

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: P237513

Luminaire Tested: **CST-8-4-D-U-T4-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P237513  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-27)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: CST-8-4-D-U-T4-HSS  
Description: CELESTEON HIGH MAST LUMINAIRE  
(8) 70 CRI, 4000K LEDS AND TYPE IV OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 37885 lumens  
Efficiency: N/A  
Efficacy: 116.6 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B3 - U0 - G5

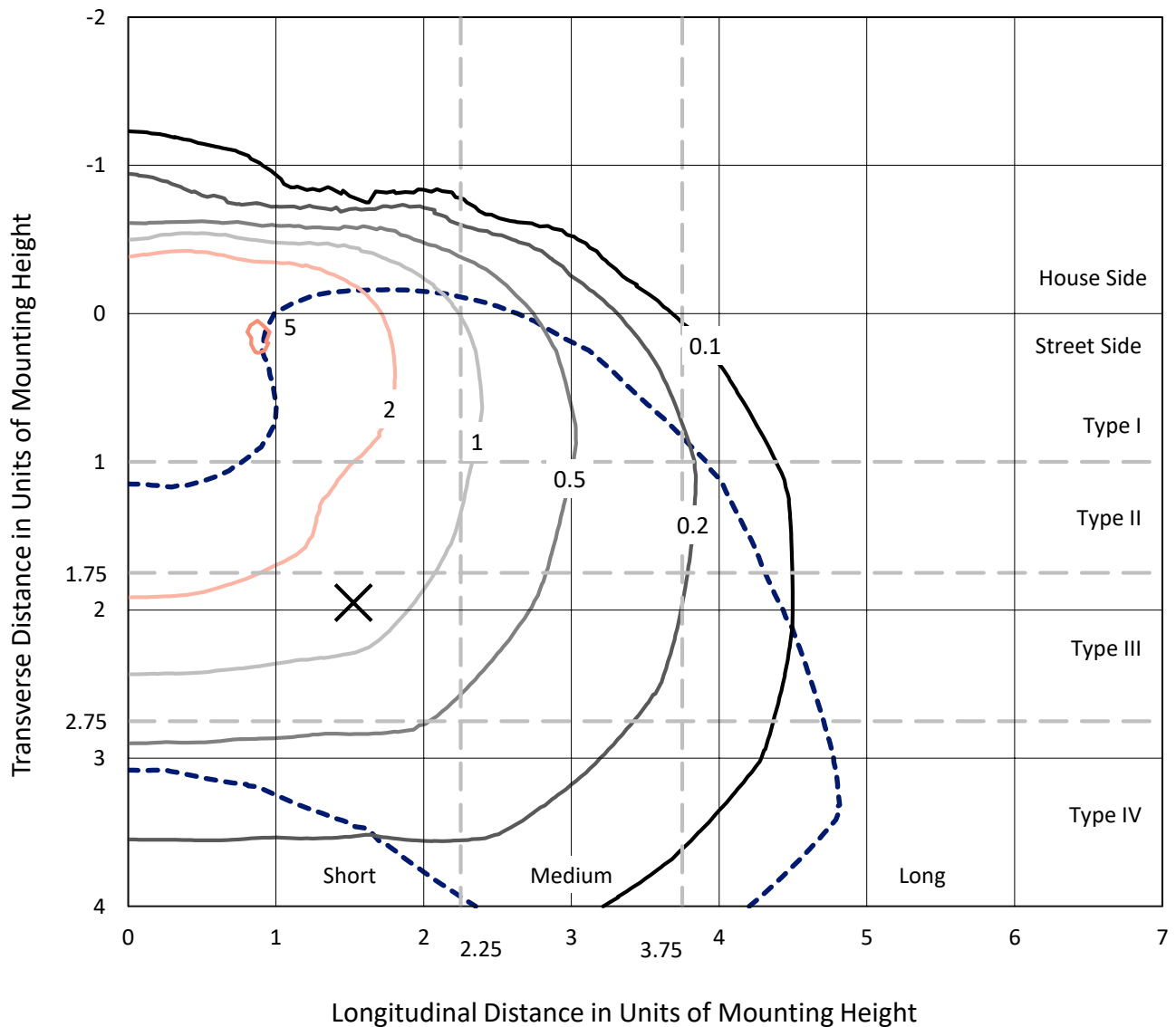
Input Watts (W): 325  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

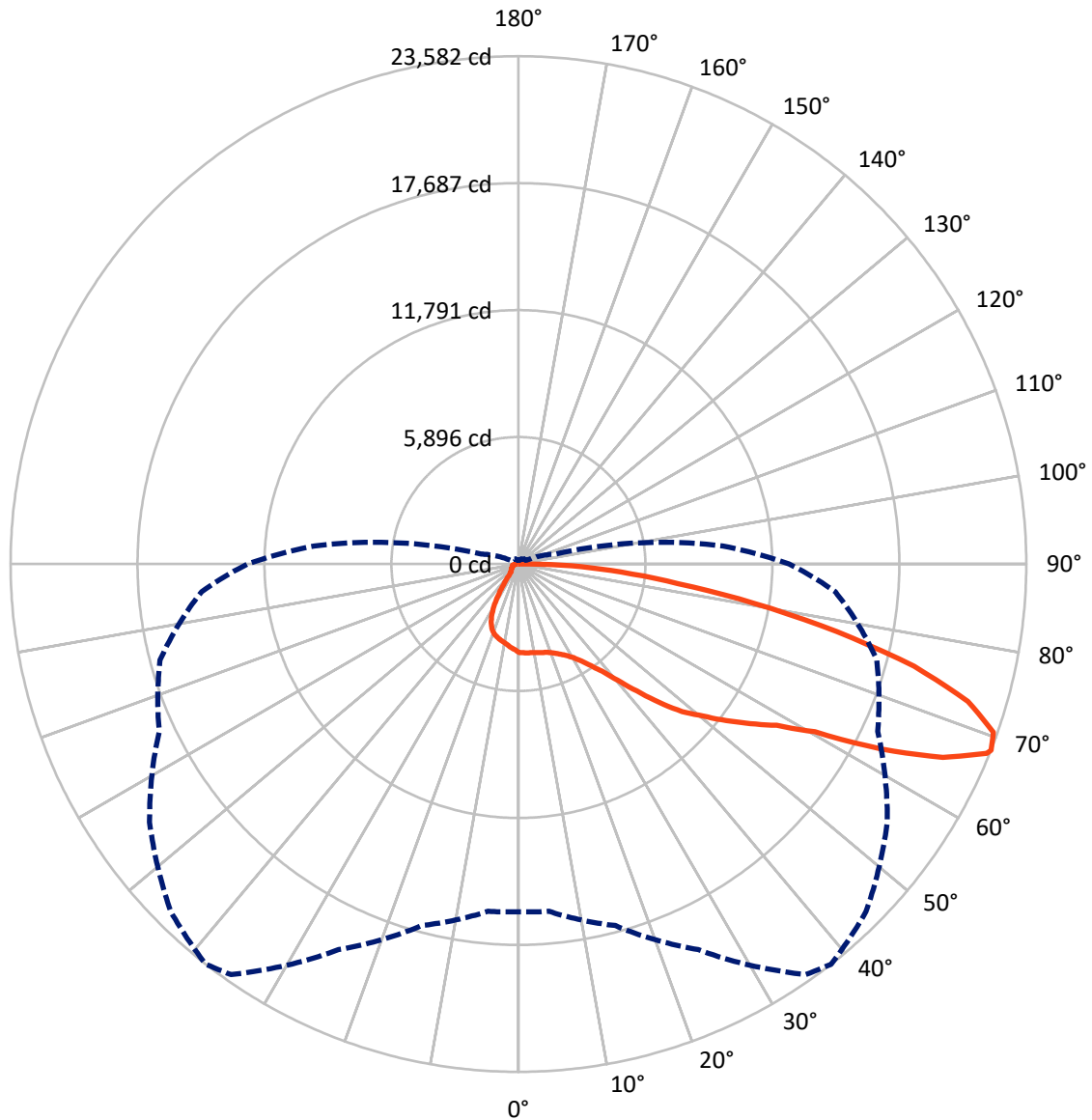


Based on 30 foot mounting height. Maximum calculated value = 5.2 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral    - - - Horizontal Cone Through 68-Deg Vertical



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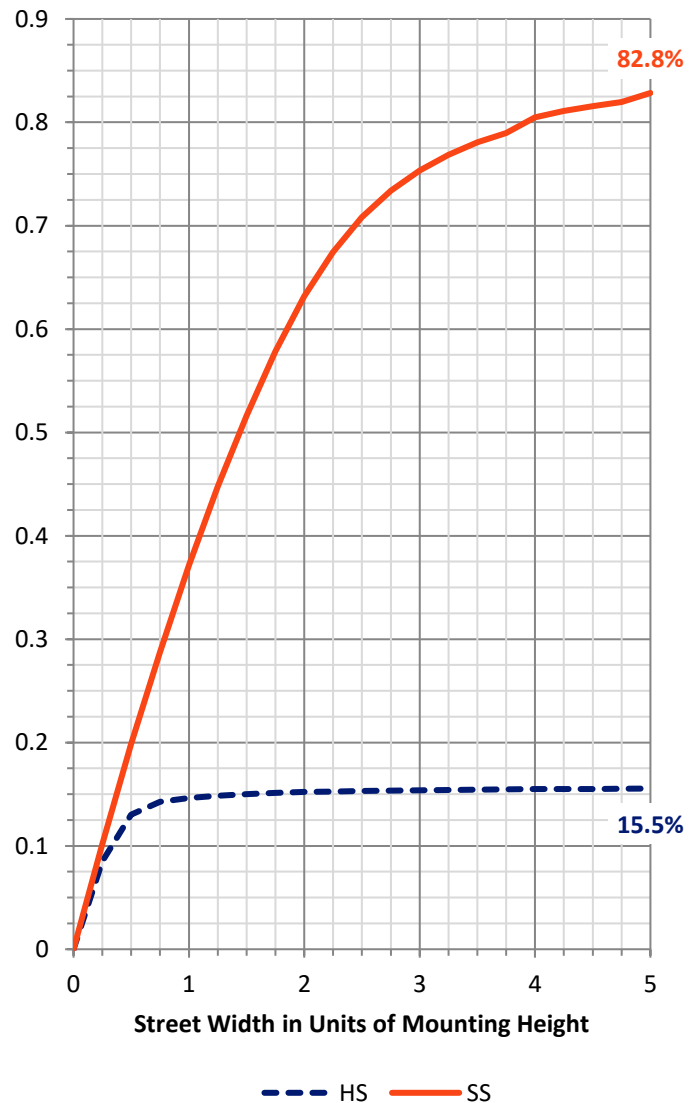
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5975.6	0.0	5975.6
	% Fixture	15.8	0.0	15.8
<b>Street Side</b>	Lumens	31909.4	0.0	31909.4
	% Fixture	84.2	0.0	84.2
<b>Total</b>	Lumens	37885.0	0.0	37885.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	387.9	1.0
10°-20°	1152.0	3.0
20°-30°	1922.6	5.1
30°-40°	2949.0	7.8
40°-50°	5077.1	13.4
50°-60°	7545.2	19.9
