

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: P273794

Luminaire Tested: **8RCG-4-100D-L940-A**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P273794
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-L940-A
Description: RCG SERIES DIRECT RECESSED LED LUMINAIRE WITH ASYMMETRIC FLUSH LENS
Light Source: (168) 4000K CCT, 90 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7296.8 lumens
Efficiency: N/A
Efficacy: 106.1 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

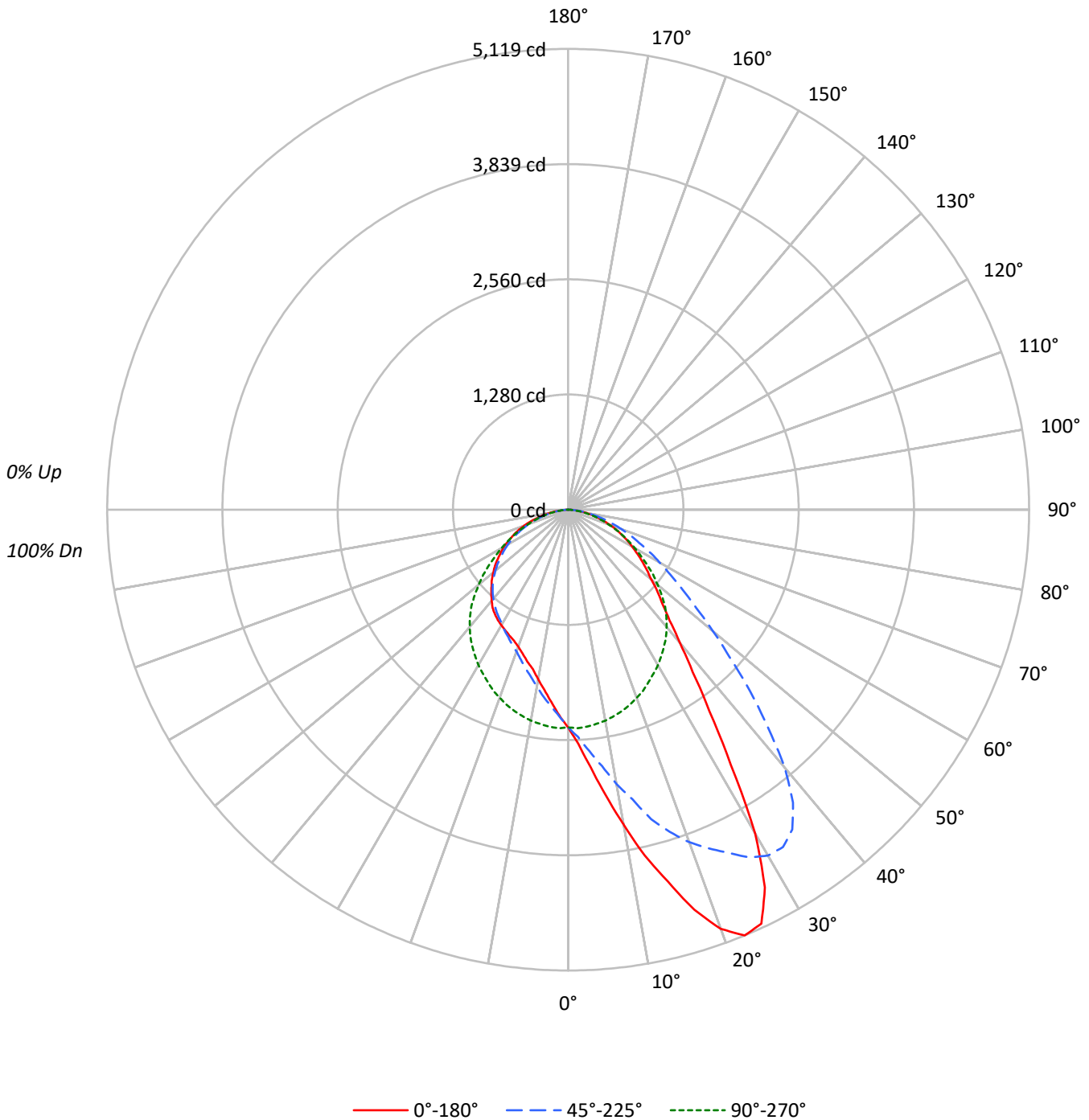
Input Watts (W): 68.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	14420	14420	14420
5°	17195	14482	12833
10°	21522	14407	11591
15°	26399	14291	10791
20°	31448	14111	10275
25°	33392	13890	10160
30°	28621	13730	10212
35°	19905	13501	10319
40°	14993	13233	10287
45°	12448	12835	10156
50°	11151	12020	10064
55°	10426	11145	9939
60°	9782	10228	9837
65°	9190	9323	9521
70°	8618	8294	9068
75°	7720	7259	8315
80°	6760	5956	7158
85°	5297	4325	4804



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	237.8	3.3
10°-20°	763.7	10.5
20°-30°	1284.9	17.6
30°-40°	1452.2	19.9
40°-50°	1300.7	17.8
50°-60°	1049.9	14.4
60°-70°	731.6	10.0
70°-80°	384.0	5.3
80°-90°	92.0	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°	2286.4	31.3
0°-40°	3738.6	51.2
0°-60°	6089.2	83.5
0°-90°	7296.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7296.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2418	2418	2418	2418	2418	
5°	2872	2692	2419	2190	2143	295
15°	4275	3558	2314	1825	1748	1234
25°	5074	4205	2111	1568	1544	2243
35°	2734	4336	1854	1386	1417	1764
45°	1476	2858	1522	1185	1204	1164
55°	1003	1552	1072	916	956	900
65°	651	870	661	622	675	649
75°	335	412	315	313	361	358
85°	77	89	63	62	70	94
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°	2417.6	2417.6	2417.6	2417.6	2417.6	2417.6	2417.6	2417.6	2417.6	2417.6	2417.6
2.5°	2602.6	2600.2	2594.4	2599.0	2589.8	2576.8	2575.6	2564.0	2530.0	2527.6	2518.2
5°	2872.0	2862.6	2861.4	2860.2	2843.8	2821.6	2779.4	2776.0	2719.8	2691.6	2657.6
7.5°	3197.6	3194.2	3184.8	3174.2	3119.2	3092.2	3052.4	3000.8	2935.2	2872.0	2832.2
10°	3553.6	3592.4	3544.4	3511.6	3481.0	3423.6	3357.0	3273.8	3190.6	3093.4	3019.6
12.5°	3935.6	3949.6	3949.6	3919.2	3867.6	3772.8	3641.6	3547.8	3472.8	3294.8	3231.6
