

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: P246194

Luminaire Tested: **LSR8B20D010 EC8B20840 8LBDW0MW**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P246194
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 EC8B20840 8LBDW0MW
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 4000 CCT WITH MATTE WHITE TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2185.0 lumens
Efficiency: N/A
Efficacy: 102.6 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

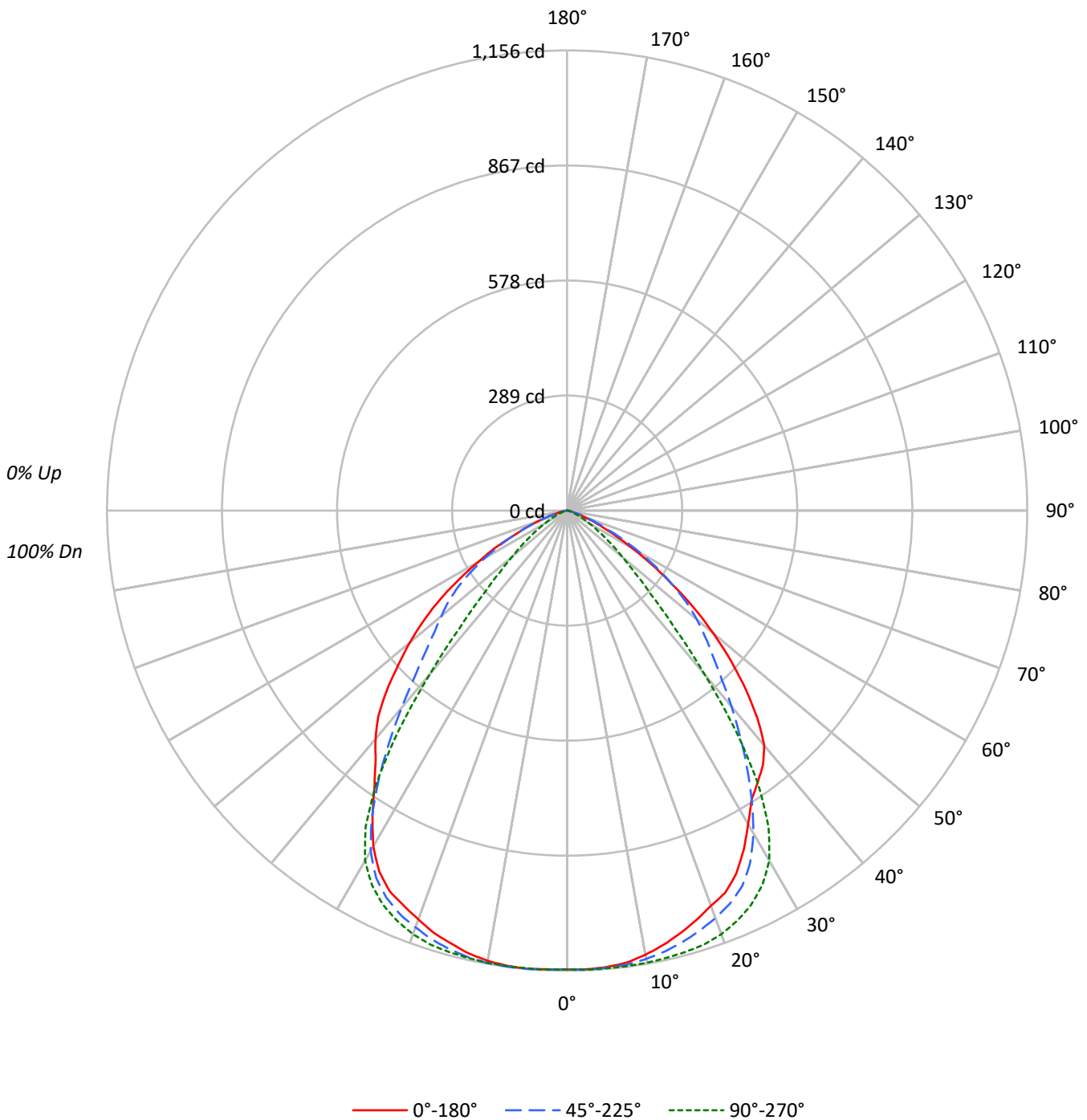
Input Watts (W): 21.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	35548	35548	35548
5°	35628	35724	35761
10°	35477	36118	35962
15°	35085	36646	35953
20°	34663	37160	35861
25°	34215	37202	35899
30°	32366	36159	34681
35°	31403	31425	31749
40°	31012	21620	30142
45°	27635	12978	28010
50°	22979	8640	24759
55°	17231	5957	20994
60°	11681	3972	15838
65°	7041	2576	10879
70°	3904	1397	6699
75°	1775	596	3467
80°	1545	657	2415
85°	1769	885	2406



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.0	5.0
10°-20°	319.5	14.6
20°-30°	485.0	22.2
30°-40°	509.4	23.3
40°-50°	381.9	17.5
50°-60°	245.0	11.2
60°-70°	104.8	4.8
70°-80°	24.8	1.1
80°-90°	4.6	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°	914.5	41.9
0°-40°	1423.9	65.2
0°-60°	2050.8	93.9
0°-90°	2185.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2185.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1153	1153	1153	1153	1153	
5°	1151	1153	1154	1156	1155	109
15°	1099	1122	1148	1140	1126	310
25°	1006	1041	1093	1074	1055	459
35°	834	788	835	825	843	524
45°	634	518	298	503	642	485
55°	320	320	111	334	390	291
65°	96	114	35	147	149	103
75°	15	17	5	30	29	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°	1152.8	1152.8	1152.8	1152.8	1152.8	1152.8	1152.8	1152.8	1152.8	1152.8	1152.8
2.5°	1153.5	1154.7	1154.1	1154.1	1153.5	1154.1	1154.1	1155.3	1155.3	1154.1	1153.5
5°	1151.0	1152.2	1152.2	1151.0	1151.0	1154.1	1152.2	1153.5	1153.5	1152.8	1152.8
7.5°	1145.4	1145.4	1147.9	1146.1	1146.1	1147.9	1147.3	1148.5	1149.8	1150.4	1150.4
10°	1133.0	1134.3	1134.9	1134.9	1135.5	1137.4	1138.6	1141.1	1142.3	1143.6	1144.2
