

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: P273752

Luminaire Tested: **8RCG-4-56D-L940-A**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P273752
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-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

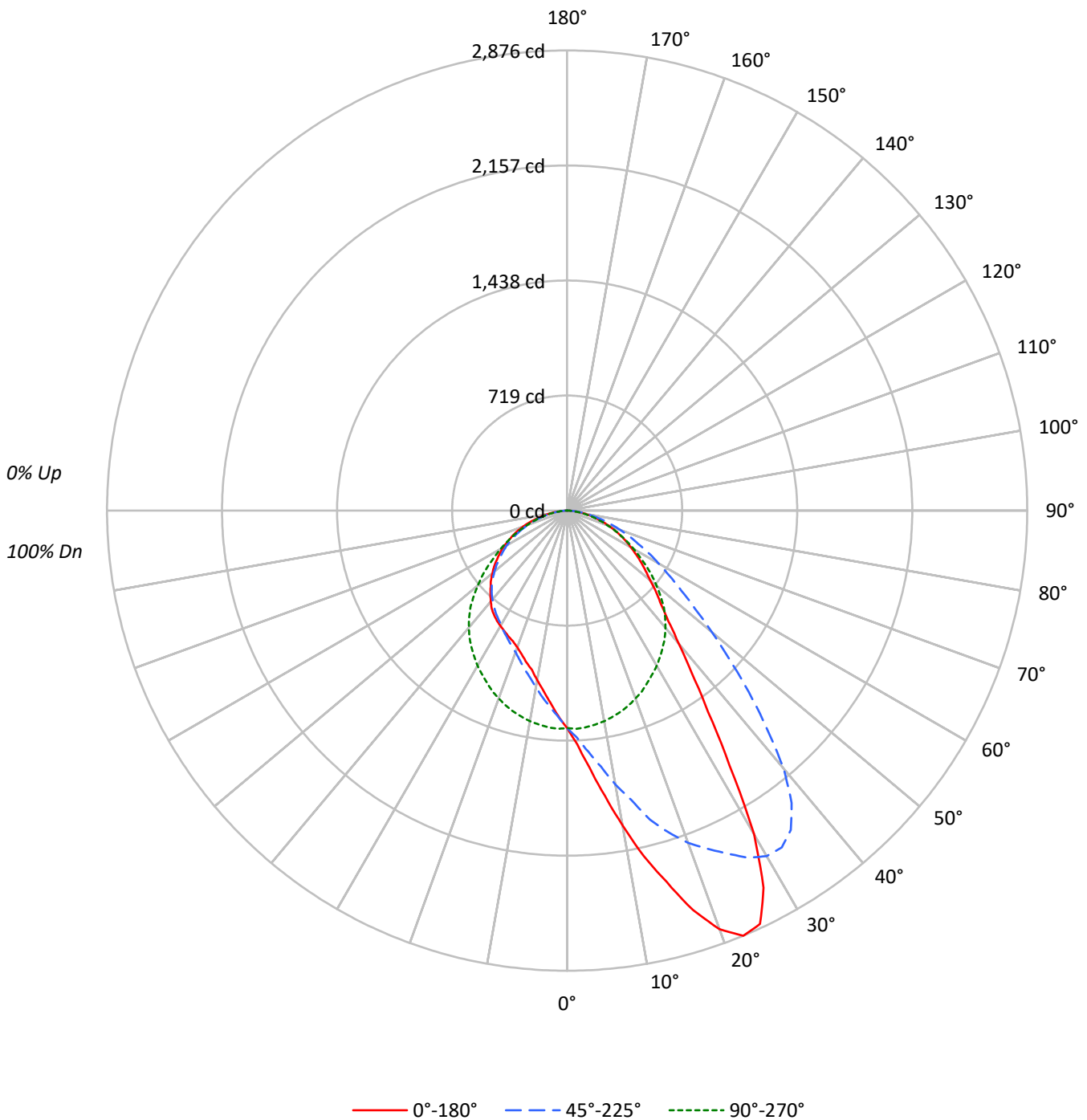
Lumens per Lamp: N/A
Luminaire Lumens: 4100.4 lumens
Efficiency: N/A
Efficacy: 110.2 lumens/watt
Spacing Criteria (0/90/45): 1.37 / 1.23 / 1.5
Luminous Opening: Rectangular (W 7.88' x L: 0.23' x H: 0')
CIE Type: Direct

Input Watts (W): 37.2
Input Voltage (V): 120
Input Current (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	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					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°	8103	8103	8103
5°	9663	8138	7212
10°	12095	8096	6514
15°	14834	8031	6064
20°	17672	7929	5773
25°	18765	7805	5710
30°	16083	7715	5738
35°	11185	7587	5799
40°	8424	7436	5780
45°	6996	7212	5707
50°	6267	6755	5655
55°	5859	6262	5584
60°	5497	5747	5528
65°	5165	5239	5352
70°	4844	4660	5096
75°	4337	4079	4673
80°	3799	3345	4026
85°	2970	2436	2696



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.6	3.3
10°-20°	429.1	10.5
20°-30°	722.1	17.6
30°-40°	816.1	19.9
40°-50°	730.9	17.8
50°-60°	590.0	14.4
60°-70°	411.1	10.0
70°-80°	215.8	5.3
80°-90°	51.7	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°	1284.8	31.3
0°-40°	2100.9	51.2
0°-60°	3421.8	83.5
0°-90°	4100.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4100.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1359	1359	1359	1359	1359	
5°	1614	1513	1359	1231	1205	166
15°	2402	2000	1301	1025	982	693
25°	2851	2363	1186	881	868	1261
35°	1536	2437	1042	779	796	991
45°	829	1606	855	666	677	654
55°	563	872	602	515	537	506
65°	366	489	371	350	379	365
75°	188	232	177	176	203	201
85°	43	50	36	35	39	53
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°	1358.6	1358.6	1358.6	1358.6	1358.6	1358.6	1358.6	1358.6	1358.6	1358.6	1358.6
2.5°	1462.6	1461.2	1458.0	1460.6	1455.2	1448.0	1447.4	1440.8	1421.8	1420.4	1415.2
5°	1614.0	1608.6	1608.0	1607.4	1598.2	1585.6	1562.0	1560.0	1528.4	1512.6	1493.4
7.5°	1796.8	1795.0	1789.6	1783.8	1752.8	1737.6	1715.2	1686.4	1649.4	1614.0	1591.6
10°	1997.0	2018.8	1991.8	1973.2	1956.2	1924.0	1886.4	1839.6	1793.0	1738.4	1696.8
