

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: P838158

Luminaire Tested: **ORLG-24-4-INS-ASY2R-LD4-5STD-20-120-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: P838158
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-LD4-5STD-20-120-EDD-90
Description: 2FT x 4FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2 and
RFI grid
Light Source: 2000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

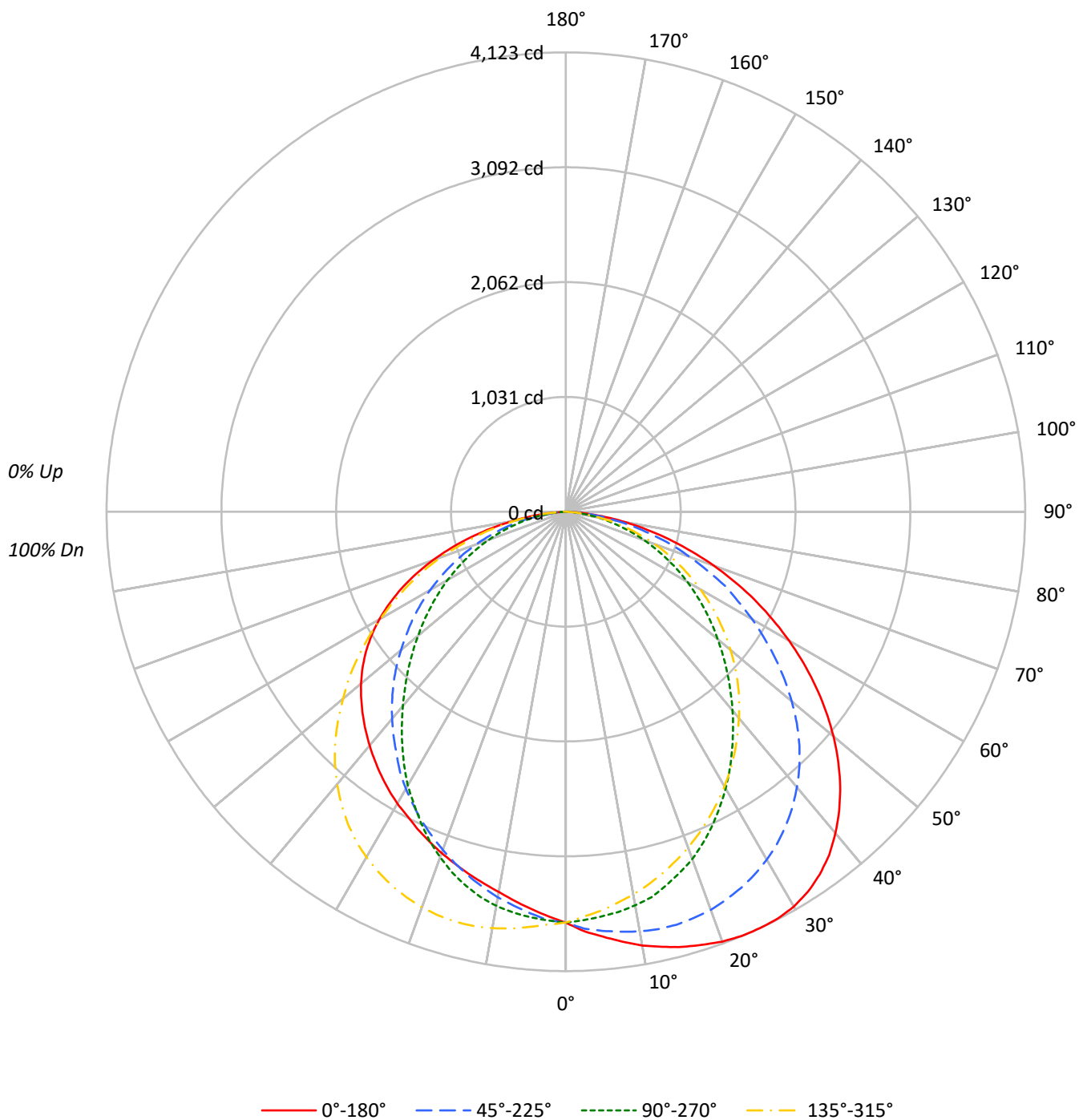
Lumens per Lamp: N/A
Luminaire Lumens: 10818.0 lumens
Efficiency: N/A
Efficacy: 65.0 lumens/watt
Spacing Criteria (0/90/45): 1.43 / 1.16 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 166.5
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°	4961	4961	4961	4961
5°	5171	4925	4833	4934
10°	5401	4900	4735	4907
15°	5632	4838	4688	4839
20°	5878	4750	4668	4723
25°	6121	4617	4667	4570
30°	6358	4457	4698	4407
35°	6527	4274	4745	4206
40°	6614	4089	4812	3997
45°	6627	3903	4905	3805
50°	6564	3725	5025	3626
55°	6428	3559	5137	3460
60°	6226	3386	5205	3298
65°	5947	3188	5178	3113
70°	5556	2954	4994	2900
75°	4999	2634	4583	2620
80°	4238	2206	3852	2239
85°	2947	1460	2444	1501

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	350.1	3.2
10°-20°	1013.8	9.4
20°-30°	1553.6	14.4
30°-40°	1889.1	17.5
40°-50°	1963.8	18.2
50°-60°	1773.9	16.4
60°-70°	1348.7	12.5
70°-80°	751.9	7.0
80°-90°	173.1	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°	2917.5	27.0
0°-40°	4806.6	44.4
0°-60°	8544.3	79.0
0°-90°	10818.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10818.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	3687	3687	3687	3687	3687	
5°	3828	3647	3578	3653	3828	369
15°	4043	3473	3366	3474	4043	1146
25°	4123	3110	3144	3078	4123	1904
35°	3974	2602	2889	2560	3974	2482
45°	3483	2051	2578	2000	3483	2681
55°	2740	1517	2190	1475	2740	2446
65°	1868	1001	1626	978	1868	1846
75°	962	507	882	504	962	1021
85°	191	95	158	97	191	240
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°	3687.3	3687.3	3687.3	3687.3	3687.3	3687.3	3687.3	3687.3	3687.3	3687.3	3687.3
2.5°	3769.0	3713.9	3714.8	3763.0	3726.0	3744.0	3692.4	3712.2	3706.2	3710.5	3668.4
