

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: P237558

Luminaire Tested: **CTN-6-3-D-E1-T2-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P237558  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-25)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: CTN-6-3-D-E1-T2-HSS  
Description: CELESTEON HIGH MAST LUMINAIRE  
(6) 70 CRI, 4000K LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 28308 lumens  
Efficiency: N/A  
Efficacy: 121.0 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type II - Short - Non-Cutoff  
BUG Rating: B3 - U0 - G3

Input Watts (W): 234  
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

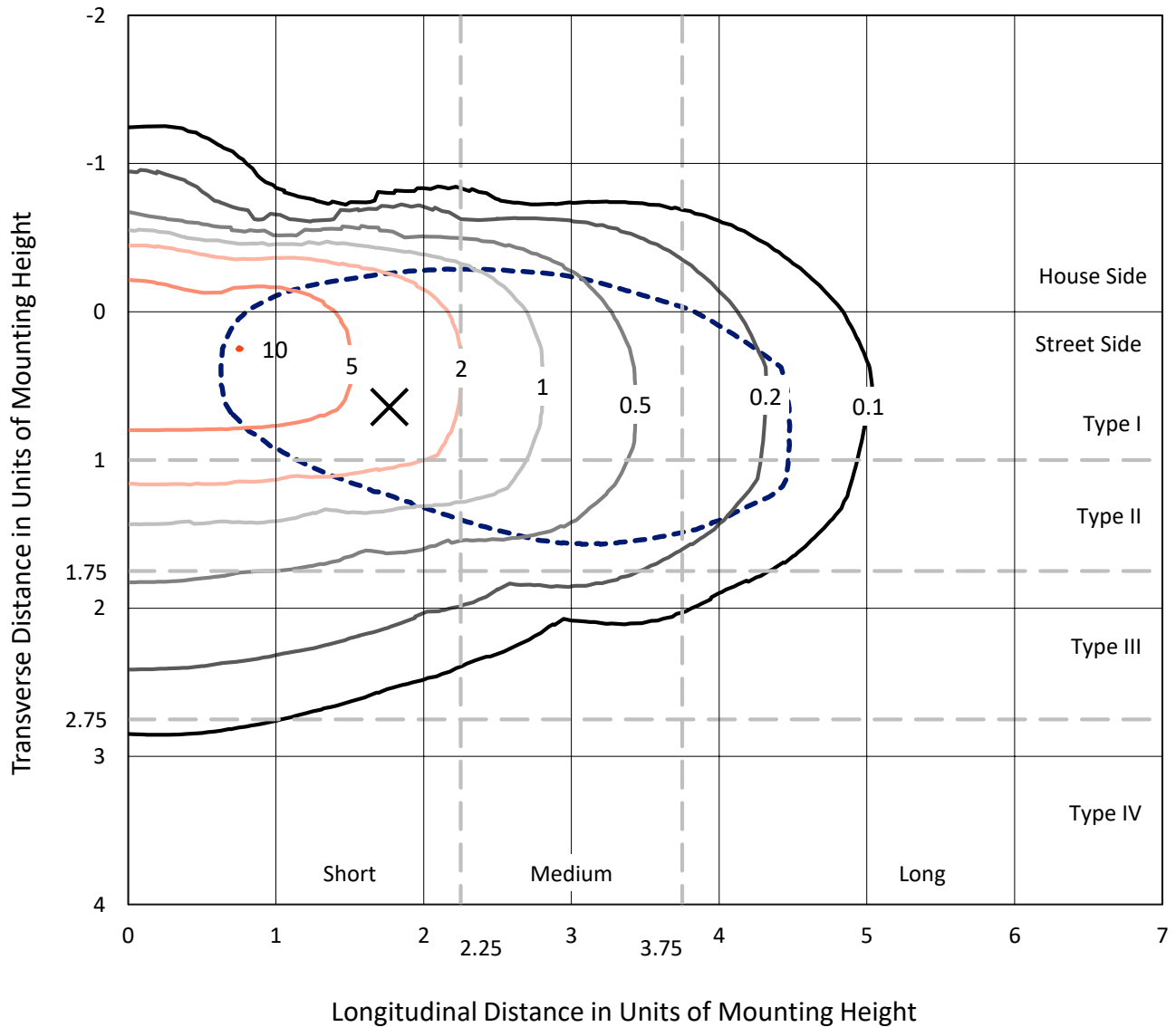


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

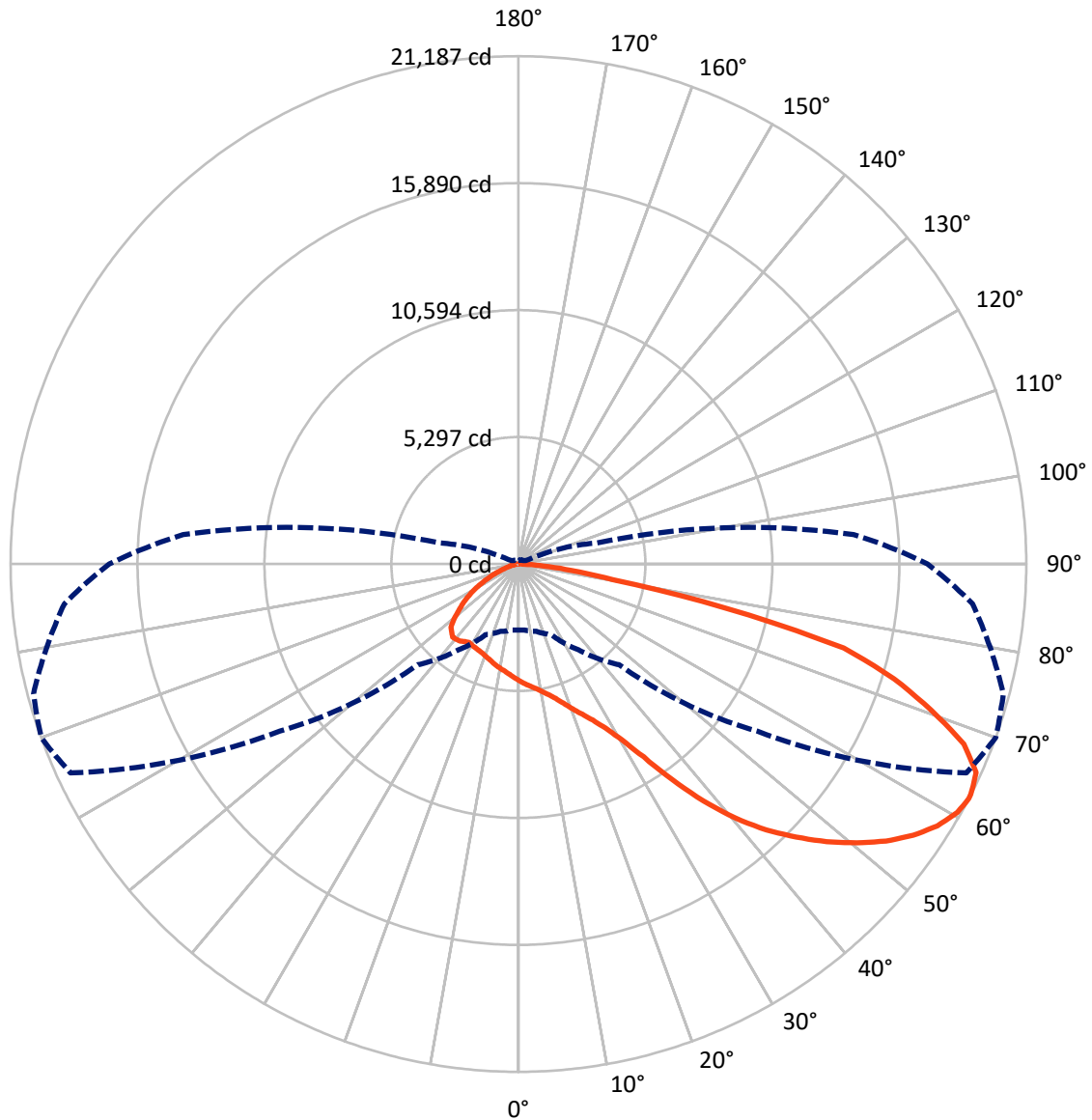


Based on 25 foot mounting height. Maximum calculated value = 10.1 fc  
 Type II - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral    - - - Horizontal Cone Through 62-Deg Vertical

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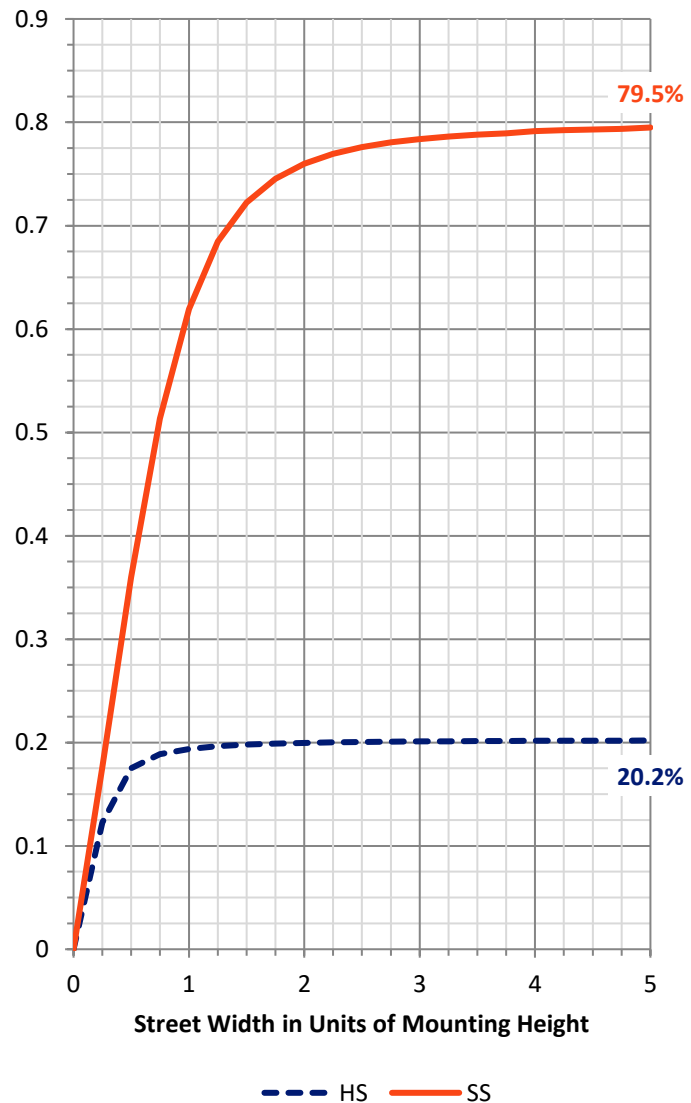
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5790.6	0.0	5790.6
	% Fixture	20.5	0.0	20.5
<b>Street Side</b>	Lumens	22517.3	0.0	22517.3
	% Fixture	79.5	0.0	79.5
<b>Total</b>	Lumens	28308.0	0.0	28308.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	463.9	1.6
