

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: P244172

Luminaire Tested: **LSR8B20D010 EC8B20835 8LBDW0LI**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P244172
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 EC8B20835 8LBDW0LI
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 3500 CCT WITH SPECULAR CLEAR TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2305.0 lumens
Efficiency: N/A
Efficacy: 108.2 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

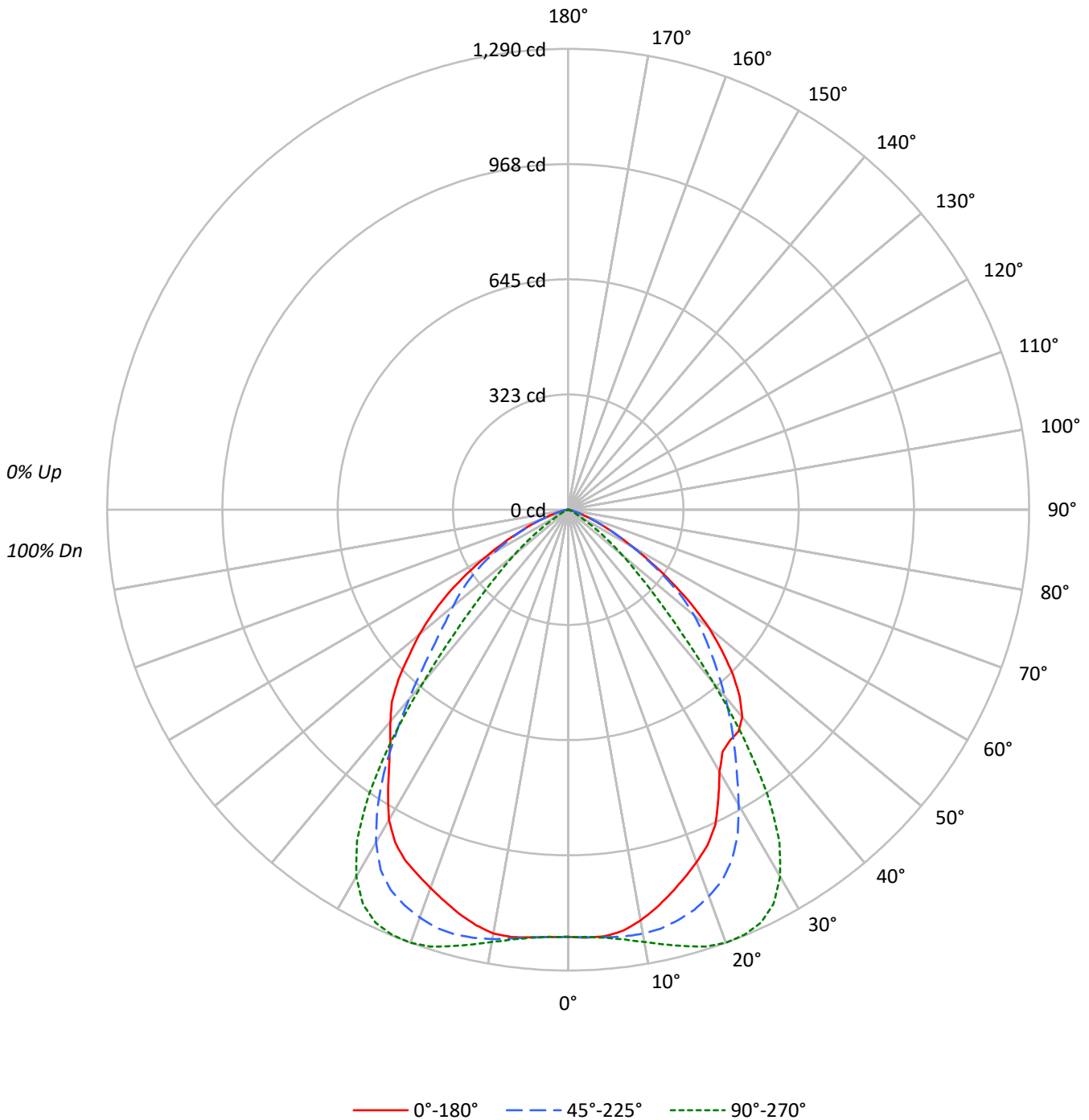
Input Watts (W): 21.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	36874	36874	36874
5°	37092	37229	37191
10°	36547	38476	37722
15°	35477	40381	37425
20°	34450	42322	36970
25°	33126	43405	36797
30°	30148	42215	35706
35°	29698	36579	32852
40°	30504	25368	31144
45°	28398	15333	29284
50°	24634	9470	26092
55°	18903	4946	22144
60°	12877	1998	16713
65°	8012	1022	11528
70°	4346	631	7041
75°	2264	298	4158
80°	1012	337	2255
85°	672	212	2017



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.0	5.0
10°-20°	340.7	14.8
20°-30°	519.7	22.5
30°-40°	542.3	23.5
40°-50°	407.4	17.7
50°-60°	250.6	10.9
60°-70°	102.0	4.4
70°-80°	24.0	1.0
80°-90°	3.3	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°	975.4	42.3
0°-40°	1517.7	65.8
0°-60°	2175.7	94.4
0°-90°	2305.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2305.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1196	1196	1196	1196	1196	
5°	1198	1202	1203	1202	1202	113
15°	1111	1189	1265	1230	1172	313
25°	974	1083	1276	1175	1082	443
35°	789	811	972	898	873	498
45°	651	564	352	525	672	497
55°	352	334	92	334	412	316
65°	110	111	14	149	158	114
75°	19	19	2	34	35	23
85°	2	2	1	4	6	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1195.8	1195.8	1195.8	1195.8	1195.8	1195.8	1195.8	1195.8	1195.8	1195.8	1195.8
2.5°	1198.9	1197.0	1198.9	1198.9	1199.6	1198.3	1198.9	1199.6	1198.3	1198.3	1198.3
5°	1198.3	1197.0	1198.3	1197.7	1198.9	1198.9	1200.2	1200.2	1201.5	1201.5	1203.4
7.5°	1188.1	1185.6	1188.1	1190.1	1191.3	1193.9	1197.0	1199.6	1202.1	1204.7	1207.8
10°	1167.2	1167.2	1169.1	1172.9	1176.7	1181.2	1186.9	1193.2	1199.6	1205.3	1211.0
