

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: STREETWORKS

Report Number: P237570

Luminaire Tested: **CST-10-4-D-U-T2-7050-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P237570  
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: STREETWORKS  
Catalog Number: CST-10-4-D-U-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: 39443 lumens  
Efficiency: N/A  
Efficacy: 128.1 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): 308  
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: 28.75 FT

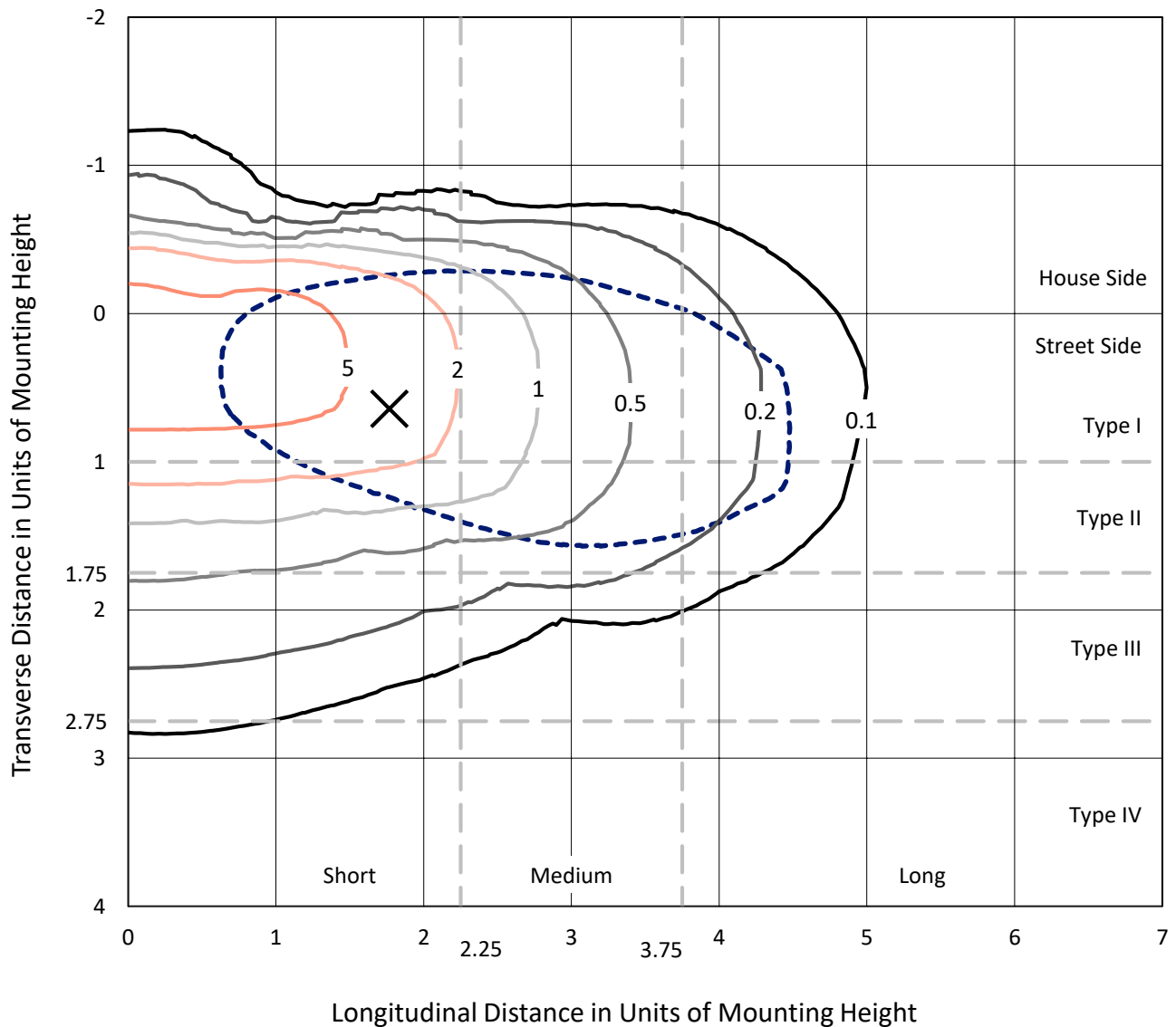


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

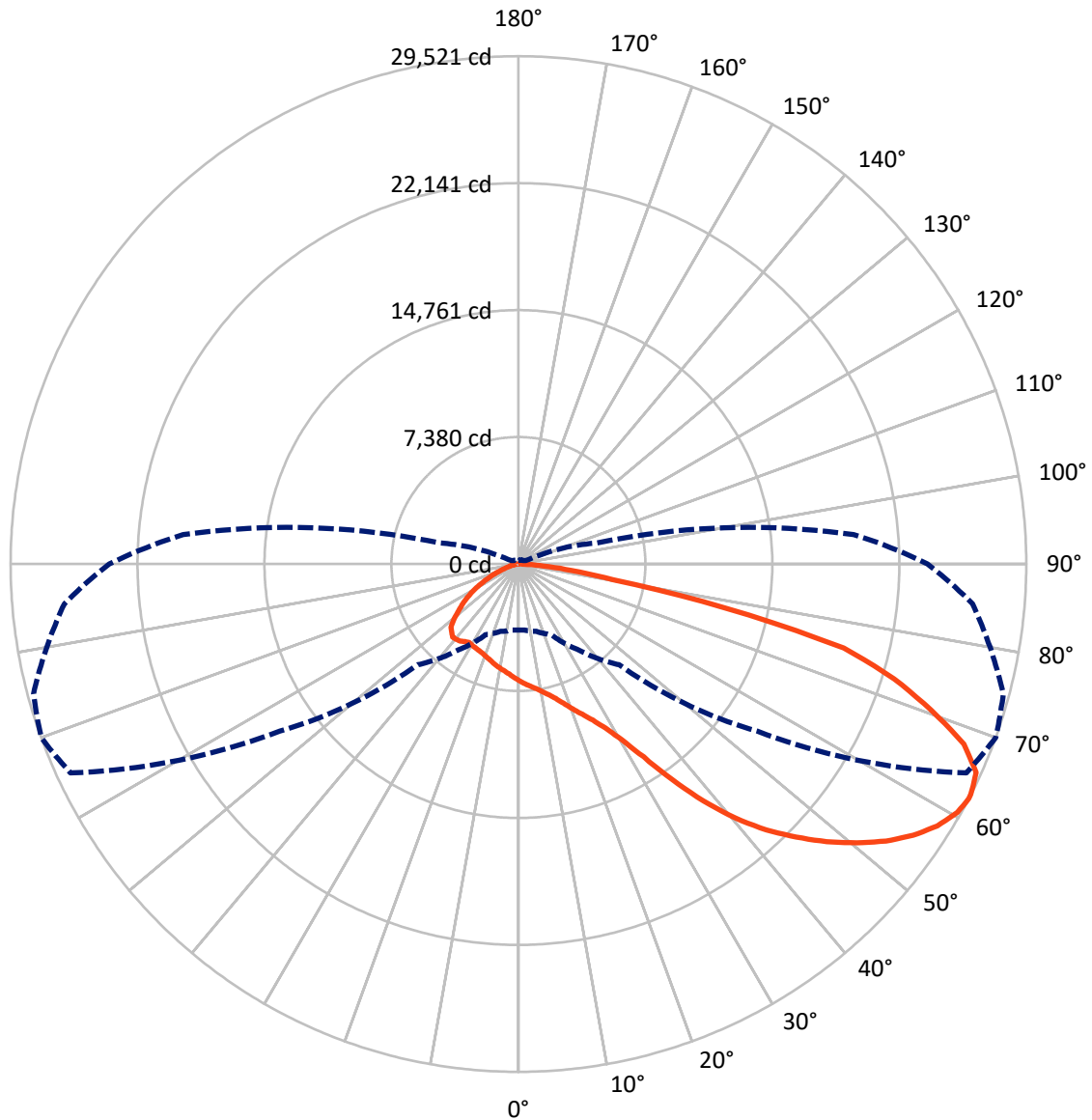


Based on 30 foot mounting height. Maximum calculated value = 9.7 fc  
 Type II - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



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

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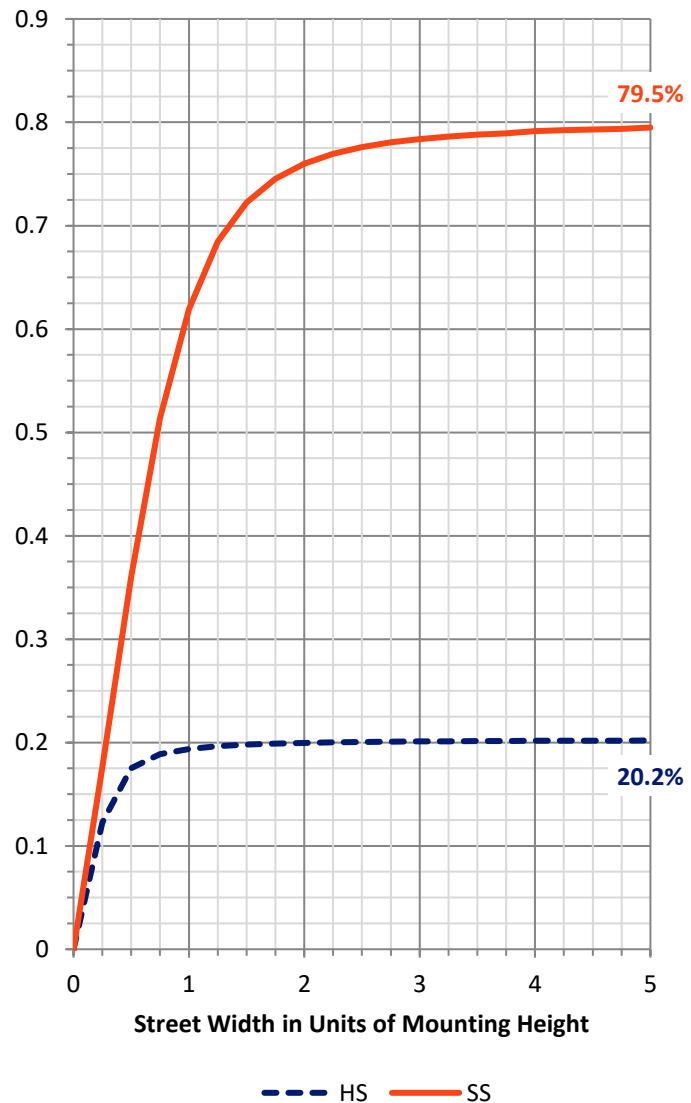
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	8068.4	0.0	8068.4
	% Fixture	20.5	0.0	20.5
<b>Street Side</b>	Lumens	31374.6	0.0	31374.6
	% Fixture	79.5	0.0	79.5
<b>Total</b>	Lumens	39443.0	0.0	39443.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	646.4	1.6
10°-20°	1966.5	5.0
20°-30°	3310.9	8.4
30°-40°	4999.3	12.7
40°-50°	7010.6	17.8
50°-60°	8193.7	20.8
60°-70°	7949.5	20.2
