

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: P273776

Luminaire Tested: **8RCG-4-100D-L830-A**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P273776
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-L830-A
Description: RCG SERIES DIRECT RECESSED LED LUMINAIRE WITH ASYMMETRIC FLUSH LENS
Light Source: (168) 3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7712.8 lumens
Efficiency: N/A
Efficacy: 112.1 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

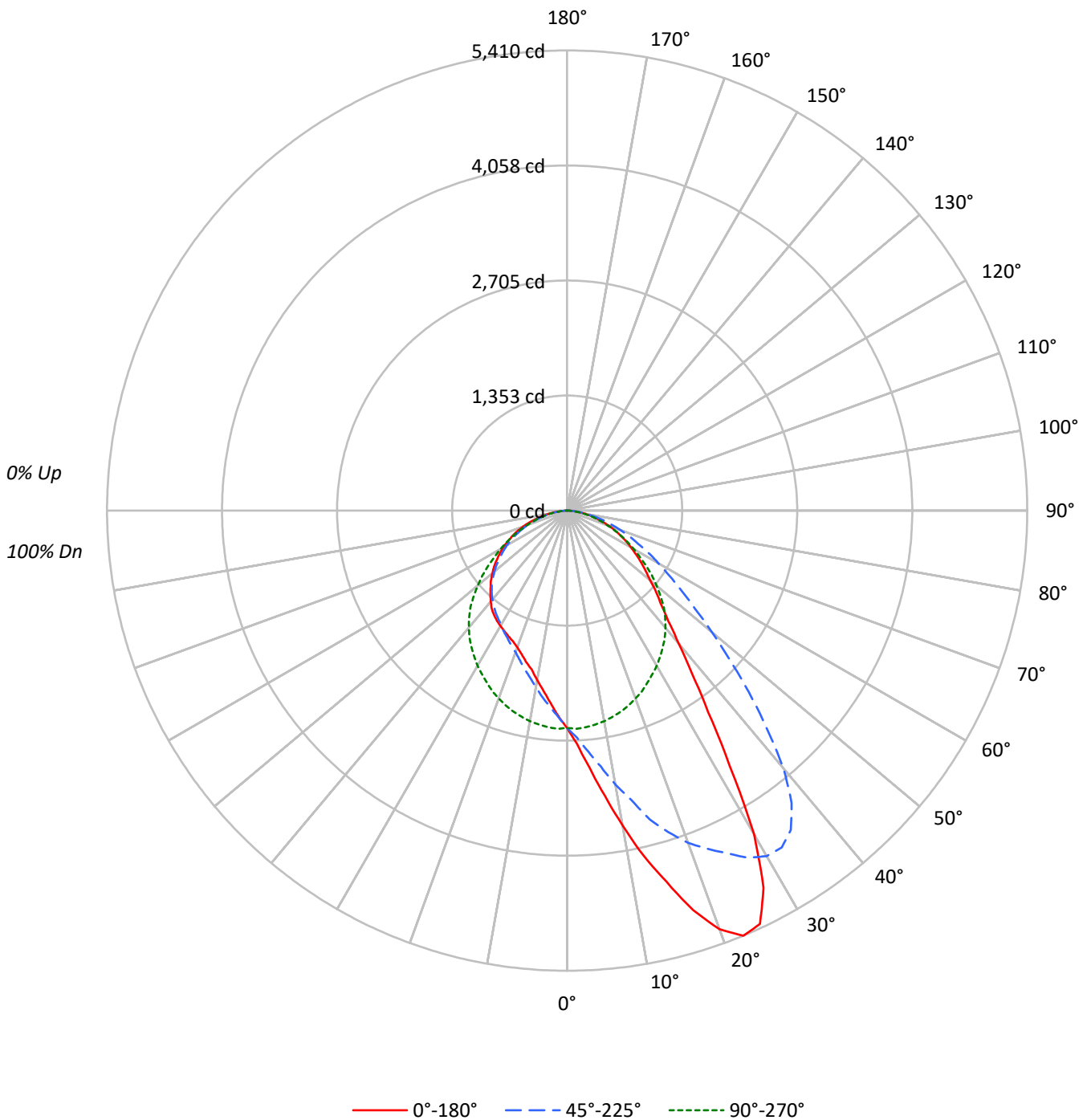
Input Watts (W): 68.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	15241	15241	15241
5°	18176	15307	13565
10°	22749	15228	12252
15°	27904	15106	11406
20°	33240	14915	10860
25°	35295	14682	10739
30°	30252	14513	10795
35°	21040	14270	10907
40°	15848	13987	10874
45°	13159	13565	10736
50°	11786	12705	10637
55°	11020	11780	10505
60°	10338	10810	10397
65°	9715	9854	10065
70°	9110	8765	9584
75°	8158	7674	8789
80°	7144	6292	7570
85°	5598	4571	5078



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	251.3	3.3
10°-20°	807.2	10.5
20°-30°	1358.2	17.6
30°-40°	1535.0	19.9
40°-50°	1374.9	17.8
50°-60°	1109.8	14.4
60°-70°	773.3	10.0
70°-80°	405.9	5.3
80°-90°	97.3	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°	2416.7	31.3
0°-40°	3951.7	51.2
0°-60°	6436.4	83.5
0°-90°	7712.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7712.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2555	2555	2555	2555	2555	
5°	3036	2845	2557	2315	2266	312
15°	4519	3761	2446	1929	1847	1304
25°	5363	4445	2231	1658	1632	2371
35°	2890	4583	1960	1465	1498	1865
45°	1560	3021	1608	1253	1273	1230
55°	1060	1640	1133	968	1010	951
65°	688	920	698	657	713	686
75°	354	436	333	331	381	378
85°	82	94	67	66	74	99
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°	2555.4	2555.4	2555.4	2555.4	2555.4	2555.4	2555.4	2555.4	2555.4	2555.4	2555.4
2.5°	2751.0	2748.4	2742.2	2747.2	2737.4	2723.8	2722.4	2710.2	2674.2	2671.8	2661.8
5°	3035.8	3025.8	3024.6	3023.4	3006.0	2982.4	2938.0	2934.2	2874.8	2845.0	2809.2
7.5°	3379.8	3376.2	3366.2	3355.2	3297.0	3268.4	3226.4	3172.0	3102.6	3035.8	2993.6
10°	3756.2	3797.2	3746.4	3711.6	3679.6	3618.8	3548.2	3460.4	3372.4	3269.8	3191.8
12.5°	4159.8	4174.8	4174.8	4142.6	4088.0	3987.8	3849.2	3750.0	3670.8	3482.6	3415.8
15°	4519.0	4594.4	4546.2	4434.8	4437.2	4349.2	4185.8	4006.4	3911.0	3761.2	3557.0
