

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: P246224

Luminaire Tested: **LSR8B20D010 EC8B20940 8LBDW0MW**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P246224
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 EC8B20940 8LBDW0MW
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
90 CRI 4000 CCT WITH MATTE WHITE TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1959.0 lumens
Efficiency: N/A
Efficacy: 92.0 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

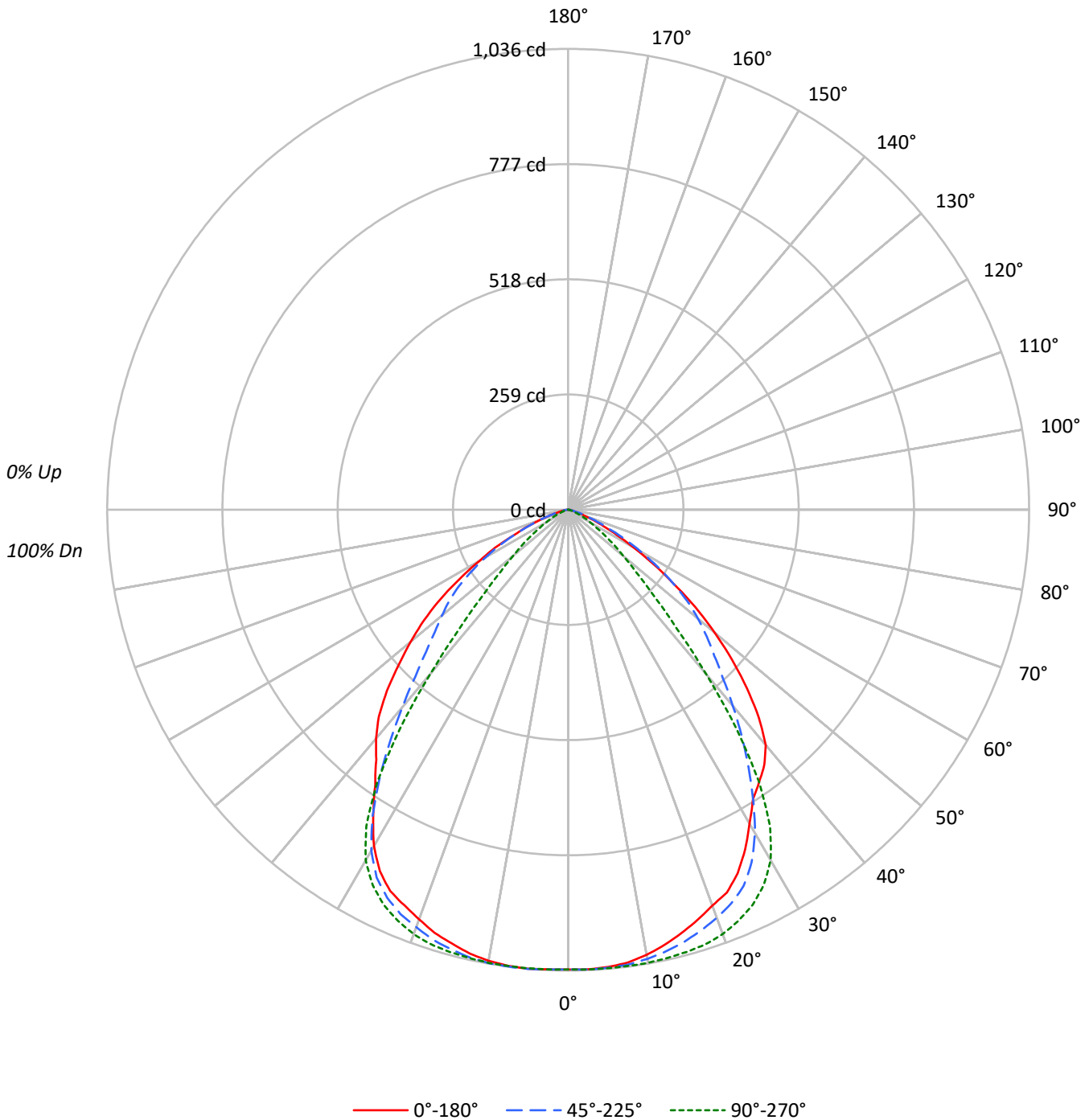
Input Watts (W): 21.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	31872	31872	31872
5°	31942	32028	32062
10°	31810	32383	32242
15°	31455	32856	32237
20°	31079	33317	32152
25°	30676	33357	32187
30°	29019	32416	31095
35°	28154	28173	28467
40°	27803	19386	27022
45°	24774	11639	25115
50°	20600	7748	22197
55°	15451	5339	18822
60°	10472	3559	14197
65°	6319	2306	9755
70°	3498	1253	6005
75°	1585	524	3110
80°	1385	586	2166
85°	1557	778	2158



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.6	5.0
10°-20°	286.5	14.6
20°-30°	434.8	22.2
30°-40°	456.7	23.3
40°-50°	342.4	17.5
50°-60°	219.7	11.2
60°-70°	94.0	4.8
70°-80°	22.2	1.1
80°-90°	4.1	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°	819.9	41.9
0°-40°	1276.6	65.2
0°-60°	1838.7	93.9
0°-90°	1959.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1959.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1034	1034	1034	1034	1034	
5°	1032	1034	1035	1036	1036	98
15°	985	1006	1029	1022	1010	278
25°	902	933	980	963	946	412
35°	748	706	748	740	756	469
45°	568	464	267	451	576	435
55°	287	287	99	300	350	261
65°	87	102	32	132	134	92
75°	13	16	4	27	26	19
85°	4	3	2	4	6	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°	1033.6	1033.6	1033.6	1033.6	1033.6	1033.6	1033.6	1033.6	1033.6	1033.6	1033.6
2.5°	1034.2	1035.3	1034.7	1034.7	1034.2	1034.7	1034.7	1035.8	1035.8	1034.7	1034.2
5°	1031.9	1033.1	1033.1	1031.9	1031.9	1034.7	1033.1	1034.2	1034.2	1033.6	1033.6
7.5°	1027.0	1027.0	1029.2	1027.5	1027.5	1029.2	1028.6	1029.7	1030.8	1031.4	1031.4
10°	1015.9	1017.0	1017.5	1017.5	1018.1	1019.7	1020.8	1023.1	1024.2	1025.3	1025.8
