

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: P246197

Luminaire Tested: **LSR8B50D010 EC8B50840 8LBDW0MW**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P246197  
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: LSR8B50D010 EC8B50840 8LBDW0MW  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
80 CRI 4000 CCT WITH MATTE WHITE TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5482.0 lumens  
Efficiency: N/A  
Efficacy: 103.4 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

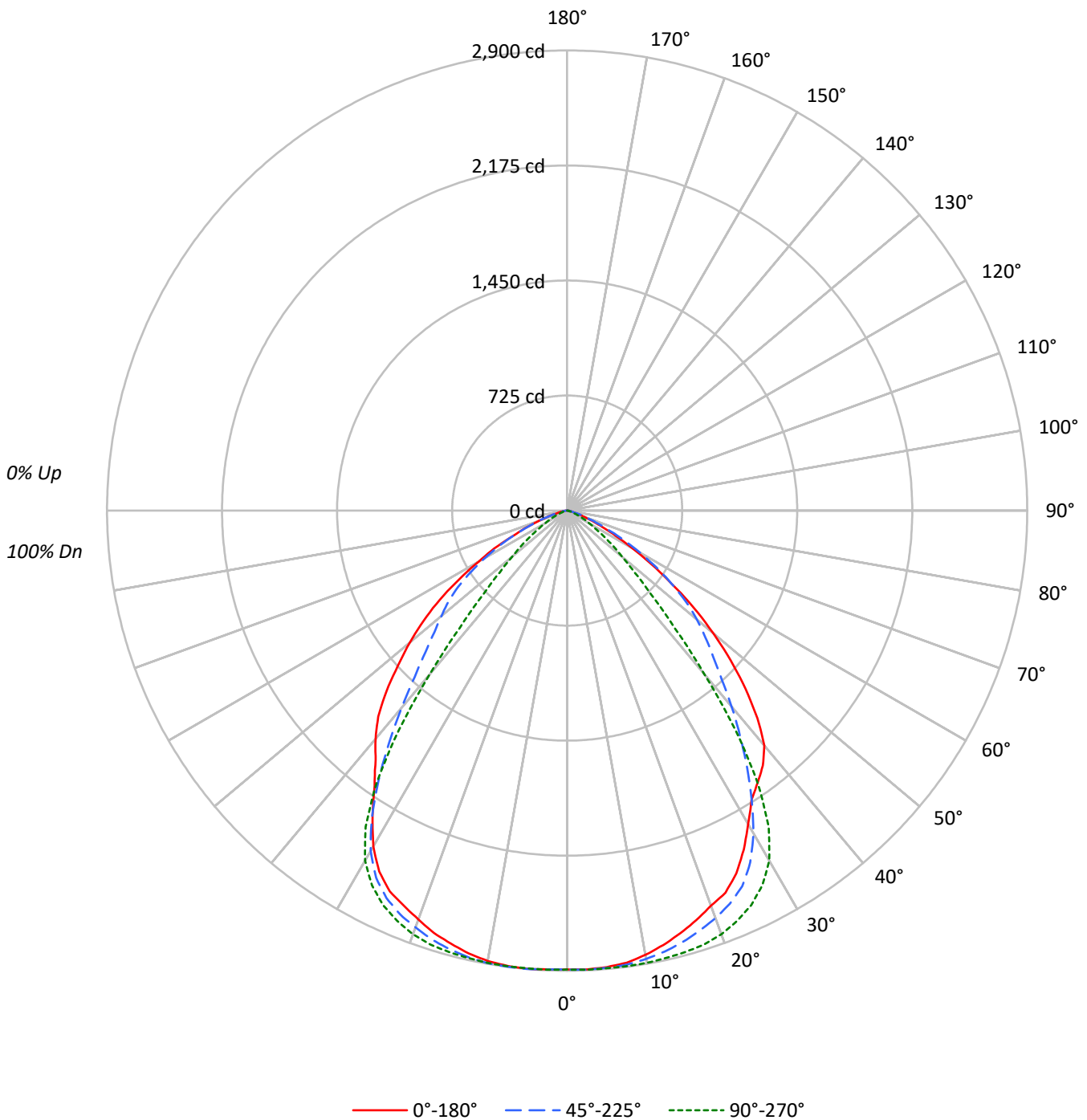
Input Watts (W): 53  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P246197

