

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: P299671

Luminaire Tested: **GLNA-AF-07-LED-E1-SL2-7027-800-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299671  
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-SL2-7027-800-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(7) 70 CRI, 2700K CCT 800mA 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: 22235.1 lumens  
Efficiency: N/A  
Efficacy: 75.4 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
BUG Rating: B2 - U0 - G4

Input Watts (W): 295  
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

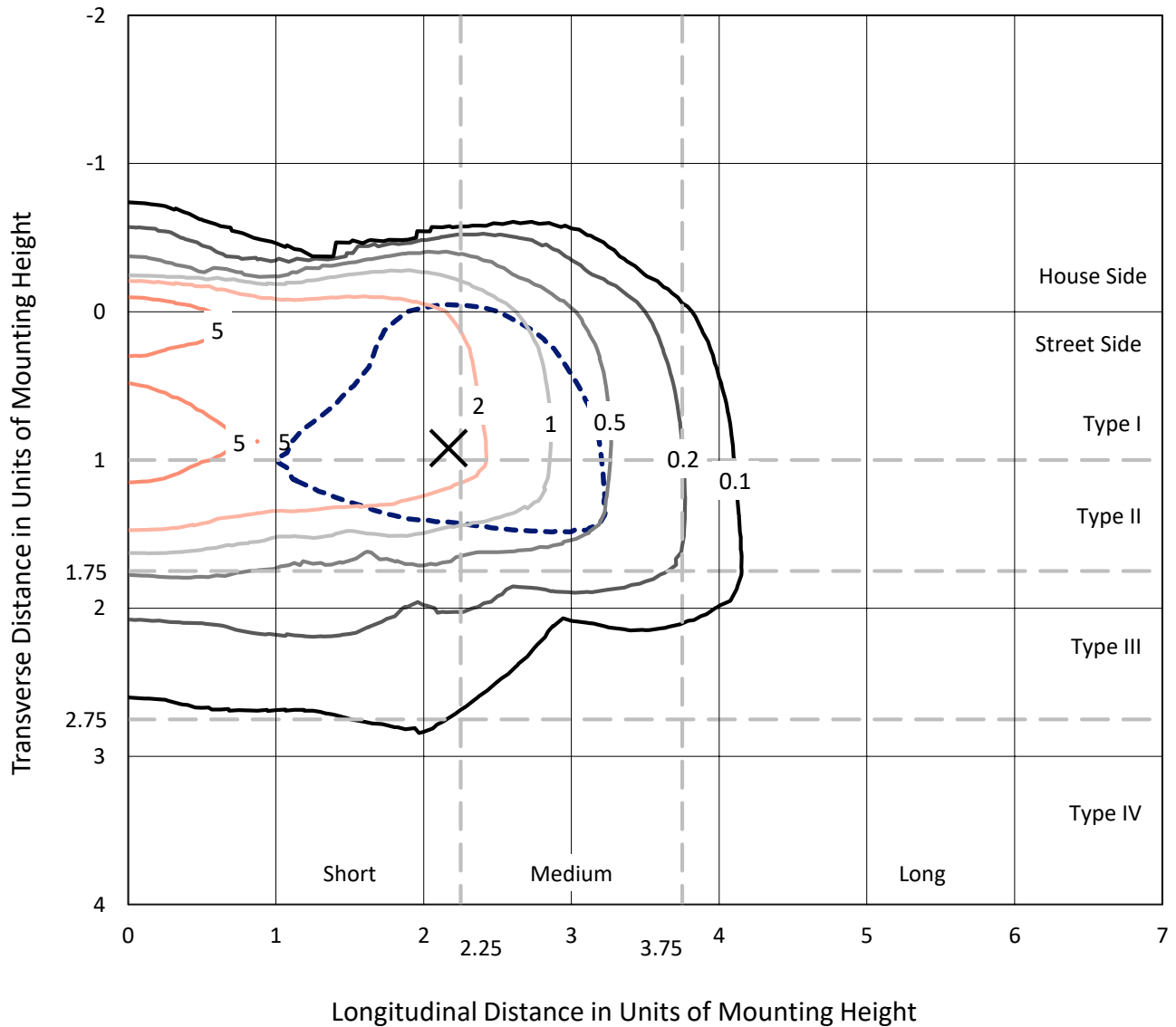


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

