

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: P244091

Luminaire Tested: **LSR8B50D010 EC8B50827 8LBSW0LI**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P244091
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1801-521-53)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LSR8B50D010 EC8B50827 8LBSW0LI
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 2700 CCT WITH SPECULAR CLEAR TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5460.0 lumens
Efficiency: N/A
Efficacy: 103.0 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 1.2 / 1.11
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

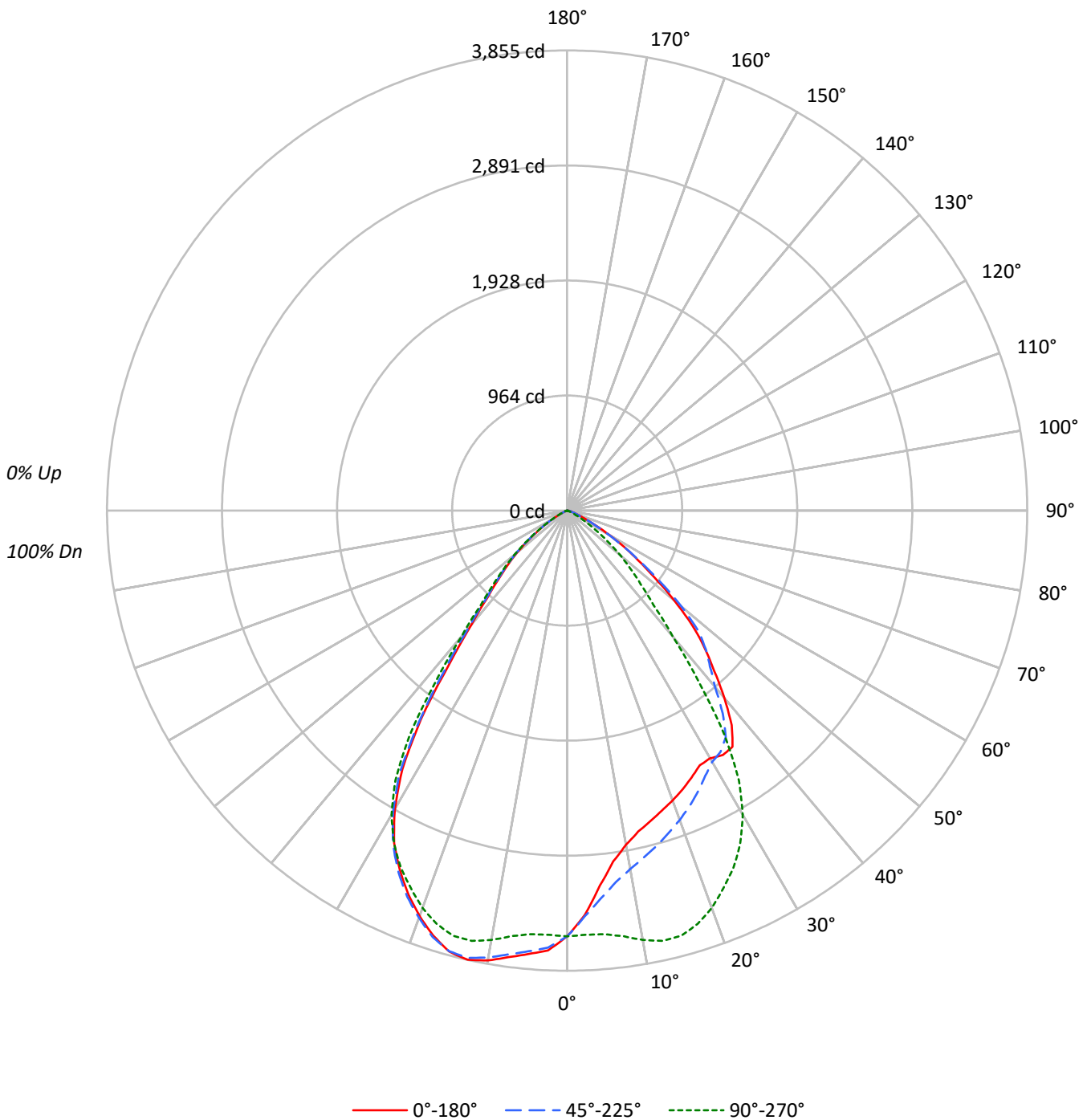
Input Watts (W): 53
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	106	104	110	107	104	102	103	101	99	99	97	96	96	94	93	91					91			
2	105	99	95	91	103	98	93	90	94	91	88	91	88	86	88	86	84	82					82			
3	99	91	85	80	96	89	84	79	87	82	78	84	80	77	82	78	76	74					74			
4	92	83	76	71	90	82	76	71	80	74	70	77	73	69	76	72	68	67					67			
5	86	76	69	64	84	75	69	64	73	68	63	72	66	63	70	65	62	60					60			
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55					55			
7	76	65	58	53	74	64	57	52	63	57	52	61	56	52	60	55	52	50					50			
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46					46			
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42					42			
10	63	52	45	41	62	52	45	41	51	45	41	50	44	40	49	44	40	39					39			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	109990	109990	109990
5°	97589	110265	115428
10°	88973	114358	119815
15°	85988	117701	122097
20°	84759	116248	118647
25°	83927	112242	112943
30°	85292	104748	102814
35°	90914	86683	80400
40°	82392	55494	50249
45°	71113	37966	35354
50°	56109	27695	26078
55°	38945	17032	16021
60°	24799	8609	7684
65°	12375	3422	2598
70°	6843	1686	929
75°	4909	1227	441
80°	3996	835	160
85°	4316	672	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	332.4	6.1
10°-20°	960.2	17.6
20°-30°	1393.7	25.5
30°-40°	1372.6	25.1
40°-50°	860.4	15.8
50°-60°	415.2	7.6
60°-70°	100.5	1.8
70°-80°	20.3	0.4
80°-90°	4.7	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°	2686.3	49.2
