

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/4/27-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/4/27-T5C/1/40
Description: SHAPER 44 INCH 1215 SERIES DIRECT/INDIRECT INDOOR PENDANT FIXTURE
WITH SHALLOW BOWL
Light Source: FOUR 24 WATT BIAX COMPACT FLUORESCENT LAMPS AND ONE 40 WATT T5 CIRCLINE
(4)F24BX - 1800 LUMENS AND (1)TL5C40W/830 - 3300 LUMENS
Ballast/Driver: -

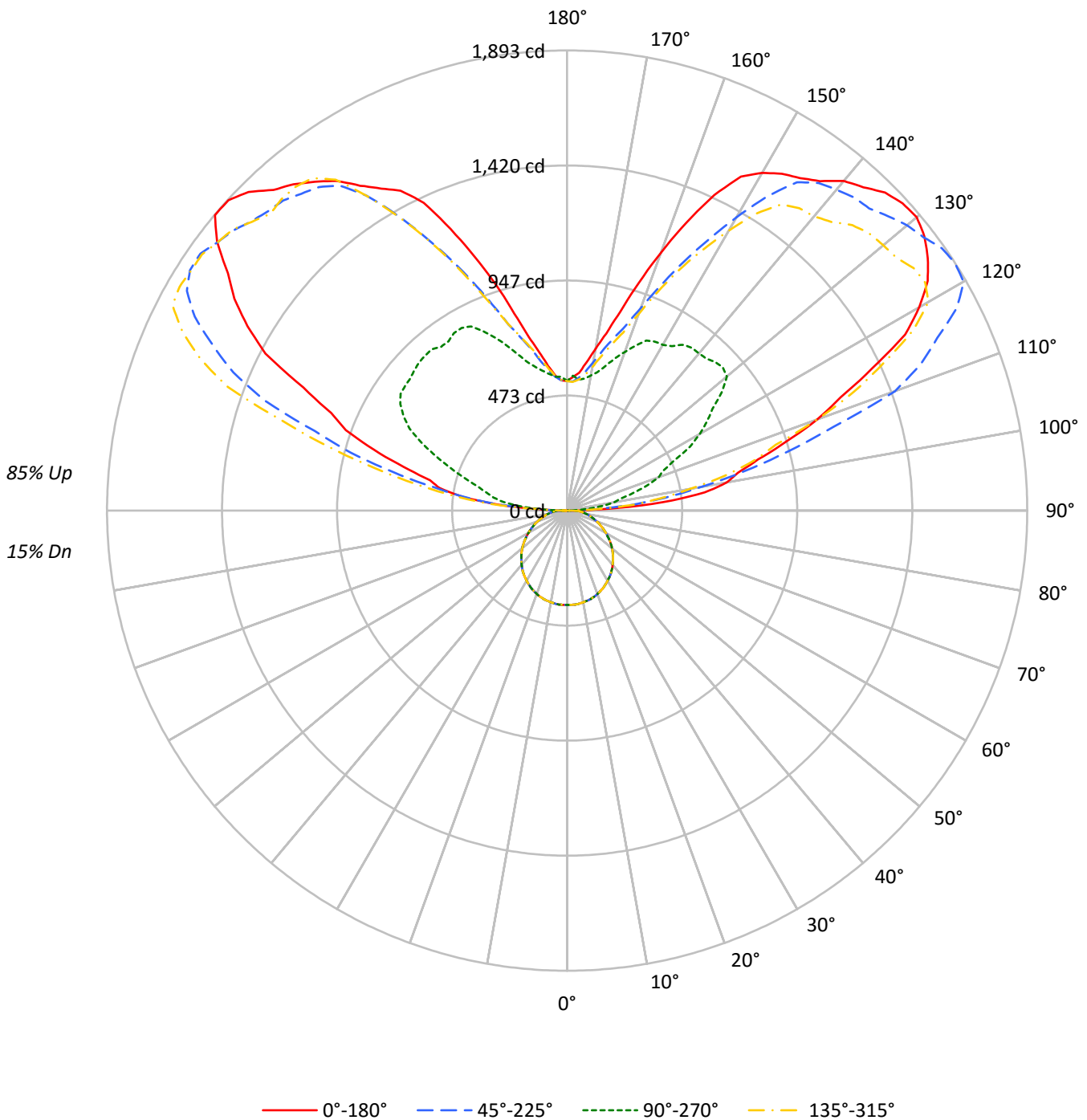
Summary

Lumens per Lamp: 10500 (1 lamp)
Luminaire Lumens: 7932.1 lumens
Efficiency: 75.5%
Efficacy: 58.3 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): 136
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	75	75	75	75	66	66	66	66	48	48	48	33	33	33	18	18	18	12
1	68	65	62	59	59	57	54	52	42	40	39	28	27	27	16	15	15	9
2	62	56	52	48	54	49	46	43	37	34	32	25	23	22	14	13	12	8
3	56	49	44	40	49	43	39	35	32	29	27	22	20	18	12	11	10	6
4	51	43	38	33	45	38	33	30	28	25	23	19	17	16	11	10	9	5
5	47	38	33	28	41	34	29	25	25	22	19	17	15	13	10	9	8	5
6	43	34	28	24	37	30	25	22	23	19	17	15	13	12	9	8	7	4
7	40	31	25	21	35	27	22	19	20	17	14	14	12	10	8	7	6	4
8	37	28	22	18	32	25	20	16	18	15	13	13	10	9	7	6	5	3
9	34	25	20	16	30	22	18	15	17	13	11	12	9	8	7	5	5	3
10	32	23	18	14	28	20	16	13	15	12	10	11	9	7	6	5	4	3

