

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: P838070

Luminaire Tested: **ORLG-24-4-INS-ASY2R-LD4-6LO-27-120-EDD**

Issue Date: 5/21/2024



Test Information

Test Method: LM-79-08
Report Number: P838070
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-LD4-6LO-27-120-EDD
Description: 2FT x 4FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2 and
RFI grid
Light Source: 2700K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

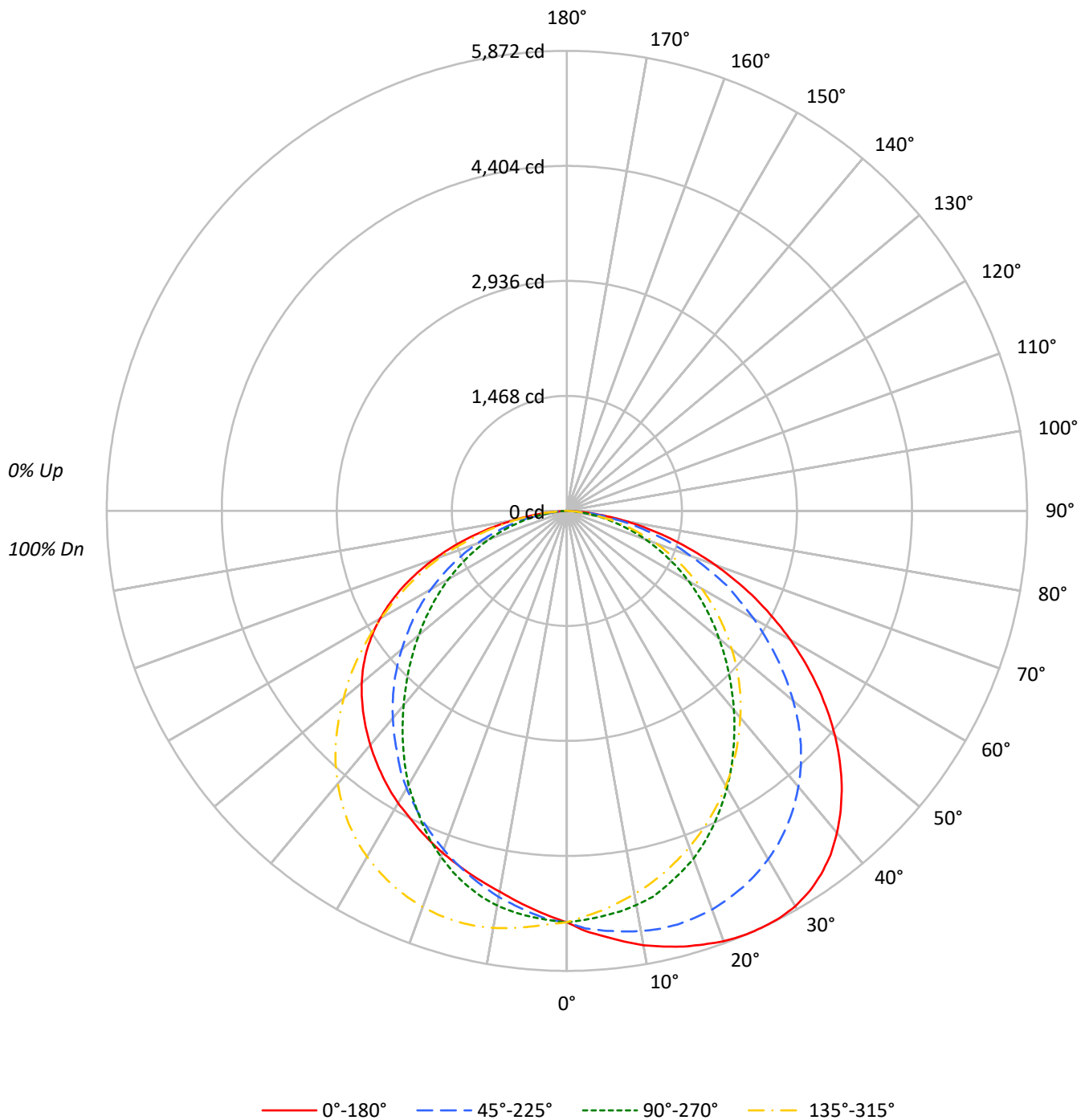
Lumens per Lamp: N/A
Luminaire Lumens: 15406.6 lumens
Efficiency: N/A
Efficacy: 109.7 lumens/watt
Spacing Criteria (0/90/45): 1.43 / 1.16 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 140.4
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

