

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: **4RCG-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: 4RCG-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: 3648.4 lumens
Efficiency: N/A
Efficacy: 106.1 lumens/watt
Spacing Criteria (0/90/45): 1.37 / 1.23 / 1.5
Luminous Opening: Rectangular (W 3.88' x L: 0.23' x H: 0')
CIE Type: Direct

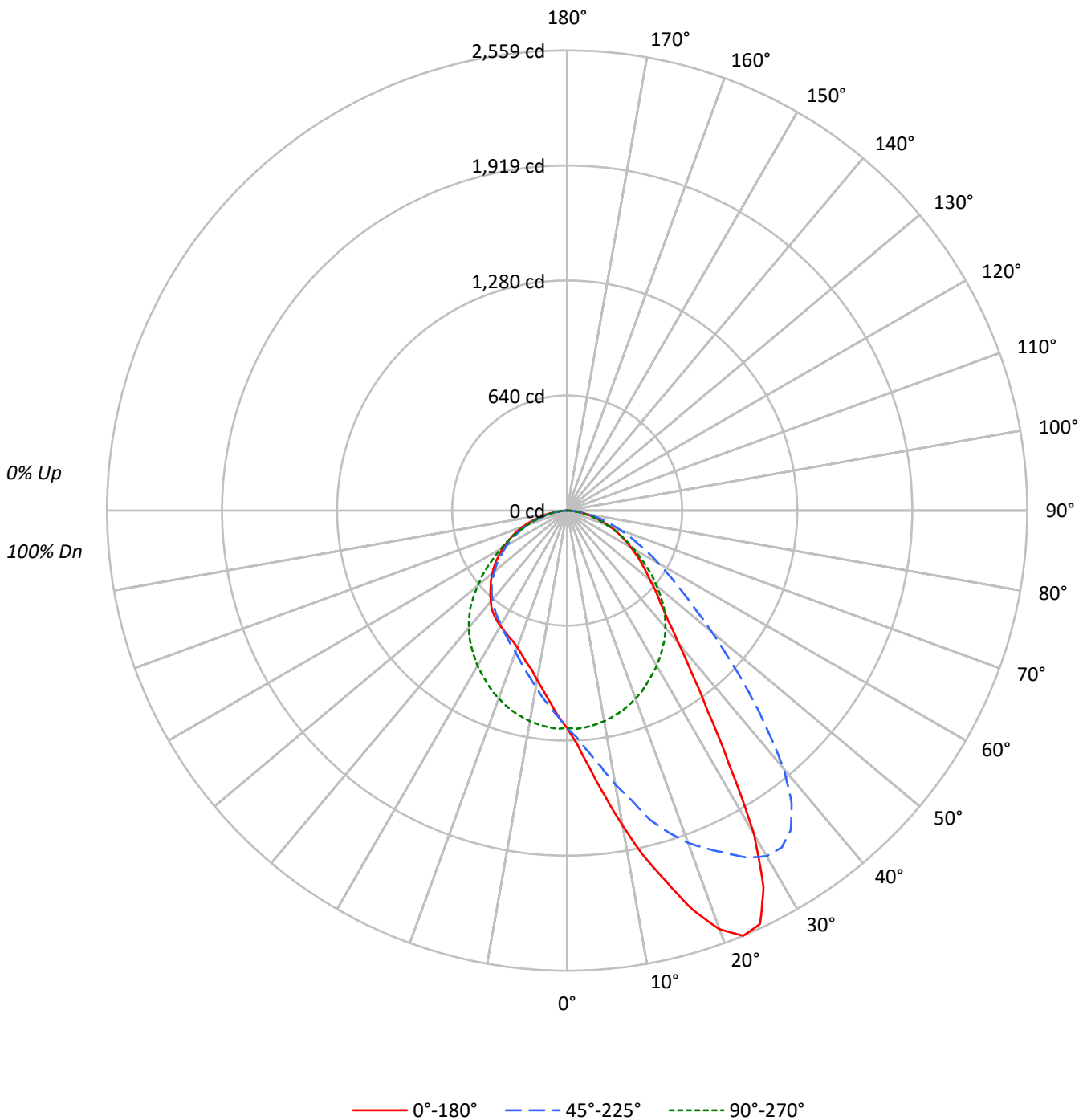
Input Watts (W): 34.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					85			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	74	72					72			
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62					62			
4	84	73	65	58	82	72	64	58	69	62	57	67	61	56	65	60	56	53					53			
5	78	66	57	51	76	64	56	50	62	55	50	60	54	49	59	53	49	47					47			
6	72	59	51	44	70	58	50	44	56	49	44	55	48	43	53	48	43	41					41			
7	67	54	45	39	65	53	45	39	52	44	39	50	44	39	49	43	38	36					36			
8	62	49	41	35	61	49	41	35	47	40	35	46	39	35	45	39	35	33					33			
9	58	45	37	32	57	45	37	32	43	36	32	42	36	31	41	36	31	29					29			
10	55	42	34	29	53	41	34	29	40	33	29	39	33	29	38	33	28	27					27			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	14652	14652	14652
5°	17473	14715	13040
10°	21869	14639	11778
15°	26824	14521	10965
20°	31955	14339	10441
25°	33931	14114	10324
30°	29083	13952	10377
35°	20226	13719	10485
40°	15235	13446	10453
45°	12649	13042	10319
50°	11331	12214	10226
55°	10594	11325	10099
60°	9939	10393	9995
65°	9339	9473	9674
70°	8757	8428	9214
75°	7844	7376	8449
80°	6869	6052	7274
85°	5382	4395	4882



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.9	3.3
10°-20°	381.8	10.5
20°-30°	642.5	17.6
30°-40°	726.1	19.9
40°-50°	650.4	17.8
50°-60°	525.0	14.4
60°-70°	365.8	10.0
70°-80°	192.0	5.3
80°-90°	46.0	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°	1143.2	31.3
0°-40°	1869.3	51.2
0°-60°	3044.6	83.5
0°-90°	3648.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3648.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1209	1209	1209	1209	1209	
5°	1436	1346	1209	1095	1072	148
15°	2138	1779	1157	912	874	617
25°	2537	2102	1055	784	772	1122
35°	1367	2168	927	693	709	882
45°	738	1429	761	593	602	582
55°	501	776	536	458	478	450
65°	326	435	330	311	337	324
75°	168	206	158	156	180	179
85°	39	44	32	31	35	47
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°	1208.8	1208.8	1208.8	1208.8	1208.8	1208.8	1208.8	1208.8	1208.8	1208.8	1208.8
