

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: P249470

Luminaire Tested: **LSR8B70D010 EC8B70935 8LBDW0B**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P249470  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13957)  
Test Lab: INNOVATION CENTER-P1  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LSR8B70D010 EC8B70935 8LBDW0B  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
90 CRI 3500 CCT WITH SPECULAR BLACK TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5760.0 lumens  
Efficiency: N/A  
Efficacy: 75.9 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.26 / 1.18  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

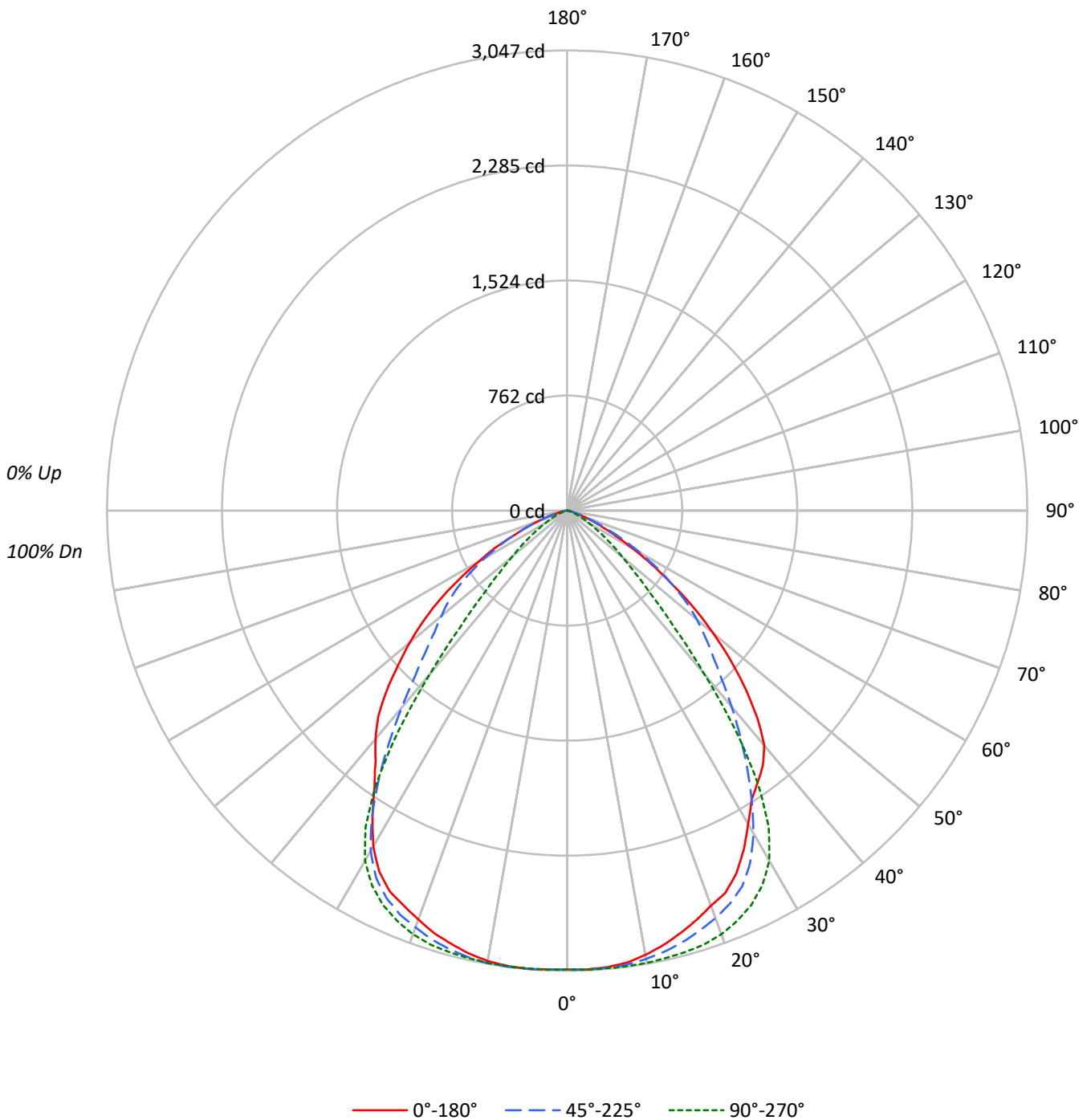
Input Watts (W): 75.9  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	91	90					90			
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79					79			
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70					70			
4	89	80	72	67	87	78	72	66	76	70	66	74	69	65	72	67	64	62					62			
5	83	72	65	59	81	71	64	59	69	63	58	68	62	58	66	61	57	55					55			
6	78	66	58	53	76	65	58	53	64	57	52	62	56	52	61	55	51	50					50			
7	72	61	53	48	71	60	53	48	59	52	47	57	51	47	56	51	47	45					45			
8	68	56	48	43	66	55	48	43	54	48	43	53	47	43	52	46	42	41					41			
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37					37			
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34					34			

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

	0°	90°	180°
0°	93715	93715	93715
5°	93921	94175	94274
10°	93526	95210	94803
15°	92491	96602	94783
20°	91378	97960	94538
25°	90191	98074	94635
30°	85328	95316	91427
35°	82780	82840	83702
40°	81756	56996	79457
45°	72845	34216	73843
50°	60570	22773	65267
55°	45428	15698	55337
60°	30787	10460	41752
65°	18570	6786	28683
70°	10296	3679	17644
75°	4670	1561	9138
80°	4049	1740	6375
85°	4635	2300	6369



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	290.0	5.0
10°-20°	842.3	14.6
20°-30°	1278.5	22.2
30°-40°	1342.8	23.3
40°-50°	1006.7	17.5
50°-60°	645.9	11.2