TEST NUMBER: P838070

CATALOG NUMBER: ORLG-24-4-INS-ASY2R-LD4-6LO-27-120-EDD

Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P838070

CATALOG NUMBER: ORLG-24-4-INS-ASY2R-LD4-6LO-27-120-EDD

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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	109	104	100	96	106	102	98	94	97	94	91		94	91	89		90
2	99	91	84	78	96	89	82	77	85	80	75		82	77	73		79
3	90	79	71	65	88	78	70	64	75	68	63		72	66	62		69
4	82	70	61	55	80	69	61	54	66	59	53		64	58	53		62
5	76	63	54	47	74	62	53	47	59	52	46		57	51	46		56
6	70	56	47	41	68	55	47	41	54	46	40		52	45	40		50
7	65	51	42	36	63	50	42	36	49	41	36		47	40	35		46
8	60	47	38	32	59	46	38	32	45	37	32		43	37	32		42
9	56	43	34	29	55	42	34	29	41	34	29		40	33	28		39
10	53	39	31	26	51	39	31	26	38	31	26		37	30	26		36

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	7066	7066	7066	7066
5°	7364	7015	6883	7026
10°	7692	6979	6743	6989
15°	8021	6890	6677	6892
20°	8371	6765	6647	6726
25°	8718	6576	6647	6509
30°	9055	6347	6691	6277
35°	9295	6086	6758	5990
40°	9419	5824	6852	5693
45°	9438	5559	6985	5419
50°	9348	5305	7156	5164
55°	9155	5069	7316	4928
60°	8867	4823	7413	4697
65°	8471	4539	7375	4434
70°	7913	4207	7113	4130
75°	7119	3751	6527	3732
80°	6037	3142	5486	3189
85°	4198	2079	3480	2137

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P838070

CATALOG NUMBER: ORLG-24-4-INS-ASY2R-LD4-6LO-27-120-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	498.6	3.2
10°-20°	1443.8	9.4
20°-30°	2212.6	14.4
30°-40°	2690.4	17.5
40°-50°	2796.8	18.2
50°-60°	2526.4	16.4
60°-70°	1920.7	12.5
70°-80°	1070.8	7.0
80°-90°	246.5	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°	4155.0	27.0
0°-40°	6845.4	44.4
0°-60°	12168.6	79.0
0°-90°	15406.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	15406.6	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	5251	5251	5251	5251	5251	
5°	5452	5194	5096	5202	5452	526
15°	5758	4946	4793	4948	5758	1633
25°	5872	4429	4477	4384	5872	2712
35°	5659	3705	4115	3647	5659	3535
45°	4960	2922	3671	2848	4960	3819
55°	3903	2161	3119	2101	3903	3484
65°	2661	1426	2316	1393	2661	2629
75°	1370	722	1256	718	1370	1455
85°	272	135	225	138	272	342
90°	0	0	0	0	0	

