

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: P273779

Luminaire Tested: **8RCG-4-100D-L835-A**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P273779
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: 8RCG-4-100D-L835-A
Description: RCG SERIES DIRECT RECESSED LED LUMINAIRE WITH ASYMMETRIC FLUSH LENS
Light Source: (168) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8182.9 lumens
Efficiency: N/A
Efficacy: 118.9 lumens/watt
Spacing Criteria (0/90/45): 1.37 / 1.23 / 1.5
Luminous Opening: Rectangular (W 7.88' x L: 0.23' x H: 0')
CIE Type: Direct

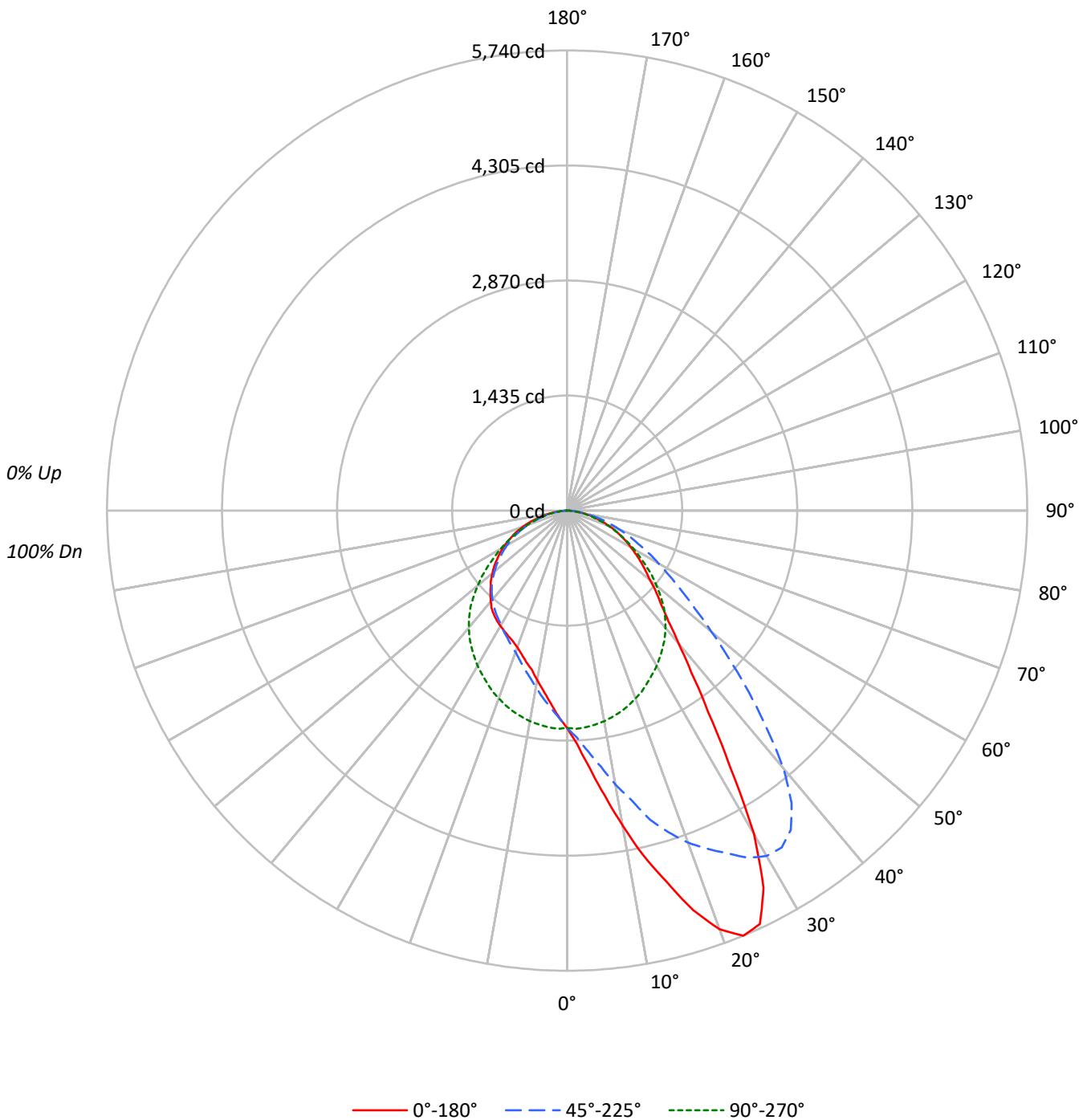
Input Watts (W): 68.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	16171	16171	16171
5°	19284	16240	14392
10°	24136	16157	13000
15°	29605	16027	12101
20°	35266	15824	11521
25°	37447	15577	11393
30°	32097	15397	11453
35°	22323	15141	11573
40°	16813	14840	11536
45°	13960	14392	11391
50°	12504	13480	11287
55°	11692	12497	11145
60°	10967	11471	11032
65°	10308	10455	10678
70°	9668	9298	10170
75°	8656	8144	9324
80°	7577	6677	8030
85°	5926	4859	5393



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	266.6	3.3
10°-20°	856.4	10.5
20°-30°	1441.0	17.6
30°-40°	1628.6	19.9
40°-50°	1458.7	17.8
50°-60°	1177.4	14.4
60°-70°	820.4	10.0
70°-80°	430.6	5.3
80°-90°	103.2	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°	2564.0	31.3
0°-40°	4192.6	51.2
0°-60°	6828.7	83.5
0°-90°	8182.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8182.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2711	2711	2711	2711	2711	
5°	3221	3018	2712	2456	2404	331
15°	4794	3991	2596	2046	1960	1384
25°	5690	4716	2367	1759	1731	2516
35°	3066	4863	2079	1554	1589	1978
45°	1655	3205	1706	1329	1350	1305
55°	1124	1740	1202	1027	1072	1009
65°	730	976	741	697	757	728
75°	376	462	353	351	405	401
85°	87	100	71	70	79	105
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°	2711.2	2711.2	2711.2	2711.2	2711.2	2711.2	2711.2	2711.2	2711.2	2711.2	2711.2
