

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: P246188

Luminaire Tested: **LSR8B20D010 EC8B20835 8LBDW0MW**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P246188
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 EC8B20835 8LBDW0MW
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 3500 CCT WITH MATTE WHITE TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2199.0 lumens
Efficiency: N/A
Efficacy: 103.2 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

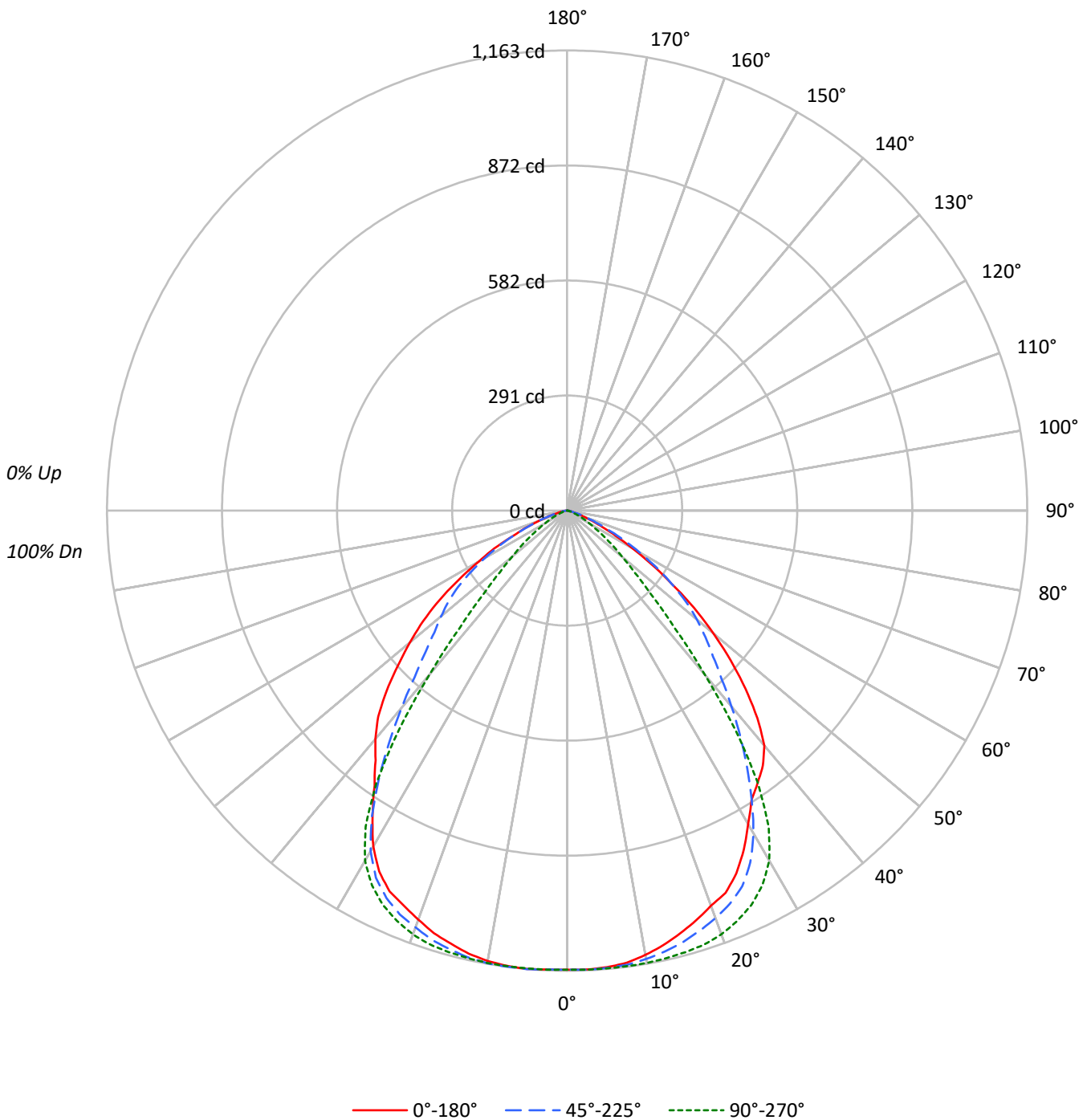
Input Watts (W): 21.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	35776	35776	35776
5°	35857	35953	35990
10°	35705	36350	36194
15°	35308	36882	36186
20°	34886	37400	36090
25°	34432	37444	36127
30°	32577	36390	34905
35°	31602	31625	31956
40°	31213	21761	30335
45°	27810	13065	28189
50°	23123	8693	24917
55°	17343	5994	21128
60°	11755	3996	15942
65°	7092	2590	10952
70°	3931	1406	6735
75°	1775	596	3491
80°	1545	657	2433
85°	1769	885	2441



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.7	5.0
10°-20°	321.6	14.6
20°-30°	488.1	22.2
30°-40°	512.6	23.3
40°-50°	384.3	17.5
50°-60°	246.6	11.2
60°-70°	105.5	4.8
70°-80°	24.9	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°	920.4	41.9
0°-40°	1433.0	65.2
0°-60°	2063.9	93.9
0°-90°	2199.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2199.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1160	1160	1160	1160	1160	
5°	1158	1160	1162	1163	1163	110
15°	1106	1129	1155	1148	1134	312
25°	1012	1048	1100	1080	1062	462
35°	840	793	840	830	849	527
45°	638	521	300	506	646	488
55°	323	323	112	336	393	293
65°	97	115	36	148	150	104
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°	1160.2	1160.2	1160.2	1160.2	1160.2	1160.2	1160.2	1160.2	1160.2	1160.2	1160.2
2.5°	1160.9	1162.1	1161.5	1161.5	1160.9	1161.5	1161.5	1162.7	1162.7	1161.5	1160.9
5°	1158.4	1159.6	1159.6	1158.4	1158.4	1161.5	1159.6	1160.9	1160.9	1160.2	1160.2
7.5°	1152.8	1152.8	1155.3	1153.4	1153.4	1155.3	1154.6	1155.9	1157.1	1157.8	1157.8
10°	1140.3	1141.6	1142.2	1142.2	1142.8	1144.7	1145.9	1148.4	1149.6	1150.9	1151.5
