

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: P245453

Luminaire Tested: **LSR8B50D010 EC8B509730 8LBSW0WH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P245453  
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 EC8B509730 8LBSW0WH  
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
97 CRI 3000 CCT WITH WHEAT TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4134.0 lumens  
Efficiency: N/A  
Efficacy: 78.0 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

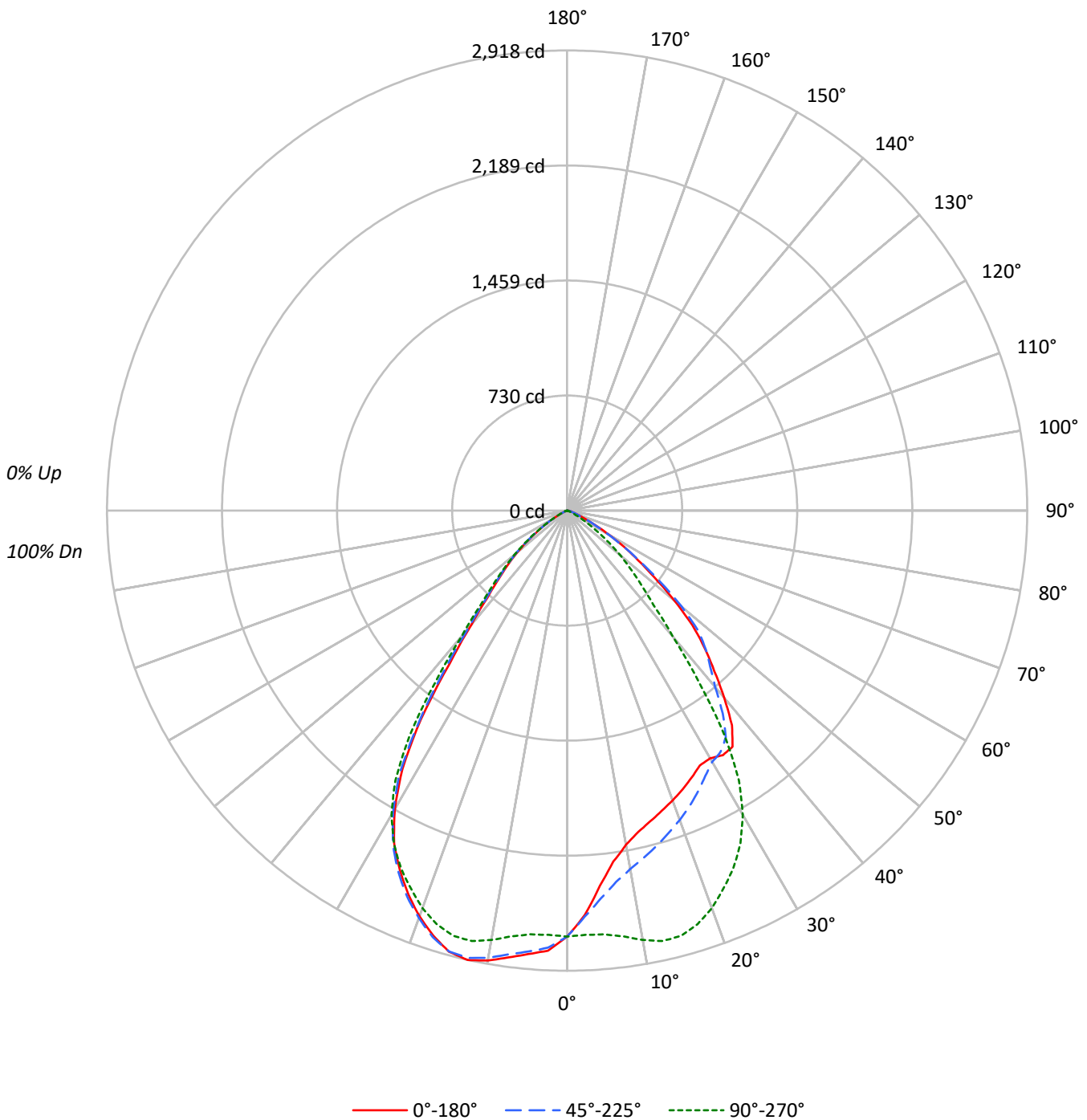
Input Watts (W): 53  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	251.7	6.1
10°-20°	727.0	17.6
20°-30°	1055.2	25.5
30°-40°	1039.3	25.1
40°-50°	651.5	15.8
50°-60°	314.4	7.6
60°-70°	76.1	1.8
70°-80°	15.4	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°	2033.9	49.2
0°-40°	3073.2	74.3
0°-60°	4039.0	97.7
0°-90°	4134.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4134.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2701	2701	2701	2701	2701	
5°	2387	2468	2697	2806	2823	221
15°	2039	2200	2792	2894	2896	577
25°	1868	1965	2498	2532	2513	864
35°	1829	1754	1743	1644	1617	1106
45°	1235	1243	659	632	614	944
55°	548	566	240	237	226	505
65°	128	127	36	30	27	147
75°	31	27	8	4	3	35
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°	2700.7	2700.7	2700.7	2700.7	2700.7	2700.7	2700.7	2700.7	2700.7	2700.7	2700.7
2.5°	2567.3	2550.9	2520.4	2557.3	2557.3	2536.7	2577.9	2553.1	2572.9	2604.2	2576.5
5°	2387.0	2373.5	2348.0	2387.0	2392.0	2372.8	2422.5	2404.1	2433.1	2471.5	2467.9
7.5°	2244.4	2227.4	2204.0	2244.4	2252.2	2239.4	2287.0	2278.5	2316.8	2366.4	2375.0
10°	2151.4	2133.7	2113.1	2150.0	2155.7	2147.2	2195.4	2190.5	2228.1	2285.6	2308.3
12.5°	2085.5	2070.6	2047.8	2086.9	2093.3	2081.2	2126.6	2124.5	2163.5	2223.8	2252.2
15°	2039.3	2021.6	2001.0	2034.4	2042.9	2029.4	2072.7	2068.4	2108.2	2167.8	2199.7
17.5°	1996.0	1979.7	1958.4	1989.7	1998.2	1984.0	2026.6	2019.5	2053.5	2110.3	2142.9
20°	1955.6	1937.9	1918.7	1950.6	1955.6	1939.3	1981.9	1972.6	2003.1	2055.7	2087.6
22.5°	1913.7	1895.3	1875.4	1906.6	1911.6	1895.3	1934.3	1923.7	1952.1	1999.6	2028.7
