

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: P245404

Luminaire Tested: **LSR8B40D010 EC8B40840 8LBSW0WH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P245404  
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 EC8B40840 8LBSW0WH  
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
80 CRI 4000 CCT WITH WHEAT TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4456.0 lumens  
Efficiency: N/A  
Efficacy: 108.9 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

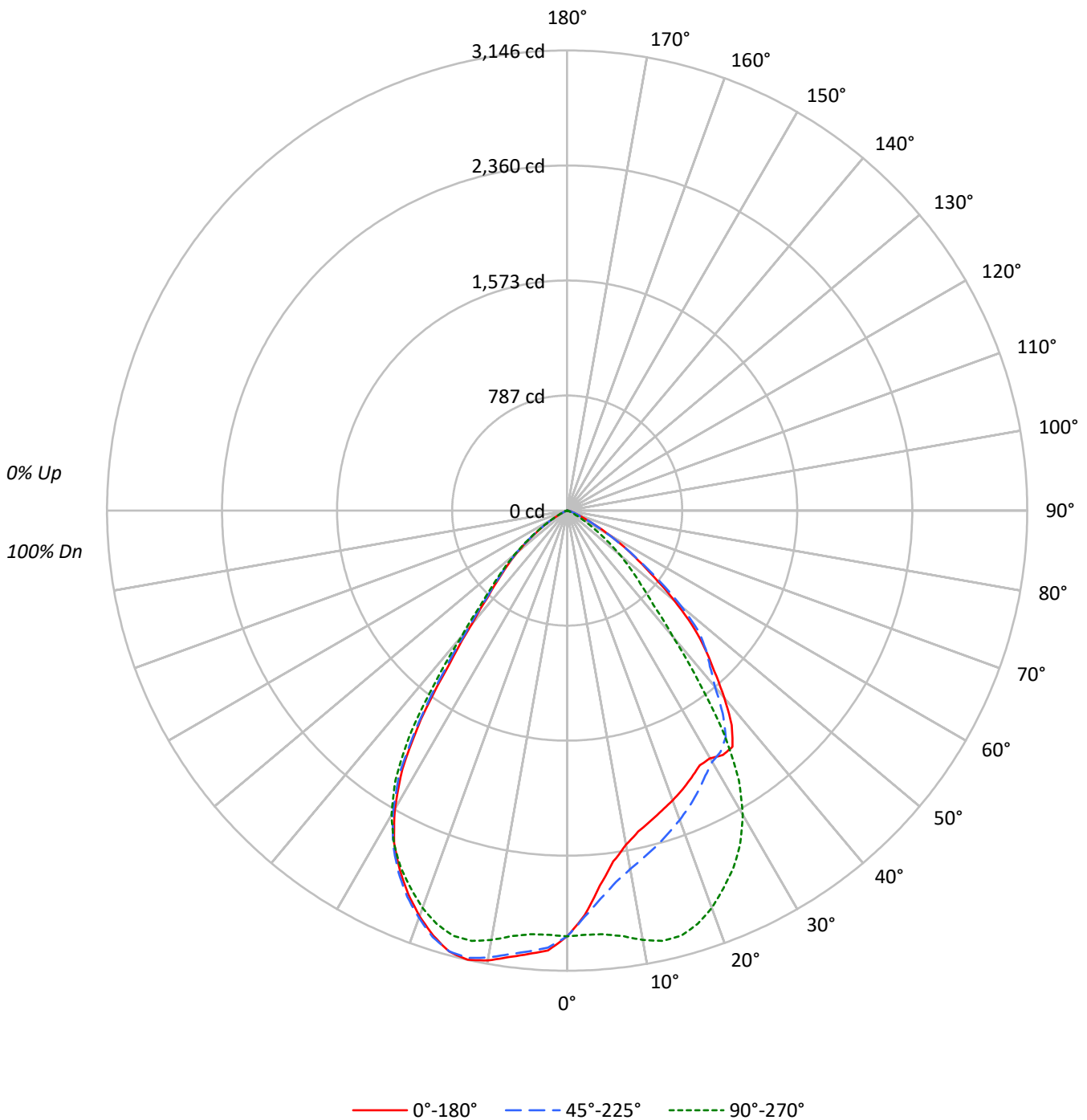
Input Watts (W): 40.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	89765	89765	89765
5°	79645	89990	94203
10°	72613	93329	97784
15°	70176	96056	99645
20°	69171	94872	96831
25°	68494	91603	92175
30°	69611	85488	83907
35°	74197	70741	65618
40°	67240	45290	41011
45°	58035	30984	28852
50°	45790	22600	21281
55°	31784	13897	13075
60°	20235	7031	6272
65°	10098	2787	2123
70°	5590	1379	757
75°	4015	1001	369
80°	3267	675	142
85°	3503	531	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	271.3	6.1
10°-20°	783.6	17.6
20°-30°	1137.4	25.5
30°-40°	1120.2	25.1
40°-50°	702.2	15.8
50°-60°	338.8	7.6
60°-70°	82.0	1.8
70°-80°	16.6	0.4
80°-90°	3.8	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°	2192.4	49.2
0°-40°	3312.6	74.3
0°-60°	4353.6	97.7
0°-90°	4456.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4456.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2911	2911	2911	2911	2911	
5°	2573	2660	2907	3025	3043	238
15°	2198	2371	3009	3119	3121	621
25°	2013	2118	2692	2729	2709	932
35°	1971	1891	1879	1772	1743	1193
45°	1331	1340	710	681	662	1017
55°	591	610	258	256	243	544
65°	138	137	38	33	29	158
75°	34	29	8	4	3	38
85°	10	8	2	0	0	10
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°	2911.0	2911.0	2911.0	2911.0	2911.0	2911.0	2911.0	2911.0	2911.0	2911.0	2911.0
2.5°	2767.2	2749.6	2716.7	2756.5	2756.5	2734.3	2778.7	2751.9	2773.3	2807.0	2777.2
5°	2573.0	2558.4	2530.9	2573.0	2578.3	2557.7	2611.2	2591.3	2622.7	2664.0	2660.1
