

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: P232697

Luminaire Tested: **CTN-10-3-D-E1-T3**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P232697  
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-10-3-D-E1-T3  
Description: CELESTEON HIGH MAST LUMINAIRE  
(10) 70 CRI, 4000K LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 31691 lumens  
Efficiency: N/A  
Efficacy: 149.5 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type III - Medium - Semi-Cutoff  
BUG Rating: B3 - U0 - G4

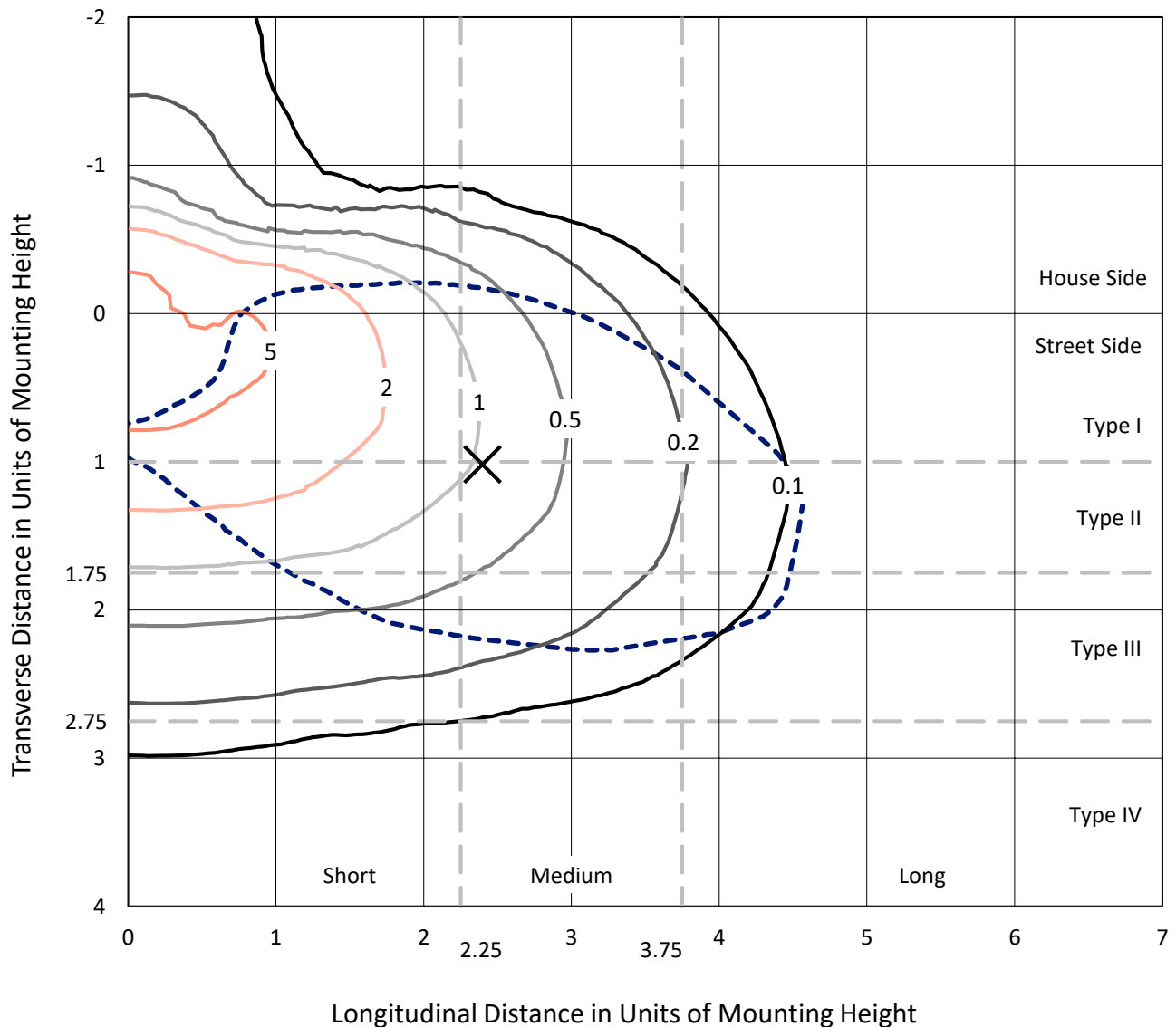
Input Watts (W): 212  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

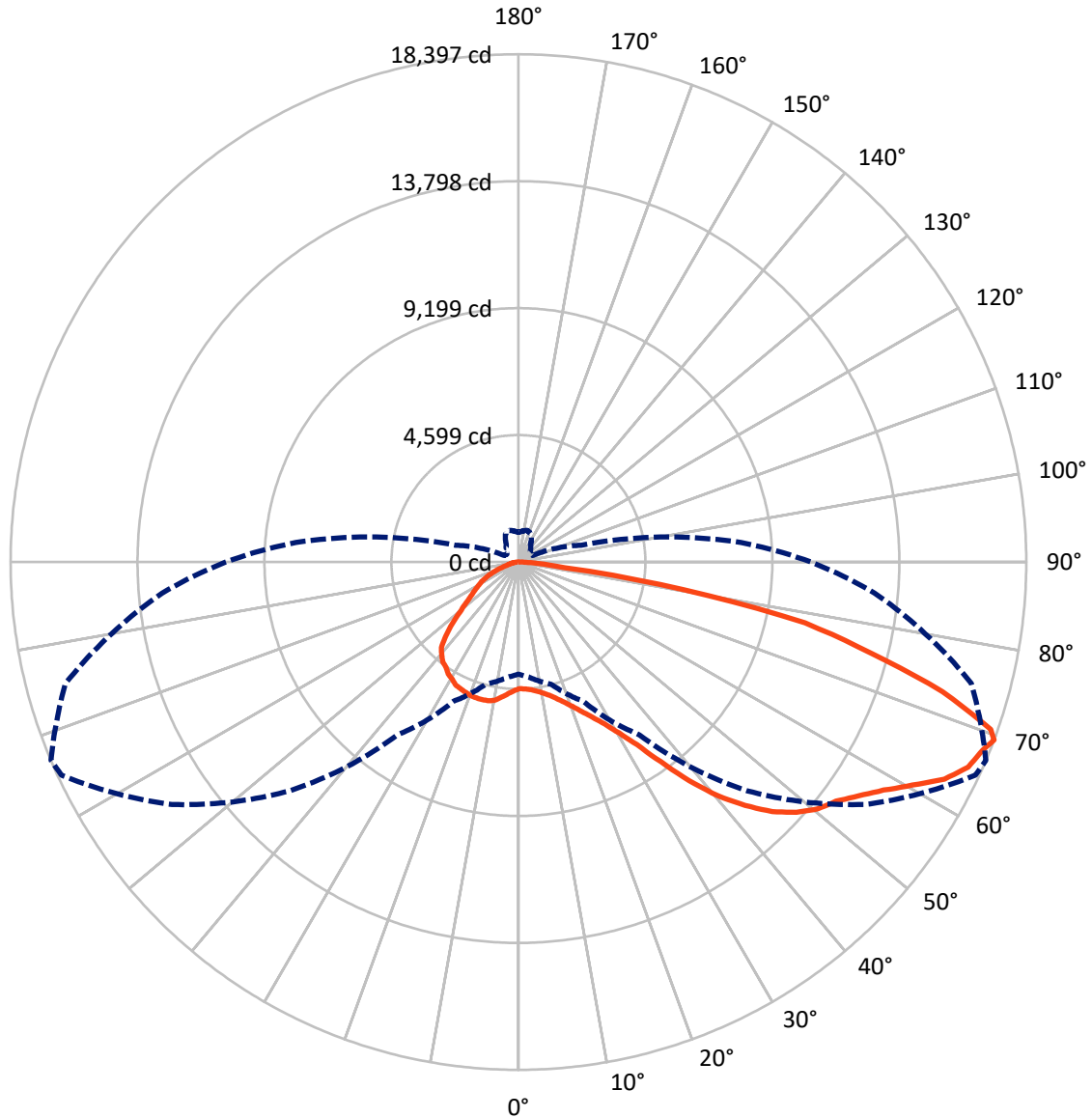
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6 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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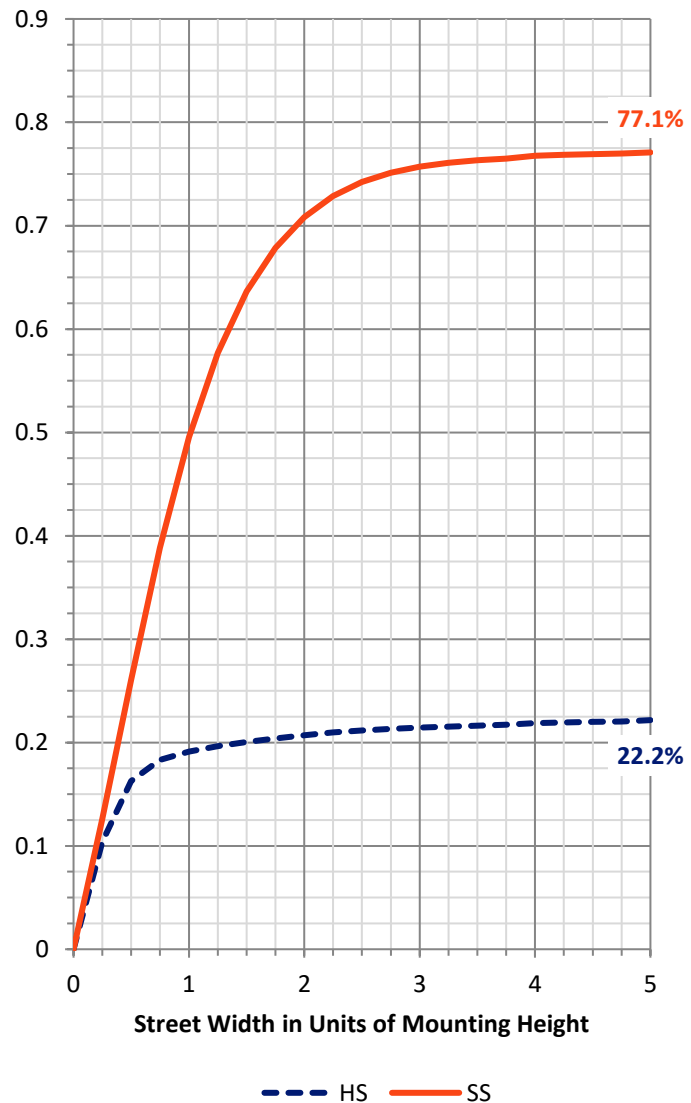
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7209.0	0.0	7209.0
	% Fixture	22.7	0.0	22.7
<b>Street Side</b>	Lumens	24482.0	0.0	24482.0
	% Fixture	77.3	0.0	77.3
<b>Total</b>	Lumens	31691.0	0.0	31691.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	465.5	1.5
10°-20°	1495.2	4.7
20°-30°	2600.2	8.2
30°-40°	3916.8	12.4
40°-50°	5409.5	17.1
50°-60°	6456.3	20.4
60°-70°	6799.7	21.5
70°-80°	3988.7	12.6
80°-90°	559.0	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°	31691.0	100.0