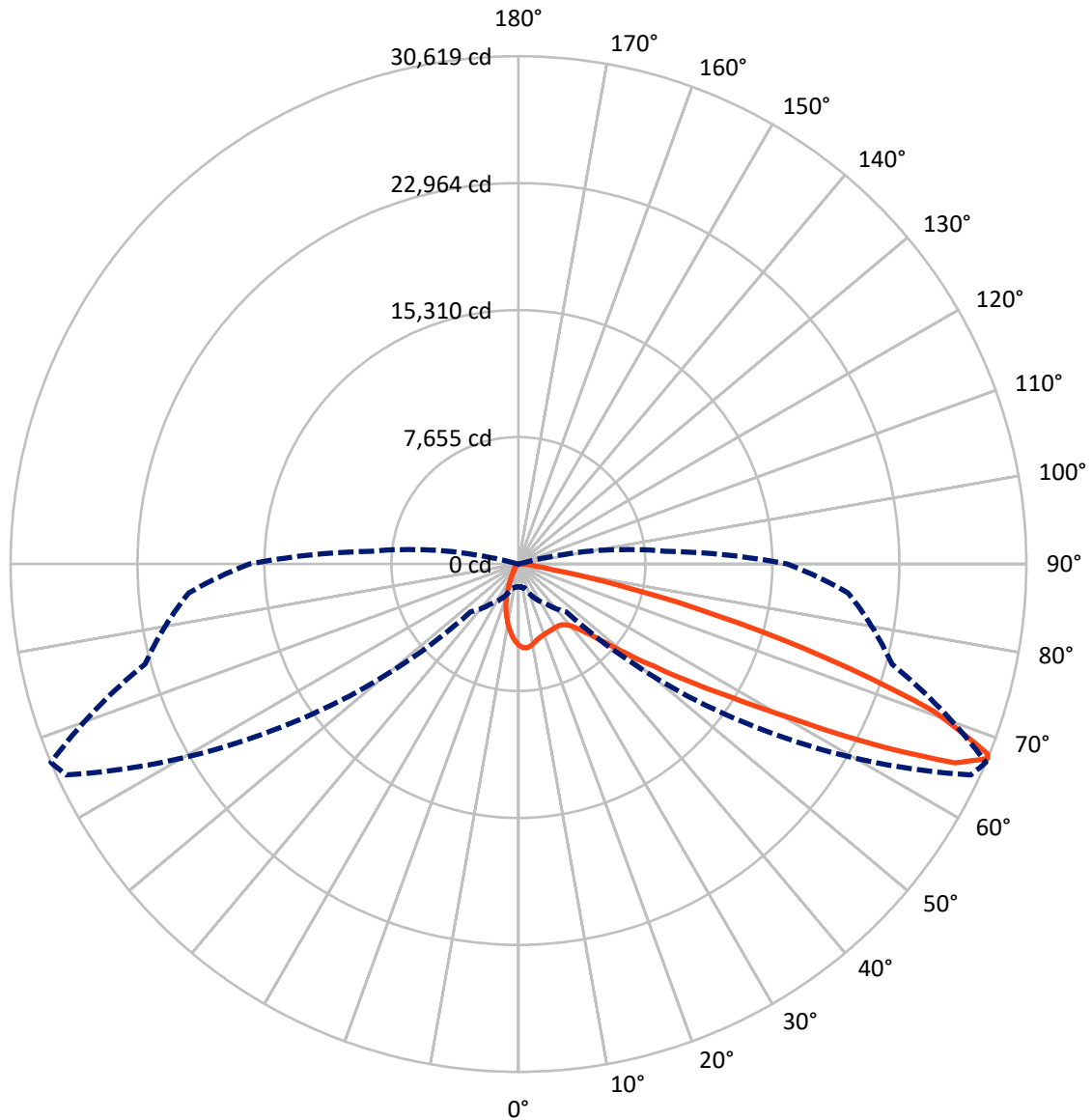


Based on 25 foot mounting height. Maximum calculated value = 7.8 fc  
 Type II - Short - Semi-Cutoff

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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	2308.7	0.0	2308.7
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	19926.5	0.0	19926.5
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	22235.1	0.0	22235.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	399.0	1.8
10°-20°	849.2	3.8
20°-30°	1234.7	5.6
30°-40°	1926.2	8.7
40°-50°	3412.2	15.3
50°-60°	5399.4	24.3
60°-70°	6184.3	27.8
70°-80°	2565.2	11.5
80°-90°	265.0	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°	22235.1	100.0
0°-180°	22235.1	100.0