12.5°	1124.7	1126.6	1127.2	1126.6	1128.5	1131.0	1134.1	1137.2	1139.1	1141.6	1143.4
15°	1106.0	1106.0	1107.3	1109.2	1110.4	1114.2	1117.3	1121.0	1126.0	1129.1	1132.2
17.5°	1085.5	1086.8	1088.6	1088.6	1091.1	1097.3	1099.2	1104.8	1110.4	1113.5	1119.8
20°	1063.1	1064.3	1066.2	1067.4	1070.6	1075.5	1079.3	1084.3	1090.5	1096.1	1102.3
22.5°	1045.6	1043.2	1044.4	1045.6	1048.8	1053.1	1057.5	1063.7	1069.9	1075.5	1081.8
25°	1012.0	1012.6	1014.5	1015.7	1019.5	1023.2	1028.2	1035.7	1041.3	1047.5	1054.4
27.5°	966.6	967.2	970.3	970.3	973.4	979.6	982.7	989.0	996.5	1002.7	1010.8
30°	914.9	916.1	916.1	918.6	920.5	923.6	926.7	932.9	936.7	942.3	953.5
32.5°	867.5	868.8	868.1	867.5	865.7	865.0	864.4	865.7	866.9	868.8	873.1
35°	839.5	836.4	833.9	829.5	824.6	818.3	812.7	805.3	798.4	792.8	786.6
37.5°	812.7	812.1	808.4	802.1	792.2	781.0	767.9	751.7	735.5	718.1	701.3
40°	775.4	773.5	770.4	761.7	750.4	736.7	719.3	699.4	673.2	646.4	619.0
42.5°	711.8	712.5	708.7	701.9	691.3	678.2	660.1	638.4	610.3	578.6	543.1
45°	637.7	637.7	636.5	630.9	623.4	612.8	599.1	581.1	553.7	521.3	483.3
47.5°	560.5	561.1	559.2	558.0	554.9	548.0	538.1	524.4	505.1	473.9	435.9
50°	482.0	482.0	485.1	484.5	484.5	482.0	477.7	469.6	452.8	427.8	392.4
52.5°	403.6	404.8	406.7	409.2	412.3	417.3	412.3	408.5	398.0	378.6	348.1
55°	322.6	323.8	327.0	331.3	335.1	340.0	341.3	341.3	335.7	322.6	299.6
57.5°	253.5	251.6	254.1	257.8	262.8	267.8	271.5	275.9	275.3	266.5	247.9
60°	190.6	191.2	193.1	196.8	200.5	204.9	209.9	213.6	215.5	211.1	199.3
62.5°	138.9	138.9	141.4	145.1	147.0	153.2	156.3	158.2	160.0	159.4	152.0
65°	97.2	98.4	99.6	101.5	103.4	107.1	109.0	112.7	114.0	114.6	109.0
67.5°	68.5	66.6	67.9	69.1	71.0	73.5	77.2	77.2	79.1	79.1	75.4
70°	43.6	43.6	44.2	46.1	47.3	48.0	49.2	50.4	52.3	51.7	51.7
72.5°	29.3	28.6	29.3	29.9	30.5	32.4	32.4	33.0	34.3	34.9	32.4
75°	14.9	15.6	16.8	16.2	18.1	16.8	17.4	19.3	18.7	17.4	17.4
77.5°	12.5	12.5	12.5	11.8	13.1	13.1	12.5	13.7	13.1	13.1	12.5
80°	8.7	9.3	8.7	8.1	8.7	8.1	8.1	8.1	8.1	8.1	7.5
82.5°	6.9	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	4.4	4.4	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°	1160.2	1160.2	1160.2	1160.2	1160.2	1160.2	1160.2	1160.2	1160.2	1160.2	1160.2
