

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: P244181

Luminaire Tested: **LSR8B50D010 EC8B50840 8LBDW0LI**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P244181
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: LSR8B50D010 EC8B50840 8LBDW0LI
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 4000 CCT WITH SPECULAR CLEAR TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5746.0 lumens
Efficiency: N/A
Efficacy: 108.4 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

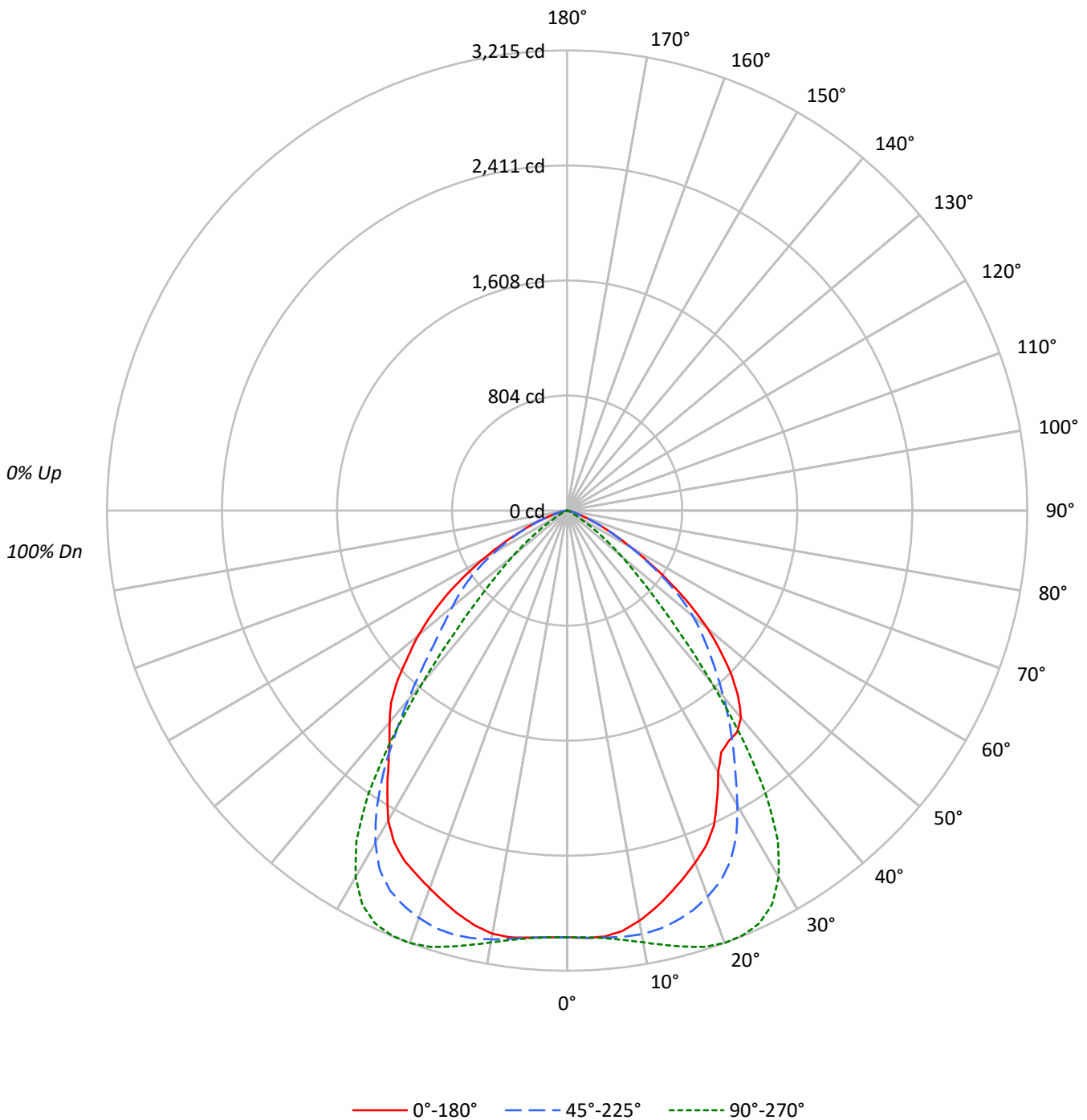
Input Watts (W): 53
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	92	90
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79
3	97	88	82	76	94	87	81	76	84	79	74	81	77	73	79	75	72	70
4	90	80	73	67	88	79	72	67	76	70	66	74	69	65	72	68	64	62
5	84	73	65	60	82	72	65	59	70	63	59	68	62	58	66	61	58	56
6	78	66	59	53	76	66	58	53	64	57	53	62	57	52	61	56	52	50
7	73	61	53	48	71	60	53	48	59	52	48	57	52	47	56	51	47	45
8	68	56	49	44	67	56	48	43	54	48	43	53	47	43	52	47	43	41
9	64	52	45	40	63	51	44	40	50	44	39	49	44	39	48	43	39	38
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	91917	91917	91917
5°	92466	92807	92711
10°	91105	95912	94030
15°	88443	100666	93292
20°	85878	105501	92159
25°	82580	108203	91729
30°	75152	105236	89010
35°	74031	91186	81895
40°	76044	63243	77638
45°	70791	38223	73002
50°	61405	23603	65046
55°	47122	12333	55202
60°	32101	4977	41666
65°	19971	2539	28741
70°	10837	1569	17545
75°	5659	751	10365
80°	2522	852	5612
85°	1698	566	5024



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	286.7	5.0
10°-20°	849.2	14.8
20°-30°	1295.5	22.5
30°-40°	1351.9	23.5
40°-50°	1015.5	17.7
50°-60°	624.8	10.9
60°-70°	254.3	4.4
70°-80°	59.9	1.0
80°-90°	8.3	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°	2431.4	42.3
0°-40°	3783.3	65.8
0°-60°	5423.6	94.4
0°-90°	5746.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5746.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2981	2981	2981	2981	2981	
