

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: P244112

Luminaire Tested: **LSR8B20D010 EC8B20850 8LBSWOLI**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P244112
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 EC8B20850 8LBSW0LI
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 5000 CCT WITH SPECULAR CLEAR TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2349.0 lumens
Efficiency: N/A
Efficacy: 110.3 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

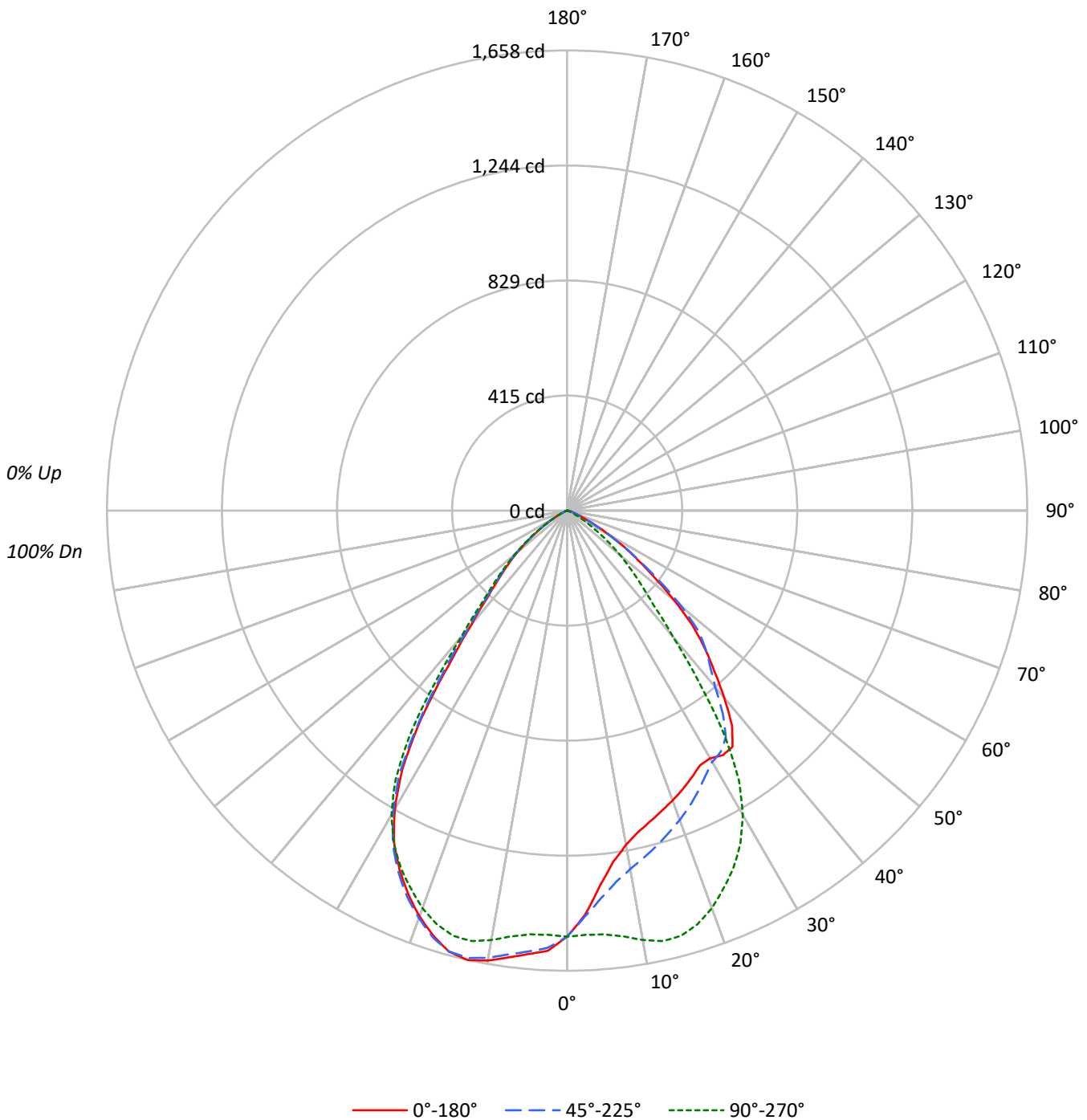
Input Watts (W): 21.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	47321	47321	47321
5°	41983	47437	49660
10°	38279	49197	51546
15°	36994	50638	52528
20°	36464	50014	51044
25°	36106	48287	48590
30°	36696	45064	44231
35°	39112	37290	34591
40°	35448	23875	21620
45°	30596	16336	15211
50°	24140	11916	11221
55°	16757	7328	6892
60°	10669	3707	3306
65°	5326	1474	1116
70°	2948	730	397
75°	2109	524	191
80°	1723	355	71
85°	1840	283	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.0	6.1
10°-20°	413.1	17.6
20°-30°	599.6	25.5
30°-40°	590.5	25.1
40°-50°	370.2	15.8
50°-60°	178.6	7.6
60°-70°	43.2	1.8
70°-80°	8.7	0.4
80°-90°	2.0	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°	1155.7	49.2
0°-40°	1746.2	74.3
0°-60°	2295.0	97.7
0°-90°	2349.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2349.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1535	1535	1535	1535	1535	
5°	1356	1402	1532	1595	1604	126
15°	1159	1250	1586	1644	1645	328
25°	1061	1116	1419	1439	1428	491
35°	1039	997	991	934	919	629
45°	702	706	375	359	349	536
55°	312	322	136	135	128	287
65°	73	72	20	17	15	83
75°	18	15	4	2	2	20
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°	1534.6	1534.6	1534.6	1534.6	1534.6	1534.6	1534.6	1534.6	1534.6	1534.6	1534.6
2.5°	1458.8	1449.5	1432.1	1453.1	1453.1	1441.4	1464.8	1450.7	1462.0	1479.7	1464.0
5°	1356.3	1348.7	1334.2	1356.3	1359.2	1348.3	1376.5	1366.0	1382.6	1404.3	1402.3
7.5°	1275.3	1265.6	1252.3	1275.3	1279.7	1272.5	1299.5	1294.7	1316.4	1344.6	1349.5
10°	1222.5	1212.4	1200.7	1221.7	1224.9	1220.1	1247.5	1244.7	1266.0	1298.7	1311.6
12.5°	1185.0	1176.5	1163.6	1185.8	1189.4	1182.6	1208.4	1207.2	1229.3	1263.6	1279.7
