

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: P237568

Luminaire Tested: **CTN-10-3-D-E1-T2-7050-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P237568  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-25)  
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-T2-7050-HSS  
Description: CELESTEON HIGH MAST LUMINAIRE  
(10) 70 CRI, 5000K LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 29007 lumens  
Efficiency: N/A  
Efficacy: 136.8 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type II - Short - Non-Cutoff  
BUG Rating: B3 - U0 - G4

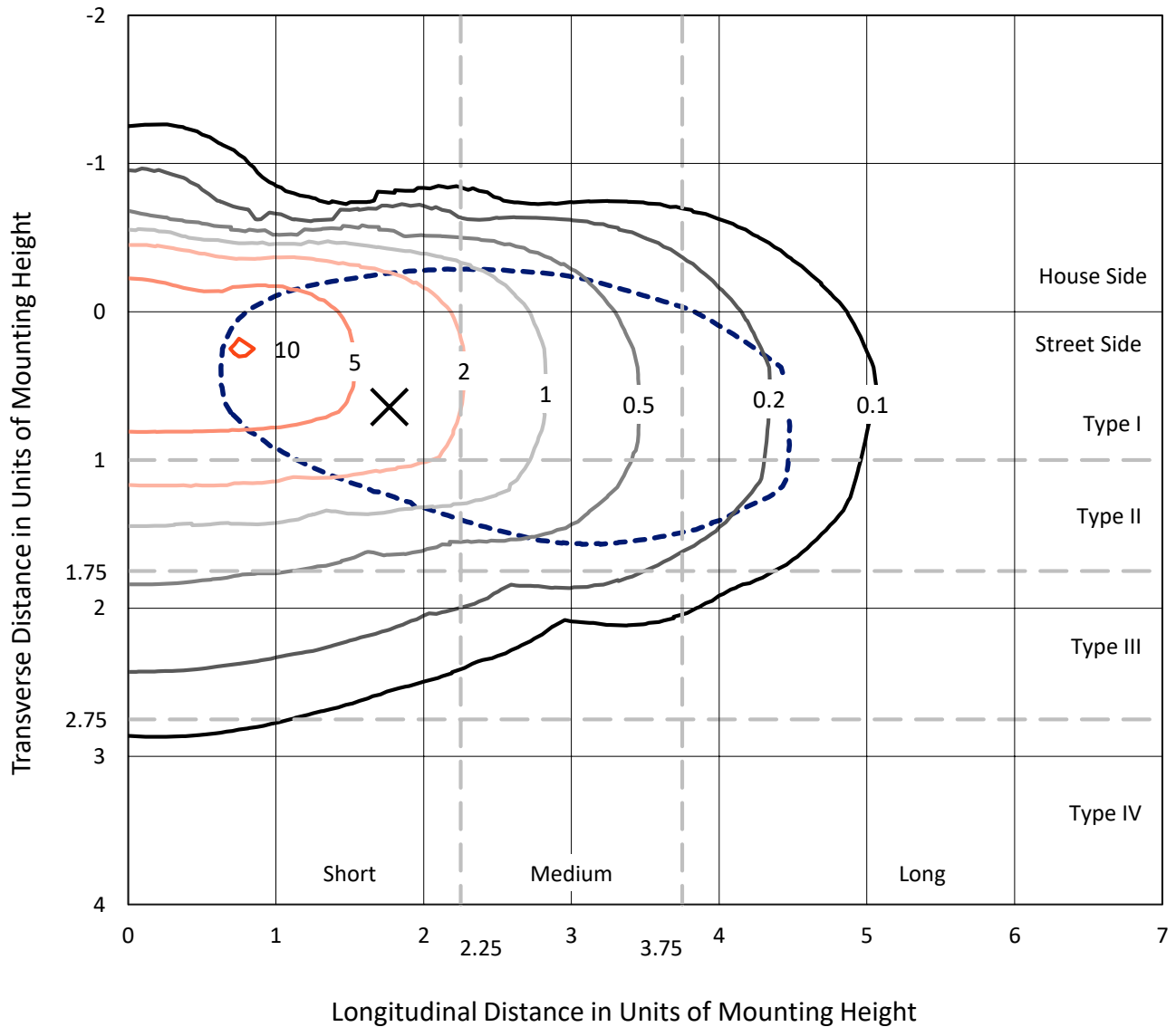
Input Watts (W): 212  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

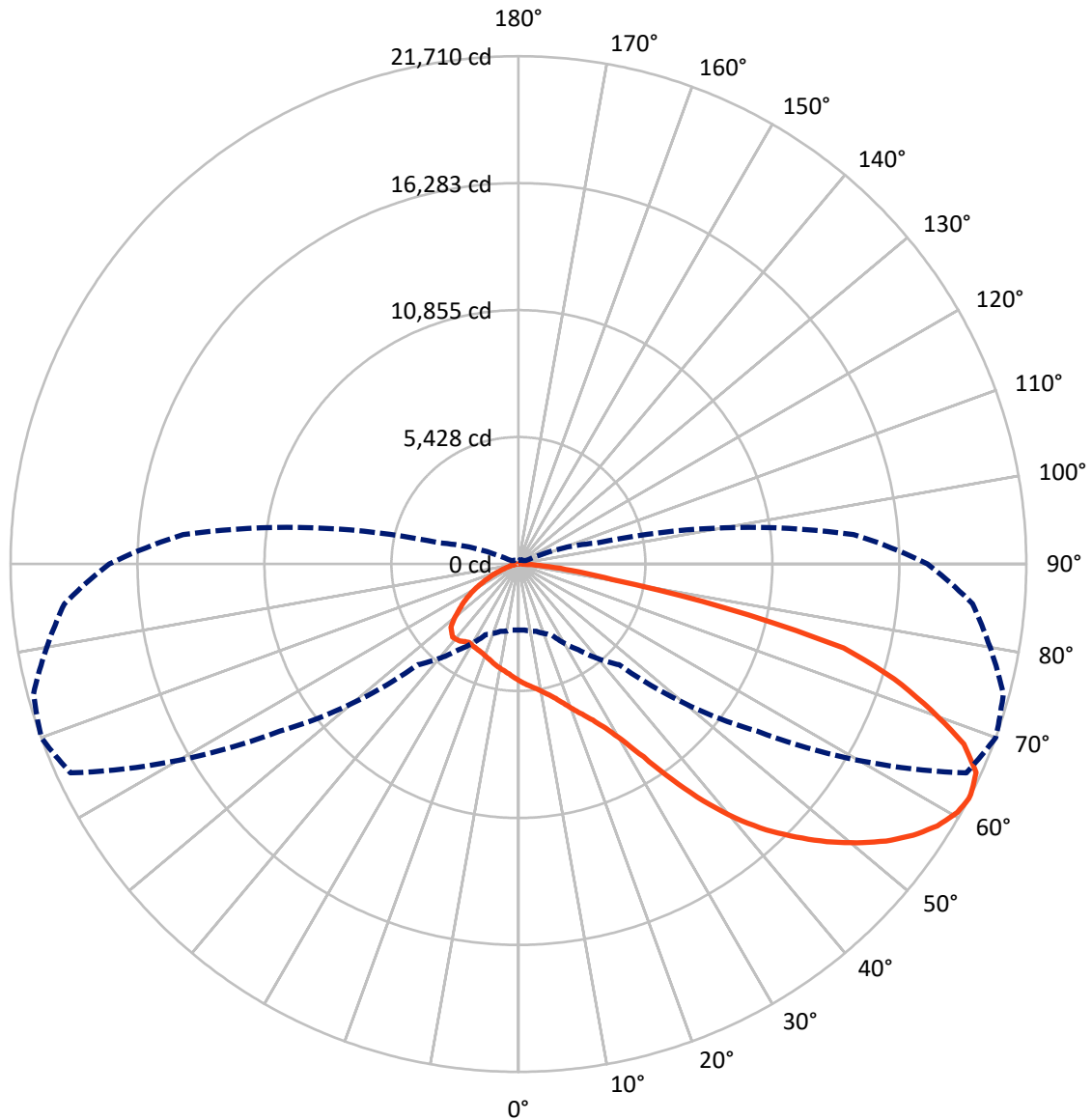
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.3 fc  
 Type II - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral    - - - Horizontal Cone Through 62-Deg Vertical

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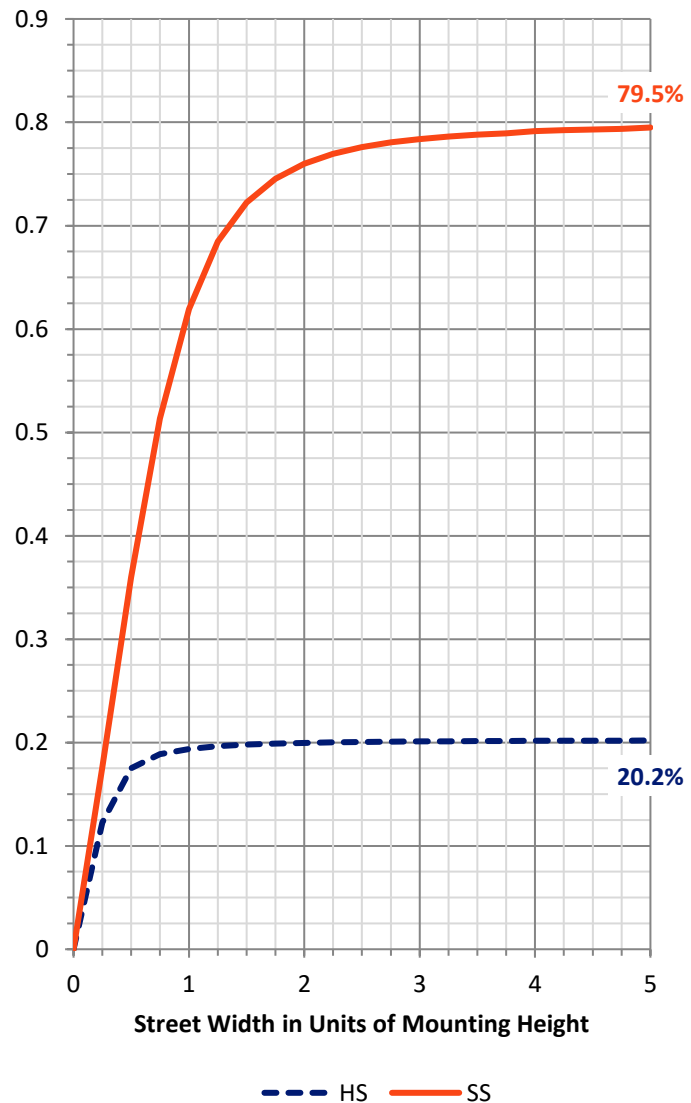
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5933.6	0.0	5933.6
	% Fixture	20.5	0.0	20.5
<b>Street Side</b>	Lumens	23073.4	0.0	23073.4
	% Fixture	79.5	0.0	79.5
<b>Total</b>	Lumens	29007.0	0.0	29007.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	475.3	1.6
10°-20°	1446.2	5.0
20°-30°	2434.9	8.4
30°-40°	3676.6	12.7