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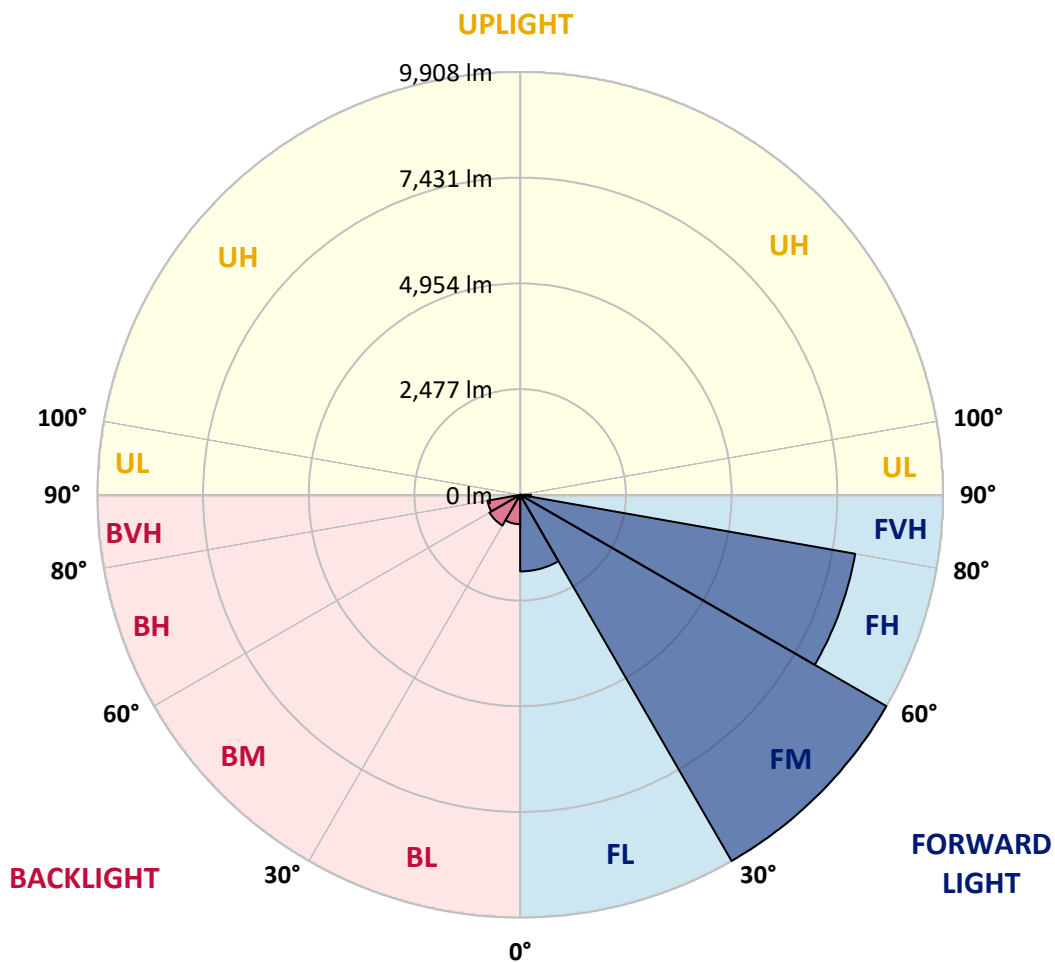
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1794.0	8.1			
FM (30°-60°)	9908.0	44.6			
FH (60°-80°)	7971.3	35.9			G4/12000
FVH (80°-90°)	253.0	1.1			G3/500
BL (0°-30°)	688.9	3.1	B2/1000		
BM (30°-60°)	829.7	3.7	B1/1000		
BH (60°-80°)	778.1	3.5	B2/1000		G2/1000
BVH (80°-90°)	11.9	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-G4**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	4903.7	4903.7	4903.7	4903.7	4903.7	4903.7	4903.7	4903.7	4903.7	4903.7	4903.7
2.5°	5069.7	5080.0	5078.8	5086.5	5104.7	5106.0	5087.8	5052.8	5045.0	4999.6	4920.5
5°	4675.4	4705.2	4723.4	4797.3	4880.3	4980.2	5055.4	5082.6	5078.8	5046.3	4927.0
7.5°	4225.4	4255.2	4276.0	4362.8	4473.1	4644.3	4840.1	5000.9	5015.2	5050.2	4921.8
10°	3925.8	3931.0	3959.5	4042.5	4157.9	4333.0	4566.5	4847.9	4890.7	5019.1	4908.9
12.5°	3679.4	3683.3	3720.9	3810.4	3933.6	4109.9	4355.1	4680.6	4746.7	4980.2	4906.3
15°	3504.3	3518.6	3552.3	3645.7	3776.6	3951.7	4203.3	4557.4	4636.5	4965.9	4929.6
17.5°	3445.9	3461.5	3471.9	3539.3	3658.6	3829.8	4087.9	4477.0	4566.5	4973.7	4975.0
20°	3506.9	3518.6	3495.2	3512.1	3586.0	3739.0	3990.6	4408.2	4514.6	4982.8	5033.4
22.5°	3733.8	3739.0	3675.5	3601.6	3588.6	3672.9	3914.1	4353.8	4467.9	5007.4	5102.1
25°	4122.9	4113.8	4010.1	3850.6	3700.1	3661.2	3868.7	4320.1	4444.6	5033.4	5173.4
27.5°	4592.4	4605.4	4462.7	4230.6	3943.9	3739.0	3862.2	4305.8	4434.2	5051.5	5235.7
30°	5163.1	5181.2	5017.8	4726.0	4314.9	3931.0	3921.9	4303.2	4427.7	5039.8	5240.9
32.5°	5745.4	5767.4	5639.0	5338.1	4810.3	4252.6	4056.8	4331.7	4440.7	4999.6	5211.0
35°	6354.9	6386.0	6300.5	6042.4	5482.1	4716.9	4294.1	4418.6	4501.6	4995.7	5181.2
37.5°	7196.6	7225.2	7064.3	6790.7	6295.3	5339.4	4675.4	4582.0	4645.6	5058.0	5189.0
40°	8453.3	8449.5	8034.4	7615.5	7188.8	6130.6	5211.0	4877.7	4910.2	5246.1	5285.0
42.5°	9822.9	9816.4	9203.0	8566.2	8181.0	7104.5	5915.3	5388.7	5366.7	5592.3	5534.0
45°	10878.6	10877.3	10376.7	9659.5	9375.5	8222.5	6825.7	6099.4	6065.7	6155.2	5993.1
