

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: P244202

Luminaire Tested: **LSR8B20D010 EC8B20935 8LBDW0LI**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P244202
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 EC8B20935 8LBDW0LI
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
90 CRI 3500 CCT WITH SPECULAR CLEAR TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1966.0 lumens
Efficiency: N/A
Efficacy: 92.3 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

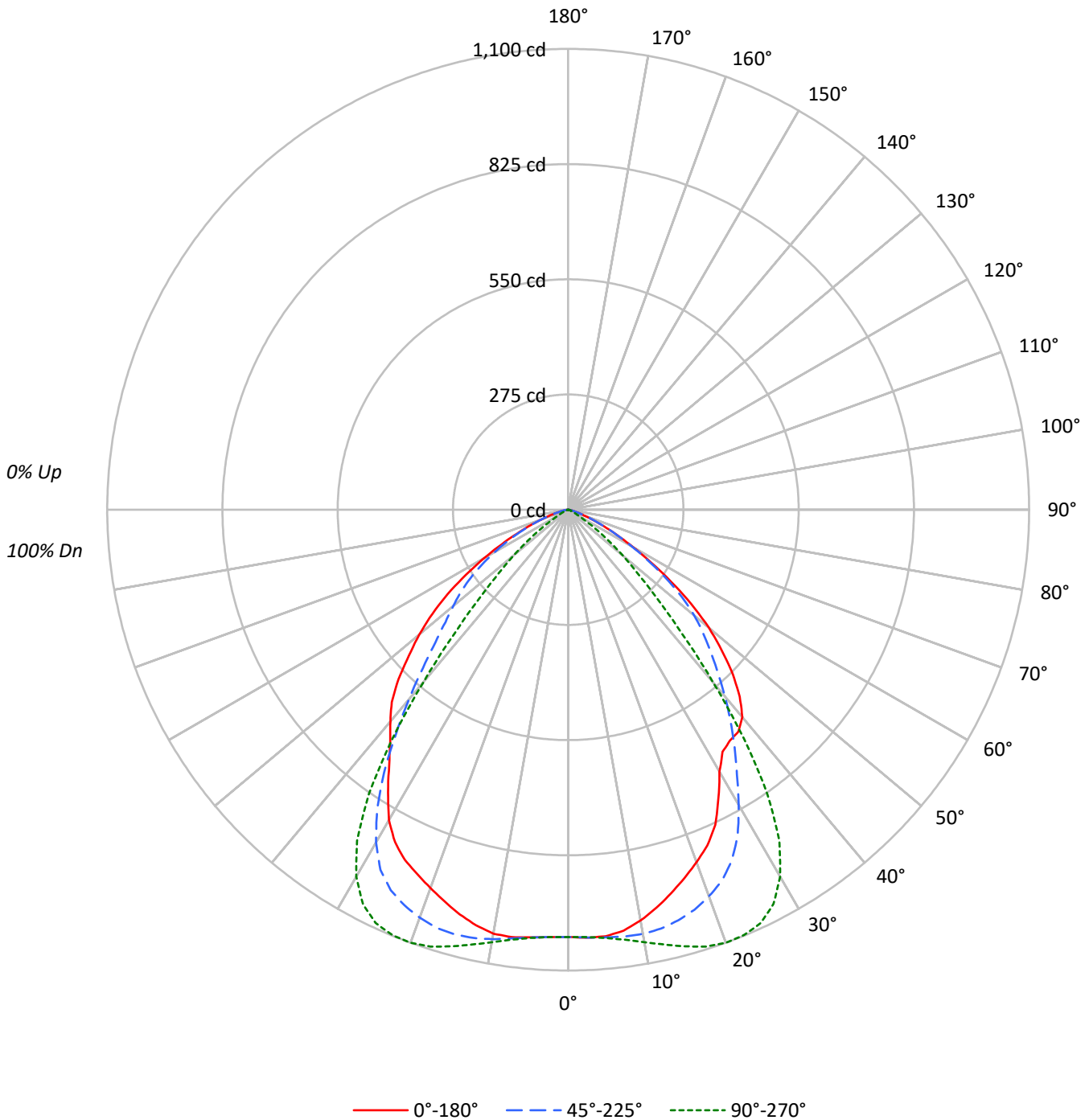
Input Watts (W): 21.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	31450	31450	31450
5°	31638	31756	31722
10°	31171	32818	32173
15°	30261	34443	31921
20°	29383	36097	31532
25°	28254	37022	31387
30°	25715	36006	30454
35°	25331	31200	28022
40°	26020	21641	26564
45°	24221	13078	24979
50°	21007	8079	22255
55°	16123	4220	18886
60°	10984	1702	14259
65°	6830	868	9836
70°	3706	541	6005
75°	1930	262	3550
80°	870	284	1918
85°	566	177	1734



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.1	5.0
10°-20°	290.6	14.8
20°-30°	443.3	22.5
30°-40°	462.6	23.5
40°-50°	347.4	17.7
50°-60°	213.8	10.9
60°-70°	87.0	4.4
70°-80°	20.5	1.0
80°-90°	2.8	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°	831.9	42.3
0°-40°	1294.5	65.8
0°-60°	1855.7	94.4
0°-90°	1966.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1966.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1020	1020	1020	1020	1020	
5°	1022	1025	1026	1025	1025	97
15°	948	1014	1079	1049	1000	267
25°	830	924	1088	1002	922	378
35°	673	692	829	766	744	425
45°	555	481	300	448	573	424
55°	300	285	78	285	351	270
65°	94	95	12	127	135	98
75°	16	16	2	29	30	20
85°	2	2	0	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°	1019.9	1019.9	1019.9	1019.9	1019.9	1019.9	1019.9	1019.9	1019.9	1019.9	1019.9
2.5°	1022.6	1021.0	1022.6	1022.6	1023.1	1022.1	1022.6	1023.1	1022.1	1022.1	1022.1
5°	1022.1	1021.0	1022.1	1021.5	1022.6	1022.6	1023.7	1023.7	1024.8	1024.8	1026.4
7.5°	1013.4	1011.2	1013.4	1015.0	1016.1	1018.3	1021.0	1023.1	1025.3	1027.5	1030.2
10°	995.5	995.5	997.2	1000.4	1003.7	1007.4	1012.3	1017.7	1023.1	1028.0	1032.9
