

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: P837721

Luminaire Tested: **ORLG-12-4-INS-ASY2R-LD4-3HI-20-120-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: P837721
Test Lab: INNOVATION CENTER(G2)
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: ORLG-12-4-INS-ASY2R-LD4-3HI-20-120-EDD
Description: 1FT x 4FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2 and
RFI grid
Light Source: 2000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

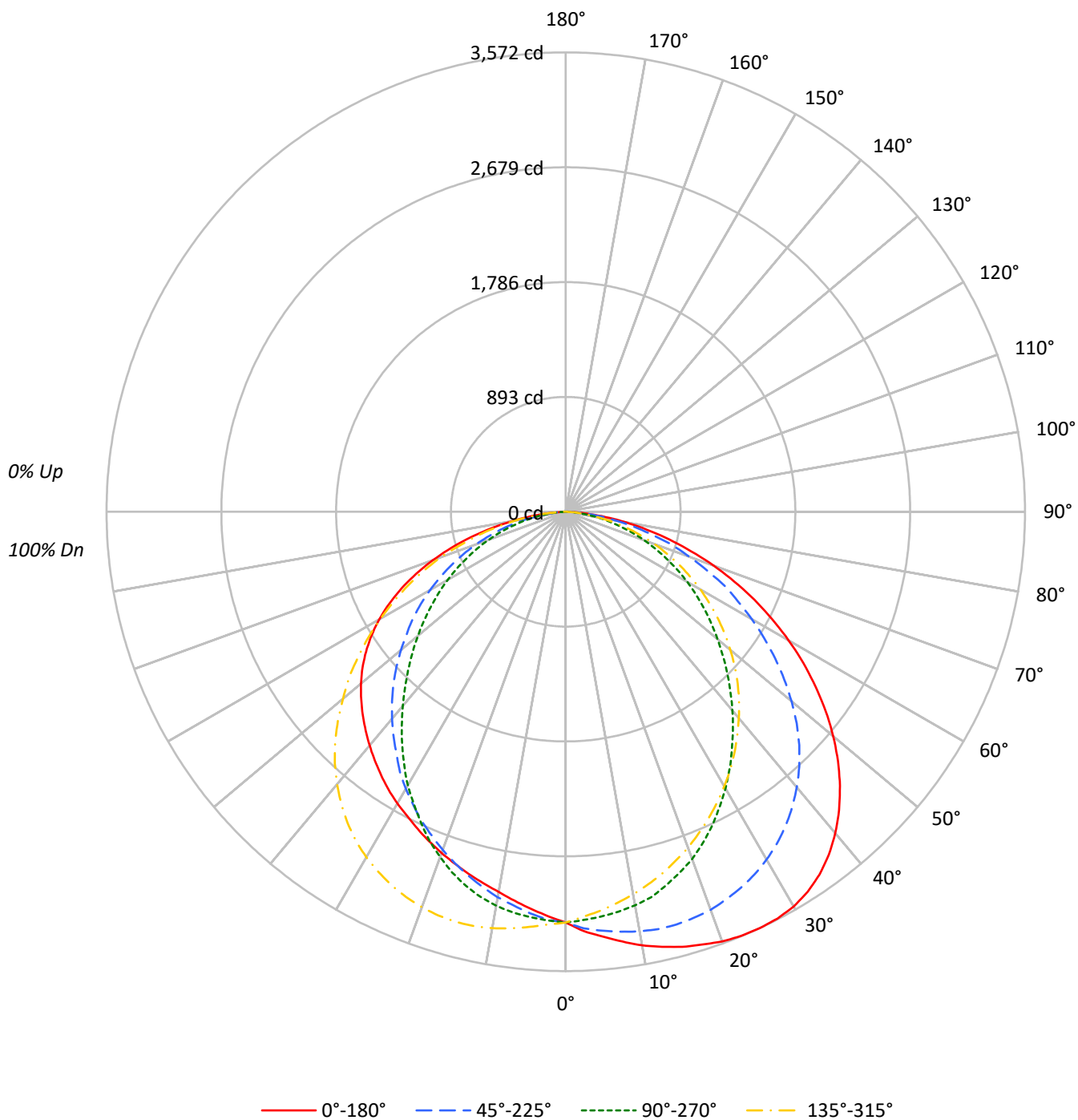
Lumens per Lamp: N/A
Luminaire Lumens: 9370.5 lumens
Efficiency: N/A
Efficacy: 71.0 lumens/watt
Spacing Criteria (0/90/45): 1.43 / 1.16 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 132
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

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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
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°	8595	8595	8595	8595
5°	8958	8533	8372	8547
10°	9356	8489	8202	8501
15°	9757	8381	8122	8383
20°	10183	8229	8086	8182
25°	10605	7999	8085	7917
30°	11015	7720	8140	7635
35°	11307	7404	8221	7286
40°	11458	7085	8336	6925
45°	11480	6762	8497	6592
50°	11372	6453	8705	6282
55°	11136	6166	8899	5994
60°	10786	5866	9018	5714
65°	10304	5522	8970	5394
70°	9625	5117	8652	5024
75°	8660	4562	7939	4539
80°	7342	3821	6673	3879
85°	5107	2532	4233	2600

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	303.2	3.2
10°-20°	878.1	9.4
20°-30°	1345.7	14.4
30°-40°	1636.3	17.5
40°-50°	1701.1	18.2
50°-60°	1536.6	16.4
60°-70°	1168.2	12.5
70°-80°	651.3	7.0
80°-90°	149.9	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°	2527.1	27.0
0°-40°	4163.4	44.4
0°-60°	7401.1	79.0
0°-90°	9370.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9370.5	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	3194	3194	3194	3194	3194	
5°	3316	3159	3099	3164	3316	320
15°	3502	3008	2915	3009	3502	993
25°	3572	2694	2723	2666	3572	1650
35°	3442	2254	2502	2218	3442	2150
45°	3017	1777	2233	1732	3017	2322
55°	2374	1314	1897	1278	2374	2119
65°	1618	867	1409	847	1618	1599
75°	833	439	764	437	833	885
85°	165	82	137	84	165	208
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3193.9	3193.9	3193.9	3193.9	3193.9	3193.9	3193.9	3193.9	3193.9	3193.9	3193.9
