

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: P244142

Luminaire Tested: **LSR8B20D010 EC8B20950 8LBSWOLI**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P244142  
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 EC8B20950 8LBSW0LI  
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
90 CRI 5000 CCT WITH SPECULAR CLEAR TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2138.0 lumens  
Efficiency: N/A  
Efficacy: 100.4 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

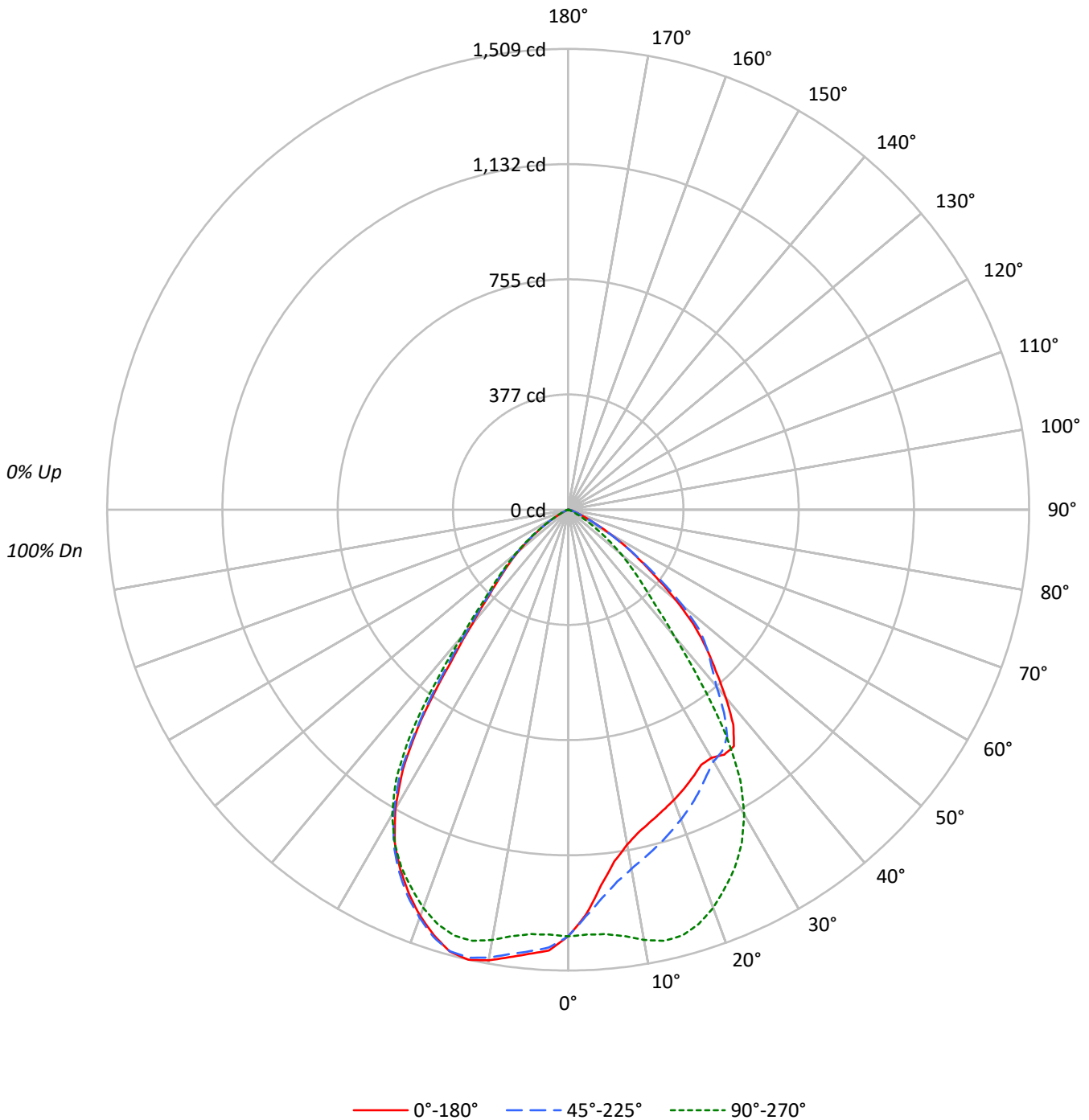
Input Watts (W): 21.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	109	106	104	110	107	104	102	103	101	99	99	97	96	96	94	93	91
2	105	99	95	91	103	98	93	90	94	91	88	91	88	86	88	86	84	82
3	99	91	85	80	96	89	84	79	87	82	78	84	80	77	82	78	76	74
4	92	83	76	71	90	82	76	71	80	74	70	77	73	69	76	72	68	67
5	86	76	69	64	84	75	69	64	73	68	63	72	66	63	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55
7	76	65	58	53	74	64	57	52	63	57	52	61	56	52	60	55	52	50
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42
10	63	52	45	41	62	52	45	41	51	45	41	50	44	40	49	44	40	39

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

	0°	90°	180°
0°	43069	43069	43069
5°	38213	43178	45199
10°	34841	44779	46918
15°	33670	46089	47810
20°	33189	45521	46460
25°	32864	43952	44225
30°	33399	41015	40261
35°	35600	33944	31482
40°	32264	21729	19676
45°	27844	14866	13842
50°	21972	10847	10209
55°	15252	6666	6274
60°	9707	3373	3010
65°	4845	1335	1014
70°	2678	658	361
75°	1918	477	179
80°	1563	320	71
85°	1698	248	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	130.2	6.1
10°-20°	376.0	17.6
20°-30°	545.7	25.5
30°-40°	537.5	25.1
40°-50°	336.9	15.8
50°-60°	162.6	7.6
60°-70°	39.3	1.8
70°-80°	7.9	0.4
80°-90°	1.8	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°	1051.9	49.2
0°-40°	1589.4	74.3
0°-60°	2088.9	97.7
0°-90°	2138.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2138.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1397	1397	1397	1397	1397	
5°	1234	1276	1395	1451	1460	114
15°	1055	1138	1444	1496	1498	298
25°	966	1016	1292	1309	1300	447
35°	946	907	902	850	836	572
45°	638	643	341	327	317	488
55°	284	293	124	123	117	261
65°	66	66	18	16	14	76
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°	1396.7	1396.7	1396.7	1396.7	1396.7	1396.7	1396.7	1396.7	1396.7	1396.7	1396.7
