

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: 253P255

Luminaire Tested: **1215-XX-44-CFL/8/27-T5C/1/40**

Issue Date: 3/3/2020

Test Information

Test Method: LM-66-11
Report Number: 253P255
Test Lab: METALUX LABORATORIES
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 1215-XX-44-CFL/8/27-T5C/1/40
Description: SHAPER 44 INCH 1215 SERIES DIRECT/INDIRECT INDOOR PENDANT FIXTURE
WITH SHALLOW BOWL
Light Source: EIGHT 24 WATT BIAx COMPACT FLUORESCENT LAMPS AND ONE 40 WATT T5 CIRCLINE
(8)F24BX - 1800 LUMENS AND (1)TL5C40W/830 - 3300 LUMENS
Ballast/Driver: -

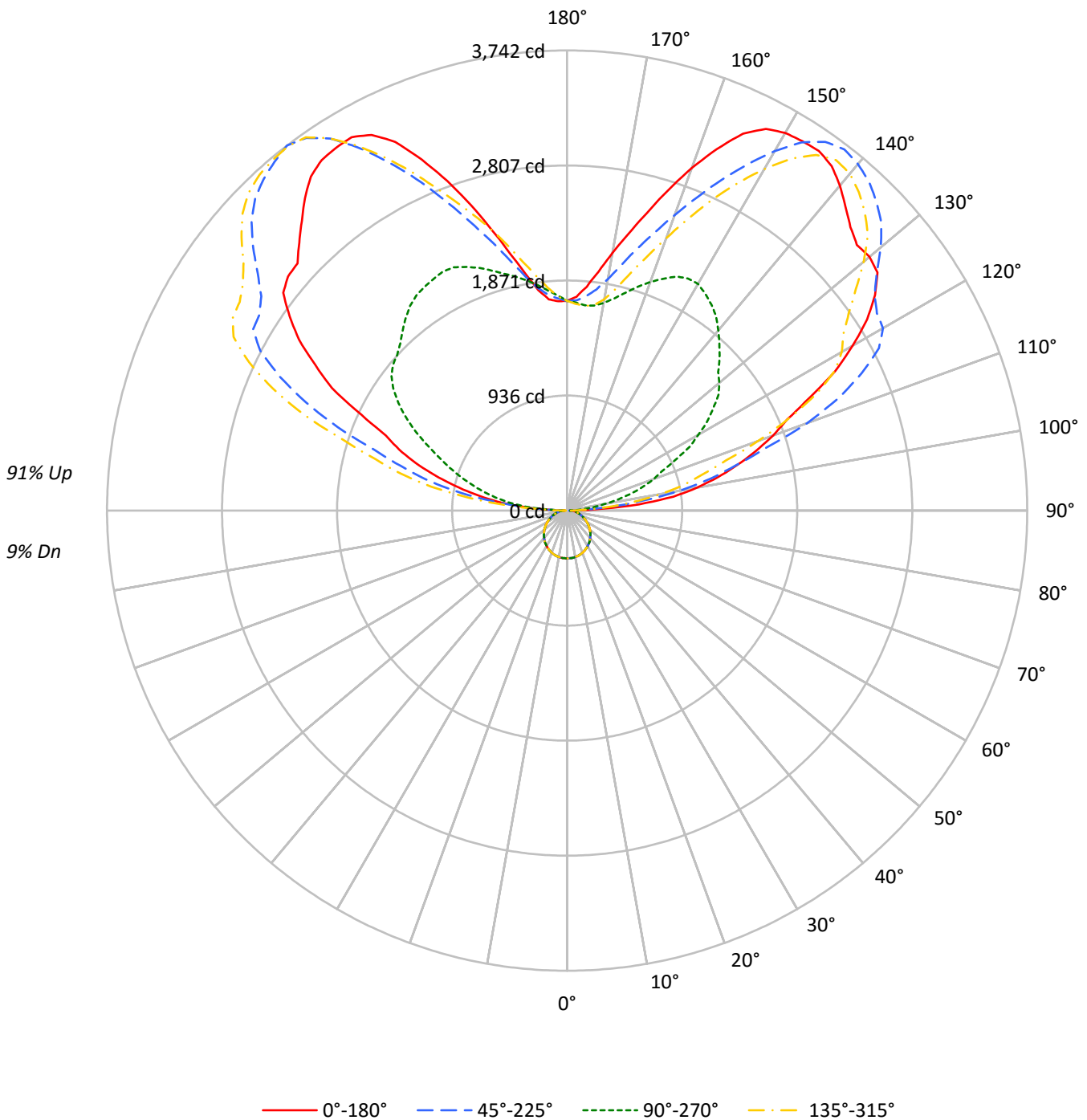
Summary

Lumens per Lamp: 17700 (1 lamp)
Luminaire Lumens: 14139.2 lumens
Efficiency: 79.9%
Efficacy: 60.9 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: Indirect

Input Watts (W): 232
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	78	78	78	78	67	67	67	67	48	48	48	31	31	31	14	14	14	7
1	71	67	64	62	61	58	56	54	42	40	39	27	26	25	13	12	12	6
2	64	59	54	50	55	51	47	44	37	34	32	23	22	21	11	10	10	5
3	58	51	46	42	50	45	40	37	32	29	27	20	19	17	10	9	8	4
4	53	45	39	35	46	39	35	31	28	25	23	18	16	15	9	8	7	3
5	49	40	34	30	42	35	30	26	25	22	19	16	14	13	8	7	6	3
6	45	36	30	25	39	31	26	22	23	19	17	14	12	11	7	6	5	2