70°-80°	4647.2	11.8
80°-90°	718.9	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°	39443.0	100.0
0°-180°	39443.0	100.0



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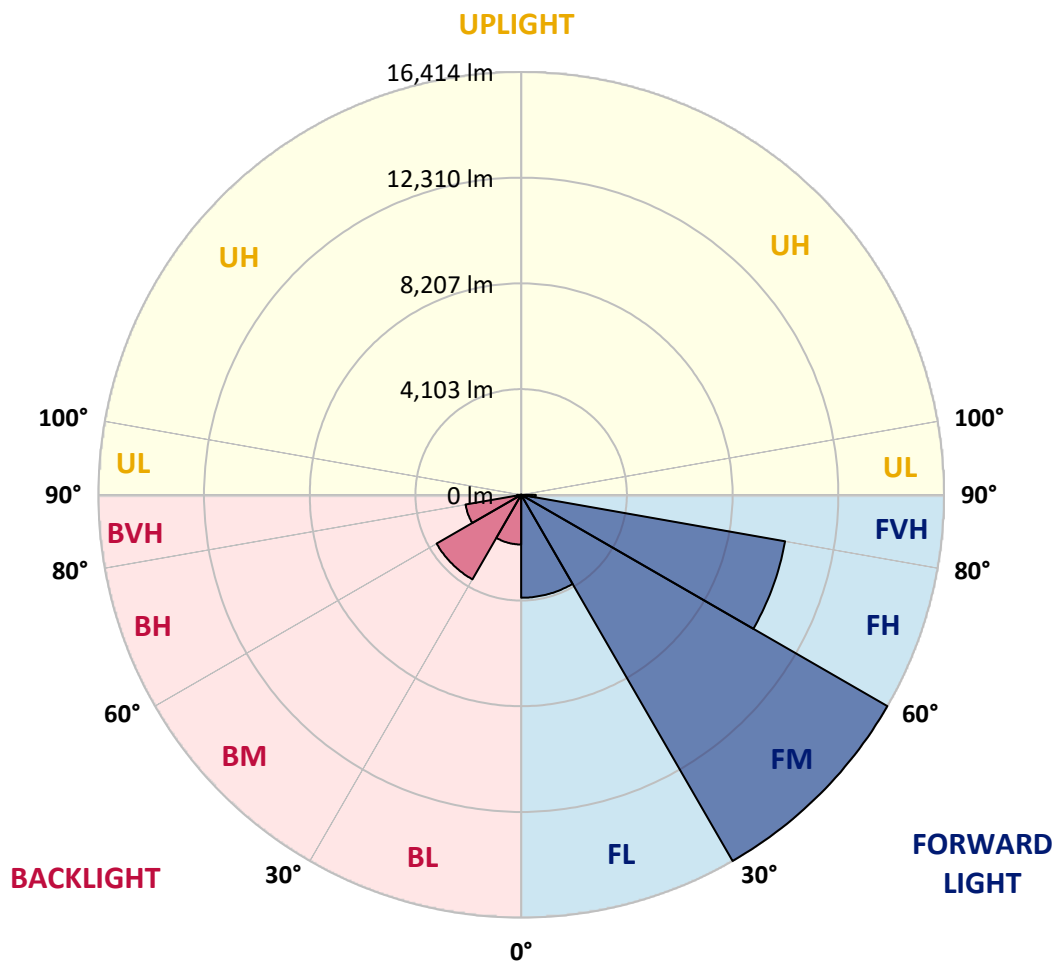
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3994.7	10.1			
FM	(30°-60°)	16413.7	41.6			
FH	(60°-80°)	10402.8	26.4			G4/12000
FVH	(80°-90°)	563.3	1.4			G4/750
BL	(0°-30°)	1929.1	4.9	B3/2500		
BM	(30°-60°)	3790.0	9.6	B3/5000		
BH	(60°-80°)	2193.8	5.6	B3/2500		G3/2500
BVH	(80°-90°)	155.5	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°	6785.7	6785.7	6785.7	6785.7	6785.7	6785.7	6785.7	6785.7	6785.7	6785.7	6785.7
2.5°	7364.0	7315.2	7294.3	7324.9	7120.1	7124.3	7025.4	7010.0	6962.7	6895.8	6821.9
5°	7784.8	7727.6	7698.4	7716.5	7500.5	7462.9	7301.3	7221.8	7128.5	7044.9	6884.6
7.5°	8188.8	8130.3	8108.0	8098.3	7837.7	7780.6	7574.4	7433.6	7306.8	7199.5	6982.2
10°	8595.7	8535.8	8489.8	8502.3	8229.2	8127.5	7889.3	7695.6	7532.6	7393.2	7093.6
12.5°	8999.8	8927.3	8877.2	8877.2	8608.2	8509.3	8241.8	7993.8	7786.1	7610.6	7234.4
15°	9413.6	9318.9	9307.7	9307.7	9022.1	8902.2	8638.9	8364.4	8109.4	7883.7	7404.4
17.5°	9841.4	9721.5	9718.7	9736.9	9474.9	9339.8	9091.7	8835.4	8510.7	8225.1	7612.0
20°	10122.8	10015.5	9990.5	10044.8	9838.6	9750.8	9484.7	9304.9	8992.8	8652.8	7879.5
