

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: 253P254

Luminaire Tested: **1215-XX-44-CFL/4/39-T5C/1/40**

Issue Date: 3/3/2020

Test Information

Test Method: LM-66-11
Report Number: 253P254
Test Lab: METALUX LABORATORIES
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 1215-XX-44-CFL/4/39-T5C/1/40
Description: SHAPER 44 INCH 1215 SERIES DIRECT/INDIRECT INDOOR PENDANT FIXTURE
WITH SHALLOW BOWL
Light Source: FOUR 39 WATT BIAx COMPACT FLUORESCENT LAMPS AND ONE 40 WATT T5 CIRCLINE
(4)F39BX - 2850 LUMENS AND (1)TL5C40W/830 - 3300 LUMENS
Ballast/Driver: -

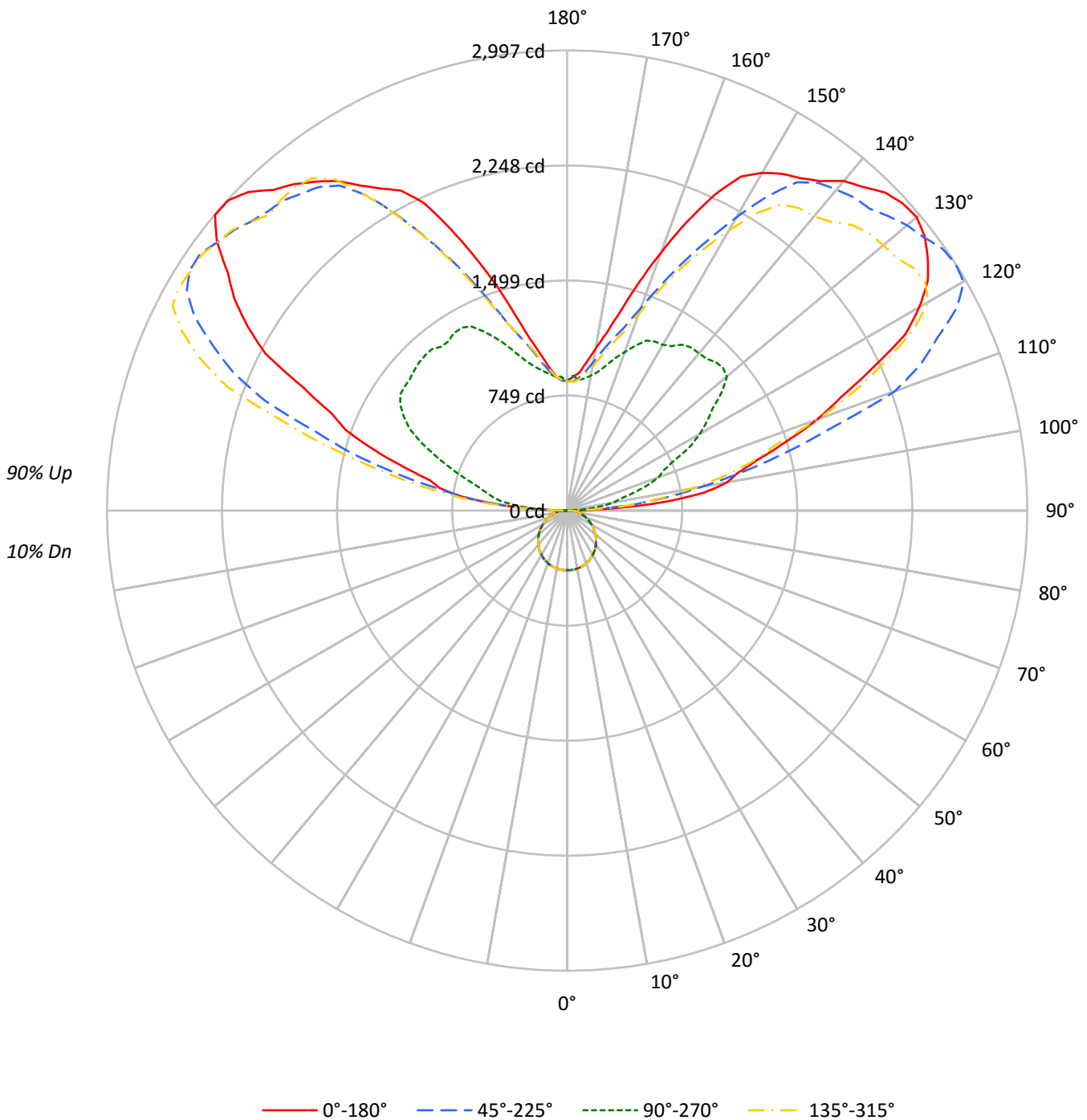
Summary

Lumens per Lamp: 14700 (1 lamp)
Luminaire Lumens: 11846.5 lumens
Efficiency: 80.6%
Efficacy: 60.4 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.28 / 1.4
Luminous Opening: Vertical Cylinder (Dia: 3.67' x H: 0.69')
CIE Type: Semi-Indirect

