

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: P838206

Luminaire Tested: **ORLG-24-4-INS-ASY2R-LD4-3STD-35-120-EDD-90**

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: P838206
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-LD4-3STD-35-120-EDD-90
Description: 2FT x 4FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2 and
RFI grid
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

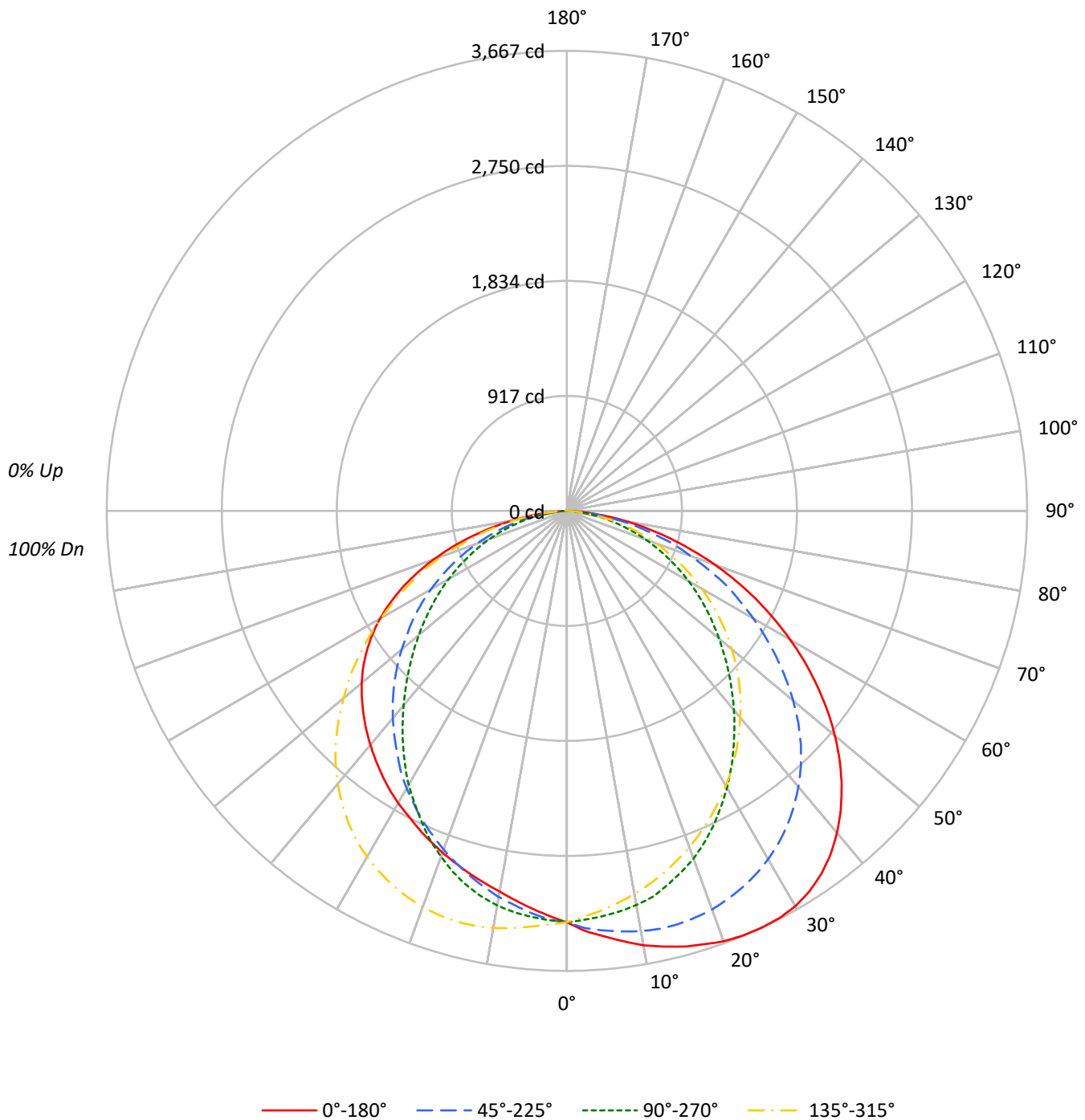
Lumens per Lamp: N/A
Luminaire Lumens: 9619.9 lumens
Efficiency: N/A
Efficacy: 96.3 lumens/watt
Spacing Criteria (0/90/45): 1.43 / 1.16 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	86	86	84
2	99	91	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	72	72	70
3	90	79	71	65	88	78	70	64	75	68	63	72	66	62	69	65	61	61	61	59
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	52	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	45	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	40	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	35	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	31	31	29
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	28	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	26	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	4412	4412	4412	4412
5°	4598	4380	4297	4387
10°	4803	4358	4210	4364
15°	5009	4302	4169	4303
20°	5227	4224	4151	4200
25°	5444	4106	4150	4064
30°	5654	3963	4178	3919
35°	5804	3800	4220	3740
40°	5881	3637	4279	3555
45°	5893	3471	4362	3384
50°	5837	3313	4468	3224
55°	5716	3165	4568	3077
60°	5537	3011	4629	2933
65°	5289	2834	4605	2769
70°	4941	2627	4441	2579
75°	4445	2342	4076	2330
80°	3769	1962	3426	1991
85°	2621	1298	2172	1334

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	311.3	3.2
10°-20°	901.5	9.4
20°-30°	1381.6	14.4
30°-40°	1679.9	17.5
40°-50°	1746.4	18.2
50°-60°	1577.5	16.4
60°-70°	1199.3	12.5
70°-80°	668.6	7.0
80°-90°	153.9	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°	2594.4	27.0
0°-40°	4274.3	44.4
0°-60°	7598.1	79.0
0°-90°	9619.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9619.9	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	3279	3279	3279	3279	3279	
5°	3404	3243	3182	3248	3404	328
15°	3596	3088	2993	3089	3596	1019
25°	3667	2766	2796	2737	3667	1694
