

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: P244106

Luminaire Tested: **LSR8B20D010 EC8B20840 8LBSWOLI**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P244106
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 EC8B20840 8LBSW0LI
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 4000 CCT WITH SPECULAR CLEAR TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2304.0 lumens
Efficiency: N/A
Efficacy: 108.2 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

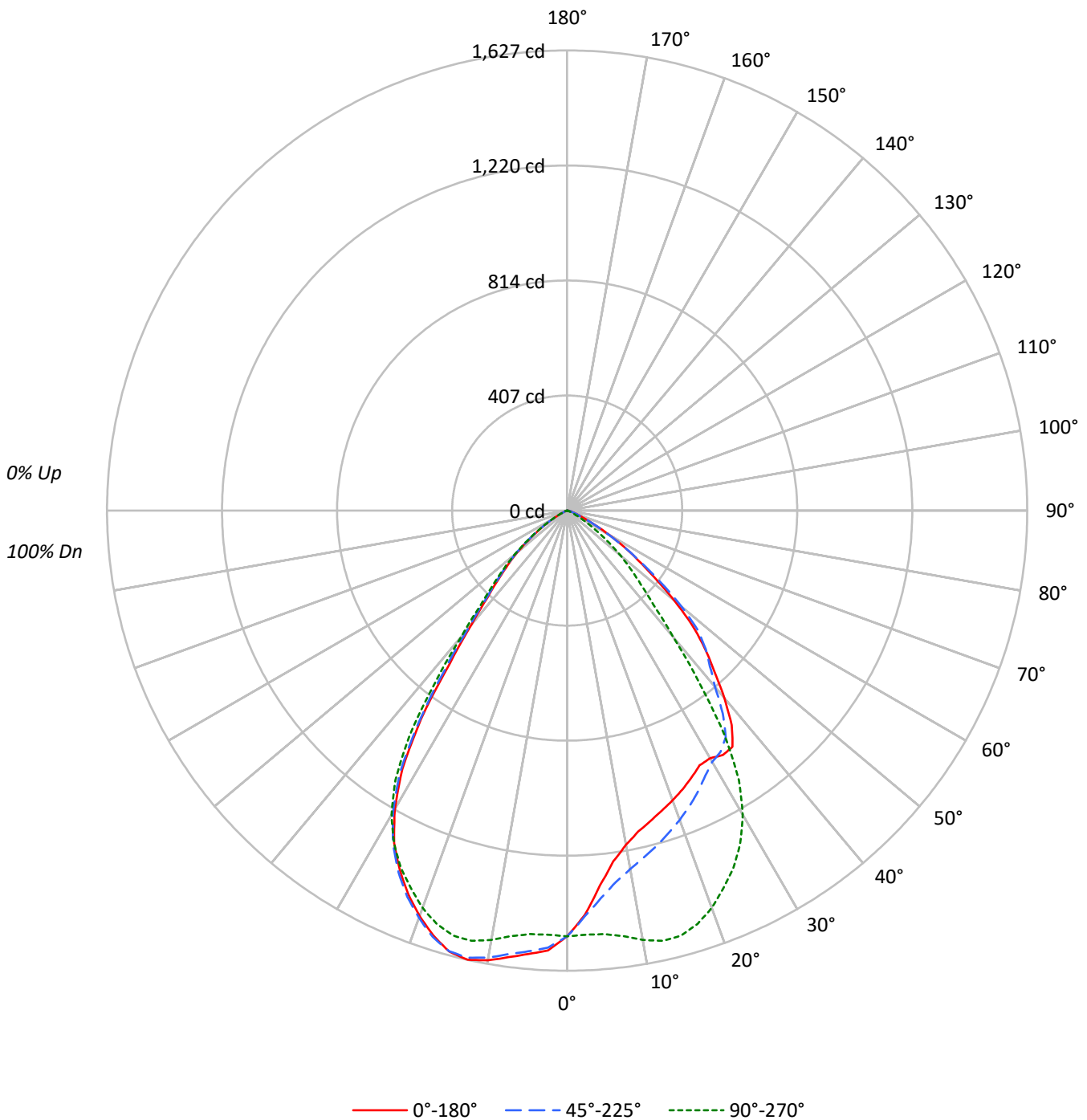
Input Watts (W): 21.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	46415	46415	46415
5°	41181	46530	48709
10°	37546	48255	50560
15°	36285	49668	51522
20°	35765	49056	50066
25°	35416	47365	47661
30°	35991	44202	43383
35°	38363	36579	33929
40°	34767	23416	21206
45°	30007	16022	14919
50°	23675	11686	11005
55°	16435	7188	6763
60°	10466	3633	3244
65°	5224	1445	1094
70°	2885	712	397
75°	2073	524	191
80°	1687	355	71
85°	1804	283	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.3	6.1
10°-20°	405.2	17.6
20°-30°	588.1	25.5
30°-40°	579.2	25.1
40°-50°	363.1	15.8
50°-60°	175.2	7.6
60°-70°	42.4	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°	1133.6	49.2
0°-40°	1712.8	74.3
0°-60°	2251.1	97.7
0°-90°	2304.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2304.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1505	1505	1505	1505	1505	
5°	1330	1375	1503	1564	1574	123
15°	1137	1226	1556	1613	1614	321
25°	1041	1095	1392	1411	1401	482
35°	1019	978	972	916	901	617
45°	688	693	367	352	342	526
55°	306	316	134	132	126	281
65°	72	71	20	17	15	82
75°	17	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°	1505.2	1505.2	1505.2	1505.2	1505.2	1505.2	1505.2	1505.2	1505.2	1505.2	1505.2
2.5°	1430.8	1421.7	1404.7	1425.3	1425.3	1413.8	1436.7	1422.9	1434.0	1451.4	1435.9
5°	1330.4	1322.8	1308.6	1330.4	1333.1	1322.4	1350.1	1339.9	1356.1	1377.4	1375.4
7.5°	1250.9	1241.4	1228.3	1250.9	1255.2	1248.1	1274.6	1269.9	1291.2	1318.9	1323.6
10°	1199.1	1189.2	1177.7	1198.3	1201.4	1196.7	1223.6	1220.8	1241.8	1273.8	1286.5
12.5°	1162.3	1154.0	1141.3	1163.1	1166.6	1159.9	1185.2	1184.0	1205.8	1239.4	1255.2