40°-50°	5155.7	17.8
50°-60°	6025.8	20.8
60°-70°	5846.2	20.2
70°-80°	3417.6	11.8
80°-90°	528.7	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°	29007.0	100.0
0°-180°	29007.0	100.0



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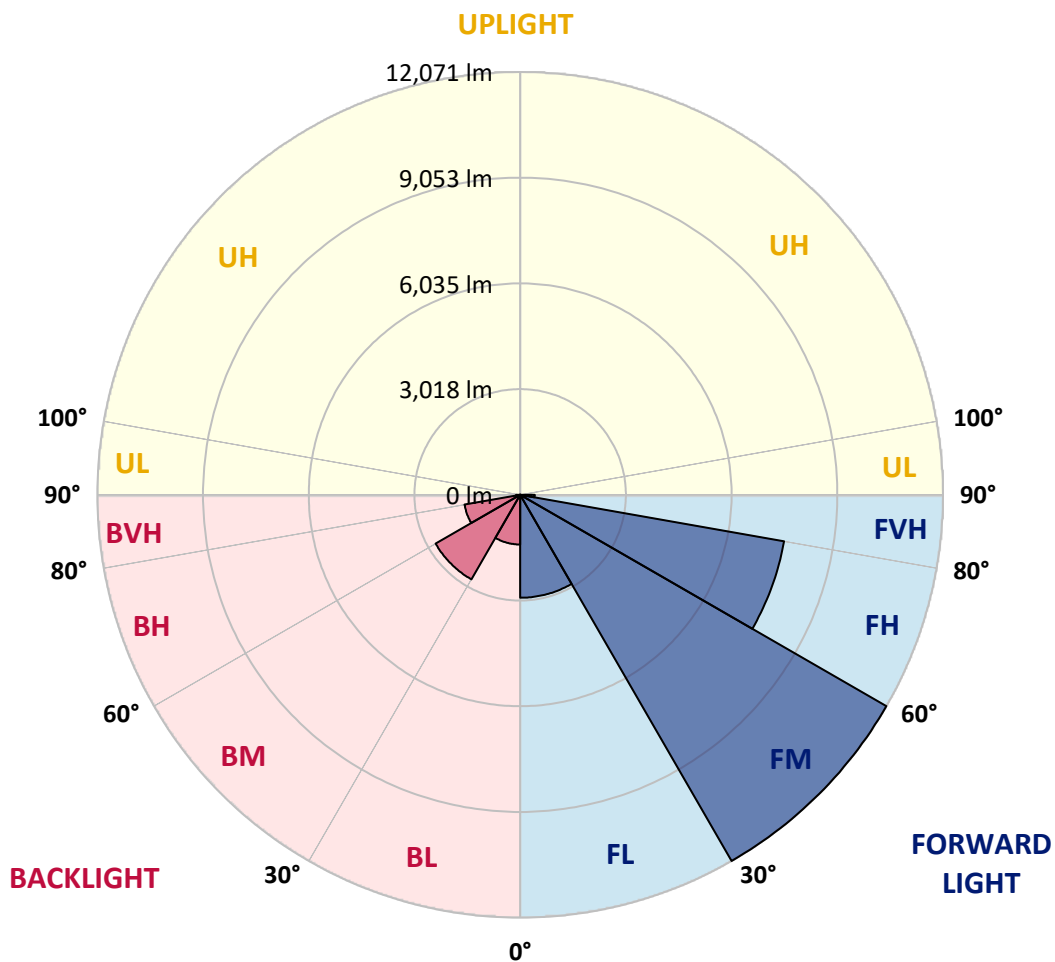
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2937.8	10.1			
FM	(30°-60°)	12070.9	41.6			
FH	(60°-80°)	7650.4	26.4			G4/12000
FVH	(80°-90°)	414.3	1.4			G3/500
BL	(0°-30°)	1418.7	4.9	B3/2500		
BM	(30°-60°)	2787.2	9.6	B3/5000		
BH	(60°-80°)	1613.4	5.6	B3/2500		G3/2500
BVH	(80°-90°)	114.4	0.4			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 II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	4990.3	4990.3	4990.3	4990.3	4990.3	4990.3	4990.3	4990.3	4990.3	4990.3	4990.3
2.5°	5415.6	5379.7	5364.3	5386.9	5236.2	5239.3	5166.6	5155.3	5120.5	5071.3	5017.0
5°	5725.0	5683.0	5661.5	5674.8	5516.0	5488.3	5369.5	5311.0	5242.4	5180.9	5063.1
7.5°	6022.2	5979.2	5962.8	5955.6	5764.0	5722.0	5570.3	5466.8	5373.6	5294.7	5134.8
10°	6321.4	6277.3	6243.5	6252.8	6051.9	5977.1	5801.9	5659.4	5539.6	5437.1	5216.8
12.5°	6618.6	6565.3	6528.4	6528.4	6330.6	6257.9	6061.1	5878.7	5726.1	5596.9	5320.3
15°	6922.9	6853.2	6845.0	6845.0	6635.0	6546.8	6353.2	6151.3	5963.8	5797.8	5445.3
17.5°	7237.5	7149.4	7147.3	7160.6	6968.0	6868.6	6686.2	6497.7	6258.9	6048.8	5598.0
