

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



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: P837754

Luminaire Tested: **ORLG-12-4-INS-ASY2R-LD4-2HI-40-120-EDD**

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-08
Report Number: P837754
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-LD4-2HI-40-120-EDD
Description: 1FT x 4FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2 and RFI grid
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

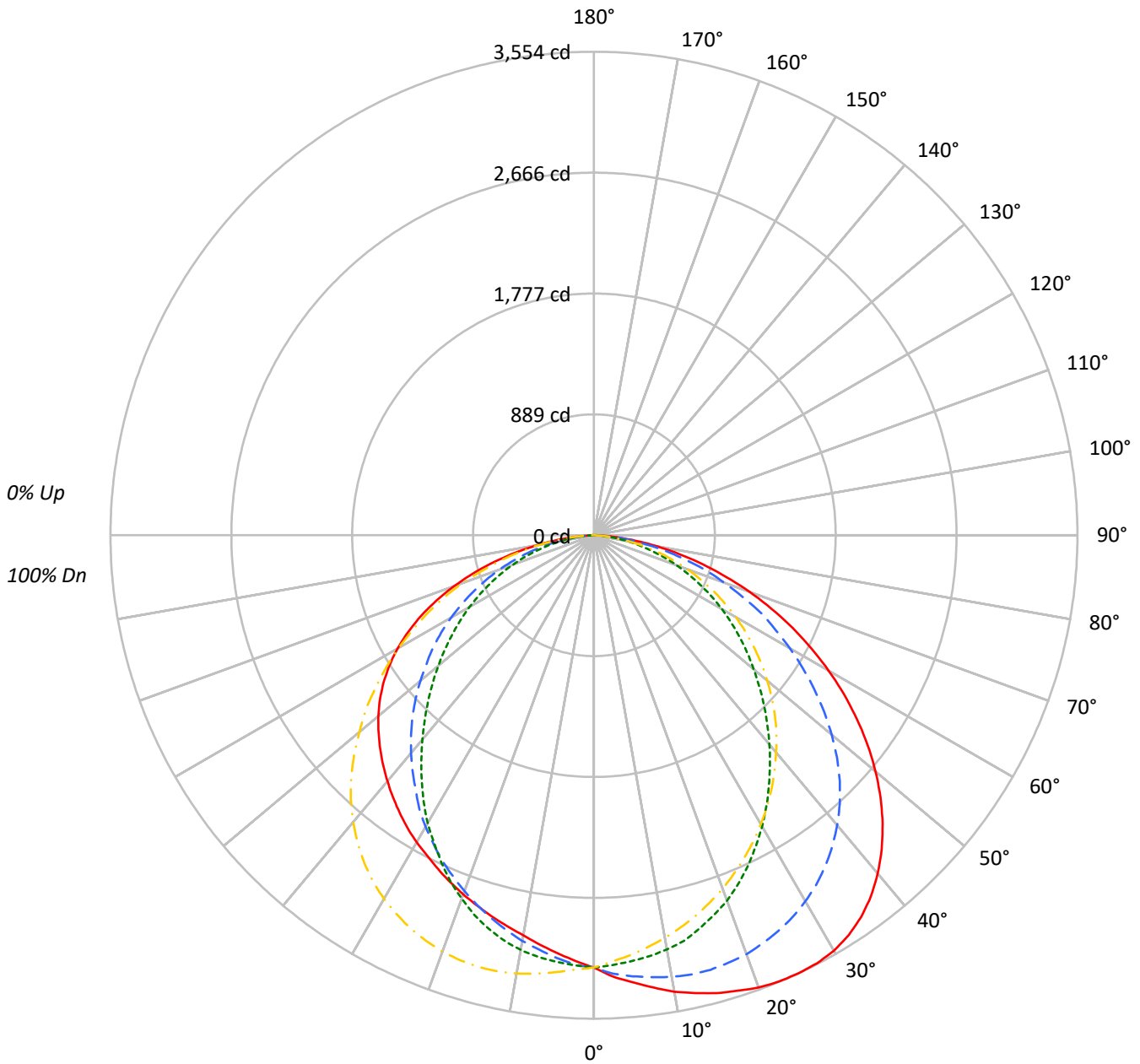
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9323.8 lumens
Efficiency: N/A
Efficacy: 106.0 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): 88
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



— 0°-180° - - 45°-225° - · - 90°-270° - · - 135°-315°



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	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°	8552	8552	8552	8552
5°	8913	8491	8330	8504
10°	9310	8447	8161	8459
15°	9709	8339	8081	8342
20°	10133	8188	8046	8141
25°	10552	7959	8045	7878
30°	10960	7682	8099	7597
35°	11251	7367	8180	7250
40°	11401	7049	8294	6890
45°	11423	6728	8455	6559
50°	11315	6421	8662	6250
55°	11081	6135	8855	5964
60°	10732	5837	8973	5685
65°	10252	5494	8926	5367
70°	9577	5092	8609	4998
75°	8617	4539	7900	4517
80°	7307	3803	6640	3860
85°	5082	2516	4211	2587



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	301.7	3.2
10°-20°	873.7	9.4
20°-30°	1339.0	14.4
30°-40°	1628.2	17.5
40°-50°	1692.6	18.2
50°-60°	1528.9	16.4
60°-70°	1162.4	12.5
70°-80°	648.0	7.0
80°-90°	149.2	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°	2514.5	27.0
0°-40°	4142.7	44.4
0°-60°	7364.2	79.0
0°-90°	9323.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9323.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	3178	3178	3178	3178	3178	
5°	3300	3143	3084	3148	3300	318
15°	3485	2993	2901	2994	3485	988
25°	3554	2681	2710	2653	3554	1641
35°	3425	2242	2490	2207	3425	2139
45°	3002	1768	2222	1724	3002	2311
55°	2362	1308	1887	1271	2362	2108
65°	1610	863	1402	843	1610	1591
75°	829	437	760	434	829	880
85°	165	82	136	84	165	207
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°	3178.0	3178.0	3178.0	3178.0	3178.0	3178.0	3178.0	3178.0	3178.0	3178.0	3178.0