CATALOG NUMBER: LSR8B50D010 EC8B50840 8LBDW0MW

### Luminous Intensity Polar Plot





TEST NUMBER: P246197

CATALOG NUMBER: LSR8B50D010 EC8B50840 8LBDW0MW

**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°	89191	89191	89191
5°	89386	89628	89724
10°	89011	90617	90226
15°	88024	91941	90208
20°	86967	93235	89973
25°	85839	93342	90065
30°	81208	90715	87012
35°	78786	78842	79663
40°	77807	54246	75621
45°	69330	32567	70280
50°	57649	21674	62115
55°	43235	14940	52665
60°	29301	9960	39736
65°	17672	6457	27303
70°	9800	3498	16797
75°	4444	1477	8697
80°	3853	1651	6073
85°	4387	2194	6050



TEST NUMBER: P246197

CATALOG NUMBER: LSR8B50D010 EC8B50840 8LBDW0MW

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	276.0	5.0
10°-20°	801.7	14.6
20°-30°	1216.8	22.2
30°-40°	1278.0	23.3
40°-50°	958.1	17.5
50°-60°	614.8	11.2
60°-70°	263.0	4.8
70°-80°	62.1	1.1
80°-90°	11.6	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°	2294.5	41.9
0°-40°	3572.4	65.2
0°-60°	5145.3	93.9
0°-90°	5482.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5482.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2892	2892	2892	2892	2892	
5°	2888	2892	2896	2900	2899	274
15°	2757	2815	2880	2861	2826	778
25°	2523	2611	2743	2694	2647	1153
35°	2093	1976	2094	2070	2116	1314
45°	1590	1300	747	1262	1612	1218
55°	804	804	278	838	980	729
65°	242	286	88	368	374	259
75°	37	44	12	74	73	54
85°	12	8	6	12	17	13
90°	0	0	0	0	0	



