

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: P838177

Luminaire Tested: **ORLG-24-4-INS-ASY2R-LD4-5HI-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: P838177
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-LD4-5HI-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

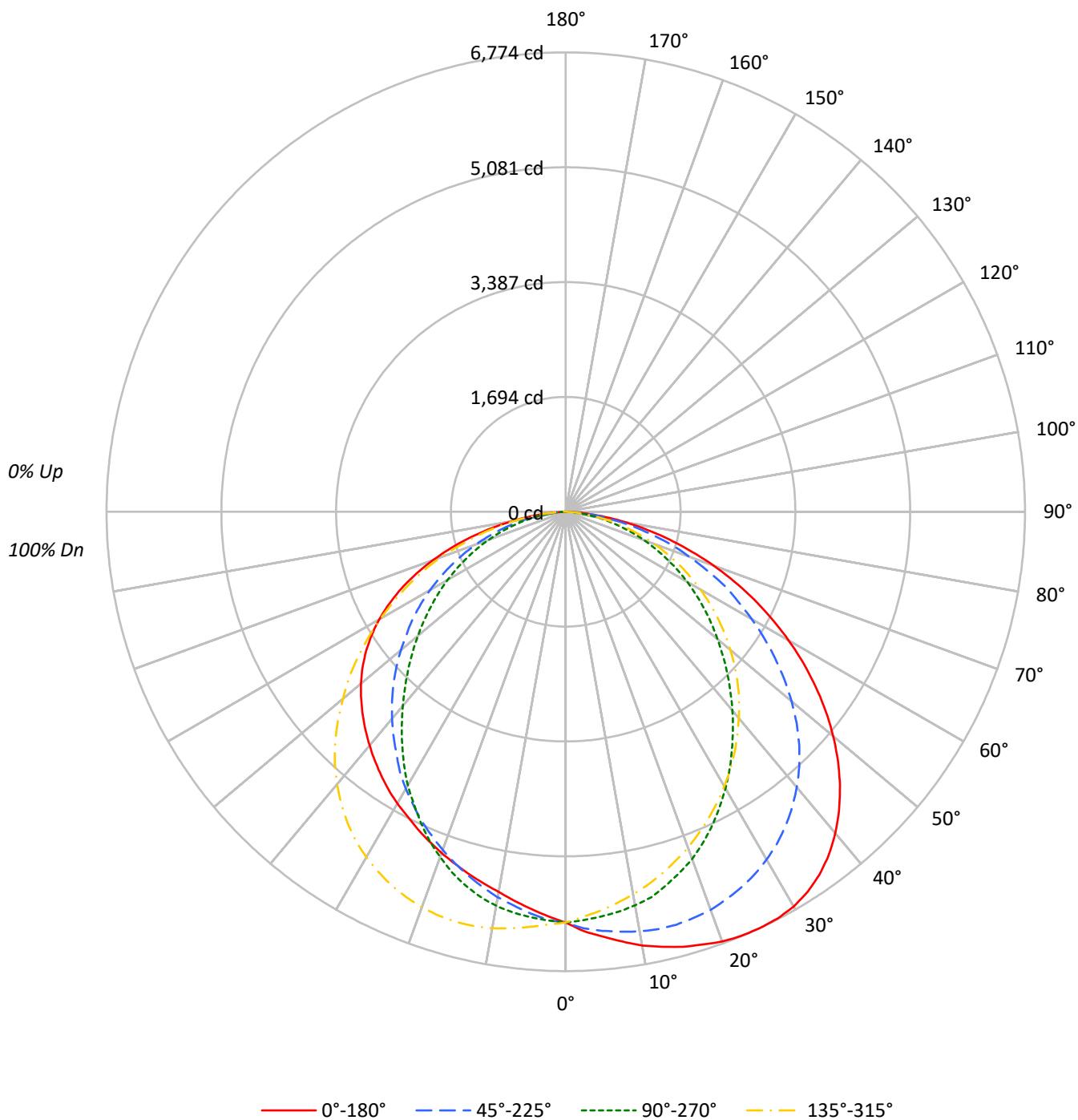
Lumens per Lamp: N/A
Luminaire Lumens: 17771.6 lumens
Efficiency: N/A
Efficacy: 80.8 lumens/watt
Spacing Criteria (0/90/45): 1.43 / 1.16 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 220
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
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°	8150	8150	8150	8150
5°	8494	8092	7939	8105
10°	8872	8050	7778	8062
15°	9253	7948	7702	7950
20°	9656	7803	7668	7759
25°	10056	7585	7667	7508
30°	10445	7321	7718	7240
35°	10722	7021	7796	6909
40°	10865	6718	7904	6567
45°	10886	6412	8058	6251
50°	10784	6119	8255	5957
55°	10560	5847	8439	5684
60°	10228	5563	8551	5418
65°	9771	5236	8507	5115
70°	9127	4853	8204	4764
75°	8212	4326	7529	4304
80°	6963	3624	6328	3679
85°	4843	2399	4014	2465

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	575.1	3.2
10°-20°	1665.4	9.4
20°-30°	2552.3	14.4
30°-40°	3103.4	17.5
40°-50°	3226.2	18.2
50°-60°	2914.2	16.4
60°-70°	2215.5	12.5
70°-80°	1235.1	7.0
80°-90°	284.4	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°	4792.8	27.0
0°-40°	7896.2	44.4
0°-60°	14036.5	79.0
0°-90°	17771.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	17771.6	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	6057	6057	6057	6057	6057	
5°	6289	5991	5878	6001	6289	606
15°	6642	5706	5529	5707	6642	1883
25°	6774	5109	5164	5057	6774	3129
35°	6528	4274	4746	4206	6528	4077
45°	5721	3370	4235	3285	5721	4405
55°	4502	2492	3597	2423	4502	4019
65°	3069	1645	2672	1606	3069	3033
75°	1580	832	1448	828	1580	1678
85°	314	155	260	160	314	395
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°	6057.4	6057.4	6057.4	6057.4	6057.4	6057.4	6057.4	6057.4	6057.4	6057.4	6057.4
2.5°	6191.6	6101.2	6102.6	6181.7	6121.0	6150.7	6065.9	6098.4	6088.5	6095.6	6026.3
5°	6289.1	6191.6	6190.2	6258.0	6190.2	6202.9	6095.6	6116.7	6085.7	6065.9	5991.0
