

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: P834566

Luminaire Tested: **ORLG-24-4-INS-ASY2-LD4-3STD-35-120-EDD**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P834566
Test Lab: INNOVATION CENTER(G2)
Issue Date: 5/16/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: ORLG-24-4-INS-ASY2-LD4-3STD-35-120-EDD
Description: 2FT x 4FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

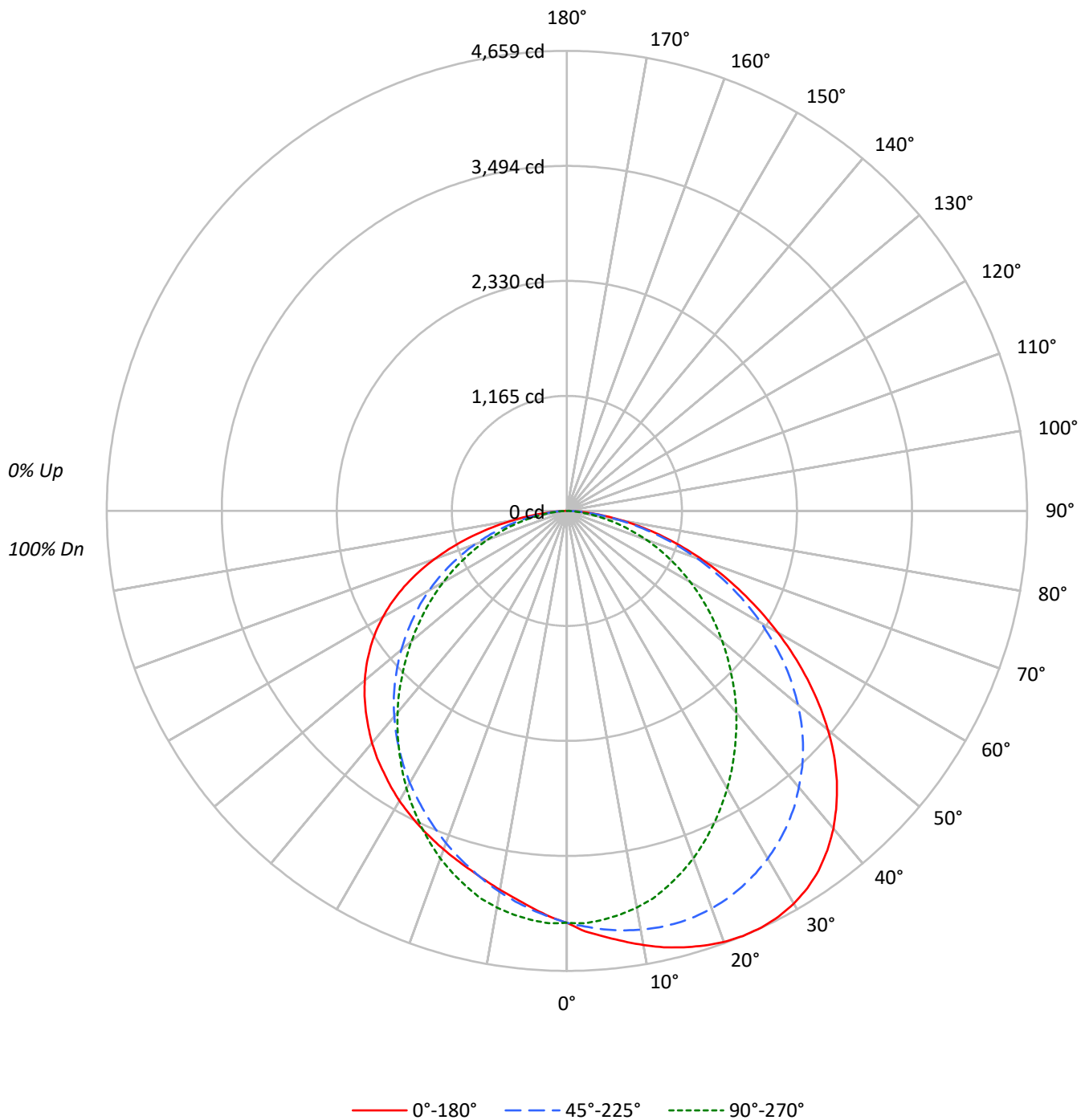
Lumens per Lamp: N/A
Luminaire Lumens: 12270.8 lumens
Efficiency: N/A
Efficacy: 122.8 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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

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Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



