

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: P244160

Luminaire Tested: **LSR8B20D010 EC8B20827 8LBDW0LI**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P244160
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 EC8B20827 8LBDW0LI
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 2700 CCT WITH SPECULAR CLEAR TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2163.0 lumens
Efficiency: N/A
Efficacy: 101.6 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

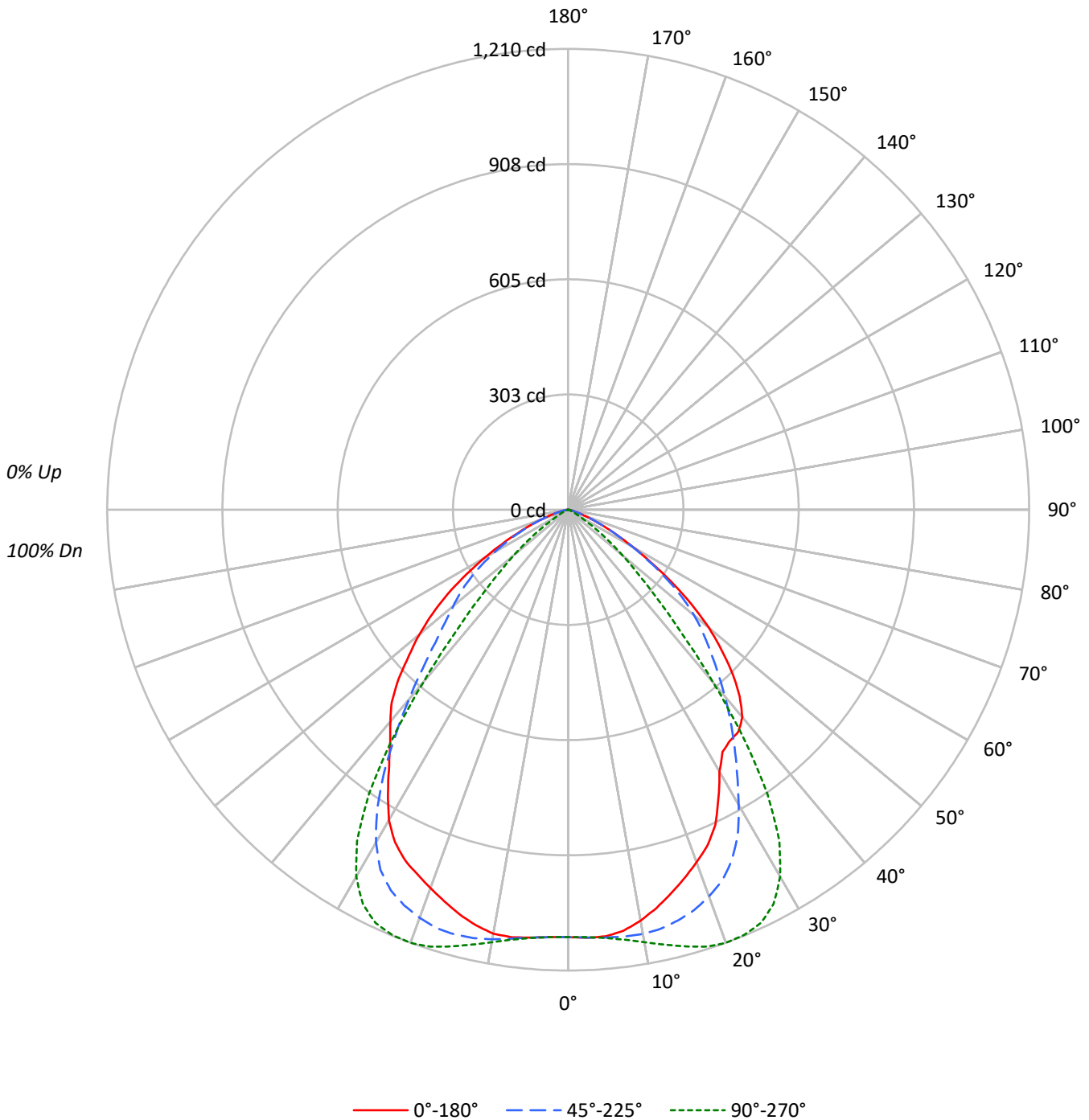
Input Watts (W): 21.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	34601	34601	34601
5°	34808	34935	34901
10°	34296	36106	35395
15°	33294	37894	35120
20°	32326	39713	34692
25°	31084	40730	34531
30°	28290	39616	33506
35°	27868	34328	30827
40°	28625	23806	29224
45°	26650	14391	27478
50°	23113	8885	24485
55°	17741	4645	20779
60°	12088	1875	15683
65°	7515	956	10821
70°	4084	595	6609
75°	2133	286	3908
80°	959	320	2113
85°	637	212	1911



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.9	5.0
10°-20°	319.7	14.8
20°-30°	487.7	22.5
30°-40°	508.9	23.5
40°-50°	382.3	17.7
50°-60°	235.2	10.9
60°-70°	95.7	4.4
70°-80°	22.6	1.0
80°-90°	3.1	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°	915.3	42.3
0°-40°	1424.2	65.8
0°-60°	2041.6	94.4
0°-90°	2163.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2163.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1122	1122	1122	1122	1122	
5°	1124	1128	1129	1128	1128	106
15°	1043	1116	1187	1154	1100	294
25°	914	1016	1197	1102	1015	415
35°	740	761	912	843	819	467
45°	611	529	330	493	630	466
55°	330	313	86	313	386	297
65°	103	104	13	140	148	107
75°	18	18	2	32	33	22
85°	2	2	1	4	5	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°	1122.1	1122.1	1122.1	1122.1	1122.1	1122.1	1122.1	1122.1	1122.1	1122.1	1122.1
2.5°	1125.1	1123.3	1125.1	1125.1	1125.7	1124.5	1125.1	1125.7	1124.5	1124.5	1124.5
5°	1124.5	1123.3	1124.5	1123.9	1125.1	1125.1	1126.3	1126.3	1127.5	1127.5	1129.2
7.5°	1114.9	1112.6	1114.9	1116.7	1117.9	1120.3	1123.3	1125.7	1128.0	1130.4	1133.4
