

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: PORTFOLIO

Report Number: P244088

Luminaire Tested: **LSR8B20D010 EC8B20827 8LBSWOLI**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P244088
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1801-521-53)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LSR8B20D010 EC8B20827 8LBSW0LI
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 2700 CCT WITH SPECULAR CLEAR TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2175.0 lumens
Efficiency: N/A
Efficacy: 102.1 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 1.2 / 1.11
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

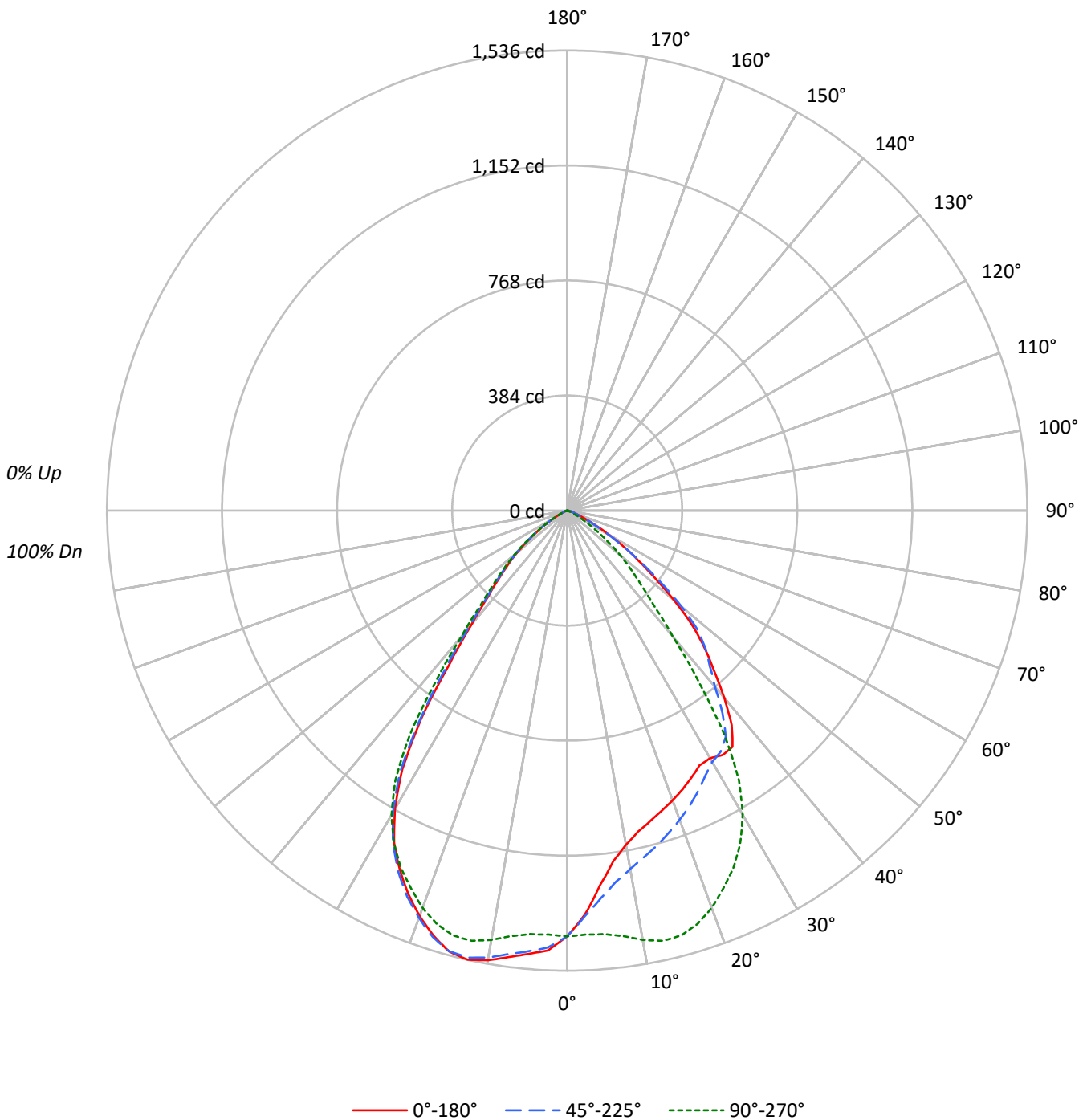
Input Watts (W): 21.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	112	109	106	104	110	107	104	102	103	101	99	99	97	96	96	94	93	91					91			
2	105	99	95	91	103	98	93	90	94	91	88	91	88	86	88	86	84	82					82			
3	99	91	85	80	96	89	84	79	87	82	78	84	80	77	82	78	76	74					74			
4	92	83	76	71	90	82	76	71	80	74	70	77	73	69	76	72	68	67					67			
5	86	76	69	64	84	75	69	64	73	68	63	72	66	63	70	65	62	60					60			
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55					55			
7	76	65	58	53	74	64	57	52	63	57	52	61	56	52	60	55	52	50					50			
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46					46			
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42					42			
10	63	52	45	41	62	52	45	41	51	45	41	50	44	40	49	44	40	39					39			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	43815	43815	43815
5°	38875	43924	45982
10°	35442	45556	47729
15°	34251	46887	48636
20°	33764	46309	47264
25°	33432	44711	44990
30°	33976	41728	40955
35°	36217	34531	32028
40°	32819	22107	20018
45°	28328	15124	14081
50°	22351	11034	10386
55°	15516	6785	6381
60°	9880	3429	3065
65°	4932	1364	1036
70°	2723	676	370
75°	1954	488	179
80°	1598	337	71
85°	1734	248	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.4	6.1
10°-20°	382.5	17.6
20°-30°	555.2	25.5
30°-40°	546.8	25.1
40°-50°	342.8	15.8
50°-60°	165.4	7.6
60°-70°	40.0	1.8
70°-80°	8.1	0.4