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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	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°	5613	5613	5613
5°	5844	5616	5450
10°	6099	5574	5323
15°	6373	5484	5247
20°	6652	5363	5225
25°	6913	5208	5233
30°	7138	5045	5267
35°	7301	4865	5311
40°	7375	4685	5389
45°	7355	4487	5477
50°	7224	4298	5590
55°	6977	4100	5707
60°	6637	3889	5793
65°	6233	3652	5786
70°	5800	3368	5614
75°	5266	2958	5176
80°	4522	2431	4366
85°	3449	1661	2998

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	395.6	3.2
10°-20°	1142.5	9.3
20°-30°	1750.4	14.3
30°-40°	2136.1	17.4
40°-50°	2233.9	18.2
50°-60°	2021.8	16.5
60°-70°	1531.2	12.5
70°-80°	853.3	7.0
80°-90°	205.8	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°	3288.6	26.8
0°-40°	5424.7	44.2
0°-60°	9680.5	78.9
0°-90°	12270.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12270.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4172	4172	4172	4172	4172	
5°	4327	4255	4158	4056	4035	417
15°	4576	4321	3937	3754	3767	1298
25°	4657	4199	3508	3384	3525	2148
35°	4445	3888	2962	2958	3233	2776
45°	3865	3381	2358	2462	2879	2974
55°	2974	2685	1748	1902	2433	2654
65°	1958	1841	1147	1304	1817	1942
75°	1013	956	569	679	996	1074
85°	223	197	108	144	194	269
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	4171.6	4171.6	4171.6	4171.6	4171.6	4171.6	4171.6	4171.6	4171.6	4171.6	4171.6
2.5°	4263.7	4243.6	4227.2	4233.6	4237.2	4224.5	4213.5	4215.3	4204.4	4225.4	4176.1
5°	4326.6	4308.4	4289.2	4296.5	4289.2	4270.1	4254.6	4250.0	4220.8	4232.7	4182.5
7.5°	4396.8	4376.7	4348.5	4356.7	4341.2	4305.6	4285.6	4273.7	4229.0	4229.9	4174.3
10°	4464.3	4447.0	4408.7	4414.1	4385.9	4338.4	4306.5	4290.1	4227.2	4218.1	4160.6
12.5°	4527.2	4503.5	4462.5	4465.2	4424.2	4361.2	4320.2	4296.5	4214.4	4187.1	4130.5
15°	4575.5	4552.7	4503.5	4502.6	4449.7	4367.6	4321.1	4288.3	4184.3	4141.5	4082.2
17.5°	4616.5	4595.6	4534.5	4532.7	4468.8	4364.9	4309.3	4268.2	4140.6	4087.7	4022.0
20°	4645.7	4624.8	4556.4	4550.0	4473.4	4351.2	4284.6	4232.7	4083.1	4020.2	3947.3
22.5°	4659.4	4638.4	4560.9	4551.8	4462.5	4323.9	4249.1	4188.0	4017.5	3935.4	3859.7
25°	4656.7	4636.6	4549.1	4540.0	4441.5	4282.8	4198.9	4128.7	3934.5	3837.9	3763.1
27.5°	4633.9	4618.4	4526.3	4514.4	4403.2	4227.2	4137.8	4060.3	3842.4	3734.8	3653.7
30°	4594.7	4582.8	4485.2	4474.3	4355.8	4166.1	4066.7	3977.4	3743.0	3621.8	3539.7
32.5°	4531.8	4520.8	4422.3	4412.3	4291.9	4087.7	3983.7	3891.7	3634.5	3500.5	3418.4
35°	4445.1	4438.7	4343.0	4332.1	4209.9	3998.3	3888.0	3786.8	3521.5	3370.1	3291.7
37.5°	4331.1	4331.1	4239.1	4227.2	4107.8	3888.9	3780.4	3672.8	3393.8	3233.3	3155.8
40°	4198.9	4210.8	4116.9	4105.0	3989.2	3771.3	3652.8	3539.7	3256.1	3089.2	3013.6
42.5°	4040.3	4051.2	3972.8	3961.9	3853.4	3635.4	3525.1	3402.0	3112.0	2942.4	2864.0
45°	3865.2	3879.8	3809.6	3801.4	3700.2	3486.8	3381.0	3256.1	2961.6	2789.3	2712.7
47.5°	3670.1	3689.2	3628.1	3623.6	3529.7	3334.5	3224.2	3097.5	2803.8	2629.7	2557.7
50°	3451.2	3478.6	3428.4	3428.4	3344.6	3150.3	3054.6	2927.9	2639.7	2465.6	2394.4
52.5°	3216.9	3251.6	3214.2	3215.1	3146.7	2972.5	2873.1	2749.1	2468.3	2296.9	2231.2
55°	2974.4	3008.1	2984.4	2988.0	2934.2	2775.6	2685.3	2562.2	2293.2	2126.4	2064.4
57.5°	2720.9	2757.3	2741.8	2749.1	2711.8	2569.5	2475.6	2368.0	2112.7	1947.6	1894.8
60°	2466.5	2501.1	2492.9	2502.9	2479.2	2356.1	2270.4	2159.2	1931.2	1772.6	1726.1
62.5°	2209.3	2241.3	2239.4	2250.4	2237.6	2135.5	2058.9	1964.1	1743.4	1597.5	1554.7
65°	1957.7	1985.0	1983.2	1995.1	1992.3	1910.3	1841.0	1754.3	1555.6	1421.5	1384.1
67.5°	1713.3	1736.1	1729.7	1743.4	1747.0	1681.4	1621.2	1543.7	1376.8	1246.5	1214.5