60°-70°	276.3	4.8
70°-80°	65.3	1.1
80°-90°	12.1	0.2
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°	2410.8	41.9
0°-40°	3753.6	65.2
0°-60°	5406.3	93.9
0°-90°	5760.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5760.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	3039	3039	3039	3039	3039	
5°	3034	3039	3042	3047	3046	288
15°	2897	2958	3026	3006	2969	817
25°	2651	2744	2882	2830	2781	1211
35°	2199	2077	2201	2174	2224	1380
45°	1670	1365	785	1326	1693	1279
55°	845	845	292	881	1029	766
65°	254	300	93	387	393	272
75°	39	46	13	78	77	57
85°	13	8	6	13	18	14
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°	3039.1	3039.1	3039.1	3039.1	3039.1	3039.1	3039.1	3039.1	3039.1	3039.1	3039.1
2.5°	3040.7	3044.0	3042.4	3042.4	3040.7	3042.4	3042.4	3045.6	3045.6	3042.4	3040.7
5°	3034.2	3037.5	3037.5	3034.2	3034.2	3042.4	3037.5	3040.7	3040.7	3039.1	3039.1
7.5°	3019.5	3019.5	3026.0	3021.2	3021.2	3026.0	3024.4	3027.7	3030.9	3032.6	3032.6
10°	2986.9	2990.2	2991.8	2991.8	2993.4	2998.3	3001.6	3008.1	3011.3	3014.6	3016.3
12.5°	2946.1	2951.0	2952.6	2951.0	2955.9	2962.4	2970.6	2978.7	2983.6	2990.2	2995.1
15°	2897.2	2897.2	2900.4	2905.3	2908.6	2918.4	2926.5	2936.3	2949.4	2957.5	2965.7
17.5°	2843.3	2846.6	2851.5	2851.5	2858.0	2874.3	2879.2	2893.9	2908.6	2916.7	2933.1
20°	2784.6	2787.9	2792.8	2796.0	2804.2	2817.2	2827.0	2840.1	2856.4	2871.1	2887.4
22.5°	2738.9	2732.4	2735.7	2738.9	2747.1	2758.5	2769.9	2786.2	2802.6	2817.2	2833.6
25°	2650.8	2652.5	2657.4	2660.6	2670.4	2680.2	2693.3	2712.8	2727.5	2743.8	2761.8
27.5°	2531.8	2533.4	2541.5	2541.5	2549.7	2566.0	2574.2	2590.5	2610.1	2626.4	2647.6
30°	2396.4	2399.6	2399.6	2406.2	2411.0	2419.2	2427.4	2443.7	2453.5	2468.1	2497.5
32.5°	2272.4	2275.6	2274.0	2272.4	2267.5	2265.9	2264.2	2267.5	2270.8	2275.6	2287.1
35°	2199.0	2190.8	2184.3	2172.9	2159.8	2143.5	2128.8	2109.3	2091.3	2076.6	2060.3
37.5°	2128.8	2127.2	2117.4	2101.1	2075.0	2045.6	2011.4	1969.0	1926.5	1880.9	1836.8
40°	2031.0	2026.0	2017.9	1995.1	1965.7	1929.8	1884.1	1831.9	1763.4	1693.3	1621.5