2.5°	1327.7	1319.3	1303.5	1322.6	1322.6	1311.9	1333.2	1320.4	1330.7	1346.8	1332.5
5°	1234.5	1227.5	1214.3	1234.5	1237.1	1227.2	1252.9	1243.3	1258.4	1278.2	1276.3
7.5°	1160.7	1151.9	1139.8	1160.7	1164.8	1158.2	1182.8	1178.4	1198.2	1223.9	1228.3
10°	1112.7	1103.5	1092.9	1111.9	1114.9	1110.5	1135.4	1132.9	1152.3	1182.0	1193.8
12.5°	1078.5	1070.8	1059.1	1079.3	1082.6	1076.3	1099.8	1098.7	1118.9	1150.1	1164.8
15°	1054.7	1045.5	1034.9	1052.1	1056.5	1049.6	1071.9	1069.7	1090.3	1121.1	1137.6
17.5°	1032.3	1023.9	1012.9	1029.0	1033.4	1026.1	1048.1	1044.4	1062.0	1091.4	1108.3
20°	1011.4	1002.2	992.3	1008.8	1011.4	1002.9	1025.0	1020.2	1036.0	1063.1	1079.6
22.5°	989.7	980.2	969.9	986.1	988.6	980.2	1000.4	994.9	1009.6	1034.1	1049.2
25°	965.9	957.1	946.8	961.8	964.0	954.9	976.2	969.2	982.0	1003.7	1016.2
27.5°	942.0	933.6	922.2	937.6	938.7	929.9	949.4	939.8	950.5	970.3	980.9
30°	938.0	928.5	916.7	929.2	929.6	918.2	936.5	925.1	931.0	945.7	951.9
32.5°	950.8	941.3	929.2	939.5	938.4	925.9	943.5	929.6	931.4	939.1	937.6
35°	945.7	934.3	920.0	931.0	931.0	916.0	933.6	917.1	915.2	916.3	907.2
37.5°	887.3	878.5	865.0	875.6	874.5	863.1	876.7	863.1	856.9	854.3	837.8
40°	801.5	790.8	780.6	791.9	793.0	780.9	798.5	783.1	781.3	774.0	754.5
42.5°	714.5	710.8	700.9	710.5	715.6	705.3	720.0	712.7	713.8	711.9	693.6
45°	638.5	632.3	625.0	636.0	639.3	634.1	648.8	644.4	648.8	658.0	642.9
47.5°	556.7	550.5	542.4	554.1	560.0	550.5	562.9	561.5	568.1	583.9	582.4
50°	458.0	453.6	452.1	453.6	457.3	452.8	461.7	462.0	466.4	488.1	489.5
52.5°	362.6	361.5	356.3	361.1	361.1	354.1	362.9	358.9	363.3	378.0	387.5
55°	283.7	282.6	279.3	283.7	278.9	276.3	278.9	274.9	271.6	282.9	292.8
57.5°	220.9	217.3	213.2	215.0	214.7	209.2	212.1	207.3	204.8	208.8	217.6
60°	157.4	156.3	152.7	154.5	156.0	151.9	154.9	152.7	148.3	151.6	151.9
62.5°	104.6	105.3	103.1	103.5	102.4	101.7	103.5	104.6	103.5	102.0	102.4
65°	66.4	66.1	65.7	66.1	66.8	65.3	66.4	67.2	66.1	66.1	65.7
67.5°	44.0	42.9	41.8	42.6	43.3	42.2	43.3	42.9	43.3	42.9	41.8
70°	29.7	29.4	29.0	29.4	29.4	28.6	29.4	29.0	29.4	29.0	27.9
72.5°	21.7	21.7	21.3	21.7	21.7	20.9	21.3	20.6	20.9	20.6	19.8
75°	16.1	16.1	15.8	16.1	15.8	15.4	15.8	15.4	14.7	14.7	13.9
77.5°	11.7	11.7	11.7	11.7	11.7	11.4	11.4	11.0	10.6	10.3	10.3
