

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: P245471

Luminaire Tested: **LSR8B50D010 EC8B50835 8LBDW0WH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P245471  
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 EC8B50835 8LBDW0WH  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
80 CRI 3500 CCT WITH WHEAT TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5625.0 lumens  
Efficiency: N/A  
Efficacy: 106.1 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

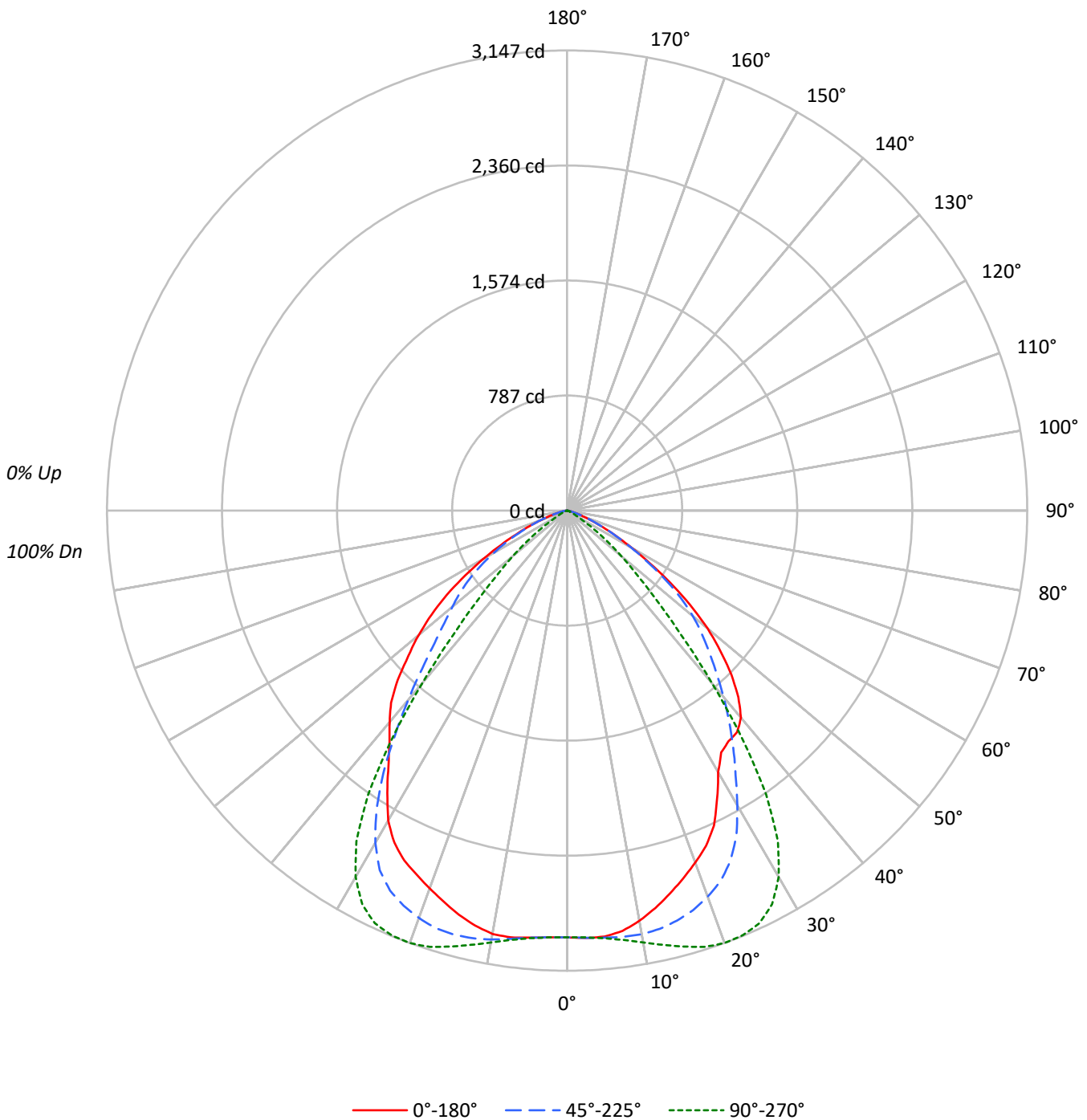
Input Watts (W): 53  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	92	90
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79
3	97	88	82	76	94	87	81	76	84	79	74	81	77	73	79	75	72	70
4	90	80	73	67	88	79	72	67	76	70	66	74	69	65	72	68	64	62
5	84	73	65	60	82	72	65	59	70	63	59	68	62	58	66	61	58	56
6	78	66	59	53	76	66	58	53	64	57	53	62	57	52	61	56	52	50
7	73	61	53	48	71	60	53	48	59	52	48	57	52	47	56	51	47	45
8	68	56	49	44	67	56	48	43	54	48	43	53	47	43	52	47	43	41
9	64	52	45	40	63	51	44	40	50	44	39	49	44	39	48	43	39	38
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34