25°	1867.6	1850.6	1830.7	1859.8	1864.1	1846.3	1887.5	1874.0	1898.8	1940.7	1964.8
27.5°	1821.5	1805.2	1783.2	1813.0	1815.1	1798.1	1835.7	1817.2	1837.8	1876.1	1896.7
30°	1813.7	1795.2	1772.5	1796.7	1797.4	1775.4	1810.8	1788.8	1800.2	1828.6	1840.6
32.5°	1838.5	1820.1	1796.7	1816.5	1814.4	1790.3	1824.3	1797.4	1800.9	1815.8	1813.0
35°	1828.6	1806.6	1778.9	1800.2	1800.2	1771.1	1805.2	1773.2	1769.7	1771.8	1754.1
37.5°	1715.8	1698.7	1672.5	1693.1	1690.9	1668.9	1695.2	1668.9	1656.9	1651.9	1620.0
40°	1549.7	1529.1	1509.3	1531.3	1533.4	1510.0	1544.0	1514.2	1510.7	1496.5	1458.9
42.5°	1381.6	1374.5	1355.3	1373.7	1383.7	1363.8	1392.2	1378.0	1380.1	1376.6	1341.1
45°	1234.7	1222.6	1208.4	1229.7	1236.1	1226.2	1254.5	1246.0	1254.5	1272.3	1243.2
47.5°	1076.4	1064.4	1048.8	1071.5	1082.8	1064.4	1088.5	1085.7	1098.4	1128.9	1126.1
50°	885.6	877.0	874.2	877.0	884.1	875.6	892.7	893.4	901.9	943.7	946.6
52.5°	701.1	698.9	689.0	698.2	698.2	684.7	701.8	694.0	702.5	730.9	749.3
55°	548.5	546.4	540.0	548.5	539.3	534.3	539.3	531.5	525.1	547.1	566.2
57.5°	427.2	420.1	412.3	415.8	415.1	404.5	410.1	400.9	395.9	403.8	420.8
60°	304.4	302.3	295.2	298.7	301.6	293.8	299.4	295.2	286.7	293.1	293.8
62.5°	202.2	203.6	199.4	200.1	198.0	196.6	200.1	202.2	200.1	197.3	198.0
65°	128.4	127.7	127.0	127.7	129.1	126.3	128.4	129.9	127.7	127.7	127.0
67.5°	85.1	83.0	80.9	82.3	83.7	81.6	83.7	83.0	83.7	83.0	80.9
70°	57.5	56.8	56.1	56.8	56.8	55.3	56.8	56.1	56.8	56.1	53.9
72.5°	41.9	41.9	41.2	41.9	41.9	40.4	41.2	39.7	40.4	39.7	38.3
75°	31.2	31.2	30.5	31.2	30.5	29.8	30.5	29.8	28.4	28.4	27.0
77.5°	22.7	22.7	22.7	22.7	22.7	22.0	22.0	21.3	20.6	19.9	19.9
80°	17.0	16.3	16.3	16.3	16.3	15.6	16.3	15.6	14.9	14.2	13.5
82.5°	12.1	12.8	12.1	12.1	12.1	11.4	12.1	11.4	11.4	10.6	9.2
85°	9.2	9.2	9.2	9.2	9.2	8.5	8.5	8.5	7.8	7.8	7.1
87.5°	5.0	5.0	5.0	5.7	5.0	5.0	5.0	4.3	4.3	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°	2700.7	2700.7	2700.7	2700.7	2700.7	2700.7	2700.7	2700.7	2700.7	2700.7	2700.7
2.5°	2613.4	2616.9	2609.1	2621.2	2668.0	2630.4	2646.0	2651.0	2686.5	2692.9	2688.6
5°	2514.0	2529.6	2539.6	2566.5	2618.3	2591.4	2619.1	2636.8	2682.2	2697.1	2700.7
7.5°	2436.0	2468.6	2492.8	2536.7	2597.8	2577.2	2619.1	2648.1	2703.5	2722.7	2731.9
