

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: P838173

Luminaire Tested: **ORLG-24-4-INS-ASY2R-LD4-4STD-27-120-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: P838173
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-LD4-4STD-27-120-EDD-90
Description: 2FT x 4FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2 and
RFI grid
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

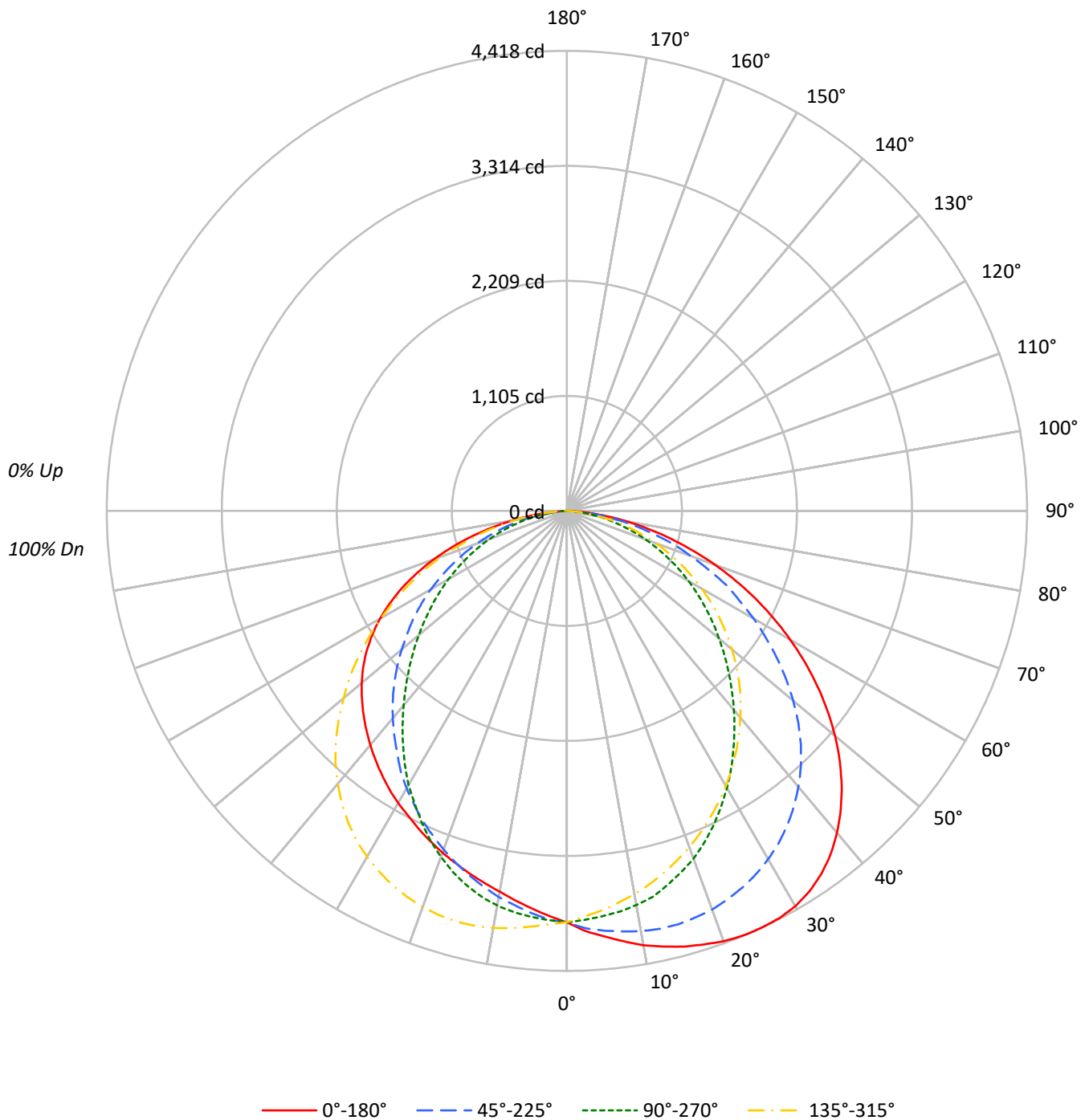
Lumens per Lamp: N/A
Luminaire Lumens: 11591.2 lumens
Efficiency: N/A
Efficacy: 87.0 lumens/watt
Spacing Criteria (0/90/45): 1.43 / 1.16 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 133.2
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

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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°	5316	5316	5316	5316
5°	5540	5278	5178	5286
10°	5787	5250	5073	5258
15°	6035	5184	5023	5185
20°	6298	5090	5001	5061
25°	6559	4947	5001	4897
30°	6813	4775	5034	4722
35°	6993	4579	5085	4506
40°	7087	4382	5156	4283
45°	7100	4182	5256	4077
50°	7033	3991	5384	3885
55°	6888	3814	5504	3708
60°	6671	3628	5577	3534
65°	6373	3415	5548	3336
70°	5953	3165	5351	3107
75°	5356	2822	4911	2807
80°	4541	2363	4128	2400
85°	3159	1565	2618	1607

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	375.1	3.2
10°-20°	1086.2	9.4
20°-30°	1664.7	14.4
30°-40°	2024.1	17.5
40°-50°	2104.2	18.2
50°-60°	1900.7	16.4
60°-70°	1445.1	12.5
70°-80°	805.6	7.0
80°-90°	185.5	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°	3126.0	27.0
0°-40°	5150.1	44.4
0°-60°	9155.1	79.0
0°-90°	11591.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11591.2	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	3951	3951	3951	3951	3951	
5°	4102	3908	3834	3914	4102	396
15°	4332	3721	3606	3722	4332	1228
25°	4418	3332	3368	3298	4418	2041
35°	4258	2788	3096	2744	4258	2659
45°	3732	2198	2762	2143	3732	2873
55°	2936	1626	2346	1580	2936	2621
65°	2002	1073	1743	1048	2002	1978
75°	1030	543	945	540	1030	1094
85°	205	101	170	104	205	258
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°	3950.8	3950.8	3950.8	3950.8	3950.8	3950.8	3950.8	3950.8	3950.8	3950.8	3950.8
2.5°	4038.4	3979.4	3980.3	4031.9	3992.3	4011.7	3956.4	3977.6	3971.1	3975.7	3930.6
