

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: P232700

Luminaire Tested: **CTN-8-6-D-E1-T3**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P232700  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-19)  
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-T3  
Description: CELESTEON HIGH MAST LUMINAIRE  
(8) 70 CRI, 4000K LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 62786 lumens  
Efficiency: N/A  
Efficacy: 131.6 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type III - Medium - Semi-Cutoff  
BUG Rating: B4 - U0 - G5

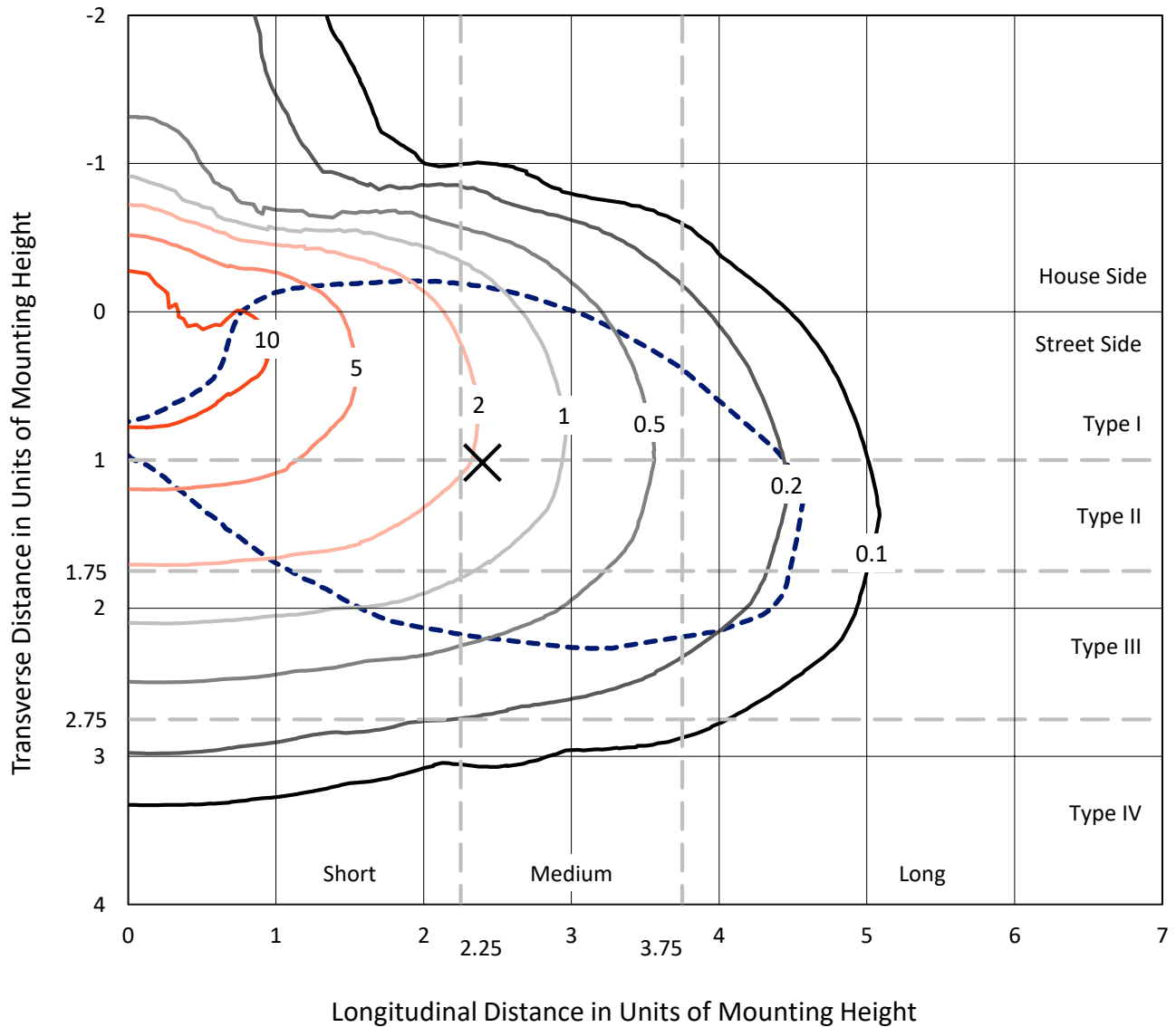
Input Watts (W): 477  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

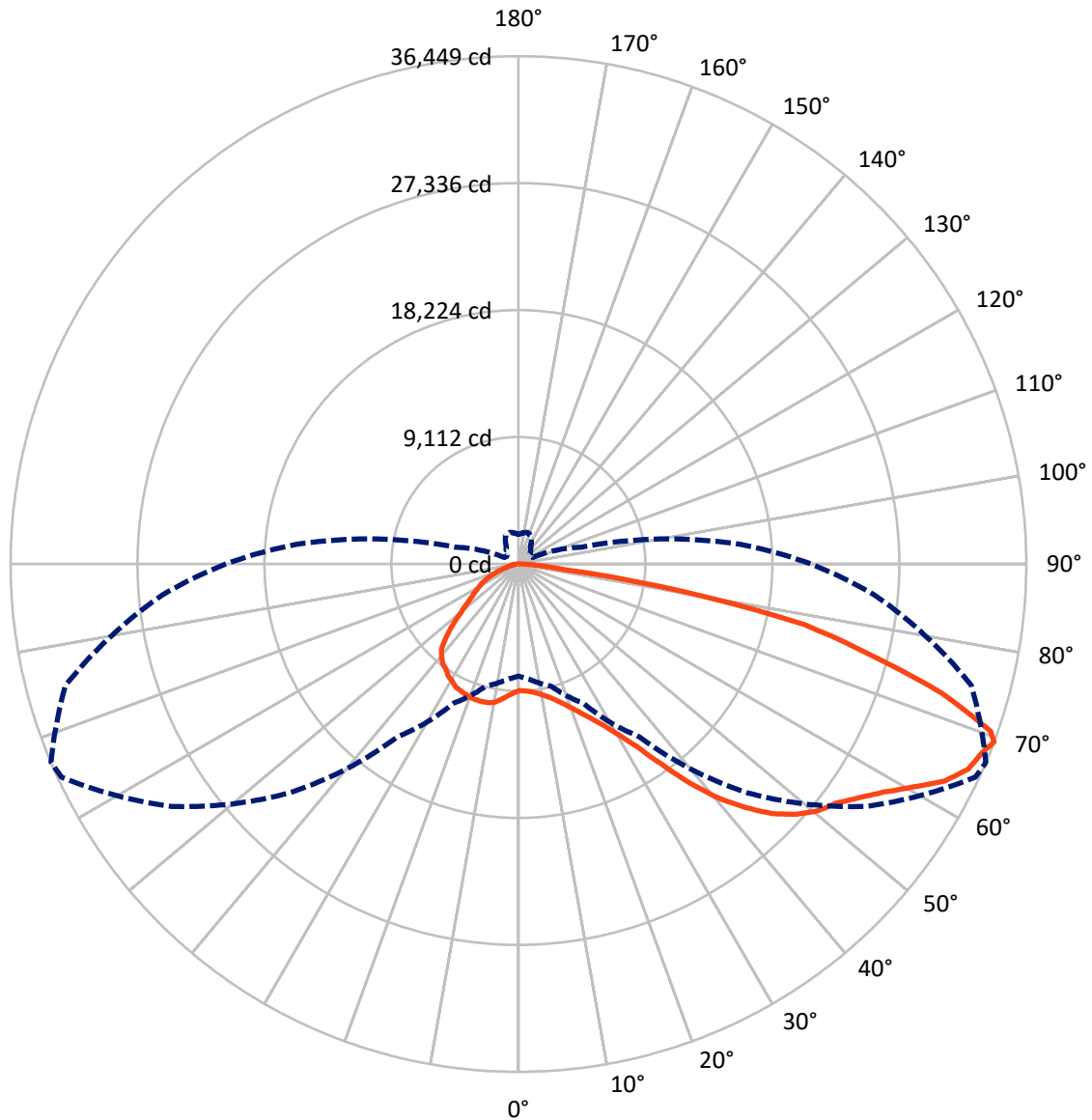
× Max cd  
- - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 12 fc  
Type III - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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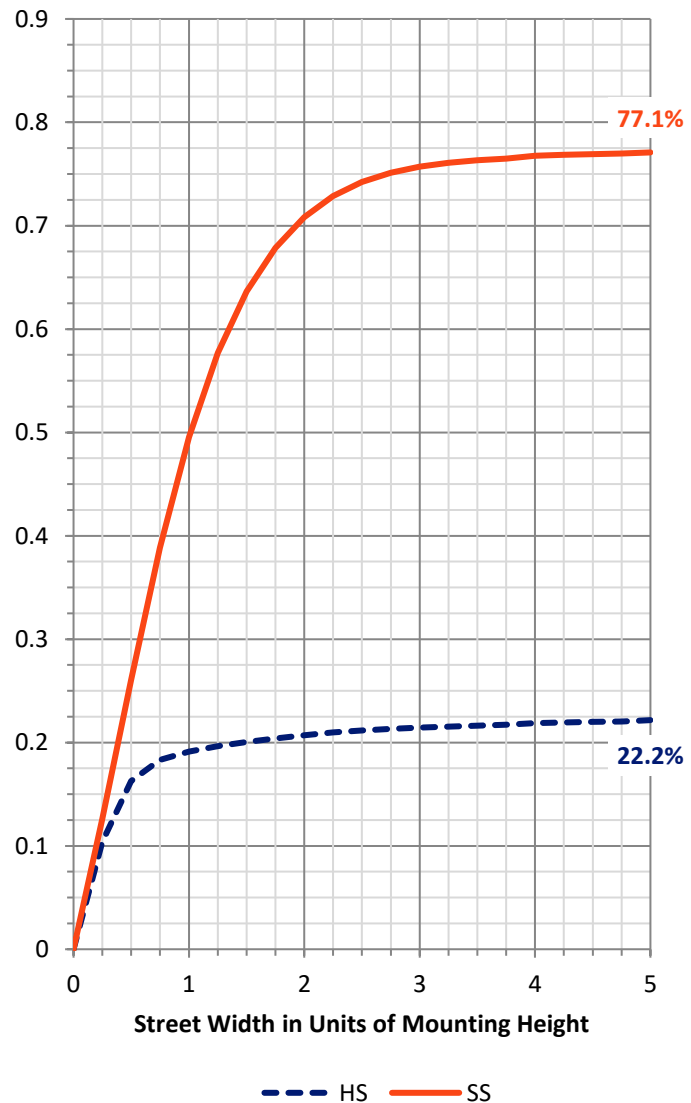
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	14282.5	0.0	14282.5
	% Fixture	22.7	0.0	22.7
<b>Street Side</b>	Lumens	48503.5	0.0	48503.5
	% Fixture	77.3	0.0	77.3
<b>Total</b>	Lumens	62786.0	0.0	62786.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	922.3	1.5
10°-20°	2962.3	4.7
20°-30°	5151.5	8.2
30°-40°	7760.0	12.4
40°-50°	10717.3	17.1
50°-60°	12791.2	20.4
60°-70°	13471.4	21.5
70°-80°	7902.5	12.6
80°-90°	1107.5	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°	62786.0	100.0