2.5°	3264.7	3217.0	3217.8	3259.5	3227.4	3243.1	3198.4	3215.5	3210.3	3214.0	3177.5
5°	3316.1	3264.7	3263.9	3299.7	3263.9	3270.6	3214.0	3225.2	3208.8	3198.4	3158.9
7.5°	3370.5	3319.1	3313.9	3345.2	3298.2	3293.0	3230.4	3230.4	3200.6	3174.5	3137.3
10°	3424.1	3371.2	3364.5	3388.4	3330.2	3313.1	3237.1	3225.2	3185.7	3147.0	3106.7
12.5°	3464.4	3410.7	3405.5	3420.4	3354.8	3323.5	3237.1	3214.0	3155.9	3101.5	3070.2
15°	3502.4	3447.2	3433.1	3440.5	3365.3	3323.5	3226.7	3190.9	3116.4	3044.9	3008.4
17.5°	3529.2	3476.3	3462.1	3461.4	3370.5	3310.9	3204.3	3155.2	3065.8	2979.3	2942.8
20°	3556.0	3503.1	3485.2	3471.8	3369.0	3293.7	3171.6	3105.3	3001.0	2904.1	2873.6
22.5°	3569.4	3515.0	3495.6	3475.5	3359.3	3262.5	3131.3	3047.1	2927.9	2812.5	2787.1
25°	3571.6	3515.8	3494.9	3465.8	3339.9	3225.2	3079.2	2977.1	2843.8	2715.6	2694.0
27.5°	3565.7	3504.6	3483.7	3448.7	3310.9	3179.8	3017.3	2897.4	2754.3	2612.8	2589.7
30°	3544.8	3483.0	3462.9	3417.4	3269.9	3123.9	2949.5	2808.7	2655.3	2504.8	2484.6
32.5°	3503.1	3442.7	3426.4	3380.9	3225.2	3059.1	2870.6	2713.4	2545.7	2402.0	2372.2
35°	3442.0	3381.7	3371.2	3323.5	3162.6	2981.6	2784.1	2609.1	2429.5	2282.7	2253.7
37.5°	3362.3	3311.6	3296.0	3249.0	3088.9	2893.7	2685.1	2495.8	2311.1	2153.1	2135.2
40°	3261.7	3214.0	3202.1	3160.4	3003.2	2796.1	2577.8	2378.9	2188.9	2042.1	2016.8
42.5°	3147.0	3102.3	3095.6	3052.4	2897.4	2688.0	2461.6	2257.4	2061.5	1919.9	1894.6
45°	3016.6	2973.4	2971.9	2930.9	2781.9	2568.1	2339.4	2134.5	1937.1	1790.3	1776.9
47.5°	2872.8	2834.1	2834.1	2796.1	2653.0	2436.2	2213.5	2006.3	1811.9	1682.3	1658.4
50°	2716.4	2679.8	2668.7	2650.0	2510.7	2292.4	2080.8	1881.2	1688.2	1564.5	1541.5
52.5°	2549.5	2518.2	2525.6	2491.4	2356.5	2142.7	1946.7	1740.4	1563.8	1451.3	1428.2
55°	2373.6	2328.9	2335.6	2323.0	2195.6	1988.5	1796.2	1624.1	1441.6	1335.8	1314.2
57.5°	2191.1	2133.0	2156.8	2149.4	2024.2	1830.5	1658.4	1492.3	1320.2	1222.6	1201.7
60°	2004.1	1948.2	1972.8	1966.1	1848.4	1672.6	1516.1	1361.9	1199.5	1110.8	1090.0
62.5°	1811.9	1760.5	1782.8	1777.6	1669.6	1510.9	1374.6	1233.0	1078.0	998.3	979.0
65°	1618.2	1569.0	1589.1	1585.4	1485.6	1364.9	1229.3	1099.7	955.9	886.6	867.2
