

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: P273740

Luminaire Tested: **8RCG-4-56D-L840-A**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P273740
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-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

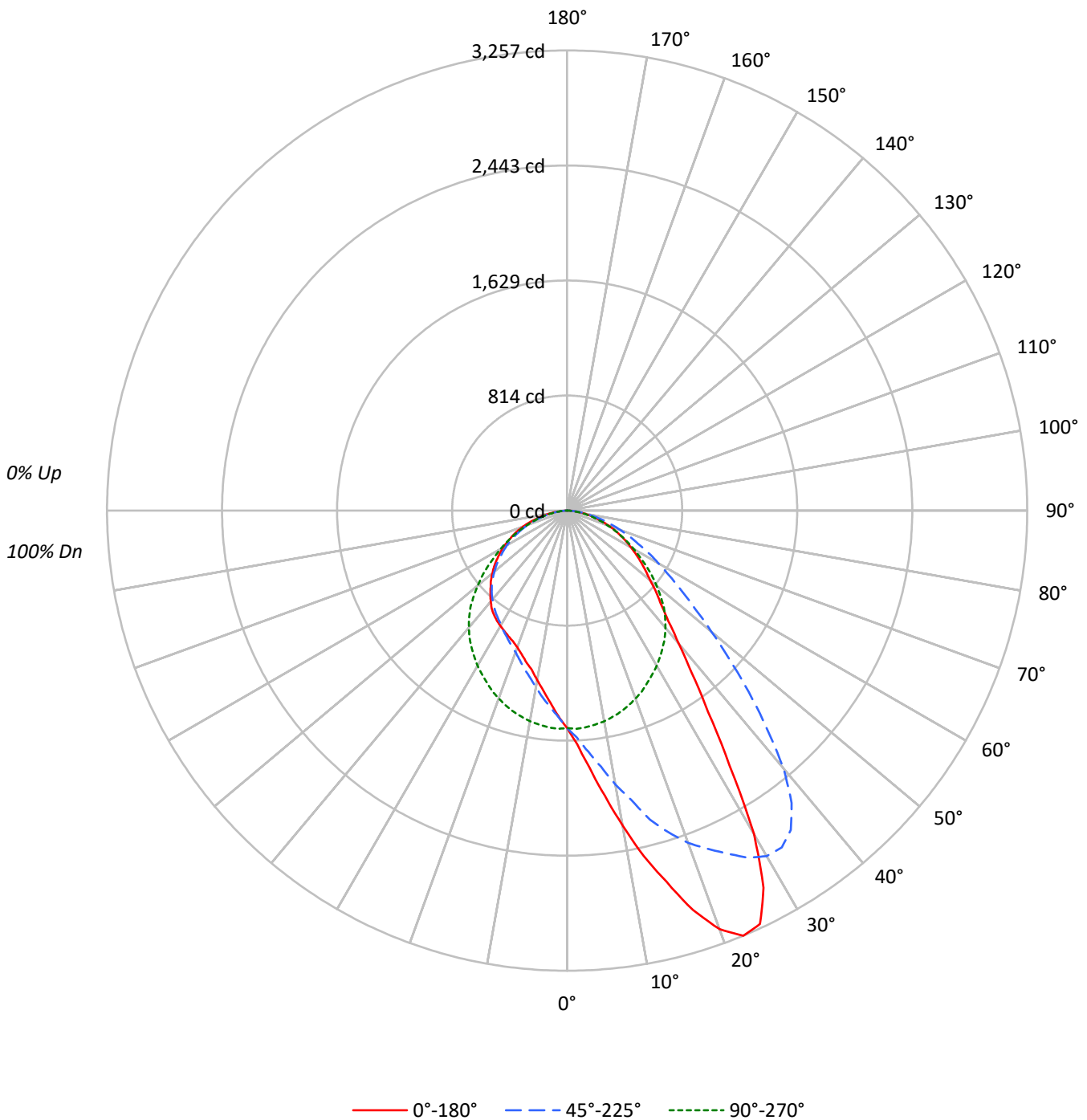
Lumens per Lamp: N/A
Luminaire Lumens: 4643.7 lumens
Efficiency: N/A
Efficacy: 124.8 lumens/watt
Spacing Criteria (0/90/45): 1.37 / 1.23 / 1.5
Luminous Opening: Rectangular (W 7.88' x L: 0.23' x H: 0')
CIE Type: Direct

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°	9177	9177	9177
5°	10943	9215	8168
10°	13697	9169	7377
15°	16800	9096	6868
20°	20014	8980	6539
25°	21251	8840	6465
30°	18215	8737	6499
35°	12668	8592	6568
40°	9541	8421	6546
45°	7922	8167	6463
50°	7097	7650	6404
55°	6634	7092	6324
60°	6224	6508	6260
65°	5848	5933	6060
70°	5486	5277	5772
75°	4913	4623	5291
80°	4300	3792	4555
85°	3367	2751	3066



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.3	3.3
10°-20°	486.0	10.5
20°-30°	817.7	17.6
30°-40°	924.2	19.9
40°-50°	827.8	17.8
50°-60°	668.2	14.4
60°-70°	465.6	10.0
70°-80°	244.4	5.3
80°-90°	58.6	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°	1455.1	31.3
0°-40°	2379.3	51.2
0°-60°	3875.2	83.5
0°-90°	4643.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4643.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1539	1539	1539	1539	1539	
5°	1828	1713	1539	1394	1364	188
15°	2721	2265	1473	1161	1112	785
25°	3229	2676	1343	998	982	1428
35°	1740	2760	1180	882	902	1123
45°	939	1819	968	754	766	741
55°	638	988	682	583	608	573
65°	414	554	420	396	429	413
75°	213	262	201	199	230	228
85°	49	57	40	40	45	60
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°	1538.6	1538.6	1538.6	1538.6	1538.6	1538.6	1538.6	1538.6	1538.6	1538.6	1538.6
2.5°	1656.4	1654.8	1651.0	1654.0	1648.2	1640.0	1639.2	1631.8	1610.0	1608.6	1602.6
5°	1827.8	1821.8	1821.0	1820.4	1809.8	1795.8	1768.8	1766.6	1730.8	1713.0	1691.4
7.5°	2035.0	2032.8	2026.8	2020.0	1985.0	1967.8	1942.6	1909.8	1868.0	1827.8	1802.4
10°	2261.6	2286.2	2255.6	2234.8	2215.4	2178.8	2136.4	2083.4	2030.6	1968.6	1921.6
12.5°	2504.6	2513.6	2513.6	2494.2	2461.4	2401.0	2317.4	2257.8	2210.2	2096.8	2056.6
15°	2720.8	2766.2	2737.2	2670.0	2671.6	2618.6	2520.2	2412.2	2354.8	2264.6	2141.6