TEST NUMBER: P838070

CATALOG NUMBER: ORLG-24-4-INS-ASY2R-LD4-6LO-27-120-EDD

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	5251.3	5251.3	5251.3	5251.3	5251.3	5251.3	5251.3	5251.3	5251.3	5251.3	5251.3
2.5°	5367.7	5289.3	5290.5	5359.1	5306.4	5332.2	5258.7	5286.8	5278.3	5284.4	5224.4
5°	5452.2	5367.7	5366.5	5425.3	5366.5	5377.5	5284.4	5302.8	5275.8	5258.7	5193.7
7.5°	5541.6	5457.1	5448.5	5500.0	5422.8	5414.2	5311.3	5311.3	5262.3	5219.5	5158.2
10°	5629.8	5542.9	5531.8	5571.0	5475.5	5447.3	5322.4	5302.8	5237.8	5174.1	5108.0
12.5°	5696.0	5607.8	5599.2	5623.7	5515.9	5464.5	5322.4	5284.4	5188.8	5099.4	5048.0
15°	5758.4	5667.8	5644.5	5656.8	5533.1	5464.5	5305.2	5246.4	5123.9	5006.3	4946.3
17.5°	5802.5	5715.6	5692.3	5691.1	5541.6	5443.6	5268.5	5187.6	5040.6	4898.5	4838.5
20°	5846.6	5759.7	5730.3	5708.2	5539.2	5415.5	5214.6	5105.6	4934.1	4774.8	4724.6
22.5°	5868.7	5779.3	5747.4	5714.3	5523.3	5364.0	5148.4	5010.0	4814.0	4624.1	4582.5
25°	5872.4	5780.5	5746.2	5698.4	5491.4	5302.8	5062.7	4894.9	4675.6	4464.9	4429.4
27.5°	5862.6	5762.1	5727.8	5670.2	5443.6	5228.0	4961.0	4763.8	4528.6	4295.9	4257.9
30°	5828.3	5726.6	5693.5	5618.8	5376.3	5136.2	4849.5	4618.0	4365.7	4118.2	4085.2
32.5°	5759.7	5660.4	5633.5	5558.8	5302.8	5029.6	4719.7	4461.2	4185.6	3949.2	3900.2
35°	5659.2	5560.0	5542.9	5464.5	5199.9	4902.2	4577.6	4289.7	3994.5	3753.2	3705.4
37.5°	5528.2	5444.9	5419.1	5342.0	5078.6	4757.7	4414.7	4103.5	3799.8	3540.1	3510.7
40°	5362.8	5284.4	5264.8	5196.2	4937.7	4597.2	4238.3	3911.2	3598.9	3357.6	3315.9
