

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: P237530

Luminaire Tested: **CTN-10-4-D-E1-T3-7030-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P237530  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-26)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: CTN-10-4-D-E1-T3-7030-HSS  
Description: CELESTEON HIGH MAST LUMINAIRE  
(10) 70 CRI, 3000K LEDS AND TYPE III OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 38739 lumens  
Efficiency: N/A  
Efficacy: 125.8 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B3 - U0 - G4

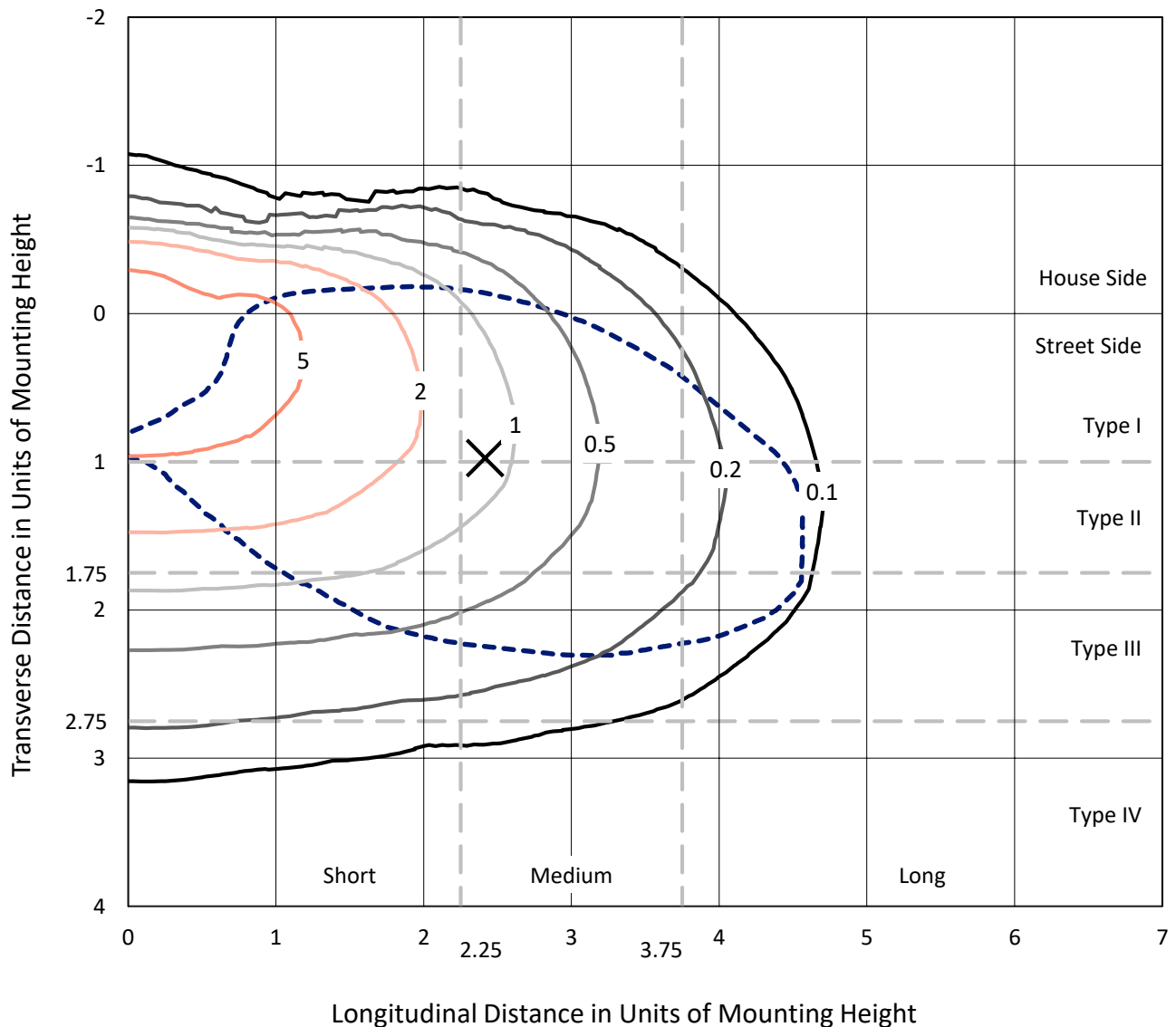
Input Watts (W): 308  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

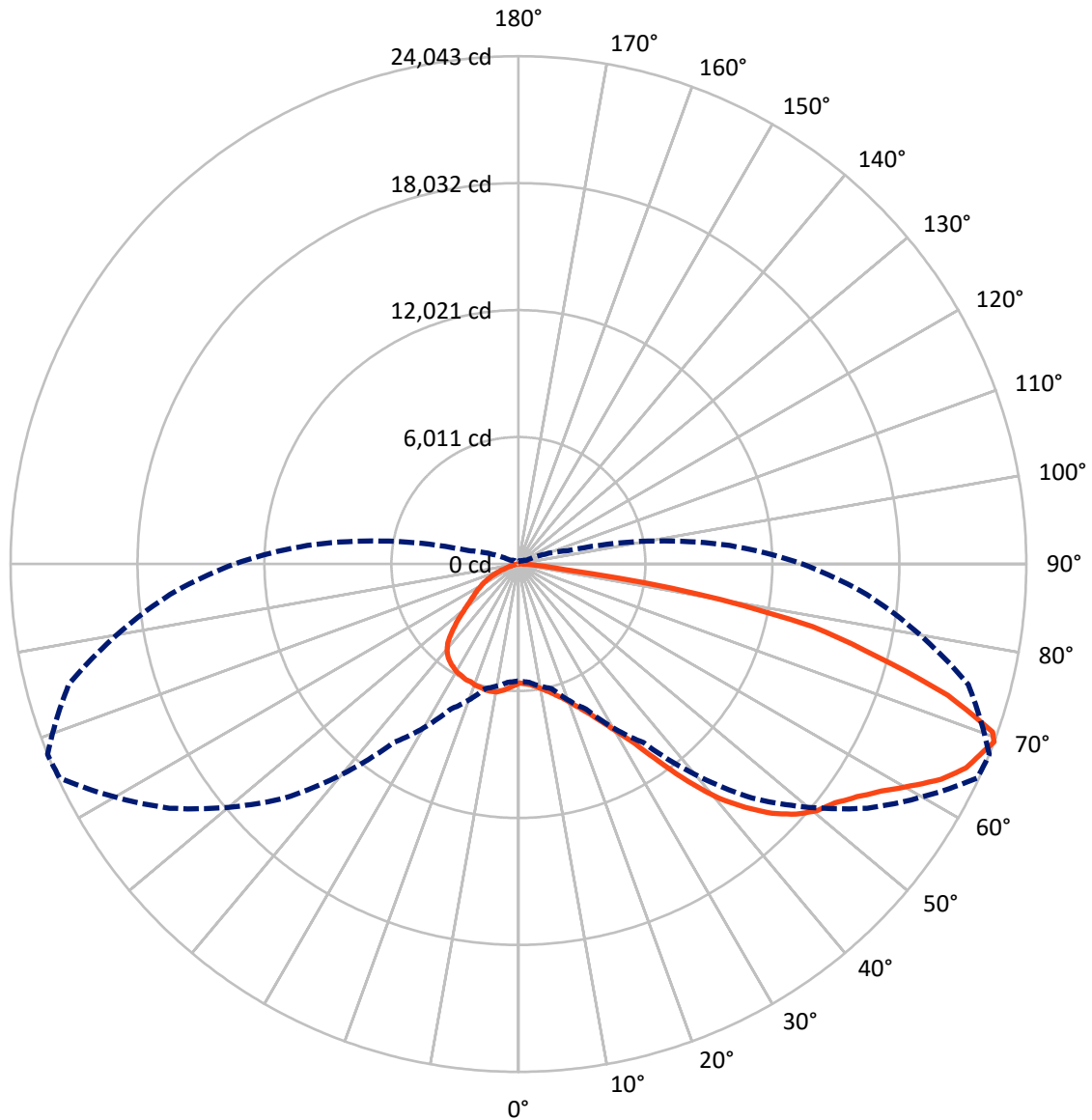
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.7 fc  
 Type III - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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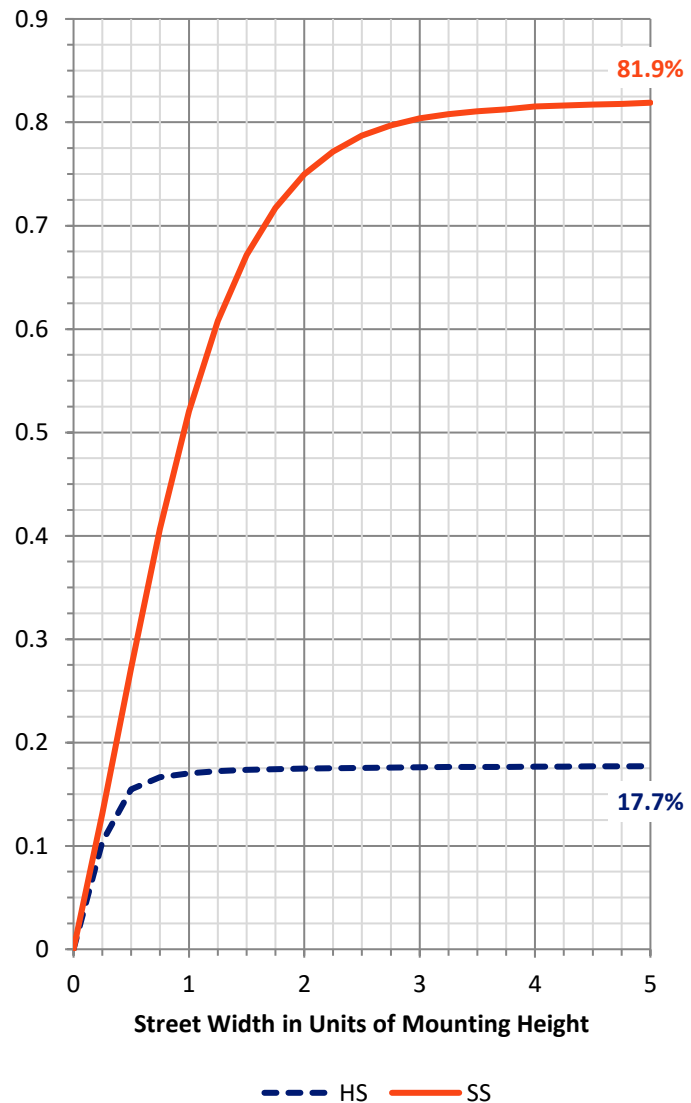
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6952.3	0.0	6952.3
	% Fixture	17.9	0.0	17.9
<b>Street Side</b>	Lumens	31786.7	0.0	31786.7
	% Fixture	82.1	0.0	82.1
<b>Total</b>	Lumens	38739.0	0.0	38739.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	565.9	1.5
10°-20°	1775.8	4.6
20°-30°	3035.5	7.8
30°-40°	4677.3	12.1
40°-50°	6712.1	17.3
50°-60°	8078.4	20.9
60°-70°	8477.5	21.9
70°-80°	4911.3	12.7
