

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: P245396

Luminaire Tested: **LSR8B20D010 EC8B20835 8LBSW0WH**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P245396
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 EC8B20835 8LBSW0WH
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 3500 CCT WITH WHEAT TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2236.0 lumens
Efficiency: N/A
Efficacy: 105.0 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

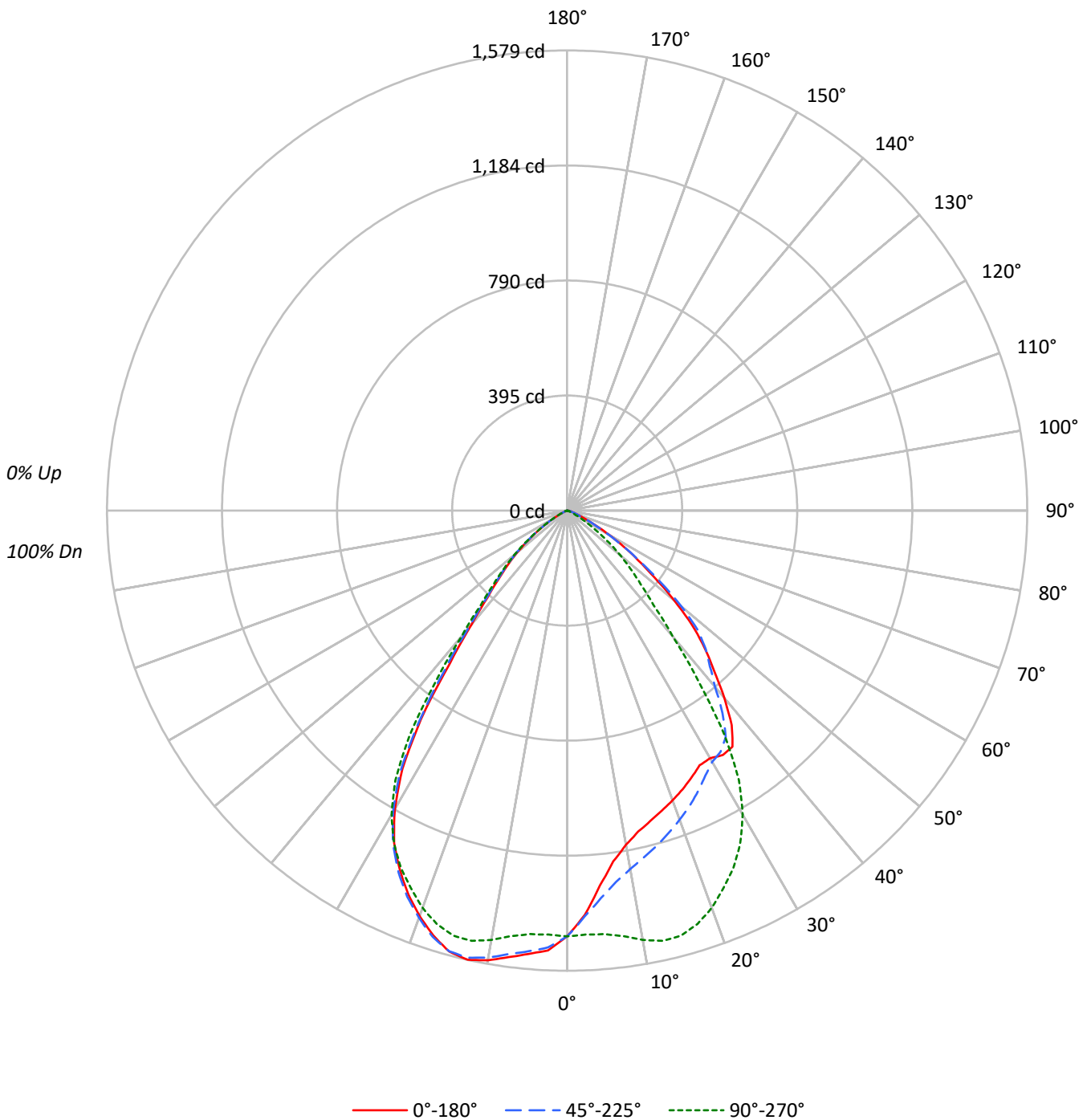
Input Watts (W): 21.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	45043	45043	45043
5°	39965	45156	47270
10°	36438	46833	49066
15°	35212	48202	50003
20°	34709	47608	48590
25°	34371	45967	46252
30°	34930	42895	42105
35°	37230	35498	32927
40°	33741	22727	20578
45°	29122	15547	14478
50°	22979	11341	10679
55°	15951	6973	6559
60°	10151	3528	3145
65°	5071	1401	1065
70°	2804	694	379
75°	2014	500	179
80°	1634	337	71
85°	1769	283	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.1	6.1
10°-20°	393.2	17.6
20°-30°	570.7	25.5
30°-40°	562.1	25.1
40°-50°	352.4	15.8
50°-60°	170.0	7.6
60°-70°	41.1	1.8
70°-80°	8.3	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°	1100.1	49.2
0°-40°	1662.2	74.3
0°-60°	2184.6	97.7
0°-90°	2236.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2236.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1461	1461	1461	1461	1461	
5°	1291	1335	1459	1518	1527	120
15°	1103	1190	1510	1565	1566	312
25°	1010	1063	1351	1369	1359	467
35°	989	949	943	889	875	598
45°	668	672	356	342	332	511
55°	297	306	130	128	122	273
65°	70	69	19	16	15	79
75°	17	15	4	2	2	19
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°	1460.7	1460.7	1460.7	1460.7	1460.7	1460.7	1460.7	1460.7	1460.7	1460.7	1460.7
2.5°	1388.6	1379.8	1363.2	1383.2	1383.2	1372.1	1394.3	1380.9	1391.6	1408.5	1393.6
5°	1291.1	1283.8	1270.0	1291.1	1293.8	1283.4	1310.3	1300.3	1316.0	1336.8	1334.8
7.5°	1214.0	1204.7	1192.1	1214.0	1218.2	1211.3	1237.0	1232.4	1253.1	1280.0	1284.6
10°	1163.7	1154.1	1142.9	1162.9	1166.0	1161.4	1187.5	1184.8	1205.1	1236.2	1248.5
12.5°	1128.0	1119.9	1107.6	1128.7	1132.2	1125.7	1150.2	1149.1	1170.2	1202.8	1218.2
15°	1103.0	1093.4	1082.3	1100.3	1105.0	1097.7	1121.1	1118.8	1140.3	1172.5	1189.8