5°	3828.3	3769.0	3768.1	3809.4	3768.1	3775.9	3710.5	3723.4	3704.5	3692.4	3646.8
7.5°	3891.1	3831.8	3825.8	3861.9	3807.7	3801.7	3729.4	3729.4	3695.0	3664.9	3621.9
10°	3953.0	3892.0	3884.2	3911.8	3844.7	3824.9	3737.2	3723.4	3677.8	3633.1	3586.6
12.5°	3999.5	3937.6	3931.5	3948.7	3873.1	3836.9	3737.2	3710.5	3643.4	3580.6	3544.5
15°	4043.4	3979.7	3963.4	3972.0	3885.1	3836.9	3725.1	3683.8	3597.8	3515.3	3473.1
17.5°	4074.3	4013.3	3996.9	3996.1	3891.1	3822.3	3699.3	3642.5	3539.3	3439.6	3397.4
20°	4105.3	4044.2	4023.6	4008.1	3889.4	3802.5	3661.5	3584.9	3464.5	3352.7	3317.4
22.5°	4120.8	4058.0	4035.6	4012.4	3878.2	3766.4	3615.0	3517.8	3380.2	3246.9	3217.7
25°	4123.3	4058.8	4034.8	4001.2	3855.9	3723.4	3554.8	3437.0	3283.0	3135.1	3110.1
27.5°	4116.5	4045.9	4021.9	3981.4	3822.3	3670.9	3483.4	3345.0	3179.8	3016.4	2989.7
30°	4092.4	4021.0	3997.8	3945.3	3775.0	3606.4	3405.2	3242.6	3065.4	2891.7	2868.5
32.5°	4044.2	3974.5	3955.6	3903.2	3723.4	3531.6	3314.0	3132.5	2939.0	2773.0	2738.6
35°	3973.7	3904.0	3892.0	3836.9	3651.1	3442.1	3214.2	3012.1	2804.8	2635.4	2601.8
37.5°	3881.7	3823.2	3805.1	3750.9	3566.0	3340.7	3099.8	2881.4	2668.0	2485.7	2465.1
40°	3765.5	3710.5	3696.7	3648.6	3467.1	3228.0	2976.0	2746.3	2527.0	2357.5	2328.3
42.5°	3633.1	3581.5	3573.7	3523.9	3345.0	3103.3	2841.8	2606.1	2379.9	2216.5	2187.2
45°	3482.6	3432.7	3431.0	3383.7	3211.6	2964.8	2700.7	2464.2	2236.3	2066.8	2051.4
47.5°	3316.6	3271.8	3271.8	3228.0	3062.8	2812.5	2555.4	2316.3	2091.8	1942.1	1914.6
50°	3135.9	3093.8	3080.9	3059.4	2898.6	2646.5	2402.3	2171.8	1949.0	1806.2	1779.6
52.5°	2943.3	2907.2	2915.8	2876.2	2720.5	2473.7	2247.5	2009.2	1805.4	1675.5	1648.8
55°	2740.3	2688.7	2696.4	2681.8	2534.7	2295.6	2073.7	1875.0	1664.3	1542.2	1517.2
57.5°	2529.6	2462.5	2490.0	2481.4	2336.9	2113.3	1914.6	1722.8	1524.1	1411.4	1387.4
60°	2313.7	2249.2	2277.6	2269.8	2133.9	1930.9	1750.3	1572.3	1384.8	1282.4	1258.3
62.5°	2091.8	2032.4	2058.2	2052.2	1927.5	1744.3	1586.9	1423.5	1244.6	1152.5	1130.2
65°	1868.1	1811.4	1834.6	1830.3	1715.1	1575.7	1419.2	1269.5	1103.5	1023.5	1001.2
67.5°	1639.4	1586.9	1608.4	1608.4	1502.6	1369.3	1250.6	1113.8	965.0	896.2	875.6
70°	1412.3	1363.3	1382.2	1380.5	1291.0	1182.6	1080.3	958.2	824.8	768.1	750.9
