

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: P249173

Luminaire Tested: **LSR8B70D010 EC8B70927 8LBDW0H**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P249173  
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 EC8B70927 8LBDW0H  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
97 CRI 2700 CCT WITH SEMI-SPECULAR CLEAR TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5978.3 lumens  
Efficiency: N/A  
Efficacy: 78.8 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.26 / 1.18  
Luminous Opening: Point Source (0' x 0' x 0')  
CIE Type: Direct

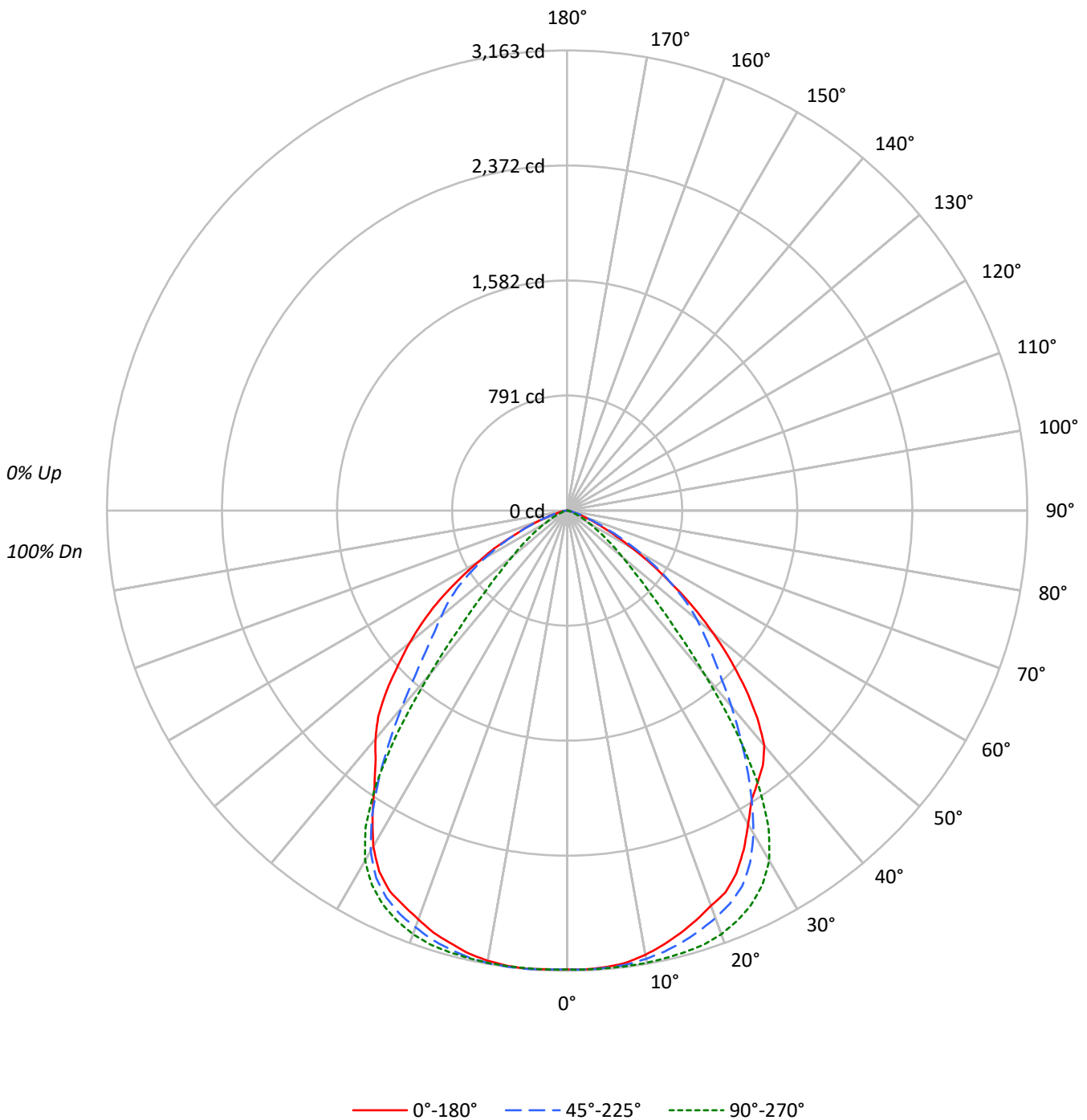
Input Watts (W): 75.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°	90°	180°
0°	Luminaire represents a point source (luminous area is zero).		
