

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: P244138

Luminaire Tested: **LSR8B40D010 EC8B40940 8LBSWOLI**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P244138  
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: LSR8B40D010 EC8B40940 8LBSW0LI  
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
90 CRI 4000 CCT WITH SPECULAR CLEAR TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4143.0 lumens  
Efficiency: N/A  
Efficacy: 101.3 lumens/watt  
Spacing Criteria (0/90/45): 1.12 / 1.2 / 1.11  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

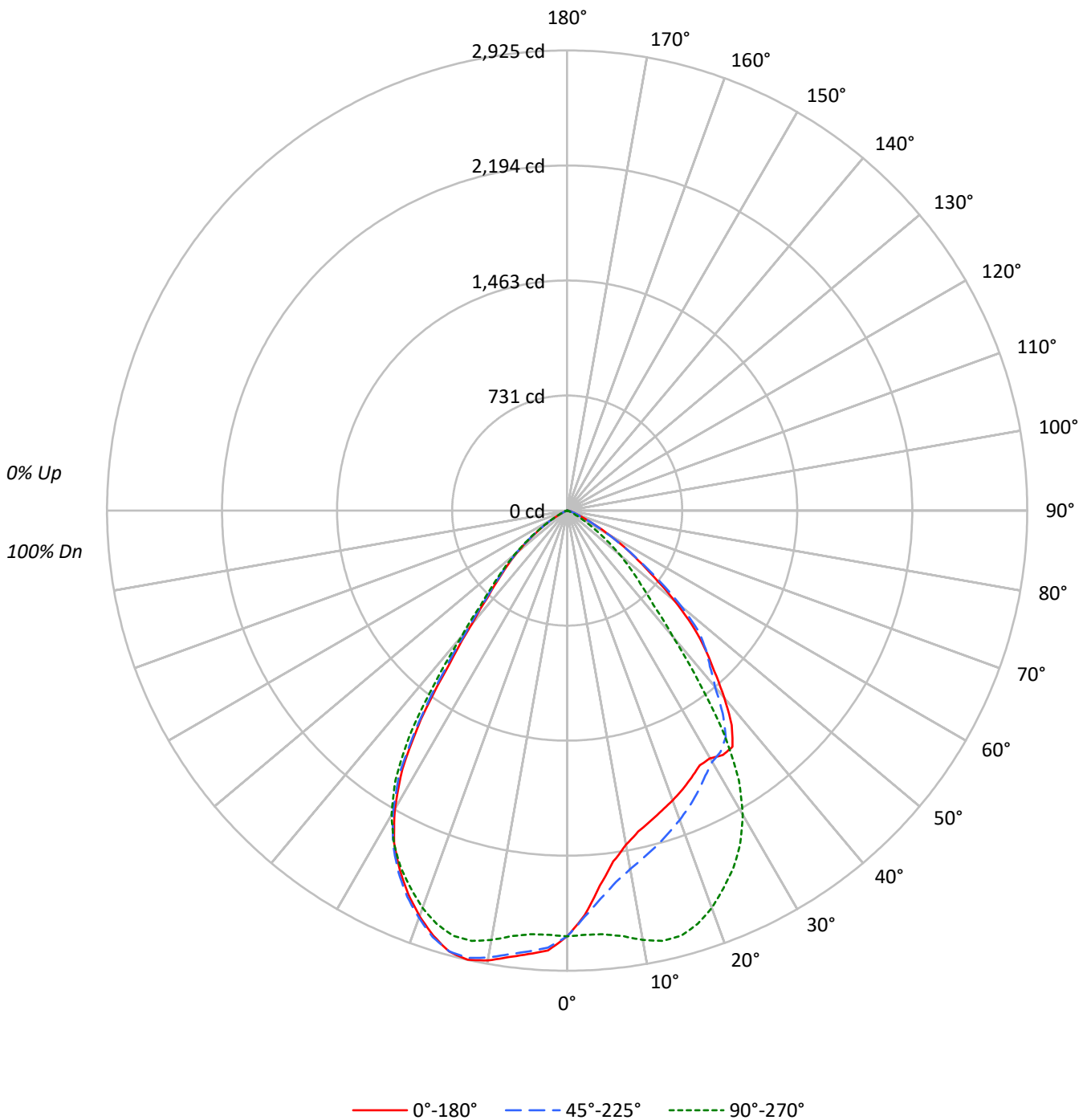
Input Watts (W): 40.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°	90°	180°
0°	83458	83458	83458
5°	74048	83669	87588
10°	67512	86775	90914
15°	65246	89311	92647
20°	64315	88208	90029
25°	63683	85169	85700
30°	64719	79481	78014
35°	68987	65772	61010
40°	62518	42110	38129
45°	53962	28808	26824
50°	42576	21017	19789
55°	29553	12924	12155
60°	18816	6537	5834
65°	9391	2598	1970
70°	5193	1280	703
75°	3729	929	334
80°	3037	639	124
85°	3255	495	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	252.3	6.1
10°-20°	728.6	17.6
20°-30°	1057.5	25.5
30°-40°	1041.5	25.1
40°-50°	652.9	15.8
50°-60°	315.0	7.6
60°-70°	76.2	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°	2038.4	49.2
0°-40°	3079.9	74.3
0°-60°	4047.8	97.7
0°-90°	4143.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4143.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2706	2706	2706	2706	2706	
5°	2392	2473	2703	2812	2830	221
15°	2044	2204	2798	2900	2902	578
25°	1872	1969	2503	2537	2519	866
35°	1833	1758	1747	1648	1621	1109
45°	1237	1246	661	633	615	946
55°	550	568	240	238	226	506
65°	129	127	36	31	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°	2706.5	2706.5	2706.5	2706.5	2706.5	2706.5	2706.5	2706.5	2706.5	2706.5	2706.5
2.5°	2572.8	2556.5	2525.9	2562.9	2562.9	2542.3	2583.5	2558.6	2578.5	2609.8	2582.1
5°	2392.2	2378.7	2353.1	2392.2	2397.2	2378.0	2427.8	2409.3	2438.4	2476.8	2473.3
7.5°	2249.3	2232.2	2208.8	2249.3	2257.1	2244.3	2292.0	2283.4	2321.8	2371.6	2380.1
10°	2156.1	2138.3	2117.7	2154.7	2160.4	2151.9	2200.2	2195.2	2232.9	2290.5	2313.3