10°	1095.3	1095.3	1097.1	1100.7	1104.2	1108.4	1113.8	1119.7	1125.7	1131.0	1136.4
12.5°	1070.9	1069.1	1072.7	1077.4	1082.8	1089.3	1097.7	1106.6	1116.1	1126.9	1135.2
15°	1042.9	1041.1	1045.3	1050.0	1056.6	1066.1	1076.2	1088.1	1101.8	1116.1	1129.8
17.5°	1014.3	1013.7	1017.9	1024.4	1029.8	1039.9	1053.0	1067.3	1082.8	1101.8	1119.7
20°	985.1	984.5	988.7	994.0	1001.2	1010.7	1023.8	1040.5	1059.0	1080.4	1101.2
22.5°	954.7	955.3	958.9	964.9	970.8	980.9	994.6	1011.3	1031.6	1054.8	1078.0
25°	913.6	910.7	915.4	921.4	931.5	939.8	953.0	970.8	991.7	1016.1	1043.5
27.5°	854.1	853.5	857.7	863.0	871.9	882.1	896.4	914.8	936.9	963.7	990.5
30°	794.5	795.7	797.5	802.9	808.8	818.9	833.2	848.7	869.6	895.2	923.8
32.5°	754.0	754.0	756.4	760.0	764.1	769.5	779.6	790.9	807.0	824.9	845.7
35°	740.3	737.9	740.3	740.9	741.5	742.7	744.5	748.1	753.4	761.2	768.9
37.5°	734.4	732.6	732.6	730.2	727.2	723.6	718.9	713.5	707.6	699.8	693.9
40°	711.1	709.9	708.8	706.4	699.8	692.7	684.9	672.4	658.7	639.7	620.6
42.5°	666.5	665.3	664.7	659.9	654.0	645.6	636.7	623.6	606.3	581.9	554.5
45°	611.1	608.7	606.9	602.7	598.6	591.4	583.1	571.2	553.9	528.9	496.1
47.5°	546.8	545.6	545.0	543.2	539.0	534.8	529.5	520.0	504.5	480.6	446.7
50°	481.8	479.5	480.6	480.1	478.3	475.3	471.7	465.2	453.2	431.8	400.8
52.5°	407.4	407.4	406.8	408.6	409.2	408.6	409.2	402.0	391.9	375.8	349.6
55°	330.0	330.0	331.7	334.1	336.5	337.1	336.5	333.5	326.4	313.3	290.0
57.5°	257.3	256.1	259.7	263.2	265.6	268.0	266.2	263.8	259.7	249.0	231.1
60°	196.0	196.0	198.3	200.7	203.1	205.5	204.9	204.3	200.7	193.6	179.3
62.5°	144.1	144.7	144.7	146.5	148.9	151.3	153.1	151.3	149.5	144.7	135.2
65°	103.0	102.4	103.0	104.8	106.6	109.0	110.2	109.6	107.8	104.2	97.1
67.5°	69.1	68.5	70.9	71.5	72.7	75.1	74.5	75.1	74.5	71.5	65.5
70°	45.3	44.1	45.3	44.7	46.5	47.1	48.2	48.8	48.2	46.5	44.7
72.5°	28.0	27.4	28.0	28.6	29.2	29.8	31.0	31.0	30.4	29.2	26.8
75°	17.9	16.1	16.7	15.5	16.7	16.7	17.9	18.5	17.9	17.9	16.7
77.5°	10.7	10.7	10.7	10.7	10.7	10.7	10.7	11.3	11.9	10.7	10.1
80°	5.4	5.4	6.0	6.0	6.0	6.6	6.0	6.0	6.0	6.6	4.8
82.5°	4.2	3.6	3.6	3.6	4.2	3.6	3.6	3.6	3.6	3.6	3.6
