

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: HALO

Report Number: P640224

Luminaire Tested: LCR830RD9FSE040-33W-4000K

Issue Date: 2/13/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P640224  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ( A2208047C001)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/13/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: LCR830RD9FSE040-33W-4000K  
Description: LCR 8  
Light Source: 4000K CCT, 93 CRI LEDS  
Ballast/Driver: -

**Summary**

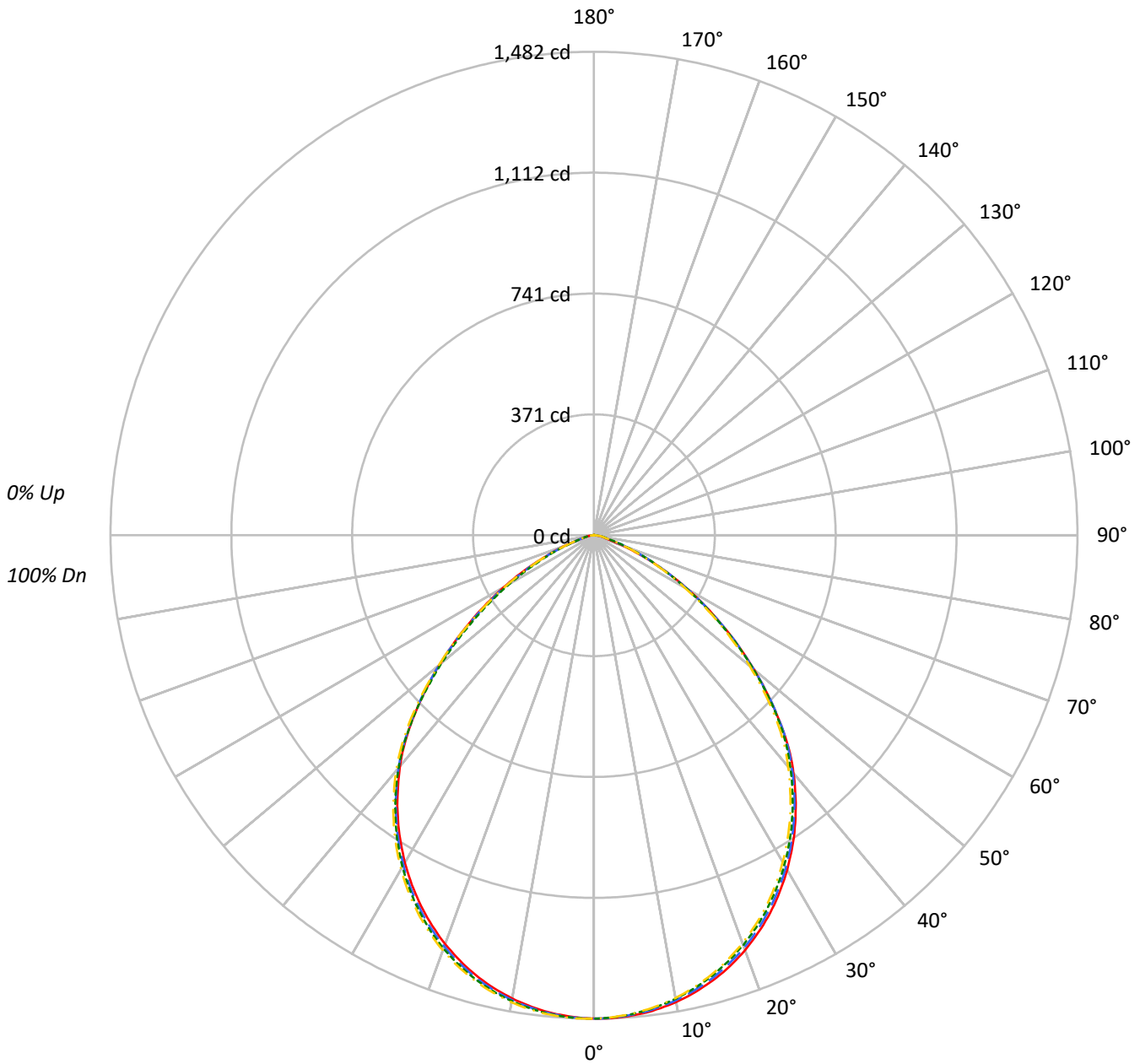
Lumens per Lamp: N/A  
Luminaire Lumens: 3065.0 lumens  
Efficiency: N/A  
Efficacy: 91.5 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.18 / 1.26  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

Input Watts (W): 33.5  
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: 24 FT



TEST NUMBER: P640224  
CATALOG NUMBER: LCR830RD9FSE040-33W-4000K

### Luminous Intensity Polar Plot



— 0°-180°    - - 45°-225°    - - - 90°-270°    - · - 135°-315°



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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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	90	85	100	94	89	84	91	86	82	87	84	81	84	82	79	77
3	95	86	79	73	93	84	78	73	81	76	71	79	74	70	76	72	69	67
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48	46
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	47	43	41
8	66	53	45	40	64	52	45	40	51	44	40	50	44	39	49	43	39	37
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34
10	58	45	38	33	57	45	38	33	44	37	33	43	37	33	42	37	33	31

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	45693	45693	45693	45693
5°	45682	45527	45515	45654
10°	45484	45171	45146	45402
15°	45067	44630	44572	44936
20°	44422	43920	43749	44238
25°	43466	42857	42659	43200
30°	42176	41549	41257	41792
35°	40490	39876	39470	39925
40°	38298	37750	37235	37517
45°	35066	34848	33910	33941
50°	30717	30578	29642	29230
55°	25859	25558	24854	23951
60°	20654	20241	19704	18465
65°	14856	14951	14031	12893
70°	8845	9927	8457	7700
75°	4730	5957	4682	4492
80°	3942	4866	3836	3747
85°	2866	4599	2760	2654