12.5°	2090.0	2075.1	2052.3	2091.4	2097.8	2085.7	2131.2	2129.1	2168.2	2228.7	2257.1
15°	2043.8	2026.0	2005.4	2038.8	2047.3	2033.8	2077.2	2072.9	2112.7	2172.5	2204.5
17.5°	2000.4	1984.0	1962.7	1994.0	2002.5	1988.3	2031.0	2023.9	2058.0	2114.9	2147.6
20°	1959.9	1942.1	1922.9	1954.9	1959.9	1943.5	1986.2	1976.9	2007.5	2060.1	2092.1
22.5°	1917.9	1899.4	1879.5	1910.8	1915.8	1899.4	1938.5	1927.9	1956.3	2003.9	2033.1
25°	1871.7	1854.6	1834.7	1863.9	1868.1	1850.3	1891.6	1878.1	1903.0	1944.9	1969.1
27.5°	1825.5	1809.1	1787.1	1816.9	1819.1	1802.0	1839.7	1821.2	1841.8	1880.2	1900.8
30°	1817.6	1799.1	1776.4	1800.6	1801.3	1779.2	1814.8	1792.7	1804.1	1832.6	1844.7
32.5°	1842.5	1824.0	1800.6	1820.5	1818.3	1794.2	1828.3	1801.3	1804.8	1819.8	1816.9
35°	1832.6	1810.5	1782.8	1804.1	1804.1	1775.0	1809.1	1777.1	1773.5	1775.7	1757.9
37.5°	1719.5	1702.4	1676.1	1696.7	1694.6	1672.6	1698.9	1672.6	1660.5	1655.5	1623.5
40°	1553.1	1532.5	1512.6	1534.6	1536.7	1513.3	1547.4	1517.5	1514.0	1499.8	1462.1
42.5°	1384.6	1377.4	1358.2	1376.7	1386.7	1366.8	1395.2	1381.0	1383.1	1379.6	1344.0
45°	1237.4	1225.3	1211.0	1232.4	1238.8	1228.8	1257.3	1248.7	1257.3	1275.0	1245.9
47.5°	1078.8	1066.7	1051.0	1073.8	1085.2	1066.7	1090.9	1088.0	1100.8	1131.4	1128.6
50°	887.5	878.9	876.1	878.9	886.1	877.5	894.6	895.3	903.8	945.8	948.6
52.5°	702.6	700.5	690.5	699.7	699.7	686.2	703.3	695.5	704.0	732.5	750.9
55°	549.7	547.6	541.2	549.7	540.5	535.5	540.5	532.6	526.2	548.3	567.5
57.5°	428.1	421.0	413.2	416.7	416.0	405.3	411.0	401.8	396.8	404.6	421.7
60°	305.1	302.9	295.8	299.4	302.2	294.4	300.1	295.8	287.3	293.7	294.4
62.5°	202.7	204.1	199.8	200.5	198.4	197.0	200.5	202.7	200.5	197.7	198.4
65°	128.7	128.0	127.3	128.0	129.4	126.6	128.7	130.1	128.0	128.0	127.3
67.5°	85.3	83.2	81.1	82.5	83.9	81.8	83.9	83.2	83.9	83.2	81.1
70°	57.6	56.9	56.2	56.9	56.9	55.5	56.9	56.2	56.9	56.2	54.0
72.5°	42.0	42.0	41.2	42.0	42.0	40.5	41.2	39.8	40.5	39.8	38.4
75°	31.3	31.3	30.6	31.3	30.6	29.9	30.6	29.9	28.4	28.4	27.0
77.5°	22.8	22.8	22.8	22.8	22.8	22.0	22.0	21.3	20.6	19.9	19.9
80°	17.1	16.4	16.4	16.4	16.4	15.6	16.4	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	10.7	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	3.6	3.6
