

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: P237563

Luminaire Tested: **CTN-8-6-D-E1-T2-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P237563  
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-8-6-D-E1-T2-HSS  
Description: CELESTEON HIGH MAST LUMINAIRE  
(8) 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: 56892 lumens  
Efficiency: N/A  
Efficacy: 119.3 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type II - Short - Non-Cutoff  
BUG Rating: B4 - U0 - G5

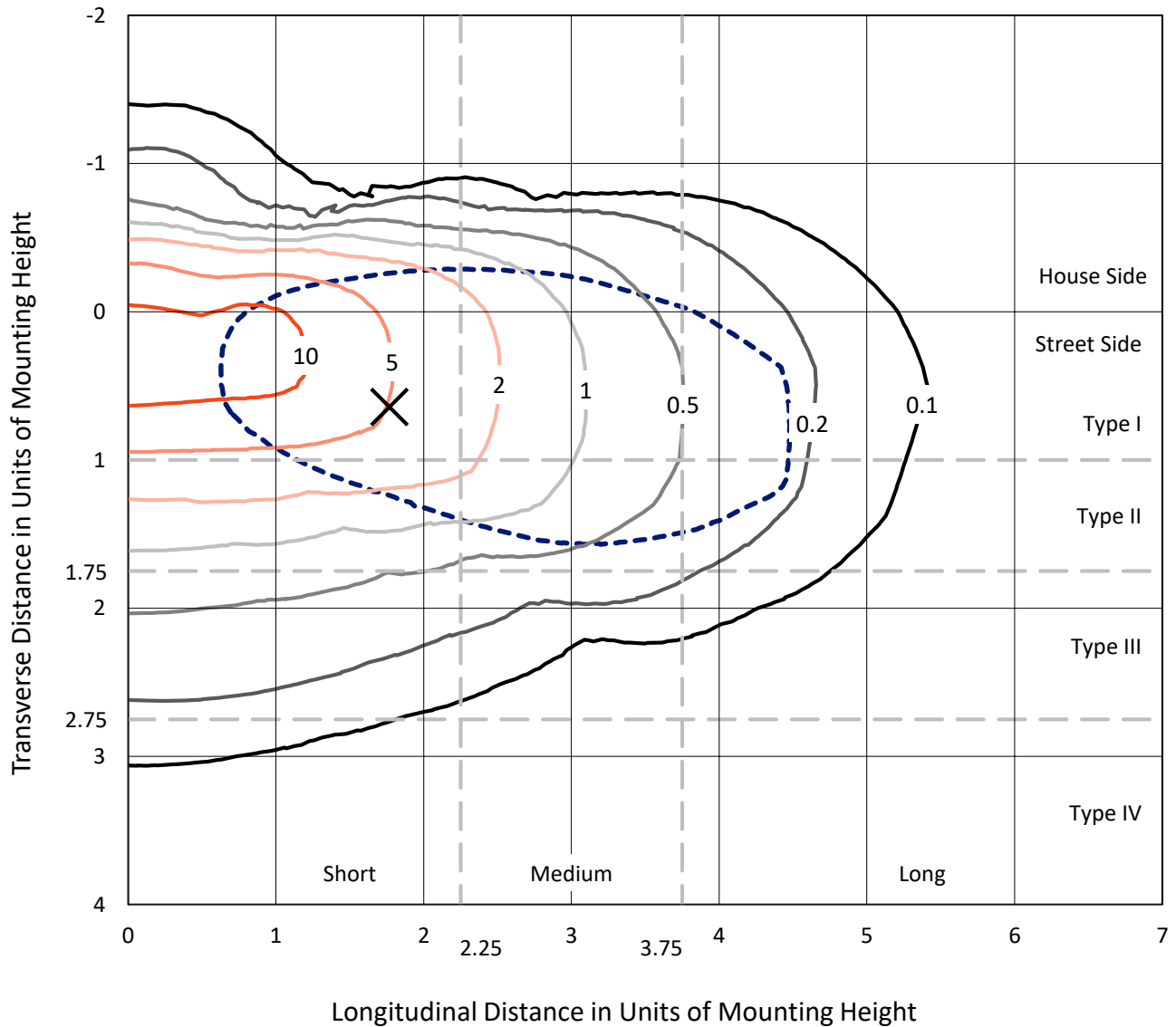
Input Watts (W): 477  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

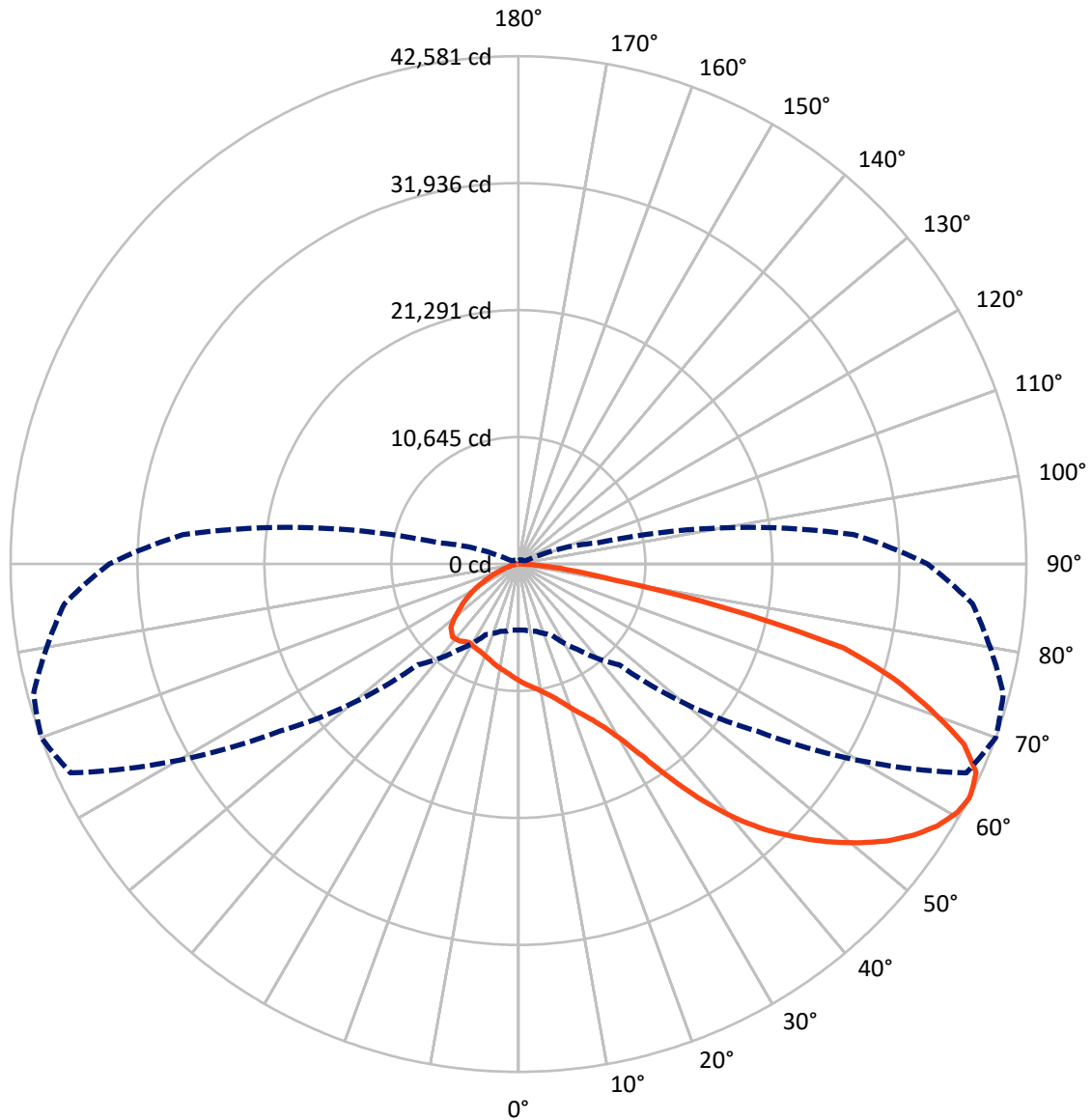


Based on 30 foot mounting height. Maximum calculated value = 14 fc  
 Type II - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



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

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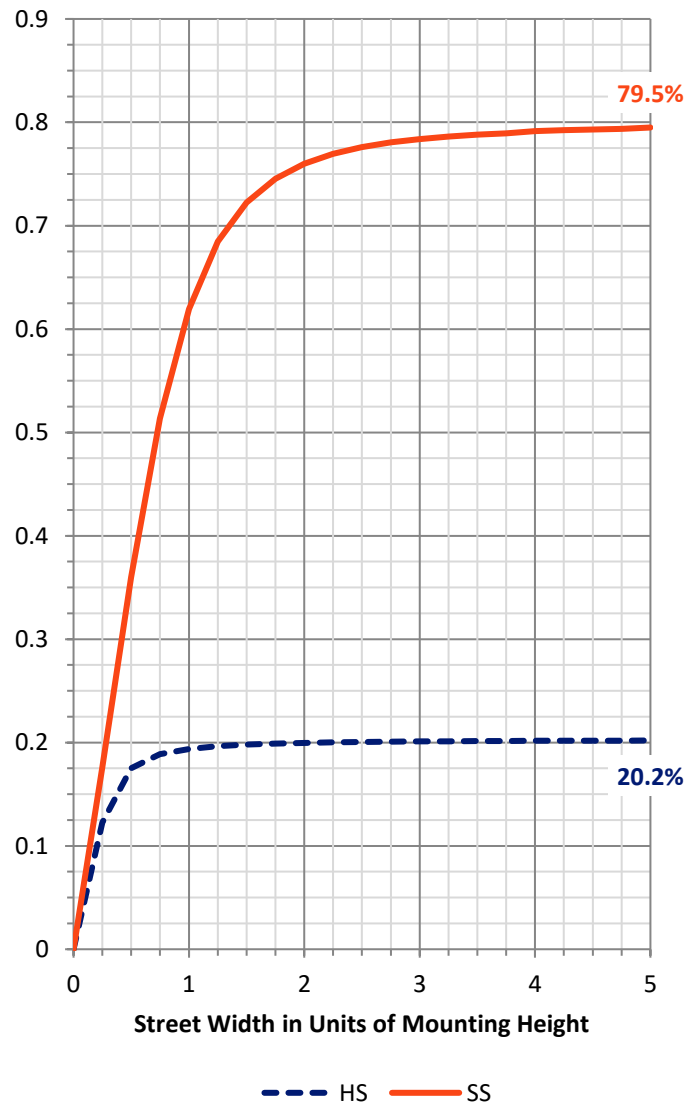
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	11637.8	0.0	11637.8
	% Fixture	20.5	0.0	20.5
<b>Street Side</b>	Lumens	45254.2	0.0	45254.2
	% Fixture	79.5	0.0	79.5
<b>Total</b>	Lumens	56892.0	0.0	56892.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	932.3	1.6
10°-20°	2836.5	5.0
20°-30°	4775.6	8.4
30°-40°	7210.9	12.7
40°-50°	10112.0	17.8
50°-60°	11818.5	20.8
60°-70°	11466.2	20.2
70°-80°	6703.1	11.8
