

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: P244136

Luminaire Tested: **LSR8B20D010 EC8B20940 8LBSWOLI**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P244136
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 EC8B20940 8LBSW0LI
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
90 CRI 4000 CCT WITH SPECULAR CLEAR TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2065.0 lumens
Efficiency: N/A
Efficacy: 96.9 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

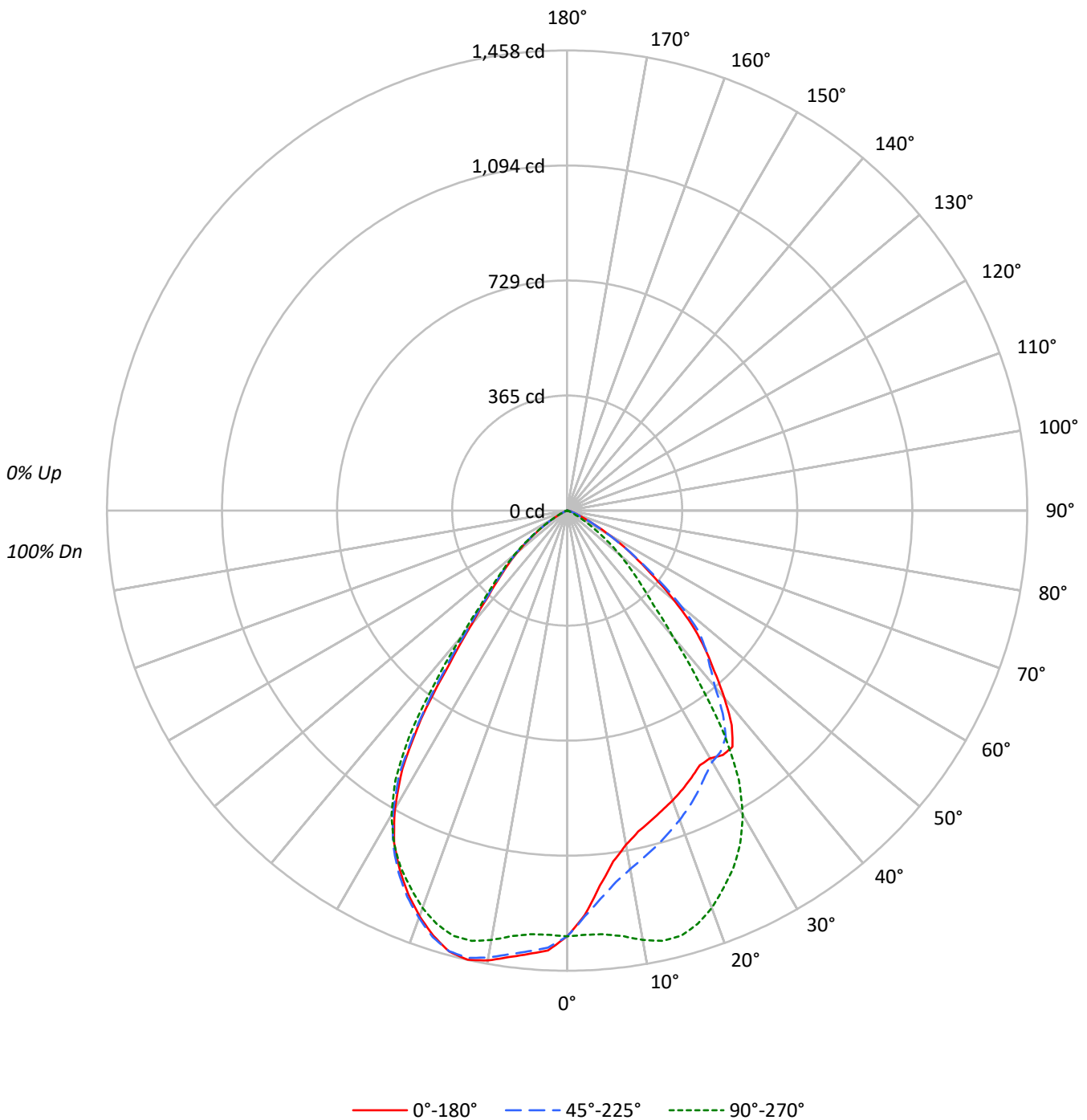
Input Watts (W): 21.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	41598	41598	41598
5°	36910	41704	43655
10°	33651	43251	45315
15°	32521	44515	46178
20°	32057	43966	44875
25°	31741	42452	42714
30°	32260	39616	38883
35°	34384	32784	30409
40°	31161	20988	19004
45°	26894	14360	13371
50°	21218	10472	9863
55°	14731	6441	6059
60°	9380	3256	2905
65°	4684	1291	985
70°	2588	640	352
75°	1859	465	167
80°	1509	320	71
85°	1628	248	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.7	6.1
10°-20°	363.2	17.6
20°-30°	527.1	25.5
30°-40°	519.1	25.1
40°-50°	325.4	15.8
50°-60°	157.0	7.6
60°-70°	38.0	1.8
70°-80°	7.7	0.4
80°-90°	1.8	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°	1016.0	49.2
0°-40°	1535.1	74.3
0°-60°	2017.6	97.7
0°-90°	2065.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2065.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1349	1349	1349	1349	1349	
5°	1192	1233	1347	1402	1410	110
15°	1019	1099	1394	1445	1446	288
25°	933	982	1248	1265	1255	432
35°	913	876	871	821	808	553
45°	617	621	329	316	307	471
55°	274	283	120	118	113	252
65°	64	63	18	15	14	73
75°	16	14	4	2	1	17
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°	1349.0	1349.0	1349.0	1349.0	1349.0	1349.0	1349.0	1349.0	1349.0	1349.0	1349.0
2.5°	1282.4	1274.2	1259.0	1277.4	1277.4	1267.1	1287.7	1275.3	1285.2	1300.8	1287.0
5°	1192.4	1185.6	1172.9	1192.4	1194.8	1185.3	1210.1	1200.9	1215.4	1234.5	1232.8
7.5°	1121.1	1112.6	1100.9	1121.1	1125.0	1118.6	1142.4	1138.1	1157.3	1182.1	1186.3
10°	1074.7	1065.8	1055.5	1074.0	1076.8	1072.6	1096.7	1094.2	1113.0	1141.7	1153.0
12.5°	1041.7	1034.3	1022.9	1042.4	1045.6	1039.6	1062.3	1061.2	1080.7	1110.8	1125.0