0°-40°	4058.9	74.3
0°-60°	5334.6	97.7
0°-90°	5460.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5460.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3567	3567	3567	3567	3567	
5°	3153	3260	3562	3706	3729	292
15°	2694	2905	3687	3822	3825	762
25°	2467	2595	3299	3344	3320	1141
35°	2415	2317	2303	2171	2136	1461
45°	1631	1642	871	834	811	1247
55°	724	748	317	313	298	667
65°	170	168	47	40	36	194
75°	41	36	10	5	4	46
85°	12	9	2	0	0	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	3566.9	3566.9	3566.9	3566.9	3566.9	3566.9	3566.9	3566.9	3566.9	3566.9	3566.9
2.5°	3390.7	3369.2	3328.9	3377.6	3377.6	3350.4	3404.8	3372.0	3398.2	3439.5	3402.9
5°	3152.7	3134.9	3101.1	3152.7	3159.2	3133.9	3199.5	3175.2	3213.6	3264.2	3259.5
7.5°	2964.3	2941.8	2910.9	2964.3	2974.6	2957.7	3020.5	3009.3	3059.9	3125.5	3136.7
10°	2841.5	2818.1	2790.9	2839.7	2847.2	2835.9	2899.6	2893.1	2942.7	3018.7	3048.6
12.5°	2754.4	2734.7	2704.7	2756.2	2764.7	2748.7	2808.7	2805.9	2857.5	2937.1	2974.6
15°	2693.5	2670.0	2642.8	2686.9	2698.1	2680.3	2737.5	2731.9	2784.4	2863.1	2905.3
17.5°	2636.3	2614.7	2586.6	2627.9	2639.1	2620.4	2676.6	2667.2	2712.2	2787.2	2830.3
20°	2582.9	2559.4	2534.1	2576.3	2582.9	2561.3	2617.5	2605.4	2645.7	2715.0	2757.2
22.5°	2527.6	2503.2	2477.0	2518.2	2524.8	2503.2	2554.8	2540.7	2578.2	2641.0	2679.4
25°	2466.7	2444.2	2417.9	2456.3	2462.0	2438.5	2492.9	2475.1	2507.9	2563.2	2595.1
27.5°	2405.7	2384.2	2355.1	2394.5	2397.3	2374.8	2424.5	2400.1	2427.3	2477.9	2505.1
30°	2395.4	2371.1	2341.1	2372.9	2373.9	2344.8	2391.7	2362.6	2377.6	2415.1	2431.0
32.5°	2428.2	2403.9	2372.9	2399.2	2396.4	2364.5	2409.5	2373.9	2378.6	2398.2	2394.5
35°	2415.1	2386.1	2349.5	2377.6	2377.6	2339.2	2384.2	2342.0	2337.3	2340.1	2316.7
37.5°	2266.1	2243.6	2208.9	2236.1	2233.3	2204.2	2238.9	2204.2	2188.3	2181.8	2139.6
40°	2046.8	2019.6	1993.4	2022.4	2025.2	1994.3	2039.3	1999.9	1995.3	1976.5	1926.8
42.5°	1824.7	1815.3	1790.0	1814.4	1827.5	1801.3	1838.7	1820.0	1822.8	1818.1	1771.3
45°	1630.7	1614.8	1596.0	1624.1	1632.6	1619.4	1656.9	1645.7	1656.9	1680.4	1641.9
47.5°	1421.7	1405.8	1385.2	1415.1	1430.1	1405.8	1437.6	1433.9	1450.8	1491.1	1487.3
