

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: P835206

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-6HI-30-120-EDD**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835206
Test Lab: INNOVATION CENTER(G2)
Issue Date: 5/16/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: ORLG-24-2-INS-ASY2-LD4-6HI-30-120-EDD
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

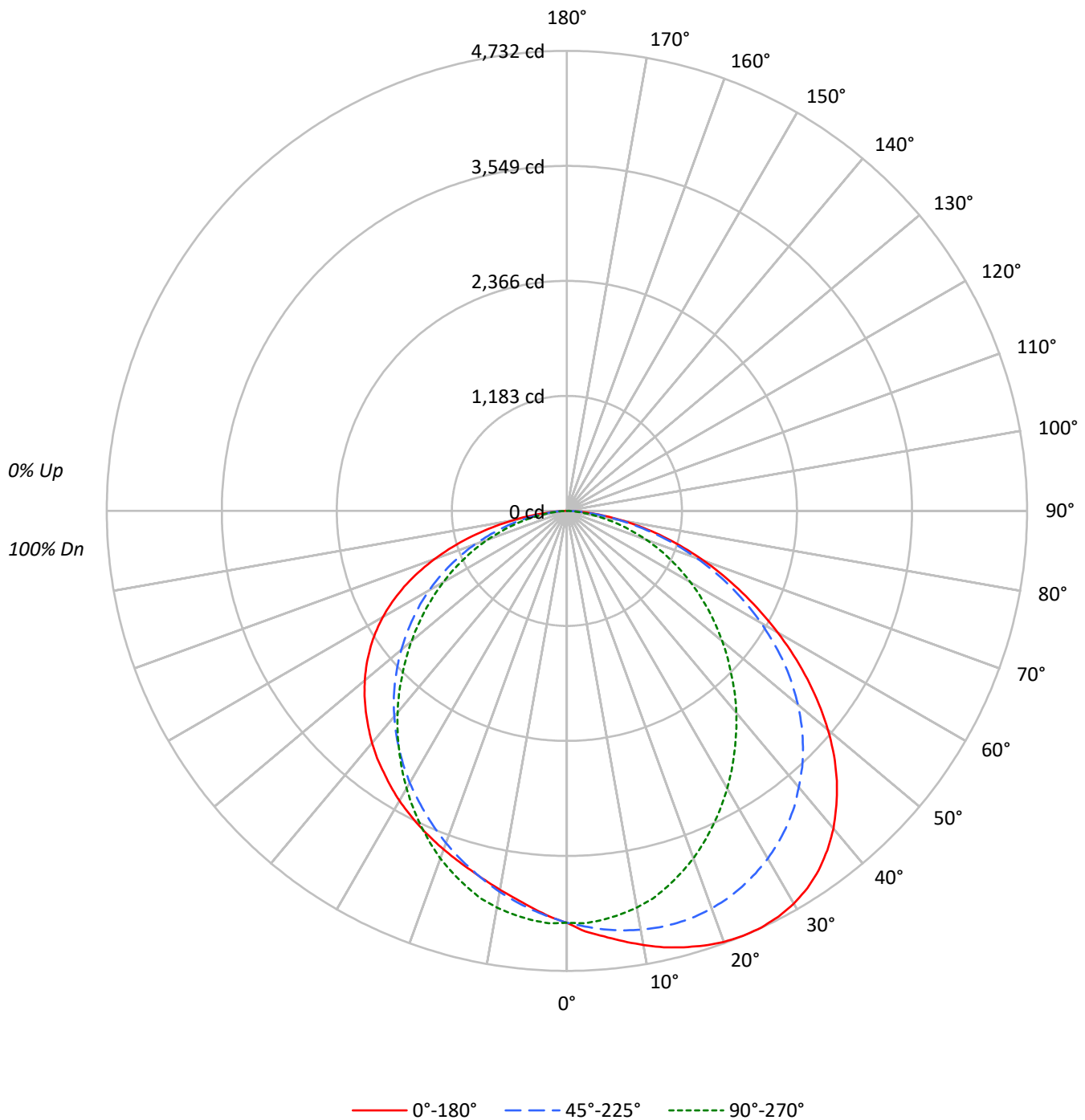
Lumens per Lamp: N/A
Luminaire Lumens: 12462.2 lumens
Efficiency: N/A
Efficacy: 94.4 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

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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	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	109	104	100	96	106	102	98	94	97	94	91	94	91	88	90	88	86
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52
5	76	63	54	47	73	61	53	47	59	52	46	57	51	46	55	50	45
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35
8	60	46	38	32	59	46	38	32	44	37	32	43	36	31	42	36	31
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	11401	11401	11401
5°	11869	11407	11069
10°	12389	11321	10812
15°	12946	11140	10657
20°	13511	10894	10613
25°	14042	10578	10630
30°	14499	10247	10698
35°	14830	9881	10787
40°	14980	9515	10946
45°	14939	9113	11126
50°	14674	8730	11355
55°	14172	8328	11591
60°	13481	7900	11767
65°	12660	7418	11752
70°	11781	6841	11402
75°	10697	6007	10514
80°	9185	4937	8869
85°	7006	3375	6089

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	401.8	3.2
10°-20°	1160.4	9.3
20°-30°	1777.7	14.3
30°-40°	2169.4	17.4
40°-50°	2268.7	18.2
50°-60°	2053.4	16.5
60°-70°	1555.1	12.5
70°-80°	866.6	7.0
80°-90°	209.0	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°	3339.9	26.8
0°-40°	5509.3	44.2
0°-60°	9831.4	78.9
0°-90°	12462.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12462.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4237	4237	4237	4237	4237	
5°	4394	4321	4223	4119	4098	424
15°	4647	4388	3999	3812	3826	1318
25°	4729	4264	3562	3436	3580	2182
35°	4514	3949	3008	3004	3284	2819
45°	3926	3434	2395	2500	2924	3020
55°	3021	2727	1775	1932	2471	2695
65°	1988	1870	1165	1324	1846	1972
75°	1029	971	578	690	1011	1091
85°	227	200	109	146	197	273
