

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: FAIL-SAFE

Report Number: P838133

Luminaire Tested: **ORLG-24-4-INS-ASY2R-LD4-3LO-50-120-EDD**

Issue Date: 5/21/2024

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

**Test Information**

Test Method: LM-79-08
Report Number: P838133
Test Lab: INNOVATION CENTER(G2)
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: ORLG-24-4-INS-ASY2R-LD4-3LO-50-120-EDD
Description: 2FT x 4FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2 and RFI grid
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

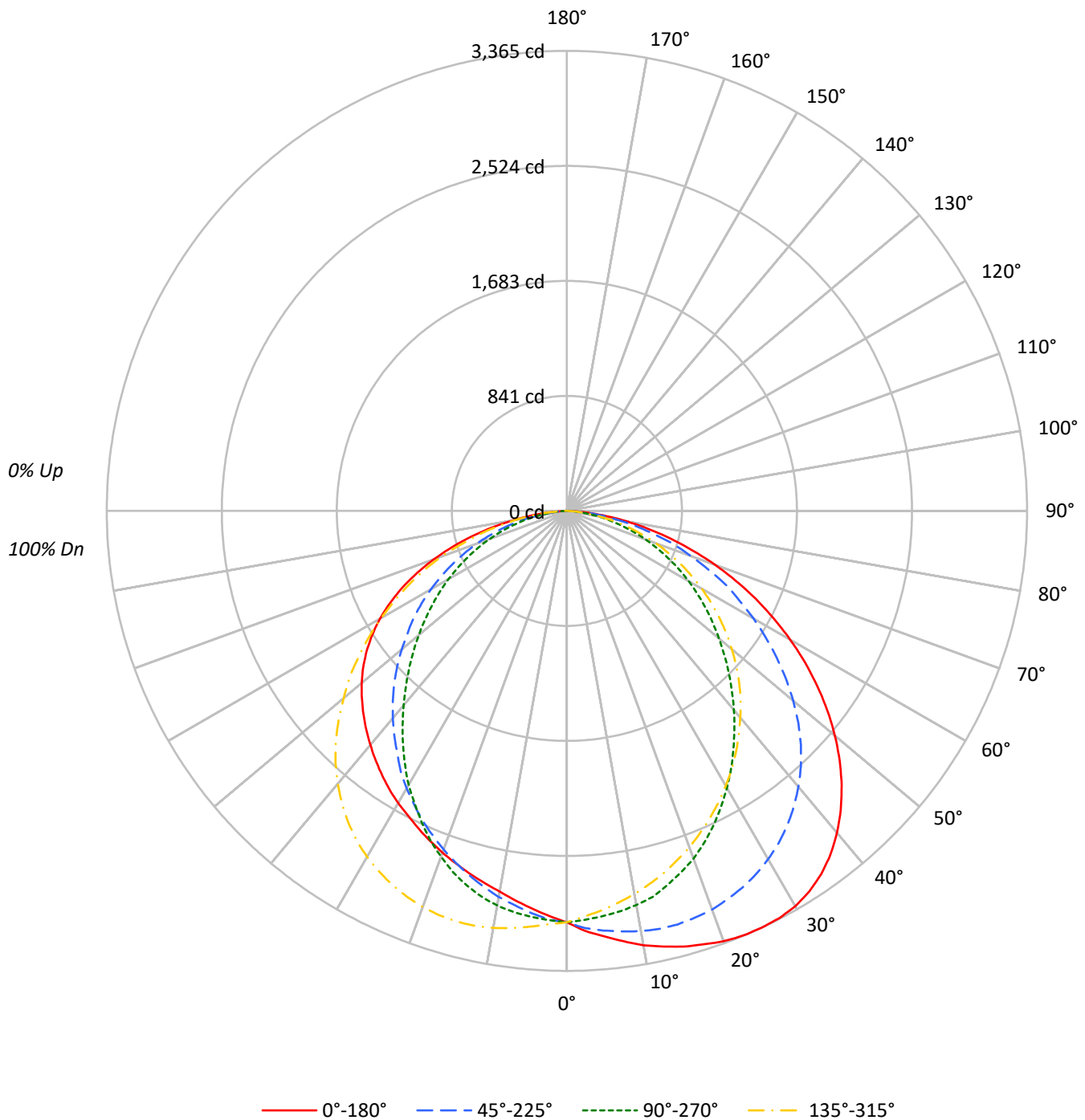
Lumens per Lamp: N/A
Luminaire Lumens: 8828.1 lumens
Efficiency: N/A
Efficacy: 125.8 lumens/watt
Spacing Criteria (0/90/45): 1.43 / 1.16 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
Input Voltage (V): 120
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