50°	1169.6	1158.4	1154.6	1158.4	1167.7	1156.5	1179.0	1179.9	1191.2	1246.4	1250.2
52.5°	925.9	923.1	910.0	922.2	922.2	904.4	926.9	916.6	927.8	965.3	989.7
55°	724.4	721.6	713.2	724.4	712.3	705.7	712.3	701.9	693.5	722.6	747.9
57.5°	564.2	554.8	544.5	549.2	548.3	534.2	541.7	529.5	522.9	533.3	555.7
60°	402.1	399.2	389.9	394.6	398.3	388.0	395.5	389.9	378.6	387.1	388.0
62.5°	267.1	269.0	263.3	264.3	261.5	259.6	264.3	267.1	264.3	260.5	261.5
65°	169.6	168.7	167.8	168.7	170.6	166.8	169.6	171.5	168.7	168.7	167.8
67.5°	112.5	109.7	106.8	108.7	110.6	107.8	110.6	109.7	110.6	109.7	106.8
70°	75.9	75.0	74.0	75.0	75.0	73.1	75.0	74.0	75.0	74.0	71.2
72.5°	55.3	55.3	54.4	55.3	55.3	53.4	54.4	52.5	53.4	52.5	50.6
75°	41.2	41.2	40.3	41.2	40.3	39.4	40.3	39.4	37.5	37.5	35.6
77.5°	30.0	30.0	30.0	30.0	30.0	29.1	29.1	28.1	27.2	26.2	26.2
80°	22.5	21.6	21.6	21.6	21.6	20.6	21.6	20.6	19.7	18.7	17.8
82.5°	15.9	16.9	15.9	15.9	15.9	15.0	15.9	15.0	15.0	14.1	12.2
85°	12.2	12.2	12.2	12.2	12.2	11.2	11.2	11.2	10.3	10.3	9.4
87.5°	6.6	6.6	6.6	7.5	6.6	6.6	6.6	5.6	5.6	4.7	4.7
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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	3566.9	3566.9	3566.9	3566.9	3566.9	3566.9	3566.9	3566.9	3566.9	3566.9	3566.9
2.5°	3451.6	3456.3	3446.0	3461.9	3523.8	3474.1	3494.7	3501.3	3548.2	3556.6	3551.0
5°	3320.4	3341.0	3354.2	3389.8	3458.2	3422.6	3459.1	3482.6	3542.5	3562.2	3566.9
7.5°	3217.3	3260.4	3292.3	3350.4	3431.0	3403.8	3459.1	3497.6	3570.7	3596.0	3608.1
10°	3140.5	3206.1	3261.4	3341.0	3432.0	3414.1	3486.3	3540.7	3622.2	3652.2	3667.2
12.5°	3082.4	3162.0	3236.1	3337.3	3435.7	3427.3	3514.4	3576.3	3662.5	3692.5	3710.3
15°	3018.7	3110.5	3196.7	3310.1	3416.0	3414.1	3507.9	3573.5	3661.6	3686.9	3703.7
17.5°	2942.7	3041.1	3135.8	3258.6	3363.5	3365.4	3460.1	3524.7	3611.0	3631.6	3642.8
20°	2865.9	2963.4	3058.0	3184.5	3287.6	3290.4	3383.2	3443.2	3525.7	3542.5	3545.4
22.5°	2784.4	2875.3	2969.9	3095.5	3194.8	3196.7	3288.6	3344.8	3415.1	3423.5	3431.0
25°	2691.6	2780.6	2869.6	2994.3	3088.9	3094.6	3178.0	3227.6	3292.3	3298.9	3301.7
27.5°	2595.1	2668.2	2753.4	2860.3	2955.9	2952.1	3030.8	3087.1	3145.2	3141.4	3140.5
