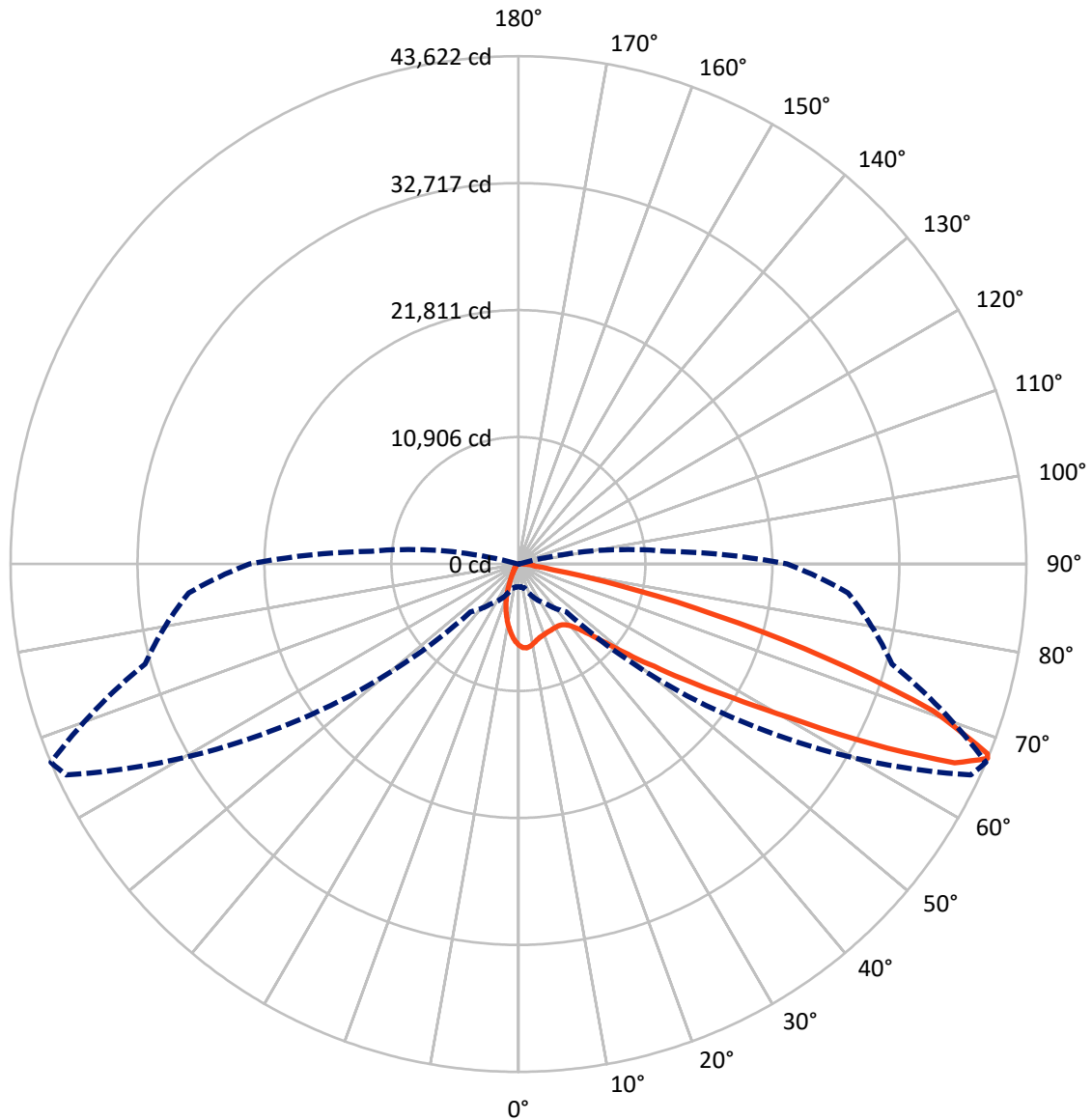
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.8 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
<b>House Side</b>	Lumens	3289.1	0.0	3289.1
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	28388.6	0.0	28388.6
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	31677.7	0.0	31677.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	568.4	1.8
10°-20°	1209.9	3.8
20°-30°	1759.1	5.6
30°-40°	2744.2	8.7
40°-50°	4861.2	15.3
50°-60°	7692.4	24.3
60°-70°	8810.5	27.8
70°-80°	3654.5	11.5
80°-90°	377.5	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°	31677.7	100.0
0°-180°	31677.7	100.0



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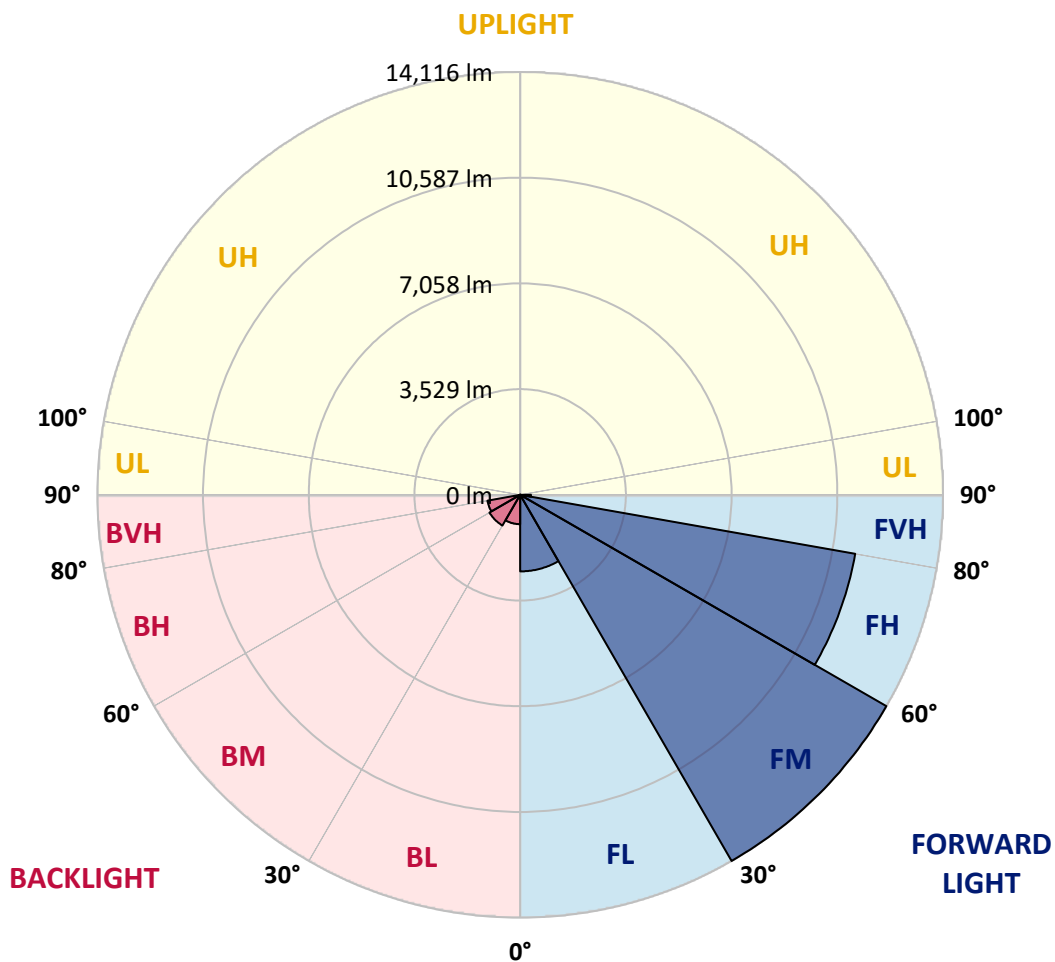
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2555.9	8.1			
FM (30°-60°)	14115.7	44.6			
FH (60°-80°)	11356.5	35.9			G4/12000
FVH (80°-90°)	360.5	1.1			G3/500
BL (0°-30°)	981.5	3.1	B2/1000		
BM (30°-60°)	1182.1	3.7	B2/2500		
BH (60°-80°)	1108.5	3.5	B3/2500		G3/2500
BVH (80°-90°)	17.0	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°	6986.1	6986.1	6986.1	6986.1	6986.1	6986.1	6986.1	6986.1	6986.1	6986.1	6986.1
2.5°	7222.6	7237.4	7235.5	7246.6	7272.5	7274.3	7248.5	7198.6	7187.5	7122.8	7010.1
5°	6660.9	6703.4	6729.3	6834.6	6952.8	7095.1	7202.3	7241.1	7235.5	7189.3	7019.4
7.5°	6019.8	6062.3	6091.8	6215.6	6372.7	6616.6	6895.6	7124.7	7145.0	7194.9	7012.0
10°	5592.9	5600.3	5641.0	5759.2	5923.7	6173.1	6505.7	6906.6	6967.6	7150.5	6993.5
12.5°	5241.9	5247.4	5301.0	5428.5	5604.0	5855.3	6204.5	6668.3	6762.5	7095.1	6989.8
15°	4992.4	5012.8	5060.8	5193.8	5380.5	5629.9	5988.3	6492.8	6605.5	7074.8	7023.0
17.5°	4909.3	4931.5	4946.2	5042.3	5212.3	5456.2	5823.9	6378.2	6505.7	7085.9	7087.7
