

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P273791

Luminaire Tested: **4RCG-4-100D-L935-A**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P273791
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-20)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4RCG-4-100D-L935-A
Description: RCG SERIES DIRECT RECESSED LED LUMINAIRE WITH ASYMMETRIC FLUSH LENS
Light Source: (168) 3500K CCT, 90 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

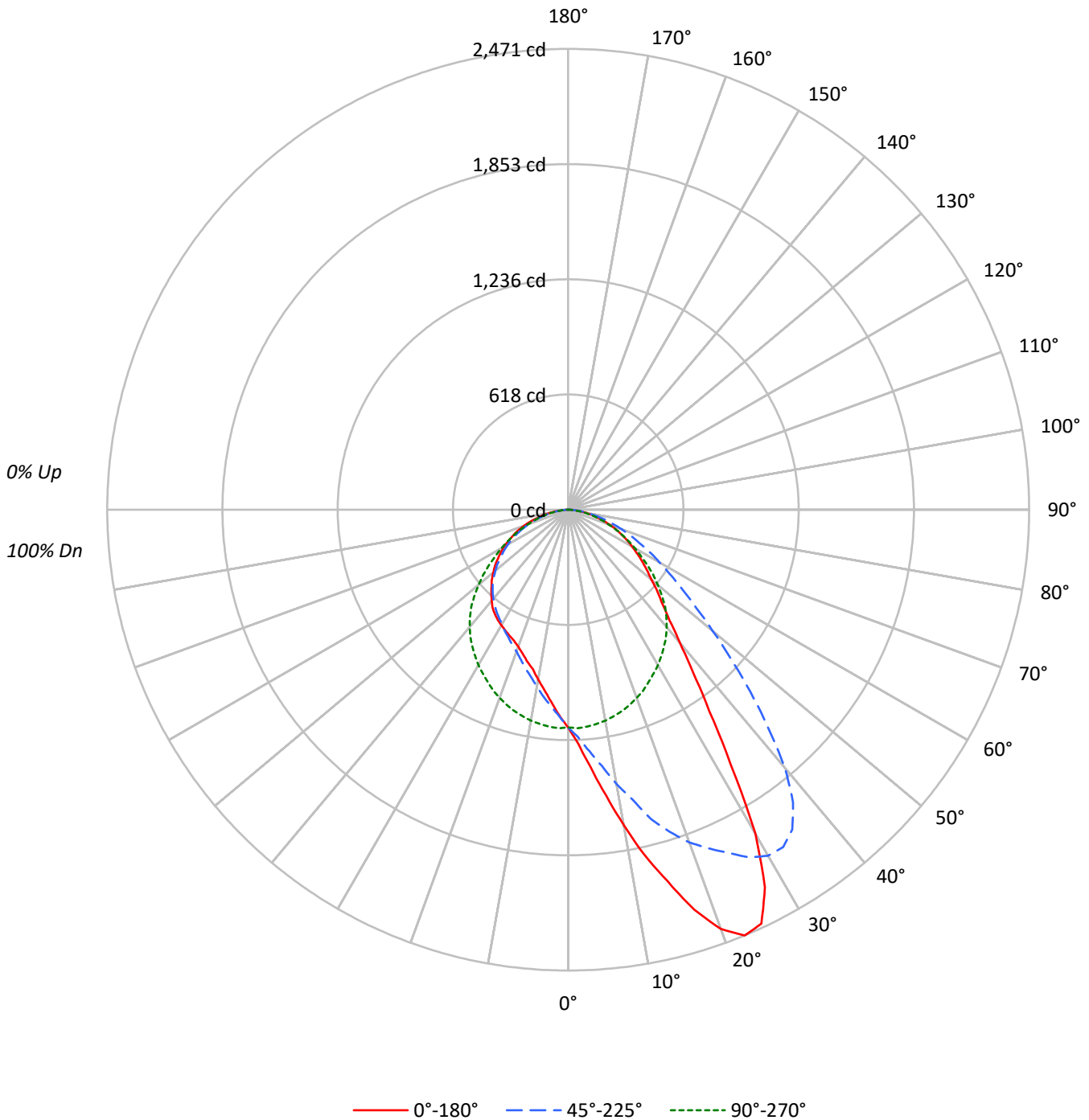
Lumens per Lamp: N/A
Luminaire Lumens: 3522.8 lumens
Efficiency: N/A
Efficacy: 102.4 lumens/watt
Spacing Criteria (0/90/45): 1.37 / 1.23 / 1.5
Luminous Opening: Rectangular (W 3.88' x L: 0.23' x H: 0')
CIE Type: Direct

Input Watts (W): 34.4
Input Voltage (V): 120
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	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	110	105	101	98	107	103	99	96	99	96	93		95	92	90		91	89	87	85
2	100	93	86	81	98	91	85	80	87	82	78		84	80	76		81	78	74	72
3	92	82	74	68	89	80	73	67	77	71	66		75	69	65		72	68	64	62
4	84	73	65	58	82	72	64	58	69	62	57		67	61	56		65	60	56	53
5	78	66	57	51	76	64	56	50	62	55	50		60	54	49		59	53	49	47
6	72	59	51	44	70	58	50	44	56	49	44		55	48	43		53	48	43	41
7	67	54	45	39	65	53	45	39	52	44	39		50	44	39		49	43	38	36
8	62	49	41	35	61	49	41	35	47	40	35		46	39	35		45	39	35	33
9	58	45	37	32	57	45	37	32	43	36	32		42	36	31		41	36	31	29
10	55	42	34	29	53	41	34	29	40	33	29		39	33	29		38	33	28	27

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	14147	14147	14147
5°	16870	14208	12591
10°	21116	14136	11373
15°	25901	14022	10587
20°	30855	13845	10081
25°	32762	13628	9968
30°	28081	13470	10020
35°	19529	13245	10124
40°	14709	12983	10094
45°	12214	12593	9965
50°	10941	11793	9874
55°	10228	10934	9751
60°	9595	10034	9651
65°	9017	9146	9341
70°	8456	8137	8899
75°	7573	7123	8158
80°	6631	5843	7029
85°	5188	4242	4715



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.8	3.3
10°-20°	368.7	10.5
20°-30°	620.3	17.6
30°-40°	701.1	19.9
40°-50°	628.0	17.8
50°-60°	506.9	14.4
60°-70°	353.2	10.0
70°-80°	185.4	5.3
80°-90°	44.4	1.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1103.8	31.3
0°-40°	1804.9	51.2
0°-60°	2939.8	83.5
0°-90°	3522.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3522.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1167	1167	1167	1167	1167	
5°	1386	1300	1168	1057	1035	143