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°	4236.6	4236.6	4236.6	4236.6	4236.6	4236.6	4236.6	4236.6	4236.6	4236.6	4236.6
2.5°	4330.2	4309.8	4293.1	4299.6	4303.3	4290.3	4279.2	4281.1	4270.0	4291.3	4241.3
5°	4394.0	4375.5	4356.1	4363.5	4356.1	4336.6	4320.9	4316.3	4286.6	4298.7	4247.7
7.5°	4465.4	4445.0	4416.3	4424.6	4408.9	4372.7	4352.4	4340.3	4295.0	4295.9	4239.4
10°	4533.9	4516.3	4477.4	4482.9	4454.2	4406.1	4373.7	4357.0	4293.1	4283.8	4225.5
12.5°	4597.8	4573.7	4532.0	4534.8	4493.1	4429.2	4387.6	4363.5	4280.1	4252.4	4195.0
15°	4646.9	4623.7	4573.7	4572.8	4519.1	4435.7	4388.5	4355.2	4249.6	4206.1	4145.9
17.5°	4688.5	4667.2	4605.2	4603.3	4538.5	4432.9	4376.5	4334.8	4205.1	4151.4	4084.8
20°	4718.2	4696.9	4627.4	4620.9	4543.1	4419.1	4351.5	4298.7	4146.8	4082.9	4008.8
22.5°	4732.1	4710.8	4632.0	4622.8	4532.0	4391.3	4315.3	4253.3	4080.1	3996.8	3919.9
25°	4729.3	4708.9	4620.0	4610.7	4510.7	4349.6	4264.4	4193.1	3995.9	3897.7	3821.8
27.5°	4706.1	4690.4	4596.9	4584.8	4471.8	4293.1	4202.4	4123.6	3902.3	3793.1	3710.6
30°	4666.3	4654.3	4555.2	4544.1	4423.7	4231.1	4130.1	4039.4	3801.4	3678.2	3594.9
32.5°	4602.4	4591.3	4491.3	4481.1	4358.9	4151.4	4045.9	3952.3	3691.2	3555.1	3471.7
35°	4514.4	4508.0	4410.7	4399.6	4275.5	4060.7	3948.6	3845.8	3576.4	3422.6	3343.0
37.5°	4398.7	4398.7	4305.1	4293.1	4171.8	3949.6	3839.4	3730.1	3446.7	3283.7	3205.0
40°	4264.4	4276.4	4181.1	4169.0	4051.4	3830.1	3709.7	3594.9	3306.9	3137.4	3060.6
42.5°	4103.3	4114.4	4034.7	4023.6	3913.4	3692.1	3580.1	3455.0	3160.6	2988.3	2908.7
45°	3925.5	3940.3	3869.0	3860.7	3757.9	3541.2	3433.7	3306.9	3007.8	2832.7	2755.0
47.5°	3727.3	3746.7	3684.7	3680.1	3584.7	3386.5	3274.5	3145.7	2847.6	2670.7	2597.5
50°	3505.1	3532.8	3481.9	3481.9	3396.7	3199.5	3102.2	2973.5	2680.9	2504.0	2431.8
52.5°	3267.1	3302.3	3264.3	3265.2	3195.8	3018.9	2917.9	2792.0	2506.8	2332.7	2266.0
55°	3020.7	3055.0	3030.9	3034.6	2980.0	2818.9	2727.2	2602.2	2329.0	2159.5	2096.5
57.5°	2763.3	2800.3	2784.6	2792.0	2754.0	2609.6	2514.2	2404.9	2145.6	1978.0	1924.3
60°	2504.9	2540.1	2531.8	2542.0	2517.9	2392.9	2305.8	2192.9	1961.3	1800.2	1753.0
62.5°	2243.8	2276.2	2274.3	2285.5	2272.5	2168.8	2091.0	1994.7	1770.6	1622.4	1578.9
65°	1988.2	2016.0	2014.1	2026.2	2023.4	1940.0	1869.7	1781.7	1579.8	1443.7	1405.7
67.5°	1740.0	1763.2	1756.7	1770.6	1774.3	1707.6	1646.5	1567.8	1398.3	1265.9	1233.5