2.5°	1301.3	1300.1	1297.2	1299.5	1294.9	1288.4	1287.8	1282.0	1265.0	1263.8	1259.1
5°	1436.0	1431.3	1430.7	1430.1	1421.9	1410.8	1389.7	1388.0	1359.9	1345.8	1328.8
7.5°	1598.8	1597.1	1592.4	1587.1	1559.6	1546.1	1526.2	1500.4	1467.6	1436.0	1416.1
10°	1776.8	1796.2	1772.2	1755.8	1740.5	1711.8	1678.5	1636.9	1595.3	1546.7	1509.8
12.5°	1967.8	1974.8	1974.8	1959.6	1933.8	1886.4	1820.8	1773.9	1736.4	1647.4	1615.8
15°	2137.6	2173.3	2150.5	2097.8	2098.9	2057.4	1980.1	1895.1	1850.1	1779.2	1682.6
17.5°	2329.7	2336.1	2329.1	2279.9	2255.9	2195.6	2125.9	2046.8	1961.9	1875.8	1775.7
20°	2477.3	2473.8	2453.3	2430.4	2380.1	2335.5	2257.7	2166.9	2049.8	1965.4	1853.6
22.5°	2559.3	2552.8	2545.8	2527.6	2487.8	2439.2	2371.3	2270.0	2159.9	2035.7	1902.2
25°	2537.0	2544.6	2545.8	2540.5	2525.9	2497.2	2442.1	2363.1	2251.8	2102.5	1967.8
27.5°	2364.8	2384.2	2408.8	2425.2	2451.5	2469.1	2451.5	2401.7	2310.4	2176.8	2011.1
30°	2077.9	2054.4	2112.4	2185.6	2235.4	2323.3	2372.4	2375.4	2329.1	2218.4	2058.0
32.5°	1679.6	1717.7	1735.3	1829.6	1953.1	2054.4	2164.5	2262.3	2285.2	2220.8	2085.5
35°	1366.9	1399.1	1446.0	1492.8	1609.9	1710.7	1882.8	2032.8	2152.2	2168.1	2082.0
37.5°	1136.1	1154.9	1183.6	1233.4	1313.6	1438.3	1574.8	1769.8	1934.4	2050.3	2038.6
40°	962.8	967.5	1000.9	1036.6	1098.7	1197.1	1317.1	1484.6	1691.9	1871.7	1946.7
42.5°	832.8	844.5	853.9	887.8	934.1	1002.0	1111.6	1242.7	1428.4	1642.1	1806.7
45°	737.9	749.6	758.4	781.2	816.4	866.2	944.1	1070.6	1215.2	1429.0	1626.3
47.5°	672.3	671.1	678.8	696.9	722.1	761.9	819.3	903.6	1042.4	1221.1	1427.8
50°	600.9	610.2	612.6	626.1	644.8	672.3	718.0	787.1	896.0	1048.3	1234.5
52.5°	550.5	551.7	559.3	568.1	583.9	603.8	641.9	692.2	771.9	896.0	1063.5
55°	501.3	501.3	507.8	515.4	524.7	544.1	570.4	610.2	675.2	776.0	917.7
57.5°	455.6	458.0	463.8	465.6	473.8	487.3	510.1	541.7	591.5	672.9	790.0
60°	410.0	415.2	414.6	419.3	426.3	436.3	455.0	479.6	523.0	585.1	679.9
62.5°	370.1	368.4	368.4	374.2	381.3	390.6	401.2	421.7	456.8	510.1	587.4
65°	325.6	324.4	328.5	332.1	334.4	341.4	350.8	369.5	394.1	435.1	497.8
67.5°	287.0	283.5	286.4	287.6	291.7	297.5	306.9	318.6	338.5	373.1	423.4
70°	247.1	244.2	243.6	244.8	248.3	252.4	258.9	270.0	288.1	314.5	349.0
72.5°	206.1	204.4	204.4	207.3	208.5	210.8	214.9	224.9	238.4	256.5	288.1
