

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: P245477

Luminaire Tested: **LSR8B50D010 EC8B50840 8LBDW0WH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P245477  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13956)  
Test Lab: INNOVATION CENTER-P1  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LSR8B50D010 EC8B50840 8LBDW0WH  
Description: PORTFOLIO 8 INCH DOUBLE 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: 5588.0 lumens  
Efficiency: N/A  
Efficacy: 105.4 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.33 / 1.2  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

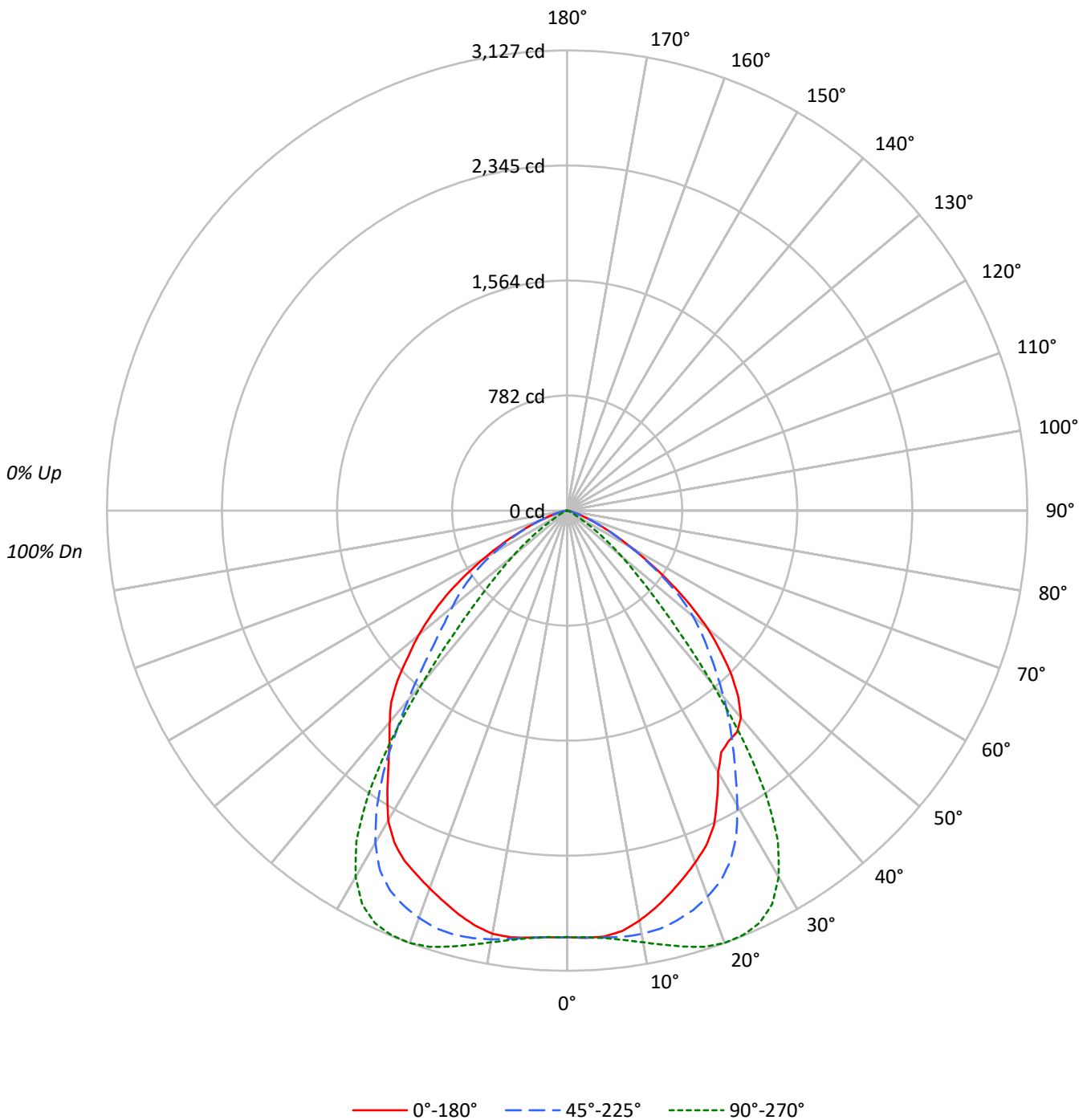
Input Watts (W): 53  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	92	90					90			
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79					79			
3	97	88	82	76	94	87	81	76	84	79	74	81	77	73	79	75	72	70					70			
4	90	80	73	67	88	79	72	67	76	70	66	74	69	65	72	68	64	62					62			
5	84	73	65	60	82	72	65	59	70	63	59	68	62	58	66	61	58	56					56			
6	78	66	59	53	76	66	58	53	64	57	53	62	57	52	61	56	52	50					50			
7	73	61	53	48	71	60	53	48	59	52	48	57	52	47	56	51	47	45					45			
8	68	56	49	44	67	56	48	43	54	48	43	53	47	43	52	47	43	41					41			
9	64	52	45	40	63	51	44	40	50	44	39	49	44	39	48	43	39	38					38			
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34					34			

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

	0°	90°	180°
0°	89391	89391	89391
5°	89922	90256	90160
10°	88600	93275	91444
15°	86010	97898	90725
20°	83515	102600	89625
25°	80307	105226	89208
30°	73086	102344	86563
35°	71998	88678	79644
40°	73955	61504	75500
45°	68846	37172	70991
50°	59717	22955	63262
55°	45826	11994	53686
60°	31219	4841	40519
65°	19423	2466	27953
70°	10540	1524	17067
75°	5504	727	10079
80°	2468	817	5469
85°	1628	531	4918



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	278.8	5.0
10°-20°	825.9	14.8
20°-30°	1259.9	22.5
30°-40°	1314.7	23.5
40°-50°	987.5	17.7
50°-60°	607.6	10.9
60°-70°	247.3	4.4
70°-80°	58.3	1.0
