

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: P838174

Luminaire Tested: **ORLG-24-4-INS-ASY2R-LD4-4HI-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: P838174
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-LD4-4HI-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

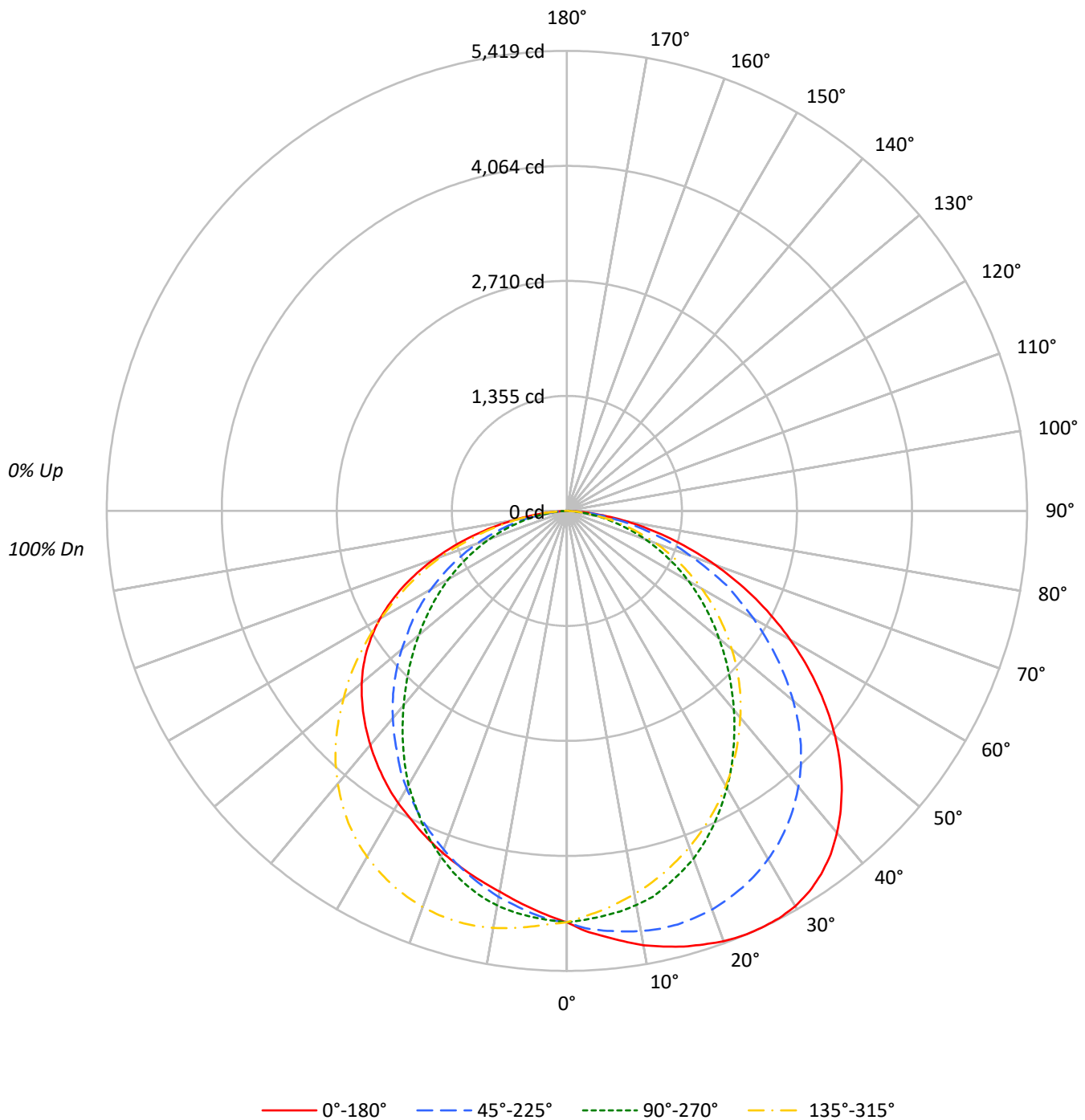
Lumens per Lamp: N/A
Luminaire Lumens: 14217.6 lumens
Efficiency: N/A
Efficacy: 80.8 lumens/watt
Spacing Criteria (0/90/45): 1.43 / 1.16 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 176
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: P838174

