

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: P246200

Luminaire Tested: **LSR8B20D010 EC8B20850 8LBDW0MW**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P246200
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13957)
Test Lab: INNOVATION CENTER-P1
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LSR8B20D010 EC8B20850 8LBDW0MW
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 5000 CCT WITH MATTE WHITE TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2228.0 lumens
Efficiency: N/A
Efficacy: 104.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.26 / 1.18
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

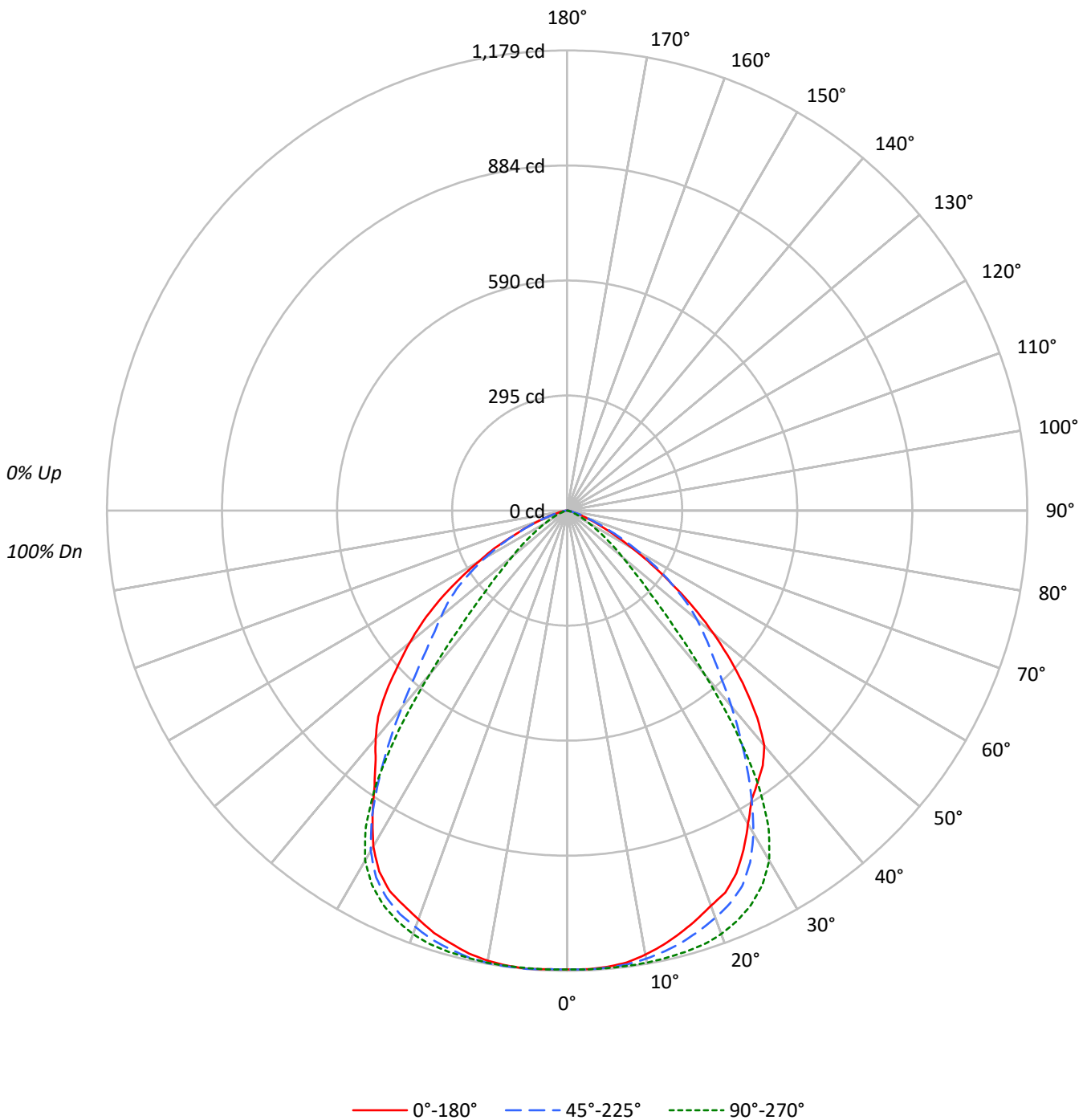
Input Watts (W): 21.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	91	90					90			
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79					79			
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70					70			
4	89	80	72	67	87	78	72	66	76	70	66	74	69	65	72	67	64	62					62			
5	83	72	65	59	81	71	64	59	69	63	58	68	62	58	66	61	57	55					55			
6	78	66	58	53	76	65	58	53	64	57	52	62	56	52	61	55	51	50					50			
7	72	61	53	48	71	60	53	48	59	52	47	57	51	47	56	51	47	45					45			
8	68	56	48	43	66	55	48	43	54	48	43	53	47	43	52	46	42	41					41			
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37					37			
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34					34			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	36248	36248	36248
5°	36328	36427	36467
10°	36175	36829	36669
15°	35774	37367	36662
20°	35345	37892	36566
25°	34888	37937	36603
30°	33004	36871	35365
35°	32020	32043	32374
40°	31624	22047	30734
45°	28176	13235	28564
50°	23430	8808	25248
55°	17575	6075	21408
60°	11909	4046	16152
65°	7180	2627	11098
70°	3985	1425	6825
75°	1799	596	3539
80°	1563	675	2468
85°	1769	885	2441



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.2	5.0
10°-20°	325.8	14.6
20°-30°	494.5	22.2
30°-40°	519.4	23.3
40°-50°	389.4	17.5
50°-60°	249.9	11.2
60°-70°	106.9	4.8
70°-80°	25.2	1.1
80°-90°	4.7	0.2
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°	932.5	41.9
0°-40°	1451.9	65.2
0°-60°	2091.2	93.9
0°-90°	2228.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2228.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1176	1176	1176	1176	1176	
5°	1174	1176	1177	1179	1178	111