2.5°	3248.4	3201.0	3201.7	3243.2	3211.4	3226.9	3182.4	3199.5	3194.3	3198.0	3161.7
5°	3299.6	3248.4	3247.7	3283.3	3247.7	3254.4	3198.0	3209.1	3192.8	3182.4	3143.2
7.5°	3353.7	3302.5	3297.4	3328.5	3281.8	3276.6	3214.3	3214.3	3184.7	3158.7	3121.7
10°	3407.1	3354.4	3347.8	3371.5	3313.7	3296.6	3221.0	3209.1	3169.8	3131.3	3091.3
12.5°	3447.1	3393.7	3388.5	3403.4	3338.1	3307.0	3221.0	3198.0	3140.2	3086.1	3054.9
15°	3484.9	3430.0	3416.0	3423.4	3348.5	3307.0	3210.6	3175.0	3100.9	3029.7	2993.4
17.5°	3511.6	3459.0	3444.9	3444.1	3353.7	3294.4	3188.4	3139.5	3050.5	2964.5	2928.2
20°	3538.3	3485.6	3467.9	3454.5	3352.2	3277.3	3155.8	3089.8	2986.0	2889.6	2859.2
22.5°	3551.6	3497.5	3478.2	3458.2	3342.6	3246.2	3115.7	3032.0	2913.4	2798.4	2773.2
25°	3553.8	3498.2	3477.5	3448.6	3323.3	3209.1	3063.8	2962.3	2829.6	2702.1	2680.6
27.5°	3547.9	3487.1	3466.4	3431.5	3294.4	3163.9	3002.3	2883.0	2740.6	2599.8	2576.8
30°	3527.2	3465.6	3445.6	3400.4	3253.6	3108.3	2934.8	2794.7	2642.0	2492.3	2472.3
32.5°	3485.6	3425.6	3409.3	3364.1	3209.1	3043.8	2856.3	2699.9	2533.1	2390.0	2360.3
35°	3424.9	3364.8	3354.4	3307.0	3146.9	2966.7	2770.3	2596.1	2417.4	2271.4	2242.5
37.5°	3345.5	3295.1	3279.6	3232.9	3073.5	2879.3	2671.7	2483.4	2299.5	2142.4	2124.6
40°	3245.5	3198.0	3186.2	3144.6	2988.2	2782.1	2564.9	2367.0	2178.0	2031.9	2006.7
42.5°	3131.3	3086.8	3080.1	3037.2	2883.0	2674.6	2449.3	2246.2	2051.2	1910.4	1885.2
45°	3001.6	2958.6	2957.1	2916.3	2768.1	2555.3	2327.7	2123.9	1927.4	1781.4	1768.0
47.5°	2858.5	2819.9	2819.9	2782.1	2639.8	2424.1	2202.4	1996.4	1802.9	1673.9	1650.2
50°	2702.8	2666.5	2655.4	2636.8	2498.2	2281.0	2070.5	1871.8	1679.8	1556.8	1533.8
52.5°	2536.8	2505.6	2513.0	2478.9	2344.8	2132.0	1937.0	1731.7	1556.0	1444.1	1421.1
55°	2361.8	2317.3	2324.0	2311.4	2184.6	1978.6	1787.3	1616.1	1434.4	1329.2	1307.7
57.5°	2180.2	2122.4	2146.1	2138.7	2014.1	1821.4	1650.2	1484.8	1313.6	1216.5	1195.7
60°	1994.1	1938.5	1963.0	1956.3	1839.2	1664.2	1508.6	1355.1	1193.5	1105.3	1084.5
62.5°	1802.9	1751.7	1774.0	1768.8	1661.3	1503.4	1367.7	1226.9	1072.7	993.4	974.1
65°	1610.1	1561.2	1581.2	1577.5	1478.2	1358.1	1223.2	1094.2	951.1	882.2	862.9
