

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: P237539

Luminaire Tested: **CST-8-6-D-U-T3-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P237539  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-26)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: CST-8-6-D-U-T3-HSS  
Description: CELESTEON HIGH MAST LUMINAIRE  
(8) 70 CRI, 4000K LEDS AND TYPE III OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

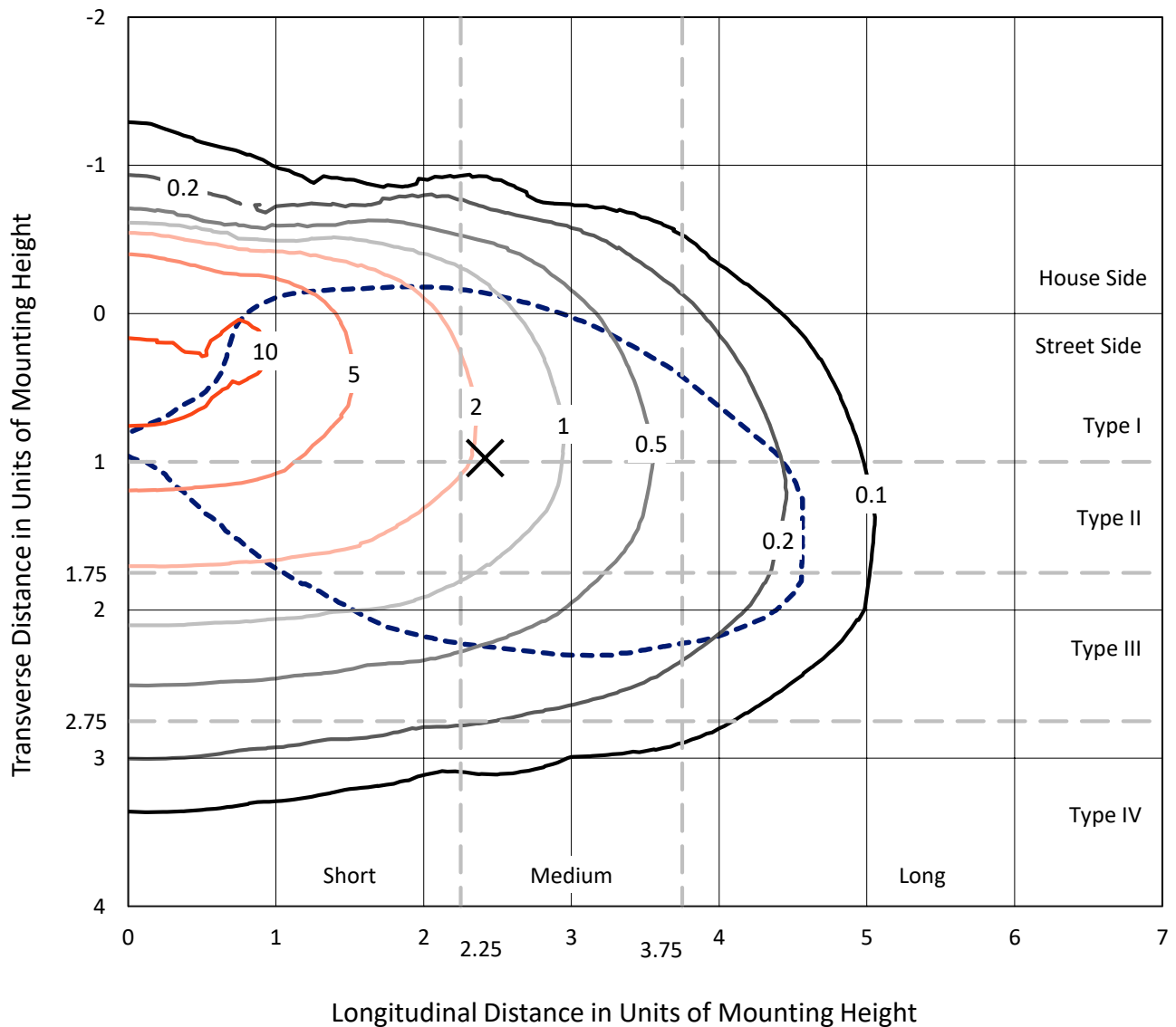
Lumens per Lamp: N/A  
Luminaire Lumens: 58003 lumens  
Efficiency: N/A  
Efficacy: 121.6 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B4 - U0 - G5  
  
Input Watts (W): 477  
Input Voltage (V): NR  
Input Current (Ain): 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: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

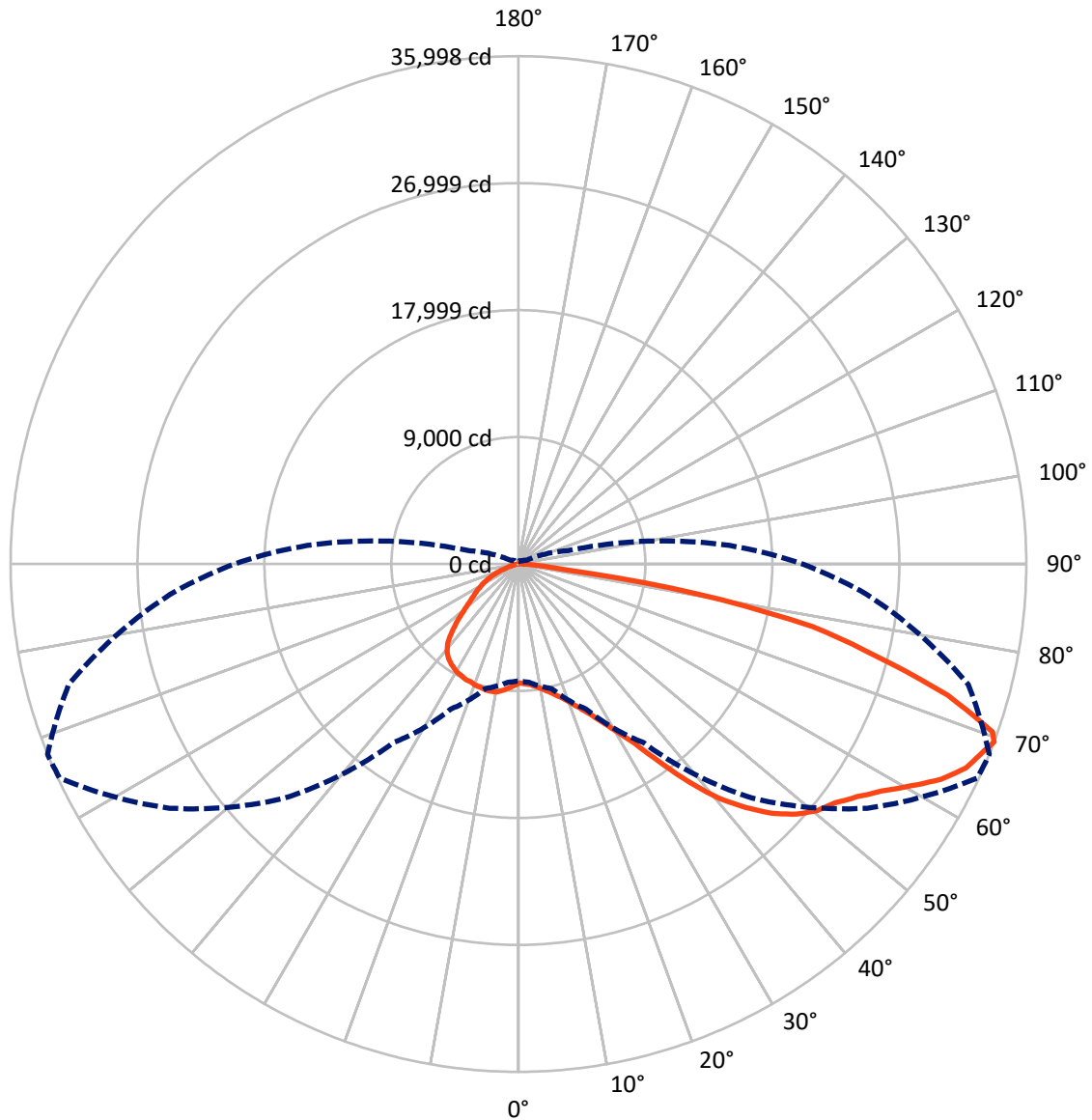
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 11.5 fc  
 Type III - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral    - - - Horizontal Cone Through 69-Deg Vertical

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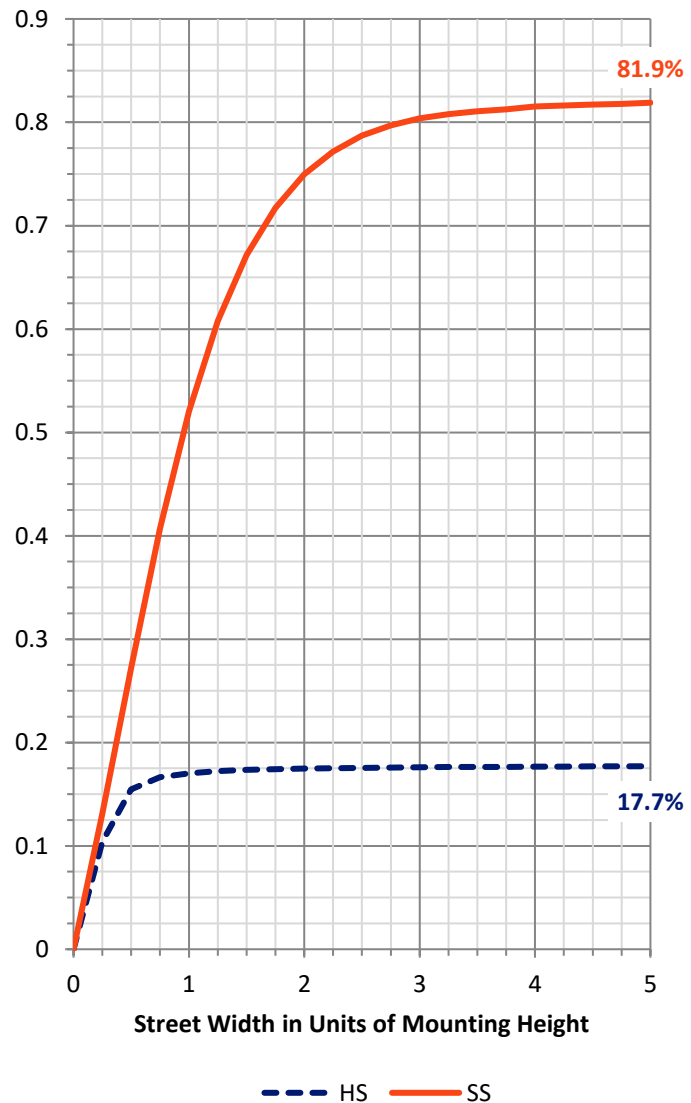
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	10409.5	0.0	10409.5
	% Fixture	17.9	0.0	17.9
<b>Street Side</b>	Lumens	47593.5	0.0	47593.5
	% Fixture	82.1	0.0	82.1
<b>Total</b>	Lumens	58003.0	0.0	58003.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	847.3	1.5
