

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: P273737

Luminaire Tested: **8RCG-4-56D-L835-A**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P273737
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-4-56D-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

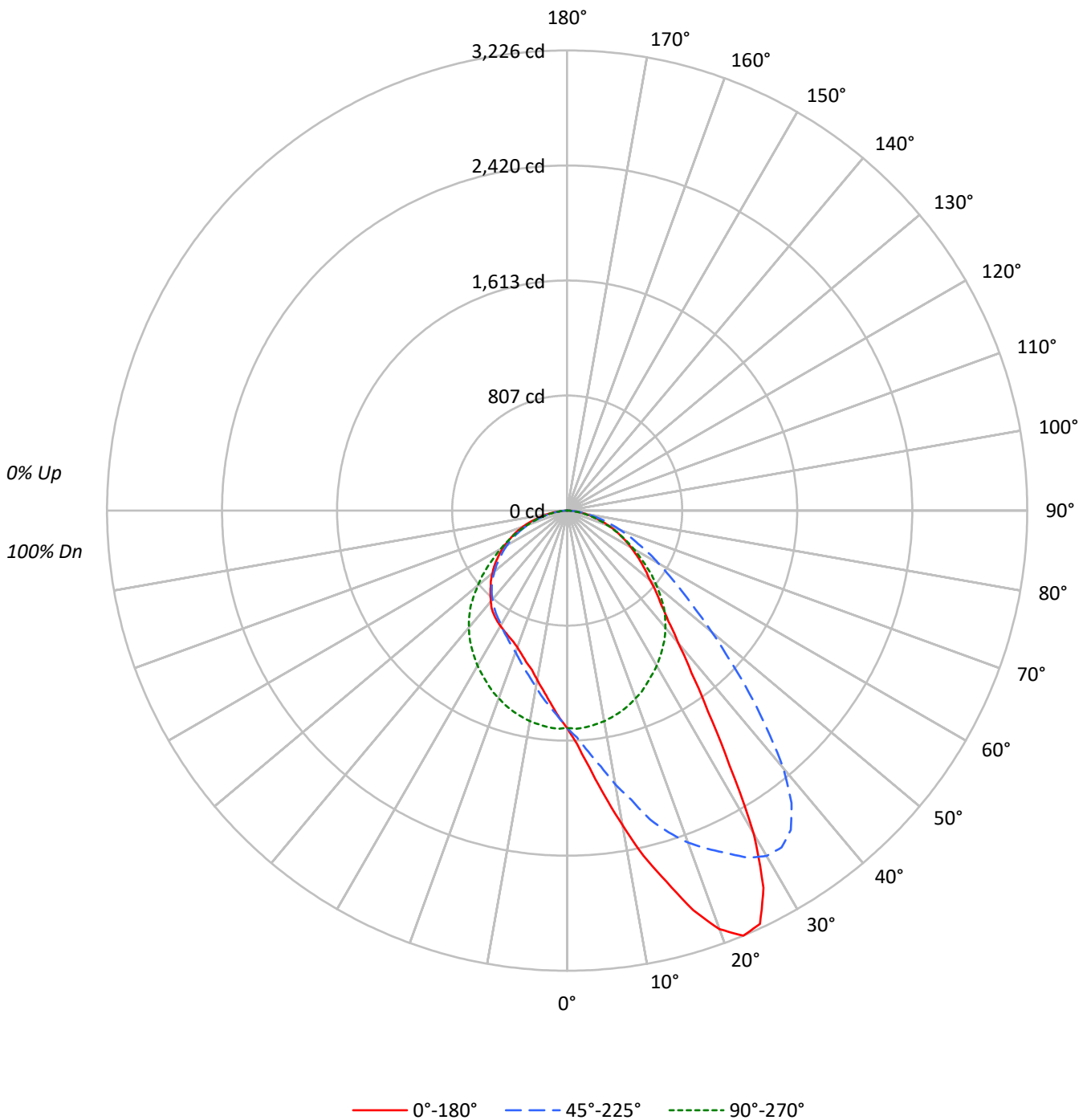
Lumens per Lamp: N/A
Luminaire Lumens: 4598.4 lumens
Efficiency: N/A
Efficacy: 123.6 lumens/watt
Spacing Criteria (0/90/45): 1.37 / 1.23 / 1.5
Luminous Opening: Rectangular (W 7.88' x L: 0.23' x H: 0')
CIE Type: Direct

Input Watts (W): 37.2
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°	9087	9087	9087
5°	10837	9126	8088
10°	13563	9080	7305
15°	16636	9007	6800
20°	19818	8892	6474
25°	21043	8754	6402
30°	18036	8653	6435
35°	12544	8507	6504
40°	9448	8339	6483
45°	7845	8087	6400
50°	7028	7575	6343
55°	6570	7023	6264
60°	6162	6446	6198
65°	5792	5877	6001
70°	5430	5225	5716
75°	4867	4577	5240
80°	4259	3751	4513
85°	3340	2724	3025



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.8	3.3
10°-20°	481.3	10.5
20°-30°	809.8	17.6
30°-40°	915.2	19.9
40°-50°	819.7	17.8
50°-60°	661.7	14.4
60°-70°	461.0	10.0
70°-80°	242.0	5.3
80°-90°	58.0	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°	1440.8	31.3
0°-40°	2356.0	51.2
0°-60°	3837.4	83.5
0°-90°	4598.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4598.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1524	1524	1524	1524	1524	
5°	1810	1696	1524	1380	1351	186
15°	2694	2242	1459	1150	1101	778
25°	3198	2650	1330	988	973	1414
35°	1723	2733	1168	873	893	1112
45°	930	1801	959	747	759	734
55°	632	978	675	577	602	567
65°	410	548	416	392	425	409
75°	211	260	199	197	227	226
85°	49	56	40	39	44	59
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°	1523.6	1523.6	1523.6	1523.6	1523.6	1523.6	1523.6	1523.6	1523.6	1523.6	1523.6
2.5°	1640.2	1638.6	1635.0	1638.0	1632.0	1623.8	1623.2	1615.8	1594.4	1592.8	1587.0
5°	1810.0	1804.0	1803.2	1802.6	1792.2	1778.2	1751.6	1749.4	1714.0	1696.2	1674.8
7.5°	2015.2	2012.8	2007.0	2000.4	1965.6	1948.6	1923.6	1891.0	1849.8	1810.0	1784.8
10°	2239.4	2263.8	2233.6	2213.0	2193.8	2157.6	2115.4	2063.0	2010.6	1949.4	1903.0
12.5°	2480.2	2489.0	2489.0	2469.8	2437.4	2377.6	2294.8	2235.8	2188.6	2076.4	2036.6
