

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: P299732

Luminaire Tested: **GLNA-AF-07-LED-E1-SL2-7030-600-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299732  
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-SL2-7030-600-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(7) 70 CRI, 3000K CCT 600mA 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: 20185.3 lumens  
Efficiency: N/A  
Efficacy: 89.3 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type II - Short - Semi-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

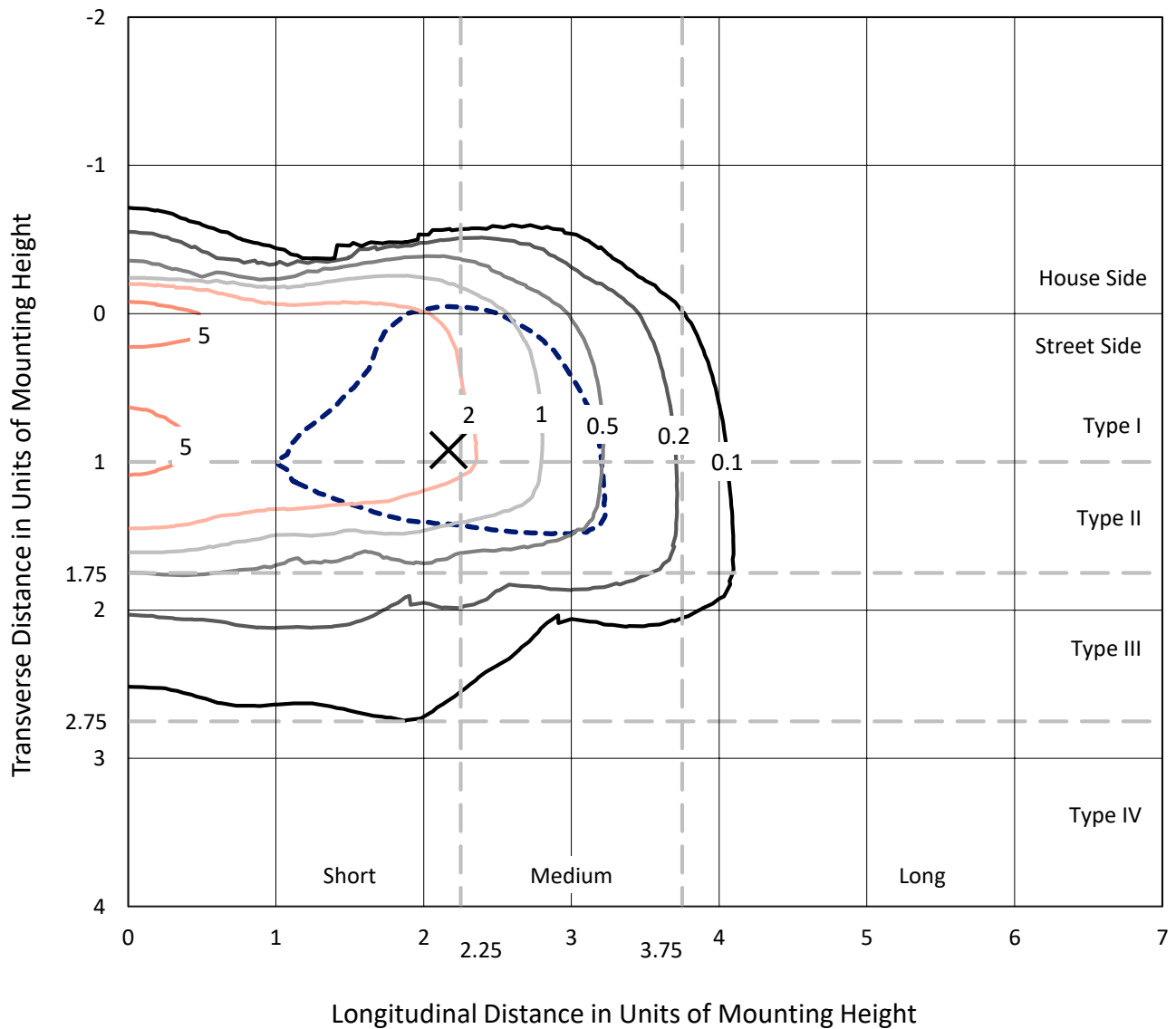


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

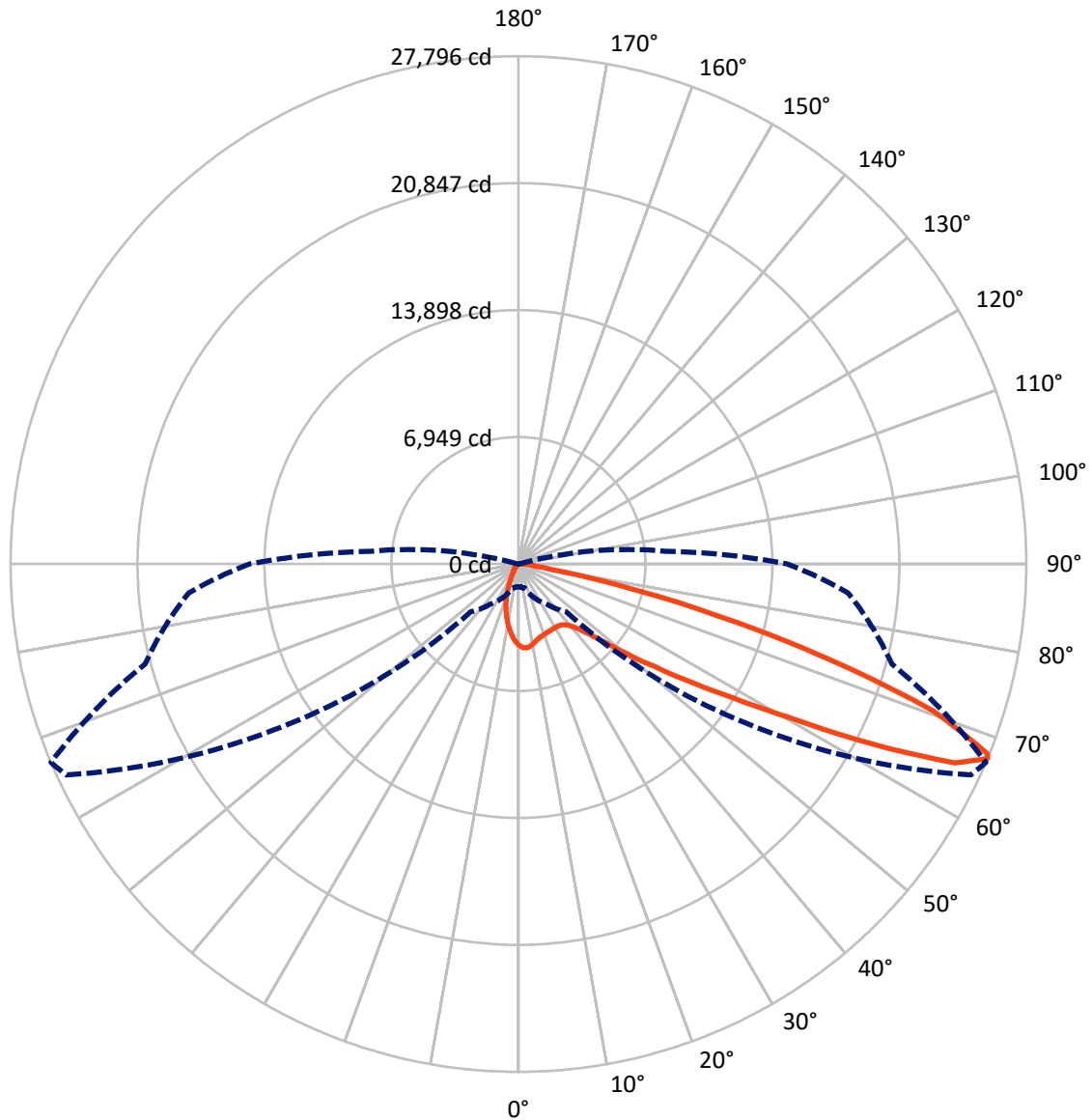


Based on 25 foot mounting height. Maximum calculated value = 7.1 fc  
 Type II - Short - Semi-Cutoff

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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	2095.8	0.0	2095.8
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	18089.4	0.0	18089.4
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	20185.3	0.0	20185.3
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	362.2	1.8
10°-20°	770.9	3.8
20°-30°	1120.9	5.6
30°-40°	1748.6	8.7
40°-50°	3097.6	15.3
50°-60°	4901.6	24.3
60°-70°	5614.1	27.8
70°-80°	2328.7	11.5
80°-90°	240.5	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°	20185.3	100.0
0°-180°	20185.3	100.0



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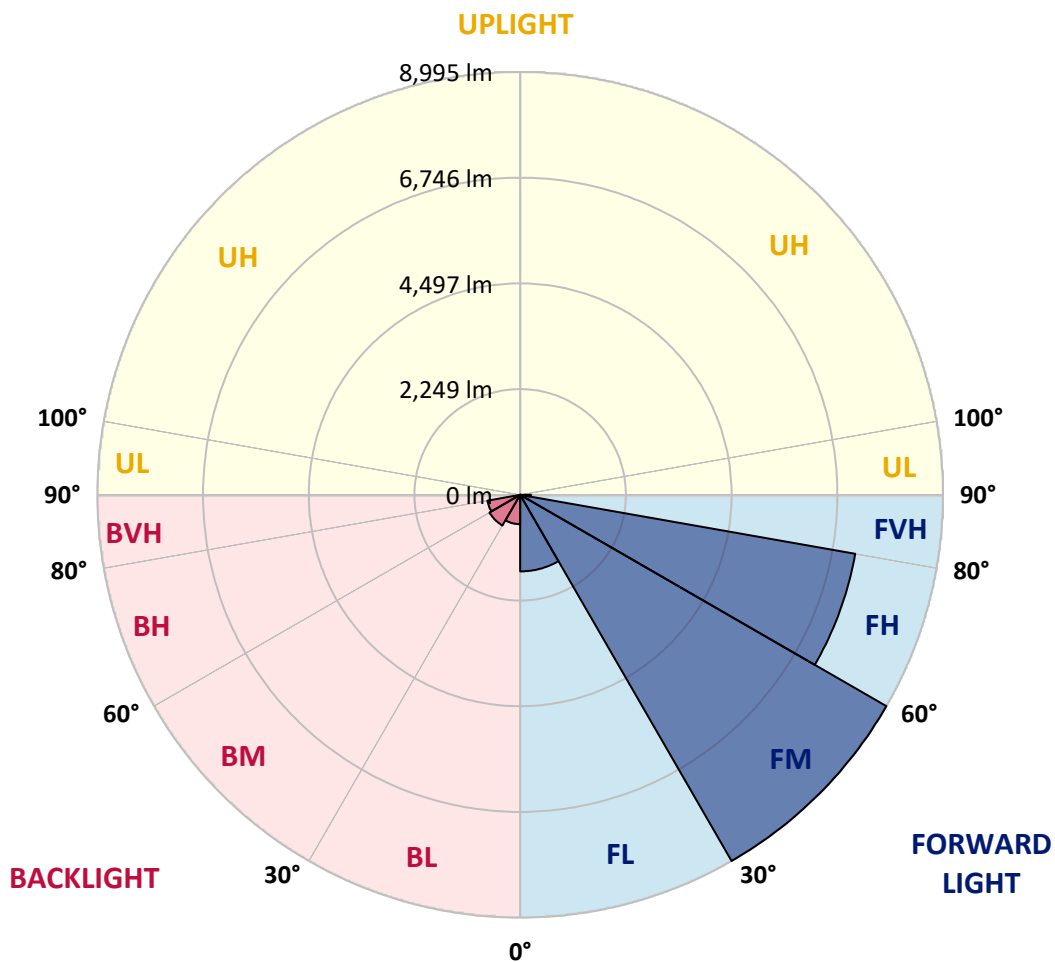
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1628.6	8.1			