12.5°	1117.6	1119.4	1120.1	1119.4	1121.3	1123.8	1126.9	1130.0	1131.8	1134.3	1136.1
15°	1099.0	1099.0	1100.2	1102.1	1103.4	1107.1	1110.2	1113.9	1118.8	1121.9	1125.0
17.5°	1078.6	1079.8	1081.7	1081.7	1084.2	1090.3	1092.2	1097.8	1103.4	1106.4	1112.6
20°	1056.3	1057.5	1059.4	1060.7	1063.7	1068.7	1072.4	1077.4	1083.5	1089.1	1095.3
22.5°	1039.0	1036.5	1037.7	1039.0	1042.1	1046.4	1050.8	1056.9	1063.1	1068.7	1074.9
25°	1005.6	1006.2	1008.1	1009.3	1013.0	1016.7	1021.7	1029.1	1034.7	1040.8	1047.6
27.5°	960.4	961.0	964.1	964.1	967.2	973.4	976.5	982.7	990.1	996.3	1004.3
30°	909.0	910.3	910.3	912.8	914.6	917.7	920.8	927.0	930.7	936.3	947.4
32.5°	862.0	863.2	862.6	862.0	860.2	859.5	858.9	860.2	861.4	863.2	867.6
35°	834.2	831.1	828.6	824.3	819.3	813.1	807.6	800.1	793.3	787.7	781.6
37.5°	807.6	806.9	803.2	797.0	787.1	776.0	763.0	746.9	730.8	713.5	696.8
40°	770.4	768.6	765.5	756.8	745.7	732.1	714.7	694.9	668.9	642.3	615.1
42.5°	707.3	707.9	704.2	697.4	686.9	673.9	655.9	634.3	606.4	574.9	539.6
45°	633.7	633.7	632.4	626.9	619.4	608.9	595.3	577.4	550.1	517.9	480.2
47.5°	556.9	557.6	555.7	554.5	551.4	544.6	534.7	521.0	501.9	470.9	433.2
50°	479.0	479.0	482.1	481.4	481.4	479.0	474.6	466.6	449.9	425.1	389.9
52.5°	401.0	402.2	404.1	406.6	409.7	414.6	409.7	405.9	395.4	376.2	345.9
55°	320.5	321.8	324.9	329.2	332.9	337.9	339.1	339.1	333.5	320.5	297.6
57.5°	251.9	250.0	252.5	256.2	261.1	266.1	269.8	274.1	273.5	264.9	246.3
60°	189.4	190.0	191.8	195.6	199.3	203.6	208.5	212.3	214.1	209.8	198.0
62.5°	138.0	138.0	140.5	144.2	146.0	152.2	155.3	157.2	159.0	158.4	151.0
65°	96.5	97.8	99.0	100.9	102.7	106.4	108.3	112.0	113.2	113.9	108.3
67.5°	68.1	66.2	67.5	68.7	70.5	73.0	76.7	76.7	78.6	78.6	74.9
70°	43.3	43.3	43.9	45.8	47.0	47.6	48.9	50.1	52.0	51.4	51.4
72.5°	29.1	28.5	29.1	29.7	30.3	32.2	32.2	32.8	34.0	34.7	32.2
75°	14.9	15.5	16.7	16.1	17.9	16.7	17.3	19.2	18.6	17.3	17.3
77.5°	12.4	12.4	12.4	11.8	13.0	13.0	12.4	13.6	13.0	13.0	12.4
80°	8.7	9.3	8.7	8.0	8.7	8.0	8.0	8.0	8.0	8.0	7.4
82.5°	6.8	5.6	6.2	5.6	6.2	6.2	5.6	5.0	5.0	5.6	5.0
85°	5.0	3.7	4.3	4.3	3.7	3.7	3.7	3.7	3.7	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	1.2