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

	0°	90°	180°
0°	89983	89983	89983
5°	90519	90853	90757
10°	89189	93892	92051
15°	86581	98547	91325
20°	84066	103280	90219
25°	80841	105924	89800
30°	73571	103021	87137
35°	72473	89266	80171
40°	74446	61911	76003
45°	69299	37421	71462
50°	60110	23108	63679
55°	46133	12075	54041
60°	31428	4872	40790
65°	19547	2488	28143
70°	10612	1542	17175
75°	5540	739	10151
80°	2468	835	5505
85°	1663	566	4918



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	280.6	5.0
10°-20°	831.3	14.8
20°-30°	1268.3	22.5
30°-40°	1323.4	23.5
40°-50°	994.1	17.7
50°-60°	611.6	10.9
60°-70°	248.9	4.4
70°-80°	58.6	1.0
80°-90°	8.1	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°	2380.2	42.3
0°-40°	3703.7	65.8
0°-60°	5309.4	94.4
0°-90°	5625.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5625.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2918	2918	2918	2918	2918	
5°	2924	2932	2935	2932	2932	277
15°	2712	2903	3087	3002	2861	764
25°	2376	2642	3113	2867	2639	1080
35°	1925	1980	2371	2192	2130	1216
45°	1589	1375	858	1281	1639	1212
55°	858	815	225	815	1005	771
65°	268	271	34	364	386	279
75°	46	46	6	82	85	56
85°	5	5	2	11	14	7
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°	2918.1	2918.1	2918.1	2918.1	2918.1	2918.1	2918.1	2918.1	2918.1	2918.1	2918.1
2.5°	2925.8	2921.2	2925.8	2925.8	2927.4	2924.3	2925.8	2927.4	2924.3	2924.3	2924.3
5°	2924.3	2921.2	2924.3	2922.7	2925.8	2925.8	2928.9	2928.9	2932.0	2932.0	2936.7
7.5°	2899.5	2893.3	2899.5	2904.1	2907.2	2913.4	2921.2	2927.4	2933.6	2939.8	2947.5
10°	2848.4	2848.4	2853.0	2862.3	2871.6	2882.4	2896.4	2911.9	2927.4	2941.3	2955.2
12.5°	2784.9	2780.2	2789.5	2801.9	2815.8	2832.9	2854.6	2877.8	2902.6	2930.4	2952.2
15°	2712.1	2707.4	2718.3	2730.6	2747.7	2772.5	2798.8	2829.8	2865.4	2902.6	2938.2
17.5°	2637.7	2636.2	2647.0	2664.1	2678.0	2704.3	2738.4	2775.6	2815.8	2865.4	2911.9
20°	2561.8	2560.3	2571.1	2585.1	2603.6	2628.4	2662.5	2705.9	2753.9	2809.7	2863.9