72.5°	1183.5	1140.5	1157.7	1156.0	1081.2	1011.5	910.0	804.2	688.1	642.5	627.0
75°	961.6	921.2	937.5	935.8	874.7	809.4	741.4	653.7	553.9	522.1	506.6
77.5°	750.0	708.7	722.5	722.5	677.8	630.5	576.3	508.3	437.8	403.4	392.2
80°	547.0	527.2	520.4	521.2	491.1	460.2	432.6	367.3	315.7	292.4	284.7
82.5°	359.5	343.2	336.3	338.0	320.8	301.9	284.7	239.1	204.7	190.9	186.6
85°	190.9	178.9	172.9	177.2	173.7	163.4	154.8	123.9	102.4	97.2	94.6
87.5°	60.2	52.5	48.2	63.6	54.2	48.2	46.4	37.0	28.4	28.4	27.5
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°	3687.3	3687.3	3687.3	3687.3	3687.3	3687.3	3687.3	3687.3	3687.3	3687.3	3687.3
2.5°	3682.1	3682.1	3648.6	3640.8	3637.4	3641.7	3608.1	3602.1	3650.3	3633.9	3597.0
5°	3652.9	3651.1	3603.8	3595.2	3595.2	3590.1	3552.2	3543.6	3591.8	3578.0	3537.6
7.5°	3616.7	3611.6	3555.7	3549.7	3541.1	3537.6	3495.5	3489.4	3530.7	3522.1	3484.3
10°	3572.9	3567.7	3501.5	3497.2	3487.7	3480.8	3441.3	3437.0	3479.1	3465.4	3435.3
12.5°	3515.3	3505.8	3437.8	3433.5	3425.8	3423.2	3384.5	3382.8	3429.2	3415.5	3383.7
15°	3439.6	3431.8	3356.1	3357.9	3358.7	3358.7	3327.7	3326.0	3371.6	3365.6	3331.2
17.5°	3356.1	3345.8	3273.6	3278.7	3284.7	3291.6	3267.5	3271.8	3320.0	3312.3	3281.3
20°	3261.5	3251.2	3180.7	3195.3	3208.2	3222.0	3206.5	3218.5	3263.2	3259.8	3236.6
22.5°	3155.7	3145.4	3080.0	3102.4	3123.9	3149.7	3142.8	3156.6	3203.9	3203.0	3182.4
25°	3026.7	3029.3	2971.7	2999.2	3035.3	3071.4	3074.0	3096.4	3148.8	3143.7	3124.8
27.5°	2906.3	2909.7	2848.7	2895.1	2943.3	2989.7	3000.9	3031.9	3085.2	3080.9	3064.6
30°	2779.9	2784.2	2724.8	2788.5	2847.0	2903.7	2927.8	2969.9	3024.1	3024.1	3006.9
32.5°	2648.3	2656.0	2594.1	2679.2	2747.2	2813.4	2855.6	2899.4	2961.3	2959.6	2945.0
35°	2513.2	2521.8	2465.1	2573.4	2641.4	2722.2	2774.7	2833.2	2888.2	2889.1	2877.9
37.5°	2375.6	2385.9	2334.3	2453.0	2530.4	2625.9	2693.0	2751.5	2812.5	2816.0	2805.7
40°	2238.9	2250.0	2205.3	2319.7	2417.8	2524.4	2601.8	2670.6	2737.7	2739.4	2732.6
42.5°	2102.1	2114.1	2080.6	2192.4	2303.4	2417.8	2508.9	2587.2	2656.0	2660.3	2652.6
45°	1968.8	1979.1	1955.0	2077.2	2183.8	2308.5	2413.5	2502.0	2571.7	2577.7	2575.2
47.5°	1836.3	1845.8	1824.3	1936.1	2059.1	2191.5	2312.8	2410.9	2484.8	2491.7	2490.0
