

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: P301897

Luminaire Tested: **GLNA-AF-07-LED-E1-SL4-7030-800-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301897  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)  
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-SL4-7030-800-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(7) 70 CRI, 3000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
w/Spill Control WITH HOUSESIDE SHEILD OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 24262.1 lumens  
Efficiency: N/A  
Efficacy: 82.2 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B1 - 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

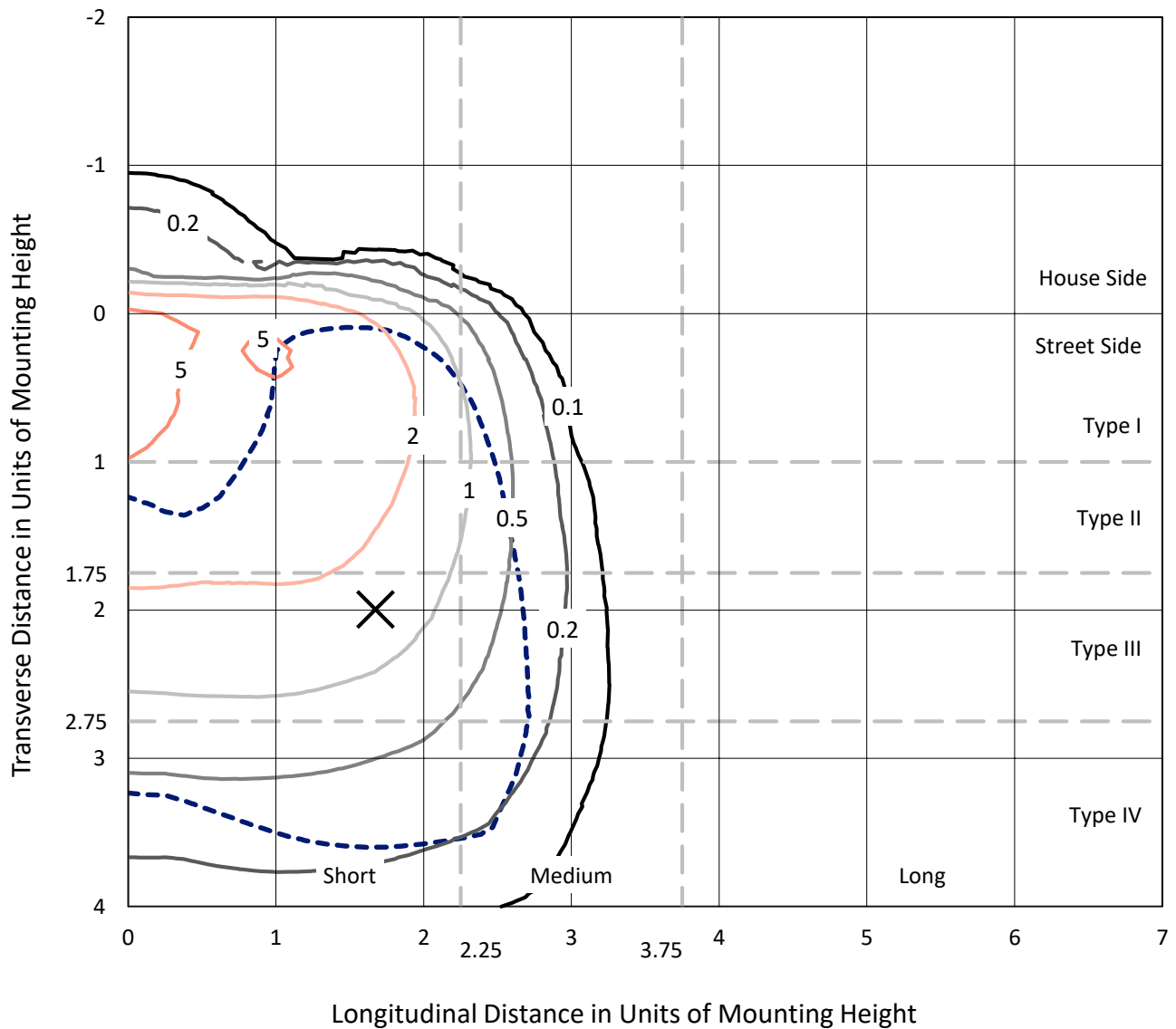


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

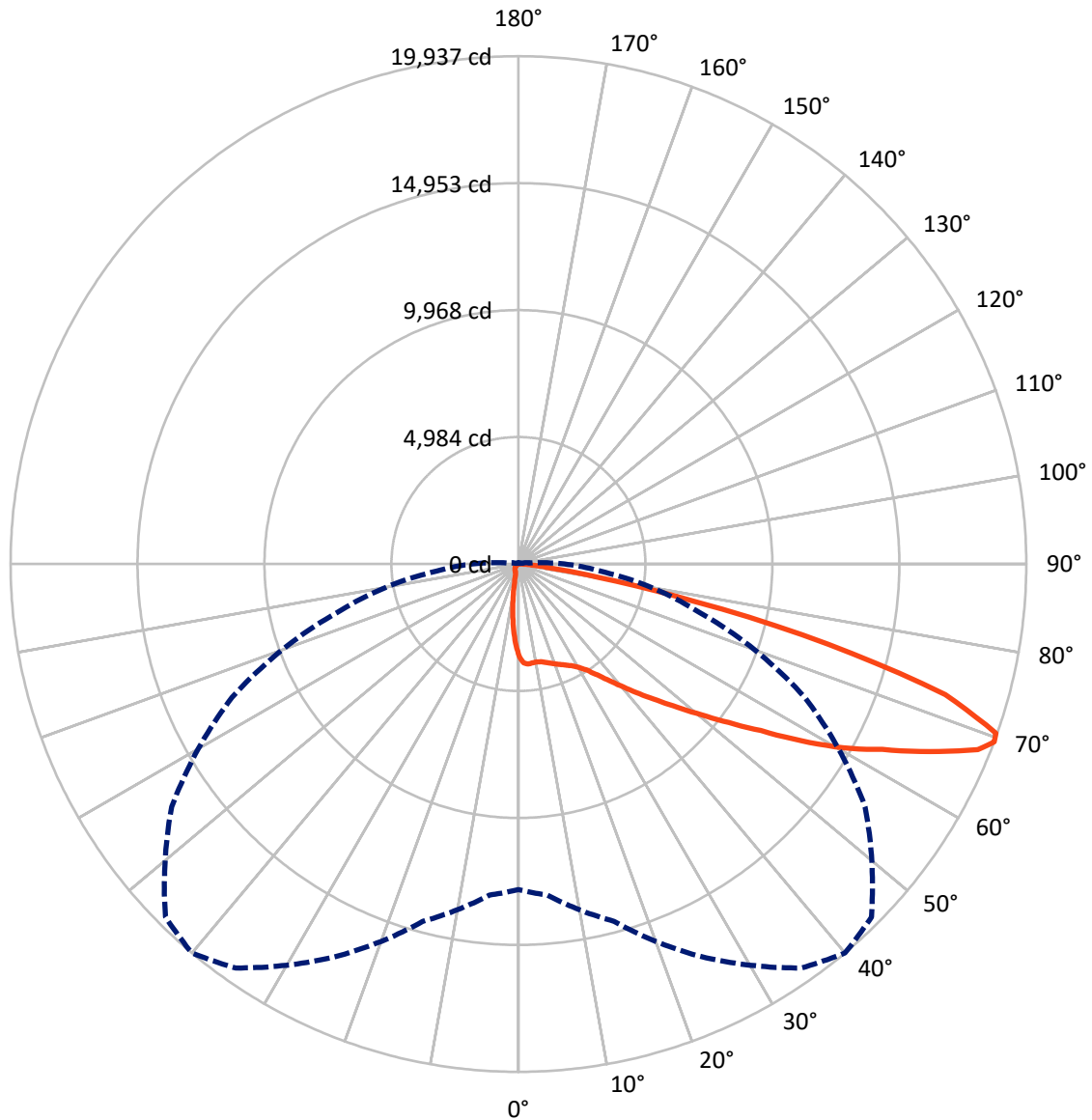


Based on 25 foot mounting height. Maximum calculated value = 6.3 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral    - - - Horizontal Cone Through 69-Deg Vertical

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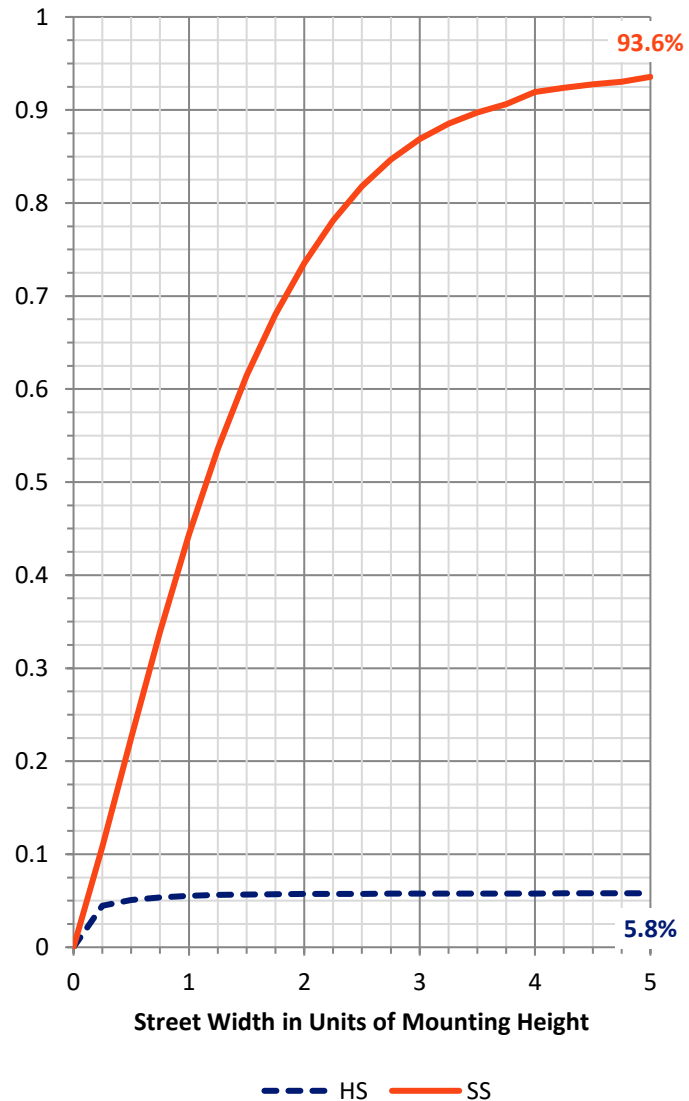
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1419.5	0.0	1419.5
	% Fixture	5.9	0.0	5.9
<b>Street Side</b>	Lumens	22842.7	0.0	22842.7
	% Fixture	94.1	0.0	94.1
<b>Total</b>	Lumens	24262.1	0.0	24262.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	293.9	1.2
