

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: P249551

Luminaire Tested: **LSR8B70D010 EC8B70850 8LBDW0MW**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P249551  
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: LSR8B70D010 EC8B70850 8LBDW0MW  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
80 CRI 5000 CCT WITH MATTE WHITE TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7644.0 lumens  
Efficiency: N/A  
Efficacy: 100.7 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

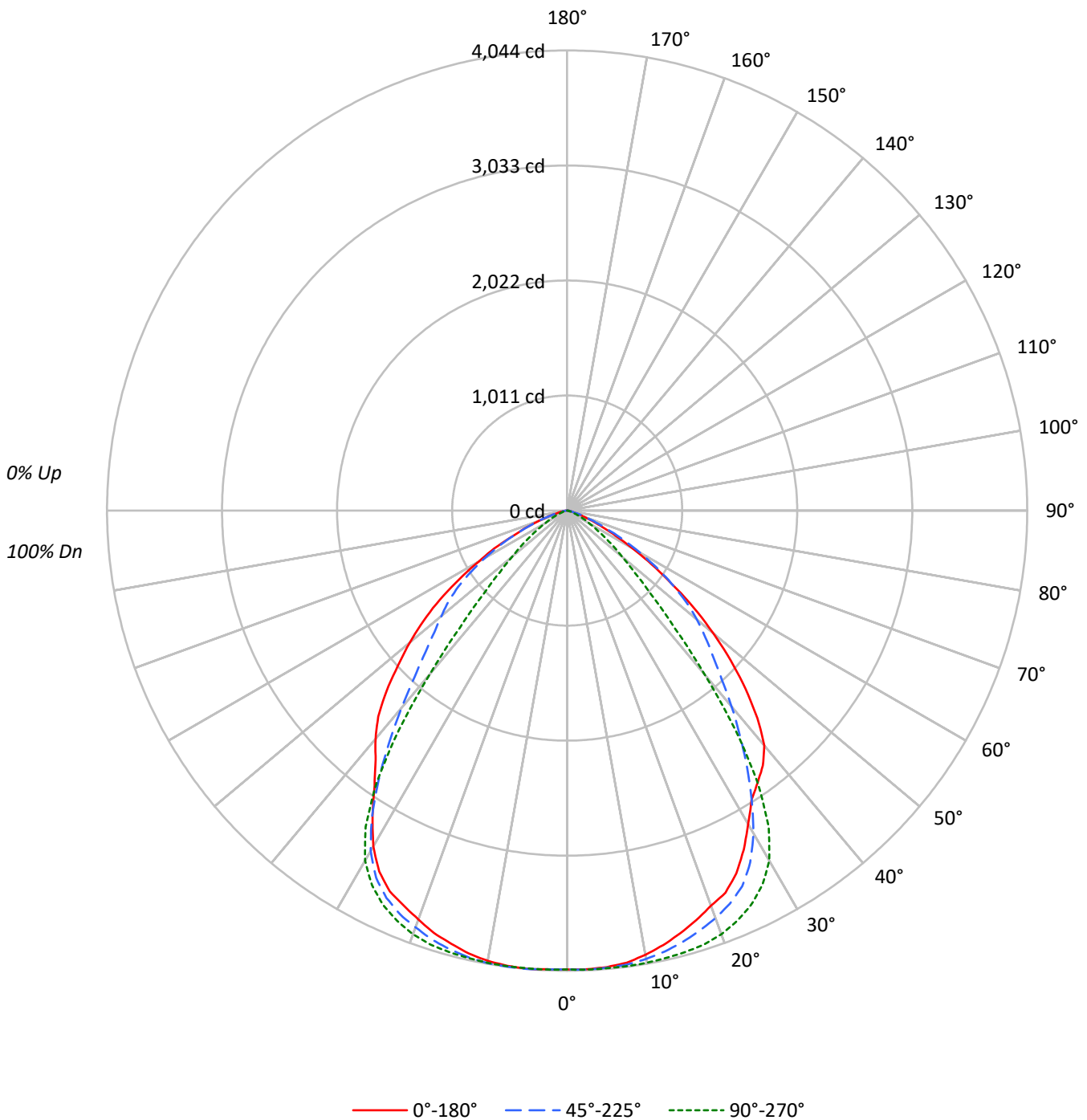
Input Watts (W): 75.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	124366	124366	124366
5°	124640	124977	125110
10°	124115	126353	125812
15°	122742	128201	125784
20°	121266	130004	125456
25°	119693	130152	125586
30°	113236	126493	121330
35°	109857	109936	111077
40°	108492	75641	105445
45°	96673	45410	97994
50°	80383	30223	86615
55°	60288	20833	73438
60°	40852	13883	55407
65°	24640	9004	38066
70°	13659	4878	23423
75°	6195	2061	12129
80°	5381	2309	8453
85°	6121	3043	8421



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	384.9	5.0
10°-20°	1117.8	14.6
20°-30°	1696.6	22.2
30°-40°	1782.0	23.3
40°-50°	1336.0	17.5
50°-60°	857.2	11.2
60°-70°	366.7	4.8
70°-80°	86.6	1.1
80°-90°	16.1	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°	3199.4	41.9
0°-40°	4981.3	65.2
0°-60°	7174.5	93.9
0°-90°	7644.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7644.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	4033	4033	4033	4033	4033	
5°	4027	4033	4038	4044	4042	382
15°	3845	3925	4016	3990	3940	1084
25°	3518	3641	3825	3756	3691	1607
35°	2918	2756	2920	2886	2951	1832
45°	2217	1812	1041	1760	2247	1698
55°	1121	1121	388	1169	1366	1017
65°	338	398	123	513	522	361
75°	52	61	17	104	102	76
85°	17	11	9	17	24	18
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°	4033.1	4033.1	4033.1	4033.1	4033.1	4033.1	4033.1	4033.1	4033.1	4033.1	4033.1
2.5°	4035.3	4039.6	4037.5	4037.5	4035.3	4037.5	4037.5	4041.8	4041.8	4037.5	4035.3
5°	4026.6	4031.0	4031.0	4026.6	4026.6	4037.5	4031.0	4035.3	4035.3	4033.1	4033.1
7.5°	4007.2	4007.2	4015.8	4009.3	4009.3	4015.8	4013.6	4018.0	4022.3	4024.5	4024.5
10°	3963.8	3968.2	3970.4	3970.4	3972.5	3979.0	3983.3	3992.0	3996.3	4000.7	4002.8