20°	7444.5	7365.6	7347.1	7387.1	7235.4	7170.9	6975.2	6843.0	6613.4	6363.4	5794.7
22.5°	7602.3	7554.1	7571.5	7637.1	7563.4	7508.0	7302.1	7183.2	6976.2	6720.0	6060.1
25°	7761.1	7729.4	7769.3	7885.1	7891.3	7906.6	7734.5	7582.8	7390.2	7161.7	6405.4
27.5°	7711.9	7702.7	7823.6	8062.4	8193.5	8263.2	8166.9	8113.6	7937.4	7696.6	6839.9
30°	7747.8	7725.3	7870.8	8173.1	8465.1	8667.0	8667.0	8787.9	8711.0	8469.2	7502.9
32.5°	7641.2	7599.2	7766.2	8199.7	8701.8	9094.3	9268.5	9696.8	9831.0	9743.9	8817.6
35°	7150.4	7182.2	7509.0	8093.1	8864.7	9512.3	9973.5	10891.6	11304.6	11402.9	10331.1
37.5°	6844.0	6857.3	7190.4	7918.9	8922.1	9923.2	10745.1	12270.8	12856.0	12916.4	11659.1
40°	6421.8	6472.0	6845.0	7685.3	8889.3	10270.6	11576.1	13630.6	14281.3	14231.1	12821.1
42.5°	6088.8	6103.1	6429.0	7314.3	8745.9	10547.3	12414.3	14865.4	15546.8	15406.4	13969.8
45°	5673.8	5700.4	6008.9	6853.2	8490.7	10687.7	13137.7	16023.3	16647.4	16472.1	14964.8
47.5°	5171.7	5288.5	5611.3	6356.2	8058.3	10673.3	13750.5	17025.5	17737.7	17468.2	15895.2
50°	4165.4	4307.9	4953.4	5908.5	7491.6	10472.5	14238.3	18129.1	18738.8	18467.2	16744.7
52.5°	3638.7	3666.4	3995.3	5405.3	6827.6	10023.7	14570.3	19041.1	19676.4	19390.5	17561.4
55°	3401.0	3429.7	3595.7	4590.7	6217.9	9228.5	14692.2	19911.1	20474.6	20146.7	18234.6
57.5°	3193.0	3202.2	3397.9	3882.6	5636.9	8181.2	14435.0	20636.5	21119.2	20673.4	18701.9
