

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: P835260

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-6HI-50-120-EDD**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835260
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-50-120-EDD
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

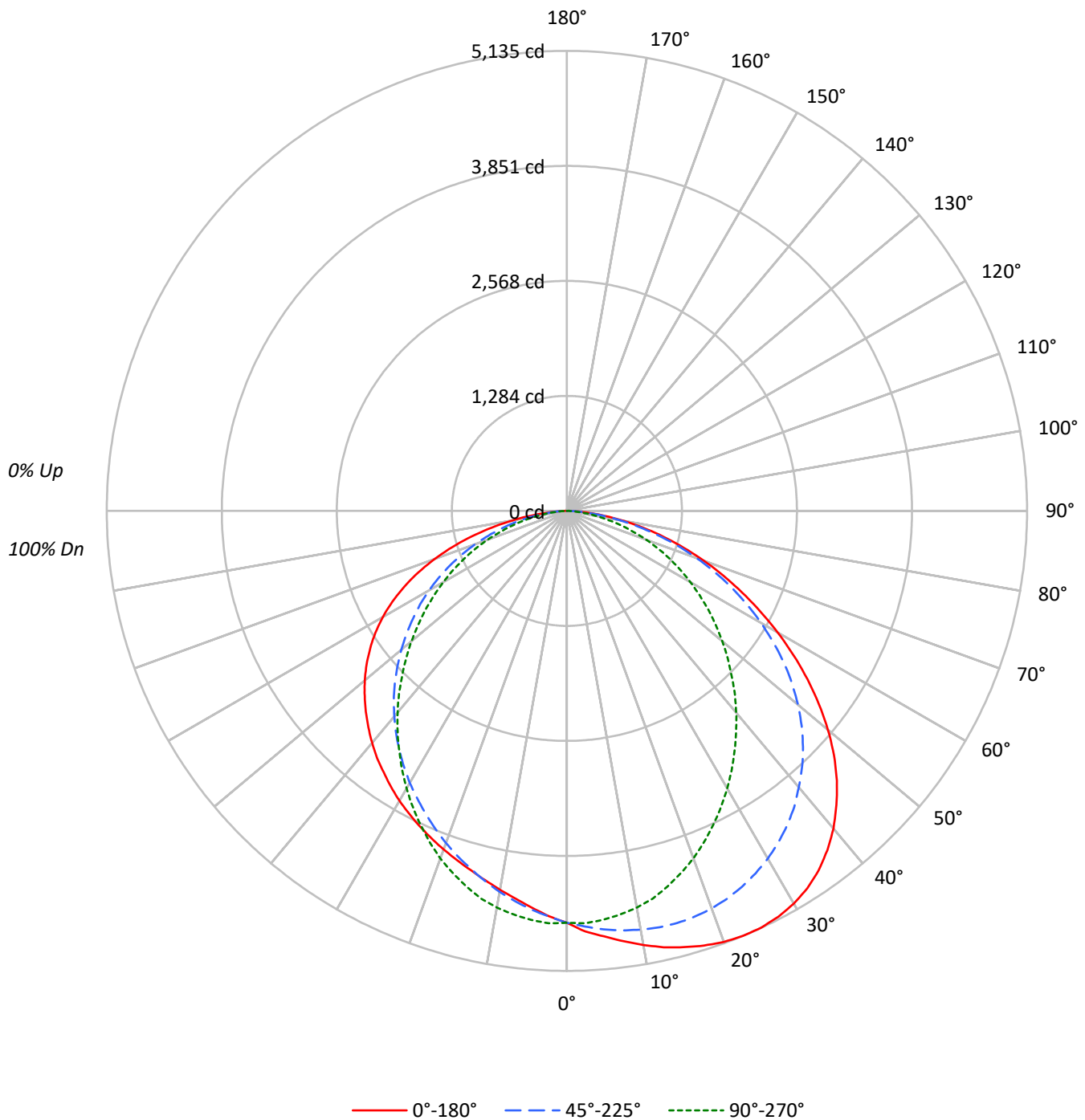
Lumens per Lamp: N/A
Luminaire Lumens: 13522.8 lumens
Efficiency: N/A
Efficacy: 102.4 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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
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°	12371	12371	12371
5°	12880	12377	12011
10°	13443	12284	11732
15°	14047	12088	11564
20°	14661	11821	11516
25°	15237	11478	11534
30°	15733	11119	11609
35°	16092	10722	11705
40°	16255	10325	11878
45°	16210	9889	12073
50°	15923	9473	12321
55°	15378	9037	12578
60°	14629	8572	12768
65°	13737	8049	12752
70°	12784	7424	12373
75°	11607	6519	11409
80°	9966	5357	9623
85°	7602	3662	6607

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	436.0	3.2
10°-20°	1259.1	9.3
20°-30°	1929.0	14.3
30°-40°	2354.0	17.4
40°-50°	2461.8	18.2
50°-60°	2228.1	16.5
60°-70°	1687.4	12.5
70°-80°	940.4	7.0
80°-90°	226.8	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°	3624.1	26.8
0°-40°	5978.1	44.2
0°-60°	10668.1	78.9
0°-90°	13522.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13522.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4597	4597	4597	4597	4597	
5°	4768	4689	4582	4470	4446	460
15°	5042	4762	4339	4137	4151	1430
25°	5132	4627	3866	3729	3885	2367
35°	4899	4285	3264	3260	3563	3059
45°	4260	3726	2598	2713	3172	3277
55°	3278	2959	1926	2096	2681	2925
65°	2157	2029	1264	1437	2003	2140
75°	1116	1054	627	749	1097	1184
85°	246	217	119	159	214	296
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°	4597.2	4597.2	4597.2	4597.2	4597.2	4597.2	4597.2	4597.2	4597.2	4597.2	4597.2
2.5°	4698.7	4676.6	4658.5	4665.5	4669.5	4655.5	4643.4	4645.4	4633.4	4656.5	4602.2
5°	4768.0	4747.9	4726.8	4734.8	4726.8	4705.7	4688.6	4683.6	4651.4	4664.5	4609.2
7.5°	4845.4	4823.3	4792.1	4801.2	4784.1	4744.9	4722.8	4709.7	4660.5	4661.5	4600.2