12.5°	3909.8	3916.2	3918.4	3916.2	3922.7	3931.4	3942.2	3953.0	3959.5	3968.2	3974.7
15°	3844.8	3844.8	3849.1	3855.6	3860.0	3872.9	3883.7	3896.7	3914.0	3924.9	3935.7
17.5°	3773.4	3777.7	3784.2	3784.2	3792.8	3814.5	3821.0	3840.5	3860.0	3870.8	3892.4
20°	3695.4	3699.7	3706.2	3710.6	3721.4	3738.7	3751.7	3769.0	3790.7	3810.2	3831.8
22.5°	3634.8	3626.2	3630.4	3634.8	3645.6	3660.8	3675.9	3697.6	3719.2	3738.7	3760.4
25°	3517.9	3520.1	3526.6	3530.9	3543.9	3556.9	3574.2	3600.1	3619.6	3641.3	3665.1
27.5°	3359.9	3362.0	3372.8	3372.8	3383.7	3405.3	3416.1	3437.8	3463.8	3485.4	3513.6
30°	3180.2	3184.5	3184.5	3193.2	3199.6	3210.5	3221.3	3243.0	3255.9	3275.4	3314.4
32.5°	3015.7	3020.0	3017.8	3015.7	3009.2	3007.0	3004.8	3009.2	3013.5	3020.0	3035.1
35°	2918.3	2907.4	2898.8	2883.6	2866.3	2844.6	2825.1	2799.2	2775.3	2755.8	2734.2
37.5°	2825.1	2823.0	2810.0	2788.3	2753.7	2714.7	2669.3	2613.0	2556.7	2496.1	2437.7
40°	2695.2	2688.7	2677.9	2647.6	2608.6	2561.0	2500.4	2431.1	2340.2	2247.1	2151.9
42.5°	2474.4	2476.6	2463.6	2439.8	2403.0	2357.5	2294.7	2219.0	2121.6	2011.1	1887.8
45°	2216.8	2216.8	2212.5	2193.0	2167.0	2130.2	2082.6	2019.8	1924.6	1812.0	1679.9
47.5°	1948.4	1950.5	1944.0	1939.7	1928.9	1905.1	1870.4	1822.8	1755.7	1647.4	1515.4
50°	1675.6	1675.6	1686.4	1684.3	1684.3	1675.6	1660.5	1632.3	1573.9	1487.3	1363.9
52.5°	1402.8	1407.2	1413.7	1422.3	1433.1	1450.4	1433.1	1420.1	1383.3	1316.2	1210.2
55°	1121.4	1125.7	1136.5	1151.7	1164.7	1182.0	1186.3	1186.3	1166.8	1121.4	1041.3
57.5°	881.1	874.6	883.3	896.3	913.6	930.9	943.9	959.0	956.9	926.6	861.6
60°	662.4	664.6	671.1	684.1	697.1	712.2	729.6	742.5	749.1	733.9	692.7
62.5°	482.8	482.8	491.4	504.4	510.9	532.6	543.4	549.9	556.4	554.2	528.2
65°	337.7	342.0	346.4	352.9	359.4	372.3	378.8	391.8	396.2	398.3	378.8
67.5°	238.2	231.6	236.0	240.3	246.8	255.5	268.5	268.5	274.9	274.9	261.9
70°	151.5	151.5	153.7	160.2	164.5	166.7	171.0	175.3	181.8	179.7	179.7
72.5°	101.8	99.6	101.8	103.9	106.1	112.6	112.6	114.7	119.1	121.2	112.6
75°	52.0	54.1	58.4	56.3	62.8	58.4	60.6	67.1	64.9	60.6	60.6
77.5°	43.3	43.3	43.3	41.2	45.4	45.4	43.3	47.6	45.4	45.4	43.3
80°	30.3	32.5	30.3	28.1	30.3	28.1	28.1	28.1	28.1	28.1	26.0
82.5°	23.8	19.5	21.7	19.5	21.7	21.7	19.5	17.3	17.3	19.5	17.3
85°	17.3	13.0	15.1	15.1	13.0	13.0	13.0	13.0	13.0	10.8	10.8
87.5°	10.8	6.5	6.5	6.5	8.6	8.6	8.6	6.5	8.6	8.6	4.3