15°	1136.6	1126.7	1115.2	1133.8	1138.6	1131.0	1155.2	1152.8	1174.9	1208.2	1226.0
17.5°	1112.5	1103.4	1091.5	1108.9	1113.6	1105.7	1129.5	1125.5	1144.5	1176.1	1194.3
20°	1089.9	1080.0	1069.3	1087.1	1089.9	1080.8	1104.5	1099.4	1116.4	1145.7	1163.5
22.5°	1066.6	1056.3	1045.2	1062.6	1065.4	1056.3	1078.0	1072.1	1087.9	1114.4	1130.6
25°	1040.9	1031.4	1020.3	1036.5	1038.9	1029.0	1051.9	1044.4	1058.3	1081.6	1095.1
27.5°	1015.2	1006.1	993.8	1010.4	1011.6	1002.1	1023.1	1012.8	1024.3	1045.6	1057.1
30°	1010.8	1000.5	987.9	1001.3	1001.7	989.5	1009.2	997.0	1003.3	1019.1	1025.8
32.5°	1024.7	1014.4	1001.3	1012.4	1011.2	997.8	1016.8	1001.7	1003.7	1012.0	1010.4
35°	1019.1	1006.9	991.4	1003.3	1003.3	987.1	1006.1	988.3	986.3	987.5	977.6
37.5°	956.2	946.8	932.1	943.6	942.4	930.1	944.8	930.1	923.4	920.7	902.9
40°	863.7	852.2	841.2	853.4	854.6	841.6	860.5	843.9	842.0	834.0	813.1
42.5°	770.0	766.0	755.3	765.6	771.2	760.1	775.9	768.0	769.2	767.2	747.4
45°	688.1	681.4	673.5	685.3	688.9	683.4	699.2	694.4	699.2	709.1	692.9
47.5°	599.9	593.2	584.5	597.2	603.5	593.2	606.7	605.1	612.2	629.2	627.6
50°	493.5	488.8	487.2	488.8	492.8	488.0	497.5	497.9	502.6	526.0	527.6
52.5°	390.7	389.5	384.0	389.1	389.1	381.6	391.1	386.8	391.5	407.3	417.6
55°	305.7	304.5	301.0	305.7	300.6	297.8	300.6	296.2	292.6	304.9	315.6
57.5°	238.1	234.1	229.8	231.7	231.3	225.4	228.6	223.4	220.7	225.0	234.5
60°	169.7	168.5	164.5	166.5	168.1	163.7	166.9	164.5	159.8	163.3	163.7
62.5°	112.7	113.5	111.1	111.5	110.3	109.5	111.5	112.7	111.5	109.9	110.3
65°	71.6	71.2	70.8	71.2	72.0	70.4	71.6	72.4	71.2	71.2	70.8
67.5°	47.5	46.3	45.1	45.9	46.7	45.5	46.7	46.3	46.7	46.3	45.1
70°	32.0	31.6	31.2	31.6	31.6	30.8	31.6	31.2	31.6	31.2	30.1
72.5°	23.3	23.3	22.9	23.3	23.3	22.5	22.9	22.1	22.5	22.1	21.4
75°	17.4	17.4	17.0	17.4	17.0	16.6	17.0	16.6	15.8	15.8	15.0
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°	9.5	9.1	9.1	9.1	9.1	8.7	9.1	8.7	8.3	7.9	7.5
82.5°	6.7	7.1	6.7	6.7	6.7	6.3	6.7	6.3	6.3	5.9	5.1
85°	5.1	5.1	5.1	5.1	5.1	4.7	4.7	4.7	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°	1505.2	1505.2	1505.2	1505.2	1505.2	1505.2	1505.2	1505.2	1505.2	1505.2	1505.2
