

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: P838115

Luminaire Tested: **ORLG-24-4-INS-ASY2R-LD4-3LO-40-120-EDD**

Issue Date: 5/21/2024



Test Information

Test Method: LM-79-08
Report Number: P838115
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-40-120-EDD
Description: 2FT x 4FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2 and
RFI grid
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

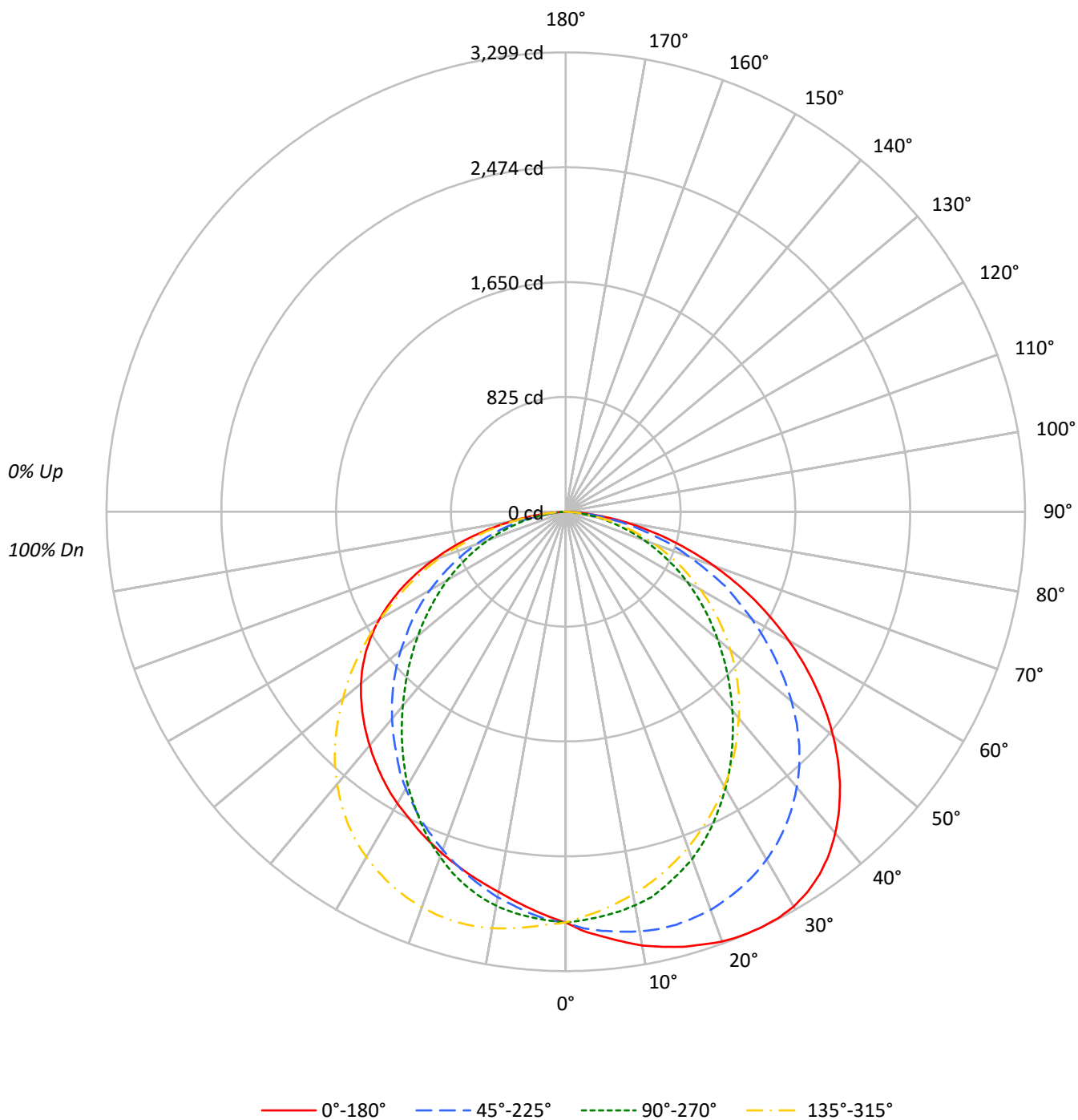
Lumens per Lamp: N/A
Luminaire Lumens: 8655.0 lumens
Efficiency: N/A
Efficacy: 123.3 lumens/watt
Spacing Criteria (0/90/45): 1.43 / 1.16 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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: P838115

