

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: P232708

Luminaire Tested: **CTN-8-6-D-E1-T3-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P232708  
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-T3-7050  
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: 63419 lumens  
Efficiency: N/A  
Efficacy: 133.0 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type III - Medium - Semi-Cutoff  
BUG Rating: B4 - U0 - G5

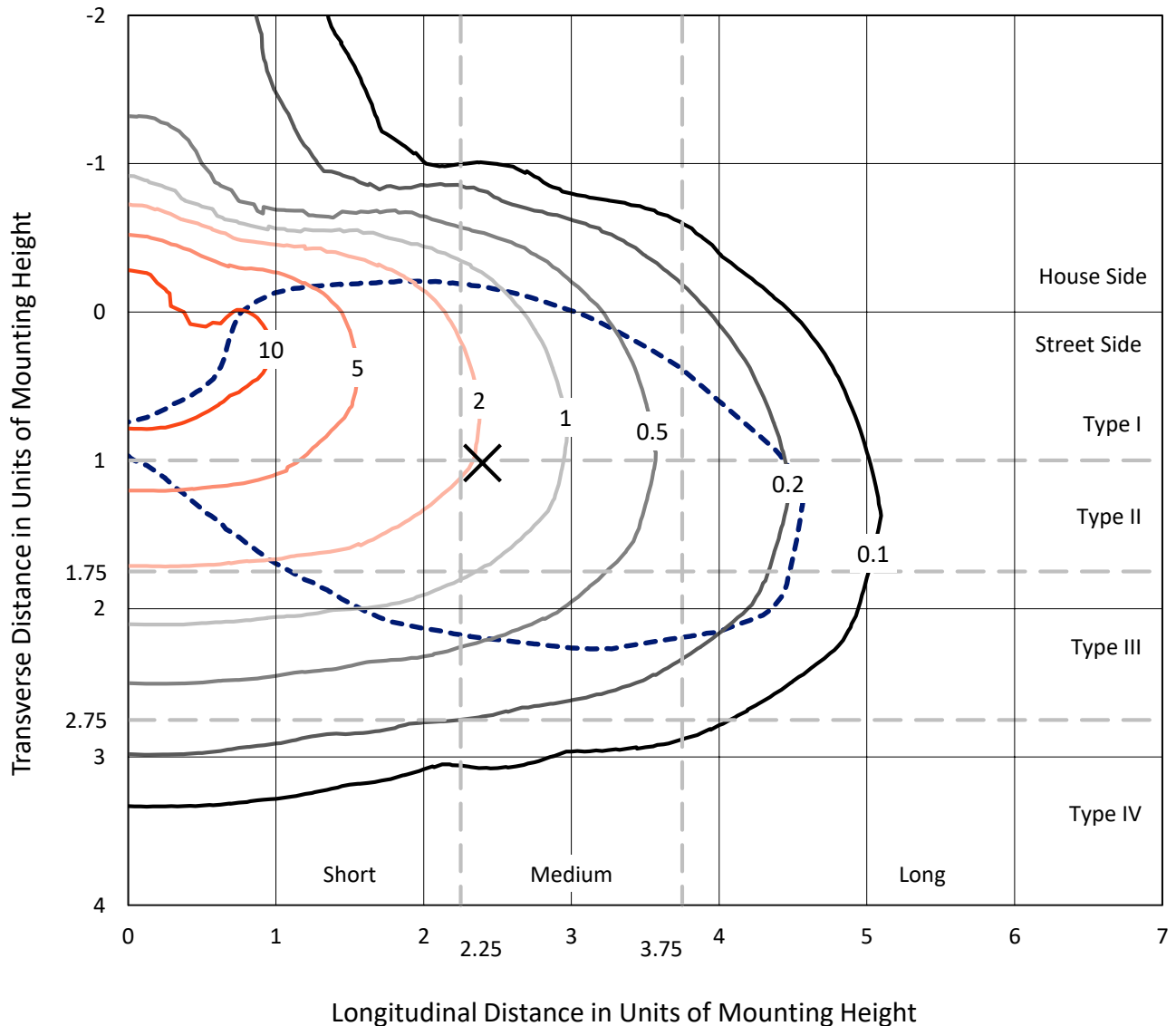
Input Watts (W): 477  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

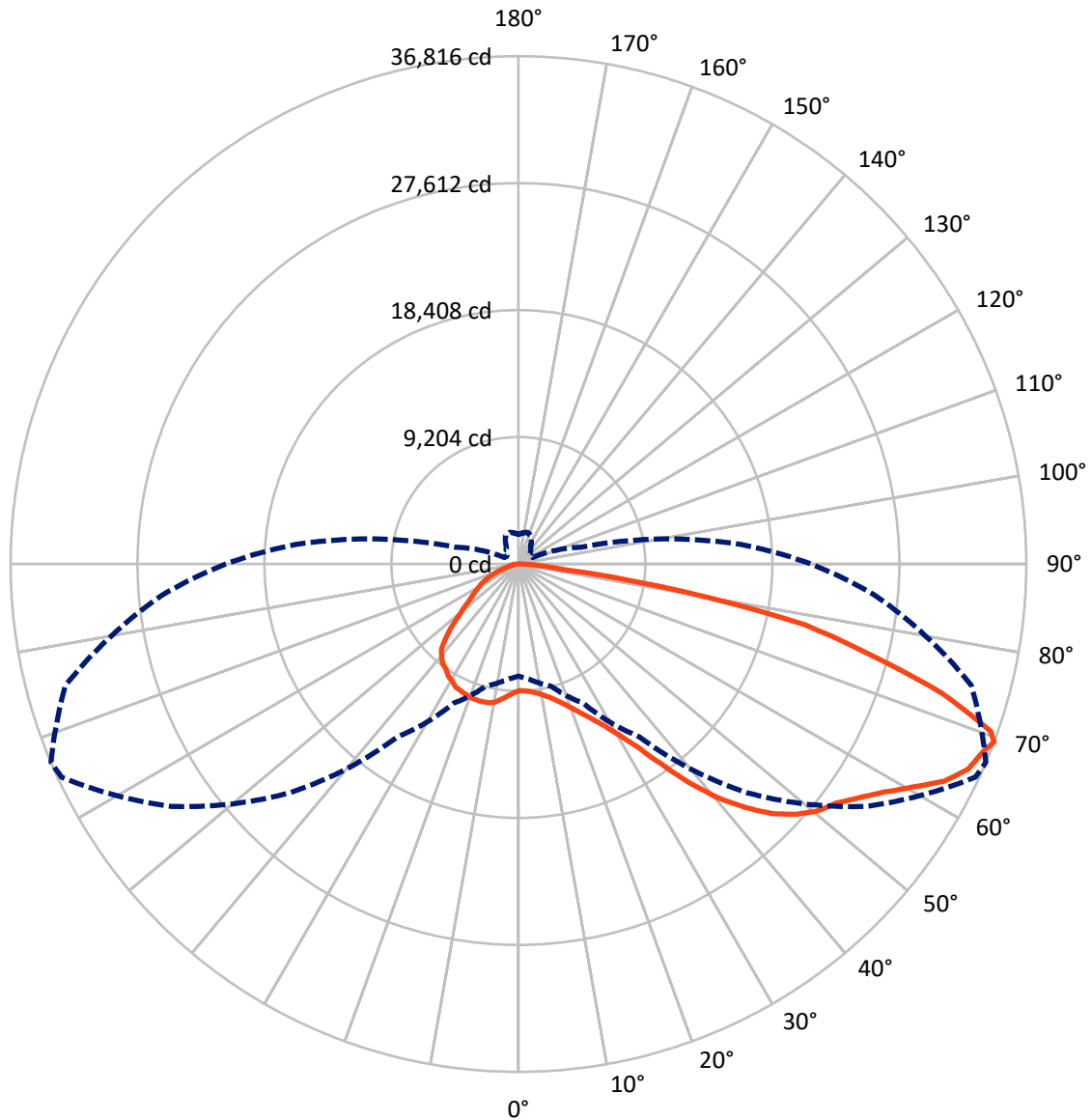
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 12.1 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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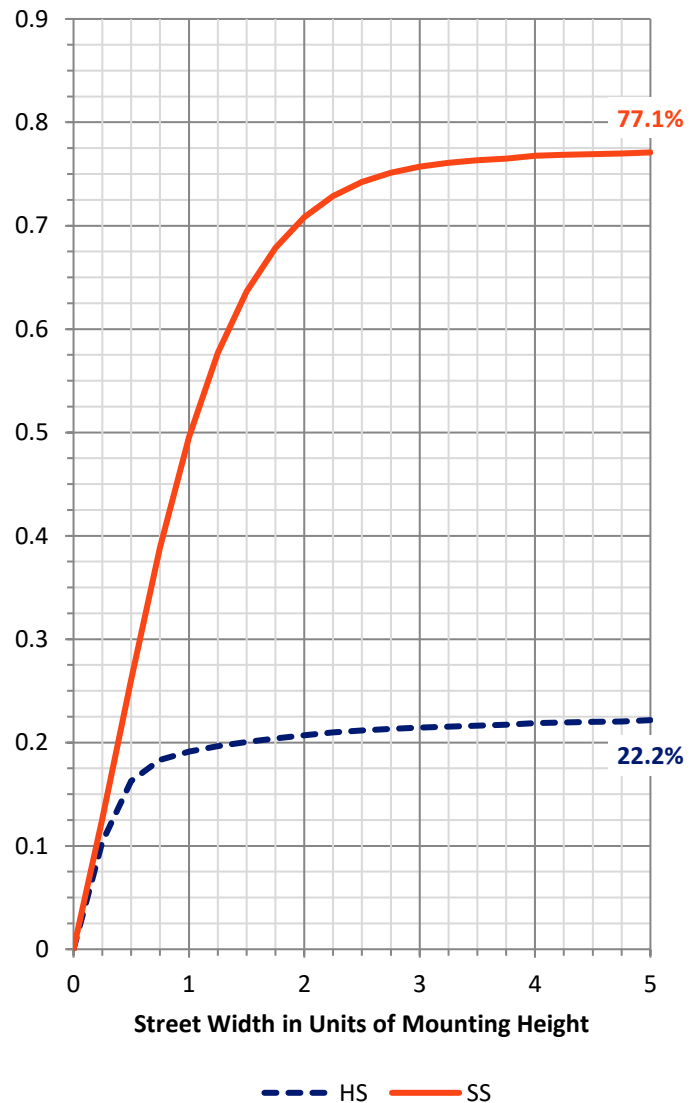
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	14426.5	0.0	14426.5
	% Fixture	22.7	0.0	22.7
<b>Street Side</b>	Lumens	48992.5	0.0	48992.5
	% Fixture	77.3	0.0	77.3
<b>Total</b>	Lumens	63419.0	0.0	63419.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	931.6	1.5
10°-20°	2992.2	4.7
20°-30°	5203.4	8.2
30°-40°	7838.3	12.4
40°-50°	10825.4	17.1
50°-60°	12920.1	20.4
60°-70°	13607.2	21.5
70°-80°	7982.1	12.6
80°-90°	1118.7	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°	63419.0	100.0
0°-180°	63419.0	100.0