22.5°	10337.4	10271.9	10295.6	10384.8	10284.5	10209.2	9929.1	9767.5	9486.1	9137.7	8240.4
25°	10553.4	10510.2	10564.5	10722.0	10730.3	10751.2	10517.2	10310.9	10049.0	9738.3	8710.0
27.5°	10486.5	10474.0	10638.4	10963.0	11141.4	11236.1	11105.2	11032.7	10793.0	10465.6	9300.7
30°	10535.3	10504.6	10702.5	11113.5	11510.6	11785.1	11785.1	11949.5	11845.0	11516.2	10202.2
32.5°	10390.4	10333.2	10560.3	11149.7	11832.5	12366.2	12603.0	13185.5	13368.0	13249.5	11989.9
35°	9722.9	9766.1	10210.6	11004.8	12054.0	12934.6	13561.7	14810.1	15371.6	15505.4	14047.9
37.5°	9306.3	9324.4	9777.3	10768.0	12132.1	13493.4	14610.9	16685.6	17481.2	17563.4	15853.8
40°	8732.2	8800.5	9307.7	10450.3	12087.5	13965.7	15740.9	18534.6	19419.4	19351.1	17433.8
42.5°	8279.4	8298.9	8742.0	9945.9	11892.4	14341.9	16880.7	20213.6	21140.2	20949.3	18995.8
45°	7715.1	7751.3	8170.7	9318.9	11545.5	14532.8	17864.4	21788.1	22636.7	22398.4	20348.8
47.5°	7032.3	7191.2	7630.1	8643.1	10957.5	14513.3	18697.6	23150.8	24119.2	23752.8	21613.9
50°	5664.0	5857.7	6735.5	8034.2	10186.9	14240.2	19360.9	24651.5	25480.5	25111.3	22769.0
52.5°	4947.9	4985.5	5432.7	7350.0	9284.0	13629.9	19812.3	25891.6	26755.5	26366.7	23879.6
55°	4624.6	4663.6	4889.3	6242.3	8455.0	12548.7	19978.1	27074.6	27840.9	27395.0	24795.0
57.5°	4341.7	4354.3	4620.4	5279.5	7664.9	11124.7	19628.4	28061.1	28717.3	28111.2	25430.4