7	41	32	26	22	36	28	23	19	20	17	14	13	11	9	6	5	5	2
8	38	29	23	19	33	25	20	17	18	15	13	12	10	8	6	5	4	2
9	35	26	21	17	30	23	18	15	17	13	11	11	9	7	5	4	4	2
10	33	24	18	15	28	21	16	13	15	12	10	10	8	7	5	4	3	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	0.2
10°-20°	106.1	0.8	0.6
20°-30°	161.6	1.1	0.9
30°-40°	196.3	1.4	1.1
40°-50°	205.9	1.5	1.2
50°-60°	190.3	1.3	1.1
60°-70°	154.6	1.1	0.9
70°-80°	109.4	0.8	0.6
80°-90°	62.0	0.4	0.4
90°-100°	431.9	3.1	2.4
100°-110°	1371.6	9.7	7.7
110°-120°	2114.6	15.0	11.9
120°-130°	2503.3	17.7	14.1
130°-140°	2379.0	16.8	13.4
140°-150°	1996.3	14.1	11.3
150°-160°	1317.2	9.3	7.4
160°-170°	629.7	4.5	3.6
170°-180°	172.6	1.2	1.0
0°-30°	304.5	2.2	1.7
0°-40°	500.8	3.5	2.8
0°-60°	896.9	6.3	5.1
0°-90°	1223.0	8.6	6.9
90°-120°	3918.1	27.7	22.1
90°-150°	10796.6	76.4	61.0
90°-180°	12916.0	91.3	73.0
0°-180°	14139.2	100.0	79.9

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°	19	24	17	12	19	44
95°	586	125	373	306	586	573
105°	1433	542	1115	795	1433	1510
115°	2177	964	1846	1251	2177	2178
125°	3057	1450	2756	1725	3057	2703
135°	3259	1752	3081	1920	3259	2540
145°	3570	2046	3479	2137	3570	2223
155°	3382	2100	3309	2183	3382	1549
165°	2505	1834	2359	1995	2505	727
175°	1826	1675	1725	1796	1826	184
180°	1705	1705	1705	1705	1705	