Input Watts (W): 196
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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	79	79	79	79	68	68	68	68	49	49	49	32	32	32	16	16	16	8
1	71	68	65	62	62	59	57	55	43	41	40	28	27	26	14	13	13	7
2	65	59	55	51	56	52	48	45	37	35	33	24	23	22	12	11	11	5
3	59	52	46	42	51	45	41	37	33	30	27	21	20	18	11	10	9	5
4	54	46	40	35	47	40	35	31	29	26	23	19	17	15	9	8	8	4
5	49	41	34	30	43	35	30	26	26	22	20	17	15	13	8	7	7	3
6	45	36	30	26	39	32	26	23	23	20	17	15	13	11	8	7	6	3
7	42	32	26	22	36	28	23	20	21	17	15	14	11	10	7	6	5	3
8	39	29	23	19	33	26	21	17	19	15	13	12	10	9	6	5	4	2
9	36	26	21	17	31	23	18	15	17	14	11	11	9	8	6	5	4	2
10	33	24	19	15	29	21	16	13	16	12	10	10	8	7	5	4	4	2

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	396	396	396	396
5°	389	389	389	389
10°	380	380	380	380
15°	373	373	373	373
20°	364	364	364	364
25°	355	355	355	355
30°	344	344	344	344
35°	335	335	335	335
40°	323	323	323	323
45°	311	311	311	311
50°	298	298	298	298
55°	282	282	282	282
60°	265	265	265	265
65°	249	249	249	249
70°	232	232	232	232
75°	215	215	215	215
80°	200	200	200	200
85°	185	185	185	185



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	36.9	0.3	0.3
10°-20°	106.1	0.9	0.7
20°-30°	161.6	1.4	1.1
30°-40°	196.3	1.7	1.3
40°-50°	205.9	1.7	1.4
50°-60°	190.3	1.6	1.3
60°-70°	154.6	1.3	1.1
70°-80°	109.4	0.9	0.7
80°-90°	60.0	0.5	0.4
90°-100°	446.5	3.8	3.0
100°-110°	1342.2	11.3	9.1
110°-120°	2034.9	17.2	13.8
120°-130°	2251.9	19.0	15.3
130°-140°	1914.8	16.2	13.0
140°-150°	1390.0	11.7	9.5
150°-160°	818.8	6.9	5.6
160°-170°	339.5	2.9	2.3
170°-180°	86.9	0.7	0.6
0°-30°	304.5	2.6	2.1
0°-40°	500.8	4.2	3.4
0°-60°	896.9	7.6	6.1
0°-90°	1221.0	10.3	8.3
90°-120°	3823.6	32.3	26.0
90°-150°	9380.3	79.2	63.8
90°-180°	10625.0	89.7	72.3
0°-180°	11846.5	100.0	80.6

