

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: P244184

Luminaire Tested: **LSR8B20D010 EC8B20850 8LBDW0LI**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P244184  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13956)  
Test Lab: INNOVATION CENTER-P1  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LSR8B20D010 EC8B20850 8LBDW0LI  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
80 CRI 5000 CCT WITH SPECULAR CLEAR TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2335.0 lumens  
Efficiency: N/A  
Efficacy: 109.6 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.33 / 1.2  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

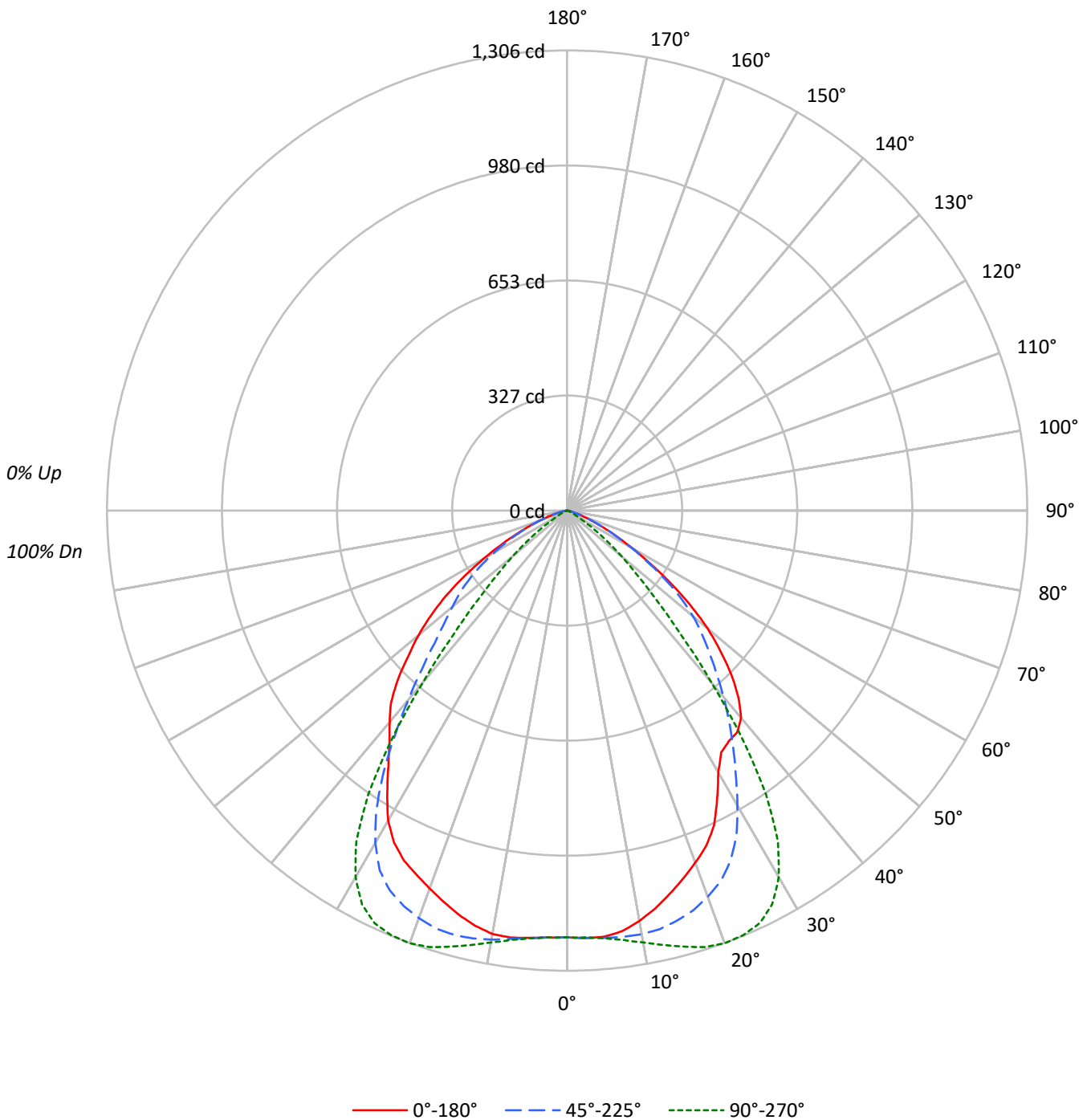
Input Watts (W): 21.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P244184