10°-20°	722.8	3.0
20°-30°	1217.4	5.0
30°-40°	1992.9	8.2
40°-50°	3450.7	14.2
50°-60°	5435.1	22.4
60°-70°	7098.1	29.3
70°-80°	3655.8	15.1
80°-90°	395.5	1.6
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°	24262.1	100.0
0°-180°	24262.1	100.0



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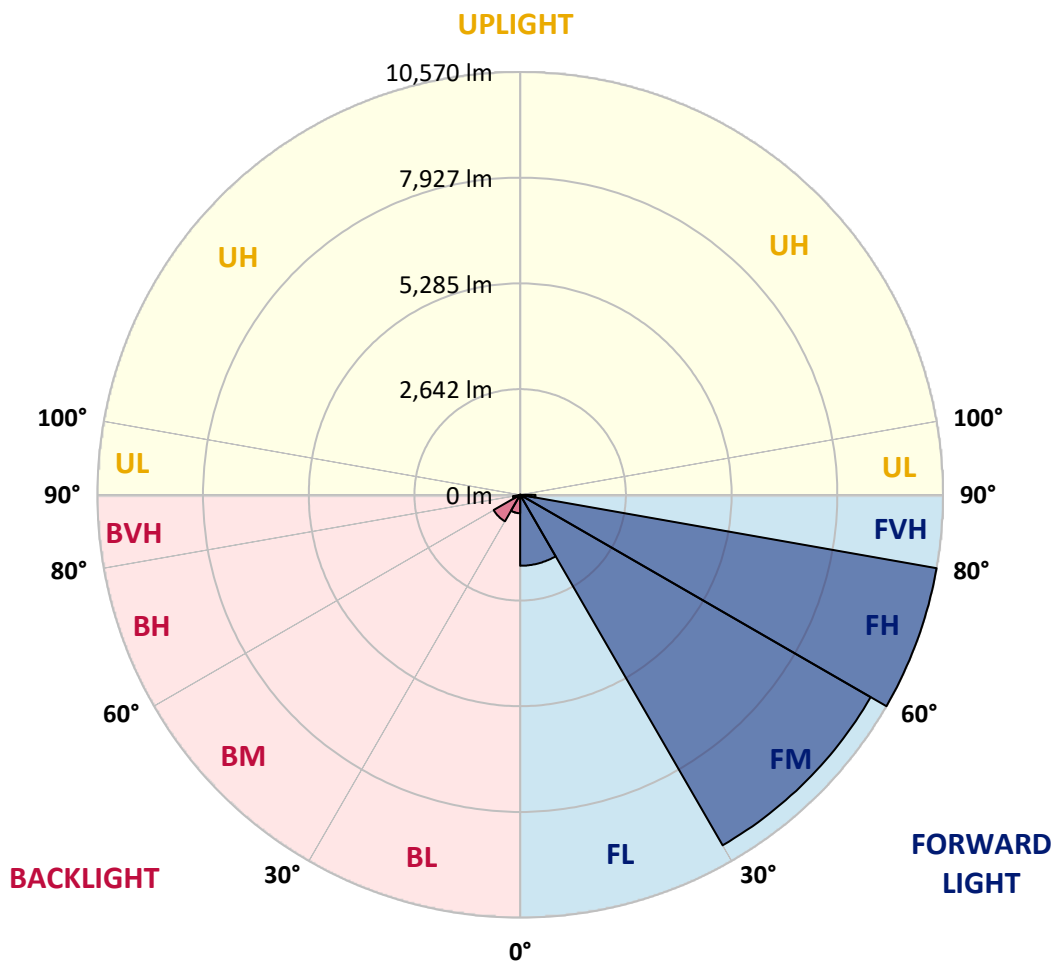
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1774.3	7.3			
FM	(30°-60°)	10115.8	41.7			
FH	(60°-80°)	10569.6	43.6			G4/12000
FVH	(80°-90°)	383.0	1.6			G3/500
BL	(0°-30°)	459.8	1.9	B1/500		
BM	(30°-60°)	762.9	3.1	B1/1000		
BH	(60°-80°)	184.3	0.8	B1/500		G1/500
BVH	(80°-90°)	12.4	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G4**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	3624.9	3624.9	3624.9	3624.9	3624.9	3624.9	3624.9	3624.9	3624.9	3624.9	3624.9
2.5°	3980.2	3958.5	3945.5	3928.2	3906.5	3887.7	3880.5	3827.1	3776.5	3707.2	3627.8
5°	4053.8	4046.6	4023.5	4000.4	3974.4	3945.5	3929.6	3866.1	3793.9	3692.8	3554.1
7.5°	4061.0	4052.4	4023.5	3991.7	3955.6	3920.9	3893.5	3830.0	3763.5	3661.0	3492.0
10°	4049.5	4039.4	4017.7	3983.0	3938.3	3905.1	3877.6	3817.0	3760.6	3668.2	3480.5
12.5°	4036.5	4026.4	4016.3	3998.9	3959.9	3936.8	3913.7	3856.0	3805.4	3727.4	3522.3
15°	4049.5	4043.7	4055.3	4048.0	4026.4	4006.1	3983.0	3931.1	3884.8	3819.8	3598.9