0°-180°	62786.0	100.0



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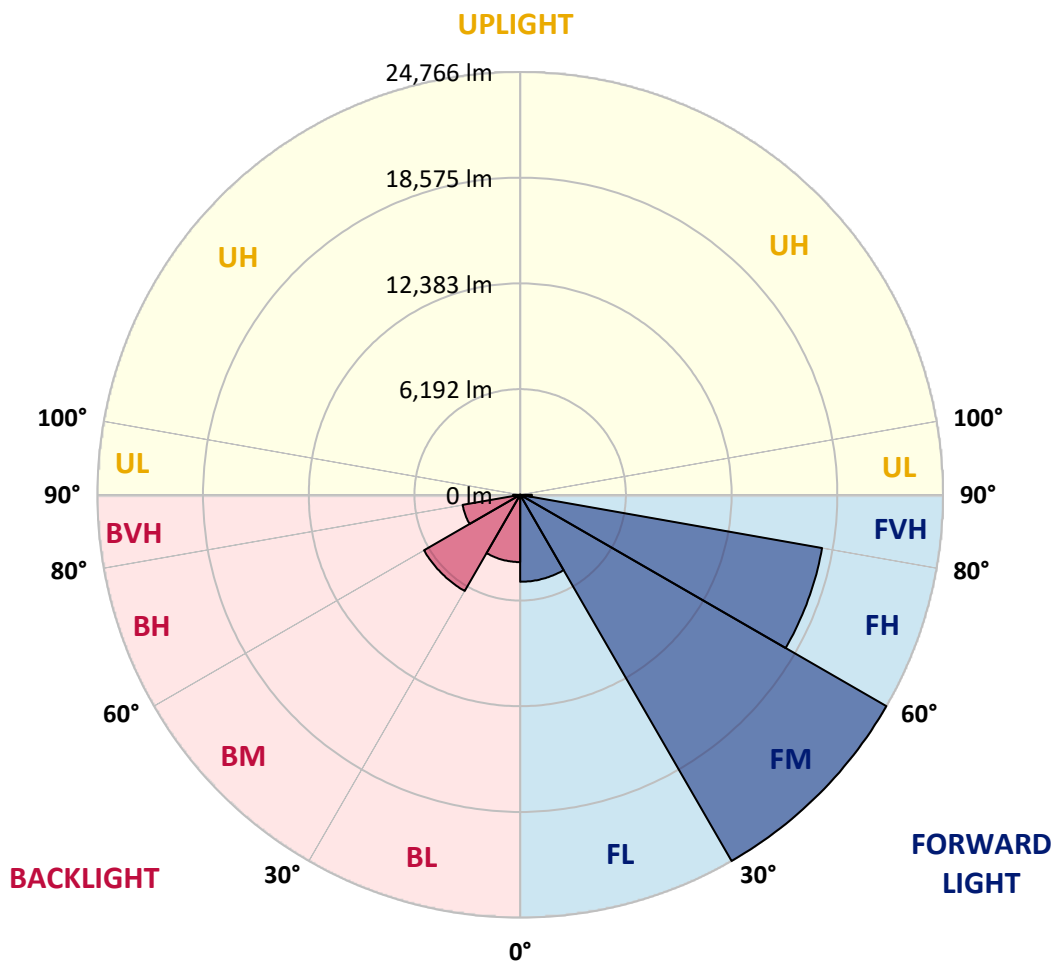
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	5095.0	8.1			
FM	(30°-60°)	24766.1	39.4			
FH	(60°-80°)	17954.1	28.6			G5
FVH	(80°-90°)	688.3	1.1			G4/750
BL	(0°-30°)	3941.1	6.3	B4/5000		
BM	(30°-60°)	6502.4	10.4	B4/8500		
BH	(60°-80°)	3419.8	5.4	B4/5000		G4/5000
BVH	(80°-90°)	419.2	0.7			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

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

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	9086.0	9086.0	9086.0	9086.0	9086.0	9086.0	9086.0	9086.0	9086.0	9086.0	9086.0
2.5°	9124.2	9136.3	9124.2	9104.1	9037.8	9067.9	9041.8	9126.2	9120.2	9088.0	9146.3
5°	9337.3	9351.3	9325.2	9309.1	9206.6	9220.7	9164.4	9210.6	9194.6	9140.3	9230.7
7.5°	9684.9	9699.0	9666.8	9644.7	9500.0	9467.9	9365.4	9379.5	9349.3	9262.9	9367.4
10°	10153.2	10165.3	10111.0	10056.7	9871.8	9793.5	9622.6	9594.5	9550.3	9465.9	9572.4
12.5°	10657.7	10675.7	10609.4	10539.1	10324.0	10195.4	9952.2	9865.8	9811.6	9709.1	9825.6
15°	11198.3	11220.4	11152.0	11071.7	10834.5	10635.5	10332.1	10201.4	10149.2	10020.6	10092.9
17.5°	11907.7	11901.7	11845.4	11734.9	11451.5	11160.1	10786.3	10591.3	10555.2	10430.6	10448.6
20°	12729.7	12701.6	12649.3	12496.6	12189.1	11827.3	11339.0	11091.8	11055.6	10951.1	10840.5
