

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: P244100

Luminaire Tested: **LSR8B20D010 EC8B20835 8LBSWOLI**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P244100
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 8LBSW0LI
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 3500 CCT WITH SPECULAR CLEAR TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2319.0 lumens
Efficiency: N/A
Efficacy: 108.9 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

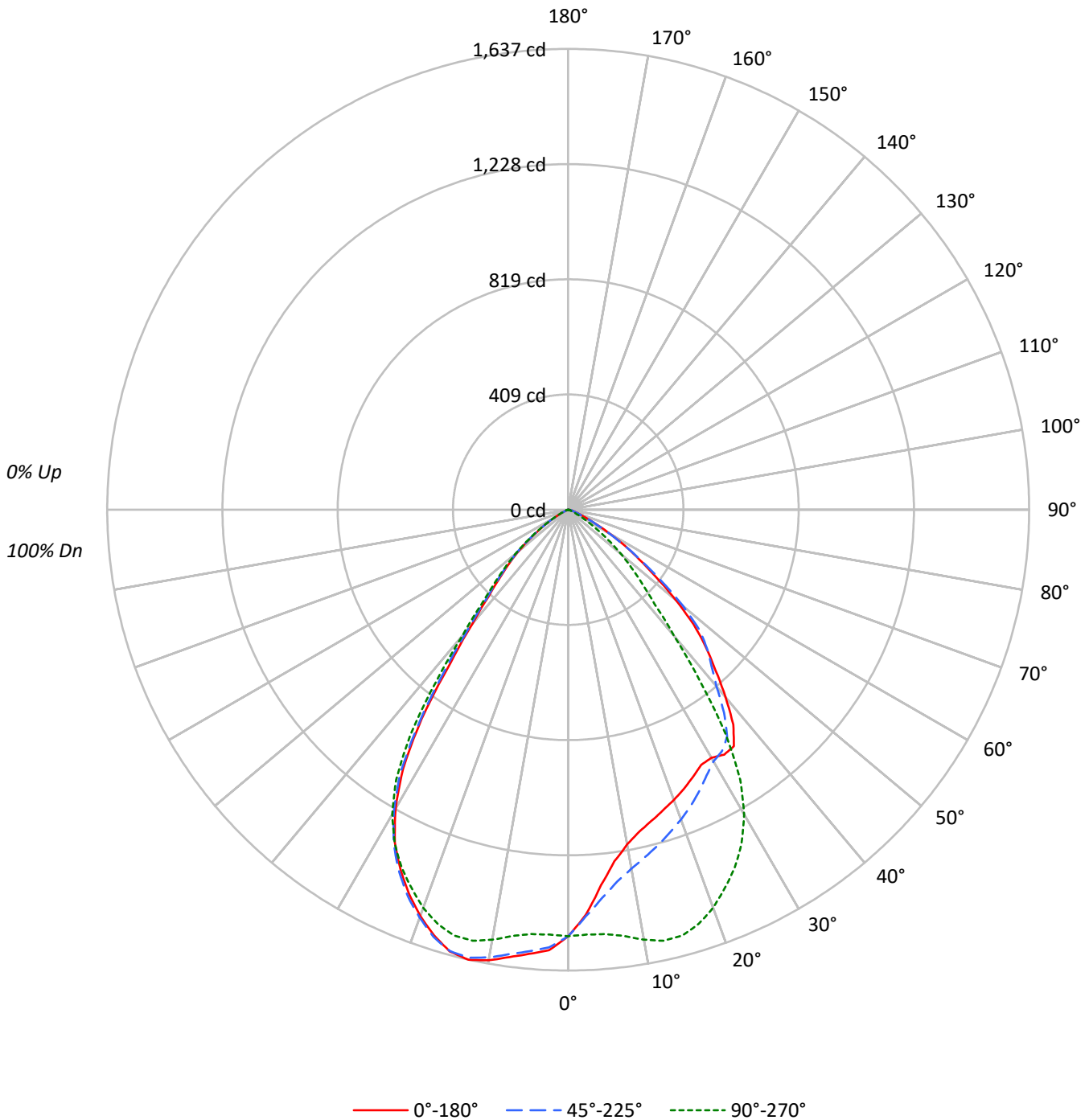
Input Watts (W): 21.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	46717	46717	46717
5°	41448	46834	49025
10°	37790	48571	50888
15°	36521	49990	51858
20°	35998	49374	50394
25°	35647	47671	47971
30°	36226	44491	43668
35°	38615	36816	34147
40°	34993	23569	21343
45°	30204	16127	15015
50°	23833	11763	11077
55°	16542	7231	6806
60°	10534	3657	3262
65°	5253	1452	1102
70°	2903	721	397
75°	2085	524	191
80°	1705	355	71
85°	1840	283	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.2	6.1
10°-20°	407.8	17.6
20°-30°	591.9	25.5
30°-40°	583.0	25.1
40°-50°	365.4	15.8
50°-60°	176.3	7.6
60°-70°	42.7	1.8
70°-80°	8.6	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°	1140.9	49.2
0°-40°	1723.9	74.3
0°-60°	2265.7	97.7
0°-90°	2319.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2319.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1515	1515	1515	1515	1515	
5°	1339	1384	1513	1574	1584	124
15°	1144	1234	1566	1623	1624	323
25°	1048	1102	1401	1420	1410	485
35°	1026	984	978	922	907	621
45°	693	697	370	354	344	529
55°	308	318	134	133	127	283
65°	72	71	20	17	15	82
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°	1515.0	1515.0	1515.0	1515.0	1515.0	1515.0	1515.0	1515.0	1515.0	1515.0	1515.0
2.5°	1440.1	1431.0	1413.9	1434.6	1434.6	1423.0	1446.1	1432.2	1443.3	1460.8	1445.3
5°	1339.0	1331.5	1317.1	1339.0	1341.8	1331.1	1358.9	1348.6	1364.9	1386.4	1384.4
7.5°	1259.0	1249.5	1236.3	1259.0	1263.4	1256.2	1282.9	1278.1	1299.6	1327.5	1332.3
10°	1206.9	1196.9	1185.4	1206.1	1209.3	1204.5	1231.5	1228.8	1249.9	1282.1	1294.8