60°	4018.5	4068.6	4330.6	4819.7	6774.6	9470.7	18430.1	28692.3	29312.3	28773.1	26089.4
62°	3837.3	3849.9	4054.7	4534.0	6084.8	8275.2	16937.8	28728.5	29521.3	29179.9	26494.9
62.5°	3784.4	3792.8	3986.4	4461.6	5942.7	8038.3	16530.9	28699.2	29508.8	29251.0	26584.1
65°	3480.6	3500.1	3674.3	4118.8	5319.9	7114.5	14624.8	28221.3	29239.9	29131.2	26575.7
67.5°	3111.4	3117.0	3302.3	3702.2	4677.5	6246.5	12283.9	27307.2	27923.1	27782.4	25412.3
70°	2544.3	2646.0	2848.0	3200.6	3869.4	5181.9	9343.9	24460.6	25470.8	25610.1	23327.8
72.5°	1934.0	1927.0	1998.1	2243.3	2818.8	3980.9	6307.8	20495.1	22835.9	23589.7	21027.3
75°	1194.1	1240.1	1538.3	1734.7	2020.4	2807.6	3954.4	14266.7	19526.7	20829.5	18586.2
77.5°	928.0	936.3	1091.0	1431.0	1655.3	1989.7	2466.3	7773.6	12240.7	15480.3	14475.7
80°	706.4	721.8	823.5	897.3	1164.9	1212.2	1645.6	4021.3	5574.9	7808.4	9724.3
82.5°	426.4	450.1	544.8	588.0	642.3	607.5	884.8	2169.5	3090.5	3996.2	4952.0
85°	214.6	257.8	362.3	342.8	291.2	268.9	379.0	1049.2	1477.0	1954.9	2272.6
87.5°	54.3	65.5	85.0	101.7	86.4	71.1	103.1	284.2	292.6	280.1	784.5
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°	6785.7	6785.7	6785.7	6785.7	6785.7	6785.7	6785.7	6785.7	6785.7	6785.7	6785.7
2.5°	6796.9	6739.7	6635.2	6575.3	6426.2	6369.1	6261.8	6300.8	6277.1	6253.4	6254.8
5°	6808.0	6704.9	6505.6	6362.1	6146.2	6036.1	5895.3	5873.1	5811.7	5774.1	5778.3
