

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: P244114

Luminaire Tested: **LSR8B40D010 EC8B40850 8LBSWOLI**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P244114  
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 EC8B40850 8LBSW0LI  
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
80 CRI 5000 CCT WITH SPECULAR CLEAR TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4712.0 lumens  
Efficiency: N/A  
Efficacy: 115.2 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

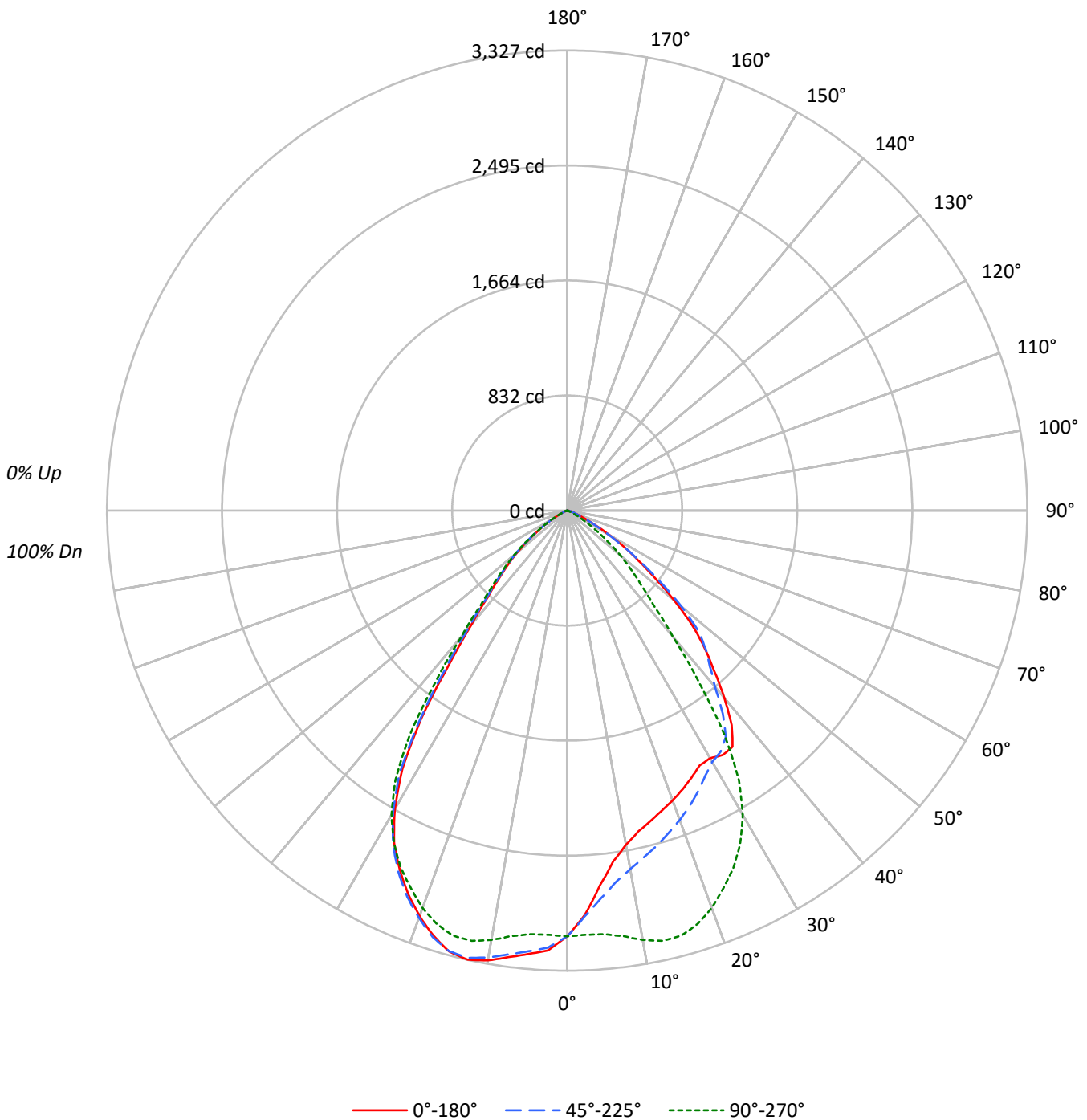
Input Watts (W): 40.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P244114