7.5°	2419.2	2400.9	2375.6	2419.2	2427.6	2413.9	2465.1	2455.9	2497.2	2550.8	2559.9
10°	2319.0	2299.9	2277.7	2317.5	2323.6	2314.4	2366.4	2361.1	2401.6	2463.6	2488.1
12.5°	2247.9	2231.8	2207.4	2249.4	2256.3	2243.3	2292.3	2290.0	2332.0	2397.0	2427.6
15°	2198.2	2179.1	2156.9	2192.8	2202.0	2187.5	2234.1	2229.5	2272.4	2336.6	2371.0
17.5°	2151.5	2133.9	2111.0	2144.6	2153.8	2138.5	2184.4	2176.8	2213.5	2274.7	2309.8
20°	2107.9	2088.8	2068.2	2102.6	2107.9	2090.3	2136.2	2126.3	2159.2	2215.8	2250.2
22.5°	2062.8	2042.9	2021.5	2055.1	2060.5	2042.9	2085.0	2073.5	2104.1	2155.3	2186.7
25°	2013.1	1994.7	1973.3	2004.7	2009.3	1990.1	2034.5	2020.0	2046.7	2091.9	2117.9
27.5°	1963.4	1945.8	1922.1	1954.2	1956.5	1938.1	1978.7	1958.8	1981.0	2022.3	2044.4
30°	1955.0	1935.1	1910.6	1936.6	1937.4	1913.7	1951.9	1928.2	1940.4	1971.0	1984.0
32.5°	1981.7	1961.8	1936.6	1958.0	1955.7	1929.7	1966.4	1937.4	1941.2	1957.2	1954.2
35°	1971.0	1947.3	1917.5	1940.4	1940.4	1909.1	1945.8	1911.4	1907.5	1909.8	1890.7
37.5°	1849.4	1831.0	1802.7	1824.9	1822.6	1798.9	1827.2	1798.9	1785.9	1780.6	1746.1
40°	1670.4	1648.2	1626.8	1650.5	1652.8	1627.6	1664.3	1632.2	1628.4	1613.1	1572.5
42.5°	1489.2	1481.5	1460.9	1480.7	1491.5	1470.0	1500.6	1485.3	1487.6	1483.8	1445.6
45°	1330.8	1317.8	1302.5	1325.5	1332.4	1321.7	1352.3	1343.1	1352.3	1371.4	1340.0
47.5°	1160.3	1147.3	1130.4	1154.9	1167.2	1147.3	1173.3	1170.2	1184.0	1216.9	1213.8
50°	954.5	945.4	942.3	945.4	953.0	943.8	962.2	962.9	972.1	1017.2	1020.3
52.5°	755.7	753.4	742.7	752.6	752.6	738.1	756.4	748.0	757.2	787.8	807.7
55°	591.2	588.9	582.0	591.2	581.3	575.9	581.3	572.9	566.0	589.7	610.3
57.5°	460.4	452.8	444.4	448.2	447.4	436.0	442.1	432.1	426.8	435.2	453.6
60°	328.1	325.8	318.2	322.0	325.1	316.6	322.8	318.2	309.0	315.9	316.6
62.5°	218.0	219.5	214.9	215.7	213.4	211.9	215.7	218.0	215.7	212.6	213.4
65°	138.4	137.7	136.9	137.7	139.2	136.1	138.4	140.0	137.7	137.7	136.9
67.5°	91.8	89.5	87.2	88.7	90.3	88.0	90.3	89.5	90.3	89.5	87.2