15°	2064	1718	1117	881	844	596
25°	2450	2030	1019	757	745	1083
35°	1320	2093	895	669	684	852
45°	712	1380	735	572	581	562
55°	484	749	517	442	461	434
65°	314	420	319	300	326	313
75°	162	199	152	151	174	173
85°	37	43	30	30	34	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1167.1	1167.1	1167.1	1167.1	1167.1	1167.1	1167.1	1167.1	1167.1	1167.1	1167.1
2.5°	1256.5	1255.4	1252.5	1254.8	1250.3	1244.0	1243.5	1237.8	1221.4	1220.3	1215.8
5°	1386.5	1382.0	1381.5	1380.9	1373.0	1362.2	1341.9	1340.2	1313.0	1299.5	1283.1
7.5°	1543.7	1542.0	1537.5	1532.4	1505.9	1492.9	1473.6	1448.7	1417.1	1386.5	1367.3
10°	1715.6	1734.3	1711.1	1695.3	1680.6	1652.9	1620.6	1580.5	1540.4	1493.4	1457.8
12.5°	1900.0	1906.8	1906.8	1892.1	1867.2	1821.4	1758.1	1712.8	1676.6	1590.7	1560.1
15°	2064.0	2098.5	2076.4	2025.5	2026.7	1986.5	1911.9	1829.9	1786.3	1717.9	1624.6
17.5°	2249.5	2255.7	2248.9	2201.4	2178.2	2120.0	2052.7	1976.3	1894.3	1811.2	1714.5
20°	2392.0	2388.6	2368.8	2346.7	2298.1	2255.1	2179.9	2092.3	1979.2	1897.7	1789.7
22.5°	2471.1	2464.9	2458.1	2440.6	2402.1	2355.2	2289.6	2191.8	2085.5	1965.6	1836.7
25°	2449.6	2457.0	2458.1	2453.0	2438.9	2411.2	2358.0	2281.7	2174.2	2030.1	1900.0
27.5°	2283.4	2302.0	2325.8	2341.6	2367.1	2384.0	2367.1	2319.0	2230.8	2101.9	1941.8
30°	2006.3	1983.7	2039.7	2110.4	2158.4	2243.2	2290.7	2293.6	2248.9	2142.0	1987.1
32.5°	1621.8	1658.5	1675.5	1766.5	1885.9	1983.7	2090.0	2184.4	2206.5	2144.3	2013.7
35°	1319.8	1350.9	1396.2	1441.4	1554.5	1651.8	1818.0	1962.8	2078.1	2093.4	2010.3
37.5°	1097.0	1115.1	1142.8	1190.9	1268.4	1388.8	1520.6	1708.9	1867.8	1979.7	1968.4
40°	929.6	934.2	966.4	1000.9	1060.8	1155.8	1271.8	1433.5	1633.7	1807.3	1879.6
42.5°	804.1	815.4	824.5	857.3	901.9	967.5	1073.3	1199.9	1379.2	1585.6	1744.5
45°	712.5	723.8	732.3	754.3	788.3	836.3	911.5	1033.7	1173.4	1379.8	1570.3
47.5°	649.2	648.0	655.4	672.9	697.2	735.7	791.1	872.5	1006.5	1179.0	1378.6
50°	580.2	589.2	591.5	604.5	622.6	649.2	693.3	760.0	865.2	1012.2	1192.0
52.5°	531.5	532.7	540.0	548.5	563.8	583.0	619.8	668.4	745.3	865.2	1026.9
55°	484.0	484.0	490.3	497.6	506.7	525.3	550.8	589.2	652.0	749.3	886.1
57.5°	439.9	442.2	447.9	449.6	457.5	470.5	492.5	523.1	571.1	649.7	762.8
60°	395.8	400.9	400.4	404.9	411.7	421.3	439.4	463.1	505.0	564.9	656.5
62.5°	357.4	355.7	355.7	361.3	368.1	377.2	387.4	407.1	441.1	492.5	567.2
65°	314.4	313.3	317.2	320.6	322.9	329.7	338.7	356.8	380.6	420.1	480.7