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	388	388	388	388	388	
5°	388	388	388	388	388	37
15°	376	376	376	376	376	106
25°	351	351	351	351	351	162
35°	314	314	314	314	314	196
45°	267	267	267	267	267	206
55°	213	213	213	213	213	190
65°	156	156	156	156	156	155
75°	103	103	103	103	103	109
85°	59	59	59	59	59	53
90°	3	2	1	2	3	44
95°	628	138	449	290	628	597
105°	1287	450	1102	600	1287	1404
115°	2192	764	1896	1047	2192	2176
125°	2868	1155	2697	1325	2868	2554
135°	2929	1367	2935	1364	2929	2255
145°	2644	1318	2621	1346	2644	1671
155°	2267	1222	2212	1287	2267	1042
165°	1343	976	1326	1002	1343	401
175°	900	857	881	876	900	92
180°	843	843	843	843	843	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	388.0	388.0	388.0	388.0	388.0	388.0	388.0	388.0	388.0	388.0	388.0
2.5°	388.0	388.0	388.0	388.0	388.0	388.0	388.0	388.0	388.0	388.0	388.0
5°	388.0	388.0	388.0	388.0	388.0	388.0	388.0	388.0	388.0	388.0	388.0
7.5°	386.0	386.0	386.0	386.0	386.0	386.0	386.0	386.0	386.0	386.0	386.0
10°	383.0	383.0	383.0	383.0	383.0	383.0	383.0	383.0	383.0	383.0	383.0
12.5°	380.0	380.0	380.0	380.0	380.0	380.0	380.0	380.0	380.0	380.0	380.0
15°	376.0	376.0	376.0	376.0	376.0	376.0	376.0	376.0	376.0	376.0	376.0
17.5°	371.0	371.0	371.0	371.0	371.0	371.0	371.0	371.0	371.0	371.0	371.0
20°	365.0	365.0	365.0	365.0	365.0	365.0	365.0	365.0	365.0	365.0	365.0
22.5°	358.0	358.0	358.0	358.0	358.0	358.0	358.0	358.0	358.0	358.0	358.0
25°	351.0	351.0	351.0	351.0	351.0	351.0	351.0	351.0	351.0	351.0	351.0
27.5°	342.0	342.0	342.0	342.0	342.0	342.0	342.0	342.0	342.0	342.0	342.0
30°	333.0	333.0	333.0	333.0	333.0	333.0	333.0	333.0	333.0	333.0	333.0
32.5°	324.0	324.0	324.0	324.0	324.0	324.0	324.0	324.0	324.0	324.0	324.0
35°	314.0	314.0	314.0	314.0	314.0	314.0	314.0	314.0	314.0	314.0	314.0
37.5°	303.0	303.0	303.0	303.0	303.0	303.0	303.0	303.0	303.0	303.0	303.0
40°	291.0	291.0	291.0	291.0	291.0	291.0	291.0	291.0	291.0	291.0	291.0
42.5°	279.0	279.0	279.0	279.0	279.0	279.0	279.0	279.0	279.0	279.0	279.0
45°	267.0	267.0	267.0	267.0	267.0	267.0	267.0	267.0	267.0	267.0	267.0
47.5°	254.0	254.0	254.0	254.0	254.0	254.0	254.0	254.0	254.0	254.0	254.0
50°	241.0	241.0	241.0	241.0	241.0	241.0	241.0	241.0	241.0	241.0	241.0
52.5°	227.0	227.0	227.0	227.0	227.0	227.0	227.0	227.0	227.0	227.0	227.0
55°	213.0	213.0	213.0	213.0	213.0	213.0	213.0	213.0	213.0	213.0	213.0
57.5°	198.0	198.0	198.0	198.0	198.0	198.0	198.0	198.0	198.0	198.0	198.0
60°	184.0	184.0	184.0	184.0	184.0	184.0	184.0	184.0	184.0	184.0	184.0
62.5°	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0
65°	156.0	156.0	156.0	156.0	156.0	156.0	156.0	156.0	156.0	156.0	156.0
67.5°	142.0	142.0	142.0	142.0	142.0	142.0	142.0	142.0	142.0	142.0	142.0
70°	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0
72.5°	116.0	116.0	116.0	116.0	116.0	116.0	116.0	116.0	116.0	116.0	116.0
75°	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0
77.5°	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0
80°	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
82.5°	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0
85°	59.0	59.0	59.0	59.0	59.0	59.0	59.0	59.0	59.0	59.0	59.0
87.5°	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
90°	3.0	6.0	4.0	2.0	2.0	11.0	7.0	7.0	1.0	2.0	2.0
92.5°	266.9	140.2	113.1	134.8	40.7	124.0	161.0	143.0	162.0	125.8	145.7
95°	627.9	459.6	411.7	365.5	138.4	319.4	429.8	423.4	448.8	422.5	439.7
97.5°	903.9	773.6	643.3	589.0	231.6	498.5	608.0	689.4	684.9	702.1	667.7
100°	1056.8	1067.6	886.7	824.2	310.3	685.8	814.3	853.2	844.1	960.0	891.2
102.5°	1138.2	1316.4	1180.7	1087.5	352.0	894.8	1054.0	1052.2	914.7	1178.0	1165.3
105°	1286.6	1565.2	1488.3	1292.0	449.7	1128.2	1260.3	1288.4	1102.0	1418.7	1457.6
107.5°	1500.1	1878.3	1822.2	1444.0	547.4	1292.9	1423.2	1555.3	1321.9	1672.0	1724.5
110°	1732.6	2101.8	2271.0	1552.6	633.3	1381.6	1728.1	1720.9	1533.6	1844.8	2095.4