17.5°	4925.0	4938.6	4923.8	4819.8	4769.0	4641.4	4494.2	4327.0	4147.4	3965.4	3753.8
20°	5237.0	5229.6	5186.2	5138.0	5031.4	4937.4	4772.8	4580.8	4333.2	4155.0	3918.4
22.5°	5410.4	5396.6	5381.8	5343.4	5259.2	5156.6	5012.8	4798.8	4566.0	4303.4	4021.2
25°	5363.2	5379.4	5381.8	5370.6	5339.8	5279.0	5162.6	4995.6	4760.4	4444.6	4159.8
27.5°	4999.2	5040.2	5092.2	5126.8	5182.6	5219.6	5182.6	5077.2	4884.2	4601.8	4251.4
30°	4392.6	4343.2	4465.6	4620.4	4725.6	4911.4	5015.4	5021.6	4923.8	4689.8	4350.6
32.5°	3550.8	3631.2	3668.4	3867.6	4129.0	4343.2	4575.8	4782.6	4831.0	4694.8	4408.8
35°	2889.6	2957.8	3056.8	3155.8	3403.4	3616.4	3980.4	4297.2	4549.8	4583.2	4401.2
37.5°	2401.8	2441.4	2502.2	2607.4	2777.0	3040.6	3329.2	3741.4	4089.4	4334.4	4309.6
40°	2035.4	2045.2	2115.8	2191.4	2322.6	2530.6	2784.4	3138.4	3576.8	3956.8	4115.4
42.5°	1760.6	1785.2	1805.0	1876.8	1974.8	2118.4	2349.8	2627.2	3019.6	3471.6	3819.4
45°	1560.0	1584.8	1603.2	1651.6	1725.8	1831.0	1995.8	2263.2	2569.0	3020.8	3438.0
47.5°	1421.2	1418.8	1435.0	1473.2	1526.6	1610.8	1732.0	1910.4	2203.8	2581.4	3018.4
50°	1270.2	1290.0	1295.0	1323.4	1363.2	1421.2	1517.8	1664.0	1894.2	2216.2	2609.8
52.5°	1163.8	1166.2	1182.4	1201.0	1234.4	1276.4	1357.0	1463.4	1631.8	1894.2	2248.4
55°	1059.8	1059.8	1073.4	1089.4	1109.2	1150.2	1205.8	1290.0	1427.4	1640.4	1940.0
57.5°	963.2	968.2	980.6	984.2	1001.6	1030.0	1078.4	1145.2	1250.4	1422.6	1670.2
60°	866.6	877.8	876.6	886.4	901.4	922.4	962.0	1014.0	1105.6	1236.8	1437.4
62.5°	782.4	778.8	778.8	791.2	806.0	825.8	848.0	891.4	965.6	1078.4	1241.8
65°	688.4	685.8	694.6	702.0	707.0	721.8	741.6	781.2	833.2	919.8	1052.4
67.5°	606.6	599.2	605.4	607.8	616.6	629.0	648.8	673.6	715.6	788.6	895.2
70°	522.4	516.2	515.0	517.6	525.0	533.6	547.2	570.8	609.2	664.8	737.8
72.5°	435.8	432.0	432.0	438.2	440.8	445.8	454.4	475.4	503.8	542.2	609.2
75°	354.0	354.0	354.0	355.4	359.0	364.0	371.4	382.6	406.0	435.8	481.6
77.5°	279.8	281.0	278.6	277.4	283.6	286.0	287.2	299.6	313.2	335.6	371.4
80°	208.0	201.8	204.2	208.0	210.4	211.8	215.4	217.8	229.0	240.2	263.8
82.5°	141.2	136.2	136.2	142.4	142.4	143.6	147.4	151.0	153.6	163.4	173.4
85°	81.8	81.8	83.0	83.0	84.2	83.0	86.6	88.0	88.0	94.0	101.6
87.5°	37.2	34.6	36.0	37.2	36.0	37.2	38.4	39.6	40.8	42.0	43.4