10°-20°	1411.4	5.0
20°-30°	2376.2	8.4
30°-40°	3588.0	12.7
40°-50°	5031.5	17.8
50°-60°	5880.6	20.8
60°-70°	5705.3	20.2
70°-80°	3335.3	11.8
80°-90°	515.9	1.8
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°	28308.0	100.0
0°-180°	28308.0	100.0



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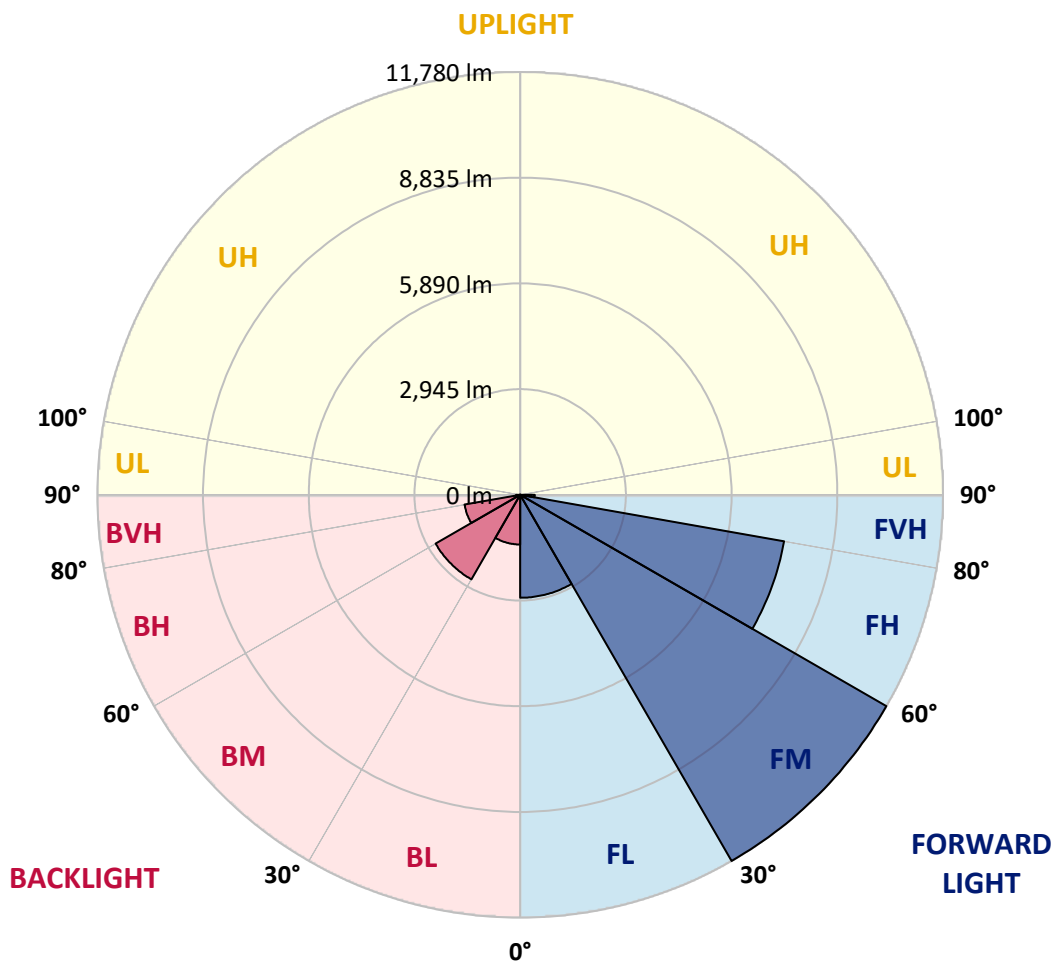
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2867.0	10.1			
FM (30°-60°)	11780.0	41.6			
FH (60°-80°)	7466.0	26.4			G3/7500
FVH (80°-90°)	404.3	1.4			G3/500
BL (0°-30°)	1384.5	4.9	B3/2500		
BM (30°-60°)	2720.1	9.6	B3/5000		
BH (60°-80°)	1574.5	5.6	B3/2500		G3/2500
BVH (80°-90°)	111.6	0.4			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	4870.1	4870.1	4870.1	4870.1	4870.1	4870.1	4870.1	4870.1	4870.1	4870.1	4870.1
2.5°	5285.1	5250.1	5235.1	5257.1	5110.1	5113.1	5042.1	5031.1	4997.1	4949.1	4896.1
5°	5587.1	5546.1	5525.1	5538.1	5383.1	5356.1	5240.1	5183.1	5116.1	5056.1	4941.1
7.5°	5877.1	5835.1	5819.1	5812.1	5625.1	5584.1	5436.1	5335.1	5244.1	5167.1	5011.1
10°	6169.1	6126.1	6093.1	6102.1	5906.1	5833.1	5662.1	5523.1	5406.1	5306.1	5091.1
12.5°	6459.1	6407.1	6371.1	6371.1	6178.1	6107.1	5915.1	5737.1	5588.1	5462.1	5192.1
15°	6756.1	6688.1	6680.1	6680.1	6475.1	6389.1	6200.1	6003.1	5820.1	5658.1	5314.1
17.5°	7063.1	6977.1	6975.1	6988.1	6800.1	6703.1	6525.1	6341.1	6108.1	5903.1	5463.1
