

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: P834207

Luminaire Tested: **ORLG-12-4-INS-ASY2-LD4-3HI-30-120-EDD**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P834207
Test Lab: INNOVATION CENTER(G2)
Issue Date: 5/16/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: ORLG-12-4-INS-ASY2-LD4-3HI-30-120-EDD
Description: 1FT x 4FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

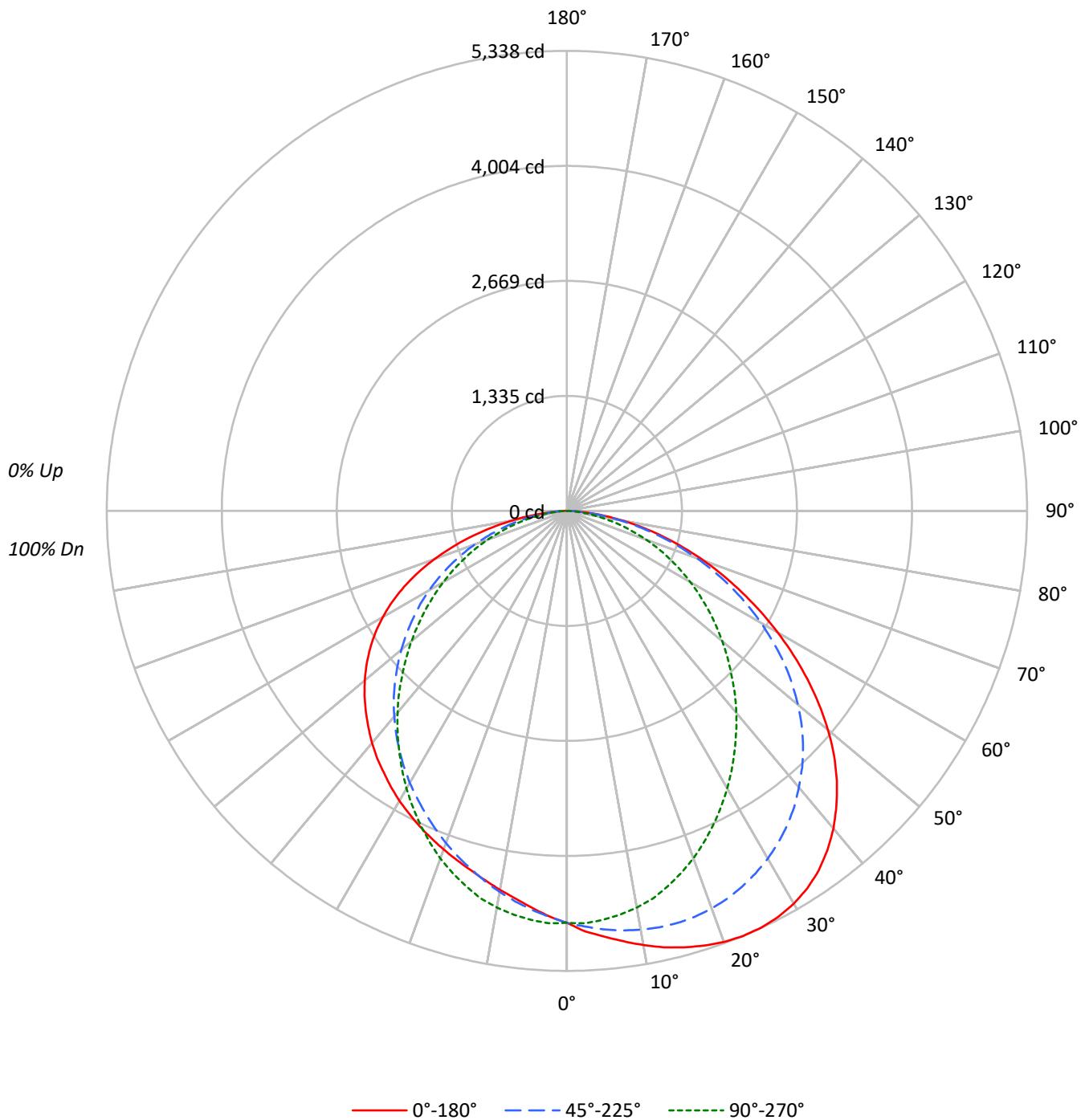
Lumens per Lamp: N/A
Luminaire Lumens: 14059.2 lumens
Efficiency: N/A
Efficacy: 106.5 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 132
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: 28.75 FT