17.5°	2965.2	2973.4	2964.6	2901.8	2871.4	2794.6	2705.8	2605.2	2497.2	2387.6	2260.0
20°	3153.2	3148.6	3122.6	3093.4	3029.4	2972.8	2873.6	2758.0	2609.0	2501.6	2359.2
22.5°	3257.4	3249.2	3240.4	3217.2	3166.6	3104.6	3018.2	2889.2	2749.0	2591.0	2421.2
25°	3229.2	3238.8	3240.4	3233.6	3215.0	3178.4	3108.4	3007.8	2866.2	2676.0	2504.6
27.5°	3010.0	3034.6	3065.8	3086.8	3120.4	3142.6	3120.4	3057.0	2940.6	2770.8	2559.8
30°	2644.8	2615.0	2688.8	2781.8	2845.2	2957.0	3019.6	3023.4	2964.6	2823.6	2619.4
32.5°	2137.8	2186.4	2208.6	2328.6	2486.0	2615.0	2755.0	2879.6	2908.6	2826.6	2654.4
35°	1739.8	1780.8	1840.4	1900.0	2049.2	2177.4	2396.6	2587.4	2739.4	2759.6	2650.0
37.5°	1446.2	1470.0	1506.4	1569.8	1672.0	1830.8	2004.4	2252.6	2462.2	2609.6	2594.8
40°	1225.4	1231.4	1274.0	1319.4	1398.4	1523.6	1676.4	1889.6	2153.6	2382.4	2477.8
42.5°	1060.0	1074.8	1086.8	1130.0	1189.0	1275.4	1414.8	1581.8	1818.0	2090.2	2299.6
45°	939.2	954.2	965.4	994.4	1039.2	1102.4	1201.6	1362.6	1546.8	1818.8	2070.0
47.5°	855.8	854.2	864.0	887.0	919.0	969.8	1042.8	1150.2	1326.8	1554.2	1817.4
50°	764.8	776.8	779.8	796.8	820.8	855.8	913.8	1001.8	1140.4	1334.2	1571.4
52.5°	700.6	702.2	711.8	723.0	743.2	768.6	817.0	881.0	982.4	1140.4	1353.6
55°	638.0	638.0	646.2	656.0	667.8	692.4	726.0	776.8	859.4	987.6	1168.0
57.5°	580.0	583.0	590.4	592.6	603.0	620.2	649.2	689.6	752.8	856.4	1005.6
60°	521.8	528.4	527.8	533.8	542.6	555.4	579.2	610.4	665.6	744.6	865.4
62.5°	471.2	468.8	468.8	476.4	485.2	497.2	510.6	536.6	581.4	649.2	747.6
65°	414.4	413.0	418.2	422.6	425.6	434.6	446.6	470.4	501.6	553.8	633.6
67.5°	365.2	360.8	364.6	366.0	371.2	378.6	390.6	405.6	430.8	474.8	539.0
70°	314.6	310.8	310.0	311.6	316.0	321.2	329.4	343.6	366.8	400.2	444.2
72.5°	262.4	260.2	260.2	263.8	265.4	268.4	273.6	286.2	303.4	326.4	366.8
75°	213.2	213.2	213.2	214.0	216.2	219.2	223.6	230.4	244.4	262.4	290.0
77.5°	168.4	169.2	167.8	167.0	170.6	172.2	173.0	180.4	188.6	202.0	223.6
80°	125.2	121.6	123.0	125.2	126.8	127.4	129.8	131.2	138.0	144.6	158.8
82.5°	85.0	82.0	82.0	85.8	85.8	86.4	88.8	91.0	92.4	98.4	104.4
85°	49.2	49.2	50.0	50.0	50.6	50.0	52.2	53.0	53.0	56.6	61.2