67.5°	277.1	273.7	276.5	277.6	281.6	287.3	296.3	307.6	326.8	360.2	408.8
70°	238.6	235.8	235.2	236.4	239.8	243.7	249.9	260.7	278.2	303.7	337.0
72.5°	199.0	197.4	197.4	200.2	201.3	203.6	207.5	217.1	230.1	247.7	278.2
75°	161.7	161.7	161.7	162.3	164.0	166.2	169.6	174.7	185.5	199.0	220.0
77.5°	127.8	128.4	127.2	126.7	129.5	130.6	131.2	136.8	143.1	153.2	169.6
80°	95.0	92.2	93.3	95.0	96.1	96.7	98.4	99.5	104.6	109.7	120.4
82.5°	64.5	62.2	62.2	65.0	65.0	65.6	67.3	69.0	70.1	74.6	79.2
85°	37.3	37.3	37.9	37.9	38.5	37.9	39.6	40.1	40.1	43.0	46.4
87.5°	17.0	15.8	16.4	17.0	16.4	17.0	17.5	18.1	18.7	19.2	19.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1167.1	1167.1	1167.1	1167.1	1167.1	1167.1	1167.1	1167.1	1167.1	1167.1	1167.1
2.5°	1212.4	1207.9	1203.3	1195.4	1188.6	1179.0	1176.2	1172.8	1162.6	1153.6	1146.8
5°	1276.8	1263.3	1243.5	1225.4	1210.7	1190.9	1179.6	1167.7	1150.7	1135.5	1123.0
7.5°	1338.5	1314.7	1287.0	1257.0	1228.2	1200.5	1178.4	1158.7	1136.6	1115.1	1098.7
10°	1414.8	1376.4	1333.4	1287.0	1247.4	1209.0	1176.8	1148.5	1117.9	1091.4	1069.3
12.5°	1501.9	1440.3	1376.9	1318.1	1269.5	1212.4	1171.7	1133.8	1098.2	1064.8	1039.3
15°	1566.9	1494.5	1424.4	1347.0	1275.7	1209.0	1162.6	1117.4	1077.2	1044.4	1012.8
17.5°	1631.4	1552.2	1462.9	1369.6	1285.9	1209.0	1145.7	1097.0	1047.8	1008.2	977.7
20°	1684.5	1591.2	1486.6	1388.8	1293.8	1205.6	1134.3	1073.3	1019.0	976.6	940.9
22.5°	1730.4	1617.3	1508.1	1401.8	1293.2	1196.5	1113.4	1050.1	990.1	948.9	910.4
25°	1759.2	1628.6	1520.0	1397.3	1279.1	1180.7	1090.2	1019.0	960.2	911.5	872.5
27.5°	1786.3	1626.9	1504.2	1371.8	1262.1	1164.3	1067.1	990.7	929.1	876.5	836.3
30°	1813.5	1629.7	1476.5	1345.8	1235.0	1133.2	1039.3	962.4	896.8	843.1	805.8
32.5°	1830.4	1628.0	1451.0	1309.6	1192.0	1104.9	1009.4	929.1	861.2	808.6	773.0
35°	1835.0	1618.4	1421.0	1257.0	1145.1	1057.4	977.7	895.1	824.5	775.3	734.6
37.5°	1825.4	1600.9	1388.2	1209.5	1088.5	1001.5	931.9	861.2	793.4	738.5	702.9
40°	1794.3	1583.9	1348.7	1158.7	1029.7	946.6	889.5	820.5	753.8	702.3	669.5
42.5°	1734.9	1549.4	1305.1	1102.1	968.7	885.5	834.1	779.2	717.0	669.5	636.7
45°	1630.8	1496.2	1261.6	1045.6	908.7	822.8	776.4	734.6	677.4	630.5	602.2
47.5°	1497.9	1424.4	1198.8	986.2	845.9	762.8	714.2	679.7	635.0	597.1	569.4
50°	1358.3	1331.7	1134.9	925.1	783.2	702.3	656.0	625.4	595.4	557.6	532.7
52.5°	1197.1	1224.3	1060.3	861.8	719.3	640.1	597.1	574.5	547.9	518.5	497.6