TEST NUMBER: P834207

CATALOG NUMBER: ORLG-12-4-INS-ASY2-LD4-3HI-30-120-EDD

Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P834207

CATALOG NUMBER: ORLG-12-4-INS-ASY2-LD4-3HI-30-120-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	88		90
2	99	90	84	78	96	89	82	77	85	80	75		82	77	73		79
3	90	79	71	65	87	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	73	61	53	47	59	52	46		57	51	46		55
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	46	38	32	59	46	38	32	44	37	32		43	36	31		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°
0°	12862	12862	12862
5°	13390	12869	12487
10°	13976	12772	12198
15°	14605	12568	12023
20°	15243	12290	11973
25°	15841	11933	11992
30°	16358	11560	12069
35°	16731	11147	12170
40°	16900	10734	12349
45°	16853	10281	12551
50°	16554	9849	12810
55°	15988	9396	13077
60°	15209	8912	13275
65°	14282	8368	13258
70°	13291	7718	12864
75°	12068	6778	11861
80°	10361	5570	10005
85°	7904	3807	6870

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P834207

CATALOG NUMBER: ORLG-12-4-INS-ASY2-LD4-3HI-30-120-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	453.3	3.2
10°-20°	1309.1	9.3
20°-30°	2005.5	14.3
30°-40°	2447.4	17.4
40°-50°	2559.5	18.2
50°-60°	2316.5	16.5
60°-70°	1754.4	12.5
70°-80°	977.7	7.0
80°-90°	235.8	1.7
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°	3767.9	26.8
0°-40°	6215.3	44.2
0°-60°	11091.3	78.9
0°-90°	14059.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14059.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4780	4780	4780	4780	4780	
5°	4957	4875	4764	4647	4623	478
15°	5242	4951	4511	4301	4316	1487
25°	5335	4811	4019	3877	4039	2461
35°	5093	4455	3393	3389	3704	3180
45°	4428	3874	2702	2821	3298	3407
55°	3408	3077	2003	2179	2787	3041
65°	2243	2109	1314	1494	2082	2225
75°	1161	1096	652	778	1141	1231
85°	256	226	123	165	222	308
90°	0	0	0	0	0	

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P834207

CATALOG NUMBER: ORLG-12-4-INS-ASY2-LD4-3HI-30-120-EDD

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	4779.5	4779.5	4779.5	4779.5	4779.5	4779.5	4779.5	4779.5	4779.5	4779.5	4779.5
2.5°	4885.1	4862.1	4843.3	4850.6	4854.8	4840.1	4827.6	4829.7	4817.2	4841.2	4784.8
5°	4957.1	4936.3	4914.3	4922.7	4914.3	4892.4	4874.6	4869.4	4836.0	4849.5	4792.1
7.5°	5037.6	5014.6	4982.2	4991.6	4973.9	4933.1	4910.1	4896.6	4845.4	4846.4	4782.7
10°	5114.9	5095.0	5051.2	5057.4	5025.1	4970.7	4934.2	4915.4	4843.3	4832.8	4767.0
12.5°	5187.0	5159.8	5112.8	5115.9	5068.9	4996.8	4949.8	4922.7	4828.6	4797.3	4732.5