80°-90°	1.9	0.1
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°	1070.1	49.2
0°-40°	1616.9	74.3
0°-60°	2125.0	97.7
0°-90°	2175.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2175.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1421	1421	1421	1421	1421	
5°	1256	1298	1419	1476	1486	116
15°	1073	1157	1469	1522	1524	303
25°	983	1034	1314	1332	1322	455
35°	962	923	917	865	851	582
45°	650	654	347	332	323	497
55°	289	298	126	125	119	265
65°	68	67	19	16	14	77
75°	16	14	4	2	2	18
85°	5	4	1	0	0	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1420.9	1420.9	1420.9	1420.9	1420.9	1420.9	1420.9	1420.9	1420.9	1420.9	1420.9
2.5°	1350.7	1342.1	1326.1	1345.5	1345.5	1334.6	1356.3	1343.2	1353.7	1370.1	1355.6
5°	1255.9	1248.8	1235.3	1255.9	1258.5	1248.4	1274.5	1264.8	1280.1	1300.3	1298.4
7.5°	1180.8	1171.9	1159.6	1180.8	1184.9	1178.2	1203.2	1198.8	1218.9	1245.0	1249.5
10°	1131.9	1122.6	1111.8	1131.2	1134.2	1129.7	1155.1	1152.5	1172.2	1202.5	1214.4
12.5°	1097.2	1089.4	1077.4	1098.0	1101.3	1095.0	1118.9	1117.7	1138.3	1170.0	1184.9
15°	1072.9	1063.6	1052.8	1070.3	1074.8	1067.7	1090.5	1088.2	1109.2	1140.5	1157.3
17.5°	1050.2	1041.6	1030.4	1046.8	1051.3	1043.8	1066.2	1062.5	1080.4	1110.3	1127.4
20°	1028.9	1019.6	1009.5	1026.3	1028.9	1020.3	1042.7	1037.8	1053.9	1081.5	1098.3
22.5°	1006.9	997.2	986.7	1003.1	1005.7	997.2	1017.7	1012.1	1027.0	1052.0	1067.3
25°	982.6	973.6	963.2	978.5	980.7	971.4	993.1	986.0	999.0	1021.0	1033.7
27.5°	958.3	949.7	938.2	953.9	955.0	946.0	965.8	956.1	966.9	987.1	997.9
30°	954.2	944.5	932.6	945.3	945.6	934.1	952.7	941.2	947.1	962.1	968.4
32.5°	967.3	957.6	945.3	955.7	954.6	941.9	959.8	945.6	947.5	955.3	953.9
35°	962.1	950.5	935.9	947.1	947.1	931.8	949.7	932.9	931.1	932.2	922.9
37.5°	902.7	893.7	879.9	890.8	889.6	878.1	891.9	878.1	871.7	869.1	852.3
40°	815.3	804.5	794.1	805.6	806.8	794.4	812.4	796.7	794.8	787.3	767.6
42.5°	726.9	723.1	713.1	722.8	728.0	717.5	732.5	725.0	726.1	724.3	705.6
45°	649.6	643.2	635.8	647.0	650.3	645.1	660.0	655.6	660.0	669.4	654.1