15°	4275.2	4346.6	4301.0	4195.6	4197.8	4114.8	3960.2	3790.2	3700.2	3558.4	3365.2
17.5°	4659.4	4672.2	4658.2	4559.8	4511.8	4391.2	4251.8	4093.6	3923.8	3751.6	3551.4
20°	4954.6	4947.6	4906.6	4860.8	4760.2	4671.0	4515.4	4333.8	4099.6	3930.8	3707.2
22.5°	5118.6	5105.6	5091.6	5055.2	4975.6	4878.4	4742.6	4540.0	4319.8	4071.4	3804.4
25°	5074.0	5089.2	5091.6	5081.0	5051.8	4994.4	4884.2	4726.2	4503.6	4205.0	3935.6
27.5°	4729.6	4768.4	4817.6	4850.4	4903.0	4938.2	4903.0	4803.4	4620.8	4353.6	4022.2
30°	4155.8	4108.8	4224.8	4371.2	4470.8	4646.6	4744.8	4750.8	4658.2	4436.8	4116.0
32.5°	3359.2	3435.4	3470.6	3659.2	3906.2	4108.8	4329.0	4524.6	4570.4	4441.6	4171.0
35°	2733.8	2798.2	2892.0	2985.6	3219.8	3421.4	3765.6	4065.6	4304.4	4336.2	4164.0
37.5°	2272.2	2309.8	2367.2	2466.8	2627.2	2876.6	3149.6	3539.6	3868.8	4100.6	4077.2
40°	1925.6	1935.0	2001.8	2073.2	2197.4	2394.2	2634.2	2969.2	3383.8	3743.4	3893.4
42.5°	1665.6	1689.0	1707.8	1775.6	1868.2	2004.0	2223.2	2485.4	2856.8	3284.2	3613.4
45°	1475.8	1499.2	1516.8	1562.4	1632.8	1732.4	1888.2	2141.2	2430.4	2858.0	3252.6
47.5°	1344.6	1342.2	1357.6	1393.8	1444.2	1523.8	1638.6	1807.2	2084.8	2442.2	2855.6
50°	1201.8	1220.4	1225.2	1252.2	1289.6	1344.6	1436.0	1574.2	1792.0	2096.6	2469.0
52.5°	1101.0	1103.4	1118.6	1136.2	1167.8	1207.6	1283.8	1384.4	1543.8	1792.0	2127.0
55°	1002.6	1002.6	1015.6	1030.8	1049.4	1088.2	1140.8	1220.4	1350.4	1552.0	1835.4
57.5°	911.2	916.0	927.6	931.2	947.6	974.6	1020.2	1083.4	1183.0	1345.8	1580.0
60°	820.0	830.4	829.2	838.6	852.6	872.6	910.0	959.2	1046.0	1170.2	1359.8
62.5°	740.2	736.8	736.8	748.4	762.6	781.2	802.4	843.4	913.6	1020.2	1174.8
65°	651.2	648.8	657.0	664.2	668.8	682.8	701.6	739.0	788.2	870.2	995.6
67.5°	574.0	567.0	572.8	575.2	583.4	595.0	613.8	637.2	677.0	746.2	846.8
70°	494.2	488.4	487.2	489.6	496.6	504.8	517.8	540.0	576.2	629.0	698.0
72.5°	412.2	408.8	408.8	414.6	417.0	421.6	429.8	449.8	476.8	513.0	576.2
75°	335.0	335.0	335.0	336.2	339.6	344.4	351.4	362.0	384.2	412.2	455.6
77.5°	264.8	265.8	263.6	262.4	268.2	270.6	271.8	283.4	296.4	317.4	351.4
80°	196.8	191.0	193.2	196.8	199.2	200.2	203.8	206.2	216.6	227.2	249.4
82.5°	133.6	128.8	128.8	134.6	134.6	135.8	139.4	142.8	145.2	154.6	164.0
85°	77.4	77.4	78.4	78.4	79.6	78.4	82.0	83.2	83.2	89.0	96.0
87.5°	35.2	32.8	34.0	35.2	34.0	35.2	36.4	37.4	38.6	39.8	41.0