12.5°	1141.2	1139.3	1143.1	1148.2	1153.9	1160.9	1169.7	1179.3	1189.4	1200.8	1209.7
15°	1111.3	1109.4	1113.9	1119.0	1125.9	1136.1	1146.9	1159.6	1174.2	1189.4	1204.0
17.5°	1080.9	1080.2	1084.7	1091.7	1097.4	1108.2	1122.1	1137.4	1153.9	1174.2	1193.2
20°	1049.8	1049.2	1053.6	1059.3	1066.9	1077.1	1091.0	1108.8	1128.5	1151.3	1173.5
22.5°	1017.4	1018.0	1021.8	1028.2	1034.6	1045.3	1059.9	1077.7	1099.3	1124.0	1148.8
25°	973.6	970.4	975.5	981.9	992.7	1001.5	1015.5	1034.6	1056.8	1082.8	1112.0
27.5°	910.1	909.5	914.0	919.7	929.2	940.0	955.2	974.9	998.4	1026.9	1055.5
30°	846.7	847.9	849.9	855.6	861.9	872.7	887.9	904.4	926.7	953.9	984.4
32.5°	803.5	803.5	806.1	809.9	814.3	820.0	830.8	842.9	860.0	879.1	901.3
35°	788.9	786.4	788.9	789.6	790.2	791.5	793.4	797.2	802.9	811.1	819.4
37.5°	782.6	780.7	780.7	778.1	775.0	771.2	766.1	760.4	754.0	745.8	739.4
40°	757.8	756.6	755.3	752.7	745.8	738.1	729.9	716.6	702.0	681.7	661.4
42.5°	710.2	709.0	708.3	703.2	696.9	688.0	678.5	664.5	646.1	620.1	590.9
45°	651.2	648.7	646.8	642.3	637.9	630.2	621.4	608.7	590.3	563.6	528.7
47.5°	582.6	581.4	580.7	578.8	574.4	569.9	564.2	554.1	537.6	512.2	476.0
50°	513.5	510.9	512.2	511.6	509.7	506.5	502.7	495.7	483.0	460.1	427.1
52.5°	434.1	434.1	433.5	435.4	436.0	435.4	436.0	428.4	417.6	400.5	372.6
55°	351.6	351.6	353.5	356.1	358.6	359.2	358.6	355.4	347.8	333.8	309.1
57.5°	274.2	272.9	276.7	280.5	283.1	285.6	283.7	281.2	276.7	265.3	246.3
60°	208.8	208.8	211.3	213.9	216.4	219.0	218.3	217.7	213.9	206.3	191.0
62.5°	153.6	154.2	154.2	156.1	158.7	161.2	163.1	161.2	159.3	154.2	144.1
65°	109.8	109.2	109.8	111.7	113.6	116.1	117.4	116.8	114.9	111.1	103.5
67.5°	73.6	73.0	75.5	76.2	77.4	80.0	79.3	80.0	79.3	76.2	69.8
70°	48.2	47.0	48.2	47.6	49.5	50.1	51.4	52.0	51.4	49.5	47.6
72.5°	29.8	29.2	29.8	30.5	31.1	31.7	33.0	33.0	32.4	31.1	28.6
75°	19.0	17.1	17.8	16.5	17.8	17.8	19.0	19.7	19.0	19.0	17.8
77.5°	11.4	11.4	11.4	11.4	11.4	11.4	11.4	12.1	12.7	11.4	10.8
80°	5.7	5.7	6.4	6.4	6.4	7.0	6.4	6.4	6.4	7.0	5.1
82.5°	4.4	3.8	3.8	3.8	4.4	3.8	3.8	3.8	3.8	3.8	3.8
85°	1.9	2.5	1.9	1.3	1.9	1.9	2.5	1.9	1.9	1.9	2.5
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