2.5°	1162.1	1161.5	1162.7	1162.1	1162.1	1161.5	1162.1	1161.5	1162.7	1160.2	1160.9
5°	1162.1	1160.9	1161.5	1162.1	1162.7	1161.5	1161.5	1161.5	1162.7	1161.5	1162.1
7.5°	1159.6	1159.0	1160.9	1162.1	1161.5	1160.9	1162.1	1161.5	1162.7	1162.1	1163.3
10°	1154.6	1155.3	1156.5	1158.4	1159.0	1159.6	1160.9	1160.9	1162.7	1160.2	1161.5
12.5°	1147.2	1149.6	1152.8	1154.0	1156.5	1156.5	1157.8	1158.4	1159.6	1159.0	1160.9
15°	1137.8	1140.9	1144.7	1147.8	1150.9	1152.8	1154.6	1155.3	1157.1	1155.3	1155.9
17.5°	1126.6	1130.3	1135.9	1139.7	1144.7	1146.5	1149.0	1150.3	1152.1	1150.9	1151.5
20°	1111.0	1115.4	1121.6	1127.2	1130.3	1134.7	1137.8	1139.7	1140.9	1139.7	1140.3
22.5°	1089.2	1095.5	1103.6	1107.9	1114.2	1117.9	1118.5	1122.9	1126.0	1122.9	1124.1
25°	1063.7	1069.9	1076.2	1085.5	1091.1	1095.5	1099.8	1100.5	1103.6	1102.9	1102.3
27.5°	1021.4	1029.5	1040.0	1047.5	1055.0	1061.8	1066.8	1068.1	1071.2	1069.9	1070.6
30°	963.4	972.2	982.1	994.0	1004.5	1011.4	1017.6	1022.0	1025.1	1023.2	1022.6
32.5°	881.2	890.0	900.5	912.4	924.8	934.8	942.3	947.9	951.6	950.4	947.2
35°	787.2	789.7	796.5	805.9	816.5	827.0	833.9	840.1	844.5	845.7	845.7
37.5°	690.7	682.6	677.6	677.6	683.8	688.2	694.4	698.1	705.0	707.5	709.3
40°	597.2	578.6	561.1	548.0	539.3	538.7	538.7	540.6	546.8	554.9	562.4
42.5°	513.8	483.9	457.1	432.8	415.4	405.4	401.1	401.7	406.7	414.1	426.6
45°	447.2	409.8	376.2	346.9	323.2	307.6	300.2	299.6	303.3	312.0	325.7
47.5°	395.5	355.6	317.6	284.0	258.5	241.6	232.9	230.4	232.9	241.0	257.2
50°	352.5	311.4	272.2	237.3	209.9	192.4	184.3	181.2	184.3	191.2	207.4
52.5°	312.6	270.3	233.5	199.9	170.6	155.7	147.0	145.1	147.0	155.1	168.2
55°	266.5	230.4	194.3	160.7	135.1	120.2	113.3	111.5	113.3	120.8	134.5
57.5°	221.1	189.9	158.2	127.7	105.9	92.8	86.6	84.1	88.4	93.4	109.6
60°	178.7	153.8	127.0	100.3	82.2	70.4	65.4	64.8	66.0	72.2	83.4
62.5°	140.1	119.6	98.4	76.6	61.7	56.7	50.4	49.8	51.1	54.8	63.5
65°	100.9	87.8	71.6	56.0	44.2	37.4	34.9	35.5	36.7	39.2	47.3
67.5°	70.4	61.0	49.8	39.2	30.5	27.4	24.9	24.3	24.9	29.3	33.6