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 35136 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	139.8	4.6
10°-20°	395.4	12.9
20°-30°	581.9	19.0
30°-40°	662.0	21.6
40°-50°	606.3	19.8
50°-60°	417.3	13.6
60°-70°	196.9	6.4
70°-80°	51.9	1.7
80°-90°	11.0	0.4
90°-100°	0.1	0.0
100°-110°	0.2	0.0
110°-120°	0.3	0.0
120°-130°	0.4	0.0
130°-140°	0.4	0.0
140°-150°	0.4	0.0
150°-160°	0.3	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	1117.1	36.4
0°-40°	1779.1	58.0
0°-60°	2802.7	91.4
0°-90°	3062.6	99.9
90°-120°	0.6	0.0
90°-150°	1.7	0.1
90°-180°	2.0	0.1
0°-180°	3065.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1482	1482	1482	1482	1482	
5°	1476	1471	1470	1475	1476	140
15°	1412	1398	1396	1408	1412	398
25°	1278	1260	1254	1270	1278	588
35°	1076	1059	1048	1061	1076	671
45°	804	799	778	778	804	617
55°	481	475	462	446	481	431
65°	204	205	192	177	204	205
75°	40	50	39	38	40	49
85°	8	13	8	8	8	10
90°	0	1	0	0	0	0
95°	0	0	0	0	0	0
105°	0	0	0	0	0	0
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	1	0	1	0	1	0
145°	1	1	1	1	1	0
155°	1	1	1	1	1	0
165°	1	1	1	1	1	0
175°	1	1	1	1	1	0
180°	1	1	1	1	1	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1481.8	1481.8	1481.8	1481.8	1481.8	1481.8	1481.8	1481.8	1481.8	1481.8	1481.8
0.5°	1482.3	1481.8	1481.8	1481.5	1481.5	1481.5	1481.3	1481.3	1481.4	1481.4	1481.6
1°	1481.9	1481.7	1481.3	1481.0	1481.0	1481.0	1480.8	1480.8	1481.0	1481.0	1481.2
1.5°	1481.7	1481.6	1480.9	1480.5	1480.1	1480.0	1480.1	1480.0	1480.1	1480.5	1480.8
2°	1481.5	1481.1	1480.3	1479.8	1479.4	1479.2	1479.1	1478.9	1479.0	1479.4	1480.2
2.5°	1480.7	1480.4	1479.5	1478.9	1478.3	1478.1	1477.8	1477.8	1478.1	1478.3	1479.4
3°	1479.8	1479.6	1478.7	1477.8	1477.1	1476.8	1476.4	1476.3	1476.6	1477.6	1478.5
3.5°	1479.1	1478.9	1477.7	1476.4	1476.0	1475.4	1475.0	1474.8	1475.2	1476.5	1477.4
4°	1478.1	1477.6	1476.2	1475.0	1474.5	1473.8	1473.4	1473.5	1473.8	1474.9	1476.1
4.5°	1477.0	1476.2	1474.7	1473.3	1472.7	1471.8	1471.5	1471.9	1472.3	1473.7	1474.5
5°	1475.8	1474.6	1473.0	1471.5	1470.8	1470.0	1469.7	1469.8	1470.4	1471.5	1472.9
5.5°	1474.2	1472.9	1471.4	1469.3	1468.5	1467.9	1467.2	1467.5	1468.7	1469.5	1471.0
6°	1472.6	1471.2	1469.7	1467.4	1466.4	1465.7	1465.0	1465.1	1466.1	1467.4	1468.9
6.5°	1470.8	1469.1	1467.3	1465.2	1464.0	1463.2	1462.5	1462.5	1463.6	1465.1	1466.8
7°	1469.0	1467.1	1465.0	1462.9	1461.4	1460.5	1459.8	1460.1	1461.1	1462.6	1464.5
7.5°	1466.0	1464.8	1462.0	1460.3	1458.7	1457.8	1457.0	1457.0	1458.3	1459.8	1461.8
8°	1463.9	1462.2	1459.6	1457.6	1455.8	1454.7	1453.9	1453.9	1455.3	1457.0	1459.0
8.5°	1461.2	1459.6	1456.7	1454.7	1452.6	1451.6	1450.8	1450.9	1452.2	1453.9	1456.0
9°	1458.7	1456.7	1453.8	1451.4	1449.5	1448.2	1447.5	1447.7	1448.8	1450.7	1452.9
9.5°	1455.8	1453.8	1450.5	1448.1	1446.1	1444.6	1443.9	1444.2	1445.4	1447.3	1450.1
10°	1452.6	1450.7	1447.4	1444.6	1442.6	1441.0	1440.1	1440.4	1441.8	1443.8	1446.9
10.5°	1449.3	1447.3	1443.9	1441.0	1438.8	1436.8	1436.2	1436.6	1437.9	1440.1	1443.2
11°	1445.9	1443.8	1440.4	1437.3	1435.0	1432.8	1432.1	1432.9	1434.0	1436.3	1439.4
11.5°	1442.4	1439.9	1436.5	1433.4	1431.0	1428.6	1427.8	1428.7	1430.0	1432.3	1435.4
12°	1438.5	1436.1	1432.4	1428.7	1426.8	1424.1	1423.3	1424.4	1425.8	1428.1	1431.4
12.5°	1434.7	1432.0	1428.3	1424.6	1422.4	1419.9	1418.8	1419.9	1421.3	1423.7	1426.9
13°	1430.2	1427.9	1423.9	1420.1	1417.8	1415.1	1414.2	1415.1	1416.7	1419.2	1422.4
13.5°	1425.7	1423.6	1419.4	1415.6	1413.2	1410.3	1409.2	1410.1	1411.7	1414.3	1417.9
14°	1421.3	1418.9	1414.7	1410.7	1408.2	1405.5	1404.3	1405.0	1406.8	1409.2	1413.0
14.5°	1416.8	1414.3	1410.0	1405.6	1403.0	1400.5	1399.2	1399.7	1401.6	1404.2	1408.0
15°	1411.7	1409.2	1404.8	1400.3	1398.0	1395.0	1393.6	1394.5	1396.2	1399.0	1402.8
15.5°	1406.6	1404.1	1399.6	1394.9	1392.6	1389.8	1388.2	1388.7	1390.6	1393.5	1397.6
16°	1401.5	1398.8	1394.2	1389.6	1386.9	1384.2	1382.1	1383.2	1385.1	1388.0	1392.1
16.5°	1396.4	1393.4	1388.9	1383.8	1381.0	1378.2	1376.4	1377.4	1379.0	1382.2	1386.6
17°	1390.7	1387.7	1383.0	1377.9	1375.1	1372.4	1370.4	1371.0	1373.2	1376.3	1380.5
17.5°	1385.0	1381.7	1377.3	1372.1	1369.3	1366.1	1364.1	1364.8	1366.8	1370.0	1374.3
18°	1379.1	1375.7	1370.9	1365.9	1363.3	1359.8	1357.9	1358.5	1360.4	1363.7	1368.0
18.5°	1372.9	1369.2	1364.8	1359.5	1356.9	1353.1	1351.3	1351.8	1353.8	1357.2	1361.8
19°	1366.7	1363.0	1358.4	1352.8	1350.1	1346.5	1344.5	1344.9	1347.1	1350.6	1355.1
19.5°	1360.4	1356.6	1352.1	1346.5	1343.6	1339.8	1337.6	1337.9	1340.2	1344.0	1348.6
20°	1353.7	1350.2	1345.3	1339.6	1338.4	1332.8	1330.9	1331.1	1333.2	1337.1	1341.7
20.5°	1346.5	1343.5	1338.4	1332.8	1329.7	1326.0	1323.3	1324.0	1326.2	1329.7	1334.6
21°	1339.5	1336.3	1331.2	1325.8	1322.6	1318.8	1316.0	1316.7	1318.7	1322.6	1327.2
21.5°	1332.6	1329.3	1324.1	1318.4	1315.1	1311.1	1308.2	1309.1	1311.0	1315.1	1319.7
22°	1324.9	1321.9	1316.7	1311.2	1307.9	1303.5	1300.9	1301.6	1303.3	1307.6	1312.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	1317.4	1314.4	1309.4	1303.5	1300.4	1296.0	1293.3	1293.8	1295.5	1299.6	1304.4
23°	1310.1	1306.8	1301.5	1295.7	1292.6	1288.0	1285.5	1285.6	1287.7	1291.7	1296.5
23.5°	1302.1	1299.0	1293.5	1287.5	1284.6	1279.8	1277.3	1277.2	1279.3	1283.5	1288.3
24°	1293.9	1290.8	1285.3	1279.5	1276.3	1271.5	1268.9	1268.8	1270.8	1275.2	1280.0
24.5°	1286.0	1282.8	1277.2	1271.0	1268.3	1263.3	1260.7	1260.3	1262.4	1266.6	1271.7
25°	1277.5	1274.4	1268.8	1262.5	1259.6	1254.7	1251.5	1251.6	1253.8	1257.8	1262.8
25.5°	1268.8	1266.0	1260.1	1254.1	1251.0	1245.8	1243.1	1243.0	1244.9	1249.4	1254.5
26°	1260.2	1257.4	1251.3	1245.5	1242.3	1236.8	1234.1	1233.9	1235.9	1240.3	1245.8
26.5°	1251.3	1248.3	1242.7	1236.8	1233.5	1228.5	1224.9	1224.7	1226.6	1231.0	1236.4
27°	1241.9	1239.4	1233.6	1227.8	1224.2	1218.7	1215.4	1215.4	1217.5	1221.6	1227.1
27.5°	1232.8	1230.0	1224.3	1218.5	1215.5	1209.8	1206.6	1206.0	1208.0	1212.0	1217.8
28°	1223.4	1220.7	1214.5	1209.2	1205.9	1200.3	1196.5	1196.3	1198.4	1202.7	1208.0
28.5°	1213.9	1211.1	1205.4	1199.4	1196.9	1190.7	1187.0	1186.7	1188.5	1192.6	1198.2
29°	1204.4	1201.7	1196.0	1190.0	1186.9	1181.1	1177.1	1176.4	1178.8	1182.8	1188.3
29.5°	1194.4	1191.8	1185.9	1180.2	1177.1	1171.3	1167.1	1166.8	1168.8	1172.9	1178.3
30°	1184.5	1181.8	1176.2	1170.1	1166.9	1161.5	1156.9	1156.7	1158.7	1162.7	1167.9
30.5°	1174.3	1171.5	1165.7	1160.1	1156.8	1151.0	1146.8	1146.2	1148.1	1152.1	1157.3
31°	1163.7	1161.4	1155.6	1149.8	1146.5	1140.7	1136.2	1135.9	1137.6	1141.7	1147.0
31.5°	1153.2	1150.7	1145.3	1139.3	1136.3	1130.0	1125.3	1125.2	1126.9	1131.0	1136.3
32°	1142.8	1140.3	1134.8	1128.9	1125.6	1119.4	1114.4	1114.4	1116.2	1120.4	1125.5
32.5°	1131.7	1129.5	1123.7	1118.1	1115.1	1109.1	1104.4	1103.7	1105.3	1109.3	1114.5
33°	1121.0	1118.7	1113.1	1107.3	1104.4	1097.8	1093.4	1092.7	1094.3	1098.2	1103.0
33.5°	1110.2	1107.5	1101.9	1096.2	1093.3	1086.8	1082.2	1081.5	1082.9	1086.7	1091.6
34°	1098.9	1096.4	1091.2	1085.4	1082.2	1075.5	1071.1	1070.0	1071.6	1075.5	1080.2
34.5°	1087.1	1084.6	1079.4	1074.1	1070.8	1064.5	1059.7	1058.6	1060.0	1063.6	1068.6
35°	1075.6	1073.5	1068.2	1062.5	1059.3	1053.0	1048.1	1047.1	1048.5	1052.1	1057.2
35.5°	1063.6	1061.6	1056.7	1051.1	1047.9	1041.5	1036.8	1035.3	1036.9	1040.2	1045.2
36°	1051.9	1050.2	1045.0	1039.3	1036.0	1029.4	1024.7	1023.2	1025.0	1028.3	1033.1
36.5°	1039.9	1038.0	1032.9	1027.5	1024.3	1017.9	1012.7	1011.5	1012.9	1016.2	1021.0
37°	1027.7	1026.0	1021.3	1015.2	1012.0	1005.5	1000.6	999.3	1000.6	1003.8	1008.8
37.5°	1015.2	1013.6	1009.2	1003.1	1000.0	993.6	988.6	987.3	988.2	991.3	996.1
38°	1002.8	1001.2	996.5	990.9	987.5	981.2	976.0	975.2	975.7	979.0	983.4
38.5°	990.3	988.4	983.9	978.5	975.1	968.9	963.6	962.6	963.4	966.1	970.7
39°	977.6	975.9	972.0	966.2	963.0	956.2	951.2	949.8	950.7	953.5	958.1
39.5°	964.6	963.0	959.3	953.2	950.4	944.0	938.6	937.3	937.8	940.6	945.0
40°	951.4	950.4	946.4	940.5	937.8	931.0	925.6	924.4	925.0	928.0	932.1
40.5°	938.5	937.4	933.2	927.7	924.9	918.2	913.2	911.7	912.3	914.7	918.5
41°	925.5	924.6	920.4	914.6	912.0	905.2	900.2	898.7	899.1	901.1	904.9
41.5°	911.6	911.3	907.3	901.5	899.2	892.6	887.3	885.8	885.2	886.7	890.3
42°	897.5	897.8	894.3	888.5	886.3	879.5	874.3	871.9	870.6	872.0	875.9
42.5°	882.8	883.2	880.8	875.0	873.1	866.2	860.3	857.5	856.0	856.9	860.5
43°	867.5	868.6	865.9	860.9	859.0	852.3	846.0	842.5	840.7	841.7	845.3
43.5°	851.7	853.4	850.9	846.1	844.8	837.6	831.1	827.4	825.3	826.2	829.6
44°	836.1	837.5	835.6	830.6	829.5	822.6	815.9	811.6	809.5	810.8	814.0
44.5°	820.1	821.4	820.2	815.2	814.5	807.3	800.5	796.1	793.8	794.7	797.8