30°	2497.6	2558.5	2611.0	2714.1	2784.4	2787.2	2861.2	2888.4	2949.3	2941.8	2940.9
32.5°	2429.2	2445.1	2459.2	2511.6	2578.2	2554.8	2605.4	2639.1	2681.3	2678.5	2679.4
35°	2303.6	2274.5	2232.4	2239.9	2280.2	2243.6	2270.8	2269.9	2313.0	2302.7	2314.8
37.5°	2089.0	2006.5	1912.8	1859.4	1866.9	1820.9	1811.6	1834.1	1849.1	1820.0	1830.3
40°	1860.3	1738.5	1592.3	1470.4	1463.9	1406.7	1396.4	1373.9	1403.0	1378.6	1386.1
42.5°	1691.6	1530.4	1338.3	1190.2	1158.4	1110.6	1082.4	1078.7	1087.1	1070.3	1065.6
45°	1562.3	1390.8	1170.5	1000.9	965.3	913.8	885.6	875.3	876.3	870.6	866.0
47.5°	1410.5	1238.0	1015.0	841.6	801.3	752.6	724.4	717.9	721.6	714.1	708.5
50°	1200.5	1045.9	842.5	684.1	648.5	612.9	590.4	583.9	582.9	577.3	573.6
52.5°	974.7	846.3	670.1	537.9	506.1	471.4	455.5	447.0	448.0	442.3	436.7
55°	754.4	674.8	519.2	406.7	377.7	350.5	335.5	325.2	322.4	316.8	314.0
57.5°	561.4	508.0	388.9	293.3	276.5	250.2	235.2	223.0	221.2	218.4	217.4
60°	393.6	355.2	273.7	209.0	189.3	173.4	158.4	146.2	140.6	139.6	136.8
62.5°	254.9	231.5	179.9	139.6	124.6	113.4	98.4	90.0	86.2	82.5	83.4
65°	158.4	140.6	112.5	90.0	81.5	73.1	61.9	54.4	50.6	46.9	47.8
67.5°	98.4	88.1	71.2	58.1	52.5	45.9	37.5	31.9	29.1	26.2	24.4
70°	66.5	57.2	48.7	41.2	37.5	32.8	27.2	22.5	20.6	18.7	16.9
72.5°	46.9	42.2	35.6	30.9	28.1	24.4	20.6	17.8	15.9	14.1	12.2
75°	33.7	30.0	26.2	22.5	20.6	18.7	15.9	14.1	12.2	10.3	8.4
77.5°	24.4	21.6	18.7	16.9	15.9	13.1	11.2	10.3	9.4	7.5	5.6
80°	16.9	15.0	12.2	11.2	11.2	9.4	8.4	7.5	6.6	4.7	3.7
82.5°	11.2	10.3	9.4	8.4	7.5	6.6	6.6	4.7	3.7	2.8	1.9
85°	8.4	7.5	6.6	5.6	5.6	4.7	3.7	2.8	2.8	1.9	0.9
87.5°	4.7	4.7	3.7	2.8	2.8	1.9	1.9	0.9	0.9	0.9	0.9
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):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	3566.9	3566.9	3566.9	3566.9	3566.9	3566.9	3566.9	3566.9	3566.9	3566.9	3566.9
2.5°	3598.8	3601.6	3617.5	3605.3	3636.3	3658.8	3647.5	3672.8	3664.4	3662.5	3691.6
5°	3623.1	3629.7	3651.3	3640.0	3673.7	3698.1	3686.9	3715.0	3706.5	3704.7	3734.7
7.5°	3670.0	3676.6	3695.3	3685.9	3721.5	3743.1	3729.0	3760.0	3748.7	3747.8	3776.8
10°	3729.0	3738.4	3754.3	3745.0	3777.8	3796.5	3782.5	3812.4	3802.1	3797.5	3829.3
