

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: P273788

Luminaire Tested: **8RCG-4-100D-L930-A**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P273788
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-L930-A
Description: RCG SERIES DIRECT RECESSED LED LUMINAIRE WITH ASYMMETRIC FLUSH LENS
Light Source: (168) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6671.5 lumens
Efficiency: N/A
Efficacy: 97.0 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

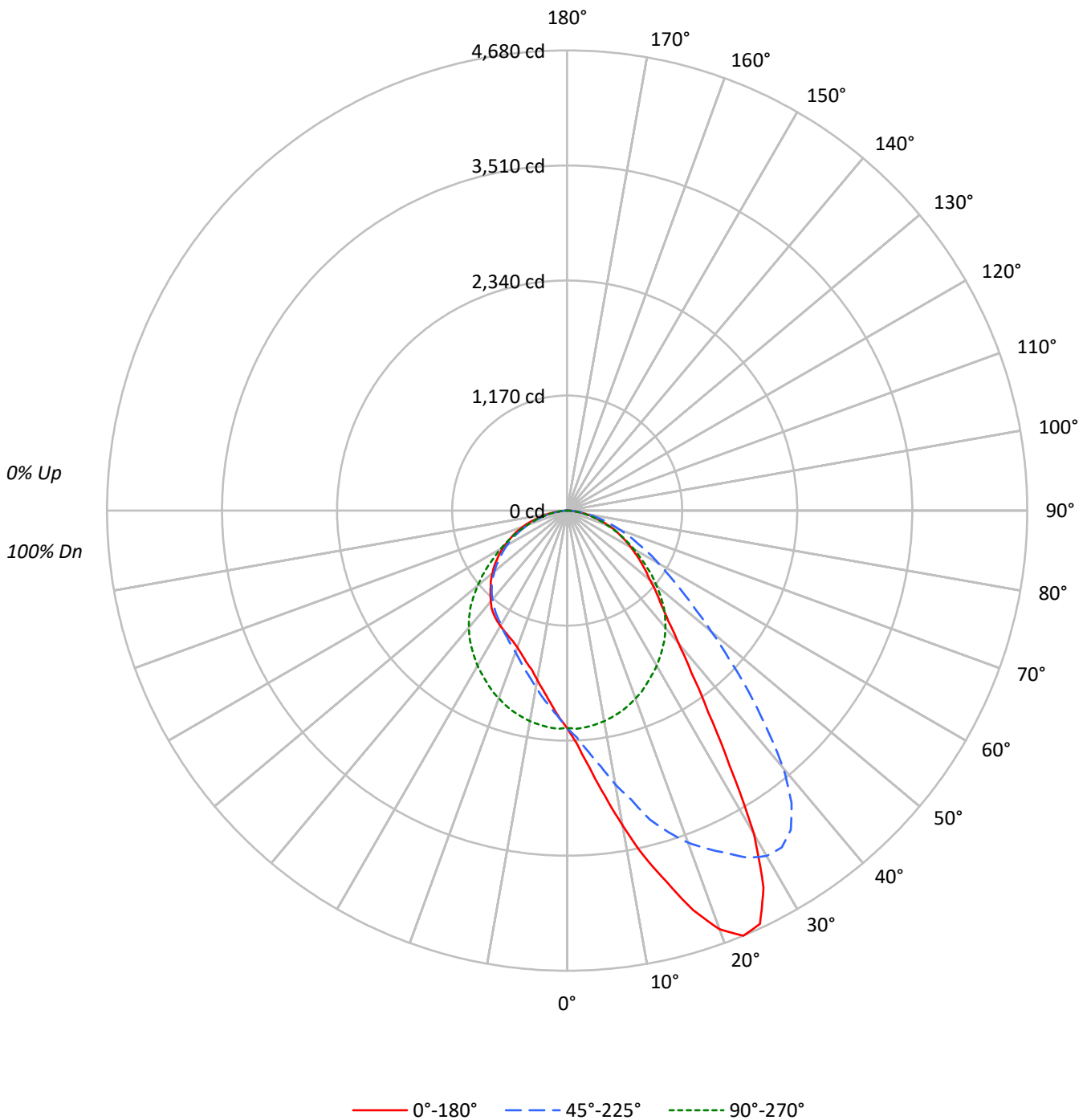
Input Watts (W): 68.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	13184	13184	13184
5°	15721	13240	11734
10°	19679	13173	10598
15°	24136	13067	9866
20°	28753	12901	9394
25°	30531	12700	9288
30°	26168	12554	9338
35°	18200	12343	9435
40°	13708	12099	9405
45°	11382	11735	9287
50°	10196	10990	9201
55°	9533	10189	9086
60°	8942	9352	8994
65°	8403	8524	8705
70°	7882	7582	8290
75°	7056	6637	7600
80°	6183	5441	6547
85°	4831	3955	4393



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	217.4	3.3
10°-20°	698.2	10.5
20°-30°	1174.8	17.6
30°-40°	1327.8	19.9
40°-50°	1189.3	17.8
50°-60°	959.9	14.4
60°-70°	668.9	10.0
70°-80°	351.1	5.3
80°-90°	84.1	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°	2090.4	31.3
0°-40°	3418.2	51.2
0°-60°	5567.4	83.5
0°-90°	6671.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6671.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2210	2210	2210	2210	2210	
5°	2626	2461	2211	2003	1960	270
15°	3909	3253	2116	1668	1598	1128
25°	4639	3845	1930	1434	1411	2051
35°	2500	3965	1695	1267	1296	1613
45°	1349	2613	1391	1084	1101	1064
55°	917	1419	980	837	874	823
65°	595	796	604	569	617	593
75°	306	377	288	286	330	327
85°	71	81	58	57	64	86
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°	2210.4	2210.4	2210.4	2210.4	2210.4	2210.4	2210.4	2210.4	2210.4	2210.4	2210.4
2.5°	2379.6	2377.4	2372.0	2376.4	2367.8	2356.0	2355.0	2344.2	2313.2	2311.0	2302.4
5°	2625.8	2617.4	2616.2	2615.2	2600.2	2579.8	2541.2	2538.0	2486.6	2461.0	2430.0
7.5°	2923.6	2920.4	2911.8	2902.2	2851.8	2827.2	2790.8	2743.6	2683.8	2625.8	2589.4
10°	3249.2	3284.6	3240.6	3210.6	3182.8	3130.2	3069.2	2993.2	2917.2	2828.2	2760.8
12.5°	3598.2	3611.2	3611.2	3583.2	3536.2	3449.4	3329.4	3243.8	3175.2	3012.4	2954.6
15°	3908.8	3974.2	3932.4	3836.0	3838.2	3762.2	3620.8	3465.4	3383.0	3253.4	3076.8
