

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: P244094

Luminaire Tested: **LSR8B20D010 EC8B20830 8LBSWOLI**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P244094
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 EC8B20830 8LBSW0LI
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 3000 CCT WITH SPECULAR CLEAR TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2230.0 lumens
Efficiency: N/A
Efficacy: 104.7 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

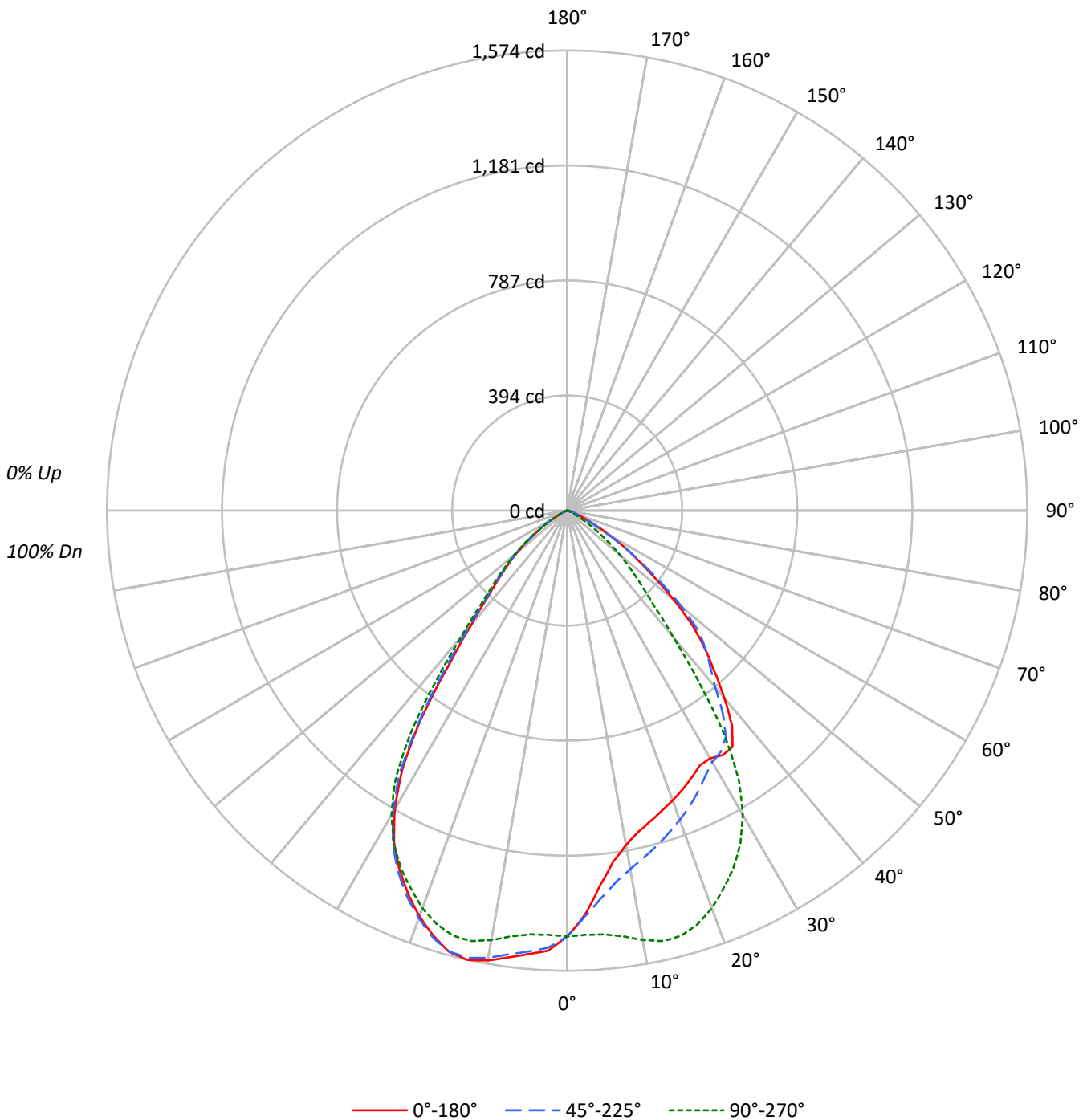
Input Watts (W): 21.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	44922	44922	44922
5°	39857	45035	47143
10°	36341	46705	48934
15°	35120	48071	49869
20°	34617	47480	48458
25°	34276	45841	46130
30°	34838	42781	41991
35°	37132	35404	32837
40°	33652	22667	20521
45°	29044	15507	14439
50°	22917	11312	10650
55°	15908	6957	6543
60°	10127	3515	3139
65°	5056	1394	1058
70°	2795	694	379
75°	2002	500	179
80°	1634	337	71
85°	1769	283	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.8	6.1
10°-20°	392.2	17.6
20°-30°	569.2	25.5
30°-40°	560.6	25.1
40°-50°	351.4	15.8
50°-60°	169.6	7.6
60°-70°	41.0	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°	1097.2	49.2
0°-40°	1657.8	74.3
0°-60°	2178.8	97.7
0°-90°	2230.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2230.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1457	1457	1457	1457	1457	
5°	1288	1331	1455	1514	1523	119
15°	1100	1187	1506	1561	1562	311
25°	1007	1060	1347	1366	1356	466
35°	986	946	940	887	872	597
45°	666	671	356	341	331	509
55°	296	305	129	128	122	272
65°	69	68	19	16	14	79
75°	17	14	4	2	2	19
85°	5	4	1	0	0	5
90°	0	0	0	0	0	



TEST NUMBER: P244094

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1456.8	1456.8	1456.8	1456.8	1456.8	1456.8	1456.8	1456.8	1456.8	1456.8	1456.8
2.5°	1384.9	1376.0	1359.6	1379.5	1379.5	1368.4	1390.6	1377.2	1387.9	1404.8	1389.8
5°	1287.6	1280.4	1266.6	1287.6	1290.3	1280.0	1306.8	1296.8	1312.5	1333.2	1331.3
7.5°	1210.7	1201.5	1188.9	1210.7	1214.9	1208.0	1233.7	1229.1	1249.7	1276.5	1281.1
10°	1160.6	1151.0	1139.9	1159.8	1162.8	1158.3	1184.3	1181.6	1201.9	1232.9	1245.1
