

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: P245504

Luminaire Tested: **LSR8B20D010 EC8B20940 8LBDW0WH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P245504  
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 EC8B20940 8LBDW0WH  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
90 CRI 4000 CCT WITH WHEAT TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1997.0 lumens  
Efficiency: N/A  
Efficacy: 93.8 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

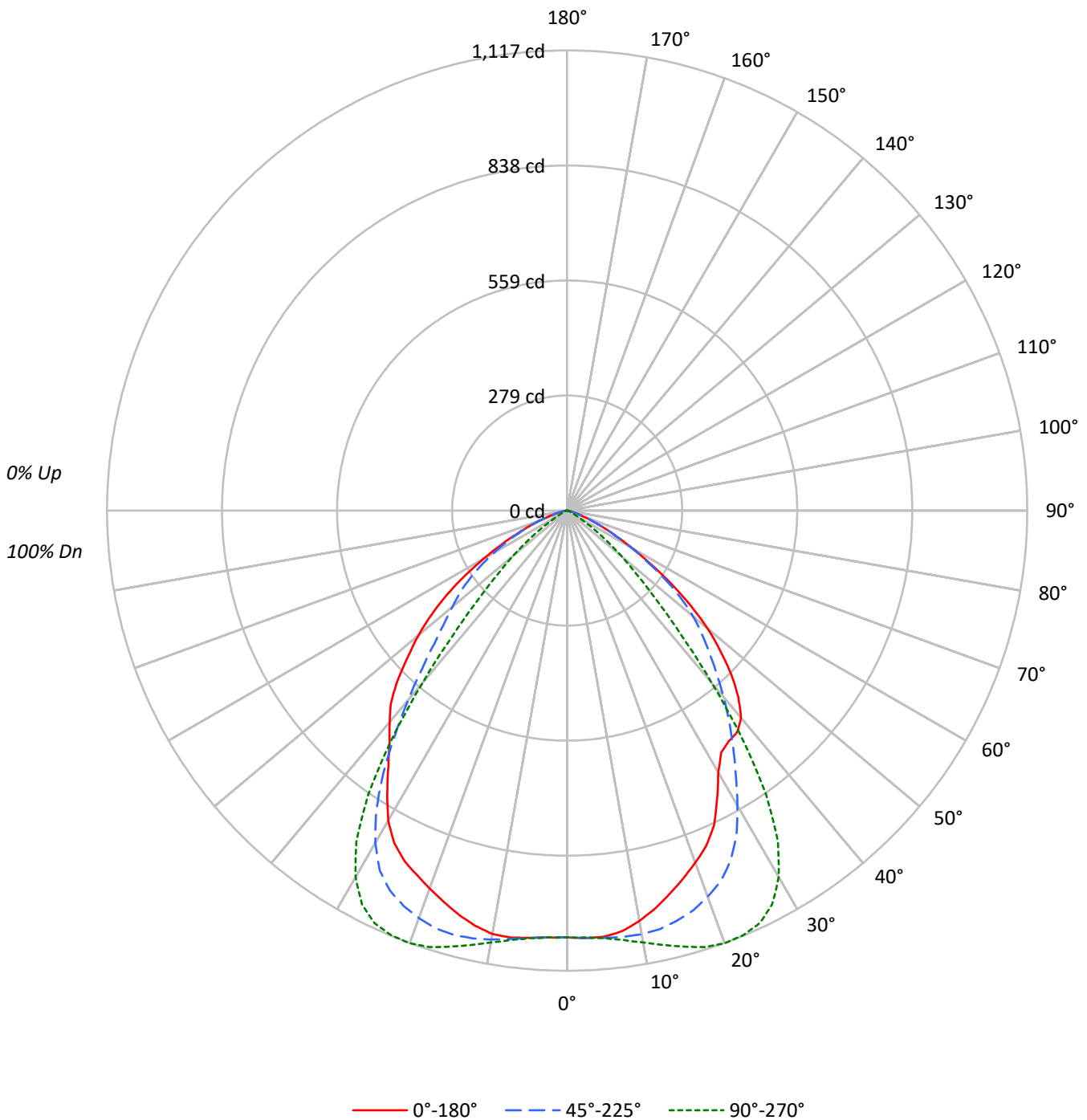
Input Watts (W): 21.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	31946	31946	31946
5°	32137	32254	32220
10°	31663	33335	32680
15°	30737	34986	32422
20°	29846	36668	32028
25°	28699	37607	31881
30°	26118	36575	30935
35°	25730	31693	28463
40°	26431	21979	26982
45°	24604	13283	25372
50°	21343	8203	22610
55°	16376	4285	19187
60°	11157	1727	14481
65°	6939	883	9989
70°	3769	550	6095
75°	1966	262	3598
80°	888	302	1953
85°	601	212	1769



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	99.6	5.0
10°-20°	295.1	14.8
20°-30°	450.3	22.5
30°-40°	469.9	23.5
40°-50°	352.9	17.7
50°-60°	217.1	10.9
60°-70°	88.4	4.4
70°-80°	20.8	1.0
80°-90°	2.9	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°	845.0	42.3
0°-40°	1314.9	65.8
0°-60°	1884.9	94.4
0°-90°	1997.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1997.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1036	1036	1036	1036	1036	
5°	1038	1041	1042	1041	1041	98
15°	963	1030	1096	1066	1016	271
25°	844	938	1105	1018	937	383
35°	684	703	842	778	756	432
45°	564	488	305	455	582	430
55°	305	289	80	289	357	274
65°	95	96	12	129	137	99
75°	16	16	2	29	30	20
85°	2	2	1	4	5	2
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°	1036.0	1036.0	1036.0	1036.0	1036.0	1036.0	1036.0	1036.0	1036.0	1036.0	1036.0
2.5°	1038.7	1037.1	1038.7	1038.7	1039.3	1038.2	1038.7	1039.3	1038.2	1038.2	1038.2
5°	1038.2	1037.1	1038.2	1037.6	1038.7	1038.7	1039.8	1039.8	1040.9	1040.9	1042.6
7.5°	1029.4	1027.2	1029.4	1031.0	1032.1	1034.3	1037.1	1039.3	1041.5	1043.7	1046.4
10°	1011.2	1011.2	1012.9	1016.2	1019.5	1023.3	1028.3	1033.8	1039.3	1044.2	1049.2