15°	1018.7	1009.8	999.5	1016.2	1020.5	1013.7	1035.3	1033.2	1053.1	1082.8	1098.8
17.5°	997.1	988.9	978.3	993.9	998.1	991.0	1012.3	1008.8	1025.8	1054.1	1070.4
20°	976.9	968.0	958.4	974.4	976.9	968.7	990.0	985.4	1000.6	1026.8	1042.8
22.5°	955.9	946.7	936.8	952.4	954.9	946.7	966.2	960.9	975.1	998.8	1013.4
25°	932.9	924.4	914.5	929.0	931.1	922.3	942.8	936.1	948.5	969.4	981.5
27.5°	909.9	901.7	890.7	905.6	906.7	898.2	917.0	907.7	918.0	937.2	947.4
30°	906.0	896.7	885.4	897.5	897.8	886.8	904.5	893.6	899.2	913.4	919.4
32.5°	918.4	909.2	897.5	907.4	906.3	894.3	911.3	897.8	899.6	907.0	905.6
35°	913.4	902.4	888.6	899.2	899.2	884.7	901.7	885.8	884.0	885.1	876.2
37.5°	857.1	848.5	835.4	845.7	844.6	833.7	846.8	833.7	827.6	825.2	809.2
40°	774.1	763.8	753.9	764.9	766.0	754.3	771.3	756.4	754.6	747.5	728.7
42.5°	690.1	686.6	677.0	686.2	691.2	681.2	695.4	688.3	689.4	687.6	669.9
45°	616.7	610.7	603.6	614.3	617.4	612.5	626.7	622.4	626.7	635.5	621.0
47.5°	537.7	531.7	523.9	535.2	540.9	531.7	543.7	542.3	548.7	563.9	562.5
50°	442.3	438.1	436.7	438.1	441.6	437.4	445.9	446.2	450.5	471.4	472.8
52.5°	350.2	349.1	344.2	348.8	348.8	342.0	350.5	346.6	350.9	365.1	374.3
55°	274.0	272.9	269.7	274.0	269.4	266.9	269.4	265.5	262.3	273.3	282.8
57.5°	213.4	209.8	205.9	207.7	207.4	202.0	204.9	200.3	197.8	201.7	210.2
60°	152.1	151.0	147.4	149.2	150.6	146.7	149.6	147.4	143.2	146.4	146.7
62.5°	101.0	101.7	99.6	100.0	98.9	98.2	100.0	101.0	100.0	98.5	98.9
65°	64.2	63.8	63.4	63.8	64.5	63.1	64.2	64.9	63.8	63.8	63.4
67.5°	42.5	41.5	40.4	41.1	41.8	40.8	41.8	41.5	41.8	41.5	40.4
70°	28.7	28.4	28.0	28.4	28.4	27.6	28.4	28.0	28.4	28.0	26.9
72.5°	20.9	20.9	20.6	20.9	20.9	20.2	20.6	19.8	20.2	19.8	19.1
75°	15.6	15.6	15.2	15.6	15.2	14.9	15.2	14.9	14.2	14.2	13.5
77.5°	11.3	11.3	11.3	11.3	11.3	11.0	11.0	10.6	10.3	9.9	9.9
80°	8.5	8.2	8.2	8.2	8.2	7.8	8.2	7.8	7.4	7.1	6.7
82.5°	6.0	6.4	6.0	6.0	6.0	5.7	6.0	5.7	5.7	5.3	4.6
85°	4.6	4.6	4.6	4.6	4.6	4.3	4.3	4.3	3.9	3.9	3.5
87.5°	2.5	2.5	2.5	2.8	2.5	2.5	2.5	2.1	2.1	1.8	1.8
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°	1349.0	1349.0	1349.0	1349.0	1349.0	1349.0	1349.0	1349.0	1349.0	1349.0	1349.0
2.5°	1305.4	1307.2	1303.3	1309.3	1332.7	1313.9	1321.7	1324.2	1341.9	1345.1	1343.0
