

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: P232706

Luminaire Tested: **CTN-8-4-D-E1-T3-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P232706  
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-8-4-D-E1-T3-7050  
Description: CELESTEON HIGH MAST LUMINAIRE  
(8) 70 CRI, 5000K LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 43703 lumens  
Efficiency: N/A  
Efficacy: 134.5 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type III - Medium - Semi-Cutoff  
BUG Rating: B4 - U0 - G5

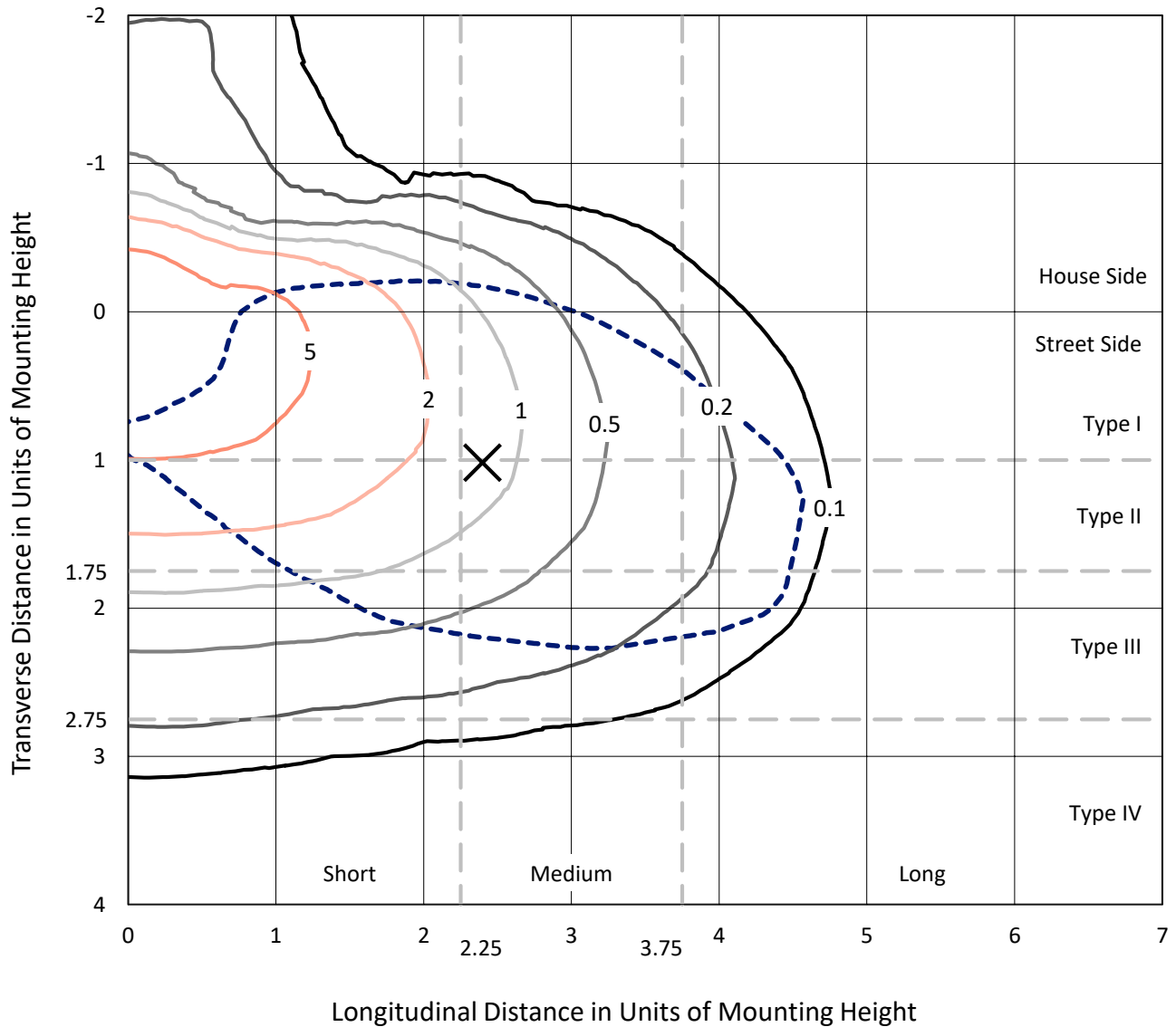
Input Watts (W): 325  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

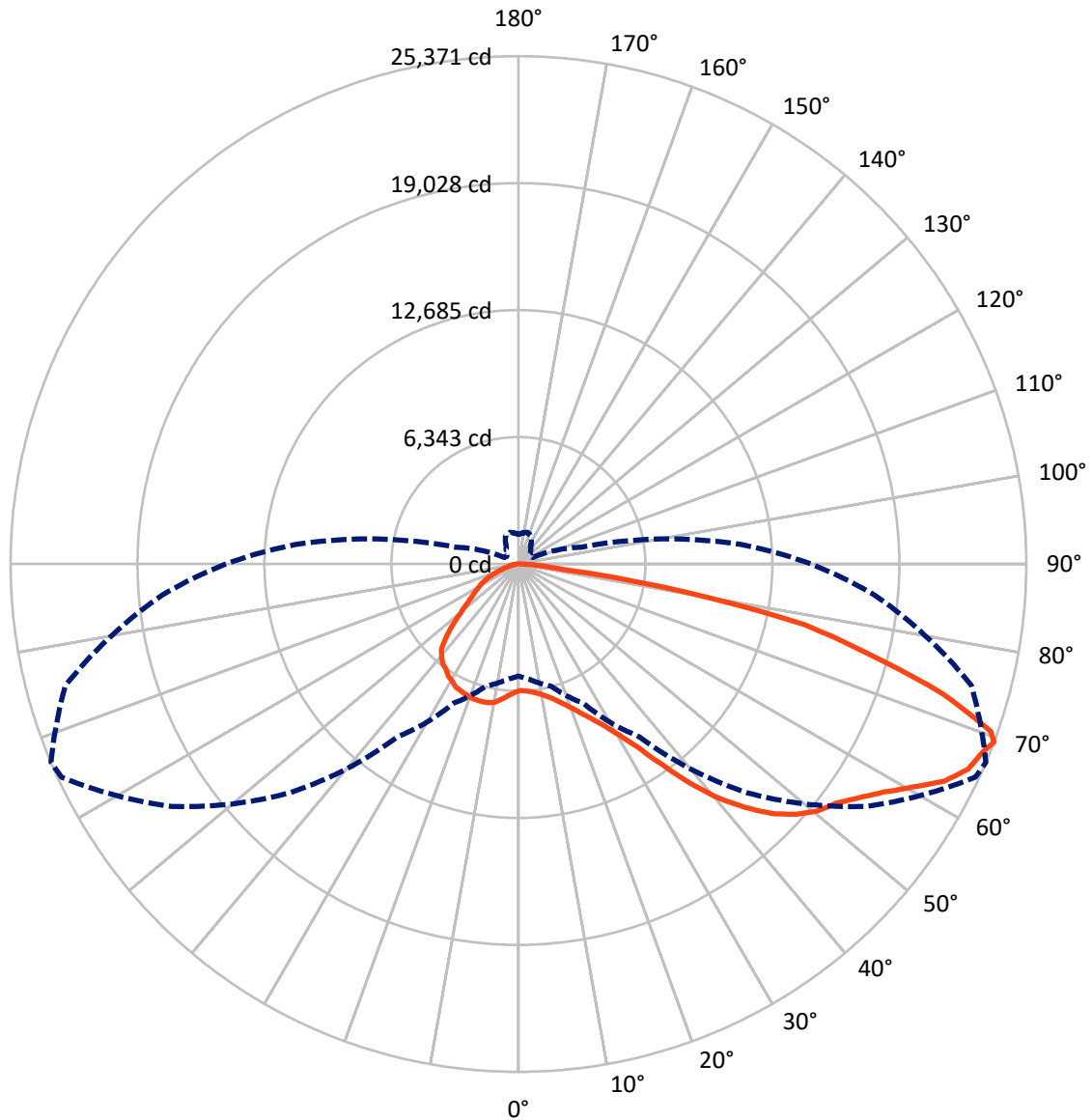
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8.3 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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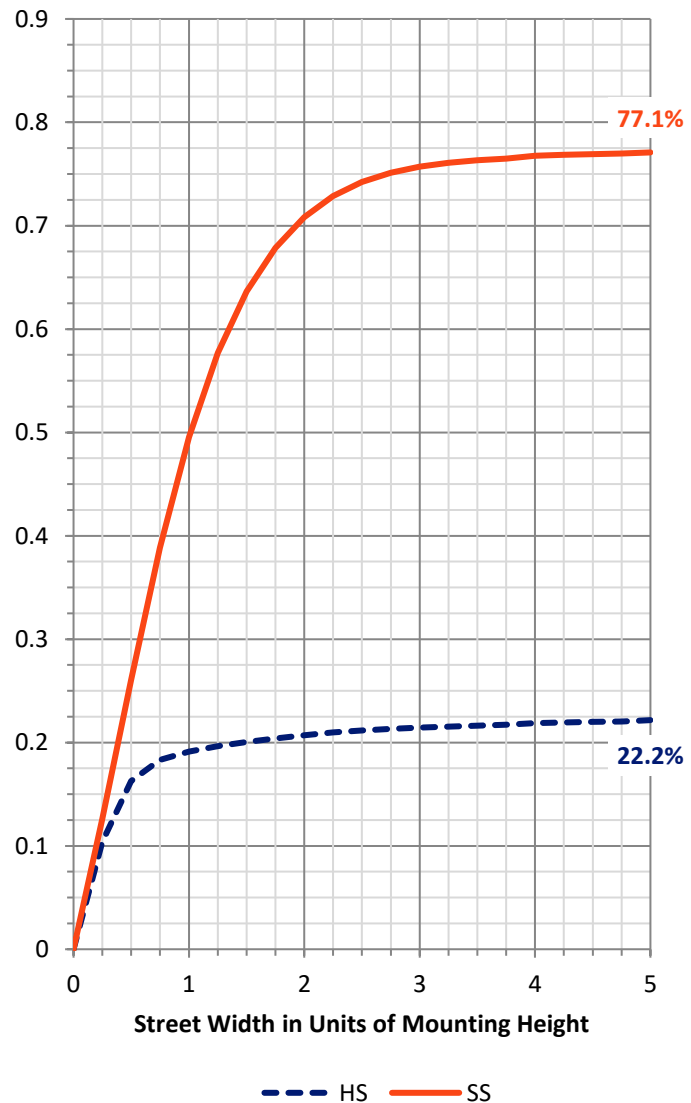
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	9941.5	0.0	9941.5
	% Fixture	22.7	0.0	22.7
<b>Street Side</b>	Lumens	33761.5	0.0	33761.5
	% Fixture	77.3	0.0	77.3
<b>Total</b>	Lumens	43703.0	0.0	43703.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	642.0	1.5
10°-20°	2061.9	4.7
20°-30°	3585.7	8.2
30°-40°	5401.5	12.4
40°-50°	7459.9	17.1
50°-60°	8903.4	20.4
60°-70°	9377.0	21.5
70°-80°	5500.6	12.6
80°-90°	770.9	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°	43703.0	100.0
