

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: P834215

Luminaire Tested: **ORLG-12-4-INS-ASY2-LD4-3STD-35-120-EDD**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P834215
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-LD4-3STD-35-120-EDD
Description: 1FT x 4FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

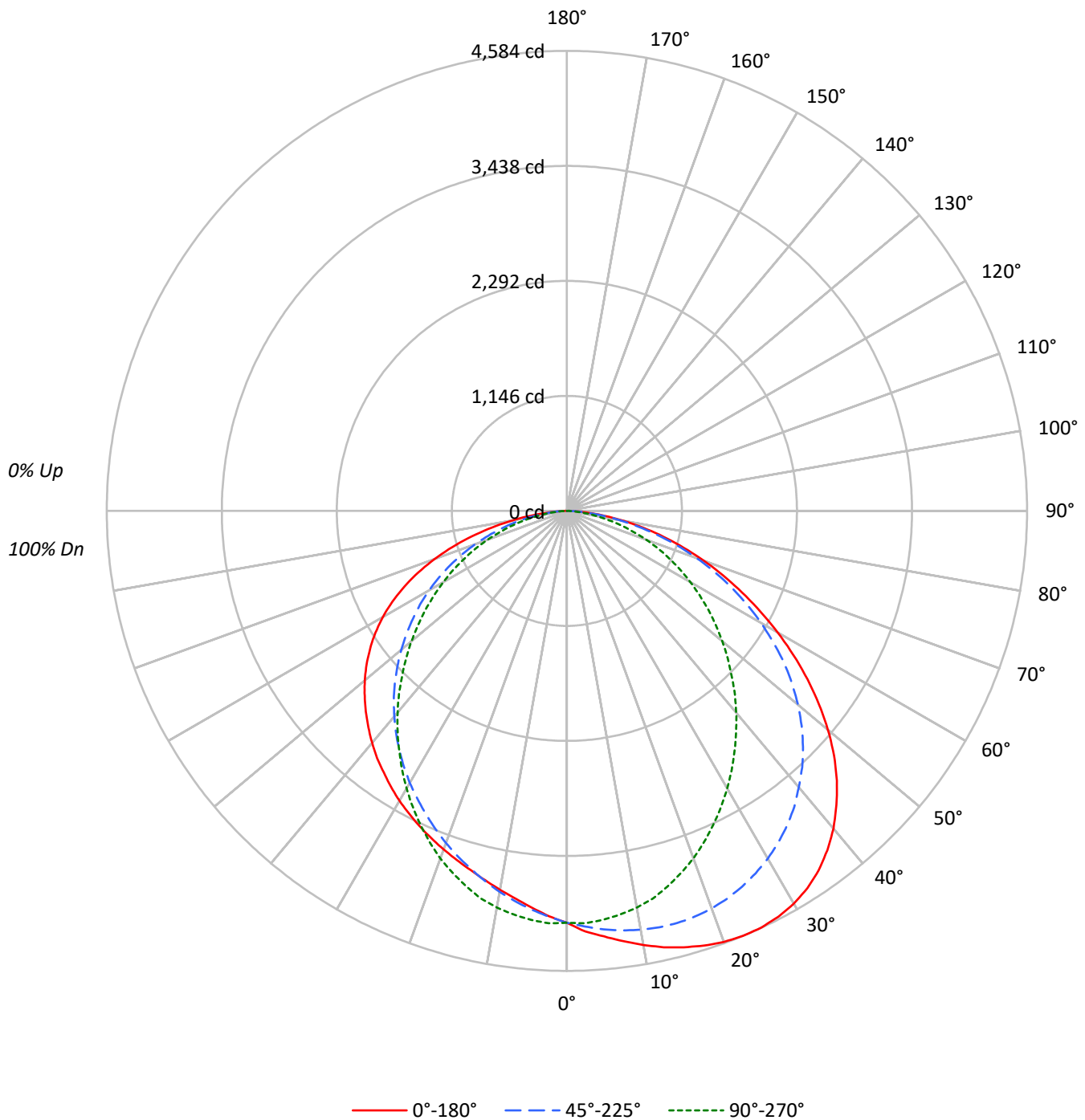
Lumens per Lamp: N/A
Luminaire Lumens: 12072.0 lumens
Efficiency: N/A
Efficacy: 120.8 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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: P834215