75°	167.5	167.5	167.5	168.1	169.8	172.2	175.7	181.0	192.1	206.1	227.8
77.5°	132.4	132.9	131.8	131.2	134.1	135.3	135.9	141.7	148.2	158.7	175.7
80°	98.4	95.5	96.6	98.4	99.6	100.1	101.9	103.1	108.3	113.6	124.7
82.5°	66.8	64.4	64.4	67.3	67.3	67.9	69.7	71.4	72.6	77.3	82.0
85°	38.7	38.7	39.2	39.2	39.8	39.2	41.0	41.6	41.6	44.5	48.0
87.5°	17.6	16.4	17.0	17.6	17.0	17.6	18.2	18.7	19.3	19.9	20.5
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°	1208.8	1208.8	1208.8	1208.8	1208.8	1208.8	1208.8	1208.8	1208.8	1208.8	1208.8
2.5°	1255.6	1250.9	1246.3	1238.1	1231.0	1221.1	1218.1	1214.6	1204.1	1194.7	1187.7
5°	1322.4	1308.3	1287.8	1269.1	1253.9	1233.4	1221.7	1209.4	1191.8	1176.0	1163.1
7.5°	1386.2	1361.6	1332.9	1301.9	1272.0	1243.3	1220.5	1200.0	1177.1	1154.9	1137.9
10°	1465.3	1425.5	1380.9	1332.9	1291.9	1252.1	1218.7	1189.4	1157.8	1130.3	1107.5
12.5°	1555.5	1491.6	1426.0	1365.1	1314.8	1255.6	1213.5	1174.2	1137.3	1102.8	1076.4
15°	1622.8	1547.9	1475.2	1395.0	1321.2	1252.1	1204.1	1157.2	1115.7	1081.7	1048.9
17.5°	1689.6	1607.6	1515.1	1418.4	1331.8	1252.1	1186.5	1136.1	1085.2	1044.2	1012.6
20°	1744.6	1648.0	1539.7	1438.3	1340.0	1248.6	1174.8	1111.6	1055.3	1011.4	974.5
22.5°	1792.1	1674.9	1561.9	1451.8	1339.4	1239.2	1153.1	1087.5	1025.5	982.7	942.9
25°	1821.9	1686.7	1574.2	1447.1	1324.7	1222.8	1129.1	1055.3	994.4	944.1	903.6
27.5°	1850.1	1684.9	1557.8	1420.8	1307.2	1205.8	1105.1	1026.0	962.2	907.7	866.2
30°	1878.2	1687.8	1529.1	1393.8	1279.0	1173.6	1076.4	996.8	928.8	873.2	834.5
32.5°	1895.7	1686.1	1502.8	1356.4	1234.5	1144.3	1045.4	962.2	891.9	837.5	800.6
35°	1900.4	1676.1	1471.7	1301.9	1185.9	1095.2	1012.6	927.1	853.9	802.9	760.8
37.5°	1890.5	1658.0	1437.8	1252.7	1127.4	1037.2	965.1	891.9	821.7	764.9	728.0
40°	1858.2	1640.4	1396.8	1200.0	1066.5	980.4	921.2	849.8	780.7	727.4	693.4
42.5°	1796.8	1604.7	1351.7	1141.4	1003.2	917.1	863.8	807.0	742.6	693.4	659.4
45°	1689.0	1549.6	1306.6	1082.9	941.1	852.1	804.1	760.8	701.6	653.0	623.7
47.5°	1551.4	1475.2	1241.6	1021.4	876.1	790.0	739.7	703.9	657.7	618.4	589.7
50°	1406.7	1379.2	1175.4	958.1	811.1	727.4	679.3	647.7	616.7	577.4	551.7
52.5°	1239.8	1267.9	1098.1	892.5	744.9	662.9	618.4	595.0	567.5	537.0	515.4
55°	1085.2	1146.7	1006.7	817.6	679.3	600.9	558.1	535.9	519.5	495.5	476.1
57.5°	935.3	1013.8	911.8	742.0	614.9	546.4	504.2	479.1	468.5	455.0	439.2