TEST NUMBER: P640224

CATALOG NUMBER: LCR830RD9FSE040-33W-4000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	804.1	805.7	804.3	799.5	799.1	791.9	784.8	780.6	777.6	778.7	781.9
45.5°	788.0	789.5	788.1	784.0	783.2	776.1	769.5	764.6	761.9	762.7	765.9
46°	771.8	773.2	772.0	767.6	768.0	760.3	753.4	748.4	745.9	746.6	749.8
46.5°	755.1	756.9	755.7	751.7	751.2	744.2	737.2	732.6	730.0	730.6	733.2
47°	738.8	740.6	739.3	734.9	735.2	728.0	721.0	716.8	713.5	714.3	716.8
47.5°	722.1	724.2	722.5	718.2	718.9	711.8	705.1	700.9	697.8	698.3	700.6
48°	706.0	707.8	706.0	701.7	702.9	695.6	688.6	685.0	682.1	682.3	684.3
48.5°	689.8	691.2	689.5	685.5	686.6	679.3	672.0	669.1	666.4	666.3	668.1
49°	673.3	674.8	672.7	668.6	670.2	663.1	655.5	653.2	650.7	650.3	651.8
49.5°	657.0	658.4	657.0	652.4	653.8	646.8	639.0	637.3	634.9	634.3	635.6
50°	640.3	641.9	639.9	635.6	637.4	630.6	624.0	620.6	617.9	617.5	618.7
50.5°	623.9	625.6	623.3	619.0	620.7	614.3	607.8	604.2	602.0	601.2	602.4
51°	607.8	609.0	607.1	602.5	604.4	597.5	591.6	588.1	586.1	585.2	585.6
51.5°	591.5	592.9	590.7	586.4	588.0	581.3	575.7	572.3	570.7	569.4	569.4
52°	575.4	576.9	574.8	569.8	572.0	565.2	559.4	556.6	554.4	553.5	553.4
52.5°	559.4	561.0	558.3	553.6	555.4	549.0	543.3	540.7	538.7	537.5	537.2
53°	543.6	544.8	542.2	537.5	539.2	532.8	527.6	524.8	523.3	521.7	520.8
53.5°	527.7	528.9	526.3	521.5	522.7	516.6	512.0	509.4	507.7	506.0	504.8
54°	511.7	513.0	510.0	505.4	506.7	500.9	496.3	494.0	492.2	490.6	489.2
54.5°	496.5	497.7	494.8	489.7	490.9	485.4	480.6	478.9	476.9	475.3	473.4
55°	481.0	482.1	479.1	473.9	475.4	470.1	465.5	463.9	462.3	459.9	458.0
55.5°	465.1	467.2	463.7	458.3	459.5	454.7	450.2	448.9	447.0	444.9	442.3
56°	450.8	451.9	448.6	443.2	444.2	439.4	435.5	433.9	432.2	429.8	427.1
56.5°	435.6	437.0	433.6	428.2	428.9	424.3	420.4	419.2	417.3	415.0	412.2
57°	420.6	421.9	418.4	412.9	413.9	409.4	405.8	404.7	403.2	400.1	397.2
57.5°	405.4	407.6	403.7	398.0	398.9	394.6	391.2	390.5	388.6	385.6	382.4
58°	391.7	392.9	389.2	383.6	384.5	380.3	377.2	376.6	374.5	371.4	367.7
58.5°	377.2	378.7	375.0	369.3	370.2	365.9	362.9	362.3	360.6	357.4	353.7
59°	362.9	364.3	360.8	354.6	355.9	352.1	349.2	348.5	347.1	343.4	339.3
59.5°	348.5	350.6	346.9	341.0	342.0	338.0	335.2	334.8	333.0	329.7	325.3
60°	334.9	336.7	333.1	327.5	328.2	324.3	321.8	321.5	319.5	315.9	311.3
60.5°	320.4	323.5	317.9	314.3	314.7	311.2	308.4	308.3	306.4	302.6	297.9
61°	307.3	310.4	305.1	301.1	301.4	298.0	295.4	295.0	293.6	289.5	284.2
61.5°	294.1	297.2	292.3	288.0	288.5	284.9	282.7	282.5	280.4	276.6	271.1
62°	281.0	284.0	279.5	274.8	275.9	272.5	270.2	269.9	268.1	263.7	258.4
62.5°	267.8	270.8	266.7	261.7	263.4	260.1	257.6	257.7	255.1	251.2	245.6
63°	254.9	257.7	254.4	248.9	250.9	247.7	245.6	245.3	242.1	238.7	232.8
63.5°	242.2	245.3	242.2	237.4	239.0	235.7	233.7	233.2	229.4	226.6	221.0
64°	229.0	233.3	230.3	225.8	227.4	224.2	222.2	221.9	217.0	214.7	208.9
64.5°	216.3	221.5	218.8	214.2	216.0	212.9	210.7	210.3	204.4	202.7	197.4
65°	203.6	209.6	207.5	203.1	204.9	201.9	199.9	199.2	192.3	191.0	186.1
65.5°	191.3	198.1	196.2	192.3	194.1	191.0	188.9	188.2	180.5	179.7	175.2
66°	178.8	186.6	185.3	181.4	183.3	180.4	178.4	176.9	169.2	168.4	164.2
66.5°	167.2	175.5	174.7	171.2	173.0	170.5	168.2	166.2	158.5	157.6	153.7
67°	156.0	164.4	164.4	161.2	163.2	160.6	158.4	155.8	148.3	147.1	143.9