FM (30°-60°)	8994.6	44.6			
FH (60°-80°)	7236.5	35.9			G3/7500
FVH (80°-90°)	229.7	1.1			G3/500
BL (0°-30°)	625.4	3.1	B2/1000		
BM (30°-60°)	753.2	3.7	B1/1000		
BH (60°-80°)	706.4	3.5	B2/1000		G2/1000
BVH (80°-90°)	10.8	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-G3**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	4451.6	4451.6	4451.6	4451.6	4451.6	4451.6	4451.6	4451.6	4451.6	4451.6	4451.6
2.5°	4602.3	4611.7	4610.5	4617.6	4634.1	4635.3	4618.8	4587.0	4579.9	4538.7	4466.9
5°	4244.4	4271.5	4287.9	4355.1	4430.4	4521.1	4589.4	4614.1	4610.5	4581.1	4472.8
7.5°	3835.8	3862.9	3881.8	3960.6	4060.7	4216.1	4393.9	4539.9	4552.9	4584.6	4468.1
10°	3563.9	3568.6	3594.5	3669.8	3774.6	3933.6	4145.5	4401.0	4439.8	4556.4	4456.3
12.5°	3340.2	3343.7	3377.8	3459.1	3570.9	3731.1	3953.6	4249.1	4309.1	4521.1	4454.0
15°	3181.2	3194.2	3224.8	3309.6	3428.5	3587.4	3815.8	4137.2	4209.1	4508.1	4475.1
17.5°	3128.2	3142.4	3151.8	3213.0	3321.3	3476.7	3711.0	4064.2	4145.5	4515.2	4516.4
20°	3183.6	3194.2	3173.0	3188.3	3255.4	3394.3	3622.7	4001.8	4098.4	4523.4	4569.3
22.5°	3389.6	3394.3	3336.6	3269.5	3257.8	3334.3	3553.3	3952.4	4056.0	4545.8	4631.7
25°	3742.8	3734.6	3640.4	3495.6	3359.0	3323.7	3512.1	3921.8	4034.8	4569.3	4696.5
27.5°	4169.0	4180.8	4051.3	3840.5	3580.4	3394.3	3506.2	3908.8	4025.4	4585.8	4753.0
30°	4687.1	4703.6	4555.2	4290.3	3917.1	3568.6	3560.3	3906.5	4019.5	4575.2	4757.7
32.5°	5215.7	5235.7	5119.2	4846.0	4366.8	3860.6	3682.8	3932.4	4031.3	4538.7	4730.6