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°	4033.1	4033.1	4033.1	4033.1	4033.1	4033.1	4033.1	4033.1	4033.1	4033.1	4033.1
2.5°	4039.6	4037.5	4041.8	4039.6	4039.6	4037.5	4039.6	4037.5	4041.8	4033.1	4035.3
5°	4039.6	4035.3	4037.5	4039.6	4041.8	4037.5	4037.5	4037.5	4041.8	4037.5	4039.6
7.5°	4031.0	4028.8	4035.3	4039.6	4037.5	4035.3	4039.6	4037.5	4041.8	4039.6	4043.9
10°	4013.6	4015.8	4020.1	4026.6	4028.8	4031.0	4035.3	4035.3	4041.8	4033.1	4037.5
12.5°	3987.7	3996.3	4007.2	4011.5	4020.1	4020.1	4024.5	4026.6	4031.0	4028.8	4035.3
15°	3955.2	3966.0	3979.0	3989.8	4000.7	4007.2	4013.6	4015.8	4022.3	4015.8	4018.0
17.5°	3916.2	3929.2	3948.7	3961.7	3979.0	3985.5	3994.1	3998.5	4005.0	4000.7	4002.8
20°	3862.1	3877.3	3898.9	3918.4	3929.2	3944.3	3955.2	3961.7	3966.0	3961.7	3963.8
22.5°	3786.3	3808.0	3836.1	3851.3	3872.9	3885.9	3888.1	3903.2	3914.0	3903.2	3907.6
25°	3697.6	3719.2	3740.9	3773.4	3792.8	3808.0	3823.1	3825.3	3836.1	3834.0	3831.8
27.5°	3550.4	3578.5	3615.3	3641.3	3667.3	3691.1	3708.4	3712.7	3723.6	3719.2	3721.4
30°	3349.0	3379.4	3414.0	3455.1	3491.9	3515.7	3537.4	3552.5	3563.3	3556.9	3554.7
32.5°	3063.3	3093.6	3130.4	3171.5	3214.8	3249.4	3275.4	3294.9	3307.9	3303.6	3292.8
35°	2736.4	2745.0	2768.9	2801.3	2838.1	2874.9	2898.8	2920.4	2935.5	2939.9	2939.9
37.5°	2400.8	2372.7	2355.4	2355.4	2377.0	2392.2	2413.8	2426.8	2450.6	2459.3	2465.8
40°	2076.1	2011.1	1950.5	1905.1	1874.8	1872.6	1872.6	1879.1	1900.7	1928.9	1954.9
42.5°	1786.0	1682.1	1589.0	1504.6	1444.0	1409.3	1394.2	1396.4	1413.7	1439.6	1482.9
45°	1554.4	1424.5	1307.6	1205.8	1123.6	1069.4	1043.5	1041.3	1054.3	1084.6	1132.2
47.5°	1374.7	1236.1	1104.1	987.2	898.4	840.0	809.7	801.0	809.7	837.8	894.1
50°	1225.3	1082.5	946.1	824.8	729.6	669.0	640.8	630.0	640.8	664.6	720.9
52.5°	1086.7	939.5	811.8	694.9	593.2	541.2	510.9	504.4	510.9	539.0	584.5
55°	926.6	801.0	675.4	558.5	469.8	417.8	394.0	387.5	394.0	420.0	467.6
57.5°	768.5	660.3	549.9	443.8	368.0	322.5	300.9	292.2	307.4	324.7	381.0
60°	621.3	534.7	441.6	348.5	285.8	244.6	227.3	225.1	229.5	251.1	290.1
62.5°	487.1	415.7	342.0	266.3	214.3	197.0	175.3	173.2	177.5	190.5	220.8
65°	350.7	305.3	249.0	194.8	153.7	129.9	121.2	123.4	127.7	136.4	164.5
67.5°	244.6	212.1	173.2	136.4	106.1	95.2	86.6	84.4	86.6	101.8	116.9