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°	2417.6	2417.6	2417.6	2417.6	2417.6	2417.6	2417.6	2417.6	2417.6	2417.6	2417.6
2.5°	2511.2	2501.8	2492.6	2476.2	2462.0	2442.2	2436.2	2429.2	2408.2	2389.4	2375.4
5°	2644.8	2616.6	2575.6	2538.2	2507.8	2466.8	2443.4	2418.8	2383.6	2352.0	2326.2
7.5°	2772.4	2723.2	2665.8	2603.8	2544.0	2486.6	2441.0	2400.0	2354.2	2309.8	2275.8
10°	2930.6	2851.0	2761.8	2665.8	2583.8	2504.2	2437.4	2378.8	2315.6	2260.6	2215.0
12.5°	3111.0	2983.2	2852.0	2730.2	2629.6	2511.2	2427.0	2348.4	2274.6	2205.6	2152.8
15°	3245.6	3095.8	2950.4	2790.0	2642.4	2504.2	2408.2	2314.4	2231.4	2163.4	2097.8
17.5°	3379.2	3215.2	3030.2	2836.8	2663.6	2504.2	2373.0	2272.2	2170.4	2088.4	2025.2
20°	3489.2	3296.0	3079.4	2876.6	2680.0	2497.2	2349.6	2223.2	2110.6	2022.8	1949.0
22.5°	3584.2	3349.8	3123.8	2903.6	2678.8	2478.4	2306.2	2175.0	2051.0	1965.4	1885.8
25°	3643.8	3373.4	3148.4	2894.2	2649.4	2445.6	2258.2	2110.6	1988.8	1888.2	1807.2
27.5°	3700.2	3369.8	3115.6	2841.6	2614.4	2411.6	2210.2	2052.0	1924.4	1815.4	1732.4
30°	3756.4	3375.6	3058.2	2787.6	2558.0	2347.2	2152.8	1993.6	1857.6	1746.4	1669.0
32.5°	3791.4	3372.2	3005.6	2712.8	2469.0	2288.6	2090.8	1924.4	1783.8	1675.0	1601.2
35°	3800.8	3352.2	2943.4	2603.8	2371.8	2190.4	2025.2	1854.2	1707.8	1605.8	1521.6
37.5°	3781.0	3316.0	2875.6	2505.4	2254.8	2074.4	1930.2	1783.8	1643.4	1529.8	1456.0
40°	3716.4	3280.8	2793.6	2400.0	2133.0	1960.8	1842.4	1699.6	1561.4	1454.8	1386.8
42.5°	3593.6	3209.4	2703.4	2282.8	2006.4	1834.2	1727.6	1614.0	1485.2	1386.8	1318.8
45°	3378.0	3099.2	2613.2	2165.8	1882.2	1704.2	1608.2	1521.6	1403.2	1306.0	1247.4
47.5°	3102.8	2950.4	2483.2	2042.8	1752.2	1580.0	1479.4	1407.8	1315.4	1236.8	1179.4
50°	2813.4	2758.4	2350.8	1916.2	1622.2	1454.8	1358.6	1295.4	1233.4	1154.8	1103.4
52.5°	2479.6	2535.8	2196.2	1785.0	1489.8	1325.8	1236.8	1190.0	1135.0	1074.0	1030.8
55°	2170.4	2293.4	2013.4	1635.2	1358.6	1201.8	1116.2	1071.8	1039.0	991.0	952.2
57.5°	1870.6	2027.6	1823.6	1484.0	1229.8	1092.8	1008.4	958.2	937.0	910.0	878.4
60°	1609.4	1764.0	1617.6	1331.8	1099.8	971.0	898.4	857.4	836.4	818.8	793.0
62.5°	1376.2	1533.2	1416.0	1177.2	972.2	855.0	794.2	754.4	739.0	732.0	711.0
65°	1166.6	1301.4	1219.4	1015.6	851.6	746.2	688.8	660.6	645.4	641.8	627.8
67.5°	985.0	1089.2	1026.0	872.6	739.0	643.0	592.6	568.0	555.2	554.0	542.4
70°	807.0	903.0	857.4	721.6	610.2	538.8	496.6	475.6	468.6	467.4	461.4