CATALOG NUMBER: LSR8B20D010 EC8B20850 8LBDW0LI

### Luminous Intensity Polar Plot





TEST NUMBER: P244184

CATALOG NUMBER: LSR8B20D010 EC8B20850 8LBDW0LI

**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	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	92	90					90			
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79					79			
3	97	88	82	76	94	87	81	76	84	79	74	81	77	73	79	75	72	70					70			
4	90	80	73	67	88	79	72	67	76	70	66	74	69	65	72	68	64	62					62			
5	84	73	65	60	82	72	65	59	70	63	59	68	62	58	66	61	58	56					56			
6	78	66	59	53	76	66	58	53	64	57	53	62	57	52	61	56	52	50					50			
7	73	61	53	48	71	60	53	48	59	52	48	57	52	47	56	51	47	45					45			
8	68	56	49	44	67	56	48	43	54	48	43	53	47	43	52	47	43	41					41			
9	64	52	45	40	63	51	44	40	50	44	39	49	44	39	48	43	39	38					38			
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34					34			

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

	0°	90°	180°
0°	37352	37352	37352
5°	37575	37714	37674
10°	37023	38977	38210
15°	35940	40908	37910
20°	34899	42873	37449
25°	33558	43969	37277
30°	30540	42764	36173
35°	30085	37057	33281
40°	30903	25702	31551
45°	28769	15534	29667
50°	24951	9595	26433
55°	19150	5011	22435
60°	13044	2023	16929
65°	8114	1029	11682
70°	4409	640	7132
75°	2299	310	4218
80°	1030	337	2291
85°	672	212	2052



TEST NUMBER: P244184

CATALOG NUMBER: LSR8B20D010 EC8B20850 8LBDW0LI

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.5	5.0
10°-20°	345.1	14.8
20°-30°	526.5	22.5
30°-40°	549.4	23.5
40°-50°	412.7	17.7
50°-60°	253.9	10.9
60°-70°	103.3	4.4
70°-80°	24.3	1.0
80°-90°	3.4	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°	988.0	42.3
0°-40°	1537.4	65.8
0°-60°	2204.0	94.4
0°-90°	2335.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2335.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1211	1211	1211	1211	1211	
5°	1214	1217	1218	1217	1217	115
15°	1126	1205	1281	1246	1188	317
25°	986	1097	1292	1190	1096	448
35°	799	822	984	910	884	505
45°	660	571	356	532	680	503
55°	356	338	93	338	417	320
65°	111	112	14	151	160	116
75°	19	19	3	34	35	23
85°	2	2	1	4	6	3
90°	0	0	0	0	0	