15°	1121	1144	1170	1163	1148	316
25°	1025	1061	1115	1095	1076	468
35°	851	803	851	841	860	534
45°	646	528	304	513	655	495
55°	327	327	113	341	398	296
65°	98	116	36	150	152	105
75°	15	18	5	30	30	22
85°	5	3	2	5	7	5
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°	1175.5	1175.5	1175.5	1175.5	1175.5	1175.5	1175.5	1175.5	1175.5	1175.5	1175.5
2.5°	1176.2	1177.4	1176.8	1176.8	1176.2	1176.8	1176.8	1178.1	1178.1	1176.8	1176.2
5°	1173.6	1174.9	1174.9	1173.6	1173.6	1176.8	1174.9	1176.2	1176.2	1175.5	1175.5
7.5°	1168.0	1168.0	1170.5	1168.6	1168.6	1170.5	1169.9	1171.1	1172.4	1173.0	1173.0
10°	1155.3	1156.6	1157.2	1157.2	1157.9	1159.8	1161.0	1163.6	1164.8	1166.1	1166.7
12.5°	1139.6	1141.5	1142.1	1141.5	1143.4	1145.9	1149.0	1152.2	1154.1	1156.6	1158.5
15°	1120.6	1120.6	1121.9	1123.8	1125.1	1128.8	1132.0	1135.8	1140.8	1144.0	1147.1
17.5°	1099.8	1101.1	1103.0	1103.0	1105.5	1111.8	1113.7	1119.4	1125.1	1128.2	1134.5
20°	1077.1	1078.4	1080.3	1081.5	1084.7	1089.7	1093.5	1098.6	1104.9	1110.6	1116.9
22.5°	1059.4	1056.9	1058.2	1059.4	1062.6	1067.0	1071.4	1077.7	1084.0	1089.7	1096.0
25°	1025.4	1026.0	1027.9	1029.1	1032.9	1036.7	1041.8	1049.3	1055.0	1061.3	1068.3
27.5°	979.3	979.9	983.1	983.1	986.2	992.5	995.7	1002.0	1009.6	1015.9	1024.1
30°	926.9	928.2	928.2	930.7	932.6	935.8	938.9	945.2	949.0	954.7	966.1
32.5°	879.0	880.2	879.6	879.0	877.1	876.4	875.8	877.1	878.3	880.2	884.6
35°	850.6	847.4	844.9	840.5	835.4	829.1	823.4	815.9	808.9	803.2	796.9
37.5°	823.4	822.8	819.0	812.7	802.6	791.3	778.0	761.6	745.2	727.5	710.5
40°	785.6	783.7	780.5	771.7	760.3	746.5	728.8	708.6	682.1	655.0	627.2
42.5°	721.2	721.9	718.1	711.1	700.4	687.1	668.8	646.8	618.4	586.2	550.2
45°	646.1	646.1	644.9	639.2	631.6	620.9	607.0	588.7	561.0	528.1	489.6
47.5°	567.9	568.5	566.6	565.4	562.2	555.3	545.2	531.3	511.7	480.2	441.7
50°	488.4	488.4	491.5	490.9	490.9	488.4	484.0	475.8	458.7	433.5	397.5
52.5°	408.9	410.1	412.0	414.6	417.7	422.8	417.7	413.9	403.2	383.6	352.7
55°	326.9	328.1	331.3	335.7	339.5	344.5	345.8	345.8	340.1	326.9	303.5
57.5°	256.8	254.9	257.5	261.2	266.3	271.3	275.1	279.5	278.9	270.1	251.1
60°	193.1	193.7	195.6	199.4	203.2	207.6	212.6	216.4	218.3	213.9	201.9
62.5°	140.7	140.7	143.2	147.0	148.9	155.2	158.4	160.3	162.2	161.5	154.0
65°	98.4	99.7	101.0	102.9	104.7	108.5	110.4	114.2	115.5	116.1	110.4