5°	1255.8	1263.6	1268.6	1282.0	1307.9	1294.4	1308.3	1317.1	1339.8	1347.3	1349.0
7.5°	1216.8	1233.1	1245.2	1267.1	1297.6	1287.3	1308.3	1322.8	1350.4	1360.0	1364.6
10°	1187.7	1212.6	1233.5	1263.6	1298.0	1291.2	1318.5	1339.1	1369.9	1381.3	1386.9
12.5°	1165.8	1195.9	1223.9	1262.2	1299.4	1296.2	1329.2	1352.6	1385.2	1396.5	1403.3
15°	1141.7	1176.4	1209.0	1251.9	1292.0	1291.2	1326.7	1351.5	1384.8	1394.4	1400.8
17.5°	1113.0	1150.2	1186.0	1232.4	1272.1	1272.8	1308.6	1333.1	1365.7	1373.5	1377.7
20°	1083.9	1120.8	1156.6	1204.4	1243.4	1244.5	1279.6	1302.2	1333.4	1339.8	1340.9
22.5°	1053.1	1087.4	1123.2	1170.7	1208.3	1209.0	1243.8	1265.0	1291.6	1294.8	1297.6
25°	1018.0	1051.6	1085.3	1132.5	1168.3	1170.4	1201.9	1220.7	1245.2	1247.7	1248.7
27.5°	981.5	1009.1	1041.4	1081.8	1117.9	1116.5	1146.3	1167.5	1189.5	1188.1	1187.7
30°	944.6	967.6	987.5	1026.5	1053.1	1054.1	1082.1	1092.4	1115.4	1112.6	1112.3
32.5°	918.7	924.8	930.1	949.9	975.1	966.2	985.4	998.1	1014.1	1013.0	1013.4
35°	871.2	860.2	844.3	847.1	862.4	848.5	858.8	858.5	874.8	870.9	875.5
37.5°	790.1	758.9	723.4	703.2	706.1	688.7	685.1	693.7	699.3	688.3	692.2
40°	703.6	657.5	602.2	556.1	553.6	532.0	528.1	519.6	530.6	521.4	524.2
42.5°	639.8	578.8	506.1	450.1	438.1	420.0	409.4	408.0	411.2	404.8	403.0
45°	590.9	526.0	442.7	378.5	365.1	345.6	335.0	331.1	331.4	329.3	327.5
47.5°	533.4	468.2	383.9	318.3	303.1	284.6	274.0	271.5	272.9	270.1	268.0
50°	454.0	395.6	318.6	258.7	245.3	231.8	223.3	220.8	220.5	218.3	216.9
52.5°	368.6	320.1	253.4	203.5	191.4	178.3	172.3	169.1	169.4	167.3	165.2
55°	285.3	255.2	196.4	153.8	142.8	132.6	126.9	123.0	121.9	119.8	118.7
57.5°	212.3	192.1	147.1	110.9	104.6	94.6	89.0	84.4	83.6	82.6	82.2
60°	148.9	134.3	103.5	79.0	71.6	65.6	59.9	55.3	53.2	52.8	51.7
62.5°	96.4	87.5	68.1	52.8	47.1	42.9	37.2	34.0	32.6	31.2	31.5
65°	59.9	53.2	42.5	34.0	30.8	27.6	23.4	20.6	19.1	17.7	18.1
67.5°	37.2	33.3	26.9	22.0	19.8	17.4	14.2	12.1	11.0	9.9	9.2
70°	25.2	21.6	18.4	15.6	14.2	12.4	10.3	8.5	7.8	7.1	6.4
72.5°	17.7	16.0	13.5	11.7	10.6	9.2	7.8	6.7	6.0	5.3	4.6
75°	12.8	11.3	9.9	8.5	7.8	7.1	6.0	5.3	4.6	3.9	3.2
77.5°	9.2	8.2	7.1	6.4	6.0	5.0	4.3	3.9	3.5	2.8	2.1
80°	6.4	5.7	4.6	4.3	4.3	3.5	3.2	2.8	2.5	1.8	1.4
82.5°	4.3	3.9	3.5	3.2	2.8	2.5	2.5	1.8	1.4	1.1	0.7