20°	4996.1	5012.8	4979.5	5003.5	5108.8	5326.9	5685.3	6280.3	6431.8	7098.8	7170.9
22.5°	5319.5	5326.9	5236.3	5131.0	5112.5	5232.6	5576.3	6202.7	6365.3	7133.9	7268.8
25°	5873.8	5860.9	5713.0	5485.8	5271.4	5216.0	5511.6	6154.6	6332.0	7170.9	7370.4
27.5°	6542.6	6561.1	6357.9	6027.1	5618.8	5326.9	5502.4	6134.3	6317.2	7196.7	7459.1
30°	7355.6	7381.5	7148.7	6733.0	6147.2	5600.3	5587.4	6130.6	6308.0	7180.1	7466.5
32.5°	8185.2	8216.7	8033.7	7605.1	6853.1	6058.6	5779.6	6171.3	6326.5	7122.8	7424.0
35°	9053.7	9098.0	8976.0	8608.4	7810.2	6720.0	6117.7	6295.1	6413.3	7117.3	7381.5
37.5°	10252.8	10293.4	10064.3	9674.5	8968.7	7606.9	6660.9	6527.9	6618.4	7206.0	7392.6
40°	12043.2	12037.7	11446.4	10849.6	10241.7	8734.0	7424.0	6949.1	6995.3	7473.9	7529.3
42.5°	13994.4	13985.1	13111.2	12204.0	11655.2	10121.6	8427.3	7677.1	7645.7	7967.2	7884.1
45°	15498.4	15496.5	14783.3	13761.5	13356.9	11714.3	9724.4	8689.7	8641.6	8769.1	8538.1
47.5°	16139.5	16150.6	15792.2	15073.4	15243.4	13868.7	11359.6	10156.7	10084.7	10032.9	9681.9
50°	15640.6	15662.8	15692.4	15552.0	16627.3	16764.0	13552.8	12224.3	12189.2	11958.2	11409.4
52.5°	14011.0	14123.7	14471.1	14916.4	17107.7	19543.0	16991.3	14792.6	14604.1	14358.4	13754.2
55°	11265.3	11389.1	12048.7	13129.6	16392.7	21368.5	21810.1	18103.6	17789.5	17056.0	16183.9
57.5°	7455.4	7647.6	8604.7	9979.3	14315.9	21662.2	26617.7	22698.8	21605.0	19596.5	18613.6
60°	4107.4	4292.2	5330.6	6575.9	10339.6	20210.0	29851.2	28681.6	26748.9	22436.4	21564.3
62.5°	2529.5	2629.3	3396.0	4554.5	6200.8	15951.1	30520.0	36199.8	33962.3	26093.0	25128.5
65°	2014.0	2056.5	2431.6	3723.1	4445.5	9487.9	28360.1	41931.3	41184.9	30520.0	28319.5
67°	1954.8	1971.5	2148.9	3196.5	4190.5	5816.5	23759.4	42864.4	43622.0	33199.2	28419.2