42.5°	5174.1	5100.7	5089.6	5018.6	4763.8	4419.6	4047.2	3711.6	3389.4	3156.7	3115.0
45°	4959.8	4888.7	4886.3	4818.9	4573.9	4222.4	3846.3	3509.5	3184.8	2943.5	2921.5
47.5°	4723.4	4659.7	4659.7	4597.2	4362.0	4005.6	3639.3	3298.8	2979.1	2765.9	2726.7
50°	4466.1	4406.1	4387.7	4357.1	4128.0	3769.1	3421.3	3093.0	2775.7	2572.4	2534.4
52.5°	4191.7	4140.3	4152.5	4096.2	3874.5	3522.9	3200.8	2861.5	2571.1	2386.2	2348.2
55°	3902.7	3829.2	3840.2	3819.4	3609.9	3269.4	2953.3	2670.4	2370.3	2196.3	2160.8
57.5°	3602.5	3507.0	3546.2	3534.0	3328.2	3009.7	2726.7	2453.6	2170.6	2010.1	1975.8
60°	3295.1	3203.2	3243.6	3232.6	3039.1	2750.0	2492.8	2239.2	1972.2	1826.4	1792.1
62.5°	2979.1	2894.5	2931.3	2922.7	2745.1	2484.2	2260.0	2027.3	1772.5	1641.4	1609.6
65°	2660.6	2579.7	2612.8	2606.7	2442.5	2244.1	2021.2	1808.0	1571.6	1457.7	1425.8
67.5°	2334.7	2260.0	2290.6	2290.6	2140.0	1950.1	1781.1	1586.3	1374.4	1276.4	1247.0
70°	2011.4	1941.5	1968.5	1966.0	1838.6	1684.3	1538.5	1364.6	1174.7	1093.9	1069.4
72.5°	1685.5	1624.3	1648.8	1646.3	1539.7	1440.5	1296.0	1145.3	980.0	915.0	893.0
75°	1369.5	1311.9	1335.2	1332.7	1245.8	1152.7	1055.9	931.0	788.9	743.5	721.5
77.5°	1068.1	1009.4	1028.9	1028.9	965.3	897.9	820.7	723.9	623.5	574.5	558.6
80°	779.1	750.9	741.1	742.3	699.4	655.3	616.1	523.0	449.6	416.5	405.5
82.5°	512.0	488.8	479.0	481.4	456.9	430.0	405.5	340.5	291.5	271.9	265.8
85°	271.9	254.8	246.2	252.3	247.4	232.7	220.5	176.4	145.8	138.4	134.7
87.5°	85.7	74.7	68.6	90.6	77.2	68.6	66.1	52.7	40.4	40.4	39.2
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: P838070