12.5°	1169.9	1161.5	1148.8	1170.6	1174.2	1167.5	1192.9	1191.7	1213.6	1247.5	1263.4
15°	1144.0	1134.0	1122.5	1141.2	1146.0	1138.4	1162.7	1160.3	1182.6	1216.0	1233.9
17.5°	1119.7	1110.5	1098.6	1116.1	1120.9	1112.9	1136.8	1132.8	1151.9	1183.8	1202.1
20°	1097.0	1087.1	1076.3	1094.2	1097.0	1087.9	1111.7	1106.6	1123.7	1153.1	1171.0
22.5°	1073.5	1063.2	1052.0	1069.5	1072.3	1063.2	1085.1	1079.1	1095.0	1121.7	1138.0
25°	1047.7	1038.1	1027.0	1043.3	1045.7	1035.7	1058.8	1051.2	1065.2	1088.7	1102.2
27.5°	1021.8	1012.6	1000.3	1017.0	1018.2	1008.6	1029.7	1019.4	1030.9	1052.4	1064.0
30°	1017.4	1007.1	994.3	1007.8	1008.2	995.9	1015.8	1003.5	1009.8	1025.8	1032.5
32.5°	1031.3	1021.0	1007.8	1019.0	1017.8	1004.3	1023.4	1008.2	1010.2	1018.6	1017.0
35°	1025.8	1013.4	997.9	1009.8	1009.8	993.5	1012.6	994.7	992.7	993.9	984.0
37.5°	962.5	952.9	938.2	949.7	948.5	936.2	950.9	936.2	929.4	926.6	908.7
40°	869.3	857.8	846.6	859.0	860.2	847.0	866.1	849.4	847.4	839.5	818.4
42.5°	775.0	771.0	760.3	770.6	776.2	765.0	781.0	773.0	774.2	772.2	752.3
45°	692.6	685.8	677.9	689.8	693.4	687.8	703.7	699.0	703.7	713.7	697.4
47.5°	603.8	597.1	588.3	601.0	607.4	597.1	610.6	609.0	616.2	633.3	631.7
50°	496.8	492.0	490.4	492.0	496.0	491.2	500.7	501.1	505.9	529.4	531.0
52.5°	393.3	392.1	386.5	391.7	391.7	384.1	393.7	389.3	394.1	410.0	420.3
55°	307.7	306.5	302.9	307.7	302.5	299.7	302.5	298.1	294.6	306.9	317.6
57.5°	239.6	235.6	231.3	233.3	232.9	226.9	230.1	224.9	222.1	226.5	236.0
60°	170.8	169.6	165.6	167.6	169.2	164.8	168.0	165.6	160.8	164.4	164.8
62.5°	113.4	114.2	111.9	112.2	111.1	110.3	112.2	113.4	112.2	110.7	111.1
65°	72.0	71.6	71.2	71.6	72.4	70.9	72.0	72.8	71.6	71.6	71.2
67.5°	47.8	46.6	45.4	46.2	47.0	45.8	47.0	46.6	47.0	46.6	45.4
70°	32.2	31.8	31.4	31.8	31.8	31.0	31.8	31.4	31.8	31.4	30.3
72.5°	23.5	23.5	23.1	23.5	23.5	22.7	23.1	22.3	22.7	22.3	21.5
75°	17.5	17.5	17.1	17.5	17.1	16.7	17.1	16.7	15.9	15.9	15.1
77.5°	12.7	12.7	12.7	12.7	12.7	12.3	12.3	11.9	11.5	11.1	11.1
80°	9.6	9.2	9.2	9.2	9.2	8.8	9.2	8.8	8.4	8.0	7.6
82.5°	6.8	7.2	6.8	6.8	6.8	6.4	6.8	6.4	6.4	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°	1515.0	1515.0	1515.0	1515.0	1515.0	1515.0	1515.0	1515.0	1515.0	1515.0	1515.0