47.5°	566.3	560.0	551.8	563.7	569.7	560.0	572.7	571.2	577.9	594.0	592.5
50°	465.9	461.4	459.9	461.4	465.2	460.7	469.6	470.0	474.5	496.5	498.0
52.5°	368.8	367.7	362.5	367.4	367.4	360.3	369.2	365.1	369.6	384.5	394.2
55°	288.6	287.5	284.1	288.6	283.7	281.1	283.7	279.6	276.3	287.8	297.9
57.5°	224.7	221.0	216.9	218.8	218.4	212.8	215.8	210.9	208.3	212.4	221.4
60°	160.2	159.0	155.3	157.2	158.7	154.6	157.5	155.3	150.8	154.2	154.6
62.5°	106.4	107.1	104.9	105.3	104.2	103.4	105.3	106.4	105.3	103.8	104.2
65°	67.6	67.2	66.8	67.2	67.9	66.5	67.6	68.3	67.2	67.2	66.8
67.5°	44.8	43.7	42.6	43.3	44.1	42.9	44.1	43.7	44.1	43.7	42.6
70°	30.2	29.9	29.5	29.9	29.9	29.1	29.9	29.5	29.9	29.5	28.4
72.5°	22.0	22.0	21.7	22.0	22.0	21.3	21.7	20.9	21.3	20.9	20.2
75°	16.4	16.4	16.1	16.4	16.1	15.7	16.1	15.7	14.9	14.9	14.2
77.5°	11.9	11.9	11.9	11.9	11.9	11.6	11.6	11.2	10.8	10.5	10.5
80°	9.0	8.6	8.6	8.6	8.6	8.2	8.6	8.2	7.8	7.5	7.1
82.5°	6.3	6.7	6.3	6.3	6.3	6.0	6.3	6.0	6.0	5.6	4.9
85°	4.9	4.9	4.9	4.9	4.9	4.5	4.5	4.5	4.1	4.1	3.7
87.5°	2.6	2.6	2.6	3.0	2.6	2.6	2.6	2.2	2.2	1.9	1.9
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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1420.9	1420.9	1420.9	1420.9	1420.9	1420.9	1420.9	1420.9	1420.9	1420.9	1420.9
2.5°	1375.0	1376.8	1372.7	1379.1	1403.7	1383.9	1392.1	1394.8	1413.4	1416.8	1414.5
5°	1322.7	1330.9	1336.1	1350.3	1377.6	1363.4	1378.0	1387.3	1411.2	1419.0	1420.9
7.5°	1281.6	1298.8	1311.5	1334.6	1366.8	1355.9	1378.0	1393.3	1422.4	1432.5	1437.3
10°	1251.0	1277.2	1299.2	1330.9	1367.1	1360.0	1388.8	1410.4	1442.9	1454.9	1460.8
12.5°	1227.9	1259.6	1289.1	1329.4	1368.6	1365.3	1400.0	1424.6	1459.0	1470.9	1478.0
15°	1202.5	1239.1	1273.4	1318.6	1360.8	1360.0	1397.4	1423.5	1458.6	1468.7	1475.4
17.5°	1172.2	1211.4	1249.2	1298.1	1339.9	1340.6	1378.3	1404.1	1438.4	1446.6	1451.1
20°	1141.6	1180.5	1218.2	1268.6	1309.6	1310.8	1347.7	1371.6	1404.5	1411.2	1412.3
22.5°	1109.2	1145.4	1183.1	1233.1	1272.7	1273.4	1310.0	1332.4	1360.4	1363.8	1366.8
25°	1072.2	1107.7	1143.1	1192.8	1230.5	1232.7	1266.0	1285.7	1311.5	1314.1	1315.2