70°	62.0	61.2	60.4	61.2	61.2	59.7	61.2	60.4	61.2	60.4	58.1
72.5°	45.1	45.1	44.4	45.1	45.1	43.6	44.4	42.8	43.6	42.8	41.3
75°	33.7	33.7	32.9	33.7	32.9	32.1	32.9	32.1	30.6	30.6	29.1
77.5°	24.5	24.5	24.5	24.5	24.5	23.7	23.7	22.9	22.2	21.4	21.4
80°	18.4	17.6	17.6	17.6	17.6	16.8	17.6	16.8	16.1	15.3	14.5
82.5°	13.0	13.8	13.0	13.0	13.0	12.2	13.0	12.2	12.2	11.5	9.9
85°	9.9	9.9	9.9	9.9	9.9	9.2	9.2	9.2	8.4	8.4	7.6
87.5°	5.4	5.4	5.4	6.1	5.4	5.4	5.4	4.6	4.6	3.8	3.8
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: P245404

CATALOG NUMBER: LSR8B40D010 EC8B40840 8LBSW0WH

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	2911.0	2911.0	2911.0	2911.0	2911.0	2911.0	2911.0	2911.0	2911.0	2911.0	2911.0
2.5°	2816.9	2820.8	2812.3	2825.4	2875.8	2835.3	2852.1	2857.5	2895.7	2902.6	2898.0
5°	2709.9	2726.7	2737.4	2766.5	2822.3	2793.2	2823.1	2842.2	2891.1	2907.2	2911.0
7.5°	2625.7	2660.9	2686.9	2734.3	2800.1	2777.9	2823.1	2854.4	2914.1	2934.7	2944.7
10°	2563.0	2616.5	2661.7	2726.7	2800.9	2786.3	2845.2	2889.6	2956.1	2980.6	2992.9
12.5°	2515.6	2580.6	2641.0	2723.6	2803.9	2797.1	2868.2	2918.7	2989.0	3013.5	3028.0
15°	2463.6	2538.5	2608.9	2701.4	2787.9	2786.3	2862.8	2916.4	2988.3	3008.9	3022.7
17.5°	2401.6	2481.9	2559.2	2659.4	2745.0	2746.6	2823.8	2876.6	2947.0	2963.8	2973.0
20°	2338.9	2418.5	2495.7	2599.0	2683.1	2685.4	2761.1	2810.1	2877.4	2891.1	2893.4
22.5°	2272.4	2346.6	2423.8	2526.3	2607.4	2608.9	2683.9	2729.7	2787.1	2794.0	2800.1
25°	2196.6	2269.3	2342.0	2443.7	2520.9	2525.5	2593.6	2634.1	2686.9	2692.3	2694.6
27.5°	2117.9	2177.5	2247.1	2334.3	2412.3	2409.3	2473.5	2519.4	2566.8	2563.8	2563.0
30°	2038.3	2088.0	2130.9	2215.0	2272.4	2274.7	2335.1	2357.3	2407.0	2400.9	2400.1
32.5°	1982.5	1995.5	2007.0	2049.8	2104.1	2085.0	2126.3	2153.8	2188.2	2185.9	2186.7
35°	1880.0	1856.3	1821.9	1828.0	1860.9	1831.0	1853.2	1852.5	1887.6	1879.2	1889.2
37.5°	1704.8	1637.5	1561.1	1517.5	1523.6	1486.1	1478.5	1496.8	1509.0	1485.3	1493.7