2.5°	1466.0	1468.0	1463.6	1470.4	1496.6	1475.5	1484.3	1487.1	1507.0	1510.6	1508.2
5°	1410.3	1419.0	1424.6	1439.7	1468.8	1453.7	1469.2	1479.1	1504.6	1513.0	1515.0
7.5°	1366.5	1384.8	1398.3	1423.0	1457.2	1445.7	1469.2	1485.5	1516.5	1527.3	1532.5
10°	1333.8	1361.7	1385.2	1419.0	1457.6	1450.1	1480.7	1503.8	1538.4	1551.2	1557.5
12.5°	1309.2	1343.0	1374.4	1417.4	1459.2	1455.6	1492.7	1518.9	1555.6	1568.3	1575.9
15°	1282.1	1321.1	1357.7	1405.9	1450.9	1450.1	1489.9	1517.7	1555.2	1565.9	1573.1
17.5°	1249.9	1291.7	1331.9	1384.0	1428.6	1429.4	1469.6	1497.0	1533.7	1542.4	1547.2
20°	1217.2	1258.6	1298.8	1352.6	1396.3	1397.5	1436.9	1462.4	1497.4	1504.6	1505.8
22.5°	1182.6	1221.2	1261.4	1314.7	1356.9	1357.7	1396.7	1420.6	1450.5	1454.1	1457.2
25°	1143.2	1181.0	1218.8	1271.8	1312.0	1314.3	1349.8	1370.9	1398.3	1401.1	1402.3
27.5°	1102.2	1133.2	1169.5	1214.8	1255.4	1253.8	1287.3	1311.2	1335.8	1334.2	1333.8
30°	1060.8	1086.7	1109.0	1152.7	1182.6	1183.8	1215.2	1226.8	1252.6	1249.5	1249.1
32.5°	1031.7	1038.5	1044.5	1066.8	1095.0	1085.1	1106.6	1120.9	1138.8	1137.6	1138.0
35°	978.4	966.1	948.1	951.3	968.4	952.9	964.5	964.1	982.4	978.0	983.2
37.5°	887.2	852.2	812.4	789.7	792.9	773.4	769.4	779.0	785.3	773.0	777.4
40°	790.1	738.4	676.3	624.5	621.7	597.5	593.1	583.5	595.9	585.5	588.7
42.5°	718.5	650.0	568.4	505.5	492.0	471.7	459.7	458.1	461.7	454.6	452.6
45°	663.5	590.7	497.2	425.1	410.0	388.1	376.2	371.8	372.2	369.8	367.8
47.5°	599.1	525.8	431.1	357.4	340.3	319.6	307.7	304.9	306.5	303.3	300.9
50°	509.9	444.2	357.8	290.6	275.4	260.3	250.8	248.0	247.6	245.2	243.6
52.5°	414.0	359.4	284.6	228.5	214.9	200.2	193.4	189.9	190.3	187.9	185.5
55°	320.4	286.6	220.5	172.8	160.4	148.9	142.5	138.1	136.9	134.5	133.3
57.5°	238.4	215.7	165.2	124.6	117.4	106.3	99.9	94.7	93.9	92.7	92.3
60°	167.2	150.9	116.2	88.8	80.4	73.6	67.3	62.1	59.7	59.3	58.1
62.5°	108.3	98.3	76.4	59.3	52.9	48.2	41.8	38.2	36.6	35.0	35.4
65°	67.3	59.7	47.8	38.2	34.6	31.0	26.3	23.1	21.5	19.9	20.3
67.5°	41.8	37.4	30.3	24.7	22.3	19.5	15.9	13.5	12.3	11.1	10.3