87.5°	22.4	20.8	21.6	22.4	21.6	22.4	23.2	23.8	24.6	25.4	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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1538.6	1538.6	1538.6	1538.6	1538.6	1538.6	1538.6	1538.6	1538.6	1538.6	1538.6
2.5°	1598.2	1592.2	1586.2	1575.8	1566.8	1554.2	1550.4	1546.0	1532.6	1520.6	1511.8
5°	1683.2	1665.2	1639.2	1615.4	1596.0	1569.8	1555.0	1539.2	1517.0	1496.8	1480.4
7.5°	1764.4	1733.0	1696.6	1657.0	1619.0	1582.6	1553.4	1527.4	1498.2	1470.0	1448.4
10°	1865.0	1814.4	1757.6	1696.6	1644.4	1593.6	1551.2	1514.0	1473.6	1438.6	1409.6
12.5°	1979.8	1898.6	1815.0	1737.6	1673.4	1598.2	1544.4	1494.6	1447.6	1403.6	1370.0
15°	2065.6	1970.2	1877.6	1775.6	1681.6	1593.6	1532.6	1473.0	1420.0	1376.8	1335.0
17.5°	2150.6	2046.2	1928.4	1805.4	1695.0	1593.6	1510.2	1446.2	1381.2	1329.0	1288.8
20°	2220.6	2097.6	1959.6	1830.8	1705.6	1589.2	1495.4	1414.8	1343.2	1287.4	1240.4
22.5°	2281.0	2131.8	1988.0	1847.8	1704.8	1577.2	1467.8	1384.2	1305.2	1250.8	1200.2
25°	2319.0	2146.8	2003.6	1842.0	1686.2	1556.4	1437.2	1343.2	1265.8	1201.6	1150.2
27.5°	2354.8	2144.6	1982.8	1808.4	1663.8	1534.8	1406.6	1306.0	1224.8	1155.4	1102.4
30°	2390.6	2148.2	1946.2	1774.0	1628.0	1493.8	1370.0	1268.6	1182.2	1111.4	1062.2
32.5°	2413.0	2146.0	1912.8	1726.4	1571.4	1456.6	1330.6	1224.8	1135.2	1066.0	1019.0
35°	2418.8	2133.4	1873.2	1657.0	1509.4	1394.0	1288.8	1180.0	1086.8	1022.0	968.2
37.5°	2406.2	2110.2	1830.0	1594.4	1435.0	1320.2	1228.4	1135.2	1045.8	973.6	926.6
40°	2365.2	2088.0	1777.8	1527.4	1357.4	1247.8	1172.6	1081.6	993.6	925.8	882.6
42.5°	2287.0	2042.4	1720.4	1452.8	1276.8	1167.4	1099.4	1027.2	945.2	882.6	839.4
45°	2149.8	1972.4	1663.0	1378.2	1197.8	1084.6	1023.4	968.2	893.0	831.2	793.8
47.5°	1974.6	1877.6	1580.2	1300.0	1115.2	1005.6	941.4	896.0	837.2	787.2	750.6
50°	1790.4	1755.4	1496.0	1219.4	1032.4	925.8	864.6	824.4	785.0	735.0	702.2
52.5°	1578.0	1613.8	1397.6	1136.0	948.2	843.8	787.2	757.4	722.4	683.6	656.0
55°	1381.2	1459.6	1281.4	1040.6	864.6	764.8	710.4	682.0	661.2	630.6	606.0
57.5°	1190.4	1290.4	1160.6	944.4	782.6	695.4	641.8	609.8	596.4	579.2	559.0
60°	1024.2	1122.6	1029.4	847.6	700.0	618.0	571.8	545.6	532.2	521.0	504.6
62.5°	875.8	975.8	901.2	749.2	618.6	544.2	505.4	480.0	470.4	465.8	452.4
65°	742.4	828.2	776.0	646.2	542.0	474.8	438.4	420.4	410.8	408.4	399.6
67.5°	626.8	693.2	653.0	555.4	470.4	409.2	377.2	361.6	353.4	352.6	345.2