12.5°	2211.6	2219.4	2219.4	2202.4	2173.4	2120.0	2046.4	1993.6	1951.6	1851.6	1816.0
15°	2402.4	2442.6	2417.0	2357.6	2359.0	2312.2	2225.4	2130.0	2079.2	1999.6	1891.0
17.5°	2618.4	2625.6	2617.6	2562.4	2535.4	2467.6	2389.2	2300.4	2205.0	2108.2	1995.6
20°	2784.2	2780.2	2757.2	2731.6	2675.0	2625.0	2537.4	2435.4	2303.8	2209.0	2083.2
22.5°	2876.4	2869.0	2861.2	2840.8	2796.0	2741.4	2665.0	2551.2	2427.4	2288.0	2137.8
25°	2851.4	2859.8	2861.2	2855.2	2838.8	2806.6	2744.6	2655.8	2530.8	2363.0	2211.6
27.5°	2657.8	2679.6	2707.2	2725.6	2755.2	2775.0	2755.2	2699.2	2596.6	2446.6	2260.2
30°	2335.2	2309.0	2374.2	2456.4	2512.4	2611.0	2666.4	2669.6	2617.6	2493.2	2313.0
32.5°	1887.8	1930.6	1950.2	2056.2	2195.2	2309.0	2432.8	2542.6	2568.4	2495.8	2343.8
35°	1536.2	1572.4	1625.0	1677.8	1809.4	1922.6	2116.2	2284.6	2418.8	2436.6	2340.0
37.5°	1277.0	1298.0	1330.2	1386.2	1476.4	1616.6	1770.0	1989.0	2174.0	2304.4	2291.2
40°	1082.0	1087.4	1124.8	1165.0	1234.8	1345.4	1480.2	1668.6	1901.6	2103.6	2187.8
42.5°	936.0	949.2	959.6	997.8	1049.8	1126.2	1249.2	1396.8	1605.4	1845.6	2030.6
45°	829.4	842.4	852.4	878.0	917.6	973.4	1061.0	1203.2	1365.8	1606.0	1827.8
47.5°	755.6	754.2	762.8	783.2	811.6	856.4	920.8	1015.6	1171.6	1372.4	1604.6
50°	675.4	685.8	688.4	703.6	724.6	755.6	807.0	884.6	1007.0	1178.2	1387.4
52.5°	618.8	620.0	628.6	638.4	656.2	678.6	721.4	778.0	867.6	1007.0	1195.2
55°	563.4	563.4	570.6	579.2	589.8	611.4	641.0	685.8	759.0	872.2	1031.4
57.5°	512.0	514.8	521.2	523.2	532.4	547.6	573.2	608.8	664.8	756.2	888.0
60°	460.8	466.6	466.0	471.2	479.2	490.4	511.4	539.0	587.8	657.6	764.2
62.5°	416.0	414.0	414.0	420.6	428.4	439.0	450.8	474.0	513.4	573.2	660.2
65°	366.0	364.6	369.2	373.2	375.8	383.8	394.2	415.4	443.0	489.0	559.4
67.5°	322.6	318.6	321.8	323.2	327.8	334.4	344.8	358.0	380.4	419.2	475.8
70°	277.8	274.4	273.8	275.2	279.0	283.6	291.0	303.4	323.8	353.4	392.2
72.5°	231.6	229.8	229.8	233.0	234.4	237.0	241.6	252.8	267.8	288.2	323.8
75°	188.2	188.2	188.2	189.0	190.8	193.6	197.4	203.4	215.8	231.6	256.0
77.5°	148.8	149.4	148.0	147.4	150.8	152.0	152.8	159.2	166.6	178.4	197.4
80°	110.6	107.2	108.6	110.6	111.8	112.6	114.6	115.8	121.8	127.6	140.2
82.5°	75.0	72.4	72.4	75.6	75.6	76.4	78.4	80.4	81.6	86.8	92.2