0°-180°	43703.0	100.0

**Coefficient of Utilization**



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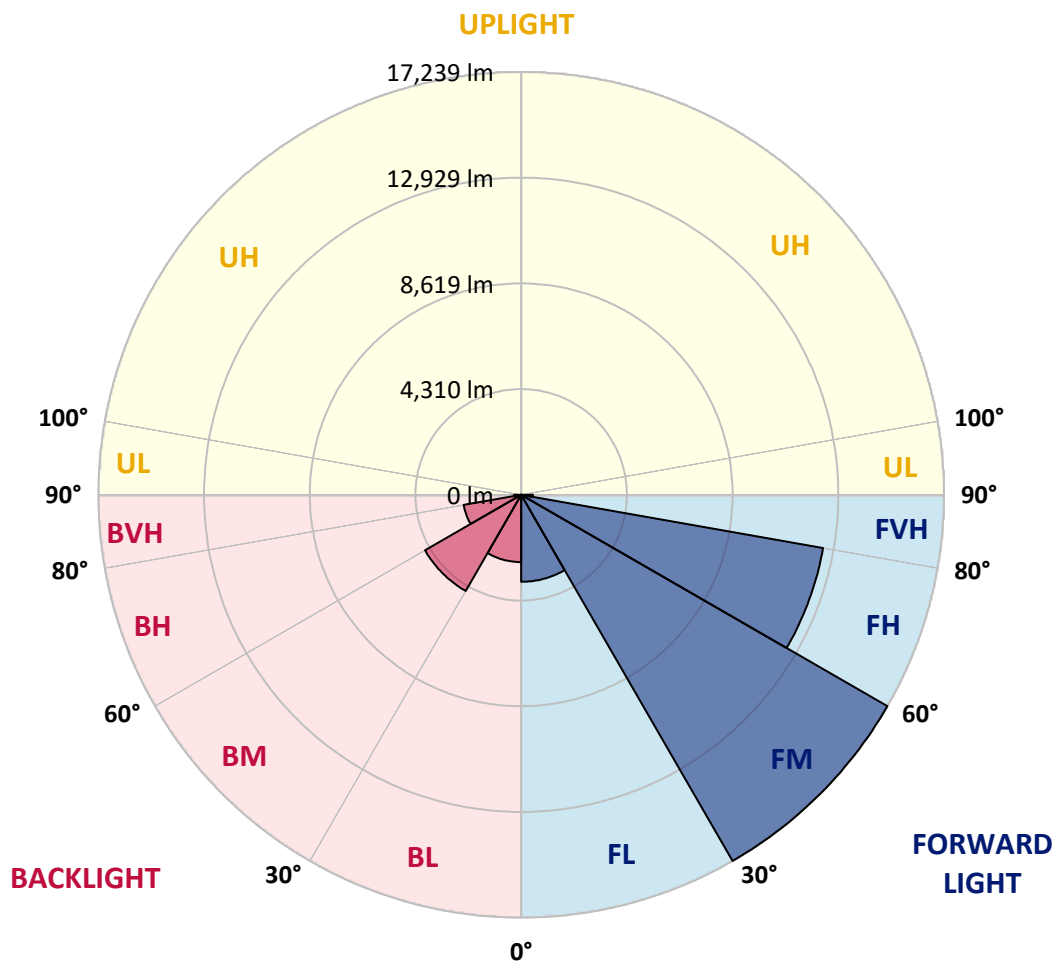
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3546.4	8.1			
FM	(30°-60°)	17238.8	39.4			
FH	(60°-80°)	12497.2	28.6			G5
FVH	(80°-90°)	479.1	1.1			G3/500
BL	(0°-30°)	2743.2	6.3	B4/5000		
BM	(30°-60°)	4526.1	10.4	B3/5000		
BH	(60°-80°)	2380.4	5.4	B3/2500		G3/2500
BVH	(80°-90°)	291.8	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°	6324.5	6324.5	6324.5	6324.5	6324.5	6324.5	6324.5	6324.5	6324.5	6324.5	6324.5
2.5°	6351.0	6359.4	6351.0	6337.0	6290.9	6311.9	6293.7	6352.4	6348.2	6325.8	6366.4
5°	6499.3	6509.1	6490.9	6479.7	6408.4	6418.2	6379.0	6411.2	6400.0	6362.2	6425.2
7.5°	6741.3	6751.1	6728.7	6713.3	6612.6	6590.2	6518.9	6528.7	6507.7	6447.6	6520.3
10°	7067.3	7075.7	7037.9	7000.1	6871.4	6816.9	6698.0	6678.4	6647.6	6588.8	6663.0
12.5°	7418.4	7431.0	7384.8	7335.9	7186.2	7096.6	6927.4	6867.2	6829.5	6758.1	6839.2
15°	7794.7	7810.1	7762.5	7706.6	7541.5	7403.0	7191.8	7100.8	7064.5	6974.9	7025.3
17.5°	8288.5	8284.3	8245.1	8168.2	7971.0	7768.1	7507.9	7372.2	7347.1	7260.3	7272.9
20°	8860.7	8841.1	8804.7	8698.4	8484.4	8232.6	7892.6	7720.6	7695.4	7622.6	7545.7
22.5°	9481.8	9462.2	9427.2	9291.5	9080.3	8750.2	8343.1	8140.2	8106.7	8015.7	7887.0