35°	3534	2314	2569	2277	3534	2207
45°	3097	1824	2292	1778	3097	2384
55°	2437	1349	1947	1312	2437	2175
65°	1661	890	1446	870	1661	1642
75°	855	450	784	448	855	908
85°	170	84	141	86	170	214
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°	3278.9	3278.9	3278.9	3278.9	3278.9	3278.9	3278.9	3278.9	3278.9	3278.9	3278.9
2.5°	3351.6	3302.6	3303.4	3346.2	3313.4	3329.4	3283.5	3301.1	3295.8	3299.6	3262.1
5°	3404.4	3351.6	3350.8	3387.5	3350.8	3357.7	3299.6	3311.1	3294.2	3283.5	3243.0
7.5°	3460.2	3407.4	3402.1	3434.2	3386.0	3380.7	3316.4	3316.4	3285.8	3259.0	3220.8
10°	3515.3	3461.0	3454.1	3478.6	3418.9	3401.3	3323.3	3311.1	3270.5	3230.7	3189.4
12.5°	3556.6	3501.5	3496.2	3511.5	3444.1	3412.0	3323.3	3299.6	3239.9	3184.1	3152.0
15°	3595.6	3539.0	3524.5	3532.1	3454.9	3412.0	3312.6	3275.9	3199.4	3126.0	3088.5
17.5°	3623.1	3568.8	3554.3	3553.5	3460.2	3399.0	3289.6	3239.2	3147.4	3058.7	3021.2
20°	3650.7	3596.4	3578.0	3564.2	3458.7	3381.4	3256.0	3187.9	3080.8	2981.4	2950.0
22.5°	3664.4	3608.6	3588.7	3568.1	3448.7	3349.3	3214.7	3128.3	3005.9	2887.3	2861.3
25°	3666.7	3609.4	3587.9	3558.1	3428.8	3311.1	3161.1	3056.4	2919.5	2787.9	2765.7
27.5°	3660.6	3597.9	3576.5	3540.5	3399.0	3264.4	3097.7	2974.5	2827.7	2682.3	2658.6
30°	3639.2	3575.7	3555.0	3508.4	3357.0	3207.0	3028.1	2883.5	2725.9	2571.4	2550.8
32.5°	3596.4	3534.4	3517.6	3470.9	3311.1	3140.5	2947.0	2785.6	2613.5	2465.9	2435.3
35°	3533.6	3471.7	3461.0	3412.0	3246.8	3061.0	2858.3	2678.5	2494.2	2343.5	2313.7
37.5°	3451.8	3399.8	3383.7	3335.5	3171.1	2970.7	2756.5	2562.3	2372.6	2210.4	2192.1
40°	3348.5	3299.6	3287.3	3244.5	3083.1	2870.5	2646.4	2442.2	2247.1	2096.5	2070.5
42.5°	3230.7	3184.9	3178.0	3133.6	2974.5	2759.6	2527.1	2317.5	2116.4	1971.0	1945.0
45°	3096.9	3052.5	3051.0	3008.9	2856.0	2636.5	2401.6	2191.3	1988.6	1837.9	1824.2
47.5°	2949.3	2909.5	2909.5	2870.5	2723.7	2501.1	2272.4	2059.8	1860.1	1727.0	1702.6
50°	2788.7	2751.2	2739.7	2720.6	2577.6	2353.5	2136.2	1931.3	1733.2	1606.2	1582.5
52.5°	2617.3	2585.2	2592.9	2557.7	2419.2	2199.7	1998.6	1786.7	1605.4	1489.9	1466.2
55°	2436.8	2390.9	2397.8	2384.8	2254.0	2041.4	1844.1	1667.4	1480.0	1371.4	1349.2
57.5°	2249.4	2189.8	2214.3	2206.6	2078.1	1879.2	1702.6	1532.0	1355.3	1255.1	1233.7