**Coefficient of Utilization**



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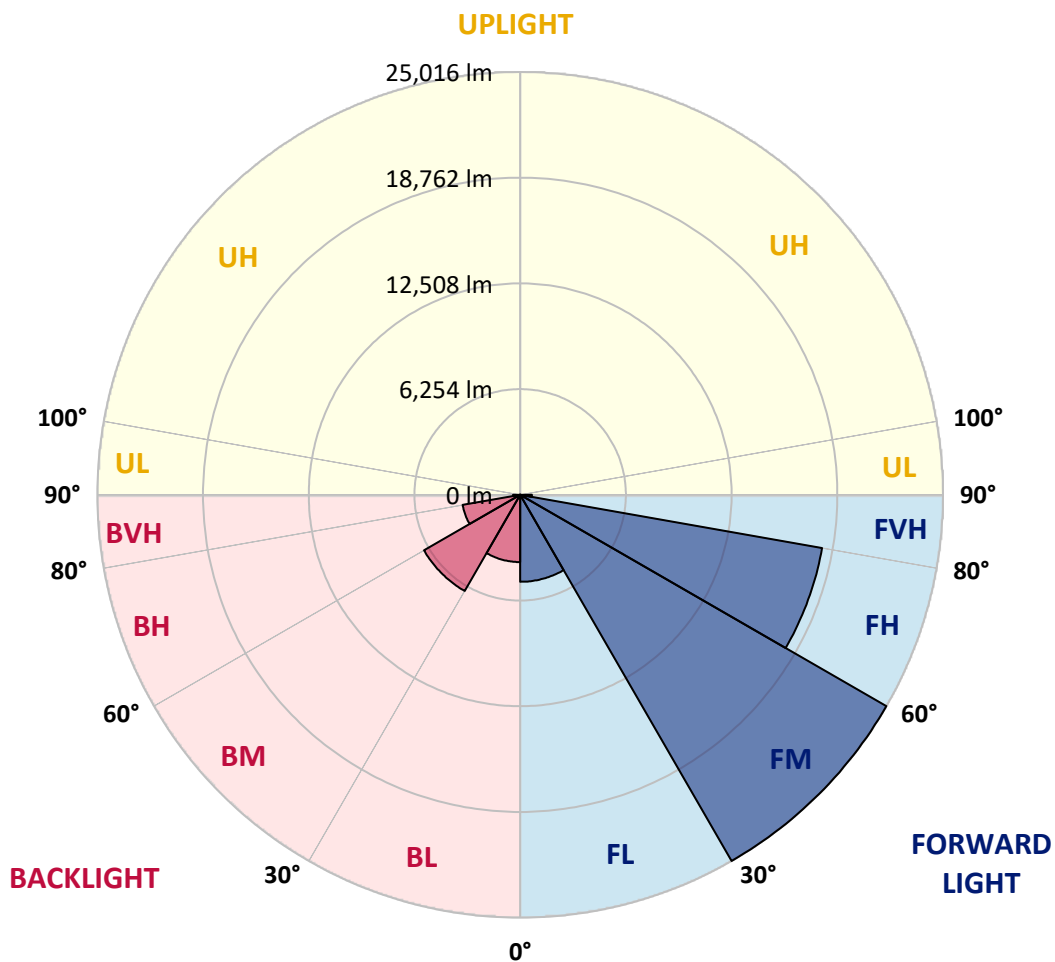
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	5146.4	8.1			
FM	(30°-60°)	25015.8	39.4			
FH	(60°-80°)	18135.1	28.6			G5
FVH	(80°-90°)	695.3	1.1			G4/750
BL	(0°-30°)	3980.8	6.3	B4/5000		
BM	(30°-60°)	6567.9	10.4	B4/8500		
BH	(60°-80°)	3454.3	5.4	B4/5000		G4/5000
BVH	(80°-90°)	423.5	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°	9177.6	9177.6	9177.6	9177.6	9177.6	9177.6	9177.6	9177.6	9177.6	9177.6	9177.6
2.5°	9216.2	9228.4	9216.2	9195.9	9128.9	9159.4	9133.0	9218.2	9212.1	9179.7	9238.5
5°	9431.4	9445.6	9419.2	9403.0	9299.4	9313.6	9256.8	9303.5	9287.3	9232.4	9323.8
7.5°	9782.6	9796.8	9764.3	9742.0	9595.8	9563.3	9459.8	9474.0	9443.6	9356.3	9461.8
10°	10255.6	10267.7	10212.9	10158.1	9971.4	9892.2	9719.6	9691.2	9646.6	9561.3	9668.9
12.5°	10765.1	10783.4	10716.4	10645.3	10428.1	10298.2	10052.6	9965.3	9910.5	9806.9	9924.7
15°	11311.2	11333.5	11264.5	11183.3	10943.7	10742.8	10436.2	10304.3	10251.5	10121.6	10194.7
17.5°	12027.8	12021.7	11964.8	11853.2	11567.0	11272.6	10895.0	10698.1	10661.6	10535.7	10554.0
20°	12858.0	12829.6	12776.8	12622.6	12312.0	11946.6	11453.3	11203.6	11167.0	11061.5	10949.8
22.5°	13759.4	13730.9	13680.2	13483.3	13176.7	12697.7	12106.9	11812.6	11763.9	11631.9	11445.2
25°	14646.5	14616.0	14587.6	14400.8	14102.4	13558.4	12847.9	12472.3	12450.0	12316.0	11973.0
