

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: P245432

Luminaire Tested: **LSR8B20D010 EC8B20940 8LBSW0WH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P245432  
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 8LBSW0WH  
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
90 CRI 4000 CCT WITH WHEAT TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1992.0 lumens  
Efficiency: N/A  
Efficacy: 93.5 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

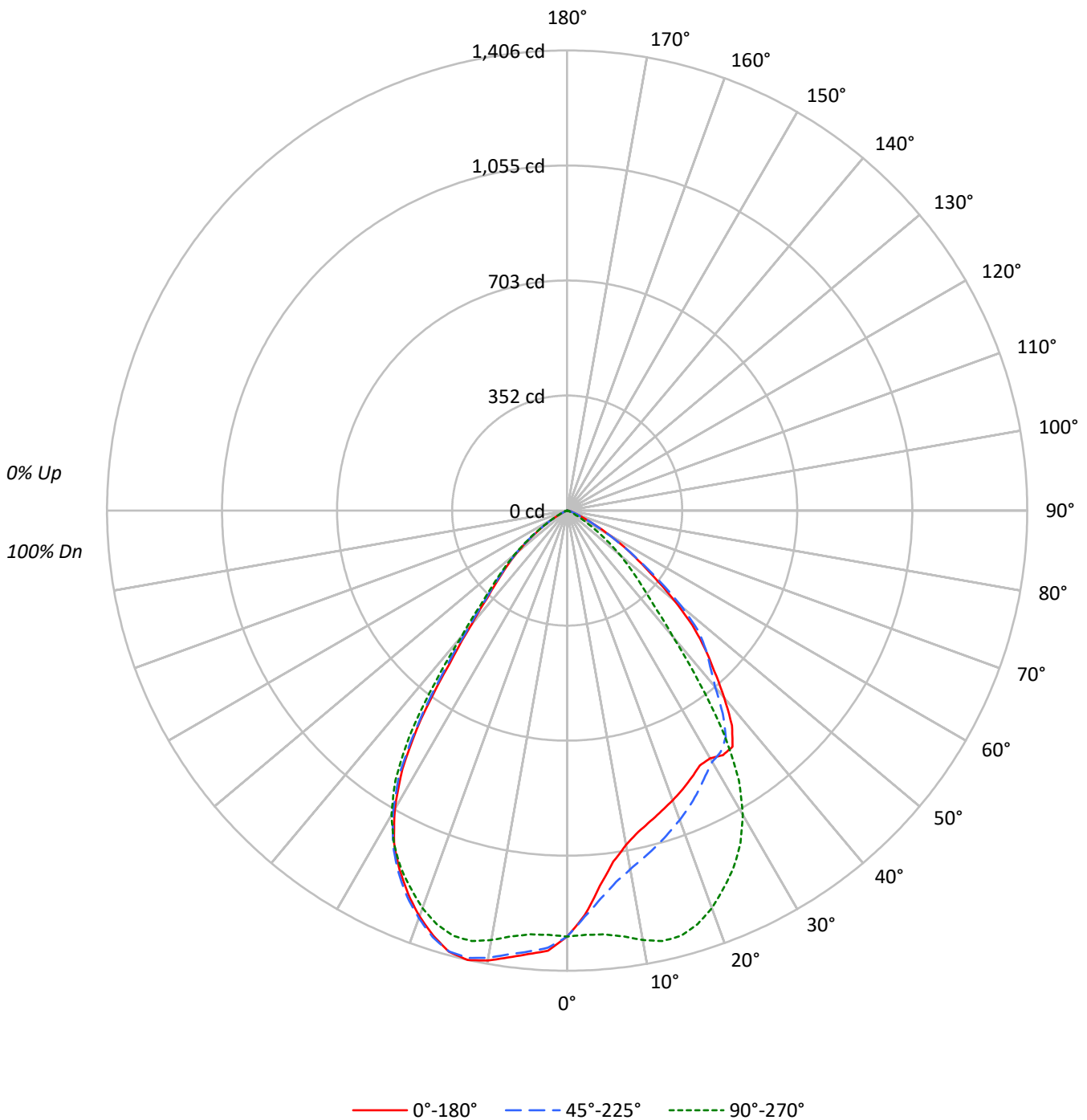
Input Watts (W): 21.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	112	109	106	104	110	107	104	102	103	101	99		99	97	96		96	94	93	91
2	105	99	95	91	103	98	93	90	94	91	88		91	88	86		88	86	84	82
3	99	91	85	80	96	89	84	79	87	82	78		84	80	77		82	78	76	74
4	92	83	76	71	90	82	76	71	80	74	70		77	73	69		76	72	68	67
5	86	76	69	64	84	75	69	64	73	68	63		72	66	63		70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57		66	61	57		65	60	56	55
7	76	65	58	53	74	64	57	52	63	57	52		61	56	52		60	55	52	50
8	71	60	53	48	70	59	53	48	58	52	48		57	52	48		56	51	47	46
9	67	56	49	44	66	55	49	44	54	48	44		53	48	44		52	47	44	42
10	63	52	45	41	62	52	45	41	51	45	41		50	44	40		49	44	40	39

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	40127	40127	40127
5°	35603	40228	42113
10°	32461	41720	43712
15°	31372	42941	44547
20°	30922	42411	43287
25°	30618	40948	41207
30°	31117	38217	37508
35°	33168	31625	29332
40°	30058	20248	18332
45°	25943	13850	12900
50°	20470	10103	9513
55°	14209	6215	5844
60°	9047	3139	2806
65°	4517	1248	949
70°	2497	613	343
75°	1787	453	167
80°	1456	302	53
85°	1557	248	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	121.3	6.1
10°-20°	350.3	17.6
20°-30°	508.5	25.5
30°-40°	500.8	25.1
40°-50°	313.9	15.8
50°-60°	151.5	7.6
60°-70°	36.7	1.8
70°-80°	7.4	0.4
80°-90°	1.7	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°	980.1	49.2
0°-40°	1480.8	74.3
0°-60°	1946.2	97.7