12.5°	1125.0	1116.9	1104.7	1125.7	1129.2	1122.7	1147.2	1146.0	1167.1	1199.6	1214.9
15°	1100.1	1090.5	1079.4	1097.4	1102.0	1094.7	1118.1	1115.8	1137.2	1169.4	1186.6
17.5°	1076.7	1067.9	1056.4	1073.3	1077.9	1070.2	1093.2	1089.4	1107.7	1138.4	1156.0
20°	1054.9	1045.3	1035.0	1052.2	1054.9	1046.1	1069.1	1064.1	1080.6	1108.9	1126.1
22.5°	1032.3	1022.4	1011.7	1028.5	1031.2	1022.4	1043.4	1037.7	1053.0	1078.6	1094.3
25°	1007.4	998.3	987.5	1003.2	1005.5	996.0	1018.2	1010.9	1024.3	1046.9	1059.9
27.5°	982.6	973.8	961.9	978.0	979.1	969.9	990.2	980.3	991.4	1012.0	1023.1
30°	978.4	968.4	956.2	969.2	969.6	957.7	976.8	965.0	971.1	986.4	992.9
32.5°	991.8	981.8	969.2	979.9	978.7	965.7	984.1	969.6	971.5	979.5	978.0
35°	986.4	974.5	959.6	971.1	971.1	955.4	973.8	956.5	954.6	955.8	946.2
37.5°	925.5	916.3	902.2	913.3	912.1	900.3	914.4	900.3	893.8	891.1	873.9
40°	836.0	824.9	814.1	826.0	827.2	814.5	832.9	816.8	814.9	807.3	787.0
42.5°	745.2	741.4	731.1	741.0	746.4	735.7	751.0	743.3	744.5	742.6	723.4
45°	666.0	659.5	651.9	663.3	666.8	661.4	676.7	672.1	676.7	686.3	670.6
47.5°	580.7	574.2	565.7	578.0	584.1	574.2	587.2	585.6	592.5	609.0	607.5
50°	477.7	473.1	471.6	473.1	476.9	472.3	481.5	481.9	486.5	509.1	510.6
52.5°	378.2	377.0	371.7	376.6	376.6	369.4	378.6	374.3	378.9	394.3	404.2
55°	295.9	294.7	291.3	295.9	290.9	288.2	290.9	286.7	283.2	295.1	305.4
57.5°	230.4	226.6	222.4	224.3	223.9	218.2	221.2	216.3	213.6	217.8	227.0
60°	164.2	163.1	159.2	161.1	162.7	158.5	161.5	159.2	154.6	158.1	158.5
62.5°	109.1	109.9	107.6	107.9	106.8	106.0	107.9	109.1	107.9	106.4	106.8
65°	69.3	68.9	68.5	68.9	69.7	68.1	69.3	70.0	68.9	68.9	68.5
67.5°	45.9	44.8	43.6	44.4	45.2	44.0	45.2	44.8	45.2	44.8	43.6
70°	31.0	30.6	30.2	30.6	30.6	29.9	30.6	30.2	30.6	30.2	29.1
72.5°	22.6	22.6	22.2	22.6	22.6	21.8	22.2	21.4	21.8	21.4	20.7
75°	16.8	16.8	16.5	16.8	16.5	16.1	16.5	16.1	15.3	15.3	14.5
77.5°	12.2	12.2	12.2	12.2	12.2	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	8.0	7.7	7.3
82.5°	6.5	6.9	6.5	6.5	6.5	6.1	6.5	6.1	6.1	5.7	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°	1456.8	1456.8	1456.8	1456.8	1456.8	1456.8	1456.8	1456.8	1456.8	1456.8	1456.8