80°-90°	1036.9	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°	56892.0	100.0
0°-180°	56892.0	100.0



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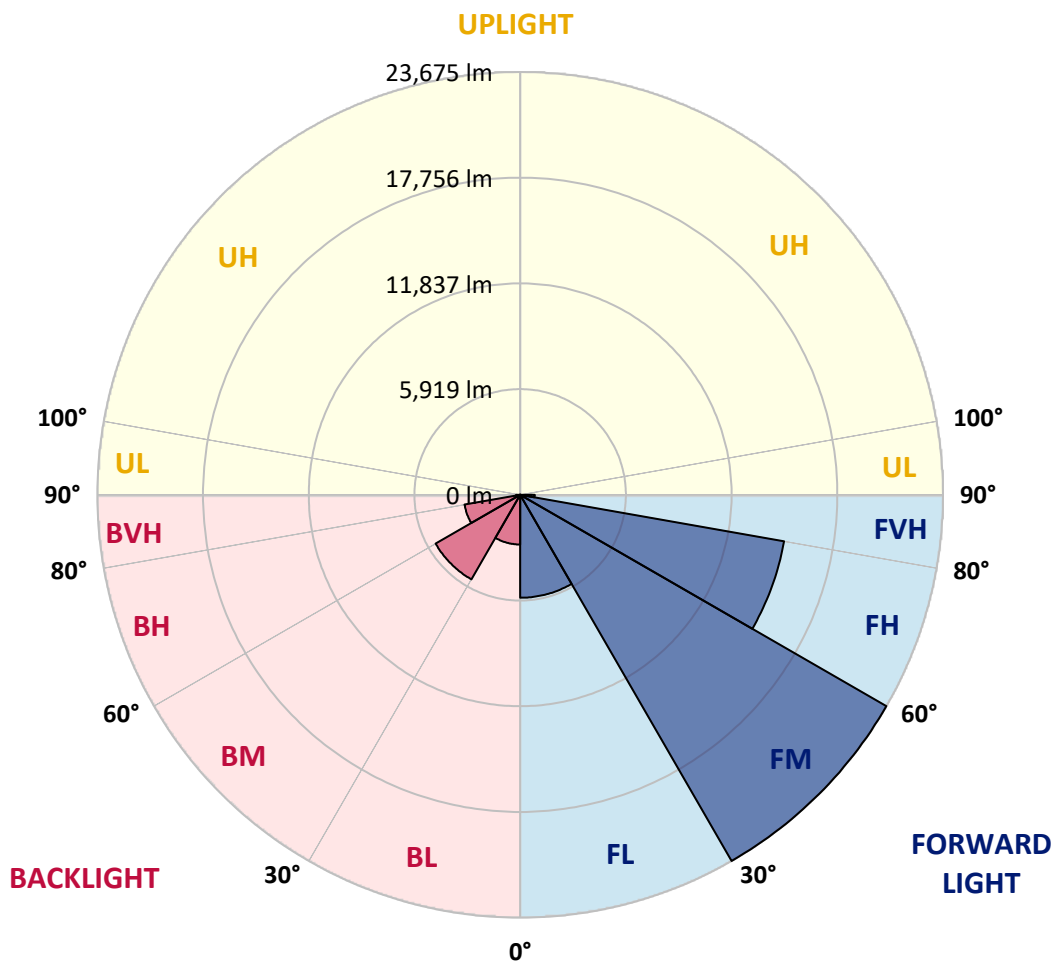
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	5761.9	10.1			
FM (30°-60°)	23674.9	41.6			
FH (60°-80°)	15004.9	26.4			G5
FVH (80°-90°)	812.5	1.4			G5
BL (0°-30°)	2782.5	4.9	B4/5000		
BM (30°-60°)	5466.6	9.6	B4/8500		
BH (60°-80°)	3164.4	5.6	B4/5000		G4/5000
BVH (80°-90°)	224.3	0.4			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G5**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	9787.6	9787.6	9787.6	9787.6	9787.6	9787.6	9787.6	9787.6	9787.6	9787.6	9787.6
2.5°	10621.7	10551.3	10521.2	10565.4	10270.0	10276.0	10133.3	10111.2	10042.8	9946.4	9839.9
5°	11228.6	11146.2	11104.0	11130.1	10818.6	10764.4	10531.2	10416.7	10282.0	10161.4	9930.3
7.5°	11811.4	11727.0	11694.9	11680.8	11305.0	11222.6	10925.1	10722.1	10539.3	10384.5	10071.0
10°	12398.3	12311.9	12245.6	12263.6	11869.7	11723.0	11379.3	11100.0	10864.8	10663.9	10231.8
12.5°	12981.1	12876.6	12804.3	12804.3	12416.4	12273.7	11887.8	11530.1	11230.6	10977.4	10434.8
15°	13578.0	13441.4	13425.3	13425.3	13013.3	12840.5	12460.6	12064.7	11696.9	11371.3	10679.9
17.5°	14195.0	14022.2	14018.2	14044.3	13666.5	13471.5	13113.8	12744.0	12275.7	11863.7	10979.4
20°	14601.0	14446.3	14410.1	14488.5	14191.0	14064.4	13680.5	13421.3	12971.1	12480.7	11365.3