12.5°	1002.0	1003.6	1004.2	1003.6	1005.3	1007.5	1010.3	1013.1	1014.8	1017.0	1018.6
15°	985.3	985.3	986.4	988.1	989.2	992.6	995.3	998.7	1003.1	1005.9	1008.6
17.5°	967.0	968.1	969.8	969.8	972.0	977.6	979.2	984.2	989.2	992.0	997.6
20°	947.1	948.2	949.8	950.9	953.7	958.2	961.5	965.9	971.5	976.5	982.0
22.5°	931.5	929.3	930.4	931.5	934.3	938.2	942.1	947.6	953.2	958.2	963.7
25°	901.6	902.1	903.8	904.9	908.2	911.6	916.0	922.6	927.6	933.2	939.3
27.5°	861.1	861.6	864.4	864.4	867.2	872.7	875.5	881.0	887.7	893.2	900.5
30°	815.0	816.1	816.1	818.3	820.0	822.8	825.6	831.1	834.4	839.4	849.4
32.5°	772.9	774.0	773.4	772.9	771.2	770.6	770.1	771.2	772.3	774.0	777.8
35°	747.9	745.1	742.9	739.0	734.6	729.0	724.0	717.4	711.3	706.3	700.7
37.5°	724.0	723.5	720.1	714.6	705.7	695.7	684.1	669.7	655.2	639.7	624.7
40°	690.7	689.1	686.3	678.5	668.5	656.3	640.8	623.1	599.7	575.9	551.5
42.5°	634.1	634.7	631.4	625.3	615.8	604.2	588.1	568.7	543.7	515.4	483.8
45°	568.1	568.1	567.0	562.0	555.4	545.9	533.7	517.6	493.2	464.4	430.5
47.5°	499.3	499.9	498.2	497.1	494.3	488.2	479.4	467.2	450.0	422.2	388.4
50°	429.4	429.4	432.2	431.6	431.6	429.4	425.5	418.3	403.3	381.2	349.5
52.5°	359.5	360.6	362.3	364.5	367.3	371.7	367.3	364.0	354.5	337.3	310.1
55°	287.4	288.5	291.3	295.2	298.5	302.9	304.0	304.0	299.0	287.4	266.9
57.5°	225.8	224.1	226.4	229.7	234.1	238.6	241.9	245.8	245.2	237.5	220.8
60°	169.8	170.3	172.0	175.3	178.7	182.5	187.0	190.3	192.0	188.1	177.5
62.5°	123.7	123.7	125.9	129.3	130.9	136.5	139.3	140.9	142.6	142.0	135.4
65°	86.6	87.7	88.8	90.4	92.1	95.4	97.1	100.4	101.5	102.1	97.1
67.5°	61.0	59.4	60.5	61.6	63.2	65.5	68.8	68.8	70.5	70.5	67.1
70°	38.8	38.8	39.4	41.1	42.2	42.7	43.8	44.9	46.6	46.0	46.0
72.5°	26.1	25.5	26.1	26.6	27.2	28.8	28.8	29.4	30.5	31.1	28.8
75°	13.3	13.9	15.0	14.4	16.1	15.0	15.5	17.2	16.6	15.5	15.5
77.5°	11.1	11.1	11.1	10.5	11.6	11.6	11.1	12.2	11.6	11.6	11.1
80°	7.8	8.3	7.8	7.2	7.8	7.2	7.2	7.2	7.2	7.2	6.7
82.5°	6.1	5.0	5.6	5.0	5.6	5.6	5.0	4.4	4.4	5.0	4.4
85°	4.4	3.3	3.9	3.9	3.3	3.3	3.3	3.3	3.3	2.8	2.8
87.5°	2.8	1.7	1.7	1.7	2.2	2.2	2.2	1.7	2.2	2.2	1.1