27.5°	15568.1	15549.8	15557.9	15397.6	15099.2	14534.8	13728.9	13320.9	13282.3	13111.8	12644.9
30°	16516.1	16520.2	16597.3	16426.8	16152.7	15584.3	14784.5	14368.4	14374.4	14222.2	13540.1
32.5°	17364.6	17368.7	17541.2	17456.0	17305.8	16739.4	16004.5	15712.2	15771.1	15758.9	15060.6
35°	17977.7	18004.1	18389.8	18505.5	18448.7	17955.4	17512.8	17583.9	17770.6	18298.4	17565.6
37.5°	18554.2	18564.4	19057.7	19325.6	19536.7	19240.4	19151.0	19825.0	20119.3	20850.1	19766.1
40°	18720.7	18860.7	19484.0	19857.5	20348.7	20494.9	20947.6	21944.3	22291.5	22732.0	21248.0
42.5°	18568.4	18767.4	19548.9	20436.0	21118.1	21842.8	22673.1	23801.8	24116.4	24388.4	22667.0
45°	18249.7	18402.0	19214.0	20541.6	21777.9	23215.1	24173.3	25525.2	25809.4	25632.8	23775.4
47.5°	17825.4	17941.2	18846.5	20373.1	22305.7	24445.3	25547.6	26907.7	27114.7	26702.6	24528.5
50°	17236.7	17374.8	18385.7	20141.7	22693.4	25474.5	26651.9	27947.0	28121.6	27368.5	25267.4
52.5°	16510.0	16682.6	17857.9	19747.9	22983.7	26241.8	27423.3	28639.3	28815.9	28326.6	25852.1
55°	15685.8	15925.4	17135.2	19268.8	23004.0	26649.9	27904.4	29654.3	29906.0	29378.2	26363.6
57.5°	14849.5	15003.7	16284.7	18535.9	22622.3	26785.9	28480.9	30835.7	31203.2	30397.2	26921.9
60°	13828.4	13976.6	15245.3	17555.5	21861.1	26995.0	29634.0	32526.7	32819.0	31584.8	27396.9
62.5°	12620.5	12789.0	13940.0	16213.6	20734.4	27080.2	30809.3	34325.3	34660.3	32664.8	27671.0