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°	2555.4	2555.4	2555.4	2555.4	2555.4	2555.4	2555.4	2555.4	2555.4	2555.4	2555.4
2.5°	2654.4	2644.4	2634.6	2617.2	2602.4	2581.4	2575.2	2567.8	2545.4	2525.6	2510.8
5°	2795.6	2765.8	2722.4	2682.8	2650.6	2607.4	2582.6	2556.6	2519.4	2486.0	2458.8
7.5°	2930.4	2878.4	2817.8	2752.2	2689.0	2628.4	2580.2	2536.8	2488.4	2441.4	2405.6
10°	3097.6	3013.4	2919.4	2817.8	2731.2	2647.0	2576.4	2514.4	2447.6	2389.4	2341.2
12.5°	3288.2	3153.4	3014.6	2886.0	2779.4	2654.4	2565.2	2482.4	2404.4	2331.2	2275.6
15°	3430.6	3272.2	3118.6	2949.0	2793.0	2647.0	2545.4	2446.4	2358.4	2286.6	2217.4
17.5°	3571.8	3398.4	3202.8	2998.6	2815.4	2647.0	2508.4	2401.8	2294.2	2207.4	2140.6
20°	3688.2	3483.8	3254.8	3040.6	2832.6	2639.6	2483.6	2349.8	2231.0	2138.2	2060.2
22.5°	3788.4	3540.8	3301.8	3069.2	2831.4	2619.8	2437.8	2299.0	2167.8	2077.4	1993.2
25°	3851.6	3565.6	3327.8	3059.2	2800.4	2585.0	2387.0	2231.0	2102.2	1995.8	1910.4
27.5°	3911.0	3561.8	3293.2	3003.6	2763.4	2549.2	2336.2	2169.0	2034.2	1919.0	1831.0
30°	3970.4	3568.0	3232.6	2946.6	2704.0	2481.0	2275.6	2107.2	1963.6	1846.0	1764.2
32.5°	4007.6	3564.4	3176.8	2867.4	2609.8	2419.2	2210.0	2034.2	1885.6	1770.4	1692.4
35°	4017.4	3543.4	3111.2	2752.2	2507.0	2315.2	2140.6	1959.8	1805.0	1697.4	1608.2
37.5°	3996.4	3505.0	3039.4	2648.2	2383.2	2192.6	2040.4	1885.6	1737.0	1617.0	1539.0
40°	3928.4	3467.8	2952.8	2536.8	2254.6	2072.6	1947.4	1796.4	1650.4	1537.6	1465.8
42.5°	3798.4	3392.2	2857.4	2413.0	2120.8	1938.8	1826.2	1706.0	1569.8	1465.8	1394.0
45°	3570.6	3276.0	2762.2	2289.2	1989.6	1801.4	1699.8	1608.2	1483.2	1380.4	1318.6
47.5°	3279.6	3118.6	2624.6	2159.2	1852.2	1670.2	1563.6	1488.2	1390.4	1307.4	1246.8
50°	2973.8	2915.6	2484.8	2025.4	1714.8	1537.6	1436.2	1369.2	1303.6	1220.8	1166.2
52.5°	2621.0	2680.4	2321.4	1886.8	1574.8	1401.4	1307.4	1257.8	1199.6	1135.2	1089.4
55°	2294.2	2424.2	2128.2	1728.4	1436.2	1270.2	1179.8	1132.8	1098.2	1047.4	1006.6
57.5°	1977.2	2143.0	1927.6	1568.6	1300.0	1155.2	1066.0	1012.8	990.4	962.0	928.6
60°	1701.0	1864.6	1709.8	1407.6	1162.6	1026.4	949.6	906.2	884.0	865.4	838.2
62.5°	1454.8	1620.6	1496.8	1244.2	1027.6	903.8	839.4	797.4	781.2	773.8	751.6
65°	1233.2	1375.4	1288.8	1073.4	900.0	788.6	728.0	698.2	682.2	678.4	663.6
67.5°	1041.2	1151.4	1084.6	922.4	781.2	679.6	626.4	600.4	586.8	585.6	573.2
70°	853.0	954.6	906.2	762.6	645.0	569.6	525.0	502.6	495.2	494.0	487.8