5°	2987	2995	2998	2995	2995	283
15°	2770	2965	3153	3066	2922	780
25°	2427	2699	3180	2929	2696	1103
35°	1967	2022	2422	2239	2176	1242
45°	1623	1405	876	1308	1674	1239
55°	876	832	229	832	1027	788
65°	274	277	35	372	394	285
75°	48	48	6	84	87	57
85°	5	5	2	11	14	7
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°	2980.8	2980.8	2980.8	2980.8	2980.8	2980.8	2980.8	2980.8	2980.8	2980.8	2980.8
2.5°	2988.8	2984.0	2988.8	2988.8	2990.3	2987.2	2988.8	2990.3	2987.2	2987.2	2987.2
5°	2987.2	2984.0	2987.2	2985.6	2988.8	2988.8	2991.9	2991.9	2995.1	2995.1	2999.8
7.5°	2961.9	2955.5	2961.9	2966.6	2969.8	2976.1	2984.0	2990.3	2996.7	3003.0	3010.9
10°	2909.6	2909.6	2914.4	2923.9	2933.4	2944.4	2958.7	2974.5	2990.3	3004.6	3018.8
12.5°	2844.8	2840.0	2849.5	2862.2	2876.4	2893.8	2916.0	2939.7	2965.0	2993.5	3015.7
15°	2770.4	2765.7	2776.7	2789.4	2806.8	2832.1	2859.0	2890.7	2927.0	2965.0	3001.4
17.5°	2694.5	2692.9	2703.9	2721.4	2735.6	2762.5	2797.3	2835.3	2876.4	2927.0	2974.5
20°	2617.0	2615.4	2626.4	2640.7	2659.7	2685.0	2719.8	2764.1	2813.1	2870.1	2925.5
22.5°	2536.2	2537.8	2547.3	2563.1	2579.0	2605.8	2642.2	2686.6	2740.3	2802.0	2863.8
25°	2427.1	2419.2	2431.8	2447.7	2474.5	2496.7	2531.5	2579.0	2634.3	2699.2	2772.0
27.5°	2268.8	2267.3	2278.4	2292.6	2316.3	2343.2	2381.2	2430.2	2488.8	2560.0	2631.2
30°	2110.6	2113.8	2118.6	2132.8	2148.6	2175.5	2213.5	2254.6	2310.0	2378.0	2454.0
32.5°	2003.0	2003.0	2009.4	2018.9	2029.9	2044.2	2071.1	2101.1	2143.9	2191.3	2246.7
35°	1966.6	1960.3	1966.6	1968.2	1969.8	1973.0	1977.7	1987.2	2001.4	2022.0	2042.6
37.5°	1950.8	1946.1	1946.1	1939.8	1931.8	1922.4	1909.7	1895.5	1879.7	1859.1	1843.3
40°	1889.1	1886.0	1882.8	1876.5	1859.1	1840.1	1819.5	1786.3	1749.9	1699.3	1648.7
42.5°	1770.5	1767.3	1765.7	1753.1	1737.2	1715.1	1691.4	1656.5	1610.7	1545.8	1473.0
45°	1623.3	1617.0	1612.3	1601.2	1590.1	1571.1	1549.0	1517.3	1471.4	1405.0	1318.0
47.5°	1452.5	1449.3	1447.7	1443.0	1431.9	1420.8	1406.6	1381.3	1340.1	1276.8	1186.6