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

Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P838174

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

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°	6520	6520	6520	6520
5°	6796	6473	6351	6484
10°	7098	6440	6222	6449
15°	7402	6358	6161	6360
20°	7725	6243	6134	6207
25°	8045	6068	6134	6006
30°	8356	5857	6175	5792
35°	8578	5617	6237	5527
40°	8692	5375	6324	5253
45°	8709	5130	6446	5001
50°	8627	4896	6604	4765
55°	8448	4678	6751	4548
60°	8183	4450	6841	4335
65°	7817	4189	6805	4092
70°	7302	3882	6564	3811
75°	6570	3461	6024	3444
80°	5570	2899	5063	2943
85°	3873	1919	3211	1971

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P838174

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	460.1	3.2
10°-20°	1332.3	9.4
20°-30°	2041.9	14.4
30°-40°	2482.8	17.5
40°-50°	2581.0	18.2
50°-60°	2331.4	16.4
60°-70°	1772.5	12.5
70°-80°	988.1	7.0
80°-90°	227.5	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°	3834.3	27.0
0°-40°	6317.1	44.4
0°-60°	11229.4	79.0
0°-90°	14217.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14217.6	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	4846	4846	4846	4846	4846	
5°	5031	4793	4702	4801	5031	485
15°	5314	4564	4423	4566	5314	1507
25°	5419	4088	4132	4046	5419	2503
35°	5222	3420	3797	3365	5222	3262
45°	4577	2696	3388	2628	4577	3524
55°	3601	1994	2878	1939	3601	3215
65°	2455	1316	2138	1285	2455	2426
75°	1264	666	1159	662	1264	1342
85°	251	124	208	128	251	316
90°	0	0	0	0	0	