CATALOG NUMBER: ORLG-24-4-INS-ASY2R-LD4-3LO-40-120-EDD

Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P838115

CATALOG NUMBER: ORLG-24-4-INS-ASY2R-LD4-3LO-40-120-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°	3969	3969	3969	3969
5°	4137	3941	3866	3947
10°	4321	3920	3788	3926
15°	4506	3871	3751	3872
20°	4703	3800	3734	3779
25°	4897	3694	3734	3656
30°	5087	3565	3759	3526
35°	5222	3419	3797	3365
40°	5291	3272	3850	3198
45°	5302	3123	3924	3044
50°	5252	2980	4020	2901
55°	5143	2848	4110	2768
60°	4981	2709	4165	2639
65°	4758	2550	4143	2491
70°	4445	2363	3996	2320
75°	3999	2107	3667	2096
80°	3391	1765	3082	1791
85°	2359	1169	1954	1201

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P838115

CATALOG NUMBER: ORLG-24-4-INS-ASY2R-LD4-3LO-40-120-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	280.1	3.2
10°-20°	811.1	9.4
20°-30°	1243.0	14.4
30°-40°	1511.4	17.5
40°-50°	1571.2	18.2
50°-60°	1419.2	16.4
60°-70°	1079.0	12.5
70°-80°	601.5	7.0
80°-90°	138.5	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°	2334.1	27.0
0°-40°	3845.5	44.4
0°-60°	6835.9	79.0
0°-90°	8655.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8655.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2950	2950	2950	2950	2950	
5°	3063	2918	2863	2922	3063	295
15°	3235	2779	2693	2779	3235	917
25°	3299	2488	2515	2463	3299	1524
35°	3179	2082	2311	2049	3179	1986
45°	2786	1641	2062	1600	2786	2145
55°	2192	1214	1752	1180	2192	1957
65°	1495	801	1301	782	1495	1477
75°	769	405	705	403	769	817
85°	153	76	127	78	153	192
90°	0	0	0	0	0	