7.5°	6392.3	6294.8	6284.9	6344.2	6255.2	6245.3	6126.6	6126.6	6070.1	6020.7	5950.0
10°	6494.0	6393.7	6381.0	6426.2	6316.0	6283.5	6139.4	6116.7	6041.9	5968.4	5892.1
12.5°	6570.3	6468.6	6458.7	6486.9	6362.6	6303.3	6139.4	6095.6	5985.3	5882.2	5822.8
15°	6642.4	6537.8	6511.0	6525.1	6382.4	6303.3	6119.6	6051.8	5910.5	5774.8	5705.6
17.5°	6693.2	6592.9	6566.1	6564.7	6392.3	6279.2	6077.2	5983.9	5814.4	5650.5	5581.2
20°	6744.1	6643.8	6609.9	6584.4	6389.5	6246.7	6015.0	5889.3	5691.4	5507.8	5449.8
22.5°	6769.5	6666.4	6629.7	6591.5	6371.1	6187.4	5938.7	5779.0	5553.0	5334.0	5285.9
25°	6773.8	6667.8	6628.2	6573.1	6334.3	6116.7	5839.8	5646.2	5393.3	5150.3	5109.3
27.5°	6762.5	6646.6	6607.0	6540.6	6279.2	6030.6	5722.5	5495.0	5223.8	4955.3	4911.5
30°	6722.9	6605.6	6567.5	6481.3	6201.5	5924.6	5593.9	5326.9	5035.8	4750.4	4712.3
32.5°	6643.8	6529.3	6498.2	6412.1	6116.7	5801.7	5444.2	5146.0	4828.1	4555.4	4498.9
35°	6527.9	6413.5	6393.7	6303.3	5998.1	5654.7	5280.3	4948.2	4607.7	4329.3	4274.2
37.5°	6376.7	6280.7	6251.0	6162.0	5858.2	5488.0	5092.3	4733.4	4383.0	4083.5	4049.6
40°	6186.0	6095.6	6072.9	5993.8	5695.7	5302.9	4888.9	4511.6	4151.3	3873.0	3824.9
42.5°	5968.4	5883.6	5870.9	5788.9	5495.0	5098.0	4668.5	4281.3	3909.7	3641.2	3593.2
45°	5721.1	5639.2	5636.3	5558.6	5276.0	4870.5	4436.7	4048.2	3673.7	3395.4	3369.9
47.5°	5448.4	5374.9	5374.9	5302.9	5031.6	4620.4	4197.9	3805.1	3436.3	3190.5	3145.3
50°	5151.7	5082.5	5061.3	5025.9	4761.7	4347.7	3946.4	3567.7	3201.8	2967.2	2923.4
52.5°	4835.2	4775.8	4790.0	4725.0	4469.2	4063.7	3692.1	3300.7	2965.8	2752.5	2708.7
55°	4501.7	4416.9	4429.7	4405.6	4164.0	3771.2	3406.7	3080.3	2734.1	2533.5	2492.5
57.5°	4155.5	4045.3	4090.5	4076.4	3839.0	3471.7	3145.3	2830.2	2503.8	2318.7	2279.1
60°	3800.9	3694.9	3741.5	3728.8	3505.6	3172.1	2875.4	2582.9	2274.9	2106.7	2067.2
62.5°	3436.3	3338.8	3381.2	3371.3	3166.5	2865.5	2606.9	2338.5	2044.6	1893.4	1856.6
65°	3069.0	2975.7	3013.9	3006.8	2817.5	2588.6	2331.4	2085.5	1812.8	1681.4	1644.7
67.5°	2693.1	2606.9	2642.3	2642.3	2468.5	2249.4	2054.5	1829.8	1585.4	1472.3	1438.4
70°	2320.1	2239.6	2270.6	2267.8	2120.9	1942.8	1774.7	1574.0	1355.0	1261.8	1233.5
72.5°	1944.2	1873.6	1901.9	1899.0	1776.1	1661.7	1494.9	1321.1	1130.4	1055.5	1030.1