50°	1280.0	1273.7	1276.8	1275.3	1270.5	1262.6	1253.1	1235.7	1204.0	1147.1	1064.8
52.5°	1082.2	1082.2	1080.6	1085.4	1087.0	1085.4	1087.0	1068.0	1041.1	998.3	928.7
55°	876.5	876.5	881.3	887.6	893.9	895.5	893.9	886.0	867.0	832.2	770.5
57.5°	683.5	680.4	689.8	699.3	705.7	712.0	707.2	700.9	689.8	661.3	613.9
60°	520.5	520.5	526.9	533.2	539.5	545.9	544.3	542.7	533.2	514.2	476.3
62.5°	382.9	384.5	384.5	389.2	395.5	401.9	406.6	401.9	397.1	384.5	359.1
65°	273.7	272.1	273.7	278.5	283.2	289.5	292.7	291.1	286.4	276.9	257.9
67.5°	183.5	182.0	188.3	189.9	193.0	199.4	197.8	199.4	197.8	189.9	174.1
70°	120.2	117.1	120.2	118.7	123.4	125.0	128.1	129.7	128.1	123.4	118.7
72.5°	74.4	72.8	74.4	76.0	77.5	79.1	82.3	82.3	80.7	77.5	71.2
75°	47.5	42.7	44.3	41.2	44.3	44.3	47.5	49.0	47.5	47.5	44.3
77.5°	28.5	28.5	28.5	28.5	28.5	28.5	28.5	30.1	31.6	28.5	26.9
80°	14.2	14.2	15.8	15.8	15.8	17.4	15.8	15.8	15.8	17.4	12.7
82.5°	11.1	9.5	9.5	9.5	11.1	9.5	9.5	9.5	9.5	9.5	9.5
85°	4.8	6.3	4.8	3.2	4.8	4.8	6.3	4.8	4.8	4.8	6.3
87.5°	1.6	1.6	0.0	0.0	0.0	1.6	0.0	1.6	1.6	3.2	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°	2980.8	2980.8	2980.8	2980.8	2980.8	2980.8	2980.8	2980.8	2980.8	2980.8	2980.8
2.5°	2988.8	2985.6	2985.6	2984.0	2987.2	2984.0	2985.6	2984.0	2984.0	2987.2	2984.0
5°	2999.8	3001.4	2998.2	2996.7	3001.4	3001.4	3001.4	2998.2	2998.2	2999.8	2998.2
7.5°	3015.7	3018.8	3020.4	3022.0	3025.1	3026.7	3026.7	3025.1	3023.6	3028.3	3022.0
10°	3033.0	3037.8	3047.3	3052.1	3060.0	3060.0	3063.1	3063.1	3060.0	3063.1	3061.5
12.5°	3026.7	3055.2	3071.0	3082.1	3093.2	3102.7	3105.8	3107.4	3105.8	3112.2	3105.8
15°	3037.8	3061.5	3086.9	3105.8	3126.4	3137.5	3140.6	3153.3	3156.5	3158.1	3148.6
17.5°	3020.4	3063.1	3090.0	3118.5	3148.6	3169.1	3188.1	3196.0	3197.6	3200.8	3188.1
20°	2980.8	3028.3	3069.4	3110.6	3145.4	3177.0	3192.9	3215.0	3208.7	3221.3	3203.9
22.5°	2927.0	2980.8	3033.0	3086.9	3123.2	3161.2	3194.4	3210.2	3218.2	3218.2	3199.2