TEST NUMBER: P246197

CATALOG NUMBER: LSR8B50D010 EC8B50840 8LBDW0MW

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2892.4	2892.4	2892.4	2892.4	2892.4	2892.4	2892.4	2892.4	2892.4	2892.4	2892.4
2.5°	2894.0	2897.1	2895.5	2895.5	2894.0	2895.5	2895.5	2898.6	2898.6	2895.5	2894.0
5°	2887.7	2890.9	2890.9	2887.7	2887.7	2895.5	2890.9	2894.0	2894.0	2892.4	2892.4
7.5°	2873.8	2873.8	2880.0	2875.4	2875.4	2880.0	2878.4	2881.5	2884.7	2886.2	2886.2
10°	2842.7	2845.8	2847.4	2847.4	2849.0	2853.6	2856.7	2862.9	2866.0	2869.1	2870.7
12.5°	2803.9	2808.6	2810.1	2808.6	2813.2	2819.4	2827.2	2835.0	2839.6	2845.8	2850.5
15°	2757.3	2757.3	2760.4	2765.1	2768.2	2777.5	2785.3	2794.6	2807.0	2814.8	2822.5
17.5°	2706.1	2709.2	2713.9	2713.9	2720.1	2735.6	2740.3	2754.2	2768.2	2776.0	2791.5
20°	2650.2	2653.3	2658.0	2661.1	2668.8	2681.3	2690.6	2703.0	2718.5	2732.5	2748.0
22.5°	2606.7	2600.5	2603.6	2606.7	2614.5	2625.4	2636.3	2651.8	2667.3	2681.3	2696.8
25°	2522.9	2524.5	2529.1	2532.2	2541.5	2550.9	2563.3	2581.9	2595.9	2611.4	2628.5
27.5°	2409.6	2411.1	2418.9	2418.9	2426.6	2442.2	2449.9	2465.5	2484.1	2499.6	2519.8
30°	2280.7	2283.8	2283.8	2290.0	2294.7	2302.4	2310.2	2325.7	2335.0	2349.0	2377.0
32.5°	2162.7	2165.8	2164.2	2162.7	2158.1	2156.5	2154.9	2158.1	2161.2	2165.8	2176.7
35°	2092.9	2085.1	2078.9	2068.0	2055.6	2040.1	2026.1	2007.5	1990.4	1976.4	1960.9
37.5°	2026.1	2024.5	2015.2	1999.7	1974.8	1946.9	1914.3	1873.9	1833.6	1790.1	1748.2
40°	1932.9	1928.3	1920.5	1898.8	1870.8	1836.7	1793.2	1743.5	1678.3	1611.6	1543.2
42.5°	1774.6	1776.1	1766.8	1749.7	1723.4	1690.7	1645.7	1591.4	1521.5	1442.3	1353.8
45°	1589.8	1589.8	1586.7	1572.7	1554.1	1527.7	1493.6	1448.5	1380.2	1299.5	1204.8
47.5°	1397.3	1398.9	1394.2	1391.1	1383.3	1366.3	1341.4	1307.3	1259.1	1181.5	1086.8
50°	1201.7	1201.7	1209.4	1207.9	1207.9	1201.7	1190.8	1170.6	1128.7	1066.6	978.1
52.5°	1006.1	1009.2	1013.8	1020.0	1027.8	1040.2	1027.8	1018.5	992.1	943.9	867.9
55°	804.2	807.3	815.1	825.9	835.3	847.7	850.8	850.8	836.8	804.2	746.8
57.5°	631.9	627.2	633.5	642.8	655.2	667.6	676.9	687.8	686.2	664.5	617.9
60°	475.1	476.6	481.3	490.6	499.9	510.8	523.2	532.5	537.2	526.3	496.8
62.5°	346.2	346.2	352.4	361.7	366.4	381.9	389.7	394.4	399.0	397.4	378.8
65°	242.2	245.3	248.4	253.1	257.7	267.0	271.7	281.0	284.1	285.7	271.7
67.5°	170.8	166.1	169.2	172.3	177.0	183.2	192.5	192.5	197.2	197.2	187.9
70°	108.7	108.7	110.2	114.9	118.0	119.5	122.7	125.7	130.4	128.9	128.9
72.5°	73.0	71.4	73.0	74.5	76.1	80.7	80.7	82.3	85.4	87.0	80.7
75°	37.3	38.8	41.9	40.4	45.0	41.9	43.5	48.1	46.6	43.5	43.5
77.5°	31.0	31.0	31.0	29.5	32.6	32.6	31.0	34.2	32.6	32.6	31.0
80°	21.7	23.3	21.7	20.2	21.7	20.2	20.2	20.2	20.2	20.2	18.6
82.5°	17.1	14.0	15.5	14.0	15.5	15.5	14.0	12.4	12.4	14.0	12.4
85°	12.4	9.3	10.9	10.9	9.3	9.3	9.3	9.3	9.3	7.8	7.8
87.5°	7.8	4.7	4.7	4.7	6.2	6.2	6.2	4.7	6.2	6.2	3.1
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: P246197