10°-20°	2658.8	4.6
20°-30°	4544.9	7.8
30°-40°	7003.2	12.1
40°-50°	10049.9	17.3
50°-60°	12095.5	20.9
60°-70°	12693.2	21.9
70°-80°	7353.6	12.7
80°-90°	756.6	1.3
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°	58003.0	100.0
0°-180°	58003.0	100.0



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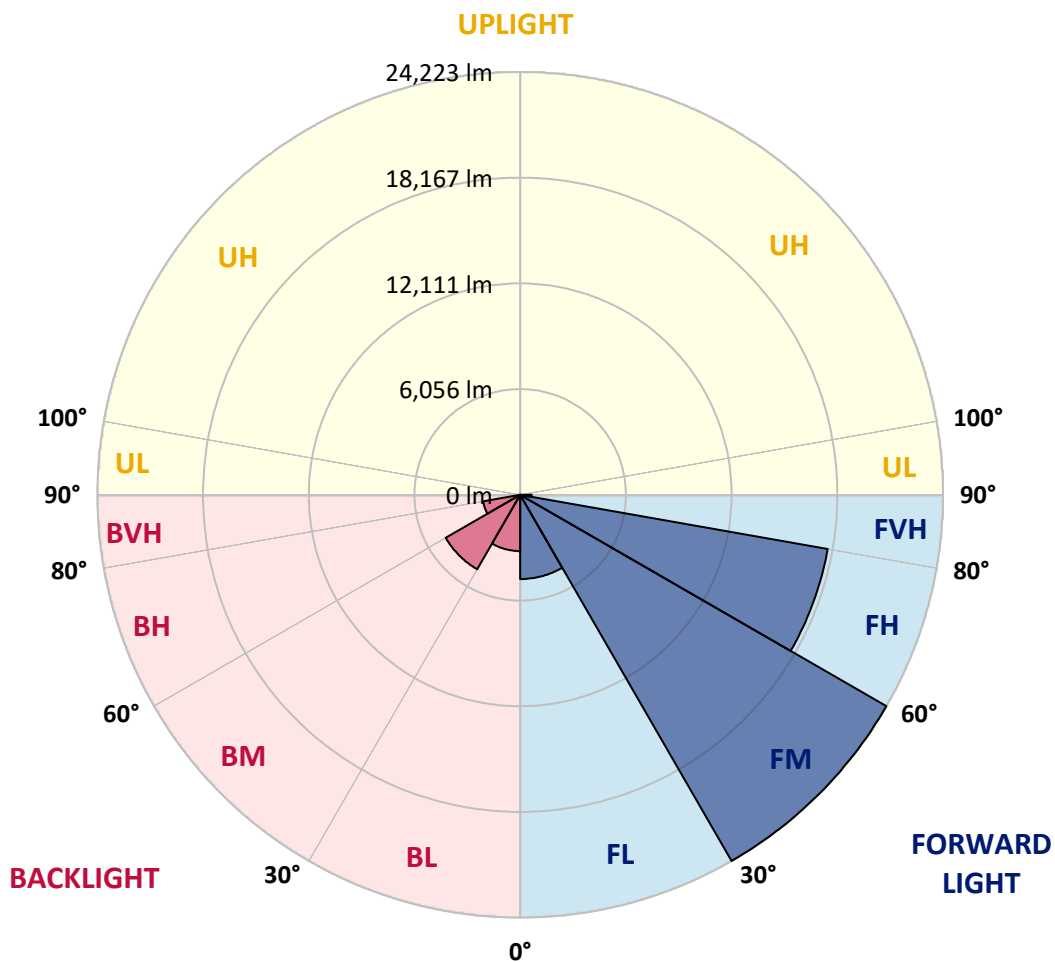
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4825.6	8.3			
FM	(30°-60°)	24222.9	41.8			
FH	(60°-80°)	17887.5	30.8			G5
FVH	(80°-90°)	657.6	1.1			G4/750
BL	(0°-30°)	3225.4	5.6	B4/5000		
BM	(30°-60°)	4925.8	8.5	B3/5000		
BH	(60°-80°)	2159.2	3.7	B3/2500		G3/2500
BVH	(80°-90°)	99.0	0.2			G1/100
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°	68°	75°	85°
0°	8436.8	8436.8	8436.8	8436.8	8436.8	8436.8	8436.8	8436.8	8436.8	8436.8	8436.8
2.5°	8531.3	8463.0	8471.0	8525.3	8364.5	8432.8	8390.6	8479.0	8493.1	8450.9	8489.1
5°	8700.1	8641.8	8639.8	8694.1	8515.2	8567.5	8501.1	8561.4	8579.5	8535.3	8601.6
7.5°	9027.7	8965.4	8953.3	9007.6	8780.5	8796.6	8706.1	8736.3	8752.4	8692.1	8758.4
10°	9498.0	9429.6	9385.4	9415.6	9160.3	9120.1	8965.4	8961.4	8985.5	8903.1	9009.6
12.5°	10024.5	9944.1	9879.8	9885.9	9594.4	9526.1	9321.1	9248.8	9264.8	9154.3	9282.9
15°	10597.3	10480.7	10420.4	10422.4	10094.9	9980.3	9717.0	9598.5	9588.4	9481.9	9556.3
17.5°	11286.6	11192.2	11115.8	11075.6	10727.9	10500.8	10187.3	10032.6	9976.3	9905.9	9867.8