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P838174

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

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4846.0	4846.0	4846.0	4846.0	4846.0	4846.0	4846.0	4846.0	4846.0	4846.0	4846.0
2.5°	4953.4	4881.1	4882.2	4945.5	4896.9	4920.6	4852.8	4878.8	4870.9	4876.5	4821.1
5°	5031.4	4953.4	4952.3	5006.5	4952.3	4962.4	4876.5	4893.5	4868.6	4852.8	4792.9
7.5°	5113.9	5035.9	5028.0	5075.5	5004.3	4996.4	4901.4	4901.4	4856.2	4816.6	4760.1
10°	5195.3	5115.1	5104.9	5141.1	5052.9	5026.9	4911.6	4893.5	4833.6	4774.8	4713.8
12.5°	5256.4	5175.0	5167.0	5189.7	5090.2	5042.7	4911.6	4876.5	4788.4	4705.8	4658.4
15°	5314.0	5230.4	5208.9	5220.2	5106.0	5042.7	4895.8	4841.5	4728.5	4619.9	4564.5
17.5°	5354.7	5274.4	5253.0	5251.8	5113.9	5023.5	4861.8	4787.2	4651.6	4520.5	4465.1
20°	5395.4	5315.1	5288.0	5267.7	5111.7	4997.5	4812.1	4711.5	4553.2	4406.3	4359.9
22.5°	5415.7	5333.2	5303.8	5273.3	5097.0	4950.0	4751.1	4623.3	4442.5	4267.3	4228.8
25°	5419.1	5334.3	5302.7	5258.6	5067.6	4893.5	4671.9	4517.1	4314.7	4120.3	4087.5
27.5°	5410.1	5317.4	5285.7	5232.6	5023.5	4824.5	4578.1	4396.1	4179.1	3964.3	3929.3
30°	5378.4	5284.6	5254.1	5185.1	4961.3	4739.8	4475.2	4261.6	4028.7	3800.4	3769.9
32.5°	5315.1	5223.6	5198.7	5129.7	4893.5	4641.4	4355.4	4116.9	3862.6	3644.4	3599.2
35°	5222.4	5130.9	5115.1	5042.7	4798.5	4523.9	4224.3	3958.7	3686.2	3463.5	3419.5
37.5°	5101.5	5024.6	5000.9	4929.7	4686.6	4390.5	4074.0	3786.8	3506.5	3266.9	3239.7
40°	4948.9	4876.5	4858.5	4795.1	4556.6	4242.4	3911.2	3609.4	3321.1	3098.4	3060.0
42.5°	4774.8	4707.0	4696.8	4631.2	4396.1	4078.5	3734.8	3425.1	3127.8	2913.0	2874.6
45°	4577.0	4511.4	4509.2	4447.0	4220.9	3896.5	3549.4	3238.6	2939.0	2716.3	2696.0
47.5°	4358.8	4300.0	4300.0	4242.4	4025.3	3696.4	3358.4	3044.2	2749.1	2552.4	2516.3
50°	4121.4	4066.0	4049.1	4020.8	3809.4	3478.2	3157.2	2854.3	2561.5	2373.8	2338.8
52.5°	3868.2	3820.7	3832.0	3780.1	3575.4	3251.0	2953.7	2640.6	2372.7	2202.0	2167.0
55°	3601.4	3533.6	3543.8	3524.6	3331.3	3017.0	2725.4	2464.3	2187.3	2026.8	1994.0
57.5°	3324.5	3236.3	3272.5	3261.2	3071.3	2777.4	2516.3	2264.2	2003.1	1855.0	1823.3
60°	3040.8	2956.0	2993.3	2983.1	2804.5	2537.7	2300.4	2066.4	1819.9	1685.4	1653.8
62.5°	2749.1	2671.1	2705.0	2697.1	2533.2	2292.4	2085.6	1870.8	1635.7	1514.7	1485.3
65°	2455.2	2380.6	2411.1	2405.5	2254.0	2070.9	1865.2	1668.5	1450.3	1345.2	1315.8
67.5°	2154.5	2085.6	2113.8	2113.8	1974.8	1799.6	1643.6	1463.9	1268.3	1177.9	1150.7
70°	1856.1	1791.7	1816.5	1814.3	1696.7	1554.3	1419.8	1259.3	1084.1	1009.4	986.8
72.5°	1555.4	1498.9	1521.5	1519.3	1420.9	1329.3	1196.0	1056.9	904.3	844.4	824.1
75°	1263.8	1210.7	1232.1	1229.9	1149.6	1063.7	974.4	859.1	728.0	686.2	665.8
77.5°	985.7	931.4	949.5	949.5	890.8	828.6	757.4	668.1	575.4	530.2	515.5
80°	718.9	692.9	683.9	685.0	645.5	604.8	568.6	482.7	414.9	384.3	374.2
82.5°	472.5	451.0	442.0	444.2	421.6	396.8	374.2	314.3	269.0	250.9	245.3
85°	250.9	235.1	227.2	232.9	228.3	214.8	203.5	162.8	134.5	127.7	124.3
87.5°	79.1	69.0	63.3	83.6	71.2	63.3	61.0	48.6	37.3	37.3	36.2
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: P838174