42.5°	1864.6	1866.2	1856.4	1838.4	1810.7	1776.5	1729.2	1672.1	1598.7	1515.5	1422.5
45°	1670.4	1670.4	1667.2	1652.5	1632.9	1605.2	1569.3	1522.0	1450.2	1365.4	1265.9
47.5°	1468.2	1469.8	1464.9	1461.6	1453.5	1435.5	1409.4	1373.6	1323.0	1241.4	1141.9
50°	1262.6	1262.6	1270.8	1269.1	1269.1	1262.6	1251.2	1230.0	1186.0	1120.7	1027.7
52.5°	1057.1	1060.3	1065.3	1071.8	1079.9	1093.0	1079.9	1070.1	1042.4	991.8	911.9
55°	845.0	848.3	856.4	867.8	877.7	890.7	893.9	893.9	879.2	845.0	784.6
57.5°	663.9	659.0	665.6	675.4	688.4	701.5	711.2	722.7	721.0	698.2	649.3
60°	499.2	500.8	505.7	515.5	525.3	536.7	549.7	559.5	564.4	553.0	522.0
62.5°	363.8	363.8	370.3	380.1	385.0	401.3	409.4	414.4	419.2	417.6	398.0
65°	254.5	257.7	261.0	265.9	270.8	280.6	285.5	295.3	298.5	300.2	285.5
67.5°	179.5	174.5	177.8	181.1	186.0	192.5	202.3	202.3	207.2	207.2	197.4
70°	114.2	114.2	115.8	120.7	124.0	125.6	128.9	132.1	137.0	135.4	135.4
72.5°	76.7	75.0	76.7	78.3	79.9	84.8	84.8	86.5	89.7	91.4	84.8
75°	39.2	40.8	44.0	42.4	47.3	44.0	45.7	50.6	48.9	45.7	45.7
77.5°	32.6	32.6	32.6	31.0	34.2	34.2	32.6	35.9	34.2	34.2	32.6
80°	22.8	24.5	22.8	21.2	22.8	21.2	21.2	21.2	21.2	21.2	19.6
82.5°	18.0	14.7	16.3	14.7	16.3	16.3	14.7	13.1	13.1	14.7	13.1
85°	13.1	9.8	11.4	11.4	9.8	9.8	9.8	9.8	9.8	8.1	8.1
87.5°	8.1	4.9	4.9	4.9	6.5	6.5	6.5	4.9	6.5	6.5	3.3
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°	3039.1	3039.1	3039.1	3039.1	3039.1	3039.1	3039.1	3039.1	3039.1	3039.1	3039.1
2.5°	3044.0	3042.4	3045.6	3044.0	3044.0	3042.4	3044.0	3042.4	3045.6	3039.1	3040.7
5°	3044.0	3040.7	3042.4	3044.0	3045.6	3042.4	3042.4	3042.4	3045.6	3042.4	3044.0
7.5°	3037.5	3035.8	3040.7	3044.0	3042.4	3040.7	3044.0	3042.4	3045.6	3044.0	3047.2
10°	3024.4	3026.0	3029.3	3034.2	3035.8	3037.5	3040.7	3040.7	3045.6	3039.1	3042.4
12.5°	3004.8	3011.3	3019.5	3022.8	3029.3	3029.3	3032.6	3034.2	3037.5	3035.8	3040.7
15°	2980.4	2988.5	2998.3	3006.5	3014.6	3019.5	3024.4	3026.0	3030.9	3026.0	3027.7
17.5°	2951.0	2960.8	2975.5	2985.2	2998.3	3003.2	3009.7	3013.0	3017.9	3014.6	3016.3