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°	1033.6	1033.6	1033.6	1033.6	1033.6	1033.6	1033.6	1033.6	1033.6	1033.6	1033.6
2.5°	1035.3	1034.7	1035.8	1035.3	1035.3	1034.7	1035.3	1034.7	1035.8	1033.6	1034.2
5°	1035.3	1034.2	1034.7	1035.3	1035.8	1034.7	1034.7	1034.7	1035.8	1034.7	1035.3
7.5°	1033.1	1032.5	1034.2	1035.3	1034.7	1034.2	1035.3	1034.7	1035.8	1035.3	1036.4
10°	1028.6	1029.2	1030.3	1031.9	1032.5	1033.1	1034.2	1034.2	1035.8	1033.6	1034.7
12.5°	1022.0	1024.2	1027.0	1028.1	1030.3	1030.3	1031.4	1031.9	1033.1	1032.5	1034.2
15°	1013.6	1016.4	1019.7	1022.5	1025.3	1027.0	1028.6	1029.2	1030.8	1029.2	1029.7
17.5°	1003.6	1007.0	1012.0	1015.3	1019.7	1021.4	1023.6	1024.7	1026.4	1025.3	1025.8
20°	989.8	993.7	999.2	1004.2	1007.0	1010.9	1013.6	1015.3	1016.4	1015.3	1015.9
22.5°	970.4	975.9	983.1	987.0	992.6	995.9	996.4	1000.3	1003.1	1000.3	1001.4
25°	947.6	953.2	958.7	967.0	972.0	975.9	979.8	980.4	983.1	982.6	982.0
27.5°	909.9	917.1	926.5	933.2	939.8	946.0	950.4	951.5	954.3	953.2	953.7
30°	858.3	866.1	874.9	885.5	894.9	901.0	906.6	910.4	913.2	911.6	911.0
32.5°	785.1	792.8	802.3	812.8	823.9	832.8	839.4	844.4	847.7	846.6	843.9
35°	701.3	703.5	709.6	717.9	727.3	736.8	742.9	748.4	752.3	753.4	753.4
37.5°	615.3	608.1	603.6	603.6	609.2	613.1	618.6	621.9	628.0	630.3	631.9
40°	532.1	515.4	499.9	488.2	480.5	479.9	479.9	481.6	487.1	494.3	501.0
42.5°	457.7	431.1	407.2	385.6	370.1	361.2	357.3	357.9	362.3	368.9	380.0
45°	398.4	365.1	335.1	309.0	287.9	274.1	267.4	266.9	270.2	278.0	290.2
47.5°	352.3	316.8	282.9	253.0	230.2	215.3	207.5	205.3	207.5	214.7	229.1
50°	314.0	277.4	242.5	211.4	187.0	171.4	164.2	161.5	164.2	170.3	184.7
52.5°	278.5	240.8	208.1	178.1	152.0	138.7	130.9	129.3	130.9	138.1	149.8
55°	237.5	205.3	173.1	143.1	120.4	107.1	101.0	99.3	101.0	107.6	119.8
57.5°	197.0	169.2	140.9	113.7	94.3	82.7	77.1	74.9	78.8	83.2	97.6
60°	159.2	137.0	113.2	89.3	73.2	62.7	58.3	57.7	58.8	64.4	74.3
62.5°	124.8	106.5	87.7	68.2	54.9	50.5	44.9	44.4	45.5	48.8	56.6
65°	89.9	78.2	63.8	49.9	39.4	33.3	31.1	31.6	32.7	35.0	42.2
67.5°	62.7	54.4	44.4	35.0	27.2	24.4	22.2	21.6	22.2	26.1	30.0
70°	42.2	37.2	30.0	26.6	18.9	15.0	15.5	13.9	16.1	16.1	19.4
