

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/8/27**

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/8/27
Description: SHAPER 44 INCH 1200 SERIES DIRECT/INDIRECT INDOOR PENDANT FIXTURE
Light Source: EIGHT - F24BX/SPX35 - 1800 LUMENS - 24 WATTS
Ballast/Driver: -

Summary

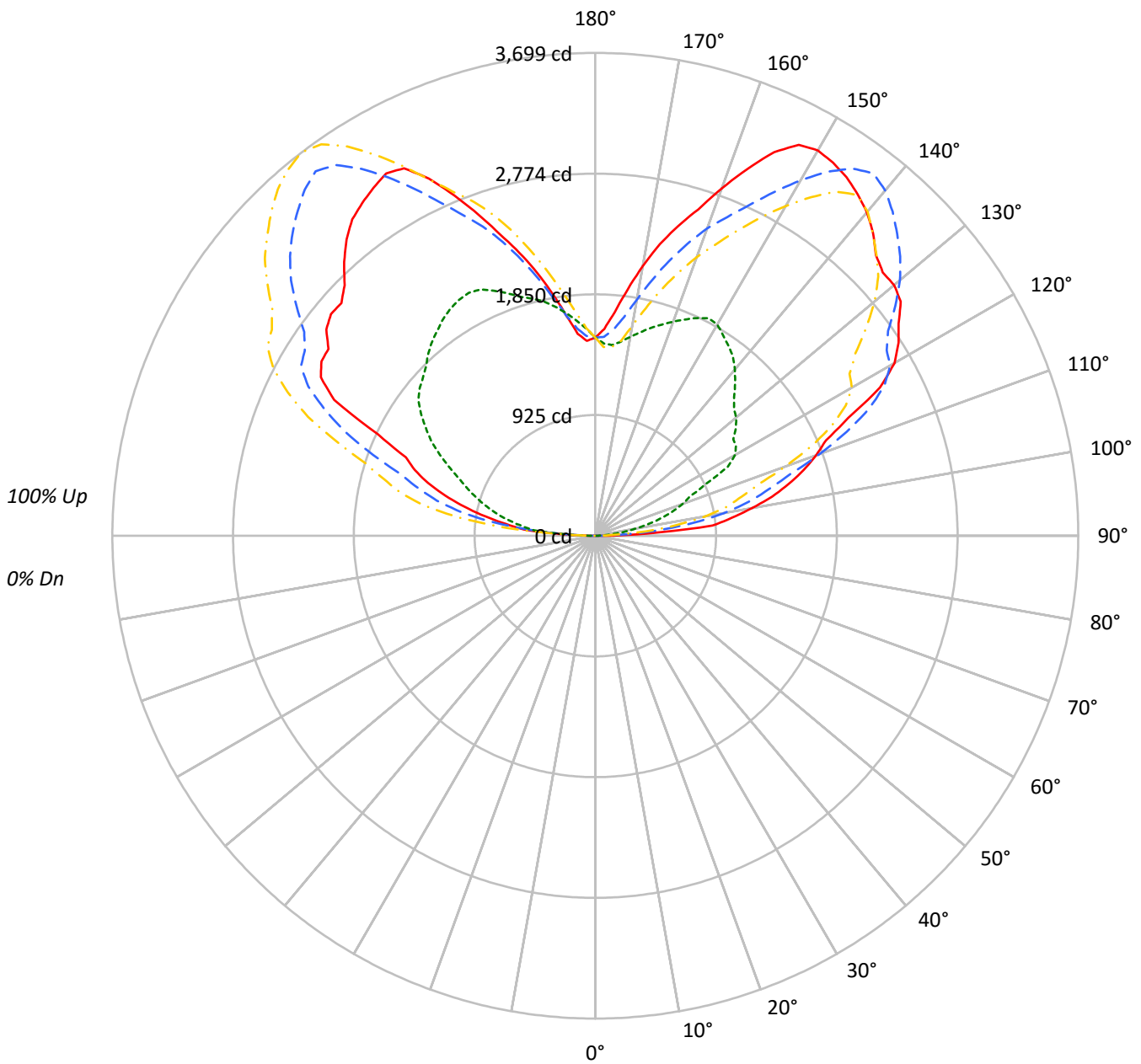
Lumens per Lamp: 1800 (8 lamps)
Luminaire Lumens: 12280.7 lumens
Efficiency: 85.3%
Efficacy: 38.9 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Vertical Cylinder (Dia: 3.67' x H: 0.1')
CIE Type: Indirect