20°	2910.2	2921.7	2937.9	2952.6	2960.8	2972.2	2980.4	2985.2	2988.5	2985.2	2986.9
22.5°	2853.1	2869.4	2890.6	2902.1	2918.4	2928.2	2929.8	2941.2	2949.4	2941.2	2944.5
25°	2786.2	2802.6	2818.9	2843.3	2858.0	2869.4	2880.9	2882.5	2890.6	2889.0	2887.4
27.5°	2675.3	2696.5	2724.2	2743.8	2763.4	2781.4	2794.4	2797.6	2805.8	2802.6	2804.2
30°	2523.6	2546.5	2572.6	2603.5	2631.3	2649.2	2665.5	2676.9	2685.1	2680.2	2678.6
32.5°	2308.3	2331.1	2358.9	2389.8	2422.5	2448.5	2468.1	2482.8	2492.6	2489.3	2481.2
35°	2062.0	2068.5	2086.4	2110.9	2138.6	2166.3	2184.3	2200.6	2212.0	2215.3	2215.3
37.5°	1809.1	1787.9	1774.9	1774.9	1791.1	1802.6	1818.9	1828.7	1846.6	1853.1	1858.0
40°	1564.4	1515.5	1469.8	1435.5	1412.7	1411.1	1411.1	1415.9	1432.3	1453.5	1473.1
42.5°	1345.8	1267.5	1197.4	1133.7	1088.1	1062.0	1050.6	1052.2	1065.3	1084.8	1117.4
45°	1171.3	1073.4	985.3	908.6	846.6	805.8	786.3	784.6	794.4	817.3	853.2
47.5°	1035.9	931.5	831.9	743.9	677.0	632.9	610.1	603.6	610.1	631.3	673.7
50°	923.3	815.7	712.9	621.5	549.7	504.1	482.9	474.7	482.9	500.8	543.2
52.5°	818.9	708.0	611.7	523.6	447.0	407.8	385.0	380.1	385.0	406.2	440.5
55°	698.2	603.6	509.0	420.9	354.0	314.8	296.9	292.0	296.9	316.5	352.4
57.5°	579.1	497.5	414.4	334.4	277.3	243.0	226.8	220.2	231.6	244.7	287.1
60°	468.2	402.9	332.8	262.6	215.3	184.3	171.3	169.6	172.9	189.2	218.6
62.5°	367.1	313.2	257.7	200.7	161.5	148.4	132.1	130.5	133.8	143.5	166.4
65°	264.3	230.0	187.6	146.8	115.8	97.9	91.4	93.0	96.2	102.8	124.0
67.5°	184.3	159.9	130.5	102.8	79.9	71.8	65.3	63.6	65.3	76.7	88.1
70°	124.0	109.3	88.1	78.3	55.5	44.0	45.7	40.8	47.3	47.3	57.1
72.5°	81.5	71.8	58.7	45.7	39.2	31.0	31.0	29.4	32.6	34.2	42.4
75°	42.4	32.6	32.6	22.8	16.3	8.1	14.7	13.1	11.4	13.1	16.3
77.5°	29.4	24.5	22.8	18.0	16.3	13.1	13.1	13.1	13.1	14.7	16.3
80°	18.0	18.0	13.1	11.4	9.8	8.1	9.8	9.8	9.8	9.8	11.4
82.5°	11.4	9.8	9.8	8.1	8.1	6.5	6.5	6.5	6.5	6.5	9.8
85°	9.8	6.5	6.5	4.9	6.5	11.4	4.9	6.5	6.5	6.5	4.9
87.5°	3.3	4.9	4.9	4.9	3.3	1.6	3.3	4.9	4.9	8.1	6.5