5°	No luminance values can be calculated.		
10°			
15°			
20°			
25°			
30°			
35°			
40°			
45°			
50°			
55°			
60°			
65°			
70°			
75°			
80°			
85°			



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	301.0	5.0
10°-20°	874.2	14.6
20°-30°	1326.9	22.2
30°-40°	1393.7	23.3
40°-50°	1044.9	17.5
50°-60°	670.4	11.2
60°-70°	286.8	4.8
70°-80°	67.8	1.1
80°-90°	12.6	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°	2502.2	41.9
0°-40°	3895.8	65.2
0°-60°	5611.1	93.9
0°-90°	5978.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5978.3	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	3154	3154	3154	3154	3154	
5°	3149	3154	3158	3163	3161	299
15°	3007	3070	3141	3120	3082	848
25°	2751	2848	2992	2938	2887	1257
35°	2282	2155	2284	2257	2308	1432
45°	1734	1417	814	1377	1758	1328
55°	877	877	303	914	1068	796
65°	264	312	96	401	408	282
75°	41	47	14	81	80	59
85°	14	8	7	14	19	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°	3154.3	3154.3	3154.3	3154.3	3154.3	3154.3	3154.3	3154.3	3154.3	3154.3	3154.3
2.5°	3156.0	3159.3	3157.6	3157.6	3156.0	3157.6	3157.6	3161.0	3161.0	3157.6	3156.0
5°	3149.1	3152.6	3152.6	3149.1	3149.1	3157.6	3152.6	3156.0	3156.0	3154.3	3154.3
7.5°	3133.9	3133.9	3140.7	3135.6	3135.6	3140.7	3139.0	3142.4	3145.8	3147.5	3147.5
10°	3100.0	3103.4	3105.1	3105.1	3106.8	3111.9	3115.4	3122.1	3125.5	3128.8	3130.5
12.5°	3057.8	3062.8	3064.5	3062.8	3067.9	3074.6	3083.2	3091.6	3096.7	3103.4	3108.6
15°	3006.9	3006.9	3010.3	3015.5	3018.8	3029.0	3037.4	3047.5	3061.1	3069.6	3078.1
17.5°	2951.1	2954.5	2959.5	2959.5	2966.3	2983.3	2988.3	3003.5	3018.8	3027.3	3044.2
20°	2890.1	2893.5	2898.6	2901.9	2910.5	2924.0	2934.1	2947.7	2964.6	2979.9	2996.8
22.5°	2842.8	2835.9	2839.3	2842.8	2851.2	2863.0	2874.9	2891.8	2908.7	2924.0	2941.0
25°	2751.3	2753.0	2758.0	2761.4	2771.7	2781.8	2795.3	2815.6	2830.8	2847.8	2866.4
27.5°	2627.7	2629.4	2637.9	2637.9	2646.3	2663.2	2671.6	2688.6	2709.0	2725.9	2747.9
30°	2487.2	2490.5	2490.5	2497.3	2502.3	2510.9	2519.3	2536.3	2546.4	2561.6	2592.1
32.5°	2358.5	2361.8	2360.1	2358.5	2353.4	2351.7	2350.0	2353.4	2356.8	2361.8	2373.8
35°	2282.3	2273.8	2267.1	2255.2	2241.7	2224.7	2209.5	2189.1	2170.6	2155.3	2138.4
37.5°	2209.5	2207.8	2197.7	2180.7	2153.6	2123.1	2087.7	2043.6	1999.6	1952.1	1906.4
40°	2107.9	2102.8	2094.4	2070.7	2040.2	2003.0	1955.6	1901.4	1830.3	1757.5	1683.0
42.5°	1935.2	1936.9	1926.8	1908.1	1879.3	1843.8	1794.7	1735.4	1659.3	1572.9	1476.3
45°	1733.7	1733.7	1730.4	1715.1	1694.8	1666.0	1628.8	1579.6	1505.1	1417.2	1313.8
47.5°	1523.8	1525.5	1520.4	1517.1	1508.5	1490.0	1462.8	1425.6	1373.1	1288.5	1185.2
50°	1310.5	1310.5	1319.0	1317.3	1317.3	1310.5	1298.6	1276.5	1230.9	1163.1	1066.7