72.5°	668.8	728.6	694.6	586.8	507.2	444.0	415.8	393.6	385.4	387.6	384.2
75°	515.4	565.8	544.6	466.2	397.0	355.0	329.2	315.0	308.0	311.6	306.8
77.5°	393.6	428.6	407.6	347.8	303.4	271.8	251.8	242.4	235.4	235.4	233.0
80°	280.0	298.6	288.2	255.4	220.2	194.4	179.2	173.4	169.8	168.6	167.4
82.5°	179.2	194.4	181.6	161.6	140.6	127.6	120.6	112.4	110.2	111.2	110.2
85°	100.8	106.6	102.0	87.8	78.4	71.4	66.8	63.2	61.0	62.0	59.8
87.5°	43.4	44.6	41.0	36.4	34.0	30.4	30.4	28.2	25.8	25.8	24.6
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°	2417.6	2417.6	2417.6	2417.6	2417.6	2417.6	2417.6	2417.6	2417.6	2417.6	2417.6
2.5°	2367.2	2359.0	2347.2	2329.6	2315.6	2293.4	2293.4	2296.8	2296.8	2295.8	2293.4
5°	2305.0	2287.6	2266.4	2241.8	2216.0	2190.4	2185.6	2176.2	2169.2	2164.6	2158.6
7.5°	2241.8	2212.6	2183.2	2149.4	2120.0	2095.4	2077.8	2062.6	2053.2	2042.8	2034.6
10°	2177.4	2138.8	2102.4	2066.2	2026.4	1994.8	1974.8	1960.8	1950.2	1940.8	1936.2
12.5°	2101.2	2055.6	2014.6	1980.6	1936.2	1903.4	1884.6	1880.0	1867.0	1844.8	1833.0
15°	2027.6	1986.6	1938.4	1885.8	1864.6	1824.8	1802.6	1792.0	1785.0	1769.8	1765.2
17.5°	1966.6	1911.6	1856.4	1817.8	1779.2	1747.6	1734.6	1720.6	1711.2	1697.2	1693.6
20°	1890.4	1842.4	1793.2	1751.0	1710.0	1675.0	1664.4	1655.0	1645.6	1639.8	1635.2
22.5°	1813.2	1765.2	1726.4	1687.8	1643.4	1623.4	1611.6	1601.2	1595.2	1591.8	1587.0
25°	1741.8	1699.6	1653.8	1618.8	1583.6	1568.4	1561.4	1555.4	1550.8	1545.0	1543.8
27.5°	1678.4	1631.6	1593.0	1559.0	1533.2	1520.4	1512.2	1508.6	1508.6	1511.0	1512.2
30°	1605.8	1563.6	1533.2	1505.2	1481.6	1470.0	1468.8	1468.8	1473.4	1474.6	1477.0
32.5°	1539.0	1506.2	1475.8	1448.8	1432.4	1425.4	1431.4	1431.4	1434.8	1438.4	1443.0
35°	1474.6	1444.2	1420.8	1397.4	1382.2	1385.6	1388.0	1390.4	1396.2	1403.2	1407.8
37.5°	1413.8	1385.6	1361.0	1342.2	1333.0	1340.0	1345.8	1350.4	1357.6	1363.4	1368.0
40°	1347.0	1327.0	1303.6	1287.2	1289.6	1293.2	1297.8	1303.6	1309.6	1313.0	1317.6
42.5°	1285.0	1263.8	1247.4	1234.6	1238.0	1242.8	1245.0	1247.4	1254.4	1261.4	1263.8
45°	1221.6	1205.2	1188.8	1180.6	1183.0	1185.4	1187.6	1191.2	1197.0	1201.8	1203.0
47.5°	1150.2	1138.4	1128.0	1118.6	1123.2	1122.0	1125.6	1132.6	1135.0	1137.4	1144.4
50°	1082.2	1071.8	1058.8	1056.6	1056.6	1056.6	1057.6	1067.0	1067.0	1071.8	1076.4
52.5°	1007.4	1001.4	994.4	989.8	987.4	987.4	993.2	996.8	999.2	1006.2	1010.8