67.5°	1420.0	1374.6	1393.2	1393.2	1301.6	1186.1	1083.3	964.8	835.9	776.3	758.4
70°	1223.3	1180.9	1197.3	1195.8	1118.3	1024.4	935.7	830.0	714.5	665.3	650.4
72.5°	1025.2	987.9	1002.8	1001.3	936.5	876.1	788.2	696.6	596.0	556.5	543.1
75°	832.9	797.9	812.1	810.6	757.7	701.1	642.2	566.2	479.8	452.2	438.8
77.5°	649.7	613.9	625.8	625.8	587.1	546.1	499.2	440.3	379.2	349.4	339.7
80°	473.8	456.7	450.7	451.5	425.4	398.6	374.7	318.1	273.4	253.3	246.6
82.5°	311.4	297.3	291.3	292.8	277.9	261.5	246.6	207.1	177.3	165.4	161.7
85°	165.4	155.0	149.7	153.5	150.5	141.6	134.1	107.3	88.7	84.2	82.0
87.5°	52.2	45.4	41.7	55.1	46.9	41.7	40.2	32.0	24.6	24.6	23.8
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	3193.9	3193.9	3193.9	3193.9	3193.9	3193.9	3193.9	3193.9	3193.9	3193.9	3193.9
2.5°	3189.4	3189.4	3160.4	3153.7	3150.7	3154.4	3125.4	3120.2	3161.9	3147.7	3115.7
5°	3164.1	3162.6	3121.6	3114.2	3114.2	3109.7	3076.9	3069.5	3111.2	3099.3	3064.3
7.5°	3132.8	3128.3	3079.9	3074.7	3067.3	3064.3	3027.8	3022.6	3058.3	3050.9	3018.1
10°	3094.8	3090.4	3033.0	3029.3	3021.1	3015.1	2980.8	2977.1	3013.6	3001.7	2975.6
12.5°	3044.9	3036.7	2977.9	2974.1	2967.4	2965.2	2931.7	2930.2	2970.4	2958.5	2930.9
15°	2979.3	2972.6	2907.1	2908.6	2909.3	2909.3	2882.5	2881.0	2920.5	2915.3	2885.5
17.5°	2907.1	2898.1	2835.6	2840.0	2845.2	2851.2	2830.3	2834.1	2875.8	2869.1	2842.3
20°	2825.1	2816.2	2755.1	2767.8	2778.9	2790.9	2777.4	2787.9	2826.6	2823.6	2803.5
22.5°	2733.5	2724.5	2667.9	2687.3	2705.9	2728.3	2722.3	2734.2	2775.2	2774.5	2756.6
25°	2621.7	2624.0	2574.1	2597.9	2629.2	2660.5	2662.7	2682.1	2727.5	2723.1	2706.7
27.5°	2517.4	2520.4	2467.5	2507.7	2549.5	2589.7	2599.4	2626.2	2672.4	2668.7	2654.5
30°	2407.9	2411.6	2360.2	2415.4	2466.0	2515.2	2536.1	2572.6	2619.5	2619.5	2604.6
32.5°	2293.9	2300.6	2247.0	2320.7	2379.6	2437.0	2473.5	2511.5	2565.1	2563.6	2551.0
35°	2177.0	2184.4	2135.2	2229.1	2288.0	2358.0	2403.4	2454.1	2501.8	2502.5	2492.8
37.5°	2057.8	2066.7	2022.0	2124.8	2191.9	2274.6	2332.7	2383.3	2436.2	2439.2	2430.3
40°	1939.3	1949.0	1910.2	2009.3	2094.3	2186.6	2253.7	2313.3	2371.4	2372.9	2366.9
42.5°	1820.8	1831.3	1802.2	1899.1	1995.2	2094.3	2173.2	2241.0	2300.6	2304.4	2297.6
45°	1705.4	1714.3	1693.4	1799.2	1891.6	1999.6	2090.5	2167.3	2227.6	2232.8	2230.6