CATALOG NUMBER: ORLG-24-4-INS-ASY2R-LD4-6LO-27-120-EDD

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	5251.3	5251.3	5251.3	5251.3	5251.3	5251.3	5251.3	5251.3	5251.3	5251.3	5251.3
2.5°	5244.0	5244.0	5196.2	5185.2	5180.3	5186.4	5138.6	5130.0	5198.6	5175.4	5122.7
5°	5202.3	5199.9	5132.5	5120.3	5120.3	5112.9	5059.0	5046.8	5115.4	5095.8	5038.2
7.5°	5150.9	5143.5	5063.9	5055.3	5043.1	5038.2	4978.2	4969.6	5028.4	5016.1	4962.2
10°	5088.4	5081.1	4986.7	4980.6	4967.1	4957.3	4901.0	4894.9	4954.9	4935.3	4892.4
12.5°	5006.3	4992.9	4896.1	4890.0	4878.9	4875.3	4820.1	4817.7	4883.8	4864.2	4818.9
15°	4898.5	4887.5	4779.7	4782.2	4783.4	4783.4	4739.3	4736.8	4801.8	4793.2	4744.2
17.5°	4779.7	4765.0	4662.1	4669.5	4678.0	4687.8	4653.5	4659.7	4728.3	4717.2	4673.1
20°	4645.0	4630.3	4529.8	4550.7	4569.0	4588.6	4566.6	4583.7	4647.4	4642.5	4609.5
22.5°	4494.3	4479.6	4386.5	4418.4	4449.0	4485.7	4475.9	4495.5	4562.9	4561.7	4532.3
25°	4310.6	4314.2	4232.2	4271.4	4322.8	4374.3	4377.9	4409.8	4484.5	4477.2	4450.2
27.5°	4139.1	4144.0	4057.0	4123.1	4191.7	4257.9	4273.8	4317.9	4393.9	4387.7	4364.5
30°	3959.0	3965.1	3880.6	3971.3	4054.6	4135.4	4169.7	4229.7	4306.9	4306.9	4282.4
32.5°	3771.6	3782.6	3694.4	3815.7	3912.5	4006.8	4066.8	4129.3	4217.5	4215.0	4194.2
35°	3579.3	3591.5	3510.7	3665.0	3761.8	3876.9	3951.7	4035.0	4113.3	4114.6	4098.7
37.5°	3383.3	3398.0	3324.5	3493.5	3603.8	3739.7	3835.3	3918.6	4005.6	4010.5	3995.8
40°	3188.5	3204.4	3140.7	3303.7	3443.3	3595.2	3705.4	3803.4	3899.0	3901.4	3891.6
42.5°	2993.8	3010.9	2963.1	3122.4	3280.4	3443.3	3573.2	3684.6	3782.6	3788.7	3777.7
45°	2803.9	2818.6	2784.3	2958.2	3110.1	3287.7	3437.2	3563.4	3662.6	3671.1	3667.5
47.5°	2615.2	2628.7	2598.1	2757.3	2932.5	3121.1	3293.9	3433.5	3538.9	3548.7	3546.2
50°	2430.3	2441.3	2408.2	2574.8	2748.8	2949.7	3129.7	3291.4	3409.0	3418.8	3417.6
52.5°	2246.5	2257.6	2229.4	2404.6	2562.6	2774.5	2970.5	3145.6	3262.0	3276.7	3279.2
55°	2068.9	2073.8	2051.8	2219.6	2372.7	2594.4	2819.8	2990.1	3106.4	3118.7	3126.0
57.5°	1891.3	1892.5	1874.2	2034.6	2181.6	2408.2	2644.6	2823.5	2933.7	2946.0	2957.0
60°	1714.9	1713.7	1692.9	1848.4	1989.3	2213.5	2459.7	2637.3	2743.9	2754.9	2769.6
62.5°	1539.7	1536.1	1517.7	1661.0	1793.3	2015.0	2262.5	2434.0	2535.6	2543.0	2562.6
65°	1365.8	1362.1	1345.0	1477.3	1597.3	1809.2	2051.8	2214.7	2306.6	2316.4	2312.7
67.5°	1194.3	1187.0	1173.5	1292.3	1401.3	1597.3	1830.1	1985.6	2061.6	2070.1	2093.4
70°	1022.8	1014.3	983.6	1109.8	1205.3	1380.5	1597.3	1735.7	1799.4	1808.0	1804.3
72.5°	853.8	845.2	812.1	928.5	1009.4	1162.5	1356.0	1471.2	1526.3	1533.6	1533.6
75°	689.6	684.7	663.9	752.1	819.5	944.4	1108.6	1204.1	1247.0	1255.6	1253.1
77.5°	531.6	527.9	507.1	583.1	635.7	728.8	861.1	935.9	967.7	977.5	998.3
80°	381.0	379.7	346.7	421.4	444.7	523.0	619.8	677.4	694.5	708.0	722.7
82.5°	243.8	245.0	211.9	275.6	285.4	335.6	395.7	431.2	443.4	454.5	465.5
85°	118.8	123.7	105.3	145.8	147.0	172.7	198.4	211.9	216.8	225.4	235.2
87.5°	30.6	35.5	19.6	41.6	36.7	47.8	55.1	58.8	57.6	63.7	67.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P838070