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

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	4846.0	4846.0	4846.0	4846.0	4846.0	4846.0	4846.0	4846.0	4846.0	4846.0	4846.0
2.5°	4839.2	4839.2	4795.1	4785.0	4780.5	4786.1	4742.0	4734.1	4797.4	4775.9	4727.3
5°	4800.8	4798.5	4736.4	4725.1	4725.1	4718.3	4668.5	4657.2	4720.5	4702.5	4649.3
7.5°	4753.3	4746.5	4673.1	4665.2	4653.8	4649.3	4593.9	4586.0	4640.3	4629.0	4579.2
10°	4695.7	4688.9	4601.9	4596.2	4583.8	4574.7	4522.7	4517.1	4572.5	4554.4	4514.8
12.5°	4619.9	4607.5	4518.2	4512.5	4502.4	4499.0	4448.1	4445.9	4506.9	4488.8	4447.0
15°	4520.5	4510.3	4410.8	4413.1	4414.2	4414.2	4373.5	4371.2	4431.2	4423.2	4378.0
17.5°	4410.8	4397.2	4302.3	4309.1	4317.0	4326.0	4294.4	4300.0	4363.3	4353.2	4312.5
20°	4286.5	4272.9	4180.2	4199.4	4216.4	4234.5	4214.1	4229.9	4288.7	4284.2	4253.7
22.5°	4147.4	4133.9	4048.0	4077.3	4105.6	4139.5	4130.5	4148.6	4210.7	4209.6	4182.5
25°	3977.9	3981.3	3905.5	3941.7	3989.2	4036.7	4040.0	4069.4	4138.4	4131.6	4106.7
27.5°	3819.6	3824.1	3743.9	3804.9	3868.2	3929.3	3944.0	3984.7	4054.7	4049.1	4027.6
30°	3653.4	3659.1	3581.1	3664.8	3741.6	3816.2	3847.9	3903.3	3974.5	3974.5	3951.9
32.5°	3480.5	3490.7	3409.3	3521.2	3610.5	3697.5	3752.9	3810.6	3892.0	3889.7	3870.5
35°	3303.0	3314.3	3239.7	3382.2	3471.5	3577.7	3646.7	3723.5	3795.9	3797.0	3782.3
37.5°	3122.2	3135.7	3067.9	3223.9	3325.6	3451.1	3539.3	3616.1	3696.4	3700.9	3687.4
40°	2942.4	2957.1	2898.3	3048.7	3177.5	3317.7	3419.5	3509.9	3598.1	3600.3	3591.3
42.5°	2762.7	2778.5	2734.4	2881.4	3027.2	3177.5	3297.4	3400.2	3490.7	3496.3	3486.1
45°	2587.5	2601.0	2569.4	2729.9	2870.1	3034.0	3171.9	3288.3	3379.9	3387.8	3384.4
47.5°	2413.4	2425.8	2397.6	2544.5	2706.2	2880.3	3039.6	3168.5	3265.7	3274.8	3272.5
50°	2242.7	2252.9	2222.4	2376.1	2536.6	2722.0	2888.2	3037.4	3145.9	3154.9	3153.8
52.5°	2073.2	2083.3	2057.3	2219.0	2364.8	2560.4	2741.2	2902.9	3010.3	3023.8	3026.1
55°	1909.2	1913.8	1893.4	2048.3	2189.6	2394.2	2602.2	2759.3	2866.7	2878.0	2884.8
57.5°	1745.3	1746.5	1729.5	1877.6	2013.2	2222.4	2440.5	2605.6	2707.3	2718.6	2728.8
60°	1582.6	1581.4	1562.2	1705.8	1835.8	2042.6	2269.8	2433.7	2532.1	2542.3	2555.8
62.5°	1420.9	1417.5	1400.6	1532.8	1654.9	1859.5	2087.8	2246.1	2339.9	2346.7	2364.8
65°	1260.4	1257.0	1241.2	1363.3	1474.0	1669.6	1893.4	2043.8	2128.5	2137.6	2134.2
67.5°	1102.1	1095.4	1082.9	1192.6	1293.2	1474.0	1688.8	1832.4	1902.5	1910.4	1931.9
70°	943.9	936.0	907.7	1024.1	1112.3	1274.0	1474.0	1601.8	1660.6	1668.5	1665.1
72.5°	787.9	780.0	749.5	856.8	931.4	1072.7	1251.4	1357.6	1408.5	1415.3	1415.3
75°	636.4	631.9	612.7	694.1	756.2	871.5	1023.0	1111.2	1150.7	1158.7	1156.4
77.5°	490.6	487.2	468.0	538.1	586.7	672.6	794.7	863.6	893.0	902.1	921.3
80°	351.6	350.4	319.9	388.9	410.3	482.7	572.0	625.1	640.9	653.4	666.9
82.5°	224.9	226.1	195.6	254.3	263.4	309.7	365.1	397.9	409.2	419.4	429.6
85°	109.6	114.2	97.2	134.5	135.6	159.4	183.1	195.6	200.1	208.0	217.0
87.5°	28.3	32.8	18.1	38.4	33.9	44.1	50.9	54.3	53.1	58.8	62.2
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: P838174