17.5°	4260.2	4271.8	4259.0	4169.0	4125.2	4014.8	3887.4	3742.8	3587.6	3430.2	3247.0
20°	4530.0	4523.6	4486.0	4444.4	4352.2	4270.8	4128.4	3962.4	3748.2	3594.0	3389.4
22.5°	4680.0	4668.2	4655.2	4622.0	4549.2	4460.4	4336.2	4150.8	3949.6	3722.6	3478.4
25°	4639.2	4653.2	4655.2	4645.6	4618.8	4566.4	4465.8	4321.2	4117.6	3844.6	3598.2
27.5°	4324.4	4359.8	4404.6	4434.6	4482.8	4515.0	4482.8	4391.8	4224.8	3980.6	3677.6
30°	3799.6	3756.8	3862.8	3996.6	4087.8	4248.4	4338.2	4343.6	4259.0	4056.6	3763.2
32.5°	3071.4	3141.0	3173.2	3345.6	3571.6	3756.8	3958.2	4137.0	4178.8	4061.0	3813.6
35°	2499.6	2558.4	2644.2	2729.8	2944.0	3128.2	3443.0	3717.2	3935.6	3964.6	3807.2
37.5°	2077.6	2111.8	2164.4	2255.4	2402.0	2630.2	2879.8	3236.4	3537.2	3749.2	3727.8
40°	1760.6	1769.2	1830.2	1895.6	2009.0	2189.0	2408.4	2714.8	3093.8	3422.6	3559.8
42.5°	1522.8	1544.2	1561.4	1623.6	1708.2	1832.4	2032.6	2272.4	2612.0	3002.8	3303.8
45°	1349.4	1370.8	1386.8	1428.6	1492.8	1583.8	1726.4	1957.6	2222.2	2613.0	2974.0
47.5°	1229.4	1227.2	1241.2	1274.4	1320.4	1393.2	1498.2	1652.4	1906.2	2232.8	2611.0
50°	1098.8	1115.8	1120.2	1144.8	1179.0	1229.4	1313.0	1439.4	1638.6	1917.0	2257.4
52.5°	1006.6	1008.8	1022.8	1038.8	1067.8	1104.2	1173.8	1265.8	1411.4	1638.6	1944.8
55°	916.8	916.8	928.4	942.4	959.6	994.8	1043.0	1115.8	1234.8	1419.0	1678.2
57.5°	833.2	837.4	848.2	851.4	866.4	891.0	932.8	990.6	1081.6	1230.4	1444.6
60°	749.6	759.2	758.2	766.8	779.6	797.8	832.2	877.0	956.4	1069.8	1243.4
62.5°	676.8	673.6	673.6	684.4	697.2	714.4	733.6	771.0	835.4	932.8	1074.2
65°	595.4	593.2	600.8	607.2	611.4	624.4	641.4	675.8	720.8	795.6	910.2
67.5°	524.8	518.4	523.6	525.8	533.4	544.0	561.2	582.6	619.0	682.2	774.2
70°	452.0	446.6	445.6	447.6	454.0	461.6	473.4	493.6	526.8	575.0	638.2
72.5°	377.0	373.8	373.8	379.2	381.2	385.6	393.0	411.2	435.8	469.0	526.8
75°	306.2	306.2	306.2	307.4	310.6	314.8	321.2	331.0	351.2	377.0	416.6
77.5°	242.0	243.0	241.0	239.8	245.2	247.4	248.4	259.2	271.0	290.2	321.2
80°	180.0	174.6	176.8	180.0	182.0	183.2	186.4	188.4	198.2	207.8	228.2
82.5°	122.0	117.8	117.8	123.2	123.2	124.2	127.4	130.6	132.8	141.4	150.0
85°	70.6	70.6	71.8	71.8	72.8	71.8	75.0	76.0	76.0	81.4	87.8
87.5°	32.2	30.0	31.0	32.2	31.0	32.2	33.2	34.2	35.4	36.4	37.4