12.5°	988.7	987.0	990.3	994.7	999.7	1005.7	1013.4	1021.7	1030.5	1040.4	1048.1
15°	962.8	961.2	965.0	969.4	975.5	984.3	993.6	1004.6	1017.3	1030.5	1043.1
17.5°	936.4	935.9	939.7	945.8	950.8	960.1	972.2	985.4	999.7	1017.3	1033.8
20°	909.5	909.0	912.8	917.8	924.4	933.2	945.2	960.6	977.7	997.5	1016.7
22.5°	881.5	882.0	885.3	890.8	896.3	905.7	918.3	933.7	952.4	973.8	995.3
25°	843.5	840.8	845.2	850.7	860.0	867.7	879.8	896.3	915.6	938.1	963.4
27.5°	788.5	788.0	791.8	796.8	805.0	814.4	827.6	844.6	865.0	889.7	914.5
30°	733.5	734.6	736.3	741.2	746.7	756.1	769.3	783.6	802.8	826.5	852.9
32.5°	696.1	696.1	698.4	701.7	705.5	710.4	719.8	730.2	745.1	761.6	780.8
35°	683.5	681.3	683.5	684.1	684.6	685.7	687.3	690.7	695.6	702.8	709.9
37.5°	678.0	676.4	676.4	674.2	671.4	668.1	663.7	658.8	653.3	646.1	640.6
40°	656.6	655.5	654.4	652.2	646.1	639.5	632.4	620.8	608.2	590.6	573.0
42.5°	615.3	614.2	613.7	609.3	603.8	596.1	587.8	575.7	559.8	537.2	511.9
45°	564.2	562.0	560.3	556.5	552.6	546.0	538.3	527.3	511.4	488.3	458.1
47.5°	504.8	503.7	503.1	501.5	497.6	493.8	488.9	480.1	465.7	443.8	412.4
50°	444.9	442.7	443.8	443.2	441.6	438.8	435.5	429.5	418.5	398.7	370.1
52.5°	376.1	376.1	375.6	377.2	377.8	377.2	377.8	371.2	361.8	347.0	322.8
55°	304.6	304.6	306.3	308.5	310.7	311.2	310.7	307.9	301.3	289.2	267.8
57.5°	237.5	236.5	239.7	243.0	245.3	247.4	245.8	243.6	239.7	229.8	213.4
60°	180.9	180.9	183.1	185.3	187.5	189.7	189.2	188.6	185.3	178.7	165.5
62.5°	133.1	133.6	133.6	135.3	137.5	139.7	141.3	139.7	138.0	133.6	124.8
65°	95.1	94.6	95.1	96.8	98.4	100.6	101.7	101.2	99.5	96.2	89.6
67.5°	63.8	63.2	65.4	66.0	67.1	69.3	68.7	69.3	68.7	66.0	60.5
70°	41.8	40.7	41.8	41.2	42.9	43.4	44.5	45.1	44.5	42.9	41.2
72.5°	25.8	25.3	25.8	26.4	26.9	27.5	28.6	28.6	28.0	26.9	24.7
75°	16.5	14.8	15.4	14.3	15.4	15.4	16.5	17.0	16.5	16.5	15.4
77.5°	9.9	9.9	9.9	9.9	9.9	9.9	9.9	10.5	11.0	9.9	9.4
80°	5.0	5.0	5.5	5.5	5.5	6.1	5.5	5.5	5.5	6.1	4.4
82.5°	3.8	3.3	3.3	3.3	3.8	3.3	3.3	3.3	3.3	3.3	3.3
85°	1.7	2.2	1.7	1.1	1.7	1.7	2.2	1.7	1.7	1.7	2.2