75°	1579.7	1513.3	1540.1	1537.3	1437.0	1329.6	1218.0	1073.9	910.0	857.7	832.2
77.5°	1232.1	1164.3	1186.9	1186.9	1113.4	1035.7	946.7	835.1	719.2	662.7	644.3
80°	898.6	866.2	854.8	856.3	806.8	755.9	710.7	603.3	518.6	480.4	467.7
82.5°	590.6	563.8	552.5	555.3	527.0	496.0	467.7	392.8	336.3	313.7	306.6
85°	313.7	293.9	284.0	291.1	285.4	268.5	254.3	203.5	168.1	159.7	155.4
87.5°	98.9	86.2	79.1	104.6	89.0	79.1	76.3	60.8	46.6	46.6	45.2
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°	6057.4	6057.4	6057.4	6057.4	6057.4	6057.4	6057.4	6057.4	6057.4	6057.4	6057.4
2.5°	6048.9	6048.9	5993.8	5981.1	5975.5	5982.5	5927.4	5917.5	5996.6	5969.8	5909.0
5°	6000.9	5998.1	5920.3	5906.2	5906.2	5897.7	5835.6	5821.4	5900.6	5878.0	5811.5
7.5°	5941.5	5933.1	5841.2	5831.3	5817.2	5811.5	5742.3	5732.4	5800.2	5786.1	5723.9
10°	5869.5	5861.0	5752.2	5745.1	5729.6	5718.3	5653.3	5646.2	5715.5	5692.9	5643.4
12.5°	5774.8	5759.3	5647.6	5640.6	5627.9	5623.6	5560.0	5557.2	5633.5	5610.9	5558.6
15°	5650.5	5637.8	5513.4	5516.2	5517.6	5517.6	5466.8	5464.0	5538.8	5529.0	5472.4
17.5°	5513.4	5496.5	5377.8	5386.2	5396.1	5407.4	5367.9	5374.9	5454.1	5441.3	5390.5
20°	5358.0	5341.0	5225.2	5249.2	5270.4	5293.0	5267.6	5287.3	5360.8	5355.2	5317.0
22.5°	5184.2	5167.2	5059.8	5096.6	5131.9	5174.3	5163.0	5185.6	5263.3	5261.9	5228.0
25°	4972.2	4976.5	4881.8	4927.0	4986.4	5045.7	5050.0	5086.7	5172.9	5164.4	5133.3
27.5°	4774.4	4780.1	4679.8	4756.1	4835.2	4911.5	4929.9	4980.7	5068.3	5061.3	5034.4
30°	4566.7	4573.8	4476.3	4580.8	4676.9	4770.2	4809.8	4879.0	4968.0	4968.0	4939.7
32.5°	4350.5	4363.3	4261.5	4401.4	4513.0	4621.8	4691.1	4763.1	4864.9	4862.0	4838.0
35°	4128.7	4142.8	4049.6	4227.6	4339.2	4472.1	4558.2	4654.3	4744.8	4746.2	4727.8
37.5°	3902.6	3919.6	3834.8	4029.8	4157.0	4313.8	4424.0	4520.1	4620.4	4626.1	4609.1
40°	3678.0	3696.3	3622.9	3810.8	3971.9	4147.1	4274.2	4387.3	4497.5	4500.3	4489.0
42.5°	3453.3	3473.1	3418.0	3601.7	3783.9	3971.9	4121.6	4250.2	4363.3	4370.3	4357.6
45°	3234.3	3251.2	3211.7	3412.3	3587.5	3792.4	3964.8	4110.3	4224.8	4234.7	4230.4
47.5°	3016.7	3032.2	2996.9	3180.6	3382.7	3600.2	3799.5	3960.6	4082.1	4093.4	4090.5