25°	10093.1	10072.1	10052.5	9923.8	9718.2	9343.3	8853.7	8594.9	8579.5	8487.2	8250.7
27.5°	10728.2	10715.6	10721.2	10610.7	10405.1	10016.2	9460.8	9179.6	9153.0	9035.5	8713.8
30°	11381.5	11384.3	11437.4	11319.9	11131.1	10739.4	10188.2	9901.5	9905.6	9800.7	9330.7
32.5°	11966.2	11969.0	12087.9	12029.2	11925.7	11535.4	11029.0	10827.5	10868.1	10859.7	10378.5
35°	12388.7	12406.9	12672.7	12752.4	12713.3	12373.3	12068.4	12117.3	12246.0	12609.7	12104.7
37.5°	12786.0	12793.0	13132.9	13317.6	13463.1	13258.8	13197.3	13661.7	13864.6	14368.2	13621.1
40°	12900.7	12997.2	13426.7	13684.1	14022.6	14123.3	14435.3	15122.2	15361.4	15664.9	14642.3
42.5°	12795.8	12932.9	13471.5	14082.8	14552.8	15052.2	15624.4	16402.2	16619.0	16806.4	15620.2
45°	12576.2	12681.1	13240.6	14155.5	15007.5	15997.9	16658.2	17589.8	17785.7	17664.0	16384.0
47.5°	12283.8	12363.5	12987.4	14039.4	15371.2	16845.6	17605.2	18542.5	18685.2	18401.2	16903.0
50°	11878.1	11973.2	12669.9	13879.9	15638.4	17554.9	18366.2	19258.7	19379.0	18860.0	17412.2
52.5°	11377.3	11496.2	12306.2	13608.6	15838.4	18083.6	18897.8	19735.8	19857.5	19520.3	17815.1
55°	10809.3	10974.4	11808.2	13278.4	15852.4	18364.8	19229.4	20435.2	20608.7	20245.0	18167.6
57.5°	10233.0	10339.3	11222.0	12773.4	15589.4	18458.6	19626.6	21249.4	21502.6	20947.2	18552.3
60°	9529.3	9631.5	10505.8	12097.7	15064.8	18602.6	20421.2	22414.7	22616.1	21765.6	18879.6