52.5°	1097.1	1100.5	1105.6	1112.4	1120.8	1134.3	1120.8	1110.7	1081.9	1029.4	946.5
55°	877.0	880.4	888.9	900.7	910.9	924.4	927.8	927.8	912.6	877.0	814.4
57.5°	689.1	684.0	690.8	701.0	714.5	728.1	738.2	750.0	748.4	724.6	673.9
60°	518.1	519.8	524.8	535.1	545.2	557.0	570.6	580.7	585.8	574.0	541.8
62.5°	377.6	377.6	384.3	394.4	399.6	416.5	424.9	430.1	435.2	433.5	413.1
65°	264.2	267.5	270.9	276.0	281.0	291.2	296.3	306.4	309.8	311.5	296.3
67.5°	186.3	181.1	184.6	187.9	193.0	199.8	209.9	209.9	215.0	215.0	204.9
70°	118.6	118.6	120.3	125.3	128.7	130.4	133.8	137.1	142.2	140.5	140.5
72.5°	79.5	77.9	79.5	81.2	83.0	88.1	88.1	89.8	93.1	94.8	88.1
75°	40.6	42.3	45.7	44.0	49.1	45.7	47.4	52.5	50.7	47.4	47.4
77.5°	33.9	33.9	33.9	32.2	35.6	35.6	33.9	37.2	35.6	35.6	33.9
80°	23.7	25.4	23.7	22.0	23.7	22.0	22.0	22.0	22.0	22.0	20.2
82.5°	18.7	15.3	17.0	15.3	17.0	17.0	15.3	13.5	13.5	15.3	13.5
85°	13.5	10.1	11.8	11.8	10.1	10.1	10.1	10.1	10.1	8.4	8.4
87.5°	8.4	5.1	5.1	5.1	6.8	6.8	6.8	5.1	6.8	6.8	3.4
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°	3154.3	3154.3	3154.3	3154.3	3154.3	3154.3	3154.3	3154.3	3154.3	3154.3	3154.3
2.5°	3159.3	3157.6	3161.0	3159.3	3159.3	3157.6	3159.3	3157.6	3161.0	3154.3	3156.0
5°	3159.3	3156.0	3157.6	3159.3	3161.0	3157.6	3157.6	3157.6	3161.0	3157.6	3159.3
7.5°	3152.6	3150.9	3156.0	3159.3	3157.6	3156.0	3159.3	3157.6	3161.0	3159.3	3162.7
10°	3139.0	3140.7	3144.0	3149.1	3150.9	3152.6	3156.0	3156.0	3161.0	3154.3	3157.6
12.5°	3118.7	3125.5	3133.9	3137.3	3144.0	3144.0	3147.5	3149.1	3152.6	3150.9	3156.0
15°	3093.3	3101.7	3111.9	3120.4	3128.8	3133.9	3139.0	3140.7	3145.8	3140.7	3142.4
17.5°	3062.8	3072.9	3088.2	3098.4	3111.9	3117.0	3123.8	3127.2	3132.2	3128.8	3130.5
20°	3020.5	3032.3	3049.3	3064.5	3072.9	3084.9	3093.3	3098.4	3101.7	3098.4	3100.0
22.5°	2961.2	2978.2	3000.2	3012.1	3029.0	3039.1	3040.8	3052.7	3061.1	3052.7	3056.1
25°	2891.8	2908.7	2925.7	2951.1	2966.3	2978.2	2990.0	2991.7	3000.2	2998.5	2996.8
27.5°	2776.7	2798.7	2827.5	2847.8	2868.1	2886.8	2900.2	2903.6	2912.2	2908.7	2910.5
30°	2619.2	2643.0	2670.1	2702.1	2730.9	2749.6	2766.5	2778.4	2786.8	2781.8	2780.1
32.5°	2395.8	2419.4	2448.2	2480.4	2514.3	2541.4	2561.6	2576.9	2587.0	2583.7	2575.2
35°	2140.1	2146.8	2165.5	2190.9	2219.6	2248.4	2267.1	2284.0	2295.8	2299.3	2299.3
37.5°	1877.6	1855.7	1842.1	1842.1	1859.1	1870.9	1887.8	1898.0	1916.6	1923.3	1928.5
40°	1623.7	1572.9	1525.5	1490.0	1466.2	1464.5	1464.5	1469.6	1486.6	1508.5	1528.9
42.5°	1396.8	1315.6	1242.8	1176.8	1129.3	1102.2	1090.4	1092.0	1105.6	1125.9	1159.8
45°	1215.7	1114.1	1022.6	943.1	878.7	836.3	816.1	814.4	824.5	848.2	885.5