5°	4102.0	4038.4	4037.5	4081.7	4037.5	4045.8	3975.7	3989.5	3969.3	3956.4	3907.5
7.5°	4169.3	4105.7	4099.2	4137.9	4079.9	4073.4	3996.0	3996.0	3959.1	3926.9	3880.8
10°	4235.6	4170.2	4161.9	4191.4	4119.5	4098.3	4004.3	3989.5	3940.7	3892.8	3843.0
12.5°	4285.4	4219.0	4212.6	4231.0	4149.9	4111.2	4004.3	3975.7	3903.8	3836.6	3797.9
15°	4332.4	4264.2	4246.7	4255.9	4162.8	4111.2	3991.4	3947.2	3855.0	3766.5	3721.4
17.5°	4365.6	4300.1	4282.6	4281.7	4169.3	4095.5	3963.7	3902.9	3792.3	3685.4	3640.3
20°	4398.7	4333.3	4311.2	4294.6	4167.4	4074.3	3923.2	3841.2	3712.1	3592.3	3554.6
22.5°	4415.3	4348.0	4324.1	4299.2	4155.4	4035.6	3873.4	3769.3	3621.8	3479.0	3447.7
25°	4418.1	4349.0	4323.2	4287.2	4131.5	3989.5	3808.9	3682.7	3517.7	3359.2	3332.5
27.5°	4410.7	4335.1	4309.3	4266.0	4095.5	3933.3	3732.4	3584.0	3407.1	3232.0	3203.4
30°	4384.9	4308.4	4283.5	4227.3	4044.8	3864.2	3648.6	3474.4	3284.5	3098.4	3073.5
32.5°	4333.3	4258.6	4238.4	4182.2	3989.5	3784.0	3550.9	3356.4	3149.1	2971.2	2934.3
35°	4257.7	4183.1	4170.2	4111.2	3912.1	3688.2	3444.0	3227.4	3005.3	2823.7	2787.8
37.5°	4159.1	4096.4	4077.1	4019.0	3820.9	3579.4	3321.4	3087.3	2858.8	2663.4	2641.3
40°	4034.7	3975.7	3961.0	3909.4	3714.9	3458.7	3188.7	2942.6	2707.6	2526.1	2494.7
42.5°	3892.8	3837.5	3829.2	3775.7	3584.0	3325.1	3044.9	2792.4	2550.0	2374.9	2343.6
45°	3731.5	3678.0	3676.2	3625.5	3441.2	3176.7	2893.8	2640.3	2396.1	2214.6	2198.0
47.5°	3553.6	3505.7	3505.7	3458.7	3281.8	3013.6	2738.0	2481.8	2241.3	2080.9	2051.5
50°	3360.1	3314.9	3301.1	3278.1	3105.7	2835.7	2574.0	2327.0	2088.3	1935.3	1906.8
52.5°	3153.7	3115.0	3124.2	3081.8	2915.0	2650.5	2408.1	2152.8	1934.4	1795.2	1766.7
55°	2936.2	2880.9	2889.2	2873.5	2715.9	2459.7	2221.9	2009.1	1783.3	1652.4	1625.7
57.5°	2710.4	2638.5	2668.0	2658.8	2503.9	2264.3	2051.5	1845.9	1633.1	1512.3	1486.5
60°	2479.1	2409.9	2440.4	2432.1	2286.5	2069.0	1875.4	1684.7	1483.8	1374.1	1348.3
62.5°	2241.3	2177.7	2205.4	2198.9	2065.3	1869.0	1700.3	1525.2	1333.5	1234.9	1211.0
65°	2001.7	1940.9	1965.7	1961.1	1837.6	1688.3	1520.6	1360.3	1182.4	1096.7	1072.7
67.5°	1756.5	1700.3	1723.4	1723.4	1610.0	1467.2	1340.0	1193.5	1034.0	960.3	938.2
