

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: P244151

Luminaire Tested: **LSR8B50D010 EC8B509727 8LBSW0LI**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P244151  
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 EC8B509727 8LBSW0LI  
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
97 CRI 2700 CCT WITH SPECULAR CLEAR TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4052.0 lumens  
Efficiency: N/A  
Efficacy: 76.5 lumens/watt  
Spacing Criteria (0/90/45): 1.12 / 1.2 / 1.11  
Luminous Opening: Point Source (0' x 0' x 0')  
CIE Type: Direct

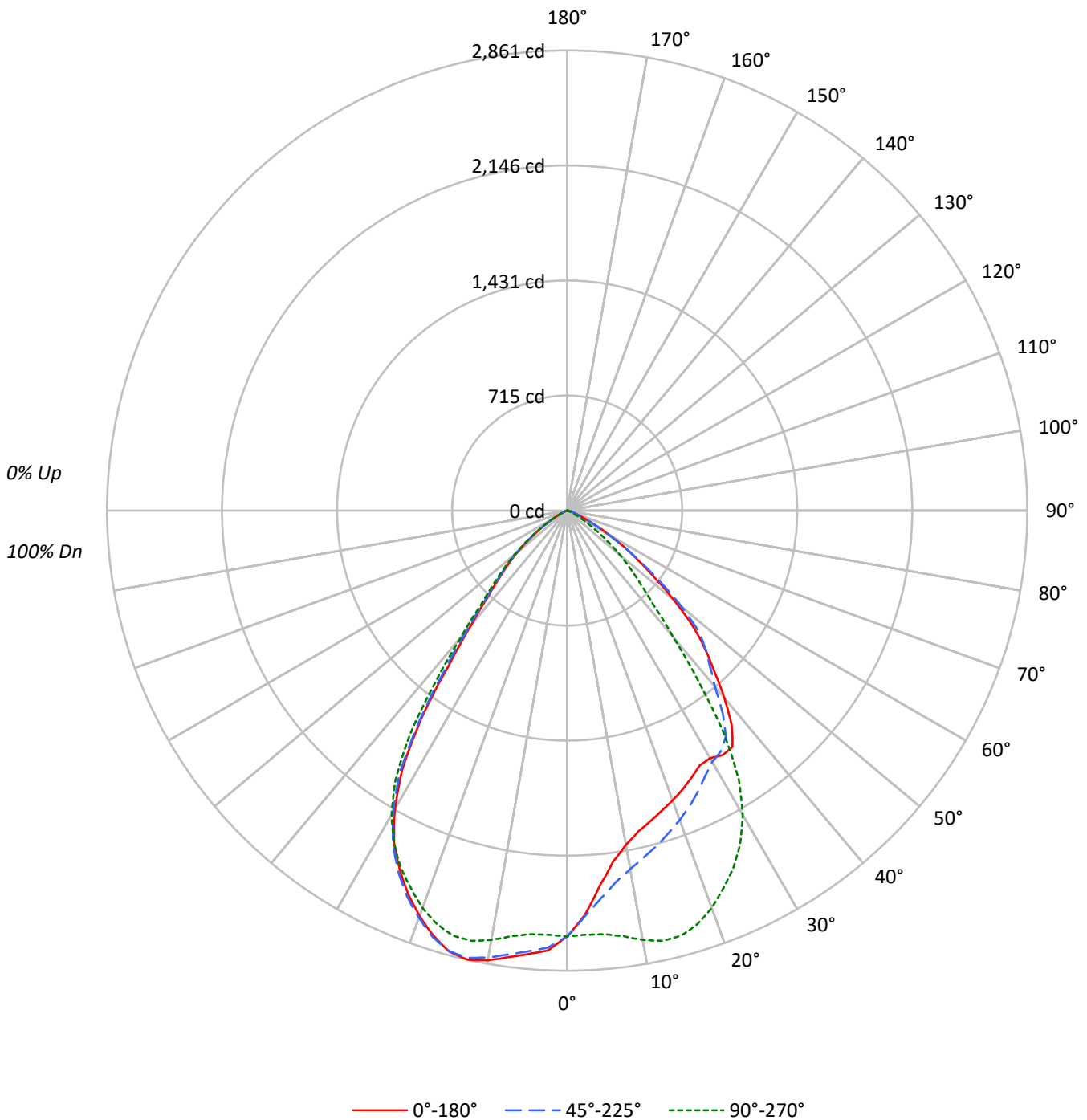
Input Watts (W): 53  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°	90°	180°
0°	Luminaire represents a point source (luminous area is zero).		
5°	No luminance values can be calculated.		