0°-180°	31691.0	100.0



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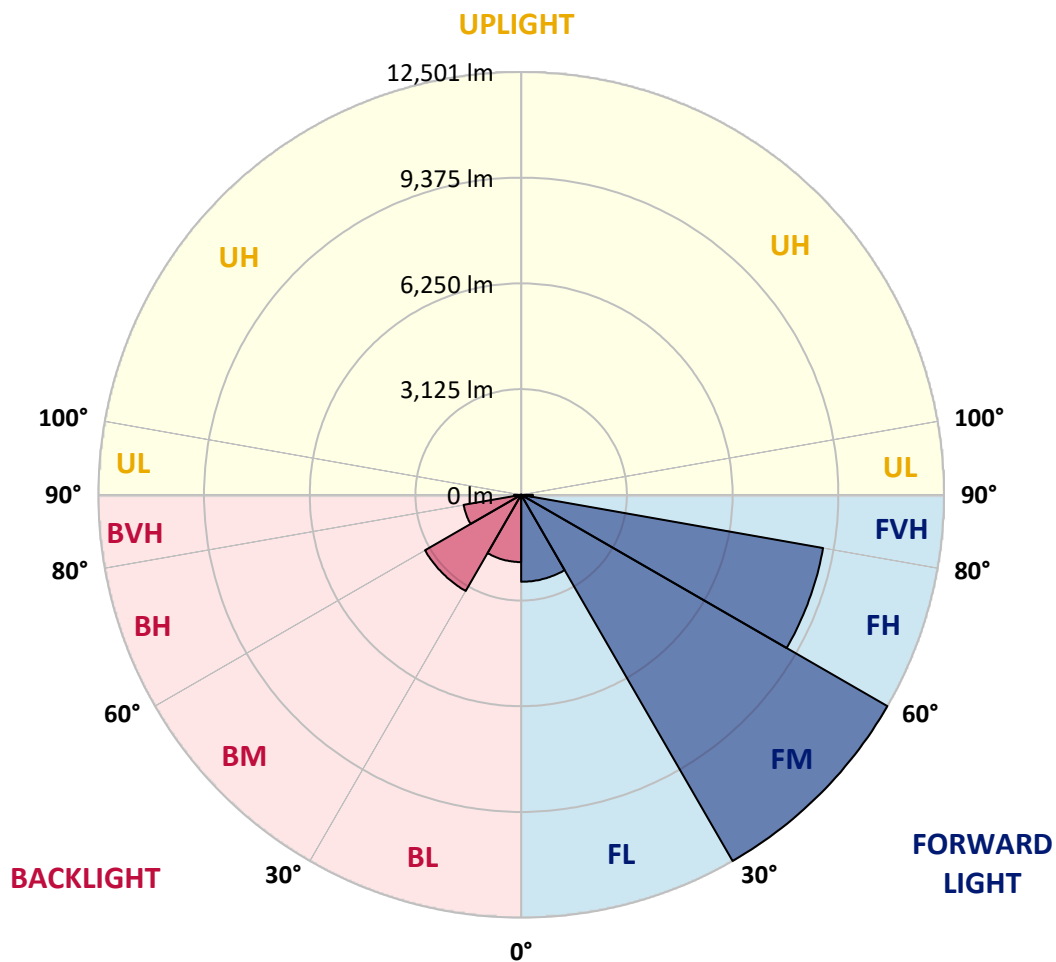
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2571.7	8.1			
FM	(30°-60°)	12500.6	39.4			
FH	(60°-80°)	9062.3	28.6			G4/12000
FVH	(80°-90°)	347.4	1.1			G3/500
BL	(0°-30°)	1989.2	6.3	B3/2500		
BM	(30°-60°)	3282.0	10.4	B3/5000		
BH	(60°-80°)	1726.1	5.4	B3/2500		G3/2500
BVH	(80°-90°)	211.6	0.7			G2/225
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°	67°	75°	85°
0°	4586.1	4586.1	4586.1	4586.1	4586.1	4586.1	4586.1	4586.1	4586.1	4586.1	4586.1
2.5°	4605.4	4611.5	4605.4	4595.3	4561.8	4577.0	4563.8	4606.4	4603.4	4587.2	4616.6
5°	4712.9	4720.0	4706.9	4698.7	4647.0	4654.1	4625.7	4649.0	4640.9	4613.5	4659.2
7.5°	4888.4	4895.5	4879.3	4868.1	4795.1	4778.9	4727.1	4734.2	4719.0	4675.4	4728.2
10°	5124.8	5130.9	5103.5	5076.1	4982.8	4943.2	4857.0	4842.8	4820.5	4777.9	4831.6
12.5°	5379.4	5388.5	5355.1	5319.6	5211.0	5146.1	5023.4	4979.7	4952.3	4900.6	4959.4
15°	5652.3	5663.4	5629.0	5588.4	5468.7	5368.3	5215.1	5149.1	5122.8	5057.8	5094.4
17.5°	6010.4	6007.3	5978.9	5923.1	5780.1	5633.0	5444.3	5345.9	5327.7	5264.8	5273.9
20°	6425.3	6411.1	6384.7	6307.6	6152.4	5969.8	5723.3	5598.5	5580.3	5527.5	5471.7
22.5°	6875.7	6861.5	6836.1	6737.7	6584.5	6345.1	6049.9	5902.8	5878.5	5812.6	5719.2