CATALOG NUMBER: LSR8B40D010 EC8B40850 8LBSW0LI

### Luminous Intensity Polar Plot





TEST NUMBER: P244114

CATALOG NUMBER: LSR8B40D010 EC8B40850 8LBSW0LI

**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°	94923	94923	94923
5°	84220	95159	99616
10°	76786	98692	103402
15°	74208	101576	105372
20°	73145	100323	102394
25°	72427	96863	97469
30°	73610	90398	88728
35°	78462	74807	69386
40°	71105	47890	43366
45°	61371	32768	30509
50°	48424	23900	22504
55°	33612	14698	13827
60°	21400	7432	6636
65°	10682	2948	2240
70°	5905	1461	802
75°	4241	1060	381
80°	3445	710	142
85°	3715	566	0



TEST NUMBER: P244114

CATALOG NUMBER: LSR8B40D010 EC8B40850 8LBSW0LI

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	286.9	6.1
10°-20°	828.7	17.6
20°-30°	1202.7	25.5
30°-40°	1184.6	25.1
40°-50°	742.6	15.8
50°-60°	358.3	7.6
60°-70°	86.7	1.8
70°-80°	17.5	0.4
80°-90°	4.0	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°	2318.3	49.2
0°-40°	3502.9	74.3
0°-60°	4603.7	97.7
0°-90°	4712.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4712.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	3078	3078	3078	3078	3078	
5°	2721	2813	3074	3199	3218	252
15°	2324	2507	3182	3298	3301	657
25°	2129	2240	2847	2886	2865	985
35°	2084	1999	1987	1874	1843	1261
45°	1407	1417	751	720	700	1076
55°	625	645	273	270	257	575
65°	146	145	40	35	31	167
75°	36	31	9	4	3	40
85°	10	8	2	0	0	11
90°	0	0	0	0	0	