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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°	19.0	17.0	17.0	23.0	24.0	25.0	26.0	28.0	17.0	14.0	12.0
92.5°	230.3	126.9	102.9	134.3	50.9	108.6	125.7	128.6	140.0	114.3	125.1
95°	586.3	413.7	356.0	352.0	125.1	282.3	333.7	352.0	372.6	364.0	382.3
97.5°	870.9	726.3	632.0	580.6	215.4	452.6	545.7	589.7	580.6	634.3	650.9
100°	1070.3	1074.9	930.9	797.7	318.9	657.7	772.0	817.7	756.0	923.4	932.0
102.5°	1254.9	1403.4	1192.6	1059.4	428.6	897.1	977.1	1046.3	936.0	1221.1	1181.1
105°	1433.1	1636.0	1414.9	1297.1	541.7	1093.7	1141.7	1266.3	1115.4	1453.7	1400.6
107.5°	1608.0	1842.3	1694.3	1489.7	650.3	1254.3	1352.0	1466.9	1294.3	1662.3	1641.7
110°	1778.9	2034.3	2073.1	1610.3	747.4	1410.9	1648.6	1616.0	1455.4	1812.6	1986.9



TEST NUMBER: 253P255

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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°	1936.0	2202.3	2386.3	1762.9	831.4	1601.7	1946.9	1825.1	1594.3	1973.7	2298.9
115°	2176.6	2449.1	2644.0	2027.4	964.0	1813.1	2226.3	2107.4	1845.7	2230.3	2577.7
117.5°	2458.9	2700.0	2857.7	2275.4	1121.7	2015.4	2450.3	2394.3	2156.0	2500.6	2812.6
120°	2679.4	2942.3	2965.7	2447.4	1230.9	2209.7	2578.3	2646.9	2362.9	2762.9	2949.1
122.5°	2891.4	3157.1	2986.9	2614.3	1352.6	2379.4	2661.1	2882.3	2584.6	2989.1	2966.3
125°	3056.6	3304.0	3050.3	2732.6	1449.7	2501.7	2795.4	3057.1	2756.0	3173.1	3036.0
127.5°	3181.1	3359.4	3172.0	2796.0	1551.4	2561.7	2958.9	3122.9	2910.3	3264.0	3171.4
130°	3209.7	3329.1	3328.0	2828.0	1615.4	2547.4	3148.0	3153.1	2962.3	3251.4	3333.7
132.5°	3196.6	3354.3	3465.7	2860.0	1666.3	2554.9	3315.4	3257.7	2974.3	3318.9	3481.7
135°	3258.9	3424.6	3555.4	2855.4	1752.0	2567.4	3424.6	3335.4	3080.6	3425.7	3588.0
137.5°	3349.7	3503.4	3630.9	2851.4	1832.6	2565.7	3511.4	3435.4	3193.7	3525.7	3654.9
140°	3450.3	3568.6	3678.3	2840.0	1912.6	2560.6	3576.0	3518.9	3317.1	3620.0	3702.3
142.5°	3532.6	3589.7	3702.3	2806.9	1990.3	2540.0	3593.1	3549.1	3424.0	3669.7	3742.3
145°	3569.7	3576.0	3660.6	2776.0	2045.7	2506.9	3530.9	3549.7	3479.4	3679.4	3699.4
147.5°	3561.7	3550.9	3549.7	2740.0	2090.3	2478.9	3393.1	3538.3	3498.3	3681.7	3586.3
150°	3546.3	3516.0	3374.9	2677.7	2128.6	2435.4	3205.7	3474.3	3506.3	3650.3	3412.0
152.5°	3498.9	3419.4	3172.6	2586.9	2128.0	2352.0	3000.6	3341.7	3444.6	3532.6	3211.4
155°	3381.7	3237.1	2965.1	2470.9	2100.0	2245.7	2788.6	3133.7	3309.1	3334.3	3007.4
157.5°	3181.7	3022.9	2754.9	2342.3	2040.6	2129.1	2565.7	2900.6	3088.0	3099.4	2793.1
160°	2962.9	2798.3	2556.6	2217.7	1977.7	2018.3	2357.1	2670.3	2852.0	2852.6	2588.0
162.5°	2730.3	2580.6	2371.4	2086.3	1907.4	1914.9	2166.3	2428.0	2604.6	2601.1	2394.3
165°	2504.6	2382.9	2205.1	1968.6	1834.3	1821.1	2001.1	2212.6	2358.9	2362.3	2224.6
167.5°	2304.6	2208.0	2045.7	1866.9	1766.3	1745.1	1850.9	2027.4	2138.3	2149.1	2062.3
170°	2126.9	2049.7	1912.0	1783.4	1714.3	1692.6	1743.4	1870.3	1955.4	1966.9	1927.4
172.5°	1959.4	1908.0	1812.0	1730.9	1681.1	1667.4	1685.1	1764.6	1808.0	1827.4	1825.7
175°	1826.3	1793.7	1746.9	1709.7	1674.9	1663.4	1670.9	1719.4	1724.6	1742.3	1760.0
177.5°	1740.6	1724.6	1711.4	1707.4	1692.6	1683.4	1681.1	1712.0	1703.4	1716.0	1726.3
180°	1705.1	1705.1	1705.1	1705.1	1705.1	1705.1	1705.1	1705.1	1705.1	1705.1	1705.1