80°-90°	8.0	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°	2364.5	42.3
0°-40°	3679.3	65.8
0°-60°	5274.4	94.4
0°-90°	5588.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5588.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2899	2899	2899	2899	2899	
5°	2905	2913	2916	2913	2913	275
15°	2694	2884	3067	2982	2842	759
25°	2360	2625	3093	2848	2622	1073
35°	1913	1966	2356	2177	2116	1208
45°	1579	1366	852	1272	1628	1204
55°	852	809	223	809	999	766
65°	266	269	34	362	383	278
75°	46	46	6	82	85	56
85°	5	5	2	11	14	6
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2898.9	2898.9	2898.9	2898.9	2898.9	2898.9	2898.9	2898.9	2898.9	2898.9	2898.9
2.5°	2906.6	2901.9	2906.6	2906.6	2908.1	2905.0	2906.6	2908.1	2905.0	2905.0	2905.0
5°	2905.0	2901.9	2905.0	2903.5	2906.6	2906.6	2909.7	2909.7	2912.7	2912.7	2917.3
7.5°	2880.4	2874.3	2880.4	2885.0	2888.1	2894.3	2901.9	2908.1	2914.3	2920.4	2928.1
10°	2829.6	2829.6	2834.3	2843.5	2852.7	2863.5	2877.3	2892.7	2908.1	2921.9	2935.8
12.5°	2766.6	2761.9	2771.2	2783.5	2797.3	2814.3	2835.8	2858.9	2883.5	2911.2	2932.7
15°	2694.2	2689.6	2700.4	2712.7	2729.6	2754.2	2780.4	2811.2	2846.6	2883.5	2918.9
17.5°	2620.4	2618.8	2629.6	2646.5	2660.4	2686.5	2720.4	2757.3	2797.3	2846.6	2892.7
20°	2545.0	2543.5	2554.2	2568.1	2586.5	2611.1	2645.0	2688.1	2735.8	2791.2	2845.0
22.5°	2466.5	2468.0	2477.3	2492.7	2508.1	2534.2	2569.6	2612.7	2665.0	2725.0	2785.0
25°	2360.3	2352.6	2365.0	2380.4	2406.5	2428.0	2461.9	2508.1	2561.9	2625.0	2695.8
27.5°	2206.5	2204.9	2215.7	2229.5	2252.6	2278.8	2315.7	2363.4	2420.3	2489.6	2558.8
30°	2052.6	2055.7	2060.3	2074.2	2089.5	2115.7	2152.6	2192.6	2246.5	2312.6	2386.5
32.5°	1948.0	1948.0	1954.1	1963.4	1974.1	1988.0	2014.1	2043.4	2084.9	2131.1	2184.9
35°	1912.6	1906.4	1912.6	1914.1	1915.7	1918.7	1923.3	1932.6	1946.4	1966.4	1986.4
37.5°	1897.2	1892.6	1892.6	1886.4	1878.7	1869.5	1857.2	1843.3	1828.0	1807.9	1792.6
40°	1837.2	1834.1	1831.0	1824.9	1807.9	1789.5	1769.5	1737.2	1701.8	1652.5	1603.3
42.5°	1721.8	1718.7	1717.2	1704.9	1689.5	1667.9	1644.8	1611.0	1566.4	1503.3	1432.5