22.5°	2482.8	2484.4	2493.7	2509.2	2524.7	2551.0	2586.6	2630.0	2682.6	2743.0	2803.4
25°	2376.0	2368.2	2380.6	2396.1	2422.4	2444.1	2478.2	2524.7	2578.9	2642.4	2713.6
27.5°	2221.1	2219.5	2230.4	2244.3	2267.5	2293.9	2331.0	2379.1	2436.4	2506.1	2575.8
30°	2066.2	2069.3	2073.9	2087.9	2103.4	2129.7	2166.9	2207.2	2261.4	2327.9	2402.3
32.5°	1960.9	1960.9	1967.1	1976.4	1987.2	2001.1	2027.5	2056.9	2098.7	2145.2	2199.4
35°	1925.2	1919.1	1925.2	1926.8	1928.3	1931.4	1936.1	1945.4	1959.3	1979.5	1999.6
37.5°	1909.8	1905.1	1905.1	1898.9	1891.2	1881.9	1869.5	1855.5	1840.1	1819.9	1804.4
40°	1849.4	1846.3	1843.1	1837.0	1819.9	1801.3	1781.2	1748.7	1713.0	1663.5	1613.9
42.5°	1733.2	1730.1	1728.5	1716.1	1700.6	1679.0	1655.7	1621.7	1576.8	1513.2	1442.0
45°	1589.1	1582.9	1578.3	1567.5	1556.6	1538.0	1516.3	1485.3	1440.4	1375.4	1290.2
47.5°	1421.9	1418.8	1417.2	1412.6	1401.7	1390.9	1377.0	1352.2	1311.9	1249.9	1161.7
50°	1253.0	1246.9	1249.9	1248.4	1243.7	1236.0	1226.7	1209.7	1178.7	1122.9	1042.4
52.5°	1059.4	1059.4	1057.9	1062.5	1064.1	1062.5	1064.1	1045.5	1019.2	977.3	909.2
55°	858.1	858.1	862.7	868.9	875.1	876.7	875.1	867.4	848.8	814.7	754.3
57.5°	669.1	666.0	675.3	684.6	690.8	697.0	692.3	686.1	675.3	647.4	601.0
60°	509.6	509.6	515.8	522.0	528.2	534.4	532.8	531.3	522.0	503.4	466.2
62.5°	374.8	376.4	376.4	381.0	387.2	393.4	398.0	393.4	388.8	376.4	351.6
65°	267.9	266.4	267.9	272.6	277.3	283.4	286.5	285.0	280.3	271.0	252.5
67.5°	179.7	178.1	184.3	185.9	189.0	195.2	193.6	195.2	193.6	185.9	170.4
70°	117.7	114.6	117.7	116.2	120.8	122.4	125.4	127.0	125.4	120.8	116.2
72.5°	72.8	71.2	72.8	74.4	75.9	77.4	80.5	80.5	79.0	75.9	69.7
75°	46.5	41.8	43.4	40.3	43.4	43.4	46.5	48.0	46.5	46.5	43.4
77.5°	27.9	27.9	27.9	27.9	27.9	27.9	27.9	29.4	31.0	27.9	26.3
80°	13.9	13.9	15.5	15.5	15.5	17.1	15.5	15.5	15.5	17.1	12.4
82.5°	10.8	9.3	9.3	9.3	10.8	9.3	9.3	9.3	9.3	9.3	9.3
85°	4.7	6.2	4.7	3.1	4.7	4.7	6.2	4.7	4.7	4.7	6.2
87.5°	1.6	1.6	0.0	0.0	0.0	1.6	0.0	1.6	1.6	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