TEST NUMBER: P244114

CATALOG NUMBER: LSR8B40D010 EC8B40850 8LBSWOLI

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	3078.3	3078.3	3078.3	3078.3	3078.3	3078.3	3078.3	3078.3	3078.3	3078.3	3078.3
2.5°	2926.2	2907.6	2872.8	2914.9	2914.9	2891.4	2938.3	2910.0	2932.7	2968.3	2936.7
5°	2720.8	2705.4	2676.3	2720.8	2726.4	2704.6	2761.2	2740.2	2773.3	2817.0	2813.0
7.5°	2558.2	2538.8	2512.1	2558.2	2567.1	2552.5	2606.7	2597.0	2640.7	2697.3	2707.0
10°	2452.3	2432.0	2408.6	2450.6	2457.1	2447.4	2502.4	2496.7	2539.6	2605.1	2631.0
12.5°	2377.0	2360.0	2334.2	2378.7	2385.9	2372.2	2423.9	2421.5	2466.0	2534.7	2567.1
15°	2324.5	2304.2	2280.8	2318.8	2328.5	2313.1	2362.5	2357.6	2402.9	2470.9	2507.2
17.5°	2275.1	2256.5	2232.3	2267.8	2277.6	2261.4	2309.9	2301.8	2340.6	2405.3	2442.5
20°	2229.0	2208.8	2187.0	2223.4	2229.0	2210.4	2258.9	2248.4	2283.2	2343.1	2379.5
22.5°	2181.3	2160.3	2137.6	2173.2	2178.9	2160.3	2204.8	2192.6	2225.0	2279.2	2312.3
25°	2128.7	2109.3	2086.7	2119.8	2124.7	2104.5	2151.4	2136.0	2164.3	2212.0	2239.5
27.5°	2076.2	2057.6	2032.5	2066.5	2068.9	2049.5	2092.3	2071.3	2094.8	2138.4	2161.9
30°	2067.3	2046.2	2020.4	2047.9	2048.7	2023.6	2064.0	2039.0	2051.9	2084.3	2098.0
32.5°	2095.6	2074.5	2047.9	2070.5	2068.1	2040.6	2079.4	2048.7	2052.7	2069.7	2066.5
35°	2084.3	2059.2	2027.6	2051.9	2051.9	2018.7	2057.6	2021.2	2017.1	2019.5	1999.3
37.5°	1955.7	1936.2	1906.3	1929.8	1927.3	1902.3	1932.2	1902.3	1888.5	1882.9	1846.5
40°	1766.4	1742.9	1720.3	1745.4	1747.8	1721.1	1759.9	1726.0	1721.9	1705.7	1662.9
42.5°	1574.7	1566.6	1544.8	1565.8	1577.1	1554.5	1586.8	1570.7	1573.1	1569.1	1528.6
45°	1407.3	1393.5	1377.4	1401.6	1408.9	1397.6	1429.9	1420.2	1429.9	1450.2	1417.0
47.5°	1226.9	1213.2	1195.4	1221.3	1234.2	1213.2	1240.7	1237.4	1252.0	1286.8	1283.5
50°	1009.4	999.7	996.4	999.7	1007.8	998.0	1017.5	1018.3	1028.0	1075.7	1078.9
52.5°	799.1	796.7	785.3	795.8	795.8	780.5	799.9	791.0	800.7	833.1	854.1
55°	625.2	622.8	615.5	625.2	614.7	609.0	614.7	605.8	598.5	623.6	645.4
57.5°	486.9	478.8	469.9	474.0	473.1	461.0	467.5	457.0	451.3	460.2	479.6
60°	347.0	344.5	336.5	340.5	343.7	334.8	341.3	336.5	326.8	334.0	334.8
62.5°	230.5	232.1	227.3	228.1	225.7	224.0	228.1	230.5	228.1	224.8	225.7
65°	146.4	145.6	144.8	145.6	147.2	144.0	146.4	148.0	145.6	145.6	144.8
67.5°	97.1	94.6	92.2	93.8	95.4	93.0	95.4	94.6	95.4	94.6	92.2
70°	65.5	64.7	63.9	64.7	64.7	63.1	64.7	63.9	64.7	63.9	61.5
72.5°	47.7	47.7	46.9	47.7	47.7	46.1	46.9	45.3	46.1	45.3	43.7
75°	35.6	35.6	34.8	35.6	34.8	34.0	34.8	34.0	32.4	32.4	30.7
77.5°	25.9	25.9	25.9	25.9	25.9	25.1	25.1	24.3	23.5	22.6	22.6
80°	19.4	18.6	18.6	18.6	18.6	17.8	18.6	17.8	17.0	16.2	15.4
82.5°	13.7	14.6	13.7	13.7	13.7	12.9	13.7	12.9	12.9	12.1	10.5
85°	10.5	10.5	10.5	10.5	10.5	9.7	9.7	9.7	8.9	8.9	8.1
87.5°	5.7	5.7	5.7	6.5	5.7	5.7	5.7	4.9	4.9	4.0	4.0
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: P244114