17.5°	4104.4	4104.4	4140.5	4144.8	4124.6	4095.7	4062.5	4010.5	3971.5	3916.6	3689.9
20°	4232.9	4228.6	4274.8	4283.4	4234.3	4189.6	4140.5	4076.9	4046.6	4011.9	3779.4
22.5°	4453.8	4433.6	4461.1	4452.4	4355.6	4286.3	4225.7	4147.7	4131.8	4115.9	3879.1
25°	4741.2	4729.7	4748.5	4663.2	4492.8	4399.0	4326.8	4238.7	4238.7	4254.5	3991.7
27.5°	5158.6	5115.3	5051.7	4901.5	4645.9	4526.1	4448.1	4354.2	4378.7	4438.0	4140.5
30°	5586.1	5538.4	5392.6	5161.5	4832.2	4706.6	4615.6	4517.4	4575.2	4683.5	4339.8
32.5°	6007.8	5954.3	5747.8	5456.1	5099.4	4973.7	4885.7	4777.3	4874.1	5056.1	4631.5
35°	6416.5	6368.8	6130.5	5786.8	5454.7	5350.7	5269.8	5175.9	5300.1	5554.3	5043.1
37.5°	6875.7	6823.7	6533.5	6160.9	5886.5	5811.4	5752.2	5658.3	5874.9	6247.5	5616.4
40°	7440.4	7352.3	6960.9	6589.8	6386.2	6350.0	6309.6	6296.6	6633.1	7148.7	6380.4
42.5°	8087.4	7943.0	7408.6	7041.8	6934.9	6960.9	6950.8	7008.6	7581.9	8269.4	7310.4
45°	8734.4	8548.1	7906.9	7524.2	7538.6	7629.6	7685.9	7917.0	8770.5	9554.7	8311.2
47.5°	9283.2	9099.8	8384.9	8045.5	8218.8	8397.9	8551.0	8988.6	9992.3	10819.8	9089.7
50°	9752.5	9579.2	8891.8	8618.9	9008.8	9297.6	9546.0	10194.4	11306.5	11783.0	9635.6
52.5°	10136.7	10021.1	9417.5	9276.0	9911.4	10334.5	10698.5	11475.4	12470.5	12565.8	10060.1