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°	1152.8	1152.8	1152.8	1152.8	1152.8	1152.8	1152.8	1152.8	1152.8	1152.8	1152.8
2.5°	1154.7	1154.1	1155.3	1154.7	1154.7	1154.1	1154.7	1154.1	1155.3	1152.8	1153.5
5°	1154.7	1153.5	1154.1	1154.7	1155.3	1154.1	1154.1	1154.1	1155.3	1154.1	1154.7
7.5°	1152.2	1151.6	1153.5	1154.7	1154.1	1153.5	1154.7	1154.1	1155.3	1154.7	1155.9
10°	1147.3	1147.9	1149.1	1151.0	1151.6	1152.2	1153.5	1153.5	1155.3	1152.8	1154.1
12.5°	1139.9	1142.3	1145.4	1146.7	1149.1	1149.1	1150.4	1151.0	1152.2	1151.6	1153.5
15°	1130.6	1133.7	1137.4	1140.5	1143.6	1145.4	1147.3	1147.9	1149.8	1147.9	1148.5
17.5°	1119.4	1123.1	1128.7	1132.4	1137.4	1139.2	1141.7	1142.9	1144.8	1143.6	1144.2
20°	1104.0	1108.3	1114.5	1120.1	1123.1	1127.5	1130.6	1132.4	1133.7	1132.4	1133.0
22.5°	1082.3	1088.5	1096.5	1100.9	1107.1	1110.8	1111.4	1115.7	1118.8	1115.7	1117.0
25°	1056.9	1063.1	1069.3	1078.6	1084.2	1088.5	1092.8	1093.4	1096.5	1095.9	1095.3
27.5°	1014.9	1022.9	1033.4	1040.8	1048.3	1055.1	1060.0	1061.3	1064.4	1063.1	1063.7
30°	957.3	966.0	975.9	987.6	998.1	1004.9	1011.1	1015.5	1018.6	1016.7	1016.1
32.5°	875.6	884.3	894.8	906.6	918.9	928.8	936.3	941.8	945.5	944.3	941.2
35°	782.2	784.7	791.5	800.8	811.3	821.8	828.6	834.8	839.1	840.3	840.3
37.5°	686.3	678.2	673.3	673.3	679.5	683.8	690.0	693.7	700.5	703.0	704.8
40°	593.4	574.9	557.6	544.6	535.9	535.3	535.3	537.1	543.3	551.4	558.8
42.5°	510.5	480.8	454.2	430.1	412.8	402.9	398.5	399.1	404.1	411.5	423.9
45°	444.3	407.2	373.8	344.7	321.2	305.7	298.3	297.6	301.4	310.0	323.6
47.5°	392.9	353.3	315.6	282.2	256.8	240.1	231.4	229.0	231.4	239.5	255.6
50°	350.3	309.4	270.4	235.8	208.5	191.2	183.2	180.1	183.2	190.0	206.1
52.5°	310.6	268.6	232.1	198.6	169.6	154.7	146.0	144.2	146.0	154.1	167.1
55°	264.9	229.0	193.1	159.7	134.3	119.4	112.6	110.8	112.6	120.1	133.7
57.5°	219.7	188.7	157.2	126.9	105.2	92.2	86.0	83.5	87.9	92.8	108.9
60°	177.6	152.9	126.2	99.6	81.7	69.9	65.0	64.4	65.6	71.8	82.9
62.5°	139.2	118.8	97.8	76.1	61.3	56.3	50.1	49.5	50.7	54.4	63.1
65°	100.3	87.3	71.2	55.7	43.9	37.1	34.7	35.3	36.5	39.0	47.0
67.5°	69.9	60.6	49.5	39.0	30.3	27.2	24.8	24.1	24.8	29.1	33.4