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	0.5	0.4
10°-20°	106.1	1.3	1.0
20°-30°	161.6	2.0	1.5
30°-40°	196.3	2.5	1.9
40°-50°	205.9	2.6	2.0
50°-60°	190.3	2.4	1.8
60°-70°	154.6	1.9	1.5
70°-80°	109.4	1.4	1.0
80°-90°	60.0	0.8	0.6
90°-100°	282.2	3.6	2.7
100°-110°	847.7	10.7	8.1
110°-120°	1285.2	16.2	12.2
120°-130°	1422.2	17.9	13.5
130°-140°	1209.4	15.2	11.5
140°-150°	877.9	11.1	8.4
150°-160°	517.1	6.5	4.9
160°-170°	214.4	2.7	2.0
170°-180°	54.9	0.7	0.5
0°-30°	304.5	3.8	2.9
0°-40°	500.8	6.3	4.8
0°-60°	896.9	11.3	8.5
0°-90°	1221.0	15.4	11.6
90°-120°	2415.1	30.4	23.0
90°-150°	5924.6	74.7	56.4
90°-180°	6711.0	84.6	63.9
0°-180°	7932.1	100.0	75.5

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	31
95°	397	87	283	183	397	377
105°	813	284	696	379	813	887
115°	1385	483	1197	661	1385	1374
125°	1811	730	1703	837	1811	1613
135°	1850	863	1854	862	1850	1424
145°	1670	833	1655	850	1670	1055
155°	1432	772	1397	813	1432	658
165°	848	617	838	633	848	253
175°	569	541	557	553	569	58
180°	533	533	533	533	533	



TEST NUMBER: 253P254

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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°	168.6	88.6	71.4	85.1	25.7	78.3	101.7	90.3	102.3	79.4	92.0
95°	396.6	290.3	260.0	230.9	87.4	201.7	271.4	267.4	283.4	266.9	277.7
97.5°	570.9	488.6	406.3	372.0	146.3	314.9	384.0	435.4	432.6	443.4	421.7
100°	667.4	674.3	560.0	520.6	196.0	433.1	514.3	538.9	533.1	606.3	562.9
102.5°	718.9	831.4	745.7	686.9	222.3	565.1	665.7	664.6	577.7	744.0	736.0
105°	812.6	988.6	940.0	816.0	284.0	712.6	796.0	813.7	696.0	896.0	920.6
107.5°	947.4	1186.3	1150.9	912.0	345.7	816.6	898.9	982.3	834.9	1056.0	1089.1
110°	1094.3	1327.4	1434.3	980.6	400.0	872.6	1091.4	1086.9	968.6	1165.1	1323.4



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CATALOG NUMBER: 1215-XX-44-CFL/4/27-T5C/1/40