80°-90°	505.3	1.3
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°	38739.0	100.0
0°-180°	38739.0	100.0

**Coefficient of Utilization**



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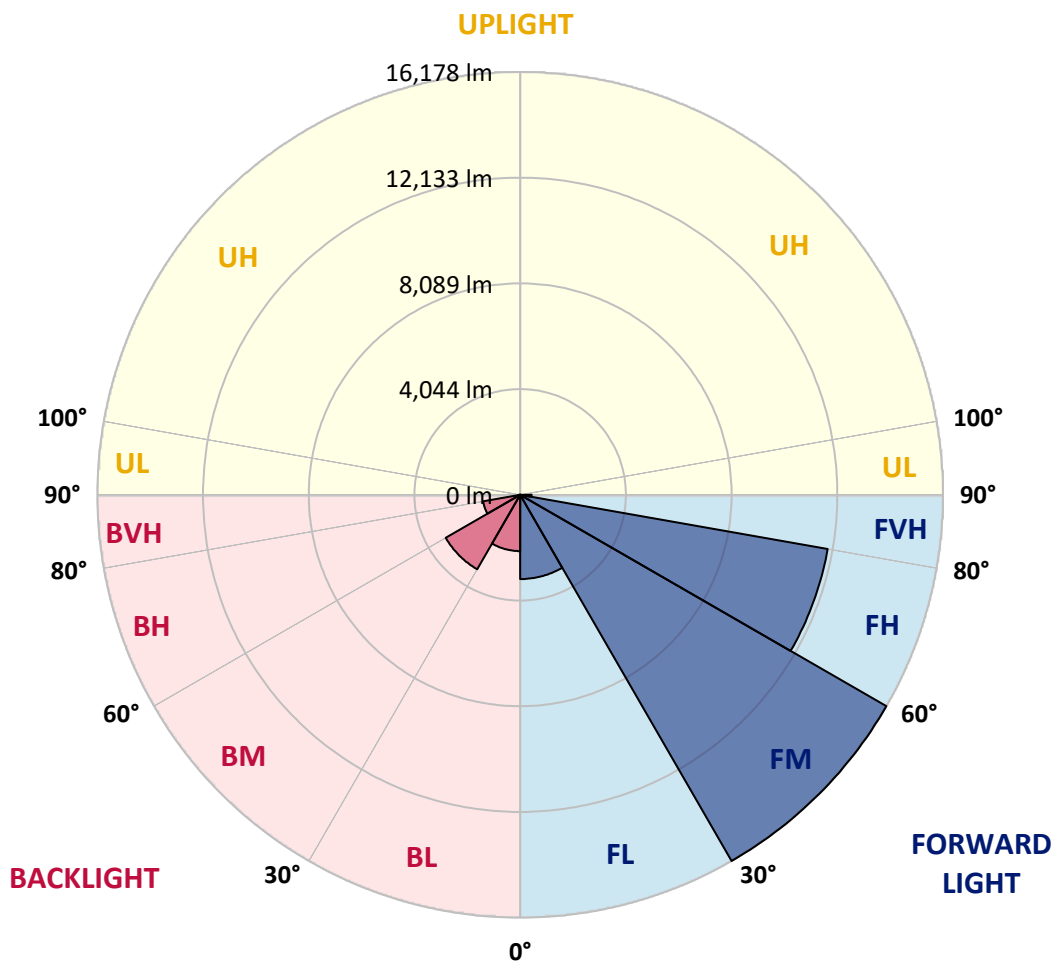
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3222.9	8.3			
FM (30°-60°)	16178.0	41.8			
FH (60°-80°)	11946.7	30.8			G4/12000
FVH (80°-90°)	439.2	1.1			G3/500
BL (0°-30°)	2154.2	5.6	B3/2500		
BM (30°-60°)	3289.8	8.5	B3/5000		
BH (60°-80°)	1442.1	3.7	B3/2500		G3/2500
BVH (80°-90°)	66.1	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G4**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	5634.8	5634.8	5634.8	5634.8	5634.8	5634.8	5634.8	5634.8	5634.8	5634.8	5634.8
2.5°	5697.9	5652.2	5657.6	5693.8	5586.5	5632.1	5603.9	5663.0	5672.4	5644.2	5669.7
5°	5810.6	5771.7	5770.4	5806.6	5687.1	5722.0	5677.7	5718.0	5730.1	5700.6	5744.9
7.5°	6029.4	5987.8	5979.7	6016.0	5864.3	5875.1	5814.7	5834.8	5845.5	5805.3	5849.5
10°	6343.5	6297.9	6268.3	6288.5	6118.0	6091.2	5987.8	5985.1	6001.2	5946.2	6017.3
12.5°	6695.2	6641.5	6598.5	6602.6	6407.9	6362.3	6225.4	6177.1	6187.8	6114.0	6199.9
15°	7077.7	6999.9	6959.6	6960.9	6742.1	6665.6	6489.8	6410.6	6403.9	6332.8	6382.4
17.5°	7538.1	7475.0	7424.0	7397.2	7165.0	7013.3	6803.9	6700.5	6663.0	6616.0	6590.5
20°	8079.0	7999.8	7946.2	7936.8	7652.2	7450.9	7173.0	7036.1	6991.8	6952.9	6838.8
