

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: P245507

Luminaire Tested: **LSR8B50D010 EC8B50940 8LBDW0WH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P245507  
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 EC8B50940 8LBDW0WH  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
90 CRI 4000 CCT WITH WHEAT TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5010.0 lumens  
Efficiency: N/A  
Efficacy: 94.5 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

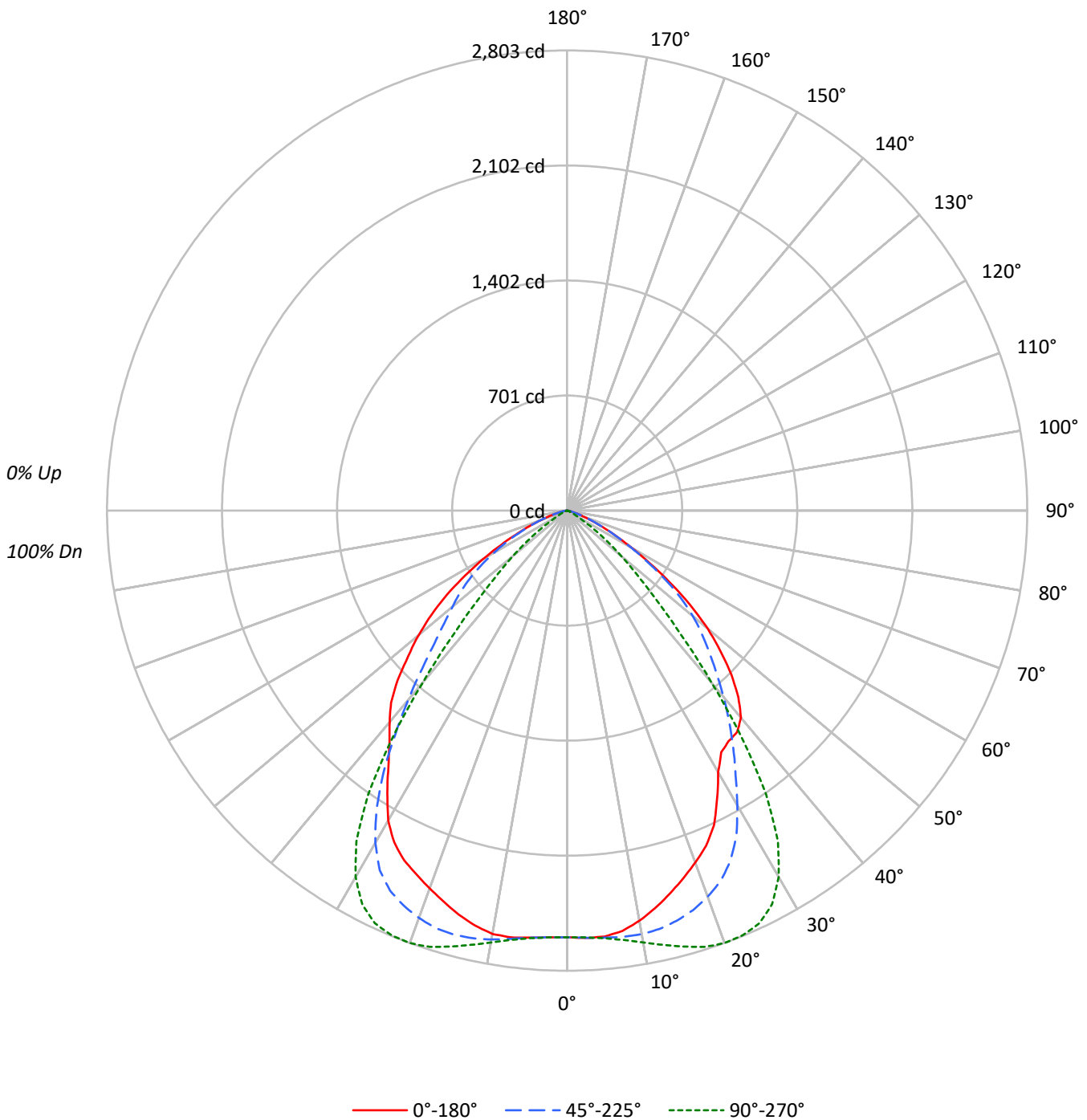
Input Watts (W): 53  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	80144	80144	80144
5°	80620	80920	80834
10°	79435	83628	81987
15°	77116	87772	81343
20°	74875	91988	80355
25°	72002	94342	79980
30°	65527	91758	77608
35°	64548	79508	71403
40°	66306	55144	67691
45°	61724	33326	63652
50°	53538	20580	56718
55°	41085	10752	48133
60°	27993	4336	36331
65°	17409	2211	25063
70°	9449	1370	15300
75°	4932	655	9043
80°	2202	746	4901
85°	1486	495	4387



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	249.9	5.0
10°-20°	740.4	14.8
20°-30°	1129.6	22.5
30°-40°	1178.7	23.5
40°-50°	885.4	17.7
50°-60°	544.8	10.9
60°-70°	221.7	4.4
70°-80°	52.2	1.0
80°-90°	7.2	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°	2120.0	42.3
0°-40°	3298.7	65.8
0°-60°	4728.9	94.4
0°-90°	5010.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5010.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2599	2599	2599	2599	2599	
5°	2604	2611	2614	2611	2611	246
15°	2416	2585	2749	2674	2548	680
25°	2116	2354	2773	2554	2351	962
35°	1715	1763	2112	1952	1897	1083
45°	1415	1225	764	1141	1460	1080
55°	764	726	200	726	895	687
65°	239	241	30	324	344	249
75°	41	41	6	73	76	50
85°	4	4	1	10	12	6
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°	2599.0	2599.0	2599.0	2599.0	2599.0	2599.0	2599.0	2599.0	2599.0	2599.0	2599.0
2.5°	2605.9	2601.8	2605.9	2605.9	2607.3	2604.5	2605.9	2607.3	2604.5	2604.5	2604.5
5°	2604.5	2601.8	2604.5	2603.2	2605.9	2605.9	2608.7	2608.7	2611.4	2611.4	2615.6
7.5°	2582.5	2577.0	2582.5	2586.6	2589.4	2594.9	2601.8	2607.3	2612.8	2618.4	2625.2
10°	2536.9	2536.9	2541.1	2549.4	2557.6	2567.3	2579.7	2593.5	2607.3	2619.7	2632.1
12.5°	2480.4	2476.2	2484.5	2495.6	2508.0	2523.2	2542.5	2563.2	2585.2	2610.0	2629.4