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CATALOG NUMBER: 1215-XX-44-CFL/8/27-T5C/1/40

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°	19.0	12.0	12.0	13.0	26.0	19.0
92.5°	152.6	118.3	139.4	169.7	201.7	230.3
95°	412.0	305.7	428.0	496.0	545.7	586.3
97.5°	682.9	458.9	712.6	806.9	892.0	870.9
100°	916.6	574.9	1017.1	1122.9	1202.9	1070.3
102.5°	1174.9	685.7	1340.0	1385.1	1473.7	1254.9
105°	1412.6	795.4	1565.1	1613.1	1715.4	1433.1
107.5°	1617.1	902.3	1744.0	1904.0	1924.6	1608.0
110°	1768.6	1014.9	1905.7	2275.4	2106.9	1778.9



TEST NUMBER: 253P255

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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	1950.3	1124.0	2071.4	2590.9	2306.3	1936.0
115°	2206.3	1251.4	2277.7	2856.0	2607.4	2176.6
117.5°	2454.3	1385.7	2482.3	3058.9	2885.1	2458.9
120°	2617.1	1512.0	2663.4	3138.9	3111.4	2679.4
122.5°	2782.3	1626.3	2797.7	3157.1	3309.7	2891.4
125°	2898.9	1725.1	2890.9	3216.6	3437.1	3056.6
127.5°	2953.7	1801.7	2931.4	3317.1	3474.9	3181.1
130°	2956.0	1846.9	2904.0	3456.6	3478.9	3209.7
132.5°	2941.7	1874.9	2877.1	3579.4	3537.1	3196.6
135°	2918.9	1920.0	2861.1	3660.6	3596.6	3258.9
137.5°	2897.1	1980.6	2850.9	3703.4	3680.0	3349.7
140°	2864.0	2042.3	2831.4	3722.3	3746.3	3450.3
142.5°	2813.7	2097.7	2794.9	3732.6	3772.0	3532.6
145°	2745.7	2137.1	2747.4	3705.7	3758.3	3569.7
147.5°	2673.1	2157.1	2702.3	3587.4	3732.0	3561.7
150°	2604.6	2174.3	2661.1	3426.9	3686.9	3546.3
152.5°	2526.3	2190.3	2604.6	3246.3	3581.7	3498.9
155°	2425.1	2182.9	2515.4	3056.0	3389.7	3381.7
157.5°	2318.9	2144.6	2413.7	2860.0	3174.3	3181.7
160°	2215.4	2100.0	2308.0	2681.1	2949.1	2962.9
162.5°	2113.7	2046.9	2206.3	2517.1	2711.4	2730.3
165°	2029.1	1994.9	2114.9	2360.0	2498.3	2504.6
167.5°	1956.0	1948.6	2032.6	2198.9	2305.1	2304.6
170°	1892.6	1901.7	1954.9	2049.1	2122.3	2126.9
172.5°	1834.9	1849.7	1877.1	1922.9	1961.1	1959.4
175°	1781.7	1796.0	1804.0	1818.9	1838.3	1826.3
177.5°	1737.7	1750.3	1749.1	1742.9	1752.6	1740.6
180°	1705.1	1705.1	1705.1	1705.1	1705.1	1705.1

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