

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: P245426

Luminaire Tested: **LSR8B20D010 EC8B20935 8LBSW0WH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P245426  
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 EC8B20935 8LBSW0WH  
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
90 CRI 3500 CCT WITH WHEAT TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1907.0 lumens  
Efficiency: N/A  
Efficacy: 89.5 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

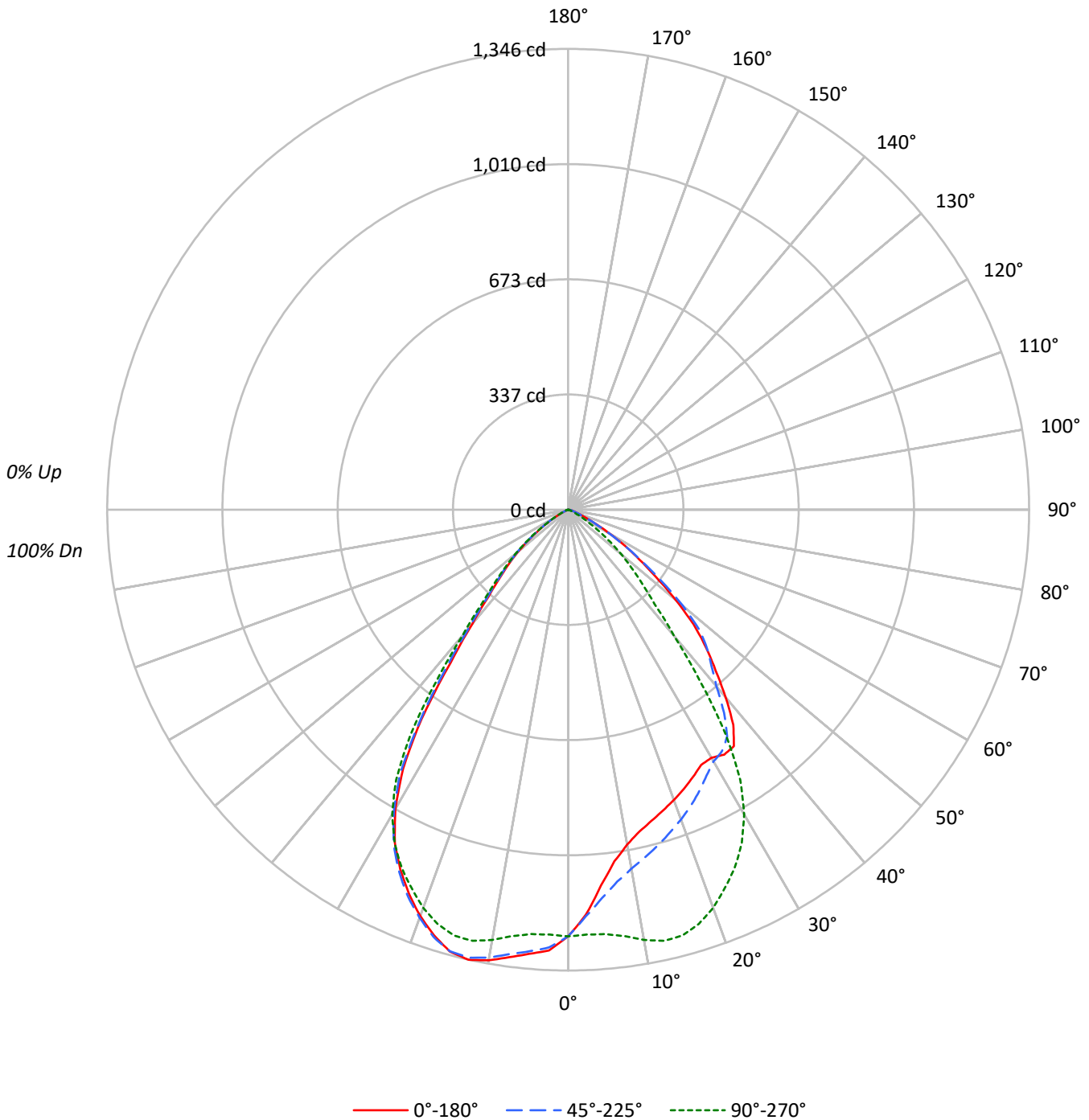
Input Watts (W): 21.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	38416	38416	38416
5°	34084	38513	40315
10°	31077	39942	41849
15°	30031	41109	42644
20°	29603	40602	41439
25°	29312	39203	39448
30°	29789	36586	35909
35°	31753	30273	28083
40°	28778	19382	17551
45°	24835	13262	12346
50°	19597	9671	9105
55°	13602	5946	5597
60°	8659	3010	2683
65°	4320	1197	905
70°	2389	586	325
75°	1716	429	155
80°	1403	284	53
85°	1521	248	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.1	6.1
10°-20°	335.4	17.6
20°-30°	486.8	25.5
30°-40°	479.4	25.1
40°-50°	300.5	15.8
50°-60°	145.0	7.6
60°-70°	35.1	1.8
70°-80°	7.1	0.4
80°-90°	1.6	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°	938.2	49.2
0°-40°	1417.7	74.3
0°-60°	1863.2	97.7
0°-90°	1907.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1907.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1246	1246	1246	1246	1246	
5°	1101	1138	1244	1295	1302	102
15°	941	1015	1288	1335	1336	266
25°	862	906	1152	1168	1159	399
35°	844	809	804	758	746	510
45°	570	574	304	291	283	435
55°	253	261	111	109	104	233
65°	59	59	16	14	12	68
75°	14	12	4	2	1	16
85°	4	3	1	0	0	4
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°	1245.8	1245.8	1245.8	1245.8	1245.8	1245.8	1245.8	1245.8	1245.8	1245.8	1245.8
2.5°	1184.3	1176.7	1162.7	1179.7	1179.7	1170.2	1189.2	1177.7	1186.9	1201.3	1188.5
5°	1101.1	1094.9	1083.1	1101.1	1103.4	1094.6	1117.5	1109.0	1122.4	1140.1	1138.4
7.5°	1035.3	1027.5	1016.7	1035.3	1038.9	1033.0	1055.0	1051.0	1068.7	1091.6	1095.6
10°	992.5	984.3	974.8	991.8	994.4	990.5	1012.7	1010.5	1027.8	1054.3	1064.8
12.5°	962.0	955.1	944.7	962.7	965.6	960.0	981.0	980.0	998.0	1025.8	1038.9