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):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	2706.5	2706.5	2706.5	2706.5	2706.5	2706.5	2706.5	2706.5	2706.5	2706.5	2706.5
2.5°	2619.1	2622.6	2614.8	2626.9	2673.8	2636.1	2651.8	2656.8	2692.3	2698.7	2694.4
5°	2519.5	2535.2	2545.1	2572.1	2624.0	2597.0	2624.8	2642.5	2688.0	2703.0	2706.5
7.5°	2441.3	2474.0	2498.2	2542.3	2603.4	2582.8	2624.8	2653.9	2709.4	2728.6	2737.8
10°	2383.0	2432.8	2474.7	2535.2	2604.1	2590.6	2645.4	2686.6	2748.5	2771.3	2782.6
12.5°	2338.9	2399.3	2455.5	2532.3	2607.0	2600.6	2666.7	2713.6	2779.1	2801.8	2815.3
15°	2290.5	2360.2	2425.6	2511.7	2592.0	2590.6	2661.7	2711.5	2778.4	2797.6	2810.4
17.5°	2232.9	2307.6	2379.4	2472.6	2552.2	2553.6	2625.5	2674.5	2740.0	2755.6	2764.1
20°	2174.6	2248.6	2320.4	2416.4	2494.6	2496.8	2567.2	2612.7	2675.2	2688.0	2690.2
22.5°	2112.7	2181.7	2253.6	2348.8	2424.2	2425.6	2495.3	2538.0	2591.3	2597.7	2603.4
25°	2042.3	2109.9	2177.5	2272.0	2343.9	2348.1	2411.4	2449.1	2498.2	2503.2	2505.3
27.5°	1969.1	2024.6	2089.3	2170.4	2242.9	2240.0	2299.8	2342.4	2386.5	2383.7	2383.0
30°	1895.1	1941.4	1981.2	2059.4	2112.7	2114.9	2171.1	2191.7	2237.9	2232.2	2231.5
32.5°	1843.2	1855.3	1866.0	1905.8	1956.3	1938.5	1976.9	2002.5	2034.5	2032.4	2033.1
35°	1747.9	1725.9	1693.9	1699.6	1730.2	1702.4	1723.1	1722.3	1755.1	1747.2	1756.5
37.5°	1585.1	1522.5	1451.4	1410.9	1416.6	1381.7	1374.6	1391.7	1403.0	1381.0	1388.8
40°	1411.6	1319.1	1208.2	1115.8	1110.8	1067.4	1059.6	1042.5	1064.6	1046.1	1051.8
42.5°	1283.6	1161.3	1015.5	903.1	878.9	842.7	821.3	818.5	824.9	812.1	808.5
45°	1185.4	1055.3	888.2	759.5	732.5	693.3	672.0	664.2	664.9	660.6	657.1
47.5°	1070.2	939.4	770.1	638.6	608.0	571.0	549.7	544.7	547.6	541.9	537.6
50°	910.9	793.6	639.3	519.1	492.1	465.1	448.0	443.0	442.3	438.1	435.2
52.5°	739.6	642.1	508.5	408.2	384.0	357.7	345.6	339.2	339.9	335.7	331.4
55°	572.5	512.0	394.0	308.6	286.6	266.0	254.6	246.8	244.6	240.4	238.2
57.5°	426.0	385.4	295.1	222.6	209.8	189.9	178.5	169.2	167.8	165.7	165.0
60°	298.7	269.5	207.6	158.6	143.6	131.6	120.2	110.9	106.7	106.0	103.8
62.5°	193.4	175.6	136.5	106.0	94.6	86.0	74.7	68.3	65.4	62.6	63.3
65°	120.2	106.7	85.3	68.3	61.9	55.5	46.9	41.2	38.4	35.6	36.3
67.5°	74.7	66.8	54.0	44.1	39.8	34.8	28.4	24.2	22.0	19.9	18.5