12.5°	973.3	971.7	975.0	979.3	984.2	990.1	997.7	1005.8	1014.5	1024.2	1031.8
15°	947.9	946.3	950.1	954.4	960.4	969.0	978.2	989.0	1001.5	1014.5	1026.9
17.5°	921.9	921.4	925.2	931.1	936.0	945.2	957.1	970.1	984.2	1001.5	1017.7
20°	895.4	894.9	898.6	903.5	910.0	918.7	930.6	945.7	962.5	982.0	1000.9
22.5°	867.8	868.3	871.6	877.0	882.4	891.6	904.0	919.2	937.6	958.7	979.8
25°	830.4	827.7	832.1	837.5	846.7	854.2	866.2	882.4	901.3	923.5	948.4
27.5°	776.3	775.7	779.5	784.4	792.5	801.7	814.7	831.5	851.5	875.9	900.3
30°	722.2	723.2	724.9	729.7	735.1	744.4	757.3	771.4	790.4	813.6	839.6
32.5°	685.3	685.3	687.5	690.8	694.5	699.4	708.6	718.9	733.5	749.8	768.7
35°	672.9	670.7	672.9	673.4	674.0	675.1	676.7	679.9	684.8	691.8	698.9
37.5°	667.5	665.9	665.9	663.7	661.0	657.7	653.4	648.5	643.1	636.1	630.7
40°	646.4	645.3	644.2	642.0	636.1	629.6	622.5	611.2	598.7	581.4	564.1
42.5°	605.8	604.7	604.1	599.8	594.4	586.8	578.7	566.8	551.1	528.9	504.0
45°	555.4	553.3	551.6	547.8	544.0	537.6	530.0	519.1	503.4	480.7	450.9
47.5°	497.0	495.9	495.3	493.7	489.9	486.1	481.3	472.6	458.5	436.9	406.0
50°	437.9	435.8	436.9	436.3	434.7	432.0	428.7	422.8	412.0	392.5	364.3
52.5°	370.3	370.3	369.7	371.4	371.9	371.4	371.9	365.4	356.2	341.6	317.8
55°	299.9	299.9	301.5	303.7	305.9	306.4	305.9	303.2	296.7	284.7	263.6
57.5°	233.9	232.8	236.0	239.3	241.4	243.6	242.0	239.8	236.0	226.3	210.0
60°	178.1	178.1	180.3	182.4	184.6	186.8	186.2	185.7	182.4	175.9	163.0
62.5°	131.0	131.5	131.5	133.2	135.3	137.5	139.1	137.5	135.9	131.5	122.9
65°	93.6	93.1	93.6	95.3	96.9	99.1	100.2	99.6	98.0	94.7	88.2
67.5°	62.8	62.3	64.4	65.0	66.0	68.2	67.7	68.2	67.7	65.0	59.6
70°	41.1	40.1	41.1	40.6	42.2	42.8	43.8	44.4	43.8	42.2	40.6
72.5°	25.4	24.9	25.4	26.0	26.5	27.1	28.1	28.1	27.6	26.5	24.4
75°	16.2	14.6	15.2	14.1	15.2	15.2	16.2	16.8	16.2	16.2	15.2
77.5°	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.3	10.8	9.7	9.2
80°	4.9	4.9	5.4	5.4	5.4	6.0	5.4	5.4	5.4	6.0	4.3
82.5°	3.8	3.2	3.2	3.2	3.8	3.2	3.2	3.2	3.2	3.2	3.2
85°	1.6	2.2	1.6	1.1	1.6	1.6	2.2	1.6	1.6	1.6	2.2