15°	940.7	932.6	923.1	938.4	942.4	936.2	956.1	954.2	972.5	1000.0	1014.7
17.5°	920.8	913.2	903.4	917.8	921.8	915.2	934.8	931.6	947.3	973.5	988.5
20°	902.1	893.9	885.1	899.8	902.1	894.6	914.2	910.0	924.0	948.3	963.0
22.5°	882.8	874.3	865.1	879.5	881.8	874.3	892.3	887.4	900.5	922.4	935.8
25°	861.5	853.7	844.5	857.9	859.9	851.7	870.7	864.5	875.9	895.2	906.4
27.5°	840.2	832.7	822.6	836.3	837.3	829.4	846.8	838.3	847.8	865.5	874.9
30°	836.6	828.1	817.7	828.8	829.1	819.0	835.3	825.2	830.4	843.5	849.1
32.5°	848.1	839.6	828.8	838.0	837.0	825.8	841.6	829.1	830.8	837.6	836.3
35°	843.5	833.4	820.6	830.4	830.4	817.0	832.7	818.0	816.4	817.3	809.2
37.5°	791.5	783.6	771.5	781.0	780.0	769.9	782.0	769.9	764.3	762.0	747.3
40°	714.9	705.4	696.2	706.4	707.4	696.6	712.3	698.5	696.9	690.3	673.0
42.5°	637.3	634.0	625.2	633.7	638.3	629.1	642.2	635.7	636.6	635.0	618.6
45°	569.5	564.0	557.4	567.3	570.2	565.6	578.7	574.8	578.7	586.9	573.5
47.5°	496.6	491.0	483.8	494.3	499.5	491.0	502.1	500.8	506.7	520.8	519.5
50°	408.5	404.6	403.3	404.6	407.8	403.9	411.8	412.1	416.0	435.3	436.7
52.5°	323.4	322.4	317.8	322.1	322.1	315.9	323.7	320.1	324.1	337.1	345.7
55°	253.0	252.0	249.1	253.0	248.8	246.5	248.8	245.2	242.2	252.4	261.2
57.5°	197.1	193.8	190.2	191.8	191.5	186.6	189.2	184.9	182.6	186.2	194.1
60°	140.4	139.4	136.2	137.8	139.1	135.5	138.1	136.2	132.2	135.2	135.5
62.5°	93.3	93.9	92.0	92.3	91.3	90.7	92.3	93.3	92.3	91.0	91.3
65°	59.2	58.9	58.6	58.9	59.6	58.3	59.2	59.9	58.9	58.9	58.6
67.5°	39.3	38.3	37.3	38.0	38.6	37.6	38.6	38.3	38.6	38.3	37.3
70°	26.5	26.2	25.9	26.2	26.2	25.5	26.2	25.9	26.2	25.9	24.9
72.5°	19.3	19.3	19.0	19.3	19.3	18.7	19.0	18.3	18.7	18.3	17.7
75°	14.4	14.4	14.1	14.4	14.1	13.7	14.1	13.7	13.1	13.1	12.4
77.5°	10.5	10.5	10.5	10.5	10.5	10.1	10.1	9.8	9.5	9.2	9.2
80°	7.9	7.5	7.5	7.5	7.5	7.2	7.5	7.2	6.9	6.5	6.2
82.5°	5.6	5.9	5.6	5.6	5.6	5.2	5.6	5.2	5.2	4.9	4.3
85°	4.3	4.3	4.3	4.3	4.3	3.9	3.9	3.9	3.6	3.6	3.3
87.5°	2.3	2.3	2.3	2.6	2.3	2.3	2.3	2.0	2.0	1.6	1.6
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°	1245.8	1245.8	1245.8	1245.8	1245.8	1245.8	1245.8	1245.8	1245.8	1245.8	1245.8
2.5°	1205.5	1207.2	1203.6	1209.1	1230.7	1213.4	1220.6	1222.9	1239.3	1242.2	1240.2
