

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: P244178

Luminaire Tested: **LSR8B20D010 EC8B20840 8LBDW0LI**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P244178  
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 EC8B20840 8LBDW0LI  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
80 CRI 4000 CCT WITH SPECULAR CLEAR TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2290.0 lumens  
Efficiency: N/A  
Efficacy: 107.5 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

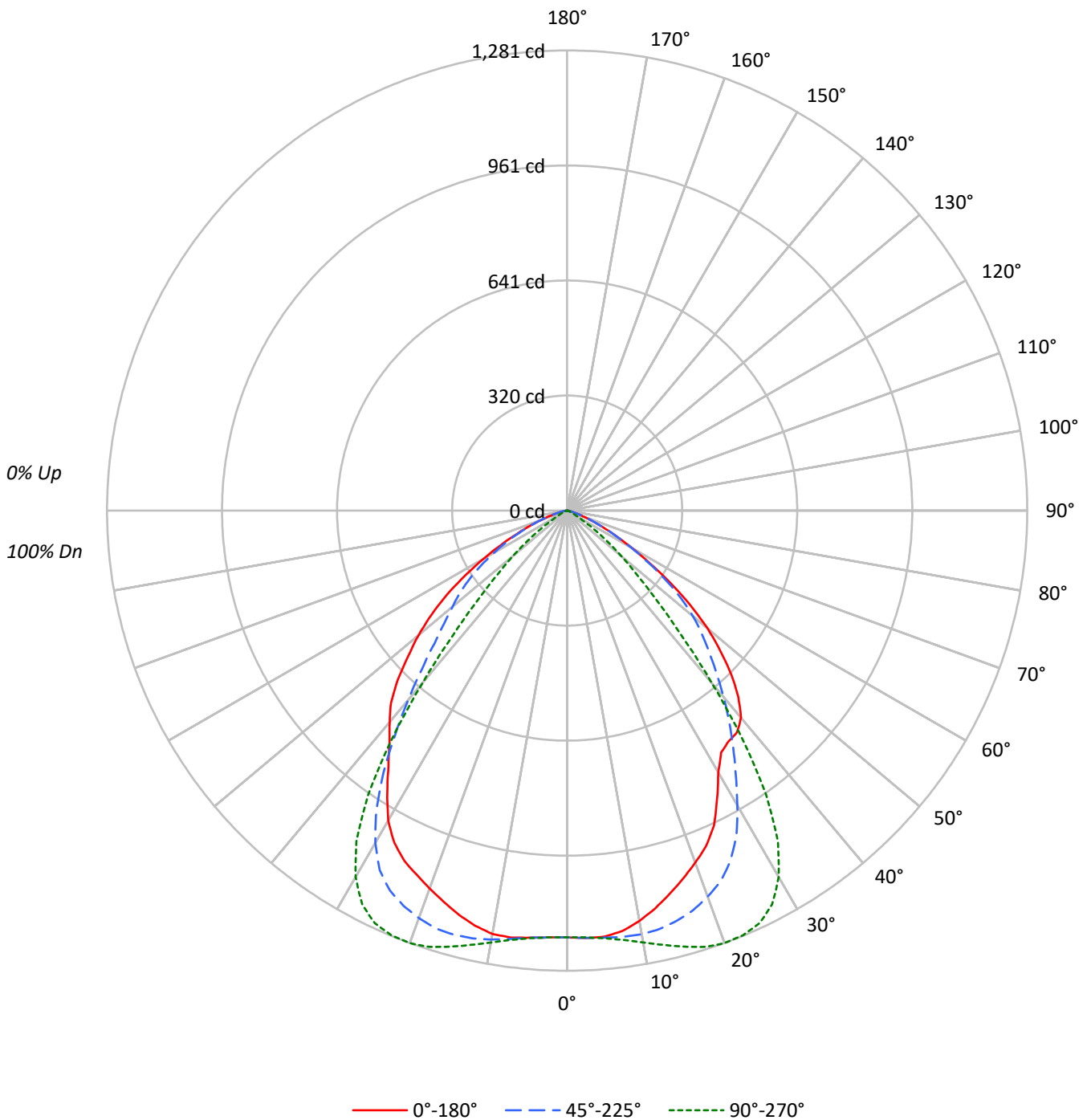
Input Watts (W): 21.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	36634	36634	36634
5°	36851	36987	36947
10°	36309	38226	37474
15°	35247	40119	37179
20°	34226	42046	36730
25°	32912	43122	36559
30°	29952	41941	35475
35°	29506	36342	32638
40°	30307	25203	30939
45°	28215	15233	29092
50°	24471	9407	25924
55°	18779	4914	21999
60°	12797	1986	16602
65°	7960	1014	11455
70°	4319	622	6996
75°	2252	298	4134
80°	1012	337	2237
85°	672	212	2017



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	114.2	5.0
10°-20°	338.4	14.8
20°-30°	516.3	22.5
30°-40°	538.8	23.5
40°-50°	404.7	17.7
50°-60°	249.0	10.9
60°-70°	101.3	4.4
70°-80°	23.9	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°	969.0	42.3
0°-40°	1507.8	65.8
0°-60°	2161.5	94.4
0°-90°	2290.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2290.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1188	1188	1188	1188	1188	
5°	1190	1194	1195	1194	1194	113
15°	1104	1182	1257	1222	1165	311
25°	967	1076	1267	1167	1074	440
35°	784	806	965	892	867	495
45°	647	560	349	522	667	494
55°	349	332	91	332	409	314
65°	109	110	14	148	157	114
75°	19	19	2	33	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°	1188.0	1188.0	1188.0	1188.0	1188.0	1188.0	1188.0	1188.0	1188.0	1188.0	1188.0
2.5°	1191.1	1189.2	1191.1	1191.1	1191.8	1190.5	1191.1	1191.8	1190.5	1190.5	1190.5
5°	1190.5	1189.2	1190.5	1189.9	1191.1	1191.1	1192.4	1192.4	1193.6	1193.6	1195.5
7.5°	1180.4	1177.9	1180.4	1182.3	1183.6	1186.1	1189.2	1191.8	1194.3	1196.8	1200.0
10°	1159.6	1159.6	1161.5	1165.3	1169.1	1173.5	1179.1	1185.5	1191.8	1197.4	1203.1