15°	1158.8	1148.7	1137.0	1156.0	1160.8	1153.1	1177.7	1175.3	1197.9	1231.8	1249.9
17.5°	1134.2	1124.9	1112.8	1130.6	1135.4	1127.3	1151.5	1147.5	1166.8	1199.1	1217.6
20°	1111.2	1101.1	1090.2	1108.4	1111.2	1101.9	1126.1	1120.9	1138.2	1168.1	1186.2
22.5°	1087.4	1076.9	1065.6	1083.4	1086.2	1076.9	1099.1	1093.1	1109.2	1136.2	1152.7
25°	1061.2	1051.5	1040.2	1056.8	1059.2	1049.1	1072.5	1064.8	1078.9	1102.7	1116.4
27.5°	1035.0	1025.7	1013.2	1030.2	1031.4	1021.7	1043.1	1032.6	1044.3	1066.0	1077.7
30°	1030.6	1020.1	1007.2	1020.9	1021.3	1008.8	1028.9	1016.5	1022.9	1039.0	1045.9
32.5°	1044.7	1034.2	1020.9	1032.2	1031.0	1017.3	1036.6	1021.3	1023.3	1031.8	1030.2
35°	1039.0	1026.5	1010.8	1022.9	1022.9	1006.4	1025.7	1007.6	1005.6	1006.8	996.7
37.5°	974.9	965.2	950.3	962.0	960.8	948.3	963.2	948.3	941.5	938.6	920.5
40°	880.6	868.9	857.6	870.1	871.3	858.0	877.3	860.4	858.4	850.3	829.0
42.5°	785.0	781.0	770.1	780.6	786.2	774.9	791.1	783.0	784.2	782.2	762.0
45°	701.6	694.7	686.6	698.7	702.4	696.7	712.8	708.0	712.8	722.9	706.4
47.5°	611.6	604.8	595.9	608.8	615.3	604.8	618.5	616.9	624.1	641.5	639.9
50°	503.2	498.3	496.7	498.3	502.4	497.5	507.2	507.6	512.5	536.2	537.9
52.5°	398.4	397.1	391.5	396.7	396.7	389.1	398.8	394.3	399.2	415.3	425.8
55°	311.7	310.5	306.8	311.7	306.4	303.6	306.4	302.0	298.4	310.9	321.7
57.5°	242.7	238.7	234.3	236.3	235.9	229.8	233.0	227.8	225.0	229.4	239.1
60°	173.0	171.8	167.7	169.7	171.4	166.9	170.1	167.7	162.9	166.5	166.9
62.5°	114.9	115.7	113.3	113.7	112.5	111.7	113.7	114.9	113.7	112.1	112.5
65°	73.0	72.6	72.2	72.6	73.4	71.8	73.0	73.8	72.6	72.6	72.2
67.5°	48.4	47.2	46.0	46.8	47.6	46.4	47.6	47.2	47.6	47.2	46.0
70°	32.7	32.3	31.9	32.3	32.3	31.4	32.3	31.9	32.3	31.9	30.6
72.5°	23.8	23.8	23.4	23.8	23.8	23.0	23.4	22.6	23.0	22.6	21.8
75°	17.7	17.7	17.3	17.7	17.3	16.9	17.3	16.9	16.1	16.1	15.3
77.5°	12.9	12.9	12.9	12.9	12.9	12.5	12.5	12.1	11.7	11.3	11.3
80°	9.7	9.3	9.3	9.3	9.3	8.9	9.3	8.9	8.5	8.1	7.7
82.5°	6.9	7.3	6.9	6.9	6.9	6.5	6.9	6.5	6.5	6.0	5.2
85°	5.2	5.2	5.2	5.2	5.2	4.8	4.8	4.8	4.4	4.4	4.0
87.5°	2.8	2.8	2.8	3.2	2.8	2.8	2.8	2.4	2.4	2.0	2.0
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°	1534.6	1534.6	1534.6	1534.6	1534.6	1534.6	1534.6	1534.6	1534.6	1534.6	1534.6