10°	2377.8	2427.5	2469.3	2529.6	2598.5	2585.0	2639.6	2680.8	2742.5	2765.2	2776.6
12.5°	2333.8	2394.1	2450.2	2526.8	2601.3	2594.9	2660.9	2707.8	2773.0	2795.7	2809.2
15°	2285.6	2355.1	2420.4	2506.2	2586.4	2585.0	2656.0	2705.6	2772.3	2791.5	2804.3
17.5°	2228.1	2302.6	2374.3	2467.2	2546.7	2548.1	2619.8	2668.7	2734.0	2749.6	2758.1
20°	2169.9	2243.7	2315.4	2411.2	2489.2	2491.3	2561.6	2607.0	2669.4	2682.2	2684.3
22.5°	2108.2	2177.0	2248.7	2343.7	2419.0	2420.4	2489.9	2532.5	2585.7	2592.1	2597.8
25°	2037.9	2105.3	2172.7	2267.1	2338.8	2343.0	2406.2	2443.8	2492.8	2497.7	2499.8
27.5°	1964.8	2020.2	2084.7	2165.6	2238.0	2235.2	2294.8	2337.4	2381.3	2378.5	2377.8
30°	1891.0	1937.2	1976.9	2054.9	2108.2	2110.3	2166.3	2186.9	2233.0	2227.4	2226.7
32.5°	1839.2	1851.3	1861.9	1901.7	1952.1	1934.3	1972.6	1998.2	2030.1	2028.0	2028.7
35°	1744.1	1722.1	1690.2	1695.9	1726.4	1698.7	1719.3	1718.6	1751.2	1743.4	1752.7
37.5°	1581.7	1519.2	1448.3	1407.8	1413.5	1378.7	1371.6	1388.6	1400.0	1378.0	1385.8
40°	1408.5	1316.3	1205.6	1113.3	1108.4	1065.1	1057.3	1040.2	1062.2	1043.8	1049.5
42.5°	1280.8	1158.7	1013.3	901.2	877.0	840.9	819.6	816.7	823.1	810.3	806.8
45°	1182.9	1053.0	886.3	757.8	730.9	691.8	670.6	662.7	663.5	659.2	655.7
47.5°	1067.9	937.4	768.5	637.2	606.7	569.8	548.5	543.5	546.4	540.7	536.4
50°	909.0	791.9	637.9	518.0	491.0	464.1	447.0	442.1	441.4	437.1	434.3
52.5°	738.0	640.7	507.3	407.3	383.2	356.9	344.9	338.5	339.2	334.9	330.7
55°	571.2	510.9	393.1	308.0	286.0	265.4	254.0	246.2	244.1	239.8	237.7
57.5°	425.0	384.6	294.5	222.1	209.3	189.5	178.1	168.9	167.5	165.3	164.6
60°	298.0	268.9	207.2	158.2	143.3	131.3	119.9	110.7	106.4	105.7	103.6
62.5°	193.0	175.3	136.2	105.7	94.4	85.9	74.5	68.1	65.3	62.4	63.2
65°	119.9	106.4	85.1	68.1	61.7	55.3	46.8	41.2	38.3	35.5	36.2
67.5°	74.5	66.7	53.9	44.0	39.7	34.8	28.4	24.1	22.0	19.9	18.4
70°	50.4	43.3	36.9	31.2	28.4	24.8	20.6	17.0	15.6	14.2	12.8
72.5°	35.5	31.9	27.0	23.4	21.3	18.4	15.6	13.5	12.1	10.6	9.2
75°	25.5	22.7	19.9	17.0	15.6	14.2	12.1	10.6	9.2	7.8	6.4
77.5°	18.4	16.3	14.2	12.8	12.1	9.9	8.5	7.8	7.1	5.7	4.3
80°	12.8	11.4	9.2	8.5	8.5	7.1	6.4	5.7	5.0	3.5	2.8