2.5°	2918.6	2916.0	2909.4	2914.8	2904.2	2889.8	2888.4	2875.4	2837.2	2834.6	2824.0
5°	3220.8	3210.2	3209.0	3207.6	3189.2	3164.2	3117.0	3113.0	3050.0	3018.4	2980.4
7.5°	3586.0	3582.0	3571.4	3559.6	3498.0	3467.8	3423.0	3365.2	3291.8	3220.8	3176.2
10°	3985.2	4028.6	3974.8	3938.0	3903.8	3839.4	3764.6	3671.4	3578.0	3469.0	3386.2
12.5°	4413.4	4429.2	4429.2	4395.0	4337.2	4230.8	4083.8	3978.6	3894.6	3695.0	3624.0
15°	4794.4	4874.6	4823.2	4705.0	4707.6	4614.4	4441.0	4250.6	4149.4	3990.6	3773.8
17.5°	5225.2	5239.6	5224.0	5113.6	5059.8	4924.4	4768.2	4590.8	4400.4	4207.2	3982.6
20°	5556.2	5548.4	5502.4	5451.2	5338.2	5238.4	5063.6	4860.0	4597.4	4408.2	4157.4
22.5°	5740.2	5725.6	5710.0	5669.2	5579.8	5470.8	5318.4	5091.2	4844.2	4565.8	4266.4
25°	5690.2	5707.2	5710.0	5698.0	5665.2	5600.8	5477.4	5300.0	5050.6	4715.6	4413.4
27.5°	5304.0	5347.4	5402.6	5439.4	5498.4	5537.8	5498.4	5386.8	5181.8	4882.4	4510.6
30°	4660.4	4607.8	4738.0	4902.0	5013.8	5210.8	5321.2	5327.6	5224.0	4975.6	4615.8
32.5°	3767.2	3852.6	3892.0	4103.4	4380.6	4607.8	4854.8	5074.2	5125.4	4981.0	4677.4
35°	3065.8	3138.0	3243.2	3348.2	3610.8	3836.8	4223.0	4559.2	4827.2	4862.6	4669.6
37.5°	2548.2	2590.2	2654.6	2766.2	2946.2	3226.0	3532.0	3969.4	4338.6	4598.6	4572.4
40°	2159.4	2170.0	2244.8	2325.0	2464.2	2684.8	2954.2	3329.8	3794.8	4198.0	4366.2
42.5°	1867.8	1894.2	1915.2	1991.4	2095.0	2247.4	2493.0	2787.4	3203.6	3683.2	4052.2
45°	1655.0	1681.4	1701.0	1752.2	1831.0	1942.8	2117.4	2401.2	2725.6	3205.0	3647.6
47.5°	1508.0	1505.4	1522.4	1563.2	1619.6	1709.0	1837.6	2026.8	2338.0	2738.8	3202.4
50°	1347.6	1368.6	1374.0	1404.2	1446.2	1508.0	1610.4	1765.4	2009.8	2351.2	2769.0
52.5°	1234.8	1237.4	1254.4	1274.2	1309.6	1354.2	1439.6	1552.6	1731.2	2009.8	2385.4
55°	1124.4	1124.4	1138.8	1156.0	1177.0	1220.2	1279.4	1368.6	1514.4	1740.4	2058.4
57.5°	1022.0	1027.2	1040.4	1044.2	1062.6	1092.8	1144.0	1215.0	1326.6	1509.2	1772.0
60°	919.4	931.2	930.0	940.4	956.2	978.6	1020.6	1075.8	1173.0	1312.2	1525.0