CATALOG NUMBER: ORLG-12-4-INS-ASY2-LD4-3STD-35-120-EDD

Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P834215

CATALOG NUMBER: ORLG-12-4-INS-ASY2-LD4-3STD-35-120-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°	11044	11044	11044
5°	11498	11049	10722
10°	12001	10967	10474
15°	12540	10791	10324
20°	13088	10553	10281
25°	13602	10246	10297
30°	14046	9926	10363
35°	14366	9571	10450
40°	14511	9217	10604
45°	14471	8828	10778
50°	14214	8457	10999
55°	13728	8068	11228
60°	13059	7652	11398
65°	12264	7186	11384
70°	11412	6627	11046
75°	10362	5820	10185
80°	8897	4782	8591
85°	6786	3270	5900

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P834215

CATALOG NUMBER: ORLG-12-4-INS-ASY2-LD4-3STD-35-120-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	389.2	3.2
10°-20°	1124.0	9.3
20°-30°	1722.0	14.3
30°-40°	2101.5	17.4
40°-50°	2197.7	18.2
50°-60°	1989.1	16.5
60°-70°	1506.4	12.5
70°-80°	839.5	7.0
80°-90°	202.5	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°	3235.3	26.8
0°-40°	5336.8	44.2
0°-60°	9523.6	78.9
0°-90°	12072.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12072.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4104	4104	4104	4104	4104	
5°	4256	4186	4090	3990	3969	410
15°	4501	4251	3873	3693	3706	1277
25°	4581	4131	3451	3329	3468	2113
35°	4373	3825	2914	2910	3181	2731
45°	3803	3326	2320	2422	2832	2926
55°	2926	2642	1720	1871	2393	2611
65°	1926	1811	1128	1283	1788	1910
75°	997	941	560	668	980	1057
85°	220	194	106	142	191	264
90°	0	0	0	0	0	

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P834215

CATALOG NUMBER: ORLG-12-4-INS-ASY2-LD4-3STD-35-120-EDD

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	4104.0	4104.0	4104.0	4104.0	4104.0	4104.0	4104.0	4104.0	4104.0	4104.0	4104.0
2.5°	4194.6	4174.9	4158.7	4165.0	4168.6	4156.0	4145.3	4147.0	4136.3	4156.9	4108.5
5°	4256.5	4238.5	4219.7	4226.9	4219.7	4200.9	4185.6	4181.1	4152.4	4164.1	4114.8
7.5°	4325.6	4305.8	4278.0	4286.1	4270.8	4235.9	4216.1	4204.5	4160.5	4161.4	4106.7
10°	4391.9	4374.9	4337.2	4342.6	4314.8	4268.1	4236.8	4220.6	4158.7	4149.7	4093.2
12.5°	4453.8	4430.5	4390.1	4392.8	4352.5	4290.6	4250.2	4226.9	4146.1	4119.2	4063.6
15°	4501.4	4479.0	4430.5	4429.6	4377.6	4296.9	4251.1	4218.8	4116.5	4074.4	4016.1
17.5°	4541.7	4521.1	4461.0	4459.2	4396.4	4294.2	4239.4	4199.1	4073.5	4021.5	3956.9
20°	4570.5	4549.8	4482.5	4476.3	4400.9	4280.7	4215.2	4164.1	4017.0	3955.1	3883.3
22.5°	4583.9	4563.3	4487.0	4478.1	4390.1	4253.8	4180.2	4120.1	3952.4	3871.7	3797.2
25°	4581.2	4561.5	4475.4	4466.4	4369.5	4213.4	4130.9	4061.8	3870.8	3775.7	3702.1
27.5°	4558.8	4543.5	4452.9	4441.3	4331.8	4158.7	4070.8	3994.5	3780.2	3674.3	3594.5
30°	4520.2	4508.6	4412.6	4401.8	4285.2	4098.6	4000.8	3912.9	3682.4	3563.1	3482.3
32.5°	4458.3	4447.6	4350.7	4340.8	4222.4	4021.5	3919.2	3828.6	3575.6	3443.8	3363.0
35°	4373.1	4366.8	4272.6	4261.9	4141.7	3933.5	3825.0	3725.4	3464.4	3315.5	3238.3
37.5°	4261.0	4261.0	4170.4	4158.7	4041.2	3825.9	3719.2	3613.3	3338.8	3180.9	3104.7
40°	4130.9	4142.6	4050.2	4038.5	3924.6	3710.2	3593.6	3482.3	3203.4	3039.2	2964.7
42.5°	3974.8	3985.6	3908.4	3897.7	3790.9	3576.5	3468.0	3346.9	3061.6	2894.8	2817.6
45°	3802.6	3816.9	3747.9	3739.8	3640.2	3430.3	3326.2	3203.4	2913.6	2744.1	2668.7
47.5°	3610.6	3629.5	3569.3	3564.9	3472.5	3280.5	3172.0	3047.3	2758.4	2587.1	2516.2
50°	3395.3	3422.2	3372.9	3372.9	3290.4	3099.3	3005.1	2880.4	2597.0	2425.6	2355.6
52.5°	3164.8	3198.9	3162.1	3163.0	3095.7	2924.4	2826.6	2704.6	2428.3	2259.7	2195.1
55°	2926.2	2959.4	2936.0	2939.6	2886.7	2730.6	2641.8	2520.7	2256.1	2091.9	2030.9
57.5°	2676.8	2712.7	2697.4	2704.6	2667.8	2527.9	2435.5	2329.6	2078.5	1916.1	1864.1
60°	2426.5	2460.6	2452.5	2462.4	2439.1	2318.0	2233.6	2124.2	1899.9	1743.9	1698.1
62.5°	2173.5	2204.9	2203.1	2213.9	2201.4	2100.9	2025.5	1932.2	1715.2	1571.6	1529.5
65°	1926.0	1952.9	1951.1	1962.7	1960.0	1879.3	1811.1	1725.9	1530.4	1398.5	1361.7
67.5°	1685.6	1708.0	1701.7	1715.2	1718.7	1654.2	1594.9	1518.7	1354.5	1226.3	1194.9
70°	1450.5	1465.8	1457.7	1466.7	1474.7	1426.3	1376.1	1308.8	1167.1	1054.0	1028.0
72.5°	1220.0	1230.7	1218.2	1227.2	1234.3	1199.4	1158.1	1099.8	982.3	884.5	863.0
75°	996.6	1011.9	985.9	994.8	1000.2	965.2	941.0	893.5	792.1	716.7	702.4
77.5°	780.4	789.4	775.0	771.5	775.0	749.9	731.1	694.3	618.1	556.2	547.2
80°	574.1	579.5	565.1	561.6	564.2	546.3	531.9	505.0	451.2	404.6	401.0
82.5°	384.8	387.5	375.0	371.4	373.2	367.8	350.7	331.9	306.8	267.3	266.4
85°	219.8	219.8	210.8	207.2	209.0	200.0	193.8	183.9	174.0	147.1	148.9
87.5°	80.7	80.7	76.2	75.4	84.3	74.5	71.8	67.3	70.0	55.6	59.2
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: P834215