62.5°	8697.0	8813.1	9606.3	11173.1	14288.4	18661.4	21231.2	23654.1	23884.9	22509.8	19068.5
65°	7639.4	7768.1	8491.4	10053.9	13179.1	18244.5	21580.9	24570.4	24689.3	23080.5	18987.3
67.5°	6483.9	6590.2	7166.6	8662.0	11644.5	17157.6	21397.7	24908.9	25029.2	23468.0	18501.9
69°	5599.8	5763.5	6317.5	7670.2	10540.8	16163.0	21117.9	25187.3	25370.5	23424.7	17864.0
70°	4892.0	5075.2	5576.0	6795.9	9603.5	15130.6	20597.5	24976.1	25027.8	23006.4	17289.1
72.5°	3091.6	3151.7	3379.8	4191.1	6756.7	11762.0	18024.9	22172.6	22158.7	20526.1	15092.8
75°	1527.6	1605.9	2038.2	2353.0	3329.4	7565.3	14187.7	18210.9	18213.7	17324.0	12408.3
77.5°	917.7	951.3	1061.8	1516.4	1902.5	3395.1	9630.1	14417.1	14638.1	14099.6	8929.2
80°	632.3	615.5	647.7	745.6	1024.0	1785.0	3958.9	8150.0	8389.2	7737.3	3803.6
82.5°	498.0	484.0	493.8	519.0	488.2	826.8	1674.5	2436.9	2365.5	2085.8	1461.9
85°	348.3	320.3	338.5	328.7	291.0	485.4	814.2	1012.8	1005.8	1039.4	796.0
87.5°	110.5	97.9	100.7	97.9	81.1	172.1	292.4	394.5	363.7	369.3	279.8
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°	6324.5	6324.5	6324.5	6324.5	6324.5	6324.5	6324.5	6324.5	6324.5	6324.5	6324.5
2.5°	6376.2	6365.0	6377.6	6443.4	6428.0	6485.3	6499.3	6593.0	6597.2	6588.8	6630.8
5°	6454.5	6465.7	6513.3	6618.2	6653.2	6776.3	6832.3	6947.0	6958.2	6962.4	7002.9
7.5°	6567.9	6587.4	6689.6	6826.7	6892.4	7053.3	7137.2	7278.5	7288.3	7303.7	7349.8