40°	1518.2	1418.8	1299.5	1200.0	1194.7	1148.0	1139.6	1121.3	1145.0	1125.1	1131.2
42.5°	1380.6	1249.0	1092.2	971.4	945.4	906.3	883.4	880.3	887.2	873.5	869.6
45°	1275.0	1135.0	955.3	816.9	787.8	745.7	722.8	714.4	715.1	710.5	706.7
47.5°	1151.1	1010.4	828.3	686.8	653.9	614.2	591.2	585.9	588.9	582.8	578.2
50°	979.8	853.6	687.6	558.3	529.3	500.2	481.9	476.5	475.7	471.1	468.1
52.5°	795.4	690.7	546.9	439.0	413.0	384.7	371.7	364.8	365.6	361.0	356.4
55°	615.7	550.7	423.7	331.9	308.2	286.1	273.8	265.4	263.1	258.5	256.2
57.5°	458.1	414.5	317.4	239.4	225.6	204.2	192.0	182.0	180.5	178.2	177.4
60°	321.2	289.9	223.3	170.6	154.5	141.5	129.3	119.3	114.7	114.0	111.7
62.5°	208.0	188.9	146.9	114.0	101.7	92.5	80.3	73.4	70.4	67.3	68.1
65°	129.3	114.7	91.8	73.4	66.5	59.7	50.5	44.4	41.3	38.2	39.0
67.5°	80.3	71.9	58.1	47.4	42.8	37.5	30.6	26.0	23.7	21.4	19.9
70°	54.3	46.7	39.8	33.7	30.6	26.8	22.2	18.4	16.8	15.3	13.8
72.5°	38.2	34.4	29.1	25.2	22.9	19.9	16.8	14.5	13.0	11.5	9.9
75°	27.5	24.5	21.4	18.4	16.8	15.3	13.0	11.5	9.9	8.4	6.9
77.5°	19.9	17.6	15.3	13.8	13.0	10.7	9.2	8.4	7.6	6.1	4.6
80°	13.8	12.2	9.9	9.2	9.2	7.6	6.9	6.1	5.4	3.8	3.1
82.5°	9.2	8.4	7.6	6.9	6.1	5.4	5.4	3.8	3.1	2.3	1.5
85°	6.9	6.1	5.4	4.6	4.6	3.8	3.1	2.3	2.3	1.5	0.8
87.5°	3.8	3.8	3.1	2.3	2.3	1.5	1.5	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



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CATALOG NUMBER: LSR8B40D010 EC8B40840 8LBSW0WH

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	2911.0	2911.0	2911.0	2911.0	2911.0	2911.0	2911.0	2911.0	2911.0	2911.0	2911.0
2.5°	2937.0	2939.3	2952.3	2942.4	2967.6	2986.0	2976.8	2997.4	2990.6	2989.0	3012.7
5°	2956.9	2962.3	2979.9	2970.7	2998.2	3018.1	3008.9	3031.9	3025.0	3023.4	3047.9
7.5°	2995.1	3000.5	3015.8	3008.2	3037.2	3054.8	3043.3	3068.6	3059.4	3058.6	3082.3
10°	3043.3	3051.0	3064.0	3056.3	3083.1	3098.4	3086.9	3111.4	3103.0	3099.2	3125.2
12.5°	3079.3	3084.6	3097.6	3091.5	3117.5	3129.0	3119.1	3142.8	3132.1	3129.0	3151.9