80°	8.8	8.4	8.4	8.4	8.4	8.1	8.4	8.1	7.7	7.3	7.0
82.5°	6.2	6.6	6.2	6.2	6.2	5.9	6.2	5.9	5.9	5.5	4.8
85°	4.8	4.8	4.8	4.8	4.8	4.4	4.4	4.4	4.0	4.0	3.7
87.5°	2.6	2.6	2.6	2.9	2.6	2.6	2.6	2.2	2.2	1.8	1.8
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):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1396.7	1396.7	1396.7	1396.7	1396.7	1396.7	1396.7	1396.7	1396.7	1396.7	1396.7
2.5°	1351.6	1353.4	1349.4	1355.6	1379.8	1360.4	1368.5	1371.0	1389.4	1392.7	1390.5
5°	1300.2	1308.3	1313.4	1327.4	1354.1	1340.2	1354.5	1363.7	1387.2	1394.9	1396.7
7.5°	1259.8	1276.7	1289.2	1311.9	1343.5	1332.9	1354.5	1369.6	1398.2	1408.1	1412.9
10°	1229.7	1255.4	1277.1	1308.3	1343.9	1336.9	1365.2	1386.4	1418.4	1430.1	1436.0
12.5°	1207.0	1238.2	1267.2	1306.8	1345.3	1342.0	1376.2	1400.4	1434.1	1445.9	1452.9
15°	1182.0	1218.0	1251.8	1296.2	1337.6	1336.9	1373.6	1399.3	1433.8	1443.7	1450.3
17.5°	1152.3	1190.8	1227.9	1276.0	1317.1	1317.8	1354.9	1380.2	1414.0	1422.0	1426.4
20°	1122.2	1160.4	1197.4	1247.0	1287.4	1288.5	1324.8	1348.3	1380.6	1387.2	1388.3
22.5°	1090.3	1125.9	1162.9	1212.1	1251.0	1251.8	1287.7	1309.7	1337.3	1340.6	1343.5
25°	1054.0	1088.8	1123.7	1172.5	1209.6	1211.8	1244.4	1263.9	1289.2	1291.8	1292.9
27.5°	1016.2	1044.8	1078.2	1120.0	1157.4	1156.0	1186.8	1208.8	1231.6	1230.1	1229.7
30°	978.0	1001.8	1022.4	1062.8	1090.3	1091.4	1120.4	1131.0	1154.9	1151.9	1151.6
32.5°	951.2	957.4	962.9	983.5	1009.6	1000.4	1020.2	1033.4	1049.9	1048.8	1049.2
35°	902.0	890.7	874.1	877.1	892.9	878.5	889.2	888.8	905.7	901.7	906.4
37.5°	818.0	785.7	749.0	728.1	731.0	713.0	709.4	718.2	724.0	712.7	716.7
40°	728.4	680.7	623.5	575.8	573.2	550.8	546.8	538.0	549.4	539.8	542.8
42.5°	662.4	599.3	524.0	466.1	453.6	434.9	423.9	422.4	425.7	419.1	417.3
45°	611.7	544.6	458.4	391.9	378.0	357.8	346.8	342.8	343.1	340.9	339.1
47.5°	552.3	484.8	397.4	329.5	313.8	294.7	283.7	281.1	282.6	279.6	277.4
50°	470.1	409.5	329.9	267.9	253.9	240.0	231.2	228.6	228.3	226.1	224.6
52.5°	381.7	331.4	262.4	210.6	198.2	184.6	178.4	175.0	175.4	173.2	171.0
55°	295.4	264.2	203.3	159.3	147.9	137.2	131.4	127.3	126.2	124.0	122.9
57.5°	219.8	198.9	152.3	114.9	108.3	98.0	92.1	87.3	86.6	85.5	85.1
60°	154.1	139.1	107.2	81.8	74.1	67.9	62.0	57.2	55.0	54.7	53.6
62.5°	99.8	90.6	70.5	54.7	48.8	44.4	38.5	35.2	33.8	32.3	32.7