72.5°	27.7	24.4	20.0	15.5	13.3	10.5	10.5	10.0	11.1	11.6	14.4
75°	14.4	11.1	11.1	7.8	5.6	2.8	5.0	4.4	3.9	4.4	5.6
77.5°	10.0	8.3	7.8	6.1	5.6	4.4	4.4	4.4	4.4	5.0	5.6
80°	6.1	6.1	4.4	3.9	3.3	2.8	3.3	3.3	3.3	3.3	3.9
82.5°	3.9	3.3	3.3	2.8	2.8	2.2	2.2	2.2	2.2	2.2	3.3
85°	3.3	2.2	2.2	1.7	2.2	3.9	1.7	2.2	2.2	2.2	1.7
87.5°	1.1	1.7	1.7	1.7	1.1	0.6	1.1	1.7	1.7	2.8	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



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1033.6	1033.6	1033.6	1033.6	1033.6	1033.6	1033.6	1033.6	1033.6	1033.6	1033.6
2.5°	1035.3	1035.8	1035.8	1035.3	1035.3	1034.2	1036.4	1034.7	1035.3	1037.5	1035.8
5°	1036.4	1036.9	1036.9	1036.4	1036.4	1036.4	1036.9	1036.9	1036.4	1035.8	1036.9
7.5°	1038.6	1038.0	1038.0	1036.9	1036.9	1035.8	1036.9	1035.3	1036.4	1035.3	1036.9
10°	1035.8	1036.4	1035.8	1035.3	1035.3	1034.7	1034.7	1033.1	1033.6	1031.9	1033.1
12.5°	1034.2	1033.6	1033.6	1032.5	1031.4	1030.3	1029.7	1028.1	1028.1	1024.2	1025.8
15°	1029.7	1030.3	1028.6	1026.4	1025.3	1022.5	1021.4	1019.2	1017.0	1014.2	1014.8
17.5°	1025.8	1024.2	1022.0	1019.7	1015.3	1013.1	1010.9	1007.5	1006.4	1003.1	1002.0
20°	1014.2	1013.1	1010.3	1006.4	1003.6	998.7	996.4	993.1	990.3	987.0	985.3
22.5°	999.2	998.1	994.8	990.9	986.4	984.2	982.0	975.9	973.1	969.8	969.2
25°	980.4	978.7	975.4	970.9	968.7	962.6	960.4	955.9	954.8	951.5	950.9
27.5°	951.5	949.3	945.4	939.8	936.0	932.1	929.9	926.5	925.4	922.1	921.5
30°	908.2	905.4	897.7	895.5	888.8	884.9	884.9	880.5	881.0	878.8	878.8
32.5°	840.0	835.5	829.4	825.0	820.6	818.3	818.3	816.7	817.8	817.8	818.9
35°	749.5	743.4	740.1	737.3	737.3	739.6	746.2	747.9	751.2	754.0	756.2
37.5°	633.6	633.0	636.9	640.3	648.6	658.0	669.7	679.6	689.1	695.7	702.4
40°	508.2	522.1	533.2	548.7	561.5	579.8	600.9	618.1	634.1	645.8	658.0
42.5°	396.7	414.4	437.7	460.5	483.2	508.2	536.0	559.8	580.9	597.0	609.7
45°	309.0	333.4	361.7	390.6	420.0	451.1	479.9	504.3	526.5	543.2	555.9
47.5°	249.1	275.7	307.9	339.5	372.8	405.6	437.7	458.8	477.1	490.4	502.1
50°	205.8	234.1	268.0	304.0	337.3	370.1	397.8	418.3	433.3	445.0	452.2
52.5°	172.0	201.9	238.0	274.1	307.4	337.3	362.3	377.8	390.0	398.4	405.0