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°	1122.1	1122.1	1122.1	1122.1	1122.1	1122.1	1122.1	1122.1	1122.1	1122.1	1122.1
2.5°	1125.1	1123.9	1123.9	1123.3	1124.5	1123.3	1123.9	1123.3	1123.3	1124.5	1123.3
5°	1129.2	1129.8	1128.6	1128.0	1129.8	1129.8	1129.8	1128.6	1128.6	1129.2	1128.6
7.5°	1135.2	1136.4	1137.0	1137.6	1138.8	1139.4	1139.4	1138.8	1138.2	1140.0	1137.6
10°	1141.7	1143.5	1147.1	1148.9	1151.9	1151.9	1153.1	1153.1	1151.9	1153.1	1152.5
12.5°	1139.4	1150.1	1156.0	1160.2	1164.4	1167.9	1169.1	1169.7	1169.1	1171.5	1169.1
15°	1143.5	1152.5	1162.0	1169.1	1176.9	1181.1	1182.2	1187.0	1188.2	1188.8	1185.2
17.5°	1137.0	1153.1	1163.2	1173.9	1185.2	1193.0	1200.1	1203.1	1203.7	1204.9	1200.1
20°	1122.1	1140.0	1155.4	1170.9	1184.0	1195.9	1201.9	1210.2	1207.9	1212.6	1206.1
22.5°	1101.8	1122.1	1141.7	1162.0	1175.7	1190.0	1202.5	1208.4	1211.4	1211.4	1204.3
25°	1069.7	1093.5	1114.9	1135.8	1156.6	1173.9	1188.2	1197.1	1198.9	1198.3	1190.0
27.5°	1019.7	1045.3	1070.3	1094.1	1119.7	1140.0	1156.6	1167.4	1170.3	1170.3	1161.4
30°	950.6	978.0	1002.4	1031.0	1057.2	1079.8	1103.0	1112.6	1117.9	1117.9	1107.8
32.5°	868.4	891.6	914.2	942.2	970.8	996.4	1018.5	1031.6	1038.1	1037.5	1028.6
35°	779.0	790.3	807.6	828.5	854.1	877.9	899.3	911.9	923.2	922.6	914.2
37.5°	689.7	686.7	688.5	696.2	712.3	729.0	745.7	757.6	767.1	771.3	769.5
40°	602.1	586.7	571.8	566.4	567.6	573.6	582.5	591.4	602.1	607.5	609.9
42.5°	523.5	497.3	471.1	451.5	440.1	436.6	440.7	443.7	450.3	458.0	465.8
45°	460.4	425.3	390.7	360.3	341.3	330.0	327.6	330.0	333.5	341.3	351.4
47.5°	408.6	367.5	328.8	294.8	266.8	251.9	247.8	246.6	250.1	257.3	271.0
50°	362.7	321.6	278.7	239.4	210.2	193.6	187.6	185.2	189.4	194.8	207.3
52.5°	312.7	272.2	228.1	190.0	159.6	142.4	135.8	132.2	134.6	141.8	154.3
55°	258.5	221.0	181.1	141.8	112.6	96.5	88.7	86.4	88.7	96.5	109.0
57.5°	204.3	172.7	139.4	102.4	76.2	60.2	52.4	50.0	56.6	59.6	72.7
60°	159.6	134.0	105.4	75.1	52.4	39.9	32.2	30.4	33.4	38.7	49.4
62.5°	119.7	103.6	81.0	53.6	38.7	25.6	21.4	19.7	21.4	25.6	34.0
65°	87.0	74.5	56.6	39.3	26.2	19.1	14.3	13.1	14.9	17.9	25.0