45°	1578.7	1572.5	1567.9	1557.2	1546.4	1527.9	1506.4	1475.6	1431.0	1366.4	1281.7
47.5°	1412.5	1409.4	1407.9	1403.3	1392.5	1381.7	1367.9	1343.3	1303.3	1241.7	1154.0
50°	1244.8	1238.7	1241.7	1240.2	1235.6	1227.9	1218.6	1201.7	1170.9	1115.5	1035.5
52.5°	1052.4	1052.4	1050.9	1055.5	1057.1	1055.5	1057.1	1038.6	1012.5	970.9	903.2
55°	852.4	852.4	857.0	863.2	869.4	870.9	869.4	861.7	843.2	809.3	749.3
57.5°	664.7	661.6	670.9	680.1	686.3	692.4	687.8	681.6	670.9	643.2	597.0
60°	506.2	506.2	512.4	518.5	524.7	530.9	529.3	527.8	518.5	500.1	463.2
62.5°	372.3	373.9	373.9	378.5	384.7	390.8	395.4	390.8	386.2	373.9	349.3
65°	266.2	264.6	266.2	270.8	275.4	281.6	284.7	283.1	278.5	269.3	250.8
67.5°	178.5	177.0	183.1	184.6	187.7	193.9	192.3	193.9	192.3	184.6	169.3
70°	116.9	113.9	116.9	115.4	120.0	121.6	124.6	126.2	124.6	120.0	115.4
72.5°	72.3	70.8	72.3	73.9	75.4	76.9	80.0	80.0	78.5	75.4	69.2
75°	46.2	41.5	43.1	40.0	43.1	43.1	46.2	47.7	46.2	46.2	43.1
77.5°	27.7	27.7	27.7	27.7	27.7	27.7	27.7	29.3	30.8	27.7	26.2
80°	13.9	13.9	15.4	15.4	15.4	16.9	15.4	15.4	15.4	16.9	12.3
82.5°	10.8	9.2	9.2	9.2	10.8	9.2	9.2	9.2	9.2	9.2	9.2
85°	4.6	6.1	4.6	3.1	4.6	4.6	6.1	4.6	4.6	4.6	6.1
87.5°	1.5	1.5	0.0	0.0	0.0	1.5	0.0	1.5	1.5	3.1	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



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2898.9	2898.9	2898.9	2898.9	2898.9	2898.9	2898.9	2898.9	2898.9	2898.9	2898.9
2.5°	2906.6	2903.5	2903.5	2901.9	2905.0	2901.9	2903.5	2901.9	2901.9	2905.0	2901.9
5°	2917.3	2918.9	2915.8	2914.3	2918.9	2918.9	2918.9	2915.8	2915.8	2917.3	2915.8
7.5°	2932.7	2935.8	2937.3	2938.9	2942.0	2943.5	2943.5	2942.0	2940.4	2945.1	2938.9
10°	2949.6	2954.3	2963.5	2968.1	2975.8	2975.8	2978.9	2978.9	2975.8	2978.9	2977.4
12.5°	2943.5	2971.2	2986.6	2997.3	3008.1	3017.3	3020.4	3022.0	3020.4	3026.6	3020.4
15°	2954.3	2977.4	3002.0	3020.4	3040.4	3051.2	3054.3	3066.6	3069.7	3071.2	3062.0
17.5°	2937.3	2978.9	3005.0	3032.7	3062.0	3082.0	3100.4	3108.1	3109.7	3112.7	3100.4