87.5°	0.5	0.5	0.0	0.0	0.0	0.5	0.0	0.5	0.5	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°	1019.9	1019.9	1019.9	1019.9	1019.9	1019.9	1019.9	1019.9	1019.9	1019.9	1019.9
2.5°	1022.6	1021.5	1021.5	1021.0	1022.1	1021.0	1021.5	1021.0	1021.0	1022.1	1021.0
5°	1026.4	1026.9	1025.9	1025.3	1026.9	1026.9	1026.9	1025.9	1025.9	1026.4	1025.9
7.5°	1031.8	1032.9	1033.4	1034.0	1035.1	1035.6	1035.6	1035.1	1034.5	1036.1	1034.0
10°	1037.8	1039.4	1042.6	1044.3	1047.0	1047.0	1048.1	1048.1	1047.0	1048.1	1047.5
12.5°	1035.6	1045.3	1050.8	1054.5	1058.3	1061.6	1062.7	1063.2	1062.7	1064.8	1062.7
15°	1039.4	1047.5	1056.2	1062.7	1069.7	1073.5	1074.6	1078.9	1080.0	1080.5	1077.3
17.5°	1033.4	1048.1	1057.2	1067.0	1077.3	1084.3	1090.8	1093.5	1094.1	1095.1	1090.8
20°	1019.9	1036.1	1050.2	1064.3	1076.2	1087.0	1092.4	1100.0	1097.9	1102.2	1096.2
22.5°	1001.5	1019.9	1037.8	1056.2	1068.6	1081.6	1093.0	1098.4	1101.1	1101.1	1094.6
25°	972.3	993.9	1013.4	1032.3	1051.3	1067.0	1080.0	1088.1	1089.7	1089.2	1081.6
27.5°	926.8	950.1	972.8	994.5	1017.7	1036.1	1051.3	1061.0	1063.7	1063.7	1055.6
30°	864.0	888.9	911.1	937.1	960.9	981.5	1002.6	1011.2	1016.1	1016.1	1006.9
32.5°	789.3	810.4	831.0	856.4	882.4	905.7	925.7	937.6	943.6	943.0	934.9
35°	708.1	718.4	734.1	753.0	776.3	797.9	817.4	828.8	839.1	838.5	831.0
37.5°	626.9	624.2	625.8	632.8	647.4	662.6	677.8	688.6	697.2	701.0	699.4
40°	547.3	533.2	519.7	514.8	515.9	521.3	529.4	537.6	547.3	552.2	554.3
42.5°	475.8	452.0	428.2	410.3	400.1	396.8	400.6	403.3	409.3	416.3	423.3
45°	418.5	386.5	355.1	327.5	310.2	299.9	297.7	299.9	303.2	310.2	319.4
47.5°	371.4	334.0	298.8	268.0	242.5	229.0	225.2	224.1	227.4	233.9	246.3
50°	329.7	292.3	253.4	217.6	191.1	175.9	170.5	168.4	172.1	177.0	188.4
52.5°	284.2	247.4	207.3	172.7	145.1	129.4	123.4	120.2	122.3	128.8	140.2
55°	234.9	200.8	164.6	128.8	102.3	87.7	80.7	78.5	80.7	87.7	99.1
57.5°	185.7	157.0	126.7	93.1	69.3	54.7	47.6	45.5	51.4	54.1	66.0
60°	145.1	121.8	95.8	68.2	47.6	36.3	29.2	27.6	30.3	35.2	44.9
62.5°	108.8	94.2	73.6	48.7	35.2	23.3	19.5	17.9	19.5	23.3	30.9
65°	79.0	67.7	51.4	35.7	23.8	17.3	13.0	11.9	13.5	16.2	22.7
67.5°	54.1	45.5	35.7	24.9	16.2	10.8	9.2	9.2	9.7	11.9	16.8