67.5°	59.6	50.0	39.3	27.4	17.9	11.9	10.1	10.1	10.7	13.1	18.5
70°	38.7	32.8	25.0	17.9	11.9	8.9	7.7	6.6	7.7	9.5	12.5
72.5°	24.4	20.8	16.1	12.5	8.9	6.6	5.4	4.8	6.0	7.1	9.5
75°	14.9	11.3	8.3	6.6	4.8	4.8	4.8	2.4	3.0	4.8	6.0
77.5°	8.9	7.7	6.6	5.4	4.2	2.4	2.4	2.4	3.0	3.6	5.4
80°	4.8	4.2	3.0	3.0	2.4	1.8	2.4	1.8	1.2	3.0	3.6
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°	1122.1	1122.1	1122.1	1122.1	1122.1	1122.1	1122.1	1122.1	1122.1	1122.1	1122.1
2.5°	1123.9	1123.3	1123.9	1123.3	1123.3	1123.3	1123.9	1123.9	1123.3	1123.3	1124.5
5°	1128.6	1128.6	1128.6	1128.0	1127.5	1127.5	1128.6	1128.6	1126.9	1128.6	1128.6
7.5°	1138.8	1137.0	1138.8	1136.4	1135.2	1135.8	1136.4	1135.2	1134.0	1134.6	1134.6
10°	1151.9	1150.1	1150.1	1148.3	1146.5	1145.3	1144.1	1141.1	1138.2	1137.6	1135.2
12.5°	1167.4	1164.4	1162.6	1159.0	1156.0	1151.9	1148.3	1143.5	1137.6	1133.4	1129.2
15°	1182.8	1178.1	1173.9	1167.9	1161.4	1154.3	1146.5	1138.8	1129.2	1120.9	1113.8
17.5°	1195.3	1188.8	1181.1	1171.5	1162.0	1151.3	1140.0	1128.6	1114.9	1104.2	1095.9
20°	1199.5	1190.0	1179.9	1167.4	1154.8	1140.0	1125.7	1110.8	1095.3	1084.0	1074.4
22.5°	1194.2	1182.8	1170.3	1157.2	1140.6	1124.5	1107.8	1090.5	1076.8	1061.3	1052.4
25°	1179.3	1165.6	1151.9	1136.4	1120.3	1102.4	1084.6	1066.7	1050.0	1041.7	1030.4
27.5°	1148.9	1134.0	1119.1	1103.0	1084.6	1066.7	1048.2	1031.0	1016.7	1005.4	998.8
30°	1095.3	1078.0	1060.7	1043.5	1027.4	1008.9	991.7	977.4	963.1	954.1	947.6
32.5°	1013.1	997.6	980.3	963.7	948.8	933.3	919.0	906.5	896.4	890.4	885.6
35°	902.3	886.8	873.7	861.8	849.3	842.8	833.8	826.7	822.5	820.1	819.5
37.5°	762.9	754.0	749.8	747.5	745.1	743.3	744.5	747.5	749.8	754.0	758.8
40°	614.1	621.8	624.2	632.5	640.3	650.4	661.7	674.8	685.5	699.2	708.8
42.5°	478.3	492.6	509.2	527.1	546.2	564.6	587.3	608.1	627.2	644.4	659.3
45°	367.5	389.5	414.5	440.1	465.8	492.6	520.0	545.6	568.2	586.7	602.1
47.5°	286.5	310.9	343.1	374.6	405.6	437.2	467.5	494.3	513.4	531.3	545.0
50°	226.9	254.9	290.0	326.4	360.3	393.7	425.8	450.9	469.9	484.2	494.3
52.5°	175.7	209.1	244.8	282.9	319.2	355.6	385.3	408.6	424.1	436.6	444.3