67.5°	69.4	67.5	68.8	70.0	71.9	74.5	78.2	78.2	80.1	80.1	76.3
70°	44.2	44.2	44.8	46.7	48.0	48.6	49.9	51.1	53.0	52.4	52.4
72.5°	29.7	29.0	29.7	30.3	30.9	32.8	32.8	33.4	34.7	35.3	32.8
75°	15.1	15.8	17.0	16.4	18.3	17.0	17.7	19.6	18.9	17.7	17.7
77.5°	12.6	12.6	12.6	12.0	13.2	13.2	12.6	13.9	13.2	13.2	12.6
80°	8.8	9.5	8.8	8.2	8.8	8.2	8.2	8.2	8.2	8.2	7.6
82.5°	6.9	5.7	6.3	5.7	6.3	6.3	5.7	5.0	5.0	5.7	5.0
85°	5.0	3.8	4.4	4.4	3.8	3.8	3.8	3.8	3.8	3.1	3.1
87.5°	3.1	1.9	1.9	1.9	2.5	2.5	2.5	1.9	2.5	2.5	1.3
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°	1175.5	1175.5	1175.5	1175.5	1175.5	1175.5	1175.5	1175.5	1175.5	1175.5	1175.5
2.5°	1177.4	1176.8	1178.1	1177.4	1177.4	1176.8	1177.4	1176.8	1178.1	1175.5	1176.2
5°	1177.4	1176.2	1176.8	1177.4	1178.1	1176.8	1176.8	1176.8	1178.1	1176.8	1177.4
7.5°	1174.9	1174.3	1176.2	1177.4	1176.8	1176.2	1177.4	1176.8	1178.1	1177.4	1178.7
10°	1169.9	1170.5	1171.8	1173.6	1174.3	1174.9	1176.2	1176.2	1178.1	1175.5	1176.8
12.5°	1162.3	1164.8	1168.0	1169.2	1171.8	1171.8	1173.0	1173.6	1174.9	1174.3	1176.2
15°	1152.8	1156.0	1159.8	1162.9	1166.1	1168.0	1169.9	1170.5	1172.4	1170.5	1171.1
17.5°	1141.5	1145.2	1150.9	1154.7	1159.8	1161.7	1164.2	1165.4	1167.3	1166.1	1166.7
20°	1125.7	1130.1	1136.4	1142.1	1145.2	1149.7	1152.8	1154.7	1156.0	1154.7	1155.3
22.5°	1103.6	1109.9	1118.1	1122.5	1128.8	1132.6	1133.3	1137.7	1140.8	1137.7	1138.9
25°	1077.7	1084.0	1090.4	1099.8	1105.5	1109.9	1114.3	1115.0	1118.1	1117.5	1116.9
27.5°	1034.8	1043.0	1053.8	1061.3	1068.9	1075.8	1080.9	1082.1	1085.3	1084.0	1084.7
30°	976.1	985.0	995.1	1007.1	1017.8	1024.7	1031.0	1035.5	1038.6	1036.7	1036.1
32.5°	892.9	901.7	912.4	924.4	937.0	947.1	954.7	960.4	964.2	962.9	959.7
35°	797.6	800.1	807.0	816.5	827.2	838.0	844.9	851.2	855.6	856.9	856.9
37.5°	699.8	691.6	686.5	686.5	692.8	697.2	703.6	707.3	714.3	716.8	718.7
40°	605.1	586.2	568.5	555.3	546.4	545.8	545.8	547.7	554.0	562.2	569.8
42.5°	520.6	490.3	463.1	438.5	420.9	410.8	406.4	407.0	412.0	419.6	432.2
45°	453.1	415.2	381.1	351.5	327.5	311.7	304.1	303.5	307.3	316.1	330.0
47.5°	400.7	360.3	321.8	287.7	261.9	244.8	236.0	233.5	236.0	244.2	260.6
50°	357.1	315.5	275.7	240.4	212.6	195.0	186.8	183.6	186.8	193.7	210.1
52.5°	316.8	273.8	236.6	202.5	172.9	157.7	148.9	147.0	148.9	157.1	170.4
55°	270.1	233.5	196.9	162.8	136.9	121.8	114.8	113.0	114.8	122.4	136.3