0°-90°	1992.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1992.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1301	1301	1301	1301	1301	
5°	1150	1189	1300	1352	1360	106
15°	983	1060	1345	1394	1395	278
25°	900	947	1204	1220	1211	416
35°	881	845	840	792	779	533
45°	595	599	318	304	296	455
55°	264	273	116	114	109	243
65°	62	61	17	15	13	71
75°	15	13	4	2	1	17
85°	4	3	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°	1301.3	1301.3	1301.3	1301.3	1301.3	1301.3	1301.3	1301.3	1301.3	1301.3	1301.3
2.5°	1237.1	1229.2	1214.5	1232.3	1232.3	1222.4	1242.2	1230.2	1239.8	1254.8	1241.5
5°	1150.2	1143.7	1131.4	1150.2	1152.6	1143.4	1167.3	1158.4	1172.4	1190.9	1189.2
7.5°	1081.5	1073.3	1062.0	1081.5	1085.2	1079.1	1102.0	1097.9	1116.4	1140.3	1144.4
10°	1036.7	1028.1	1018.2	1036.0	1038.7	1034.6	1057.9	1055.5	1073.6	1101.3	1112.3
12.5°	1004.9	997.7	986.8	1005.6	1008.7	1002.8	1024.7	1023.7	1042.5	1071.6	1085.2
15°	982.7	974.1	964.2	980.3	984.4	977.9	998.7	996.7	1015.8	1044.6	1059.9
17.5°	961.8	953.9	943.7	958.7	962.8	956.0	976.5	973.1	989.5	1016.9	1032.6
20°	942.3	933.8	924.5	939.9	942.3	934.5	955.0	950.5	965.2	990.5	1005.9
22.5°	922.1	913.3	903.7	918.7	921.1	913.3	932.1	926.9	940.6	963.5	977.5
25°	899.9	891.7	882.1	896.2	898.2	889.7	909.5	903.0	915.0	935.1	946.8
27.5°	877.7	869.8	859.2	873.6	874.6	866.4	884.5	875.6	885.6	904.0	913.9
30°	873.9	865.0	854.1	865.7	866.1	855.5	872.6	862.0	867.4	881.1	886.9
32.5°	885.9	877.0	865.7	875.3	874.3	862.7	879.1	866.1	867.8	875.0	873.6
35°	881.1	870.5	857.2	867.4	867.4	853.4	869.8	854.4	852.7	853.8	845.2
37.5°	826.8	818.5	805.9	815.8	814.8	804.2	816.8	804.2	798.4	796.0	780.6
40°	746.7	736.8	727.3	737.9	738.9	727.6	744.0	729.6	727.9	721.1	703.0
42.5°	665.7	662.3	653.1	661.9	666.7	657.2	670.8	664.0	665.0	663.3	646.2
45°	594.9	589.1	582.3	592.5	595.6	590.8	604.5	600.4	604.5	613.1	599.0
47.5°	518.7	512.9	505.4	516.3	521.8	512.9	524.5	523.1	529.3	544.0	542.6
50°	426.7	422.6	421.2	422.6	426.0	421.9	430.1	430.5	434.6	454.7	456.1
52.5°	337.8	336.8	332.0	336.4	336.4	329.9	338.2	334.4	338.5	352.2	361.1