67.5°	1412.9	1367.7	1386.3	1386.3	1295.1	1180.2	1077.9	960.0	831.8	772.4	754.7
70°	1217.2	1175.0	1191.3	1189.8	1112.7	1019.3	931.1	825.8	710.9	662.0	647.2
72.5°	1020.0	983.0	997.8	996.3	931.8	871.8	784.3	693.1	593.0	553.8	540.4
75°	828.8	793.9	808.0	806.5	753.9	697.6	639.0	563.4	477.4	450.0	436.6
77.5°	646.4	610.8	622.7	622.7	584.2	543.4	496.7	438.1	377.3	347.7	338.0
80°	471.5	454.4	448.5	449.2	423.3	396.6	372.9	316.5	272.1	252.0	245.4
82.5°	309.9	295.8	289.9	291.3	276.5	260.2	245.4	206.1	176.4	164.6	160.9
85°	164.6	154.2	149.0	152.7	149.7	140.8	133.4	106.7	88.2	83.8	81.5
87.5°	51.9	45.2	41.5	54.9	46.7	41.5	40.0	31.9	24.5	24.5	23.7
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°	3178.0	3178.0	3178.0	3178.0	3178.0	3178.0	3178.0	3178.0	3178.0	3178.0	3178.0
2.5°	3173.6	3173.6	3144.6	3138.0	3135.0	3138.7	3109.8	3104.6	3146.1	3132.0	3100.2
5°	3148.3	3146.9	3106.1	3098.7	3098.7	3094.2	3061.6	3054.2	3095.7	3083.9	3049.0
7.5°	3117.2	3112.8	3064.6	3059.4	3052.0	3049.0	3012.7	3007.5	3043.1	3035.7	3003.1
10°	3079.4	3075.0	3017.9	3014.2	3006.0	3000.1	2966.0	2962.3	2998.6	2986.7	2960.8
12.5°	3029.7	3021.6	2963.0	2959.3	2952.6	2950.4	2917.1	2915.6	2955.6	2943.7	2916.3
15°	2964.5	2957.8	2892.6	2894.1	2894.8	2894.8	2868.1	2866.6	2905.9	2900.7	2871.1
17.5°	2892.6	2883.7	2821.4	2825.9	2831.1	2837.0	2816.2	2819.9	2861.5	2854.8	2828.1
20°	2811.1	2802.2	2741.4	2754.0	2765.1	2777.0	2763.6	2774.0	2812.5	2809.6	2789.6
22.5°	2719.9	2711.0	2654.6	2673.9	2692.4	2714.7	2708.8	2720.6	2761.4	2760.6	2742.9
25°	2608.7	2610.9	2561.2	2585.0	2616.1	2647.2	2649.4	2668.7	2713.9	2709.5	2693.2
27.5°	2504.9	2507.9	2455.2	2495.3	2536.8	2576.8	2586.4	2613.1	2659.1	2655.4	2641.3
30°	2395.9	2399.6	2348.5	2403.3	2453.7	2502.7	2523.4	2559.7	2606.4	2606.4	2591.6
32.5°	2282.5	2289.2	2235.8	2309.2	2367.7	2424.8	2461.2	2499.0	2552.3	2550.9	2538.2
35°	2166.1	2173.5	2124.6	2218.0	2276.6	2346.2	2391.5	2441.9	2489.3	2490.1	2480.4
37.5°	2047.5	2056.4	2011.9	2114.2	2180.9	2263.2	2321.0	2371.5	2424.1	2427.1	2418.2
40°	1929.6	1939.3	1900.7	1999.3	2083.8	2175.7	2242.5	2301.8	2359.6	2361.1	2355.1
42.5°	1811.8	1822.1	1793.2	1889.6	1985.2	2083.8	2162.4	2229.9	2289.2	2292.9	2286.2
45°	1696.9	1705.8	1685.0	1790.3	1882.2	1989.7	2080.1	2156.5	2216.5	2221.7	2219.5