TEST NUMBER: P838133

CATALOG NUMBER: ORLG-24-4-INS-ASY2R-LD4-3LO-50-120-EDD

Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P838133

CATALOG NUMBER: ORLG-24-4-INS-ASY2R-LD4-3LO-50-120-EDD

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	109	104	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84		
2	99	91	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70		
3	90	79	71	65	88	78	70	64	75	68	63	72	66	62	69	65	61	59		
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50		
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43		
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38		
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33		
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	29		
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26		
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	4049	4049	4049	4049
5°	4219	4019	3944	4026
10°	4407	3999	3864	4005
15°	4596	3948	3826	3949
20°	4797	3876	3809	3854
25°	4995	3768	3809	3729
30°	5189	3637	3834	3596
35°	5326	3487	3873	3432
40°	5397	3337	3926	3262
45°	5408	3185	4003	3105
50°	5357	3040	4101	2959
55°	5246	2904	4192	2824
60°	5081	2763	4248	2692
65°	4854	2601	4226	2541
70°	4534	2411	4076	2366
75°	4079	2149	3740	2138
80°	3459	1800	3144	1827
85°	2405	1192	1993	1224

TEST NUMBER: P838133

CATALOG NUMBER: ORLG-24-4-INS-ASY2R-LD4-3LO-50-120-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	285.7	3.2
10°-20°	827.3	9.4
20°-30°	1267.8	14.4
30°-40°	1541.6	17.5
40°-50°	1602.6	18.2
50°-60°	1447.6	16.4
60°-70°	1100.6	12.5
70°-80°	613.6	7.0
80°-90°	141.3	1.6
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°	2380.8	27.0
0°-40°	3922.4	44.4
0°-60°	6972.7	79.0
0°-90°	8828.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8828.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	3009	3009	3009	3009	3009	
5°	3124	2976	2920	2981	3124	301
15°	3300	2834	2746	2835	3300	936
25°	3365	2538	2565	2512	3365	1554
35°	3243	2123	2358	2090	3243	2025
45°	2842	1674	2104	1632	2842	2188
55°	2236	1238	1787	1204	2236	1996
65°	1524	817	1327	798	1524	1507
75°	785	413	719	411	785	834
85°	156	77	129	79	156	196
90°	0	0	0	0	0	