15°	3070.9	3076.2	3086.9	3081.6	3106.1	3116.8	3103.8	3129.8	3119.1	3112.9	3133.6
17.5°	3017.3	3020.4	3028.0	3022.7	3048.7	3055.6	3041.0	3067.0	3057.1	3046.4	3066.3
20°	2938.5	2937.0	2941.6	2939.3	2960.7	2964.6	2955.4	2974.5	2963.0	2956.9	2968.4
22.5°	2840.6	2839.1	2842.2	2836.1	2857.5	2859.8	2846.0	2868.9	2857.5	2846.0	2865.1
25°	2732.0	2723.6	2722.1	2724.4	2738.9	2741.2	2726.7	2743.5	2729.0	2719.8	2738.2
27.5°	2598.2	2587.5	2585.2	2587.5	2602.0	2591.3	2579.1	2591.3	2576.8	2568.4	2579.8
30°	2433.0	2417.7	2410.8	2406.2	2421.5	2417.7	2389.4	2403.2	2380.2	2368.0	2376.4
32.5°	2210.4	2202.0	2183.6	2172.9	2187.5	2158.4	2140.8	2140.8	2131.6	2111.0	2115.6
35°	1901.4	1888.4	1871.6	1862.4	1864.7	1825.7	1796.6	1802.7	1772.2	1766.8	1769.1
37.5°	1510.6	1489.2	1483.0	1463.9	1468.5	1434.1	1394.3	1395.1	1379.0	1362.2	1356.8
40°	1135.0	1131.2	1125.1	1109.0	1115.1	1077.7	1062.4	1063.1	1052.4	1040.2	1046.3
42.5°	877.3	865.0	861.2	855.9	857.4	851.3	831.4	833.7	824.5	821.4	818.4
45°	712.8	699.8	690.7	695.2	695.2	688.4	680.7	685.3	680.7	674.6	677.7
47.5°	587.4	575.2	570.6	569.8	575.2	570.6	562.9	564.5	563.7	561.4	559.9
50°	468.9	465.8	462.0	459.7	462.0	460.4	453.6	457.4	459.7	452.0	454.3
52.5°	357.2	357.2	356.4	351.1	355.7	351.1	350.3	351.8	349.5	346.5	345.7
55°	261.6	259.3	255.5	254.7	256.2	254.7	253.2	253.9	255.5	247.8	247.8
57.5°	179.0	177.4	175.2	175.2	178.2	174.4	172.1	175.2	172.1	169.0	169.0
60°	114.7	114.0	111.7	111.7	111.7	110.9	108.6	109.4	110.9	106.3	107.1
62.5°	68.8	66.5	65.8	65.0	65.8	65.0	65.0	64.2	63.5	63.5	61.2
65°	37.5	35.9	34.4	35.2	35.2	34.4	34.4	34.4	32.9	32.1	31.4
67.5°	19.1	17.6	17.6	16.8	16.8	16.8	16.8	16.1	16.1	16.1	15.3
70°	12.2	11.5	10.7	10.7	10.7	9.9	9.9	9.9	9.9	9.9	9.2
72.5°	8.4	7.6	6.9	6.9	6.9	6.1	6.1	6.1	6.1	5.4	5.4
75°	6.1	5.4	4.6	4.6	4.6	3.8	3.8	3.8	3.8	3.8	3.8
77.5°	3.8	3.1	3.1	3.1	3.1	2.3	2.3	2.3	2.3	2.3	1.5
80°	2.3	2.3	1.5	1.5	1.5	1.5	0.8	0.8	0.8	0.8	0.8
82.5°	1.5	1.5	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: P245404

