

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: P244166

Luminaire Tested: **LSR8B20D010 EC8B20830 8LBDW0LI**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P244166
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 EC8B20830 8LBDW0LI
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 3000 CCT WITH SPECULAR CLEAR TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2217.0 lumens
Efficiency: N/A
Efficacy: 104.1 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

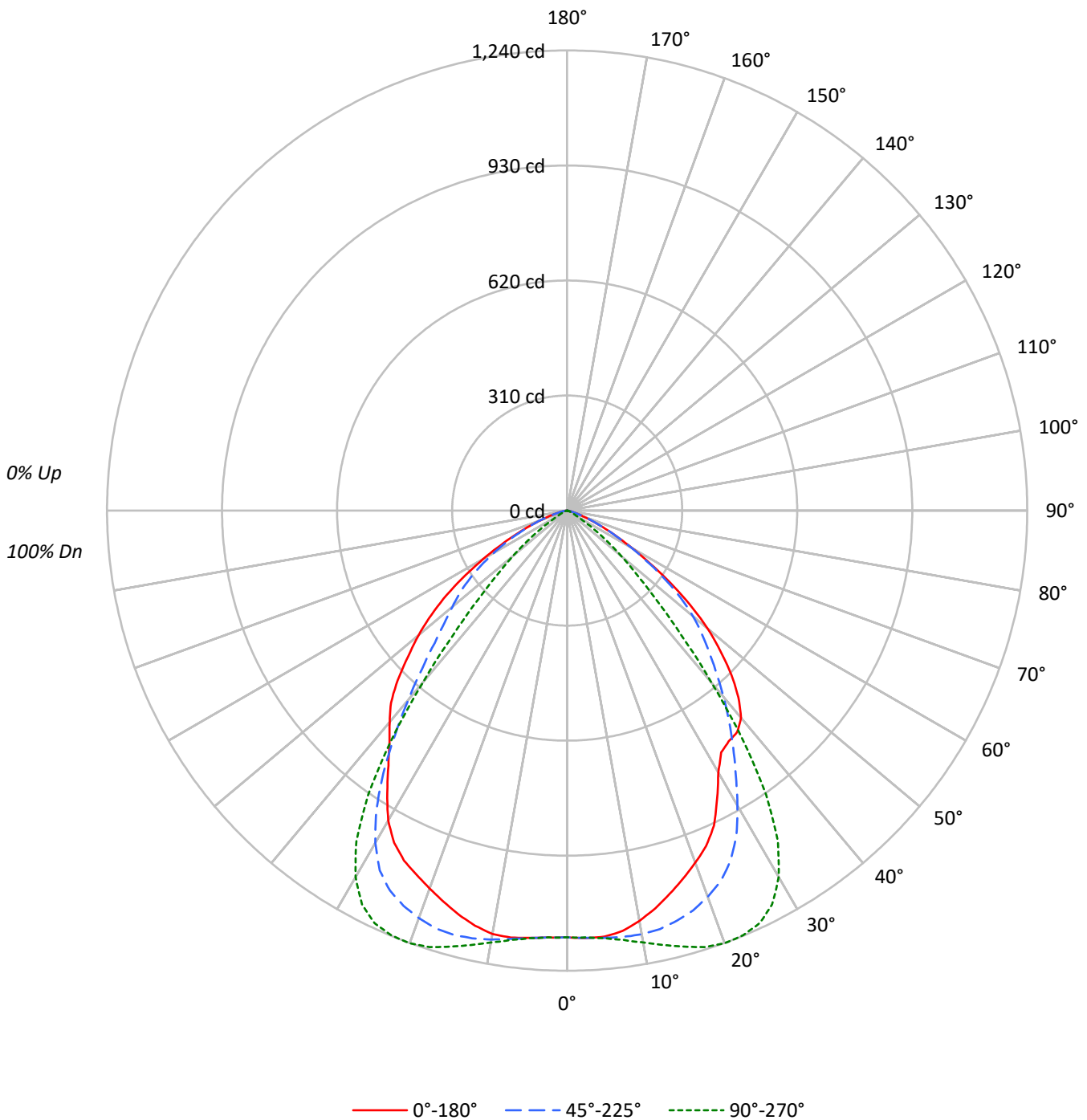
Input Watts (W): 21.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	35465	35465	35465
5°	35678	35808	35771
10°	35151	37008	36281
15°	34124	38839	35994
20°	33134	40707	35559
25°	31860	41748	35392
30°	28995	40602	34343
35°	28564	35182	31599
40°	29341	24402	29953
45°	27312	14749	28167
50°	23694	9105	25099
55°	18182	4758	21300
60°	12384	1918	16078
65°	7705	978	11091
70°	4183	604	6771
75°	2180	286	4003
80°	977	320	2166
85°	637	212	1946



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.6	5.0
10°-20°	327.7	14.8
20°-30°	499.9	22.5
30°-40°	521.6	23.5
40°-50°	391.8	17.7
50°-60°	241.1	10.9
60°-70°	98.1	4.4
70°-80°	23.1	1.0
80°-90°	3.2	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°	938.1	42.3
0°-40°	1459.7	65.8
0°-60°	2092.6	94.4
0°-90°	2217.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2217.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1150	1150	1150	1150	1150	
5°	1153	1156	1157	1156	1156	109
15°	1069	1144	1217	1183	1128	301
25°	936	1041	1227	1130	1040	426
35°	759	780	935	864	839	479
45°	626	542	338	505	646	478
55°	338	321	88	321	396	304
65°	106	107	13	144	152	110
75°	18	18	2	32	34	22
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°	1150.1	1150.1	1150.1	1150.1	1150.1	1150.1	1150.1	1150.1	1150.1	1150.1	1150.1
2.5°	1153.2	1151.3	1153.2	1153.2	1153.8	1152.6	1153.2	1153.8	1152.6	1152.6	1152.6
5°	1152.6	1151.3	1152.6	1151.9	1153.2	1153.2	1154.4	1154.4	1155.6	1155.6	1157.4
7.5°	1142.8	1140.3	1142.8	1144.6	1145.8	1148.3	1151.3	1153.8	1156.2	1158.7	1161.7
10°	1122.6	1122.6	1124.5	1128.1	1131.8	1136.1	1141.6	1147.7	1153.8	1159.3	1164.8