2.5°	1456.5	1458.5	1454.1	1460.9	1487.0	1466.0	1474.7	1477.5	1497.2	1500.8	1498.4
5°	1401.1	1409.8	1415.4	1430.4	1459.3	1444.3	1459.7	1469.6	1494.9	1503.2	1505.2
7.5°	1357.6	1375.8	1389.3	1413.8	1447.8	1436.3	1459.7	1475.9	1506.7	1517.4	1522.6
10°	1325.2	1352.9	1376.2	1409.8	1448.2	1440.7	1471.1	1494.1	1528.5	1541.1	1547.5
12.5°	1300.7	1334.3	1365.6	1408.3	1449.8	1446.2	1483.0	1509.1	1545.5	1558.1	1565.7
15°	1273.8	1312.6	1348.9	1396.8	1441.5	1440.7	1480.2	1507.9	1545.1	1555.8	1562.9
17.5°	1241.8	1283.3	1323.2	1375.0	1419.3	1420.1	1460.1	1487.4	1523.7	1532.4	1537.2
20°	1209.3	1250.5	1290.4	1343.8	1387.3	1388.5	1427.6	1453.0	1487.8	1494.9	1496.1
22.5°	1174.9	1213.3	1253.2	1306.2	1348.2	1348.9	1387.7	1411.4	1441.1	1444.6	1447.8
25°	1135.8	1173.4	1210.9	1263.5	1303.5	1305.8	1341.0	1362.0	1389.3	1392.1	1393.2
27.5°	1095.1	1125.9	1161.9	1207.0	1247.3	1245.7	1278.9	1302.7	1327.2	1325.6	1325.2
30°	1053.9	1079.6	1101.8	1145.3	1174.9	1176.1	1207.4	1218.8	1244.5	1241.4	1241.0
32.5°	1025.1	1031.8	1037.7	1059.9	1087.9	1078.0	1099.4	1113.6	1131.4	1130.3	1130.6
35°	972.1	959.8	942.0	945.2	962.2	946.8	958.2	957.8	976.0	971.7	976.8
37.5°	881.5	846.7	807.2	784.6	787.8	768.4	764.4	773.9	780.3	768.0	772.4
40°	785.0	733.6	671.9	620.5	617.7	593.6	589.2	579.8	592.0	581.7	584.9
42.5°	713.8	645.8	564.7	502.2	488.8	468.6	456.8	455.2	458.7	451.6	449.6
45°	659.2	586.9	493.9	422.4	407.3	385.6	373.7	369.4	369.8	367.4	365.4
47.5°	595.2	522.4	428.3	355.1	338.1	317.6	305.7	302.9	304.5	301.3	299.0
50°	506.6	441.3	355.5	288.7	273.7	258.6	249.1	246.4	246.0	243.6	242.0
52.5°	411.3	357.1	282.8	227.0	213.6	198.9	192.2	188.6	189.0	186.7	184.3
55°	318.4	284.7	219.1	171.6	159.4	147.9	141.6	137.2	136.0	133.7	132.5
57.5°	236.9	214.3	164.1	123.8	116.7	105.6	99.3	94.1	93.3	92.1	91.7
60°	166.1	149.9	115.5	88.2	79.9	73.2	66.8	61.7	59.3	58.9	57.7
62.5°	107.6	97.7	75.9	58.9	52.6	47.9	41.5	38.0	36.4	34.8	35.2
65°	66.8	59.3	47.5	38.0	34.4	30.8	26.1	22.9	21.4	19.8	20.2
67.5°	41.5	37.2	30.1	24.5	22.1	19.4	15.8	13.4	12.3	11.1	10.3