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



— 0°-180° - - 45°-225° ··· 90°-270° - · 135°-315°



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	81	81	81	81	69	69	69	69	47	47	47	27	27	27	9	9	9	0
1	74	70	67	65	63	60	58	56	41	40	38	24	23	22	8	7	7	0
2	67	61	57	53	57	53	49	46	36	34	32	21	20	19	7	6	6	0
3	61	54	48	44	52	46	42	38	32	29	27	18	17	16	6	5	5	0
4	56	47	41	37	47	41	36	32	28	25	22	16	15	13	5	5	4	0
5	51	42	36	31	43	36	31	27	25	22	19	14	13	11	5	4	4	0
6	47	37	31	27	40	32	27	23	22	19	16	13	11	10	4	4	3	0
7	43	33	27	23	37	29	24	20	20	17	14	12	10	8	4	3	3	0
8	40	30	24	20	34	26	21	17	18	15	12	10	9	7	3	3	2	0
9	37	27	21	17	31	23	19	15	16	13	11	9	8	6	3	3	2	0
10	34	25	19	15	29	21	17	13	15	12	9	9	7	6	3	2	2	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°	531.7	4.3	3.7
100°-110°	1368.0	11.1	9.5
110°-120°	1997.9	16.3	13.9
120°-130°	2301.4	18.7	16.0
130°-140°	2191.7	17.8	15.2
140°-150°	1872.9	15.3	13.0
150°-160°	1249.7	10.2	8.7
160°-170°	606.4	4.9	4.2
170°-180°	159.8	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°	3897.5	31.7	27.1
90°-150°	10263.6	83.6	71.3
90°-180°	12280.0	100.0	85.3
0°-180°	12280.7	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	56
95°	901	121	549	470	901	751
105°	1533	523	1189	858	1533	1611
115°	2137	927	1835	1226	2137	2160
125°	2834	1289	2494	1630	2834	2543
135°	3039	1503	2714	1834	3039	2375
145°	3353	1777	3112	2030	3353	2096
155°	3242	1840	3019	2082	3242	1487
165°	2458	1649	2243	1881	2458	707
175°	1720	1466	1553	1654	1720	176
180°	1518	1518	1518	1518	1518	



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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°	393.1	425.1	193.1	38.9	36.6	102.3	126.9	194.3	224.6	257.1	165.7
95°	901.1	825.7	484.6	208.6	121.1	307.4	385.7	502.9	548.6	593.7	490.9
97.5°	1054.3	1020.0	756.6	450.3	212.6	476.6	630.3	706.3	690.9	802.3	784.0
100°	1216.0	1230.3	1001.1	689.1	316.6	650.3	856.0	904.6	854.9	1008.6	1039.4
102.5°	1385.7	1436.6	1202.9	934.9	418.9	851.4	1032.6	1105.1	1026.3	1233.1	1241.7
105°	1532.6	1609.7	1376.6	1175.4	522.9	1038.3	1160.0	1282.3	1189.1	1437.1	1401.7
107.5°	1673.1	1764.0	1559.4	1372.0	622.9	1184.6	1309.7	1438.9	1342.9	1622.9	1557.1
110°	1798.3	1889.7	1827.4	1501.1	711.4	1317.1	1541.7	1549.1	1471.4	1736.0	1811.4



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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°	1911.4	2077.1	2084.6	1666.3	782.3	1490.3	1789.1	1724.6	1569.7	1907.4	2066.9
115°	2137.1	2390.3	2318.9	1909.7	926.9	1759.4	1998.9	2060.6	1835.4	2289.7	2285.7
117.5°	2457.7	2609.1	2496.6	2121.7	1141.7	1927.4	2162.3	2364.6	2254.3	2507.4	2478.9
120°	2645.1	2757.1	2606.3	2296.0	1235.4	2050.3	2268.6	2557.7	2426.9	2610.3	2602.3
122.5°	2753.1	2908.0	2645.1	2379.4	1276.6	2168.6	2309.1	2616.6	2487.4	2725.7	2637.7
125°	2834.3	3047.4	2736.0	2464.6	1289.1	2269.1	2430.3	2714.3	2493.7	2878.3	2721.1
127.5°	2948.0	3097.1	2895.4	2513.1	1356.6	2316.6	2613.1	2767.4	2596.6	2961.1	2882.9
130°	2986.9	3088.0	3045.1	2522.3	1408.0	2312.0	2792.0	2758.9	2642.3	2963.4	3041.7
132.5°	2985.7	3122.3	3166.3	2532.6	1438.9	2316.6	2938.9	2820.0	2637.7	3012.6	3171.4
135°	3039.4	3215.4	3269.1	2550.9	1502.9	2338.9	3044.0	2935.4	2714.3	3123.4	3279.4
137.5°	3148.0	3293.1	3369.1	2560.6	1584.0	2357.1	3144.6	3042.3	2846.3	3226.9	3374.3
140°	3235.4	3348.6	3453.7	2566.9	1661.7	2368.6	3243.4	3118.9	2962.9	3309.7	3461.7
142.5°	3298.9	3390.9	3497.7	2564.0	1730.9	2358.3	3291.4	3162.9	3056.6	3357.1	3518.3
145°	3353.1	3420.0	3434.9	2563.4	1777.1	2345.7	3217.7	3198.3	3112.0	3397.7	3467.4
147.5°	3388.6	3429.7	3305.1	2554.9	1821.1	2337.7	3075.4	3228.6	3160.6	3439.4	3332.6
150°	3408.0	3411.4	3142.9	2514.9	1868.0	2304.6	2916.6	3211.4	3204.0	3432.0	3168.6
152.5°	3376.0	3295.4	2968.0	2420.6	1878.3	2213.1	2750.3	3072.0	3173.1	3296.6	2994.3
155°	3242.3	3105.1	2794.9	2309.7	1840.0	2104.6	2580.0	2874.9	3018.9	3101.1	2818.3
157.5°	3041.1	2895.4	2642.9	2195.4	1793.1	1994.9	2418.3	2672.6	2820.6	2893.1	2661.7
160°	2830.3	2685.7	2504.6	2081.7	1745.1	1886.9	2270.3	2470.3	2617.7	2686.3	2521.7
162.5°	2621.1	2501.1	2345.1	1969.1	1696.0	1781.1	2112.0	2282.9	2416.6	2489.7	2361.1
165°	2457.7	2342.3	2176.6	1858.9	1648.6	1682.3	1949.7	2113.1	2243.4	2306.9	2189.7
167.5°	2288.0	2164.6	2005.7	1752.6	1597.1	1592.6	1785.1	1936.0	2065.1	2109.1	2017.1
170°	2098.3	1986.9	1837.7	1657.7	1546.9	1520.6	1632.0	1769.1	1881.1	1912.6	1849.1
172.5°	1904.0	1816.6	1689.1	1572.0	1498.9	1466.9	1506.3	1615.4	1700.6	1728.0	1700.6
175°	1720.0	1662.9	1583.4	1510.3	1466.3	1436.0	1451.4	1503.4	1552.6	1581.1	1594.3
177.5°	1585.7	1559.4	1525.1	1494.9	1474.9	1456.0	1446.9	1472.6	1493.7	1518.3	1530.9
180°	1517.7	1517.7	1517.7	1517.7	1517.7	1517.7	1517.7	1517.7	1517.7	1517.7	1517.7