60°	2955.3	2992.1	3184.8	3544.5	4982.1	6964.9	13553.8	21100.7	21556.7	21160.2	19186.6
62°	2822.0	2831.3	2981.9	3334.4	4474.9	6085.7	12456.3	21127.4	21710.4	21459.4	19484.8
62.5°	2783.1	2789.2	2931.7	3281.1	4370.4	5911.5	12157.1	21105.9	21701.2	21511.6	19550.4
65°	2559.7	2574.1	2702.1	3029.0	3912.3	5232.1	10755.3	20754.4	21503.4	21423.5	19544.2
67.5°	2288.2	2292.3	2428.6	2722.6	3439.9	4593.8	9033.8	20082.2	20535.1	20431.6	18688.6
70°	1871.1	1945.9	2094.5	2353.7	2845.6	3810.9	6871.7	17988.7	18731.6	18834.1	17155.6
72.5°	1422.3	1417.2	1469.4	1649.8	2073.0	2927.6	4638.8	15072.4	16793.9	17348.3	15463.8
75°	878.2	912.0	1131.3	1275.8	1485.8	2064.8	2908.1	10492.0	14360.2	15318.3	13668.5
77.5°	682.5	688.6	802.3	1052.4	1217.4	1463.3	1813.7	5716.8	9002.0	11384.5	10645.7
80°	519.5	530.8	605.6	659.9	856.7	891.5	1210.2	2957.3	4099.8	5742.4	7151.4
82.5°	313.6	331.0	400.7	432.4	472.4	446.8	650.7	1595.5	2272.8	2938.9	3641.8
85°	157.8	189.6	266.4	252.1	214.2	197.8	278.7	771.6	1086.2	1437.7	1671.3
87.5°	40.0	48.2	62.5	74.8	63.5	52.3	75.8	209.0	215.2	206.0	576.9
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°	4990.3	4990.3	4990.3	4990.3	4990.3	4990.3	4990.3	4990.3	4990.3	4990.3	4990.3
2.5°	4998.5	4956.5	4879.6	4835.6	4725.9	4683.9	4605.0	4633.7	4616.3	4598.9	4599.9