50°	1706.4	1714.2	1691.0	1807.9	1930.1	2071.1	2197.6	2311.1	2393.7	2400.6	2399.7
52.5°	1577.4	1585.2	1565.4	1688.4	1799.3	1948.1	2085.8	2208.8	2290.5	2300.8	2302.5
55°	1452.7	1456.2	1440.7	1558.5	1666.0	1821.7	1980.0	2099.5	2181.2	2189.8	2195.0
57.5°	1328.0	1328.9	1316.0	1428.6	1531.8	1691.0	1857.0	1982.5	2060.0	2068.6	2076.3
60°	1204.1	1203.3	1188.7	1297.9	1396.8	1554.2	1727.1	1851.8	1926.6	1934.4	1944.7
62.5°	1081.2	1078.6	1065.7	1166.3	1259.2	1414.9	1588.6	1709.0	1780.4	1785.6	1799.3
65°	959.0	956.4	944.4	1037.3	1121.6	1270.4	1440.7	1555.1	1619.6	1626.5	1623.9
67.5°	838.6	833.4	824.0	907.4	984.0	1121.6	1285.0	1394.2	1447.6	1453.6	1469.9
70°	718.2	712.2	690.7	779.3	846.3	969.3	1121.6	1218.8	1263.5	1269.5	1266.9
72.5°	599.5	593.5	570.3	652.0	708.7	816.2	952.1	1033.0	1071.7	1076.9	1076.9
75°	484.2	480.8	466.2	528.1	575.4	663.1	778.4	845.5	875.6	881.6	879.9
77.5°	373.3	370.7	356.1	409.4	446.4	511.8	604.7	657.1	679.5	686.4	701.0
80°	267.5	266.6	243.4	295.9	312.2	367.3	435.2	475.6	487.7	497.1	507.5
82.5°	171.2	172.0	148.8	193.5	200.4	235.7	277.8	302.8	311.4	319.1	326.8
85°	83.4	86.9	74.0	102.4	103.2	121.3	139.3	148.8	152.2	158.3	165.1
87.5°	21.5	24.9	13.8	29.2	25.8	33.5	38.7	41.3	40.4	44.7	47.3
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°	3687.3	3687.3	3687.3	3687.3	3687.3	3687.3	3687.3	3687.3	3687.3	3687.3	3687.3
2.5°	3609.0	3636.5	3622.8	3667.5	3684.7	3657.2	3705.3	3706.2	3671.8	3712.2	3734.6
5°	3553.1	3581.5	3572.9	3619.3	3640.8	3616.7	3675.2	3686.4	3652.9	3698.5	3734.6
7.5°	3496.3	3529.9	3518.7	3566.0	3591.8	3572.9	3635.7	3653.7	3627.9	3677.8	3726.0
10°	3447.3	3475.7	3463.6	3513.5	3535.9	3520.4	3582.3	3615.9	3591.8	3652.9	3710.5
12.5°	3399.1	3422.4	3408.6	3449.9	3471.4	3451.6	3527.3	3558.3	3541.1	3604.7	3678.7
15°	3337.2	3363.0	3344.1	3381.1	3397.4	3380.2	3442.1	3495.5	3474.0	3543.6	3625.3
17.5°	3289.9	3304.5	3278.7	3308.0	3317.4	3294.2	3357.0	3409.5	3394.0	3469.7	3564.3
20°	3237.4	3249.5	3213.4	3229.7	3228.8	3199.6	3257.2	3308.8	3298.5	3381.9	3489.4
22.5°	3179.0	3185.0	3142.8	3146.3	3144.5	3096.4	3148.0	3200.5	3196.2	3280.4	3400.9
25°	3117.0	3117.9	3063.7	3062.0	3043.1	2986.3	3031.9	3091.2	3078.3	3169.5	3295.9