CATALOG NUMBER: ORLG-12-4-INS-ASY2-LD4-3STD-35-120-EDD

CANDELA DISTRIBUTION (continued):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	4104.0	4104.0	4104.0	4104.0	4104.0	4104.0	4104.0	4104.0	4104.0	4104.0	4104.0
2.5°	4121.9	4113.0	4104.9	4077.1	4088.7	4060.0	4058.2	4047.5	4039.4	4024.2	4043.9
5°	4108.5	4090.5	4067.2	4034.0	4043.9	4009.8	4002.6	3990.1	3979.3	3959.6	3974.8
7.5°	4086.9	4057.3	4020.6	3978.4	3991.9	3949.7	3938.9	3925.5	3916.5	3893.2	3906.6
10°	4055.5	4013.4	3970.3	3919.2	3929.1	3883.3	3869.9	3855.5	3847.4	3826.8	3840.3
12.5°	4007.1	3956.0	3897.7	3842.1	3852.8	3809.8	3791.8	3776.6	3773.9	3756.8	3773.0
15°	3944.3	3873.4	3813.3	3754.1	3766.7	3716.5	3708.4	3693.1	3697.6	3686.0	3705.7
17.5°	3864.5	3782.8	3717.4	3653.7	3666.2	3624.1	3617.8	3610.6	3615.1	3613.3	3634.8
20°	3774.8	3685.1	3609.7	3546.9	3554.1	3520.9	3523.6	3521.8	3530.8	3540.6	3570.2
22.5°	3673.4	3572.0	3493.1	3428.5	3439.3	3410.6	3423.1	3426.7	3442.0	3464.4	3502.1
25°	3559.5	3450.9	3368.4	3307.4	3317.3	3298.4	3320.0	3328.9	3353.2	3390.8	3429.4
27.5°	3440.2	3325.4	3237.4	3179.1	3198.0	3179.1	3211.4	3229.4	3266.1	3307.4	3355.0
30°	3313.7	3194.4	3103.8	3051.8	3069.7	3052.6	3104.7	3128.9	3165.7	3222.2	3278.7
32.5°	3180.9	3055.3	2966.5	2926.2	2938.7	2936.0	2994.3	3021.3	3070.6	3135.2	3195.3
35°	3044.6	2913.6	2823.9	2789.8	2805.1	2808.7	2878.6	2910.0	2963.8	3041.9	3106.5
37.5°	2903.7	2770.1	2682.2	2654.4	2667.8	2681.3	2762.9	2794.3	2855.3	2940.5	3011.4
40°	2757.5	2623.9	2537.7	2515.3	2528.8	2543.1	2631.9	2675.0	2741.4	2833.8	2910.9
42.5°	2609.5	2475.8	2392.4	2376.3	2389.7	2417.5	2511.7	2552.1	2622.1	2724.3	2809.6
45°	2458.8	2319.8	2247.1	2234.5	2248.9	2281.2	2373.6	2422.0	2496.5	2608.6	2700.1
47.5°	2306.3	2170.9	2101.8	2093.7	2108.1	2143.9	2246.2	2290.2	2369.1	2488.4	2587.1
50°	2152.0	2020.1	1953.8	1951.1	1964.5	2003.1	2100.9	2152.9	2234.5	2368.2	2469.6
52.5°	1995.9	1869.4	1809.3	1809.3	1821.9	1861.4	1960.0	2013.9	2098.2	2239.0	2351.2
55°	1839.8	1719.6	1662.2	1666.7	1684.7	1718.7	1814.7	1871.2	1956.5	2102.7	2221.1