22.5°	8681.7	8601.2	8527.3	8515.3	8213.3	7970.3	7597.2	7428.0	7389.1	7344.8	7116.6
25°	9237.4	9228.0	9146.1	9132.7	8841.4	8526.0	8088.4	7872.3	7872.3	7820.0	7469.7
27.5°	9857.5	9870.9	9797.1	9781.0	9507.2	9158.2	8637.4	8430.7	8473.7	8379.7	7913.9
30°	10511.2	10483.0	10462.9	10480.3	10226.6	9857.5	9315.3	9140.8	9207.9	9100.5	8509.9
32.5°	11096.4	11074.9	11088.4	11155.5	10972.9	10632.0	10166.2	10057.5	10121.9	10189.1	9578.3
35°	11559.5	11513.9	11683.0	11830.6	11778.3	11454.8	11080.3	11309.8	11487.0	11793.1	11152.8
37.5°	11967.5	11934.0	12139.4	12441.4	12507.1	12327.3	12211.8	12852.1	13054.8	13466.8	12534.0
40°	12171.6	12164.9	12417.2	12810.5	13077.6	13194.4	13397.1	14269.5	14564.8	14677.6	13585.0
42.5°	12105.8	12127.3	12572.9	13179.6	13611.8	14112.5	14520.5	15480.2	15751.4	15658.8	14505.8
45°	11921.9	11932.7	12385.0	13331.3	14074.9	15056.1	15601.0	16602.4	16842.6	16516.5	15238.6
47.5°	11666.9	11670.9	12148.8	13226.6	14453.4	15909.8	16532.6	17499.0	17693.6	17233.2	15766.1
50°	11321.9	11328.6	11899.1	13095.0	14779.6	16609.1	17261.4	18194.3	18344.6	17741.9	16222.5
52.5°	10885.7	10944.8	11568.9	12884.3	14983.6	17105.7	17813.1	18704.3	18778.2	18350.0	16626.5
55°	10382.3	10444.1	11148.8	12598.4	15062.8	17387.6	18199.6	19332.5	19450.6	19029.2	16955.4
57.5°	9786.4	9870.9	10613.2	12134.0	14877.6	17505.7	18592.9	20108.3	20268.1	19739.2	17293.6