20°	12096.6	11978.0	11897.6	11883.5	11457.5	11156.0	10740.0	10535.0	10468.7	10410.4	10239.6
22.5°	12998.9	12878.3	12767.8	12749.7	12297.5	11933.8	11375.1	11121.8	11063.6	10997.2	10655.6
25°	13830.9	13816.9	13694.3	13674.2	13238.1	12765.8	12110.6	11787.1	11787.1	11708.7	11184.1
27.5°	14759.4	14779.5	14669.0	14644.9	14234.9	13712.4	12932.6	12623.1	12687.4	12546.7	11849.4
30°	15738.2	15696.0	15665.8	15692.0	15312.1	14759.4	13947.5	13686.2	13786.7	13626.0	12741.7
32.5°	16614.4	16582.3	16602.4	16702.8	16429.5	15919.1	15221.7	15058.9	15155.4	15255.8	14341.4
35°	17307.8	17239.4	17492.7	17713.7	17635.4	17151.0	16590.3	16934.0	17199.2	17657.5	16698.8
37.5°	17918.7	17868.5	18176.0	18628.2	18726.6	18457.3	18284.5	19243.1	19546.6	20163.6	18766.8
40°	18224.2	18214.2	18592.0	19180.8	19580.8	19755.6	20059.1	21365.4	21807.6	21976.4	20340.5
42.5°	18125.7	18157.9	18825.1	19733.5	20380.6	21130.3	21741.2	23178.2	23584.2	23445.5	21719.1
45°	17850.4	17866.5	18543.8	19960.6	21074.0	22543.1	23359.1	24858.3	25218.1	24729.7	22816.4
47.5°	17468.6	17474.6	18190.0	19803.9	21640.7	23821.3	24753.8	26200.8	26492.2	25802.9	23606.3
50°	16952.1	16962.1	17816.2	19606.9	22129.1	24868.4	25845.1	27241.9	27466.9	26564.6	24289.6
52.5°	16298.9	16387.3	17321.8	19291.4	22434.6	25612.0	26671.1	28005.6	28116.1	27475.0	24894.5
55°	15545.2	15637.7	16692.8	18863.3	22553.2	26034.0	27249.9	28946.1	29123.0	28491.9	25386.9
