

Scaled data based on original data using  
LM-66-11 Electrical and Photometric Measurements of Single-Ended Compact  
Fluorescent Lamps

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: SHAPER

Report Number: 253P217

Luminaire Tested: **1200-OB-44-CFL/8/39**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-66-11  
Report Number: 253P217  
Test Lab: METALUX LABORATORIES  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: SHAPER  
Catalog Number: 1200-OB-44-CFL/8/39  
Description: SHAPER 44 INCH 1200 SERIES DIRECT/INDIRECT INDOOR PENDANT FIXTURE  
Light Source: EIGHT - F39BX/SPX35 - 2850 LUMENS - 39 WATTS  
Ballast/Driver: -

**Summary**

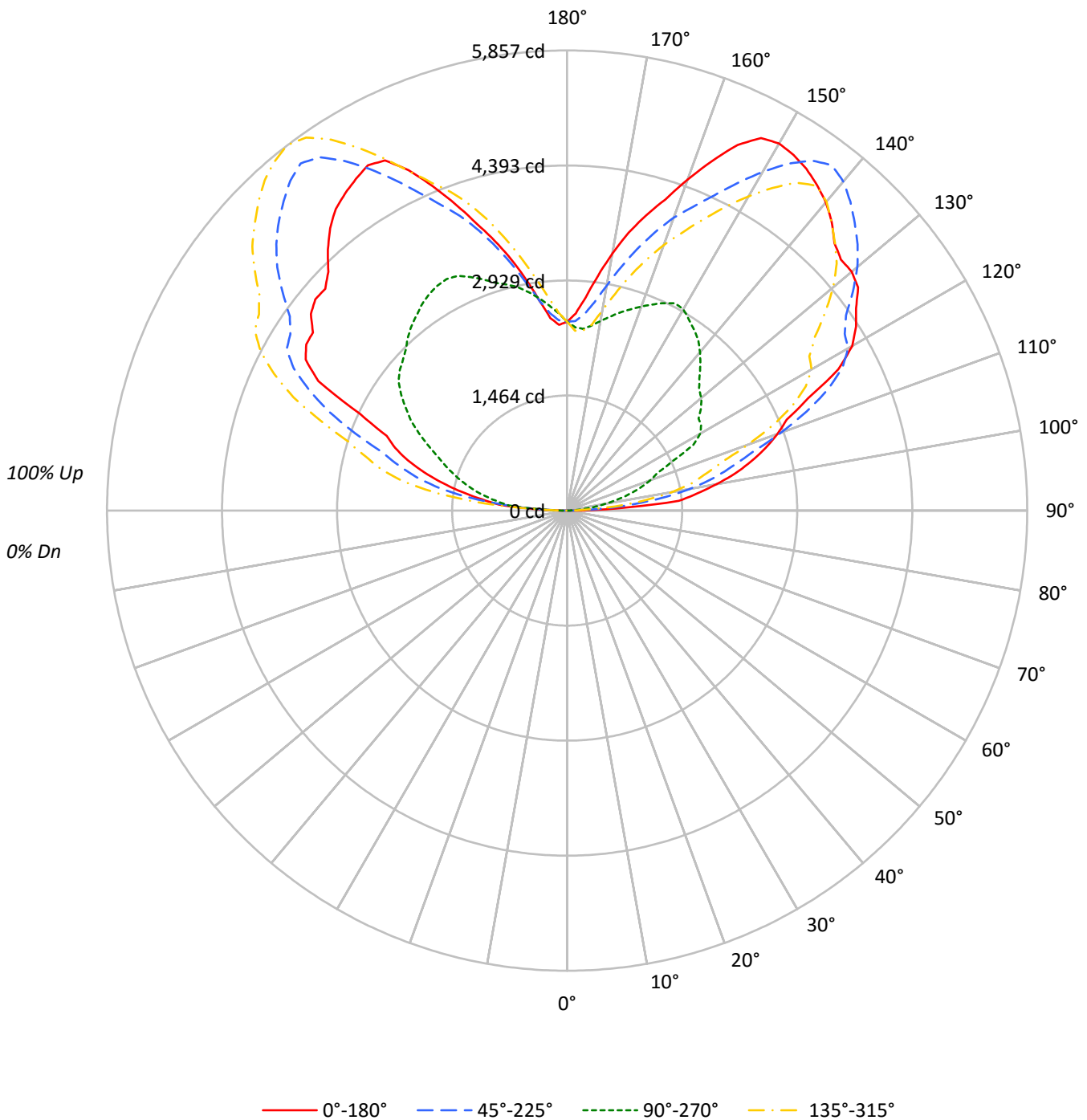
Lumens per Lamp: 2850 (8 lamps)  
Luminaire Lumens: 19443.1 lumens  
Efficiency: 85.3%  
Efficacy: 61.5 lumens/watt  
Spacing Criteria (0/90/45): - / - / -  
Luminous Opening: Vertical Cylinder (Dia: 3.67' x H: 0.1')  
CIE Type: Indirect