22.5°	13622.0	13593.9	13543.6	13348.7	13045.2	12570.9	11986.1	11694.7	11646.4	11515.8	11330.9
25°	14500.3	14470.1	14442.0	14257.1	13961.7	13423.1	12719.6	12347.8	12325.7	12193.1	11853.4
27.5°	15412.7	15394.6	15402.6	15243.9	14948.4	14389.7	13591.9	13187.9	13149.7	12980.9	12518.7
30°	16351.2	16355.3	16431.6	16262.8	15991.5	15428.8	14636.9	14224.9	14231.0	14080.2	13405.0
32.5°	17191.3	17195.3	17366.2	17281.8	17133.0	16572.3	15844.8	15555.4	15613.7	15601.6	14910.3
35°	17798.3	17824.4	18206.2	18320.8	18264.5	17776.1	17338.0	17408.4	17593.3	18115.8	17390.3
37.5°	18369.0	18379.1	18867.4	19132.7	19341.7	19048.3	18959.9	19627.1	19918.5	20642.0	19568.8
40°	18533.8	18672.5	19289.5	19659.3	20145.6	20290.3	20738.5	21725.3	22069.0	22505.1	21035.9
42.5°	18383.1	18580.0	19353.8	20232.1	20907.3	21624.8	22446.8	23564.2	23875.7	24145.0	22440.8
45°	18067.6	18218.3	19022.2	20336.6	21560.5	22983.4	23932.0	25270.5	25551.8	25377.0	23538.1
47.5°	17647.5	17762.1	18658.4	20169.8	22083.0	24201.3	25292.6	26639.1	26844.1	26436.1	24283.7
50°	17064.7	17201.4	18202.2	19940.6	22466.9	25220.2	26385.9	27668.1	27840.9	27095.3	25015.2
52.5°	16345.2	16516.0	17679.7	19550.8	22754.3	25979.9	27149.6	28353.4	28528.3	28043.9	25594.0
55°	15529.3	15766.4	16964.2	19076.5	22774.4	26383.9	27625.9	29358.3	29607.5	29085.0	26100.5
57.5°	14701.2	14854.0	16122.1	18350.9	22396.5	26518.5	28196.7	30528.0	30891.7	30093.8	26653.2
60°	13690.3	13837.1	15093.1	17380.2	21642.9	26725.5	29338.2	32202.1	32491.5	31269.5	27123.5