2.5°	1485.0	1487.0	1482.5	1489.4	1516.0	1494.6	1503.5	1506.3	1526.5	1530.1	1527.7
5°	1428.5	1437.4	1443.0	1458.4	1487.8	1472.5	1488.2	1498.3	1524.1	1532.5	1534.6
7.5°	1384.2	1402.7	1416.4	1441.4	1476.1	1464.4	1488.2	1504.7	1536.2	1547.1	1552.3
10°	1351.1	1379.3	1403.1	1437.4	1476.5	1468.8	1499.9	1523.3	1558.3	1571.2	1577.7
12.5°	1326.1	1360.4	1392.2	1435.8	1478.1	1474.5	1512.0	1538.6	1575.7	1588.6	1596.2
15°	1298.7	1338.2	1375.3	1424.1	1469.6	1468.8	1509.2	1537.4	1575.3	1586.2	1593.4
17.5°	1266.0	1308.4	1349.1	1401.9	1447.1	1447.9	1488.6	1516.4	1553.5	1562.4	1567.2
20°	1233.0	1274.9	1315.6	1370.1	1414.4	1415.6	1455.5	1481.3	1516.8	1524.1	1525.3
22.5°	1197.9	1237.0	1277.7	1331.7	1374.5	1375.3	1414.8	1439.0	1469.2	1472.9	1476.1
25°	1158.0	1196.3	1234.6	1288.2	1328.9	1331.3	1367.2	1388.6	1416.4	1419.2	1420.5
27.5°	1116.4	1147.9	1184.6	1230.5	1271.7	1270.1	1303.9	1328.1	1353.1	1351.5	1351.1
30°	1074.5	1100.7	1123.3	1167.6	1197.9	1199.1	1230.9	1242.6	1268.8	1265.6	1265.2
32.5°	1045.1	1051.9	1058.0	1080.6	1109.2	1099.1	1120.9	1135.4	1153.5	1152.3	1152.7
35°	991.0	978.6	960.4	963.6	981.0	965.2	976.9	976.5	995.1	990.6	995.9
37.5°	898.7	863.2	822.9	799.9	803.2	783.4	779.4	789.0	795.5	783.0	787.4
40°	800.3	747.9	685.0	632.6	629.8	605.2	600.8	591.1	603.6	593.1	596.3
42.5°	727.8	658.4	575.8	512.1	498.3	477.8	465.7	464.1	467.7	460.4	458.4
45°	672.1	598.3	503.6	430.6	415.3	393.1	381.0	376.6	377.0	374.6	372.6
47.5°	606.8	532.6	436.7	362.1	344.7	323.8	311.7	308.8	310.5	307.2	304.8
50°	516.5	450.0	362.5	294.3	279.0	263.7	254.0	251.2	250.8	248.4	246.8
52.5°	419.3	364.1	288.3	231.4	217.7	202.8	196.0	192.3	192.7	190.3	187.9
55°	324.6	290.3	223.4	175.0	162.5	150.8	144.3	139.9	138.7	136.3	135.1
57.5°	241.5	218.5	167.3	126.2	118.9	107.7	101.2	96.0	95.2	93.9	93.5
60°	169.3	152.8	117.7	89.9	81.4	74.6	68.1	62.9	60.5	60.1	58.9
62.5°	109.7	99.6	77.4	60.1	53.6	48.8	42.3	38.7	37.1	35.5	35.9
65°	68.1	60.5	48.4	38.7	35.1	31.4	26.6	23.4	21.8	20.2	20.6
67.5°	42.3	37.9	30.6	25.0	22.6	19.8	16.1	13.7	12.5	11.3	10.5
70°	28.6	24.6	21.0	17.7	16.1	14.1	11.7	9.7	8.9	8.1	7.3
72.5°	20.2	18.1	15.3	13.3	12.1	10.5	8.9	7.7	6.9	6.0	5.2
75°	14.5	12.9	11.3	9.7	8.9	8.1	6.9	6.0	5.2	4.4	3.6
77.5°	10.5	9.3	8.1	7.3	6.9	5.6	4.8	4.4	4.0	3.2	2.4