47.5°	11328.6	11336.4	11084.8	10580.3	10699.6	9734.7	7973.5	7129.2	7078.6	7042.3	6795.9
50°	10978.5	10994.0	11014.8	10916.2	11671.0	11767.0	9512.9	8580.4	8555.8	8393.7	8008.5
52.5°	9834.6	9913.7	10157.5	10470.1	12008.2	13717.6	11926.5	10383.2	10250.9	10078.4	9654.3
55°	7907.3	7994.2	8457.2	9215.9	11506.3	14998.9	15308.9	12707.3	12486.8	11971.9	11359.8
57.5°	5233.1	5368.0	6039.8	7004.7	10048.6	15205.1	18683.5	15932.7	15164.9	13755.2	13065.2
60°	2883.1	3012.8	3741.6	4615.7	7257.6	14185.7	20953.1	20132.1	18775.6	15748.5	15136.4
62.5°	1775.5	1845.5	2383.7	3196.9	4352.5	11196.3	21422.6	25409.3	23838.7	18315.1	17638.2
65°	1413.6	1443.5	1706.8	2613.3	3120.4	6659.7	19906.5	29432.4	28908.4	21422.6	19877.9
67°	1372.1	1383.8	1508.3	2243.7	2941.4	4082.7	16677.1	30087.3	30619.1	23303.1	19948.0
67.5°	1381.2	1394.2	1512.2	2141.2	2936.2	3752.0	15564.4	29829.2	30501.0	23452.3	19638.0
70°	1331.9	1372.1	1731.4	2139.9	2792.3	3117.8	9321.0	25845.1	26544.1	21790.9	16662.9
72.5°	472.1	474.7	748.3	1731.4	3036.1	3151.5	4680.6	18946.8	19464.2	16669.4	12013.4
75°	280.1	238.6	249.0	492.8	2901.2	3060.7	2700.2	12106.8	12300.0	9551.8	6083.9
77.5°	193.2	168.6	173.8	217.9	1105.0	3017.9	2145.1	6313.4	6107.2	3350.0	1295.6
80°	110.2	97.3	103.8	190.6	402.0	2815.6	2023.2	2560.1	2182.7	568.1	358.0
82.5°	58.4	49.3	59.7	156.9	280.1	1754.7	2027.1	1237.3	980.5	191.9	243.8
85°	20.8	16.9	28.5	107.6	186.8	538.2	1879.2	1040.1	817.1	93.4	185.5
87.5°	3.9	3.9	11.7	44.1	75.2	164.7	1111.5	617.3	413.7	55.8	127.1
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°	4903.7	4903.7	4903.7	4903.7	4903.7	4903.7	4903.7	4903.7	4903.7	4903.7	4903.7
2.5°	4888.1	4832.3	4757.1	4665.0	4556.1	4460.1	4388.8	4314.9	4299.3	4273.4	4269.5
5°	4855.7	4759.7	4573.0	4359.0	4130.7	3924.5	3757.2	3608.0	3541.9	3484.8	3478.3
7.5°	4807.7	4663.7	4346.0	4001.0	3644.4	3320.1	3045.2	2850.6	2671.7	2586.1	2573.1
10°	4751.9	4545.7	4090.5	3611.9	3119.1	2661.3	2252.8	1910.4	1702.9	1579.7	1564.1
12.5°	4700.0	4430.3	3829.8	3208.6	2553.6	1941.5	1416.2	1089.4	871.5	783.3	773.0
15°	4675.4	4336.9	3586.0	2796.2	1962.2	1236.0	774.3	599.2	527.8	507.1	505.8