60°	2057.5	2000.1	2025.3	2018.5	1897.6	1717.1	1556.5	1398.2	1231.4	1140.4	1119.0
62.5°	1860.1	1807.4	1830.3	1824.9	1714.0	1551.1	1411.2	1265.8	1106.7	1024.9	1005.0
65°	1661.3	1610.8	1631.4	1627.6	1525.1	1401.2	1262.0	1128.9	981.3	910.2	890.3
67.5°	1457.8	1411.2	1430.3	1430.3	1336.2	1217.6	1112.1	990.5	858.2	797.0	778.6
70°	1255.9	1212.3	1229.1	1227.6	1148.0	1051.7	960.7	852.0	733.5	683.0	667.7
72.5°	1052.4	1014.2	1029.5	1028.0	961.4	899.5	809.2	715.1	611.9	571.3	557.6
75°	855.1	819.2	833.7	832.2	777.9	719.7	659.3	581.3	492.6	464.3	450.5
77.5°	667.0	630.2	642.5	642.5	602.7	560.6	512.5	452.0	389.3	358.7	348.8
80°	486.4	468.9	462.7	463.5	436.7	409.2	384.7	326.6	280.7	260.1	253.2
82.5°	319.7	305.2	299.1	300.6	285.3	268.5	253.2	212.6	182.0	169.8	166.0
85°	169.8	159.1	153.7	157.6	154.5	145.3	137.7	110.1	91.0	86.4	84.1
87.5°	53.5	46.7	42.8	56.6	48.2	42.8	41.3	32.9	25.2	25.2	24.5
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°	3278.9	3278.9	3278.9	3278.9	3278.9	3278.9	3278.9	3278.9	3278.9	3278.9	3278.9
2.5°	3274.3	3274.3	3244.5	3237.6	3234.6	3238.4	3208.6	3203.2	3246.0	3231.5	3198.6
5°	3248.3	3246.8	3204.7	3197.1	3197.1	3192.5	3158.9	3151.2	3194.0	3181.8	3145.9
7.5°	3216.2	3211.6	3161.9	3156.6	3148.9	3145.9	3108.4	3103.0	3139.7	3132.1	3098.4
10°	3177.2	3172.6	3113.7	3109.9	3101.5	3095.4	3060.2	3056.4	3093.8	3081.6	3054.8
12.5°	3126.0	3117.6	3057.1	3053.3	3046.4	3044.1	3009.7	3008.2	3049.5	3037.2	3008.9
15°	3058.7	3051.8	2984.5	2986.0	2986.8	2986.8	2959.2	2957.7	2998.2	2992.9	2962.3
17.5°	2984.5	2975.3	2911.0	2915.6	2921.0	2927.1	2905.7	2909.5	2952.3	2945.5	2917.9
20°	2900.3	2891.2	2828.4	2841.4	2852.9	2865.1	2851.4	2862.1	2901.9	2898.8	2878.2
22.5°	2806.3	2797.1	2738.9	2758.8	2778.0	2800.9	2794.8	2807.0	2849.1	2848.3	2830.0
25°	2691.5	2693.8	2642.6	2667.1	2699.2	2731.3	2733.6	2753.5	2800.1	2795.5	2778.7
27.5°	2584.4	2587.5	2533.2	2574.5	2617.3	2658.6	2668.6	2696.1	2743.5	2739.7	2725.2
30°	2472.0	2475.8	2423.1	2479.7	2531.7	2582.2	2603.6	2641.0	2689.2	2689.2	2673.9
32.5°	2355.0	2361.9	2306.8	2382.5	2442.9	2501.8	2539.3	2578.3	2633.4	2631.9	2618.9
35°	2234.9	2242.6	2192.1	2288.4	2348.9	2420.8	2467.4	2519.4	2568.4	2569.1	2559.2
37.5°	2112.5	2121.7	2075.8	2181.4	2250.2	2335.1	2394.8	2446.8	2501.1	2504.1	2495.0