15°	2694.2	2739.2	2710.4	2644.0	2645.4	2593.0	2495.6	2388.6	2331.8	2242.4	2120.6
17.5°	2936.2	2944.4	2935.6	2873.6	2843.2	2767.2	2679.4	2579.8	2472.8	2364.2	2238.0
20°	3122.4	3117.8	3092.0	3063.2	2999.8	2943.6	2845.6	2731.0	2583.4	2477.2	2336.2
22.5°	3225.6	3217.6	3208.6	3185.8	3135.6	3074.4	2988.8	2861.0	2722.2	2565.8	2397.4
25°	3197.6	3207.2	3208.6	3202.0	3183.6	3147.4	3078.0	2978.4	2838.2	2649.8	2480.2
27.5°	2980.6	3005.0	3036.0	3056.6	3089.8	3112.0	3089.8	3027.0	2912.0	2743.6	2534.8
30°	2618.8	2589.4	2662.4	2754.8	2817.4	2928.2	2990.2	2993.8	2935.6	2796.0	2593.8
32.5°	2117.0	2165.0	2187.0	2306.0	2461.6	2589.4	2728.2	2851.4	2880.2	2799.0	2628.4
35°	1722.8	1763.4	1822.4	1881.6	2029.2	2156.0	2373.0	2562.0	2712.6	2732.6	2624.0
37.5°	1432.0	1455.6	1491.8	1554.6	1655.6	1812.8	1984.8	2230.6	2438.0	2584.2	2569.4
40°	1213.4	1219.4	1261.4	1306.4	1384.8	1508.8	1660.0	1871.2	2132.4	2359.0	2453.6
42.5°	1049.6	1064.4	1076.2	1119.0	1177.4	1263.0	1401.0	1566.4	1800.4	2069.8	2277.2
45°	930.0	944.8	955.8	984.6	1029.0	1091.6	1189.8	1349.4	1531.6	1801.0	2049.8
47.5°	847.4	846.0	855.4	878.4	910.2	960.4	1032.6	1139.0	1313.8	1539.0	1799.6
50°	757.4	769.2	772.0	789.0	812.6	847.4	905.0	992.0	1129.4	1321.2	1556.0
52.5°	693.8	695.4	705.0	716.0	736.0	761.0	809.0	872.4	972.8	1129.4	1340.4
55°	631.8	631.8	640.0	649.6	661.4	685.8	719.0	769.2	851.0	978.0	1156.6
57.5°	574.2	577.2	584.6	586.8	597.2	614.2	643.0	682.8	745.6	848.2	995.8
60°	516.6	523.4	522.6	528.6	537.4	550.0	573.6	604.6	659.2	737.4	857.0
62.5°	466.6	464.2	464.2	471.6	480.6	492.4	505.6	531.4	575.8	643.0	740.4
65°	410.4	409.0	414.0	418.6	421.4	430.4	442.2	465.8	496.8	548.4	627.4
67.5°	361.6	357.2	361.0	362.4	367.6	375.0	386.8	401.6	426.6	470.2	533.6
70°	311.4	307.8	307.0	308.6	313.0	318.2	326.2	340.2	363.2	396.4	440.0
72.5°	259.8	257.6	257.6	261.2	262.8	265.8	270.8	283.4	300.4	323.4	363.2
75°	211.2	211.2	211.2	211.8	214.0	217.0	221.4	228.0	242.2	259.8	287.2
77.5°	166.8	167.6	166.0	165.4	169.0	170.6	171.2	178.6	186.8	200.0	221.4
80°	124.0	120.4	121.8	124.0	125.4	126.2	128.4	130.0	136.6	143.2	157.2
82.5°	84.2	81.2	81.2	84.8	84.8	85.6	87.8	90.0	91.6	97.4	103.4
85°	48.8	48.8	49.4	49.4	50.2	49.4	51.6	52.4	52.4	56.0	60.6
87.5°	22.2	20.6	21.4	22.2	21.4	22.2	22.8	23.6	24.4	25.0	25.8