65°	62.0	55.0	44.0	35.2	31.9	28.6	24.2	21.3	19.8	18.3	18.7
67.5°	38.5	34.5	27.9	22.8	20.6	18.0	14.7	12.5	11.4	10.3	9.5
70°	26.1	22.4	19.1	16.1	14.7	12.8	10.6	8.8	8.1	7.3	6.6
72.5°	18.3	16.5	13.9	12.1	11.0	9.5	8.1	7.0	6.2	5.5	4.8
75°	13.2	11.7	10.3	8.8	8.1	7.3	6.2	5.5	4.8	4.0	3.3
77.5°	9.5	8.4	7.3	6.6	6.2	5.1	4.4	4.0	3.7	2.9	2.2
80°	6.6	5.9	4.8	4.4	4.4	3.7	3.3	2.9	2.6	1.8	1.5
82.5°	4.4	4.0	3.7	3.3	2.9	2.6	2.6	1.8	1.5	1.1	0.7
85°	3.3	2.9	2.6	2.2	2.2	1.8	1.5	1.1	1.1	0.7	0.4
87.5°	1.8	1.8	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°	1396.7	1396.7	1396.7	1396.7	1396.7	1396.7	1396.7	1396.7	1396.7	1396.7	1396.7
2.5°	1409.2	1410.3	1416.5	1411.8	1423.9	1432.7	1428.3	1438.2	1434.9	1434.1	1445.5
5°	1418.7	1421.3	1429.7	1425.3	1438.5	1448.1	1443.7	1454.7	1451.4	1450.7	1462.4
7.5°	1437.1	1439.6	1447.0	1443.3	1457.3	1465.7	1460.2	1472.3	1467.9	1467.5	1478.9
10°	1460.2	1463.9	1470.1	1466.4	1479.3	1486.6	1481.1	1492.9	1488.8	1487.0	1499.5
12.5°	1477.4	1480.0	1486.3	1483.3	1495.8	1501.3	1496.5	1507.9	1502.8	1501.3	1512.3
15°	1473.4	1476.0	1481.1	1478.5	1490.3	1495.4	1489.2	1501.7	1496.5	1493.6	1503.5
17.5°	1447.7	1449.2	1452.9	1450.3	1462.8	1466.1	1459.1	1471.6	1466.8	1461.7	1471.2
20°	1409.9	1409.2	1411.4	1410.3	1420.6	1422.4	1418.0	1427.2	1421.7	1418.7	1424.2
22.5°	1363.0	1362.2	1363.7	1360.7	1371.0	1372.1	1365.5	1376.5	1371.0	1365.5	1374.7
25°	1310.8	1306.8	1306.1	1307.2	1314.1	1315.2	1308.3	1316.3	1309.4	1305.0	1313.8
27.5°	1246.6	1241.5	1240.4	1241.5	1248.5	1243.3	1237.4	1243.3	1236.3	1232.3	1237.8
30°	1167.4	1160.0	1156.7	1154.5	1161.8	1160.0	1146.4	1153.0	1142.0	1136.2	1140.2
32.5°	1060.6	1056.5	1047.7	1042.6	1049.6	1035.6	1027.2	1027.2	1022.8	1012.9	1015.1
35°	912.3	906.1	898.0	893.6	894.7	876.0	862.0	865.0	850.3	847.7	848.8
37.5°	724.8	714.5	711.6	702.4	704.6	688.1	669.0	669.4	661.7	653.6	651.0
40°	544.6	542.8	539.8	532.1	535.1	517.1	509.7	510.1	505.0	499.1	502.0
42.5°	420.9	415.1	413.2	410.6	411.4	408.4	398.9	400.0	395.6	394.1	392.7
45°	342.0	335.8	331.4	333.6	333.6	330.3	326.6	328.8	326.6	323.7	325.1
47.5°	281.8	276.0	273.8	273.4	276.0	273.8	270.1	270.8	270.5	269.4	268.6
50°	225.0	223.5	221.7	220.6	221.7	220.9	217.6	219.5	220.6	216.9	218.0
52.5°	171.4	171.4	171.0	168.4	170.6	168.4	168.1	168.8	167.7	166.2	165.9