35°	5769.1	5797.3	5719.6	5485.3	4976.7	4282.1	3898.2	4011.3	4086.6	4535.2	4703.6
37.5°	6533.2	6559.1	6413.1	6164.7	5714.9	4847.2	4244.4	4159.6	4217.3	4591.7	4710.6
40°	7674.0	7670.5	7293.7	6913.5	6526.1	5565.4	4730.6	4428.1	4457.5	4762.4	4797.7
42.5°	8917.3	8911.4	8354.5	7776.5	7426.8	6449.6	5369.9	4891.9	4871.9	5076.8	5023.8
45°	9875.7	9874.5	9420.1	8769.0	8511.1	7464.5	6196.4	5537.1	5506.5	5587.8	5440.6
47.5°	10284.2	10291.3	10062.9	9604.9	9713.2	8837.3	7238.4	6471.9	6426.0	6393.1	6169.4
50°	9966.4	9980.5	9999.3	9909.8	10595.1	10682.2	8635.9	7789.4	7767.0	7619.9	7270.2
52.5°	8927.9	8999.7	9221.1	9504.8	10901.2	12452.9	10827.0	9425.9	9305.9	9149.3	8764.3
55°	7178.4	7257.2	7677.6	8366.3	10445.5	13616.2	13897.6	11535.8	11335.6	10868.2	10312.5
57.5°	4750.6	4873.1	5483.0	6358.9	9122.2	13803.4	16961.1	14463.9	13766.9	12487.1	11860.7
60°	2617.3	2735.0	3396.7	4190.2	6588.5	12878.0	19021.4	18276.2	17044.6	14296.7	13741.0
62.5°	1611.8	1675.4	2164.0	2902.2	3951.2	10164.2	19447.6	23066.8	21641.1	16626.7	16012.1
65°	1283.3	1310.4	1549.4	2372.4	2832.7	6045.7	18071.3	26719.0	26243.4	19447.6	18045.4
67°	1245.6	1256.2	1369.3	2036.8	2670.3	3706.3	15139.7	27313.6	27796.3	21154.8	18109.0
67.5°	1253.9	1265.7	1372.8	1943.8	2665.5	3406.1	14129.5	27079.3	27689.2	21290.2	17827.6
70°	1209.1	1245.6	1571.8	1942.6	2534.9	2830.4	8461.7	23462.4	24097.0	19782.0	15126.7
72.5°	428.6	430.9	679.3	1571.8	2756.2	2861.0	4249.1	17200.1	17669.8	15132.6	10905.9
75°	254.3	216.6	226.1	447.4	2633.8	2778.6	2451.3	10990.7	11166.1	8671.3	5523.0