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P838133

CATALOG NUMBER: ORLG-24-4-INS-ASY2R-LD4-3LO-50-120-EDD

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3009.0	3009.0	3009.0	3009.0	3009.0	3009.0	3009.0	3009.0	3009.0	3009.0	3009.0
2.5°	3075.7	3030.8	3031.5	3070.8	3040.6	3055.3	3013.2	3029.4	3024.5	3028.0	2993.6
5°	3124.1	3075.7	3075.0	3108.7	3075.0	3081.3	3028.0	3038.5	3023.1	3013.2	2976.0
7.5°	3175.4	3126.9	3122.0	3151.5	3107.3	3102.4	3043.4	3043.4	3015.3	2990.8	2955.7
10°	3225.9	3176.1	3169.8	3192.2	3137.5	3121.3	3049.7	3038.5	3001.3	2964.8	2926.9
12.5°	3263.8	3213.3	3208.4	3222.4	3160.6	3131.2	3049.7	3028.0	2973.2	2922.0	2892.5
15°	3299.6	3247.7	3234.3	3241.3	3170.5	3131.2	3039.9	3006.2	2936.0	2868.6	2834.3
17.5°	3324.9	3275.0	3261.7	3261.0	3175.4	3119.2	3018.8	2972.5	2888.3	2806.9	2772.5
20°	3350.1	3300.3	3283.5	3270.8	3174.0	3103.1	2988.0	2925.5	2827.2	2736.0	2707.2
22.5°	3362.8	3311.5	3293.3	3274.3	3164.8	3073.6	2950.1	2870.7	2758.4	2649.7	2625.8
25°	3364.9	3312.2	3292.6	3265.2	3146.6	3038.5	2900.9	2804.8	2679.1	2558.4	2538.1
27.5°	3359.3	3301.7	3282.1	3249.1	3119.2	2995.7	2842.7	2729.7	2594.9	2461.5	2439.8
30°	3339.6	3281.4	3262.4	3219.6	3080.6	2943.0	2778.8	2646.1	2501.6	2359.8	2340.8
32.5°	3300.3	3243.5	3228.0	3185.2	3038.5	2882.0	2704.4	2556.3	2398.4	2262.9	2234.8
35°	3242.8	3185.9	3176.1	3131.2	2979.5	2809.0	2623.0	2458.0	2288.9	2150.6	2123.2
37.5°	3167.7	3119.9	3105.2	3061.0	2910.1	2726.2	2529.6	2351.3	2177.3	2028.5	2011.6
40°	3072.9	3028.0	3016.7	2977.4	2829.3	2634.2	2428.6	2241.1	2062.2	1923.9	1900.0
42.5°	2964.8	2922.7	2916.4	2875.7	2729.7	2532.4	2319.1	2126.7	1942.1	1808.8	1784.9
45°	2842.0	2801.3	2799.9	2761.3	2620.9	2419.4	2203.9	2010.9	1824.9	1686.7	1674.0
47.5°	2706.5	2670.0	2670.0	2634.2	2499.4	2295.2	2085.3	1890.2	1707.0	1584.9	1562.4
50°	2559.1	2524.7	2514.2	2496.6	2365.4	2159.7	1960.4	1772.3	1590.5	1474.0	1452.2
52.5°	2401.9	2372.4	2379.4	2347.1	2220.1	2018.6	1834.1	1639.6	1473.3	1367.3	1345.5
55°	2236.2	2194.1	2200.4	2188.5	2068.5	1873.4	1692.3	1530.1	1358.2	1258.5	1238.1
57.5°	2064.3	2009.5	2032.0	2025.0	1907.0	1724.6	1562.4	1405.9	1243.8	1151.8	1132.2
60°	1888.1	1835.5	1858.6	1852.3	1741.4	1575.8	1428.4	1283.1	1130.1	1046.5	1026.9
62.5°	1707.0	1658.6	1679.6	1674.7	1572.9	1423.4	1295.0	1161.6	1015.6	940.5	922.3
65°	1524.5	1478.2	1497.1	1493.6	1399.6	1285.9	1158.1	1036.0	900.5	835.3	817.0
67.5°	1337.8	1295.0	1312.5	1312.5	1226.2	1117.4	1020.6	909.0	787.5	731.4	714.5
70°	1152.5	1112.5	1127.9	1126.5	1053.5	965.1	881.6	781.9	673.1	626.8	612.8
72.5°	965.8	930.7	944.8	943.3	882.3	825.4	742.6	656.3	561.5	524.3	511.7
75°	784.7	751.7	765.1	763.7	713.8	660.5	605.0	533.4	452.0	426.1	413.4
77.5°	612.1	578.4	589.6	589.6	553.1	514.5	470.3	414.8	357.3	329.2	320.1
80°	446.4	430.3	424.6	425.3	400.8	375.5	353.1	299.7	257.6	238.6	232.3
82.5°	293.4	280.1	274.4	275.8	261.8	246.4	232.3	195.1	167.1	155.8	152.3
85°	155.8	146.0	141.1	144.6	141.8	133.4	126.3	101.1	83.5	79.3	77.2
87.5°	49.1	42.8	39.3	51.9	44.2	39.3	37.9	30.2	23.2	23.2	22.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P838133