57.5°	14652.9	14779.5	15890.9	18167.9	22275.8	26210.9	27838.7	30107.7	30346.9	29555.1	25893.3
60°	13617.9	13774.7	14944.3	17299.7	21634.7	26397.8	28940.1	31665.3	31942.6	30698.6	26335.5
62.5°	12536.7	12637.2	13694.3	16116.0	20607.7	26542.5	30125.8	33584.6	33608.7	31701.4	26580.7
65°	11089.7	11196.2	12142.8	14620.8	19066.3	26082.2	30724.7	34931.1	34858.7	32487.2	26498.3
67.5°	9433.7	9534.1	10307.9	12761.8	16950.0	24792.0	30519.7	35467.7	35515.9	33058.0	25708.4
69°	8284.1	8416.7	9146.3	11348.9	15454.8	23471.6	30176.1	35885.7	35998.2	33005.8	24794.0
70°	7301.3	7472.2	8165.5	10100.9	14188.7	22271.8	29512.9	35648.5	35656.6	32477.2	23951.9
72.5°	4769.1	4873.6	4994.2	6553.7	10207.4	17649.4	26116.4	31615.0	31824.0	28980.3	20941.4
75°	2359.4	2451.9	2902.0	3466.8	5249.4	11823.2	20706.2	25901.4	26297.3	24611.1	17157.0
77.5°	1302.3	1320.4	1479.2	2271.0	2721.2	5345.9	14152.5	20647.9	21341.3	20057.1	12321.6
80°	811.9	807.9	844.1	1057.1	1525.4	2534.3	5976.9	11588.1	12834.1	10472.7	4869.6
82.5°	633.1	621.0	623.0	683.3	645.1	1193.8	2488.0	3374.3	3404.5	3022.6	1895.2
85°	323.6	365.8	434.1	454.2	381.8	649.1	1145.5	1332.4	1364.6	1195.8	986.8
87.5°	108.5	110.5	116.6	114.6	102.5	223.1	424.1	494.4	440.1	249.2	337.6
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°	8436.8	8436.8	8436.8	8436.8	8436.8	8436.8	8436.8	8436.8	8436.8	8436.8	8436.8
2.5°	8547.4	8529.3	8565.5	8647.9	8579.5	8641.8	8579.5	8788.5	8764.4	8750.4	8790.5