27.5°	3056.0	3047.4	2982.0	2966.5	2936.4	2868.5	2908.9	2962.2	2954.5	3043.9	3184.1
30°	2990.6	2979.4	2899.4	2871.0	2827.2	2748.9	2782.4	2832.3	2836.6	2914.9	3062.0
32.5°	2928.7	2900.3	2811.7	2770.4	2715.4	2624.2	2642.2	2693.0	2699.9	2779.0	2930.4
35°	2848.7	2829.7	2720.5	2650.0	2595.8	2496.0	2514.9	2550.2	2560.5	2637.9	2791.9
37.5°	2773.0	2742.9	2626.8	2540.8	2471.1	2366.2	2371.3	2407.4	2417.8	2496.0	2648.3
40°	2694.7	2651.7	2527.0	2426.4	2346.4	2236.3	2230.3	2268.1	2275.8	2352.4	2490.0
42.5°	2611.3	2559.7	2419.5	2309.4	2217.4	2105.5	2093.5	2126.2	2134.8	2209.6	2344.6
45°	2527.0	2465.1	2309.4	2189.0	2088.3	1973.9	1961.9	1986.8	1999.7	2070.3	2200.2
47.5°	2437.5	2365.3	2195.9	2061.7	1957.6	1843.2	1828.6	1853.5	1863.8	1933.5	2056.5
50°	2343.8	2256.1	2078.9	1930.9	1827.7	1715.1	1693.5	1722.8	1732.3	1797.6	1918.0
52.5°	2240.6	2143.4	1954.2	1799.3	1696.1	1588.6	1562.8	1591.2	1602.4	1666.0	1777.0
55°	2131.3	2026.4	1828.6	1678.1	1566.3	1461.3	1439.8	1451.0	1475.1	1535.3	1638.5
57.5°	2008.3	1904.3	1696.1	1543.0	1435.5	1334.9	1316.8	1327.1	1349.5	1408.0	1500.9
60°	1877.6	1767.5	1561.1	1408.0	1303.9	1208.4	1192.1	1201.6	1225.7	1279.0	1365.0
62.5°	1748.6	1624.7	1421.8	1269.5	1174.9	1086.3	1082.0	1078.6	1100.9	1152.5	1228.2
65°	1592.1	1473.4	1276.4	1131.9	1045.9	965.9	948.7	956.4	977.9	1025.2	1104.4
67.5°	1424.3	1316.8	1127.6	994.3	917.7	846.3	831.7	835.2	857.5	898.8	967.6
70°	1246.3	1151.7	975.4	855.8	791.3	724.2	714.7	715.6	737.1	773.2	833.4
72.5°	1059.7	974.5	821.4	719.0	665.7	617.6	609.0	598.6	618.4	649.4	701.0
75°	869.6	794.7	668.3	584.9	542.7	502.3	494.6	484.2	504.0	530.7	571.1
77.5°	677.8	617.6	519.5	455.0	422.3	392.2	385.3	374.1	393.9	413.7	445.5
80°	490.3	446.4	387.9	320.0	308.8	289.0	282.1	270.1	289.0	301.9	326.0
82.5°	316.5	287.3	253.7	206.4	204.7	190.1	186.6	172.9	190.1	197.8	215.9
85°	160.0	146.2	137.6	104.9	108.4	98.9	98.1	83.4	97.2	100.6	111.0
87.5°	45.6	48.2	43.0	25.8	32.7	31.0	31.0	22.4	31.0	31.0	35.3
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: P838158

CATALOG NUMBER: ORLG-24-4-INS-ASY2R-LD4-5STD-20-120-EDD-90

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	3687.3	3687.3	3687.3	3687.3	3687.3	3687.3	3687.3	3687.3