80°	7.3	6.5	5.2	4.8	4.8	4.0	3.6	3.2	2.8	2.0	1.6
82.5°	4.8	4.4	4.0	3.6	3.2	2.8	2.8	2.0	1.6	1.2	0.8
85°	3.6	3.2	2.8	2.4	2.4	2.0	1.6	1.2	1.2	0.8	0.4
87.5°	2.0	2.0	1.6	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°	1534.6	1534.6	1534.6	1534.6	1534.6	1534.6	1534.6	1534.6	1534.6	1534.6	1534.6
2.5°	1548.3	1549.5	1556.3	1551.1	1564.4	1574.1	1569.2	1580.1	1576.5	1575.7	1588.2
5°	1558.7	1561.6	1570.8	1566.0	1580.5	1591.0	1586.2	1598.3	1594.6	1593.8	1606.7
7.5°	1578.9	1581.7	1589.8	1585.8	1601.1	1610.4	1604.3	1617.6	1612.8	1612.4	1624.9
10°	1604.3	1608.3	1615.2	1611.2	1625.3	1633.3	1627.3	1640.2	1635.8	1633.7	1647.4
12.5°	1623.3	1626.1	1632.9	1629.7	1643.4	1649.5	1644.2	1656.7	1651.1	1649.5	1661.6
15°	1618.8	1621.6	1627.3	1624.5	1637.4	1643.0	1636.2	1649.9	1644.2	1641.0	1651.9
17.5°	1590.6	1592.2	1596.2	1593.4	1607.1	1610.8	1603.1	1616.8	1611.6	1605.9	1616.4
20°	1549.1	1548.3	1550.7	1549.5	1560.8	1562.8	1557.9	1568.0	1562.0	1558.7	1564.8
22.5°	1497.5	1496.7	1498.3	1495.0	1506.3	1507.5	1500.3	1512.4	1506.3	1500.3	1510.4
25°	1440.2	1435.8	1435.0	1436.2	1443.8	1445.0	1437.4	1446.3	1438.6	1433.8	1443.4
27.5°	1369.6	1364.0	1362.8	1364.0	1371.7	1366.0	1359.6	1366.0	1358.4	1353.9	1360.0
30°	1282.6	1274.5	1270.9	1268.4	1276.5	1274.5	1259.6	1266.8	1254.7	1248.3	1252.7
32.5°	1165.2	1160.8	1151.1	1145.5	1153.1	1137.8	1128.5	1128.5	1123.7	1112.8	1115.2
35°	1002.3	995.5	986.6	981.8	983.0	962.4	947.1	950.3	934.2	931.4	932.6
37.5°	796.3	785.0	781.8	771.7	774.1	756.0	735.0	735.4	727.0	718.1	715.3
40°	598.3	596.3	593.1	584.6	587.9	568.1	560.0	560.4	554.8	548.3	551.6
42.5°	462.5	456.0	454.0	451.2	452.0	448.8	438.3	439.5	434.6	433.0	431.4
45°	375.8	368.9	364.1	366.5	366.5	362.9	358.8	361.3	358.8	355.6	357.2
47.5°	309.7	303.2	300.8	300.4	303.2	300.8	296.8	297.6	297.2	295.9	295.1
50°	247.2	245.5	243.5	242.3	243.5	242.7	239.1	241.1	242.3	238.3	239.5
52.5°	188.3	188.3	187.9	185.1	187.5	185.1	184.7	185.5	184.3	182.6	182.2
55°	137.9	136.7	134.7	134.3	135.1	134.3	133.5	133.9	134.7	130.6	130.6
57.5°	94.3	93.5	92.3	92.3	93.9	91.9	90.7	92.3	90.7	89.1	89.1
60°	60.5	60.1	58.9	58.9	58.9	58.5	57.3	57.7	58.5	56.0	56.4
62.5°	36.3	35.1	34.7	34.3	34.7	34.3	34.3	33.9	33.5	33.5	32.3