Input Watts (W): 316  
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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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20				
RC	80				70				50				30				10				
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	
RCR																					
0	81	81	81	81	69	69	69	69	47	47	47	27	27	27	9	9	9	0	0	0	0
1	74	70	67	65	63	60	58	56	41	40	38	24	23	22	8	7	7	0	0	0	0
2	67	61	57	53	57	53	49	46	36	34	32	21	20	19	7	6	6	0	0	0	0
3	61	54	48	44	52	46	42	38	32	29	27	18	17	16	6	5	5	0	0	0	0
4	56	47	41	37	47	41	36	32	28	25	22	16	15	13	5	5	4	0	0	0	0
5	51	42	36	31	43	36	31	27	25	22	19	14	13	11	5	4	4	0	0	0	0
6	47	37	31	27	40	32	27	23	22	19	16	13	11	10	4	4	3	0	0	0	0
7	43	33	27	23	37	29	24	20	20	17	14	12	10	8	4	3	3	0	0	0	0
8	40	30	24	20	34	26	21	17	18	15	12	10	9	7	3	3	2	0	0	0	0
9	37	27	21	17	31	23	19	15	16	13	11	9	8	6	3	3	2	0	0	0	0
10	34	25	19	15	29	21	17	13	15	12	9	9	7	6	3	2	2	0	0	0	0

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	0	0	0	0
5°	0	0	0	0
10°	0	0	0	0
15°	0	0	0	0
20°	0	0	0	0
25°	0	0	0	0
30°	0	0	0	0
35°	0	0	0	0
40°	0	0	0	0
45°	0	0	0	0
50°	0	0	0	0
55°	0	0	0	0
60°	0	0	0	0
65°	0	0	0	0
70°	0	0	0	0
75°	0	0	0	0
80°	0	0	0	0
85°	0	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	0.0	0.0	0.0
10°-20°	0.0	0.0	0.0
20°-30°	0.0	0.0	0.0
30°-40°	0.0	0.0	0.0
40°-50°	0.0	0.0	0.0
50°-60°	0.0	0.0	0.0
60°-70°	0.0	0.0	0.0
70°-80°	0.0	0.0	0.0
80°-90°	1.2	0.0	0.0
90°-100°	841.1	4.3	3.7
100°-110°	2166.0	11.1	9.5
110°-120°	3163.3	16.3	13.9
120°-130°	3643.9	18.7	16.0
130°-140°	3470.3	17.8	15.2
140°-150°	2965.4	15.3	13.0
150°-160°	1978.8	10.2	8.7
160°-170°	960.2	4.9	4.2
170°-180°	253.0	1.3	1.1
0°-30°	0.0	0.0	0.0
0°-40°	0.0	0.0	0.0
0°-60°	0.0	0.0	0.0
0°-90°	1.2	0.0	0.0
90°-120°	6170.4	31.7	27.1
90°-150°	16250.0	83.6	71.3
90°-180°	19442.0	100.0	85.3
0°-180°	19443.1	100.0	85.3

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	0	0	0	0	0	
5°	0	0	0	0	0	0
15°	0	0	0	0	0	0
25°	0	0	0	0	0	0
35°	0	0	0	0	0	0
45°	0	0	0	0	0	0
55°	0	0	0	0	0	0
65°	0	0	0	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	8	6	9	5	8	87
95°	1427	192	869	745	1427	1189
105°	2427	828	1883	1359	2427	2550
115°	3384	1468	2906	1942	3384	3420
125°	4488	2041	3948	2580	4488	4026
135°	4812	2380	4298	2903	4812	3761
145°	5309	2814	4927	3214	5309	3319
155°	5134	2913	4780	3296	5134	2354
165°	3891	2610	3552	2978	3891	1119
175°	2723	2322	2458	2619	2723	279
180°	2403	2403	2403	2403	2403	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
47.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	8.0	9.0	9.0	8.0	6.0	13.0	13.0	12.0	9.0	9.0	6.0
92.5°	622.5	673.1	305.8	61.5	57.9	162.0	200.9	307.6	355.6	407.1	262.4
95°	1426.8	1307.4	767.2	330.2	191.8	486.8	610.7	796.2	868.6	940.0	777.2
97.5°	1669.3	1615.0	1197.9	713.0	336.6	754.6	998.0	1118.3	1093.9	1270.3	1241.3
100°	1925.3	1948.0	1585.1	1091.1	501.2	1029.6	1355.3	1432.2	1353.5	1596.9	1645.8
102.5°	2194.0	2274.6	1904.5	1480.2	663.2	1348.1	1634.9	1749.8	1625.0	1952.5	1966.0
105°	2426.6	2548.7	2179.6	1861.1	827.9	1644.0	1836.7	2030.3	1882.8	2275.5	2219.4
107.5°	2649.1	2793.0	2469.1	2172.3	986.2	1875.6	2073.7	2278.2	2126.2	2569.5	2465.5
110°	2847.3	2992.0	2893.4	2376.8	1126.4	2085.5	2441.0	2452.8	2329.8	2748.7	2868.1