87.5°	0.6	0.6	0.0	0.0	0.0	0.6	0.0	0.6	0.6	1.1	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°	1036.0	1036.0	1036.0	1036.0	1036.0	1036.0	1036.0	1036.0	1036.0	1036.0	1036.0
2.5°	1038.7	1037.6	1037.6	1037.1	1038.2	1037.1	1037.6	1037.1	1037.1	1038.2	1037.1
5°	1042.6	1043.1	1042.0	1041.5	1043.1	1043.1	1043.1	1042.0	1042.0	1042.6	1042.0
7.5°	1048.1	1049.2	1049.7	1050.3	1051.4	1051.9	1051.9	1051.4	1050.8	1052.5	1050.3
10°	1054.1	1055.8	1059.1	1060.7	1063.5	1063.5	1064.6	1064.6	1063.5	1064.6	1064.0
12.5°	1051.9	1061.8	1067.3	1071.2	1075.0	1078.3	1079.4	1080.0	1079.4	1081.6	1079.4
15°	1055.8	1064.0	1072.8	1079.4	1086.6	1090.4	1091.5	1095.9	1097.0	1097.6	1094.3
17.5°	1049.7	1064.6	1073.9	1083.8	1094.3	1101.4	1108.0	1110.8	1111.3	1112.4	1108.0
20°	1036.0	1052.5	1066.8	1081.1	1093.2	1104.2	1109.7	1117.4	1115.2	1119.6	1113.5
22.5°	1017.3	1036.0	1054.1	1072.8	1085.5	1098.7	1110.2	1115.7	1118.5	1118.5	1111.9
25°	987.6	1009.6	1029.4	1048.6	1067.9	1083.8	1097.0	1105.3	1106.9	1106.4	1098.7
27.5°	941.4	965.0	988.1	1010.1	1033.8	1052.5	1067.9	1077.8	1080.5	1080.5	1072.3
30°	877.6	902.9	925.5	951.8	976.0	996.9	1018.4	1027.2	1032.1	1032.1	1022.8
32.5°	801.7	823.2	844.1	869.9	896.3	920.0	940.3	952.4	958.4	957.9	949.6
35°	719.2	729.7	745.6	764.9	788.5	810.5	830.3	841.9	852.3	851.8	844.1
37.5°	636.8	634.0	635.7	642.8	657.7	673.1	688.5	699.5	708.2	712.1	710.4
40°	555.9	541.6	527.9	522.9	524.0	529.5	537.8	546.0	555.9	560.9	563.1
42.5°	483.3	459.2	435.0	416.8	406.4	403.1	406.9	409.7	415.7	422.9	430.0
45°	425.1	392.6	360.7	332.7	315.1	304.6	302.4	304.6	307.9	315.1	324.4
47.5°	377.2	339.3	303.5	272.2	246.3	232.6	228.8	227.7	231.0	237.5	250.2
50°	334.9	296.9	257.3	221.0	194.1	178.7	173.2	171.0	174.9	179.8	191.4
52.5°	288.7	251.3	210.6	175.4	147.4	131.4	125.4	122.1	124.3	130.9	142.4
55°	238.6	204.0	167.2	130.9	103.9	89.1	81.9	79.7	81.9	89.1	100.6
57.5°	188.6	159.5	128.7	94.6	70.4	55.5	48.4	46.2	52.2	55.0	67.1
60°	147.4	123.7	97.3	69.3	48.4	36.8	29.7	28.0	30.8	35.7	45.6
62.5°	110.5	95.7	74.8	49.5	35.7	23.6	19.8	18.2	19.8	23.6	31.3
65°	80.3	68.7	52.2	36.3	24.2	17.6	13.2	12.1	13.8	16.5	23.1
67.5°	55.0	46.2	36.3	25.3	16.5	11.0	9.4	9.4	9.9	12.1	17.0