2.5°	3690.7	3705.3	3708.8	3707.9	3717.4	3769.0	3751.8	3769.0
5°	3699.3	3732.0	3740.6	3752.6	3768.1	3826.6	3807.7	3828.3
7.5°	3704.5	3753.5	3772.4	3795.6	3820.6	3886.0	3870.5	3891.1
10°	3704.5	3768.1	3795.6	3834.4	3867.9	3943.6	3929.0	3953.0
12.5°	3689.0	3770.7	3809.4	3863.6	3906.6	3988.3	3982.3	3999.5
15°	3657.2	3757.8	3811.1	3880.8	3934.1	4025.3	4022.7	4043.4
17.5°	3614.2	3735.4	3799.9	3887.7	3954.8	4057.1	4063.1	4074.3
20°	3560.0	3693.3	3777.6	3885.1	3969.4	4082.1	4089.8	4105.3
22.5°	3488.6	3642.5	3744.0	3873.9	3971.1	4092.4	4106.1	4120.8
25°	3404.3	3581.5	3700.2	3852.4	3962.5	4091.5	4110.4	4123.3
27.5°	3308.0	3502.4	3644.3	3818.0	3938.4	4077.8	4101.0	4116.5
30°	3196.2	3418.1	3580.6	3773.3	3905.7	4052.0	4076.9	4092.4
32.5°	3080.9	3325.2	3504.9	3715.7	3858.4	4010.7	4032.2	4044.2
35°	2955.3	3212.5	3413.8	3641.7	3797.4	3944.4	3960.8	3973.7
37.5°	2818.6	3090.4	3309.7	3558.3	3711.4	3852.4	3867.0	3881.7
40°	2677.5	2962.2	3192.7	3455.9	3609.0	3739.7	3755.2	3765.5
42.5°	2535.6	2820.3	3068.0	3335.5	3487.7	3613.3	3622.8	3633.1
45°	2392.0	2673.2	2927.8	3202.2	3352.7	3470.5	3474.0	3482.6
47.5°	2245.7	2521.0	2773.8	3049.9	3198.7	3306.2	3309.7	3316.6
50°	2098.7	2368.7	2609.6	2885.7	3031.0	3144.5	3129.1	3135.9
52.5°	1954.2	2208.8	2454.7	2708.5	2852.1	2952.7	2957.0	2943.3
55°	1812.2	2052.2	2278.4	2522.7	2659.4	2737.7	2735.1	2740.3
57.5°	1668.6	1894.0	2101.2	2324.9	2458.2	2532.2	2547.6	2529.6
60°	1522.4	1734.0	1919.8	2121.9	2250.9	2312.8	2330.9	2313.7
62.5°	1377.0	1571.4	1740.0	1916.3	2035.9	2112.4	2110.7	2091.8
65°	1231.7	1408.0	1558.5	1708.2	1812.2	1888.8	1885.4	1868.1
67.5°	1097.5	1242.9	1377.9	1499.2	1589.5	1641.9	1660.0	1639.4
70°	949.6	1075.1	1193.8	1291.0	1365.8	1413.2	1430.4	1412.3
72.5°	801.6	908.3	991.7	1085.5	1143.1	1182.6	1200.7	1183.5
75°	655.4	743.1	811.1	884.2	924.6	958.2	978.8	961.6
77.5°	513.5	581.4	635.6	688.9	735.4	743.1	761.2	750.0
80°	378.4	427.5	467.0	502.3	535.8	539.3	553.9	547.0
82.5°	252.0	284.7	295.0	332.0	353.5	350.1	364.7	359.5
85°	133.3	153.1	171.2	182.3	194.4	183.2	196.1	190.9
87.5°	44.7	47.3	41.3	58.5	64.5	55.0	62.8	60.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)