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	3026.4	3288.8	3300.6	2638.3	1238.6	2359.6	2832.8	2730.6	2485.4	3020.1	3272.5
115°	3383.8	3784.6	3671.5	3023.7	1467.5	2785.8	3164.9	3262.6	2906.1	3625.4	3619.0
117.5°	3891.4	4131.1	3952.9	3359.4	1807.7	3051.8	3423.6	3743.9	3569.3	3970.1	3924.9
120°	4188.1	4365.5	4126.6	3635.3	1956.1	3246.3	3591.9	4049.7	3842.5	4133.0	4120.3
122.5°	4359.1	4604.3	4188.1	3767.4	2021.2	3433.6	3656.1	4142.9	3938.4	4315.7	4176.4
125°	4487.6	4825.1	4332.0	3902.2	2041.1	3592.8	3848.0	4297.6	3948.4	4557.3	4308.5
127.5°	4667.7	4903.8	4584.4	3979.1	2147.9	3667.9	4137.5	4381.8	4111.2	4688.5	4564.5
130°	4729.2	4889.3	4821.5	3993.6	2229.3	3660.7	4420.7	4368.2	4183.6	4692.1	4816.0
132.5°	4727.4	4943.6	5013.3	4009.9	2278.2	3667.9	4653.2	4465.0	4176.4	4769.9	5021.4
135°	4812.4	5091.1	5176.1	4038.9	2379.5	3703.2	4819.7	4647.8	4297.6	4945.4	5192.4
137.5°	4984.3	5214.1	5334.5	4054.2	2508.0	3732.1	4978.9	4817.0	4506.6	5109.2	5342.6
140°	5122.8	5301.9	5468.4	4064.2	2631.0	3750.2	5135.4	4938.2	4691.2	5240.4	5481.0
142.5°	5223.2	5368.9	5538.0	4059.7	2740.5	3734.0	5211.4	5007.9	4839.6	5315.5	5570.6
145°	5309.1	5415.0	5438.5	4058.8	2813.8	3714.0	5094.7	5064.0	4927.3	5379.7	5490.1
147.5°	5365.2	5430.4	5233.1	4045.2	2883.5	3701.4	4869.4	5111.9	5004.2	5445.8	5276.6
150°	5396.0	5401.4	4976.2	3981.9	2957.7	3648.9	4617.9	5084.8	5073.0	5434.0	5016.9
152.5°	5345.3	5217.8	4699.3	3832.6	2974.0	3504.1	4354.6	4864.0	5024.1	5219.6	4741.0
155°	5133.6	4916.5	4425.2	3657.0	2913.3	3332.2	4085.0	4551.9	4779.9	4910.1	4462.3
157.5°	4815.1	4584.4	4184.5	3476.1	2839.1	3158.5	3829.0	4231.6	4465.9	4580.8	4214.4
160°	4481.3	4252.4	3965.6	3296.0	2763.1	2987.5	3594.6	3911.3	4144.7	4253.3	3992.7
162.5°	4150.1	3960.1	3713.1	3117.8	2685.3	2820.1	3344.0	3614.5	3826.2	3942.0	3738.5
165°	3891.4	3708.6	3446.2	2943.2	2610.2	2663.6	3087.0	3345.8	3552.1	3652.5	3467.0
167.5°	3622.7	3427.2	3175.7	2774.9	2528.8	2521.6	2826.5	3065.3	3269.8	3339.5	3193.8
170°	3322.3	3145.9	2909.7	2624.7	2449.2	2407.6	2584.0	2801.1	2978.5	3028.2	2927.8
172.5°	3014.7	2876.2	2674.5	2489.0	2373.2	2322.5	2385.0	2557.8	2692.6	2736.0	2692.6
175°	2723.3	2632.9	2507.1	2391.3	2321.6	2273.7	2298.1	2380.4	2458.2	2503.5	2524.3
177.5°	2510.7	2469.1	2414.8	2366.9	2335.2	2305.3	2290.9	2331.6	2365.0	2404.0	2423.9
180°	2403.0	2403.0	2403.0	2403.0	2403.0	2403.0	2403.0	2403.0	2403.0	2403.0	2403.0



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CATALOG NUMBER: 1200-OB-44-CFL/8/39