70°	35.7	30.2	23.1	16.5	11.0	8.2	7.1	6.1	7.1	8.8	11.5
72.5°	22.5	19.2	14.8	11.5	8.2	6.1	5.0	4.4	5.5	6.6	8.8
75°	13.8	10.5	7.7	6.1	4.4	4.4	4.4	2.2	2.7	4.4	5.5
77.5°	8.2	7.1	6.1	5.0	3.8	2.2	2.2	2.2	2.7	3.3	5.0
80°	4.4	3.8	2.7	2.7	2.2	1.7	2.2	1.7	1.1	2.7	3.3
82.5°	2.7	2.2	2.2	2.2	2.7	1.1	1.7	1.1	1.7	2.2	1.7
85°	1.7	1.7	1.7	1.1	2.7	1.1	1.1	0.6	0.6	1.1	1.1
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°	1036.0	1036.0	1036.0	1036.0	1036.0	1036.0	1036.0	1036.0	1036.0	1036.0	1036.0
2.5°	1037.6	1037.1	1037.6	1037.1	1037.1	1037.1	1037.6	1037.6	1037.1	1037.1	1038.2
5°	1042.0	1042.0	1042.0	1041.5	1040.9	1040.9	1042.0	1042.0	1040.4	1042.0	1042.0
7.5°	1051.4	1049.7	1051.4	1049.2	1048.1	1048.6	1049.2	1048.1	1047.0	1047.5	1047.5
10°	1063.5	1061.8	1061.8	1060.2	1058.5	1057.4	1056.3	1053.6	1050.8	1050.3	1048.1
12.5°	1077.8	1075.0	1073.4	1070.1	1067.3	1063.5	1060.2	1055.8	1050.3	1046.4	1042.6
15°	1092.1	1087.7	1083.8	1078.3	1072.3	1065.7	1058.5	1051.4	1042.6	1034.9	1028.3
17.5°	1103.6	1097.6	1090.4	1081.6	1072.8	1062.9	1052.5	1042.0	1029.4	1019.5	1011.8
20°	1107.5	1098.7	1089.3	1077.8	1066.2	1052.5	1039.3	1025.5	1011.2	1000.8	992.0
22.5°	1102.5	1092.1	1080.5	1068.4	1053.0	1038.2	1022.8	1006.8	994.2	979.9	971.6
25°	1088.8	1076.1	1063.5	1049.2	1034.3	1017.8	1001.3	984.8	969.4	961.7	951.3
27.5°	1060.7	1047.0	1033.2	1018.4	1001.3	984.8	967.8	951.8	938.7	928.2	922.2
30°	1011.2	995.3	979.3	963.4	948.5	931.5	915.6	902.4	889.2	880.9	874.9
32.5°	935.3	921.1	905.1	889.7	876.0	861.7	848.5	836.9	827.6	822.1	817.7
35°	833.1	818.8	806.7	795.7	784.1	778.1	769.8	763.2	759.4	757.2	756.6
37.5°	704.4	696.1	692.3	690.1	687.9	686.3	687.3	690.1	692.3	696.1	700.5
40°	566.9	574.1	576.3	584.0	591.1	600.5	610.9	623.0	632.9	645.6	654.4
42.5°	441.6	454.8	470.1	486.6	504.2	521.3	542.2	561.4	579.0	595.0	608.7
45°	339.3	359.6	382.7	406.4	430.0	454.8	480.1	503.7	524.6	541.6	555.9
47.5°	264.5	287.0	316.7	345.9	374.5	403.6	431.7	456.4	474.0	490.5	503.1
50°	209.5	235.3	267.8	301.3	332.7	363.5	393.2	416.3	433.9	447.1	456.4
52.5°	162.2	193.0	226.0	261.2	294.7	328.3	355.8	377.2	391.5	403.1	410.2