CATALOG NUMBER: LSR8B40D010 EC8B40850 8LBSW0LI

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	3078.3	3078.3	3078.3	3078.3	3078.3	3078.3	3078.3	3078.3	3078.3	3078.3	3078.3
2.5°	2978.8	2982.8	2973.9	2987.7	3041.0	2998.2	3016.0	3021.6	3062.1	3069.4	3064.5
5°	2865.5	2883.3	2894.7	2925.4	2984.4	2953.7	2985.2	3005.5	3057.2	3074.2	3078.3
7.5°	2776.6	2813.8	2841.3	2891.4	2961.0	2937.5	2985.2	3018.4	3081.5	3103.3	3113.8
10°	2710.3	2766.9	2814.6	2883.3	2961.8	2946.4	3008.7	3055.6	3126.0	3151.9	3164.8
12.5°	2660.1	2728.9	2792.8	2880.1	2965.0	2957.7	3033.0	3086.3	3160.8	3186.6	3202.0
15°	2605.1	2684.4	2758.8	2856.6	2948.0	2946.4	3027.3	3083.9	3159.9	3181.8	3196.3
17.5°	2539.6	2624.5	2706.2	2812.2	2902.7	2904.4	2986.1	3041.9	3116.3	3134.1	3143.8
20°	2473.3	2557.4	2639.1	2748.3	2837.2	2839.7	2919.7	2971.5	3042.7	3057.2	3059.7
22.5°	2402.9	2481.4	2563.1	2671.4	2757.2	2758.8	2838.0	2886.6	2947.2	2954.5	2961.0
25°	2322.8	2399.7	2476.5	2584.1	2665.8	2670.6	2742.6	2785.5	2841.3	2846.9	2849.4
27.5°	2239.5	2302.6	2376.2	2468.4	2550.9	2547.7	2615.6	2664.2	2714.3	2711.1	2710.3
30°	2155.4	2208.0	2253.3	2342.3	2402.9	2405.3	2469.2	2492.7	2545.3	2538.8	2538.0
32.5°	2096.4	2110.1	2122.3	2167.6	2225.0	2204.8	2248.4	2277.6	2313.9	2311.5	2312.3
35°	1988.0	1962.9	1926.5	1933.0	1967.8	1936.2	1959.7	1958.9	1996.1	1987.2	1997.7
37.5°	1802.8	1731.6	1650.7	1604.6	1611.1	1571.5	1563.4	1582.8	1595.7	1570.7	1579.6
40°	1605.4	1500.3	1374.1	1269.0	1263.3	1214.0	1205.1	1185.7	1210.8	1189.7	1196.2
42.5°	1459.9	1320.8	1155.0	1027.2	999.7	958.4	934.2	930.9	938.2	923.6	919.6
45°	1348.3	1200.2	1010.2	863.8	833.1	788.6	764.3	755.4	756.2	751.4	747.3
47.5°	1217.2	1068.4	875.9	726.3	691.5	649.5	625.2	619.5	622.8	616.3	611.4
50°	1036.1	902.6	727.1	590.4	559.7	528.9	509.5	503.9	503.1	498.2	495.0
52.5°	841.1	730.3	578.3	464.2	436.7	406.8	393.1	385.8	386.6	381.7	376.9
55°	651.1	582.3	448.1	351.0	325.9	302.5	289.5	280.7	278.2	273.4	270.9
57.5°	484.5	438.4	335.6	253.2	238.6	215.9	203.0	192.5	190.9	188.4	187.6
60°	339.7	306.5	236.2	180.4	163.4	149.6	136.7	126.2	121.3	120.5	118.1
62.5°	220.0	199.8	155.3	120.5	107.6	97.9	84.9	77.6	74.4	71.2	72.0
65°	136.7	121.3	97.1	77.6	70.4	63.1	53.4	46.9	43.7	40.4	41.2
67.5°	84.9	76.0	61.5	50.1	45.3	39.6	32.4	27.5	25.1	22.6	21.0
70°	57.4	49.3	42.1	35.6	32.4	28.3	23.5	19.4	17.8	16.2	14.6
72.5°	40.4	36.4	30.7	26.7	24.3	21.0	17.8	15.4	13.7	12.1	10.5
75°	29.1	25.9	22.6	19.4	17.8	16.2	13.7	12.1	10.5	8.9	7.3
77.5°	21.0	18.6	16.2	14.6	13.7	11.3	9.7	8.9	8.1	6.5	4.9
80°	14.6	12.9	10.5	9.7	9.7	8.1	7.3	6.5	5.7	4.0	3.2
82.5°	9.7	8.9	8.1	7.3	6.5	5.7	5.7	4.0	3.2	2.4	1.6
85°	7.3	6.5	5.7	4.9	4.9	4.0	3.2	2.4	2.4	1.6	0.8
87.5°	4.0	4.0	3.2	2.4	2.4	1.6	1.6	0.8	0.8	0.8	0.8
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: P244114