57.5°	224.0	192.5	160.3	129.4	107.3	94.0	87.7	85.2	89.6	94.6	111.1
60°	181.1	155.9	128.7	101.6	83.3	71.3	66.3	65.6	66.9	73.2	84.5
62.5°	142.0	121.2	99.7	77.6	62.5	57.4	51.1	50.5	51.7	55.5	64.4
65°	102.2	89.0	72.6	56.8	44.8	37.9	35.3	36.0	37.2	39.8	48.0
67.5°	71.3	61.8	50.5	39.8	30.9	27.8	25.2	24.6	25.2	29.7	34.1
70°	48.0	42.3	34.1	30.3	21.5	17.0	17.7	15.8	18.3	18.3	22.1
72.5°	31.5	27.8	22.7	17.7	15.1	12.0	12.0	11.4	12.6	13.2	16.4
75°	16.4	12.6	12.6	8.8	6.3	3.1	5.7	5.0	4.4	5.0	6.3
77.5°	11.4	9.5	8.8	6.9	6.3	5.0	5.0	5.0	5.0	5.7	6.3
80°	6.9	6.9	5.0	4.4	3.8	3.1	3.8	3.8	3.8	3.8	4.4
82.5°	4.4	3.8	3.8	3.1	3.1	2.5	2.5	2.5	2.5	2.5	3.8
85°	3.8	2.5	2.5	1.9	2.5	4.4	1.9	2.5	2.5	2.5	1.9
87.5°	1.3	1.9	1.9	1.9	1.3	0.6	1.3	1.9	1.9	3.1	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



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1175.5	1175.5	1175.5	1175.5	1175.5	1175.5	1175.5	1175.5	1175.5	1175.5	1175.5
2.5°	1177.4	1178.1	1178.1	1177.4	1177.4	1176.2	1178.7	1176.8	1177.4	1180.0	1178.1
5°	1178.7	1179.3	1179.3	1178.7	1178.7	1178.7	1179.3	1179.3	1178.7	1178.1	1179.3
7.5°	1181.2	1180.6	1180.6	1179.3	1179.3	1178.1	1179.3	1177.4	1178.7	1177.4	1179.3
10°	1178.1	1178.7	1178.1	1177.4	1177.4	1176.8	1176.8	1174.9	1175.5	1173.6	1174.9
12.5°	1176.2	1175.5	1175.5	1174.3	1173.0	1171.8	1171.1	1169.2	1169.2	1164.8	1166.7
15°	1171.1	1171.8	1169.9	1167.3	1166.1	1162.9	1161.7	1159.1	1156.6	1153.5	1154.1
17.5°	1166.7	1164.8	1162.3	1159.8	1154.7	1152.2	1149.7	1145.9	1144.6	1140.8	1139.6
20°	1153.5	1152.2	1149.0	1144.6	1141.5	1135.8	1133.3	1129.5	1126.3	1122.5	1120.6
22.5°	1136.4	1135.1	1131.4	1126.9	1121.9	1119.4	1116.9	1109.9	1106.8	1103.0	1102.3
25°	1115.0	1113.1	1109.3	1104.2	1101.7	1094.8	1092.2	1087.2	1085.9	1082.1	1081.5
27.5°	1082.1	1079.6	1075.2	1068.9	1064.5	1060.1	1057.5	1053.8	1052.5	1048.7	1048.1
30°	1032.9	1029.8	1020.9	1018.4	1010.8	1006.4	1006.4	1001.4	1002.0	999.5	999.5
32.5°	955.3	950.3	943.3	938.3	933.2	930.7	930.7	928.8	930.1	930.1	931.3
35°	852.5	845.5	841.7	838.6	838.6	841.1	848.7	850.6	854.4	857.5	860.0
37.5°	720.6	720.0	724.4	728.2	737.6	748.4	761.6	773.0	783.7	791.3	798.8
40°	578.0	593.8	606.4	624.1	638.6	659.4	683.4	702.9	721.2	734.5	748.4
42.5°	451.2	471.3	497.9	523.7	549.6	578.0	609.5	636.7	660.6	678.9	693.5
45°	351.5	379.2	411.4	444.2	477.7	513.0	545.8	573.6	598.8	617.7	632.3
