

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: P273782

Luminaire Tested: **8RCG-4-100D-L840-A**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P273782
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-L840-A
Description: RCG SERIES DIRECT RECESSED LED LUMINAIRE WITH ASYMMETRIC FLUSH LENS
Light Source: (168) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8263.7 lumens
Efficiency: N/A
Efficacy: 120.1 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

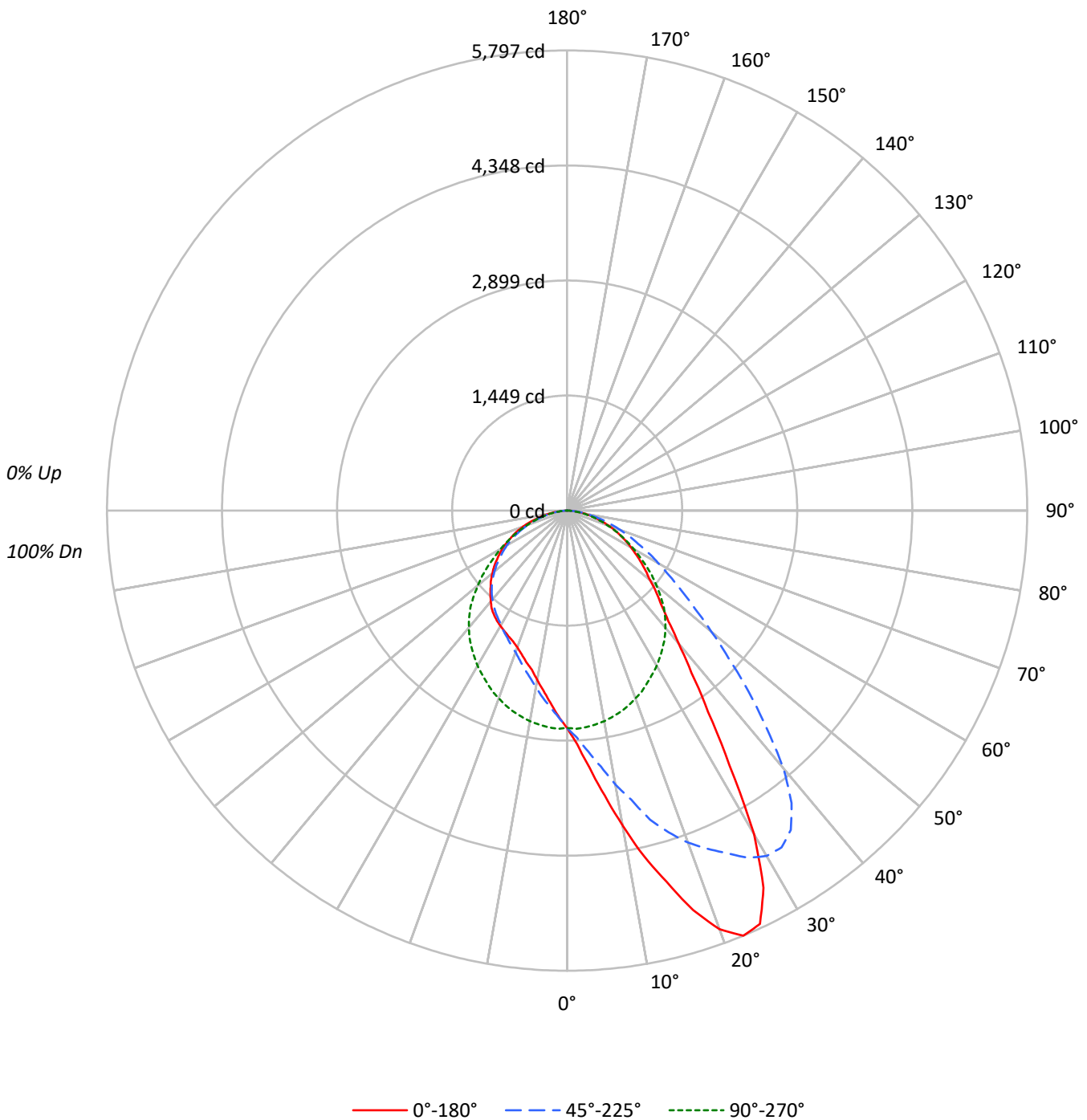
Input Watts (W): 68.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	16329	16329	16329
5°	19474	16400	14533
10°	24375	16316	13127
15°	29896	16185	12221
20°	35614	15980	11636
25°	37817	15731	11506
30°	32413	15548	11566
35°	22543	15289	11686
40°	16980	14986	11649
45°	14098	14535	11502
50°	12629	13612	11398
55°	11807	12622	11255
60°	11077	11583	11139
65°	10410	10559	10782
70°	9762	9393	10271
75°	8743	8222	9416
80°	7653	6746	8113
85°	5995	4900	5447



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	269.3	3.3
10°-20°	864.9	10.5
20°-30°	1455.2	17.6
30°-40°	1644.6	19.9
40°-50°	1473.1	17.8
50°-60°	1189.0	14.4
60°-70°	828.5	10.0
70°-80°	434.9	5.3
80°-90°	104.2	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°	2589.3	31.3
0°-40°	4233.9	51.2
0°-60°	6896.1	83.5
0°-90°	8263.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8263.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2738	2738	2738	2738	2738	
5°	3253	3048	2739	2481	2427	335
15°	4842	4030	2621	2067	1979	1398
25°	5746	4762	2390	1776	1748	2540
35°	3096	4911	2100	1569	1605	1998
45°	1671	3237	1723	1342	1364	1318
55°	1135	1758	1214	1037	1082	1019
65°	738	986	748	704	764	735
75°	379	467	357	354	409	405
85°	88	101	72	70	80	106
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°	2737.8	2737.8	2737.8	2737.8	2737.8	2737.8	2737.8	2737.8	2737.8	2737.8	2737.8
2.5°	2947.4	2944.8	2938.2	2943.4	2932.8	2918.2	2917.0	2903.6	2865.2	2862.6	2852.0
5°	3252.6	3242.0	3240.6	3239.2	3220.8	3195.6	3147.8	3143.8	3080.2	3048.2	3009.8
7.5°	3621.4	3617.4	3606.8	3594.8	3532.4	3502.0	3456.8	3398.4	3324.2	3252.6	3207.4
10°	4024.6	4068.4	4014.0	3976.8	3942.4	3877.4	3801.8	3707.6	3613.4	3503.2	3419.6
12.5°	4457.0	4473.0	4473.0	4438.4	4380.0	4272.6	4124.0	4018.0	3933.0	3731.4	3659.8
15°	4841.6	4922.6	4870.8	4751.4	4754.2	4660.0	4484.8	4292.6	4190.4	4029.8	3811.0