70°	28.3	24.3	20.7	17.5	15.9	13.9	11.5	9.6	8.8	8.0	7.2
72.5°	19.9	17.9	15.1	13.1	11.9	10.3	8.8	7.6	6.8	6.0	5.2
75°	14.3	12.7	11.1	9.6	8.8	8.0	6.8	6.0	5.2	4.4	3.6
77.5°	10.3	9.2	8.0	7.2	6.8	5.6	4.8	4.4	4.0	3.2	2.4
80°	7.2	6.4	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°	1515.0	1515.0	1515.0	1515.0	1515.0	1515.0	1515.0	1515.0	1515.0	1515.0	1515.0
2.5°	1528.5	1529.7	1536.5	1531.3	1544.4	1554.0	1549.2	1559.9	1556.4	1555.6	1567.9
5°	1538.8	1541.6	1550.8	1546.0	1560.3	1570.7	1565.9	1577.8	1574.3	1573.5	1586.2
7.5°	1558.7	1561.5	1569.5	1565.5	1580.6	1589.8	1583.8	1597.0	1592.2	1591.8	1604.1
10°	1583.8	1587.8	1594.6	1590.6	1604.5	1612.5	1606.5	1619.2	1614.9	1612.9	1626.4
12.5°	1602.5	1605.3	1612.1	1608.9	1622.4	1628.4	1623.2	1635.6	1630.0	1628.4	1640.3
15°	1598.1	1600.9	1606.5	1603.7	1616.5	1622.0	1615.3	1628.8	1623.2	1620.0	1630.8
17.5°	1570.3	1571.9	1575.9	1573.1	1586.6	1590.2	1582.6	1596.2	1591.0	1585.4	1595.8
20°	1529.3	1528.5	1530.9	1529.7	1540.8	1542.8	1538.0	1548.0	1542.0	1538.8	1544.8
22.5°	1478.3	1477.5	1479.1	1475.9	1487.1	1488.3	1481.1	1493.1	1487.1	1481.1	1491.1
25°	1421.8	1417.4	1416.6	1417.8	1425.4	1426.6	1419.0	1427.8	1420.2	1415.4	1425.0
27.5°	1352.2	1346.6	1345.4	1346.6	1354.1	1348.6	1342.2	1348.6	1341.0	1336.6	1342.6
30°	1266.2	1258.2	1254.6	1252.2	1260.2	1258.2	1243.5	1250.7	1238.7	1232.3	1236.7
32.5°	1150.3	1146.0	1136.4	1130.8	1138.4	1123.3	1114.1	1114.1	1109.3	1098.6	1101.0
35°	989.5	982.8	974.0	969.2	970.4	950.1	935.0	938.2	922.3	919.5	920.7
37.5°	786.1	775.0	771.8	761.9	764.2	746.3	725.6	726.0	717.7	708.9	706.1
40°	590.7	588.7	585.5	577.2	580.3	560.8	552.9	553.3	547.7	541.3	544.5
42.5°	456.6	450.2	448.2	445.4	446.2	443.0	432.7	433.9	429.1	427.5	425.9
45°	371.0	364.2	359.4	361.8	361.8	358.2	354.3	356.6	354.3	351.1	352.7
47.5°	305.7	299.3	296.9	296.5	299.3	296.9	293.0	293.8	293.4	292.2	291.4
50°	244.0	242.4	240.4	239.2	240.4	239.6	236.0	238.0	239.2	235.2	236.4
52.5°	185.9	185.9	185.5	182.7	185.1	182.7	182.3	183.1	181.9	180.3	179.9
55°	136.1	134.9	132.9	132.5	133.3	132.5	131.8	132.2	132.9	129.0	129.0