25°	7319.0	7303.7	7289.5	7196.2	7047.1	6775.2	6420.2	6232.5	6221.4	6154.4	5983.0
27.5°	7779.5	7770.4	7774.4	7694.3	7545.2	7263.2	6860.4	6656.6	6637.3	6552.1	6318.8
30°	8253.2	8255.3	8293.8	8208.6	8071.7	7787.6	7387.9	7180.0	7183.0	7106.9	6766.1
32.5°	8677.3	8679.3	8765.5	8722.9	8647.8	8364.8	7997.6	7851.5	7880.9	7874.9	7525.9
35°	8983.6	8996.8	9189.5	9247.4	9218.9	8972.4	8751.3	8786.8	8880.1	9143.9	8777.7
37.5°	9271.7	9276.8	9523.3	9657.2	9762.7	9614.6	9569.9	9906.7	10053.8	10419.0	9877.3
40°	9354.9	9424.9	9736.3	9922.9	10168.4	10241.5	10467.7	10965.8	11139.2	11359.3	10617.8
42.5°	9278.8	9378.2	9768.8	10212.1	10552.9	10915.0	11329.9	11893.9	12051.2	12187.1	11326.9
45°	9119.5	9195.6	9601.4	10264.8	10882.6	11600.8	12079.6	12755.2	12897.2	12808.9	11880.8
47.5°	8907.5	8965.3	9417.8	10180.6	11146.3	12215.5	12766.3	13446.0	13549.5	13343.5	12257.1
50°	8613.3	8682.3	9187.5	10065.0	11340.1	12729.8	13318.2	13965.4	14052.6	13676.3	12626.3
52.5°	8250.2	8336.4	8923.8	9868.2	11485.1	13113.3	13703.6	14311.3	14399.5	14155.1	12918.5
55°	7838.3	7958.0	8562.6	9628.8	11495.3	13317.2	13944.1	14818.5	14944.3	14680.5	13174.1
57.5°	7420.4	7497.5	8137.6	9262.6	11304.6	13385.1	14232.2	15408.9	15592.5	15189.8	13453.1
60°	6910.2	6984.2	7618.2	8772.6	10924.2	13489.6	14808.3	16253.9	16399.9	15783.2	13690.5