12.5°	3773.1	3779.6	3795.6	3788.1	3819.9	3834.0	3821.8	3850.9	3837.8	3834.0	3862.1
15°	3762.8	3769.3	3782.5	3775.9	3805.9	3819.0	3803.1	3834.9	3821.8	3814.3	3839.6
17.5°	3697.2	3700.9	3710.3	3703.7	3735.6	3744.0	3726.2	3758.1	3745.9	3732.8	3757.2
20°	3600.6	3598.8	3604.4	3601.6	3627.8	3632.5	3621.3	3644.7	3630.6	3623.1	3637.2
22.5°	3480.7	3478.8	3482.6	3475.1	3501.3	3504.1	3487.2	3515.4	3501.3	3487.2	3510.7
25°	3347.6	3337.3	3335.4	3338.2	3356.0	3358.9	3341.0	3361.7	3343.9	3332.6	3355.1
27.5°	3183.6	3170.5	3167.7	3170.5	3188.3	3175.2	3160.2	3175.2	3157.4	3147.1	3161.1
30°	2981.2	2962.4	2954.0	2948.4	2967.1	2962.4	2927.8	2944.6	2916.5	2901.5	2911.8
32.5°	2708.5	2698.1	2675.6	2662.5	2680.3	2644.7	2623.2	2623.2	2611.9	2586.6	2592.2
35°	2329.8	2313.9	2293.3	2282.0	2284.8	2237.0	2201.4	2208.9	2171.4	2164.9	2167.7
37.5°	1850.9	1824.7	1817.2	1793.8	1799.4	1757.2	1708.5	1709.4	1689.7	1669.1	1662.6
40°	1390.8	1386.1	1378.6	1358.9	1366.4	1320.5	1301.7	1302.7	1289.6	1274.6	1282.1
42.5°	1074.9	1060.0	1055.3	1048.7	1050.6	1043.1	1018.7	1021.5	1010.3	1006.5	1002.8
45°	873.5	857.5	846.3	851.9	851.9	843.5	834.1	839.7	834.1	826.6	830.3
47.5°	719.8	704.8	699.1	698.2	704.8	699.1	689.8	691.6	690.7	687.9	686.0
50°	574.5	570.7	566.1	563.2	566.1	564.2	555.7	560.4	563.2	553.9	556.7
52.5°	437.7	437.7	436.7	430.2	435.8	430.2	429.2	431.1	428.3	424.5	423.6
55°	320.5	317.7	313.0	312.1	314.0	312.1	310.2	311.1	313.0	303.6	303.6
57.5°	219.3	217.4	214.6	214.6	218.4	213.7	210.9	214.6	210.9	207.1	207.1
60°	140.6	139.6	136.8	136.8	136.8	135.9	133.1	134.0	135.9	130.3	131.2
62.5°	84.3	81.5	80.6	79.7	80.6	79.7	79.7	78.7	77.8	77.8	75.0
65°	45.9	44.0	42.2	43.1	43.1	42.2	42.2	42.2	40.3	39.4	38.4
67.5°	23.4	21.6	21.6	20.6	20.6	20.6	20.6	19.7	19.7	19.7	18.7
70°	15.0	14.1	13.1	13.1	13.1	12.2	12.2	12.2	12.2	12.2	11.2
72.5°	10.3	9.4	8.4	8.4	8.4	7.5	7.5	7.5	7.5	6.6	6.6
75°	7.5	6.6	5.6	5.6	5.6	4.7	4.7	4.7	4.7	4.7	4.7
77.5°	4.7	3.7	3.7	3.7	3.7	2.8	2.8	2.8	2.8	2.8	1.9
80°	2.8	2.8	1.9	1.9	1.9	1.9	0.9	0.9	0.9	0.9	0.9
82.5°	1.9	1.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.0
85°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0