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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°	1929.0	2290.0	2492.6	1652.1	675.0	1465.7	2023.0	1871.0	1663.0	1987.8	2354.2
115°	2192.2	2527.9	2660.0	1832.1	764.5	1580.6	2275.5	2116.2	1895.5	2215.8	2546.0
117.5°	2481.8	2717.0	2862.7	1997.7	903.0	1700.0	2538.8	2369.6	2214.9	2459.1	2735.1
120°	2649.1	2841.0	2981.2	2064.7	995.2	1785.1	2716.1	2552.3	2404.0	2652.8	2860.0
122.5°	2784.9	2952.2	2996.6	2210.3	1080.3	1905.4	2765.0	2732.4	2569.5	2831.0	2913.3
125°	2868.1	3039.1	2979.4	2324.3	1155.4	2038.4	2754.1	2916.0	2697.1	3022.8	2917.0
127.5°	2934.1	3087.0	2925.1	2376.8	1271.2	2119.0	2704.3	3044.5	2874.4	3163.0	2870.8
130°	2972.1	3082.5	2890.7	2328.9	1358.0	2093.6	2688.0	3054.5	2994.8	3169.4	2838.2
132.5°	2962.2	3040.9	2837.3	2218.5	1377.0	2025.8	2670.9	3001.1	2992.0	3110.6	2788.5
135°	2928.7	2963.1	2783.0	2095.4	1367.1	1938.0	2628.3	2899.8	2935.0	3001.1	2755.9
137.5°	2856.3	2899.8	2765.9	1995.0	1341.8	1862.0	2549.6	2839.1	2831.9	2923.3	2738.7
140°	2802.0	2793.0	2728.8	1903.6	1336.3	1786.0	2500.8	2763.1	2774.0	2830.1	2694.4
142.5°	2704.3	2707.0	2689.9	1807.7	1335.4	1705.5	2482.7	2675.4	2698.9	2738.7	2656.4
145°	2643.7	2669.0	2610.2	1691.0	1318.2	1599.6	2434.7	2559.6	2621.1	2629.2	2584.0
147.5°	2601.2	2600.3	2425.7	1603.2	1270.3	1516.4	2294.5	2465.5	2508.9	2517.0	2432.9
150°	2539.7	2523.4	2204.0	1544.4	1246.8	1468.4	2104.5	2394.9	2421.1	2439.2	2226.6
152.5°	2451.9	2371.4	1984.1	1487.4	1240.4	1422.3	1914.5	2280.0	2349.7	2325.2	2013.1
155°	2267.3	2142.5	1780.6	1396.0	1222.3	1342.7	1732.6	2068.3	2212.1	2124.4	1811.3
157.5°	2031.2	1900.9	1580.6	1299.2	1161.7	1251.3	1540.8	1847.5	1985.0	1895.5	1615.0
160°	1787.8	1672.0	1403.3	1211.5	1099.3	1167.1	1361.7	1647.6	1755.2	1681.0	1429.5
162.5°	1557.1	1454.0	1257.6	1118.3	1040.5	1083.9	1216.0	1431.3	1540.8	1470.2	1270.3
165°	1342.7	1272.1	1156.3	1031.4	976.2	1003.4	1118.3	1240.4	1326.4	1278.4	1165.3
167.5°	1181.6	1140.0	1066.7	969.9	925.6	945.5	1029.6	1111.0	1159.0	1138.2	1074.0
170°	1069.4	1040.5	980.8	920.1	893.0	903.9	949.1	1013.3	1046.8	1032.3	987.1
172.5°	973.5	955.4	913.8	880.3	865.9	869.5	891.2	935.5	950.9	943.7	920.1
175°	900.2	886.7	867.7	855.9	856.8	848.7	855.9	882.1	881.2	879.4	874.0
177.5°	871.3	845.0	841.4	846.9	878.5	842.3	838.7	858.6	848.7	846.9	848.7
180°	843.2	843.2	843.2	843.2	843.2	843.2	843.2	843.2	843.2	843.2	843.2