55°	142.0	170.9	204.7	238.6	271.3	299.6	320.1	331.8	341.2	346.2	350.1
57.5°	116.0	142.6	173.7	204.7	233.0	256.3	272.4	284.1	288.5	292.4	291.8
60°	91.0	116.0	144.3	170.9	195.3	214.2	225.8	232.5	235.8	237.5	236.3
62.5°	71.6	94.3	116.0	139.3	157.0	173.1	184.2	184.2	185.9	186.4	188.1
65°	53.3	70.5	89.3	106.5	120.9	131.5	137.6	139.3	141.5	140.9	139.8
67.5°	39.4	52.2	66.0	78.8	88.8	95.4	99.9	103.8	103.2	102.1	101.5
70°	27.2	35.5	47.7	55.5	62.7	69.4	70.5	71.0	71.6	72.1	71.0
72.5°	18.9	25.0	31.6	38.3	42.7	45.5	48.3	48.8	48.8	48.8	48.3
75°	9.4	12.8	18.9	21.6	25.5	26.6	28.8	28.8	30.5	28.3	27.7
77.5°	8.3	10.0	13.3	15.5	17.2	18.9	19.4	21.1	20.5	19.4	20.0
80°	5.0	6.1	8.3	9.4	11.6	12.2	12.8	13.3	12.8	13.3	13.3
82.5°	3.9	4.4	5.6	5.6	7.2	7.2	7.8	7.8	8.3	8.3	8.3
85°	2.2	3.9	3.3	6.7	4.4	4.4	5.6	6.7	5.6	5.6	6.7
87.5°	2.2	2.2	1.7	2.2	2.2	2.2	2.8	3.3	3.3	3.9	3.3
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: P246224

CATALOG NUMBER: LSR8B20D010 EC8B20940 8LBDW0MW

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1033.6	1033.6	1033.6	1033.6
2.5°	1035.3	1036.4	1034.7	1034.2
5°	1036.9	1036.9	1035.8	1035.8
7.5°	1036.9	1036.9	1035.3	1034.2
10°	1032.5	1032.5	1030.8	1029.7
12.5°	1024.2	1024.2	1023.6	1022.0
15°	1013.6	1013.6	1011.4	1009.8
17.5°	999.2	1000.3	997.6	997.6
20°	983.7	983.1	980.9	979.8
22.5°	967.6	966.5	965.9	962.6
25°	950.4	949.3	947.6	946.0
27.5°	921.0	920.4	918.8	916.5
30°	876.0	875.5	873.3	873.3
32.5°	817.8	817.2	815.0	815.6
35°	757.3	759.5	758.4	756.2
37.5°	706.8	708.5	709.6	708.5
40°	664.7	669.7	670.2	671.3
42.5°	619.7	626.4	628.6	629.7
45°	565.9	572.0	577.0	575.9
47.5°	511.0	515.4	519.9	516.5
50°	458.3	461.0	462.7	462.7
52.5°	408.3	408.3	407.8	408.3
55°	351.2	351.2	349.0	350.1
57.5°	291.3	292.4	290.7	287.9
60°	235.8	233.0	231.9	230.2
62.5°	183.6	183.6	179.8	184.7
65°	137.6	135.9	134.3	133.7
67.5°	99.9	99.3	97.6	97.1
70°	70.5	68.2	67.7	66.6
72.5°	47.2	47.2	46.0	46.0
75°	28.8	26.1	25.5	26.1
77.5°	20.0	19.4	19.4	18.9
80°	13.3	12.8	13.9	12.2
82.5°	8.3	8.9	8.3	8.9
85°	5.6	6.7	6.1	6.1
87.5°	3.3	3.3	3.3	3.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)