67.5°	1967.8	1986.3	2154.4	3050.5	4183.2	5345.3	22174.1	42496.7	43453.8	33411.7	27977.6
70°	1897.6	1954.8	2466.7	3048.7	3978.1	4441.8	13279.3	36820.6	37816.5	31044.8	23739.0
72.5°	672.6	676.3	1066.1	2466.7	4325.4	4489.9	6668.3	26992.8	27730.0	23748.3	17115.1
75°	399.1	340.0	354.8	702.1	4133.3	4360.5	3846.9	17248.1	17523.4	13608.2	8667.5
77.5°	275.3	240.2	247.6	310.4	1574.2	4299.6	3056.1	8994.5	8700.7	4772.6	1845.8
80°	157.1	138.6	147.8	271.6	572.8	4011.3	2882.4	3647.3	3109.7	809.3	510.0
82.5°	83.1	70.2	85.0	223.6	399.1	2499.9	2887.9	1762.7	1396.8	273.5	347.4
85°	29.6	24.0	40.6	153.4	266.1	766.8	2677.3	1481.8	1164.0	133.0	264.2
87.5°	5.5	5.5	16.6	62.8	107.2	234.7	1583.5	879.5	589.4	79.5	181.1
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°	6986.1	6986.1	6986.1	6986.1	6986.1	6986.1	6986.1	6986.1	6986.1	6986.1	6986.1
2.5°	6963.9	6884.5	6777.3	6646.1	6490.9	6354.2	6252.6	6147.2	6125.1	6088.1	6082.6
5°	6917.7	6781.0	6514.9	6210.1	5884.9	5591.1	5352.7	5140.3	5046.0	4964.7	4955.5
7.5°	6849.4	6644.3	6191.6	5700.1	5192.0	4730.1	4338.4	4061.2	3806.2	3684.3	3665.8
10°	6769.9	6476.1	5827.6	5145.8	4443.7	3791.4	3209.4	2721.6	2426.0	2250.5	2228.3
12.5°	6696.0	6311.7	5456.2	4571.2	3638.1	2766.0	2017.7	1552.1	1241.6	1116.0	1101.2
15°	6660.9	6178.7	5108.8	3983.6	2795.5	1760.8	1103.1	853.6	752.0	722.4	720.6
17.5°	6657.2	6065.9	4768.9	3375.7	1958.5	1023.6	718.7	655.9	635.6	628.2	628.2
20°	6655.4	5958.8	4428.9	2745.7	1243.5	681.8	598.6	583.9	569.1	559.8	559.8
22.5°	6675.7	5862.7	4074.1	2102.7	783.4	552.5	526.6	511.8	493.3	480.4	478.6
25°	6696.0	5788.8	3712.0	1496.6	567.2	480.4	454.5	434.2	408.3	391.7	389.9
27.5°	6699.7	5696.4	3324.0	1001.4	474.9	419.4	386.2	354.8	325.2	308.6	306.7