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P838115

CATALOG NUMBER: ORLG-24-4-INS-ASY2R-LD4-3LO-40-120-EDD

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2950.0	2950.0	2950.0	2950.0	2950.0	2950.0	2950.0	2950.0	2950.0	2950.0	2950.0
2.5°	3015.4	2971.4	2972.0	3010.6	2981.0	2995.4	2954.2	2970.0	2965.2	2968.6	2934.9
5°	3062.9	3015.4	3014.7	3047.7	3014.7	3020.9	2968.6	2978.9	2963.8	2954.2	2917.7
7.5°	3113.1	3065.6	3060.8	3089.7	3046.4	3041.5	2983.7	2983.7	2956.2	2932.1	2897.7
10°	3162.7	3113.8	3107.6	3129.6	3076.0	3060.1	2989.9	2978.9	2942.5	2906.7	2869.5
12.5°	3199.8	3150.3	3145.5	3159.2	3098.7	3069.8	2989.9	2968.6	2914.9	2864.7	2835.8
15°	3234.9	3184.0	3170.9	3177.8	3108.3	3069.8	2980.3	2947.3	2878.5	2812.4	2778.7
17.5°	3259.7	3210.8	3197.7	3197.1	3113.1	3058.1	2959.7	2914.2	2831.7	2751.8	2718.1
20°	3284.5	3235.6	3219.1	3206.7	3111.7	3042.2	2929.4	2868.1	2771.8	2682.3	2654.1
22.5°	3296.8	3246.6	3228.7	3210.1	3102.8	3013.3	2892.2	2814.5	2704.4	2597.7	2574.3
25°	3298.9	3247.3	3228.0	3201.2	3084.9	2978.9	2844.0	2749.8	2626.6	2508.2	2488.3
27.5°	3293.4	3237.0	3217.7	3185.4	3058.1	2936.9	2786.9	2676.1	2544.0	2413.3	2391.9
30°	3274.1	3217.0	3198.4	3156.5	3020.2	2885.3	2724.3	2594.3	2452.5	2313.5	2294.9
32.5°	3235.6	3179.9	3164.7	3122.7	2978.9	2825.5	2651.4	2506.2	2351.3	2218.5	2191.0
35°	3179.2	3123.4	3113.8	3069.8	2921.1	2753.9	2571.5	2409.8	2244.0	2108.4	2081.6
37.5°	3105.5	3058.7	3044.3	3000.9	2853.0	2672.7	2480.0	2305.2	2134.6	1988.7	1972.2
40°	3012.6	2968.6	2957.6	2919.1	2773.9	2582.6	2380.9	2197.2	2021.7	1886.2	1862.8
42.5°	2906.7	2865.4	2859.2	2819.3	2676.1	2482.8	2273.6	2085.0	1904.1	1773.3	1749.9
45°	2786.2	2746.3	2745.0	2707.1	2569.5	2372.0	2160.7	1971.5	1789.1	1653.6	1641.2
47.5°	2653.4	2617.7	2617.7	2582.6	2450.4	2250.2	2044.4	1853.1	1673.5	1553.8	1531.8
50°	2508.9	2475.2	2464.9	2447.7	2319.0	2117.4	1922.0	1737.5	1559.3	1445.1	1423.7
52.5°	2354.8	2325.9	2332.8	2301.1	2176.6	1979.1	1798.1	1607.5	1444.4	1340.5	1319.1
55°	2192.4	2151.1	2157.3	2145.6	2027.9	1836.6	1659.1	1500.1	1331.5	1233.8	1213.9
57.5°	2023.8	1970.1	1992.1	1985.3	1869.7	1690.7	1531.8	1378.3	1219.4	1129.2	1110.0
60°	1851.1	1799.5	1822.2	1816.0	1707.3	1544.9	1400.3	1257.9	1107.9	1026.0	1006.7
62.5°	1673.5	1626.1	1646.7	1641.9	1542.1	1395.5	1269.6	1138.9	995.7	922.1	904.2
65°	1494.6	1449.2	1467.8	1464.3	1372.1	1260.7	1135.4	1015.7	882.9	818.9	801.0
67.5°	1311.6	1269.6	1286.8	1286.8	1202.2	1095.5	1000.5	891.1	772.1	717.0	700.5
70°	1129.9	1090.7	1105.8	1104.5	1032.9	946.2	864.3	766.6	659.9	614.5	600.7
72.5°	946.9	912.5	926.2	924.8	865.0	809.2	728.0	643.4	550.5	514.0	501.6
75°	769.3	737.0	750.1	748.7	699.8	647.5	593.2	523.0	443.2	417.7	405.3
77.5°	600.1	567.0	578.0	578.0	542.2	504.4	461.0	406.7	350.3	322.7	313.8
80°	437.7	421.8	416.3	417.0	392.9	368.2	346.1	293.8	252.5	234.0	227.8
82.5°	287.6	274.6	269.1	270.4	256.7	241.5	227.8	191.3	163.8	152.8	149.3
85°	152.8	143.1	138.3	141.8	139.0	130.7	123.9	99.1	81.9	77.8	75.7
87.5°	48.2	42.0	38.5	50.9	43.4	38.5	37.2	29.6	22.7	22.7	22.0
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: P838115