55°	1047.8	1107.2	972.1	789.4	656.0	580.2	538.9	517.4	501.6	478.4	459.7
57.5°	903.1	978.8	880.4	716.5	593.7	527.6	486.9	462.6	452.4	439.4	424.1
60°	777.0	851.6	780.9	642.9	531.0	468.8	433.7	413.9	403.7	395.3	382.8
62.5°	664.4	740.2	683.7	568.3	469.3	412.8	383.4	364.2	356.8	353.4	343.2
65°	563.2	628.2	588.7	490.3	411.1	360.2	332.5	318.9	311.6	309.9	303.1
67.5°	475.6	525.9	495.4	421.3	356.8	310.4	286.1	274.3	268.0	267.5	261.8
70°	389.6	436.0	413.9	348.3	294.6	260.1	239.8	229.6	226.2	225.6	222.8
72.5°	322.9	351.7	335.3	283.3	244.9	214.3	200.7	190.0	186.0	187.2	185.5
75°	248.8	273.1	262.9	225.1	191.7	171.3	158.9	152.1	148.7	150.4	148.2
77.5°	190.0	207.0	196.8	167.9	146.5	131.2	121.6	117.1	113.7	113.7	112.5
80°	135.1	144.2	139.1	123.3	106.3	93.9	86.5	83.7	82.0	81.4	80.9
82.5°	86.5	93.9	87.6	78.0	67.9	61.6	58.2	54.3	53.2	53.7	53.2
85°	48.6	51.5	49.2	42.4	37.9	34.5	32.2	30.5	29.4	30.0	28.8
87.5°	20.9	21.5	19.8	17.5	16.4	14.7	14.7	13.6	12.4	12.4	11.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1167.1	1167.1	1167.1	1167.1	1167.1	1167.1	1167.1	1167.1	1167.1	1167.1	1167.1
2.5°	1142.8	1138.9	1133.2	1124.7	1117.9	1107.2	1107.2	1108.9	1108.9	1108.3	1107.2
5°	1112.9	1104.4	1094.2	1082.3	1069.9	1057.4	1055.2	1050.7	1047.3	1045.0	1042.2
7.5°	1082.3	1068.2	1054.0	1037.6	1023.5	1011.6	1003.2	995.8	991.3	986.2	982.2
10°	1051.2	1032.6	1015.0	997.5	978.3	963.0	953.4	946.6	941.5	937.0	934.7
12.5°	1014.5	992.4	972.6	956.2	934.7	918.9	909.8	907.6	901.4	890.6	885.0
15°	978.8	959.0	935.9	910.4	900.2	881.0	870.3	865.2	861.8	854.4	852.2
17.5°	949.4	922.9	896.3	877.6	859.0	843.7	837.5	830.7	826.2	819.4	817.7
20°	912.7	889.5	865.7	845.4	825.6	808.6	803.5	799.0	794.5	791.7	789.4
22.5°	875.4	852.2	833.5	814.8	793.4	783.7	778.1	773.0	770.2	768.5	766.2
25°	840.9	820.5	798.4	781.5	764.5	757.2	753.8	751.0	748.7	745.9	745.3
27.5°	810.3	787.7	769.0	752.6	740.2	734.0	730.0	728.3	728.3	729.5	730.0
30°	775.3	754.9	740.2	726.6	715.3	709.7	709.1	709.1	711.4	711.9	713.1
32.5°	743.0	727.2	712.5	699.5	691.6	688.2	691.0	691.0	692.7	694.4	696.7
35°	711.9	697.2	685.9	674.6	667.3	669.0	670.1	671.2	674.0	677.4	679.7
37.5°	682.5	669.0	657.1	648.0	643.5	646.9	649.7	652.0	655.4	658.2	660.5
40°	650.3	640.7	629.4	621.5	622.6	624.3	626.5	629.4	632.2	633.9	636.2
42.5°	620.3	610.1	602.2	596.0	597.7	600.0	601.1	602.2	605.6	609.0	610.1
45°	589.8	581.9	574.0	570.0	571.1	572.3	573.4	575.1	577.9	580.2	580.7