55°	10510.7	10428.4	9982.2	10057.3	10971.4	11547.6	12008.3	12834.4	13472.7	13218.6	10467.4
57.5°	10941.1	10866.0	10626.3	11048.0	12365.0	13090.0	13592.6	14038.8	14355.1	13885.8	10851.5
60°	11380.1	11336.8	11342.6	12148.4	13965.2	14661.3	14938.6	15054.1	15221.6	14514.0	10873.2
62.5°	11798.9	11881.2	12161.4	13373.1	15497.5	16031.8	16171.9	16286.0	16089.6	14613.6	10045.7
65°	12508.0	12642.3	13311.0	15012.2	17182.8	17754.7	17899.1	17507.8	16226.8	13325.4	8171.2
67.5°	12854.6	13100.1	14293.0	16540.2	18817.6	19453.1	19399.6	17587.2	14561.6	10161.2	5243.8
69°	12782.4	13043.8	14519.8	17008.1	19360.6	19936.9	19597.5	16615.3	12405.5	7361.0	3219.1
70°	12496.5	12760.8	14402.8	16990.7	19430.0	19886.3	19230.7	15415.2	10489.1	5382.4	2013.2
72.5°	10435.6	10663.8	12786.7	15357.4	17899.1	17528.0	16088.1	10679.7	5110.9	1465.8	453.5
75°	6423.7	6550.8	9174.9	11569.3	13518.9	12565.8	10718.7	5313.1	1523.6	414.5	251.3
77.5°	3393.8	3451.6	5022.8	6819.4	8569.7	7090.9	5493.7	2072.4	701.9	260.0	182.0
80°	2006.0	2049.3	2704.9	3118.0	3708.6	3097.8	2196.6	1272.3	502.6	163.2	161.7
82.5°	1148.1	1175.6	1961.2	1733.0	1461.5	1247.8	1093.2	1205.9	301.8	109.8	167.5
85°	421.7	427.5	1103.4	1318.5	869.4	517.0	543.0	999.4	80.9	69.3	131.4
87.5°	196.4	192.1	567.6	807.3	508.4	327.8	423.1	219.5	31.8	44.8	36.1
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°	3624.9	3624.9	3624.9	3624.9	3624.9	3624.9	3624.9	3624.9	3624.9	3624.9	3624.9