15°	2415.6	2411.4	2421.1	2432.1	2447.3	2469.4	2492.8	2520.4	2552.1	2585.2	2617.0
17.5°	2349.3	2347.9	2357.6	2372.8	2385.2	2408.6	2439.0	2472.1	2508.0	2552.1	2593.5
20°	2281.7	2280.4	2290.0	2302.4	2319.0	2341.1	2371.4	2410.0	2452.8	2502.5	2550.7
22.5°	2211.4	2212.8	2221.0	2234.8	2248.6	2272.1	2303.8	2342.4	2389.3	2443.1	2496.9
25°	2116.2	2109.3	2120.3	2134.1	2157.6	2176.9	2207.3	2248.6	2296.9	2353.5	2416.9
27.5°	1978.2	1976.8	1986.5	1998.9	2019.6	2043.1	2076.2	2119.0	2170.0	2232.1	2294.1
30°	1840.3	1843.0	1847.2	1859.6	1873.4	1896.8	1930.0	1965.8	2014.1	2073.4	2139.6
32.5°	1746.5	1746.5	1752.0	1760.3	1769.9	1782.3	1805.8	1832.0	1869.3	1910.7	1958.9
35°	1714.7	1709.2	1714.7	1716.1	1717.5	1720.3	1724.4	1732.7	1745.1	1763.0	1781.0
37.5°	1701.0	1696.8	1696.8	1691.3	1684.4	1676.1	1665.1	1652.7	1638.9	1620.9	1607.2
40°	1647.2	1644.4	1641.6	1636.1	1620.9	1604.4	1586.4	1557.5	1525.7	1481.6	1437.5
42.5°	1543.7	1540.9	1539.6	1528.5	1514.7	1495.4	1474.7	1444.4	1404.4	1347.8	1284.3
45°	1415.4	1409.9	1405.7	1396.1	1386.4	1369.9	1350.6	1322.9	1282.9	1225.0	1149.1
47.5°	1266.4	1263.6	1262.3	1258.1	1248.5	1238.8	1226.4	1204.3	1168.5	1113.3	1034.6
50°	1116.0	1110.5	1113.3	1111.9	1107.8	1100.9	1092.6	1077.4	1049.8	1000.2	928.4
52.5°	943.6	943.6	942.2	946.3	947.7	946.3	947.7	931.2	907.7	870.5	809.8
55°	764.2	764.2	768.4	773.9	779.4	780.8	779.4	772.5	756.0	725.6	671.8
57.5°	595.9	593.2	601.5	609.7	615.3	620.8	616.6	611.1	601.5	576.6	535.2
60°	453.9	453.9	459.4	464.9	470.4	475.9	474.6	473.2	464.9	448.3	415.2
62.5°	333.8	335.2	335.2	339.4	344.9	350.4	354.5	350.4	346.3	335.2	313.1
65°	238.6	237.3	238.6	242.8	246.9	252.5	255.2	253.8	249.7	241.4	224.9
67.5°	160.0	158.6	164.1	165.5	168.3	173.8	172.5	173.8	172.5	165.5	151.8
70°	104.8	102.1	104.8	103.5	107.6	109.0	111.7	113.1	111.7	107.6	103.5
72.5°	64.8	63.5	64.8	66.2	67.6	69.0	71.7	71.7	70.3	67.6	62.1
75°	41.4	37.2	38.6	35.9	38.6	38.6	41.4	42.8	41.4	41.4	38.6
77.5°	24.8	24.8	24.8	24.8	24.8	24.8	24.8	26.2	27.6	24.8	23.5
80°	12.4	12.4	13.8	13.8	13.8	15.2	13.8	13.8	13.8	15.2	11.0
82.5°	9.7	8.3	8.3	8.3	9.7	8.3	8.3	8.3	8.3	8.3	8.3
85°	4.2	5.5	4.2	2.8	4.2	4.2	5.5	4.2	4.2	4.2	5.5