12.5°	1097.6	1095.8	1099.4	1104.3	1109.8	1116.5	1125.1	1134.2	1144.0	1155.0	1163.5
15°	1068.9	1067.1	1071.4	1076.2	1083.0	1092.7	1103.1	1115.3	1129.4	1144.0	1158.0
17.5°	1039.6	1039.0	1043.3	1050.0	1055.5	1065.9	1079.3	1093.9	1109.8	1129.4	1147.7
20°	1009.7	1009.1	1013.4	1018.9	1026.2	1036.0	1049.4	1066.5	1085.4	1107.4	1128.7
22.5°	978.6	979.2	982.8	988.9	995.1	1005.4	1019.5	1036.6	1057.3	1081.1	1104.9
25°	936.4	933.4	938.3	944.4	954.8	963.3	976.7	995.1	1016.4	1041.4	1069.5
27.5°	875.4	874.8	879.1	884.6	893.7	904.1	918.7	937.7	960.3	987.7	1015.2
30°	814.3	815.6	817.4	822.9	829.0	839.4	854.0	869.9	891.3	917.5	946.8
32.5°	772.8	772.8	775.3	778.9	783.2	788.7	799.1	810.7	827.2	845.5	866.9
35°	758.8	756.4	758.8	759.4	760.0	761.2	763.1	766.7	772.2	780.2	788.1
37.5°	752.7	750.9	750.9	748.4	745.4	741.7	736.8	731.3	725.2	717.3	711.2
40°	728.9	727.7	726.4	724.0	717.3	710.0	702.0	689.2	675.2	655.6	636.1
42.5°	683.1	681.9	681.3	676.4	670.3	661.7	652.6	639.2	621.5	596.4	568.3
45°	626.3	623.9	622.1	617.8	613.5	606.2	597.6	585.4	567.7	542.1	508.5
47.5°	560.4	559.2	558.6	556.7	552.5	548.2	542.7	532.9	517.1	492.6	457.8
50°	493.9	491.4	492.6	492.0	490.2	487.2	483.5	476.8	464.6	442.6	410.8
52.5°	417.5	417.5	417.0	418.8	419.4	418.8	419.4	412.1	401.7	385.2	358.3
55°	338.2	338.2	340.0	342.5	344.9	345.5	344.9	341.9	334.5	321.1	297.3
57.5°	263.7	262.5	266.2	269.8	272.3	274.7	272.9	270.4	266.2	255.2	236.9
60°	200.8	200.8	203.3	205.7	208.2	210.6	210.0	209.4	205.7	198.4	183.8
62.5°	147.7	148.3	148.3	150.2	152.6	155.1	156.9	155.1	153.2	148.3	138.6
65°	105.6	105.0	105.6	107.4	109.3	111.7	112.9	112.3	110.5	106.8	99.5
67.5°	70.8	70.2	72.6	73.3	74.5	76.9	76.3	76.9	76.3	73.3	67.2
70°	46.4	45.2	46.4	45.8	47.6	48.2	49.4	50.1	49.4	47.6	45.8
72.5°	28.7	28.1	28.7	29.3	29.9	30.5	31.7	31.7	31.1	29.9	27.5
75°	18.3	16.5	17.1	15.9	17.1	17.1	18.3	18.9	18.3	18.3	17.1
77.5°	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.6	12.2	11.0	10.4
80°	5.5	5.5	6.1	6.1	6.1	6.7	6.1	6.1	6.1	6.7	4.9
82.5°	4.3	3.7	3.7	3.7	4.3	3.7	3.7	3.7	3.7	3.7	3.7
85°	1.8	2.4	1.8	1.2	1.8	1.8	2.4	1.8	1.8	1.8	2.4