2.5°	1409.7	1411.6	1407.4	1413.9	1439.2	1418.9	1427.3	1430.0	1449.2	1452.6	1450.3
5°	1356.1	1364.6	1369.9	1384.5	1412.4	1397.9	1412.8	1422.4	1446.9	1454.9	1456.8
7.5°	1314.0	1331.6	1344.7	1368.4	1401.3	1390.2	1412.8	1428.5	1458.3	1468.7	1473.7
10°	1282.7	1309.4	1332.0	1364.6	1401.7	1394.4	1423.9	1446.1	1479.4	1491.6	1497.8
12.5°	1258.9	1291.5	1321.7	1363.0	1403.2	1399.8	1435.4	1460.6	1495.9	1508.1	1515.4
15°	1232.9	1270.4	1305.6	1351.9	1395.2	1394.4	1432.7	1459.5	1495.5	1505.8	1512.7
17.5°	1201.9	1242.1	1280.7	1330.9	1373.8	1374.5	1413.2	1439.6	1474.8	1483.2	1487.8
20°	1170.5	1210.3	1249.0	1300.6	1342.7	1343.9	1381.8	1406.3	1440.0	1446.9	1448.0
22.5°	1137.2	1174.3	1213.0	1264.3	1304.9	1305.6	1343.1	1366.1	1394.8	1398.3	1401.3
25°	1099.3	1135.7	1172.0	1222.9	1261.6	1263.9	1298.0	1318.3	1344.7	1347.3	1348.5
27.5°	1059.9	1089.7	1124.6	1168.2	1207.2	1205.7	1237.9	1260.8	1284.6	1283.0	1282.7
30°	1020.1	1045.0	1066.4	1108.5	1137.2	1138.4	1168.6	1179.7	1204.6	1201.5	1201.1
32.5°	992.1	998.6	1004.4	1025.8	1053.0	1043.4	1064.1	1077.9	1095.1	1094.0	1094.3
35°	940.8	929.0	911.8	914.8	931.3	916.3	927.4	927.1	944.7	940.5	945.4
37.5°	853.2	819.5	781.2	759.4	762.5	743.7	739.9	749.1	755.2	743.3	747.5
40°	759.8	710.0	650.3	600.6	597.9	574.5	570.3	561.1	573.0	563.1	566.1
42.5°	690.9	625.1	546.6	486.1	473.1	453.6	442.1	440.6	444.0	437.1	435.2
45°	638.1	568.0	478.1	408.8	394.3	373.2	361.7	357.5	357.9	355.6	353.7
47.5°	576.1	505.6	414.5	343.7	327.3	307.4	295.9	293.2	294.7	291.7	289.4
50°	490.3	427.2	344.1	279.4	264.9	250.3	241.1	238.5	238.1	235.8	234.3
52.5°	398.1	345.6	273.7	219.7	206.7	192.5	186.0	182.6	183.0	180.7	178.4
55°	308.1	275.6	212.1	166.1	154.3	143.2	137.0	132.8	131.7	129.4	128.2
57.5°	229.3	207.5	158.8	119.8	112.9	102.2	96.1	91.1	90.3	89.2	88.8
60°	160.8	145.1	111.8	85.4	77.3	70.8	64.7	59.7	57.4	57.0	55.9
62.5°	104.1	94.5	73.5	57.0	50.9	46.3	40.2	36.7	35.2	33.7	34.1
65°	64.7	57.4	45.9	36.7	33.3	29.9	25.3	22.2	20.7	19.1	19.5
67.5°	40.2	36.0	29.1	23.7	21.4	18.8	15.3	13.0	11.9	10.7	10.0
70°	27.2	23.3	19.9	16.8	15.3	13.4	11.1	9.2	8.4	7.7	6.9
72.5°	19.1	17.2	14.5	12.6	11.5	10.0	8.4	7.3	6.5	5.7	5.0
75°	13.8	12.2	10.7	9.2	8.4	7.7	6.5	5.7	5.0	4.2	3.4