5°	5006.7	4930.9	4784.3	4678.8	4520.0	4439.0	4335.5	4319.1	4274.0	4246.4	4249.5
7.5°	5024.1	4915.5	4708.5	4540.5	4317.1	4190.0	4051.7	4028.1	3960.5	3929.7	3933.8
10°	5068.2	4940.1	4659.3	4412.4	4160.3	3984.1	3822.2	3769.9	3705.3	3670.5	3668.4
12.5°	5135.8	4977.0	4589.7	4315.0	4008.6	3780.1	3593.6	3509.6	3417.4	3386.7	3389.7
15°	5243.4	5024.1	4531.2	4180.8	3825.2	3587.5	3356.9	3255.5	3158.1	3122.3	3119.2
17.5°	5374.6	5067.2	4490.3	4023.0	3666.4	3381.5	3178.6	3040.3	2876.3	2852.8	2827.2
20°	5504.7	5153.2	4453.4	3908.2	3477.9	3174.5	2909.1	2767.7	2533.1	2444.9	2413.2
22.5°	5694.3	5289.5	4448.2	3771.9	3288.3	2948.1	2590.5	2361.9	2103.7	1954.1	1921.3
25°	5947.4	5439.1	4461.6	3668.4	3076.2	2660.1	2177.5	1847.5	1601.6	1432.5	1397.7
27.5°	6276.3	5643.1	4501.5	3554.7	2883.5	2314.8	1714.3	1375.2	1167.1	1025.7	992.9
30°	6761.0	5985.3	4564.0	3449.2	2602.8	1865.0	1260.4	990.9	829.0	741.9	740.9
32.5°	7892.3	6749.7	4599.9	3318.0	2341.5	1410.0	906.9	717.3	588.2	555.4	583.1
35°	9189.6	7832.8	4876.6	3176.6	1932.6	1037.0	647.6	510.3	457.0	465.2	480.6
37.5°	10386.4	8873.9	5298.8	2947.1	1547.3	730.6	465.2	405.8	394.5	424.2	451.9
40°	11446.0	9773.6	5660.5	2695.0	1094.4	510.3	373.0	375.0	363.8	377.1	386.3
42.5°	12485.0	10607.8	6042.7	2355.8	729.6	377.1	337.1	355.6	342.3	344.3	331.0
45°	13517.9	11488.0	6207.7	1936.7	488.8	326.9	315.6	337.1	336.1	327.9	308.4