10°	6735.7	6763.7	6844.8	7032.3	7053.3	7180.6	7257.5	7379.2	7370.8	7391.8	7433.8
12.5°	6905.0	6920.4	6981.9	7110.6	7096.6	7221.1	7254.7	7334.5	7328.9	7327.5	7358.2
15°	7086.9	7060.3	7068.7	7117.6	7065.9	7142.8	7119.0	7177.8	7100.8	7070.1	7091.1
17.5°	7279.9	7215.6	7133.0	7096.6	6998.7	6986.1	6905.0	6877.0	6823.9	6807.1	6823.9
20°	7509.3	7372.2	7172.2	7067.3	6853.2	6742.7	6587.4	6496.5	6373.4	6383.2	6407.0
22.5°	7742.9	7549.9	7247.7	6966.5	6664.4	6440.6	6131.4	6048.9	5888.0	5840.4	5888.0
25°	8029.7	7770.9	7285.5	6877.0	6379.0	5980.3	5667.0	5374.6	5252.9	5134.0	5178.7
27.5°	8406.0	8056.3	7422.6	6766.5	6055.9	5524.3	5026.3	4648.6	4497.5	4370.2	4378.6
30°	8894.2	8438.2	7474.4	6534.3	5667.0	4899.0	4272.3	3852.6	3663.7	3612.0	3589.6
32.5°	9796.5	9053.7	7566.7	6365.0	5182.9	4219.1	3449.7	2999.3	2880.3	2902.7	2975.5
35°	11395.5	10342.1	7846.5	6011.1	4648.6	3477.7	2680.3	2332.0	2351.6	2392.1	2383.7
37.5°	12774.8	11504.6	8312.3	5762.1	3995.3	2634.1	2024.2	1839.6	1957.1	2036.8	2034.0
40°	13712.1	12352.3	8922.2	5296.3	3169.9	1877.3	1489.8	1387.7	1537.4	1708.1	1737.4
42.5°	14642.3	13123.1	9217.4	4883.6	2225.7	1324.8	1078.6	1105.1	1296.8	1457.7	1487.0
45°	15311.0	13682.7	9347.5	4147.8	1421.3	1014.2	941.5	1039.4	1246.4	1373.7	1387.7
47.5°	15802.0	14103.8	9206.2	3356.0	1046.4	927.5	928.9	1053.4	1261.8	1405.9	1411.5