10°			
15°			
20°			
25°			
30°			
35°			
40°			
45°			
50°			
55°			
60°			
65°			
70°			
75°			
80°			
85°			



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	246.7	6.1
10°-20°	712.6	17.6
20°-30°	1034.3	25.5
30°-40°	1018.7	25.1
40°-50°	638.5	15.8
50°-60°	308.1	7.6
60°-70°	74.6	1.8
70°-80°	15.1	0.4
80°-90°	3.5	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°	1993.6	49.2
0°-40°	3012.2	74.3
0°-60°	3958.9	97.7
0°-90°	4052.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4052.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2647	2647	2647	2647	2647	
5°	2340	2419	2644	2751	2767	217
15°	1999	2156	2736	2836	2838	565
25°	1831	1926	2448	2482	2464	847
35°	1792	1719	1709	1612	1585	1084
45°	1210	1218	646	619	602	925
55°	538	555	235	232	221	495
65°	126	124	35	30	26	144
75°	31	26	8	4	3	34
85°	9	7	1	0	0	9
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°	2647.1	2647.1	2647.1	2647.1	2647.1	2647.1	2647.1	2647.1	2647.1	2647.1	2647.1
2.5°	2516.3	2500.3	2470.4	2506.6	2506.6	2486.4	2526.8	2502.4	2521.9	2552.5	2525.4
5°	2339.7	2326.5	2301.4	2339.7	2344.5	2325.8	2374.5	2356.4	2384.9	2422.4	2419.0
7.5°	2199.9	2183.2	2160.2	2199.9	2207.5	2195.0	2241.6	2233.3	2270.8	2319.5	2327.9
10°	2108.8	2091.4	2071.2	2107.4	2112.9	2104.6	2151.9	2147.0	2183.9	2240.2	2262.5
12.5°	2044.1	2029.5	2007.2	2045.5	2051.7	2039.9	2084.4	2082.3	2120.6	2179.7	2207.5
15°	1998.9	1981.5	1961.3	1994.0	2002.4	1989.1	2031.6	2027.4	2066.3	2124.8	2156.1
17.5°	1956.5	1940.5	1919.6	1950.2	1958.5	1944.6	1986.4	1979.4	2012.8	2068.4	2100.4
20°	1916.8	1899.4	1880.6	1911.9	1916.8	1900.8	1942.5	1933.5	1963.4	2014.9	2046.2
22.5°	1875.8	1857.7	1838.2	1868.8	1873.7	1857.7	1895.9	1885.5	1913.3	1959.9	1988.4
25°	1830.6	1813.9	1794.4	1822.9	1827.1	1809.7	1850.0	1836.8	1861.2	1902.2	1925.9
27.5°	1785.4	1769.4	1747.8	1777.0	1779.1	1762.4	1799.3	1781.2	1801.4	1838.9	1859.1
30°	1777.7	1759.6	1737.4	1761.0	1761.7	1740.2	1774.9	1753.4	1764.5	1792.3	1804.1
32.5°	1802.1	1784.0	1761.0	1780.5	1778.4	1754.8	1788.1	1761.7	1765.2	1779.8	1777.0
35°	1792.3	1770.8	1743.6	1764.5	1764.5	1736.0	1769.4	1738.1	1734.6	1736.7	1719.3
37.5°	1681.7	1665.0	1639.3	1659.5	1657.4	1635.8	1661.6	1635.8	1624.0	1619.1	1587.8
40°	1519.0	1498.8	1479.3	1500.9	1503.0	1480.0	1513.4	1484.2	1480.7	1466.8	1430.0
42.5°	1354.1	1347.2	1328.4	1346.5	1356.2	1336.8	1364.6	1350.7	1352.8	1349.3	1314.5
45°	1210.2	1198.4	1184.4	1205.3	1211.6	1201.8	1229.7	1221.3	1229.7	1247.0	1218.5
47.5°	1055.1	1043.3	1028.0	1050.2	1061.3	1043.3	1066.9	1064.1	1076.6	1106.5	1103.8
50°	868.0	859.6	856.9	859.6	866.6	858.3	874.9	875.6	884.0	925.0	927.8
52.5°	687.2	685.1	675.3	684.4	684.4	671.2	687.9	680.2	688.5	716.4	734.5
55°	537.6	535.5	529.3	537.6	528.6	523.7	528.6	520.9	514.7	536.2	555.0