60°	9095.1	9199.8	9981.0	11554.1	14449.4	17630.5	19328.5	21148.6	21333.8	20503.0	17588.9
62.5°	8373.0	8440.1	9146.1	10763.5	13763.5	17727.2	20120.4	22430.4	22446.5	21172.7	17752.7
65°	7406.6	7477.7	8109.9	9764.9	12734.0	17419.8	20520.4	23329.7	23281.4	21697.6	17697.6
67.5°	6300.5	6367.7	6884.4	8523.3	11320.6	16558.1	20383.5	23688.1	23720.3	22078.8	17170.1
69°	5532.8	5621.4	6108.6	7579.7	10321.9	15676.2	20154.0	23967.3	24042.5	22043.9	16559.4
70°	4876.4	4990.5	5453.6	6746.2	9476.3	14874.9	19711.0	23808.9	23814.3	21690.8	15997.0
72.5°	3185.2	3255.0	3335.5	4377.1	6817.3	11787.7	17442.6	21115.0	21254.6	19355.3	13986.3
75°	1575.8	1637.6	1938.2	2315.4	3506.0	7896.5	13829.3	17299.0	17563.4	16437.3	11458.8
77.5°	869.8	881.9	987.9	1516.7	1817.4	3570.4	9452.2	13790.3	14253.4	13395.7	8229.4
80°	542.3	539.6	563.7	706.0	1018.8	1692.6	3991.9	7739.4	8571.6	6994.5	3252.3
82.5°	422.8	414.8	416.1	456.4	430.9	797.3	1661.7	2253.6	2273.8	2018.8	1265.7
85°	216.1	244.3	289.9	303.3	255.0	433.5	765.1	889.9	911.4	798.6	659.0
87.5°	72.5	73.8	77.9	76.5	68.5	149.0	283.2	330.2	294.0	166.4	225.5
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°	5634.8	5634.8	5634.8	5634.8	5634.8	5634.8	5634.8	5634.8	5634.8	5634.8	5634.8
2.5°	5708.6	5696.5	5720.7	5775.7	5730.1	5771.7	5730.1	5869.7	5853.6	5844.2	5871.0