77.5°	175.4	153.1	157.8	197.8	1003.1	2739.7	1947.4	5731.4	5544.2	3041.1	1176.2
80°	100.1	88.3	94.2	173.1	365.0	2556.0	1836.7	2324.1	1981.5	515.7	325.0
82.5°	53.0	44.7	54.2	142.5	254.3	1593.0	1840.2	1123.2	890.1	174.2	221.3
85°	18.8	15.3	25.9	97.7	169.5	488.6	1706.0	944.2	741.7	84.8	168.4
87.5°	3.5	3.5	10.6	40.0	68.3	149.5	1009.0	560.4	375.6	50.6	115.4
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°	4451.6	4451.6	4451.6	4451.6	4451.6	4451.6	4451.6	4451.6	4451.6	4451.6	4451.6
2.5°	4437.5	4386.8	4318.6	4235.0	4136.1	4048.9	3984.2	3917.1	3902.9	3879.4	3875.9
5°	4408.0	4320.9	4151.4	3957.1	3749.9	3562.7	3410.8	3275.4	3215.4	3163.6	3157.7
7.5°	4364.5	4233.8	3945.3	3632.2	3308.4	3014.0	2764.4	2587.8	2425.4	2347.7	2335.9
10°	4313.8	4126.6	3713.4	3278.9	2831.6	2415.9	2045.1	1734.3	1545.9	1434.0	1419.9
12.5°	4266.8	4021.9	3476.7	2912.8	2318.2	1762.5	1285.7	989.0	791.2	711.1	701.7
15°	4244.4	3937.1	3255.4	2538.4	1781.3	1122.0	702.9	543.9	479.2	460.3	459.2
17.5°	4242.0	3865.3	3038.8	2151.0	1248.0	652.3	458.0	418.0	405.0	400.3	400.3
20°	4240.9	3797.0	2822.1	1749.6	792.4	434.4	381.5	372.0	362.6	356.7	356.7
22.5°	4253.8	3735.8	2596.1	1339.8	499.2	352.0	335.5	326.1	314.4	306.1	304.9
25°	4266.8	3688.7	2365.3	953.7	361.4	306.1	289.6	276.7	260.2	249.6	248.4
27.5°	4269.1	3629.8	2118.1	638.1	302.6	267.3	246.1	226.1	207.2	196.6	195.4
30°	4233.8	3530.9	1843.7	430.9	267.3	231.9	203.7	182.5	164.8	156.6	156.6
32.5°	4164.3	3408.5	1542.3	325.0	237.8	199.0	168.4	148.3	136.6	133.0	131.9