85°	43.4	43.4	44.0	44.0	44.8	44.0	46.0	46.8	46.8	50.0	54.0
87.5°	19.8	18.4	19.0	19.8	19.0	19.8	20.4	21.0	21.8	22.4	23.0
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°	1358.6	1358.6	1358.6	1358.6	1358.6	1358.6	1358.6	1358.6	1358.6	1358.6	1358.6
2.5°	1411.2	1406.0	1400.6	1391.4	1383.6	1372.4	1369.0	1365.2	1353.2	1342.8	1334.8
5°	1486.2	1470.4	1447.4	1426.4	1409.2	1386.2	1373.0	1359.2	1339.4	1321.6	1307.2
7.5°	1558.0	1530.4	1498.0	1463.2	1429.6	1397.4	1371.6	1348.6	1323.0	1298.0	1278.8
10°	1646.8	1602.0	1552.0	1498.0	1452.0	1407.2	1369.8	1336.8	1301.2	1270.4	1244.6
12.5°	1748.2	1676.4	1602.8	1534.2	1477.6	1411.2	1363.8	1319.6	1278.2	1239.4	1209.8
15°	1823.8	1739.6	1658.0	1567.8	1485.0	1407.2	1353.2	1300.6	1253.8	1215.6	1178.8
17.5°	1899.0	1806.8	1702.8	1594.2	1496.8	1407.2	1333.6	1277.0	1219.6	1173.6	1138.0
20°	1960.8	1852.2	1730.4	1616.6	1506.0	1403.2	1320.4	1249.2	1186.0	1136.8	1095.2
22.5°	2014.0	1882.4	1755.4	1631.6	1505.4	1392.8	1296.0	1222.2	1152.6	1104.4	1059.8
25°	2047.6	1895.6	1769.2	1626.4	1488.8	1374.4	1269.0	1186.0	1117.6	1061.0	1015.6
27.5°	2079.2	1893.6	1750.8	1596.8	1469.2	1355.2	1242.0	1153.2	1081.4	1020.2	973.4
30°	2110.8	1897.0	1718.6	1566.6	1437.6	1319.0	1209.8	1120.2	1044.0	981.4	938.0
32.5°	2130.6	1895.0	1689.0	1524.4	1387.4	1286.2	1174.8	1081.4	1002.4	941.2	899.8
35°	2135.8	1883.8	1654.0	1463.2	1332.8	1230.8	1138.0	1042.0	959.6	902.4	855.0
37.5°	2124.6	1863.4	1615.8	1407.8	1267.0	1165.6	1084.8	1002.4	923.4	859.6	818.2
40°	2088.4	1843.6	1569.8	1348.6	1198.6	1101.8	1035.4	955.0	877.4	817.4	779.4
42.5°	2019.4	1803.4	1519.2	1282.8	1127.4	1030.8	970.8	907.0	834.6	779.4	741.2
45°	1898.2	1741.6	1468.4	1217.0	1057.8	957.6	903.8	855.0	788.6	733.8	701.0
47.5°	1743.6	1658.0	1395.4	1148.0	984.6	888.0	831.4	791.2	739.2	695.0	662.8
50°	1581.0	1550.0	1321.0	1076.8	911.6	817.4	763.6	728.0	693.0	649.0	620.0
52.5°	1393.4	1425.0	1234.2	1003.0	837.2	745.0	695.0	668.8	637.8	603.6	579.2
55°	1219.6	1288.8	1131.4	918.8	763.6	675.4	627.2	602.2	583.8	556.8	535.2
57.5°	1051.2	1139.4	1024.8	834.0	691.2	614.2	566.8	538.4	526.6	511.4	493.6
60°	904.4	991.2	909.0	748.4	618.0	545.6	504.8	481.8	470.0	460.0	445.6
62.5°	773.4	861.6	795.8	661.4	546.4	480.4	446.2	423.8	415.4	411.4	399.6
65°	655.6	731.2	685.2	570.6	478.6	419.2	387.0	371.2	362.6	360.6	352.8