TEST NUMBER: P245471

CATALOG NUMBER: LSR8B50D010 EC8B50835 8LBDW0WH

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2918.1	2918.1	2918.1	2918.1	2918.1	2918.1	2918.1	2918.1	2918.1	2918.1	2918.1
2.5°	2925.8	2922.7	2922.7	2921.2	2924.3	2921.2	2922.7	2921.2	2921.2	2924.3	2921.2
5°	2936.7	2938.2	2935.1	2933.6	2938.2	2938.2	2938.2	2935.1	2935.1	2936.7	2935.1
7.5°	2952.2	2955.2	2956.8	2958.3	2961.4	2963.0	2963.0	2961.4	2959.9	2964.6	2958.3
10°	2969.2	2973.8	2983.1	2987.8	2995.5	2995.5	2998.6	2998.6	2995.5	2998.6	2997.1
12.5°	2963.0	2990.9	3006.4	3017.2	3028.0	3037.3	3040.4	3042.0	3040.4	3046.6	3040.4
15°	2973.8	2997.1	3021.9	3040.4	3060.5	3071.4	3074.5	3086.9	3090.0	3091.5	3082.3
17.5°	2956.8	2998.6	3024.9	3052.8	3082.3	3102.4	3121.0	3128.7	3130.3	3133.4	3121.0
20°	2918.1	2964.6	3004.8	3045.1	3079.2	3110.1	3125.6	3147.3	3141.1	3153.5	3136.5
22.5°	2865.4	2918.1	2969.2	3021.9	3057.5	3094.7	3127.2	3142.6	3150.4	3150.4	3131.8
25°	2781.8	2843.7	2899.5	2953.7	3007.9	3052.8	3090.0	3113.2	3117.9	3116.3	3094.7
27.5°	2651.7	2718.3	2783.3	2845.3	2911.9	2964.6	3007.9	3035.8	3043.5	3043.5	3020.3
30°	2472.0	2543.2	2606.8	2681.1	2749.3	2808.1	2868.5	2893.3	2907.2	2907.2	2880.9
32.5°	2258.2	2318.7	2377.5	2450.3	2524.7	2591.3	2648.6	2682.6	2699.7	2698.1	2674.9
35°	2025.9	2055.3	2100.3	2154.5	2221.1	2283.0	2338.8	2371.3	2400.7	2399.2	2377.5
37.5°	1793.6	1785.8	1790.5	1810.6	1852.4	1895.8	1939.2	1970.2	1994.9	2005.8	2001.1
40°	1565.9	1525.6	1486.9	1473.0	1476.1	1491.6	1514.8	1538.0	1565.9	1579.9	1586.0
42.5°	1361.5	1293.3	1225.1	1174.0	1144.6	1135.3	1146.2	1153.9	1170.9	1191.1	1211.2
45°	1197.3	1105.9	1016.1	937.1	887.5	858.1	851.9	858.1	867.4	887.5	913.8
47.5°	1062.5	955.6	855.0	766.7	693.9	655.2	644.3	641.2	650.5	669.1	704.7
50°	943.2	836.4	724.9	622.6	546.8	503.4	487.9	481.7	492.5	506.5	539.0
52.5°	813.1	707.8	593.2	494.1	415.1	370.2	353.1	343.9	350.0	368.6	401.2
55°	672.2	574.6	470.8	368.6	292.7	250.9	230.8	224.6	230.8	250.9	283.4
57.5°	531.3	449.2	362.4	266.4	198.2	156.4	136.3	130.1	147.2	154.9	189.0
60°	415.1	348.5	274.2	195.2	136.3	103.8	83.6	79.0	86.7	100.7	128.6
62.5°	311.3	269.5	210.6	139.4	100.7	66.6	55.7	51.1	55.7	66.6	88.3
65°	226.1	193.6	147.2	102.2	68.1	49.6	37.2	34.1	38.7	46.5	65.1
67.5°	154.9	130.1	102.2	71.2	46.5	31.0	26.3	26.3	27.9	34.1	48.0
70°	100.7	85.2	65.1	46.5	31.0	23.2	20.1	17.1	20.1	24.8	32.5
72.5°	63.5	54.2	41.8	32.5	23.2	17.1	13.9	12.4	15.5	18.6	24.8
75°	38.7	29.4	21.7	17.1	12.4	12.4	12.4	6.2	7.7	12.4	15.5
77.5°	23.2	20.1	17.1	13.9	10.8	6.2	6.2	6.2	7.7	9.3	13.9
80°	12.4	10.8	7.7	7.7	6.2	4.7	6.2	4.7	3.1	7.7	9.3
82.5°	7.7	6.2	6.2	6.2	7.7	3.1	4.7	3.1	4.7	6.2	4.7
85°	4.7	4.7	4.7	3.1	7.7	3.1	3.1	1.6	1.6	3.1	3.1
87.5°	0.0	1.6	1.6	0.0	1.6	0.0	1.6	1.6	1.6	1.6	1.6
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: P245471