70°	1513.2	1460.7	1481.0	1479.1	1383.3	1267.2	1157.5	1026.6	883.8	823.0	804.5
72.5°	1268.1	1222.0	1240.5	1238.6	1158.4	1083.8	975.0	861.7	737.3	688.4	671.8
75°	1030.3	987.0	1004.5	1002.7	937.3	867.2	794.4	700.4	593.5	559.4	542.8
77.5°	803.6	759.4	774.1	774.1	726.2	675.5	617.5	544.7	469.1	432.2	420.2
80°	586.1	564.9	557.6	558.5	526.2	493.0	463.6	393.5	338.2	313.3	305.0
82.5°	385.2	367.7	360.3	362.2	343.8	323.5	305.0	256.2	219.3	204.6	200.0
85°	204.6	191.7	185.2	189.8	186.2	175.1	165.9	132.7	109.7	104.1	101.4
87.5°	64.5	56.2	51.6	68.2	58.1	51.6	49.8	39.6	30.4	30.4	29.5
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°	3950.8	3950.8	3950.8	3950.8	3950.8	3950.8	3950.8	3950.8	3950.8	3950.8	3950.8
2.5°	3945.3	3945.3	3909.4	3901.1	3897.4	3902.0	3866.1	3859.6	3911.2	3893.7	3854.1
5°	3914.0	3912.1	3861.4	3852.2	3852.2	3846.7	3806.1	3796.9	3848.5	3833.8	3790.5
7.5°	3875.3	3869.7	3809.8	3803.4	3794.2	3790.5	3745.3	3738.9	3783.1	3773.9	3733.3
10°	3828.3	3822.7	3751.8	3747.2	3737.0	3729.7	3687.3	3682.7	3727.8	3713.1	3680.8
12.5°	3766.5	3756.4	3683.6	3679.0	3670.7	3667.9	3626.4	3624.6	3674.4	3659.6	3625.5
15°	3685.4	3677.1	3596.0	3597.9	3598.8	3598.8	3565.6	3563.8	3612.6	3606.2	3569.3
17.5°	3596.0	3585.0	3507.6	3513.1	3519.5	3526.9	3501.1	3505.7	3557.3	3549.0	3515.8
20°	3494.7	3483.6	3408.0	3423.7	3437.5	3452.3	3435.7	3448.6	3496.5	3492.8	3467.9
22.5°	3381.3	3370.2	3300.2	3324.2	3347.2	3374.8	3367.5	3382.2	3432.9	3432.0	3409.9
25°	3243.1	3245.8	3184.1	3213.6	3252.3	3291.0	3293.7	3317.7	3373.9	3368.4	3348.1
27.5°	3114.0	3117.7	3052.3	3102.1	3153.7	3203.4	3215.4	3248.6	3305.7	3301.1	3283.6
30°	2978.6	2983.2	2919.6	2987.8	3050.4	3111.3	3137.1	3182.2	3240.3	3240.3	3221.9
32.5°	2837.6	2845.9	2779.5	2870.7	2943.5	3014.5	3059.7	3106.7	3173.0	3171.2	3155.5
35°	2692.9	2702.1	2641.3	2757.4	2830.2	2916.8	2973.0	3035.7	3094.7	3095.6	3083.6
37.5°	2545.4	2556.5	2501.2	2628.4	2711.3	2813.6	2885.5	2948.2	3013.6	3017.3	3006.2
40°	2398.9	2410.9	2362.9	2485.5	2590.6	2704.9	2787.8	2861.5	2933.4	2935.3	2927.9
42.5°	2252.4	2265.3	2229.3	2349.1	2468.0	2590.6	2688.3	2772.1	2845.9	2850.5	2842.2
45°	2109.5	2120.6	2094.8	2225.6	2339.9	2473.5	2586.0	2680.9	2755.5	2762.0	2759.2
47.5°	1967.6	1977.7	1954.7	2074.5	2206.3	2348.2	2478.1	2583.2	2662.5	2669.8	2668.0