25°	2841.6	2904.9	2961.9	3017.2	3072.6	3118.5	3156.5	3180.2	3185.0	3183.4	3161.2
27.5°	2708.7	2776.7	2843.2	2906.5	2974.5	3028.3	3072.6	3101.1	3109.0	3109.0	3085.3
30°	2525.2	2597.9	2662.8	2738.7	2808.4	2868.5	2930.2	2955.5	2969.8	2969.8	2942.9
32.5°	2306.8	2368.5	2428.7	2503.0	2579.0	2647.0	2705.5	2740.3	2757.8	2756.2	2732.4
35°	2069.5	2099.5	2145.5	2200.8	2268.8	2332.1	2389.1	2422.3	2452.4	2450.8	2428.7
37.5°	1832.2	1824.3	1829.0	1849.6	1892.3	1936.6	1980.9	2012.6	2037.8	2048.9	2044.2
40°	1599.6	1558.4	1518.9	1504.7	1507.8	1523.6	1547.4	1571.1	1599.6	1613.8	1620.2
42.5°	1390.7	1321.1	1251.5	1199.3	1169.2	1159.7	1170.8	1178.7	1196.1	1216.7	1237.3
45°	1223.0	1129.7	1037.9	957.2	906.6	876.5	870.2	876.5	886.0	906.6	933.5
47.5°	1085.4	976.2	873.4	783.2	708.8	669.3	658.2	655.0	664.5	683.5	719.9
50°	963.5	854.4	740.5	636.0	558.5	514.2	498.4	492.0	503.1	517.4	550.6
52.5°	830.6	723.1	606.0	504.7	424.0	378.2	360.7	351.2	357.6	376.6	409.8
55°	686.7	587.0	481.0	376.6	299.0	256.3	235.7	229.4	235.7	256.3	289.5
57.5°	542.7	458.8	370.2	272.1	202.5	159.8	139.2	132.9	150.3	158.2	193.0
60°	424.0	356.0	280.1	199.4	139.2	106.0	85.4	80.7	88.6	102.8	131.3
62.5°	318.0	275.3	215.2	142.4	102.8	68.0	56.9	52.2	56.9	68.0	90.2
65°	231.0	197.8	150.3	104.4	69.6	50.6	38.0	34.8	39.6	47.5	66.5
67.5°	158.2	132.9	104.4	72.8	47.5	31.6	26.9	26.9	28.5	34.8	49.0
70°	102.8	87.0	66.5	47.5	31.6	23.7	20.6	17.4	20.6	25.3	33.2
72.5°	64.9	55.4	42.7	33.2	23.7	17.4	14.2	12.7	15.8	19.0	25.3
75°	39.6	30.1	22.1	17.4	12.7	12.7	12.7	6.3	7.9	12.7	15.8
77.5°	23.7	20.6	17.4	14.2	11.1	6.3	6.3	6.3	7.9	9.5	14.2
80°	12.7	11.1	7.9	7.9	6.3	4.8	6.3	4.8	3.2	7.9	9.5
82.5°	7.9	6.3	6.3	6.3	7.9	3.2	4.8	3.2	4.8	6.3	4.8
85°	4.8	4.8	4.8	3.2	7.9	3.2	3.2	1.6	1.6	3.2	3.2
87.5°	0.0	1.6	1.6	0.0	1.6	0.0	1.6	1.6	1.6	1.6	1.6
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°	2980.8	2980.8	2980.8	2980.8	2980.8	2980.8	2980.8	2980.8	2980.8	2980.8	2980.8