CATALOG NUMBER: LSR8B40D010 EC8B40850 8LBSWOLI

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	3078.3	3078.3	3078.3	3078.3	3078.3	3078.3	3078.3	3078.3	3078.3	3078.3	3078.3
2.5°	3105.8	3108.2	3121.9	3111.4	3138.1	3157.5	3147.8	3169.6	3162.4	3160.8	3185.8
5°	3126.8	3132.4	3151.0	3141.3	3170.5	3191.5	3181.8	3206.0	3198.8	3197.1	3223.0
7.5°	3167.2	3172.9	3189.1	3181.0	3211.7	3230.3	3218.2	3244.9	3235.2	3234.4	3259.4
10°	3218.2	3226.3	3240.0	3231.9	3260.2	3276.4	3264.3	3290.2	3281.3	3277.2	3304.7
12.5°	3256.2	3261.8	3275.6	3269.1	3296.6	3308.8	3298.2	3323.3	3312.0	3308.8	3333.0
15°	3247.3	3253.0	3264.3	3258.6	3284.5	3295.8	3282.1	3309.6	3298.2	3291.8	3313.6
17.5°	3190.7	3193.9	3202.0	3196.3	3223.8	3231.1	3215.7	3243.2	3232.7	3221.4	3242.4
20°	3107.4	3105.8	3110.6	3108.2	3130.8	3134.9	3125.2	3145.4	3133.3	3126.8	3138.9
22.5°	3003.8	3002.2	3005.5	2999.0	3021.6	3024.1	3009.5	3033.8	3021.6	3009.5	3029.7
25°	2889.0	2880.1	2878.5	2880.9	2896.3	2898.7	2883.3	2901.1	2885.8	2876.1	2895.5
27.5°	2747.5	2736.1	2733.7	2736.1	2751.5	2740.2	2727.2	2740.2	2724.8	2715.9	2728.0
30°	2572.8	2556.6	2549.3	2544.5	2560.6	2556.6	2526.7	2541.2	2517.0	2504.0	2512.9
32.5°	2337.4	2328.5	2309.1	2297.8	2313.1	2282.4	2263.8	2263.8	2254.1	2232.3	2237.1
35°	2010.7	1996.9	1979.1	1969.4	1971.8	1930.6	1899.8	1906.3	1874.0	1868.3	1870.7
37.5°	1597.4	1574.7	1568.2	1548.0	1552.9	1516.5	1474.4	1475.2	1458.2	1440.5	1434.8
40°	1200.2	1196.2	1189.7	1172.7	1179.2	1139.6	1123.4	1124.2	1112.9	1100.0	1106.4
42.5°	927.7	914.7	910.7	905.0	906.7	900.2	879.2	881.6	871.9	868.6	865.4
45°	753.8	740.0	730.3	735.2	735.2	727.9	719.8	724.7	719.8	713.4	716.6
47.5°	621.2	608.2	603.4	602.5	608.2	603.4	595.3	596.9	596.1	593.7	592.0
50°	495.8	492.6	488.5	486.1	488.5	486.9	479.6	483.7	486.1	478.0	480.4
52.5°	377.7	377.7	376.9	371.2	376.1	371.2	370.4	372.0	369.6	366.4	365.6
55°	276.6	274.2	270.1	269.3	270.9	269.3	267.7	268.5	270.1	262.0	262.0
57.5°	189.3	187.6	185.2	185.2	188.4	184.4	182.0	185.2	182.0	178.7	178.7
60°	121.3	120.5	118.1	118.1	118.1	117.3	114.8	115.7	117.3	112.4	113.2
62.5°	72.8	70.4	69.6	68.7	69.6	68.7	68.7	67.9	67.1	67.1	64.7
65°	39.6	38.0	36.4	37.2	37.2	36.4	36.4	36.4	34.8	34.0	33.2
67.5°	20.2	18.6	18.6	17.8	17.8	17.8	17.8	17.0	17.0	17.0	16.2
70°	12.9	12.1	11.3	11.3	11.3	10.5	10.5	10.5	10.5	10.5	9.7
72.5°	8.9	8.1	7.3	7.3	7.3	6.5	6.5	6.5	6.5	5.7	5.7
75°	6.5	5.7	4.9	4.9	4.9	4.0	4.0	4.0	4.0	4.0	4.0
77.5°	4.0	3.2	3.2	3.2	3.2	2.4	2.4	2.4	2.4	2.4	1.6
80°	2.4	2.4	1.6	1.6	1.6	1.6	0.8	0.8	0.8	0.8	0.8
82.5°	1.6	1.6	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.0
85°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0
87.5°	0.8	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: P244114