5°	8665.9	8663.9	8722.2	8854.9	8848.8	8959.4	8899.1	9106.1	9075.9	9071.9	9108.1
7.5°	8826.7	8864.9	8927.2	9063.9	9065.9	9156.3	9088.0	9250.8	9184.5	9168.4	9218.6
10°	9071.9	9082.0	9130.2	9224.7	9092.0	9132.2	9019.7	9148.3	9055.8	9045.8	9120.1
12.5°	9307.0	9321.1	9248.8	9218.6	9047.8	8995.5	8798.6	8866.9	8760.4	8750.4	8786.5
15°	9558.3	9463.8	9291.0	9192.5	8897.1	8708.2	8487.1	8352.4	8169.5	8085.1	8117.3
17.5°	9819.5	9636.6	9313.1	9073.9	8678.0	8402.7	7962.5	7733.4	7462.1	7323.4	7297.3
20°	10104.9	9847.7	9367.3	9013.6	8456.9	7914.3	7377.7	6853.2	6543.7	6401.0	6362.8
22.5°	10426.5	10112.9	9443.7	8812.7	8111.3	7452.1	6545.7	5884.5	5434.3	5295.6	5257.4
25°	10828.4	10410.4	9548.2	8762.4	7779.7	6696.4	5569.0	4819.3	4294.8	4083.8	4039.6
27.5°	11316.8	10820.4	9719.0	8523.3	7196.8	5854.3	4598.3	3736.1	3191.4	2942.2	2888.0
30°	12028.2	11344.9	9833.6	8382.6	6678.3	4980.1	3573.3	2610.6	2094.1	1911.3	1863.0
32.5°	13431.0	12245.3	10066.7	8059.0	5912.6	3963.2	2459.9	1601.8	1240.0	1135.5	1095.3
35°	15515.1	13941.5	10402.4	7675.2	5052.5	2819.6	1461.1	928.5	745.6	707.4	695.4
37.5°	17414.3	15615.6	11051.5	7084.3	3923.0	1734.4	846.1	594.9	548.7	554.7	554.7
40°	18847.2	16859.6	11809.2	6304.5	2660.9	972.7	580.8	494.4	504.4	506.5	504.4
42.5°	20189.7	17999.1	12174.9	5444.4	1541.5	645.1	504.4	460.2	468.3	462.2	458.2
45°	21244.8	18815.1	12283.5	4286.7	844.1	576.8	474.3	428.1	424.1	428.1	432.1