70°	28.1	24.1	20.6	17.4	15.8	13.8	11.5	9.5	8.7	7.9	7.1
72.5°	19.8	17.8	15.0	13.1	11.9	10.3	8.7	7.5	6.7	5.9	5.1
75°	14.2	12.7	11.1	9.5	8.7	7.9	6.7	5.9	5.1	4.4	3.6
77.5°	10.3	9.1	7.9	7.1	6.7	5.5	4.7	4.4	4.0	3.2	2.4
80°	7.1	6.3	5.1	4.7	4.7	4.0	3.6	3.2	2.8	2.0	1.6
82.5°	4.7	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°	1505.2	1505.2	1505.2	1505.2	1505.2	1505.2	1505.2	1505.2	1505.2	1505.2	1505.2
2.5°	1518.6	1519.8	1526.5	1521.4	1534.4	1543.9	1539.2	1549.8	1546.3	1545.5	1557.8
5°	1528.9	1531.7	1540.7	1536.0	1550.2	1560.5	1555.8	1567.6	1564.1	1563.3	1575.9
7.5°	1548.7	1551.4	1559.3	1555.4	1570.4	1579.5	1573.6	1586.6	1581.9	1581.5	1593.7
10°	1573.6	1577.5	1584.3	1580.3	1594.1	1602.0	1596.1	1608.8	1604.4	1602.4	1615.9
12.5°	1592.2	1594.9	1601.7	1598.5	1611.9	1617.9	1612.7	1625.0	1619.4	1617.9	1629.7
15°	1587.8	1590.6	1596.1	1593.3	1606.0	1611.5	1604.8	1618.3	1612.7	1609.6	1620.2
17.5°	1560.1	1561.7	1565.7	1562.9	1576.3	1579.9	1572.4	1585.8	1580.7	1575.2	1585.4
20°	1519.4	1518.6	1521.0	1519.8	1530.9	1532.8	1528.1	1538.0	1532.0	1528.9	1534.8
22.5°	1468.8	1468.0	1469.6	1466.4	1477.5	1478.7	1471.5	1483.4	1477.5	1471.5	1481.4
25°	1412.6	1408.3	1407.5	1408.7	1416.2	1417.4	1409.8	1418.5	1411.0	1406.3	1415.8
27.5°	1343.4	1337.9	1336.7	1337.9	1345.4	1339.9	1333.5	1339.9	1332.3	1328.0	1333.9
30°	1258.0	1250.1	1246.5	1244.1	1252.1	1250.1	1235.4	1242.6	1230.7	1224.4	1228.7
32.5°	1142.9	1138.6	1129.1	1123.5	1131.0	1116.0	1106.9	1106.9	1102.2	1091.5	1093.9
35°	983.1	976.4	967.7	963.0	964.2	944.0	929.0	932.1	916.3	913.5	914.7
37.5°	781.1	770.0	766.8	756.9	759.3	741.5	720.9	721.3	713.0	704.3	701.6
40°	586.9	584.9	581.7	573.4	576.6	557.2	549.3	549.7	544.2	537.8	541.0
42.5°	453.6	447.3	445.3	442.5	443.3	440.2	429.9	431.1	426.3	424.7	423.2
45°	368.6	361.9	357.1	359.5	359.5	355.9	352.0	354.3	352.0	348.8	350.4
47.5°	303.7	297.4	295.0	294.6	297.4	295.0	291.1	291.9	291.5	290.3	289.5
50°	242.4	240.8	238.9	237.7	238.9	238.1	234.5	236.5	237.7	233.7	234.9
52.5°	184.7	184.7	184.3	181.5	183.9	181.5	181.1	181.9	180.7	179.1	178.8
55°	135.3	134.1	132.1	131.7	132.5	131.7	130.9	131.3	132.1	128.1	128.1