7.5°	6831.7	6684.0	6402.5	6174.0	5870.3	5697.5	5509.4	5477.3	5385.4	5343.6	5349.1
10°	6891.6	6717.4	6335.6	5999.8	5657.1	5417.4	5197.3	5126.2	5038.4	4991.0	4988.3
12.5°	6983.6	6767.6	6240.9	5867.5	5450.9	5140.1	4886.5	4772.3	4646.9	4605.1	4609.3
15°	7129.9	6831.7	6161.5	5684.9	5201.4	4878.2	4564.7	4426.7	4294.4	4245.6	4241.4
17.5°	7308.2	6890.2	6105.7	5470.4	4985.5	4598.1	4322.2	4134.1	3911.2	3879.1	3844.3
20°	7485.2	7007.3	6055.6	5314.3	4729.1	4316.7	3955.8	3763.5	3444.4	3324.6	3281.4
22.5°	7743.0	7192.6	6048.6	5129.0	4471.3	4008.7	3522.4	3211.7	2860.6	2657.2	2612.6
25°	8087.1	7396.0	6066.7	4988.3	4182.9	3617.2	2960.9	2512.2	2177.8	1947.9	1900.6
27.5°	8534.4	7673.3	6121.1	4833.6	3920.9	3147.6	2331.1	1869.9	1587.0	1394.8	1350.2
30°	9193.4	8138.7	6206.1	4690.1	3539.2	2535.9	1713.8	1347.4	1127.2	1008.8	1007.4
32.5°	10731.7	9178.1	6254.8	4511.7	3183.8	1917.3	1233.1	975.4	799.8	755.2	792.8
35°	12495.7	10650.9	6631.0	4319.4	2627.9	1410.1	880.6	693.9	621.4	632.6	653.5
37.5°	14123.2	12066.6	7205.1	4007.3	2104.0	993.5	632.6	551.8	536.4	576.9	614.5
40°	15563.9	13290.0	7697.0	3664.6	1488.1	693.9	507.2	510.0	494.6	512.8	525.3
42.5°	16976.8	14424.2	8216.7	3203.4	992.1	512.8	458.4	483.5	465.4	468.2	450.1
45°	18381.3	15621.1	8441.0	2633.5	664.6	444.5	429.2	458.4	457.0	445.9	419.4
47.5°	19593.6	16445.9	8725.3	1986.9	494.6	404.1	408.3	429.2	443.1	423.6	411.0