CATALOG NUMBER: ORLG-24-4-INS-ASY2R-LD4-6LO-27-120-EDD

CANDELA DISTRIBUTION (continued):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	5251.3	5251.3	5251.3	5251.3	5251.3	5251.3	5251.3	5251.3	5251.3	5251.3	5251.3
2.5°	5139.8	5179.0	5159.4	5223.1	5247.6	5208.4	5277.0	5278.3	5229.3	5286.8	5318.7
5°	5060.2	5100.7	5088.4	5154.5	5185.2	5150.9	5234.2	5250.1	5202.3	5267.2	5318.7
7.5°	4979.4	5027.2	5011.2	5078.6	5115.4	5088.4	5177.8	5203.5	5166.8	5237.8	5306.4
10°	4909.6	4950.0	4932.8	5003.9	5035.7	5013.7	5101.9	5149.6	5115.4	5202.3	5284.4
12.5°	4841.0	4874.0	4854.4	4913.2	4943.9	4915.7	5023.5	5067.6	5043.1	5133.7	5239.1
15°	4752.8	4789.5	4762.6	4815.2	4838.5	4814.0	4902.2	4978.2	4947.5	5046.8	5163.1
17.5°	4685.4	4706.2	4669.5	4711.1	4724.6	4691.5	4780.9	4855.7	4833.6	4941.4	5076.2
20°	4610.7	4627.8	4576.4	4599.7	4598.4	4556.8	4638.8	4712.3	4697.6	4816.5	4969.6
22.5°	4527.4	4536.0	4475.9	4480.8	4478.4	4409.8	4483.3	4558.0	4551.9	4671.9	4843.4
25°	4439.2	4440.4	4363.2	4360.8	4333.8	4253.0	4317.9	4402.4	4384.1	4513.9	4694.0
27.5°	4352.2	4340.0	4246.9	4224.8	4181.9	4085.2	4142.7	4218.7	4207.7	4335.1	4534.7
30°	4259.1	4243.2	4129.3	4088.9	4026.4	3914.9	3962.7	4033.7	4039.9	4151.3	4360.8
32.5°	4170.9	4130.5	4004.3	3945.5	3867.1	3737.3	3763.0	3835.3	3845.1	3957.8	4173.4
35°	4057.0	4030.1	3874.5	3774.0	3696.9	3554.8	3581.7	3631.9	3646.6	3756.9	3976.2
37.5°	3949.2	3906.3	3741.0	3618.5	3519.3	3369.8	3377.2	3428.6	3443.3	3554.8	3771.6
40°	3837.7	3776.5	3598.9	3455.6	3341.6	3184.8	3176.3	3230.2	3241.2	3350.2	3546.2
42.5°	3718.9	3645.4	3445.8	3289.0	3157.9	2998.7	2981.5	3028.1	3040.3	3146.9	3339.2
45°	3598.9	3510.7	3289.0	3117.5	2974.2	2811.2	2794.1	2829.6	2848.0	2948.4	3133.4
47.5°	3471.5	3368.6	3127.3	2936.2	2788.0	2625.0	2604.2	2639.7	2654.4	2753.7	2928.8
50°	3338.0	3213.0	2960.7	2750.0	2603.0	2442.5	2411.9	2453.6	2467.0	2560.1	2731.6
52.5°	3191.0	3052.6	2783.1	2562.6	2415.6	2262.5	2225.7	2266.1	2282.1	2372.7	2530.7
55°	3035.4	2886.0	2604.2	2389.9	2230.6	2081.2	2050.5	2066.5	2100.8	2186.5	2333.5
57.5°	2860.2	2712.0	2415.6	2197.5	2044.4	1901.1	1875.4	1890.1	1921.9	2005.2	2137.5
60°	2674.0	2517.3	2223.3	2005.2	1857.0	1721.0	1697.8	1711.2	1745.5	1821.5	1944.0
62.5°	2490.3	2313.9	2024.8	1808.0	1673.3	1547.1	1541.0	1536.1	1567.9	1641.4	1749.2
65°	2267.4	2098.3	1817.8	1612.0	1489.5	1375.6	1351.1	1362.1	1392.8	1460.1	1572.8
67.5°	2028.5	1875.4	1605.9	1416.0	1307.0	1205.3	1184.5	1189.4	1221.3	1280.1	1378.1
70°	1774.9	1640.2	1389.1	1218.8	1126.9	1031.4	1017.9	1019.2	1049.8	1101.2	1187.0
72.5°	1509.1	1387.9	1169.8	1024.1	948.1	879.5	867.3	852.6	880.7	924.8	998.3
75°	1238.4	1131.8	951.8	833.0	772.9	715.4	704.3	689.6	717.8	755.8	813.4
77.5°	965.3	879.5	739.9	648.0	601.4	558.6	548.8	532.8	561.0	589.2	634.5
80°	698.2	635.7	552.4	455.7	439.8	411.6	401.8	384.6	411.6	430.0	464.3
82.5°	450.8	409.1	361.4	294.0	291.5	270.7	265.8	246.2	270.7	281.7	307.5
85°	227.8	208.2	196.0	149.4	154.3	140.9	139.6	118.8	138.4	143.3	158.0
87.5°	64.9	68.6	61.2	36.7	46.5	44.1	44.1	31.8	44.1	44.1	50.2
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: P838070