2.5°	3581.6	3528.1	3431.4	3331.7	3230.6	3152.6	3076.1	3015.4	2995.2	2957.7	2960.6
5°	3471.8	3373.6	3171.4	2966.3	2752.6	2576.4	2410.3	2276.0	2211.0	2144.6	2144.6
7.5°	3376.5	3233.5	2917.2	2583.6	2238.5	1948.2	1686.8	1490.4	1382.1	1295.4	1294.0
10°	3340.4	3146.9	2704.9	2226.9	1746.0	1350.3	1039.8	840.5	738.0	671.5	668.7
12.5°	3356.3	3116.5	2541.8	1897.6	1294.0	868.0	602.2	473.7	430.4	410.1	410.1
15°	3402.5	3107.9	2378.6	1575.6	914.2	543.0	400.0	365.4	362.5	362.5	362.5
17.5°	3458.8	3110.8	2211.0	1262.2	622.4	388.5	345.2	340.8	343.7	343.7	343.7
20°	3516.6	3112.2	2030.5	971.9	439.0	337.9	324.9	323.5	326.4	326.4	327.8
22.5°	3587.3	3119.4	1850.0	726.4	362.5	319.2	309.1	309.1	310.5	310.5	309.1
25°	3668.2	3133.9	1662.2	538.7	330.7	306.2	297.5	296.1	297.5	296.1	294.6
27.5°	3769.3	3154.1	1452.8	421.7	316.3	293.2	285.9	285.9	284.5	283.1	281.6
30°	3896.4	3177.2	1217.4	358.2	301.8	281.6	274.4	272.9	271.5	268.6	268.6
32.5°	4089.9	3227.7	984.9	324.9	285.9	265.7	260.0	260.0	257.1	254.2	252.7
35°	4387.4	3327.4	777.0	304.7	268.6	248.4	241.2	241.2	238.3	236.8	235.4
37.5°	4799.0	3479.0	603.7	285.9	251.3	229.6	222.4	221.0	218.1	215.2	213.7
40°	5346.3	3666.8	475.1	268.6	234.0	210.8	205.1	202.2	196.4	192.1	192.1
42.5°	6033.8	3880.5	385.6	249.8	213.7	193.5	189.2	184.9	174.7	170.4	169.0