22.5°	14910.5	14816.1	14850.2	14978.9	14834.1	14725.6	14321.7	14088.5	13682.5	13180.1	11885.8
25°	15222.0	15159.7	15238.1	15465.2	15477.3	15507.4	15169.8	14872.3	14494.5	14046.3	12563.1
27.5°	15125.6	15107.5	15344.6	15812.9	16070.2	16206.8	16017.9	15913.4	15567.7	15095.4	13415.2
30°	15195.9	15151.7	15437.1	16030.0	16602.8	16998.7	16998.7	17235.8	17085.1	16610.8	14715.6
32.5°	14986.9	14904.5	15232.1	16082.2	17067.0	17836.8	18178.4	19018.5	19281.8	19111.0	17294.1
35°	14024.2	14086.5	14727.6	15873.2	17386.6	18656.7	19561.1	21361.9	22171.8	22364.8	20262.6
37.5°	13423.3	13449.4	14102.6	15531.5	17499.1	19462.7	21074.5	24067.1	25214.6	25333.2	22867.2
40°	12595.3	12693.7	13425.3	15073.3	17434.8	20144.0	22704.4	26734.0	28010.2	27911.8	25146.3
42.5°	11942.1	11970.2	12609.3	14345.8	17153.4	20686.6	24348.4	29155.8	30492.3	30217.0	27399.3
45°	11128.1	11180.4	11785.3	13441.4	16653.0	20962.0	25767.3	31426.9	32650.8	32307.1	29350.8
47.5°	10143.3	10372.4	11005.5	12466.6	15804.9	20933.8	26969.2	33392.4	34789.2	34260.6	31175.6
50°	8169.7	8449.1	9715.3	11588.4	14693.5	20539.9	27925.8	35556.9	36752.8	36220.2	32841.7
52.5°	7136.7	7191.0	7836.1	10601.6	13391.1	19659.6	28577.0	37345.6	38591.7	38031.0	34443.5
55°	6670.4	6726.7	7052.3	9003.8	12195.3	18100.0	28816.2	39051.9	40157.3	39514.2	35763.9
57.5°	6262.5	6280.5	6664.4	7615.0	11055.8	16046.0	28311.7	40474.9	41421.5	40547.2	36680.4