CATALOG NUMBER: ORLG-24-4-INS-ASY2R-LD4-3LO-50-120-EDD

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	3009.0	3009.0	3009.0	3009.0	3009.0	3009.0	3009.0	3009.0	3009.0	3009.0	3009.0
2.5°	3004.8	3004.8	2977.4	2971.1	2968.3	2971.8	2944.4	2939.5	2978.8	2965.5	2935.3
5°	2980.9	2979.5	2940.9	2933.9	2933.9	2929.7	2898.8	2891.8	2931.1	2919.9	2886.9
7.5°	2951.5	2947.3	2901.6	2896.7	2889.7	2886.9	2852.5	2847.6	2881.3	2874.3	2843.4
10°	2915.7	2911.5	2857.4	2853.9	2846.2	2840.6	2808.3	2804.8	2839.2	2827.9	2803.4
12.5°	2868.6	2860.9	2805.5	2802.0	2795.6	2793.5	2762.0	2760.6	2798.5	2787.2	2761.3
15°	2806.9	2800.6	2738.8	2740.2	2740.9	2740.9	2715.6	2714.2	2751.4	2746.5	2718.4
17.5°	2738.8	2730.4	2671.4	2675.6	2680.5	2686.2	2666.5	2670.0	2709.3	2703.0	2677.7
20°	2661.6	2653.2	2595.6	2607.5	2618.1	2629.3	2616.7	2626.5	2663.0	2660.2	2641.2
22.5°	2575.3	2566.8	2513.5	2531.7	2549.3	2570.3	2564.7	2576.0	2614.6	2613.9	2597.0
25°	2470.0	2472.1	2425.0	2447.5	2477.0	2506.5	2508.6	2526.8	2569.6	2565.4	2550.0
27.5°	2371.7	2374.5	2324.7	2362.6	2401.9	2439.8	2448.9	2474.2	2517.7	2514.2	2500.9
30°	2268.5	2272.0	2223.6	2275.5	2323.3	2369.6	2389.2	2423.6	2467.9	2467.9	2453.8
32.5°	2161.1	2167.5	2116.9	2186.4	2241.9	2295.9	2330.3	2366.1	2416.6	2415.2	2403.3
35°	2050.9	2058.0	2011.6	2100.1	2155.5	2221.5	2264.3	2312.0	2357.0	2357.7	2348.5
37.5°	1938.6	1947.1	1904.9	2001.8	2065.0	2142.9	2197.6	2245.4	2295.2	2298.0	2289.6
40°	1827.0	1836.2	1799.7	1893.0	1973.0	2060.1	2123.2	2179.4	2234.1	2235.5	2229.9
42.5°	1715.4	1725.3	1697.9	1789.1	1879.7	1973.0	2047.4	2111.3	2167.5	2171.0	2164.6
45°	1606.6	1615.1	1595.4	1695.1	1782.1	1883.9	1969.5	2041.8	2098.7	2103.6	2101.5
47.5°	1498.5	1506.3	1488.7	1580.0	1680.3	1788.4	1887.4	1967.4	2027.8	2033.4	2032.0
50°	1392.6	1398.9	1379.9	1475.4	1575.1	1690.2	1793.3	1886.0	1953.4	1959.0	1958.3
52.5°	1287.3	1293.6	1277.4	1377.8	1468.4	1589.8	1702.1	1802.5	1869.1	1877.6	1879.0
55°	1185.5	1188.3	1175.7	1271.8	1359.6	1486.6	1615.8	1713.3	1780.0	1787.0	1791.2
57.5°	1083.7	1084.4	1073.9	1165.8	1250.1	1379.9	1515.4	1617.9	1681.0	1688.1	1694.4
60°	982.7	982.0	970.0	1059.2	1139.9	1268.3	1409.4	1511.2	1572.2	1578.6	1587.0
62.5°	882.3	880.2	869.6	951.8	1027.6	1154.6	1296.4	1394.7	1452.9	1457.1	1468.4
65°	782.6	780.5	770.7	846.5	915.3	1036.7	1175.7	1269.0	1321.7	1327.3	1325.2
67.5°	684.3	680.1	672.4	740.5	803.0	915.3	1048.6	1137.8	1181.3	1186.2	1199.5
70°	586.1	581.2	563.6	635.9	690.7	791.0	915.3	994.6	1031.1	1036.0	1033.9
72.5°	489.2	484.3	465.4	532.0	578.4	666.1	777.0	843.0	874.6	878.8	878.8
75°	395.2	392.4	380.4	431.0	469.6	541.2	635.2	690.0	714.5	719.4	718.0
77.5°	304.6	302.5	290.6	334.1	364.3	417.6	493.4	536.2	554.5	560.1	572.0
80°	218.3	217.6	198.6	241.5	254.8	299.7	355.2	388.1	398.0	405.7	414.1
82.5°	139.7	140.4	121.4	157.9	163.5	192.3	226.7	247.1	254.1	260.4	266.7
85°	68.1	70.9	60.4	83.5	84.2	99.0	113.7	121.4	124.2	129.1	134.8
87.5°	17.5	20.4	11.2	23.9	21.1	27.4	31.6	33.7	33.0	36.5	38.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P838133