15°	5242.4	5216.2	5159.8	5158.8	5098.2	5004.2	4950.9	4913.3	4794.2	4745.1	4677.2
17.5°	5289.4	5265.3	5195.3	5193.3	5120.1	5001.0	4937.3	4890.3	4744.0	4683.4	4608.2
20°	5322.8	5298.8	5220.4	5213.1	5125.3	4985.4	4909.1	4849.5	4678.2	4606.1	4522.5
22.5°	5338.5	5314.4	5225.6	5215.2	5112.8	4954.0	4868.3	4798.4	4603.0	4509.0	4422.3
25°	5335.3	5312.3	5212.1	5201.6	5088.8	4907.0	4810.9	4730.4	4507.9	4397.2	4311.5
27.5°	5309.2	5291.5	5185.9	5172.4	5044.9	4843.3	4740.9	4652.1	4402.4	4279.1	4186.2
30°	5264.3	5250.7	5138.9	5126.4	4990.6	4773.3	4659.4	4557.0	4288.5	4149.6	4055.6
32.5°	5192.2	5179.7	5066.8	5055.3	4917.4	4683.4	4564.3	4458.8	4164.2	4010.6	3916.6
35°	5093.0	5085.6	4976.0	4963.4	4823.4	4581.1	4454.6	4338.7	4034.7	3861.2	3771.4
37.5°	4962.4	4962.4	4856.9	4843.3	4706.4	4455.7	4331.4	4208.1	3888.4	3704.5	3615.7
40°	4810.9	4824.5	4716.9	4703.3	4570.6	4320.9	4185.1	4055.6	3730.7	3539.5	3452.8
42.5°	4629.1	4641.6	4551.8	4539.3	4414.9	4165.3	4038.8	3897.8	3565.6	3371.3	3281.4
45°	4428.5	4445.2	4364.8	4355.4	4239.4	3995.0	3873.8	3730.7	3393.2	3195.8	3108.0
47.5°	4205.0	4226.9	4156.9	4151.7	4044.1	3820.5	3694.1	3548.9	3212.5	3012.9	2930.4
50°	3954.2	3985.6	3928.1	3928.1	3832.0	3609.5	3499.8	3354.6	3024.4	2824.9	2743.4
52.5°	3685.7	3725.4	3682.6	3683.6	3605.3	3405.8	3291.9	3149.8	2828.0	2631.6	2556.4
55°	3407.8	3446.5	3419.3	3423.5	3361.9	3180.1	3076.7	2935.6	2627.4	2436.3	2365.2
57.5°	3117.4	3159.2	3141.4	3149.8	3107.0	2944.0	2836.4	2713.1	2420.6	2231.5	2170.9
60°	2825.9	2865.6	2856.2	2867.7	2840.6	2699.5	2601.3	2473.9	2212.7	2030.9	1977.6
62.5°	2531.3	2567.9	2565.8	2578.3	2563.7	2446.7	2359.0	2250.3	1997.5	1830.3	1781.2
65°	2243.0	2274.3	2272.2	2285.8	2282.7	2188.7	2109.3	2010.0	1782.3	1628.7	1585.9
67.5°	1963.0	1989.1	1981.8	1997.5	2001.7	1926.4	1857.5	1768.7	1577.5	1428.1	1391.6
70°	1689.3	1707.1	1697.7	1708.1	1717.5	1661.1	1602.6	1524.2	1359.2	1227.5	1197.2
72.5°	1420.8	1433.3	1418.7	1429.2	1437.5	1396.8	1348.7	1280.8	1144.0	1030.1	1005.0
75°	1160.7	1178.4	1148.1	1158.6	1164.9	1124.1	1095.9	1040.5	922.5	834.7	818.0
77.5°	908.9	919.3	902.6	898.5	902.6	873.4	851.4	808.6	719.8	647.7	637.3
80°	668.6	674.9	658.2	654.0	657.1	636.2	619.5	588.2	525.5	471.2	467.0
82.5°	448.2	451.3	436.7	432.5	434.6	428.3	408.5	386.5	357.3	311.3	310.3
85°	256.0	256.0	245.5	241.3	243.4	233.0	225.7	214.2	202.7	171.3	173.4
87.5°	94.0	94.0	88.8	87.8	98.2	86.7	83.6	78.4	81.5	64.8	69.0
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: P834207