70°	1497.4	1513.1	1504.8	1514.1	1522.4	1472.4	1420.5	1351.1	1204.8	1088.1	1061.2
72.5°	1259.4	1270.5	1257.6	1266.8	1274.2	1238.1	1195.5	1135.3	1014.0	913.1	890.8
75°	1028.8	1044.6	1017.7	1027.0	1032.5	996.4	971.4	922.3	817.7	739.9	725.1
77.5°	805.7	814.9	800.1	796.4	800.1	774.2	754.7	716.8	638.0	574.1	564.9
80°	592.7	598.2	583.4	579.7	582.5	564.0	549.1	521.4	465.8	417.6	413.9
82.5°	397.3	400.0	387.1	383.4	385.2	379.7	362.1	342.6	316.7	276.0	275.0
85°	226.9	226.9	217.6	213.9	215.8	206.5	200.0	189.8	179.7	151.9	153.7
87.5°	83.3	83.3	78.7	77.8	87.0	76.9	74.1	69.5	72.2	57.4	61.1
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°	4236.6	4236.6	4236.6	4236.6	4236.6	4236.6	4236.6	4236.6	4236.6	4236.6	4236.6
2.5°	4255.1	4245.9	4237.5	4208.8	4220.9	4191.2	4189.4	4178.3	4169.9	4154.2	4174.6
5°	4241.3	4222.7	4198.7	4164.4	4174.6	4139.4	4132.0	4119.0	4107.9	4087.5	4103.3
7.5°	4219.0	4188.5	4150.5	4107.0	4120.9	4077.3	4066.2	4052.3	4043.1	4019.0	4032.9
10°	4186.6	4143.1	4098.6	4045.9	4056.0	4008.8	3994.9	3980.1	3971.8	3950.5	3964.4
12.5°	4136.6	4083.8	4023.6	3966.2	3977.3	3932.9	3914.4	3898.6	3895.8	3878.2	3894.9
15°	4071.8	3998.6	3936.6	3875.5	3888.4	3836.6	3828.2	3812.5	3817.1	3805.1	3825.5
17.5°	3989.4	3905.1	3837.5	3771.8	3784.7	3741.2	3734.7	3727.3	3731.9	3730.1	3752.3
20°	3896.8	3804.2	3726.4	3661.6	3669.0	3634.7	3637.5	3635.6	3644.9	3655.1	3685.6
22.5°	3792.1	3687.5	3606.0	3539.3	3550.4	3520.8	3533.8	3537.5	3553.2	3576.4	3615.3
25°	3674.5	3562.5	3477.3	3414.3	3424.5	3405.0	3427.3	3436.5	3461.5	3500.4	3540.2
27.5°	3551.4	3432.8	3342.1	3281.9	3301.3	3281.9	3315.2	3333.7	3371.7	3414.3	3463.4
30°	3420.8	3297.6	3204.1	3150.4	3168.9	3151.3	3205.0	3230.0	3268.0	3326.3	3384.7
32.5°	3283.7	3154.1	3062.4	3020.7	3033.7	3030.9	3091.1	3118.9	3169.8	3236.5	3298.5
35°	3143.0	3007.8	2915.2	2880.0	2895.7	2899.4	2971.7	3004.1	3059.6	3140.2	3206.9
37.5°	2997.6	2859.6	2768.9	2740.1	2754.0	2767.9	2852.2	2884.6	2947.6	3035.6	3108.7
40°	2846.6	2708.7	2619.8	2596.6	2610.5	2625.3	2717.0	2761.4	2830.0	2925.4	3005.0
42.5°	2693.8	2555.9	2469.7	2453.1	2467.0	2495.7	2592.9	2634.6	2706.8	2812.4	2900.3
45°	2538.3	2394.7	2319.7	2306.8	2321.6	2354.9	2450.3	2500.3	2577.2	2692.9	2787.4