CATALOG NUMBER: ORLG-24-4-INS-ASY2R-LD4-3LO-50-120-EDD

CANDELA DISTRIBUTION (continued):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	3009.0	3009.0	3009.0	3009.0	3009.0	3009.0	3009.0	3009.0	3009.0	3009.0	3009.0
2.5°	2945.2	2967.6	2956.4	2992.9	3006.9	2984.5	3023.8	3024.5	2996.4	3029.4	3047.6
5°	2899.5	2922.7	2915.7	2953.6	2971.1	2951.5	2999.2	3008.3	2980.9	3018.1	3047.6
7.5°	2853.2	2880.6	2871.5	2910.1	2931.1	2915.7	2966.9	2981.6	2960.6	3001.3	3040.6
10°	2813.2	2836.4	2826.5	2867.2	2885.5	2872.9	2923.4	2950.8	2931.1	2980.9	3028.0
12.5°	2773.9	2792.8	2781.6	2815.3	2832.8	2816.7	2878.5	2903.7	2889.7	2941.6	3002.0
15°	2723.4	2744.4	2729.0	2759.1	2772.5	2758.4	2809.0	2852.5	2835.0	2891.8	2958.5
17.5°	2684.7	2696.7	2675.6	2699.5	2707.2	2688.3	2739.5	2782.3	2769.7	2831.4	2908.7
20°	2641.9	2651.8	2622.3	2635.6	2634.9	2611.0	2658.1	2700.2	2691.8	2759.8	2847.6
22.5°	2594.2	2599.1	2564.7	2567.5	2566.1	2526.8	2568.9	2611.8	2608.2	2677.0	2775.3
25°	2543.7	2544.4	2500.1	2498.7	2483.3	2437.0	2474.2	2522.6	2512.1	2586.5	2689.7
27.5°	2493.8	2486.8	2433.5	2420.8	2396.3	2340.8	2373.8	2417.3	2411.0	2484.0	2598.4
30°	2440.5	2431.4	2366.1	2342.9	2307.1	2243.3	2270.6	2311.3	2314.8	2378.7	2498.7
32.5°	2390.0	2366.8	2294.5	2260.8	2215.9	2141.5	2156.2	2197.6	2203.2	2267.8	2391.4
35°	2324.7	2309.2	2220.1	2162.5	2118.3	2036.9	2052.3	2081.1	2089.5	2152.7	2278.4
37.5°	2262.9	2238.3	2143.6	2073.4	2016.5	1930.9	1935.1	1964.6	1973.0	2036.9	2161.1
40°	2199.0	2163.9	2062.2	1980.0	1914.8	1824.9	1820.0	1850.9	1857.2	1919.7	2032.0
42.5°	2131.0	2088.8	1974.4	1884.6	1809.5	1718.2	1708.4	1735.1	1742.1	1803.2	1913.4
45°	2062.2	2011.6	1884.6	1786.3	1704.2	1610.8	1601.0	1621.4	1631.9	1689.5	1795.4
47.5°	1989.2	1930.2	1791.9	1682.4	1597.5	1504.2	1492.2	1512.6	1521.0	1577.9	1678.2
50°	1912.7	1841.1	1696.5	1575.8	1491.5	1399.6	1382.0	1405.9	1413.6	1467.0	1565.2
52.5°	1828.4	1749.1	1594.7	1468.4	1384.1	1296.4	1275.3	1298.5	1307.6	1359.6	1450.1
55°	1739.3	1653.7	1492.2	1369.4	1278.2	1192.5	1175.0	1184.1	1203.7	1252.9	1337.1
57.5°	1638.9	1554.0	1384.1	1259.2	1171.5	1089.3	1074.6	1083.0	1101.3	1149.0	1224.8
60°	1532.2	1442.4	1273.9	1149.0	1064.1	986.2	972.8	980.5	1000.2	1043.7	1113.9
62.5°	1427.0	1325.9	1160.2	1036.0	958.8	886.5	883.0	880.2	898.4	940.5	1002.3
65°	1299.2	1202.3	1041.6	923.7	853.5	788.2	774.2	780.5	798.1	836.7	901.2
67.5°	1162.3	1074.6	920.2	811.4	748.9	690.7	678.7	681.5	699.8	733.5	789.6
70°	1017.0	939.8	795.9	698.4	645.7	591.0	583.3	584.0	601.5	631.0	680.1
72.5°	864.7	795.2	670.3	586.8	543.3	504.0	496.9	488.5	504.7	529.9	572.0
75°	709.6	648.6	545.4	477.3	442.9	409.9	403.6	395.2	411.3	433.1	466.1
77.5°	553.1	504.0	423.9	371.3	344.6	320.1	314.4	305.3	321.5	337.6	363.6
80°	400.1	364.3	316.6	261.1	252.0	235.8	230.2	220.4	235.8	246.4	266.0
82.5°	258.3	234.4	207.1	168.5	167.1	155.1	152.3	141.1	155.1	161.4	176.2
85°	130.6	119.3	112.3	85.6	88.4	80.7	80.0	68.1	79.3	82.1	90.5
87.5°	37.2	39.3	35.1	21.1	26.7	25.3	25.3	18.2	25.3	25.3	28.8
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: P838133