CATALOG NUMBER: ORLG-12-4-INS-ASY2-LD4-3HI-30-120-EDD

CANDELA DISTRIBUTION (continued):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	4779.5	4779.5	4779.5	4779.5	4779.5	4779.5	4779.5	4779.5	4779.5	4779.5	4779.5
2.5°	4800.4	4790.0	4780.6	4748.2	4761.8	4728.4	4726.3	4713.7	4704.3	4686.6	4709.5
5°	4784.8	4763.9	4736.7	4698.1	4709.5	4669.9	4661.5	4646.9	4634.3	4611.3	4629.1
7.5°	4759.7	4725.2	4682.4	4633.3	4649.0	4599.9	4587.3	4571.6	4561.2	4534.0	4549.7
10°	4723.1	4674.0	4623.9	4564.3	4575.8	4522.5	4506.9	4490.2	4480.8	4456.7	4472.4
12.5°	4666.7	4607.2	4539.3	4474.5	4487.0	4436.9	4416.0	4398.2	4395.1	4375.2	4394.0
15°	4593.6	4511.1	4441.1	4372.1	4386.7	4328.2	4318.8	4301.1	4306.3	4292.7	4315.7
17.5°	4500.6	4405.5	4329.3	4255.1	4269.7	4220.6	4213.3	4205.0	4210.2	4208.1	4233.2
20°	4396.1	4291.7	4203.9	4130.8	4139.1	4100.5	4103.6	4101.5	4112.0	4123.5	4157.9
22.5°	4278.1	4160.0	4068.1	3992.9	4005.4	3972.0	3986.6	3990.8	4008.5	4034.7	4078.5
25°	4145.4	4019.0	3922.9	3851.8	3863.3	3841.4	3866.5	3876.9	3905.1	3949.0	3993.9
27.5°	4006.5	3872.7	3770.4	3702.5	3724.4	3702.5	3740.1	3761.0	3803.8	3851.8	3907.2
30°	3859.2	3720.2	3614.7	3554.1	3575.0	3555.1	3615.7	3643.9	3686.8	3752.6	3818.4
32.5°	3704.5	3558.3	3454.9	3407.8	3422.5	3419.3	3487.2	3518.6	3576.0	3651.3	3721.3
35°	3545.7	3393.2	3288.7	3249.0	3266.8	3271.0	3352.5	3389.0	3451.7	3542.6	3617.8
37.5°	3381.7	3226.1	3123.7	3091.3	3107.0	3122.6	3217.7	3254.3	3325.3	3424.6	3507.1
40°	3211.4	3055.8	2955.5	2929.4	2945.0	2961.8	3065.2	3115.3	3192.6	3300.2	3390.1
42.5°	3039.1	2883.4	2786.2	2767.4	2783.1	2815.5	2925.2	2972.2	3053.7	3172.8	3272.0
45°	2863.5	2701.6	2617.0	2602.4	2619.1	2656.7	2764.3	2820.7	2907.4	3038.0	3144.6
47.5°	2685.9	2528.2	2447.8	2438.4	2455.1	2496.9	2616.0	2667.1	2759.1	2898.0	3012.9
50°	2506.3	2352.7	2275.4	2272.2	2287.9	2332.8	2446.7	2507.3	2602.4	2758.0	2876.1
52.5°	2324.5	2177.2	2107.2	2107.2	2121.8	2167.8	2282.7	2345.4	2443.6	2607.6	2738.2
55°	2142.7	2002.7	1935.8	1941.1	1962.0	2001.7	2113.4	2179.3	2278.5	2448.8	2586.7
57.5°	1960.9	1828.2	1767.6	1775.0	1794.8	1834.5	1944.2	2018.4	2108.2	2284.8	2425.8
60°	1781.2	1655.9	1602.6	1610.9	1628.7	1668.4	1782.3	1846.0	1935.8	2115.5	2256.6
62.5°	1599.5	1485.6	1435.4	1445.9	1461.5	1501.2	1608.9	1670.5	1759.3	1935.8	2077.9
65°	1419.8	1314.2	1271.4	1281.9	1296.5	1333.0	1434.4	1493.9	1578.6	1750.9	1886.7
67.5°	1242.2	1146.0	1110.5	1121.0	1132.5	1166.9	1250.5	1315.3	1394.7	1558.7	1687.2
70°	1066.6	981.0	949.6	960.1	970.5	1001.9	1075.0	1134.6	1207.7	1358.1	1477.2
72.5°	893.2	809.6	794.0	803.4	811.7	838.9	908.9	955.9	1019.6	1153.4	1255.7
75°	724.0	651.9	641.5	650.9	658.2	679.1	737.6	778.3	831.6	947.6	1031.1
77.5°	561.0	500.4	496.2	503.5	510.9	525.5	571.5	614.3	656.1	741.7	815.9
80°	408.5	359.4	359.4	366.7	364.6	382.4	414.7	449.2	479.5	541.2	595.5
82.5°	269.5	230.9	236.1	241.3	244.5	251.8	271.6	297.7	316.5	354.2	389.7
85°	149.4	123.3	128.5	132.7	130.6	138.9	149.4	165.1	174.5	192.2	211.0
87.5°	55.4	46.0	47.0	50.1	52.2	56.4	56.4	65.8	66.9	69.0	73.1
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: P834207

CATALOG NUMBER: ORLG-12-4-INS-ASY2-LD4-3HI-30-120-EDD

CANDELA DISTRIBUTION (continued):

	160°	170°	180°
0°	4779.5	4779.5	4779.5
2.5°	4665.7	4690.7	4709.5
5°	4585.2	4606.1	4622.8
7.5°	4506.9	4525.7	4540.3
10°	4432.7	4453.6	4464.0
12.5°	4356.4	4380.5	4388.8
15°	4281.2	4305.2	4315.7
17.5°	4203.9	4235.3	4246.7
20°	4131.8	4171.5	4180.9
22.5°	4058.7	4099.4	4110.9
25°	3979.3	4027.4	4038.8
27.5°	3894.7	3952.1	3963.6
30°	3810.1	3872.7	3884.2
32.5°	3719.2	3787.1	3797.5
35°	3624.1	3692.0	3704.5
37.5°	3518.6	3592.8	3617.8
40°	3408.9	3489.3	3515.4
42.5°	3294.0	3381.7	3408.9
45°	3170.7	3266.8	3298.1
47.5°	3046.4	3155.0	3182.2
50°	2911.6	3027.6	3060.0
52.5°	2770.6	2897.0	2929.4
55°	2624.3	2751.8	2787.3
57.5°	2465.5	2597.1	2634.8
60°	2299.4	2431.0	2466.6
62.5°	2129.1	2248.2	2282.7
65°	1939.0	2050.8	2082.1
67.5°	1737.4	1839.7	1865.9
70°	1523.2	1612.0	1635.0
72.5°	1299.6	1361.3	1391.6
75°	1068.7	1117.8	1140.8
77.5°	836.8	871.3	890.1
80°	610.1	630.0	645.6
82.5°	399.1	407.4	418.9
85°	215.2	215.2	222.5
87.5°	73.1	70.0	73.1
90°	0.0	0.0	0.0

(END OF REPORT)