70°	47.3	41.7	33.6	29.9	21.2	16.8	17.4	15.6	18.1	18.1	21.8
72.5°	31.1	27.4	22.4	17.4	14.9	11.8	11.8	11.2	12.5	13.1	16.2
75°	16.2	12.5	12.5	8.7	6.2	3.1	5.6	5.0	4.4	5.0	6.2
77.5°	11.2	9.3	8.7	6.9	6.2	5.0	5.0	5.0	5.0	5.6	6.2
80°	6.9	6.9	5.0	4.4	3.7	3.1	3.7	3.7	3.7	3.7	4.4
82.5°	4.4	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	4.4	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°	1160.2	1160.2	1160.2	1160.2	1160.2	1160.2	1160.2	1160.2	1160.2	1160.2	1160.2
2.5°	1162.1	1162.7	1162.7	1162.1	1162.1	1160.9	1163.3	1161.5	1162.1	1164.6	1162.7
5°	1163.3	1164.0	1164.0	1163.3	1163.3	1163.3	1164.0	1164.0	1163.3	1162.7	1164.0
7.5°	1165.8	1165.2	1165.2	1164.0	1164.0	1162.7	1164.0	1162.1	1163.3	1162.1	1164.0
10°	1162.7	1163.3	1162.7	1162.1	1162.1	1161.5	1161.5	1159.6	1160.2	1158.4	1159.6
12.5°	1160.9	1160.2	1160.2	1159.0	1157.8	1156.5	1155.9	1154.0	1154.0	1149.6	1151.5
15°	1155.9	1156.5	1154.6	1152.1	1150.9	1147.8	1146.5	1144.0	1141.6	1138.4	1139.1
17.5°	1151.5	1149.6	1147.2	1144.7	1139.7	1137.2	1134.7	1131.0	1129.7	1126.0	1124.7
20°	1138.4	1137.2	1134.1	1129.7	1126.6	1121.0	1118.5	1114.8	1111.7	1107.9	1106.0
22.5°	1121.6	1120.4	1116.6	1112.3	1107.3	1104.8	1102.3	1095.5	1092.3	1088.6	1088.0
25°	1100.5	1098.6	1094.8	1089.9	1087.4	1080.5	1078.0	1073.0	1071.8	1068.1	1067.4
27.5°	1068.1	1065.6	1061.2	1055.0	1050.6	1046.3	1043.8	1040.0	1038.8	1035.1	1034.4
30°	1019.5	1016.4	1007.7	1005.2	997.7	993.3	993.3	988.3	989.0	986.5	986.5
32.5°	942.9	937.9	931.1	926.1	921.1	918.6	918.6	916.7	918.0	918.0	919.2
35°	841.4	834.5	830.8	827.7	827.7	830.2	837.6	839.5	843.2	846.4	848.9
37.5°	711.2	710.6	715.0	718.7	728.0	738.6	751.7	762.9	773.5	781.0	788.4
40°	570.5	586.0	598.5	615.9	630.2	650.8	674.5	693.8	711.8	724.9	738.6
42.5°	445.3	465.2	491.4	516.9	542.4	570.5	601.6	628.4	652.1	670.1	684.4
45°	346.9	374.3	406.1	438.4	471.4	506.3	538.7	566.1	591.0	609.7	624.0
47.5°	279.6	309.5	345.6	381.1	418.5	455.2	491.4	515.0	535.6	550.5	563.6
50°	231.0	262.8	300.8	341.3	378.6	415.4	446.5	469.6	486.4	499.5	507.6
52.5°	193.1	226.7	267.2	307.6	345.0	378.6	406.7	424.1	437.8	447.2	454.6