20°	2898.9	2945.1	2985.0	3025.1	3058.9	3089.7	3105.1	3126.6	3120.5	3132.8	3115.8
22.5°	2846.6	2898.9	2949.6	3002.0	3037.4	3074.3	3106.6	3122.0	3129.7	3129.7	3111.2
25°	2763.5	2825.0	2880.4	2934.2	2988.1	3032.7	3069.7	3092.7	3097.4	3095.8	3074.3
27.5°	2634.2	2700.4	2765.0	2826.6	2892.7	2945.1	2988.1	3015.8	3023.5	3023.5	3000.4
30°	2455.7	2526.5	2589.6	2663.4	2731.2	2789.6	2849.6	2874.3	2888.1	2888.1	2862.0
32.5°	2243.4	2303.4	2361.9	2434.2	2508.1	2574.2	2631.1	2665.0	2681.9	2680.4	2657.3
35°	2012.6	2041.8	2086.5	2140.3	2206.5	2268.0	2323.4	2355.7	2384.9	2383.4	2361.9
37.5°	1781.8	1774.1	1778.7	1798.7	1840.2	1883.4	1926.4	1957.2	1981.8	1992.6	1988.0
40°	1555.6	1515.6	1477.1	1463.3	1466.4	1481.8	1504.8	1527.9	1555.6	1569.5	1575.6
42.5°	1352.5	1284.8	1217.1	1166.3	1137.1	1127.8	1138.6	1146.3	1163.2	1183.2	1203.3
45°	1189.4	1098.6	1009.4	930.9	881.7	852.4	846.3	852.4	861.7	881.7	907.8
47.5°	1055.5	949.4	849.4	761.6	689.3	650.9	640.1	637.0	646.2	664.7	700.1
50°	937.0	830.9	720.1	618.5	543.2	500.1	484.7	478.5	489.3	503.1	535.4
52.5°	807.8	703.2	589.3	490.8	412.4	367.8	350.8	341.6	347.7	366.2	398.5
55°	667.8	570.8	467.8	366.2	290.8	249.3	229.2	223.1	229.2	249.3	281.6
57.5°	527.8	446.2	360.0	264.6	196.9	155.4	135.4	129.2	146.2	153.9	187.7
60°	412.4	346.2	272.4	193.9	135.4	103.1	83.1	78.5	86.2	100.0	127.7
62.5°	309.3	267.7	209.3	138.5	100.0	66.1	55.4	50.8	55.4	66.1	87.7
65°	224.7	192.3	146.2	101.5	67.7	49.2	36.9	33.8	38.5	46.2	64.6
67.5°	153.9	129.2	101.5	70.8	46.2	30.8	26.2	26.2	27.7	33.8	47.7
70°	100.0	84.6	64.6	46.2	30.8	23.1	20.0	16.9	20.0	24.6	32.3
72.5°	63.1	53.8	41.5	32.3	23.1	16.9	13.9	12.3	15.4	18.4	24.6
75°	38.5	29.3	21.5	16.9	12.3	12.3	12.3	6.1	7.7	12.3	15.4
77.5°	23.1	20.0	16.9	13.9	10.8	6.1	6.1	6.1	7.7	9.2	13.9
80°	12.3	10.8	7.7	7.7	6.1	4.6	6.1	4.6	3.1	7.7	9.2
82.5°	7.7	6.1	6.1	6.1	7.7	3.1	4.6	3.1	4.6	6.1	4.6
85°	4.6	4.6	4.6	3.1	7.7	3.1	3.1	1.5	1.5	3.1	3.1
87.5°	0.0	1.5	1.5	0.0	1.5	0.0	1.5	1.5	1.5	1.5	1.5