55°	933.6	926.4	919.4	916.0	913.6	916.0	925.4	927.6	933.6	937.0	940.6
57.5°	856.2	851.6	845.6	843.4	843.4	844.4	851.6	857.4	858.6	870.2	875.0
60°	780.0	771.8	767.2	767.2	764.8	775.4	773.0	784.8	787.2	794.2	802.4
62.5°	701.6	689.8	688.8	688.8	693.4	694.6	699.2	702.8	709.8	719.2	725.0
65°	616.0	610.2	618.4	617.2	615.0	622.0	622.0	627.8	634.8	643.0	656.0
67.5°	536.4	531.8	534.2	533.0	536.4	541.2	544.6	549.4	557.6	567.0	575.2
70°	455.6	459.2	453.2	458.0	461.4	462.6	465.0	472.0	481.4	487.2	496.6
72.5°	377.2	376.0	378.4	379.4	383.0	385.4	387.6	395.8	406.4	411.2	418.2
75°	302.2	301.0	304.6	304.6	310.4	312.8	315.0	318.6	328.0	335.0	340.8
77.5°	234.2	235.4	234.2	239.0	236.6	237.8	244.8	248.4	249.4	264.8	267.0
80°	166.4	168.6	169.8	171.0	172.2	169.8	178.0	181.6	181.6	189.8	195.6
82.5°	107.8	109.0	112.4	113.6	113.6	117.2	116.0	118.4	121.8	124.2	132.4
85°	59.8	63.2	64.4	63.2	64.4	62.0	65.6	66.8	68.0	68.0	68.0
87.5°	23.4	24.6	23.4	24.6	23.4	24.6	24.6	22.2	22.2	25.8	21.0
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: P273794

CATALOG NUMBER: 8RCG-4-100D-L940-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2417.6	2417.6	2417.6	2417.6
2.5°	2285.2	2284.0	2292.2	2286.4
5°	2151.6	2155.2	2143.4	2143.4
7.5°	2031.0	2026.4	2027.6	2019.4
10°	1922.0	1915.0	1912.8	1913.8
12.5°	1831.8	1831.8	1813.2	1813.2
15°	1765.2	1742.8	1740.6	1747.6
17.5°	1691.4	1678.4	1679.6	1677.2
20°	1635.2	1628.0	1627.0	1618.8
22.5°	1583.6	1582.4	1583.6	1574.2
25°	1542.6	1548.4	1543.8	1543.8
27.5°	1514.4	1514.4	1511.0	1511.0
30°	1481.6	1480.6	1482.8	1482.8
32.5°	1448.8	1451.2	1451.2	1452.4
35°	1415.0	1416.0	1419.6	1417.2
37.5°	1370.4	1376.2	1375.0	1377.4
40°	1318.8	1322.4	1321.2	1321.2
42.5°	1266.2	1268.6	1265.0	1262.6
45°	1207.6	1205.2	1208.8	1204.0
47.5°	1143.2	1144.4	1145.6	1150.2
50°	1078.8	1085.8	1085.8	1084.6
52.5°	1015.6	1017.8	1023.8	1023.8
55°	950.0	952.2	954.6	955.8
57.5°	883.2	882.0	886.6	887.8
60°	811.8	811.8	821.0	824.6
62.5°	735.6	740.2	749.6	742.6
65°	661.8	671.2	670.0	674.6
67.5°	584.4	590.4	599.6	599.6
70°	506.0	511.8	516.6	520.0
72.5°	429.8	432.2	445.0	438.0
75°	349.0	357.2	364.2	360.8
77.5°	271.8	282.2	284.6	281.2
80°	203.8	202.6	209.6	208.4
82.5°	135.8	134.6	137.0	138.2
85°	72.6	76.2	71.4	70.2
87.5°	21.0	21.0	20.0	18.8
90°	0.0	0.0	0.0	0.0

(END OF REPORT)