30°	6644.3	5541.2	2893.5	676.3	419.4	364.0	319.6	286.4	258.7	245.7	245.7
32.5°	6535.3	5349.0	2420.5	510.0	373.2	312.3	264.2	232.8	214.3	208.8	206.9
35°	6437.3	5142.1	1934.5	432.4	334.4	264.2	216.2	195.9	184.8	182.9	181.1
37.5°	6380.1	4975.8	1478.1	391.7	297.5	221.7	182.9	168.1	162.6	158.9	160.7
40°	6424.4	4837.2	1092.0	358.5	260.5	184.8	155.2	147.8	142.3	140.4	140.4
42.5°	6618.4	4813.2	811.1	328.9	225.4	153.4	134.9	129.3	125.6	123.8	125.6
45°	7128.4	4961.0	630.1	301.2	190.3	129.3	114.6	112.7	110.9	110.9	110.9
47.5°	7895.2	5265.9	524.7	269.8	158.9	110.9	99.8	97.9	96.1	97.9	97.9
50°	9194.1	5823.9	469.3	238.4	131.2	94.2	85.0	85.0	85.0	85.0	86.8
52.5°	11169.2	6921.4	432.4	206.9	107.2	79.5	72.1	72.1	73.9	73.9	75.8
55°	13369.8	8377.4	399.1	175.5	90.5	66.5	59.1	61.0	62.8	64.7	64.7
57.5°	15757.0	9990.4	371.4	144.1	77.6	53.6	49.9	51.7	53.6	57.3	57.3
60°	18637.6	11736.5	330.7	112.7	64.7	42.5	38.8	42.5	48.0	51.7	53.6
62.5°	21800.8	13425.3	279.0	88.7	53.6	33.3	31.4	38.8	46.2	49.9	51.7
65°	23962.6	13955.6	214.3	72.1	40.6	24.0	25.9	35.1	44.3	49.9	49.9
67°	23086.8	12652.9	175.5	61.0	33.3	18.5	24.0	35.1	44.3	48.0	49.9
67.5°	22478.9	12143.0	168.1	59.1	31.4	18.5	24.0	35.1	44.3	49.9	49.9
70°	18290.2	9122.0	140.4	44.3	25.9	16.6	20.3	33.3	42.5	48.0	48.0
72.5°	12708.4	5624.3	125.6	31.4	22.2	14.8	18.5	31.4	40.6	46.2	48.0
75°	6041.9	2036.1	107.2	24.0	20.3	12.9	16.6	31.4	40.6	46.2	46.2
77.5°	1232.4	473.0	86.8	20.3	16.6	12.9	14.8	29.6	38.8	44.3	44.3
80°	404.6	182.9	64.7	18.5	16.6	12.9	14.8	27.7	38.8	42.5	44.3
82.5°	291.9	92.4	42.5	18.5	16.6	12.9	12.9	27.7	37.0	42.5	42.5
85°	223.6	64.7	27.7	18.5	16.6	12.9	12.9	25.9	35.1	40.6	40.6
87.5°	147.8	25.9	22.2	18.5	16.6	12.9	12.9	25.9	33.3	38.8	40.6
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)