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):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2898.9	2898.9	2898.9	2898.9	2898.9	2898.9	2898.9	2898.9	2898.9	2898.9	2898.9
2.5°	2903.5	2901.9	2903.5	2901.9	2901.9	2901.9	2903.5	2903.5	2901.9	2901.9	2905.0
5°	2915.8	2915.8	2915.8	2914.3	2912.7	2912.7	2915.8	2915.8	2911.2	2915.8	2915.8
7.5°	2942.0	2937.3	2942.0	2935.8	2932.7	2934.2	2935.8	2932.7	2929.7	2931.2	2931.2
10°	2975.8	2971.2	2971.2	2966.6	2962.0	2958.9	2955.8	2948.1	2940.4	2938.9	2932.7
12.5°	3015.8	3008.1	3003.5	2994.3	2986.6	2975.8	2966.6	2954.3	2938.9	2928.1	2917.3
15°	3055.8	3043.5	3032.7	3017.3	3000.4	2981.9	2962.0	2942.0	2917.3	2895.8	2877.3
17.5°	3088.1	3071.2	3051.2	3026.6	3002.0	2974.3	2945.1	2915.8	2880.4	2852.7	2831.2
20°	3098.9	3074.3	3048.1	3015.8	2983.5	2945.1	2908.1	2869.6	2829.6	2800.4	2775.8
22.5°	3085.1	3055.8	3023.5	2989.7	2946.6	2905.0	2862.0	2817.3	2781.9	2741.9	2718.9
25°	3046.6	3011.2	2975.8	2935.8	2894.3	2848.1	2801.9	2755.8	2712.7	2691.1	2661.9
27.5°	2968.1	2929.7	2891.2	2849.6	2801.9	2755.8	2708.1	2663.4	2626.5	2597.3	2580.4
30°	2829.6	2785.0	2740.4	2695.8	2654.2	2606.5	2561.9	2525.0	2488.0	2465.0	2448.0
32.5°	2617.3	2577.3	2532.7	2489.6	2451.1	2411.1	2374.2	2341.9	2315.7	2300.3	2288.0
35°	2331.1	2291.1	2257.2	2226.5	2194.1	2177.2	2154.2	2135.7	2124.9	2118.8	2117.2
37.5°	1971.0	1948.0	1937.2	1931.1	1924.9	1920.3	1923.3	1931.1	1937.2	1948.0	1960.3
40°	1586.4	1606.4	1612.5	1634.1	1654.1	1680.2	1709.5	1743.3	1771.0	1806.4	1831.0
42.5°	1235.6	1272.5	1315.6	1361.7	1411.0	1458.7	1517.1	1571.0	1620.2	1664.8	1703.3
45°	949.4	1006.3	1070.9	1137.1	1203.3	1272.5	1343.3	1409.4	1467.9	1515.6	1555.6
47.5°	740.1	803.2	886.3	967.8	1047.8	1129.4	1207.9	1277.1	1326.3	1372.5	1407.9
50°	586.2	658.6	749.3	843.2	930.9	1017.0	1100.1	1164.8	1214.0	1251.0	1277.1
52.5°	453.9	540.1	632.4	730.9	824.7	918.6	995.5	1055.5	1095.5	1127.8	1147.8
55°	338.5	423.1	521.6	623.2	718.6	809.3	881.7	934.0	969.4	987.8	998.6
57.5°	244.6	321.6	420.0	521.6	607.8	693.9	752.4	800.1	820.1	830.9	835.5
60°	178.5	249.3	337.0	424.7	506.2	575.5	626.3	658.6	674.0	680.1	678.5