5°	1159.7	1166.9	1171.5	1183.9	1207.8	1195.4	1208.2	1216.3	1237.3	1244.2	1245.8
7.5°	1123.7	1138.8	1149.9	1170.2	1198.3	1188.8	1208.2	1221.6	1247.1	1256.0	1260.2
10°	1096.9	1119.8	1139.1	1166.9	1198.7	1192.5	1217.7	1236.6	1265.1	1275.6	1280.8
12.5°	1076.6	1104.4	1130.3	1165.6	1200.0	1197.0	1227.5	1249.1	1279.2	1289.7	1295.9
15°	1054.3	1086.4	1116.5	1156.1	1193.1	1192.5	1225.2	1248.1	1278.9	1287.7	1293.6
17.5°	1027.8	1062.2	1095.2	1138.1	1174.8	1175.4	1208.5	1231.1	1261.2	1268.4	1272.3
20°	1001.0	1035.0	1068.1	1112.3	1148.3	1149.2	1181.6	1202.6	1231.4	1237.3	1238.3
22.5°	972.5	1004.2	1037.3	1081.2	1115.9	1116.5	1148.6	1168.2	1192.8	1195.7	1198.3
25°	940.1	971.2	1002.3	1045.8	1078.9	1080.8	1110.0	1127.3	1149.9	1152.2	1153.2
27.5°	906.4	931.9	961.7	999.0	1032.4	1031.1	1058.6	1078.2	1098.5	1097.2	1096.9
30°	872.3	893.6	911.9	947.9	972.5	973.5	999.3	1008.8	1030.1	1027.5	1027.2
32.5°	848.4	854.0	858.9	877.2	900.5	892.3	910.0	921.8	936.5	935.5	935.8
35°	804.6	794.4	779.7	782.3	796.4	783.6	793.1	792.8	807.8	804.2	808.5
37.5°	729.6	700.8	668.1	649.4	652.0	636.0	632.7	640.6	645.8	635.7	639.3
40°	649.7	607.2	556.1	513.6	511.3	491.3	487.7	479.9	490.0	481.5	484.1
42.5°	590.8	534.5	467.4	415.7	404.6	387.9	378.1	376.8	379.7	373.8	372.2
45°	545.7	485.8	408.8	349.6	337.1	319.1	309.3	305.7	306.1	304.1	302.4
47.5°	492.6	432.4	354.5	293.9	279.9	262.8	253.0	250.7	252.0	249.4	247.5
50°	419.3	365.3	294.3	238.9	226.5	214.1	206.2	203.9	203.6	201.6	200.3
52.5°	340.4	295.6	234.0	187.9	176.8	164.6	159.1	156.1	156.5	154.5	152.5
55°	263.5	235.7	181.3	142.1	131.9	122.4	117.2	113.6	112.6	110.6	109.7
57.5°	196.1	177.4	135.8	102.5	96.6	87.4	82.2	77.9	77.2	76.3	75.9
60°	137.5	124.1	95.6	73.0	66.1	60.6	55.3	51.1	49.1	48.8	47.8
62.5°	89.0	80.8	62.8	48.8	43.5	39.6	34.4	31.4	30.1	28.8	29.1
65°	55.3	49.1	39.3	31.4	28.5	25.5	21.6	19.0	17.7	16.4	16.7
67.5°	34.4	30.8	24.9	20.3	18.3	16.0	13.1	11.1	10.1	9.2	8.5
70°	23.2	20.0	17.0	14.4	13.1	11.5	9.5	7.9	7.2	6.5	5.9
72.5°	16.4	14.7	12.4	10.8	9.8	8.5	7.2	6.2	5.6	4.9	4.3
75°	11.8	10.5	9.2	7.9	7.2	6.5	5.6	4.9	4.3	3.6	2.9
77.5°	8.5	7.5	6.5	5.9	5.6	4.6	3.9	3.6	3.3	2.6	2.0
80°	5.9	5.2	4.3	3.9	3.9	3.3	2.9	2.6	2.3	1.6	1.3