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°	3039.1	3039.1	3039.1	3039.1	3039.1	3039.1	3039.1	3039.1	3039.1	3039.1	3039.1
2.5°	3044.0	3045.6	3045.6	3044.0	3044.0	3040.7	3047.2	3042.4	3044.0	3050.5	3045.6
5°	3047.2	3048.9	3048.9	3047.2	3047.2	3047.2	3048.9	3048.9	3047.2	3045.6	3048.9
7.5°	3053.8	3052.1	3052.1	3048.9	3048.9	3045.6	3048.9	3044.0	3047.2	3044.0	3048.9
10°	3045.6	3047.2	3045.6	3044.0	3044.0	3042.4	3042.4	3037.5	3039.1	3034.2	3037.5
12.5°	3040.7	3039.1	3039.1	3035.8	3032.6	3029.3	3027.7	3022.8	3022.8	3011.3	3016.3
15°	3027.7	3029.3	3024.4	3017.9	3014.6	3006.5	3003.2	2996.7	2990.2	2982.0	2983.6
17.5°	3016.3	3011.3	3004.8	2998.3	2985.2	2978.7	2972.2	2962.4	2959.1	2949.4	2946.1
20°	2982.0	2978.7	2970.6	2959.1	2951.0	2936.3	2929.8	2920.0	2911.8	2902.1	2897.2
22.5°	2937.9	2934.7	2924.9	2913.5	2900.4	2893.9	2887.4	2869.4	2861.3	2851.5	2849.9
25°	2882.5	2877.6	2867.8	2854.8	2848.2	2830.3	2823.7	2810.7	2807.5	2797.6	2796.0
27.5°	2797.6	2791.1	2779.7	2763.4	2752.0	2740.6	2734.1	2724.2	2721.0	2711.2	2709.6
30°	2670.4	2662.3	2639.4	2632.9	2613.3	2601.9	2601.9	2588.8	2590.5	2584.0	2584.0
32.5°	2469.8	2456.7	2438.8	2425.7	2412.7	2406.2	2406.2	2401.2	2404.5	2404.5	2407.8
35°	2203.9	2185.9	2176.1	2168.0	2168.0	2174.5	2194.1	2199.0	2208.8	2216.9	2223.5
37.5°	1862.9	1861.3	1872.7	1882.5	1907.0	1934.7	1969.0	1998.3	2026.0	2045.6	2065.2
40°	1494.3	1535.1	1567.7	1613.4	1650.8	1704.7	1766.7	1817.3	1864.6	1898.8	1934.7
42.5°	1166.4	1218.6	1287.1	1354.0	1420.9	1494.3	1575.8	1646.0	1708.0	1755.3	1792.8
45°	908.6	980.4	1063.6	1148.4	1234.9	1326.3	1411.1	1482.8	1548.1	1597.0	1634.6
47.5°	732.4	810.8	905.4	998.4	1096.2	1192.5	1287.1	1349.1	1402.9	1442.1	1476.3
50°	605.2	688.4	787.9	893.9	991.8	1088.1	1169.6	1230.0	1274.0	1308.3	1329.5
52.5°	505.7	593.8	699.8	805.8	903.7	991.8	1065.3	1110.9	1146.8	1171.3	1190.8
55°	417.6	502.4	602.0	701.5	797.7	880.9	941.2	975.5	1003.2	1017.9	1029.3
57.5°	341.0	419.2	510.6	602.0	685.1	753.7	801.0	835.2	848.3	859.7	858.1
60°	267.5	341.0	424.1	502.4	574.2	629.7	663.9	683.5	693.3	698.2	694.9