50°	1828.4	1836.7	1811.8	1937.2	2068.0	2219.2	2354.7	2476.3	2564.8	2572.1	2571.2
52.5°	1690.2	1698.5	1677.3	1809.1	1928.0	2087.4	2234.8	2366.6	2454.2	2465.2	2467.1
55°	1556.6	1560.2	1543.7	1669.9	1785.1	1951.9	2121.5	2249.6	2337.1	2346.4	2351.9
57.5°	1422.9	1423.9	1410.0	1530.8	1641.3	1811.8	1989.7	2124.3	2207.2	2216.4	2224.7
60°	1290.2	1289.3	1273.6	1390.7	1496.7	1665.3	1850.5	1984.2	2064.4	2072.6	2083.7
62.5°	1158.4	1155.7	1141.8	1249.7	1349.2	1516.0	1702.2	1831.2	1907.7	1913.2	1928.0
65°	1027.6	1024.8	1011.9	1111.4	1201.7	1361.2	1543.7	1666.2	1735.3	1742.7	1740.0
67.5°	898.5	893.0	882.9	972.3	1054.3	1201.7	1376.8	1493.9	1551.0	1557.5	1575.0
70°	769.5	763.1	740.0	835.0	906.8	1038.6	1201.7	1305.9	1353.8	1360.3	1357.5
72.5°	642.3	635.9	611.0	698.6	759.4	874.6	1020.2	1106.8	1148.3	1153.8	1153.8
75°	518.9	515.2	499.5	565.9	616.5	710.5	834.0	905.9	938.2	944.6	942.8
77.5°	400.0	397.2	381.5	438.7	478.3	548.3	647.9	704.1	728.1	735.4	751.1
80°	286.6	285.7	260.8	317.0	334.5	393.5	466.3	509.6	522.5	532.7	543.7
82.5°	183.4	184.3	159.4	207.4	214.7	252.5	297.7	324.4	333.6	341.9	350.2
85°	89.4	93.1	79.3	109.7	110.6	129.9	149.3	159.4	163.1	169.6	176.9
87.5°	23.0	26.7	14.7	31.3	27.6	35.9	41.5	44.2	43.3	47.9	50.7
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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	3950.8	3950.8	3950.8	3950.8	3950.8	3950.8	3950.8	3950.8	3950.8	3950.8	3950.8
2.5°	3867.0	3896.5	3881.7	3929.6	3948.1	3918.6	3970.2	3971.1	3934.2	3977.6	4001.5
5°	3807.1	3837.5	3828.3	3878.0	3901.1	3875.3	3937.9	3949.9	3914.0	3962.8	4001.5
7.5°	3746.2	3782.2	3770.2	3820.9	3848.5	3828.3	3895.5	3914.9	3887.2	3940.7	3992.3
10°	3693.7	3724.1	3711.2	3764.7	3788.6	3772.1	3838.4	3874.3	3848.5	3914.0	3975.7
12.5°	3642.1	3667.0	3652.2	3696.5	3719.5	3698.3	3779.4	3812.6	3794.2	3862.4	3941.6
15°	3575.8	3603.4	3583.1	3622.8	3640.3	3621.8	3688.2	3745.3	3722.3	3796.9	3884.5
17.5°	3525.1	3540.7	3513.1	3544.4	3554.6	3529.7	3596.9	3653.2	3636.6	3717.7	3819.1
20°	3468.8	3481.8	3443.0	3460.6	3459.6	3428.3	3490.0	3545.3	3534.3	3623.7	3738.9
22.5°	3406.2	3412.6	3367.5	3371.2	3369.3	3317.7	3373.0	3429.2	3424.6	3514.9	3644.0