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1523.6	1523.6	1523.6	1523.6	1523.6	1523.6	1523.6	1523.6	1523.6	1523.6	1523.6
2.5°	1582.6	1576.6	1570.8	1560.4	1551.6	1539.0	1535.4	1530.8	1517.6	1505.8	1497.0
5°	1666.8	1649.0	1623.2	1599.6	1580.4	1554.6	1539.8	1524.2	1502.2	1482.2	1466.0
7.5°	1747.2	1716.2	1680.0	1640.8	1603.2	1567.0	1538.2	1512.4	1483.6	1455.6	1434.2
10°	1846.8	1796.6	1740.6	1680.0	1628.4	1578.2	1536.0	1499.2	1459.2	1424.6	1395.8
12.5°	1960.4	1880.0	1797.4	1720.6	1657.2	1582.6	1529.4	1480.0	1433.4	1390.0	1356.6
15°	2045.4	1950.8	1859.4	1758.2	1665.2	1578.2	1517.6	1458.6	1406.2	1363.4	1322.0
17.5°	2129.6	2026.2	1909.6	1787.8	1678.6	1578.2	1495.4	1432.0	1367.8	1316.0	1276.2
20°	2198.8	2077.2	1940.6	1812.8	1688.8	1573.6	1480.6	1401.0	1330.2	1274.8	1228.2
22.5°	2258.6	2111.0	1968.6	1829.8	1688.2	1561.8	1453.4	1370.8	1292.4	1238.6	1188.4
25°	2296.4	2125.8	1984.2	1824.0	1669.6	1541.2	1423.2	1330.2	1253.4	1189.8	1139.0
27.5°	2331.8	2123.6	1963.4	1790.8	1647.6	1519.8	1392.8	1293.2	1212.8	1144.2	1091.6
30°	2367.2	2127.2	1927.2	1756.8	1612.0	1479.2	1356.6	1256.4	1170.6	1100.6	1051.8
32.5°	2389.4	2125.0	1894.0	1709.6	1556.0	1442.4	1317.6	1212.8	1124.2	1055.6	1009.0
35°	2395.2	2112.6	1855.0	1640.8	1494.8	1380.4	1276.2	1168.4	1076.2	1012.0	958.8
37.5°	2382.6	2089.6	1812.2	1578.8	1421.0	1307.2	1216.4	1124.2	1035.6	964.0	917.4
40°	2342.0	2067.6	1760.4	1512.4	1344.2	1235.6	1161.0	1071.0	984.0	916.8	874.0
42.5°	2264.6	2022.4	1703.6	1438.6	1264.4	1156.0	1088.8	1017.2	936.0	874.0	831.2
45°	2128.8	1953.2	1646.8	1364.8	1186.2	1074.0	1013.4	958.8	884.2	823.0	786.2
47.5°	1955.4	1859.4	1564.8	1287.4	1104.2	995.8	932.2	887.2	829.0	779.4	743.2
50°	1773.0	1738.4	1481.4	1207.6	1022.4	916.8	856.2	816.4	777.2	727.8	695.4
52.5°	1562.6	1598.0	1384.0	1125.0	939.0	835.6	779.4	750.0	715.2	676.8	649.6
55°	1367.8	1445.2	1268.8	1030.4	856.2	757.4	703.4	675.4	654.8	624.4	600.2
57.5°	1178.8	1277.8	1149.2	935.2	775.0	688.6	635.6	603.8	590.6	573.6	553.6
60°	1014.2	1111.6	1019.4	839.2	693.2	612.0	566.2	540.4	527.0	516.0	499.8
62.5°	867.4	966.2	892.4	741.8	612.6	538.8	500.4	475.4	465.8	461.4	448.0
65°	735.2	820.0	768.4	640.0	536.6	470.2	434.0	416.4	406.8	404.4	395.6
67.5°	620.8	686.4	646.6	550.0	465.8	405.2	373.4	358.0	349.8	349.2	341.8