47.5°	21930.1	19313.5	12036.3	3281.9	637.1	536.6	456.2	406.0	395.9	424.1	422.0
50°	22438.6	19655.1	11077.6	2496.1	621.0	502.4	434.1	379.8	383.9	418.0	414.0
52.5°	22808.4	19743.6	10026.5	2001.7	592.9	478.3	414.0	367.8	363.8	389.9	391.9
55°	23101.8	19506.4	9371.4	1575.6	568.8	454.2	397.9	355.7	335.6	343.7	341.7
57.5°	23284.7	19235.1	8623.7	1314.4	546.6	428.1	375.8	323.6	293.4	295.4	293.4
60°	23244.5	19054.2	7765.6	1077.2	518.5	404.0	345.7	289.4	259.3	251.2	251.2
62.5°	23164.1	18682.4	6879.3	938.5	494.4	395.9	309.5	263.3	241.2	233.1	233.1
65°	22617.5	17796.1	5693.6	803.9	470.3	373.8	289.4	253.2	227.1	219.1	219.1
67.5°	21260.9	16331.0	4409.3	699.4	452.2	337.6	283.4	247.2	219.1	209.0	209.0
69°	20115.4	15028.7	3621.5	643.1	434.1	321.6	283.4	249.2	215.0	203.0	203.0
70°	19221.0	14005.8	2996.5	608.9	416.0	311.5	283.4	251.2	213.0	199.0	197.0
72.5°	16493.8	10934.9	1664.1	516.5	345.7	283.4	277.3	253.2	203.0	182.9	180.9
75°	12655.3	7687.2	990.8	436.1	291.4	259.3	263.3	243.2	186.9	164.8	164.8
77.5°	7908.3	3531.1	737.6	341.7	237.1	225.1	229.1	215.0	168.8	150.7	150.7
80°	2701.1	1593.7	556.7	263.3	170.8	174.8	188.9	180.9	150.7	136.7	134.7
82.5°	1479.2	1037.0	393.9	182.9	118.6	144.7	144.7	146.7	130.6	120.6	118.6
85°	803.9	540.6	243.2	110.5	84.4	106.5	102.5	110.5	106.5	98.5	96.5
87.5°	279.4	184.9	80.4	40.2	34.2	36.2	42.2	56.3	54.3	56.3	58.3
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)