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1195.8	1195.8	1195.8	1195.8	1195.8	1195.8	1195.8	1195.8	1195.8	1195.8	1195.8
2.5°	1198.9	1197.7	1197.7	1197.0	1198.3	1197.0	1197.7	1197.0	1197.0	1198.3	1197.0
5°	1203.4	1204.0	1202.7	1202.1	1204.0	1204.0	1204.0	1202.7	1202.7	1203.4	1202.7
7.5°	1209.7	1211.0	1211.6	1212.3	1213.5	1214.2	1214.2	1213.5	1212.9	1214.8	1212.3
10°	1216.7	1218.6	1222.4	1224.3	1227.5	1227.5	1228.8	1228.8	1227.5	1228.8	1228.1
12.5°	1214.2	1225.6	1231.9	1236.4	1240.8	1244.6	1245.9	1246.5	1245.9	1248.4	1245.9
15°	1218.6	1228.1	1238.3	1245.9	1254.1	1258.6	1259.9	1264.9	1266.2	1266.8	1263.0
17.5°	1211.6	1228.8	1239.5	1251.0	1263.0	1271.3	1278.9	1282.1	1282.7	1284.0	1278.9
20°	1195.8	1214.8	1231.3	1247.8	1261.8	1274.5	1280.8	1289.7	1287.2	1292.2	1285.3
22.5°	1174.2	1195.8	1216.7	1238.3	1252.9	1268.1	1281.4	1287.8	1291.0	1291.0	1283.3
25°	1139.9	1165.3	1188.1	1210.4	1232.6	1251.0	1266.2	1275.7	1277.6	1277.0	1268.1
27.5°	1086.6	1113.9	1140.5	1165.9	1193.2	1214.8	1232.6	1244.0	1247.2	1247.2	1237.7
30°	1013.0	1042.2	1068.2	1098.6	1126.6	1150.7	1175.5	1185.6	1191.3	1191.3	1180.5
32.5°	925.4	950.1	974.3	1004.1	1034.6	1061.8	1085.3	1099.3	1106.3	1105.6	1096.1
35°	830.2	842.2	860.6	882.9	910.1	935.5	958.4	971.7	983.8	983.1	974.3
37.5°	735.0	731.8	733.7	742.0	759.1	776.9	794.6	807.3	817.5	821.9	820.0
40°	641.7	625.2	609.3	603.6	604.9	611.2	620.7	630.2	641.7	647.4	649.9
42.5°	557.9	530.0	502.0	481.1	469.0	465.2	469.7	472.8	479.8	488.1	496.3
45°	490.6	453.2	416.4	384.0	363.7	351.6	349.1	351.6	355.4	363.7	374.5
47.5°	435.4	391.6	350.4	314.2	284.3	268.5	264.0	262.8	266.6	274.2	288.8
50°	386.5	342.7	297.0	255.1	224.0	206.3	199.9	197.4	201.8	207.5	220.9
52.5°	333.2	290.1	243.1	202.5	170.1	151.7	144.7	140.9	143.4	151.1	164.4
55°	275.5	235.5	192.9	151.1	120.0	102.8	94.6	92.0	94.6	102.8	116.1
57.5°	217.7	184.1	148.5	109.2	81.2	64.1	55.8	53.3	60.3	63.5	77.4
60°	170.1	142.8	112.3	80.0	55.8	42.5	34.3	32.4	35.5	41.2	52.7
62.5°	127.6	110.4	86.3	57.1	41.2	27.3	22.8	20.9	22.8	27.3	36.2
65°	92.7	79.3	60.3	41.9	27.9	20.3	15.2	14.0	15.9	19.0	26.7
67.5°	63.5	53.3	41.9	29.2	19.0	12.7	10.8	10.8	11.4	14.0	19.7