CATALOG NUMBER: ORLG-24-4-INS-ASY2R-LD4-3LO-40-120-EDD

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	2950.0	2950.0	2950.0	2950.0	2950.0	2950.0	2950.0	2950.0	2950.0	2950.0	2950.0
2.5°	2945.9	2945.9	2919.1	2912.9	2910.1	2913.6	2886.7	2881.9	2920.4	2907.4	2877.8
5°	2922.5	2921.1	2883.3	2876.4	2876.4	2872.3	2842.0	2835.1	2873.6	2862.6	2830.3
7.5°	2893.6	2889.5	2844.7	2839.9	2833.0	2830.3	2796.6	2791.8	2824.8	2817.9	2787.6
10°	2858.5	2854.4	2801.4	2797.9	2790.4	2784.9	2753.2	2749.8	2783.5	2772.5	2748.4
12.5°	2812.4	2804.8	2750.5	2747.0	2740.8	2738.8	2707.8	2706.4	2743.6	2732.6	2707.1
15°	2751.8	2745.6	2685.1	2686.5	2687.2	2687.2	2662.4	2661.0	2697.5	2692.7	2665.1
17.5°	2685.1	2676.8	2619.0	2623.2	2628.0	2633.5	2614.2	2617.7	2656.2	2650.0	2625.2
20°	2609.4	2601.1	2544.7	2556.4	2566.7	2577.7	2565.4	2575.0	2610.8	2608.0	2589.4
22.5°	2524.8	2516.5	2464.2	2482.1	2499.3	2519.9	2514.4	2525.4	2563.3	2562.6	2546.1
25°	2421.5	2423.6	2377.5	2399.5	2428.4	2457.3	2459.4	2477.3	2519.3	2515.1	2500.0
27.5°	2325.2	2328.0	2279.1	2316.3	2354.8	2391.9	2400.9	2425.7	2468.3	2464.9	2451.8
30°	2224.0	2227.5	2180.0	2230.9	2277.7	2323.1	2342.4	2376.1	2419.5	2419.5	2405.7
32.5°	2118.8	2125.0	2075.4	2143.5	2197.9	2250.9	2284.6	2319.7	2369.2	2367.9	2356.2
35°	2010.7	2017.6	1972.2	2058.9	2113.3	2177.9	2219.9	2266.7	2310.7	2311.4	2302.5
37.5°	1900.6	1908.9	1867.6	1962.6	2024.5	2100.9	2154.5	2201.3	2250.2	2252.9	2244.7
40°	1791.2	1800.2	1764.4	1855.9	1934.3	2019.7	2081.6	2136.7	2190.3	2191.7	2186.2
42.5°	1681.8	1691.4	1664.6	1754.0	1842.8	1934.3	2007.3	2069.9	2125.0	2128.4	2122.2
45°	1575.1	1583.4	1564.1	1661.8	1747.2	1846.9	1930.9	2001.8	2057.5	2062.3	2060.3
47.5°	1469.2	1476.7	1459.5	1549.0	1647.4	1753.4	1850.4	1928.8	1988.0	1993.5	1992.1
50°	1365.3	1371.4	1352.9	1446.5	1544.2	1657.0	1758.2	1849.0	1915.1	1920.6	1919.9
52.5°	1262.0	1268.2	1252.4	1350.8	1439.6	1558.6	1668.7	1767.1	1832.5	1840.8	1842.1
55°	1162.3	1165.0	1152.6	1246.9	1332.9	1457.5	1584.1	1679.7	1745.1	1752.0	1756.1
57.5°	1062.5	1063.2	1052.8	1143.0	1225.6	1352.9	1485.7	1586.1	1648.1	1655.0	1661.2
60°	963.4	962.7	951.0	1038.4	1117.5	1243.5	1381.8	1481.5	1541.4	1547.6	1555.9
62.5°	865.0	862.9	852.6	933.1	1007.4	1132.0	1271.0	1367.3	1424.4	1428.6	1439.6
65°	767.3	765.2	755.6	829.9	897.3	1016.4	1152.6	1244.1	1295.8	1301.3	1299.2
67.5°	670.9	666.8	659.2	726.0	787.2	897.3	1028.1	1115.5	1158.1	1162.9	1176.0
70°	574.6	569.8	552.6	623.4	677.1	775.5	897.3	975.1	1010.9	1015.7	1013.6
72.5°	479.6	474.8	456.2	521.6	567.0	653.0	761.8	826.4	857.4	861.5	861.5
75°	387.4	384.7	373.0	422.5	460.4	530.5	622.8	676.4	700.5	705.3	704.0
77.5°	298.6	296.6	284.9	327.6	357.1	409.4	483.8	525.7	543.6	549.1	560.8
80°	214.0	213.3	194.7	236.7	249.8	293.8	348.2	380.5	390.2	397.7	406.0
82.5°	136.9	137.6	119.0	154.8	160.3	188.5	222.3	242.2	249.1	255.3	261.5
85°	66.7	69.5	59.2	81.9	82.6	97.0	111.5	119.0	121.8	126.6	132.1
87.5°	17.2	20.0	11.0	23.4	20.6	26.8	31.0	33.0	32.3	35.8	37.8
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: P838115