62.5°	210.4	277.3	341.0	409.4	461.7	509.0	541.6	541.6	546.5	548.1	553.0
65°	156.6	207.2	262.6	313.2	355.6	386.6	404.6	409.4	416.0	414.4	411.1
67.5°	115.8	153.4	194.1	231.6	261.0	280.6	293.6	305.1	303.4	300.2	298.5
70°	79.9	104.4	140.3	163.1	184.3	203.9	207.2	208.8	210.4	212.1	208.8
72.5°	55.5	73.4	93.0	112.6	125.6	133.8	141.9	143.5	143.5	143.5	141.9
75°	27.7	37.5	55.5	63.6	75.0	78.3	84.8	84.8	89.7	83.2	81.5
77.5°	24.5	29.4	39.2	45.7	50.6	55.5	57.1	62.0	60.4	57.1	58.7
80°	14.7	18.0	24.5	27.7	34.2	35.9	37.5	39.2	37.5	39.2	39.2
82.5°	11.4	13.1	16.3	16.3	21.2	21.2	22.8	22.8	24.5	24.5	24.5
85°	6.5	11.4	9.8	19.6	13.1	13.1	16.3	19.6	16.3	16.3	19.6
87.5°	6.5	6.5	4.9	6.5	6.5	6.5	8.1	9.8	9.8	11.4	9.8
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: P249470

CATALOG NUMBER: LSR8B70D010 EC8B70935 8LBDW0B

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	3039.1	3039.1	3039.1	3039.1
2.5°	3044.0	3047.2	3042.4	3040.7
5°	3048.9	3048.9	3045.6	3045.6
7.5°	3048.9	3048.9	3044.0	3040.7
10°	3035.8	3035.8	3030.9	3027.7
12.5°	3011.3	3011.3	3009.7	3004.8
15°	2980.4	2980.4	2973.8	2969.0
17.5°	2937.9	2941.2	2933.1	2933.1
20°	2892.3	2890.6	2884.1	2880.9
22.5°	2845.0	2841.7	2840.1	2830.3
25°	2794.4	2791.1	2786.2	2781.4
27.5°	2708.0	2706.3	2701.4	2694.9
30°	2575.8	2574.2	2567.7	2567.7
32.5°	2404.5	2402.9	2396.4	2398.0
35°	2226.7	2233.2	2230.0	2223.5
37.5°	2078.3	2083.2	2086.4	2083.2
40°	1954.3	1969.0	1970.6	1973.9
42.5°	1822.2	1841.7	1848.3	1851.5
45°	1663.9	1681.9	1696.5	1693.3
47.5°	1502.4	1515.5	1528.5	1518.7
50°	1347.5	1355.6	1360.5	1360.5
52.5°	1200.6	1200.6	1199.0	1200.6
55°	1032.6	1032.6	1026.1	1029.3
57.5°	856.4	859.7	854.8	846.6
60°	693.3	685.1	681.9	677.0
62.5°	540.0	540.0	528.6	543.2
65°	404.6	399.7	394.8	393.1
67.5°	293.6	292.0	287.1	285.5
70°	207.2	200.7	199.0	195.7
72.5°	138.7	138.7	135.4	135.4
75°	84.8	76.7	75.0	76.7
77.5°	58.7	57.1	57.1	55.5
80°	39.2	37.5	40.8	35.9
82.5°	24.5	26.1	24.5	26.1
85°	16.3	19.6	18.0	18.0
87.5°	9.8	9.8	9.8	9.8
90°	0.0	0.0	0.0	0.0

(END OF REPORT)