55°	264.3	263.3	260.2	264.3	259.9	257.5	259.9	256.1	253.0	263.6	272.8
57.5°	205.8	202.4	198.7	200.4	200.0	194.9	197.6	193.2	190.8	194.6	202.8
60°	146.7	145.7	142.2	143.9	145.3	141.6	144.3	142.2	138.1	141.2	141.6
62.5°	97.4	98.1	96.1	96.4	95.4	94.7	96.4	97.4	96.4	95.1	95.4
65°	61.9	61.5	61.2	61.5	62.2	60.9	61.9	62.6	61.5	61.5	61.2
67.5°	41.0	40.0	39.0	39.7	40.3	39.3	40.3	40.0	40.3	40.0	39.0
70°	27.7	27.4	27.0	27.4	27.4	26.7	27.4	27.0	27.4	27.0	26.0
72.5°	20.2	20.2	19.8	20.2	20.2	19.5	19.8	19.1	19.5	19.1	18.5
75°	15.0	15.0	14.7	15.0	14.7	14.4	14.7	14.4	13.7	13.7	13.0
77.5°	10.9	10.9	10.9	10.9	10.9	10.6	10.6	10.3	9.9	9.6	9.6
80°	8.2	7.9	7.9	7.9	7.9	7.5	7.9	7.5	7.2	6.8	6.5
82.5°	5.8	6.2	5.8	5.8	5.8	5.5	5.8	5.5	5.5	5.1	4.4
85°	4.4	4.4	4.4	4.4	4.4	4.1	4.1	4.1	3.8	3.8	3.4
87.5°	2.4	2.4	2.4	2.7	2.4	2.4	2.4	2.1	2.1	1.7	1.7
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°	1301.3	1301.3	1301.3	1301.3	1301.3	1301.3	1301.3	1301.3	1301.3	1301.3	1301.3
2.5°	1259.3	1261.0	1257.2	1263.0	1285.6	1267.5	1275.0	1277.4	1294.5	1297.6	1295.5
5°	1211.4	1218.9	1223.7	1236.7	1261.7	1248.7	1262.0	1270.6	1292.4	1299.6	1301.3
7.5°	1173.8	1189.5	1201.2	1222.4	1251.8	1241.8	1262.0	1276.0	1302.7	1311.9	1316.4
10°	1145.8	1169.7	1189.9	1218.9	1252.1	1245.6	1271.9	1291.8	1321.5	1332.4	1337.9
12.5°	1124.6	1153.6	1180.6	1217.6	1253.5	1250.4	1282.2	1304.8	1336.2	1347.1	1353.6
15°	1101.3	1134.8	1166.3	1207.6	1246.3	1245.6	1279.8	1303.7	1335.9	1345.1	1351.3
17.5°	1073.6	1109.5	1144.1	1188.8	1227.1	1227.8	1262.4	1285.9	1317.4	1324.9	1329.0
20°	1045.6	1081.1	1115.7	1161.8	1199.4	1200.5	1234.3	1256.2	1286.3	1292.4	1293.5
22.5°	1015.8	1049.0	1083.5	1129.3	1165.6	1166.3	1199.8	1220.3	1245.9	1249.0	1251.8
25°	982.0	1014.5	1046.9	1092.4	1127.0	1129.0	1159.4	1177.6	1201.2	1203.5	1204.6
27.5°	946.8	973.4	1004.5	1043.5	1078.4	1077.0	1105.8	1126.3	1147.5	1146.1	1145.8
30°	911.2	933.4	952.6	990.2	1015.8	1016.9	1043.9	1053.8	1076.0	1073.3	1072.9