55°	125.5	124.4	122.6	122.2	122.9	122.2	121.5	121.8	122.6	118.9	118.9
57.5°	85.9	85.1	84.0	84.0	85.5	83.7	82.6	84.0	82.6	81.1	81.1
60°	55.0	54.7	53.6	53.6	53.6	53.2	52.1	52.5	53.2	51.0	51.4
62.5°	33.0	31.9	31.6	31.2	31.6	31.2	31.2	30.8	30.5	30.5	29.4
65°	18.0	17.2	16.5	16.9	16.9	16.5	16.5	16.5	15.8	15.4	15.0
67.5°	9.2	8.4	8.4	8.1	8.1	8.1	8.1	7.7	7.7	7.7	7.3
70°	5.9	5.5	5.1	5.1	5.1	4.8	4.8	4.8	4.8	4.8	4.4
72.5°	4.0	3.7	3.3	3.3	3.3	2.9	2.9	2.9	2.9	2.6	2.6
75°	2.9	2.6	2.2	2.2	2.2	1.8	1.8	1.8	1.8	1.8	1.8
77.5°	1.8	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: P244142

CATALOG NUMBER: LSR8B20D010 EC8B20950 8LBSW0LI

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1396.7	1396.7	1396.7	1396.7	1396.7	1396.7	1396.7	1396.7
2.5°	1441.5	1438.5	1440.4	1454.0	1448.1	1446.3	1430.8	1444.4
5°	1458.7	1456.5	1456.5	1471.9	1465.0	1463.5	1448.5	1460.2
7.5°	1474.9	1472.7	1473.0	1488.8	1483.3	1481.1	1466.1	1477.8
10°	1495.8	1494.3	1494.7	1509.7	1503.9	1501.7	1486.3	1498.4
12.5°	1508.3	1506.1	1506.1	1522.2	1515.6	1512.3	1497.6	1509.4
15°	1498.7	1495.4	1495.4	1511.6	1504.2	1499.5	1486.6	1497.6
17.5°	1466.1	1462.8	1462.8	1476.7	1471.2	1464.2	1451.0	1461.3
20°	1420.6	1416.5	1415.4	1431.6	1423.9	1417.6	1405.9	1415.8
22.5°	1369.2	1367.4	1364.1	1380.2	1373.2	1366.6	1354.1	1361.8
25°	1307.5	1304.6	1301.3	1317.1	1310.1	1303.5	1293.6	1299.8
27.5°	1230.8	1231.2	1229.4	1241.8	1234.9	1231.2	1219.1	1229.4
30°	1138.0	1134.0	1132.5	1147.2	1140.6	1135.8	1120.7	1130.7
32.5°	1016.9	1011.0	1003.3	1019.8	1008.5	1004.4	991.6	1005.9
35°	840.7	838.9	831.9	845.9	839.6	832.3	824.2	836.3
37.5°	649.9	651.4	650.6	654.3	650.6	645.9	637.1	632.7
40°	496.2	492.5	489.5	496.2	488.4	488.4	483.3	488.8
42.5°	389.0	387.5	391.2	392.7	388.3	387.5	386.8	386.4
45°	321.1	321.1	321.8	323.3	321.8	321.1	318.9	317.4
47.5°	264.6	266.1	264.6	269.4	266.8	266.1	261.7	263.5
50°	214.3	212.5	214.3	215.8	216.1	213.9	211.7	212.8
52.5°	166.2	163.3	162.6	164.8	163.3	163.3	161.8	161.5
55°	117.1	118.2	116.3	118.2	117.4	116.3	115.2	116.7
57.5°	79.3	79.6	78.9	80.0	78.2	78.5	78.2	77.8
60°	51.4	49.9	49.9	51.0	49.2	49.2	48.8	48.8
62.5°	29.4	29.0	29.0	28.6	28.3	28.3	28.3	27.5
65°	15.0	14.7	14.3	14.3	14.3	14.3	13.9	13.9
67.5°	7.3	7.0	7.0	7.3	7.0	7.0	7.0	7.0
70°	4.4	4.4	4.0	4.4	4.0	4.0	4.0	4.0
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)