82.5°	3.9	3.6	3.3	2.9	2.6	2.3	2.3	1.6	1.3	1.0	0.7
85°	2.9	2.6	2.3	2.0	2.0	1.6	1.3	1.0	1.0	0.7	0.3
87.5°	1.6	1.6	1.3	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°	1245.8	1245.8	1245.8	1245.8	1245.8	1245.8	1245.8	1245.8	1245.8	1245.8	1245.8
2.5°	1256.9	1257.9	1263.5	1259.2	1270.0	1277.9	1274.0	1282.8	1279.8	1279.2	1289.3
5°	1265.4	1267.7	1275.3	1271.3	1283.1	1291.6	1287.7	1297.5	1294.6	1293.9	1304.4
7.5°	1281.8	1284.1	1290.6	1287.4	1299.8	1307.3	1302.4	1313.2	1309.3	1309.0	1319.1
10°	1302.4	1305.7	1311.3	1308.0	1319.5	1326.0	1321.1	1331.6	1328.0	1326.3	1337.5
12.5°	1317.8	1320.1	1325.7	1323.1	1334.2	1339.1	1334.8	1345.0	1340.4	1339.1	1348.9
15°	1314.2	1316.5	1321.1	1318.8	1329.3	1333.9	1328.3	1339.4	1334.8	1332.2	1341.1
17.5°	1291.3	1292.6	1295.9	1293.6	1304.7	1307.7	1301.4	1312.6	1308.3	1303.7	1312.3
20°	1257.6	1256.9	1258.9	1257.9	1267.1	1268.7	1264.8	1273.0	1268.1	1265.4	1270.4
22.5°	1215.7	1215.0	1216.3	1213.7	1222.9	1223.9	1218.0	1227.8	1222.9	1218.0	1226.2
25°	1169.2	1165.6	1165.0	1165.9	1172.2	1173.1	1166.9	1174.1	1167.9	1164.0	1171.8
27.5°	1111.9	1107.3	1106.4	1107.3	1113.6	1109.0	1103.7	1109.0	1102.8	1099.2	1104.1
30°	1041.2	1034.7	1031.7	1029.8	1036.3	1034.7	1022.6	1028.5	1018.6	1013.4	1017.0
32.5°	946.0	942.4	934.5	929.9	936.2	923.7	916.2	916.2	912.3	903.4	905.4
35°	813.7	808.2	801.0	797.0	798.0	781.3	768.9	771.5	758.4	756.1	757.1
37.5°	646.5	637.3	634.7	626.5	628.5	613.7	596.7	597.0	590.2	583.0	580.7
40°	485.8	484.1	481.5	474.6	477.2	461.2	454.7	455.0	450.4	445.2	447.8
42.5°	375.4	370.2	368.6	366.3	366.9	364.3	355.8	356.8	352.9	351.5	350.2
45°	305.1	299.5	295.6	297.5	297.5	294.6	291.3	293.3	291.3	288.7	290.0
47.5°	251.4	246.1	244.2	243.9	246.1	244.2	240.9	241.6	241.2	240.3	239.6
50°	200.7	199.3	197.7	196.7	197.7	197.1	194.1	195.7	196.7	193.4	194.4
52.5°	152.9	152.9	152.5	150.2	152.2	150.2	149.9	150.6	149.6	148.3	148.0
55°	111.9	111.0	109.3	109.0	109.7	109.0	108.3	108.7	109.3	106.1	106.1
57.5°	76.6	75.9	75.0	75.0	76.3	74.6	73.6	75.0	73.6	72.3	72.3
60°	49.1	48.8	47.8	47.8	47.8	47.5	46.5	46.8	47.5	45.5	45.8
62.5°	29.5	28.5	28.2	27.8	28.2	27.8	27.8	27.5	27.2	27.2	26.2