50°	2803.3	2816.0	2777.9	2970.1	3170.7	3402.4	3610.1	3796.7	3932.3	3943.6	3942.2
52.5°	2591.4	2604.1	2571.6	2773.7	2955.9	3200.4	3426.5	3628.5	3762.7	3779.7	3782.5
55°	2386.5	2392.2	2366.7	2560.3	2736.9	2992.7	3252.7	3449.1	3583.3	3597.4	3605.9
57.5°	2181.6	2183.0	2161.8	2346.9	2516.5	2777.9	3050.6	3256.9	3384.1	3398.2	3410.9
60°	1978.2	1976.7	1952.7	2132.2	2294.7	2553.2	2837.2	3042.1	3165.1	3177.8	3194.7
62.5°	1776.1	1771.9	1750.7	1916.0	2068.6	2324.3	2609.8	2807.6	2924.8	2933.3	2955.9
65°	1575.5	1571.2	1551.4	1704.0	1842.5	2087.0	2366.7	2554.6	2660.6	2671.9	2667.7
67.5°	1377.6	1369.2	1353.6	1490.7	1616.4	1842.5	2111.0	2290.4	2378.0	2387.9	2414.8
70°	1179.8	1169.9	1134.6	1280.2	1390.4	1592.4	1842.5	2002.2	2075.7	2085.5	2081.3
72.5°	984.8	974.9	936.8	1071.0	1164.3	1340.9	1564.2	1697.0	1760.6	1769.0	1769.0
75°	795.5	789.9	765.8	867.6	945.3	1089.4	1278.7	1388.9	1438.4	1448.3	1445.5
77.5°	613.2	609.0	585.0	672.6	733.3	840.7	993.3	1079.5	1116.2	1127.6	1151.6
80°	439.4	438.0	399.9	486.1	512.9	603.3	715.0	781.4	801.2	816.7	833.7
82.5°	281.2	282.6	244.4	317.9	329.2	387.2	456.4	497.4	511.5	524.2	536.9
85°	137.1	142.7	121.5	168.1	169.6	199.2	228.9	244.4	250.1	260.0	271.3
87.5°	35.3	41.0	22.6	48.0	42.4	55.1	63.6	67.8	66.4	73.5	77.7
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°	6057.4	6057.4	6057.4	6057.4	6057.4	6057.4	6057.4	6057.4	6057.4	6057.4	6057.4
2.5°	5928.8	5974.0	5951.4	6024.9	6053.2	6007.9	6087.1	6088.5	6032.0	6098.4	6135.1
5°	5837.0	5883.6	5869.5	5945.8	5981.1	5941.5	6037.6	6056.0	6000.9	6075.8	6135.1
7.5°	5743.7	5798.8	5780.5	5858.2	5900.6	5869.5	5972.6	6002.3	5959.9	6041.9	6121.0
10°	5663.2	5709.8	5690.0	5772.0	5808.7	5783.3	5885.0	5940.1	5900.6	6000.9	6095.6
12.5°	5584.1	5622.2	5599.6	5667.4	5702.7	5670.2	5794.6	5845.5	5817.2	5921.8	6043.3
15°	5482.3	5524.7	5493.6	5554.4	5581.2	5553.0	5654.7	5742.3	5707.0	5821.4	5955.7
17.5°	5404.6	5428.6	5386.2	5434.3	5449.8	5411.7	5514.8	5601.0	5575.6	5699.9	5855.3
20°	5318.4	5338.2	5278.9	5305.7	5304.3	5256.2	5350.9	5435.7	5418.7	5555.8	5732.4
22.5°	5222.3	5232.2	5163.0	5168.6	5165.8	5086.7	5171.5	5257.7	5250.6	5389.1	5586.9
25°	5120.6	5122.0	5033.0	5030.2	4999.1	4905.8	4980.7	5078.2	5057.0	5206.8	5414.5