27.5°	1033.7	1062.9	1096.8	1139.4	1177.5	1176.0	1207.3	1229.7	1252.9	1251.4	1251.0
30°	994.9	1019.2	1040.1	1081.2	1109.2	1110.3	1139.8	1150.6	1174.9	1171.9	1171.5
32.5°	967.7	974.0	979.6	1000.5	1027.0	1017.7	1037.8	1051.3	1068.1	1067.0	1067.3
35°	917.6	906.1	889.3	892.3	908.3	893.7	904.6	904.2	921.4	917.3	922.1
37.5°	832.1	799.3	762.0	740.7	743.7	725.4	721.6	730.6	736.6	725.0	729.1
40°	741.1	692.5	634.3	585.8	583.1	560.4	556.3	547.3	558.9	549.2	552.2
42.5°	673.9	609.6	533.1	474.1	461.4	442.4	431.2	429.7	433.1	426.3	424.5
45°	622.3	554.0	466.3	398.7	384.5	364.0	352.8	348.7	349.1	346.8	345.0
47.5°	561.9	493.2	404.3	335.2	319.2	299.8	288.6	286.0	287.5	284.5	282.2
50°	478.2	416.6	335.6	272.5	258.3	244.2	235.2	232.6	232.2	230.0	228.5
52.5°	388.3	337.1	266.9	214.3	201.6	187.8	181.4	178.1	178.5	176.2	174.0
55°	300.5	268.8	206.8	162.0	150.5	139.6	133.7	129.5	128.4	126.2	125.1
57.5°	223.6	202.3	154.9	116.9	110.1	99.7	93.7	88.9	88.1	87.0	86.6
60°	156.8	141.5	109.0	83.3	75.4	69.1	63.1	58.2	56.0	55.6	54.5
62.5°	101.5	92.2	71.7	55.6	49.7	45.2	39.2	35.8	34.3	32.9	33.2
65°	63.1	56.0	44.8	35.8	32.5	29.1	24.6	21.7	20.2	18.7	19.0
67.5°	39.2	35.1	28.4	23.1	20.9	18.3	14.9	12.7	11.6	10.5	9.7
70°	26.5	22.8	19.4	16.4	14.9	13.1	10.8	9.0	8.2	7.5	6.7
72.5°	18.7	16.8	14.2	12.3	11.2	9.7	8.2	7.1	6.3	5.6	4.9
75°	13.4	11.9	10.5	9.0	8.2	7.5	6.3	5.6	4.9	4.1	3.4
77.5°	9.7	8.6	7.5	6.7	6.3	5.2	4.5	4.1	3.7	3.0	2.2
80°	6.7	6.0	4.9	4.5	4.5	3.7	3.4	3.0	2.6	1.9	1.5
82.5°	4.5	4.1	3.7	3.4	3.0	2.6	2.6	1.9	1.5	1.1	0.7
85°	3.4	3.0	2.6	2.2	2.2	1.9	1.5	1.1	1.1	0.7	0.4
87.5°	1.9	1.9	1.5	1.1	1.1	0.7	0.7	0.4	0.4	0.4	0.4
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):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1420.9	1420.9	1420.9	1420.9	1420.9	1420.9	1420.9	1420.9	1420.9	1420.9	1420.9
2.5°	1433.6	1434.7	1441.0	1436.2	1448.5	1457.5	1453.0	1463.1	1459.7	1459.0	1470.5
5°	1443.3	1445.9	1454.5	1450.0	1463.4	1473.1	1468.7	1479.9	1476.5	1475.8	1487.7
7.5°	1461.9	1464.6	1472.0	1468.3	1482.5	1491.1	1485.5	1497.8	1493.3	1492.9	1504.5