20°	7265.1	7188.1	7170.1	7209.1	7061.1	6998.1	6807.1	6678.1	6454.1	6210.1	5655.1
22.5°	7419.1	7372.1	7389.1	7453.1	7381.1	7327.1	7126.1	7010.1	6808.1	6558.1	5914.1
25°	7574.1	7543.1	7582.1	7695.1	7701.1	7716.1	7548.1	7400.1	7212.1	6989.1	6251.1
27.5°	7526.1	7517.1	7635.1	7868.1	7996.1	8064.1	7970.1	7918.1	7746.1	7511.1	6675.1
30°	7561.1	7539.1	7681.1	7976.1	8261.1	8458.1	8458.1	8576.1	8501.1	8265.1	7322.1
32.5°	7457.1	7416.1	7579.1	8002.1	8492.1	8875.1	9045.1	9463.1	9594.1	9509.1	8605.1
35°	6978.1	7009.1	7328.1	7898.1	8651.1	9283.1	9733.1	10629.1	11032.1	11128.1	10082.1
37.5°	6679.1	6692.1	7017.1	7728.1	8707.1	9684.1	10486.1	11975.1	12546.2	12605.2	11378.1
40°	6267.1	6316.1	6680.1	7500.1	8675.1	10023.1	11297.1	13302.2	13937.2	13888.2	12512.2
42.5°	5942.1	5956.1	6274.1	7138.1	8535.1	10293.1	12115.2	14507.2	15172.2	15035.2	13633.2
45°	5537.1	5563.1	5864.1	6688.1	8286.1	10430.1	12821.2	15637.2	16246.2	16075.2	14604.2
47.5°	5047.1	5161.1	5476.1	6203.1	7864.1	10416.1	13419.2	16615.2	17310.2	17047.2	15512.2
50°	4065.1	4204.1	4834.1	5766.1	7311.1	10220.1	13895.2	17692.2	18287.2	18022.2	16341.2
52.5°	3551.0	3578.0	3899.0	5275.1	6663.1	9782.1	14219.2	18582.2	19202.2	18923.2	17138.2
55°	3319.0	3347.0	3509.0	4480.1	6068.1	9006.1	14338.2	19431.2	19981.2	19661.2	17795.2
57.5°	3116.0	3125.0	3316.0	3789.0	5501.1	7984.1	14087.2	20139.3	20610.3	20175.3	18251.2