87.5°	0.6	0.6	0.0	0.0	0.0	0.6	0.0	0.6	0.6	1.2	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°	1150.1	1150.1	1150.1	1150.1	1150.1	1150.1	1150.1	1150.1	1150.1	1150.1	1150.1
2.5°	1153.2	1151.9	1151.9	1151.3	1152.6	1151.3	1151.9	1151.3	1151.3	1151.3	1151.3
5°	1157.4	1158.0	1156.8	1156.2	1158.0	1158.0	1158.0	1156.8	1156.8	1156.8	1156.8
7.5°	1163.5	1164.8	1165.4	1166.0	1167.2	1167.8	1167.8	1167.2	1166.6	1168.4	1166.0
10°	1170.3	1172.1	1175.7	1177.6	1180.6	1180.6	1181.9	1181.9	1180.6	1181.9	1181.2
12.5°	1167.8	1178.8	1184.9	1189.2	1193.4	1197.1	1198.3	1198.9	1198.3	1200.8	1198.3
15°	1172.1	1181.2	1191.0	1198.3	1206.3	1210.5	1211.8	1216.6	1217.9	1218.5	1214.8
17.5°	1165.4	1181.9	1192.2	1203.2	1214.8	1222.8	1230.1	1233.1	1233.7	1235.0	1230.1
20°	1150.1	1168.4	1184.3	1200.2	1213.6	1225.8	1231.9	1240.5	1238.0	1242.9	1236.2
22.5°	1129.4	1150.1	1170.3	1191.0	1205.1	1219.7	1232.5	1238.6	1241.7	1241.7	1234.3
25°	1096.4	1120.8	1142.8	1164.1	1185.5	1203.2	1217.9	1227.0	1228.9	1228.3	1219.7
27.5°	1045.1	1071.4	1097.0	1121.4	1147.7	1168.4	1185.5	1196.5	1199.6	1199.6	1190.4
30°	974.3	1002.4	1027.4	1056.7	1083.6	1106.8	1130.6	1140.3	1145.8	1145.8	1135.5
32.5°	890.0	913.9	937.1	965.7	995.1	1021.3	1043.9	1057.3	1064.0	1063.4	1054.3
35°	798.5	810.1	827.8	849.2	875.4	899.8	921.8	934.6	946.2	945.6	937.1
37.5°	706.9	703.9	705.7	713.6	730.1	747.2	764.3	776.5	786.3	790.6	788.7
40°	617.2	601.3	586.0	580.6	581.8	587.9	597.0	606.2	617.2	622.7	625.1
42.5°	536.6	509.7	482.9	462.7	451.1	447.5	451.7	454.8	461.5	469.4	477.4
45°	471.9	435.9	400.5	369.3	349.8	338.2	335.8	338.2	341.9	349.8	360.2
47.5°	418.8	376.7	337.0	302.2	273.5	258.2	254.0	252.7	256.4	263.7	277.8
50°	371.8	329.6	285.7	245.4	215.5	198.4	192.3	189.8	194.1	199.6	212.4
52.5°	320.5	279.0	233.8	194.7	163.6	145.9	139.2	135.5	138.0	145.3	158.1
55°	264.9	226.5	185.6	145.3	115.4	98.9	91.0	88.5	91.0	98.9	111.7
57.5°	209.4	177.0	142.8	105.0	78.1	61.7	53.7	51.3	58.0	61.0	74.5
60°	163.6	137.4	108.1	76.9	53.7	40.9	33.0	31.1	34.2	39.7	50.7
62.5°	122.7	106.2	83.0	54.9	39.7	26.2	22.0	20.1	22.0	26.2	34.8
65°	89.1	76.3	58.0	40.3	26.9	19.5	14.7	13.4	15.3	18.3	25.6
67.5°	61.0	51.3	40.3	28.1	18.3	12.2	10.4	10.4	11.0	13.4	18.9