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°	2210.4	2210.4	2210.4	2210.4	2210.4	2210.4	2210.4	2210.4	2210.4	2210.4	2210.4
2.5°	2296.0	2287.4	2279.0	2264.0	2251.0	2232.8	2227.6	2221.0	2201.8	2184.6	2171.8
5°	2418.2	2392.4	2355.0	2320.6	2292.8	2255.4	2234.0	2211.4	2179.4	2150.4	2126.8
7.5°	2534.8	2489.8	2437.4	2380.6	2326.0	2273.6	2231.8	2194.4	2152.6	2111.8	2080.8
10°	2679.4	2606.6	2525.2	2437.4	2362.4	2289.6	2228.6	2175.0	2117.2	2066.8	2025.2
12.5°	2844.4	2727.6	2607.6	2496.4	2404.2	2296.0	2219.0	2147.2	2079.8	2016.6	1968.4
15°	2967.6	2830.4	2697.6	2551.0	2416.0	2289.6	2201.8	2116.2	2040.2	1978.0	1918.0
17.5°	3089.6	2939.6	2770.4	2593.8	2435.2	2289.6	2169.6	2077.6	1984.4	1909.4	1851.6
20°	3190.2	3013.6	2815.4	2630.2	2450.2	2283.2	2148.2	2032.6	1929.8	1849.4	1782.0
22.5°	3277.0	3062.8	2856.2	2654.8	2449.2	2266.0	2108.6	1988.6	1875.2	1797.0	1724.2
25°	3331.6	3084.2	2878.6	2646.2	2422.4	2236.0	2064.8	1929.8	1818.4	1726.4	1652.4
27.5°	3383.0	3081.0	2848.6	2598.0	2390.2	2205.0	2020.8	1876.2	1759.6	1660.0	1583.8
30°	3434.4	3086.4	2796.2	2548.8	2338.8	2146.2	1968.4	1822.8	1698.4	1596.8	1526.0
32.5°	3466.6	3083.2	2748.0	2480.2	2257.4	2092.6	1911.6	1759.6	1631.0	1531.4	1464.0
35°	3475.2	3065.0	2691.2	2380.6	2168.6	2002.6	1851.6	1695.2	1561.4	1468.2	1391.2
37.5°	3457.0	3031.8	2629.2	2290.6	2061.6	1896.6	1764.8	1631.0	1502.6	1398.6	1331.2
40°	3398.0	2999.6	2554.2	2194.4	1950.2	1792.8	1684.6	1554.0	1427.6	1330.0	1268.0
42.5°	3285.6	2934.4	2471.6	2087.2	1834.4	1677.0	1579.6	1475.8	1358.0	1268.0	1205.8
45°	3088.6	2833.6	2389.2	1980.2	1721.0	1558.2	1470.4	1391.2	1283.0	1194.0	1140.6
47.5°	2836.8	2697.6	2270.4	1867.6	1602.0	1444.6	1352.6	1287.2	1202.6	1130.8	1078.4
50°	2572.4	2522.0	2149.4	1752.0	1483.2	1330.0	1242.2	1184.4	1127.6	1056.0	1008.8
52.5°	2267.2	2318.6	2008.0	1632.0	1362.2	1212.2	1130.8	1088.0	1037.8	982.0	942.4
55°	1984.4	2096.8	1841.0	1495.0	1242.2	1098.8	1020.6	979.8	950.0	906.0	870.6
57.5°	1710.2	1853.8	1667.4	1356.8	1124.4	999.2	922.0	876.0	856.8	832.2	803.2
60°	1471.4	1612.8	1479.0	1217.6	1005.6	887.8	821.4	784.0	764.6	748.6	725.0
62.5°	1258.4	1401.8	1294.8	1076.2	888.8	781.8	726.0	689.6	675.8	669.4	650.0
65°	1066.6	1189.8	1114.8	928.4	778.6	682.2	629.8	604.0	590.0	586.8	574.0
67.5°	900.6	996.0	938.2	797.8	675.8	588.0	541.8	519.4	507.6	506.6	495.8
70°	737.8	825.6	784.0	659.6	558.0	492.6	454.0	434.8	428.4	427.2	422.0