60°	2884.0	2920.0	3108.0	3459.0	4862.1	6797.1	13227.2	20592.3	21037.3	20650.3	18724.2
62°	2754.0	2763.0	2910.0	3254.0	4367.1	5939.1	12156.2	20618.3	21187.3	20942.3	19015.2
62.5°	2716.0	2722.0	2861.0	3202.0	4265.1	5769.1	11864.1	20597.3	21178.3	20993.3	19079.2
65°	2498.0	2512.0	2637.0	2956.0	3818.0	5106.1	10496.1	20254.3	20985.3	20907.3	19073.2
67.5°	2233.0	2237.0	2370.0	2657.0	3357.0	4483.1	8816.1	19598.2	20040.3	19939.2	18238.2
70°	1826.0	1899.0	2044.0	2297.0	2777.0	3719.0	6706.1	17555.2	18280.2	18380.2	16742.2
72.5°	1388.0	1383.0	1434.0	1610.0	2023.0	2857.0	4527.1	14709.2	16389.2	16930.2	15091.2
75°	857.0	890.0	1104.0	1245.0	1450.0	2015.0	2838.0	10239.1	14014.2	14949.2	13339.2
77.5°	666.0	672.0	783.0	1027.0	1188.0	1428.0	1770.0	5579.1	8785.1	11110.1	10389.1
80°	507.0	518.0	591.0	644.0	836.0	870.0	1181.0	2886.0	4001.1	5604.1	6979.1
82.5°	306.0	323.0	391.0	422.0	461.0	436.0	635.0	1557.0	2218.0	2868.0	3554.0
85°	154.0	185.0	260.0	246.0	209.0	193.0	272.0	753.0	1060.0	1403.0	1631.0
87.5°	39.0	47.0	61.0	73.0	62.0	51.0	74.0	204.0	210.0	201.0	563.0
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°	4870.1	4870.1	4870.1	4870.1	4870.1	4870.1	4870.1	4870.1	4870.1	4870.1	4870.1
2.5°	4878.1	4837.1	4762.1	4719.1	4612.1	4571.1	4494.1	4522.1	4505.1	4488.1	4489.1