82.5°	8.5	7.8	7.1	6.4	5.7	5.0	5.0	3.5	2.8	2.1	1.4
85°	6.4	5.7	5.0	4.3	4.3	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°	2700.7	2700.7	2700.7	2700.7	2700.7	2700.7	2700.7	2700.7	2700.7	2700.7	2700.7
2.5°	2724.8	2726.9	2739.0	2729.8	2753.2	2770.2	2761.7	2780.8	2774.5	2773.0	2795.0
5°	2743.2	2748.2	2764.5	2756.0	2781.6	2800.0	2791.5	2812.8	2806.4	2805.0	2827.7
7.5°	2778.7	2783.7	2797.9	2790.8	2817.7	2834.1	2823.4	2846.8	2838.3	2837.6	2859.6
10°	2823.4	2830.5	2842.6	2835.5	2860.3	2874.5	2863.9	2886.6	2878.8	2875.2	2899.3
12.5°	2856.8	2861.7	2873.8	2868.1	2892.2	2902.9	2893.7	2915.7	2905.7	2902.9	2924.2
15°	2849.0	2853.9	2863.9	2858.9	2881.6	2891.5	2879.5	2903.6	2893.7	2888.0	2907.1
17.5°	2799.3	2802.1	2809.2	2804.3	2828.4	2834.8	2821.3	2845.4	2836.2	2826.3	2844.7
20°	2726.2	2724.8	2729.0	2726.9	2746.8	2750.3	2741.8	2759.6	2748.9	2743.2	2753.9
22.5°	2635.4	2634.0	2636.8	2631.1	2651.0	2653.1	2640.3	2661.6	2651.0	2640.3	2658.1
25°	2534.6	2526.8	2525.4	2527.5	2541.0	2543.1	2529.6	2545.3	2531.8	2523.3	2540.3
27.5°	2410.4	2400.5	2398.4	2400.5	2414.0	2404.1	2392.7	2404.1	2390.6	2382.8	2393.4
30°	2257.2	2243.0	2236.6	2232.3	2246.5	2243.0	2216.7	2229.5	2208.2	2196.9	2204.7
32.5°	2050.7	2042.9	2025.8	2015.9	2029.4	2002.4	1986.1	1986.1	1977.6	1958.4	1962.7
35°	1764.0	1752.0	1736.3	1727.8	1730.0	1693.8	1666.8	1672.5	1644.1	1639.1	1641.3
37.5°	1401.4	1381.6	1375.9	1358.1	1362.4	1330.5	1293.6	1294.3	1279.4	1263.8	1258.8
40°	1053.0	1049.5	1043.8	1028.9	1034.6	999.8	985.6	986.3	976.4	965.0	970.7
42.5°	813.9	802.5	799.0	794.0	795.4	789.8	771.3	773.4	764.9	762.1	759.2
45°	661.3	649.3	640.7	645.0	645.0	638.6	631.5	635.8	631.5	625.8	628.7
47.5°	545.0	533.6	529.3	528.6	533.6	529.3	522.3	523.7	523.0	520.8	519.4
50°	435.0	432.1	428.6	426.5	428.6	427.2	420.8	424.3	426.5	419.4	421.5
52.5°	331.4	331.4	330.7	325.7	330.0	325.7	325.0	326.4	324.3	321.4	320.7
55°	242.7	240.5	237.0	236.3	237.7	236.3	234.9	235.6	237.0	229.9	229.9
57.5°	166.0	164.6	162.5	162.5	165.3	161.8	159.7	162.5	159.7	156.8	156.8
60°	106.4	105.7	103.6	103.6	103.6	102.9	100.8	101.5	102.9	98.6	99.3
62.5°	63.9	61.7	61.0	60.3	61.0	60.3	60.3	59.6	58.9	58.9	56.8