17.5°	1079.6	1070.8	1059.3	1076.2	1080.8	1073.1	1096.1	1092.3	1110.7	1141.4	1159.1
20°	1057.7	1048.2	1037.8	1055.1	1057.7	1048.9	1071.9	1067.0	1083.5	1111.9	1129.1
22.5°	1035.1	1025.1	1014.4	1031.3	1034.0	1025.1	1046.2	1040.5	1055.8	1081.5	1097.3
25°	1010.2	1000.9	990.2	1005.9	1008.2	998.6	1020.9	1013.6	1027.0	1049.7	1062.7
27.5°	985.2	976.4	964.5	980.6	981.8	972.5	992.9	982.9	994.0	1014.8	1025.9
30°	981.0	971.0	958.7	971.8	972.2	960.3	979.5	967.6	973.7	989.0	995.6
32.5°	994.4	984.4	971.8	982.5	981.4	968.3	986.7	972.2	974.1	982.1	980.6
35°	989.0	977.1	962.2	973.7	973.7	958.0	976.4	959.1	957.2	958.3	948.7
37.5°	928.0	918.8	904.6	915.7	914.6	902.7	916.9	902.7	896.2	893.5	876.2
40°	838.2	827.1	816.3	828.2	829.4	816.7	835.1	819.0	817.1	809.4	789.1
42.5°	747.3	743.4	733.1	743.0	748.4	737.7	753.0	745.3	746.5	744.6	725.4
45°	667.8	661.3	653.6	665.1	668.6	663.2	678.6	673.9	678.6	688.1	672.4
47.5°	582.2	575.7	567.3	579.5	585.7	575.7	588.7	587.2	594.1	610.6	609.1
50°	479.0	474.4	472.8	474.4	478.2	473.6	482.8	483.2	487.8	510.5	512.0
52.5°	379.2	378.0	372.7	377.7	377.7	370.4	379.6	375.4	380.0	395.3	405.3
55°	296.7	295.5	292.1	296.7	291.7	289.0	291.7	287.5	284.0	295.9	306.3
57.5°	231.0	227.2	223.0	224.9	224.5	218.8	221.8	216.8	214.2	218.4	227.6
60°	164.6	163.5	159.7	161.6	163.1	158.9	162.0	159.7	155.1	158.5	158.9
62.5°	109.4	110.1	107.8	108.2	107.1	106.3	108.2	109.4	108.2	106.7	107.1
65°	69.5	69.1	68.7	69.1	69.9	68.3	69.5	70.2	69.1	69.1	68.7
67.5°	46.1	44.9	43.8	44.5	45.3	44.1	45.3	44.9	45.3	44.9	43.8
70°	31.1	30.7	30.3	30.7	30.7	29.9	30.7	30.3	30.7	30.3	29.2
72.5°	22.6	22.6	22.3	22.6	22.6	21.9	22.3	21.5	21.9	21.5	20.7
75°	16.9	16.9	16.5	16.9	16.5	16.1	16.5	16.1	15.4	15.4	14.6
77.5°	12.3	12.3	12.3	12.3	12.3	11.9	11.9	11.5	11.1	10.7	10.7
80°	9.2	8.8	8.8	8.8	8.8	8.4	8.8	8.4	8.1	7.7	7.3
82.5°	6.5	6.9	6.5	6.5	6.5	6.1	6.5	6.1	6.1	5.8	5.0
85°	5.0	5.0	5.0	5.0	5.0	4.6	4.6	4.6	4.2	4.2	3.8
87.5°	2.7	2.7	2.7	3.1	2.7	2.7	2.7	2.3	2.3	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°	1460.7	1460.7	1460.7	1460.7	1460.7	1460.7	1460.7	1460.7	1460.7	1460.7	1460.7
2.5°	1413.5	1415.4	1411.2	1417.7	1443.1	1422.7	1431.2	1433.9	1453.1	1456.5	1454.2