47.5°	2380.8	2241.0	2169.7	2161.4	2176.2	2213.2	2318.8	2364.2	2445.7	2568.8	2670.7
50°	2221.6	2085.4	2016.9	2014.1	2028.0	2067.8	2168.8	2222.5	2306.8	2444.7	2549.4
52.5°	2060.4	1929.9	1867.8	1867.8	1880.8	1921.5	2023.4	2079.0	2166.0	2311.4	2427.1
55°	1899.3	1775.2	1715.9	1720.6	1739.1	1774.3	1873.4	1931.7	2019.7	2170.6	2292.9
57.5°	1738.2	1620.6	1566.9	1573.3	1590.9	1626.1	1723.4	1789.1	1868.7	2025.2	2150.3
60°	1578.9	1467.8	1420.5	1427.9	1443.7	1478.9	1579.8	1636.3	1715.9	1875.2	2000.2
62.5°	1417.8	1316.8	1272.4	1281.6	1295.5	1330.7	1426.1	1480.7	1559.4	1715.9	1841.9
65°	1258.5	1165.0	1127.0	1136.2	1149.2	1181.6	1271.4	1324.2	1399.2	1552.0	1672.4
67.5°	1101.1	1015.9	984.4	993.6	1003.8	1034.4	1108.5	1165.9	1236.3	1381.6	1495.6
70°	945.5	869.5	841.8	851.0	860.3	888.1	952.9	1005.7	1070.5	1203.8	1309.4
72.5°	791.8	717.7	703.8	712.1	719.5	743.6	805.7	847.3	903.8	1022.3	1113.1
75°	641.7	577.8	568.6	576.9	583.4	601.9	653.8	689.9	737.1	839.9	914.0
77.5°	497.3	443.6	439.9	446.4	452.8	465.8	506.5	544.5	581.6	657.5	723.2
80°	362.1	318.6	318.6	325.0	323.2	338.9	367.6	398.2	425.1	479.7	527.8
82.5°	238.9	204.7	209.3	213.9	216.7	223.2	240.8	263.9	280.6	313.9	345.4
85°	132.4	109.3	113.9	117.6	115.8	123.2	132.4	146.3	154.6	170.4	187.1
87.5°	49.1	40.7	41.7	44.4	46.3	50.0	50.0	58.3	59.3	61.1	64.8
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°	4236.6	4236.6	4236.6
2.5°	4135.7	4157.9	4174.6
5°	4064.4	4082.9	4097.7
7.5°	3994.9	4011.6	4024.6
10°	3929.2	3947.7	3957.0
12.5°	3861.6	3882.9	3890.3
15°	3794.9	3816.2	3825.5
17.5°	3726.4	3754.2	3764.3
20°	3662.5	3697.7	3706.0
22.5°	3597.7	3633.8	3644.0
25°	3527.3	3569.9	3580.1
27.5°	3452.3	3503.2	3513.4
30°	3377.3	3432.8	3443.0
32.5°	3296.7	3356.9	3366.1
35°	3212.4	3272.6	3283.7
37.5°	3118.9	3184.6	3206.9
40°	3021.7	3093.0	3116.1
42.5°	2919.8	2997.6	3021.7
45°	2810.5	2895.7	2923.5
47.5°	2700.3	2796.6	2820.7
50°	2580.9	2683.7	2712.4
52.5°	2455.9	2567.9	2596.6
55°	2326.2	2439.2	2470.7
57.5°	2185.4	2302.1	2335.5
60°	2038.2	2154.9	2186.4
62.5°	1887.3	1992.8	2023.4
65°	1718.7	1817.8	1845.6
67.5°	1540.0	1630.8	1653.9
70°	1350.2	1428.9	1449.2
72.5°	1152.0	1206.6	1233.5
75°	947.3	990.9	1011.2
77.5°	741.8	772.3	789.0
80°	540.8	558.4	572.3
82.5°	353.7	361.2	371.3
85°	190.8	190.8	197.2
87.5°	64.8	62.0	64.8
90°	0.0	0.0	0.0

(END OF REPORT)