47.5°	1582.7	1590.9	1572.3	1668.7	1774.7	1888.9	1993.4	2077.9	2141.6	2147.6	2146.1
50°	1470.8	1477.4	1457.4	1558.2	1663.5	1785.1	1894.0	1991.9	2063.1	2069.0	2068.3
52.5°	1359.6	1366.2	1349.2	1455.2	1550.8	1679.1	1797.7	1903.7	1974.1	1983.0	1984.5
55°	1252.1	1255.0	1241.7	1343.3	1435.9	1570.1	1706.5	1809.5	1880.0	1887.4	1891.8
57.5°	1144.6	1145.3	1134.2	1231.3	1320.3	1457.4	1600.5	1708.7	1775.4	1782.9	1789.5
60°	1037.8	1037.1	1024.5	1118.6	1203.9	1339.5	1488.6	1596.0	1660.5	1667.2	1676.1
62.5°	931.8	929.6	918.5	1005.2	1085.3	1219.5	1369.2	1473.0	1534.5	1539.0	1550.8
65°	826.6	824.3	814.0	894.0	966.7	1094.9	1241.7	1340.3	1395.9	1401.8	1399.6
67.5°	722.8	718.3	710.2	782.1	848.1	966.7	1107.5	1201.7	1247.6	1252.8	1266.9
70°	619.0	613.8	595.3	671.6	729.4	835.5	966.7	1050.4	1089.0	1094.2	1092.0
72.5°	516.7	511.5	491.5	561.9	610.8	703.5	820.6	890.3	923.7	928.1	928.1
75°	417.4	414.4	401.8	455.2	495.9	571.6	670.9	728.7	754.7	759.8	758.4
77.5°	321.7	319.5	306.9	352.9	384.7	441.1	521.1	566.4	585.6	591.6	604.2
80°	230.5	229.8	209.8	255.0	269.1	316.5	375.1	409.9	420.3	428.5	437.4
82.5°	147.5	148.3	128.2	166.8	172.7	203.1	239.4	260.9	268.4	275.0	281.7
85°	71.9	74.9	63.8	88.2	89.0	104.5	120.1	128.2	131.2	136.4	142.3
87.5°	18.5	21.5	11.9	25.2	22.2	28.9	33.4	35.6	34.8	38.5	40.8
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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	3178.0	3178.0	3178.0	3178.0	3178.0	3178.0	3178.0	3178.0	3178.0	3178.0	3178.0
2.5°	3110.5	3134.3	3122.4	3160.9	3175.8	3152.1	3193.6	3194.3	3164.7	3199.5	3218.8
5°	3062.4	3086.8	3079.4	3119.4	3138.0	3117.2	3167.6	3177.3	3148.3	3187.6	3218.8
7.5°	3013.4	3042.3	3032.7	3073.5	3095.7	3079.4	3133.5	3149.1	3126.8	3169.8	3211.4
10°	2971.2	2995.6	2985.3	3028.3	3047.5	3034.2	3087.6	3116.5	3095.7	3148.3	3198.0
12.5°	2929.7	2949.7	2937.8	2973.4	2991.9	2974.9	3040.1	3066.8	3052.0	3106.8	3170.6
15°	2876.3	2898.5	2882.2	2914.1	2928.2	2913.4	2966.7	3012.7	2994.2	3054.2	3124.6
17.5°	2835.5	2848.1	2825.9	2851.1	2859.2	2839.2	2893.3	2938.6	2925.2	2990.4	3072.0
20°	2790.3	2800.7	2769.5	2783.6	2782.9	2757.7	2807.3	2851.8	2842.9	2914.8	3007.5
22.5°	2739.9	2745.1	2708.8	2711.7	2710.2	2668.7	2713.2	2758.4	2754.7	2827.4	2931.1