57.5°	92.5	91.7	90.6	90.6	92.1	90.2	89.0	90.6	89.0	87.4	87.4
60°	59.3	58.9	57.7	57.7	57.7	57.3	56.2	56.6	57.3	55.0	55.4
62.5°	35.6	34.4	34.0	33.6	34.0	33.6	33.6	33.2	32.8	32.8	31.6
65°	19.4	18.6	17.8	18.2	18.2	17.8	17.8	17.8	17.0	16.6	16.2
67.5°	9.9	9.1	9.1	8.7	8.7	8.7	8.7	8.3	8.3	8.3	7.9
70°	6.3	5.9	5.5	5.5	5.5	5.1	5.1	5.1	5.1	5.1	4.7
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: P244106

CATALOG NUMBER: LSR8B20D010 EC8B20840 8LBSW0LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1505.2	1505.2	1505.2	1505.2	1505.2	1505.2	1505.2	1505.2
2.5°	1553.4	1550.2	1552.2	1566.8	1560.5	1558.5	1541.9	1556.6
5°	1572.0	1569.6	1569.6	1586.2	1578.7	1577.1	1560.9	1573.6
7.5°	1589.4	1587.0	1587.4	1604.4	1598.5	1596.1	1579.9	1592.6
10°	1611.9	1610.4	1610.7	1627.0	1620.6	1618.3	1601.7	1614.7
12.5°	1625.4	1623.0	1623.0	1640.4	1633.3	1629.7	1613.9	1626.6
15°	1615.1	1611.5	1611.5	1628.9	1621.0	1615.9	1602.0	1613.9
17.5°	1579.9	1576.3	1576.3	1591.4	1585.4	1577.9	1563.7	1574.8
20°	1530.9	1526.5	1525.3	1542.7	1534.4	1527.7	1515.0	1525.7
22.5°	1475.5	1473.5	1470.0	1487.4	1479.8	1472.7	1459.3	1467.6
25°	1409.1	1405.9	1402.3	1419.3	1411.8	1404.7	1394.0	1400.8
27.5°	1326.4	1326.8	1324.8	1338.3	1330.8	1326.8	1313.7	1324.8
30°	1226.4	1222.0	1220.4	1236.2	1229.1	1224.0	1207.8	1218.4
32.5°	1095.8	1089.5	1081.2	1099.0	1086.7	1082.4	1068.6	1084.0
35°	906.0	904.0	896.5	911.6	904.8	896.9	888.2	901.3
37.5°	700.4	702.0	701.2	705.1	701.2	696.0	686.5	681.8
40°	534.7	530.7	527.6	534.7	526.4	526.4	520.8	526.8
42.5°	419.2	417.6	421.6	423.2	418.4	417.6	416.8	416.4
45°	346.0	346.0	346.8	348.4	346.8	346.0	343.7	342.1
47.5°	285.1	286.7	285.1	290.3	287.5	286.7	282.0	283.9
50°	231.0	229.0	231.0	232.5	232.9	230.6	228.2	229.4
52.5°	179.1	176.0	175.2	177.6	176.0	176.0	174.4	174.0
55°	126.2	127.3	125.4	127.3	126.6	125.4	124.2	125.8
57.5°	85.4	85.8	85.0	86.2	84.2	84.6	84.2	83.8
60°	55.4	53.8	53.8	55.0	53.0	53.0	52.6	52.6
62.5°	31.6	31.2	31.2	30.8	30.5	30.5	30.5	29.7
65°	16.2	15.8	15.4	15.4	15.4	15.4	15.0	15.0
67.5°	7.9	7.5	7.5	7.9	7.5	7.5	7.5	7.5
70°	4.7	4.7	4.4	4.7	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)