47.5°	1590.6	1598.8	1580.2	1677.0	1783.6	1898.3	2003.4	2088.3	2152.4	2158.3	2156.8
50°	1478.1	1484.8	1464.7	1566.0	1671.8	1794.0	1903.5	2001.9	2073.4	2079.4	2078.6
52.5°	1366.4	1373.1	1355.9	1462.5	1558.6	1687.5	1806.7	1913.2	1984.0	1992.9	1994.4
55°	1258.3	1261.3	1247.9	1350.0	1443.1	1578.0	1715.0	1818.6	1889.4	1896.8	1901.3
57.5°	1150.3	1151.1	1139.9	1237.5	1326.9	1464.7	1608.5	1717.3	1784.3	1791.8	1798.5
60°	1043.0	1042.3	1029.6	1124.2	1209.9	1346.3	1496.0	1604.0	1668.9	1675.6	1684.5
62.5°	936.5	934.3	923.1	1010.3	1090.7	1225.6	1376.1	1480.4	1542.2	1546.7	1558.6
65°	830.7	828.5	818.0	898.5	971.5	1100.4	1247.9	1347.0	1402.9	1408.8	1406.6
67.5°	726.4	721.9	713.7	786.0	852.3	971.5	1113.1	1207.7	1253.9	1259.1	1273.2
70°	622.1	616.9	598.3	675.0	733.1	839.6	971.5	1055.7	1094.4	1099.7	1097.4
72.5°	519.3	514.1	493.9	564.7	613.9	707.0	824.7	894.8	928.3	932.8	932.8
75°	419.4	416.5	403.8	457.4	498.4	574.4	674.2	732.4	758.4	763.6	762.2
77.5°	323.3	321.1	308.4	354.6	386.7	443.3	523.8	569.2	588.6	594.5	607.2
80°	231.7	231.0	210.8	256.3	270.4	318.1	377.0	412.0	422.4	430.6	439.6
82.5°	148.3	149.0	128.9	167.6	173.6	204.1	240.6	262.2	269.7	276.4	283.1
85°	72.3	75.2	64.1	88.7	89.4	105.0	120.7	128.9	131.9	137.1	143.0
87.5°	18.6	21.6	11.9	25.3	22.4	29.1	33.5	35.8	35.0	38.7	41.0
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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	3193.9	3193.9	3193.9	3193.9	3193.9	3193.9	3193.9	3193.9	3193.9	3193.9	3193.9
2.5°	3126.1	3150.0	3138.0	3176.8	3191.7	3167.8	3209.6	3210.3	3180.5	3215.5	3234.9
5°	3077.7	3102.3	3094.8	3135.1	3153.7	3132.8	3183.5	3193.2	3164.1	3203.6	3234.9
7.5°	3028.5	3057.6	3047.9	3088.9	3111.2	3094.8	3149.2	3164.9	3142.5	3185.7	3227.4
10°	2986.0	3010.6	3000.2	3043.4	3062.8	3049.4	3103.0	3132.1	3111.2	3164.1	3214.0
12.5°	2944.3	2964.4	2952.5	2988.3	3006.9	2989.8	3055.3	3082.2	3067.3	3122.4	3186.5
15°	2890.7	2913.0	2896.6	2928.7	2942.8	2927.9	2981.6	3027.8	3009.1	3069.5	3140.3
17.5°	2849.7	2862.4	2840.0	2865.4	2873.6	2853.4	2907.8	2953.3	2939.9	3005.4	3087.4
20°	2804.3	2814.7	2783.4	2797.6	2796.8	2771.5	2821.4	2866.1	2857.2	2929.4	3022.6
22.5°	2753.6	2758.8	2722.3	2725.3	2723.8	2682.1	2726.8	2772.2	2768.5	2841.5	2945.8