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	0.0	0.0	0.0	0.0	0.0	0.0
2.5°	0.0	0.0	0.0	0.0	0.0	0.0
5°	0.0	0.0	0.0	0.0	0.0	0.0
7.5°	0.0	0.0	0.0	0.0	0.0	0.0
10°	0.0	0.0	0.0	0.0	0.0	0.0
12.5°	0.0	0.0	0.0	0.0	0.0	0.0
15°	0.0	0.0	0.0	0.0	0.0	0.0
17.5°	0.0	0.0	0.0	0.0	0.0	0.0
20°	0.0	0.0	0.0	0.0	0.0	0.0
22.5°	0.0	0.0	0.0	0.0	0.0	0.0
25°	0.0	0.0	0.0	0.0	0.0	0.0
27.5°	0.0	0.0	0.0	0.0	0.0	0.0
30°	0.0	0.0	0.0	0.0	0.0	0.0
32.5°	0.0	0.0	0.0	0.0	0.0	0.0
35°	0.0	0.0	0.0	0.0	0.0	0.0
37.5°	0.0	0.0	0.0	0.0	0.0	0.0
40°	0.0	0.0	0.0	0.0	0.0	0.0
42.5°	0.0	0.0	0.0	0.0	0.0	0.0
45°	0.0	0.0	0.0	0.0	0.0	0.0
47.5°	0.0	0.0	0.0	0.0	0.0	0.0
50°	0.0	0.0	0.0	0.0	0.0	0.0
52.5°	0.0	0.0	0.0	0.0	0.0	0.0
55°	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	0.0	0.0	0.0	0.0	0.0	0.0
60°	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0
90°	7.0	5.0	9.0	8.0	9.0	8.0
92.5°	269.6	321.2	451.5	345.6	483.1	622.5
95°	749.1	744.6	1065.8	1055.0	1226.0	1426.8
97.5°	1131.9	895.7	1430.4	1636.7	1687.4	1669.3
100°	1469.3	1055.0	1737.1	2105.4	2101.8	1925.3
102.5°	1818.6	1217.8	2097.2	2420.2	2471.8	2194.0
105°	2128.0	1359.0	2405.8	2652.8	2771.3	2426.6
107.5°	2395.8	1498.3	2667.2	2922.4	3059.0	2649.1
110°	2598.5	1636.7	2882.6	3335.0	3273.4	2847.3





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**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	2881.7	1776.0	3147.7	3771.0	3544.0	3026.4
115°	3202.9	1941.6	3462.5	4114.9	3995.4	3383.8
117.5°	3495.1	2124.4	3743.0	4401.7	4420.7	3891.4
120°	3749.3	2296.3	4009.0	4588.0	4728.3	4188.1
122.5°	3995.4	2438.3	4239.7	4652.3	4908.3	4359.1
125°	4186.3	2580.4	4418.0	4781.7	5093.8	4487.6
127.5°	4249.7	2706.1	4523.8	5011.5	5191.5	4667.7
130°	4248.8	2780.3	4541.9	5231.3	5202.4	4729.2
132.5°	4230.7	2834.6	4525.6	5394.2	5266.6	4727.4
135°	4228.9	2903.4	4525.6	5556.1	5411.4	4812.4
137.5°	4215.3	2998.4	4510.2	5700.0	5537.1	4984.3
140°	4181.8	3077.1	4475.9	5795.9	5613.1	5122.8
142.5°	4165.5	3142.2	4447.8	5857.4	5691.0	5223.2
145°	4139.3	3213.7	4429.7	5795.9	5748.9	5309.1
147.5°	4078.7	3268.0	4389.9	5596.9	5767.9	5365.2
150°	4010.8	3304.2	4327.5	5333.6	5741.6	5396.0
152.5°	3895.9	3322.3	4211.7	5053.1	5553.4	5345.3
155°	3725.8	3296.0	4042.5	4764.5	5241.3	5133.6
157.5°	3539.4	3217.3	3853.4	4517.5	4908.3	4815.1
160°	3352.1	3130.5	3659.8	4313.0	4568.1	4481.3
162.5°	3183.9	3040.0	3486.0	4071.4	4259.6	4150.1
165°	3043.6	2978.5	3329.5	3799.1	3989.1	3891.4
167.5°	2904.3	2912.4	3157.6	3514.1	3679.7	3622.7
170°	2777.6	2823.8	2984.8	3231.8	3359.4	3322.3
172.5°	2665.4	2726.0	2824.7	2960.4	3040.0	3014.7
175°	2557.8	2619.3	2669.0	2720.6	2753.2	2723.3
177.5°	2471.8	2513.4	2535.1	2518.9	2536.0	2510.7
180°	2403.0	2403.0	2403.0	2403.0	2403.0	2403.0

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