CATALOG NUMBER: LSR8B40D010 EC8B40840 8LBSW0WH

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2911.0	2911.0	2911.0	2911.0	2911.0	2911.0	2911.0	2911.0
2.5°	3004.3	2998.2	3002.0	3030.3	3018.1	3014.3	2982.1	3010.4
5°	3040.3	3035.7	3035.7	3067.8	3053.3	3050.2	3018.9	3043.3
7.5°	3073.9	3069.3	3070.1	3103.0	3091.5	3086.9	3055.6	3080.0
10°	3117.5	3114.5	3115.2	3146.6	3134.4	3129.8	3097.6	3122.9
12.5°	3143.5	3138.9	3138.9	3172.6	3158.8	3151.9	3121.3	3145.8
15°	3123.6	3116.8	3116.8	3150.4	3135.1	3125.2	3098.4	3121.3
17.5°	3055.6	3048.7	3048.7	3077.8	3066.3	3051.7	3024.2	3045.6
20°	2960.7	2952.3	2950.0	2983.7	2967.6	2954.6	2930.1	2950.8
22.5°	2853.7	2849.8	2842.9	2876.6	2862.1	2848.3	2822.3	2838.4
25°	2725.2	2719.0	2712.2	2745.0	2730.5	2716.7	2696.1	2709.1
27.5°	2565.3	2566.1	2562.2	2588.2	2573.7	2566.1	2540.8	2562.2
30°	2371.8	2363.4	2360.3	2390.9	2377.1	2367.2	2335.8	2356.5
32.5°	2119.4	2107.2	2091.1	2125.5	2101.8	2093.4	2066.6	2096.5
35°	1752.3	1748.4	1733.9	1763.0	1750.0	1734.7	1717.9	1743.1
37.5°	1354.5	1357.6	1356.1	1363.7	1356.1	1346.1	1327.8	1318.6
40°	1034.1	1026.4	1020.3	1034.1	1018.0	1018.0	1007.3	1018.8
42.5°	810.7	807.7	815.3	818.4	809.2	807.7	806.2	805.4
45°	669.2	669.2	670.8	673.8	670.8	669.2	664.7	661.6
47.5°	551.5	554.5	551.5	561.4	556.0	554.5	545.3	549.2
50°	446.7	442.8	446.7	449.7	450.5	445.9	441.3	443.6
52.5°	346.5	340.4	338.8	343.4	340.4	340.4	337.3	336.5
55°	244.0	246.3	242.5	246.3	244.8	242.5	240.2	243.2
57.5°	165.2	166.0	164.4	166.7	162.9	163.7	162.9	162.1
60°	107.1	104.0	104.0	106.3	102.5	102.5	101.7	101.7
62.5°	61.2	60.4	60.4	59.7	58.9	58.9	58.9	57.4
65°	31.4	30.6	29.8	29.8	29.8	29.8	29.1	29.1
67.5°	15.3	14.5	14.5	15.3	14.5	14.5	14.5	14.5
70°	9.2	9.2	8.4	9.2	8.4	8.4	8.4	8.4
72.5°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
75°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
77.5°	2.3	1.5	1.5	1.5	1.5	1.5	1.5	1.5
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)