5°	4886.1	4812.1	4669.1	4566.1	4411.1	4332.1	4231.1	4215.1	4171.1	4144.1	4147.1
7.5°	4903.1	4797.1	4595.1	4431.1	4213.1	4089.1	3954.0	3931.0	3865.0	3835.0	3839.0
10°	4946.1	4821.1	4547.1	4306.1	4060.1	3888.0	3730.0	3679.0	3616.0	3582.0	3580.0
12.5°	5012.1	4857.1	4479.1	4211.1	3912.0	3689.0	3507.0	3425.0	3335.0	3305.0	3308.0
15°	5117.1	4903.1	4422.1	4080.1	3733.0	3501.0	3276.0	3177.0	3082.0	3047.0	3044.0
17.5°	5245.1	4945.1	4382.1	3926.0	3578.0	3300.0	3102.0	2967.0	2807.0	2784.0	2759.0
20°	5372.1	5029.1	4346.1	3814.0	3394.0	3098.0	2839.0	2701.0	2472.0	2386.0	2355.0
22.5°	5557.1	5162.1	4341.1	3681.0	3209.0	2877.0	2528.0	2305.0	2053.0	1907.0	1875.0
25°	5804.1	5308.1	4354.1	3580.0	3002.0	2596.0	2125.0	1803.0	1563.0	1398.0	1364.0
27.5°	6125.1	5507.1	4393.1	3469.0	2814.0	2259.0	1673.0	1342.0	1139.0	1001.0	969.0
30°	6598.1	5841.1	4454.1	3366.0	2540.0	1820.0	1230.0	967.0	809.0	724.0	723.0
32.5°	7702.1	6587.1	4489.1	3238.0	2285.0	1376.0	885.0	700.0	574.0	542.0	569.0
35°	8968.1	7644.1	4759.1	3100.0	1886.0	1012.0	632.0	498.0	446.0	454.0	469.0
37.5°	10136.1	8660.1	5171.1	2876.0	1510.0	713.0	454.0	396.0	385.0	414.0	441.0
40°	11170.1	9538.1	5524.1	2630.0	1068.0	498.0	364.0	366.0	355.0	368.0	377.0
42.5°	12184.2	10352.1	5897.1	2299.0	712.0	368.0	329.0	347.0	334.0	336.0	323.0
45°	13192.2	11211.1	6058.1	1890.0	477.0	319.0	308.0	329.0	328.0	320.0	301.0