17.5°	5276.8	5291.4	5275.4	5164.0	5109.6	4973.0	4815.2	4636.0	4443.8	4248.8	4022.0
20°	5611.0	5603.0	5556.6	5505.0	5390.8	5290.0	5113.6	4908.0	4642.8	4451.6	4198.4
22.5°	5796.8	5782.2	5766.2	5725.2	5635.0	5524.8	5371.0	5141.4	4892.0	4610.8	4308.4
25°	5746.4	5763.6	5766.2	5754.4	5721.2	5656.2	5531.4	5352.4	5100.4	4762.0	4457.0
27.5°	5356.4	5400.2	5455.8	5493.0	5552.6	5592.4	5552.6	5440.0	5233.0	4930.6	4555.2
30°	4706.4	4653.4	4784.6	4950.4	5063.2	5262.2	5373.6	5380.2	5275.4	5024.8	4661.2
32.5°	3804.4	3890.6	3930.4	4144.0	4423.8	4653.4	4902.6	5124.2	5176.0	5030.0	4723.6
35°	3096.0	3169.0	3275.0	3381.2	3646.6	3874.6	4264.6	4604.2	4874.8	4910.6	4715.6
37.5°	2573.4	2615.8	2680.8	2793.6	2975.4	3257.8	3567.0	4008.6	4381.4	4644.0	4617.6
40°	2180.8	2191.4	2267.0	2347.8	2488.4	2711.4	2983.2	3362.6	3832.2	4239.4	4409.2
42.5°	1886.2	1912.8	1934.0	2011.0	2115.8	2269.6	2517.6	2814.8	3235.4	3719.4	4092.2
45°	1671.4	1698.0	1717.8	1769.6	1849.2	1961.8	2138.2	2424.8	2752.4	3236.6	3683.6
47.5°	1522.8	1520.2	1537.4	1578.6	1635.6	1725.8	1855.8	2046.8	2361.2	2765.8	3234.0
50°	1361.0	1382.2	1387.6	1418.0	1460.4	1522.8	1626.2	1782.8	2029.6	2374.4	2796.2
52.5°	1246.8	1249.6	1266.8	1286.6	1322.6	1367.6	1453.8	1568.0	1748.4	2029.6	2409.0
55°	1135.4	1135.4	1150.0	1167.4	1188.6	1232.4	1292.0	1382.2	1529.4	1757.6	2078.6
57.5°	1032.0	1037.4	1050.6	1054.6	1073.2	1103.6	1155.4	1227.0	1339.8	1524.2	1789.4
60°	928.6	940.4	939.2	949.8	965.6	988.2	1030.6	1086.4	1184.6	1325.2	1540.0
62.5°	838.4	834.4	834.4	847.6	863.6	884.8	908.6	955.0	1034.6	1155.4	1330.4
65°	737.6	734.8	744.2	752.2	757.4	773.4	794.6	837.0	892.8	985.6	1127.6
67.5°	650.0	642.0	648.6	651.4	660.6	673.8	695.0	721.6	766.8	845.0	959.0
70°	559.8	553.2	551.8	554.4	562.4	571.8	586.4	611.6	652.6	712.4	790.6
72.5°	467.0	463.0	463.0	469.6	472.2	477.6	486.8	509.4	539.8	581.0	652.6
75°	379.4	379.4	379.4	380.8	384.6	390.0	398.0	409.8	435.0	467.0	516.0
77.5°	299.8	301.2	298.4	297.2	303.8	306.4	307.8	321.0	335.6	359.4	398.0
80°	222.8	216.2	218.8	222.8	225.6	226.8	230.8	233.4	245.4	257.4	282.6
82.5°	151.2	146.0	146.0	152.6	152.6	153.8	157.8	161.8	164.4	175.0	185.8
85°	87.6	87.6	88.8	88.8	90.2	88.8	92.8	94.2	94.2	100.8	108.8
87.5°	39.8	37.2	38.4	39.8	38.4	39.8	41.2	42.4	43.8	45.2	46.4