32.5°	886.2	892.1	897.2	916.3	940.6	932.1	950.5	962.8	978.2	977.2	977.5
35°	840.4	829.8	814.4	817.2	831.9	818.5	828.5	828.1	843.8	840.1	844.5
37.5°	762.1	732.0	697.9	678.4	681.1	664.3	660.9	669.1	674.6	664.0	667.8
40°	678.7	634.3	580.9	536.5	534.1	513.2	509.5	501.2	511.8	503.0	505.7
42.5°	617.2	558.3	488.3	434.2	422.6	405.2	394.9	393.5	396.6	390.5	388.8
45°	570.0	507.4	427.1	365.2	352.2	333.4	323.1	319.3	319.7	317.6	315.9
47.5°	514.6	451.7	370.3	307.0	292.3	274.6	264.3	261.9	263.3	260.5	258.5
50°	438.0	381.6	307.4	249.6	236.6	223.6	215.4	213.0	212.7	210.6	209.3
52.5°	355.6	308.8	244.5	196.3	184.6	172.0	166.2	163.1	163.4	161.4	159.3
55°	275.2	246.2	189.4	148.4	137.8	127.9	122.4	118.6	117.6	115.6	114.5
57.5°	204.8	185.3	141.9	107.0	100.9	91.3	85.8	81.4	80.7	79.7	79.3
60°	143.6	129.6	99.8	76.2	69.1	63.3	57.8	53.3	51.3	50.9	49.9
62.5°	93.0	84.5	65.6	50.9	45.5	41.4	35.9	32.8	31.5	30.1	30.4
65°	57.8	51.3	41.0	32.8	29.7	26.7	22.6	19.8	18.5	17.1	17.4
67.5°	35.9	32.1	26.0	21.2	19.1	16.8	13.7	11.6	10.6	9.6	8.9
70°	24.3	20.9	17.8	15.0	13.7	12.0	9.9	8.2	7.5	6.8	6.2
72.5°	17.1	15.4	13.0	11.3	10.3	8.9	7.5	6.5	5.8	5.1	4.4
75°	12.3	10.9	9.6	8.2	7.5	6.8	5.8	5.1	4.4	3.8	3.1
77.5°	8.9	7.9	6.8	6.2	5.8	4.8	4.1	3.8	3.4	2.7	2.1
80°	6.2	5.5	4.4	4.1	4.1	3.4	3.1	2.7	2.4	1.7	1.4
82.5°	4.1	3.8	3.4	3.1	2.7	2.4	2.4	1.7	1.4	1.0	0.7
85°	3.1	2.7	2.4	2.1	2.1	1.7	1.4	1.0	1.0	0.7	0.3
87.5°	1.7	1.7	1.4	1.0	1.0	0.7	0.7	0.3	0.3	0.3	0.3
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°	1301.3	1301.3	1301.3	1301.3	1301.3	1301.3	1301.3	1301.3	1301.3	1301.3	1301.3
2.5°	1313.0	1314.0	1319.8	1315.4	1326.6	1334.8	1330.7	1340.0	1336.9	1336.2	1346.8
5°	1321.8	1324.2	1332.1	1328.0	1340.3	1349.2	1345.1	1355.4	1352.3	1351.6	1362.5
7.5°	1338.9	1341.3	1348.2	1344.8	1357.7	1365.6	1360.5	1371.8	1367.7	1367.3	1377.9
10°	1360.5	1363.9	1369.7	1366.3	1378.3	1385.1	1380.0	1390.9	1387.2	1385.4	1397.1
12.5°	1376.6	1378.9	1384.8	1382.0	1393.7	1398.8	1394.3	1404.9	1400.1	1398.8	1409.0