47.5°	14062.2	11803.1	6262.1	1426.0	355.0	290.0	293.0	308.0	318.0	304.0	295.0
50°	14810.2	12431.2	6105.1	944.0	317.0	271.0	282.0	282.0	298.0	274.0	263.0
52.5°	15525.2	13056.2	5702.1	622.0	291.0	258.0	269.0	262.0	269.0	245.0	242.0
55°	15954.2	13379.2	5215.1	485.0	275.0	247.0	252.0	250.0	244.0	219.0	224.0
57.5°	16426.2	13751.2	4609.1	407.0	268.0	234.0	235.0	232.0	214.0	197.0	198.0
60°	16803.2	14029.2	3961.0	359.0	260.0	227.0	213.0	208.0	183.0	173.0	174.0
62°	17067.2	14042.2	3396.0	334.0	250.0	222.0	200.0	189.0	161.0	153.0	152.0
62.5°	17096.2	13993.2	3258.0	328.0	246.0	220.0	199.0	183.0	155.0	149.0	147.0
65°	16988.2	13448.2	2599.0	295.0	229.0	208.0	185.0	159.0	133.0	125.0	122.0
67.5°	16184.2	12472.2	1985.0	268.0	208.0	200.0	171.0	140.0	118.0	108.0	106.0
70°	14616.2	11151.1	1417.0	234.0	187.0	182.0	172.0	128.0	109.0	95.0	93.0
72.5°	12874.2	9745.1	964.0	208.0	166.0	150.0	127.0	121.0	102.0	84.0	82.0
75°	10956.1	7761.1	686.0	179.0	143.0	127.0	107.0	112.0	96.0	75.0	73.0
77.5°	8406.1	5708.1	509.0	147.0	111.0	103.0	90.0	99.0	87.0	68.0	67.0
80°	5740.1	3942.0	362.0	111.0	73.0	73.0	76.0	85.0	77.0	61.0	60.0
82.5°	3227.0	2075.0	214.0	80.0	50.0	50.0	59.0	69.0	64.0	53.0	52.0
85°	1337.0	751.0	113.0	50.0	33.0	34.0	42.0	51.0	50.0	42.0	41.0
87.5°	465.0	189.0	33.0	17.0	14.0	15.0	17.0	24.0	24.0	21.0	22.0
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)