60°-70°	9981.7	26.3
70°-80°	7330.7	19.3
80°-90°	1538.8	4.1
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°	37885.0	100.0
0°-180°	37885.0	100.0



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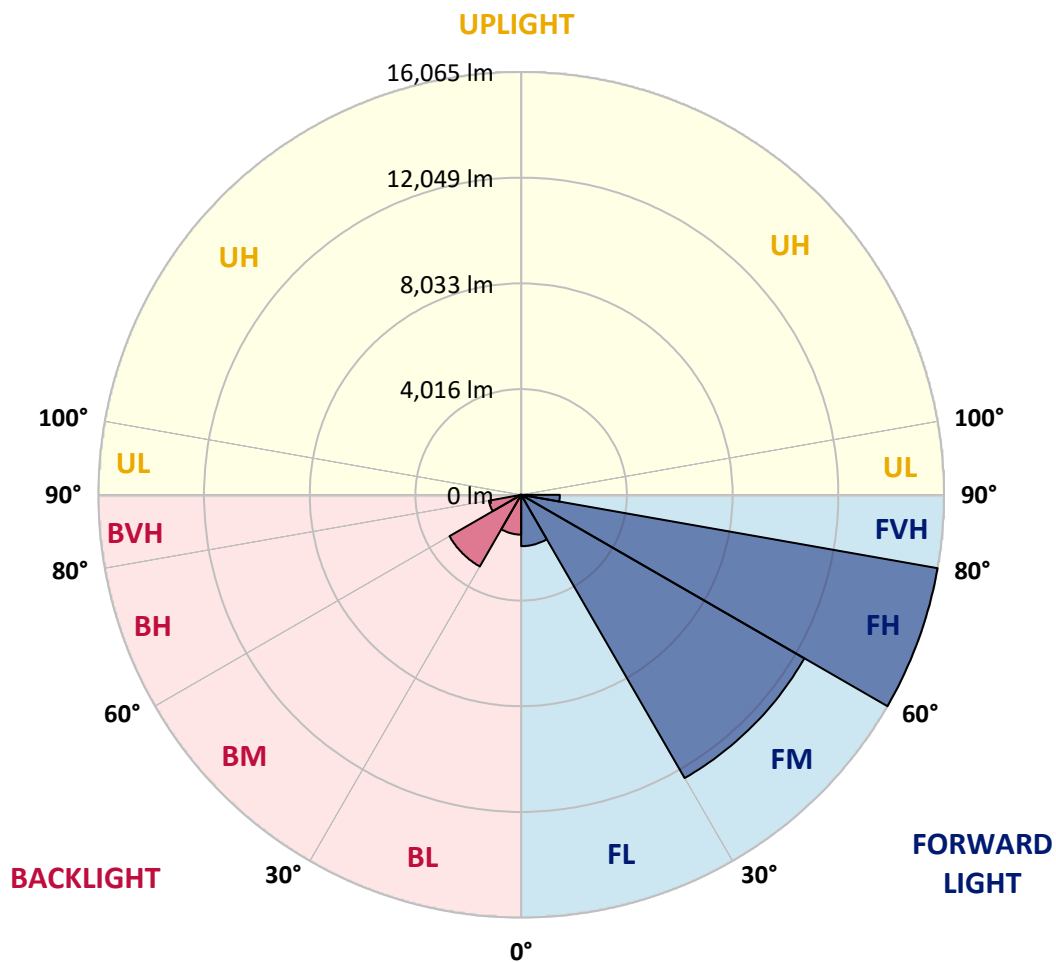
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1950.6	5.1			
FM	(30°-60°)	12425.7	32.8			
FH	(60°-80°)	16065.1	42.4			G5
FVH	(80°-90°)	1468.0	3.9			G5
BL	(0°-30°)	1511.9	4.0	B3/2500		
BM	(30°-60°)	3145.6	8.3	B3/5000		
BH	(60°-80°)	1247.2	3.3	B3/2500		G3/2500
BVH	(80°-90°)	70.8	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G5**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	4114.3	4114.3	4114.3	4114.3	4114.3	4114.3	4114.3	4114.3	4114.3	4114.3	4114.3
2.5°	4201.6	4172.5	4178.0	4196.0	4122.6	4117.1	4140.6	4114.3	4148.9	4132.3	4133.7
5°	4212.6	4185.0	4196.0	4223.7	4154.5	4153.1	4179.4	4146.2	4172.5	4151.7	4146.2
7.5°	4203.0	4178.0	4186.3	4212.6	4153.1	4157.3	4191.9	4180.8	4219.6	4198.8	4183.6
10°	4198.8	4182.2	4183.6	4219.6	4172.5	4183.6	4227.9	4234.8	4297.1	4279.1	4272.2
12.5°	4161.4	4148.9	4161.4	4218.2	4203.0	4225.1	4284.7	4320.7	4394.1	4387.1	4401.0
15°	4139.3	4133.7	4143.4	4209.9	4227.9	4263.9	4342.8	4413.4	4502.1	4514.5	4546.4
17.5°	4165.6	4173.9	4191.9	4245.9	4270.8	4308.2	4396.8	4493.8	4619.8	4673.8	4711.2
20°	4276.3	4286.0	4302.7	4337.3	4365.0	4396.8	4475.8	4586.6	4754.1	4838.6	4898.1