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°	2737.8	2737.8	2737.8	2737.8	2737.8	2737.8	2737.8	2737.8	2737.8	2737.8	2737.8
2.5°	2844.0	2833.4	2822.8	2804.2	2788.2	2765.8	2759.0	2751.2	2727.2	2706.0	2690.2
5°	2995.2	2963.4	2917.0	2874.4	2840.0	2793.6	2767.0	2739.2	2699.4	2663.6	2634.4
7.5°	3139.8	3084.0	3019.0	2948.8	2881.2	2816.2	2764.4	2718.0	2666.2	2615.8	2577.4
10°	3318.8	3228.6	3127.8	3019.0	2926.2	2836.0	2760.4	2694.0	2622.4	2560.2	2508.4
12.5°	3523.2	3378.6	3230.0	3092.0	2978.0	2844.0	2748.4	2659.6	2576.0	2497.8	2438.0
15°	3675.6	3506.0	3341.4	3159.6	2992.6	2836.0	2727.2	2621.2	2527.0	2450.0	2375.8
17.5°	3827.0	3641.2	3431.6	3212.8	3016.4	2836.0	2687.4	2573.4	2458.0	2365.2	2293.4
20°	3951.6	3732.8	3487.4	3257.8	3035.0	2828.0	2661.0	2517.6	2390.4	2290.8	2207.2
22.5°	4059.0	3793.8	3537.8	3288.4	3033.6	2806.8	2611.8	2463.2	2322.6	2225.8	2135.6
25°	4126.8	3820.2	3565.6	3277.8	3000.6	2769.8	2557.4	2390.4	2252.4	2138.2	2046.8
27.5°	4190.4	3816.4	3528.4	3218.0	2960.8	2731.2	2503.0	2324.0	2179.4	2056.0	1961.8
30°	4254.0	3823.0	3463.4	3157.0	2897.0	2658.2	2438.0	2257.6	2103.8	1977.8	1890.2
32.5°	4293.8	3819.0	3403.8	3072.2	2796.2	2592.0	2367.8	2179.4	2020.2	1896.8	1813.4
35°	4304.4	3796.4	3333.4	2948.8	2686.2	2480.6	2293.4	2099.8	1934.0	1818.6	1723.2
37.5°	4282.0	3755.2	3256.6	2837.4	2553.4	2349.2	2186.0	2020.2	1861.0	1732.4	1648.8
40°	4209.0	3715.4	3163.6	2718.0	2415.6	2220.6	2086.6	1924.8	1768.2	1647.4	1570.6
42.5°	4069.6	3634.6	3061.6	2585.4	2272.2	2077.2	1956.6	1827.8	1682.0	1570.6	1493.6
45°	3825.6	3509.8	2959.4	2452.6	2131.6	1930.0	1821.2	1723.2	1589.2	1479.0	1412.8
47.5°	3513.8	3341.4	2812.2	2313.4	1984.4	1789.4	1675.4	1594.4	1489.6	1400.8	1335.8
50°	3186.2	3123.8	2662.2	2170.2	1837.2	1647.4	1538.8	1467.0	1396.8	1308.0	1249.6
52.5°	2808.2	2871.8	2487.2	2021.6	1687.2	1501.6	1400.8	1347.8	1285.4	1216.4	1167.4
55°	2458.0	2597.2	2280.2	1851.8	1538.8	1361.0	1264.2	1213.8	1176.6	1122.2	1078.4
57.5°	2118.4	2296.2	2065.4	1680.6	1392.8	1237.6	1142.2	1085.0	1061.2	1030.6	994.8
60°	1822.6	1997.6	1831.8	1508.2	1245.6	1099.6	1017.4	971.0	947.2	927.2	898.0
62.5°	1558.6	1736.4	1603.8	1333.2	1101.0	968.4	899.4	854.2	837.0	829.0	805.2
65°	1321.2	1473.8	1380.8	1150.0	964.4	845.0	780.0	748.2	730.8	727.0	711.0
67.5°	1115.6	1233.6	1162.0	988.2	837.0	728.2	671.2	643.4	628.8	627.4	614.2
70°	914.0	1022.8	971.0	817.2	691.2	610.2	562.4	538.6	530.6	529.2	522.6