25°	2700.0	2700.7	2653.8	2652.3	2635.9	2586.7	2626.2	2677.6	2666.4	2745.4	2854.9
27.5°	2647.1	2639.6	2583.0	2569.6	2543.5	2484.6	2519.7	2565.9	2559.2	2636.6	2758.1
30°	2590.4	2580.8	2511.5	2486.9	2448.9	2381.1	2410.1	2453.4	2457.1	2524.9	2652.3
32.5°	2536.8	2512.2	2435.5	2399.7	2352.0	2273.1	2288.7	2332.7	2338.6	2407.2	2538.3
35°	2467.5	2451.1	2356.5	2295.4	2248.5	2162.1	2178.4	2209.0	2217.9	2285.0	2418.3
37.5°	2402.0	2375.9	2275.3	2200.8	2140.4	2049.6	2054.0	2085.3	2094.3	2162.1	2293.9
40°	2334.2	2296.9	2188.9	2101.7	2032.4	1937.1	1931.8	1964.6	1971.3	2037.6	2156.8
42.5°	2261.9	2217.2	2095.7	2000.4	1920.7	1823.8	1813.4	1841.7	1849.1	1914.0	2030.9
45°	2188.9	2135.2	2000.4	1896.1	1808.9	1709.8	1699.4	1721.0	1732.2	1793.3	1905.8
47.5°	2111.4	2048.8	1902.0	1785.8	1695.7	1596.6	1583.9	1605.5	1614.5	1674.8	1781.3
50°	2030.2	1954.2	1800.7	1672.6	1583.2	1485.6	1466.9	1492.3	1500.5	1557.1	1661.4
52.5°	1940.8	1856.6	1692.7	1558.6	1469.2	1376.1	1353.7	1378.3	1388.0	1443.1	1539.2
55°	1846.2	1755.3	1583.9	1453.5	1356.7	1265.8	1247.2	1256.9	1277.7	1329.9	1419.3
57.5°	1739.6	1649.5	1469.2	1336.6	1243.4	1156.3	1140.6	1149.6	1168.9	1219.6	1300.1
60°	1626.4	1531.0	1352.2	1219.6	1129.5	1046.8	1032.6	1040.8	1061.7	1107.8	1182.4
62.5°	1514.6	1407.3	1231.5	1099.7	1017.7	941.0	937.2	934.3	953.6	998.3	1063.9
65°	1379.0	1276.2	1105.6	980.4	905.9	836.7	821.8	828.5	847.1	888.1	956.6
67.5°	1233.8	1140.6	976.7	861.2	794.9	733.1	720.4	723.4	742.8	778.5	838.2
70°	1079.5	997.6	844.9	741.3	685.4	627.3	619.1	619.9	638.5	669.8	721.9
72.5°	917.9	844.1	711.5	622.8	576.6	534.9	527.5	518.5	535.7	562.5	607.2
75°	753.2	688.4	578.9	506.6	470.1	435.1	428.4	419.4	436.6	459.7	494.7
77.5°	587.1	534.9	450.0	394.1	365.8	339.7	333.8	324.1	341.2	358.4	385.9
80°	424.7	386.7	336.0	277.1	267.5	250.3	244.4	233.9	250.3	261.5	282.4
82.5°	274.2	248.8	219.8	178.8	177.3	164.6	161.7	149.7	164.6	171.4	187.0
85°	138.6	126.7	119.2	90.9	93.9	85.7	84.9	72.3	84.2	87.2	96.1
87.5°	39.5	41.7	37.3	22.4	28.3	26.8	26.8	19.4	26.8	26.8	30.5
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: P837721

CATALOG NUMBER: ORLG-12-4-INS-ASY2R-LD4-3HI-20-120-EDD