22.5°	4437.0	4420.4	4443.9	4473.0	4481.3	4509.0	4589.3	4700.1	4889.8	5017.2	5100.3
25°	4561.6	4550.5	4574.1	4623.9	4622.6	4647.5	4726.4	4840.0	5044.9	5227.7	5374.5
27.5°	4691.8	4684.9	4694.6	4761.0	4787.4	4817.8	4887.1	5014.5	5245.7	5475.6	5706.9
30°	4880.1	4895.4	4878.7	4954.9	5011.7	5046.3	5116.9	5273.4	5521.3	5835.7	6127.9
32.5°	5172.3	5179.3	5151.6	5236.0	5317.7	5370.4	5438.2	5643.2	5914.6	6298.2	6674.9
35°	5795.5	5796.9	5683.3	5670.9	5716.6	5792.7	5892.4	6197.1	6601.5	7192.8	7619.3
37.5°	6740.0	6694.3	6586.2	6375.7	6307.9	6321.7	6464.4	6888.1	7501.6	8592.9	9001.4
40°	7822.9	7770.3	7580.5	7302.2	7102.8	7090.3	7138.8	7647.0	8544.4	10167.4	10373.7
42.5°	8991.7	8955.7	8648.3	8360.2	8105.4	8065.2	7955.8	8465.5	9693.8	11573.0	11571.6
45°	10070.5	10063.5	9688.3	9545.6	9275.6	9170.3	9040.2	9436.2	10875.1	12680.9	12547.9
47.5°	11082.8	11062.0	10663.2	10499.8	10293.4	10236.6	10082.9	10359.9	11884.6	13715.3	13384.4
50°	12157.4	12093.7	11501.0	11336.2	11132.6	11088.3	11008.0	11326.5	12984.1	14619.6	14071.2
52.5°	13406.5	13309.6	12500.8	12194.8	12049.4	12078.5	12027.2	12312.5	14213.9	15375.7	14633.5
55°	14884.1	14593.3	13820.6	13265.3	12942.6	13076.9	12977.2	13333.1	15393.7	15964.3	15043.4
57.5°	15968.5	15967.1	15652.7	14863.4	14132.2	14139.1	13938.3	14344.0	16347.9	16550.1	15283.0
60°	17209.3	17282.7	17390.7	17040.3	16177.6	15816.1	15109.9	15345.3	17115.1	16975.2	15389.6