47.5°	1075.2	966.7	863.4	772.1	702.7	656.9	633.3	626.5	633.3	655.2	699.3
50°	958.3	846.6	739.9	645.1	570.6	523.2	501.2	492.8	501.2	519.8	563.7
52.5°	849.9	734.8	634.9	543.5	464.0	423.2	399.6	394.4	399.6	421.5	457.2
55°	724.6	626.5	528.2	436.8	367.4	326.8	308.1	303.1	308.1	328.5	365.7
57.5°	601.1	516.4	430.1	347.1	287.9	252.2	235.4	228.6	240.4	253.9	298.0
60°	485.9	418.2	345.4	272.6	223.5	191.4	177.8	176.1	179.4	196.4	226.9
62.5°	380.9	325.1	267.5	208.2	167.6	154.0	137.1	135.5	138.8	149.0	172.7
65°	274.3	238.7	194.7	152.3	120.3	101.6	94.8	96.5	99.9	106.6	128.7
67.5°	191.4	165.9	135.5	106.6	83.0	74.5	67.7	66.0	67.7	79.5	91.5
70°	128.7	113.4	91.5	81.2	57.6	45.7	47.4	42.3	49.1	49.1	59.3
72.5°	84.6	74.5	61.0	47.4	40.6	32.2	32.2	30.5	33.9	35.6	44.0
75°	44.0	33.9	33.9	23.7	17.0	8.4	15.3	13.5	11.8	13.5	17.0
77.5°	30.5	25.4	23.7	18.7	17.0	13.5	13.5	13.5	13.5	15.3	17.0
80°	18.7	18.7	13.5	11.8	10.1	8.4	10.1	10.1	10.1	10.1	11.8
82.5°	11.8	10.1	10.1	8.4	8.4	6.8	6.8	6.8	6.8	6.8	10.1
85°	10.1	6.8	6.8	5.1	6.8	11.8	5.1	6.8	6.8	6.8	5.1
87.5°	3.4	5.1	5.1	5.1	3.4	1.7	3.4	5.1	5.1	8.4	6.8
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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**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	3154.3	3154.3	3154.3	3154.3	3154.3	3154.3	3154.3	3154.3	3154.3	3154.3	3154.3
2.5°	3159.3	3161.0	3161.0	3159.3	3159.3	3156.0	3162.7	3157.6	3159.3	3166.1	3161.0
5°	3162.7	3164.4	3164.4	3162.7	3162.7	3162.7	3164.4	3164.4	3162.7	3161.0	3164.4
7.5°	3169.5	3167.8	3167.8	3164.4	3164.4	3161.0	3164.4	3159.3	3162.7	3159.3	3164.4
10°	3161.0	3162.7	3161.0	3159.3	3159.3	3157.6	3157.6	3152.6	3154.3	3149.1	3152.6
12.5°	3156.0	3154.3	3154.3	3150.9	3147.5	3144.0	3142.4	3137.3	3137.3	3125.5	3130.5
15°	3142.4	3144.0	3139.0	3132.2	3128.8	3120.4	3117.0	3110.2	3103.4	3095.0	3096.7
17.5°	3130.5	3125.5	3118.7	3111.9	3098.4	3091.6	3084.9	3074.6	3071.2	3061.1	3057.8
20°	3095.0	3091.6	3083.2	3071.2	3062.8	3047.5	3040.8	3030.6	3022.2	3012.1	3006.9
22.5°	3049.3	3045.8	3035.7	3023.9	3010.3	3003.5	2996.8	2978.2	2969.7	2959.5	2957.8
25°	2991.7	2986.6	2976.5	2962.9	2956.2	2937.5	2930.7	2917.2	2913.9	2903.6	2901.9
27.5°	2903.6	2896.9	2885.1	2868.1	2856.3	2844.5	2837.7	2827.5	2824.1	2814.0	2812.3
30°	2771.7	2763.1	2739.4	2732.6	2712.4	2700.5	2700.5	2687.0	2688.6	2681.9	2681.9
32.5°	2563.3	2549.8	2531.1	2517.6	2504.0	2497.3	2497.3	2492.2	2495.6	2495.6	2499.1
35°	2287.4	2268.8	2258.5	2250.1	2250.1	2256.9	2277.2	2282.3	2292.4	2301.0	2307.7
37.5°	1933.5	1931.8	1943.7	1953.8	1979.2	2008.0	2043.6	2074.0	2102.8	2123.1	2143.5
40°	1550.9	1593.2	1627.1	1674.4	1713.4	1769.3	1833.6	1886.1	1935.2	1970.8	2008.0