40°	1990.9	2000.9	1961.1	2062.8	2150.0	2244.9	2313.7	2374.9	2434.5	2436.1	2429.9
42.5°	1869.3	1880.0	1850.2	1949.6	2048.3	2150.0	2231.1	2300.7	2361.9	2365.7	2358.8
45°	1750.8	1759.9	1738.5	1847.1	1942.0	2052.9	2146.2	2225.0	2286.9	2292.3	2290.0
47.5°	1633.0	1641.4	1622.3	1721.7	1831.1	1948.9	2056.7	2143.9	2209.7	2215.8	2214.3
50°	1517.5	1524.4	1503.7	1607.7	1716.3	1841.8	1954.2	2055.2	2128.6	2134.7	2133.9
52.5°	1402.7	1409.6	1392.0	1501.4	1600.1	1732.4	1854.8	1964.1	2036.8	2046.0	2047.5
55°	1291.8	1294.9	1281.1	1385.9	1481.5	1620.0	1760.7	1867.0	1939.7	1947.3	1951.9
57.5°	1180.9	1181.7	1170.2	1270.4	1362.2	1503.7	1651.3	1763.0	1831.8	1839.5	1846.4
60°	1070.8	1070.0	1057.0	1154.2	1242.1	1382.1	1535.8	1646.7	1713.3	1720.2	1729.3
62.5°	961.4	959.1	947.7	1037.1	1119.7	1258.2	1412.7	1519.8	1583.3	1587.8	1600.1
65°	852.8	850.5	839.8	922.4	997.4	1129.7	1281.1	1382.9	1440.2	1446.3	1444.0
67.5°	745.7	741.1	732.7	806.9	875.0	997.4	1142.7	1239.8	1287.3	1292.6	1307.1
70°	638.7	633.3	614.2	693.0	752.6	862.0	997.4	1083.8	1123.6	1128.9	1126.6
72.5°	533.1	527.8	507.1	579.8	630.2	725.8	846.7	918.6	953.0	957.6	957.6
75°	430.6	427.6	414.6	469.6	511.7	589.7	692.2	751.9	778.6	784.0	782.4
77.5°	331.9	329.7	316.7	364.1	397.0	455.1	537.7	584.3	604.2	610.4	623.4
80°	237.9	237.1	216.5	263.1	277.6	326.6	387.0	423.0	433.7	442.1	451.3
82.5°	152.2	153.0	132.3	172.1	178.2	209.6	247.0	269.2	276.9	283.8	290.6
85°	74.2	77.3	65.8	91.0	91.8	107.8	123.9	132.3	135.4	140.7	146.9
87.5°	19.1	22.2	12.2	26.0	22.9	29.8	34.4	36.7	35.9	39.8	42.1
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°	3278.9	3278.9	3278.9	3278.9	3278.9	3278.9	3278.9	3278.9	3278.9	3278.9	3278.9
2.5°	3209.3	3233.8	3221.6	3261.3	3276.6	3252.2	3295.0	3295.8	3265.2	3301.1	3321.0
5°	3159.6	3184.9	3177.2	3218.5	3237.6	3216.2	3268.2	3278.2	3248.3	3288.9	3321.0
7.5°	3109.1	3139.0	3129.0	3171.1	3194.0	3177.2	3233.0	3249.1	3226.2	3270.5	3313.4
10°	3065.5	3090.8	3080.1	3124.4	3144.3	3130.6	3185.6	3215.5	3194.0	3248.3	3299.6
12.5°	3022.7	3043.4	3031.1	3067.8	3087.0	3069.4	3136.7	3164.2	3148.9	3205.5	3271.3
15°	2967.6	2990.6	2973.8	3006.6	3021.2	3005.9	3061.0	3108.4	3089.3	3151.2	3223.9
17.5°	2925.6	2938.6	2915.6	2941.6	2950.0	2929.4	2985.2	3031.9	3018.1	3085.4	3169.6
20°	2878.9	2889.6	2857.5	2872.0	2871.3	2845.3	2896.5	2942.4	2933.2	3007.4	3103.0