62.5°	12494.6	12661.4	13800.9	16051.8	20527.5	26809.9	30501.8	33982.7	34314.3	32338.7	27394.8
65°	10975.2	11160.1	12199.1	14444.0	18933.8	26211.0	31004.3	35299.1	35469.9	33158.7	27278.2
67.5°	9315.1	9467.9	10295.9	12444.3	16729.1	24649.5	30741.0	35785.4	35958.3	33715.4	26580.8
69°	8045.0	8280.1	9076.0	11019.4	15143.4	23220.5	30339.0	36185.4	36448.6	33653.1	25664.4
70°	7028.1	7291.3	8010.8	9763.3	13796.9	21737.3	29591.4	35881.9	35956.3	33052.2	24838.4
72.5°	4441.5	4527.9	4855.5	6021.2	9707.0	16897.9	25895.5	31854.4	31834.3	29488.9	21683.1
75°	2194.6	2307.2	2928.2	3380.4	4783.2	10868.7	20382.8	26162.8	26166.8	24888.6	17826.4
77.5°	1318.4	1366.6	1525.4	2178.6	2733.2	4877.6	13835.0	20712.4	21029.9	20256.2	12828.2
80°	908.4	884.3	930.5	1071.2	1471.1	2564.4	5687.6	11708.7	12052.4	11115.9	5464.5
82.5°	715.5	695.4	709.4	745.6	701.4	1187.8	2405.7	3501.0	3398.5	2996.5	2100.2
85°	500.4	460.2	486.4	472.3	418.0	697.4	1169.7	1455.1	1445.0	1493.2	1143.5
87.5°	158.8	140.7	144.7	140.7	116.6	247.2	420.0	566.7	522.5	530.6	401.9
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°	9086.0	9086.0	9086.0	9086.0	9086.0	9086.0	9086.0	9086.0	9086.0	9086.0	9086.0
2.5°	9160.4	9144.3	9162.4	9256.9	9234.8	9317.2	9337.3	9471.9	9477.9	9465.9	9526.2
5°	9272.9	9289.0	9357.3	9508.1	9558.3	9735.2	9815.6	9980.4	9996.4	10002.5	10060.8
7.5°	9435.7	9463.9	9610.6	9807.5	9902.0	10133.1	10253.7	10456.7	10470.7	10492.9	10559.2