65°	11085.8	11272.6	12322.1	14589.6	19124.6	26475.3	31316.8	35655.0	35827.5	33493.0	27553.2
67.5°	9409.1	9563.3	10399.7	12569.8	16897.7	24898.0	31050.9	36146.2	36320.8	34055.3	26848.8
69°	8126.1	8363.6	9167.5	11130.5	15296.1	23454.6	30644.9	36550.2	36816.1	33992.4	25923.1
70°	7098.9	7364.8	8091.6	9861.7	13936.0	21956.5	29889.7	36243.7	36318.8	33385.4	25088.8
72.5°	4486.3	4573.6	4904.5	6081.9	9804.9	17068.3	26156.6	32175.5	32155.2	29786.2	21901.7
75°	2216.8	2330.4	2957.7	3414.5	4831.4	10978.3	20588.3	26426.6	26430.6	25139.5	18006.1
77.5°	1331.7	1380.4	1540.8	2200.5	2760.8	4926.8	13974.5	20921.2	21241.9	20460.4	12957.5
80°	917.6	893.2	939.9	1082.0	1486.0	2590.3	5744.9	11826.8	12173.9	11227.9	5519.6
82.5°	722.7	702.4	716.6	753.1	708.5	1199.7	2429.9	3536.3	3432.7	3026.7	2121.4
85°	505.5	464.9	491.3	477.1	422.2	704.4	1181.5	1469.7	1459.6	1508.3	1155.1
87.5°	160.4	142.1	146.2	142.1	117.7	249.7	424.3	572.5	527.8	535.9	406.0
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°	9177.6	9177.6	9177.6	9177.6	9177.6	9177.6	9177.6	9177.6	9177.6	9177.6	9177.6
2.5°	9252.7	9236.5	9254.8	9350.2	9327.9	9411.1	9431.4	9567.4	9573.5	9561.3	9622.2
5°	9366.4	9382.7	9451.7	9603.9	9654.7	9833.3	9914.5	10081.0	10097.2	10103.3	10162.2
7.5°	9530.9	9559.3	9707.5	9906.4	10001.8	10235.3	10357.1	10562.1	10576.3	10598.6	10665.6
10°	9774.5	9815.1	9932.8	10204.8	10235.3	10420.0	10531.6	10708.3	10696.1	10726.5	10787.4