TEST NUMBER: P640224

CATALOG NUMBER: LCR830RD9FSE040-33W-4000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	145.7	153.9	154.6	151.6	153.6	151.0	148.7	145.7	138.2	137.2	134.3
68°	135.5	143.7	144.9	142.3	144.0	141.6	139.3	135.8	128.5	127.5	124.7
68.5°	126.0	133.6	135.5	133.1	135.3	132.9	130.5	126.3	119.4	118.3	115.7
69°	116.5	124.2	126.5	124.6	126.5	124.2	121.8	117.4	110.5	109.5	107.1
69.5°	107.1	115.0	117.8	116.1	118.1	115.9	113.3	108.9	101.8	101.0	98.9
70°	98.1	106.4	109.6	108.1	110.1	108.1	105.4	100.8	93.8	93.0	91.0
70.5°	89.5	98.2	101.5	100.5	102.6	100.6	97.9	93.1	86.9	86.3	84.2
71°	81.4	90.1	93.8	93.2	95.2	93.2	90.7	86.7	80.0	79.6	77.5
71.5°	73.9	82.7	86.7	86.2	88.3	87.0	84.6	80.3	73.2	73.0	70.7
72°	66.8	75.8	79.9	79.6	82.2	80.9	78.4	73.9	66.3	66.3	64.0
72.5°	60.6	69.2	73.2	73.5	76.1	74.7	72.3	67.5	59.4	59.6	58.6
73°	54.8	63.2	67.3	67.6	70.0	68.6	66.1	61.1	53.8	54.5	53.5
73.5°	49.6	57.7	61.8	62.2	64.0	62.4	60.0	55.9	49.3	49.9	49.0
74°	45.9	52.9	56.7	57.3	58.9	57.6	55.2	51.3	45.8	45.8	45.0
74.5°	42.5	48.6	51.9	52.6	54.3	53.0	50.7	47.1	42.1	42.1	41.6
75°	39.7	44.8	47.7	48.5	50.0	48.8	46.6	43.4	39.3	39.0	38.9
75.5°	37.6	41.2	44.0	44.8	46.2	45.1	43.0	40.0	37.2	36.8	36.9
76°	35.7	38.2	40.7	41.5	42.8	41.8	39.9	37.3	35.2	34.8	35.0
76.5°	33.8	35.9	38.0	38.7	39.8	39.0	37.6	35.4	33.3	32.9	33.2
77°	32.1	34.0	36.2	36.8	37.6	37.0	35.7	33.5	31.6	31.1	31.4
77.5°	30.4	32.0	34.3	35.0	35.8	35.2	34.0	31.7	29.8	29.3	29.7
78°	28.7	30.4	32.6	33.3	34.0	33.5	32.2	30.0	28.1	27.7	28.1
78.5°	27.1	28.7	31.0	31.7	32.3	31.7	30.5	28.2	26.4	25.9	26.4
79°	25.4	27.0	29.4	30.1	30.7	30.1	28.9	26.5	24.8	24.3	24.8
79.5°	23.7	25.4	27.7	28.5	29.0	28.5	27.3	24.9	23.2	22.7	23.3
80°	22.2	23.8	26.1	26.9	27.4	26.9	25.6	23.3	21.6	21.2	21.7
80.5°	20.7	22.2	24.5	25.3	25.9	25.4	24.1	21.7	20.1	19.6	20.2
81°	19.2	20.7	22.9	23.8	24.4	23.8	22.5	20.2	18.6	18.1	18.7
81.5°	17.7	19.1	21.4	22.2	22.9	22.4	21.0	18.7	17.1	16.6	17.3
82°	16.2	17.7	19.9	20.8	21.4	20.9	19.5	17.2	15.6	15.1	15.9
82.5°	14.8	16.2	18.4	19.4	19.9	19.4	18.1	15.7	14.2	13.7	14.5
83°	13.4	14.8	17.0	17.9	18.5	18.0	16.6	14.3	12.9	12.3	13.1
83.5°	12.1	13.4	15.6	16.5	17.1	16.6	15.2	12.9	11.5	10.9	11.8
84°	10.7	12.0	14.3	15.1	15.7	15.2	13.8	11.5	10.1	9.6	10.5
84.5°	9.4	10.6	12.9	13.8	14.3	13.9	12.5	10.2	9.0	8.5	9.3
85°	8.1	9.3	11.6	12.5	13.0	12.5	11.2	9.1	7.8	7.4	8.1
85.5°	6.9	8.1	10.4	11.2	11.7	11.2	9.9	7.9	6.6	6.3	6.9
86°	5.9	7.1	9.1	9.9	10.4	9.9	8.8	6.8	5.4	5.2	5.7
86.5°	4.9	5.9	7.9	8.6	9.1	8.7	7.6	5.6	4.3	4.1	4.5
87°	4.0	5.0	6.8	7.3	7.9	7.5	6.4	4.5	3.4	3.2	3.3
87.5°	3.2	4.1	5.6	6.1	6.7	6.2	5.2	3.6	2.6	2.3	2.2
88°	2.4	3.2	4.5	4.9	5.4	5.0	4.0	2.7	1.8	1.4	1.1
88.5°	1.7	2.4	3.3	3.7	4.2	3.8	2.9	1.8	1.0	0.6	0.3
89°	1.0	1.7	2.5	2.8	3.0	2.6	1.9	1.0	0.3	0.2	0.1
89.5°	0.3	1.0	1.7	1.9	1.9	1.5	0.8	0.3	0.2	0.2	0.1