10°	4919.7	4900.7	4858.4	4864.5	4833.3	4781.1	4745.9	4727.8	4658.5	4648.4	4585.1
12.5°	4989.1	4963.0	4917.7	4920.7	4875.5	4806.2	4761.0	4734.8	4644.4	4614.3	4552.0
15°	5042.3	5017.2	4963.0	4961.9	4903.7	4813.2	4762.0	4725.8	4611.3	4564.0	4498.7
17.5°	5087.6	5064.4	4997.1	4995.1	4924.8	4810.2	4748.9	4703.7	4563.0	4504.7	4432.4
20°	5119.7	5096.6	5021.2	5014.2	4929.8	4795.1	4721.8	4664.5	4499.7	4430.4	4350.0
22.5°	5134.8	5111.7	5026.3	5016.2	4917.7	4765.0	4682.6	4615.3	4427.4	4336.9	4253.5
25°	5131.8	5109.7	5013.2	5003.1	4894.6	4719.8	4627.3	4550.0	4335.9	4229.4	4147.0
27.5°	5106.6	5089.6	4988.1	4975.0	4852.4	4658.5	4560.0	4474.6	4234.4	4115.9	4026.4
30°	5063.4	5050.4	4942.9	4930.8	4800.2	4591.2	4481.6	4383.2	4124.9	3991.3	3900.8
32.5°	4994.1	4982.0	4873.5	4862.5	4729.8	4504.7	4390.2	4288.7	4005.3	3857.6	3767.2
35°	4898.6	4891.6	4786.1	4774.0	4639.4	4406.3	4284.7	4173.1	3880.7	3713.9	3627.5
37.5°	4773.0	4773.0	4671.5	4658.5	4526.8	4285.7	4166.1	4047.5	3740.0	3563.2	3477.8
40°	4627.3	4640.4	4536.9	4523.8	4396.2	4156.1	4025.4	3900.8	3588.3	3404.4	3321.0
42.5°	4452.5	4464.5	4378.1	4366.1	4246.5	4006.3	3884.7	3749.1	3429.6	3242.6	3156.2
45°	4259.6	4275.6	4198.3	4189.2	4077.7	3842.5	3726.0	3588.3	3263.8	3073.8	2989.4
47.5°	4044.5	4065.6	3998.3	3993.3	3889.8	3674.7	3553.1	3413.5	3089.9	2898.0	2818.6
50°	3803.4	3833.5	3778.2	3778.2	3685.8	3471.8	3366.2	3226.6	2909.0	2717.1	2638.7
52.5°	3545.1	3583.3	3542.1	3543.1	3467.7	3275.8	3166.3	3029.6	2720.1	2531.2	2458.9
55°	3277.8	3315.0	3288.9	3292.9	3233.6	3058.8	2959.3	2823.6	2527.2	2343.3	2275.0
57.5°	2998.5	3038.7	3021.6	3029.6	2988.4	2831.7	2728.2	2609.6	2328.2	2146.4	2088.1
60°	2718.1	2756.3	2747.3	2758.3	2732.2	2596.5	2502.1	2379.5	2128.3	1953.4	1902.2
62.5°	2434.7	2469.9	2467.9	2480.0	2465.9	2353.4	2268.9	2164.4	1921.3	1760.5	1713.3
65°	2157.4	2187.6	2185.5	2198.6	2195.6	2105.2	2028.8	1933.3	1714.3	1566.6	1525.4
67.5°	1888.1	1913.2	1906.2	1921.3	1925.3	1852.9	1786.6	1701.2	1517.3	1373.6	1338.5
70°	1624.8	1641.9	1632.9	1642.9	1652.0	1597.7	1541.4	1466.1	1307.3	1180.7	1151.6
72.5°	1366.6	1378.7	1364.6	1374.6	1382.7	1343.5	1297.3	1231.9	1100.3	990.8	966.7