12.5°	10020.1	10042.4	10131.7	10318.5	10298.2	10478.9	10527.6	10643.3	10635.2	10633.1	10677.8
15°	10284.0	10245.4	10257.6	10328.6	10253.5	10365.2	10330.7	10415.9	10304.3	10259.6	10290.1
17.5°	10564.1	10470.7	10351.0	10298.2	10156.1	10137.8	10020.1	9979.5	9902.3	9878.0	9902.3
20°	10897.1	10698.1	10407.8	10255.6	9945.0	9784.6	9559.3	9427.3	9248.7	9262.9	9297.4
22.5°	11236.1	10955.9	10517.4	10109.4	9670.9	9346.1	8897.5	8777.7	8544.3	8475.3	8544.3
25°	11652.2	11276.7	10572.2	9979.5	9256.8	8678.3	8223.5	7799.3	7622.7	7450.1	7515.1
27.5°	12198.3	11690.8	10771.2	9819.1	8787.9	8016.5	7293.8	6745.7	6526.5	6341.7	6353.9
30°	12906.8	12245.0	10846.3	9482.1	8223.5	7109.1	6199.6	5590.6	5316.6	5241.5	5209.0
32.5°	14216.1	13138.2	10980.3	9236.5	7521.2	6122.5	5006.0	4352.3	4179.8	4212.3	4317.8
35°	16536.4	15007.8	11386.3	8722.9	6745.7	5046.6	3889.5	3384.0	3412.4	3471.3	3459.1
37.5°	18538.0	16694.7	12062.3	8361.6	5797.7	3822.5	2937.4	2669.5	2840.0	2955.7	2951.6
40°	19898.1	17924.9	12947.4	7685.6	4600.0	2724.3	2162.0	2013.8	2231.0	2478.6	2521.3
42.5°	21248.0	19043.4	13375.7	7086.7	3229.7	1922.4	1565.1	1603.7	1881.8	2115.3	2157.9
45°	22218.4	19855.4	13564.5	6019.0	2062.5	1471.8	1366.2	1508.3	1808.7	1993.5	2013.8
47.5°	22930.9	20466.5	13359.4	4870.0	1518.4	1345.9	1347.9	1528.6	1831.1	2040.2	2048.3
50°	23560.2	20896.8	12533.2	3798.1	1366.2	1303.3	1374.3	1587.5	1896.0	2107.1	2101.1