70°	164.5	145.0	116.9	103.9	73.6	58.4	60.6	54.1	62.8	62.8	75.7
72.5°	108.2	95.2	77.9	60.6	52.0	41.2	41.2	39.0	43.3	45.4	56.3
75°	56.3	43.3	43.3	30.3	21.7	10.8	19.5	17.3	15.1	17.3	21.7
77.5°	39.0	32.5	30.3	23.8	21.7	17.3	17.3	17.3	17.3	19.5	21.7
80°	23.8	23.8	17.3	15.1	13.0	10.8	13.0	13.0	13.0	13.0	15.1
82.5°	15.1	13.0	13.0	10.8	10.8	8.6	8.6	8.6	8.6	8.6	13.0
85°	13.0	8.6	8.6	6.5	8.6	15.1	6.5	8.6	8.6	8.6	6.5
87.5°	4.3	6.5	6.5	6.5	4.3	2.2	4.3	6.5	6.5	10.8	8.6
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°	4033.1	4033.1	4033.1	4033.1	4033.1	4033.1	4033.1	4033.1	4033.1	4033.1	4033.1
2.5°	4039.6	4041.8	4041.8	4039.6	4039.6	4035.3	4043.9	4037.5	4039.6	4048.3	4041.8
5°	4043.9	4046.1	4046.1	4043.9	4043.9	4043.9	4046.1	4046.1	4043.9	4041.8	4046.1
7.5°	4052.6	4050.4	4050.4	4046.1	4046.1	4041.8	4046.1	4039.6	4043.9	4039.6	4046.1
10°	4041.8	4043.9	4041.8	4039.6	4039.6	4037.5	4037.5	4031.0	4033.1	4026.6	4031.0
12.5°	4035.3	4033.1	4033.1	4028.8	4024.5	4020.1	4018.0	4011.5	4011.5	3996.3	4002.8
15°	4018.0	4020.1	4013.6	4005.0	4000.7	3989.8	3985.5	3976.8	3968.2	3957.4	3959.5
17.5°	4002.8	3996.3	3987.7	3979.0	3961.7	3953.0	3944.3	3931.4	3927.0	3914.0	3909.8
20°	3957.4	3953.0	3942.2	3927.0	3916.2	3896.7	3888.1	3875.1	3864.3	3851.3	3844.8
22.5°	3898.9	3894.6	3881.6	3866.4	3849.1	3840.5	3831.8	3808.0	3797.1	3784.2	3782.0
25°	3825.3	3818.8	3805.8	3788.5	3779.8	3756.0	3747.3	3730.0	3725.7	3712.7	3710.6
27.5°	3712.7	3704.1	3688.9	3667.3	3652.1	3637.0	3628.3	3615.3	3611.0	3598.0	3595.9
30°	3543.9	3533.0	3502.7	3494.1	3468.1	3452.9	3452.9	3435.6	3437.8	3429.2	3429.2
32.5°	3277.6	3260.3	3236.4	3219.1	3201.8	3193.2	3193.2	3186.7	3191.0	3191.0	3195.3
35°	2924.7	2900.9	2887.9	2877.1	2877.1	2885.7	2911.7	2918.3	2931.2	2942.0	2950.7
37.5°	2472.2	2470.1	2485.3	2498.2	2530.7	2567.5	2613.0	2652.0	2688.7	2714.7	2740.7
40°	1983.0	2037.1	2080.4	2141.1	2190.8	2262.3	2344.5	2411.6	2474.4	2519.9	2567.5
42.5°	1547.9	1617.1	1708.1	1796.8	1885.6	1983.0	2091.3	2184.3	2266.6	2329.4	2379.2
45°	1205.8	1301.1	1411.5	1524.1	1638.8	1760.1	1872.6	1967.9	2054.5	2119.4	2169.2
47.5°	972.0	1075.9	1201.5	1324.9	1454.8	1582.5	1708.1	1790.4	1861.8	1913.7	1959.2
50°	803.1	913.6	1045.6	1186.3	1316.2	1444.0	1552.2	1632.3	1690.8	1736.2	1764.3
52.5°	671.1	788.0	928.7	1069.4	1199.3	1316.2	1413.7	1474.3	1521.9	1554.4	1580.3