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

CANDELA DISTRIBUTION (continued):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	4846.0	4846.0	4846.0	4846.0	4846.0	4846.0	4846.0	4846.0	4846.0	4846.0	4846.0
2.5°	4743.2	4779.3	4761.2	4820.0	4842.6	4806.5	4869.8	4870.9	4825.7	4878.8	4908.2
5°	4669.7	4707.0	4695.7	4756.7	4785.0	4753.3	4830.2	4844.9	4800.8	4860.7	4908.2
7.5°	4595.1	4639.2	4624.5	4686.6	4720.5	4695.7	4778.2	4801.9	4768.0	4833.6	4896.9
10°	4530.6	4567.9	4552.1	4617.7	4647.1	4626.7	4708.1	4752.2	4720.5	4800.8	4876.5
12.5°	4467.3	4497.9	4479.8	4534.0	4562.3	4536.3	4635.8	4676.5	4653.8	4737.5	4834.7
15°	4385.9	4419.9	4395.0	4443.6	4465.1	4442.5	4523.9	4593.9	4565.7	4657.2	4764.6
17.5°	4323.8	4343.0	4309.1	4347.5	4359.9	4329.4	4411.9	4480.9	4460.6	4560.0	4684.4
20°	4254.8	4270.6	4223.2	4244.6	4243.5	4205.1	4280.8	4348.6	4335.1	4444.7	4586.0
22.5°	4178.0	4185.9	4130.5	4135.0	4132.7	4069.4	4137.3	4206.2	4200.6	4311.3	4469.6
25°	4096.6	4097.7	4026.5	4024.2	3999.3	3924.7	3984.7	4062.7	4045.7	4165.5	4331.7
27.5°	4016.3	4005.0	3919.1	3898.7	3859.2	3769.9	3823.0	3893.1	3882.9	4000.5	4184.7
30°	3930.4	3915.7	3810.6	3773.3	3715.6	3612.8	3656.8	3722.4	3728.1	3830.9	4024.2
32.5°	3849.0	3811.7	3695.3	3641.0	3568.7	3448.8	3472.6	3539.3	3548.3	3652.3	3851.3
35°	3743.9	3719.0	3575.4	3482.8	3411.5	3280.4	3305.3	3351.6	3365.2	3466.9	3669.3
37.5°	3644.4	3604.8	3452.2	3339.2	3247.6	3109.7	3116.5	3164.0	3177.5	3280.4	3480.5
40°	3541.5	3485.0	3321.1	3188.9	3083.7	2939.0	2931.1	2980.9	2991.0	3091.6	3272.5
42.5°	3431.9	3364.1	3179.8	3035.1	2914.2	2767.2	2751.4	2794.3	2805.6	2904.0	3081.5
45°	3321.1	3239.7	3035.1	2876.9	2744.6	2594.3	2578.4	2611.2	2628.2	2720.9	2891.6
47.5°	3203.5	3108.6	2885.9	2709.6	2572.8	2422.4	2403.2	2436.0	2449.6	2541.1	2702.8
50°	3080.3	2965.0	2732.2	2537.7	2402.1	2254.0	2225.8	2264.2	2276.6	2362.5	2520.8
52.5°	2944.7	2817.0	2568.3	2364.8	2229.1	2087.8	2053.9	2091.2	2105.9	2189.6	2335.4
55°	2801.1	2663.2	2403.2	2205.4	2058.5	1920.5	1892.3	1907.0	1938.6	2017.8	2153.4
57.5°	2639.5	2502.7	2229.1	2027.9	1886.6	1754.4	1730.6	1744.2	1773.6	1850.5	1972.5
60°	2467.7	2323.0	2051.7	1850.5	1713.7	1588.2	1566.7	1579.2	1610.8	1680.9	1793.9
62.5°	2298.1	2135.3	1868.5	1668.5	1544.1	1427.7	1422.0	1417.5	1446.9	1514.7	1614.2
65°	2092.4	1936.4	1677.5	1487.6	1374.6	1269.4	1246.8	1257.0	1285.3	1347.4	1451.4
67.5°	1871.9	1730.6	1482.0	1306.7	1206.1	1112.3	1093.1	1097.6	1127.0	1181.3	1271.7
70°	1637.9	1513.6	1281.9	1124.7	1040.0	951.8	939.4	940.5	968.8	1016.2	1095.4
72.5°	1392.7	1280.7	1079.5	945.0	874.9	811.6	800.3	786.8	812.8	853.5	921.3
75°	1142.8	1044.5	878.3	768.7	713.3	660.2	650.0	636.4	662.4	697.5	750.6
77.5°	890.8	811.6	682.8	598.0	555.0	515.5	506.4	491.7	517.7	543.7	585.5
80°	644.3	586.7	509.8	420.5	405.8	379.8	370.8	354.9	379.8	396.8	428.4
82.5°	416.0	377.6	333.5	271.3	269.0	249.8	245.3	227.2	249.8	260.0	283.7
85°	210.3	192.2	180.9	137.9	142.4	130.0	128.9	109.6	127.7	132.3	145.8
87.5°	59.9	63.3	56.5	33.9	43.0	40.7	40.7	29.4	40.7	40.7	46.3
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: P838174