55°	121.0	151.2	186.4	222.7	256.8	289.2	315.1	333.8	346.4	353.0	356.9
57.5°	87.4	114.9	150.1	186.4	217.2	248.0	268.9	285.9	293.1	296.9	298.6
60°	63.8	89.1	120.4	151.8	180.9	205.7	223.8	235.3	240.9	243.0	242.5
62.5°	46.7	68.7	95.7	122.1	145.7	166.1	180.4	188.1	190.8	191.9	190.3
65°	35.7	52.8	75.9	96.2	114.4	129.2	139.7	144.6	146.3	145.7	144.6
67.5°	26.4	39.6	56.6	72.0	85.2	96.8	102.3	106.7	107.8	106.1	104.5
70°	18.7	29.1	41.2	51.7	61.6	68.2	74.2	74.8	74.8	74.2	73.1
72.5°	13.2	20.3	28.0	35.2	41.2	46.2	48.4	50.0	49.5	48.9	47.8
75°	8.8	12.6	20.3	22.0	27.5	29.1	31.3	31.3	31.9	30.2	30.2
77.5°	5.5	8.8	12.1	14.3	16.5	18.7	19.8	19.8	20.3	19.8	19.8
80°	3.3	5.5	6.6	9.9	9.9	11.5	12.1	12.6	11.5	13.2	11.5
82.5°	2.2	3.3	5.0	5.0	6.1	7.1	7.1	7.7	7.7	7.1	7.1
85°	1.7	2.2	2.7	3.3	3.3	3.8	3.3	3.3	3.8	4.4	3.8
87.5°	0.6	1.1	0.6	1.1	1.1	2.2	1.7	1.7	1.7	2.2	2.2
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: P245504

CATALOG NUMBER: LSR8B20D010 EC8B20940 8LBDW0WH

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	1036.0	1036.0	1036.0	1036.0
2.5°	1037.1	1037.6	1037.1	1037.1
5°	1042.0	1041.5	1042.0	1040.9
7.5°	1045.9	1045.9	1045.3	1045.3
10°	1045.9	1043.7	1043.7	1043.7
12.5°	1037.6	1034.9	1033.2	1032.1
15°	1023.3	1018.4	1016.2	1015.6
17.5°	1004.6	1000.2	997.5	995.8
20°	983.2	978.8	975.5	976.0
22.5°	964.5	959.5	957.3	956.2
25°	945.8	939.7	938.1	937.0
27.5°	915.6	912.3	910.6	909.0
30°	869.4	867.7	865.0	868.8
32.5°	816.0	813.3	811.1	812.7
35°	757.2	755.5	757.2	756.1
37.5°	703.3	704.9	707.2	708.2
40°	661.0	667.0	669.2	670.3
42.5°	618.6	625.8	630.2	632.9
45°	566.4	573.5	578.5	581.8
47.5°	512.5	518.5	523.5	522.9
50°	463.6	466.9	469.0	471.3
52.5°	414.1	414.1	414.6	414.6
55°	358.0	356.9	356.3	356.9
57.5°	296.4	295.3	294.7	293.1
60°	240.3	237.0	234.8	234.8
62.5°	188.1	184.2	182.6	182.0
65°	141.3	140.8	137.5	136.9
67.5°	102.3	100.1	97.9	98.4
70°	72.0	68.7	68.7	67.6
72.5°	46.7	45.1	44.5	44.5
75°	29.1	29.1	28.0	30.2
77.5°	19.2	19.2	18.7	19.2
80°	11.5	11.5	11.5	11.0
82.5°	7.1	7.7	7.1	7.1
85°	3.8	4.4	3.3	5.0
87.5°	2.2	2.7	2.2	2.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)