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	3.4	3.1	2.7	1.9	1.5
82.5°	4.6	4.2	3.8	3.4	3.1	2.7	2.7	1.9	1.5	1.1	0.8
85°	3.4	3.1	2.7	2.3	2.3	1.9	1.5	1.1	1.1	0.8	0.4
87.5°	1.9	1.9	1.5	1.1	1.1	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°	1456.8	1456.8	1456.8	1456.8	1456.8	1456.8	1456.8	1456.8	1456.8	1456.8	1456.8
2.5°	1469.8	1471.0	1477.5	1472.5	1485.1	1494.3	1489.7	1500.1	1496.6	1495.9	1507.7
5°	1479.8	1482.5	1491.3	1486.7	1500.4	1510.4	1505.8	1517.3	1513.8	1513.1	1525.3
7.5°	1498.9	1501.6	1509.3	1505.4	1520.0	1528.8	1523.0	1535.7	1531.1	1530.7	1542.6
10°	1523.0	1526.9	1533.4	1529.5	1542.9	1550.6	1544.9	1557.1	1552.9	1551.0	1564.0
12.5°	1541.0	1543.7	1550.2	1547.1	1560.2	1565.9	1560.9	1572.8	1567.4	1565.9	1577.4
15°	1536.8	1539.5	1544.9	1542.2	1554.4	1559.8	1553.3	1566.3	1560.9	1557.9	1568.2
17.5°	1510.0	1511.5	1515.4	1512.7	1525.7	1529.2	1521.9	1534.9	1529.9	1524.6	1534.5
20°	1470.6	1469.8	1472.1	1471.0	1481.7	1483.6	1479.0	1488.6	1482.8	1479.8	1485.5
22.5°	1421.6	1420.8	1422.4	1419.3	1430.0	1431.2	1424.3	1435.8	1430.0	1424.3	1433.8
25°	1367.2	1363.0	1362.3	1363.4	1370.7	1371.8	1364.6	1373.0	1365.7	1361.1	1370.3
27.5°	1300.3	1294.9	1293.8	1294.9	1302.2	1296.8	1290.7	1296.8	1289.5	1285.3	1291.1
30°	1217.6	1209.9	1206.5	1204.2	1211.8	1209.9	1195.8	1202.7	1191.2	1185.0	1189.3
32.5°	1106.2	1102.0	1092.8	1087.4	1094.7	1080.2	1071.4	1071.4	1066.8	1056.4	1058.7
35°	951.6	945.1	936.6	932.0	933.2	913.7	899.1	902.2	886.9	884.2	885.3
37.5°	756.0	745.2	742.2	732.6	734.9	717.7	697.8	698.2	690.1	681.7	679.0
40°	568.0	566.1	563.1	555.0	558.1	539.3	531.7	532.0	526.7	520.6	523.6
42.5°	439.0	432.9	431.0	428.3	429.1	426.0	416.1	417.2	412.6	411.1	409.6
45°	356.7	350.2	345.6	347.9	347.9	344.5	340.7	343.0	340.7	337.6	339.1
47.5°	294.0	287.8	285.5	285.2	287.8	285.5	281.7	282.5	282.1	281.0	280.2
50°	234.6	233.1	231.2	230.0	231.2	230.4	227.0	228.9	230.0	226.2	227.4
52.5°	178.8	178.8	178.4	175.7	178.0	175.7	175.3	176.1	174.9	173.4	173.0
55°	130.9	129.8	127.8	127.5	128.2	127.5	126.7	127.1	127.8	124.0	124.0
57.5°	89.6	88.8	87.7	87.7	89.2	87.3	86.1	87.7	86.1	84.6	84.6
60°	57.4	57.0	55.9	55.9	55.9	55.5	54.4	54.7	55.5	53.2	53.6