5°	5787.8	5786.5	5825.4	5914.0	5910.0	5983.8	5943.5	6081.8	6061.6	6058.9	6083.1
7.5°	5895.2	5920.7	5962.3	6053.6	6054.9	6115.3	6069.7	6178.4	6134.1	6123.4	6156.9
10°	6058.9	6065.7	6097.9	6161.0	6072.4	6099.2	6024.0	6109.9	6048.2	6041.5	6091.2
12.5°	6216.0	6225.4	6177.1	6156.9	6042.8	6007.9	5876.4	5922.0	5850.9	5844.2	5868.3
15°	6383.8	6320.7	6205.2	6139.5	5942.2	5816.0	5668.3	5578.4	5456.3	5399.9	5421.4
17.5°	6558.3	6436.1	6220.0	6060.3	5795.9	5612.0	5318.0	5165.0	4983.8	4891.2	4873.7
20°	6748.9	6577.1	6256.3	6020.0	5648.2	5285.8	4927.4	4577.1	4370.4	4275.1	4249.6
22.5°	6963.6	6754.2	6307.3	5885.8	5417.3	4977.1	4371.7	3930.1	3629.5	3536.8	3511.3
25°	7232.1	6952.9	6377.1	5852.2	5195.9	4472.4	3719.4	3218.7	2868.4	2727.5	2697.9
27.5°	7558.2	7226.7	6491.1	5692.5	4806.6	3910.0	3071.1	2495.3	2131.5	1965.1	1928.8
30°	8033.4	7577.0	6567.7	5598.5	4460.3	3326.1	2386.5	1743.6	1398.6	1276.5	1244.3
32.5°	8970.3	8178.4	6723.4	5382.4	3948.9	2646.9	1642.9	1069.8	828.2	758.4	731.5
35°	10362.2	9311.2	6947.5	5126.1	3374.4	1883.2	975.8	620.1	498.0	472.5	464.4
37.5°	11630.6	10429.3	7381.1	4731.5	2620.1	1158.4	565.1	397.3	366.4	370.5	370.5
40°	12587.7	11260.2	7887.1	4210.7	1777.1	649.7	387.9	330.2	336.9	338.2	336.9
42.5°	13484.3	12021.2	8131.4	3636.2	1029.5	430.9	336.9	307.4	312.7	308.7	306.0
45°	14189.0	12566.2	8203.9	2863.0	563.7	385.2	316.8	285.9	283.2	285.9	288.6