35°	4101.9	3276.6	1232.7	275.5	213.1	168.4	137.8	124.8	117.7	116.6	115.4
37.5°	4065.4	3170.6	941.9	249.6	189.6	141.3	116.6	107.1	103.6	101.3	102.4
40°	4093.7	3082.3	695.8	228.4	166.0	117.7	98.9	94.2	90.7	89.5	89.5
42.5°	4217.3	3067.0	516.9	209.6	143.6	97.7	85.9	82.4	80.1	78.9	80.1
45°	4542.3	3161.2	401.5	191.9	121.3	82.4	73.0	71.8	70.6	70.6	70.6
47.5°	5030.9	3355.5	334.4	171.9	101.3	70.6	63.6	62.4	61.2	62.4	62.4
50°	5858.5	3711.0	299.0	151.9	83.6	60.0	54.2	54.2	54.2	54.2	55.3
52.5°	7117.1	4410.4	275.5	131.9	68.3	50.6	45.9	45.9	47.1	47.1	48.3
55°	8519.4	5338.2	254.3	111.8	57.7	42.4	37.7	38.9	40.0	41.2	41.2
57.5°	10040.5	6366.0	236.6	91.8	49.4	34.1	31.8	33.0	34.1	36.5	36.5
60°	11876.0	7478.6	210.7	71.8	41.2	27.1	24.7	27.1	30.6	33.0	34.1
62.5°	13891.7	8554.7	177.8	56.5	34.1	21.2	20.0	24.7	29.4	31.8	33.0
65°	15269.2	8892.6	136.6	45.9	25.9	15.3	16.5	22.4	28.3	31.8	31.8
67°	14711.1	8062.6	111.8	38.9	21.2	11.8	15.3	22.4	28.3	30.6	31.8
67.5°	14323.8	7737.6	107.1	37.7	20.0	11.8	15.3	22.4	28.3	31.8	31.8
70°	11654.7	5812.6	89.5	28.3	16.5	10.6	13.0	21.2	27.1	30.6	30.6
72.5°	8097.9	3583.9	80.1	20.0	14.1	9.4	11.8	20.0	25.9	29.4	30.6
75°	3850.0	1297.5	68.3	15.3	13.0	8.2	10.6	20.0	25.9	29.4	29.4
77.5°	785.3	301.4	55.3	13.0	10.6	8.2	9.4	18.8	24.7	28.3	28.3
80°	257.8	116.6	41.2	11.8	10.6	8.2	9.4	17.7	24.7	27.1	28.3
82.5°	186.0	58.9	27.1	11.8	10.6	8.2	8.2	17.7	23.5	27.1	27.1
85°	142.5	41.2	17.7	11.8	10.6	8.2	8.2	16.5	22.4	25.9	25.9
87.5°	94.2	16.5	14.1	11.8	10.6	8.2	8.2	16.5	21.2	24.7	25.9
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)