65°	16.0	15.4	14.7	15.1	15.1	14.7	14.7	14.7	14.1	13.7	13.4
67.5°	8.2	7.5	7.5	7.2	7.2	7.2	7.2	6.9	6.9	6.9	6.5
70°	5.2	4.9	4.6	4.6	4.6	4.3	4.3	4.3	4.3	4.3	3.9
72.5°	3.6	3.3	2.9	2.9	2.9	2.6	2.6	2.6	2.6	2.3	2.3
75°	2.6	2.3	2.0	2.0	2.0	1.6	1.6	1.6	1.6	1.6	1.6
77.5°	1.6	1.3	1.3	1.3	1.3	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: P245426

CATALOG NUMBER: LSR8B20D010 EC8B20935 8LBSW0WH

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1245.8	1245.8	1245.8	1245.8	1245.8	1245.8	1245.8	1245.8
2.5°	1285.7	1283.1	1284.8	1296.9	1291.6	1290.0	1276.2	1288.4
5°	1301.1	1299.2	1299.2	1312.9	1306.7	1305.4	1292.0	1302.4
7.5°	1315.5	1313.6	1313.9	1328.0	1323.1	1321.1	1307.7	1318.1
10°	1334.2	1332.9	1333.2	1346.6	1341.4	1339.4	1325.7	1336.5
12.5°	1345.3	1343.3	1343.3	1357.8	1351.9	1348.9	1335.8	1346.3
15°	1336.8	1333.9	1333.9	1348.3	1341.7	1337.5	1326.0	1335.8
17.5°	1307.7	1304.7	1304.7	1317.2	1312.3	1306.0	1294.2	1303.4
20°	1267.1	1263.5	1262.5	1276.9	1270.0	1264.5	1254.0	1262.8
22.5°	1221.3	1219.6	1216.7	1231.1	1224.9	1219.0	1207.8	1214.7
25°	1166.3	1163.6	1160.7	1174.8	1168.6	1162.7	1153.8	1159.4
27.5°	1097.9	1098.2	1096.5	1107.7	1101.5	1098.2	1087.4	1096.5
30°	1015.0	1011.4	1010.1	1023.2	1017.3	1013.1	999.7	1008.5
32.5°	907.0	901.8	894.9	909.6	899.5	895.9	884.4	897.2
35°	749.9	748.3	742.0	754.5	748.9	742.4	735.2	746.0
37.5°	579.7	581.0	580.3	583.6	580.3	576.1	568.2	564.3
40°	442.5	439.3	436.7	442.5	435.7	435.7	431.1	436.0
42.5°	347.0	345.7	348.9	350.2	346.3	345.7	345.0	344.7
45°	286.4	286.4	287.1	288.4	287.1	286.4	284.4	283.1
47.5°	236.0	237.3	236.0	240.3	238.0	237.3	233.4	235.0
50°	191.2	189.5	191.2	192.5	192.8	190.8	188.9	189.8
52.5°	148.3	145.7	145.0	147.0	145.7	145.7	144.4	144.0
55°	104.4	105.4	103.8	105.4	104.7	103.8	102.8	104.1
57.5°	70.7	71.0	70.4	71.4	69.7	70.0	69.7	69.4
60°	45.8	44.5	44.5	45.5	43.9	43.9	43.5	43.5
62.5°	26.2	25.9	25.9	25.5	25.2	25.2	25.2	24.5
65°	13.4	13.1	12.8	12.8	12.8	12.8	12.4	12.4
67.5°	6.5	6.2	6.2	6.5	6.2	6.2	6.2	6.2
70°	3.9	3.9	3.6	3.9	3.6	3.6	3.6	3.6
72.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
75°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
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)