12.5°	1133.8	1131.9	1135.6	1140.7	1146.4	1153.3	1162.1	1171.6	1181.7	1193.0	1201.9
15°	1104.1	1102.2	1106.6	1111.7	1118.6	1128.7	1139.4	1152.0	1166.5	1181.7	1196.2
17.5°	1073.8	1073.2	1077.6	1084.6	1090.2	1101.0	1114.8	1130.0	1146.4	1166.5	1185.5
20°	1043.0	1042.3	1046.7	1052.4	1060.0	1070.1	1083.9	1101.6	1121.1	1143.8	1165.9
22.5°	1010.8	1011.4	1015.2	1021.5	1027.8	1038.5	1053.0	1070.7	1092.1	1116.7	1141.3
25°	967.3	964.1	969.2	975.5	986.2	995.0	1008.9	1027.8	1049.9	1075.7	1104.7
27.5°	904.2	903.6	908.0	913.7	923.1	933.9	949.0	968.5	991.9	1020.2	1048.6
30°	841.2	842.4	844.3	850.0	856.3	867.0	882.2	898.6	920.6	947.7	978.0
32.5°	798.3	798.3	800.8	804.6	809.0	814.7	825.4	837.4	854.4	873.3	895.4
35°	783.8	781.3	783.8	784.4	785.0	786.3	788.2	792.0	797.7	805.9	814.1
37.5°	777.5	775.6	775.6	773.1	769.9	766.1	761.1	755.4	749.1	740.9	734.6
40°	752.9	751.6	750.4	747.8	740.9	733.3	725.1	711.9	697.4	677.2	657.1
42.5°	705.6	704.3	703.7	698.7	692.4	683.5	674.1	660.2	641.9	616.1	587.1
45°	647.0	644.4	642.5	638.1	633.7	626.1	617.3	604.7	586.4	559.9	525.3
47.5°	578.9	577.6	577.0	575.1	570.7	566.2	560.6	550.5	534.1	508.9	472.9
50°	510.1	507.6	508.9	508.2	506.3	503.2	499.4	492.5	479.9	457.2	424.4
52.5°	431.3	431.3	430.7	432.6	433.2	432.6	433.2	425.6	414.9	397.9	370.1
55°	349.3	349.3	351.2	353.8	356.3	356.9	356.3	353.1	345.5	331.7	307.1
57.5°	272.4	271.1	274.9	278.7	281.2	283.8	281.9	279.3	274.9	263.6	244.7
60°	207.5	207.5	210.0	212.5	215.0	217.5	216.9	216.3	212.5	204.9	189.8
62.5°	152.6	153.2	153.2	155.1	157.6	160.2	162.0	160.2	158.3	153.2	143.1
65°	109.1	108.4	109.1	111.0	112.9	115.4	116.7	116.0	114.1	110.3	102.8
67.5°	73.1	72.5	75.0	75.7	76.9	79.5	78.8	79.5	78.8	75.7	69.4
70°	47.9	46.7	47.9	47.3	49.2	49.8	51.1	51.7	51.1	49.2	47.3
72.5°	29.6	29.0	29.6	30.3	30.9	31.5	32.8	32.8	32.2	30.9	28.4
75°	18.9	17.0	17.7	16.4	17.7	17.7	18.9	19.5	18.9	18.9	17.7
77.5°	11.4	11.4	11.4	11.4	11.4	11.4	11.4	12.0	12.6	11.4	10.7
80°	5.7	5.7	6.3	6.3	6.3	6.9	6.3	6.3	6.3	6.9	5.0