62.5°	830.2	826.2	826.2	839.4	855.2	876.2	899.8	945.8	1024.6	1144.0	1317.4
65°	730.4	727.6	736.8	744.8	750.0	765.8	786.8	828.8	884.0	976.0	1116.6
67.5°	643.6	635.8	642.4	645.0	654.2	667.2	688.2	714.6	759.2	836.8	949.6
70°	554.4	547.8	546.4	549.0	557.0	566.2	580.6	605.6	646.2	705.4	782.8
72.5°	462.4	458.4	458.4	465.0	467.6	472.8	482.0	504.4	534.6	575.4	646.2
75°	375.6	375.6	375.6	377.0	381.0	386.2	394.0	405.8	430.8	462.4	511.0
77.5°	296.8	298.2	295.6	294.2	300.8	303.4	304.8	317.8	332.4	356.0	394.0
80°	220.6	214.2	216.8	220.6	223.4	224.6	228.6	231.2	243.0	254.8	279.8
82.5°	149.8	144.4	144.4	151.0	151.0	152.4	156.4	160.2	162.8	173.4	183.8
85°	86.6	86.6	88.0	88.0	89.4	88.0	92.0	93.2	93.2	99.8	107.8
87.5°	39.4	36.8	38.0	39.4	38.0	39.4	40.8	42.0	43.4	44.6	46.0
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°	2711.2	2711.2	2711.2	2711.2	2711.2	2711.2	2711.2	2711.2	2711.2	2711.2	2711.2
2.5°	2816.2	2805.6	2795.2	2776.8	2761.0	2738.8	2732.2	2724.2	2700.6	2679.6	2663.8
5°	2966.0	2934.4	2888.4	2846.4	2812.2	2766.2	2740.0	2712.4	2673.0	2637.6	2608.6
7.5°	3109.2	3054.0	2989.6	2920.0	2853.0	2788.6	2737.4	2691.4	2640.2	2590.2	2552.2
10°	3286.4	3197.2	3097.4	2989.6	2897.6	2808.4	2733.4	2667.8	2596.8	2535.2	2483.8
12.5°	3488.8	3345.6	3198.4	3061.8	2948.8	2816.2	2721.6	2633.6	2550.8	2473.4	2414.2
15°	3639.8	3471.6	3308.8	3128.8	2963.4	2808.4	2700.6	2595.6	2502.2	2426.0	2352.6
17.5°	3789.6	3605.6	3398.2	3181.4	2987.0	2808.4	2661.2	2548.2	2434.0	2342.0	2271.0
20°	3913.0	3696.2	3453.2	3226.0	3005.4	2800.4	2635.0	2493.0	2367.0	2268.4	2185.8
22.5°	4019.4	3756.6	3503.2	3256.2	3004.0	2779.4	2586.4	2439.2	2300.0	2204.2	2114.8
25°	4086.4	3783.0	3530.8	3245.8	2971.2	2742.6	2532.4	2367.0	2230.4	2117.4	2026.8
27.5°	4149.4	3779.0	3494.0	3186.6	2931.8	2704.6	2478.6	2301.4	2158.2	2036.0	1942.8
30°	4212.4	3785.6	3429.6	3126.2	2868.8	2632.4	2414.2	2235.6	2083.2	1958.4	1871.8
32.5°	4251.8	3781.6	3370.6	3042.2	2769.0	2566.6	2344.6	2158.2	2000.6	1878.4	1795.6