70°	50.5	43.4	37.0	31.3	28.4	24.9	20.6	17.1	15.6	14.2	12.8
72.5°	35.6	32.0	27.0	23.5	21.3	18.5	15.6	13.5	12.1	10.7	9.2
75°	25.6	22.8	19.9	17.1	15.6	14.2	12.1	10.7	9.2	7.8	6.4
77.5°	18.5	16.4	14.2	12.8	12.1	10.0	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	3.6	2.8
82.5°	8.5	7.8	7.1	6.4	5.7	5.0	5.0	3.6	2.8	2.1	1.4
85°	6.4	5.7	5.0	4.3	4.3	3.6	2.8	2.1	2.1	1.4	0.7
87.5°	3.6	3.6	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°	2706.5	2706.5	2706.5	2706.5	2706.5	2706.5	2706.5	2706.5	2706.5	2706.5	2706.5
2.5°	2730.7	2732.8	2744.9	2735.7	2759.2	2776.2	2767.7	2786.9	2780.5	2779.1	2801.1
5°	2749.2	2754.2	2770.5	2762.0	2787.6	2806.1	2797.6	2818.9	2812.5	2811.1	2833.8
7.5°	2784.8	2789.7	2804.0	2796.9	2823.9	2840.2	2829.6	2853.0	2844.5	2843.8	2865.8
10°	2829.6	2836.7	2848.8	2841.7	2866.5	2880.8	2870.1	2892.9	2885.0	2881.5	2905.7
12.5°	2863.0	2868.0	2880.1	2874.4	2898.5	2909.2	2900.0	2922.0	2912.1	2909.2	2930.5
15°	2855.2	2860.1	2870.1	2865.1	2887.9	2897.8	2885.7	2909.9	2900.0	2894.3	2913.5
17.5°	2805.4	2808.2	2815.3	2810.4	2834.5	2840.9	2827.4	2851.6	2842.4	2832.4	2850.9
20°	2732.1	2730.7	2735.0	2732.8	2752.8	2756.3	2747.8	2765.6	2754.9	2749.2	2759.9
22.5°	2641.1	2639.7	2642.5	2636.8	2656.8	2658.9	2646.1	2667.4	2656.8	2646.1	2663.9
25°	2540.1	2532.3	2530.9	2533.0	2546.5	2548.7	2535.2	2550.8	2537.3	2528.8	2545.8
27.5°	2415.7	2405.7	2403.6	2405.7	2419.2	2409.3	2397.9	2409.3	2395.8	2388.0	2398.6
30°	2262.1	2247.9	2241.5	2237.2	2251.4	2247.9	2221.6	2234.4	2213.0	2201.6	2209.5
32.5°	2055.1	2047.3	2030.3	2020.3	2033.8	2006.8	1990.4	1990.4	1981.9	1962.7	1967.0
35°	1767.9	1755.8	1740.1	1731.6	1733.7	1697.5	1670.4	1676.1	1647.7	1642.7	1644.8
37.5°	1404.5	1384.6	1378.9	1361.1	1365.4	1333.4	1296.4	1297.1	1282.2	1266.5	1261.5
40°	1055.3	1051.8	1046.1	1031.1	1036.8	1002.0	987.8	988.5	978.5	967.1	972.8
42.5°	815.7	804.3	800.7	795.7	797.2	791.5	773.0	775.1	766.6	763.7	760.9
45°	662.8	650.7	642.1	646.4	646.4	640.0	632.9	637.2	632.9	627.2	630.1
47.5°	546.1	534.8	530.5	529.8	534.8	530.5	523.4	524.8	524.1	522.0	520.5
50°	435.9	433.1	429.5	427.4	429.5	428.1	421.7	425.3	427.4	420.3	422.4
52.5°	332.1	332.1	331.4	326.4	330.7	326.4	325.7	327.1	325.0	322.1	321.4