67.5°	553.6	612.2	576.6	490.4	415.4	361.4	333.0	319.2	312.0	311.4	304.8
70°	453.6	507.4	481.8	405.4	343.0	302.8	279.0	267.2	263.2	262.6	259.4
72.5°	375.8	409.4	390.4	329.8	285.0	249.4	233.6	221.2	216.6	217.8	215.8
75°	289.6	318.0	306.0	262.0	223.2	199.4	185.0	177.0	173.2	175.0	172.4
77.5°	221.2	241.0	229.0	195.4	170.4	152.8	141.6	136.2	132.2	132.2	131.0
80°	157.4	167.8	162.0	143.4	123.8	109.2	100.8	97.4	95.4	94.8	94.2
82.5°	100.8	109.2	102.0	90.8	79.0	71.8	67.8	63.2	61.8	62.6	61.8
85°	56.6	59.8	57.2	49.4	44.0	40.2	37.6	35.6	34.2	34.8	33.6
87.5°	24.4	25.0	23.0	20.4	19.0	17.2	17.2	15.8	14.4	14.4	13.8
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1358.6	1358.6	1358.6	1358.6	1358.6	1358.6	1358.6	1358.6	1358.6	1358.6	1358.6
2.5°	1330.2	1325.6	1319.0	1309.2	1301.2	1288.8	1288.8	1290.8	1290.8	1290.0	1288.8
5°	1295.4	1285.4	1273.6	1259.8	1245.4	1230.8	1228.2	1223.0	1219.0	1216.4	1213.0
7.5°	1259.8	1243.4	1226.8	1207.8	1191.4	1177.6	1167.6	1159.0	1153.8	1148.0	1143.2
10°	1223.6	1201.8	1181.4	1161.0	1138.6	1121.0	1109.8	1101.8	1096.0	1090.6	1088.0
12.5°	1180.8	1155.2	1132.2	1113.0	1088.0	1069.6	1059.0	1056.4	1049.2	1036.6	1030.0
15°	1139.4	1116.4	1089.4	1059.8	1047.8	1025.4	1013.0	1007.0	1003.0	994.6	992.0
17.5°	1105.2	1074.2	1043.2	1021.6	999.8	982.0	974.8	966.8	961.6	953.8	951.8
20°	1062.4	1035.4	1007.8	984.0	961.0	941.2	935.4	930.0	924.8	921.4	918.8
22.5°	1018.8	992.0	970.2	948.4	923.4	912.2	905.6	899.8	896.4	894.4	891.8
25°	978.8	955.0	929.4	909.6	889.8	881.4	877.4	874.0	871.4	868.2	867.6
27.5°	943.2	916.8	895.2	876.0	861.6	854.4	849.8	847.8	847.8	849.0	849.8
30°	902.4	878.6	861.6	845.8	832.6	826.0	825.4	825.4	828.0	828.6	830.0
32.5°	864.8	846.4	829.4	814.2	805.0	801.0	804.4	804.4	806.2	808.2	811.0
35°	828.6	811.6	798.4	785.2	776.6	778.6	780.0	781.2	784.6	788.6	791.2
37.5°	794.4	778.6	764.8	754.2	749.0	753.0	756.2	759.0	762.8	766.2	768.8
40°	757.0	745.8	732.6	723.4	724.6	726.6	729.2	732.6	735.8	737.8	740.4
42.5°	722.0	710.2	701.0	693.8	695.8	698.4	699.6	701.0	705.0	708.8	710.2
45°	686.6	677.2	668.0	663.4	664.8	666.0	667.4	669.4	672.6	675.4	676.0
47.5°	646.4	639.8	633.8	628.6	631.2	630.6	632.6	636.4	637.8	639.2	643.0
50°	608.2	602.2	595.0	593.6	593.6	593.6	594.4	599.6	599.6	602.2	604.8