70°	1474.4	1489.9	1481.7	1490.8	1499.0	1449.8	1398.7	1330.3	1186.3	1071.4	1044.9
72.5°	1240.1	1251.0	1238.3	1247.4	1254.7	1219.1	1177.2	1117.9	998.4	899.1	877.2
75°	1013.0	1028.5	1002.1	1011.2	1016.7	981.1	956.5	908.2	805.1	728.5	714.0
77.5°	793.3	802.4	787.8	784.2	787.8	762.3	743.1	705.7	628.2	565.3	556.2
80°	583.6	589.0	574.4	570.8	573.5	555.3	540.7	513.4	458.6	411.2	407.6
82.5°	391.2	393.9	381.1	377.5	379.3	373.8	356.5	337.4	311.8	271.7	270.8
85°	223.4	223.4	214.3	210.6	212.5	203.3	197.0	186.9	176.9	149.5	151.4
87.5°	82.1	82.1	77.5	76.6	85.7	75.7	72.9	68.4	71.1	56.5	60.2
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):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	4171.6	4171.6	4171.6	4171.6	4171.6	4171.6	4171.6	4171.6	4171.6	4171.6	4171.6
2.5°	4189.8	4180.7	4172.5	4144.2	4156.1	4126.9	4125.1	4114.1	4105.9	4090.4	4110.5
5°	4176.1	4157.9	4134.2	4100.5	4110.5	4075.8	4068.5	4055.8	4044.8	4024.8	4040.3
7.5°	4154.3	4124.2	4086.8	4043.9	4057.6	4014.7	4003.8	3990.1	3981.0	3957.3	3971.0
10°	4122.3	4079.5	4035.7	3983.7	3993.8	3947.3	3933.6	3919.0	3910.8	3889.8	3903.5
12.5°	4073.1	4021.1	3961.9	3905.3	3916.3	3872.5	3854.3	3838.8	3836.0	3818.7	3835.1
15°	4009.3	3937.2	3876.2	3816.0	3828.7	3777.7	3769.5	3754.0	3758.5	3746.7	3766.7
17.5°	3928.1	3845.1	3778.6	3713.8	3726.6	3683.8	3677.4	3670.1	3674.6	3672.8	3694.7
20°	3836.9	3745.8	3669.2	3605.3	3612.6	3578.9	3581.6	3579.8	3588.9	3599.0	3629.0
22.5°	3733.9	3630.9	3550.6	3485.0	3495.9	3466.7	3479.5	3483.2	3498.7	3521.5	3559.7
25°	3618.1	3507.8	3423.9	3361.9	3371.9	3352.8	3374.6	3383.8	3408.4	3446.7	3485.9
27.5°	3496.8	3380.1	3290.8	3231.5	3250.6	3231.5	3264.3	3282.6	3319.9	3361.9	3410.2
30°	3368.3	3247.0	3154.9	3102.0	3120.3	3102.9	3155.8	3180.4	3217.8	3275.3	3332.7
32.5°	3233.3	3105.7	3015.4	2974.4	2987.1	2984.4	3043.7	3071.0	3121.2	3186.8	3247.9
35°	3094.7	2961.6	2870.4	2835.8	2851.3	2854.9	2926.0	2957.9	3012.7	3092.0	3157.6
37.5°	2951.6	2815.7	2726.3	2698.1	2711.8	2725.4	2808.4	2840.3	2902.3	2988.9	3061.0
40°	2802.9	2667.1	2579.5	2556.7	2570.4	2585.0	2675.3	2719.1	2786.5	2880.4	2958.9
42.5°	2652.5	2516.6	2431.8	2415.4	2429.1	2457.4	2553.1	2594.1	2665.3	2769.2	2855.8
45°	2499.3	2358.0	2284.1	2271.3	2285.9	2318.8	2412.7	2461.9	2537.6	2651.6	2744.6
47.5°	2344.3	2206.6	2136.4	2128.2	2142.8	2179.3	2283.2	2327.9	2408.1	2529.4	2629.7
50°	2187.5	2053.4	1985.9	1983.2	1996.9	2036.1	2135.5	2188.4	2271.3	2407.2	2510.2
52.5°	2028.8	1900.2	1839.1	1839.1	1851.9	1892.0	1992.3	2047.0	2132.7	2275.9	2389.9
55°	1870.1	1748.0	1689.6	1694.2	1712.4	1747.0	1844.6	1902.1	1988.7	2137.3	2257.7
57.5°	1711.5	1595.7	1542.8	1549.2	1566.5	1601.2	1696.9	1761.6	1840.1	1994.2	2117.2
60°	1554.7	1445.2	1398.7	1406.0	1421.5	1456.2	1555.6	1611.2	1689.6	1846.4	1969.5
62.5°	1396.0	1296.6	1252.8	1262.0	1275.6	1310.3	1404.2	1458.0	1535.5	1689.6	1813.6
65°	1239.2	1147.1	1109.7	1118.8	1131.6	1163.5	1251.9	1303.9	1377.8	1528.2	1646.7
67.5°	1084.2	1000.3	969.3	978.4	988.4	1018.5	1091.4	1148.0	1217.3	1360.4	1472.6
70°	931.0	856.2	828.8	838.0	847.1	874.4	938.3	990.2	1054.1	1185.4	1289.3
72.5°	779.6	706.7	693.0	701.2	708.5	732.2	793.3	834.3	889.9	1006.7	1096.0
75°	631.9	569.0	559.9	568.1	574.4	592.7	643.7	679.3	725.8	827.0	900.0
77.5°	489.6	436.8	433.1	439.5	445.9	458.6	498.8	536.2	572.6	647.4	712.1
80°	356.5	313.7	313.7	320.0	318.2	333.7	362.0	392.1	418.5	472.3	519.7
82.5°	235.2	201.5	206.1	210.6	213.4	219.7	237.1	259.9	276.3	309.1	340.1
85°	130.4	107.6	112.2	115.8	114.0	121.3	130.4	144.1	152.3	167.8	184.2
87.5°	48.3	40.1	41.0	43.8	45.6	49.2	49.2	57.4	58.4	60.2	63.8
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):