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

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	4846.0	4846.0	4846.0	4846.0	4846.0	4846.0	4846.0	4846.0
2.5°	4850.5	4869.8	4874.3	4873.1	4885.6	4953.4	4930.8	4953.4
5°	4861.8	4904.8	4916.1	4931.9	4952.3	5029.1	5004.3	5031.4
7.5°	4868.6	4933.1	4957.9	4988.4	5021.2	5107.1	5086.8	5113.9
10°	4868.6	4952.3	4988.4	5039.3	5083.4	5182.9	5163.7	5195.3
12.5°	4848.3	4955.7	5006.5	5077.7	5134.3	5241.7	5233.7	5256.4
15°	4806.5	4938.7	5008.8	5100.4	5170.4	5290.3	5286.9	5314.0
17.5°	4749.9	4909.3	4994.1	5109.4	5197.6	5332.1	5340.0	5354.7
20°	4678.7	4853.9	4964.7	5106.0	5216.8	5364.9	5375.0	5395.4
22.5°	4584.9	4787.2	4920.6	5091.3	5219.0	5378.4	5396.5	5415.7
25°	4474.1	4707.0	4863.0	5063.1	5207.7	5377.3	5402.2	5419.1
27.5°	4347.5	4603.0	4789.5	5017.8	5176.1	5359.2	5389.7	5410.1
30°	4200.6	4492.2	4705.8	4959.1	5133.1	5325.3	5358.1	5378.4
32.5°	4049.1	4370.1	4606.4	4883.3	5071.0	5271.0	5299.3	5315.1
35°	3884.0	4222.0	4486.5	4786.1	4990.7	5184.0	5205.5	5222.4
37.5°	3704.3	4061.5	4349.8	4676.5	4877.7	5063.1	5082.3	5101.5
40°	3518.9	3893.1	4196.0	4541.9	4743.2	4915.0	4935.3	4948.9
42.5°	3332.4	3706.6	4032.1	4383.7	4583.8	4748.8	4761.2	4774.8
45°	3143.6	3513.3	3847.9	4208.5	4406.3	4561.2	4565.7	4577.0
47.5°	2951.5	3313.2	3645.5	4008.4	4204.0	4345.3	4349.8	4358.8
50°	2758.2	3113.1	3429.6	3792.5	3983.5	4132.7	4112.4	4121.4
52.5°	2568.3	2902.9	3226.2	3559.6	3748.4	3880.7	3886.3	3868.2
55°	2381.7	2697.1	2994.4	3315.5	3495.2	3598.1	3594.7	3601.4
57.5°	2193.0	2489.1	2761.6	3055.5	3230.7	3327.9	3348.2	3324.5
60°	2000.8	2278.9	2523.0	2788.7	2958.3	3039.6	3063.4	3040.8
62.5°	1809.8	2065.2	2286.8	2518.5	2675.7	2776.3	2774.0	2749.1
65°	1618.7	1850.5	2048.3	2245.0	2381.7	2482.4	2477.8	2455.2
67.5°	1442.4	1633.4	1810.9	1970.3	2089.0	2157.9	2181.7	2154.5
70°	1248.0	1413.0	1569.0	1696.7	1795.1	1857.2	1879.9	1856.1
72.5°	1053.5	1193.7	1303.3	1426.6	1502.3	1554.3	1578.0	1555.4
75°	861.4	976.7	1066.0	1162.0	1215.2	1259.3	1286.4	1263.8
77.5°	674.8	764.1	835.4	905.4	966.5	976.7	1000.4	985.7
80°	497.4	561.8	613.8	660.2	704.2	708.8	728.0	718.9
82.5°	331.2	374.2	387.7	436.3	464.6	460.1	479.3	472.5
85°	175.2	201.2	224.9	239.6	255.5	240.8	257.7	250.9
87.5°	58.8	62.2	54.3	76.9	84.8	72.3	82.5	79.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)