62.5°	6306.6	6390.8	6965.9	8102.1	10361.2	13532.2	15395.7	17152.6	17320.0	16322.9	13827.4
65°	5539.7	5633.0	6157.5	7290.6	9556.7	13229.9	15649.3	17817.1	17903.3	16736.7	13768.6
67.5°	4701.8	4778.9	5196.8	6281.2	8443.9	12441.7	15516.4	18062.6	18149.8	17017.7	13416.6
69°	4060.7	4179.4	4581.1	5562.0	7643.6	11720.5	15313.5	18264.4	18397.3	16986.3	12954.0
70°	3547.4	3680.3	4043.4	4928.0	6963.9	10971.8	14936.2	18111.3	18148.8	16683.0	12537.1
72.5°	2241.8	2285.5	2450.8	3039.2	4899.6	8529.1	13070.7	16078.4	16068.2	14884.4	10944.5
75°	1107.7	1164.5	1478.0	1706.2	2414.3	5485.9	10288.1	13205.6	13207.6	12562.4	8997.8
77.5°	665.5	689.8	769.9	1099.6	1379.6	2462.0	6983.2	10454.5	10614.8	10224.2	6475.0
80°	458.5	446.3	469.7	540.7	742.5	1294.4	2870.8	5909.9	6083.4	5610.7	2758.2
82.5°	361.1	351.0	358.1	376.3	354.0	599.5	1214.2	1767.1	1715.4	1512.5	1060.1
85°	252.6	232.3	245.5	238.4	211.0	352.0	590.4	734.4	729.4	753.7	577.2
87.5°	80.1	71.0	73.0	71.0	58.8	124.8	212.0	286.1	263.7	267.8	202.9
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°	4586.1	4586.1	4586.1	4586.1	4586.1	4586.1	4586.1	4586.1	4586.1	4586.1	4586.1
2.5°	4623.7	4615.6	4624.7	4672.4	4661.2	4702.8	4712.9	4780.9	4784.0	4777.9	4808.3
5°	4680.5	4688.6	4723.1	4799.2	4824.5	4913.8	4954.4	5037.6	5045.7	5048.7	5078.1
7.5°	4762.6	4776.9	4850.9	4950.3	4998.0	5114.6	5175.5	5278.0	5285.1	5296.2	5329.7