5°	1359.8	1368.2	1373.6	1388.2	1416.2	1401.6	1416.6	1426.2	1450.8	1458.8	1460.7
7.5°	1317.6	1335.2	1348.3	1372.1	1405.1	1394.0	1416.6	1432.3	1462.3	1472.6	1477.6
10°	1286.1	1313.0	1335.6	1368.2	1405.5	1398.2	1427.7	1450.0	1483.4	1495.7	1501.8
12.5°	1262.3	1294.9	1325.3	1366.7	1407.0	1403.5	1439.2	1464.6	1499.9	1512.2	1519.5
15°	1236.2	1273.8	1309.1	1355.6	1398.9	1398.2	1436.6	1463.4	1499.5	1509.9	1516.8
17.5°	1205.1	1245.4	1284.2	1334.5	1377.4	1378.2	1417.0	1443.5	1478.8	1487.2	1491.8
20°	1173.7	1213.6	1252.3	1304.1	1346.4	1347.5	1385.5	1410.1	1443.8	1450.8	1451.9
22.5°	1140.3	1177.5	1216.3	1267.7	1308.4	1309.1	1346.7	1369.8	1398.6	1402.0	1405.1
25°	1102.3	1138.7	1175.2	1226.2	1265.0	1267.3	1301.5	1321.8	1348.3	1351.0	1352.1
27.5°	1062.7	1092.7	1127.6	1171.4	1210.5	1209.0	1241.2	1264.2	1288.0	1286.5	1286.1
30°	1022.8	1047.8	1069.3	1111.5	1140.3	1141.4	1171.7	1182.9	1207.8	1204.7	1204.4
32.5°	994.8	1001.3	1007.1	1028.6	1055.8	1046.2	1067.0	1080.8	1098.0	1096.9	1097.3
35°	943.4	931.5	914.2	917.3	933.8	918.8	929.9	929.6	947.2	943.0	948.0
37.5°	855.5	821.7	783.3	761.5	764.5	745.7	741.9	751.1	757.2	745.3	749.6
40°	761.8	711.9	652.1	602.2	599.5	576.1	571.9	562.6	574.5	564.6	567.6
42.5°	692.8	626.7	548.1	487.4	474.4	454.8	443.3	441.8	445.2	438.3	436.4
45°	639.8	569.6	479.4	409.9	395.3	374.2	362.7	358.5	358.9	356.5	354.6
47.5°	577.6	507.0	415.7	344.7	328.1	308.2	296.7	294.0	295.5	292.5	290.2
50°	491.6	428.3	345.0	280.2	265.6	251.0	241.8	239.1	238.7	236.4	234.9
52.5°	399.1	346.6	274.4	220.3	207.3	193.1	186.5	183.1	183.5	181.2	178.8
55°	309.0	276.3	212.6	166.6	154.7	143.5	137.4	133.2	132.0	129.7	128.6
57.5°	229.9	208.0	159.3	120.1	113.2	102.5	96.3	91.3	90.6	89.4	89.0
60°	161.2	145.5	112.1	85.6	77.5	71.0	64.9	59.9	57.6	57.2	56.0
62.5°	104.4	94.8	73.7	57.2	51.0	46.4	40.3	36.8	35.3	33.8	34.2
65°	64.9	57.6	46.1	36.8	33.4	29.9	25.3	22.3	20.7	19.2	19.6
67.5°	40.3	36.1	29.2	23.8	21.5	18.8	15.4	13.0	11.9	10.7	10.0
70°	27.2	23.4	20.0	16.9	15.4	13.4	11.1	9.2	8.4	7.7	6.9
72.5°	19.2	17.3	14.6	12.7	11.5	10.0	8.4	7.3	6.5	5.8	5.0
75°	13.8	12.3	10.7	9.2	8.4	7.7	6.5	5.8	5.0	4.2	3.5
77.5°	10.0	8.8	7.7	6.9	6.5	5.4	4.6	4.2	3.8	3.1	2.3
80°	6.9	6.1	5.0	4.6	4.6	3.8	3.5	3.1	2.7	1.9	1.5
82.5°	4.6	4.2	3.8	3.5	3.1	2.7	2.7	1.9	1.5	1.2	0.8