70°	41.2	34.9	26.7	19.0	12.7	9.5	8.2	7.0	8.2	10.2	13.3
72.5°	26.0	22.2	17.1	13.3	9.5	7.0	5.7	5.1	6.4	7.6	10.2
75°	15.9	12.1	8.9	7.0	5.1	5.1	5.1	2.5	3.2	5.1	6.4
77.5°	9.5	8.2	7.0	5.7	4.4	2.5	2.5	2.5	3.2	3.8	5.7
80°	5.1	4.4	3.2	3.2	2.5	1.9	2.5	1.9	1.3	3.2	3.8
82.5°	3.2	2.5	2.5	2.5	3.2	1.3	1.9	1.3	1.9	2.5	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



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1195.8	1195.8	1195.8	1195.8	1195.8	1195.8	1195.8	1195.8	1195.8	1195.8	1195.8
2.5°	1197.7	1197.0	1197.7	1197.0	1197.0	1197.0	1197.7	1197.7	1197.0	1197.0	1198.3
5°	1202.7	1202.7	1202.7	1202.1	1201.5	1201.5	1202.7	1202.7	1200.8	1202.7	1202.7
7.5°	1213.5	1211.6	1213.5	1211.0	1209.7	1210.4	1211.0	1209.7	1208.5	1209.1	1209.1
10°	1227.5	1225.6	1225.6	1223.7	1221.8	1220.5	1219.2	1216.1	1212.9	1212.3	1209.7
12.5°	1244.0	1240.8	1238.9	1235.1	1231.9	1227.5	1223.7	1218.6	1212.3	1207.8	1203.4
15°	1260.5	1255.4	1251.0	1244.6	1237.7	1230.0	1221.8	1213.5	1203.4	1194.5	1186.9
17.5°	1273.8	1266.8	1258.6	1248.4	1238.3	1226.9	1214.8	1202.7	1188.1	1176.7	1167.8
20°	1278.3	1268.1	1257.3	1244.0	1230.7	1214.8	1199.6	1183.7	1167.2	1155.1	1145.0
22.5°	1272.6	1260.5	1247.2	1233.2	1215.4	1198.3	1180.5	1162.1	1147.5	1131.0	1121.5
25°	1256.7	1242.1	1227.5	1211.0	1193.9	1174.8	1155.8	1136.7	1119.0	1110.1	1098.0
27.5°	1224.3	1208.5	1192.6	1175.5	1155.8	1136.7	1117.1	1098.6	1083.4	1071.4	1064.4
30°	1167.2	1148.8	1130.4	1112.0	1094.8	1075.2	1056.8	1041.5	1026.3	1016.8	1009.8
32.5°	1079.6	1063.1	1044.7	1026.9	1011.1	994.6	979.3	966.0	955.2	948.9	943.8
35°	961.6	945.1	931.1	918.4	905.1	898.1	888.6	880.9	876.5	874.0	873.3
37.5°	813.0	803.5	799.1	796.5	794.0	792.1	793.4	796.5	799.1	803.5	808.6
40°	654.4	662.6	665.2	674.0	682.3	693.1	705.1	719.1	730.5	745.1	755.3
42.5°	509.7	524.9	542.7	561.7	582.0	601.7	625.8	648.0	668.3	686.7	702.6
45°	391.6	415.1	441.7	469.0	496.3	524.9	554.1	581.4	605.5	625.2	641.7
47.5°	305.3	331.3	365.6	399.2	432.2	465.9	498.2	526.8	547.1	566.1	580.7
50°	241.8	271.6	309.1	347.8	384.0	419.5	453.8	480.5	500.8	516.0	526.8
52.5°	187.2	222.8	260.9	301.5	340.2	378.9	410.6	435.4	451.9	465.2	473.5