25°	2686.5	2687.3	2640.5	2639.1	2622.8	2573.8	2613.1	2664.3	2653.2	2731.7	2840.7
27.5°	2633.9	2626.5	2570.1	2556.8	2530.8	2472.3	2507.1	2553.1	2546.4	2623.5	2744.3
30°	2577.5	2567.9	2499.0	2474.5	2436.7	2369.2	2398.1	2441.1	2444.8	2512.3	2639.1
32.5°	2524.2	2499.7	2423.3	2387.8	2340.3	2261.7	2277.3	2321.0	2327.0	2395.2	2525.6
35°	2455.2	2438.9	2344.8	2284.0	2237.3	2151.3	2167.6	2198.0	2206.9	2273.6	2406.3
37.5°	2390.0	2364.0	2264.0	2189.8	2129.8	2039.3	2043.8	2074.9	2083.8	2151.3	2282.5
40°	2322.5	2285.5	2178.0	2091.2	2022.3	1927.4	1922.2	1954.8	1961.5	2027.5	2146.1
42.5°	2250.6	2206.1	2085.3	1990.4	1911.1	1814.7	1804.4	1832.5	1839.9	1904.4	2020.8
45°	2178.0	2124.6	1990.4	1886.6	1799.9	1701.3	1690.9	1712.4	1723.5	1784.3	1896.3
47.5°	2100.9	2038.6	1892.6	1776.9	1687.2	1588.6	1576.0	1597.5	1606.4	1666.5	1772.5
50°	2020.1	1944.5	1791.7	1664.2	1575.3	1478.2	1459.6	1484.8	1493.0	1549.3	1653.1
52.5°	1931.1	1847.3	1684.3	1550.8	1461.9	1369.2	1347.0	1371.4	1381.1	1435.9	1531.5
55°	1837.0	1746.5	1576.0	1446.3	1349.9	1259.5	1241.0	1250.6	1271.3	1323.2	1412.2
57.5°	1731.0	1641.3	1461.9	1329.9	1237.2	1150.5	1134.9	1143.8	1163.1	1213.5	1293.6
60°	1618.3	1523.4	1345.5	1213.5	1123.8	1041.5	1027.5	1035.6	1056.4	1102.3	1176.5
62.5°	1507.1	1400.3	1225.4	1094.2	1012.6	936.3	932.6	929.6	948.9	993.4	1058.6
65°	1372.2	1269.9	1100.1	975.6	901.4	832.5	817.7	824.3	842.9	883.6	951.8
67.5°	1227.6	1134.9	971.9	857.0	791.0	729.4	716.8	719.8	739.1	774.7	834.0
70°	1074.2	992.6	840.6	737.6	682.0	624.2	616.0	616.8	635.3	666.4	718.3
72.5°	913.3	839.9	708.0	619.7	573.8	532.3	524.8	516.0	533.0	559.7	604.2
75°	749.5	685.0	576.0	504.1	467.8	432.9	426.3	417.4	434.4	457.4	492.2
77.5°	584.2	532.3	447.8	392.2	364.0	338.0	332.1	322.5	339.5	356.6	384.0
80°	422.5	384.7	334.3	275.8	266.1	249.1	243.1	232.8	249.1	260.2	281.0
82.5°	272.8	247.6	218.7	177.9	176.4	163.8	160.9	149.0	163.8	170.5	186.1
85°	137.9	126.0	118.6	90.4	93.4	85.3	84.5	71.9	83.8	86.7	95.6
87.5°	39.3	41.5	37.1	22.2	28.2	26.7	26.7	19.3	26.7	26.7	30.4
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: P837754

CATALOG NUMBER: ORLG-12-4-INS-ASY2R-LD4-2HI-40-120-EDD