27.5°	5020.3	5006.2	4898.8	4873.3	4823.9	4712.3	4778.7	4866.3	4853.6	5000.5	5230.8
30°	4912.9	4894.5	4763.1	4716.5	4644.4	4515.9	4571.0	4652.9	4660.0	4788.6	5030.2
32.5°	4811.2	4764.5	4619.0	4551.2	4460.7	4311.0	4340.6	4424.0	4435.3	4565.3	4814.0
35°	4679.8	4648.7	4469.2	4353.4	4264.3	4100.4	4131.5	4189.5	4206.4	4333.6	4586.5
37.5°	4555.4	4506.0	4315.2	4173.9	4059.5	3887.1	3895.6	3954.9	3971.9	4100.4	4350.5
40°	4426.8	4356.2	4151.3	3986.0	3854.6	3673.7	3663.8	3726.0	3738.7	3864.5	4090.5
42.5°	4289.8	4205.0	3974.7	3793.8	3642.6	3459.0	3439.2	3492.9	3507.0	3629.9	3851.8
45°	4151.3	4049.6	3793.8	3596.0	3430.7	3242.8	3223.0	3264.0	3285.2	3401.0	3614.4
47.5°	4004.4	3885.7	3607.3	3386.9	3215.9	3028.0	3004.0	3045.0	3061.9	3176.4	3378.4
50°	3850.3	3706.2	3415.1	3172.1	3002.6	2817.5	2782.1	2830.2	2845.7	2953.1	3150.9
52.5°	3680.8	3521.1	3210.3	2955.9	2786.4	2609.8	2567.4	2614.0	2632.4	2736.9	2919.2
55°	3501.3	3329.0	3004.0	2756.7	2573.0	2400.6	2365.3	2383.7	2423.2	2522.2	2691.7
57.5°	3299.3	3128.3	2786.4	2534.9	2358.2	2192.9	2163.3	2180.2	2217.0	2313.0	2465.6
60°	3084.5	2903.7	2564.5	2313.0	2142.1	1985.2	1958.4	1973.9	2013.5	2101.1	2242.4
62.5°	2872.6	2669.1	2335.6	2085.5	1930.1	1784.6	1777.5	1771.9	1808.6	1893.4	2017.7
65°	2615.4	2420.4	2096.8	1859.5	1718.2	1586.8	1558.5	1571.2	1606.5	1684.3	1814.3
67.5°	2339.9	2163.3	1852.4	1633.4	1507.6	1390.4	1366.3	1372.0	1408.7	1476.6	1589.6
70°	2047.4	1892.0	1602.3	1405.9	1299.9	1189.7	1174.2	1175.6	1210.9	1270.3	1369.2
72.5°	1740.8	1600.9	1349.4	1181.2	1093.6	1014.5	1000.4	983.4	1015.9	1066.8	1151.6
75°	1428.5	1305.6	1097.9	960.8	891.6	825.2	812.5	795.5	828.0	871.8	938.2
77.5°	1113.4	1014.5	853.4	747.5	693.8	644.3	633.0	614.6	647.1	679.6	731.9
80°	805.4	733.3	637.2	525.6	507.3	474.8	463.5	443.7	474.8	496.0	535.5
82.5°	520.0	471.9	416.8	339.1	336.3	312.3	306.6	284.0	312.3	325.0	354.7
85°	262.8	240.2	226.1	172.4	178.0	162.5	161.1	137.1	159.7	165.3	182.3
87.5°	74.9	79.1	70.6	42.4	53.7	50.9	50.9	36.7	50.9	50.9	57.9
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: P838177

CATALOG NUMBER: ORLG-24-4-INS-ASY2R-LD4-5HI-27-120-EDD-90

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	6057.4	6057.4	6057.4	6057.4	6057.4	6057.4	6057.4	6057.4