75°	1116.4	1133.5	1104.3	1114.4	1120.4	1081.2	1054.1	1000.8	887.3	802.9	786.8
77.5°	874.2	884.3	868.2	864.2	868.2	840.1	819.0	777.8	692.3	623.0	613.0
80°	643.1	649.1	633.1	629.0	632.1	612.0	595.9	565.7	505.4	453.2	449.2
82.5°	431.1	434.1	420.0	416.0	418.0	412.0	392.9	371.8	343.7	299.4	298.4
85°	246.2	246.2	236.1	232.1	234.1	224.1	217.0	206.0	194.9	164.8	166.8
87.5°	90.4	90.4	85.4	84.4	94.5	83.4	80.4	75.4	78.4	62.3	66.3
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°	4597.2	4597.2	4597.2	4597.2	4597.2	4597.2	4597.2	4597.2	4597.2	4597.2	4597.2
2.5°	4617.3	4607.2	4598.2	4567.0	4580.1	4547.9	4545.9	4533.9	4524.8	4507.8	4529.9
5°	4602.2	4582.1	4556.0	4518.8	4529.9	4491.7	4483.6	4469.6	4457.5	4435.4	4452.5
7.5°	4578.1	4544.9	4503.7	4456.5	4471.6	4424.4	4412.3	4397.2	4387.2	4361.0	4376.1
10°	4542.9	4495.7	4447.5	4390.2	4401.2	4350.0	4334.9	4318.8	4309.8	4286.7	4301.8
12.5°	4488.7	4431.4	4366.1	4303.8	4315.8	4267.6	4247.5	4230.4	4227.4	4208.3	4226.4
15°	4418.3	4338.9	4271.6	4205.3	4219.4	4163.1	4154.0	4137.0	4142.0	4128.9	4151.0
17.5°	4328.9	4237.4	4164.1	4092.8	4106.8	4059.6	4052.6	4044.5	4049.5	4047.5	4071.6
20°	4228.4	4127.9	4043.5	3973.2	3981.2	3944.0	3947.0	3945.0	3955.1	3966.1	3999.3
22.5°	4114.9	4001.3	3912.9	3840.5	3852.6	3820.4	3834.5	3838.5	3855.6	3880.7	3922.9
25°	3987.2	3865.7	3773.2	3704.9	3715.9	3694.8	3718.9	3729.0	3756.1	3798.3	3841.5
27.5°	3853.6	3725.0	3626.5	3561.2	3582.3	3561.2	3597.4	3617.5	3658.7	3704.9	3758.1
30°	3711.9	3578.3	3476.8	3418.5	3438.6	3419.5	3477.8	3504.9	3546.1	3609.4	3672.7
32.5°	3563.2	3422.5	3323.0	3277.8	3291.9	3288.9	3354.2	3384.3	3439.6	3511.9	3579.3
35°	3410.5	3263.8	3163.3	3125.1	3142.2	3146.2	3224.6	3259.7	3320.0	3407.4	3479.8
37.5°	3252.7	3103.0	3004.5	2973.3	2988.4	3003.5	3094.9	3130.1	3198.4	3293.9	3373.3
40°	3088.9	2939.2	2842.7	2817.6	2832.7	2848.7	2948.2	2996.5	3070.8	3174.3	3260.7
42.5°	2923.1	2773.4	2679.9	2661.8	2676.9	2708.1	2813.6	2858.8	2937.2	3051.7	3147.2
45°	2754.3	2598.5	2517.1	2503.1	2519.2	2555.3	2658.8	2713.1	2796.5	2922.1	3024.6
47.5°	2583.5	2431.7	2354.4	2345.3	2361.4	2401.6	2516.1	2565.4	2653.8	2787.5	2898.0
50°	2410.6	2262.9	2188.6	2185.5	2200.6	2243.8	2353.4	2411.6	2503.1	2652.8	2766.4