70°	47.0	41.5	33.4	29.7	21.0	16.7	17.3	15.5	17.9	17.9	21.7
72.5°	30.9	27.2	22.3	17.3	14.9	11.8	11.8	11.1	12.4	13.0	16.1
75°	16.1	12.4	12.4	8.7	6.2	3.1	5.6	5.0	4.3	5.0	6.2
77.5°	11.1	9.3	8.7	6.8	6.2	5.0	5.0	5.0	5.0	5.6	6.2
80°	6.8	6.8	5.0	4.3	3.7	3.1	3.7	3.7	3.7	3.7	4.3
82.5°	4.3	3.7	3.7	3.1	3.1	2.5	2.5	2.5	2.5	2.5	3.7
85°	3.7	2.5	2.5	1.9	2.5	4.3	1.9	2.5	2.5	2.5	1.9
87.5°	1.2	1.9	1.9	1.9	1.2	0.6	1.2	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°	1152.8	1152.8	1152.8	1152.8	1152.8	1152.8	1152.8	1152.8	1152.8	1152.8	1152.8
2.5°	1154.7	1155.3	1155.3	1154.7	1154.7	1153.5	1155.9	1154.1	1154.7	1157.2	1155.3
5°	1155.9	1156.6	1156.6	1155.9	1155.9	1155.9	1156.6	1156.6	1155.9	1155.3	1156.6
7.5°	1158.4	1157.8	1157.8	1156.6	1156.6	1155.3	1156.6	1154.7	1155.9	1154.7	1156.6
10°	1155.3	1155.9	1155.3	1154.7	1154.7	1154.1	1154.1	1152.2	1152.8	1151.0	1152.2
12.5°	1153.5	1152.8	1152.8	1151.6	1150.4	1149.1	1148.5	1146.7	1146.7	1142.3	1144.2
15°	1148.5	1149.1	1147.3	1144.8	1143.6	1140.5	1139.2	1136.8	1134.3	1131.2	1131.8
17.5°	1144.2	1142.3	1139.9	1137.4	1132.4	1130.0	1127.5	1123.8	1122.5	1118.8	1117.6
20°	1131.2	1130.0	1126.9	1122.5	1119.4	1113.9	1111.4	1107.7	1104.6	1100.9	1099.0
22.5°	1114.5	1113.2	1109.5	1105.2	1100.2	1097.8	1095.3	1088.5	1085.4	1081.7	1081.1
25°	1093.4	1091.6	1087.9	1082.9	1080.4	1073.6	1071.2	1066.2	1065.0	1061.3	1060.7
27.5°	1061.3	1058.8	1054.5	1048.3	1043.9	1039.6	1037.1	1033.4	1032.2	1028.5	1027.9
30°	1013.0	1009.9	1001.2	998.8	991.3	987.0	987.0	982.1	982.7	980.2	980.2
32.5°	936.9	931.9	925.1	920.2	915.2	912.8	912.8	910.9	912.1	912.1	913.4
35°	836.0	829.2	825.5	822.4	822.4	824.9	832.3	834.2	837.9	841.0	843.4
37.5°	706.7	706.1	710.4	714.1	723.4	733.9	746.9	758.1	768.6	776.0	783.4
40°	566.8	582.3	594.7	612.0	626.2	646.7	670.2	689.4	707.3	720.3	733.9
42.5°	442.4	462.3	488.2	513.6	539.0	566.8	597.8	624.4	647.9	665.8	680.1
45°	344.7	371.9	403.5	435.6	468.4	503.1	535.3	562.5	587.3	605.8	620.1
47.5°	277.8	307.6	343.4	378.7	415.8	452.3	488.2	511.8	532.2	547.0	560.0
50°	229.6	261.1	298.9	339.1	376.2	412.8	443.7	466.6	483.3	496.3	504.3
52.5°	191.8	225.2	265.5	305.7	342.8	376.2	404.1	421.4	435.0	444.3	451.7