TEST NUMBER: P640224

CATALOG NUMBER: LCR830RD9FSE040-33W-4000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.1	0.2	0.9	1.0	0.8	0.5	0.2	0.2	0.1	0.2	0.1
90.5°	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1
91°	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1
91.5°	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1
92°	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1
92.5°	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1
93°	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1
93.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
94°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
94.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
95°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
95.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
96°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
96.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
97°	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
97.5°	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
98°	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
98.5°	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
99°	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
99.5°	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1
100°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1
100.5°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1
101°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1
101.5°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1
102°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1
102.5°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1
103°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1
103.5°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1
104°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1
104.5°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1
105°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1
105.5°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1
106°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.1
106.5°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.1
107°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2
107.5°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2
108°	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2
108.5°	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2
109°	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
109.5°	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
110°	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
110.5°	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
111°	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
111.5°	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
112°	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2



TEST NUMBER: P640224

CATALOG NUMBER: LCR830RD9FSE040-33W-4000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
113°	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
113.5°	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
114°	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
114.5°	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2
115°	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2
115.5°	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.2
116°	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.2
116.5°	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.2
117°	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3
117.5°	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3
118°	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
118.5°	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
119°	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
119.5°	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
120°	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
120.5°	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
121°	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3
121.5°	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.3	0.3
122°	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.3	0.3
122.5°	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.3	0.3
123°	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.3
123.5°	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.3
124°	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.3
124.5°	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.4
125°	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4
125.5°	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
126°	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
126.5°	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
127°	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
127.5°	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
128°	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
128.5°	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.4	0.4
129°	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.4	0.4
129.5°	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.5	0.4
130°	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.5	0.4
130.5°	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.5	0.5	0.5	0.4
131°	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.5	0.5	0.5	0.4
131.5°	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.5	0.5	0.5	0.4
132°	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.5
132.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
133°	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
133.5°	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
134°	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
134.5°	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5



TEST NUMBER: P640224

CATALOG NUMBER: LCR830RD9FSE040-33W-4000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
135°	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.5	0.5
135.5°	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.5	0.5
136°	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.5
136.5°	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.6	0.6	0.5
137°	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.6	0.6	0.5
137.5°	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.6	0.6	0.6	0.5
138°	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.6	0.6	0.6	0.5
138.5°	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.6	0.6	0.6	0.6
139°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
139.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
140°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
140.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
141°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
141.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
142°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
142.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
143°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.6
143.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.6
144°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.6
144.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7
145°	0.7	0.7	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7
145.5°	0.7	0.7	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7
146°	0.7	0.7	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7
146.5°	0.7	0.7	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7
147°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
147.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
148°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
148.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
149°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
149.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
150°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
150.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
151°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.7
151.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8
152°	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8
152.5°	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
153°	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
153.5°	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
154°	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
154.5°	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
155°	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
155.5°	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
156°	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
156.5°	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
157°	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8



TEST NUMBER: P640224

CATALOG NUMBER: LCR830RD9FSE040-33W-4000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
157.5°	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
158°	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
158.5°	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.9	0.9	0.8
159°	0.8	0.7	0.7	0.7	0.8	0.8	0.8	0.9	0.9	0.9	0.9
159.5°	0.8	0.7	0.7	0.7	0.8	0.8	0.8	0.9	0.9	0.9	0.9
160°	0.8	0.7	0.7	0.7	0.8	0.8	0.9	0.9	0.9	0.9	0.9
160.5°	0.8	0.7	0.7	0.7	0.8	0.8	0.9	0.9	0.9	0.9	0.9
161°	0.8	0.8	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9
161.5°	0.8	0.8	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9
162°	0.8	0.8	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9
162.5°	0.8	0.8	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9
163°	0.8	0.8	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9
163.5°	0.8	0.8	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9
164°	0.8	0.8	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9
164.5°	0.8	0.8	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9
165°	0.8	0.8	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9
165.5°	0.8	0.8	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9
166°	0.8	0.8	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9
166.5°	0.8	0.8	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9
167°	0.8	0.8	0.8	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9
167.5°	0.8	0.8	0.8	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9
168°	0.8	0.8	0.8	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9
168.5°	0.8	0.8	0.8	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9
169°	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
169.5°	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
170°	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
170.5°	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
171°	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
171.5°	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
172°	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
172.5°	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
173°	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
173.5°	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
174°	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
174.5°	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
175°	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
175.5°	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
176°	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
176.5°	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
177°	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
177.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
178°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
178.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
179°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
179.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9



TEST NUMBER: P640224  
CATALOG NUMBER: LCR830RD9FSE040-33W-4000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
180°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9

TEST NUMBER: P640224

CATALOG NUMBER: LCR830RD9FSE040-33W-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1481.8	1481.8	1481.8	1481.8	1481.8	1481.8
0.5°	1482.3	1481.8	1481.6	1482.0	1482.2	1482.3
1°	1481.9	1481.6	1481.8	1482.2	1482.4	1481.9
1.5°	1481.4	1480.9	1481.6	1482.2	1482.2	1481.7
2°	1481.0	1480.5	1481.3	1482.0	1481.9	1481.5
2.5°	1480.4	1480.3	1480.8	1481.5	1481.3	1480.7
3°	1479.7	1479.5	1480.0	1481.0	1480.8	1479.8
3.5°	1478.9	1478.5	1479.3	1479.9	1480.0	1479.1
4°	1477.4	1477.5	1478.7	1479.0	1479.1	1478.1
4.5°	1476.2	1476.2	1477.1	1477.8	1478.0	1477.0
5°	1474.5	1474.9	1475.7	1476.5	1476.6	1475.8
5.5°	1472.7	1473.1	1474.2	1475.0	1475.2	1474.2
6°	1470.7	1471.3	1472.5	1473.4	1473.4	1472.6
6.5°	1468.7	1468.9	1470.5	1471.6	1471.5	1470.8
7°	1466.5	1466.5	1468.3	1469.6	1469.5	1469.0
7.5°	1463.9	1464.5	1466.3	1467.4	1467.2	1466.0
8°	1461.2	1461.8	1463.8	1465.0	1465.0	1463.9
8.5°	1458.8	1459.4	1461.3	1462.4	1462.1	1461.2
9°	1455.7	1456.4	1458.3	1459.9	1459.4	1458.7
9.5°	1452.7	1453.2	1455.4	1456.9	1456.7	1455.8
10°	1449.3	1450.0	1452.2	1453.7	1453.6	1452.6
10.5°	1446.0	1446.8	1448.8	1450.0	1450.4	1449.3
11°	1442.6	1443.1	1445.4	1446.7	1447.1	1445.9
11.5°	1438.5	1439.5	1441.3	1443.0	1443.2	1442.4
12°	1434.5	1435.6	1437.4	1439.4	1439.5	1438.5
12.5°	1430.3	1431.3	1433.5	1435.3	1435.3	1434.7
13°	1425.8	1426.7	1429.4	1431.4	1431.3	1430.2
13.5°	1421.7	1422.3	1425.0	1426.9	1426.9	1425.7
14°	1417.1	1417.6	1420.4	1422.4	1422.3	1421.3
14.5°	1412.4	1412.8	1415.6	1417.7	1417.7	1416.8
15°	1407.0	1407.6	1410.5	1413.0	1413.0	1411.7
15.5°	1402.0	1402.8	1405.4	1407.6	1407.8	1406.6
16°	1396.6	1397.4	1400.4	1402.6	1402.8	1401.5
16.5°	1390.9	1391.9	1394.9	1396.9	1397.4	1396.4
17°	1385.3	1385.9	1389.1	1391.4	1391.8	1390.7
17.5°	1379.5	1380.1	1383.2	1385.5	1386.1	1385.0
18°	1373.2	1374.1	1377.2	1379.7	1380.2	1379.1
18.5°	1367.0	1367.7	1370.9	1373.5	1374.1	1372.9
19°	1360.4	1361.4	1364.5	1367.1	1367.6	1366.7
19.5°	1353.9	1354.8	1357.7	1360.5	1361.0	1360.4
20°	1347.2	1348.1	1351.0	1354.0	1354.7	1353.7
20.5°	1340.1	1341.0	1344.1	1347.1	1347.5	1346.5
21°	1332.9	1333.5	1337.0	1340.2	1340.6	1339.5
21.5°	1325.5	1326.3	1329.5	1332.6	1333.9	1332.6
22°	1317.8	1318.9	1321.9	1325.4	1325.9	1324.9