50°	16235.7	14400.3	8636.8	2617.4	941.5	898.1	947.1	1093.9	1306.6	1452.1	1447.9
52.5°	16532.3	14487.1	7945.8	2144.5	912.1	881.3	962.4	1131.7	1320.6	1418.5	1410.1
55°	16729.5	14357.0	7414.2	1765.4	886.9	879.9	987.6	1179.3	1334.6	1373.7	1354.1
57.5°	16851.2	14094.0	6965.1	1517.8	865.9	879.9	1015.6	1197.5	1386.3	1457.7	1435.3
60°	16814.8	13976.5	6356.6	1315.0	836.5	882.7	1031.0	1224.0	1594.8	1762.6	1766.8
62.5°	16742.1	13747.0	5762.1	1154.1	801.6	899.5	1050.6	1377.9	1958.5	1959.9	1889.9
65°	16396.6	13056.0	4897.6	1008.6	765.2	903.7	1054.8	1631.1	2196.3	2011.6	1920.7
67.5°	15445.3	12044.6	3886.2	872.9	724.6	878.5	1050.6	1596.2	1773.8	1587.8	1541.6
69°	14615.8	11167.5	3246.9	791.8	695.3	853.3	1054.8	1530.4	1642.3	1531.8	1489.8
70°	14011.4	10456.8	2758.6	742.8	668.7	840.7	1054.8	1506.6	1624.1	1519.2	1478.6
72.5°	12026.4	8214.4	1653.5	619.7	591.7	791.8	1045.0	1470.2	1638.1	1548.6	1495.4
75°	9213.2	5974.7	962.4	509.2	498.0	710.6	993.2	1447.9	1685.7	1550.0	1433.9
77.5°	5903.4	2757.2	717.6	414.1	404.3	615.5	927.5	1375.1	1731.8	1625.5	1478.6
80°	2050.8	1250.6	535.8	327.3	313.4	503.6	812.8	1239.4	1649.3	1660.5	1550.0
82.5°	1124.7	824.0	379.1	243.4	230.8	316.2	632.3	1068.8	1526.2	1643.7	1652.1
85°	618.3	464.4	249.0	156.7	176.3	271.4	437.9	830.9	1228.2	1428.3	1491.2
87.5°	250.4	167.9	97.9	61.6	72.7	107.7	148.3	425.3	741.4	956.9	1053.4
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)