TEST NUMBER: P244184

CATALOG NUMBER: LSR8B20D010 EC8B20850 8LBDW0LI

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3
2.5°	1214.5	1212.6	1214.5	1214.5	1215.2	1213.9	1214.5	1215.2	1213.9	1213.9	1213.9
5°	1213.9	1212.6	1213.9	1213.3	1214.5	1214.5	1215.8	1215.8	1217.1	1217.1	1219.0
7.5°	1203.6	1201.0	1203.6	1205.5	1206.8	1209.4	1212.6	1215.2	1217.7	1220.3	1223.5
10°	1182.4	1182.4	1184.3	1188.2	1192.0	1196.5	1202.3	1208.8	1215.2	1221.0	1226.7
12.5°	1156.0	1154.1	1158.0	1163.1	1168.9	1176.0	1185.0	1194.6	1204.9	1216.5	1225.5
15°	1125.8	1123.9	1128.4	1133.5	1140.6	1150.9	1161.8	1174.7	1189.5	1204.9	1219.7
17.5°	1094.9	1094.3	1098.8	1105.9	1111.7	1122.6	1136.7	1152.2	1168.9	1189.5	1208.8
20°	1063.5	1062.8	1067.3	1073.1	1080.8	1091.1	1105.2	1123.2	1143.2	1166.3	1188.8
22.5°	1030.6	1031.3	1035.1	1041.6	1048.0	1058.9	1073.7	1091.7	1113.6	1138.7	1163.7
25°	986.3	983.1	988.2	994.7	1005.6	1014.6	1028.7	1048.0	1070.5	1096.9	1126.5
27.5°	922.0	921.3	925.9	931.6	941.3	952.2	967.6	987.6	1011.4	1040.3	1069.2
30°	857.7	859.0	860.9	866.7	873.1	884.1	899.5	916.2	938.7	966.4	997.2
32.5°	814.0	814.0	816.6	820.4	824.9	830.7	841.6	853.8	871.2	890.5	913.0
35°	799.2	796.6	799.2	799.8	800.5	801.8	803.7	807.6	813.3	821.7	830.1
37.5°	792.8	790.8	790.8	788.3	785.0	781.2	776.0	770.3	763.8	755.5	749.0
40°	767.7	766.4	765.1	762.5	755.5	747.8	739.4	725.9	711.1	690.5	670.0
42.5°	719.5	718.2	717.5	712.4	706.0	697.0	687.3	673.2	654.5	628.2	598.6
45°	659.7	657.1	655.2	650.7	646.2	638.5	629.5	616.6	597.9	570.9	535.6
47.5°	590.2	588.9	588.3	586.4	581.9	577.4	571.6	561.3	544.6	518.9	482.2
50°	520.1	517.6	518.9	518.2	516.3	513.1	509.2	502.1	489.3	466.1	432.7
52.5°	439.8	439.8	439.1	441.1	441.7	441.1	441.7	434.0	423.1	405.7	377.4
55°	356.2	356.2	358.1	360.7	363.3	363.9	363.3	360.1	352.3	338.2	313.1
57.5°	277.7	276.5	280.3	284.2	286.8	289.3	287.4	284.8	280.3	268.7	249.5
60°	211.5	211.5	214.1	216.7	219.2	221.8	221.2	220.5	216.7	209.0	193.5
62.5°	155.6	156.2	156.2	158.2	160.7	163.3	165.2	163.3	161.4	156.2	145.9
65°	111.2	110.6	111.2	113.2	115.1	117.7	118.9	118.3	116.4	112.5	104.8
67.5°	74.6	73.9	76.5	77.1	78.4	81.0	80.4	81.0	80.4	77.1	70.7
70°	48.9	47.6	48.9	48.2	50.2	50.8	52.1	52.7	52.1	50.2	48.2
72.5°	30.2	29.6	30.2	30.9	31.5	32.1	33.4	33.4	32.8	31.5	28.9
75°	19.3	17.4	18.0	16.7	18.0	18.0	19.3	19.9	19.3	19.3	18.0
77.5°	11.6	11.6	11.6	11.6	11.6	11.6	11.6	12.2	12.9	11.6	10.9
80°	5.8	5.8	6.4	6.4	6.4	7.1	6.4	6.4	6.4	7.1	5.1
82.5°	4.5	3.9	3.9	3.9	4.5	3.9	3.9	3.9	3.9	3.9	3.9
85°	1.9	2.6	1.9	1.3	1.9	1.9	2.6	1.9	1.9	1.9	2.6
87.5°	0.6	0.6	0.0	0.0	0.0	0.6	0.0	0.6	0.6	1.3	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: P244184