85°	3.5	3.1	2.7	2.3	2.3	1.9	1.5	1.2	1.2	0.8	0.4
87.5°	1.9	1.9	1.5	1.2	1.2	0.8	0.8	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°	1460.7	1460.7	1460.7	1460.7	1460.7	1460.7	1460.7	1460.7	1460.7	1460.7	1460.7
2.5°	1473.8	1474.9	1481.5	1476.5	1489.1	1498.3	1493.7	1504.1	1500.6	1499.9	1511.8
5°	1483.8	1486.4	1495.3	1490.7	1504.5	1514.5	1509.9	1521.4	1517.9	1517.2	1529.4
7.5°	1503.0	1505.6	1513.3	1509.5	1524.1	1532.9	1527.1	1539.8	1535.2	1534.8	1546.7
10°	1527.1	1531.0	1537.5	1533.7	1547.1	1554.8	1549.0	1561.3	1557.1	1555.1	1568.2
12.5°	1545.2	1547.9	1554.4	1551.3	1564.4	1570.1	1565.1	1577.0	1571.7	1570.1	1581.6
15°	1540.9	1543.6	1549.0	1546.3	1558.6	1564.0	1557.5	1570.5	1565.1	1562.1	1572.4
17.5°	1514.1	1515.6	1519.5	1516.8	1529.8	1533.3	1526.0	1539.0	1534.0	1528.7	1538.6
20°	1474.6	1473.8	1476.1	1474.9	1485.7	1487.6	1483.0	1492.6	1486.8	1483.8	1489.5
22.5°	1425.4	1424.7	1426.2	1423.1	1433.9	1435.0	1428.1	1439.6	1433.9	1428.1	1437.7
25°	1370.9	1366.7	1365.9	1367.1	1374.4	1375.5	1368.2	1376.7	1369.4	1364.8	1374.0
27.5°	1303.8	1298.4	1297.2	1298.4	1305.7	1300.3	1294.2	1300.3	1293.0	1288.8	1294.5
30°	1220.9	1213.2	1209.7	1207.4	1215.1	1213.2	1199.0	1205.9	1194.4	1188.2	1192.5
32.5°	1109.2	1105.0	1095.7	1090.4	1097.7	1083.1	1074.2	1074.2	1069.6	1059.3	1061.6
35°	954.1	947.6	939.2	934.5	935.7	916.1	901.5	904.6	889.3	886.6	887.7
37.5°	758.0	747.3	744.2	734.6	736.9	719.6	699.7	700.0	692.0	683.5	680.9
40°	569.6	567.6	564.6	556.5	559.6	540.8	533.1	533.5	528.1	522.0	525.0
42.5°	440.2	434.1	432.2	429.5	430.2	427.2	417.2	418.3	413.7	412.2	410.7
45°	357.7	351.2	346.6	348.9	348.9	345.4	341.6	343.9	341.6	338.5	340.0
47.5°	294.8	288.6	286.3	285.9	288.6	286.3	282.5	283.2	282.9	281.7	280.9
50°	235.3	233.7	231.8	230.7	231.8	231.0	227.6	229.5	230.7	226.8	228.0
52.5°	179.2	179.2	178.8	176.2	178.5	176.2	175.8	176.5	175.4	173.9	173.5
55°	131.3	130.1	128.2	127.8	128.6	127.8	127.0	127.4	128.2	124.4	124.4
57.5°	89.8	89.0	87.9	87.9	89.4	87.5	86.4	87.9	86.4	84.8	84.8
60°	57.6	57.2	56.0	56.0	56.0	55.7	54.5	54.9	55.7	53.3	53.7
62.5°	34.5	33.4	33.0	32.6	33.0	32.6	32.6	32.2	31.9	31.9	30.7
65°	18.8	18.0	17.3	17.7	17.7	17.3	17.3	17.3	16.5	16.1	15.7
67.5°	9.6	8.8	8.8	8.4	8.4	8.4	8.4	8.1	8.1	8.1	7.7