CATALOG NUMBER: LSR8B50D010 EC8B50840 8LBDW0MW

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2892.4	2892.4	2892.4	2892.4	2892.4	2892.4	2892.4	2892.4	2892.4	2892.4	2892.4
2.5°	2897.1	2895.5	2898.6	2897.1	2897.1	2895.5	2897.1	2895.5	2898.6	2892.4	2894.0
5°	2897.1	2894.0	2895.5	2897.1	2898.6	2895.5	2895.5	2895.5	2898.6	2895.5	2897.1
7.5°	2890.9	2889.3	2894.0	2897.1	2895.5	2894.0	2897.1	2895.5	2898.6	2897.1	2900.2
10°	2878.4	2880.0	2883.1	2887.7	2889.3	2890.9	2894.0	2894.0	2898.6	2892.4	2895.5
12.5°	2859.8	2866.0	2873.8	2876.9	2883.1	2883.1	2886.2	2887.7	2890.9	2889.3	2894.0
15°	2836.5	2844.3	2853.6	2861.4	2869.1	2873.8	2878.4	2880.0	2884.7	2880.0	2881.5
17.5°	2808.6	2817.9	2831.9	2841.2	2853.6	2858.3	2864.5	2867.6	2872.2	2869.1	2870.7
20°	2769.7	2780.6	2796.1	2810.1	2817.9	2828.7	2836.5	2841.2	2844.3	2841.2	2842.7
22.5°	2715.4	2731.0	2751.1	2762.0	2777.5	2786.8	2788.4	2799.3	2807.0	2799.3	2802.4
25°	2651.8	2667.3	2682.8	2706.1	2720.1	2731.0	2741.8	2743.4	2751.1	2749.6	2748.0
27.5°	2546.2	2566.4	2592.8	2611.4	2630.0	2647.1	2659.5	2662.6	2670.4	2667.3	2668.8
30°	2401.8	2423.6	2448.4	2477.9	2504.3	2521.3	2536.9	2547.7	2555.5	2550.9	2549.3
32.5°	2196.9	2218.6	2245.0	2274.5	2305.6	2330.4	2349.0	2363.0	2372.3	2369.2	2361.4
35°	1962.5	1968.6	1985.7	2009.0	2035.4	2061.8	2078.9	2094.4	2105.3	2108.4	2108.4
37.5°	1721.8	1701.6	1689.2	1689.2	1704.7	1715.6	1731.1	1740.4	1757.5	1763.7	1768.4
40°	1488.9	1442.3	1398.9	1366.3	1344.5	1343.0	1343.0	1347.6	1363.1	1383.3	1402.0
42.5°	1280.9	1206.3	1139.6	1079.0	1035.6	1010.7	999.9	1001.4	1013.8	1032.5	1063.5
45°	1114.7	1021.6	937.7	864.8	805.8	767.0	748.3	746.8	756.1	777.8	812.0
47.5°	985.9	886.5	791.8	708.0	644.3	602.4	580.7	574.5	580.7	600.8	641.2
50°	878.8	776.3	678.5	591.5	523.2	479.8	459.5	451.8	459.5	476.6	517.0
52.5°	779.4	673.8	582.2	498.4	425.4	388.1	366.4	361.7	366.4	386.6	419.2
55°	664.5	574.5	484.4	400.6	336.9	299.7	282.6	277.9	282.6	301.2	335.4
57.5°	551.2	473.5	394.4	318.3	263.9	231.3	215.8	209.6	220.4	232.9	273.3
60°	445.6	383.5	316.7	250.0	204.9	175.4	163.0	161.5	164.6	180.1	208.0
62.5°	349.3	298.1	245.3	191.0	153.7	141.3	125.7	124.2	127.3	136.6	158.4
65°	251.5	218.9	178.5	139.7	110.2	93.1	87.0	88.5	91.6	97.8	118.0
67.5°	175.4	152.1	124.2	97.8	76.1	68.3	62.1	60.6	62.1	73.0	83.8
70°	118.0	104.0	83.8	74.5	52.8	41.9	43.5	38.8	45.0	45.0	54.3
72.5°	77.6	68.3	55.9	43.5	37.3	29.5	29.5	28.0	31.0	32.6	40.4
75°	40.4	31.0	31.0	21.7	15.5	7.8	14.0	12.4	10.9	12.4	15.5
77.5°	28.0	23.3	21.7	17.1	15.5	12.4	12.4	12.4	12.4	14.0	15.5
80°	17.1	17.1	12.4	10.9	9.3	7.8	9.3	9.3	9.3	9.3	10.9
82.5°	10.9	9.3	9.3	7.8	7.8	6.2	6.2	6.2	6.2	6.2	9.3
85°	9.3	6.2	6.2	4.7	6.2	10.9	4.7	6.2	6.2	6.2	4.7
87.5°	3.1	4.7	4.7	4.7	3.1	1.6	3.1	4.7	4.7	7.8	6.2
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: P246197