65°	19.8	19.0	18.1	18.5	18.5	18.1	18.1	18.1	17.3	16.9	16.5
67.5°	10.1	9.3	9.3	8.9	8.9	8.9	8.9	8.5	8.5	8.5	8.1
70°	6.5	6.0	5.6	5.6	5.6	5.2	5.2	5.2	5.2	5.2	4.8
72.5°	4.4	4.0	3.6	3.6	3.6	3.2	3.2	3.2	3.2	2.8	2.8
75°	3.2	2.8	2.4	2.4	2.4	2.0	2.0	2.0	2.0	2.0	2.0
77.5°	2.0	1.6	1.6	1.6	1.6	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: P244112

CATALOG NUMBER: LSR8B20D010 EC8B20850 8LBSW0LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1534.6	1534.6	1534.6	1534.6	1534.6	1534.6	1534.6	1534.6
2.5°	1583.7	1580.5	1582.5	1597.5	1591.0	1589.0	1572.1	1587.0
5°	1602.7	1600.3	1600.3	1617.2	1609.5	1607.9	1591.4	1604.3
7.5°	1620.4	1618.0	1618.4	1635.8	1629.7	1627.3	1610.8	1623.7
10°	1643.4	1641.8	1642.2	1658.7	1652.3	1649.9	1632.9	1646.2
12.5°	1657.1	1654.7	1654.7	1672.4	1665.2	1661.6	1645.4	1658.3
15°	1646.6	1643.0	1643.0	1660.8	1652.7	1647.4	1633.3	1645.4
17.5°	1610.8	1607.1	1607.1	1622.5	1616.4	1608.7	1594.2	1605.5
20°	1560.8	1556.3	1555.1	1572.9	1564.4	1557.5	1544.6	1555.5
22.5°	1504.3	1502.3	1498.7	1516.4	1508.7	1501.5	1487.8	1496.3
25°	1436.6	1433.4	1429.7	1447.1	1439.4	1432.1	1421.3	1428.1
27.5°	1352.3	1352.7	1350.7	1364.4	1356.7	1352.7	1339.4	1350.7
30°	1250.3	1245.9	1244.3	1260.4	1253.1	1247.9	1231.4	1242.2
32.5°	1117.2	1110.8	1102.3	1120.5	1108.0	1103.5	1089.4	1105.2
35°	923.7	921.7	914.0	929.4	922.5	914.4	905.6	918.9
37.5°	714.1	715.7	714.9	718.9	714.9	709.6	699.9	695.1
40°	545.1	541.1	537.9	545.1	536.7	536.7	531.0	537.1
42.5°	427.4	425.8	429.8	431.4	426.6	425.8	425.0	424.6
45°	352.8	352.8	353.6	355.2	353.6	352.8	350.4	348.8
47.5°	290.7	292.3	290.7	295.9	293.1	292.3	287.5	289.5
50°	235.5	233.4	235.5	237.1	237.5	235.1	232.6	233.9
52.5°	182.6	179.4	178.6	181.0	179.4	179.4	177.8	177.4
55°	128.6	129.8	127.8	129.8	129.0	127.8	126.6	128.2
57.5°	87.1	87.5	86.7	87.9	85.9	86.3	85.9	85.5
60°	56.4	54.8	54.8	56.0	54.0	54.0	53.6	53.6
62.5°	32.3	31.9	31.9	31.4	31.0	31.0	31.0	30.2
65°	16.5	16.1	15.7	15.7	15.7	15.7	15.3	15.3
67.5°	8.1	7.7	7.7	8.1	7.7	7.7	7.7	7.7
70°	4.8	4.8	4.4	4.8	4.4	4.4	4.4	4.4
72.5°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
75°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
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)