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°	1188.0	1188.0	1188.0	1188.0	1188.0	1188.0	1188.0	1188.0	1188.0	1188.0	1188.0
2.5°	1191.1	1189.9	1189.9	1189.2	1190.5	1189.2	1189.9	1189.2	1189.2	1190.5	1189.2
5°	1195.5	1196.2	1194.9	1194.3	1196.2	1196.2	1196.2	1194.9	1194.9	1195.5	1194.9
7.5°	1201.9	1203.1	1203.7	1204.4	1205.6	1206.3	1206.3	1205.6	1205.0	1206.9	1204.4
10°	1208.8	1210.7	1214.5	1216.4	1219.5	1219.5	1220.8	1220.8	1219.5	1220.8	1220.1
12.5°	1206.3	1217.6	1223.9	1228.3	1232.7	1236.5	1237.8	1238.4	1237.8	1240.3	1237.8
15°	1210.7	1220.1	1230.2	1237.8	1246.0	1250.4	1251.7	1256.7	1258.0	1258.6	1254.8
17.5°	1203.7	1220.8	1231.5	1242.8	1254.8	1263.0	1270.6	1273.7	1274.4	1275.6	1270.6
20°	1188.0	1206.9	1223.3	1239.7	1253.6	1266.2	1272.5	1281.3	1278.8	1283.8	1276.9
22.5°	1166.5	1188.0	1208.8	1230.2	1244.7	1259.9	1273.1	1279.4	1282.6	1282.6	1275.0
25°	1132.5	1157.7	1180.4	1202.5	1224.6	1242.8	1258.0	1267.4	1269.3	1268.7	1259.9
27.5°	1079.5	1106.6	1133.1	1158.3	1185.5	1206.9	1224.6	1235.9	1239.1	1239.1	1229.6
30°	1006.4	1035.4	1061.2	1091.5	1119.3	1143.2	1167.8	1177.9	1183.6	1183.6	1172.9
32.5°	919.4	943.9	967.9	997.5	1027.8	1054.9	1078.3	1092.1	1099.1	1098.4	1089.0
35°	824.8	836.8	855.0	877.1	904.2	929.4	952.1	965.4	977.4	976.7	967.9
37.5°	730.2	727.0	728.9	737.1	754.1	771.8	789.5	802.1	812.2	816.6	814.7
40°	637.5	621.1	605.3	599.7	600.9	607.2	616.7	626.1	637.5	643.2	645.7
42.5°	554.3	526.5	498.8	478.0	466.0	462.2	466.6	469.8	476.7	484.9	493.1
45°	487.4	450.2	413.6	381.5	361.3	349.3	346.8	349.3	353.1	361.3	372.0
47.5°	432.6	389.1	348.1	312.1	282.5	266.7	262.3	261.1	264.8	272.4	286.9
50°	384.0	340.5	295.1	253.5	222.6	204.9	198.6	196.1	200.5	206.2	219.4
52.5°	331.0	288.2	241.5	201.1	169.0	150.7	143.8	140.0	142.5	150.1	163.3
55°	273.7	233.9	191.7	150.1	119.2	102.2	93.9	91.4	93.9	102.2	115.4
57.5°	216.3	182.9	147.5	108.4	80.7	63.7	55.5	53.0	59.9	63.1	76.9
60°	169.0	141.9	111.6	79.5	55.5	42.2	34.1	32.2	35.3	41.0	52.3
62.5°	126.7	109.7	85.8	56.7	41.0	27.1	22.7	20.8	22.7	27.1	35.9
65°	92.1	78.8	59.9	41.6	27.7	20.2	15.1	13.9	15.8	18.9	26.5
67.5°	63.1	53.0	41.6	29.0	18.9	12.6	10.7	10.7	11.4	13.9	19.5