55°	131.0	163.8	201.9	241.2	278.1	313.3	341.3	361.5	375.2	382.4	386.5
57.5°	94.7	124.5	162.6	201.9	235.3	268.6	291.2	309.7	317.4	321.6	323.4
60°	69.1	96.5	130.4	164.4	196.0	222.8	242.4	254.9	260.9	263.2	262.7
62.5°	50.6	74.5	103.6	132.2	157.8	179.9	195.4	203.7	206.7	207.9	206.1
65°	38.7	57.2	82.2	104.2	123.9	140.0	151.3	156.6	158.4	157.8	156.6
67.5°	28.6	42.9	61.4	78.0	92.3	104.8	110.8	115.6	116.7	115.0	113.2
70°	20.3	31.6	44.7	56.0	66.7	73.9	80.4	81.0	81.0	80.4	79.2
72.5°	14.3	22.0	30.4	38.1	44.7	50.0	52.4	54.2	53.6	53.0	51.8
75°	9.5	13.7	22.0	23.8	29.8	31.6	34.0	34.0	34.5	32.8	32.8
77.5°	6.0	9.5	13.1	15.5	17.9	20.3	21.4	21.4	22.0	21.4	21.4
80°	3.6	6.0	7.1	10.7	10.7	12.5	13.1	13.7	12.5	14.3	12.5
82.5°	2.4	3.6	5.4	5.4	6.6	7.7	7.7	8.3	8.3	7.7	7.7
85°	1.8	2.4	3.0	3.6	3.6	4.2	3.6	3.6	4.2	4.8	4.2
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: P244160

CATALOG NUMBER: LSR8B20D010 EC8B20827 8LBDW0LI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1122.1	1122.1	1122.1	1122.1
2.5°	1123.3	1123.9	1123.3	1123.3
5°	1128.6	1128.0	1128.6	1127.5
7.5°	1132.8	1132.8	1132.2	1132.2
10°	1132.8	1130.4	1130.4	1130.4
12.5°	1123.9	1120.9	1119.1	1117.9
15°	1108.4	1103.0	1100.7	1100.1
17.5°	1088.1	1083.4	1080.4	1078.6
20°	1064.9	1060.2	1056.6	1057.2
22.5°	1044.7	1039.3	1036.9	1035.7
25°	1024.4	1017.9	1016.1	1014.9
27.5°	991.7	988.1	986.3	984.5
30°	941.6	939.8	936.9	941.0
32.5°	883.9	880.9	878.5	880.3
35°	820.1	818.3	820.1	818.9
37.5°	761.8	763.5	765.9	767.1
40°	715.9	722.4	724.8	726.0
42.5°	670.0	677.8	682.5	685.5
45°	613.5	621.2	626.6	630.1
47.5°	555.1	561.6	567.0	566.4
50°	502.1	505.7	508.0	510.4
52.5°	448.5	448.5	449.1	449.1
55°	387.7	386.5	385.9	386.5
57.5°	321.0	319.8	319.2	317.4
60°	260.3	256.7	254.3	254.3
62.5°	203.7	199.5	197.7	197.1
65°	153.1	152.5	148.9	148.3
67.5°	110.8	108.4	106.0	106.6
70°	78.0	74.5	74.5	73.3
72.5°	50.6	48.8	48.2	48.2
75°	31.6	31.6	30.4	32.8
77.5°	20.8	20.8	20.3	20.8
80°	12.5	12.5	12.5	11.9
82.5°	7.7	8.3	7.7	7.7
85°	4.2	4.8	3.6	5.4
87.5°	2.4	3.0	2.4	3.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)