70°	508.6	569.2	540.4	454.6	384.6	339.6	313.0	299.6	295.2	294.6	290.8
72.5°	421.4	459.2	437.8	369.8	319.6	279.8	262.0	248.0	242.8	244.4	242.2
75°	324.8	356.6	343.2	293.8	250.2	223.6	207.4	198.6	194.2	196.4	193.4
77.5°	248.0	270.2	256.8	219.2	191.2	171.2	158.6	152.8	148.4	148.4	146.8
80°	176.4	188.2	181.6	161.0	138.8	122.6	113.0	109.2	107.0	106.2	105.6
82.5°	113.0	122.6	114.4	101.8	88.6	80.4	76.0	70.8	69.4	70.2	69.4
85°	63.4	67.2	64.2	55.4	49.4	45.0	42.0	39.8	38.4	39.2	37.6
87.5°	27.4	28.0	25.8	22.8	21.4	19.2	19.2	17.8	16.2	16.2	15.6
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°	1523.6	1523.6	1523.6	1523.6	1523.6	1523.6	1523.6	1523.6	1523.6	1523.6	1523.6
2.5°	1491.8	1486.6	1479.2	1468.2	1459.2	1445.2	1445.2	1447.4	1447.4	1446.8	1445.2
5°	1452.6	1441.6	1428.2	1412.8	1396.6	1380.4	1377.4	1371.4	1367.0	1364.0	1360.4
7.5°	1412.8	1394.4	1375.8	1354.4	1336.0	1320.6	1309.4	1299.8	1294.0	1287.4	1282.2
10°	1372.2	1347.8	1325.0	1302.0	1277.0	1257.0	1244.4	1235.6	1229.0	1223.0	1220.2
12.5°	1324.2	1295.4	1269.6	1248.2	1220.2	1199.4	1187.6	1184.8	1176.6	1162.6	1155.2
15°	1277.8	1251.8	1221.6	1188.4	1175.2	1150.0	1136.0	1129.4	1125.0	1115.4	1112.4
17.5°	1239.4	1204.6	1170.0	1145.6	1121.2	1101.2	1093.2	1084.4	1078.4	1069.6	1067.4
20°	1191.4	1161.0	1130.0	1103.6	1077.6	1055.6	1048.8	1043.0	1037.0	1033.4	1030.4
22.5°	1142.6	1112.4	1088.0	1063.6	1035.6	1023.0	1015.6	1009.0	1005.4	1003.2	1000.2
25°	1097.6	1071.0	1042.2	1020.0	998.0	988.4	984.0	980.2	977.2	973.6	972.8
27.5°	1057.8	1028.2	1003.8	982.4	966.2	958.0	953.0	950.8	950.8	952.2	953.0
30°	1012.0	985.4	966.2	948.6	933.8	926.4	925.6	925.6	928.6	929.4	930.8
32.5°	970.0	949.2	930.0	913.0	902.8	898.4	902.0	902.0	904.2	906.4	909.4
35°	929.4	910.2	895.4	880.6	871.0	873.2	874.6	876.2	879.8	884.2	887.2
37.5°	891.0	873.2	857.8	846.0	840.0	844.4	848.2	851.0	855.4	859.2	862.2
40°	848.8	836.4	821.6	811.2	812.6	814.8	817.8	821.6	825.2	827.4	830.4
42.5°	809.8	796.4	786.2	778.0	780.2	783.2	784.6	786.2	790.6	795.0	796.4
45°	769.8	759.6	749.2	744.0	745.6	747.0	748.4	750.6	754.4	757.4	758.0
47.5°	724.8	717.4	710.8	705.0	707.8	707.2	709.4	713.8	715.2	716.8	721.2
50°	682.0	675.4	667.2	665.8	665.8	665.8	666.6	672.4	672.4	675.4	678.4
52.5°	634.8	631.2	626.6	623.8	622.2	622.2	626.0	628.2	629.6	634.0	637.0