CATALOG NUMBER: LSR8B50D010 EC8B50840 8LBDW0MW

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2892.4	2892.4	2892.4	2892.4	2892.4	2892.4	2892.4	2892.4	2892.4	2892.4	2892.4
2.5°	2897.1	2898.6	2898.6	2897.1	2897.1	2894.0	2900.2	2895.5	2897.1	2903.3	2898.6
5°	2900.2	2901.7	2901.7	2900.2	2900.2	2900.2	2901.7	2901.7	2900.2	2898.6	2901.7
7.5°	2906.4	2904.8	2904.8	2901.7	2901.7	2898.6	2901.7	2897.1	2900.2	2897.1	2901.7
10°	2898.6	2900.2	2898.6	2897.1	2897.1	2895.5	2895.5	2890.9	2892.4	2887.7	2890.9
12.5°	2894.0	2892.4	2892.4	2889.3	2886.2	2883.1	2881.5	2876.9	2876.9	2866.0	2870.7
15°	2881.5	2883.1	2878.4	2872.2	2869.1	2861.4	2858.3	2852.0	2845.8	2838.1	2839.6
17.5°	2870.7	2866.0	2859.8	2853.6	2841.2	2835.0	2828.7	2819.4	2816.3	2807.0	2803.9
20°	2838.1	2835.0	2827.2	2816.3	2808.6	2794.6	2788.4	2779.1	2771.3	2762.0	2757.3
22.5°	2796.1	2793.0	2783.7	2772.9	2760.4	2754.2	2748.0	2731.0	2723.2	2713.9	2712.3
25°	2743.4	2738.7	2729.4	2717.0	2710.8	2693.7	2687.5	2675.0	2672.0	2662.6	2661.1
27.5°	2662.6	2656.4	2645.6	2630.0	2619.2	2608.3	2602.1	2592.8	2589.7	2580.3	2578.8
30°	2541.5	2533.8	2512.0	2505.8	2487.2	2476.3	2476.3	2463.9	2465.5	2459.3	2459.3
32.5°	2350.6	2338.2	2321.1	2308.6	2296.2	2290.0	2290.0	2285.4	2288.5	2288.5	2291.6
35°	2097.5	2080.4	2071.1	2063.3	2063.3	2069.5	2088.2	2092.9	2102.2	2109.9	2116.2
37.5°	1773.0	1771.5	1782.3	1791.7	1814.9	1841.3	1873.9	1901.9	1928.3	1946.9	1965.5
40°	1422.1	1461.0	1492.0	1535.5	1571.2	1622.4	1681.4	1729.5	1774.6	1807.2	1841.3
42.5°	1110.1	1159.8	1225.0	1288.6	1352.3	1422.1	1499.8	1566.5	1625.5	1670.5	1706.3
45°	864.8	933.1	1012.3	1093.0	1175.3	1262.2	1343.0	1411.3	1473.4	1520.0	1555.7
47.5°	697.1	771.6	861.7	950.2	1043.3	1134.9	1225.0	1284.0	1335.2	1372.5	1405.1
50°	576.0	655.2	749.9	850.8	943.9	1035.6	1113.2	1170.6	1212.6	1245.2	1265.3
52.5°	481.3	565.1	666.1	767.0	860.1	943.9	1013.8	1057.3	1091.4	1114.7	1133.4
55°	397.4	478.2	572.9	667.6	759.2	838.4	895.8	928.4	954.8	968.8	979.6
57.5°	324.5	399.0	485.9	572.9	652.1	717.3	762.3	794.9	807.3	818.2	816.6
60°	254.6	324.5	403.7	478.2	546.5	599.3	631.9	650.5	659.8	664.5	661.4
62.5°	200.3	263.9	324.5	389.7	439.4	484.4	515.5	515.5	520.1	521.7	526.3
65°	149.0	197.2	250.0	298.1	338.4	368.0	385.1	389.7	395.9	394.4	391.2
67.5°	110.2	146.0	184.7	220.4	248.4	267.0	279.4	290.3	288.8	285.7	284.1
70°	76.1	99.4	133.5	155.3	175.4	194.1	197.2	198.7	200.3	201.8	198.7
72.5°	52.8	69.9	88.5	107.1	119.5	127.3	135.1	136.6	136.6	136.6	135.1
75°	26.4	35.7	52.8	60.6	71.4	74.5	80.7	80.7	85.4	79.2	77.6
77.5°	23.3	28.0	37.3	43.5	48.1	52.8	54.3	59.0	57.4	54.3	55.9
80°	14.0	17.1	23.3	26.4	32.6	34.2	35.7	37.3	35.7	37.3	37.3
82.5°	10.9	12.4	15.5	15.5	20.2	20.2	21.7	21.7	23.3	23.3	23.3
85°	6.2	10.9	9.3	18.6	12.4	12.4	15.5	18.6	15.5	15.5	18.6
87.5°	6.2	6.2	4.7	6.2	6.2	6.2	7.8	9.3	9.3	10.9	9.3
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: P246197