52.5°	23990.6	21022.7	11530.4	3112.0	1323.6	1278.9	1396.6	1642.3	1916.3	2058.4	2046.2
55°	24276.8	20833.9	10759.0	2561.9	1287.0	1276.9	1433.2	1711.3	1936.6	1993.5	1965.0
57.5°	24453.4	20452.3	10107.4	2202.6	1256.6	1276.9	1473.8	1737.7	2011.7	2115.3	2082.8
60°	24400.6	20281.7	9224.3	1908.2	1213.9	1280.9	1496.1	1776.3	2314.2	2557.8	2563.9
62.5°	24295.1	19948.8	8361.6	1674.8	1163.2	1305.3	1524.5	1999.6	2842.0	2844.0	2742.5
65°	23793.7	18946.0	7107.0	1463.6	1110.4	1311.4	1530.6	2367.0	3187.1	2919.1	2787.2
67.5°	22413.3	17478.3	5639.3	1266.7	1051.5	1274.8	1524.5	2316.2	2574.0	2304.1	2237.1
69°	21209.5	16205.5	4711.6	1149.0	1008.9	1238.3	1530.6	2220.8	2383.2	2222.9	2162.0
70°	20332.5	15174.3	4003.2	1077.9	970.3	1220.0	1530.6	2186.3	2356.8	2204.6	2145.7
72.5°	17451.9	11920.2	2399.5	899.3	858.7	1149.0	1516.4	2133.5	2377.1	2247.2	2170.1
75°	13369.6	8670.1	1396.6	738.9	722.7	1031.2	1441.3	2101.1	2446.2	2249.2	2080.8
77.5°	8566.6	4001.1	1041.4	600.9	586.7	893.2	1345.9	1995.5	2513.1	2358.9	2145.7
80°	2976.0	1814.8	777.5	475.0	454.7	730.8	1179.4	1798.6	2393.4	2409.6	2249.2
82.5°	1632.1	1195.7	550.1	353.2	335.0	458.8	917.6	1550.9	2214.7	2385.3	2397.4
85°	897.3	674.0	361.3	227.4	255.8	393.8	635.4	1205.8	1782.3	2072.6	2164.0
87.5°	363.4	243.6	142.1	89.3	105.6	156.3	215.2	617.1	1075.9	1388.5	1528.6
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)