52.5°	566.0	562.8	558.8	556.2	554.8	554.8	558.2	560.2	561.4	565.4	568.0
55°	524.6	520.6	516.6	514.8	513.4	514.8	520.0	521.2	524.6	526.6	528.6
57.5°	481.2	478.6	475.2	474.0	474.0	474.6	478.6	481.8	482.4	489.0	491.6
60°	438.4	433.8	431.2	431.2	429.8	435.8	434.4	441.0	442.4	446.2	450.8
62.5°	394.2	387.6	387.0	387.0	389.6	390.4	393.0	395.0	398.8	404.2	407.4
65°	346.2	343.0	347.6	346.8	345.6	349.6	349.6	352.8	356.8	361.4	368.6
67.5°	301.4	298.8	300.2	299.4	301.4	304.0	306.0	308.6	313.4	318.6	323.2
70°	256.0	258.0	254.8	257.4	259.4	260.0	261.4	265.2	270.6	273.8	279.0
72.5°	212.0	211.2	212.6	213.2	215.2	216.6	217.8	222.4	228.4	231.0	235.0
75°	169.8	169.2	171.2	171.2	174.4	175.8	177.0	179.0	184.2	188.2	191.6
77.5°	131.6	132.2	131.6	134.2	133.0	133.6	137.6	139.6	140.2	148.8	150.0
80°	93.4	94.8	95.4	96.0	96.8	95.4	100.0	102.0	102.0	106.6	110.0
82.5°	60.6	61.2	63.2	63.8	63.8	65.8	65.2	66.4	68.4	69.8	74.4
85°	33.6	35.6	36.2	35.6	36.2	34.8	36.8	37.6	38.2	38.2	38.2
87.5°	13.2	13.8	13.2	13.8	13.2	13.8	13.8	12.6	12.6	14.4	11.8
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: P273752

CATALOG NUMBER: 8RCG-4-56D-L940-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1358.6	1358.6	1358.6	1358.6
2.5°	1284.2	1283.4	1288.0	1284.8
5°	1209.2	1211.0	1204.6	1204.6
7.5°	1141.4	1138.6	1139.4	1134.8
10°	1080.2	1076.2	1074.8	1075.6
12.5°	1029.4	1029.4	1018.8	1018.8
15°	992.0	979.4	978.0	982.0
17.5°	950.4	943.2	943.8	942.6
20°	918.8	914.8	914.2	909.6
22.5°	889.8	889.2	889.8	884.6
25°	866.8	870.2	867.6	867.6
27.5°	851.0	851.0	849.0	849.0
30°	832.6	832.0	833.2	833.2
32.5°	814.2	815.6	815.6	816.2
35°	795.2	795.8	797.8	796.4
37.5°	770.0	773.4	772.8	774.0
40°	741.2	743.2	742.4	742.4
42.5°	711.6	712.8	710.8	709.6
45°	678.6	677.2	679.2	676.6
47.5°	642.4	643.0	643.8	646.4
50°	606.2	610.2	610.2	609.4
52.5°	570.6	572.0	575.2	575.2
55°	533.8	535.2	536.4	537.0
57.5°	496.2	495.6	498.2	499.0
60°	456.2	456.2	461.4	463.4
62.5°	413.4	416.0	421.2	417.2
65°	371.8	377.2	376.4	379.2
67.5°	328.4	331.8	337.0	337.0
70°	284.4	287.6	290.2	292.2
72.5°	241.6	242.8	250.2	246.2
75°	196.2	200.8	204.8	202.8
77.5°	152.8	158.6	160.0	158.0
80°	114.6	113.8	117.8	117.2
82.5°	76.4	75.6	77.0	77.6
85°	40.8	42.8	40.2	39.4
87.5°	11.8	11.8	11.2	10.6
90°	0.0	0.0	0.0	0.0

(END OF REPORT)