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	1218.3	1446.3	1574.3	1043.4	426.3	925.7	1277.7	1181.7	1050.3	1255.4	1486.9
115°	1384.6	1596.6	1680.0	1157.1	482.9	998.3	1437.1	1336.6	1197.1	1399.4	1608.0
117.5°	1567.4	1716.0	1808.0	1261.7	570.3	1073.7	1603.4	1496.6	1398.9	1553.1	1727.4
120°	1673.1	1794.3	1882.9	1304.0	628.6	1127.4	1715.4	1612.0	1518.3	1675.4	1806.3
122.5°	1758.9	1864.6	1892.6	1396.0	682.3	1203.4	1746.3	1725.7	1622.9	1788.0	1840.0
125°	1811.4	1919.4	1881.7	1468.0	729.7	1287.4	1739.4	1841.7	1703.4	1909.1	1842.3
127.5°	1853.1	1949.7	1847.4	1501.1	802.9	1338.3	1708.0	1922.9	1815.4	1997.7	1813.1
130°	1877.1	1946.9	1825.7	1470.9	857.7	1322.3	1697.7	1929.1	1891.4	2001.7	1792.6
132.5°	1870.9	1920.6	1792.0	1401.1	869.7	1279.4	1686.9	1895.4	1889.7	1964.6	1761.1
135°	1849.7	1871.4	1757.7	1323.4	863.4	1224.0	1660.0	1831.4	1853.7	1895.4	1740.6
137.5°	1804.0	1831.4	1746.9	1260.0	847.4	1176.0	1610.3	1793.1	1788.6	1846.3	1729.7
140°	1769.7	1764.0	1723.4	1202.3	844.0	1128.0	1579.4	1745.1	1752.0	1787.4	1701.7
142.5°	1708.0	1709.7	1698.9	1141.7	843.4	1077.1	1568.0	1689.7	1704.6	1729.7	1677.7
145°	1669.7	1685.7	1648.6	1068.0	832.6	1010.3	1537.7	1616.6	1655.4	1660.6	1632.0
147.5°	1642.9	1642.3	1532.0	1012.6	802.3	957.7	1449.1	1557.1	1584.6	1589.7	1536.6
150°	1604.0	1593.7	1392.0	975.4	787.4	927.4	1329.1	1512.6	1529.1	1540.6	1406.3
152.5°	1548.6	1497.7	1253.1	939.4	783.4	898.3	1209.1	1440.0	1484.0	1468.6	1271.4
155°	1432.0	1353.1	1124.6	881.7	772.0	848.0	1094.3	1306.3	1397.1	1341.7	1144.0
157.5°	1282.9	1200.6	998.3	820.6	733.7	790.3	973.1	1166.9	1253.7	1197.1	1020.0
160°	1129.1	1056.0	886.3	765.1	694.3	737.1	860.0	1040.6	1108.6	1061.7	902.9
162.5°	983.4	918.3	794.3	706.3	657.1	684.6	768.0	904.0	973.1	928.6	802.3
165°	848.0	803.4	730.3	651.4	616.6	633.7	706.3	783.4	837.7	807.4	736.0
167.5°	746.3	720.0	673.7	612.6	584.6	597.1	650.3	701.7	732.0	718.9	678.3
170°	675.4	657.1	619.4	581.1	564.0	570.9	599.4	640.0	661.1	652.0	623.4
172.5°	614.9	603.4	577.1	556.0	546.9	549.1	562.9	590.9	600.6	596.0	581.1
175°	568.6	560.0	548.0	540.6	541.1	536.0	540.6	557.1	556.6	555.4	552.0
177.5°	550.3	533.7	531.4	534.9	554.9	532.0	529.7	542.3	536.0	534.9	536.0
180°	532.6	532.6	532.6	532.6	532.6	532.6	532.6	532.6	532.6	532.6	532.6



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CATALOG NUMBER: 1215-XX-44-CFL/4/27-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°	6.0	2.0	5.0	3.0	9.0	3.0
92.5°	105.7	82.9	87.4	109.7	130.3	168.6
95°	255.4	183.4	253.7	322.3	354.9	396.6
97.5°	415.4	262.9	410.3	472.6	569.1	570.9
100°	547.4	306.3	588.0	637.1	740.6	667.4
102.5°	702.3	339.4	746.3	812.6	897.1	718.9
105°	825.1	378.9	877.1	1018.9	1028.6	812.6
107.5°	961.1	438.9	996.0	1226.9	1185.7	947.4
110°	1068.6	508.6	1082.9	1485.7	1321.1	1094.3



TEST NUMBER: 253P254

CATALOG NUMBER: 1215-XX-44-CFL/4/27-T5C/1/40

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	1157.7	582.9	1168.0	1633.7	1453.7	1218.3
115°	1260.0	661.1	1251.4	1748.0	1636.0	1384.6
117.5°	1333.1	730.9	1305.1	1830.3	1780.6	1567.4
120°	1366.3	776.6	1350.3	1841.1	1864.0	1673.1
122.5°	1401.7	813.7	1393.1	1835.4	1954.3	1758.9
125°	1406.3	836.6	1412.0	1834.9	1999.4	1811.4
127.5°	1402.3	840.6	1406.9	1813.1	2010.3	1853.1
130°	1393.7	843.4	1376.0	1797.1	1988.0	1877.1
132.5°	1358.9	853.1	1338.3	1758.9	1945.7	1870.9
135°	1313.1	861.7	1294.9	1726.3	1886.3	1849.7
137.5°	1264.0	865.1	1249.1	1738.3	1838.3	1804.0
140°	1203.4	866.3	1188.0	1738.3	1769.1	1769.7
142.5°	1154.3	850.3	1131.4	1722.9	1710.3	1708.0
145°	1120.6	850.3	1101.7	1661.7	1676.0	1669.7
147.5°	1082.9	866.3	1067.4	1534.9	1638.9	1642.9
150°	1036.6	868.0	1028.6	1401.7	1593.1	1604.0
152.5°	976.0	853.7	969.7	1267.4	1499.4	1548.6
155°	908.6	812.6	900.6	1135.4	1358.3	1432.0
157.5°	842.9	768.6	834.9	1004.0	1213.1	1282.9
160°	777.1	720.6	770.3	891.4	1076.6	1129.1
162.5°	712.6	673.1	709.7	803.4	934.3	983.4
165°	659.4	632.6	660.6	739.4	813.1	848.0
167.5°	621.1	604.6	624.6	685.7	727.4	746.3
170°	592.6	584.0	595.4	633.1	664.0	675.4
172.5°	567.4	566.9	571.4	589.7	608.0	614.9
175°	548.6	553.1	552.0	556.0	566.3	568.6
177.5°	538.3	550.9	538.9	537.7	542.3	550.3
180°	532.6	532.6	532.6	532.6	532.6	532.6

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