42.5°	1210.5	1264.7	1335.8	1405.2	1474.6	1550.9	1635.5	1708.3	1772.7	1821.8	1860.8
45°	943.1	1017.6	1104.0	1191.9	1281.7	1376.6	1464.5	1539.0	1606.7	1657.6	1696.5
47.5°	760.2	841.5	939.7	1036.2	1137.7	1237.6	1335.8	1400.2	1456.1	1496.7	1532.2
50°	628.1	714.5	817.8	927.8	1029.4	1129.3	1214.0	1276.5	1322.3	1357.9	1379.8
52.5°	524.8	616.3	726.3	836.3	937.9	1029.4	1105.6	1153.0	1190.2	1215.7	1235.9
55°	433.5	521.4	624.7	728.1	827.9	914.3	977.0	1012.5	1041.2	1056.5	1068.3
57.5°	353.9	435.2	530.0	624.7	711.1	782.2	831.4	866.8	880.4	892.2	890.6
60°	277.7	353.9	440.2	521.4	596.0	653.5	689.1	709.4	719.6	724.6	721.2
62.5°	218.4	287.9	353.9	424.9	479.1	528.2	562.2	562.2	567.2	568.9	574.0
65°	162.6	215.0	272.6	325.1	369.1	401.3	420.0	424.9	431.8	430.1	426.7
67.5°	120.3	159.2	201.5	240.4	270.9	291.2	304.8	316.6	314.9	311.5	309.8
70°	83.0	108.3	145.6	169.3	191.4	211.6	215.0	216.7	218.4	220.0	216.7
72.5°	57.6	76.2	96.5	116.8	130.4	138.8	147.3	149.0	149.0	149.0	147.3
75°	28.8	38.9	57.6	66.0	77.9	81.2	88.1	88.1	93.1	86.3	84.6
77.5°	25.4	30.5	40.6	47.4	52.5	57.6	59.3	64.4	62.7	59.3	61.0
80°	15.3	18.7	25.4	28.8	35.6	37.2	38.9	40.6	38.9	40.6	40.6
82.5°	11.8	13.5	17.0	17.0	22.0	22.0	23.7	23.7	25.4	25.4	25.4
85°	6.8	11.8	10.1	20.2	13.5	13.5	17.0	20.2	17.0	17.0	20.2
87.5°	6.8	6.8	5.1	6.8	6.8	6.8	8.4	10.1	10.1	11.8	10.1
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: P249173

CATALOG NUMBER: LSR8B70D010 EC8B70927 8LBDW0H

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	3154.3	3154.3	3154.3	3154.3
2.5°	3159.3	3162.7	3157.6	3156.0
5°	3164.4	3164.4	3161.0	3161.0
7.5°	3164.4	3164.4	3159.3	3156.0
10°	3150.9	3150.9	3145.8	3142.4
12.5°	3125.5	3125.5	3123.8	3118.7
15°	3093.3	3093.3	3086.5	3081.5
17.5°	3049.3	3052.7	3044.2	3044.2
20°	3001.8	3000.2	2993.4	2990.0
22.5°	2952.8	2949.4	2947.7	2937.5
25°	2900.2	2896.9	2891.8	2886.8
27.5°	2810.6	2808.9	2803.7	2797.0
30°	2673.5	2671.6	2664.9	2664.9
32.5°	2495.6	2493.9	2487.2	2488.8
35°	2311.1	2317.8	2314.5	2307.7
37.5°	2157.0	2162.1	2165.5	2162.1
40°	2028.4	2043.6	2045.2	2048.6
42.5°	1891.2	1911.5	1918.4	1921.6
45°	1727.0	1745.6	1760.8	1757.5
47.5°	1559.4	1572.9	1586.5	1576.2
50°	1398.5	1406.9	1412.1	1412.1
52.5°	1246.2	1246.2	1244.5	1246.2
55°	1071.7	1071.7	1064.9	1068.3
57.5°	888.9	892.2	887.2	878.7
60°	719.6	711.1	707.7	702.7
62.5°	560.5	560.5	548.6	563.7
65°	420.0	414.8	409.7	408.0
67.5°	304.8	303.1	298.0	296.3
70°	215.0	208.2	206.6	203.2
72.5°	143.9	143.9	140.5	140.5
75°	88.1	79.5	77.9	79.5
77.5°	61.0	59.3	59.3	57.6
80°	40.6	38.9	42.3	37.2
82.5°	25.4	27.1	25.4	27.1
85°	17.0	20.2	18.7	18.7
87.5°	10.1	10.1	10.1	10.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)