10°	9676.9	9717.1	9833.7	10103.0	10133.1	10316.0	10426.5	10601.4	10589.3	10619.5	10679.8
12.5°	9920.1	9942.2	10030.6	10215.5	10195.4	10374.3	10422.5	10537.1	10529.0	10527.0	10571.2
15°	10181.3	10143.2	10155.2	10225.6	10151.2	10261.7	10227.6	10312.0	10201.4	10157.2	10187.4
17.5°	10458.7	10366.2	10247.7	10195.4	10054.7	10036.6	9920.1	9879.9	9803.5	9779.4	9803.5
20°	10788.3	10591.3	10303.9	10153.2	9845.7	9686.9	9463.9	9333.2	9156.4	9170.4	9204.6
22.5°	11123.9	10846.6	10412.5	10008.5	9574.4	9252.8	8808.7	8690.1	8459.0	8390.7	8459.0
25°	11535.9	11164.1	10466.7	9879.9	9164.4	8591.6	8141.5	7721.4	7546.6	7375.7	7440.1
27.5°	12076.5	11574.1	10663.7	9721.1	8700.2	7936.5	7221.0	6678.4	6461.3	6278.4	6290.5
30°	12777.9	12122.8	10738.0	9387.5	8141.5	7038.1	6137.7	5534.8	5263.5	5189.1	5157.0
32.5°	14074.2	13007.0	10870.7	9144.3	7446.1	6061.4	4956.0	4308.9	4138.1	4170.2	4274.7
35°	16371.3	14858.0	11272.6	8635.9	6678.4	4996.2	3850.7	3350.2	3378.4	3436.7	3424.6
37.5°	18352.9	16528.1	11941.9	8278.1	5739.8	3784.3	2908.1	2642.8	2811.6	2926.2	2922.2
40°	19699.5	17746.0	12818.1	7608.9	4554.1	2697.1	2140.4	1993.7	2208.7	2453.9	2496.1
42.5°	21035.9	18853.4	13242.2	7016.0	3197.5	1903.2	1549.5	1587.7	1863.0	2094.1	2136.4
45°	21996.6	19657.3	13429.1	5958.9	2041.9	1457.1	1352.6	1493.2	1790.7	1973.6	1993.7
47.5°	22702.0	20262.2	13226.1	4821.4	1503.3	1332.5	1334.5	1513.3	1812.8	2019.8	2027.8