10°	1485.5	1489.2	1495.5	1491.8	1504.9	1512.3	1506.7	1518.7	1514.6	1512.7	1525.4
12.5°	1503.0	1505.6	1512.0	1509.0	1521.7	1527.3	1522.4	1534.0	1528.8	1527.3	1538.5
15°	1498.9	1501.5	1506.7	1504.1	1516.1	1521.3	1515.0	1527.7	1522.4	1519.4	1529.5
17.5°	1472.8	1474.3	1478.0	1475.4	1488.1	1491.4	1484.3	1497.0	1492.2	1487.0	1496.7
20°	1434.3	1433.6	1435.8	1434.7	1445.1	1447.0	1442.5	1451.9	1446.3	1443.3	1448.9
22.5°	1386.5	1385.8	1387.3	1384.3	1394.8	1395.9	1389.2	1400.4	1394.8	1389.2	1398.5
25°	1333.5	1329.4	1328.7	1329.8	1336.9	1338.0	1330.9	1339.1	1332.0	1327.6	1336.5
27.5°	1268.2	1263.0	1261.8	1263.0	1270.1	1264.8	1258.9	1264.8	1257.7	1253.6	1259.2
30°	1187.6	1180.1	1176.7	1174.5	1182.0	1180.1	1166.3	1173.0	1161.8	1155.8	1159.9
32.5°	1078.9	1074.8	1065.8	1060.6	1067.7	1053.5	1044.9	1044.9	1040.5	1030.4	1032.6
35°	928.1	921.7	913.5	909.1	910.2	891.1	876.9	879.9	865.0	862.4	863.5
37.5°	737.3	726.9	723.9	714.5	716.8	700.0	680.6	680.9	673.1	664.9	662.3
40°	554.0	552.2	549.2	541.3	544.3	526.0	518.6	518.9	513.7	507.7	510.7
42.5°	428.2	422.2	420.4	417.8	418.5	415.5	405.8	406.9	402.4	401.0	399.5
45°	347.9	341.6	337.1	339.4	339.4	336.0	332.3	334.5	332.3	329.3	330.8
47.5°	286.7	280.7	278.5	278.1	280.7	278.5	274.8	275.5	275.1	274.0	273.3
50°	228.8	227.4	225.5	224.4	225.5	224.7	221.4	223.2	224.4	220.6	221.8
52.5°	174.3	174.3	174.0	171.4	173.6	171.4	171.0	171.7	170.6	169.1	168.7
55°	127.7	126.6	124.7	124.3	125.1	124.3	123.6	123.9	124.7	121.0	121.0
57.5°	87.4	86.6	85.5	85.5	87.0	85.1	84.0	85.5	84.0	82.5	82.5
60°	56.0	55.6	54.5	54.5	54.5	54.1	53.0	53.4	54.1	51.9	52.3
62.5°	33.6	32.5	32.1	31.7	32.1	31.7	31.7	31.4	31.0	31.0	29.9
65°	18.3	17.5	16.8	17.2	17.2	16.8	16.8	16.8	16.1	15.7	15.3
67.5°	9.3	8.6	8.6	8.2	8.2	8.2	8.2	7.8	7.8	7.8	7.5
70°	6.0	5.6	5.2	5.2	5.2	4.9	4.9	4.9	4.9	4.9	4.5
72.5°	4.1	3.7	3.4	3.4	3.4	3.0	3.0	3.0	3.0	2.6	2.6
75°	3.0	2.6	2.2	2.2	2.2	1.9	1.9	1.9	1.9	1.9	1.9
77.5°	1.9	1.5	1.5	1.5	1.5	1.1	1.1	1.1	1.1	1.1	0.7
80°	1.1	1.1	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.4
82.5°	0.7	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.0