55°	159.4	191.8	229.8	267.8	304.5	336.3	359.3	372.4	383.0	388.6	393.0
57.5°	130.2	160.0	194.9	229.8	261.6	287.7	305.8	318.9	323.8	328.2	327.6
60°	102.1	130.2	161.9	191.8	219.2	240.4	253.5	260.9	264.7	266.5	265.3
62.5°	80.3	105.9	130.2	156.3	176.2	194.3	206.8	206.8	208.6	209.3	211.1
65°	59.8	79.1	100.3	119.6	135.8	147.6	154.5	156.3	158.8	158.2	156.9
67.5°	44.2	58.5	74.1	88.4	99.6	107.1	112.1	116.5	115.8	114.6	114.0
70°	30.5	39.9	53.6	62.3	70.4	77.9	79.1	79.7	80.3	81.0	79.7
72.5°	21.2	28.0	35.5	43.0	48.0	51.1	54.2	54.8	54.8	54.8	54.2
75°	10.6	14.3	21.2	24.3	28.6	29.9	32.4	32.4	34.3	31.8	31.1
77.5°	9.3	11.2	14.9	17.4	19.3	21.2	21.8	23.7	23.0	21.8	22.4
80°	5.6	6.9	9.3	10.6	13.1	13.7	14.3	14.9	14.3	14.9	14.9
82.5°	4.4	5.0	6.2	6.2	8.1	8.1	8.7	8.7	9.3	9.3	9.3
85°	2.5	4.4	3.7	7.5	5.0	5.0	6.2	7.5	6.2	6.2	7.5
87.5°	2.5	2.5	1.9	2.5	2.5	2.5	3.1	3.7	3.7	4.4	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: P246188

CATALOG NUMBER: LSR8B20D010 EC8B20835 8LBDW0MW

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1160.2	1160.2	1160.2	1160.2
2.5°	1162.1	1163.3	1161.5	1160.9
5°	1164.0	1164.0	1162.7	1162.7
7.5°	1164.0	1164.0	1162.1	1160.9
10°	1159.0	1159.0	1157.1	1155.9
12.5°	1149.6	1149.6	1149.0	1147.2
15°	1137.8	1137.8	1135.3	1133.5
17.5°	1121.6	1122.9	1119.8	1119.8
20°	1104.2	1103.6	1101.1	1099.8
22.5°	1086.1	1084.9	1084.3	1080.5
25°	1066.8	1065.6	1063.7	1061.8
27.5°	1033.8	1033.2	1031.3	1028.8
30°	983.4	982.7	980.3	980.3
32.5°	918.0	917.4	914.9	915.5
35°	850.1	852.6	851.3	848.9
37.5°	793.4	795.3	796.5	795.3
40°	746.1	751.7	752.3	753.6
42.5°	695.6	703.1	705.6	706.8
45°	635.2	642.1	647.7	646.4
47.5°	573.6	578.6	583.5	579.8
50°	514.4	517.5	519.4	519.4
52.5°	458.4	458.4	457.7	458.4
55°	394.2	394.2	391.7	393.0
57.5°	327.0	328.2	326.3	323.2
60°	264.7	261.6	260.3	258.5
62.5°	206.1	206.1	201.8	207.4
65°	154.5	152.6	150.7	150.1
67.5°	112.1	111.5	109.6	109.0
70°	79.1	76.6	76.0	74.7
72.5°	52.9	52.9	51.7	51.7
75°	32.4	29.3	28.6	29.3
77.5°	22.4	21.8	21.8	21.2
80°	14.9	14.3	15.6	13.7
82.5°	9.3	10.0	9.3	10.0
85°	6.2	7.5	6.9	6.9
87.5°	3.7	3.7	3.7	3.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)