CATALOG NUMBER: ORLG-24-4-INS-ASY2R-LD4-3LO-50-120-EDD

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	3009.0	3009.0	3009.0	3009.0	3009.0	3009.0	3009.0	3009.0
2.5°	3011.8	3023.8	3026.6	3025.9	3033.6	3075.7	3061.7	3075.7
5°	3018.8	3045.5	3052.5	3062.4	3075.0	3122.7	3107.3	3124.1
7.5°	3023.1	3063.1	3078.5	3097.5	3117.8	3171.2	3158.5	3175.4
10°	3023.1	3075.0	3097.5	3129.0	3156.4	3218.2	3206.3	3225.9
12.5°	3010.4	3077.1	3108.7	3152.9	3188.0	3254.7	3249.8	3263.8
15°	2984.5	3066.6	3110.1	3166.9	3210.5	3284.9	3282.8	3299.6
17.5°	2949.4	3048.3	3101.0	3172.6	3227.3	3310.8	3315.8	3324.9
20°	2905.1	3013.9	3082.7	3170.5	3239.2	3331.2	3337.5	3350.1
22.5°	2846.9	2972.5	3055.3	3161.3	3240.6	3339.6	3350.8	3362.8
25°	2778.1	2922.7	3019.6	3143.8	3233.6	3338.9	3354.4	3364.9
27.5°	2699.5	2858.1	2973.9	3115.7	3214.0	3327.7	3346.6	3359.3
30°	2608.2	2789.3	2922.0	3079.2	3187.3	3306.6	3327.0	3339.6
32.5°	2514.2	2713.5	2860.2	3032.2	3148.7	3272.9	3290.5	3300.3
35°	2411.7	2621.6	2785.8	2971.8	3098.9	3218.9	3232.2	3242.8
37.5°	2300.1	2521.9	2700.9	2903.7	3028.7	3143.8	3155.7	3167.7
40°	2185.0	2417.3	2605.4	2820.2	2945.2	3051.8	3064.5	3072.9
42.5°	2069.2	2301.5	2503.7	2721.9	2846.2	2948.7	2956.4	2964.8
45°	1952.0	2181.5	2389.2	2613.2	2736.0	2832.1	2835.0	2842.0
47.5°	1832.6	2057.3	2263.6	2488.9	2610.3	2698.1	2700.9	2706.5
50°	1712.6	1933.0	2129.5	2354.9	2473.5	2566.1	2553.5	2559.1
52.5°	1594.7	1802.5	2003.2	2210.3	2327.5	2409.6	2413.1	2401.9
55°	1478.9	1674.7	1859.3	2058.7	2170.3	2234.1	2232.0	2236.2
57.5°	1361.7	1545.6	1714.7	1897.2	2006.0	2066.4	2079.0	2064.3
60°	1242.4	1415.0	1566.6	1731.6	1836.9	1887.4	1902.1	1888.1
62.5°	1123.7	1282.4	1419.9	1563.8	1661.4	1723.9	1722.4	1707.0
65°	1005.1	1149.0	1271.8	1394.0	1478.9	1541.4	1538.6	1524.5
67.5°	895.6	1014.2	1124.4	1223.4	1297.1	1339.9	1354.7	1337.8
70°	774.9	877.4	974.2	1053.5	1114.6	1153.2	1167.3	1152.5
72.5°	654.2	741.2	809.3	885.8	932.8	965.1	979.8	965.8
75°	534.8	606.4	661.9	721.5	754.5	781.9	798.8	784.7
77.5°	419.0	474.5	518.7	562.2	600.1	606.4	621.2	612.1
80°	308.8	348.8	381.1	409.9	437.3	440.1	452.0	446.4
82.5°	205.7	232.3	240.7	270.9	288.5	285.7	297.6	293.4
85°	108.8	124.9	139.7	148.8	158.6	149.5	160.0	155.8
87.5°	36.5	38.6	33.7	47.7	52.6	44.9	51.2	49.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)