CATALOG NUMBER: LSR8B50D010 EC8B50840 8LBDW0MW

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	2892.4	2892.4	2892.4	2892.4
2.5°	2897.1	2900.2	2895.5	2894.0
5°	2901.7	2901.7	2898.6	2898.6
7.5°	2901.7	2901.7	2897.1	2894.0
10°	2889.3	2889.3	2884.7	2881.5
12.5°	2866.0	2866.0	2864.5	2859.8
15°	2836.5	2836.5	2830.3	2825.7
17.5°	2796.1	2799.3	2791.5	2791.5
20°	2752.7	2751.1	2744.9	2741.8
22.5°	2707.7	2704.6	2703.0	2693.7
25°	2659.5	2656.4	2651.8	2647.1
27.5°	2577.3	2575.7	2571.0	2564.8
30°	2451.5	2449.9	2443.7	2443.7
32.5°	2288.5	2286.9	2280.7	2282.3
35°	2119.2	2125.5	2122.3	2116.2
37.5°	1978.0	1982.6	1985.7	1982.6
40°	1860.0	1873.9	1875.5	1878.6
42.5°	1734.2	1752.8	1759.1	1762.1
45°	1583.6	1600.7	1614.7	1611.6
47.5°	1429.9	1442.3	1454.7	1445.4
50°	1282.4	1290.2	1294.8	1294.8
52.5°	1142.7	1142.7	1141.1	1142.7
55°	982.8	982.8	976.6	979.6
57.5°	815.1	818.2	813.5	805.8
60°	659.8	652.1	649.0	644.3
62.5°	513.9	513.9	503.0	517.0
65°	385.1	380.4	375.7	374.2
67.5°	279.4	277.9	273.3	271.7
70°	197.2	191.0	189.4	186.3
72.5°	132.0	132.0	128.9	128.9
75°	80.7	73.0	71.4	73.0
77.5°	55.9	54.3	54.3	52.8
80°	37.3	35.7	38.8	34.2
82.5°	23.3	24.8	23.3	24.8
85°	15.5	18.6	17.1	17.1
87.5°	9.3	9.3	9.3	9.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)