52.5°	2235.8	2094.1	2026.8	2026.8	2040.8	2085.1	2195.6	2255.9	2350.3	2508.1	2633.7
55°	2060.9	1926.3	1862.0	1867.0	1887.1	1925.3	2032.8	2096.1	2191.6	2355.4	2488.0
57.5°	1886.1	1758.5	1700.2	1707.2	1726.3	1764.5	1870.0	1941.4	2027.8	2197.6	2333.3
60°	1713.3	1592.7	1541.4	1549.5	1566.6	1604.7	1714.3	1775.6	1862.0	2034.8	2170.5
62.5°	1538.4	1428.9	1380.7	1390.7	1405.8	1444.0	1547.5	1606.8	1692.2	1862.0	1998.6
65°	1365.6	1264.1	1222.9	1233.0	1247.0	1282.2	1379.7	1436.9	1518.3	1684.1	1814.8
67.5°	1194.8	1102.3	1068.2	1078.2	1089.3	1122.4	1202.8	1265.1	1341.5	1499.2	1622.8
70°	1026.0	943.6	913.4	923.5	933.5	963.7	1034.0	1091.3	1161.6	1306.3	1420.9
72.5°	859.1	778.8	763.7	772.7	780.8	806.9	874.2	919.4	980.7	1109.4	1207.8
75°	696.4	627.0	617.0	626.0	633.1	653.2	709.4	748.6	799.9	911.4	991.8
77.5°	539.6	481.3	477.3	484.3	491.4	505.4	549.7	590.9	631.0	713.4	784.8
80°	392.9	345.7	345.7	352.7	350.7	367.8	398.9	432.1	461.2	520.5	572.8
82.5°	259.3	222.1	227.1	232.1	235.1	242.2	261.3	286.4	304.5	340.6	374.8
85°	143.7	118.6	123.6	127.6	125.6	133.6	143.7	158.8	167.8	184.9	203.0
87.5°	53.3	44.2	45.2	48.2	50.2	54.3	54.3	63.3	64.3	66.3	70.3
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°	4597.2	4597.2	4597.2
2.5°	4487.7	4511.8	4529.9
5°	4410.3	4430.4	4446.5
7.5°	4334.9	4353.0	4367.1
10°	4263.6	4283.7	4293.7
12.5°	4190.2	4213.3	4221.4
15°	4117.9	4141.0	4151.0
17.5°	4043.5	4073.7	4084.7
20°	3974.2	4012.4	4021.4
22.5°	3903.8	3943.0	3954.1
25°	3827.5	3873.7	3884.7
27.5°	3746.1	3801.3	3812.4
30°	3664.7	3725.0	3736.0
32.5°	3577.3	3642.6	3652.6
35°	3485.8	3551.1	3563.2
37.5°	3384.3	3455.7	3479.8
40°	3278.8	3356.2	3381.3
42.5°	3168.3	3252.7	3278.8
45°	3049.7	3142.2	3172.3
47.5°	2930.1	3034.6	3060.8
50°	2800.5	2912.1	2943.2
52.5°	2664.9	2786.4	2817.6
55°	2524.2	2646.8	2680.9
57.5°	2371.4	2498.1	2534.2
60°	2211.7	2338.3	2372.4
62.5°	2047.9	2162.4	2195.6
65°	1865.0	1972.5	2002.7
67.5°	1671.1	1769.5	1794.7
70°	1465.1	1550.5	1572.6
72.5°	1250.0	1309.3	1338.5
75°	1028.0	1075.2	1097.3
77.5°	804.9	838.0	856.1
80°	586.8	605.9	621.0
82.5°	383.9	391.9	402.9
85°	207.0	207.0	214.0
87.5°	70.3	67.3	70.3
90°	0.0	0.0	0.0

(END OF REPORT)