85°	3.2	2.8	2.5	2.1	2.1	1.8	1.4	1.1	1.1	0.7	0.4
87.5°	1.8	1.8	1.4	1.1	1.1	0.7	0.7	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°	1349.0	1349.0	1349.0	1349.0	1349.0	1349.0	1349.0	1349.0	1349.0	1349.0	1349.0
2.5°	1361.1	1362.1	1368.2	1363.6	1375.3	1383.8	1379.5	1389.1	1385.9	1385.2	1396.2
5°	1370.3	1372.8	1380.9	1376.7	1389.4	1398.6	1394.4	1405.0	1401.8	1401.1	1412.5
7.5°	1388.0	1390.5	1397.6	1394.0	1407.5	1415.7	1410.3	1422.0	1417.8	1417.4	1428.4
10°	1410.3	1413.9	1419.9	1416.4	1428.8	1435.9	1430.5	1441.9	1438.0	1436.2	1448.3
12.5°	1427.0	1429.5	1435.5	1432.7	1444.7	1450.0	1445.4	1456.4	1451.5	1450.0	1460.7
15°	1423.1	1425.6	1430.5	1428.1	1439.4	1444.4	1438.3	1450.4	1445.4	1442.6	1452.2
17.5°	1398.3	1399.7	1403.3	1400.8	1412.8	1416.0	1409.3	1421.3	1416.7	1411.8	1421.0
20°	1361.8	1361.1	1363.2	1362.1	1372.1	1373.8	1369.6	1378.4	1373.1	1370.3	1375.6
22.5°	1316.4	1315.7	1317.1	1314.3	1324.2	1325.3	1318.9	1329.5	1324.2	1318.9	1327.8
25°	1266.1	1262.2	1261.5	1262.5	1269.3	1270.3	1263.6	1271.4	1264.7	1260.4	1268.9
27.5°	1204.1	1199.1	1198.0	1199.1	1205.8	1200.9	1195.2	1200.9	1194.1	1190.2	1195.5
30°	1127.5	1120.4	1117.2	1115.1	1122.2	1120.4	1107.3	1113.7	1103.0	1097.4	1101.3
32.5°	1024.3	1020.5	1011.9	1007.0	1013.7	1000.2	992.1	992.1	987.8	978.3	980.4
35°	881.2	875.1	867.3	863.1	864.1	846.1	832.6	835.4	821.3	818.8	819.8
37.5°	700.0	690.1	687.3	678.4	680.5	664.6	646.2	646.5	639.1	631.3	628.8
40°	526.0	524.2	521.4	513.9	516.8	499.4	492.3	492.7	487.7	482.0	484.9
42.5°	406.5	400.9	399.1	396.6	397.3	394.5	385.3	386.3	382.1	380.7	379.3
45°	330.3	324.3	320.1	322.2	322.2	319.0	315.5	317.6	315.5	312.6	314.0
47.5°	272.2	266.5	264.4	264.1	266.5	264.4	260.9	261.6	261.2	260.2	259.5
50°	217.3	215.9	214.1	213.0	214.1	213.4	210.2	212.0	213.0	209.5	210.5
52.5°	165.5	165.5	165.2	162.7	164.8	162.7	162.3	163.0	162.0	160.6	160.2
55°	121.2	120.2	118.4	118.0	118.7	118.0	117.3	117.7	118.4	114.8	114.8
57.5°	82.9	82.2	81.2	81.2	82.6	80.8	79.8	81.2	79.8	78.3	78.3
60°	53.2	52.8	51.7	51.7	51.7	51.4	50.3	50.7	51.4	49.3	49.6
62.5°	31.9	30.8	30.5	30.1	30.5	30.1	30.1	29.8	29.4	29.4	28.4
65°	17.4	16.7	16.0	16.3	16.3	16.0	16.0	16.0	15.2	14.9	14.5
67.5°	8.9	8.2	8.2	7.8	7.8	7.8	7.8	7.4	7.4	7.4	7.1