55°	588.2	583.8	579.4	577.2	575.8	577.2	583.2	584.6	588.2	590.6	592.8
57.5°	539.6	536.6	533.0	531.4	531.4	532.2	536.6	540.4	541.0	548.4	551.4
60°	491.6	486.4	483.4	483.4	482.0	488.6	487.2	494.6	496.0	500.4	505.6
62.5°	442.2	434.8	434.0	434.0	437.0	437.8	440.6	442.8	447.4	453.2	457.0
65°	388.2	384.6	389.8	389.0	387.6	392.0	392.0	395.6	400.0	405.2	413.4
67.5°	338.0	335.2	336.6	335.8	338.0	341.0	343.2	346.2	351.4	357.2	362.4
70°	287.2	289.4	285.6	288.6	290.8	291.6	293.0	297.4	303.4	307.0	313.0
72.5°	237.6	237.0	238.4	239.2	241.4	242.8	244.4	249.4	256.2	259.0	263.6
75°	190.4	189.8	192.0	192.0	195.6	197.0	198.6	200.8	206.6	211.2	214.8
77.5°	147.6	148.4	147.6	150.6	149.2	149.8	154.2	156.4	157.2	166.8	168.2
80°	104.8	106.2	107.0	107.8	108.6	107.0	112.2	114.4	114.4	119.6	123.2
82.5°	68.0	68.6	70.8	71.6	71.6	73.8	73.0	74.6	76.8	78.2	83.4
85°	37.6	39.8	40.6	39.8	40.6	39.2	41.4	42.0	42.8	42.8	42.8
87.5°	14.8	15.6	14.8	15.6	14.8	15.6	15.6	14.0	14.0	16.2	13.2
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: P273737

CATALOG NUMBER: 8RCG-4-56D-L835-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1523.6	1523.6	1523.6	1523.6
2.5°	1440.0	1439.4	1444.6	1440.8
5°	1356.0	1358.2	1350.8	1350.8
7.5°	1280.0	1277.0	1277.8	1272.6
10°	1211.2	1206.8	1205.4	1206.2
12.5°	1154.4	1154.4	1142.6	1142.6
15°	1112.4	1098.4	1096.8	1101.2
17.5°	1065.8	1057.8	1058.4	1057.0
20°	1030.4	1026.0	1025.2	1020.0
22.5°	998.0	997.2	998.0	992.0
25°	972.2	975.8	972.8	972.8
27.5°	954.4	954.4	952.2	952.2
30°	933.8	933.0	934.4	934.4
32.5°	913.0	914.6	914.6	915.2
35°	891.6	892.4	894.6	893.2
37.5°	863.6	867.4	866.6	868.0
40°	831.2	833.4	832.6	832.6
42.5°	798.0	799.4	797.2	795.8
45°	761.0	759.6	761.8	758.8
47.5°	720.4	721.2	721.8	724.8
50°	679.8	684.2	684.2	683.6
52.5°	640.0	641.4	645.2	645.2
55°	598.6	600.2	601.6	602.4
57.5°	556.6	555.8	558.8	559.6
60°	511.6	511.6	517.4	519.6
62.5°	463.6	466.6	472.4	468.0
65°	417.0	423.0	422.2	425.2
67.5°	368.4	372.0	378.0	378.0
70°	318.8	322.6	325.6	327.8
72.5°	270.8	272.4	280.4	276.0
75°	220.0	225.2	229.6	227.4
77.5°	171.2	177.8	179.4	177.2
80°	128.4	127.6	132.2	131.4
82.5°	85.6	84.8	86.4	87.0
85°	45.8	48.0	45.0	44.2
87.5°	13.2	13.2	12.6	11.8
90°	0.0	0.0	0.0	0.0

(END OF REPORT)