57.5°	93.1	92.3	91.2	91.2	92.7	90.8	89.6	91.2	89.6	88.0	88.0
60°	59.7	59.3	58.1	58.1	58.1	57.7	56.5	56.9	57.7	55.3	55.7
62.5°	35.8	34.6	34.2	33.8	34.2	33.8	33.8	33.4	33.0	33.0	31.8
65°	19.5	18.7	17.9	18.3	18.3	17.9	17.9	17.9	17.1	16.7	16.3
67.5°	10.0	9.2	9.2	8.8	8.8	8.8	8.8	8.4	8.4	8.4	8.0
70°	6.4	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: P244100

CATALOG NUMBER: LSR8B20D010 EC8B20835 8LBSW0LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1515.0	1515.0	1515.0	1515.0	1515.0	1515.0	1515.0	1515.0
2.5°	1563.5	1560.3	1562.3	1577.1	1570.7	1568.7	1552.0	1566.7
5°	1582.2	1579.8	1579.8	1596.6	1589.0	1587.4	1571.1	1583.8
7.5°	1599.7	1597.4	1597.7	1614.9	1608.9	1606.5	1590.2	1602.9
10°	1622.4	1620.8	1621.2	1637.6	1631.2	1628.8	1612.1	1625.2
12.5°	1636.0	1633.6	1633.6	1651.1	1643.9	1640.3	1624.4	1637.2
15°	1625.6	1622.0	1622.0	1639.5	1631.6	1626.4	1612.5	1624.4
17.5°	1590.2	1586.6	1586.6	1601.7	1595.8	1588.2	1573.9	1585.0
20°	1540.8	1536.5	1535.3	1552.8	1544.4	1537.6	1524.9	1535.7
22.5°	1485.1	1483.1	1479.5	1497.0	1489.5	1482.3	1468.8	1477.1
25°	1418.2	1415.0	1411.5	1428.6	1421.0	1413.9	1403.1	1409.9
27.5°	1335.0	1335.4	1333.4	1347.0	1339.4	1335.4	1322.3	1333.4
30°	1234.3	1230.0	1228.4	1244.3	1237.1	1231.9	1215.6	1226.4
32.5°	1103.0	1096.6	1088.3	1106.2	1093.8	1089.4	1075.5	1091.0
35°	911.9	909.9	902.4	917.5	910.7	902.8	894.0	907.1
37.5°	704.9	706.5	705.7	709.7	705.7	700.6	691.0	686.2
40°	538.2	534.2	531.0	538.2	529.8	529.8	524.2	530.2
42.5°	421.9	420.3	424.3	425.9	421.1	420.3	419.5	419.1
45°	348.3	348.3	349.1	350.7	349.1	348.3	345.9	344.3
47.5°	287.0	288.6	287.0	292.2	289.4	288.6	283.8	285.8
50°	232.5	230.5	232.5	234.0	234.4	232.1	229.7	230.9
52.5°	180.3	177.1	176.3	178.7	177.1	177.1	175.5	175.1
55°	127.0	128.2	126.2	128.2	127.4	126.2	125.0	126.6
57.5°	86.0	86.4	85.6	86.8	84.8	85.2	84.8	84.4
60°	55.7	54.1	54.1	55.3	53.3	53.3	52.9	52.9
62.5°	31.8	31.4	31.4	31.0	30.6	30.6	30.6	29.9
65°	16.3	15.9	15.5	15.5	15.5	15.5	15.1	15.1
67.5°	8.0	7.6	7.6	8.0	7.6	7.6	7.6	7.6
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)