50°	23325.0	20688.3	12408.1	3760.2	1352.6	1290.3	1360.6	1571.6	1877.1	2086.1	2080.1
52.5°	23751.1	20812.9	11415.3	3080.9	1310.4	1266.1	1382.7	1625.9	1897.2	2037.9	2025.8
55°	24034.5	20626.0	10651.6	2536.3	1274.2	1264.1	1418.9	1694.2	1917.3	1973.6	1945.4
57.5°	24209.3	20248.1	10006.5	2180.6	1244.0	1264.1	1459.1	1720.3	1991.7	2094.1	2062.0
60°	24157.1	20079.3	9132.3	1889.2	1201.8	1268.1	1481.2	1758.5	2291.1	2532.3	2538.3
62.5°	24052.6	19749.7	8278.1	1658.0	1151.6	1292.3	1509.3	1979.6	2813.6	2815.6	2715.2
65°	23556.2	18756.9	7036.1	1449.0	1099.3	1298.3	1515.3	2343.4	3155.3	2890.0	2759.4
67.5°	22189.5	17303.9	5583.1	1254.1	1041.0	1262.1	1509.3	2293.1	2548.4	2281.1	2214.7
69°	20997.8	16043.8	4664.6	1137.5	998.8	1225.9	1515.3	2198.7	2359.4	2200.7	2140.4
70°	20129.6	15022.8	3963.2	1067.2	960.7	1207.9	1515.3	2164.5	2333.3	2182.6	2124.3
72.5°	17277.7	11801.2	2375.5	890.3	850.1	1137.5	1501.3	2112.2	2353.4	2224.8	2148.4
75°	13236.1	8583.6	1382.7	731.5	715.5	1020.9	1426.9	2080.1	2421.7	2226.8	2060.0
77.5°	8481.1	3961.2	1031.0	594.9	580.8	884.3	1332.5	1975.6	2488.1	2335.3	2124.3
80°	2946.3	1796.7	769.7	470.3	450.2	723.5	1167.7	1780.6	2369.5	2385.6	2226.8
82.5°	1615.8	1183.7	544.6	349.7	331.6	454.2	908.4	1535.4	2192.6	2361.4	2373.5
85°	888.3	667.2	357.7	225.1	253.2	389.9	629.0	1193.8	1764.6	2051.9	2142.4
87.5°	359.7	241.2	140.7	88.4	104.5	154.7	213.0	611.0	1065.2	1374.7	1513.3
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)