87.5°	1.4	1.4	0.0	0.0	0.0	1.4	0.0	1.4	1.4	2.8	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°	2599.0	2599.0	2599.0	2599.0	2599.0	2599.0	2599.0	2599.0	2599.0	2599.0	2599.0
2.5°	2605.9	2603.2	2603.2	2601.8	2604.5	2601.8	2603.2	2601.8	2601.8	2604.5	2601.8
5°	2615.6	2617.0	2614.2	2612.8	2617.0	2617.0	2617.0	2614.2	2614.2	2615.6	2614.2
7.5°	2629.4	2632.1	2633.5	2634.9	2637.7	2639.0	2639.0	2637.7	2636.3	2640.4	2634.9
10°	2644.5	2648.7	2657.0	2661.1	2668.0	2668.0	2670.8	2670.8	2668.0	2670.8	2669.4
12.5°	2639.0	2663.9	2677.7	2687.3	2697.0	2705.2	2708.0	2709.4	2708.0	2713.5	2708.0
15°	2648.7	2669.4	2691.5	2708.0	2725.9	2735.6	2738.4	2749.4	2752.2	2753.5	2745.3
17.5°	2633.5	2670.8	2694.2	2719.0	2745.3	2763.2	2779.7	2786.7	2788.0	2790.8	2779.7
20°	2599.0	2640.4	2676.3	2712.2	2742.5	2770.1	2783.9	2803.2	2797.7	2808.7	2793.5
22.5°	2552.1	2599.0	2644.5	2691.5	2723.2	2756.3	2785.3	2799.0	2806.0	2806.0	2789.4
25°	2477.6	2532.8	2582.5	2630.7	2679.0	2719.0	2752.2	2772.8	2777.0	2775.6	2756.3
27.5°	2361.7	2421.1	2479.0	2534.2	2593.5	2640.4	2679.0	2703.9	2710.8	2710.8	2690.1
30°	2201.7	2265.2	2321.7	2387.9	2448.7	2501.1	2554.9	2577.0	2589.4	2589.4	2565.9
32.5°	2011.3	2065.1	2117.6	2182.4	2248.6	2307.9	2359.0	2389.3	2404.5	2403.1	2382.4
35°	1804.4	1830.6	1870.7	1918.9	1978.2	2033.4	2083.1	2112.1	2138.3	2136.9	2117.6
37.5°	1597.5	1590.6	1594.7	1612.7	1649.9	1688.5	1727.2	1754.8	1776.8	1786.5	1782.3
40°	1394.7	1358.8	1324.3	1311.9	1314.7	1328.5	1349.2	1369.9	1394.7	1407.1	1412.6
42.5°	1212.6	1151.9	1091.2	1045.7	1019.5	1011.2	1020.8	1027.7	1042.9	1060.8	1078.8
45°	1066.4	985.0	905.0	834.6	790.5	764.2	758.7	764.2	772.5	790.5	813.9
47.5°	946.3	851.2	761.5	682.9	618.0	583.6	573.9	571.1	579.4	595.9	627.7
50°	840.1	744.9	645.6	554.6	487.0	448.3	434.6	429.0	438.7	451.1	480.1
52.5°	724.2	630.4	528.4	440.1	369.7	329.7	314.5	306.3	311.8	328.3	357.3
55°	598.7	511.8	419.4	328.3	260.7	223.5	205.5	200.0	205.5	223.5	252.5
57.5°	473.2	400.1	322.8	237.3	176.6	139.3	121.4	115.9	131.1	138.0	168.3
60°	369.7	310.4	244.2	173.8	121.4	92.4	74.5	70.3	77.3	89.7	114.5
62.5°	277.3	240.0	187.6	124.2	89.7	59.3	49.7	45.5	49.7	59.3	78.6
65°	201.4	172.5	131.1	91.0	60.7	44.2	33.1	30.3	34.5	41.4	58.0
67.5°	138.0	115.9	91.0	63.5	41.4	27.6	23.5	23.5	24.8	30.3	42.8