47.5°	283.3	313.6	350.2	386.2	424.0	461.3	497.9	521.8	542.6	557.8	571.1
50°	234.1	266.3	304.8	345.8	383.6	420.9	452.4	475.8	492.8	506.1	514.3
52.5°	195.6	229.7	270.7	311.7	349.6	383.6	412.0	429.7	443.6	453.1	460.6
55°	161.5	194.4	232.8	271.3	308.6	340.7	364.1	377.3	388.1	393.7	398.2
57.5°	131.9	162.2	197.5	232.8	265.0	291.5	309.8	323.1	328.1	332.5	331.9
60°	103.5	131.9	164.1	194.4	222.1	243.6	256.8	264.4	268.2	270.1	268.8
62.5°	81.4	107.3	131.9	158.4	178.6	196.9	209.5	209.5	211.4	212.0	213.9
65°	60.6	80.1	101.6	121.2	137.5	149.5	156.5	158.4	160.9	160.3	159.0
67.5°	44.8	59.3	75.1	89.6	101.0	108.5	113.6	118.0	117.4	116.1	115.5
70°	30.9	40.4	54.3	63.1	71.3	78.9	80.1	80.8	81.4	82.0	80.8
72.5°	21.5	28.4	36.0	43.5	48.6	51.7	54.9	55.5	55.5	55.5	54.9
75°	10.7	14.5	21.5	24.6	29.0	30.3	32.8	32.8	34.7	32.2	31.5
77.5°	9.5	11.4	15.1	17.7	19.6	21.5	22.1	24.0	23.3	22.1	22.7
80°	5.7	6.9	9.5	10.7	13.2	13.9	14.5	15.1	14.5	15.1	15.1
82.5°	4.4	5.0	6.3	6.3	8.2	8.2	8.8	8.8	9.5	9.5	9.5
85°	2.5	4.4	3.8	7.6	5.0	5.0	6.3	7.6	6.3	6.3	7.6
87.5°	2.5	2.5	1.9	2.5	2.5	2.5	3.1	3.8	3.8	4.4	3.8
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: P246200

CATALOG NUMBER: LSR8B20D010 EC8B20850 8LBDW0MW

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1175.5	1175.5	1175.5	1175.5
2.5°	1177.4	1178.7	1176.8	1176.2
5°	1179.3	1179.3	1178.1	1178.1
7.5°	1179.3	1179.3	1177.4	1176.2
10°	1174.3	1174.3	1172.4	1171.1
12.5°	1164.8	1164.8	1164.2	1162.3
15°	1152.8	1152.8	1150.3	1148.4
17.5°	1136.4	1137.7	1134.5	1134.5
20°	1118.8	1118.1	1115.6	1114.3
22.5°	1100.5	1099.2	1098.6	1094.8
25°	1080.9	1079.6	1077.7	1075.8
27.5°	1047.5	1046.8	1044.9	1042.4
30°	996.3	995.7	993.2	993.2
32.5°	930.1	929.4	926.9	927.6
35°	861.3	863.8	862.6	860.0
37.5°	803.9	805.8	807.0	805.8
40°	755.9	761.6	762.2	763.5
42.5°	704.8	712.4	714.9	716.2
45°	643.6	650.6	656.2	655.0
47.5°	581.1	586.2	591.2	587.5
50°	521.2	524.4	526.3	526.3
52.5°	464.4	464.4	463.8	464.4
55°	399.4	399.4	396.9	398.2
57.5°	331.3	332.5	330.6	327.5
60°	268.2	265.0	263.8	261.9
62.5°	208.9	208.9	204.4	210.1
65°	156.5	154.6	152.7	152.1
67.5°	113.6	113.0	111.1	110.4
70°	80.1	77.6	77.0	75.7
72.5°	53.6	53.6	52.4	52.4
75°	32.8	29.7	29.0	29.7
77.5°	22.7	22.1	22.1	21.5
80°	15.1	14.5	15.8	13.9
82.5°	9.5	10.1	9.5	10.1
85°	6.3	7.6	6.9	6.9
87.5°	3.8	3.8	3.8	3.8
90°	0.0	0.0	0.0	0.0

(END OF REPORT)