TEST NUMBER: P640224

CATALOG NUMBER: LCR830RD9FSE040-33W-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	1310.1	1311.0	1314.3	1318.0	1318.2	1317.4
23°	1302.4	1303.1	1306.5	1309.9	1310.8	1310.1
23.5°	1294.4	1294.8	1298.5	1302.2	1303.1	1302.1
24°	1286.2	1286.7	1290.4	1293.8	1294.9	1293.9
24.5°	1277.8	1278.1	1281.7	1285.6	1286.3	1286.0
25°	1269.1	1269.7	1273.3	1277.0	1278.1	1277.5
25.5°	1260.6	1260.7	1264.4	1268.3	1269.5	1268.8
26°	1251.5	1252.9	1255.5	1259.6	1260.9	1260.2
26.5°	1242.4	1242.6	1246.7	1250.4	1251.7	1251.3
27°	1233.2	1233.5	1237.1	1241.4	1242.9	1241.9
27.5°	1224.0	1223.6	1227.6	1232.0	1233.8	1232.8
28°	1214.2	1214.0	1217.7	1222.4	1224.0	1223.4
28.5°	1204.2	1204.2	1208.0	1212.4	1214.5	1213.9
29°	1194.3	1194.1	1198.4	1202.6	1204.4	1204.4
29.5°	1184.1	1183.9	1187.8	1192.5	1194.7	1194.4
30°	1174.0	1173.7	1177.7	1182.4	1184.3	1184.5
30.5°	1163.6	1163.3	1166.8	1172.0	1173.9	1174.3
31°	1153.1	1152.4	1156.3	1161.3	1163.9	1163.7
31.5°	1142.2	1141.5	1145.5	1150.6	1153.4	1153.2
32°	1131.3	1130.6	1134.0	1139.7	1142.5	1142.8
32.5°	1120.4	1119.6	1123.0	1128.7	1131.7	1131.7
33°	1109.2	1108.0	1111.9	1117.3	1120.6	1121.0
33.5°	1097.8	1096.5	1100.4	1106.0	1109.4	1110.2
34°	1086.1	1084.7	1088.6	1094.4	1097.9	1098.9
34.5°	1074.5	1072.8	1076.7	1082.8	1086.4	1087.1
35°	1062.6	1060.6	1064.8	1070.5	1074.6	1075.6
35.5°	1050.5	1048.6	1052.7	1058.7	1063.1	1063.6
36°	1038.5	1036.3	1039.9	1046.5	1050.7	1051.9
36.5°	1025.9	1023.8	1027.8	1034.2	1038.7	1039.9
37°	1013.4	1011.1	1015.2	1021.3	1026.2	1027.7
37.5°	1000.9	998.3	1002.3	1008.8	1013.6	1015.2
38°	988.1	985.2	988.6	995.9	1000.9	1002.8
38.5°	975.1	972.2	975.8	982.8	988.3	990.3
39°	962.1	959.3	962.8	969.9	975.5	977.6
39.5°	949.0	945.8	949.4	956.6	962.3	964.6
40°	936.0	932.0	935.8	943.2	949.1	951.4
40.5°	922.4	918.1	922.4	929.8	935.9	938.5
41°	908.3	903.9	907.7	916.0	922.7	925.5
41.5°	893.7	888.9	893.2	901.5	908.5	911.6
42°	878.8	873.9	878.0	886.7	893.9	897.5
42.5°	863.8	858.8	862.8	871.5	878.6	882.8
43°	848.5	843.1	846.7	856.0	863.2	867.5
43.5°	832.6	827.1	831.3	840.1	847.6	851.7
44°	816.7	810.6	814.1	824.0	831.5	836.1
44.5°	800.8	794.8	798.3	807.8	815.7	820.1



TEST NUMBER: P640224

CATALOG NUMBER: LCR830RD9FSE040-33W-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	784.7	778.3	781.6	791.4	799.4	804.1
45.5°	768.6	761.5	764.9	774.9	783.3	788.0
46°	751.8	744.9	747.9	758.3	766.9	771.8
46.5°	735.4	728.1	731.3	741.2	750.3	755.1
47°	719.2	710.9	714.0	724.5	733.9	738.8
47.5°	702.9	694.3	697.2	707.5	717.1	722.1
48°	686.2	677.0	680.2	690.8	700.6	706.0
48.5°	669.4	660.1	663.1	673.8	684.2	689.8
49°	652.7	642.9	646.3	656.5	667.7	673.3
49.5°	635.9	626.4	628.9	639.8	650.8	657.0
50°	619.4	609.3	611.7	622.7	634.3	640.3
50.5°	602.4	592.0	595.3	605.9	617.8	623.9
51°	585.8	575.2	578.5	588.9	601.4	607.8
51.5°	568.9	558.7	561.8	572.4	584.6	591.5
52°	552.8	542.0	544.8	556.1	568.6	575.4
52.5°	535.9	525.5	528.6	539.7	552.2	559.4
53°	519.6	509.0	512.3	523.3	536.0	543.6
53.5°	503.1	492.5	496.3	506.8	519.5	527.7
54°	487.3	476.6	479.5	490.6	503.9	511.7
54.5°	470.9	461.0	464.1	475.1	488.1	496.5
55°	455.3	445.5	448.6	459.4	472.4	481.0
55.5°	439.9	429.4	433.1	443.6	456.8	465.1
56°	423.9	414.2	417.6	428.3	441.7	450.8
56.5°	408.3	399.2	402.9	413.3	426.2	435.6
57°	393.2	384.0	387.6	398.3	411.5	420.6
57.5°	378.9	369.2	372.7	383.3	396.5	405.4
58°	363.5	354.9	358.7	369.1	382.0	391.7
58.5°	349.1	340.5	344.2	354.5	367.0	377.2
59°	334.7	326.5	330.5	340.1	353.3	362.9
59.5°	321.0	313.0	322.3	326.1	339.1	348.5
60°	306.6	299.4	307.5	312.7	325.4	334.9
60.5°	293.1	285.9	292.6	299.4	311.9	320.4
61°	279.8	272.3	277.8	286.0	298.4	307.3
61.5°	267.0	258.8	262.9	272.7	284.9	294.1
62°	253.8	246.6	250.3	259.4	271.4	281.0
62.5°	241.2	234.1	237.6	246.6	258.0	267.8
63°	228.7	222.0	225.8	234.6	245.5	254.9
63.5°	216.7	210.3	214.0	222.4	233.2	242.2
64°	204.9	198.8	202.6	210.7	221.1	229.0
64.5°	193.5	187.4	191.2	199.3	209.1	216.3
65°	182.3	176.7	180.4	188.1	197.8	203.6
65.5°	171.5	166.1	169.7	177.0	186.5	191.3
66°	161.0	155.6	159.3	166.4	175.3	178.8
66.5°	150.6	145.5	149.3	156.2	164.3	167.2
67°	140.8	136.0	139.4	146.2	153.3	156.0