10°	4884.4	4904.7	4963.5	5099.4	5114.6	5207.0	5262.8	5351.0	5344.9	5360.1	5390.6
12.5°	5007.1	5018.3	5062.9	5156.2	5146.1	5236.4	5260.7	5318.5	5314.5	5313.5	5335.8
15°	5139.0	5119.7	5125.8	5161.3	5123.8	5179.6	5162.3	5204.9	5149.1	5126.8	5142.0
17.5°	5279.0	5232.3	5172.5	5146.1	5075.1	5066.0	5007.1	4986.8	4948.3	4936.1	4948.3
20°	5445.3	5345.9	5200.9	5124.8	4969.6	4889.5	4776.9	4710.9	4621.6	4628.7	4646.0
22.5°	5614.8	5474.8	5255.7	5051.8	4832.6	4670.3	4446.2	4386.3	4269.6	4235.2	4269.6
25°	5822.7	5635.0	5283.0	4986.8	4625.7	4336.6	4109.4	3897.4	3809.1	3722.9	3755.3
27.5°	6095.6	5842.0	5382.5	4906.7	4391.4	4005.9	3644.8	3370.9	3261.3	3169.0	3175.1
30°	6449.6	6118.9	5420.0	4738.3	4109.4	3552.5	3098.0	2793.7	2656.7	2619.2	2603.0
32.5°	7103.9	6565.3	5486.9	4615.6	3758.4	3059.5	2501.5	2174.9	2088.7	2104.9	2157.6
35°	8263.4	7499.5	5689.8	4358.9	3370.9	2521.8	1943.6	1691.0	1705.2	1734.6	1728.6
37.5°	9263.6	8342.5	6027.6	4178.3	2897.2	1910.1	1467.8	1333.9	1419.2	1477.0	1475.0
40°	9943.2	8957.2	6469.9	3840.6	2298.7	1361.3	1080.3	1006.3	1114.8	1238.6	1259.9
42.5°	10617.8	9516.2	6683.9	3541.3	1613.9	960.6	782.1	801.4	940.4	1057.0	1078.3
45°	11102.7	9921.9	6778.3	3007.7	1030.6	735.4	682.7	753.7	903.8	996.1	1006.3
47.5°	11458.8	10227.3	6675.8	2433.6	758.8	672.6	673.6	763.8	915.0	1019.5	1023.5