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	388.0	388.0	388.0	388.0	388.0	388.0
2.5°	388.0	388.0	388.0	388.0	388.0	388.0
5°	388.0	388.0	388.0	388.0	388.0	388.0
7.5°	386.0	386.0	386.0	386.0	386.0	386.0
10°	383.0	383.0	383.0	383.0	383.0	383.0
12.5°	380.0	380.0	380.0	380.0	380.0	380.0
15°	376.0	376.0	376.0	376.0	376.0	376.0
17.5°	371.0	371.0	371.0	371.0	371.0	371.0
20°	365.0	365.0	365.0	365.0	365.0	365.0
22.5°	358.0	358.0	358.0	358.0	358.0	358.0
25°	351.0	351.0	351.0	351.0	351.0	351.0
27.5°	342.0	342.0	342.0	342.0	342.0	342.0
30°	333.0	333.0	333.0	333.0	333.0	333.0
32.5°	324.0	324.0	324.0	324.0	324.0	324.0
35°	314.0	314.0	314.0	314.0	314.0	314.0
37.5°	303.0	303.0	303.0	303.0	303.0	303.0
40°	291.0	291.0	291.0	291.0	291.0	291.0
42.5°	279.0	279.0	279.0	279.0	279.0	279.0
45°	267.0	267.0	267.0	267.0	267.0	267.0
47.5°	254.0	254.0	254.0	254.0	254.0	254.0
50°	241.0	241.0	241.0	241.0	241.0	241.0
52.5°	227.0	227.0	227.0	227.0	227.0	227.0
55°	213.0	213.0	213.0	213.0	213.0	213.0
57.5°	198.0	198.0	198.0	198.0	198.0	198.0
60°	184.0	184.0	184.0	184.0	184.0	184.0
62.5°	170.0	170.0	170.0	170.0	170.0	170.0
65°	156.0	156.0	156.0	156.0	156.0	156.0
67.5°	142.0	142.0	142.0	142.0	142.0	142.0
70°	129.0	129.0	129.0	129.0	129.0	129.0
72.5°	116.0	116.0	116.0	116.0	116.0	116.0
75°	103.0	103.0	103.0	103.0	103.0	103.0
77.5°	91.0	91.0	91.0	91.0	91.0	91.0
80°	80.0	80.0	80.0	80.0	80.0	80.0
82.5°	69.0	69.0	69.0	69.0	69.0	69.0
85°	59.0	59.0	59.0	59.0	59.0	59.0
87.5°	50.0	50.0	50.0	50.0	50.0	50.0
90°	6.0	2.0	5.0	3.0	9.0	3.0
92.5°	167.4	131.2	138.4	173.7	206.3	266.9
95°	404.4	290.4	401.7	510.3	561.9	627.9
97.5°	657.8	416.2	649.6	748.2	901.1	903.9
100°	866.8	485.0	931.0	1008.8	1172.6	1056.8
102.5°	1112.0	537.4	1181.6	1286.6	1420.5	1138.2
105°	1306.5	599.9	1388.8	1613.2	1628.6	1286.6
107.5°	1521.8	694.9	1577.0	1942.5	1877.4	1500.1
110°	1691.9	805.2	1714.5	2352.4	2091.8	1732.6



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	1833.0	922.9	1849.3	2586.7	2301.7	1929.0
115°	1995.0	1046.8	1981.4	2767.7	2590.3	2192.2
117.5°	2110.8	1157.2	2066.5	2898.0	2819.2	2481.8
120°	2163.3	1229.6	2138.0	2915.1	2951.3	2649.1
122.5°	2219.4	1288.4	2205.8	2906.1	3094.3	2784.9
125°	2226.6	1324.6	2235.7	2905.2	3165.8	2868.1
127.5°	2220.3	1330.9	2227.5	2870.8	3183.0	2934.1
130°	2206.7	1335.4	2178.7	2845.5	3147.7	2972.1
132.5°	2151.5	1350.8	2119.0	2784.9	3080.7	2962.2
135°	2079.1	1364.4	2050.2	2733.3	2986.6	2928.7
137.5°	2001.3	1369.8	1977.8	2752.3	2910.6	2856.3
140°	1905.4	1371.6	1881.0	2752.3	2801.1	2802.0
142.5°	1827.6	1346.3	1791.4	2727.9	2708.0	2704.3
145°	1774.2	1346.3	1744.4	2631.0	2653.7	2643.7
147.5°	1714.5	1371.6	1690.1	2430.2	2594.9	2601.2
150°	1641.2	1374.3	1628.6	2219.4	2522.5	2539.7
152.5°	1545.3	1351.7	1535.4	2006.8	2374.1	2451.9
155°	1438.6	1286.6	1425.9	1797.8	2150.6	2267.3
157.5°	1334.5	1216.9	1321.9	1589.7	1920.8	2031.2
160°	1230.5	1140.9	1219.6	1411.4	1704.6	1787.8
162.5°	1128.2	1065.8	1123.7	1272.1	1479.3	1557.1
165°	1044.1	1001.6	1045.9	1170.8	1287.5	1342.7
167.5°	983.5	957.2	988.9	1085.7	1151.8	1181.6
170°	938.2	924.7	942.8	1002.5	1051.3	1069.4
172.5°	898.4	897.5	904.8	933.7	962.7	973.5
175°	868.6	875.8	874.0	880.3	896.6	900.2
177.5°	852.3	872.2	853.2	851.4	858.6	871.3
180°	843.2	843.2	843.2	843.2	843.2	843.2

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