85°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.0	0.0	0.0	0.0
87.5°	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P244088

CATALOG NUMBER: LSR8B20D010 EC8B20827 8LBSWOLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1420.9	1420.9	1420.9	1420.9	1420.9	1420.9	1420.9	1420.9
2.5°	1466.4	1463.4	1465.3	1479.1	1473.1	1471.3	1455.6	1469.4
5°	1484.0	1481.7	1481.7	1497.4	1490.3	1488.8	1473.5	1485.5
7.5°	1500.4	1498.2	1498.5	1514.6	1509.0	1506.7	1491.4	1503.4
10°	1521.7	1520.2	1520.6	1535.9	1529.9	1527.7	1512.0	1524.3
12.5°	1534.4	1532.1	1532.1	1548.6	1541.8	1538.5	1523.5	1535.5
15°	1524.7	1521.3	1521.3	1537.7	1530.3	1525.4	1512.3	1523.5
17.5°	1491.4	1488.1	1488.1	1502.3	1496.7	1489.6	1476.1	1486.6
20°	1445.1	1441.0	1439.9	1456.3	1448.5	1442.2	1430.2	1440.3
22.5°	1392.9	1391.0	1387.7	1404.1	1397.0	1390.3	1377.6	1385.4
25°	1330.2	1327.2	1323.8	1339.9	1332.8	1326.1	1316.0	1322.3
27.5°	1252.1	1252.5	1250.6	1263.3	1256.2	1252.5	1240.2	1250.6
30°	1157.7	1153.6	1152.1	1167.0	1160.3	1155.4	1140.1	1150.2
32.5°	1034.5	1028.5	1020.7	1037.5	1025.9	1021.8	1008.7	1023.3
35°	855.3	853.4	846.3	860.5	854.2	846.7	838.5	850.8
37.5°	661.2	662.7	661.9	665.6	661.9	657.1	648.1	643.6
40°	504.7	501.0	498.0	504.7	496.9	496.9	491.7	497.3
42.5°	395.7	394.2	398.0	399.5	395.0	394.2	393.5	393.1
45°	326.7	326.7	327.4	328.9	327.4	326.7	324.4	322.9
47.5°	269.2	270.7	269.2	274.0	271.4	270.7	266.2	268.0
50°	218.0	216.2	218.0	219.5	219.9	217.6	215.4	216.5
52.5°	169.1	166.1	165.4	167.6	166.1	166.1	164.6	164.3
55°	119.1	120.2	118.3	120.2	119.5	118.3	117.2	118.7
57.5°	80.6	81.0	80.3	81.4	79.5	79.9	79.5	79.1
60°	52.3	50.8	50.8	51.9	50.0	50.0	49.7	49.7
62.5°	29.9	29.5	29.5	29.1	28.7	28.7	28.7	28.0
65°	15.3	14.9	14.6	14.6	14.6	14.6	14.2	14.2
67.5°	7.5	7.1	7.1	7.5	7.1	7.1	7.1	7.1
70°	4.5	4.5	4.1	4.5	4.1	4.1	4.1	4.1
72.5°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
75°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
77.5°	1.1	0.7	0.7	0.7	0.7	0.7	0.7	0.7
80°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)