60°	5796.2	5868.5	6246.4	6951.8	9771.5	13660.4	26583.3	41385.3	42279.6	41501.9	37631.0
62°	5534.9	5553.0	5848.4	6539.8	8776.7	11936.1	24430.8	41437.5	42581.1	42088.7	38215.9
62.5°	5458.5	5470.6	5750.0	6435.3	8571.7	11594.4	23844.0	41395.3	42563.0	42191.2	38344.5
65°	5020.4	5048.6	5299.8	5940.9	7673.3	10261.9	21094.6	40706.0	42175.1	42018.4	38332.4
67.5°	4487.8	4495.9	4763.2	5340.0	6746.8	9009.8	17718.2	39387.6	40275.9	40072.9	36654.3
70°	3669.8	3816.6	4108.0	4616.5	5581.1	7474.4	13477.6	35281.6	36738.7	36939.7	33647.7
72.5°	2789.6	2779.5	2882.0	3235.7	4065.8	5741.9	9098.3	29561.8	32938.2	34025.5	30329.5
75°	1722.4	1788.7	2218.8	2502.2	2914.2	4049.7	5703.7	20578.1	28165.0	30044.1	26808.4
77.5°	1338.5	1350.6	1573.7	2064.0	2387.6	2870.0	3557.3	11212.5	17655.9	22328.6	20879.6
80°	1019.0	1041.1	1187.8	1294.3	1680.2	1748.5	2373.5	5800.2	8041.1	11262.8	14026.2
82.5°	615.0	649.2	785.8	848.1	926.5	876.3	1276.2	3129.2	4457.7	5764.0	7142.7
85°	309.5	371.8	522.5	494.4	420.0	387.9	546.7	1513.4	2130.4	2819.7	3277.9
87.5°	78.4	94.5	122.6	146.7	124.6	102.5	148.7	410.0	422.1	404.0	1131.5
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°	9787.6	9787.6	9787.6	9787.6	9787.6	9787.6	9787.6	9787.6	9787.6	9787.6	9787.6
2.5°	9803.7	9721.3	9570.5	9484.1	9269.1	9186.7	9031.9	9088.2	9054.0	9019.9	9021.9
5°	9819.8	9671.0	9383.6	9176.6	8865.1	8706.3	8503.4	8471.2	8382.8	8328.5	8334.5