57.5°	418.7	411.7	404.1	407.6	406.9	396.4	402.0	393.0	388.1	395.7	412.4
60°	298.4	296.3	289.3	292.8	295.6	287.9	293.5	289.3	281.0	287.2	287.9
62.5°	198.2	199.6	195.4	196.1	194.0	192.7	196.1	198.2	196.1	193.4	194.0
65°	125.9	125.2	124.5	125.2	126.6	123.8	125.9	127.3	125.2	125.2	124.5
67.5°	83.5	81.4	79.3	80.7	82.1	80.0	82.1	81.4	82.1	81.4	79.3
70°	56.3	55.6	54.9	55.6	55.6	54.2	55.6	54.9	55.6	54.9	52.9
72.5°	41.0	41.0	40.3	41.0	41.0	39.6	40.3	38.9	39.6	38.9	37.6
75°	30.6	30.6	29.9	30.6	29.9	29.2	29.9	29.2	27.8	27.8	26.4
77.5°	22.3	22.3	22.3	22.3	22.3	21.6	21.6	20.9	20.2	19.5	19.5
80°	16.7	16.0	16.0	16.0	16.0	15.3	16.0	15.3	14.6	13.9	13.2
82.5°	11.8	12.5	11.8	11.8	11.8	11.1	11.8	11.1	11.1	10.4	9.0
85°	9.0	9.0	9.0	9.0	9.0	8.3	8.3	8.3	7.7	7.7	7.0
87.5°	4.9	4.9	4.9	5.6	4.9	4.9	4.9	4.2	4.2	3.5	3.5
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°	2647.1	2647.1	2647.1	2647.1	2647.1	2647.1	2647.1	2647.1	2647.1	2647.1	2647.1
2.5°	2561.5	2565.0	2557.4	2569.2	2615.1	2578.2	2593.5	2598.4	2633.2	2639.4	2635.3
5°	2464.2	2479.5	2489.2	2515.6	2566.4	2540.0	2567.1	2584.5	2629.0	2643.6	2647.1
7.5°	2387.7	2419.7	2443.3	2486.4	2546.2	2526.1	2567.1	2595.6	2649.9	2668.7	2677.7
10°	2330.6	2379.3	2420.4	2479.5	2546.9	2533.7	2587.3	2627.6	2688.1	2710.4	2721.5
12.5°	2287.5	2346.6	2401.6	2476.7	2549.7	2543.5	2608.1	2654.0	2718.0	2740.3	2753.5
15°	2240.2	2308.4	2372.4	2456.5	2535.1	2533.7	2603.3	2652.0	2717.3	2736.1	2748.6
17.5°	2183.9	2256.9	2327.2	2418.3	2496.2	2497.6	2567.8	2615.8	2679.8	2695.1	2703.4
20°	2126.9	2199.2	2269.4	2363.3	2439.8	2441.9	2510.8	2555.3	2616.5	2629.0	2631.1
22.5°	2066.3	2133.8	2204.1	2297.3	2371.0	2372.4	2440.5	2482.3	2534.4	2540.7	2546.2
25°	1997.5	2063.6	2129.6	2222.1	2292.4	2296.6	2358.5	2395.3	2443.3	2448.2	2450.3
27.5°	1925.9	1980.1	2043.4	2122.7	2193.6	2190.8	2249.3	2291.0	2334.1	2331.3	2330.6
30°	1853.5	1898.7	1937.7	2014.2	2066.3	2068.4	2123.4	2143.5	2188.8	2183.2	2182.5
32.5°	1802.7	1814.6	1825.0	1864.0	1913.3	1895.9	1933.5	1958.5	1989.8	1987.8	1988.4
35°	1709.5	1688.0	1656.7	1662.3	1692.2	1665.0	1685.2	1684.5	1716.5	1708.9	1717.9
37.5°	1550.3	1489.1	1419.5	1379.9	1385.4	1351.4	1344.4	1361.1	1372.2	1350.7	1358.3
40°	1380.6	1290.2	1181.7	1091.2	1086.4	1044.0	1036.3	1019.6	1041.2	1023.1	1028.7
42.5°	1255.4	1135.8	993.2	883.3	859.6	824.2	803.3	800.5	806.8	794.3	790.8
45°	1159.4	1032.1	868.7	742.8	716.4	678.1	657.3	649.6	650.3	646.1	642.6
47.5°	1046.7	918.8	753.2	624.6	594.7	558.5	537.6	532.8	535.5	530.0	525.8
50°	890.9	776.2	625.3	507.7	481.3	454.9	438.2	433.3	432.6	428.4	425.6
52.5°	723.3	628.0	497.3	399.2	375.6	349.8	338.0	331.8	332.5	328.3	324.1
55°	559.9	500.8	385.3	301.8	280.3	260.1	249.0	241.3	239.3	235.1	233.0