87.5°	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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



TEST NUMBER: P244091

CATALOG NUMBER: LSR8B50D010 EC8B50827 8LBSW0LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3566.9	3566.9	3566.9	3566.9	3566.9	3566.9	3566.9	3566.9
2.5°	3681.2	3673.7	3678.4	3713.1	3698.1	3693.4	3654.1	3688.7
5°	3725.3	3719.7	3719.7	3759.0	3741.2	3737.5	3699.0	3729.0
7.5°	3766.5	3760.9	3761.8	3802.1	3788.1	3782.5	3744.0	3774.0
10°	3819.9	3816.2	3817.1	3855.6	3840.6	3834.9	3795.6	3826.5
12.5°	3851.8	3846.2	3846.2	3887.4	3870.6	3862.1	3824.6	3854.6
15°	3827.4	3819.0	3819.0	3860.2	3841.5	3829.3	3796.5	3824.6
17.5°	3744.0	3735.6	3735.6	3771.2	3757.2	3739.3	3705.6	3731.9
20°	3627.8	3617.5	3614.7	3655.9	3636.3	3620.3	3590.3	3615.6
22.5°	3496.6	3491.9	3483.5	3524.7	3506.9	3490.1	3458.2	3477.9
25°	3339.2	3331.7	3323.2	3363.5	3345.7	3328.9	3303.6	3319.5
27.5°	3143.3	3144.2	3139.6	3171.4	3153.6	3144.2	3113.3	3139.6
30°	2906.2	2895.9	2892.1	2929.6	2912.8	2900.6	2862.1	2887.5
32.5°	2596.9	2581.9	2562.3	2604.4	2575.4	2565.1	2532.3	2568.8
35°	2147.1	2142.4	2124.6	2160.2	2144.3	2125.5	2104.9	2135.8
37.5°	1659.7	1663.5	1661.6	1671.0	1661.6	1649.4	1626.9	1615.7
40°	1267.1	1257.7	1250.2	1267.1	1247.4	1247.4	1234.3	1248.3
42.5°	993.4	989.7	999.0	1002.8	991.5	989.7	987.8	986.9
45°	820.0	820.0	821.9	825.7	821.9	820.0	814.4	810.7
47.5°	675.7	679.5	675.7	687.9	681.3	679.5	668.2	672.9
50°	547.3	542.6	547.3	551.1	552.0	546.4	540.8	543.6
52.5°	424.5	417.0	415.2	420.8	417.0	417.0	413.3	412.4
55°	299.0	301.8	297.1	301.8	299.9	297.1	294.3	298.0
57.5°	202.4	203.4	201.5	204.3	199.6	200.6	199.6	198.7
60°	131.2	127.5	127.5	130.3	125.6	125.6	124.6	124.6
62.5°	75.0	74.0	74.0	73.1	72.2	72.2	72.2	70.3
65°	38.4	37.5	36.6	36.6	36.6	36.6	35.6	35.6
67.5°	18.7	17.8	17.8	18.7	17.8	17.8	17.8	17.8
70°	11.2	11.2	10.3	11.2	10.3	10.3	10.3	10.3
72.5°	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
75°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
77.5°	2.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9
80°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)