CATALOG NUMBER: LSR8B50D010 EC8B50835 8LBDW0WH

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2918.1	2918.1	2918.1	2918.1	2918.1	2918.1	2918.1	2918.1	2918.1	2918.1	2918.1
2.5°	2922.7	2921.2	2922.7	2921.2	2921.2	2921.2	2922.7	2922.7	2921.2	2921.2	2924.3
5°	2935.1	2935.1	2935.1	2933.6	2932.0	2932.0	2935.1	2935.1	2930.4	2935.1	2935.1
7.5°	2961.4	2956.8	2961.4	2955.2	2952.2	2953.7	2955.2	2952.2	2949.1	2950.6	2950.6
10°	2995.5	2990.9	2990.9	2986.2	2981.6	2978.5	2975.4	2967.6	2959.9	2958.3	2952.2
12.5°	3035.8	3028.0	3023.4	3014.1	3006.4	2995.5	2986.2	2973.8	2958.3	2947.5	2936.7
15°	3076.0	3063.7	3052.8	3037.3	3020.3	3001.7	2981.6	2961.4	2936.7	2915.0	2896.4
17.5°	3108.6	3091.5	3071.4	3046.6	3021.9	2994.0	2964.6	2935.1	2899.5	2871.6	2849.9
20°	3119.4	3094.7	3068.3	3035.8	3003.2	2964.6	2927.4	2888.6	2848.4	2818.9	2794.2
22.5°	3105.5	3076.0	3043.5	3009.5	2966.1	2924.3	2880.9	2836.0	2800.3	2760.1	2736.9
25°	3066.8	3031.1	2995.5	2955.2	2913.4	2867.0	2820.5	2774.0	2730.6	2709.0	2679.6
27.5°	2987.8	2949.1	2910.3	2868.5	2820.5	2774.0	2726.0	2681.1	2643.9	2614.5	2597.5
30°	2848.4	2803.4	2758.5	2713.6	2671.8	2623.8	2578.9	2541.7	2504.5	2481.3	2464.3
32.5°	2634.6	2594.4	2549.5	2506.1	2467.4	2427.1	2389.9	2357.4	2331.0	2315.5	2303.2
35°	2346.5	2306.3	2272.2	2241.2	2208.7	2191.7	2168.4	2149.8	2139.0	2132.8	2131.2
37.5°	1984.1	1960.9	1950.0	1943.8	1937.6	1933.0	1936.1	1943.8	1950.0	1960.9	1973.2
40°	1596.9	1617.0	1623.2	1644.9	1665.0	1691.4	1720.8	1754.9	1782.7	1818.4	1843.1
42.5°	1243.7	1280.9	1324.3	1370.7	1420.3	1468.3	1527.2	1581.4	1631.0	1675.9	1714.6
45°	955.6	1012.9	1078.0	1144.6	1211.2	1280.9	1352.2	1418.8	1477.6	1525.6	1565.9
47.5°	745.0	808.5	892.2	974.2	1054.8	1136.9	1215.9	1285.5	1335.1	1381.6	1417.2
50°	590.1	662.9	754.3	848.8	937.1	1023.8	1107.4	1172.5	1222.1	1259.2	1285.5
52.5°	456.9	543.7	636.6	735.7	830.2	924.7	1002.1	1062.5	1102.8	1135.3	1155.4
55°	340.7	425.9	525.1	627.3	723.3	814.7	887.5	940.2	975.8	994.4	1005.2
57.5°	246.3	323.7	422.8	525.1	611.8	698.5	757.4	805.4	825.5	836.4	841.0
60°	179.7	250.9	339.2	427.5	509.6	579.3	630.4	662.9	678.4	684.6	683.0
62.5°	131.7	193.6	269.5	343.9	410.4	467.7	508.0	529.7	537.5	540.5	535.9
65°	100.7	148.7	213.7	271.0	322.2	364.0	393.4	407.4	412.0	410.4	407.4
67.5°	74.4	111.5	159.6	202.9	240.1	272.6	288.1	300.5	303.6	298.9	294.3
70°	52.7	82.1	116.2	145.6	173.5	192.1	209.1	210.6	210.6	209.1	206.0
72.5°	37.2	57.3	79.0	99.1	116.2	130.1	136.3	140.9	139.4	137.8	134.8
75°	24.8	35.6	57.3	62.0	77.4	82.1	88.3	88.3	89.8	85.2	85.2
77.5°	15.5	24.8	34.1	40.3	46.5	52.7	55.7	55.7	57.3	55.7	55.7
80°	9.3	15.5	18.6	27.9	27.9	32.5	34.1	35.6	32.5	37.2	32.5
82.5°	6.2	9.3	13.9	13.9	17.1	20.1	20.1	21.7	21.7	20.1	20.1
85°	4.7	6.2	7.7	9.3	9.3	10.8	9.3	9.3	10.8	12.4	10.8
87.5°	1.6	3.1	1.6	3.1	3.1	6.2	4.7	4.7	4.7	6.2	6.2
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: P245471