22.5°	2826.9	2832.3	2794.8	2797.8	2796.3	2753.5	2799.4	2846.0	2842.2	2917.2	3024.2
25°	2771.8	2772.6	2724.4	2722.9	2706.1	2655.6	2696.1	2748.9	2737.4	2818.5	2930.9
27.5°	2717.5	2709.9	2651.8	2638.0	2611.2	2550.8	2586.7	2634.2	2627.3	2706.8	2831.5
30°	2659.4	2649.5	2578.3	2553.1	2514.1	2444.5	2474.3	2518.7	2522.5	2592.1	2722.9
32.5°	2604.3	2579.1	2500.3	2463.6	2414.6	2333.6	2349.6	2394.8	2400.9	2471.2	2605.9
35°	2533.2	2516.4	2419.2	2356.5	2308.3	2219.6	2236.4	2267.8	2277.0	2345.8	2482.7
37.5°	2465.9	2439.1	2335.9	2259.4	2197.4	2104.1	2108.7	2140.8	2150.0	2219.6	2355.0
40°	2396.3	2358.0	2247.1	2157.7	2086.5	1988.6	1983.3	2016.9	2023.8	2091.9	2214.3
42.5°	2322.1	2276.2	2151.5	2053.6	1971.8	1872.4	1861.7	1890.7	1898.4	1964.9	2085.0
45°	2247.1	2192.1	2053.6	1946.6	1857.1	1755.3	1744.6	1766.8	1778.3	1841.0	1956.5
47.5°	2167.6	2103.4	1952.7	1833.4	1740.8	1639.1	1626.1	1648.3	1657.4	1719.4	1828.8
50°	2084.2	2006.2	1848.7	1717.1	1625.3	1525.1	1506.0	1532.0	1540.4	1598.5	1705.6
52.5°	1992.4	1906.0	1737.8	1600.1	1508.3	1412.7	1389.7	1415.0	1424.9	1481.5	1580.2
55°	1895.3	1802.0	1626.1	1492.2	1392.8	1299.5	1280.4	1290.3	1311.7	1365.3	1457.0
57.5°	1785.9	1693.4	1508.3	1372.2	1276.5	1187.1	1171.0	1180.2	1200.1	1252.1	1334.7
60°	1669.7	1571.8	1388.2	1252.1	1159.5	1074.6	1060.1	1068.5	1089.9	1137.3	1213.8
62.5°	1555.0	1444.8	1264.3	1128.9	1044.8	966.0	962.2	959.1	979.0	1024.9	1092.2
65°	1415.7	1310.2	1135.0	1006.5	930.1	858.9	843.6	850.5	869.6	911.7	982.1
67.5°	1266.6	1171.0	1002.7	884.2	816.1	752.6	739.6	742.7	762.6	799.3	860.5
70°	1108.3	1024.1	867.3	761.0	703.7	644.0	635.6	636.4	655.5	687.6	741.1
72.5°	942.3	866.6	730.4	639.4	592.0	549.2	541.5	532.3	549.9	577.5	623.4
75°	773.3	706.7	594.3	520.1	482.6	446.7	439.8	430.6	448.2	471.9	507.9
77.5°	602.7	549.2	462.0	404.6	375.5	348.8	342.7	332.7	350.3	367.9	396.2
80°	436.0	397.0	344.9	284.5	274.6	257.0	250.9	240.2	257.0	268.5	289.9
82.5°	281.5	255.5	225.6	183.6	182.0	169.0	166.0	153.7	169.0	175.9	192.0
85°	142.3	130.0	122.4	93.3	96.4	88.0	87.2	74.2	86.4	89.5	98.7
87.5°	40.5	42.8	38.2	22.9	29.1	27.5	27.5	19.9	27.5	27.5	31.4
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: P838206

CATALOG NUMBER: ORLG-24-4-INS-ASY2R-LD4-3STD-35-120-EDD-90