70°	41.0	34.7	26.5	18.9	12.6	9.5	8.2	6.9	8.2	10.1	13.2
72.5°	25.9	22.1	17.0	13.2	9.5	6.9	5.7	5.0	6.3	7.6	10.1
75°	15.8	12.0	8.8	6.9	5.0	5.0	5.0	2.5	3.1	5.0	6.3
77.5°	9.5	8.2	6.9	5.7	4.4	2.5	2.5	2.5	3.1	3.8	5.7
80°	5.0	4.4	3.1	3.1	2.5	1.9	2.5	1.9	1.3	3.1	3.8
82.5°	3.1	2.5	2.5	2.5	3.1	1.3	1.9	1.3	1.9	2.5	1.9
85°	1.9	1.9	1.9	1.3	3.1	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°	1188.0	1188.0	1188.0	1188.0	1188.0	1188.0	1188.0	1188.0	1188.0	1188.0	1188.0
2.5°	1189.9	1189.2	1189.9	1189.2	1189.2	1189.2	1189.9	1189.9	1189.2	1189.2	1190.5
5°	1194.9	1194.9	1194.9	1194.3	1193.6	1193.6	1194.9	1194.9	1193.0	1194.9	1194.9
7.5°	1205.6	1203.7	1205.6	1203.1	1201.9	1202.5	1203.1	1201.9	1200.6	1201.2	1201.2
10°	1219.5	1217.6	1217.6	1215.7	1213.8	1212.6	1211.3	1208.2	1205.0	1204.4	1201.9
12.5°	1235.9	1232.7	1230.9	1227.1	1223.9	1219.5	1215.7	1210.7	1204.4	1200.0	1195.5
15°	1252.3	1247.2	1242.8	1236.5	1229.6	1222.0	1213.8	1205.6	1195.5	1186.7	1179.1
17.5°	1265.5	1258.6	1250.4	1240.3	1230.2	1218.9	1206.9	1194.9	1180.4	1169.1	1160.2
20°	1269.9	1259.9	1249.1	1235.9	1222.7	1206.9	1191.8	1176.0	1159.6	1147.6	1137.5
22.5°	1264.3	1252.3	1239.1	1225.2	1207.5	1190.5	1172.9	1154.6	1140.0	1123.7	1114.2
25°	1248.5	1234.0	1219.5	1203.1	1186.1	1167.2	1148.3	1129.3	1111.7	1102.9	1090.9
27.5°	1216.4	1200.6	1184.8	1167.8	1148.3	1129.3	1109.8	1091.5	1076.4	1064.4	1057.5
30°	1159.6	1141.3	1123.0	1104.7	1087.7	1068.2	1049.9	1034.7	1019.6	1010.2	1003.2
32.5°	1072.6	1056.2	1037.9	1020.2	1004.5	988.1	973.0	959.7	949.0	942.7	937.6
35°	955.3	938.9	925.0	912.4	899.2	892.2	882.8	875.2	870.8	868.3	867.7
37.5°	807.7	798.3	793.9	791.4	788.8	786.9	788.2	791.4	793.9	798.3	803.3
40°	650.1	658.3	660.8	669.7	677.8	688.6	700.6	714.4	725.8	740.3	750.4
42.5°	506.3	521.5	539.1	558.0	578.2	597.8	621.7	643.8	664.0	682.3	698.0
45°	389.1	412.4	438.9	466.0	493.1	521.5	550.5	577.6	601.6	621.1	637.5
47.5°	303.3	329.2	363.2	396.6	429.4	462.8	495.0	523.4	543.5	562.5	577.0
50°	240.2	269.9	307.1	345.5	381.5	416.8	450.8	477.3	497.5	512.7	523.4
52.5°	186.0	221.3	259.2	299.5	338.0	376.4	408.0	432.6	449.0	462.2	470.4