50°	11773.2	10442.3	6263.0	1898.0	682.7	651.3	686.8	793.3	947.5	1053.0	1049.9
52.5°	11988.3	10505.2	5761.8	1555.1	661.4	639.1	697.9	820.7	957.6	1028.6	1022.5
55°	12131.3	10410.9	5376.4	1280.2	643.1	638.1	716.2	855.1	967.7	996.1	981.9
57.5°	12219.6	10220.2	5050.7	1100.6	627.9	638.1	736.5	868.3	1005.3	1057.0	1040.8
60°	12193.2	10135.0	4609.5	953.5	606.6	640.1	747.6	887.6	1156.4	1278.2	1281.2
62.5°	12140.4	9968.6	4178.3	836.9	581.3	652.3	761.8	999.2	1420.2	1421.2	1370.5
65°	11889.9	9467.5	3551.4	731.4	554.9	655.3	764.9	1182.8	1592.6	1458.7	1392.8
67.5°	11200.1	8734.1	2818.0	633.0	525.5	637.0	761.8	1157.4	1286.3	1151.4	1117.9
69°	10598.5	8098.0	2354.4	574.2	504.2	618.8	764.9	1109.8	1190.9	1110.8	1080.3
70°	10160.3	7582.7	2000.4	538.7	484.9	609.7	764.9	1092.5	1177.7	1101.6	1072.2
72.5°	8720.9	5956.6	1199.0	449.4	429.1	574.2	757.8	1066.1	1187.9	1123.0	1084.4
75°	6680.9	4332.5	697.9	369.2	361.1	515.3	720.2	1049.9	1222.4	1124.0	1039.8
77.5°	4280.8	1999.4	520.4	300.3	293.2	446.3	672.6	997.2	1255.8	1178.7	1072.2
80°	1487.1	906.9	388.5	237.4	227.2	365.2	589.4	898.8	1196.0	1204.1	1124.0
82.5°	815.6	597.5	274.9	176.5	167.4	229.3	458.5	775.0	1106.7	1191.9	1198.0
85°	448.4	336.8	180.6	113.6	127.8	196.8	317.5	602.6	890.7	1035.7	1081.4
87.5°	181.6	121.7	71.0	44.6	52.7	78.1	107.5	308.4	537.6	693.9	763.8
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)