CATALOG NUMBER: ORLG-24-4-INS-ASY2R-LD4-6LO-27-120-EDD

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	5251.3	5251.3	5251.3	5251.3	5251.3	5251.3	5251.3	5251.3
2.5°	5256.2	5277.0	5281.9	5280.7	5294.2	5367.7	5343.2	5367.7
5°	5268.5	5315.0	5327.3	5344.4	5366.5	5449.8	5422.8	5452.2
7.5°	5275.8	5345.6	5372.6	5405.7	5441.2	5534.3	5512.2	5541.6
10°	5275.8	5366.5	5405.7	5460.8	5508.6	5616.4	5595.5	5629.8
12.5°	5253.8	5370.1	5425.3	5502.4	5563.7	5680.0	5671.5	5696.0
15°	5208.4	5351.8	5427.7	5526.9	5602.9	5732.7	5729.0	5758.4
17.5°	5147.2	5319.9	5411.8	5536.7	5632.3	5778.0	5786.6	5802.5
20°	5070.0	5259.9	5379.9	5533.1	5653.1	5813.6	5824.6	5846.6
22.5°	4968.4	5187.6	5332.2	5517.1	5655.5	5828.3	5847.9	5868.7
25°	4848.3	5100.7	5269.7	5486.5	5643.3	5827.0	5854.0	5872.4
27.5°	4711.1	4988.0	5190.1	5437.5	5609.0	5807.4	5840.5	5862.6
30°	4551.9	4867.9	5099.4	5373.8	5562.5	5770.7	5806.2	5828.3
32.5°	4387.7	4735.6	4991.6	5291.7	5495.1	5711.9	5742.5	5759.7
35°	4208.9	4575.2	4861.8	5186.4	5408.1	5617.6	5640.8	5659.2
37.5°	4014.1	4401.2	4713.6	5067.6	5285.6	5486.5	5507.3	5528.2
40°	3813.2	4218.7	4547.0	4921.8	5139.8	5326.0	5348.1	5362.8
42.5°	3611.1	4016.6	4369.4	4750.3	4967.1	5146.0	5159.4	5174.1
45°	3406.6	3807.1	4169.7	4560.5	4774.8	4942.6	4947.5	4959.8
47.5°	3198.3	3590.3	3950.4	4343.6	4555.6	4708.7	4713.6	4723.4
50°	2988.9	3373.5	3716.5	4109.7	4316.7	4478.4	4456.3	4466.1
52.5°	2783.1	3145.6	3496.0	3857.3	4061.9	4205.2	4211.3	4191.7
55°	2580.9	2922.7	3244.9	3592.7	3787.5	3899.0	3895.3	3902.7
57.5°	2376.4	2697.3	2992.5	3311.0	3500.9	3606.2	3628.3	3602.5
60°	2168.1	2469.5	2734.1	3021.9	3205.7	3293.9	3319.6	3295.1
62.5°	1961.1	2238.0	2478.1	2729.2	2899.4	3008.5	3006.0	2979.1
65°	1754.1	2005.2	2219.6	2432.7	2580.9	2690.0	2685.1	2660.6
67.5°	1563.0	1770.0	1962.4	2135.1	2263.7	2338.4	2364.1	2334.7
70°	1352.3	1531.2	1700.2	1838.6	1945.2	2012.6	2037.1	2011.4
72.5°	1141.6	1293.5	1412.4	1545.9	1627.9	1684.3	1710.0	1685.5
75°	933.4	1058.3	1155.1	1259.2	1316.8	1364.6	1394.0	1369.5
77.5°	731.3	828.1	905.2	981.2	1047.3	1058.3	1084.1	1068.1
80°	539.0	608.8	665.1	715.4	763.1	768.0	788.9	779.1
82.5°	358.9	405.5	420.2	472.8	503.5	498.6	519.4	512.0
85°	189.9	218.0	243.8	259.7	276.8	260.9	279.3	271.9
87.5°	63.7	67.4	58.8	83.3	91.9	78.4	89.4	85.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)