TEST NUMBER: P640224

CATALOG NUMBER: LCR830RD9FSE040-33W-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	131.4	126.6	130.0	136.6	143.0	145.7
68°	122.2	117.7	121.1	127.2	133.0	135.5
68.5°	113.4	109.0	112.3	118.3	123.3	126.0
69°	104.8	100.8	103.9	109.6	114.3	116.5
69.5°	96.7	92.9	95.8	101.3	105.4	107.1
70°	89.2	85.4	88.3	93.5	97.2	98.1
70.5°	82.5	78.4	81.1	85.9	89.3	89.5
71°	75.9	71.8	74.5	78.9	81.6	81.4
71.5°	69.3	65.7	68.1	72.3	74.8	73.9
72°	62.7	60.1	62.3	66.1	68.2	66.8
72.5°	57.4	54.9	56.9	60.4	62.2	60.6
73°	52.5	50.2	51.9	55.1	56.7	54.8
73.5°	48.1	46.2	47.6	50.4	51.9	49.6
74°	44.4	42.7	43.9	46.1	47.4	45.9
74.5°	41.1	39.8	40.7	42.4	43.5	42.5
75°	38.7	37.7	38.2	39.3	39.9	39.7
75.5°	36.7	35.8	36.4	37.2	37.2	37.6
76°	34.9	34.0	34.5	35.3	35.1	35.7
76.5°	33.1	32.1	32.8	33.5	33.3	33.8
77°	31.3	30.5	31.1	31.8	31.6	32.1
77.5°	29.7	28.9	29.5	30.1	29.9	30.4
78°	28.0	27.3	27.9	28.5	28.1	28.7
78.5°	26.4	25.7	26.2	26.8	26.4	27.1
79°	24.8	24.1	24.6	25.1	24.7	25.4
79.5°	23.3	22.6	23.0	23.5	23.1	23.7
80°	21.8	21.1	21.5	22.0	21.5	22.2
80.5°	20.3	19.6	20.1	20.5	20.0	20.7
81°	18.8	18.2	18.6	19.0	18.5	19.2
81.5°	17.4	16.7	17.2	17.5	17.0	17.7
82°	16.0	15.3	15.8	16.1	15.6	16.2
82.5°	14.6	14.0	14.4	14.8	14.1	14.8
83°	13.2	12.6	13.0	13.4	12.7	13.4
83.5°	11.9	11.3	11.7	12.1	11.3	12.1
84°	10.6	10.0	10.4	10.8	10.0	10.7
84.5°	9.3	8.7	9.1	9.6	8.8	9.4
85°	8.1	7.5	7.9	8.3	7.6	8.1
85.5°	6.8	6.2	6.6	7.2	6.6	6.9
86°	5.6	5.0	5.4	6.0	5.5	5.9
86.5°	4.3	3.8	4.2	4.8	4.6	4.9
87°	3.2	2.9	3.0	3.7	3.7	4.0
87.5°	2.0	2.0	2.3	2.8	2.8	3.2
88°	0.9	1.1	1.6	1.9	2.0	2.4
88.5°	0.2	0.2	0.9	1.1	1.2	1.7
89°	0.1	0.1	0.1	0.2	0.4	1.0
89.5°	0.1	0.1	0.1	0.1	0.2	0.3



TEST NUMBER: P640224

CATALOG NUMBER: LCR830RD9FSE040-33W-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.1	0.1	0.1	0.1	0.2	0.1
90.5°	0.1	0.1	0.1	0.1	0.2	0.1
91°	0.1	0.1	0.1	0.1	0.2	0.1
91.5°	0.1	0.1	0.1	0.1	0.2	0.1
92°	0.1	0.1	0.1	0.1	0.2	0.1
92.5°	0.1	0.1	0.1	0.1	0.2	0.1
93°	0.1	0.1	0.1	0.1	0.1	0.1
93.5°	0.1	0.1	0.1	0.1	0.1	0.1
94°	0.1	0.1	0.1	0.1	0.1	0.1
94.5°	0.1	0.1	0.1	0.1	0.1	0.1
95°	0.1	0.1	0.1	0.1	0.1	0.1
95.5°	0.1	0.1	0.1	0.1	0.1	0.1
96°	0.1	0.1	0.1	0.1	0.1	0.1
96.5°	0.1	0.1	0.1	0.1	0.1	0.1
97°	0.1	0.1	0.1	0.1	0.1	0.2
97.5°	0.1	0.1	0.1	0.1	0.1	0.2
98°	0.1	0.2	0.1	0.1	0.1	0.2
98.5°	0.1	0.2	0.1	0.1	0.1	0.2
99°	0.1	0.2	0.2	0.1	0.2	0.2
99.5°	0.1	0.2	0.2	0.2	0.2	0.2
100°	0.1	0.2	0.2	0.2	0.2	0.2
100.5°	0.1	0.2	0.2	0.2	0.2	0.2
101°	0.1	0.2	0.2	0.2	0.2	0.2
101.5°	0.1	0.2	0.2	0.2	0.2	0.2
102°	0.1	0.2	0.2	0.2	0.2	0.2
102.5°	0.1	0.2	0.2	0.2	0.2	0.2
103°	0.1	0.2	0.2	0.2	0.2	0.2
103.5°	0.1	0.2	0.2	0.2	0.2	0.2
104°	0.1	0.2	0.2	0.2	0.2	0.2
104.5°	0.1	0.2	0.2	0.2	0.2	0.2
105°	0.1	0.2	0.2	0.2	0.2	0.2
105.5°	0.1	0.2	0.2	0.2	0.2	0.2
106°	0.1	0.2	0.2	0.2	0.2	0.2
106.5°	0.1	0.2	0.2	0.2	0.2	0.2
107°	0.1	0.2	0.2	0.2	0.2	0.2
107.5°	0.1	0.2	0.2	0.2	0.2	0.2
108°	0.2	0.2	0.2	0.2	0.2	0.2
108.5°	0.2	0.2	0.2	0.2	0.2	0.2
109°	0.2	0.2	0.2	0.2	0.2	0.3
109.5°	0.2	0.2	0.2	0.2	0.2	0.3
110°	0.2	0.2	0.2	0.2	0.2	0.3
110.5°	0.2	0.2	0.2	0.2	0.2	0.3
111°	0.2	0.2	0.2	0.2	0.3	0.3
111.5°	0.2	0.3	0.2	0.2	0.3	0.3
112°	0.2	0.3	0.3	0.3	0.3	0.3



TEST NUMBER: P640224

CATALOG NUMBER: LCR830RD9FSE040-33W-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	0.2	0.3	0.3	0.3	0.3	0.3
113°	0.2	0.3	0.3	0.3	0.3	0.3
113.5°	0.2	0.3	0.3	0.3	0.3	0.3
114°	0.2	0.3	0.3	0.3	0.3	0.3
114.5°	0.2	0.3	0.3	0.3	0.3	0.3
115°	0.2	0.3	0.3	0.3	0.3	0.3
115.5°	0.2	0.3	0.3	0.3	0.3	0.3
116°	0.2	0.3	0.3	0.3	0.3	0.3
116.5°	0.2	0.3	0.3	0.3	0.3	0.3
117°	0.2	0.3	0.3	0.3	0.3	0.3
117.5°	0.3	0.3	0.3	0.3	0.3	0.3
118°	0.3	0.3	0.3	0.3	0.3	0.4
118.5°	0.3	0.3	0.3	0.3	0.3	0.4
119°	0.3	0.3	0.3	0.3	0.3	0.4
119.5°	0.3	0.3	0.3	0.3	0.3	0.4
120°	0.3	0.3	0.3	0.3	0.4	0.4
120.5°	0.3	0.4	0.3	0.4	0.4	0.4
121°	0.3	0.4	0.4	0.4	0.4	0.4
121.5°	0.3	0.4	0.4	0.4	0.4	0.4
122°	0.3	0.4	0.4	0.4	0.4	0.4
122.5°	0.3	0.4	0.4	0.4	0.4	0.4
123°	0.3	0.4	0.4	0.4	0.4	0.4
123.5°	0.3	0.4	0.4	0.4	0.4	0.4
124°	0.3	0.4	0.4	0.4	0.4	0.4
124.5°	0.3	0.4	0.4	0.4	0.4	0.4
125°	0.4	0.4	0.4	0.4	0.4	0.4
125.5°	0.4	0.4	0.4	0.4	0.4	0.5
126°	0.4	0.4	0.4	0.4	0.4	0.5
126.5°	0.4	0.4	0.4	0.4	0.4	0.5
127°	0.4	0.4	0.4	0.4	0.4	0.5
127.5°	0.4	0.4	0.4	0.4	0.5	0.5
128°	0.4	0.5	0.4	0.4	0.5	0.5
128.5°	0.4	0.5	0.5	0.5	0.5	0.5
129°	0.4	0.5	0.5	0.5	0.5	0.5
129.5°	0.4	0.5	0.5	0.5	0.5	0.5
130°	0.4	0.5	0.5	0.5	0.5	0.5
130.5°	0.4	0.5	0.5	0.5	0.5	0.5
131°	0.4	0.5	0.5	0.5	0.5	0.5
131.5°	0.4	0.5	0.5	0.5	0.5	0.5
132°	0.5	0.5	0.5	0.5	0.5	0.5
132.5°	0.5	0.5	0.5	0.5	0.5	0.5
133°	0.5	0.5	0.5	0.5	0.5	0.6
133.5°	0.5	0.5	0.5	0.5	0.5	0.6
134°	0.5	0.5	0.5	0.5	0.5	0.6
134.5°	0.5	0.5	0.5	0.5	0.5	0.6