45°	6753.0	4072.6	326.4	228.2	193.5	176.2	173.3	166.1	153.1	148.8	148.8
47.5°	7271.4	4117.3	287.4	208.0	174.7	157.4	156.0	143.0	131.4	128.5	127.1
50°	7594.9	4029.3	255.6	187.7	157.4	140.1	135.8	119.9	112.6	109.8	108.3
52.5°	7813.0	3871.8	229.6	170.4	141.5	124.2	114.1	102.5	96.8	93.9	93.9
55°	7987.7	3649.4	203.6	154.5	128.5	111.2	96.8	88.1	82.3	79.4	79.4
57.5°	8036.8	3347.6	177.6	141.5	115.5	98.2	82.3	76.5	69.3	67.9	67.9
60°	7680.1	2803.1	157.4	125.6	104.0	85.2	72.2	65.0	57.8	56.3	54.9
62.5°	6740.0	2169.2	138.6	111.2	91.0	73.7	62.1	53.4	47.7	47.7	47.7
65°	5141.3	1454.3	121.3	96.8	79.4	62.1	53.4	43.3	40.4	40.4	41.9
67.5°	3077.5	791.4	104.0	82.3	67.9	52.0	44.8	37.5	36.1	37.5	37.5
69°	1803.8	465.0	93.9	73.7	59.2	46.2	39.0	33.2	36.1	37.5	37.5
70°	1113.5	313.4	86.7	66.4	53.4	41.9	36.1	31.8	34.7	36.1	36.1
72.5°	310.5	161.7	69.3	52.0	43.3	34.7	28.9	28.9	33.2	34.7	34.7
75°	202.2	119.9	53.4	39.0	33.2	27.4	24.6	27.4	31.8	33.2	33.2
77.5°	167.5	98.2	43.3	31.8	27.4	26.0	23.1	24.6	28.9	30.3	30.3
80°	153.1	69.3	34.7	28.9	24.6	23.1	21.7	20.2	26.0	27.4	27.4
82.5°	145.9	54.9	30.3	26.0	23.1	20.2	18.8	20.2	23.1	24.6	26.0
85°	91.0	36.1	27.4	24.6	20.2	18.8	18.8	18.8	21.7	23.1	23.1
87.5°	33.2	28.9	24.6	20.2	17.3	17.3	17.3	17.3	18.8	21.7	21.7
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)