72.5°	707.0	770.0	734.2	620.2	536.0	469.2	439.6	416.0	407.4	409.8	406.0
75°	544.8	598.0	575.6	492.8	419.8	375.2	347.8	333.0	325.6	329.4	324.4
77.5°	416.0	453.2	430.8	367.8	320.6	287.2	266.2	256.2	248.8	248.8	246.4
80°	295.8	315.8	304.6	269.8	232.8	205.6	189.4	183.2	179.6	178.2	177.0
82.5°	189.4	205.6	191.8	170.8	148.6	135.0	127.6	118.8	116.4	117.6	116.4
85°	106.4	112.6	107.8	92.8	83.0	75.6	70.6	66.8	64.4	65.6	63.2
87.5°	45.8	47.0	43.4	38.4	36.0	32.2	32.2	29.8	27.2	27.2	26.0
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2555.4	2555.4	2555.4	2555.4	2555.4	2555.4	2555.4	2555.4	2555.4	2555.4	2555.4
2.5°	2502.2	2493.4	2481.0	2462.4	2447.6	2424.2	2424.2	2427.8	2427.8	2426.6	2424.2
5°	2436.4	2418.0	2395.6	2369.6	2342.4	2315.2	2310.2	2300.4	2292.8	2288.0	2281.8
7.5°	2369.6	2338.6	2307.8	2271.8	2240.8	2214.8	2196.4	2180.2	2170.4	2159.2	2150.6
10°	2301.6	2260.6	2222.4	2184.0	2141.8	2108.4	2087.4	2072.6	2061.4	2051.4	2046.6
12.5°	2221.0	2172.8	2129.4	2093.6	2046.6	2011.8	1992.0	1987.0	1973.4	1950.0	1937.6
15°	2143.0	2099.8	2049.0	1993.2	1971.0	1928.8	1905.4	1894.2	1886.8	1870.8	1865.8
17.5°	2078.6	2020.6	1962.4	1921.4	1880.6	1847.2	1833.6	1818.8	1808.8	1794.0	1790.2
20°	1998.2	1947.4	1895.4	1850.8	1807.6	1770.4	1759.2	1749.4	1739.4	1733.2	1728.4
22.5°	1916.6	1865.8	1824.8	1784.0	1737.0	1716.0	1703.6	1692.4	1686.2	1682.6	1677.6
25°	1841.0	1796.4	1748.2	1711.0	1673.8	1657.8	1650.4	1644.2	1639.2	1633.0	1631.8
27.5°	1774.2	1724.6	1683.8	1647.8	1620.6	1607.0	1598.4	1594.6	1594.6	1597.0	1598.4
30°	1697.4	1652.8	1620.6	1591.0	1566.2	1553.8	1552.6	1552.6	1557.4	1558.8	1561.2
32.5°	1626.8	1592.2	1560.0	1531.4	1514.2	1506.8	1513.0	1513.0	1516.6	1520.4	1525.2
35°	1558.8	1526.6	1501.8	1477.0	1461.0	1464.6	1467.0	1469.6	1475.8	1483.2	1488.2
37.5°	1494.4	1464.6	1438.6	1418.8	1409.0	1416.4	1422.6	1427.4	1435.0	1441.0	1446.0
40°	1423.8	1402.8	1378.0	1360.6	1363.2	1366.8	1371.8	1378.0	1384.2	1387.8	1392.8
42.5°	1358.2	1335.8	1318.6	1305.0	1308.6	1313.6	1316.0	1318.6	1326.0	1333.4	1335.8
45°	1291.2	1274.0	1256.6	1248.0	1250.4	1253.0	1255.4	1259.2	1265.2	1270.2	1271.4
47.5°	1215.8	1203.4	1192.2	1182.4	1187.2	1186.0	1189.8	1197.2	1199.6	1202.2	1209.6
50°	1144.0	1132.8	1119.2	1116.8	1116.8	1116.8	1118.0	1127.8	1127.8	1132.8	1137.8
52.5°	1064.8	1058.6	1051.2	1046.2	1043.6	1043.6	1049.8	1053.6	1056.0	1063.4	1068.4