TEST NUMBER: P640224

CATALOG NUMBER: LCR830RD9FSE040-33W-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
135°	0.5	0.5	0.5	0.5	0.5	0.6
135.5°	0.5	0.5	0.5	0.5	0.6	0.6
136°	0.5	0.6	0.5	0.5	0.6	0.6
136.5°	0.5	0.6	0.6	0.6	0.6	0.6
137°	0.5	0.6	0.6	0.6	0.6	0.6
137.5°	0.5	0.6	0.6	0.6	0.6	0.6
138°	0.5	0.6	0.6	0.6	0.6	0.6
138.5°	0.6	0.6	0.6	0.6	0.6	0.6
139°	0.6	0.6	0.6	0.6	0.6	0.6
139.5°	0.6	0.6	0.6	0.6	0.6	0.6
140°	0.6	0.6	0.6	0.6	0.6	0.6
140.5°	0.6	0.6	0.6	0.6	0.6	0.6
141°	0.6	0.6	0.6	0.6	0.6	0.6
141.5°	0.6	0.6	0.6	0.6	0.6	0.6
142°	0.6	0.6	0.6	0.6	0.6	0.6
142.5°	0.6	0.6	0.6	0.6	0.6	0.6
143°	0.6	0.6	0.6	0.6	0.6	0.6
143.5°	0.6	0.6	0.6	0.6	0.6	0.6
144°	0.6	0.6	0.6	0.6	0.6	0.6
144.5°	0.6	0.6	0.6	0.6	0.6	0.6
145°	0.7	0.6	0.6	0.6	0.6	0.7
145.5°	0.7	0.6	0.6	0.6	0.6	0.7
146°	0.7	0.6	0.6	0.6	0.7	0.7
146.5°	0.7	0.6	0.6	0.7	0.7	0.7
147°	0.7	0.7	0.7	0.7	0.7	0.7
147.5°	0.7	0.7	0.7	0.7	0.7	0.7
148°	0.7	0.7	0.7	0.7	0.7	0.7
148.5°	0.7	0.7	0.7	0.7	0.7	0.7
149°	0.7	0.7	0.7	0.7	0.7	0.7
149.5°	0.7	0.7	0.7	0.7	0.7	0.7
150°	0.7	0.7	0.7	0.7	0.7	0.7
150.5°	0.7	0.7	0.7	0.7	0.7	0.7
151°	0.7	0.7	0.7	0.7	0.7	0.7
151.5°	0.7	0.7	0.7	0.7	0.7	0.7
152°	0.8	0.7	0.7	0.7	0.7	0.7
152.5°	0.8	0.7	0.7	0.7	0.7	0.7
153°	0.8	0.7	0.7	0.7	0.7	0.7
153.5°	0.8	0.7	0.7	0.7	0.7	0.7
154°	0.8	0.7	0.7	0.7	0.7	0.7
154.5°	0.8	0.7	0.7	0.7	0.7	0.7
155°	0.8	0.7	0.7	0.7	0.7	0.7
155.5°	0.8	0.7	0.7	0.7	0.7	0.7
156°	0.8	0.7	0.7	0.7	0.7	0.7
156.5°	0.8	0.7	0.7	0.7	0.7	0.7
157°	0.8	0.7	0.7	0.7	0.7	0.7



TEST NUMBER: P640224

CATALOG NUMBER: LCR830RD9FSE040-33W-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
157.5°	0.8	0.7	0.7	0.7	0.7	0.7
158°	0.8	0.7	0.7	0.7	0.7	0.7
158.5°	0.8	0.7	0.7	0.7	0.7	0.7
159°	0.8	0.7	0.7	0.7	0.7	0.8
159.5°	0.9	0.7	0.7	0.7	0.7	0.8
160°	0.9	0.7	0.7	0.7	0.7	0.8
160.5°	0.9	0.7	0.7	0.7	0.7	0.8
161°	0.9	0.7	0.7	0.7	0.7	0.8
161.5°	0.9	0.7	0.7	0.7	0.8	0.8
162°	0.9	0.7	0.7	0.7	0.8	0.8
162.5°	0.9	0.7	0.7	0.7	0.8	0.8
163°	0.9	0.7	0.7	0.7	0.8	0.8
163.5°	0.9	0.7	0.7	0.7	0.8	0.8
164°	0.9	0.7	0.7	0.7	0.8	0.8
164.5°	0.9	0.7	0.7	0.7	0.8	0.8
165°	0.9	0.7	0.7	0.7	0.8	0.8
165.5°	0.9	0.7	0.7	0.8	0.8	0.8
166°	0.9	0.7	0.7	0.8	0.8	0.8
166.5°	0.9	0.7	0.7	0.8	0.8	0.8
167°	0.9	0.7	0.7	0.8	0.8	0.8
167.5°	0.9	0.7	0.8	0.8	0.8	0.8
168°	0.9	0.7	0.8	0.8	0.8	0.8
168.5°	0.9	0.7	0.8	0.8	0.8	0.8
169°	0.9	0.7	0.8	0.8	0.8	0.8
169.5°	0.9	0.8	0.8	0.8	0.8	0.8
170°	0.9	0.8	0.8	0.8	0.8	0.8
170.5°	0.9	0.8	0.8	0.8	0.8	0.8
171°	0.9	0.8	0.8	0.8	0.8	0.8
171.5°	0.9	0.8	0.8	0.8	0.8	0.8
172°	0.9	0.8	0.8	0.8	0.8	0.8
172.5°	0.9	0.8	0.8	0.8	0.8	0.8
173°	0.9	0.8	0.8	0.8	0.8	0.8
173.5°	0.9	0.8	0.8	0.8	0.8	0.8
174°	0.9	0.8	0.8	0.8	0.8	0.8
174.5°	0.9	0.8	0.8	0.8	0.8	0.8
175°	0.9	0.8	0.8	0.8	0.8	0.8
175.5°	0.9	0.8	0.8	0.8	0.8	0.8
176°	0.9	0.8	0.8	0.8	0.8	0.8
176.5°	0.9	0.8	0.8	0.8	0.8	0.8
177°	0.9	0.9	0.9	0.9	0.9	0.8
177.5°	0.9	0.9	0.9	0.9	0.9	0.9
178°	0.9	0.9	0.9	0.9	0.9	0.9
178.5°	0.9	0.9	0.9	0.9	0.9	0.9
179°	0.9	0.9	0.9	0.9	0.9	0.9
179.5°	0.9	0.9	0.9	0.9	0.9	0.9



TEST NUMBER: P640224  
CATALOG NUMBER: LCR830RD9FSE040-33W-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
180°	0.9	0.9	0.9	0.9	0.9	0.9

(END OF REPORT)