	160°	170°	180°
0°	4171.6	4171.6	4171.6
2.5°	4072.2	4094.1	4110.5
5°	4002.0	4020.2	4034.8
7.5°	3933.6	3950.0	3962.8
10°	3868.9	3887.1	3896.2
12.5°	3802.3	3823.3	3830.6
15°	3736.6	3757.6	3766.7
17.5°	3669.2	3696.5	3706.6
20°	3606.3	3640.9	3649.1
22.5°	3542.4	3578.0	3588.0
25°	3473.1	3515.1	3525.1
27.5°	3399.3	3449.4	3459.4
30°	3325.4	3380.1	3390.2
32.5°	3246.1	3305.4	3314.5
35°	3163.1	3222.4	3233.3
37.5°	3071.0	3135.8	3157.6
40°	2975.3	3045.5	3068.3
42.5°	2875.0	2951.6	2975.3
45°	2767.4	2851.3	2878.6
47.5°	2658.9	2753.7	2777.4
50°	2541.2	2642.5	2670.7
52.5°	2418.1	2528.5	2556.7
55°	2290.5	2401.7	2432.7
57.5°	2151.9	2266.8	2299.6
60°	2006.9	2121.8	2152.8
62.5°	1858.3	1962.2	1992.3
65°	1692.3	1789.9	1817.3
67.5°	1516.4	1605.7	1628.5
70°	1329.4	1406.9	1427.0
72.5°	1134.3	1188.1	1214.5
75°	932.8	975.6	995.7
77.5°	730.4	760.5	776.9
80°	532.5	549.8	563.5
82.5°	348.3	355.6	365.6
85°	187.8	187.8	194.2
87.5°	63.8	61.1	63.8
90°	0.0	0.0	0.0

(END OF REPORT)