35°	4262.4	3759.4	3300.8	2920.0	2659.8	2456.4	2271.0	2079.4	1915.2	1800.8	1706.2
37.5°	4240.0	3718.6	3224.8	2809.6	2528.6	2326.2	2164.6	2000.6	1842.8	1715.4	1632.8
40°	4167.8	3679.2	3132.8	2691.4	2392.0	2198.8	2066.2	1906.0	1751.0	1631.4	1555.2
42.5°	4030.0	3599.0	3031.6	2560.0	2250.0	2057.0	1937.4	1810.0	1665.6	1555.2	1479.0
45°	3788.2	3475.6	2930.4	2428.8	2110.8	1911.2	1803.4	1706.2	1573.6	1464.6	1399.0
47.5°	3479.6	3308.8	2784.6	2290.8	1965.0	1772.0	1659.0	1578.8	1475.0	1387.0	1322.8
50°	3155.0	3093.4	2636.2	2149.0	1819.2	1631.4	1523.6	1452.8	1383.2	1295.2	1237.4
52.5°	2780.8	2843.8	2462.8	2001.8	1670.8	1487.0	1387.0	1334.6	1272.8	1204.6	1156.0
55°	2434.0	2571.8	2258.0	1833.6	1523.6	1347.6	1251.8	1201.8	1165.2	1111.2	1067.8
57.5°	2097.8	2273.8	2045.2	1664.2	1379.2	1225.6	1131.0	1074.4	1050.8	1020.6	985.2
60°	1804.8	1978.2	1814.0	1493.4	1233.4	1089.0	1007.4	961.6	937.8	918.2	889.2
62.5°	1543.4	1719.4	1588.0	1320.0	1090.2	958.8	890.6	846.0	828.8	821.0	797.4
65°	1308.2	1459.4	1367.4	1138.8	955.0	836.8	772.4	740.8	723.8	719.8	704.0
67.5°	1104.6	1221.6	1150.6	978.6	828.8	721.2	664.6	637.0	622.6	621.2	608.2
70°	905.0	1012.8	961.6	809.2	684.4	604.2	557.0	533.2	525.4	524.0	517.6
72.5°	750.0	817.0	779.0	658.0	568.8	497.8	466.4	441.4	432.2	434.8	430.8
75°	578.0	634.4	610.8	522.8	445.2	398.0	369.2	353.4	345.4	349.4	344.2
77.5°	441.4	480.8	457.2	390.2	340.2	304.8	282.4	272.0	264.0	264.0	261.4
80°	314.0	335.0	323.2	286.4	247.0	218.0	201.0	194.4	190.4	189.2	187.8
82.5°	201.0	218.0	203.6	181.2	157.6	143.2	135.2	126.0	123.4	124.8	123.4
85°	113.0	119.6	114.2	98.6	88.0	80.2	74.8	71.0	68.4	69.6	67.0
87.5°	48.6	50.0	46.0	40.8	38.0	34.2	34.2	31.6	28.8	28.8	27.6
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°	2711.2	2711.2	2711.2	2711.2	2711.2	2711.2	2711.2	2711.2	2711.2	2711.2	2711.2
2.5°	2654.6	2645.4	2632.4	2612.6	2596.8	2571.8	2571.8	2575.8	2575.8	2574.6	2571.8
5°	2585.0	2565.4	2541.6	2514.0	2485.2	2456.4	2451.0	2440.6	2432.6	2427.4	2420.8