70°	89.7	75.9	58.0	41.4	27.6	20.7	17.9	15.2	17.9	22.1	29.0
72.5°	56.6	48.3	37.2	29.0	20.7	15.2	12.4	11.0	13.8	16.5	22.1
75°	34.5	26.2	19.3	15.2	11.0	11.0	11.0	5.5	6.9	11.0	13.8
77.5°	20.7	17.9	15.2	12.4	9.7	5.5	5.5	5.5	6.9	8.3	12.4
80°	11.0	9.7	6.9	6.9	5.5	4.2	5.5	4.2	2.8	6.9	8.3
82.5°	6.9	5.5	5.5	5.5	6.9	2.8	4.2	2.8	4.2	5.5	4.2
85°	4.2	4.2	4.2	2.8	6.9	2.8	2.8	1.4	1.4	2.8	2.8
87.5°	0.0	1.4	1.4	0.0	1.4	0.0	1.4	1.4	1.4	1.4	1.4
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°	2599.0	2599.0	2599.0	2599.0	2599.0	2599.0	2599.0	2599.0	2599.0	2599.0	2599.0
2.5°	2603.2	2601.8	2603.2	2601.8	2601.8	2601.8	2603.2	2603.2	2601.8	2601.8	2604.5
5°	2614.2	2614.2	2614.2	2612.8	2611.4	2611.4	2614.2	2614.2	2610.0	2614.2	2614.2
7.5°	2637.7	2633.5	2637.7	2632.1	2629.4	2630.7	2632.1	2629.4	2626.6	2628.0	2628.0
10°	2668.0	2663.9	2663.9	2659.7	2655.6	2652.8	2650.1	2643.2	2636.3	2634.9	2629.4
12.5°	2703.9	2697.0	2692.8	2684.5	2677.7	2668.0	2659.7	2648.7	2634.9	2625.2	2615.6
15°	2739.7	2728.7	2719.0	2705.2	2690.1	2673.5	2655.6	2637.7	2615.6	2596.3	2579.7
17.5°	2768.7	2753.5	2735.6	2713.5	2691.5	2666.6	2640.4	2614.2	2582.5	2557.6	2538.3
20°	2778.4	2756.3	2732.8	2703.9	2674.9	2640.4	2607.3	2572.8	2536.9	2510.7	2488.7
22.5°	2766.0	2739.7	2710.8	2680.4	2641.8	2604.5	2565.9	2525.9	2494.2	2458.3	2437.6
25°	2731.5	2699.7	2668.0	2632.1	2594.9	2553.5	2512.1	2470.7	2432.1	2412.8	2386.6
27.5°	2661.1	2626.6	2592.1	2554.9	2512.1	2470.7	2428.0	2387.9	2354.9	2328.6	2313.5
30°	2536.9	2496.9	2456.9	2416.9	2379.7	2336.9	2296.9	2263.8	2230.7	2210.0	2194.8
32.5°	2346.6	2310.7	2270.7	2232.1	2197.6	2161.7	2128.6	2099.6	2076.2	2062.4	2051.3
35°	2090.0	2054.1	2023.8	1996.2	1967.2	1952.0	1931.3	1914.8	1905.1	1899.6	1898.2
37.5°	1767.2	1746.5	1736.8	1731.3	1725.8	1721.7	1724.4	1731.3	1736.8	1746.5	1757.5
40°	1422.3	1440.2	1445.7	1465.1	1483.0	1506.4	1532.7	1563.0	1587.8	1619.6	1641.6
42.5°	1107.8	1140.9	1179.5	1220.9	1265.0	1307.8	1360.2	1408.5	1452.6	1492.6	1527.1
45°	851.2	902.2	960.2	1019.5	1078.8	1140.9	1204.3	1263.6	1316.1	1358.8	1394.7
47.5°	663.6	720.1	794.6	867.7	939.5	1012.6	1082.9	1145.0	1189.1	1230.5	1262.3
50°	525.6	590.4	671.8	756.0	834.6	911.9	986.3	1044.3	1088.5	1121.6	1145.0
52.5°	406.9	484.2	567.0	655.3	739.4	823.6	892.5	946.3	982.2	1011.2	1029.1