CATALOG NUMBER: LSR8B50D010 EC8B50835 8LBDW0WH

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	2918.1	2918.1	2918.1	2918.1
2.5°	2921.2	2922.7	2921.2	2921.2
5°	2935.1	2933.6	2935.1	2932.0
7.5°	2945.9	2945.9	2944.4	2944.4
10°	2945.9	2939.8	2939.8	2939.8
12.5°	2922.7	2915.0	2910.3	2907.2
15°	2882.4	2868.5	2862.3	2860.7
17.5°	2829.8	2817.4	2809.7	2805.0
20°	2769.4	2757.0	2747.7	2749.3
22.5°	2716.7	2702.8	2696.6	2693.5
25°	2664.1	2647.0	2642.4	2639.3
27.5°	2578.9	2569.6	2564.9	2560.3
30°	2448.8	2444.1	2436.4	2447.2
32.5°	2298.5	2290.8	2284.6	2289.2
35°	2132.8	2128.1	2132.8	2129.7
37.5°	1981.0	1985.6	1991.9	1994.9
40°	1861.8	1878.8	1885.0	1888.1
42.5°	1742.5	1762.6	1775.0	1782.7
45°	1595.3	1615.5	1629.4	1638.7
47.5°	1443.5	1460.6	1474.5	1473.0
50°	1305.7	1315.0	1321.2	1327.4
52.5°	1166.3	1166.3	1167.8	1167.8
55°	1008.3	1005.2	1003.7	1005.2
57.5°	834.8	831.8	830.2	825.5
60°	676.9	667.6	661.4	661.4
62.5°	529.7	518.9	514.2	512.7
65°	398.0	396.5	387.2	385.7
67.5°	288.1	281.9	275.7	277.3
70°	202.9	193.6	193.6	190.5
72.5°	131.7	127.0	125.4	125.4
75°	82.1	82.1	79.0	85.2
77.5°	54.2	54.2	52.7	54.2
80°	32.5	32.5	32.5	31.0
82.5°	20.1	21.7	20.1	20.1
85°	10.8	12.4	9.3	13.9
87.5°	6.2	7.7	6.2	7.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)