57.5°	416.6	377.0	288.6	217.7	205.2	185.7	174.6	165.5	164.1	162.1	161.4
60°	292.1	263.6	203.1	155.1	140.5	128.7	117.5	108.5	104.3	103.6	101.5
62.5°	189.2	171.8	133.5	103.6	92.5	84.2	73.0	66.8	64.0	61.2	61.9
65°	117.5	104.3	83.5	66.8	60.5	54.2	45.9	40.3	37.6	34.8	35.5
67.5°	73.0	65.4	52.9	43.1	38.9	34.1	27.8	23.6	21.6	19.5	18.1
70°	49.4	42.4	36.2	30.6	27.8	24.3	20.2	16.7	15.3	13.9	12.5
72.5°	34.8	31.3	26.4	23.0	20.9	18.1	15.3	13.2	11.8	10.4	9.0
75°	25.0	22.3	19.5	16.7	15.3	13.9	11.8	10.4	9.0	7.7	6.3
77.5°	18.1	16.0	13.9	12.5	11.8	9.7	8.3	7.7	7.0	5.6	4.2
80°	12.5	11.1	9.0	8.3	8.3	7.0	6.3	5.6	4.9	3.5	2.8
82.5°	8.3	7.7	7.0	6.3	5.6	4.9	4.9	3.5	2.8	2.1	1.4
85°	6.3	5.6	4.9	4.2	4.2	3.5	2.8	2.1	2.1	1.4	0.7
87.5°	3.5	3.5	2.8	2.1	2.1	1.4	1.4	0.7	0.7	0.7	0.7
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):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	2647.1	2647.1	2647.1	2647.1	2647.1	2647.1	2647.1	2647.1	2647.1	2647.1	2647.1
2.5°	2670.7	2672.8	2684.6	2675.6	2698.6	2715.2	2706.9	2725.7	2719.4	2718.0	2739.6
5°	2688.8	2693.7	2709.7	2701.3	2726.4	2744.5	2736.1	2757.0	2750.7	2749.3	2771.6
7.5°	2723.6	2728.5	2742.4	2735.4	2761.8	2777.8	2767.4	2790.4	2782.0	2781.3	2802.9
10°	2767.4	2774.4	2786.2	2779.2	2803.6	2817.5	2807.1	2829.3	2821.7	2818.2	2841.8
12.5°	2800.1	2805.0	2816.8	2811.2	2834.9	2845.3	2836.3	2857.8	2848.1	2845.3	2866.2
15°	2792.4	2797.3	2807.1	2802.2	2824.4	2834.2	2822.4	2846.0	2836.3	2830.7	2849.5
17.5°	2743.8	2746.5	2753.5	2748.6	2772.3	2778.5	2765.3	2789.0	2779.9	2770.2	2788.3
20°	2672.1	2670.7	2674.9	2672.8	2692.3	2695.8	2687.4	2704.8	2694.4	2688.8	2699.3
22.5°	2583.1	2581.7	2584.5	2578.9	2598.4	2600.5	2588.0	2608.8	2598.4	2588.0	2605.4
25°	2484.3	2476.7	2475.3	2477.4	2490.6	2492.7	2479.5	2494.8	2481.6	2473.2	2489.9
27.5°	2362.6	2352.9	2350.8	2352.9	2366.1	2356.4	2345.2	2356.4	2343.2	2335.5	2345.9
30°	2212.4	2198.5	2192.2	2188.1	2202.0	2198.5	2172.8	2185.3	2164.4	2153.3	2160.9
32.5°	2010.0	2002.4	1985.7	1975.9	1989.1	1962.7	1946.7	1946.7	1938.4	1919.6	1923.8
35°	1729.0	1717.2	1701.9	1693.6	1695.6	1660.2	1633.7	1639.3	1611.5	1606.6	1608.7
37.5°	1373.6	1354.1	1348.6	1331.2	1335.4	1304.1	1267.9	1268.6	1254.0	1238.7	1233.8
40°	1032.1	1028.7	1023.1	1008.5	1014.0	980.0	966.1	966.8	957.0	945.9	951.4
42.5°	797.7	786.6	783.1	778.3	779.7	774.1	756.0	758.1	749.8	747.0	744.2
45°	648.2	636.4	628.0	632.2	632.2	626.0	619.0	623.2	619.0	613.4	616.2
47.5°	534.1	523.0	518.8	518.2	523.0	518.8	511.9	513.3	512.6	510.5	509.1
50°	426.3	423.6	420.1	418.0	420.1	418.7	412.4	415.9	418.0	411.0	413.1
52.5°	324.8	324.8	324.1	319.2	323.4	319.2	318.5	319.9	317.8	315.1	314.4
55°	237.9	235.8	232.3	231.6	233.0	231.6	230.2	230.9	232.3	225.3	225.3
57.5°	162.7	161.4	159.3	159.3	162.1	158.6	156.5	159.3	156.5	153.7	153.7