70°	39.7	33.6	25.6	18.3	12.2	9.2	7.9	6.7	7.9	9.8	12.8
72.5°	25.0	21.4	16.5	12.8	9.2	6.7	5.5	4.9	6.1	7.3	9.8
75°	15.3	11.6	8.5	6.7	4.9	4.9	4.9	2.4	3.0	4.9	6.1
77.5°	9.2	7.9	6.7	5.5	4.3	2.4	2.4	2.4	3.0	3.7	5.5
80°	4.9	4.3	3.0	3.0	2.4	1.8	2.4	1.8	1.2	3.0	3.7
82.5°	3.0	2.4	2.4	2.4	3.0	1.2	1.8	1.2	1.8	2.4	1.8
85°	1.8	1.8	1.8	1.2	3.0	1.2	1.2	0.6	0.6	1.2	1.2
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°	1150.1	1150.1	1150.1	1150.1	1150.1	1150.1	1150.1	1150.1	1150.1	1150.1	1150.1
2.5°	1151.9	1151.3	1151.9	1151.3	1151.3	1151.3	1151.9	1151.9	1151.3	1151.3	1152.6
5°	1156.8	1156.8	1156.8	1156.2	1155.6	1155.6	1156.8	1156.8	1155.0	1156.8	1156.8
7.5°	1167.2	1165.4	1167.2	1164.8	1163.5	1164.1	1164.8	1163.5	1162.3	1162.9	1162.9
10°	1180.6	1178.8	1178.8	1177.0	1175.1	1173.9	1172.7	1169.6	1166.6	1166.0	1163.5
12.5°	1196.5	1193.4	1191.6	1188.0	1184.9	1180.6	1177.0	1172.1	1166.0	1161.7	1157.4
15°	1212.4	1207.5	1203.2	1197.1	1190.4	1183.1	1175.1	1167.2	1157.4	1148.9	1141.6
17.5°	1225.2	1218.5	1210.5	1200.8	1191.0	1180.0	1168.4	1156.8	1142.8	1131.8	1123.2
20°	1229.5	1219.7	1209.3	1196.5	1183.7	1168.4	1153.8	1138.5	1122.6	1111.0	1101.3
22.5°	1224.0	1212.4	1199.6	1186.1	1169.0	1152.6	1135.5	1117.7	1103.7	1087.8	1078.7
25°	1208.7	1194.7	1180.6	1164.8	1148.3	1130.0	1111.7	1093.3	1076.2	1067.7	1056.1
27.5°	1177.6	1162.3	1147.1	1130.6	1111.7	1093.3	1074.4	1056.7	1042.1	1030.5	1023.7
30°	1122.6	1104.9	1087.2	1069.5	1053.0	1034.1	1016.4	1001.8	987.1	978.0	971.2
32.5°	1038.4	1022.5	1004.8	987.7	972.5	956.6	941.9	929.1	918.7	912.6	907.7
35°	924.9	909.0	895.5	883.3	870.5	863.8	854.6	847.3	843.0	840.6	840.0
37.5°	782.0	772.8	768.6	766.1	763.7	761.9	763.1	766.1	768.6	772.8	777.7
40°	629.4	637.3	639.8	648.3	656.2	666.6	678.2	691.7	702.6	716.7	726.4
42.5°	490.2	504.9	521.9	540.3	559.8	578.7	601.9	623.3	642.8	660.5	675.8
45°	376.7	399.2	424.9	451.1	477.4	504.9	532.9	559.2	582.4	601.3	617.2
47.5°	293.6	318.7	351.6	384.0	415.7	448.1	479.2	506.7	526.2	544.5	558.6
50°	232.6	261.3	297.3	334.5	369.3	403.5	436.5	462.1	481.7	496.3	506.7
52.5°	180.1	214.3	250.9	290.0	327.2	364.4	395.0	418.8	434.7	447.5	455.4