47.5°	555.3	549.6	544.6	540.0	542.3	541.7	543.4	546.8	547.9	549.1	552.5
50°	522.5	517.4	511.2	510.1	510.1	510.1	510.6	515.1	515.1	517.4	519.7
52.5°	486.3	483.5	480.1	477.8	476.7	476.7	479.5	481.2	482.3	485.7	488.0
55°	450.7	447.3	443.9	442.2	441.1	442.2	446.7	447.9	450.7	452.4	454.1
57.5°	413.4	411.1	408.3	407.1	407.1	407.7	411.1	413.9	414.5	420.1	422.4
60°	376.6	372.6	370.4	370.4	369.3	374.3	373.2	378.9	380.0	383.4	387.4
62.5°	338.7	333.1	332.5	332.5	334.8	335.3	337.6	339.3	342.7	347.2	350.0
65°	297.4	294.6	298.6	298.0	296.9	300.3	300.3	303.1	306.5	310.4	316.7
67.5°	259.0	256.7	257.9	257.3	259.0	261.2	262.9	265.2	269.2	273.7	277.6
70°	220.0	221.7	218.8	221.1	222.8	223.4	224.5	227.9	232.4	235.2	239.8
72.5°	182.1	181.5	182.6	183.2	184.9	186.0	187.2	191.1	196.2	198.5	201.9
75°	145.9	145.3	147.0	147.0	149.9	151.0	152.1	153.8	158.3	161.7	164.6
77.5°	113.1	113.7	113.1	115.4	114.2	114.8	118.2	119.9	120.4	127.8	128.9
80°	80.3	81.4	82.0	82.6	83.1	82.0	86.0	87.6	87.6	91.6	94.4
82.5°	52.0	52.6	54.3	54.9	54.9	56.5	56.0	57.1	58.8	59.9	63.9
85°	28.8	30.5	31.1	30.5	31.1	30.0	31.7	32.2	32.8	32.8	32.8
87.5°	11.3	11.9	11.3	11.9	11.3	11.9	11.9	10.7	10.7	12.4	10.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P273791

CATALOG NUMBER: 4RCG-4-100D-L935-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1167.1	1167.1	1167.1	1167.1
2.5°	1103.2	1102.7	1106.6	1103.8
5°	1038.8	1040.5	1034.8	1034.8
7.5°	980.5	978.3	978.8	974.9
10°	927.9	924.6	923.4	924.0
12.5°	884.4	884.4	875.4	875.4
15°	852.2	841.4	840.3	843.7
17.5°	816.5	810.3	810.9	809.8
20°	789.4	786.0	785.4	781.5
22.5°	764.5	764.0	764.5	760.0
25°	744.7	747.6	745.3	745.3
27.5°	731.2	731.2	729.5	729.5
30°	715.3	714.8	715.9	715.9
32.5°	699.5	700.6	700.6	701.2
35°	683.1	683.7	685.4	684.2
37.5°	661.6	664.4	663.9	665.0
40°	636.7	638.4	637.9	637.9
42.5°	611.3	612.4	610.7	609.6
45°	583.0	581.9	583.6	581.3
47.5°	551.9	552.5	553.0	555.3
50°	520.8	524.2	524.2	523.6
52.5°	490.3	491.4	494.2	494.2
55°	458.6	459.7	460.9	461.4
57.5°	426.4	425.8	428.1	428.6
60°	391.9	391.9	396.4	398.1
62.5°	355.1	357.4	361.9	358.5
65°	319.5	324.0	323.5	325.7
67.5°	282.2	285.0	289.5	289.5
70°	244.3	247.1	249.4	251.1
72.5°	207.5	208.7	214.9	211.5
75°	168.5	172.5	175.9	174.2
77.5°	131.2	136.3	137.4	135.7
80°	98.4	97.8	101.2	100.7
82.5°	65.6	65.0	66.2	66.7
85°	35.1	36.8	34.5	33.9
87.5°	10.2	10.2	9.6	9.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)