CATALOG NUMBER: LSR8B20D010 EC8B20850 8LBDW0LI

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3
2.5°	1214.5	1213.3	1213.3	1212.6	1213.9	1212.6	1213.3	1212.6	1212.6	1213.9	1212.6
5°	1219.0	1219.7	1218.4	1217.7	1219.7	1219.7	1219.7	1218.4	1218.4	1219.0	1218.4
7.5°	1225.5	1226.7	1227.4	1228.0	1229.3	1230.0	1230.0	1229.3	1228.7	1230.6	1228.0
10°	1232.5	1234.5	1238.3	1240.3	1243.5	1243.5	1244.8	1244.8	1243.5	1244.8	1244.1
12.5°	1230.0	1241.5	1248.0	1252.5	1257.0	1260.8	1262.1	1262.8	1262.1	1264.7	1262.1
15°	1234.5	1244.1	1254.4	1262.1	1270.5	1275.0	1276.3	1281.4	1282.7	1283.3	1279.5
17.5°	1227.4	1244.8	1255.7	1267.3	1279.5	1287.8	1295.5	1298.8	1299.4	1300.7	1295.5
20°	1211.3	1230.6	1247.3	1264.0	1278.2	1291.0	1297.5	1306.5	1303.9	1309.1	1302.0
22.5°	1189.5	1211.3	1232.5	1254.4	1269.2	1284.6	1298.1	1304.5	1307.8	1307.8	1300.0
25°	1154.7	1180.5	1203.6	1226.1	1248.6	1267.3	1282.7	1292.3	1294.3	1293.6	1284.6
27.5°	1100.7	1128.4	1155.4	1181.1	1208.8	1230.6	1248.6	1260.2	1263.4	1263.4	1253.8
30°	1026.2	1055.7	1082.1	1112.9	1141.2	1165.7	1190.8	1201.0	1206.8	1206.8	1195.9
32.5°	937.4	962.5	986.9	1017.2	1048.0	1075.7	1099.4	1113.6	1120.7	1120.0	1110.4
35°	841.0	853.2	871.9	894.3	922.0	947.7	970.9	984.4	996.6	995.9	986.9
37.5°	744.5	741.3	743.3	751.6	769.0	787.0	805.0	817.8	828.1	832.6	830.7
40°	650.0	633.3	617.2	611.5	612.7	619.2	628.8	638.5	650.0	655.8	658.4
42.5°	565.2	536.9	508.6	487.4	475.1	471.3	475.8	479.0	486.1	494.4	502.8
45°	497.0	459.1	421.8	389.0	368.4	356.2	353.6	356.2	360.1	368.4	379.3
47.5°	441.1	396.7	354.9	318.3	288.0	272.0	267.5	266.2	270.0	277.7	292.5
50°	391.6	347.2	300.9	258.5	227.0	209.0	202.5	200.0	204.5	210.2	223.7
52.5°	337.5	293.8	246.3	205.1	172.3	153.7	146.6	142.7	145.3	153.0	166.5
55°	279.0	238.5	195.5	153.0	121.5	104.2	95.8	93.2	95.8	104.2	117.7
57.5°	220.5	186.5	150.4	110.6	82.3	64.9	56.6	54.0	61.1	64.3	78.4
60°	172.3	144.7	113.8	81.0	56.6	43.1	34.7	32.8	36.0	41.8	53.4
62.5°	129.2	111.9	87.4	57.9	41.8	27.6	23.1	21.2	23.1	27.6	36.7
65°	93.9	80.4	61.1	42.4	28.3	20.6	15.4	14.1	16.1	19.3	27.0
67.5°	64.3	54.0	42.4	29.6	19.3	12.9	10.9	10.9	11.6	14.1	19.9
70°	41.8	35.4	27.0	19.3	12.9	9.6	8.4	7.1	8.4	10.3	13.5
72.5°	26.4	22.5	17.4	13.5	9.6	7.1	5.8	5.1	6.4	7.7	10.3
75°	16.1	12.2	9.0	7.1	5.1	5.1	5.1	2.6	3.2	5.1	6.4
77.5°	9.6	8.4	7.1	5.8	4.5	2.6	2.6	2.6	3.2	3.9	5.8
80°	5.1	4.5	3.2	3.2	2.6	1.9	2.6	1.9	1.3	3.2	3.9
82.5°	3.2	2.6	2.6	2.6	3.2	1.3	1.9	1.3	1.9	2.6	1.9
85°	1.9	1.9	1.9	1.3	3.2	1.3	1.3	0.6	0.6	1.3	1.3
87.5°	0.0	0.6	0.6	0.0	0.6	0.0	0.6	0.6	0.6	0.6	0.6
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: P244184