15°	1372.8	1375.2	1380.0	1377.6	1388.5	1393.3	1387.5	1399.1	1394.3	1391.6	1400.8
17.5°	1348.9	1350.2	1353.6	1351.3	1362.9	1366.0	1359.5	1371.1	1366.6	1361.9	1370.7
20°	1313.6	1313.0	1315.0	1314.0	1323.6	1325.3	1321.2	1329.7	1324.6	1321.8	1327.0
22.5°	1269.9	1269.2	1270.6	1267.8	1277.4	1278.4	1272.3	1282.5	1277.4	1272.3	1280.8
25°	1221.3	1217.6	1216.9	1217.9	1224.4	1225.4	1218.9	1226.5	1220.0	1215.9	1224.1
27.5°	1161.5	1156.7	1155.7	1156.7	1163.2	1158.4	1152.9	1158.4	1151.9	1148.2	1153.3
30°	1087.6	1080.8	1077.7	1075.7	1082.5	1080.8	1068.1	1074.3	1064.0	1058.6	1062.3
32.5°	988.1	984.4	976.2	971.4	977.9	964.9	957.0	957.0	952.9	943.7	945.7
35°	850.0	844.2	836.7	832.6	833.6	816.2	803.2	805.9	792.2	789.8	790.9
37.5°	675.3	665.7	663.0	654.4	656.5	641.1	623.3	623.7	616.5	609.0	606.6
40°	507.4	505.7	503.0	495.8	498.5	481.8	474.9	475.3	470.5	465.0	467.7
42.5°	392.2	386.7	385.0	382.6	383.3	380.6	371.7	372.7	368.6	367.2	365.9
45°	318.7	312.9	308.8	310.8	310.8	307.7	304.3	306.4	304.3	301.6	302.9
47.5°	262.6	257.1	255.1	254.7	257.1	255.1	251.7	252.3	252.0	251.0	250.3
50°	209.6	208.2	206.5	205.5	206.5	205.8	202.8	204.5	205.5	202.1	203.1
52.5°	159.7	159.7	159.3	156.9	159.0	156.9	156.6	157.3	156.3	154.9	154.5
55°	116.9	115.9	114.2	113.9	114.5	113.9	113.2	113.5	114.2	110.8	110.8
57.5°	80.0	79.3	78.3	78.3	79.7	78.0	76.9	78.3	76.9	75.6	75.6
60°	51.3	50.9	49.9	49.9	49.9	49.6	48.6	48.9	49.6	47.5	47.9
62.5°	30.8	29.7	29.4	29.1	29.4	29.1	29.1	28.7	28.4	28.4	27.4
65°	16.8	16.1	15.4	15.7	15.7	15.4	15.4	15.4	14.7	14.4	14.0
67.5°	8.5	7.9	7.9	7.5	7.5	7.5	7.5	7.2	7.2	7.2	6.8
70°	5.5	5.1	4.8	4.8	4.8	4.4	4.4	4.4	4.4	4.4	4.1
72.5°	3.8	3.4	3.1	3.1	3.1	2.7	2.7	2.7	2.7	2.4	2.4
75°	2.7	2.4	2.1	2.1	2.1	1.7	1.7	1.7	1.7	1.7	1.7
77.5°	1.7	1.4	1.4	1.4	1.4	1.0	1.0	1.0	1.0	1.0	0.7
80°	1.0	1.0	0.7	0.7	0.7	0.7	0.3	0.3	0.3	0.3	0.3
82.5°	0.7	0.7	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.0
85°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.0	0.0	0.0	0.0