2.5°	6063.1	6087.1	6092.7	6091.3	6106.9	6191.6	6163.4	6191.6
5°	6077.2	6130.9	6145.0	6164.8	6190.2	6286.3	6255.2	6289.1
7.5°	6085.7	6166.2	6197.3	6235.4	6276.4	6383.8	6358.4	6392.3
10°	6085.7	6190.2	6235.4	6299.0	6354.1	6478.5	6454.4	6494.0
12.5°	6060.2	6194.5	6258.0	6347.1	6417.7	6551.9	6542.1	6570.3
15°	6007.9	6173.3	6260.9	6375.3	6462.9	6612.7	6608.5	6642.4
17.5°	5937.3	6136.5	6242.5	6386.6	6496.8	6665.0	6674.9	6693.2
20°	5848.3	6067.3	6205.8	6382.4	6520.9	6706.0	6718.7	6744.1
22.5°	5731.0	5983.9	6150.7	6364.0	6523.7	6722.9	6745.5	6769.5
25°	5592.5	5883.6	6078.6	6328.7	6509.6	6721.5	6752.6	6773.8
27.5°	5434.3	5753.6	5986.8	6272.2	6470.0	6698.9	6737.0	6762.5
30°	5250.6	5615.1	5882.2	6198.7	6416.3	6656.5	6697.5	6722.9
32.5°	5061.3	5462.5	5757.9	6104.0	6338.6	6588.7	6624.0	6643.8
35°	4855.0	5277.4	5608.1	5982.5	6238.3	6479.9	6506.7	6527.9
37.5°	4630.3	5076.8	5437.1	5845.5	6097.0	6328.7	6352.7	6376.7
40°	4398.6	4866.3	5244.9	5677.3	5928.8	6143.6	6169.0	6186.0
42.5°	4165.4	4633.1	5040.1	5479.5	5729.6	5935.9	5951.4	5968.4
45°	3929.5	4391.5	4809.8	5260.5	5507.8	5701.3	5707.0	5721.1
47.5°	3689.3	4141.4	4556.8	5010.4	5254.8	5431.5	5437.1	5448.4
50°	3447.6	3891.3	4287.0	4740.5	4979.3	5165.8	5140.4	5151.7
52.5°	3210.3	3628.5	4032.6	4449.4	4685.4	4850.7	4857.8	4835.2
55°	2977.1	3371.3	3743.0	4144.2	4368.9	4497.5	4493.2	4501.7
57.5°	2741.2	3111.4	3451.9	3819.3	4038.3	4159.8	4185.2	4155.5
60°	2501.0	2848.5	3153.7	3485.8	3697.7	3799.5	3829.1	3800.9
62.5°	2262.2	2581.5	2858.4	3148.1	3344.5	3470.3	3467.4	3436.3
65°	2023.4	2313.0	2560.3	2806.2	2977.1	3102.9	3097.2	3069.0
67.5°	1802.9	2041.7	2263.6	2462.8	2611.2	2697.4	2727.0	2693.1
70°	1559.9	1766.2	1961.2	2120.9	2243.8	2321.5	2349.8	2320.1
72.5°	1316.9	1492.1	1629.2	1783.2	1877.8	1942.8	1972.5	1944.2
75°	1076.7	1220.8	1332.4	1452.5	1518.9	1574.0	1608.0	1579.7
77.5°	843.5	955.2	1044.2	1131.8	1208.1	1220.8	1250.5	1232.1
80°	621.7	702.2	767.2	825.2	880.3	885.9	910.0	898.6
82.5°	414.0	467.7	484.6	545.4	580.7	575.1	599.1	590.6
85°	219.0	251.5	281.2	299.5	319.3	301.0	322.2	313.7
87.5°	73.5	77.7	67.8	96.1	106.0	90.4	103.1	98.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)