70°	5.7	5.3	5.0	5.0	5.0	4.6	4.6	4.6	4.6	4.6	4.3
72.5°	3.9	3.5	3.2	3.2	3.2	2.8	2.8	2.8	2.8	2.5	2.5
75°	2.8	2.5	2.1	2.1	2.1	1.8	1.8	1.8	1.8	1.8	1.8
77.5°	1.8	1.4	1.4	1.4	1.4	1.1	1.1	1.1	1.1	1.1	0.7
80°	1.1	1.1	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.4
82.5°	0.7	0.7	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: P244136

CATALOG NUMBER: LSR8B20D010 EC8B20940 8LBSW0LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1349.0	1349.0	1349.0	1349.0	1349.0	1349.0	1349.0	1349.0
2.5°	1392.3	1389.4	1391.2	1404.3	1398.6	1396.9	1382.0	1395.1
5°	1408.9	1406.8	1406.8	1421.7	1414.9	1413.5	1399.0	1410.3
7.5°	1424.5	1422.4	1422.7	1438.0	1432.7	1430.5	1416.0	1427.4
10°	1444.7	1443.3	1443.7	1458.2	1452.5	1450.4	1435.5	1447.2
12.5°	1456.8	1454.6	1454.6	1470.2	1463.9	1460.7	1446.5	1457.8
15°	1447.6	1444.4	1444.4	1460.0	1452.9	1448.3	1435.9	1446.5
17.5°	1416.0	1412.8	1412.8	1426.3	1421.0	1414.2	1401.5	1411.4
20°	1372.1	1368.2	1367.1	1382.7	1375.3	1369.2	1357.9	1367.5
22.5°	1322.4	1320.7	1317.5	1333.1	1326.3	1320.0	1307.9	1315.4
25°	1262.9	1260.1	1256.9	1272.1	1265.4	1259.0	1249.4	1255.4
27.5°	1188.8	1189.2	1187.4	1199.4	1192.7	1189.2	1177.5	1187.4
30°	1099.1	1095.2	1093.8	1108.0	1101.6	1097.0	1082.5	1092.0
32.5°	982.2	976.5	969.1	985.0	974.0	970.1	957.7	971.5
35°	812.0	810.3	803.5	817.0	811.0	803.9	796.1	807.8
37.5°	627.7	629.1	628.4	632.0	628.4	623.8	615.3	611.1
40°	479.2	475.7	472.8	479.2	471.8	471.8	466.8	472.1
42.5°	375.7	374.3	377.8	379.3	375.0	374.3	373.6	373.2
45°	310.1	310.1	310.8	312.3	310.8	310.1	308.0	306.6
47.5°	255.6	257.0	255.6	260.2	257.7	257.0	252.7	254.5
50°	207.0	205.2	207.0	208.4	208.8	206.6	204.5	205.6
52.5°	160.6	157.7	157.0	159.1	157.7	157.7	156.3	156.0
55°	113.1	114.1	112.4	114.1	113.4	112.4	111.3	112.7
57.5°	76.6	76.9	76.2	77.3	75.5	75.9	75.5	75.1
60°	49.6	48.2	48.2	49.3	47.5	47.5	47.1	47.1
62.5°	28.4	28.0	28.0	27.6	27.3	27.3	27.3	26.6
65°	14.5	14.2	13.8	13.8	13.8	13.8	13.5	13.5
67.5°	7.1	6.7	6.7	7.1	6.7	6.7	6.7	6.7
70°	4.3	4.3	3.9	4.3	3.9	3.9	3.9	3.9
72.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
75°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
77.5°	1.1	0.7	0.7	0.7	0.7	0.7	0.7	0.7
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)