70°	35.2	29.8	22.7	16.2	10.8	8.1	7.0	6.0	7.0	8.7	11.4
72.5°	22.2	18.9	14.6	11.4	8.1	6.0	4.9	4.3	5.4	6.5	8.7
75°	13.5	10.3	7.6	6.0	4.3	4.3	4.3	2.2	2.7	4.3	5.4
77.5°	8.1	7.0	6.0	4.9	3.8	2.2	2.2	2.2	2.7	3.2	4.9
80°	4.3	3.8	2.7	2.7	2.2	1.6	2.2	1.6	1.1	2.7	3.2
82.5°	2.7	2.2	2.2	2.2	2.7	1.1	1.6	1.1	1.6	2.2	1.6
85°	1.6	1.6	1.6	1.1	2.7	1.1	1.1	0.5	0.5	1.1	1.1
87.5°	0.0	0.5	0.5	0.0	0.5	0.0	0.5	0.5	0.5	0.5	0.5
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°	1019.9	1019.9	1019.9	1019.9	1019.9	1019.9	1019.9	1019.9	1019.9	1019.9	1019.9
2.5°	1021.5	1021.0	1021.5	1021.0	1021.0	1021.0	1021.5	1021.5	1021.0	1021.0	1022.1
5°	1025.9	1025.9	1025.9	1025.3	1024.8	1024.8	1025.9	1025.9	1024.2	1025.9	1025.9
7.5°	1035.1	1033.4	1035.1	1032.9	1031.8	1032.3	1032.9	1031.8	1030.7	1031.3	1031.3
10°	1047.0	1045.3	1045.3	1043.7	1042.1	1041.0	1039.9	1037.2	1034.5	1034.0	1031.8
12.5°	1061.0	1058.3	1056.7	1053.5	1050.8	1047.0	1043.7	1039.4	1034.0	1030.2	1026.4
15°	1075.1	1070.8	1067.0	1061.6	1055.6	1049.1	1042.1	1035.1	1026.4	1018.8	1012.3
17.5°	1086.5	1080.5	1073.5	1064.8	1056.2	1046.4	1036.1	1025.9	1013.4	1003.7	996.1
20°	1090.3	1081.6	1072.4	1061.0	1049.7	1036.1	1023.1	1009.6	995.5	985.3	976.6
22.5°	1085.4	1075.1	1063.7	1051.8	1036.7	1022.1	1006.9	991.2	978.7	964.7	956.6
25°	1071.9	1059.4	1047.0	1032.9	1018.3	1002.0	985.8	969.6	954.4	946.8	936.5
27.5°	1044.3	1030.7	1017.2	1002.6	985.8	969.6	952.8	937.1	924.1	913.8	907.8
30°	995.5	979.8	964.1	948.4	933.8	917.0	901.3	888.3	875.4	867.2	861.3
32.5°	920.8	906.8	891.1	875.9	862.4	848.3	835.3	823.9	814.7	809.3	805.0
35°	820.1	806.1	794.2	783.3	772.0	766.0	757.9	751.4	747.6	745.4	744.9
37.5°	693.5	685.3	681.6	679.4	677.2	675.6	676.7	679.4	681.6	685.3	689.7
40°	558.1	565.2	567.3	574.9	581.9	591.1	601.4	613.3	623.1	635.5	644.2
42.5°	434.7	447.7	462.9	479.1	496.4	513.2	533.8	552.7	570.0	585.7	599.3
45°	334.0	354.0	376.8	400.1	423.3	447.7	472.6	495.9	516.4	533.2	547.3
47.5°	260.4	282.6	311.8	340.5	368.7	397.3	425.0	449.3	466.6	482.9	495.3
50°	206.3	231.7	263.6	296.7	327.5	357.8	387.1	409.8	427.1	440.1	449.3
52.5°	159.7	190.0	222.5	257.1	290.2	323.2	350.2	371.4	385.4	396.8	403.8