55°	554.2	666.8	798.8	930.9	1058.6	1169.0	1249.1	1294.6	1331.4	1350.9	1366.0
57.5°	452.5	556.4	677.6	798.8	909.2	1000.2	1063.0	1108.4	1125.7	1140.9	1138.7
60°	355.1	452.5	562.9	666.8	762.0	835.6	881.1	907.1	920.0	926.6	922.2
62.5°	279.3	368.0	452.5	543.4	612.7	675.4	718.8	718.8	725.2	727.4	733.9
65°	207.8	274.9	348.5	415.7	471.9	513.1	536.9	543.4	552.1	549.9	545.5
67.5°	153.7	203.5	257.6	307.4	346.4	372.3	389.7	404.9	402.7	398.3	396.2
70°	106.1	138.6	186.2	216.5	244.6	270.6	274.9	277.1	279.3	281.4	277.1
72.5°	73.6	97.4	123.4	149.4	166.7	177.5	188.4	190.5	190.5	190.5	188.4
75°	36.8	49.8	73.6	84.4	99.6	103.9	112.6	112.6	119.1	110.4	108.2
77.5°	32.5	39.0	52.0	60.6	67.1	73.6	75.7	82.3	80.1	75.7	77.9
80°	19.5	23.8	32.5	36.8	45.4	47.6	49.8	52.0	49.8	52.0	52.0
82.5°	15.1	17.3	21.7	21.7	28.1	28.1	30.3	30.3	32.5	32.5	32.5
85°	8.6	15.1	13.0	26.0	17.3	17.3	21.7	26.0	21.7	21.7	26.0
87.5°	8.6	8.6	6.5	8.6	8.6	8.6	10.8	13.0	13.0	15.1	13.0
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: P249551

CATALOG NUMBER: LSR8B70D010 EC8B70850 8LBDW0MW

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	4033.1	4033.1	4033.1	4033.1
2.5°	4039.6	4043.9	4037.5	4035.3
5°	4046.1	4046.1	4041.8	4041.8
7.5°	4046.1	4046.1	4039.6	4035.3
10°	4028.8	4028.8	4022.3	4018.0
12.5°	3996.3	3996.3	3994.1	3987.7
15°	3955.2	3955.2	3946.5	3940.1
17.5°	3898.9	3903.2	3892.4	3892.4
20°	3838.3	3836.1	3827.5	3823.1
22.5°	3775.5	3771.2	3769.0	3756.0
25°	3708.4	3704.1	3697.6	3691.1
27.5°	3593.7	3591.5	3585.0	3576.4
30°	3418.3	3416.1	3407.5	3407.5
32.5°	3191.0	3188.8	3180.2	3182.4
35°	2955.0	2963.7	2959.4	2950.7
37.5°	2758.0	2764.5	2768.9	2764.5
40°	2593.5	2613.0	2615.2	2619.5
42.5°	2418.2	2444.1	2452.8	2457.1
45°	2208.1	2232.0	2251.5	2247.1
47.5°	1993.8	2011.1	2028.5	2015.5
50°	1788.2	1799.0	1805.5	1805.5
52.5°	1593.4	1593.4	1591.2	1593.4
55°	1370.3	1370.3	1361.7	1366.0
57.5°	1136.5	1140.9	1134.4	1123.6
60°	920.0	909.2	904.9	898.4
62.5°	716.6	716.6	701.4	720.9
65°	536.9	530.4	523.9	521.7
67.5°	389.7	387.5	381.0	378.8
70°	274.9	266.3	264.1	259.8
72.5°	184.0	184.0	179.7	179.7
75°	112.6	101.8	99.6	101.8
77.5°	77.9	75.7	75.7	73.6
80°	52.0	49.8	54.1	47.6
82.5°	32.5	34.6	32.5	34.6
85°	21.7	26.0	23.8	23.8
87.5°	13.0	13.0	13.0	13.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)