87.5°	0.3	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: P245432

CATALOG NUMBER: LSR8B20D010 EC8B20940 8LBSW0WH

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1301.3	1301.3	1301.3	1301.3	1301.3	1301.3	1301.3	1301.3
2.5°	1343.0	1340.3	1342.0	1354.7	1349.2	1347.5	1333.1	1345.8
5°	1359.1	1357.1	1357.1	1371.4	1364.9	1363.6	1349.5	1360.5
7.5°	1374.2	1372.1	1372.5	1387.2	1382.0	1380.0	1366.0	1376.9
10°	1393.7	1392.3	1392.6	1406.6	1401.2	1399.1	1384.8	1396.0
12.5°	1405.3	1403.2	1403.2	1418.3	1412.1	1409.0	1395.4	1406.3
15°	1396.4	1393.3	1393.3	1408.4	1401.5	1397.1	1385.1	1395.4
17.5°	1366.0	1362.9	1362.9	1375.9	1370.7	1364.2	1351.9	1361.5
20°	1323.6	1319.8	1318.8	1333.8	1326.6	1320.8	1309.9	1319.1
22.5°	1275.7	1274.0	1270.9	1285.9	1279.5	1273.3	1261.7	1268.9
25°	1218.2	1215.5	1212.4	1227.1	1220.6	1214.5	1205.3	1211.1
27.5°	1146.8	1147.1	1145.4	1157.0	1150.5	1147.1	1135.8	1145.4
30°	1060.3	1056.5	1055.2	1068.8	1062.7	1058.2	1044.2	1053.4
32.5°	947.4	942.0	934.8	950.2	939.6	935.8	923.9	937.2
35°	783.3	781.6	775.1	788.1	782.3	775.5	767.9	779.2
37.5°	605.5	606.9	606.2	609.6	606.2	601.8	593.6	589.5
40°	462.3	458.9	456.1	462.3	455.1	455.1	450.3	455.4
42.5°	362.4	361.1	364.5	365.9	361.7	361.1	360.4	360.0
45°	299.2	299.2	299.9	301.2	299.9	299.2	297.1	295.8
47.5°	246.5	247.9	246.5	251.0	248.6	247.9	243.8	245.5
50°	199.7	198.0	199.7	201.0	201.4	199.3	197.3	198.3
52.5°	154.9	152.2	151.5	153.5	152.2	152.2	150.8	150.4
55°	109.1	110.1	108.4	110.1	109.4	108.4	107.4	108.7
57.5°	73.9	74.2	73.5	74.5	72.8	73.2	72.8	72.5
60°	47.9	46.5	46.5	47.5	45.8	45.8	45.5	45.5
62.5°	27.4	27.0	27.0	26.7	26.3	26.3	26.3	25.6
65°	14.0	13.7	13.3	13.3	13.3	13.3	13.0	13.0
67.5°	6.8	6.5	6.5	6.8	6.5	6.5	6.5	6.5
70°	4.1	4.1	3.8	4.1	3.8	3.8	3.8	3.8
72.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
75°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
77.5°	1.0	0.7	0.7	0.7	0.7	0.7	0.7	0.7
80°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
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)