7.5°	9853.9	9640.9	9234.9	8905.3	8467.2	8218.0	7946.7	7900.4	7767.8	7707.5	7715.5
10°	9940.3	9689.1	9138.4	8654.1	8159.7	7814.0	7496.5	7394.0	7267.3	7199.0	7195.0
12.5°	10073.0	9761.5	9001.8	8463.2	7862.2	7414.1	7048.3	6883.5	6702.6	6642.3	6648.3
15°	10284.0	9853.9	8887.2	8199.9	7502.5	7036.2	6584.0	6385.1	6194.1	6123.8	6117.8
17.5°	10541.3	9938.3	8806.8	7890.4	7191.0	6632.3	6234.3	5963.0	5641.4	5595.2	5545.0
20°	10796.5	10107.2	8734.5	7665.3	6821.2	6226.3	5705.8	5428.4	4968.2	4795.3	4733.0
22.5°	11168.3	10374.5	8724.4	7398.0	6449.4	5782.1	5080.7	4632.5	4126.1	3832.6	3768.3
25°	11664.7	10667.9	8750.6	7195.0	6033.3	5217.4	4270.8	3623.6	3141.3	2809.7	2741.3
27.5°	12309.9	11067.8	8828.9	6971.9	5655.5	4540.1	3362.4	2697.1	2289.1	2011.8	1947.5
30°	13260.5	11739.1	8951.5	6764.9	5104.8	3657.8	2472.0	1943.5	1625.9	1455.1	1453.1
32.5°	15479.3	13238.4	9021.9	6507.7	4592.3	2765.5	1778.7	1406.8	1153.6	1089.3	1143.6
35°	18023.7	15362.7	9564.5	6230.3	3790.4	2033.9	1270.2	1000.9	896.4	912.4	942.6
37.5°	20371.1	17404.7	10392.5	5780.1	3034.8	1433.0	912.4	795.9	773.8	832.0	886.3
40°	22449.2	19169.2	11102.0	5285.7	2146.4	1000.9	731.6	735.6	713.5	739.6	757.7
42.5°	24487.1	20805.2	11851.6	4620.5	1431.0	739.6	661.2	697.4	671.3	675.3	649.2
45°	26513.0	22531.6	12175.2	3798.5	958.7	641.1	619.0	661.2	659.2	643.1	604.9