62.5°	34.4	33.3	32.9	32.5	32.9	32.5	32.5	32.2	31.8	31.8	30.6
65°	18.8	18.0	17.2	17.6	17.6	17.2	17.2	17.2	16.5	16.1	15.7
67.5°	9.6	8.8	8.8	8.4	8.4	8.4	8.4	8.0	8.0	8.0	7.7
70°	6.1	5.7	5.4	5.4	5.4	5.0	5.0	5.0	5.0	5.0	4.6
72.5°	4.2	3.8	3.4	3.4	3.4	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	1.1	1.1	1.1	1.1	1.1	0.8
80°	1.1	1.1	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: P244094

CATALOG NUMBER: LSR8B20D010 EC8B20830 8LBSWOLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1456.8	1456.8	1456.8	1456.8	1456.8	1456.8	1456.8	1456.8
2.5°	1503.5	1500.4	1502.4	1516.5	1510.4	1508.5	1492.4	1506.6
5°	1521.5	1519.2	1519.2	1535.3	1528.0	1526.5	1510.8	1523.0
7.5°	1538.3	1536.0	1536.4	1552.9	1547.1	1544.9	1529.2	1541.4
10°	1560.2	1558.6	1559.0	1574.7	1568.6	1566.3	1550.2	1562.8
12.5°	1573.2	1570.9	1570.9	1587.7	1580.8	1577.4	1562.1	1574.3
15°	1563.2	1559.8	1559.8	1576.6	1569.0	1564.0	1550.6	1562.1
17.5°	1529.2	1525.7	1525.7	1540.3	1534.5	1527.2	1513.5	1524.2
20°	1481.7	1477.5	1476.3	1493.2	1485.1	1478.6	1466.4	1476.7
22.5°	1428.1	1426.2	1422.7	1439.6	1432.3	1425.4	1412.4	1420.5
25°	1363.8	1360.7	1357.3	1373.8	1366.5	1359.6	1349.3	1355.8
27.5°	1283.8	1284.2	1282.3	1295.3	1288.0	1284.2	1271.6	1282.3
30°	1187.0	1182.8	1181.2	1196.5	1189.6	1184.7	1169.0	1179.3
32.5°	1060.6	1054.5	1046.5	1063.7	1051.8	1047.6	1034.2	1049.2
35°	876.9	875.0	867.7	882.3	875.8	868.1	859.7	872.3
37.5°	677.9	679.4	678.6	682.5	678.6	673.7	664.5	659.9
40°	517.5	513.7	510.6	517.5	509.5	509.5	504.1	509.8
42.5°	405.7	404.2	408.0	409.6	405.0	404.2	403.4	403.1
45°	334.9	334.9	335.7	337.2	335.7	334.9	332.6	331.1
47.5°	276.0	277.5	276.0	281.0	278.3	277.5	272.9	274.8
50°	223.5	221.6	223.5	225.1	225.5	223.2	220.9	222.0
52.5°	173.4	170.3	169.6	171.9	170.3	170.3	168.8	168.4
55°	122.1	123.3	121.3	123.3	122.5	121.3	120.2	121.7
57.5°	82.7	83.1	82.3	83.4	81.5	81.9	81.5	81.1
60°	53.6	52.1	52.1	53.2	51.3	51.3	50.9	50.9
62.5°	30.6	30.2	30.2	29.9	29.5	29.5	29.5	28.7
65°	15.7	15.3	14.9	14.9	14.9	14.9	14.5	14.5
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°	1.1	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)