47.5°	14409.4	12094.6	6416.7	1461.2	363.8	297.2	300.2	315.6	325.9	311.5	302.3
50°	15175.9	12738.1	6255.8	967.3	324.8	277.7	289.0	289.0	305.4	280.8	269.5
52.5°	15908.6	13378.6	5842.9	637.4	298.2	264.4	275.6	268.5	275.6	251.1	248.0
55°	16348.2	13709.5	5343.8	497.0	281.8	253.1	258.2	256.2	250.0	224.4	229.5
57.5°	16831.8	14090.7	4722.9	417.1	274.6	239.8	240.8	237.7	219.3	201.9	202.9
60°	17218.1	14375.6	4058.9	367.9	266.4	232.6	218.3	213.1	187.5	177.3	178.3
62°	17488.6	14388.9	3479.9	342.3	256.2	227.5	204.9	193.7	165.0	156.8	155.8
62.5°	17518.4	14338.7	3338.5	336.1	252.1	225.4	203.9	187.5	158.8	152.7	150.6
65°	17407.7	13780.2	2663.2	302.3	234.7	213.1	189.6	162.9	136.3	128.1	125.0
67.5°	16583.8	12780.1	2034.0	274.6	213.1	204.9	175.2	143.5	120.9	110.7	108.6
70°	14977.1	11426.5	1452.0	239.8	191.6	186.5	176.2	131.2	111.7	97.3	95.3
72.5°	13192.1	9985.8	987.8	213.1	170.1	153.7	130.1	124.0	104.5	86.1	84.0
75°	11226.7	7952.7	702.9	183.4	146.5	130.1	109.6	114.8	98.4	76.9	74.8
77.5°	8613.7	5849.0	521.6	150.6	113.7	105.5	92.2	101.4	89.1	69.7	68.7
80°	5881.8	4039.4	370.9	113.7	74.8	74.8	77.9	87.1	78.9	62.5	61.5
82.5°	3306.7	2126.3	219.3	82.0	51.2	51.2	60.5	70.7	65.6	54.3	53.3
85°	1370.0	769.6	115.8	51.2	33.8	34.8	43.0	52.3	51.2	43.0	42.0
87.5°	476.5	193.7	33.8	17.4	14.3	15.4	17.4	24.6	24.6	21.5	22.5
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)