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	3193.9	3193.9	3193.9	3193.9	3193.9	3193.9	3193.9	3193.9
2.5°	3196.9	3209.6	3212.5	3211.8	3220.0	3264.7	3249.8	3264.7
5°	3204.3	3232.7	3240.1	3250.5	3263.9	3314.6	3298.2	3316.1
7.5°	3208.8	3251.3	3267.7	3287.8	3309.4	3366.0	3352.6	3370.5
10°	3208.8	3263.9	3287.8	3321.3	3350.4	3415.9	3403.3	3424.1
12.5°	3195.4	3266.2	3299.7	3346.6	3383.9	3454.7	3449.5	3464.4
15°	3167.8	3255.0	3301.2	3361.5	3407.7	3486.7	3484.5	3502.4
17.5°	3130.6	3235.6	3291.5	3367.5	3425.6	3514.3	3519.5	3529.2
20°	3083.6	3199.1	3272.1	3365.3	3438.3	3535.9	3542.6	3556.0
22.5°	3021.8	3155.2	3243.1	3355.6	3439.8	3544.8	3556.7	3569.4
25°	2948.8	3102.3	3205.1	3337.0	3432.3	3544.1	3560.5	3571.6
27.5°	2865.4	3033.7	3156.7	3307.2	3411.5	3532.2	3552.3	3565.7
30°	2768.5	2960.7	3101.5	3268.4	3383.1	3509.8	3531.4	3544.8
32.5°	2668.7	2880.3	3036.0	3218.5	3342.2	3474.0	3492.7	3503.1
35°	2559.9	2782.7	2957.0	3154.4	3289.3	3416.7	3430.8	3442.0
37.5°	2441.4	2676.9	2866.8	3082.2	3214.8	3337.0	3349.6	3362.3
40°	2319.3	2565.9	2765.5	2993.5	3126.1	3239.4	3252.8	3261.7
42.5°	2196.3	2442.9	2657.5	2889.2	3021.1	3129.8	3138.0	3147.0
45°	2071.9	2315.5	2536.1	2773.7	2904.1	3006.2	3009.1	3016.6
47.5°	1945.3	2183.7	2402.7	2641.8	2770.7	2863.9	2866.8	2872.8
50°	1817.9	2051.8	2260.4	2499.6	2625.5	2723.8	2710.4	2716.4
52.5°	1692.7	1913.2	2126.3	2346.1	2470.5	2557.7	2561.4	2549.5
55°	1569.8	1777.6	1973.6	2185.2	2303.6	2371.4	2369.2	2373.6
57.5°	1445.3	1640.5	1820.1	2013.8	2129.3	2193.3	2206.8	2191.1
60°	1318.7	1502.0	1662.9	1838.0	1949.7	2003.4	2019.0	2004.1
62.5°	1192.8	1361.2	1507.2	1659.9	1763.5	1829.8	1828.3	1811.9
65°	1066.9	1219.6	1350.0	1479.6	1569.8	1636.1	1633.1	1618.2
67.5°	950.6	1076.6	1193.5	1298.6	1376.8	1422.2	1437.9	1420.0
70°	822.5	931.3	1034.1	1118.3	1183.1	1224.1	1239.0	1223.3
72.5°	694.4	786.7	859.0	940.2	990.1	1024.4	1040.1	1025.2
75°	567.7	643.7	702.6	765.9	800.9	830.0	847.8	832.9
77.5°	444.8	503.6	550.6	596.8	637.0	643.7	659.3	649.7
80°	327.8	370.3	404.5	435.1	464.1	467.1	479.8	473.8
82.5°	218.3	246.6	255.5	287.6	306.2	303.2	315.9	311.4
85°	115.5	132.6	148.3	157.9	168.4	158.7	169.9	165.4
87.5°	38.7	41.0	35.8	50.7	55.9	47.7	54.4	52.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)