CATALOG NUMBER: LSR8B40D010 EC8B40850 8LBSWOLI

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3078.3	3078.3	3078.3	3078.3	3078.3	3078.3	3078.3	3078.3
2.5°	3176.9	3170.5	3174.5	3204.4	3191.5	3187.4	3153.5	3183.4
5°	3214.9	3210.1	3210.1	3244.1	3228.7	3225.5	3192.3	3218.2
7.5°	3250.5	3245.7	3246.5	3281.3	3269.1	3264.3	3231.1	3257.0
10°	3296.6	3293.4	3294.2	3327.4	3314.4	3309.6	3275.6	3302.3
12.5°	3324.1	3319.3	3319.3	3354.9	3340.3	3333.0	3300.7	3326.6
15°	3303.1	3295.8	3295.8	3331.4	3315.2	3304.7	3276.4	3300.7
17.5°	3231.1	3223.8	3223.8	3254.6	3242.4	3227.1	3198.0	3220.6
20°	3130.8	3121.9	3119.5	3155.1	3138.1	3124.4	3098.5	3120.3
22.5°	3017.6	3013.6	3006.3	3041.9	3026.5	3011.9	2984.4	3001.4
25°	2881.7	2875.2	2868.0	2902.7	2887.4	2872.8	2851.0	2864.7
27.5°	2712.7	2713.5	2709.4	2736.9	2721.6	2713.5	2686.8	2709.4
30°	2508.1	2499.2	2495.9	2528.3	2513.7	2503.2	2470.0	2491.9
32.5°	2241.2	2228.2	2211.2	2247.6	2222.6	2213.7	2185.4	2216.9
35°	1852.9	1848.9	1833.5	1864.3	1850.5	1834.3	1816.5	1843.2
37.5°	1432.4	1435.6	1434.0	1442.1	1434.0	1423.5	1404.1	1394.4
40°	1093.5	1085.4	1078.9	1093.5	1076.5	1076.5	1065.2	1077.3
42.5°	857.3	854.1	862.2	865.4	855.7	854.1	852.5	851.7
45°	707.7	707.7	709.3	712.5	709.3	707.7	702.8	699.6
47.5°	583.1	586.4	583.1	593.7	588.0	586.4	576.7	580.7
50°	472.3	468.3	472.3	475.6	476.4	471.5	466.7	469.1
52.5°	366.4	359.9	358.3	363.1	359.9	359.9	356.7	355.9
55°	258.0	260.4	256.4	260.4	258.8	256.4	254.0	257.2
57.5°	174.7	175.5	173.9	176.3	172.3	173.1	172.3	171.5
60°	113.2	110.0	110.0	112.4	108.4	108.4	107.6	107.6
62.5°	64.7	63.9	63.9	63.1	62.3	62.3	62.3	60.7
65°	33.2	32.4	31.5	31.5	31.5	31.5	30.7	30.7
67.5°	16.2	15.4	15.4	16.2	15.4	15.4	15.4	15.4
70°	9.7	9.7	8.9	9.7	8.9	8.9	8.9	8.9
72.5°	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
75°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
77.5°	2.4	1.6	1.6	1.6	1.6	1.6	1.6	1.6
80°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
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)