55°	986.8	979.4	971.8	968.2	965.6	968.2	978.0	980.6	986.8	990.4	994.2
57.5°	905.0	900.0	893.8	891.4	891.4	892.6	900.0	906.2	907.4	919.8	924.8
60°	824.6	815.8	811.0	811.0	808.4	819.6	817.2	829.4	832.0	839.4	848.0
62.5°	741.6	729.2	728.0	728.0	733.0	734.2	739.2	742.8	750.2	760.2	766.4
65°	651.2	645.0	653.6	652.4	650.0	657.4	657.4	663.6	671.0	679.6	693.4
67.5°	567.0	562.0	564.6	563.4	567.0	572.0	575.6	580.6	589.4	599.2	607.8
70°	481.6	485.4	479.2	484.0	487.8	489.0	491.6	499.0	508.8	515.0	525.0
72.5°	398.6	397.4	399.8	401.2	404.8	407.4	409.8	418.4	429.6	434.6	442.0
75°	319.4	318.2	321.8	321.8	328.0	330.6	333.0	336.8	346.6	354.0	360.2
77.5°	247.6	248.8	247.6	252.6	250.0	251.4	258.8	262.4	263.8	279.8	282.2
80°	175.8	178.2	179.6	180.8	182.0	179.6	188.2	191.8	191.8	200.6	206.8
82.5°	114.0	115.2	118.8	120.0	120.0	123.8	122.6	125.0	128.8	131.2	140.0
85°	63.2	66.8	68.0	66.8	68.0	65.6	69.4	70.6	71.8	71.8	71.8
87.5°	24.8	26.0	24.8	26.0	24.8	26.0	26.0	23.6	23.6	27.2	22.2
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: P273776

CATALOG NUMBER: 8RCG-4-100D-L830-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2555.4	2555.4	2555.4	2555.4
2.5°	2415.4	2414.2	2422.8	2416.6
5°	2274.4	2278.0	2265.6	2265.6
7.5°	2146.8	2141.8	2143.0	2134.4
10°	2031.6	2024.2	2021.8	2023.0
12.5°	1936.4	1936.4	1916.6	1916.6
15°	1865.8	1842.2	1839.8	1847.2
17.5°	1787.8	1774.2	1775.4	1772.8
20°	1728.4	1720.8	1719.6	1711.0
22.5°	1673.8	1672.6	1673.8	1664.0
25°	1630.6	1636.8	1631.8	1631.8
27.5°	1600.8	1600.8	1597.0	1597.0
30°	1566.2	1565.0	1567.4	1567.4
32.5°	1531.4	1534.0	1534.0	1535.2
35°	1495.6	1496.8	1500.6	1498.0
37.5°	1448.6	1454.8	1453.4	1456.0
40°	1394.0	1397.8	1396.6	1396.6
42.5°	1338.4	1340.8	1337.2	1334.6
45°	1276.4	1274.0	1277.6	1272.8
47.5°	1208.4	1209.6	1210.8	1215.8
50°	1140.2	1147.6	1147.6	1146.4
52.5°	1073.4	1075.8	1082.0	1082.0
55°	1004.0	1006.6	1009.0	1010.2
57.5°	933.4	932.2	937.2	938.4
60°	858.0	858.0	867.8	871.6
62.5°	777.6	782.4	792.4	785.0
65°	699.6	709.4	708.2	713.2
67.5°	617.8	624.0	633.8	633.8
70°	534.8	541.0	546.0	549.6
72.5°	454.4	456.8	470.4	463.0
75°	369.0	377.6	385.0	381.4
77.5°	287.2	298.4	300.8	297.2
80°	215.4	214.2	221.6	220.4
82.5°	143.6	142.4	144.8	146.0
85°	76.8	80.4	75.6	74.2
87.5°	22.2	22.2	21.0	19.8
90°	0.0	0.0	0.0	0.0

(END OF REPORT)