2.5°	2985.6	2984.0	2985.6	2984.0	2984.0	2984.0	2985.6	2985.6	2984.0	2984.0	2987.2
5°	2998.2	2998.2	2998.2	2996.7	2995.1	2995.1	2998.2	2998.2	2993.5	2998.2	2998.2
7.5°	3025.1	3020.4	3025.1	3018.8	3015.7	3017.2	3018.8	3015.7	3012.5	3014.1	3014.1
10°	3060.0	3055.2	3055.2	3050.5	3045.7	3042.5	3039.4	3031.5	3023.6	3022.0	3015.7
12.5°	3101.1	3093.2	3088.4	3078.9	3071.0	3060.0	3050.5	3037.8	3022.0	3010.9	2999.8
15°	3142.2	3129.6	3118.5	3102.7	3085.3	3066.3	3045.7	3025.1	2999.8	2977.7	2958.7
17.5°	3175.4	3158.1	3137.5	3112.2	3086.9	3058.4	3028.3	2998.2	2961.9	2933.4	2911.2
20°	3186.5	3161.2	3134.3	3101.1	3067.8	3028.3	2990.3	2950.8	2909.6	2879.6	2854.3
22.5°	3172.3	3142.2	3109.0	3074.2	3029.9	2987.2	2942.9	2897.0	2860.6	2819.5	2795.7
25°	3132.7	3096.3	3060.0	3018.8	2976.1	2928.6	2881.2	2833.7	2789.4	2767.2	2737.2
27.5°	3052.1	3012.5	2972.9	2930.2	2881.2	2833.7	2784.7	2738.7	2700.8	2670.7	2653.3
30°	2909.6	2863.8	2817.9	2772.0	2729.3	2680.2	2634.3	2596.4	2558.4	2534.6	2517.3
32.5°	2691.3	2650.2	2604.3	2560.0	2520.4	2479.3	2441.3	2408.1	2381.2	2365.4	2352.7
35°	2397.0	2355.9	2321.1	2289.4	2256.2	2238.8	2215.1	2196.1	2185.0	2178.7	2177.1
37.5°	2026.8	2003.0	1992.0	1985.7	1979.3	1974.6	1977.7	1985.7	1992.0	2003.0	2015.7
40°	1631.2	1651.8	1658.1	1680.3	1700.8	1727.7	1757.8	1792.6	1821.1	1857.5	1882.8
42.5°	1270.5	1308.5	1352.8	1400.2	1450.9	1499.9	1560.0	1615.4	1666.0	1711.9	1751.5
45°	976.2	1034.7	1101.2	1169.2	1237.3	1308.5	1381.3	1449.3	1509.4	1558.4	1599.6
47.5°	761.0	825.9	911.4	995.2	1077.5	1161.3	1242.0	1313.2	1363.8	1411.3	1447.7
50°	602.8	677.2	770.5	867.0	957.2	1045.8	1131.2	1197.7	1248.4	1286.3	1313.2
52.5°	466.7	555.3	650.3	751.5	848.1	944.6	1023.7	1085.4	1126.5	1159.7	1180.3
55°	348.1	435.1	536.4	640.8	738.9	832.2	906.6	960.4	996.8	1015.8	1026.8
57.5°	251.6	330.7	431.9	536.4	625.0	713.6	773.7	822.7	843.3	854.4	859.1
60°	183.5	256.3	346.5	436.7	520.5	591.7	644.0	677.2	693.0	699.3	697.7
62.5°	134.5	197.8	275.3	351.2	419.3	477.8	519.0	541.1	549.0	552.2	547.4