25°	3339.8	3340.7	3282.7	3280.8	3260.6	3199.7	3248.6	3312.2	3298.4	3396.0	3531.5
27.5°	3274.4	3265.2	3195.1	3178.5	3146.3	3073.5	3116.8	3173.9	3165.6	3261.5	3411.7
30°	3204.4	3192.4	3106.7	3076.3	3029.3	2945.4	2981.3	3034.8	3039.4	3123.3	3280.8
32.5°	3138.0	3107.6	3012.7	2968.4	2909.4	2811.8	2831.1	2885.5	2892.9	2977.6	3139.8
35°	3052.3	3032.0	2915.0	2839.4	2781.3	2674.4	2694.7	2732.5	2743.6	2826.5	2991.5
37.5°	2971.2	2938.9	2814.5	2722.4	2647.7	2535.3	2540.8	2579.5	2590.6	2674.4	2837.6
40°	2887.3	2841.2	2707.6	2599.8	2514.1	2396.1	2389.7	2430.2	2438.5	2520.5	2668.0
42.5°	2797.9	2742.6	2592.4	2474.5	2375.8	2256.0	2243.1	2278.2	2287.4	2367.6	2512.2
45°	2707.6	2641.3	2474.5	2345.4	2237.6	2115.0	2102.1	2128.9	2142.7	2218.3	2357.4
47.5°	2611.8	2534.4	2352.8	2209.0	2097.5	1975.0	1959.3	1986.0	1997.1	2071.7	2203.5
50°	2511.3	2417.3	2227.5	2069.0	1958.4	1837.6	1814.6	1845.9	1856.1	1926.1	2055.1
52.5°	2400.7	2296.6	2093.8	1928.0	1817.4	1702.2	1674.5	1704.9	1716.9	1785.1	1904.0
55°	2283.7	2171.3	1959.3	1798.0	1678.2	1565.8	1542.7	1554.7	1580.5	1645.0	1755.6
57.5°	2151.9	2040.4	1817.4	1653.3	1538.1	1430.3	1410.9	1422.0	1446.0	1508.6	1608.2
60°	2011.8	1893.9	1672.7	1508.6	1397.1	1294.8	1277.3	1287.5	1313.3	1370.4	1462.6
62.5°	1873.6	1740.9	1523.4	1360.3	1258.9	1164.0	1159.4	1155.7	1179.6	1234.9	1316.0
65°	1705.9	1578.7	1367.6	1212.8	1120.6	1034.9	1016.5	1024.8	1047.8	1098.5	1183.3
67.5°	1526.1	1410.9	1208.2	1065.4	983.3	906.8	891.2	894.9	918.8	963.1	1036.8
70°	1335.4	1234.0	1045.1	917.0	847.9	776.0	765.8	766.8	789.8	828.5	893.0
72.5°	1135.4	1044.2	880.1	770.4	713.3	661.7	652.5	641.4	662.6	695.8	751.1
75°	931.7	851.5	716.1	626.7	581.5	538.2	529.9	518.9	540.0	568.6	611.9
77.5°	726.2	661.7	556.6	487.5	452.5	420.2	412.9	400.9	422.1	443.3	477.4
80°	525.3	478.3	415.6	342.8	330.8	309.7	302.3	289.4	309.7	323.5	349.3
82.5°	339.1	307.8	271.9	221.2	219.3	203.7	200.0	185.2	203.7	212.0	231.3
85°	171.4	156.7	147.5	112.4	116.1	106.0	105.1	89.4	104.1	107.8	118.9
87.5°	48.8	51.6	46.1	27.6	35.0	33.2	33.2	24.0	33.2	33.2	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

TEST NUMBER: P838173

CATALOG NUMBER: ORLG-24-4-INS-ASY2R-LD4-4STD-27-120-EDD-90