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	3178.0	3178.0	3178.0	3178.0	3178.0	3178.0	3178.0	3178.0
2.5°	3181.0	3193.6	3196.5	3195.8	3203.9	3248.4	3233.6	3248.4
5°	3188.4	3216.5	3224.0	3234.3	3247.7	3298.1	3281.8	3299.6
7.5°	3192.8	3235.1	3251.4	3271.4	3292.9	3349.2	3335.9	3353.7
10°	3192.8	3247.7	3271.4	3304.8	3333.7	3398.9	3386.3	3407.1
12.5°	3179.5	3249.9	3283.3	3330.0	3367.0	3437.5	3432.3	3447.1
15°	3152.1	3238.8	3284.7	3344.8	3390.8	3469.3	3467.1	3484.9
17.5°	3115.0	3219.5	3275.1	3350.7	3408.5	3496.8	3502.0	3511.6
20°	3068.3	3183.2	3255.8	3348.5	3421.1	3518.3	3524.9	3538.3
22.5°	3006.8	3139.5	3226.9	3338.9	3422.6	3527.2	3539.0	3551.6
25°	2934.1	3086.8	3189.1	3320.3	3415.2	3526.4	3542.7	3553.8
27.5°	2851.1	3018.6	3140.9	3290.7	3394.5	3514.6	3534.6	3547.9
30°	2754.7	2946.0	3086.1	3252.1	3366.3	3492.3	3513.8	3527.2
32.5°	2655.4	2865.9	3020.8	3202.5	3325.5	3456.7	3475.3	3485.6
35°	2547.1	2768.8	2942.3	3138.7	3272.9	3399.7	3413.7	3424.9
37.5°	2429.3	2663.5	2852.6	3066.8	3198.8	3320.3	3332.9	3345.5
40°	2307.7	2553.1	2751.7	2978.6	3110.5	3223.2	3236.6	3245.5
42.5°	2185.4	2430.8	2644.3	2874.8	3006.0	3114.2	3122.4	3131.3
45°	2061.6	2304.0	2523.4	2759.9	2889.6	2991.2	2994.2	3001.6
47.5°	1935.6	2172.8	2390.7	2628.7	2756.9	2849.6	2852.6	2858.5
50°	1808.8	2041.6	2249.1	2487.1	2612.4	2710.2	2696.9	2702.8
52.5°	1684.3	1903.7	2115.7	2334.4	2458.2	2544.9	2548.6	2536.8
55°	1561.9	1768.8	1963.7	2174.3	2292.1	2359.6	2357.4	2361.8
57.5°	1438.1	1632.4	1811.0	2003.8	2118.7	2182.4	2195.8	2180.2
60°	1312.1	1494.5	1654.6	1828.8	1940.0	1993.4	2009.0	1994.1
62.5°	1186.8	1354.4	1499.7	1651.6	1754.7	1820.7	1819.2	1802.9
65°	1061.6	1213.5	1343.3	1472.2	1561.9	1627.9	1625.0	1610.1
67.5°	945.9	1071.2	1187.6	1292.1	1369.9	1415.2	1430.7	1412.9
70°	818.4	926.6	1028.9	1112.7	1177.2	1218.0	1232.8	1217.2
72.5°	690.9	782.8	854.7	935.5	985.2	1019.3	1034.9	1020.0
75°	564.9	640.5	699.1	762.1	796.9	825.8	843.6	828.8
77.5°	442.6	501.1	547.8	593.8	633.8	640.5	656.1	646.4
80°	326.2	368.4	402.5	432.9	461.8	464.8	477.4	471.5
82.5°	217.2	245.4	254.3	286.1	304.7	301.7	314.3	309.9
85°	114.9	132.0	147.5	157.2	167.5	157.9	169.0	164.6
87.5°	38.5	40.8	35.6	50.4	55.6	47.4	54.1	51.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)