62.5°	18288.0	18331.0	18808.7	18943.1	19009.5	18920.9	17350.5	16498.8	17742.4	17212.0	15420.1
65°	18249.3	18245.1	19278.2	20178.3	21577.0	21655.9	21203.1	18211.9	18228.5	17242.5	15262.2
67.5°	16468.4	16552.8	17934.9	19864.0	23200.0	23449.3	22824.7	20699.0	18408.5	17228.6	14885.5
68°	16149.9	16185.9	17381.0	19753.2	23269.3	23582.2	22827.5	20906.7	18403.0	17230.0	14769.2
70°	14121.1	14175.1	15568.2	18411.3	23288.7	23396.7	22485.5	21020.3	18220.2	17101.2	13930.0
72.5°	11147.9	11210.2	12480.1	15535.0	21837.4	21833.2	20952.4	20068.9	17601.2	16159.6	11816.7
75°	8076.3	8279.9	9390.5	12201.7	18693.8	18979.1	18865.5	18689.6	15839.7	13655.8	8339.4
77.5°	5662.6	5766.4	6812.0	9177.3	14690.3	15126.5	15892.3	16119.4	13204.3	10141.1	3755.7
80°	3571.5	3766.7	4632.2	6517.0	10702.0	11104.9	12032.8	12415.0	9746.4	4974.3	657.8
82.5°	2081.4	2197.7	2834.7	4221.0	7195.6	7476.7	8084.6	7615.2	3950.9	661.9	365.6
85°	1008.2	1114.8	1521.9	2401.3	4492.4	4776.3	5104.5	3320.8	653.6	260.3	246.5
87.5°	408.5	419.6	623.2	1066.3	2239.3	2483.0	2402.7	1089.9	170.3	94.2	77.6
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°	4114.3	4114.3	4114.3	4114.3	4114.3	4114.3	4114.3	4114.3	4114.3	4114.3	4114.3
2.5°	4140.6	4119.9	4094.9	4086.6	4028.5	4025.7	3977.2	4047.9	4027.1	4028.5	4045.1