57.5°	1683.8	1569.8	1517.8	1524.1	1541.1	1575.2	1669.4	1733.1	1810.2	1961.8	2082.9
60°	1529.5	1421.8	1376.1	1383.2	1398.5	1432.6	1530.4	1585.1	1662.2	1816.5	1937.6
62.5°	1373.4	1275.6	1232.5	1241.5	1255.0	1289.1	1381.5	1434.4	1510.6	1662.2	1784.2
65°	1219.1	1128.5	1091.7	1100.7	1113.2	1144.6	1231.6	1282.8	1355.4	1503.5	1620.1
67.5°	1066.6	984.1	953.6	962.5	972.4	1002.0	1073.8	1129.4	1197.6	1338.4	1448.7
70°	915.9	842.3	815.4	824.4	833.4	860.3	923.1	974.2	1037.0	1166.2	1268.4
72.5°	767.0	695.2	681.8	689.8	697.0	720.3	780.4	820.8	875.5	990.3	1078.3
75°	621.7	559.8	550.8	558.9	565.1	583.1	633.3	668.3	714.0	813.6	885.4
77.5°	481.7	429.7	426.1	432.4	438.7	451.2	490.7	527.5	563.3	636.9	700.6
80°	350.7	308.6	308.6	314.9	313.1	328.3	356.1	385.7	411.7	464.7	511.3
82.5°	231.4	198.2	202.7	207.2	209.9	216.2	233.2	255.7	271.8	304.1	334.6
85°	128.3	105.9	110.3	113.9	112.1	119.3	128.3	141.7	149.8	165.1	181.2
87.5°	47.5	39.5	40.4	43.1	44.9	48.4	48.4	56.5	57.4	59.2	62.8
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: P834215

CATALOG NUMBER: ORLG-12-4-INS-ASY2-LD4-3STD-35-120-EDD

CANDELA DISTRIBUTION (continued):

	160°	170°	180°
0°	4104.0	4104.0	4104.0
2.5°	4006.2	4027.7	4043.9
5°	3937.1	3955.1	3969.4
7.5°	3869.9	3886.0	3898.6
10°	3806.2	3824.1	3833.1
12.5°	3740.7	3761.3	3768.5
15°	3676.1	3696.7	3705.7
17.5°	3609.7	3636.6	3646.5
20°	3547.8	3581.9	3590.0
22.5°	3485.0	3520.0	3529.9
25°	3416.9	3458.1	3468.0
27.5°	3344.2	3393.5	3403.4
30°	3271.5	3325.4	3335.2
32.5°	3193.5	3251.8	3260.8
35°	3111.9	3170.2	3180.9
37.5°	3021.3	3084.9	3106.5
40°	2927.1	2996.1	3018.6
42.5°	2828.4	2903.7	2927.1
45°	2722.5	2805.1	2832.0
47.5°	2615.8	2709.1	2732.4
50°	2500.1	2599.6	2627.4
52.5°	2379.0	2487.5	2515.3
55°	2253.4	2362.8	2393.3
57.5°	2117.0	2230.1	2262.4
60°	1974.4	2087.4	2117.9
62.5°	1828.2	1930.4	1960.0
65°	1664.9	1760.9	1787.8
67.5°	1491.8	1579.7	1602.1
70°	1307.9	1384.1	1403.9
72.5°	1115.9	1168.9	1194.9
75°	917.7	959.8	979.6
77.5°	718.5	748.1	764.3
80°	523.9	540.9	554.4
82.5°	342.7	349.8	359.7
85°	184.8	184.8	191.1
87.5°	62.8	60.1	62.8
90°	0.0	0.0	0.0

(END OF REPORT)