50°	20635.8	17321.0	8506.5	1315.3	441.7	377.6	392.9	392.9	415.2	381.8	366.5
52.5°	21632.1	18191.8	7945.0	866.7	405.5	359.5	374.8	365.1	374.8	341.4	337.2
55°	22229.8	18641.9	7266.4	675.8	383.2	344.2	351.1	348.3	340.0	305.1	312.1
57.5°	22887.5	19160.2	6422.0	567.1	373.4	326.0	327.4	323.3	298.2	274.5	275.9
60°	23412.8	19547.6	5519.1	500.2	362.3	316.3	296.8	289.8	255.0	241.1	242.4
62°	23780.6	19565.7	4731.9	465.4	348.3	309.3	278.7	263.3	224.3	213.2	211.8
62.5°	23821.0	19497.4	4539.6	457.0	342.8	306.5	277.3	255.0	216.0	207.6	204.8
65°	23670.6	18738.0	3621.4	411.0	319.1	289.8	257.8	221.5	185.3	174.2	170.0
67.5°	22550.3	17378.1	2765.8	373.4	289.8	278.7	238.3	195.1	164.4	150.5	147.7
70°	20365.5	15537.5	1974.4	326.0	260.6	253.6	239.7	178.4	151.9	132.4	129.6
72.5°	17938.2	13578.4	1343.2	289.8	231.3	209.0	177.0	168.6	142.1	117.0	114.3
75°	15265.8	10813.9	955.9	249.4	199.3	177.0	149.1	156.1	133.8	104.5	101.7
77.5°	11712.7	7953.4	709.2	204.8	154.7	143.5	125.4	137.9	121.2	94.7	93.4
80°	7997.9	5492.7	504.4	154.7	101.7	101.7	105.9	118.4	107.3	85.0	83.6
82.5°	4496.4	2891.2	298.2	111.5	69.7	69.7	82.2	96.1	89.2	73.8	72.5
85°	1862.9	1046.4	157.5	69.7	46.0	47.4	58.5	71.1	69.7	58.5	57.1
87.5°	647.9	263.3	46.0	23.7	19.5	20.9	23.7	33.4	33.4	29.3	30.7
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)