55°	119.1	148.9	183.5	219.2	252.8	284.7	310.2	328.6	341.1	347.5	351.3
57.5°	86.1	113.1	147.8	183.5	213.8	244.1	264.7	281.5	288.5	292.3	294.0
60°	62.8	87.7	118.6	149.4	178.1	202.5	220.3	231.7	237.1	239.3	238.7
62.5°	46.0	67.7	94.2	120.2	143.5	163.5	177.6	185.1	187.9	188.9	187.3
65°	35.2	52.0	74.7	94.7	112.6	127.2	137.5	142.4	144.0	143.5	142.4
67.5°	26.0	39.0	55.8	70.9	83.9	95.3	100.7	105.0	106.1	104.5	102.9
70°	18.4	28.7	40.6	50.9	60.6	67.1	73.1	73.6	73.6	73.1	72.0
72.5°	13.0	20.0	27.6	34.7	40.6	45.5	47.6	49.3	48.7	48.2	47.1
75°	8.7	12.5	20.0	21.7	27.1	28.7	30.9	30.9	31.4	29.8	29.8
77.5°	5.4	8.7	11.9	14.1	16.2	18.4	19.5	19.5	20.0	19.5	19.5
80°	3.2	5.4	6.5	9.7	9.7	11.4	11.9	12.5	11.4	13.0	11.4
82.5°	2.2	3.2	4.9	4.9	6.0	7.0	7.0	7.6	7.6	7.0	7.0
85°	1.6	2.2	2.7	3.2	3.2	3.8	3.2	3.2	3.8	4.3	3.8
87.5°	0.5	1.1	0.5	1.1	1.1	2.2	1.6	1.6	1.6	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: P244202

CATALOG NUMBER: LSR8B20D010 EC8B20935 8LBDW0LI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1019.9	1019.9	1019.9	1019.9
2.5°	1021.0	1021.5	1021.0	1021.0
5°	1025.9	1025.3	1025.9	1024.8
7.5°	1029.6	1029.6	1029.1	1029.1
10°	1029.6	1027.5	1027.5	1027.5
12.5°	1021.5	1018.8	1017.2	1016.1
15°	1007.4	1002.6	1000.4	999.9
17.5°	989.0	984.7	982.0	980.4
20°	967.9	963.6	960.4	960.9
22.5°	949.5	944.7	942.5	941.4
25°	931.1	925.2	923.5	922.5
27.5°	901.3	898.1	896.5	894.9
30°	855.9	854.2	851.5	855.3
32.5°	803.4	800.6	798.5	800.1
35°	745.4	743.8	745.4	744.4
37.5°	692.4	694.0	696.2	697.2
40°	650.7	656.7	658.8	659.9
42.5°	609.0	616.1	620.4	623.1
45°	557.6	564.6	569.5	572.8
47.5°	504.5	510.5	515.4	514.8
50°	456.4	459.6	461.8	463.9
52.5°	407.6	407.6	408.2	408.2
55°	352.4	351.3	350.8	351.3
57.5°	291.8	290.7	290.2	288.5
60°	236.6	233.3	231.2	231.2
62.5°	185.1	181.3	179.7	179.2
65°	139.1	138.6	135.3	134.8
67.5°	100.7	98.5	96.4	96.9
70°	70.9	67.7	67.7	66.6
72.5°	46.0	44.4	43.8	43.8
75°	28.7	28.7	27.6	29.8
77.5°	18.9	18.9	18.4	18.9
80°	11.4	11.4	11.4	10.8
82.5°	7.0	7.6	7.0	7.0
85°	3.8	4.3	3.2	4.9
87.5°	2.2	2.7	2.2	2.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)