47.5°	14646.7	12899.1	8038.8	2191.9	425.5	358.4	304.7	271.1	264.4	283.2	281.9
50°	14986.3	13127.3	7398.5	1667.1	414.8	335.6	289.9	253.7	256.4	279.2	276.5
52.5°	15233.3	13186.3	6696.5	1336.9	396.0	319.5	276.5	245.6	242.9	260.4	261.7
55°	15429.2	13027.9	6258.9	1052.3	379.9	303.3	265.8	237.6	224.2	229.5	228.2
57.5°	15551.4	12846.7	5759.6	877.8	365.1	285.9	251.0	216.1	196.0	197.3	196.0
60°	15524.5	12725.9	5186.5	719.4	346.3	269.8	230.9	193.3	173.2	167.8	167.8
62.5°	15470.8	12477.6	4594.5	626.8	330.2	264.4	206.7	175.8	161.1	155.7	155.7
65°	15105.7	11885.7	3802.6	536.9	314.1	249.7	193.3	169.1	151.7	146.3	146.3
67.5°	14199.7	10907.2	2944.9	467.1	302.0	225.5	189.3	165.1	146.3	139.6	139.6
69°	13434.6	10037.4	2418.7	429.5	289.9	214.8	189.3	166.4	143.6	135.6	135.6
70°	12837.3	9354.2	2001.3	406.7	277.8	208.0	189.3	167.8	142.3	132.9	131.5
72.5°	11015.9	7303.2	1111.4	345.0	230.9	189.3	185.2	169.1	135.6	122.1	120.8
75°	8452.2	5134.1	661.7	291.3	194.6	173.2	175.8	162.4	124.8	110.1	110.1
77.5°	5281.8	2358.3	492.6	228.2	158.4	150.3	153.0	143.6	112.7	100.7	100.7
80°	1804.0	1064.4	371.8	175.8	114.1	116.8	126.2	120.8	100.7	91.3	89.9
82.5°	987.9	692.6	263.1	122.1	79.2	96.6	96.6	98.0	87.2	80.5	79.2
85°	536.9	361.1	162.4	73.8	56.4	71.1	68.5	73.8	71.1	65.8	64.4
87.5°	186.6	123.5	53.7	26.8	22.8	24.2	28.2	37.6	36.2	37.6	38.9
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)