55°	243.2	241.1	237.5	236.8	238.2	236.8	235.4	236.1	237.5	230.4	230.4
57.5°	166.4	165.0	162.8	162.8	165.7	162.1	160.0	162.8	160.0	157.2	157.2
60°	106.7	106.0	103.8	103.8	103.8	103.1	101.0	101.7	103.1	98.8	99.6
62.5°	64.0	61.9	61.2	60.4	61.2	60.4	60.4	59.7	59.0	59.0	56.9
65°	34.8	33.4	32.0	32.7	32.7	32.0	32.0	32.0	30.6	29.9	29.2
67.5°	17.8	16.4	16.4	15.6	15.6	15.6	15.6	14.9	14.9	14.9	14.2
70°	11.4	10.7	10.0	10.0	10.0	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	3.6	3.6	3.6	3.6	3.6	3.6
77.5°	3.6	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: P244138

CATALOG NUMBER: LSR8B40D010 EC8B40940 8LBSW0LI

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2706.5	2706.5	2706.5	2706.5	2706.5	2706.5	2706.5	2706.5
2.5°	2793.3	2787.6	2791.2	2817.5	2806.1	2802.5	2772.7	2799.0
5°	2826.7	2822.5	2822.5	2852.3	2838.8	2836.0	2806.8	2829.6
7.5°	2858.0	2853.7	2854.5	2885.0	2874.4	2870.1	2840.9	2863.7
10°	2898.5	2895.7	2896.4	2925.6	2914.2	2909.9	2880.1	2903.5
12.5°	2922.7	2918.5	2918.5	2949.7	2936.9	2930.5	2902.1	2924.9
15°	2904.2	2897.8	2897.8	2929.1	2914.9	2905.7	2880.8	2902.1
17.5°	2840.9	2834.5	2834.5	2861.6	2850.9	2837.4	2811.8	2831.7
20°	2752.8	2744.9	2742.8	2774.1	2759.2	2747.1	2724.3	2743.5
22.5°	2653.2	2649.6	2643.2	2674.5	2661.0	2648.2	2624.0	2639.0
25°	2533.7	2528.0	2521.6	2552.2	2538.7	2525.9	2506.7	2518.8
27.5°	2385.1	2385.8	2382.3	2406.4	2392.9	2385.8	2362.4	2382.3
30°	2205.2	2197.4	2194.5	2223.0	2210.2	2200.9	2171.8	2191.0
32.5°	1970.5	1959.1	1944.2	1976.2	1954.2	1946.3	1921.5	1949.2
35°	1629.2	1625.6	1612.1	1639.1	1627.1	1612.8	1597.2	1620.7
37.5°	1259.4	1262.2	1260.8	1267.9	1260.8	1251.6	1234.5	1226.0
40°	961.4	954.3	948.6	961.4	946.5	946.5	936.6	947.2
42.5°	753.8	750.9	758.1	760.9	752.4	750.9	749.5	748.8
45°	622.2	622.2	623.7	626.5	623.7	622.2	618.0	615.1
47.5°	512.7	515.6	512.7	522.0	517.0	515.6	507.0	510.6
50°	415.3	411.7	415.3	418.1	418.9	414.6	410.3	412.5
52.5°	322.1	316.5	315.0	319.3	316.5	316.5	313.6	312.9
55°	226.8	229.0	225.4	229.0	227.6	225.4	223.3	226.1
57.5°	153.6	154.3	152.9	155.0	151.5	152.2	151.5	150.8
60°	99.6	96.7	96.7	98.8	95.3	95.3	94.6	94.6
62.5°	56.9	56.2	56.2	55.5	54.8	54.8	54.8	53.3
65°	29.2	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)