70°	513.6	574.8	545.6	459.2	388.4	342.8	316.0	302.6	298.2	297.4	293.6
72.5°	425.6	463.6	442.0	373.4	322.8	282.6	264.6	250.4	245.2	246.8	244.4
75°	328.0	360.0	346.6	296.6	252.6	225.8	209.4	200.6	196.0	198.2	195.2
77.5°	250.4	272.8	259.4	221.4	193.0	173.0	160.2	154.4	149.8	149.8	148.4
80°	178.2	190.0	183.4	162.6	140.2	123.8	114.0	110.4	108.0	107.4	106.6
82.5°	114.0	123.8	115.6	102.8	89.4	81.2	76.8	71.6	70.0	70.8	70.0
85°	64.2	67.8	64.8	56.0	50.0	45.4	42.4	40.2	38.8	39.6	38.0
87.5°	27.6	28.4	26.0	23.2	21.6	19.4	19.4	17.8	16.4	16.4	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°	1538.6	1538.6	1538.6	1538.6	1538.6	1538.6	1538.6	1538.6	1538.6	1538.6	1538.6
2.5°	1506.4	1501.2	1493.8	1482.6	1473.6	1459.6	1459.6	1461.8	1461.8	1461.0	1459.6
5°	1467.0	1455.8	1442.4	1426.8	1410.4	1394.0	1391.0	1385.0	1380.6	1377.6	1373.8
7.5°	1426.8	1408.0	1389.4	1367.8	1349.2	1333.6	1322.4	1312.6	1306.8	1300.0	1294.8
10°	1385.8	1361.2	1338.0	1315.0	1289.6	1269.4	1256.8	1247.8	1241.2	1235.2	1232.2
12.5°	1337.2	1308.2	1282.2	1260.4	1232.2	1211.2	1199.4	1196.4	1188.2	1174.0	1166.6
15°	1290.4	1264.2	1233.6	1200.2	1186.8	1161.4	1147.2	1140.4	1136.0	1126.4	1123.4
17.5°	1251.6	1216.6	1181.4	1156.8	1132.2	1112.2	1104.0	1095.0	1089.0	1080.2	1077.8
20°	1203.0	1172.6	1141.2	1114.4	1088.4	1066.0	1059.2	1053.2	1047.4	1043.6	1040.6
22.5°	1154.0	1123.4	1098.8	1074.2	1045.8	1033.2	1025.6	1019.0	1015.2	1013.0	1010.0
25°	1108.4	1081.6	1052.6	1030.2	1007.8	998.2	993.6	990.0	987.0	983.2	982.4
27.5°	1068.2	1038.4	1013.8	992.2	975.8	967.6	962.4	960.0	960.0	961.6	962.4
30°	1022.0	995.2	975.8	957.8	943.0	935.4	934.8	934.8	937.8	938.4	940.0
32.5°	979.4	958.6	939.2	922.0	911.6	907.2	910.8	910.8	913.2	915.4	918.4
35°	938.4	919.0	904.2	889.2	879.6	881.8	883.4	884.8	888.6	893.0	896.0
37.5°	899.8	881.8	866.2	854.2	848.2	852.8	856.4	859.4	864.0	867.6	870.6
40°	857.2	844.6	829.6	819.2	820.8	823.0	826.0	829.6	833.4	835.6	838.6
42.5°	817.8	804.4	793.8	785.6	788.0	790.8	792.4	793.8	798.4	802.8	804.4
45°	777.4	767.0	756.6	751.4	752.8	754.4	755.8	758.0	761.8	764.8	765.6
47.5°	732.0	724.6	717.8	711.8	714.8	714.2	716.4	720.8	722.4	723.8	728.2
50°	688.8	682.0	673.8	672.4	672.4	672.4	673.2	679.0	679.0	682.0	685.0
52.5°	641.0	637.4	632.8	629.8	628.4	628.4	632.2	634.4	635.8	640.4	643.2