72.5°	611.4	666.2	635.0	536.6	463.8	405.8	380.2	359.8	352.4	354.4	351.2
75°	471.2	517.2	498.0	426.2	363.0	324.4	301.0	288.0	281.6	284.8	280.6
77.5°	359.8	392.0	372.6	318.0	277.4	248.4	230.2	221.6	215.2	215.2	213.2
80°	256.0	273.0	263.4	233.4	201.4	177.8	163.8	158.4	155.2	154.2	153.2
82.5°	163.8	177.8	166.0	147.8	128.6	116.8	110.4	102.8	100.6	101.8	100.6
85°	92.0	97.4	93.2	80.4	71.8	65.4	61.0	57.8	55.6	56.8	54.6
87.5°	39.6	40.6	37.4	33.2	31.0	27.8	27.8	25.8	23.6	23.6	22.4
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2210.4	2210.4	2210.4	2210.4	2210.4	2210.4	2210.4	2210.4	2210.4	2210.4	2210.4
2.5°	2164.4	2156.8	2146.2	2130.0	2117.2	2096.8	2096.8	2100.0	2100.0	2099.0	2096.8
5°	2107.6	2091.6	2072.2	2049.8	2026.2	2002.6	1998.4	1989.8	1983.4	1979.0	1973.8
7.5°	2049.8	2023.0	1996.2	1965.2	1938.4	1915.8	1899.8	1885.8	1877.4	1867.6	1860.2
10°	1990.8	1955.4	1922.4	1889.2	1852.6	1823.8	1805.6	1792.8	1783.0	1774.6	1770.2
12.5°	1921.2	1879.4	1842.0	1811.0	1770.2	1740.2	1723.2	1718.8	1707.0	1686.6	1676.0
15°	1853.8	1816.2	1772.4	1724.2	1705.0	1668.4	1648.2	1638.6	1632.0	1618.2	1613.8
17.5°	1798.0	1747.8	1697.4	1662.0	1626.8	1597.8	1586.0	1573.2	1564.6	1551.8	1548.6
20°	1728.4	1684.6	1639.6	1601.0	1563.6	1531.4	1521.8	1513.2	1504.6	1499.2	1495.0
22.5°	1657.8	1613.8	1578.6	1543.2	1502.6	1484.2	1473.6	1464.0	1458.6	1455.4	1451.0
25°	1592.4	1554.0	1512.2	1480.0	1447.8	1434.0	1427.6	1422.2	1417.8	1412.6	1411.4
27.5°	1534.6	1491.8	1456.4	1425.4	1401.8	1390.0	1382.6	1379.4	1379.4	1381.4	1382.6
30°	1468.2	1429.6	1401.8	1376.2	1354.8	1344.0	1343.0	1343.0	1347.2	1348.2	1350.4
32.5°	1407.2	1377.2	1349.4	1324.8	1309.8	1303.4	1308.6	1308.6	1311.8	1315.0	1319.4
35°	1348.2	1320.4	1299.0	1277.6	1263.6	1266.8	1269.0	1271.2	1276.6	1283.0	1287.2
37.5°	1292.6	1266.8	1244.4	1227.2	1218.8	1225.2	1230.4	1234.8	1241.2	1246.6	1250.8
40°	1231.6	1213.4	1192.0	1177.0	1179.0	1182.2	1186.6	1192.0	1197.2	1200.6	1204.8
42.5°	1174.8	1155.6	1140.6	1128.8	1132.0	1136.2	1138.4	1140.6	1147.0	1153.4	1155.6
45°	1117.0	1102.0	1087.0	1079.4	1081.6	1083.8	1086.0	1089.2	1094.4	1098.8	1099.8
47.5°	1051.6	1041.0	1031.2	1022.8	1027.0	1026.0	1029.2	1035.6	1037.8	1039.8	1046.2
50°	989.6	979.8	968.2	966.0	966.0	966.0	967.0	975.6	975.6	979.8	984.2
52.5°	921.0	915.6	909.2	905.0	902.8	902.8	908.2	911.4	913.4	920.0	924.2