60°	104.3	103.6	101.5	101.5	101.5	100.8	98.8	99.5	100.8	96.7	97.4
62.5°	62.6	60.5	59.8	59.1	59.8	59.1	59.1	58.4	57.7	57.7	55.6
65°	34.1	32.7	31.3	32.0	32.0	31.3	31.3	31.3	29.9	29.2	28.5
67.5°	17.4	16.0	16.0	15.3	15.3	15.3	15.3	14.6	14.6	14.6	13.9
70°	11.1	10.4	9.7	9.7	9.7	9.0	9.0	9.0	9.0	9.0	8.3
72.5°	7.7	7.0	6.3	6.3	6.3	5.6	5.6	5.6	5.6	4.9	4.9
75°	5.6	4.9	4.2	4.2	4.2	3.5	3.5	3.5	3.5	3.5	3.5
77.5°	3.5	2.8	2.8	2.8	2.8	2.1	2.1	2.1	2.1	2.1	1.4
80°	2.1	2.1	1.4	1.4	1.4	1.4	0.7	0.7	0.7	0.7	0.7
82.5°	1.4	1.4	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.0
85°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.0	0.0	0.0	0.0
87.5°	0.7	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: P244151

CATALOG NUMBER: LSR8B50D010 EC8B509727 8LBSWOLI

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2647.1	2647.1	2647.1	2647.1	2647.1	2647.1	2647.1	2647.1
2.5°	2731.9	2726.4	2729.9	2755.6	2744.5	2741.0	2711.8	2737.5
5°	2764.6	2760.5	2760.5	2789.7	2776.5	2773.7	2745.2	2767.4
7.5°	2795.2	2791.1	2791.8	2821.7	2811.2	2807.1	2778.5	2800.8
10°	2834.9	2832.1	2832.8	2861.3	2850.2	2846.0	2816.8	2839.7
12.5°	2858.5	2854.3	2854.3	2885.0	2872.4	2866.2	2838.4	2860.6
15°	2840.4	2834.2	2834.2	2864.8	2850.9	2841.8	2817.5	2838.4
17.5°	2778.5	2772.3	2772.3	2798.7	2788.3	2775.1	2750.0	2769.5
20°	2692.3	2684.6	2682.6	2713.2	2698.6	2686.7	2664.5	2683.3
22.5°	2594.9	2591.4	2585.2	2615.8	2602.6	2590.1	2566.4	2581.0
25°	2478.1	2472.5	2466.3	2496.2	2483.0	2470.4	2451.7	2463.5
27.5°	2332.7	2333.4	2329.9	2353.6	2340.4	2333.4	2310.5	2329.9
30°	2156.8	2149.1	2146.3	2174.1	2161.6	2152.6	2124.1	2142.8
32.5°	1927.2	1916.1	1901.5	1932.8	1911.2	1903.6	1879.3	1906.4
35°	1593.4	1589.9	1576.7	1603.1	1591.3	1577.4	1562.1	1585.1
37.5°	1231.7	1234.5	1233.1	1240.1	1233.1	1224.1	1207.4	1199.0
40°	940.3	933.4	927.8	940.3	925.7	925.7	916.0	926.4
42.5°	737.2	734.5	741.4	744.2	735.8	734.5	733.1	732.4
45°	608.6	608.6	610.0	612.7	610.0	608.6	604.4	601.6
47.5°	501.5	504.2	501.5	510.5	505.6	504.2	495.9	499.4
50°	406.2	402.7	406.2	409.0	409.7	405.5	401.3	403.4
52.5°	315.1	309.5	308.1	312.3	309.5	309.5	306.7	306.0
55°	221.9	224.0	220.5	224.0	222.6	220.5	218.4	221.2
57.5°	150.2	150.9	149.5	151.6	148.1	148.8	148.1	147.4
60°	97.4	94.6	94.6	96.7	93.2	93.2	92.5	92.5
62.5°	55.6	54.9	54.9	54.2	53.6	53.6	53.6	52.2
65°	28.5	27.8	27.1	27.1	27.1	27.1	26.4	26.4
67.5°	13.9	13.2	13.2	13.9	13.2	13.2	13.2	13.2
70°	8.3	8.3	7.7	8.3	7.7	7.7	7.7	7.7
72.5°	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
75°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
77.5°	2.1	1.4	1.4	1.4	1.4	1.4	1.4	1.4
80°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
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)