60°	804.7	882.0	808.8	665.9	549.9	485.5	449.2	428.7	418.2	409.4	396.5
62.5°	688.1	766.6	708.0	588.6	486.1	427.5	397.1	377.2	369.5	366.0	355.5
65°	583.3	650.7	609.7	507.8	425.8	373.1	344.4	330.3	322.7	320.9	313.9
67.5°	492.5	544.6	513.0	436.3	369.5	321.5	296.3	284.0	277.6	277.0	271.2
70°	403.5	451.5	428.7	360.8	305.1	269.4	248.3	237.8	234.3	233.7	230.7
72.5°	334.4	364.3	347.3	293.4	253.6	222.0	207.9	196.8	192.7	193.8	192.1
75°	257.7	282.9	272.3	233.1	198.5	177.5	164.6	157.5	154.0	155.8	153.4
77.5°	196.8	214.3	203.8	173.9	151.7	135.9	125.9	121.2	117.7	117.7	116.5
80°	140.0	149.3	144.1	127.7	110.1	97.2	89.6	86.7	84.9	84.3	83.7
82.5°	89.6	97.2	90.8	80.8	70.3	63.8	60.3	56.2	55.1	55.6	55.1
85°	50.4	53.3	51.0	43.9	39.2	35.7	33.4	31.6	30.5	31.0	29.9
87.5°	21.7	22.3	20.5	18.2	17.0	15.2	15.2	14.1	12.9	12.9	12.3
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°	1208.8	1208.8	1208.8	1208.8	1208.8	1208.8	1208.8	1208.8	1208.8	1208.8	1208.8
2.5°	1183.6	1179.5	1173.6	1164.8	1157.8	1146.7	1146.7	1148.4	1148.4	1147.9	1146.7
5°	1152.5	1143.8	1133.2	1120.9	1108.0	1095.2	1092.8	1088.1	1084.6	1082.3	1079.3
7.5°	1120.9	1106.3	1091.6	1074.7	1060.0	1047.7	1038.9	1031.3	1026.6	1021.4	1017.3
10°	1088.7	1069.4	1051.2	1033.1	1013.2	997.4	987.4	980.4	975.1	970.4	968.1
12.5°	1050.6	1027.8	1007.3	990.3	968.1	951.7	942.3	940.0	933.5	922.4	916.5
15°	1013.8	993.3	969.2	942.9	932.3	912.4	901.3	896.0	892.5	884.9	882.6
17.5°	983.3	955.8	928.2	908.9	889.6	873.8	867.3	860.3	855.6	848.6	846.8
20°	945.2	921.2	896.6	875.5	855.0	837.5	832.2	827.5	822.8	819.9	817.6
22.5°	906.6	882.6	863.2	843.9	821.7	811.7	805.8	800.6	797.6	795.9	793.5
25°	870.9	849.8	826.9	809.4	791.8	784.2	780.7	777.7	775.4	772.5	771.9
27.5°	839.2	815.8	796.5	779.5	766.6	760.2	756.1	754.3	754.3	755.5	756.1
30°	802.9	781.8	766.6	752.6	740.8	735.0	734.4	734.4	736.7	737.3	738.5
32.5°	769.5	753.1	737.9	724.4	716.2	712.7	715.7	715.7	717.4	719.2	721.5
35°	737.3	722.1	710.4	698.7	691.1	692.8	694.0	695.2	698.1	701.6	703.9
37.5°	706.9	692.8	680.5	671.1	666.5	670.0	672.9	675.2	678.8	681.7	684.0
40°	673.5	663.5	651.8	643.6	644.8	646.6	648.9	651.8	654.8	656.5	658.8
42.5°	642.5	631.9	623.7	617.3	619.0	621.4	622.5	623.7	627.2	630.7	631.9
45°	610.8	602.6	594.4	590.3	591.5	592.7	593.8	595.6	598.5	600.9	601.5
47.5°	575.1	569.2	564.0	559.3	561.6	561.0	562.8	566.3	567.5	568.7	572.2