55°	134.3	167.9	207.0	247.2	285.1	321.1	349.8	370.6	384.6	391.9	396.2
57.5°	97.1	127.6	166.7	207.0	241.1	275.3	298.5	317.4	325.4	329.6	331.5
60°	70.8	98.9	133.7	168.5	200.8	228.3	248.5	261.3	267.4	269.8	269.2
62.5°	51.9	76.3	106.2	135.5	161.8	184.4	200.2	208.8	211.8	213.0	211.2
65°	39.7	58.6	84.2	106.8	127.0	143.5	155.1	160.6	162.4	161.8	160.6
67.5°	29.3	44.0	62.9	80.0	94.6	107.4	113.6	118.4	119.6	117.8	116.0
70°	20.8	32.4	45.8	57.4	68.4	75.7	82.4	83.0	83.0	82.4	81.2
72.5°	14.7	22.6	31.1	39.1	45.8	51.3	53.7	55.6	54.9	54.3	53.1
75°	9.8	14.0	22.6	24.4	30.5	32.4	34.8	34.8	35.4	33.6	33.6
77.5°	6.1	9.8	13.4	15.9	18.3	20.8	22.0	22.0	22.6	22.0	22.0
80°	3.7	6.1	7.3	11.0	11.0	12.8	13.4	14.0	12.8	14.7	12.8
82.5°	2.4	3.7	5.5	5.5	6.7	7.9	7.9	8.5	8.5	7.9	7.9
85°	1.8	2.4	3.0	3.7	3.7	4.3	3.7	3.7	4.3	4.9	4.3
87.5°	0.6	1.2	0.6	1.2	1.2	2.4	1.8	1.8	1.8	2.4	2.4
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: P244166

CATALOG NUMBER: LSR8B20D010 EC8B20830 8LBDW0LI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1150.1	1150.1	1150.1	1150.1
2.5°	1151.3	1151.9	1151.3	1151.3
5°	1156.8	1156.2	1156.8	1155.6
7.5°	1161.1	1161.1	1160.5	1160.5
10°	1161.1	1158.7	1158.7	1158.7
12.5°	1151.9	1148.9	1147.1	1145.8
15°	1136.1	1130.6	1128.1	1127.5
17.5°	1115.3	1110.4	1107.4	1105.5
20°	1091.5	1086.6	1083.0	1083.6
22.5°	1070.7	1065.3	1062.8	1061.6
25°	1050.0	1043.3	1041.4	1040.2
27.5°	1016.4	1012.8	1010.9	1009.1
30°	965.1	963.3	960.3	964.5
32.5°	905.9	902.9	900.4	902.3
35°	840.6	838.8	840.6	839.4
37.5°	780.8	782.6	785.1	786.3
40°	733.8	740.5	742.9	744.1
42.5°	686.8	694.7	699.6	702.6
45°	628.8	636.7	642.2	645.9
47.5°	568.9	575.7	581.2	580.6
50°	514.6	518.3	520.7	523.2
52.5°	459.7	459.7	460.3	460.3
55°	397.4	396.2	395.6	396.2
57.5°	329.0	327.8	327.2	325.4
60°	266.8	263.1	260.7	260.7
62.5°	208.8	204.5	202.7	202.1
65°	156.9	156.3	152.6	152.0
67.5°	113.6	111.1	108.7	109.3
70°	80.0	76.3	76.3	75.1
72.5°	51.9	50.1	49.4	49.4
75°	32.4	32.4	31.1	33.6
77.5°	21.4	21.4	20.8	21.4
80°	12.8	12.8	12.8	12.2
82.5°	7.9	8.5	7.9	7.9
85°	4.3	4.9	3.7	5.5
87.5°	2.4	3.0	2.4	3.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)