CATALOG NUMBER: ORLG-24-4-INS-ASY2R-LD4-3LO-40-120-EDD

CANDELA DISTRIBUTION (continued):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	2950.0	2950.0	2950.0	2950.0	2950.0	2950.0	2950.0	2950.0	2950.0	2950.0	2950.0
2.5°	2887.4	2909.4	2898.4	2934.2	2948.0	2925.9	2964.5	2965.2	2937.6	2970.0	2987.9
5°	2842.7	2865.4	2858.5	2895.7	2912.9	2893.6	2940.4	2949.3	2922.5	2959.0	2987.9
7.5°	2797.3	2824.1	2815.1	2853.0	2873.6	2858.5	2908.7	2923.2	2902.5	2942.5	2981.0
10°	2758.0	2780.7	2771.1	2811.0	2828.9	2816.5	2866.1	2892.9	2873.6	2922.5	2968.6
12.5°	2719.5	2738.1	2727.1	2760.1	2777.3	2761.5	2822.0	2846.8	2833.0	2884.0	2943.1
15°	2670.0	2690.6	2675.5	2705.0	2718.1	2704.4	2753.9	2796.6	2779.4	2835.1	2900.5
17.5°	2632.1	2643.8	2623.2	2646.6	2654.1	2635.5	2685.8	2727.8	2715.4	2775.9	2851.6
20°	2590.1	2599.8	2570.9	2583.9	2583.2	2559.9	2606.0	2647.2	2639.0	2705.7	2791.8
22.5°	2543.3	2548.2	2514.4	2517.2	2515.8	2477.3	2518.6	2560.5	2557.1	2624.5	2720.9
25°	2493.8	2494.5	2451.1	2449.8	2434.6	2389.2	2425.7	2473.1	2462.8	2535.8	2636.9
27.5°	2444.9	2438.1	2385.8	2373.4	2349.3	2294.9	2327.3	2369.9	2363.7	2435.3	2547.5
30°	2392.6	2383.7	2319.7	2297.0	2261.9	2199.3	2226.1	2266.0	2269.5	2332.1	2449.8
32.5°	2343.1	2320.4	2249.5	2216.5	2172.4	2099.5	2113.9	2154.5	2160.0	2223.4	2344.5
35°	2279.1	2264.0	2176.6	2120.1	2076.8	1997.0	2012.1	2040.3	2048.6	2110.5	2233.7
37.5°	2218.5	2194.5	2101.6	2032.7	1977.0	1893.1	1897.2	1926.1	1934.3	1997.0	2118.8
40°	2155.9	2121.5	2021.7	1941.2	1877.2	1789.1	1784.3	1814.6	1820.8	1882.0	1992.1
42.5°	2089.2	2047.9	1935.7	1847.6	1774.0	1684.5	1674.9	1701.1	1707.9	1767.8	1875.8
45°	2021.7	1972.2	1847.6	1751.3	1670.8	1579.3	1569.6	1589.6	1599.9	1656.3	1760.2
47.5°	1950.2	1892.4	1756.8	1649.5	1566.2	1474.7	1463.0	1482.9	1491.2	1546.9	1645.3
50°	1875.2	1805.0	1663.2	1544.9	1462.3	1372.1	1354.9	1378.3	1385.9	1438.2	1534.5
52.5°	1792.6	1714.8	1563.4	1439.6	1357.0	1271.0	1250.3	1273.0	1282.0	1332.9	1421.7
55°	1705.2	1621.2	1463.0	1342.5	1253.1	1169.1	1151.9	1160.9	1180.1	1228.3	1310.9
57.5°	1606.8	1523.5	1357.0	1234.5	1148.5	1068.0	1053.5	1061.8	1079.7	1126.5	1200.8
60°	1502.2	1414.1	1249.0	1126.5	1043.2	966.8	953.8	961.3	980.6	1023.3	1092.1
62.5°	1399.0	1299.9	1137.5	1015.7	940.0	869.1	865.7	862.9	880.8	922.1	982.7
65°	1273.7	1178.8	1021.2	905.6	836.8	772.8	759.0	765.2	782.4	820.3	883.6
67.5°	1139.5	1053.5	902.1	795.5	734.2	677.1	665.4	668.2	686.1	719.1	774.1
70°	997.1	921.4	780.3	684.7	633.1	579.4	571.8	572.5	589.7	618.6	666.8
72.5°	847.8	779.7	657.2	575.3	532.6	494.1	487.2	478.9	494.8	519.5	560.8
75°	695.7	635.8	534.7	467.9	434.2	401.9	395.7	387.4	403.2	424.6	456.9
77.5°	542.2	494.1	415.6	364.0	337.9	313.8	308.3	299.3	315.2	331.0	356.5
80°	392.2	357.1	310.3	256.0	247.0	231.2	225.7	216.1	231.2	241.5	260.8
82.5°	253.2	229.8	203.0	165.2	163.8	152.1	149.3	138.3	152.1	158.3	172.7
85°	128.0	117.0	110.1	84.0	86.7	79.1	78.4	66.7	77.8	80.5	88.8
87.5°	36.5	38.5	34.4	20.6	26.1	24.8	24.8	17.9	24.8	24.8	28.2
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: P838115