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	3278.9	3278.9	3278.9	3278.9	3278.9	3278.9	3278.9	3278.9
2.5°	3282.0	3295.0	3298.1	3297.3	3305.7	3351.6	3336.3	3351.6
5°	3289.6	3318.7	3326.4	3337.1	3350.8	3402.8	3386.0	3404.4
7.5°	3294.2	3337.8	3354.7	3375.3	3397.5	3455.6	3441.8	3460.2
10°	3294.2	3350.8	3375.3	3409.7	3439.6	3506.9	3493.9	3515.3
12.5°	3280.5	3353.1	3387.5	3435.7	3474.0	3546.6	3541.3	3556.6
15°	3252.2	3341.7	3389.1	3451.0	3498.4	3579.5	3577.2	3595.6
17.5°	3213.9	3321.8	3379.1	3457.1	3516.8	3607.8	3613.2	3623.1
20°	3165.7	3284.3	3359.2	3454.9	3529.8	3630.0	3636.9	3650.7
22.5°	3102.3	3239.2	3329.4	3444.9	3531.3	3639.2	3651.4	3664.4
25°	3027.3	3184.9	3290.4	3425.8	3523.7	3638.4	3655.2	3666.7
27.5°	2941.6	3114.5	3240.7	3395.2	3502.3	3626.2	3646.8	3660.6
30°	2842.2	3039.5	3184.1	3355.4	3473.2	3603.2	3625.4	3639.2
32.5°	2739.7	2956.9	3116.8	3304.2	3431.1	3566.5	3585.6	3596.4
35°	2628.0	2856.7	3035.7	3238.4	3376.8	3507.6	3522.2	3533.6
37.5°	2506.4	2748.1	2943.2	3164.2	3300.4	3425.8	3438.8	3451.8
40°	2381.0	2634.2	2839.1	3073.2	3209.3	3325.6	3339.4	3348.5
42.5°	2254.8	2508.0	2728.2	2966.1	3101.5	3213.2	3221.6	3230.7
45°	2127.1	2377.2	2603.6	2847.6	2981.4	3086.2	3089.3	3096.9
47.5°	1997.0	2241.8	2466.7	2712.2	2844.5	2940.1	2943.2	2949.3
50°	1866.2	2106.4	2320.6	2566.1	2695.4	2796.3	2782.5	2788.7
52.5°	1737.8	1964.1	2182.9	2408.5	2536.3	2625.7	2629.6	2617.3
55°	1611.6	1824.9	2026.1	2243.3	2364.9	2434.5	2432.2	2436.8
57.5°	1483.8	1684.2	1868.5	2067.4	2186.0	2251.7	2265.5	2249.4
60°	1353.8	1541.9	1707.2	1886.9	2001.6	2056.7	2072.8	2057.5
62.5°	1224.5	1397.4	1547.3	1704.1	1810.4	1878.5	1877.0	1860.1
65°	1095.3	1252.1	1385.9	1519.0	1611.6	1679.6	1676.6	1661.3
67.5°	976.0	1105.2	1225.3	1333.1	1413.5	1460.1	1476.2	1457.8
70°	844.4	956.1	1061.6	1148.0	1214.6	1256.7	1272.0	1255.9
72.5°	712.8	807.7	881.9	965.2	1016.5	1051.7	1067.7	1052.4
75°	582.8	660.8	721.3	786.3	822.2	852.0	870.4	855.1
77.5°	456.6	517.0	565.2	612.6	654.0	660.8	676.9	667.0
80°	336.5	380.1	415.3	446.7	476.5	479.6	492.6	486.4
82.5°	224.1	253.2	262.3	295.2	314.4	311.3	324.3	319.7
85°	118.6	136.1	152.2	162.1	172.9	162.9	174.4	169.8
87.5°	39.8	42.1	36.7	52.0	57.4	49.0	55.8	53.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)