70°	6.1	5.8	5.4	5.4	5.4	5.0	5.0	5.0	5.0	5.0	4.6
72.5°	4.2	3.8	3.5	3.5	3.5	3.1	3.1	3.1	3.1	2.7	2.7
75°	3.1	2.7	2.3	2.3	2.3	1.9	1.9	1.9	1.9	1.9	1.9
77.5°	1.9	1.5	1.5	1.5	1.5	1.2	1.2	1.2	1.2	1.2	0.8
80°	1.2	1.2	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.4	0.4
82.5°	0.8	0.8	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: P245396

CATALOG NUMBER: LSR8B20D010 EC8B20835 8LBSW0WH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1460.7	1460.7	1460.7	1460.7	1460.7	1460.7	1460.7	1460.7
2.5°	1507.6	1504.5	1506.4	1520.6	1514.5	1512.5	1496.4	1510.6
5°	1525.6	1523.3	1523.3	1539.4	1532.1	1530.6	1514.8	1527.1
7.5°	1542.5	1540.2	1540.6	1557.1	1551.3	1549.0	1533.3	1545.6
10°	1564.4	1562.8	1563.2	1578.9	1572.8	1570.5	1554.4	1567.0
12.5°	1577.4	1575.1	1575.1	1592.0	1585.1	1581.6	1566.3	1578.6
15°	1567.4	1564.0	1564.0	1580.9	1573.2	1568.2	1554.8	1566.3
17.5°	1533.3	1529.8	1529.8	1544.4	1538.6	1531.4	1517.5	1528.3
20°	1485.7	1481.5	1480.3	1497.2	1489.1	1482.6	1470.3	1480.7
22.5°	1431.9	1430.0	1426.6	1443.5	1436.2	1429.3	1416.2	1424.3
25°	1367.5	1364.4	1360.9	1377.4	1370.2	1363.2	1352.9	1359.4
27.5°	1287.3	1287.6	1285.7	1298.8	1291.5	1287.6	1275.0	1285.7
30°	1190.2	1185.9	1184.4	1199.8	1192.8	1187.9	1172.1	1182.5
32.5°	1063.5	1057.4	1049.3	1066.6	1054.7	1050.5	1037.0	1052.0
35°	879.3	877.4	870.1	884.7	878.1	870.5	862.0	874.7
37.5°	679.7	681.2	680.5	684.3	680.5	675.5	666.3	661.7
40°	518.9	515.1	512.0	518.9	510.8	510.8	505.5	511.2
42.5°	406.8	405.3	409.1	410.7	406.1	405.3	404.5	404.1
45°	335.8	335.8	336.6	338.1	336.6	335.8	333.5	332.0
47.5°	276.7	278.3	276.7	281.7	279.0	278.3	273.6	275.6
50°	224.1	222.2	224.1	225.7	226.1	223.8	221.5	222.6
52.5°	173.9	170.8	170.0	172.3	170.8	170.8	169.3	168.9
55°	122.4	123.6	121.7	123.6	122.8	121.7	120.5	122.0
57.5°	82.9	83.3	82.5	83.7	81.7	82.1	81.7	81.4
60°	53.7	52.2	52.2	53.3	51.4	51.4	51.0	51.0
62.5°	30.7	30.3	30.3	29.9	29.6	29.6	29.6	28.8
65°	15.7	15.4	15.0	15.0	15.0	15.0	14.6	14.6
67.5°	7.7	7.3	7.3	7.7	7.3	7.3	7.3	7.3
70°	4.6	4.6	4.2	4.6	4.2	4.2	4.2	4.2
72.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
75°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
77.5°	1.2	0.8	0.8	0.8	0.8	0.8	0.8	0.8
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)