55°	594.0	589.6	585.2	583.0	581.4	583.0	588.8	590.4	594.0	596.4	598.6
57.5°	544.8	542.0	538.2	536.6	536.6	537.4	542.0	545.6	546.4	553.8	556.8
60°	496.4	491.2	488.2	488.2	486.8	493.4	492.0	499.4	501.0	505.4	510.6
62.5°	446.6	439.0	438.4	438.4	441.2	442.0	445.0	447.2	451.8	457.6	461.4
65°	392.0	388.4	393.6	392.8	391.4	395.8	395.8	399.6	404.0	409.2	417.4
67.5°	341.4	338.4	340.0	339.2	341.4	344.4	346.6	349.6	354.8	360.8	366.0
70°	290.0	292.2	288.4	291.4	293.6	294.4	296.0	300.4	306.4	310.0	316.0
72.5°	240.0	239.2	240.8	241.6	243.8	245.2	246.8	252.0	258.6	261.6	266.2
75°	192.4	191.6	193.8	193.8	197.6	199.0	200.6	202.8	208.8	213.2	217.0
77.5°	149.0	149.8	149.0	152.0	150.6	151.4	155.8	158.0	158.8	168.4	170.0
80°	105.8	107.4	108.0	108.8	109.6	108.0	113.4	115.6	115.6	120.8	124.4
82.5°	68.6	69.4	71.6	72.4	72.4	74.6	73.8	75.2	77.6	79.0	84.2
85°	38.0	40.2	41.0	40.2	41.0	39.6	41.8	42.4	43.2	43.2	43.2
87.5°	15.0	15.6	15.0	15.6	15.0	15.6	15.6	14.2	14.2	16.4	13.4
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: P273740

CATALOG NUMBER: 8RCG-4-56D-L840-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1538.6	1538.6	1538.6	1538.6
2.5°	1454.4	1453.6	1458.8	1455.0
5°	1369.4	1371.6	1364.2	1364.2
7.5°	1292.6	1289.6	1290.4	1285.0
10°	1223.2	1218.8	1217.2	1218.0
12.5°	1165.8	1165.8	1154.0	1154.0
15°	1123.4	1109.2	1107.6	1112.2
17.5°	1076.4	1068.2	1069.0	1067.4
20°	1040.6	1036.2	1035.4	1030.2
22.5°	1007.8	1007.0	1007.8	1001.8
25°	981.8	985.4	982.4	982.4
27.5°	963.8	963.8	961.6	961.6
30°	943.0	942.2	943.6	943.6
32.5°	922.0	923.6	923.6	924.4
35°	900.4	901.2	903.4	902.0
37.5°	872.2	875.8	875.2	876.6
40°	839.4	841.6	840.8	840.8
42.5°	805.8	807.2	805.0	803.6
45°	768.6	767.0	769.2	766.2
47.5°	727.6	728.2	729.0	732.0
50°	686.6	691.0	691.0	690.2
52.5°	646.2	647.8	651.4	651.4
55°	604.6	606.0	607.6	608.2
57.5°	562.0	561.2	564.2	565.0
60°	516.6	516.6	522.6	524.8
62.5°	468.2	471.2	477.0	472.6
65°	421.2	427.2	426.4	429.4
67.5°	372.0	375.6	381.6	381.6
70°	322.0	325.8	328.8	331.0
72.5°	273.6	275.0	283.2	278.8
75°	222.2	227.4	231.8	229.6
77.5°	173.0	179.6	181.2	178.8
80°	129.8	129.0	133.4	132.6
82.5°	86.4	85.8	87.2	88.0
85°	46.2	48.4	45.4	44.8
87.5°	13.4	13.4	12.6	12.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)