7.5°	2514.0	2481.2	2448.4	2410.4	2377.4	2350.0	2330.2	2313.2	2302.6	2290.8	2281.6
10°	2441.8	2398.6	2357.8	2317.0	2272.4	2237.0	2214.6	2198.8	2187.0	2176.6	2171.2
12.5°	2356.4	2305.2	2259.2	2221.2	2171.2	2134.4	2113.4	2108.2	2093.8	2068.8	2055.6
15°	2273.8	2227.8	2173.8	2114.8	2091.2	2046.4	2021.6	2009.8	2001.8	1984.8	1979.4
17.5°	2205.4	2143.6	2082.0	2038.6	1995.2	1959.8	1945.4	1929.6	1919.0	1903.4	1899.4
20°	2120.0	2066.2	2011.0	1963.8	1917.8	1878.4	1866.6	1856.0	1845.6	1839.0	1833.6
22.5°	2033.4	1979.4	1936.2	1892.8	1842.8	1820.6	1807.4	1795.6	1789.0	1785.0	1779.8
25°	1953.2	1906.0	1854.8	1815.2	1775.8	1758.8	1751.0	1744.4	1739.2	1732.6	1731.2
27.5°	1882.2	1829.8	1786.4	1748.4	1719.4	1705.0	1695.8	1691.8	1691.8	1694.4	1695.8
30°	1800.8	1753.6	1719.4	1687.8	1661.6	1648.4	1647.2	1647.2	1652.4	1653.8	1656.4
32.5°	1726.0	1689.2	1655.0	1624.8	1606.4	1598.6	1605.2	1605.2	1609.0	1613.0	1618.2
35°	1653.8	1619.6	1593.4	1567.0	1550.0	1554.0	1556.6	1559.2	1565.8	1573.6	1578.8
37.5°	1585.4	1554.0	1526.4	1505.4	1494.8	1502.6	1509.2	1514.4	1522.4	1529.0	1534.2
40°	1510.6	1488.2	1462.0	1443.6	1446.2	1450.2	1455.4	1462.0	1468.6	1472.4	1477.8
42.5°	1441.0	1417.2	1399.0	1384.4	1388.4	1393.6	1396.2	1399.0	1406.8	1414.6	1417.2
45°	1370.0	1351.6	1333.2	1324.0	1326.6	1329.2	1332.0	1335.8	1342.4	1347.6	1349.0
47.5°	1289.8	1276.8	1265.0	1254.4	1259.6	1258.4	1262.4	1270.2	1272.8	1275.4	1283.4
50°	1213.8	1201.8	1187.4	1184.8	1184.8	1184.8	1186.2	1196.6	1196.6	1201.8	1207.2
52.5°	1129.6	1123.0	1115.2	1110.0	1107.4	1107.4	1113.8	1117.8	1120.4	1128.4	1133.6
55°	1046.8	1039.0	1031.2	1027.2	1024.6	1027.2	1037.6	1040.4	1046.8	1050.8	1054.8
57.5°	960.2	955.0	948.4	945.8	945.8	947.0	955.0	961.6	962.8	976.0	981.2
60°	874.8	865.6	860.4	860.4	857.8	869.6	867.0	880.0	882.6	890.6	899.8
62.5°	786.8	773.6	772.4	772.4	777.6	779.0	784.2	788.2	796.0	806.6	813.0
65°	691.0	684.4	693.6	692.2	689.6	697.4	697.4	704.0	712.0	721.2	735.6