CATALOG NUMBER: LSR8B20D010 EC8B20850 8LBDW0LI

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3
2.5°	1213.3	1212.6	1213.3	1212.6	1212.6	1212.6	1213.3	1213.3	1212.6	1212.6	1213.9
5°	1218.4	1218.4	1218.4	1217.7	1217.1	1217.1	1218.4	1218.4	1216.5	1218.4	1218.4
7.5°	1229.3	1227.4	1229.3	1226.7	1225.5	1226.1	1226.7	1225.5	1224.2	1224.8	1224.8
10°	1243.5	1241.5	1241.5	1239.6	1237.7	1236.4	1235.1	1231.9	1228.7	1228.0	1225.5
12.5°	1260.2	1257.0	1255.1	1251.2	1248.0	1243.5	1239.6	1234.5	1228.0	1223.5	1219.0
15°	1276.9	1271.8	1267.3	1260.8	1253.8	1246.0	1237.7	1229.3	1219.0	1210.0	1202.3
17.5°	1290.4	1283.3	1275.0	1264.7	1254.4	1242.8	1230.6	1218.4	1203.6	1192.0	1183.0
20°	1294.9	1284.6	1273.7	1260.2	1246.7	1230.6	1215.2	1199.1	1182.4	1170.2	1159.9
22.5°	1289.1	1276.9	1263.4	1249.3	1231.2	1213.9	1195.9	1177.2	1162.5	1145.7	1136.1
25°	1273.0	1258.3	1243.5	1226.7	1209.4	1190.1	1170.8	1151.5	1133.5	1124.5	1112.3
27.5°	1240.3	1224.2	1208.1	1190.8	1170.8	1151.5	1131.6	1112.9	1097.5	1085.3	1078.2
30°	1182.4	1163.7	1145.1	1126.5	1109.1	1089.2	1070.5	1055.1	1039.6	1030.0	1022.9
32.5°	1093.7	1076.9	1058.3	1040.3	1024.2	1007.5	992.1	978.6	967.6	961.2	956.1
35°	974.1	957.4	943.2	930.4	916.8	909.8	900.1	892.4	887.9	885.3	884.7
37.5°	823.6	814.0	809.5	806.9	804.3	802.4	803.7	806.9	809.5	814.0	819.1
40°	662.9	671.2	673.8	682.8	691.2	702.1	714.3	728.5	740.0	754.8	765.1
42.5°	516.3	531.7	549.7	569.0	589.6	609.5	634.0	656.4	677.0	695.7	711.7
45°	396.7	420.5	447.5	475.1	502.8	531.7	561.3	588.9	613.4	633.3	650.0
47.5°	309.3	335.6	370.3	404.4	437.9	471.9	504.7	533.6	554.2	573.5	588.3
50°	245.0	275.2	313.1	352.3	389.0	425.0	459.7	486.7	507.3	522.7	533.6
52.5°	189.7	225.7	264.3	305.4	344.6	383.8	416.0	441.1	457.8	471.3	479.6
55°	141.4	176.8	218.0	260.4	300.3	338.2	368.4	390.3	405.1	412.8	417.3
57.5°	102.2	134.4	175.5	218.0	254.0	290.0	314.4	334.3	342.7	347.2	349.1
60°	74.6	104.2	140.8	177.5	211.5	240.5	261.7	275.2	281.6	284.2	283.5
62.5°	54.7	80.4	111.9	142.7	170.4	194.2	210.9	219.9	223.1	224.4	222.5
65°	41.8	61.7	88.7	112.5	133.7	151.1	163.3	169.1	171.0	170.4	169.1
67.5°	30.9	46.3	66.2	84.2	99.7	113.2	119.6	124.7	126.0	124.1	122.2
70°	21.9	34.1	48.2	60.4	72.0	79.7	86.8	87.4	87.4	86.8	85.5
72.5°	15.4	23.8	32.8	41.2	48.2	54.0	56.6	58.5	57.9	57.2	55.9
75°	10.3	14.8	23.8	25.7	32.1	34.1	36.7	36.7	37.3	35.4	35.4
77.5°	6.4	10.3	14.1	16.7	19.3	21.9	23.1	23.1	23.8	23.1	23.1
80°	3.9	6.4	7.7	11.6	11.6	13.5	14.1	14.8	13.5	15.4	13.5
82.5°	2.6	3.9	5.8	5.8	7.1	8.4	8.4	9.0	9.0	8.4	8.4
85°	1.9	2.6	3.2	3.9	3.9	4.5	3.9	3.9	4.5	5.1	4.5
87.5°	0.6	1.3	0.6	1.3	1.3	2.6	1.9	1.9	1.9	2.6	2.6
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: P244184

CATALOG NUMBER: LSR8B20D010 EC8B20850 8LBDW0LI

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	1211.3	1211.3	1211.3	1211.3
2.5°	1212.6	1213.3	1212.6	1212.6
5°	1218.4	1217.7	1218.4	1217.1
7.5°	1222.9	1222.9	1222.2	1222.2
10°	1222.9	1220.3	1220.3	1220.3
12.5°	1213.3	1210.0	1208.1	1206.8
15°	1196.5	1190.8	1188.2	1187.5
17.5°	1174.7	1169.5	1166.3	1164.4
20°	1149.6	1144.5	1140.6	1141.2
22.5°	1127.7	1122.0	1119.4	1118.1
25°	1105.9	1098.8	1096.9	1095.6
27.5°	1070.5	1066.7	1064.7	1062.8
30°	1016.5	1014.6	1011.4	1015.9
32.5°	954.1	950.9	948.4	950.3
35°	885.3	883.4	885.3	884.1
37.5°	822.3	824.3	826.8	828.1
40°	772.8	779.9	782.5	783.8
42.5°	723.3	731.7	736.8	740.0
45°	662.2	670.6	676.4	680.3
47.5°	599.2	606.3	612.1	611.5
50°	542.0	545.9	548.4	551.0
52.5°	484.1	484.1	484.8	484.8
55°	418.6	417.3	416.6	417.3
57.5°	346.5	345.3	344.6	342.7
60°	281.0	277.1	274.5	274.5
62.5°	219.9	215.4	213.5	212.8
65°	165.2	164.6	160.7	160.1
67.5°	119.6	117.0	114.4	115.1
70°	84.2	80.4	80.4	79.1
72.5°	54.7	52.7	52.1	52.1
75°	34.1	34.1	32.8	35.4
77.5°	22.5	22.5	21.9	22.5
80°	13.5	13.5	13.5	12.9
82.5°	8.4	9.0	8.4	8.4
85°	4.5	5.1	3.9	5.8
87.5°	2.6	3.2	2.6	3.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)