72.5°	757.4	825.0	786.6	664.6	574.4	502.8	471.0	445.6	436.4	439.0	435.0
75°	583.6	640.6	616.8	528.0	449.6	402.0	372.8	356.8	348.8	352.8	347.6
77.5°	445.6	485.4	461.6	394.0	343.6	307.8	285.2	274.6	266.6	266.6	264.0
80°	317.0	338.2	326.4	289.2	249.4	220.2	203.0	196.4	192.4	191.0	189.6
82.5°	203.0	220.2	205.6	183.0	159.2	144.6	136.6	127.4	124.6	126.0	124.6
85°	114.0	120.8	115.4	99.4	88.8	81.0	75.6	71.6	69.0	70.4	67.6
87.5°	49.0	50.4	46.4	41.2	38.4	34.4	34.4	31.8	29.2	29.2	27.8
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2737.8	2737.8	2737.8	2737.8	2737.8	2737.8	2737.8	2737.8	2737.8	2737.8	2737.8
2.5°	2680.8	2671.6	2658.2	2638.4	2622.4	2597.2	2597.2	2601.2	2601.2	2600.0	2597.2
5°	2610.6	2590.6	2566.8	2538.8	2509.8	2480.6	2475.2	2464.6	2456.6	2451.4	2444.8
7.5°	2538.8	2505.8	2472.6	2434.2	2401.0	2373.0	2353.2	2336.0	2325.4	2313.4	2304.2
10°	2466.0	2422.2	2381.0	2340.0	2294.8	2259.0	2236.4	2220.6	2208.6	2198.0	2192.6
12.5°	2379.8	2328.0	2281.6	2243.0	2192.6	2155.6	2134.4	2129.0	2114.4	2089.2	2076.0
15°	2296.2	2249.8	2195.4	2135.6	2111.8	2066.6	2041.4	2029.6	2021.6	2004.4	1999.0
17.5°	2227.2	2164.8	2102.4	2058.8	2015.0	1979.2	1964.6	1948.6	1938.0	1922.0	1918.2
20°	2141.0	2086.6	2030.8	1983.0	1936.6	1896.8	1885.0	1874.4	1863.8	1857.0	1851.8
22.5°	2053.4	1999.0	1955.2	1911.4	1861.0	1838.6	1825.2	1813.4	1806.6	1802.6	1797.4
25°	1972.4	1924.8	1873.0	1833.2	1793.4	1776.2	1768.2	1761.6	1756.2	1749.6	1748.4
27.5°	1900.8	1847.8	1804.0	1765.6	1736.4	1721.8	1712.4	1708.6	1708.6	1711.2	1712.4
30°	1818.6	1770.8	1736.4	1704.6	1678.0	1664.8	1663.4	1663.4	1668.8	1670.0	1672.8
32.5°	1743.0	1705.8	1671.4	1640.8	1622.2	1614.4	1621.0	1621.0	1625.0	1629.0	1634.2
35°	1670.0	1635.6	1609.0	1582.4	1565.2	1569.2	1571.8	1574.6	1581.2	1589.2	1594.4
37.5°	1601.0	1569.2	1541.4	1520.2	1509.6	1517.6	1524.2	1529.4	1537.4	1544.0	1549.4
40°	1525.4	1503.0	1476.4	1457.8	1460.4	1464.4	1469.8	1476.4	1483.0	1487.0	1492.2
42.5°	1455.2	1431.2	1412.8	1398.2	1402.0	1407.4	1410.0	1412.8	1420.6	1428.6	1431.2
45°	1383.6	1365.0	1346.4	1337.0	1339.8	1342.4	1345.0	1349.0	1355.6	1361.0	1362.4
47.5°	1302.6	1289.4	1277.4	1266.8	1272.2	1270.8	1274.8	1282.8	1285.4	1288.0	1296.0
50°	1225.6	1213.8	1199.2	1196.4	1196.4	1196.4	1197.8	1208.4	1208.4	1213.8	1219.0
52.5°	1140.8	1134.2	1126.2	1120.8	1118.2	1118.2	1124.8	1128.8	1131.4	1139.4	1144.8