62.5°	130.8	192.3	267.7	341.6	407.7	464.7	504.7	526.2	533.9	537.0	532.4
65°	100.0	147.7	212.3	269.3	320.1	361.6	390.8	404.7	409.3	407.7	404.7
67.5°	73.9	110.8	158.5	201.6	238.5	270.8	286.2	298.5	301.6	297.0	292.3
70°	52.3	81.5	115.4	144.6	172.3	190.8	207.7	209.3	209.3	207.7	204.7
72.5°	36.9	56.9	78.5	98.5	115.4	129.2	135.4	140.0	138.5	136.9	133.9
75°	24.6	35.4	56.9	61.6	76.9	81.5	87.7	87.7	89.2	84.6	84.6
77.5°	15.4	24.6	33.8	40.0	46.2	52.3	55.4	55.4	56.9	55.4	55.4
80°	9.2	15.4	18.4	27.7	27.7	32.3	33.8	35.4	32.3	36.9	32.3
82.5°	6.1	9.2	13.9	13.9	16.9	20.0	20.0	21.5	21.5	20.0	20.0
85°	4.6	6.1	7.7	9.2	9.2	10.8	9.2	9.2	10.8	12.3	10.8
87.5°	1.5	3.1	1.5	3.1	3.1	6.1	4.6	4.6	4.6	6.1	6.1
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: P245477

CATALOG NUMBER: LSR8B50D010 EC8B50840 8LBDW0WH

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	2898.9	2898.9	2898.9	2898.9
2.5°	2901.9	2903.5	2901.9	2901.9
5°	2915.8	2914.3	2915.8	2912.7
7.5°	2926.6	2926.6	2925.0	2925.0
10°	2926.6	2920.4	2920.4	2920.4
12.5°	2903.5	2895.8	2891.2	2888.1
15°	2863.5	2849.6	2843.5	2841.9
17.5°	2811.2	2798.9	2791.2	2786.5
20°	2751.2	2738.8	2729.6	2731.2
22.5°	2698.8	2685.0	2678.8	2675.7
25°	2646.5	2629.6	2625.0	2621.9
27.5°	2561.9	2552.7	2548.0	2543.5
30°	2432.6	2428.0	2420.3	2431.1
32.5°	2283.4	2275.7	2269.6	2274.2
35°	2118.8	2114.1	2118.8	2115.7
37.5°	1968.0	1972.6	1978.8	1981.8
40°	1849.5	1866.4	1872.6	1875.6
42.5°	1731.0	1751.0	1763.3	1771.0
45°	1584.8	1604.8	1618.7	1627.9
47.5°	1434.0	1451.0	1464.8	1463.3
50°	1297.1	1306.3	1312.5	1318.7
52.5°	1158.6	1158.6	1160.2	1160.2
55°	1001.7	998.6	997.1	998.6
57.5°	829.3	826.3	824.7	820.1
60°	672.4	663.2	657.0	657.0
62.5°	526.2	515.5	510.9	509.3
65°	395.4	393.9	384.7	383.1
67.5°	286.2	280.0	273.9	275.4
70°	201.6	192.3	192.3	189.3
72.5°	130.8	126.2	124.6	124.6
75°	81.5	81.5	78.5	84.6
77.5°	53.8	53.8	52.3	53.8
80°	32.3	32.3	32.3	30.8
82.5°	20.0	21.5	20.0	20.0
85°	10.8	12.3	9.2	13.9
87.5°	6.1	7.7	6.1	7.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)