55°	853.6	847.0	840.6	837.4	835.4	837.4	846.0	848.2	853.6	856.8	860.0
57.5°	782.8	778.6	773.2	771.0	771.0	772.2	778.6	784.0	785.0	795.6	800.0
60°	713.2	705.8	701.4	701.4	699.4	709.0	706.8	717.6	719.6	726.0	733.6
62.5°	641.4	630.8	629.8	629.8	634.0	635.0	639.4	642.6	649.0	657.6	662.8
65°	563.4	558.0	565.4	564.4	562.2	568.6	568.6	574.0	580.4	588.0	599.8
67.5°	490.4	486.2	488.4	487.2	490.4	494.8	498.0	502.2	509.8	518.4	525.8
70°	416.6	419.8	414.4	418.8	422.0	423.0	425.2	431.6	440.2	445.6	454.0
72.5°	344.8	343.8	346.0	347.0	350.2	352.4	354.4	362.0	371.6	375.8	382.4
75°	276.2	275.2	278.4	278.4	283.8	286.0	288.0	291.2	299.8	306.2	311.6
77.5°	214.2	215.2	214.2	218.4	216.4	217.4	223.8	227.0	228.2	242.0	244.2
80°	152.0	154.2	155.2	156.4	157.4	155.2	162.8	166.0	166.0	173.4	178.8
82.5°	98.6	99.6	102.8	103.8	103.8	107.0	106.0	108.2	111.4	113.6	121.0
85°	54.6	57.8	59.0	57.8	59.0	56.8	60.0	61.0	62.2	62.2	62.2
87.5°	21.4	22.4	21.4	22.4	21.4	22.4	22.4	20.4	20.4	23.6	19.2
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: P273788

CATALOG NUMBER: 8RCG-4-100D-L930-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2210.4	2210.4	2210.4	2210.4
2.5°	2089.4	2088.2	2095.8	2090.4
5°	1967.2	1970.4	1959.8	1959.8
7.5°	1857.0	1852.6	1853.8	1846.2
10°	1757.4	1751.0	1748.8	1749.8
12.5°	1675.0	1675.0	1657.8	1657.8
15°	1613.8	1593.6	1591.4	1597.8
17.5°	1546.4	1534.6	1535.6	1533.6
20°	1495.0	1488.6	1487.6	1480.0
22.5°	1447.8	1446.8	1447.8	1439.4
25°	1410.4	1415.8	1411.4	1411.4
27.5°	1384.6	1384.6	1381.4	1381.4
30°	1354.8	1353.6	1355.8	1355.8
32.5°	1324.8	1326.8	1326.8	1328.0
35°	1293.6	1294.8	1298.0	1295.8
37.5°	1253.0	1258.4	1257.2	1259.4
40°	1205.8	1209.0	1208.0	1208.0
42.5°	1157.6	1159.8	1156.6	1154.4
45°	1104.2	1102.0	1105.2	1101.0
47.5°	1045.2	1046.2	1047.4	1051.6
50°	986.4	992.8	992.8	991.6
52.5°	928.4	930.6	936.0	936.0
55°	868.6	870.6	872.8	873.8
57.5°	807.4	806.4	810.6	811.8
60°	742.2	742.2	750.8	754.0
62.5°	672.6	676.8	685.4	679.0
65°	605.0	613.6	612.6	616.8
67.5°	534.4	539.8	548.4	548.4
70°	462.6	468.0	472.2	475.4
72.5°	393.0	395.2	407.0	400.6
75°	319.2	326.6	333.0	329.8
77.5°	248.4	258.0	260.2	257.0
80°	186.4	185.2	191.6	190.6
82.5°	124.2	123.2	125.2	126.4
85°	66.4	69.6	65.4	64.2
87.5°	19.2	19.2	18.2	17.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)