67.5°	601.6	596.4	599.0	597.6	601.6	606.8	610.8	616.0	625.2	635.8	645.0
70°	511.0	515.0	508.4	513.6	517.6	518.8	521.4	529.4	539.8	546.4	557.0
72.5°	423.0	421.6	424.2	425.6	429.6	432.2	434.8	444.0	455.8	461.0	469.0
75°	338.8	337.6	341.6	341.6	348.0	350.8	353.4	357.2	367.8	375.6	382.2
77.5°	262.8	264.0	262.8	268.0	265.4	266.6	274.6	278.4	279.8	296.8	299.4
80°	186.6	189.2	190.4	191.8	193.0	190.4	199.6	203.6	203.6	212.8	219.4
82.5°	120.8	122.2	126.0	127.4	127.4	131.4	130.0	132.6	136.6	139.2	148.4
85°	67.0	71.0	72.2	71.0	72.2	69.6	73.6	74.8	76.2	76.2	76.2
87.5°	26.2	27.6	26.2	27.6	26.2	27.6	27.6	25.0	25.0	28.8	23.6
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: P273779

CATALOG NUMBER: 8RCG-4-100D-L835-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2711.2	2711.2	2711.2	2711.2
2.5°	2562.6	2561.4	2570.6	2564.0
5°	2413.0	2416.8	2403.8	2403.8
7.5°	2277.6	2272.4	2273.8	2264.6
10°	2155.6	2147.6	2145.0	2146.4
12.5°	2054.4	2054.4	2033.4	2033.4
15°	1979.4	1954.6	1952.0	1959.8
17.5°	1896.8	1882.2	1883.6	1881.0
20°	1833.6	1825.8	1824.4	1815.2
22.5°	1775.8	1774.6	1775.8	1765.4
25°	1730.0	1736.4	1731.2	1731.2
27.5°	1698.4	1698.4	1694.4	1694.4
30°	1661.6	1660.4	1663.0	1663.0
32.5°	1624.8	1627.4	1627.4	1628.8
35°	1586.8	1588.0	1592.0	1589.4
37.5°	1536.8	1543.4	1542.0	1544.8
40°	1479.0	1483.0	1481.6	1481.6
42.5°	1420.0	1422.6	1418.6	1416.0
45°	1354.2	1351.6	1355.6	1350.4
47.5°	1282.0	1283.4	1284.6	1289.8
50°	1209.8	1217.6	1217.6	1216.4
52.5°	1138.8	1141.4	1148.0	1148.0
55°	1065.2	1067.8	1070.6	1071.8
57.5°	990.4	989.0	994.4	995.6
60°	910.2	910.2	920.8	924.8
62.5°	824.8	830.2	840.6	832.8
65°	742.2	752.6	751.4	756.6
67.5°	655.4	662.0	672.6	672.6
70°	567.4	574.0	579.2	583.2
72.5°	482.0	484.6	499.2	491.2
75°	391.4	400.6	408.6	404.6
77.5°	304.8	316.6	319.2	315.2
80°	228.6	227.2	235.2	233.8
82.5°	152.4	151.0	153.6	155.0
85°	81.4	85.4	80.2	78.8
87.5°	23.6	23.6	22.4	21.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)