47.5°	28261.5	23721.4	12585.2	2865.9	713.5	582.8	588.9	619.0	639.1	611.0	592.9
50°	29764.8	24983.5	12269.7	1897.2	637.1	544.6	566.8	566.8	598.9	550.7	528.6
52.5°	31201.8	26239.6	11459.7	1250.1	584.8	518.5	540.6	526.6	540.6	492.4	486.4
55°	32064.0	26888.8	10481.0	974.7	552.7	496.4	506.5	502.4	490.4	440.1	450.2
57.5°	33012.6	27636.4	9263.1	818.0	538.6	470.3	472.3	466.3	430.1	395.9	397.9
60°	33770.2	28195.1	7960.7	721.5	522.5	456.2	428.1	418.0	367.8	347.7	349.7
62°	34300.8	28221.3	6825.2	671.3	502.4	446.2	402.0	379.8	323.6	307.5	305.5
62.5°	34359.1	28122.8	6547.8	659.2	494.4	442.2	399.9	367.8	311.5	299.5	295.4
65°	34142.1	27027.5	5223.4	592.9	460.2	418.0	371.8	319.6	267.3	251.2	245.2
67.5°	32526.2	25065.9	3989.4	538.6	418.0	402.0	343.7	281.4	237.2	217.1	213.0
70°	29374.9	22411.0	2847.9	470.3	375.8	365.8	345.7	257.3	219.1	190.9	186.9
72.5°	25873.8	19585.3	1937.4	418.0	333.6	301.5	255.2	243.2	205.0	168.8	164.8
75°	22019.1	15597.9	1378.7	359.7	287.4	255.2	215.0	225.1	192.9	150.7	146.7
77.5°	16894.2	11471.8	1023.0	295.4	223.1	207.0	180.9	199.0	174.9	136.7	134.7
80°	11536.1	7922.5	727.5	223.1	146.7	146.7	152.7	170.8	154.8	122.6	120.6
82.5°	6485.5	4170.3	430.1	160.8	100.5	100.5	118.6	138.7	128.6	106.5	104.5
85°	2687.1	1509.3	227.1	100.5	66.3	68.3	84.4	102.5	100.5	84.4	82.4
87.5°	934.5	379.8	66.3	34.2	28.1	30.1	34.2	48.2	48.2	42.2	44.2
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)