55°	1057.2	1049.2	1041.2	1037.4	1034.6	1037.4	1048.0	1050.6	1057.2	1061.2	1065.2
57.5°	969.6	964.4	957.8	955.0	955.0	956.4	964.4	971.0	972.4	985.6	990.8
60°	883.4	874.2	868.8	868.8	866.2	878.2	875.4	888.8	891.4	899.4	908.6
62.5°	794.6	781.4	780.0	780.0	785.2	786.6	792.0	795.8	803.8	814.4	821.0
65°	697.8	691.2	700.4	699.0	696.4	704.4	704.4	711.0	719.0	728.2	742.8
67.5°	607.6	602.2	604.8	603.6	607.6	612.8	616.8	622.2	631.4	642.0	651.4
70°	516.0	520.0	513.4	518.6	522.6	524.0	526.6	534.6	545.2	551.8	562.4
72.5°	427.2	425.8	428.4	429.8	433.8	436.4	439.0	448.4	460.2	465.6	473.6
75°	342.2	341.0	344.8	344.8	351.6	354.2	356.8	360.8	371.4	379.4	386.0
77.5°	265.2	266.6	265.2	270.6	268.0	269.2	277.2	281.2	282.6	299.8	302.4
80°	188.4	191.0	192.4	193.6	195.0	192.4	201.6	205.6	205.6	214.8	221.6
82.5°	122.0	123.4	127.4	128.6	128.6	132.6	131.4	134.0	138.0	140.6	149.8
85°	67.6	71.6	73.0	71.6	73.0	70.4	74.2	75.6	77.0	77.0	77.0
87.5°	26.6	27.8	26.6	27.8	26.6	27.8	27.8	25.2	25.2	29.2	23.8
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: P273782

CATALOG NUMBER: 8RCG-4-100D-L840-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2737.8	2737.8	2737.8	2737.8
2.5°	2588.0	2586.6	2596.0	2589.4
5°	2436.8	2440.8	2427.4	2427.4
7.5°	2300.2	2294.8	2296.2	2286.8
10°	2176.8	2168.8	2166.2	2167.4
12.5°	2074.6	2074.6	2053.4	2053.4
15°	1999.0	1973.8	1971.2	1979.2
17.5°	1915.4	1900.8	1902.2	1899.6
20°	1851.8	1843.8	1842.4	1833.2
22.5°	1793.4	1792.0	1793.4	1782.8
25°	1747.0	1753.6	1748.4	1748.4
27.5°	1715.2	1715.2	1711.2	1711.2
30°	1678.0	1676.6	1679.4	1679.4
32.5°	1640.8	1643.6	1643.6	1644.8
35°	1602.4	1603.8	1607.8	1605.0
37.5°	1552.0	1558.6	1557.2	1560.0
40°	1493.6	1497.6	1496.2	1496.2
42.5°	1434.0	1436.6	1432.6	1430.0
45°	1367.6	1365.0	1369.0	1363.6
47.5°	1294.6	1296.0	1297.4	1302.6
50°	1221.6	1229.6	1229.6	1228.4
52.5°	1150.0	1152.8	1159.4	1159.4
55°	1075.8	1078.4	1081.0	1082.4
57.5°	1000.2	998.8	1004.2	1005.4
60°	919.2	919.2	929.8	933.8
62.5°	833.0	838.4	849.0	841.0
65°	749.4	760.0	758.8	764.0
67.5°	662.0	668.6	679.2	679.2
70°	573.0	579.6	585.0	589.0
72.5°	486.8	489.4	504.0	496.2
75°	395.2	404.6	412.6	408.6
77.5°	307.8	319.6	322.4	318.4
80°	230.8	229.4	237.4	236.2
82.5°	153.8	152.6	155.2	156.6
85°	82.2	86.2	81.0	79.6
87.5°	23.8	23.8	22.6	21.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)