55°	158.4	190.6	228.3	266.1	302.6	334.2	357.0	370.1	380.6	386.1	390.5
57.5°	129.3	159.0	193.7	228.3	259.9	285.9	303.8	316.8	321.8	326.1	325.5
60°	101.5	129.3	160.9	190.6	217.8	238.9	251.9	259.3	263.0	264.9	263.6
62.5°	79.8	105.2	129.3	155.3	175.1	193.1	205.5	205.5	207.3	207.9	209.8
65°	59.4	78.6	99.6	118.8	134.9	146.7	153.5	155.3	157.8	157.2	155.9
67.5°	43.9	58.2	73.6	87.9	99.0	106.4	111.4	115.7	115.1	113.9	113.2
70°	30.3	39.6	53.2	61.9	69.9	77.4	78.6	79.2	79.8	80.4	79.2
72.5°	21.0	27.8	35.3	42.7	47.6	50.7	53.8	54.4	54.4	54.4	53.8
75°	10.5	14.2	21.0	24.1	28.5	29.7	32.2	32.2	34.0	31.6	30.9
77.5°	9.3	11.1	14.9	17.3	19.2	21.0	21.7	23.5	22.9	21.7	22.3
80°	5.6	6.8	9.3	10.5	13.0	13.6	14.2	14.9	14.2	14.9	14.9
82.5°	4.3	5.0	6.2	6.2	8.0	8.0	8.7	8.7	9.3	9.3	9.3
85°	2.5	4.3	3.7	7.4	5.0	5.0	6.2	7.4	6.2	6.2	7.4
87.5°	2.5	2.5	1.9	2.5	2.5	2.5	3.1	3.7	3.7	4.3	3.7
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: P246194

CATALOG NUMBER: LSR8B20D010 EC8B20840 8LBDW0MW

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1152.8	1152.8	1152.8	1152.8
2.5°	1154.7	1155.9	1154.1	1153.5
5°	1156.6	1156.6	1155.3	1155.3
7.5°	1156.6	1156.6	1154.7	1153.5
10°	1151.6	1151.6	1149.8	1148.5
12.5°	1142.3	1142.3	1141.7	1139.9
15°	1130.6	1130.6	1128.1	1126.2
17.5°	1114.5	1115.7	1112.6	1112.6
20°	1097.2	1096.5	1094.1	1092.8
22.5°	1079.2	1078.0	1077.4	1073.6
25°	1060.0	1058.8	1056.9	1055.1
27.5°	1027.2	1026.6	1024.8	1022.3
30°	977.1	976.5	974.0	974.0
32.5°	912.1	911.5	909.0	909.7
35°	844.7	847.2	845.9	843.4
37.5°	788.4	790.2	791.5	790.2
40°	741.3	746.9	747.5	748.8
42.5°	691.2	698.6	701.1	702.3
45°	631.2	638.0	643.6	642.3
47.5°	569.9	574.9	579.8	576.1
50°	511.1	514.2	516.1	516.1
52.5°	455.5	455.5	454.8	455.5
55°	391.7	391.7	389.2	390.5
57.5°	324.9	326.1	324.3	321.2
60°	263.0	259.9	258.7	256.8
62.5°	204.8	204.8	200.5	206.1
65°	153.5	151.6	149.7	149.1
67.5°	111.4	110.8	108.9	108.3
70°	78.6	76.1	75.5	74.3
72.5°	52.6	52.6	51.4	51.4
75°	32.2	29.1	28.5	29.1
77.5°	22.3	21.7	21.7	21.0
80°	14.9	14.2	15.5	13.6
82.5°	9.3	9.9	9.3	9.9
85°	6.2	7.4	6.8	6.8
87.5°	3.7	3.7	3.7	3.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)