5°	4143.4	4119.9	4071.4	4049.2	3986.9	3970.3	3890.0	3934.3	3887.2	3883.1	3910.8
7.5°	4172.5	4146.2	4076.9	4042.3	3926.0	3870.6	3794.4	3833.2	3761.2	3746.0	3751.5
10°	4250.0	4216.8	4132.3	4050.6	3906.6	3826.3	3676.7	3689.2	3625.5	3604.7	3622.7
12.5°	4367.7	4327.6	4226.5	4106.0	3923.2	3782.0	3599.2	3525.8	3428.8	3397.0	3406.7
15°	4528.4	4481.3	4348.4	4208.5	3959.2	3761.2	3511.9	3359.6	3171.3	3118.6	3099.2
17.5°	4704.3	4654.4	4500.7	4324.8	4022.9	3737.7	3412.2	3169.9	2898.4	2779.3	2772.4
20°	4910.6	4856.6	4696.0	4460.5	4074.2	3708.6	3287.6	2940.0	2586.9	2387.4	2373.6
22.5°	5147.4	5100.3	4918.9	4581.0	4100.5	3632.4	3099.2	2646.4	2204.6	1955.4	1942.9
25°	5425.8	5381.4	5126.6	4665.5	4071.4	3498.1	2841.7	2286.4	1754.6	1505.3	1494.2
27.5°	5758.1	5688.9	5290.0	4690.4	3985.5	3277.9	2519.0	1823.8	1296.2	1106.5	1096.8
30°	6136.2	6012.9	5443.8	4683.5	3833.2	2996.8	2074.5	1344.7	920.9	793.5	789.4
32.5°	6612.6	6396.5	5590.6	4628.1	3615.8	2628.4	1578.7	933.4	661.9	599.6	598.2
35°	7407.4	6944.9	5751.2	4528.4	3320.8	2145.1	1094.0	635.6	538.7	526.2	526.2
37.5°	8592.9	7849.2	5979.7	4369.1	2938.6	1635.5	720.1	505.5	506.8	513.8	515.2
40°	9810.1	8889.2	6310.7	4132.3	2492.7	1149.4	523.5	469.5	486.1	497.2	505.5
42.5°	10927.7	9830.9	6679.0	3808.3	1988.6	758.9	468.1	451.5	459.8	468.1	476.4
45°	11865.2	10656.3	7026.6	3438.5	1473.5	540.1	463.9	430.7	426.5	432.1	437.6