17.5°	4672.8	4257.8	3347.4	2369.5	1374.7	718.5	504.5	460.4	446.1	441.0	441.0
20°	4671.5	4182.6	3108.7	1927.2	872.8	478.6	420.2	409.8	399.5	393.0	393.0
22.5°	4685.8	4115.1	2859.7	1475.9	549.9	387.8	369.6	359.2	346.3	337.2	335.9
25°	4700.0	4063.3	2605.5	1050.5	398.2	337.2	319.0	304.8	286.6	274.9	273.7
27.5°	4702.6	3998.4	2333.2	702.9	333.3	294.4	271.1	249.0	228.3	216.6	215.3
30°	4663.7	3889.5	2031.0	474.7	294.4	255.5	224.4	201.0	181.6	172.5	172.5
32.5°	4587.2	3754.6	1699.0	358.0	262.0	219.2	185.5	163.4	150.4	146.6	145.3
35°	4518.5	3609.3	1357.9	303.5	234.7	185.5	151.7	137.5	129.7	128.4	127.1
37.5°	4478.3	3492.6	1037.5	274.9	208.8	155.6	128.4	118.0	114.1	111.5	112.8
40°	4509.4	3395.3	766.5	251.6	182.9	129.7	108.9	103.8	99.9	98.6	98.6
42.5°	4645.6	3378.5	569.3	230.9	158.2	107.6	94.7	90.8	88.2	86.9	88.2
45°	5003.5	3482.2	442.3	211.4	133.6	90.8	80.4	79.1	77.8	77.8	77.8
47.5°	5541.8	3696.2	368.3	189.4	111.5	77.8	70.0	68.7	67.4	68.7	68.7
50°	6453.5	4087.9	329.4	167.3	92.1	66.1	59.7	59.7	59.7	59.7	61.0
52.5°	7839.9	4858.3	303.5	145.3	75.2	55.8	50.6	50.6	51.9	51.9	53.2
55°	9384.5	5880.2	280.1	123.2	63.5	46.7	41.5	42.8	44.1	45.4	45.4
57.5°	11060.2	7012.5	260.7	101.2	54.5	37.6	35.0	36.3	37.6	40.2	40.2
60°	13082.1	8238.1	232.1	79.1	45.4	29.8	27.2	29.8	33.7	36.3	37.6
62.5°	15302.4	9423.4	195.8	62.3	37.6	23.3	22.0	27.2	32.4	35.0	36.3
65°	16819.8	9795.7	150.4	50.6	28.5	16.9	18.2	24.6	31.1	35.0	35.0
67°	16205.1	8881.3	123.2	42.8	23.3	13.0	16.9	24.6	31.1	33.7	35.0
67.5°	15778.4	8523.4	118.0	41.5	22.0	13.0	16.9	24.6	31.1	35.0	35.0
70°	12838.2	6402.9	98.6	31.1	18.2	11.7	14.3	23.3	29.8	33.7	33.7
72.5°	8920.2	3947.8	88.2	22.0	15.6	10.4	13.0	22.0	28.5	32.4	33.7
75°	4240.9	1429.2	75.2	16.9	14.3	9.1	11.7	22.0	28.5	32.4	32.4
77.5°	865.0	332.0	61.0	14.3	11.7	9.1	10.4	20.8	27.2	31.1	31.1
80°	284.0	128.4	45.4	13.0	11.7	9.1	10.4	19.5	27.2	29.8	31.1
82.5°	204.9	64.8	29.8	13.0	11.7	9.1	9.1	19.5	25.9	29.8	29.8
85°	156.9	45.4	19.5	13.0	11.7	9.1	9.1	18.2	24.6	28.5	28.5
87.5°	103.8	18.2	15.6	13.0	11.7	9.1	9.1	18.2	23.3	27.2	28.5
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)