55°	138.7	173.4	213.8	255.4	294.5	331.7	361.3	382.8	397.3	404.8	409.2
57.5°	100.3	131.8	172.1	213.8	249.1	284.4	308.3	327.9	336.1	340.5	342.4
60°	73.1	102.2	138.1	174.0	207.5	235.8	256.6	269.9	276.2	278.7	278.1
62.5°	53.6	78.8	109.7	140.0	167.1	190.4	206.8	215.6	218.8	220.1	218.2
65°	41.0	60.5	87.0	110.3	131.2	148.2	160.2	165.8	167.7	167.1	165.8
67.5°	30.3	45.4	65.0	82.6	97.7	111.0	117.3	122.3	123.6	121.7	119.8
70°	21.4	33.4	47.3	59.3	70.6	78.2	85.1	85.8	85.8	85.1	83.9
72.5°	15.1	23.3	32.2	40.4	47.3	53.0	55.5	57.4	56.7	56.1	54.9
75°	10.1	14.5	23.3	25.2	31.5	33.4	35.9	35.9	36.6	34.7	34.7
77.5°	6.3	10.1	13.9	16.4	18.9	21.4	22.7	22.7	23.3	22.7	22.7
80°	3.8	6.3	7.6	11.4	11.4	13.2	13.9	14.5	13.2	15.1	13.2
82.5°	2.5	3.8	5.7	5.7	6.9	8.2	8.2	8.8	8.8	8.2	8.2
85°	1.9	2.5	3.1	3.8	3.8	4.4	3.8	3.8	4.4	5.0	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: P244178

CATALOG NUMBER: LSR8B20D010 EC8B20840 8LBDW0LI

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	1188.0	1188.0	1188.0	1188.0
2.5°	1189.2	1189.9	1189.2	1189.2
5°	1194.9	1194.3	1194.9	1193.6
7.5°	1199.3	1199.3	1198.7	1198.7
10°	1199.3	1196.8	1196.8	1196.8
12.5°	1189.9	1186.7	1184.8	1183.6
15°	1173.5	1167.8	1165.3	1164.6
17.5°	1152.0	1147.0	1143.8	1141.9
20°	1127.4	1122.4	1118.6	1119.3
22.5°	1106.0	1100.3	1097.8	1096.5
25°	1084.6	1077.6	1075.7	1074.5
27.5°	1049.9	1046.1	1044.2	1042.3
30°	996.9	995.0	991.9	996.3
32.5°	935.8	932.6	930.1	932.0
35°	868.3	866.4	868.3	867.0
37.5°	806.5	808.4	810.9	812.2
40°	757.9	764.9	767.4	768.6
42.5°	709.4	717.6	722.6	725.8
45°	649.5	657.7	663.3	667.1
47.5°	587.7	594.6	600.3	599.7
50°	531.6	535.3	537.9	540.4
52.5°	474.8	474.8	475.4	475.4
55°	410.5	409.2	408.6	409.2
57.5°	339.9	338.6	338.0	336.1
60°	275.6	271.8	269.2	269.2
62.5°	215.6	211.2	209.4	208.7
65°	162.0	161.4	157.6	157.0
67.5°	117.3	114.8	112.2	112.9
70°	82.6	78.8	78.8	77.6
72.5°	53.6	51.7	51.1	51.1
75°	33.4	33.4	32.2	34.7
77.5°	22.1	22.1	21.4	22.1
80°	13.2	13.2	13.2	12.6
82.5°	8.2	8.8	8.2	8.2
85°	4.4	5.0	3.8	5.7
87.5°	2.5	3.1	2.5	3.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)