50°	541.1	535.9	529.4	528.3	528.3	528.3	528.8	533.5	533.5	535.9	538.2
52.5°	503.7	500.7	497.2	494.9	493.7	493.7	496.6	498.4	499.6	503.1	505.4
55°	466.8	463.2	459.7	458.0	456.8	458.0	462.7	463.8	466.8	468.5	470.3
57.5°	428.1	425.8	422.8	421.7	421.7	422.2	425.8	428.7	429.3	435.1	437.5
60°	390.0	385.9	383.6	383.6	382.4	387.7	386.5	392.4	393.6	397.1	401.2
62.5°	350.8	344.9	344.4	344.4	346.7	347.3	349.6	351.4	354.9	359.6	362.5
65°	308.0	305.1	309.2	308.6	307.5	311.0	311.0	313.9	317.4	321.5	328.0
67.5°	268.2	265.9	267.1	266.5	268.2	270.6	272.3	274.7	278.8	283.5	287.6
70°	227.8	229.6	226.6	229.0	230.7	231.3	232.5	236.0	240.7	243.6	248.3
72.5°	188.6	188.0	189.2	189.7	191.5	192.7	193.8	197.9	203.2	205.6	209.1
75°	151.1	150.5	152.3	152.3	155.2	156.4	157.5	159.3	164.0	167.5	170.4
77.5°	117.1	117.7	117.1	119.5	118.3	118.9	122.4	124.2	124.7	132.4	133.5
80°	83.2	84.3	84.9	85.5	86.1	84.9	89.0	90.8	90.8	94.9	97.8
82.5°	53.9	54.5	56.2	56.8	56.8	58.6	58.0	59.2	60.9	62.1	66.2
85°	29.9	31.6	32.2	31.6	32.2	31.0	32.8	33.4	34.0	34.0	34.0
87.5°	11.7	12.3	11.7	12.3	11.7	12.3	12.3	11.1	11.1	12.9	10.5
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: 4RCG-4-100D-L940-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1208.8	1208.8	1208.8	1208.8
2.5°	1142.6	1142.0	1146.1	1143.2
5°	1075.8	1077.6	1071.7	1071.7
7.5°	1015.5	1013.2	1013.8	1009.7
10°	961.0	957.5	956.4	956.9
12.5°	915.9	915.9	906.6	906.6
15°	882.6	871.4	870.3	873.8
17.5°	845.7	839.2	839.8	838.6
20°	817.6	814.0	813.5	809.4
22.5°	791.8	791.2	791.8	787.1
25°	771.3	774.2	771.9	771.9
27.5°	757.2	757.2	755.5	755.5
30°	740.8	740.3	741.4	741.4
32.5°	724.4	725.6	725.6	726.2
35°	707.5	708.0	709.8	708.6
37.5°	685.2	688.1	687.5	688.7
40°	659.4	661.2	660.6	660.6
42.5°	633.1	634.3	632.5	631.3
45°	603.8	602.6	604.4	602.0
47.5°	571.6	572.2	572.8	575.1
50°	539.4	542.9	542.9	542.3
52.5°	507.8	508.9	511.9	511.9
55°	475.0	476.1	477.3	477.9
57.5°	441.6	441.0	443.3	443.9
60°	405.9	405.9	410.5	412.3
62.5°	367.8	370.1	374.8	371.3
65°	330.9	335.6	335.0	337.3
67.5°	292.2	295.2	299.8	299.8
70°	253.0	255.9	258.3	260.0
72.5°	214.9	216.1	222.5	219.0
75°	174.5	178.6	182.1	180.4
77.5°	135.9	141.1	142.3	140.6
80°	101.9	101.3	104.8	104.2
82.5°	67.9	67.3	68.5	69.1
85°	36.3	38.1	35.7	35.1
87.5°	10.5	10.5	10.0	9.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)