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CATALOG NUMBER: 1200-OB-44-CFL/8/27

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°	170.3	202.9	285.1	218.3	305.1	393.1
95°	473.1	470.3	673.1	666.3	774.3	901.1
97.5°	714.9	565.7	903.4	1033.7	1065.7	1054.3
100°	928.0	666.3	1097.1	1329.7	1327.4	1216.0
102.5°	1148.6	769.1	1324.6	1528.6	1561.1	1385.7
105°	1344.0	858.3	1519.4	1675.4	1750.3	1532.6
107.5°	1513.1	946.3	1684.6	1845.7	1932.0	1673.1
110°	1641.1	1033.7	1820.6	2106.3	2067.4	1798.3



TEST NUMBER: 253P217

CATALOG NUMBER: 1200-OB-44-CFL/8/27

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	1820.0	1121.7	1988.0	2381.7	2238.3	1911.4
115°	2022.9	1226.3	2186.9	2598.9	2523.4	2137.1
117.5°	2207.4	1341.7	2364.0	2780.0	2792.0	2457.7
120°	2368.0	1450.3	2532.0	2897.7	2986.3	2645.1
122.5°	2523.4	1540.0	2677.7	2938.3	3100.0	2753.1
125°	2644.0	1629.7	2790.3	3020.0	3217.1	2834.3
127.5°	2684.0	1709.1	2857.1	3165.1	3278.9	2948.0
130°	2683.4	1756.0	2868.6	3304.0	3285.7	2986.9
132.5°	2672.0	1790.3	2858.3	3406.9	3326.3	2985.7
135°	2670.9	1833.7	2858.3	3509.1	3417.7	3039.4
137.5°	2662.3	1893.7	2848.6	3600.0	3497.1	3148.0
140°	2641.1	1943.4	2826.9	3660.6	3545.1	3235.4
142.5°	2630.9	1984.6	2809.1	3699.4	3594.3	3298.9
145°	2614.3	2029.7	2797.7	3660.6	3630.9	3353.1
147.5°	2576.0	2064.0	2772.6	3534.9	3642.9	3388.6
150°	2533.1	2086.9	2733.1	3368.6	3626.3	3408.0
152.5°	2460.6	2098.3	2660.0	3191.4	3507.4	3376.0
155°	2353.1	2081.7	2553.1	3009.1	3310.3	3242.3
157.5°	2235.4	2032.0	2433.7	2853.1	3100.0	3041.1
160°	2117.1	1977.1	2311.4	2724.0	2885.1	2830.3
162.5°	2010.9	1920.0	2201.7	2571.4	2690.3	2621.1
165°	1922.3	1881.1	2102.9	2399.4	2519.4	2457.7
167.5°	1834.3	1839.4	1994.3	2219.4	2324.0	2288.0
170°	1754.3	1783.4	1885.1	2041.1	2121.7	2098.3
172.5°	1683.4	1721.7	1784.0	1869.7	1920.0	1904.0
175°	1615.4	1654.3	1685.7	1718.3	1738.9	1720.0
177.5°	1561.1	1587.4	1601.1	1590.9	1601.7	1585.7
180°	1517.7	1517.7	1517.7	1517.7	1517.7	1517.7

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