CATALOG NUMBER: ORLG-24-4-INS-ASY2R-LD4-3LO-40-120-EDD

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	2950.0	2950.0	2950.0	2950.0	2950.0	2950.0	2950.0	2950.0
2.5°	2952.8	2964.5	2967.2	2966.5	2974.1	3015.4	3001.6	3015.4
5°	2959.7	2985.8	2992.7	3002.3	3014.7	3061.5	3046.4	3062.9
7.5°	2963.8	3003.0	3018.1	3036.7	3056.7	3109.0	3096.6	3113.1
10°	2963.8	3014.7	3036.7	3067.7	3094.5	3155.1	3143.4	3162.7
12.5°	2951.4	3016.8	3047.7	3091.1	3125.5	3190.9	3186.1	3199.8
15°	2925.9	3006.4	3049.1	3104.9	3147.5	3220.5	3218.4	3234.9
17.5°	2891.5	2988.6	3040.2	3110.4	3164.0	3245.9	3250.7	3259.7
20°	2848.2	2954.8	3022.3	3108.3	3175.7	3265.9	3272.1	3284.5
22.5°	2791.1	2914.2	2995.4	3099.3	3177.1	3274.1	3285.1	3296.8
25°	2723.6	2865.4	2960.3	3082.1	3170.2	3273.4	3288.6	3298.9
27.5°	2646.6	2802.1	2915.6	3054.6	3151.0	3262.4	3281.0	3293.4
30°	2557.1	2734.6	2864.7	3018.8	3124.8	3241.8	3261.7	3274.1
32.5°	2464.9	2660.3	2804.1	2972.7	3087.0	3208.8	3226.0	3235.6
35°	2364.4	2570.2	2731.2	2913.6	3038.1	3155.8	3168.8	3179.2
37.5°	2255.0	2472.5	2647.9	2846.8	2969.3	3082.1	3093.8	3105.5
40°	2142.2	2369.9	2554.3	2764.9	2887.4	2992.0	3004.4	3012.6
42.5°	2028.6	2256.4	2454.6	2668.6	2790.4	2890.8	2898.4	2906.7
45°	1913.7	2138.7	2342.4	2561.9	2682.3	2776.6	2779.4	2786.2
47.5°	1796.7	2016.9	2219.2	2440.1	2559.2	2645.2	2647.9	2653.4
50°	1679.0	1895.1	2087.8	2308.7	2425.0	2515.8	2503.4	2508.9
52.5°	1563.4	1767.1	1963.9	2166.9	2281.8	2362.4	2365.8	2354.8
55°	1449.9	1641.9	1822.9	2018.3	2127.7	2190.3	2188.3	2192.4
57.5°	1335.0	1515.3	1681.1	1860.0	1966.7	2025.9	2038.2	2023.8
60°	1218.0	1387.3	1535.9	1697.6	1800.8	1850.4	1864.8	1851.1
62.5°	1101.7	1257.2	1392.1	1533.2	1628.8	1690.1	1688.7	1673.5
65°	985.4	1126.5	1246.9	1366.6	1449.9	1511.1	1508.4	1494.6
67.5°	878.1	994.4	1102.4	1199.4	1271.7	1313.6	1328.1	1311.6
70°	759.7	860.2	955.1	1032.9	1092.8	1130.6	1144.4	1129.9
72.5°	641.3	726.7	793.4	868.4	914.5	946.2	960.6	946.9
75°	524.4	594.5	648.9	707.4	739.7	766.6	783.1	769.3
77.5°	410.8	465.2	508.5	551.2	588.4	594.5	609.0	600.1
80°	302.8	342.0	373.7	401.9	428.7	431.5	443.2	437.7
82.5°	201.6	227.8	236.0	265.6	282.8	280.1	291.8	287.6
85°	106.7	122.5	136.9	145.9	155.5	146.6	156.9	152.8
87.5°	35.8	37.8	33.0	46.8	51.6	44.0	50.2	48.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)