65°	34.8	33.4	31.9	32.6	32.6	31.9	31.9	31.9	30.5	29.8	29.1
67.5°	17.7	16.3	16.3	15.6	15.6	15.6	15.6	14.9	14.9	14.9	14.2
70°	11.4	10.6	9.9	9.9	9.9	9.2	9.2	9.2	9.2	9.2	8.5
72.5°	7.8	7.1	6.4	6.4	6.4	5.7	5.7	5.7	5.7	5.0	5.0
75°	5.7	5.0	4.3	4.3	4.3	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: P245453

CATALOG NUMBER: LSR8B50D010 EC8B509730 8LBSW0WH

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2700.7	2700.7	2700.7	2700.7	2700.7	2700.7	2700.7	2700.7
2.5°	2787.2	2781.6	2785.1	2811.4	2800.0	2796.5	2766.6	2792.9
5°	2820.6	2816.3	2816.3	2846.1	2832.6	2829.8	2800.7	2823.4
7.5°	2851.8	2847.5	2848.3	2878.8	2868.1	2863.9	2834.8	2857.5
10°	2892.2	2889.4	2890.1	2919.2	2907.9	2903.6	2873.8	2897.2
12.5°	2916.4	2912.1	2912.1	2943.3	2930.6	2924.2	2895.8	2918.5
15°	2897.9	2891.5	2891.5	2922.8	2908.6	2899.3	2874.5	2895.8
17.5°	2834.8	2828.4	2828.4	2855.3	2844.7	2831.2	2805.7	2825.5
20°	2746.8	2739.0	2736.8	2768.1	2753.2	2741.1	2718.4	2737.6
22.5°	2647.4	2643.9	2637.5	2668.7	2655.2	2642.5	2618.3	2633.2
25°	2528.2	2522.6	2516.2	2546.7	2533.2	2520.4	2501.3	2513.3
27.5°	2379.9	2380.6	2377.1	2401.2	2387.7	2380.6	2357.2	2377.1
30°	2200.4	2192.6	2189.8	2218.1	2205.4	2196.1	2167.1	2186.2
32.5°	1966.2	1954.9	1940.0	1971.9	1949.9	1942.1	1917.3	1945.0
35°	1625.6	1622.1	1608.6	1635.6	1623.5	1609.3	1593.7	1617.1
37.5°	1256.7	1259.5	1258.1	1265.2	1258.1	1248.9	1231.8	1223.3
40°	959.4	952.3	946.6	959.4	944.4	944.4	934.5	945.2
42.5°	752.2	749.3	756.4	759.2	750.7	749.3	747.9	747.2
45°	620.9	620.9	622.3	625.1	622.3	620.9	616.6	613.8
47.5°	511.6	514.4	511.6	520.8	515.9	514.4	505.9	509.5
50°	414.4	410.8	414.4	417.2	417.9	413.7	409.4	411.6
52.5°	321.4	315.8	314.3	318.6	315.8	315.8	312.9	312.2
55°	226.4	228.5	224.9	228.5	227.1	224.9	222.8	225.6
57.5°	153.3	154.0	152.6	154.7	151.1	151.8	151.1	150.4
60°	99.3	96.5	96.5	98.6	95.1	95.1	94.4	94.4
62.5°	56.8	56.1	56.1	55.3	54.6	54.6	54.6	53.2
65°	29.1	28.4	27.7	27.7	27.7	27.7	27.0	27.0
67.5°	14.2	13.5	13.5	14.2	13.5	13.5	13.5	13.5
70°	8.5	8.5	7.8	8.5	7.8	7.8	7.8	7.8
72.5°	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
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)