55°	139.6	174.5	215.2	257.1	296.4	333.8	363.7	385.3	399.9	407.5	411.9
57.5°	100.9	132.7	173.3	215.2	250.7	286.2	310.4	330.0	338.3	342.7	344.6
60°	73.6	102.8	139.0	175.2	208.8	237.4	258.3	271.6	278.0	280.5	279.9
62.5°	54.0	79.3	110.4	140.9	168.2	191.7	208.2	217.1	220.2	221.5	219.6
65°	41.2	60.9	87.6	111.1	132.0	149.1	161.2	166.9	168.8	168.2	166.9
67.5°	30.5	45.7	65.4	83.1	98.4	111.7	118.1	123.1	124.4	122.5	120.6
70°	21.6	33.6	47.6	59.7	71.1	78.7	85.7	86.3	86.3	85.7	84.4
72.5°	15.2	23.5	32.4	40.6	47.6	53.3	55.8	57.8	57.1	56.5	55.2
75°	10.2	14.6	23.5	25.4	31.7	33.6	36.2	36.2	36.8	34.9	34.9
77.5°	6.4	10.2	14.0	16.5	19.0	21.6	22.8	22.8	23.5	22.8	22.8
80°	3.8	6.4	7.6	11.4	11.4	13.3	14.0	14.6	13.3	15.2	13.3
82.5°	2.5	3.8	5.7	5.7	7.0	8.2	8.2	8.9	8.9	8.2	8.2
85°	1.9	2.5	3.2	3.8	3.8	4.4	3.8	3.8	4.4	5.1	4.4
87.5°	0.6	1.3	0.6	1.3	1.3	2.5	1.9	1.9	1.9	2.5	2.5
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: P244172

CATALOG NUMBER: LSR8B20D010 EC8B20835 8LBDW0LI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1195.8	1195.8	1195.8	1195.8
2.5°	1197.0	1197.7	1197.0	1197.0
5°	1202.7	1202.1	1202.7	1201.5
7.5°	1207.2	1207.2	1206.5	1206.5
10°	1207.2	1204.7	1204.7	1204.7
12.5°	1197.7	1194.5	1192.6	1191.3
15°	1181.2	1175.5	1172.9	1172.3
17.5°	1159.6	1154.5	1151.3	1149.4
20°	1134.8	1129.8	1125.9	1126.6
22.5°	1113.2	1107.5	1105.0	1103.7
25°	1091.7	1084.7	1082.8	1081.5
27.5°	1056.8	1053.0	1051.0	1049.2
30°	1003.4	1001.5	998.4	1002.8
32.5°	941.9	938.7	936.2	938.1
35°	874.0	872.1	874.0	872.7
37.5°	811.8	813.7	816.2	817.5
40°	762.9	769.9	772.4	773.7
42.5°	714.0	722.3	727.4	730.5
45°	653.7	662.0	667.7	671.5
47.5°	591.5	598.5	604.2	603.6
50°	535.0	538.9	541.4	543.9
52.5°	477.9	477.9	478.6	478.6
55°	413.2	411.9	411.3	411.9
57.5°	342.1	340.8	340.2	338.3
60°	277.4	273.6	271.0	271.0
62.5°	217.1	212.6	210.7	210.1
65°	163.1	162.5	158.7	158.0
67.5°	118.1	115.5	113.0	113.6
70°	83.1	79.3	79.3	78.1
72.5°	54.0	52.0	51.4	51.4
75°	33.6	33.6	32.4	34.9
77.5°	22.2	22.2	21.6	22.2
80°	13.3	13.3	13.3	12.7
82.5°	8.2	8.9	8.2	8.2
85°	4.4	5.1	3.8	5.7
87.5°	2.5	3.2	2.5	3.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)