65°	102.8	151.9	218.3	276.9	329.1	371.8	401.9	416.1	420.9	419.3	416.1
67.5°	76.0	113.9	163.0	207.3	245.2	278.5	294.3	307.0	310.1	305.4	300.6
70°	53.8	83.9	118.7	148.7	177.2	196.2	213.6	215.2	215.2	213.6	210.4
72.5°	38.0	58.5	80.7	101.3	118.7	132.9	139.2	144.0	142.4	140.8	137.7
75°	25.3	36.4	58.5	63.3	79.1	83.9	90.2	90.2	91.8	87.0	87.0
77.5°	15.8	25.3	34.8	41.2	47.5	53.8	56.9	56.9	58.5	56.9	56.9
80°	9.5	15.8	19.0	28.5	28.5	33.2	34.8	36.4	33.2	38.0	33.2
82.5°	6.3	9.5	14.2	14.2	17.4	20.6	20.6	22.1	22.1	20.6	20.6
85°	4.8	6.3	7.9	9.5	9.5	11.1	9.5	9.5	11.1	12.7	11.1
87.5°	1.6	3.2	1.6	3.2	3.2	6.3	4.8	4.8	4.8	6.3	6.3
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: P244181

CATALOG NUMBER: LSR8B50D010 EC8B50840 8LBDW0LI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2980.8	2980.8	2980.8	2980.8
2.5°	2984.0	2985.6	2984.0	2984.0
5°	2998.2	2996.7	2998.2	2995.1
7.5°	3009.3	3009.3	3007.7	3007.7
10°	3009.3	3003.0	3003.0	3003.0
12.5°	2985.6	2977.7	2972.9	2969.8
15°	2944.4	2930.2	2923.9	2922.3
17.5°	2890.7	2878.0	2870.1	2865.3
20°	2828.9	2816.3	2806.8	2808.4
22.5°	2775.1	2760.9	2754.6	2751.4
25°	2721.4	2703.9	2699.2	2696.0
27.5°	2634.3	2624.9	2620.1	2615.4
30°	2501.4	2496.7	2488.8	2499.8
32.5°	2348.0	2340.0	2333.7	2338.5
35°	2178.7	2173.9	2178.7	2175.5
37.5°	2023.6	2028.4	2034.7	2037.8
40°	1901.8	1919.2	1925.5	1928.7
42.5°	1780.0	1800.5	1813.2	1821.1
45°	1629.6	1650.2	1664.4	1674.0
47.5°	1474.6	1492.0	1506.2	1504.7
50°	1333.8	1343.3	1349.6	1355.9
52.5°	1191.4	1191.4	1193.0	1193.0
55°	1030.0	1026.8	1025.2	1026.8
57.5°	852.8	849.6	848.1	843.3
60°	691.4	681.9	675.6	675.6
62.5°	541.1	530.0	525.3	523.7
65°	406.6	405.0	395.5	393.9
67.5°	294.3	288.0	281.6	283.2
70°	207.3	197.8	197.8	194.6
72.5°	134.5	129.7	128.1	128.1
75°	83.9	83.9	80.7	87.0
77.5°	55.4	55.4	53.8	55.4
80°	33.2	33.2	33.2	31.6
82.5°	20.6	22.1	20.6	20.6
85°	11.1	12.7	9.5	14.2
87.5°	6.3	7.9	6.3	7.9
90°	0.0	0.0	0.0	0.0

(END OF REPORT)