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	3950.8	3950.8	3950.8	3950.8	3950.8	3950.8	3950.8	3950.8
2.5°	3954.5	3970.2	3973.9	3973.0	3983.1	4038.4	4020.0	4038.4
5°	3963.7	3998.8	4008.0	4020.9	4037.5	4100.1	4079.9	4102.0
7.5°	3969.3	4021.8	4042.1	4067.0	4093.7	4163.7	4147.1	4169.3
10°	3969.3	4037.5	4067.0	4108.4	4144.4	4225.5	4209.8	4235.6
12.5°	3952.7	4040.2	4081.7	4139.8	4185.8	4273.4	4266.9	4285.4
15°	3918.6	4026.4	4083.5	4158.2	4215.3	4313.0	4310.3	4332.4
17.5°	3872.5	4002.4	4071.6	4165.6	4237.5	4347.1	4353.6	4365.6
20°	3814.4	3957.3	4047.6	4162.8	4253.1	4373.8	4382.1	4398.7
22.5°	3738.0	3902.9	4011.7	4150.8	4255.0	4384.9	4399.7	4415.3
25°	3647.6	3837.5	3964.7	4127.8	4245.7	4384.0	4404.3	4418.1
27.5°	3544.4	3752.7	3904.8	4090.9	4219.9	4369.2	4394.1	4410.7
30°	3424.6	3662.4	3836.6	4043.0	4184.9	4341.6	4368.3	4384.9
32.5°	3301.1	3562.9	3755.5	3981.3	4134.2	4297.4	4320.4	4333.3
35°	3166.6	3442.1	3657.8	3902.0	4068.8	4226.4	4243.9	4257.7
37.5°	3020.0	3311.3	3546.3	3812.6	3976.6	4127.8	4143.4	4159.1
40°	2868.9	3173.9	3420.9	3702.9	3867.0	4007.1	4023.6	4034.7
42.5°	2716.8	3021.9	3287.3	3573.9	3737.0	3871.6	3881.7	3892.8
45°	2562.9	2864.3	3137.1	3431.1	3592.3	3718.6	3722.3	3731.5
47.5°	2406.3	2701.2	2972.1	3267.9	3427.4	3542.6	3546.3	3553.6
50°	2248.7	2538.0	2796.1	3091.9	3247.7	3369.3	3352.7	3360.1
52.5°	2093.8	2366.6	2630.2	2902.1	3056.0	3163.8	3168.4	3153.7
55°	1941.8	2198.9	2441.3	2703.0	2849.5	2933.4	2930.6	2936.2
57.5°	1787.9	2029.3	2251.4	2491.0	2633.9	2713.1	2729.7	2710.4
60°	1631.2	1857.9	2057.0	2273.6	2411.8	2478.1	2497.5	2479.1
62.5°	1475.5	1683.7	1864.4	2053.3	2181.4	2263.4	2261.6	2241.3
65°	1319.7	1508.6	1669.9	1830.3	1941.8	2023.8	2020.1	2001.7
67.5°	1175.9	1331.7	1476.4	1606.3	1703.1	1759.3	1778.7	1756.5
70°	1017.4	1152.0	1279.2	1383.3	1463.5	1514.2	1532.6	1513.2
72.5°	858.9	973.2	1062.6	1163.0	1224.8	1267.2	1286.5	1268.1
75°	702.2	796.3	869.1	947.4	990.7	1026.6	1048.8	1030.3
77.5°	550.2	623.0	681.1	738.2	788.0	796.3	815.6	803.6
80°	405.5	458.0	500.4	538.2	574.1	577.8	593.5	586.1
82.5°	270.0	305.0	316.1	355.7	378.8	375.1	390.8	385.2
85°	142.8	164.0	183.4	195.4	208.3	196.3	210.1	204.6
87.5°	47.9	50.7	44.2	62.7	69.1	59.0	67.3	64.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)