55°	303.5	379.4	467.7	558.7	644.2	725.6	790.5	837.4	869.1	885.7	895.3
57.5°	219.3	288.3	376.6	467.7	544.9	622.2	674.6	717.4	735.3	744.9	749.1
60°	160.0	223.5	302.1	380.8	453.9	515.9	561.5	590.4	604.2	609.7	608.4
62.5°	117.3	172.5	240.0	306.3	365.6	416.6	452.5	471.8	478.7	481.4	477.3
65°	89.7	132.4	190.4	241.4	286.9	324.2	350.4	362.8	366.9	365.6	362.8
67.5°	66.2	99.3	142.1	180.7	213.8	242.8	256.6	267.6	270.4	266.3	262.1
70°	46.9	73.1	103.5	129.7	154.5	171.1	186.2	187.6	187.6	186.2	183.5
72.5°	33.1	51.0	70.3	88.3	103.5	115.9	121.4	125.5	124.2	122.8	120.0
75°	22.1	31.7	51.0	55.2	69.0	73.1	78.6	78.6	80.0	75.9	75.9
77.5°	13.8	22.1	30.3	35.9	41.4	46.9	49.7	49.7	51.0	49.7	49.7
80°	8.3	13.8	16.5	24.8	24.8	29.0	30.3	31.7	29.0	33.1	29.0
82.5°	5.5	8.3	12.4	12.4	15.2	17.9	17.9	19.3	19.3	17.9	17.9
85°	4.2	5.5	6.9	8.3	8.3	9.7	8.3	8.3	9.7	11.0	9.7
87.5°	1.4	2.8	1.4	2.8	2.8	5.5	4.2	4.2	4.2	5.5	5.5
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: P245507

CATALOG NUMBER: LSR8B50D010 EC8B50940 8LBDW0WH

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	2599.0	2599.0	2599.0	2599.0
2.5°	2601.8	2603.2	2601.8	2601.8
5°	2614.2	2612.8	2614.2	2611.4
7.5°	2623.9	2623.9	2622.5	2622.5
10°	2623.9	2618.4	2618.4	2618.4
12.5°	2603.2	2596.3	2592.1	2589.4
15°	2567.3	2554.9	2549.4	2548.0
17.5°	2520.4	2509.4	2502.5	2498.3
20°	2466.6	2455.6	2447.3	2448.7
22.5°	2419.7	2407.3	2401.7	2399.0
25°	2372.8	2357.6	2353.5	2350.7
27.5°	2296.9	2288.6	2284.5	2280.4
30°	2181.0	2176.9	2170.0	2179.6
32.5°	2047.2	2040.3	2034.8	2039.0
35°	1899.6	1895.5	1899.6	1896.8
37.5°	1764.4	1768.5	1774.1	1776.8
40°	1658.2	1673.4	1678.9	1681.6
42.5°	1552.0	1569.9	1580.9	1587.8
45°	1420.9	1438.8	1451.3	1459.6
47.5°	1285.7	1300.9	1313.3	1311.9
50°	1163.0	1171.2	1176.7	1182.3
52.5°	1038.8	1038.8	1040.2	1040.2
55°	898.1	895.3	893.9	895.3
57.5°	743.5	740.8	739.4	735.3
60°	602.9	594.6	589.1	589.1
62.5°	471.8	462.1	458.0	456.6
65°	354.5	353.1	344.9	343.5
67.5°	256.6	251.1	245.6	246.9
70°	180.7	172.5	172.5	169.7
72.5°	117.3	113.1	111.7	111.7
75°	73.1	73.1	70.3	75.9
77.5°	48.3	48.3	46.9	48.3
80°	29.0	29.0	29.0	27.6
82.5°	17.9	19.3	17.9	17.9
85°	9.7	11.0	8.3	12.4
87.5°	5.5	6.9	5.5	6.9
90°	0.0	0.0	0.0	0.0

(END OF REPORT)