47.5°	12655.9	11327.9	7270.3	3021.7	1002.6	462.5	452.8	408.5	394.7	396.1	398.8
50°	13259.7	11802.9	7378.4	2563.3	664.7	450.1	432.1	385.0	362.8	362.8	365.6
52.5°	13666.9	12100.6	7314.7	2046.8	477.8	443.1	415.4	360.1	333.7	337.9	340.7
55°	13968.8	12259.9	7064.0	1503.9	421.0	422.4	396.1	331.0	308.8	319.9	324.0
57.5°	14086.5	12255.7	6643.0	1038.6	418.2	390.5	368.4	306.0	288.0	303.3	310.2
60°	14043.5	12053.5	6030.9	707.6	409.9	365.6	339.3	282.5	268.7	268.7	270.0
62.5°	13957.7	11769.7	5143.3	524.8	390.5	347.6	317.1	263.1	246.5	238.2	235.4
65°	13569.9	11081.4	3776.4	452.8	371.1	337.9	296.4	245.1	223.0	209.1	206.3
67.5°	12802.7	9897.4	2110.5	418.2	357.3	332.4	282.5	228.5	203.6	187.0	185.6
68°	12567.3	9527.6	1789.2	415.4	360.1	332.4	281.1	224.3	200.8	182.8	181.4
70°	11174.2	7685.8	739.5	390.5	379.4	333.7	274.2	211.9	189.7	171.7	170.3
72.5°	8451.6	4452.2	390.5	339.3	369.7	328.2	277.0	202.2	180.0	159.3	156.5
75°	4657.2	1275.4	347.6	275.6	342.1	346.2	282.5	200.8	174.5	148.2	142.6
77.5°	1034.5	415.4	324.0	241.0	295.0	318.5	261.7	191.1	177.3	135.7	130.2
80°	396.1	337.9	307.4	185.6	234.0	270.0	217.4	170.3	181.4	127.4	120.5
82.5°	331.0	296.4	282.5	144.0	162.0	198.0	174.5	145.4	167.6	117.7	112.2
85°	243.7	286.7	199.4	113.6	119.1	121.9	121.9	113.6	144.0	103.9	98.3
87.5°	98.3	138.5	84.5	52.6	60.9	56.8	49.9	60.9	83.1	73.4	73.4
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)