

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: P834234

Luminaire Tested: **ORLG-12-4-INS-ASY2-LD4-3HI-50-120-EDD**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P834234
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-50-120-EDD
Description: 1FT x 4FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

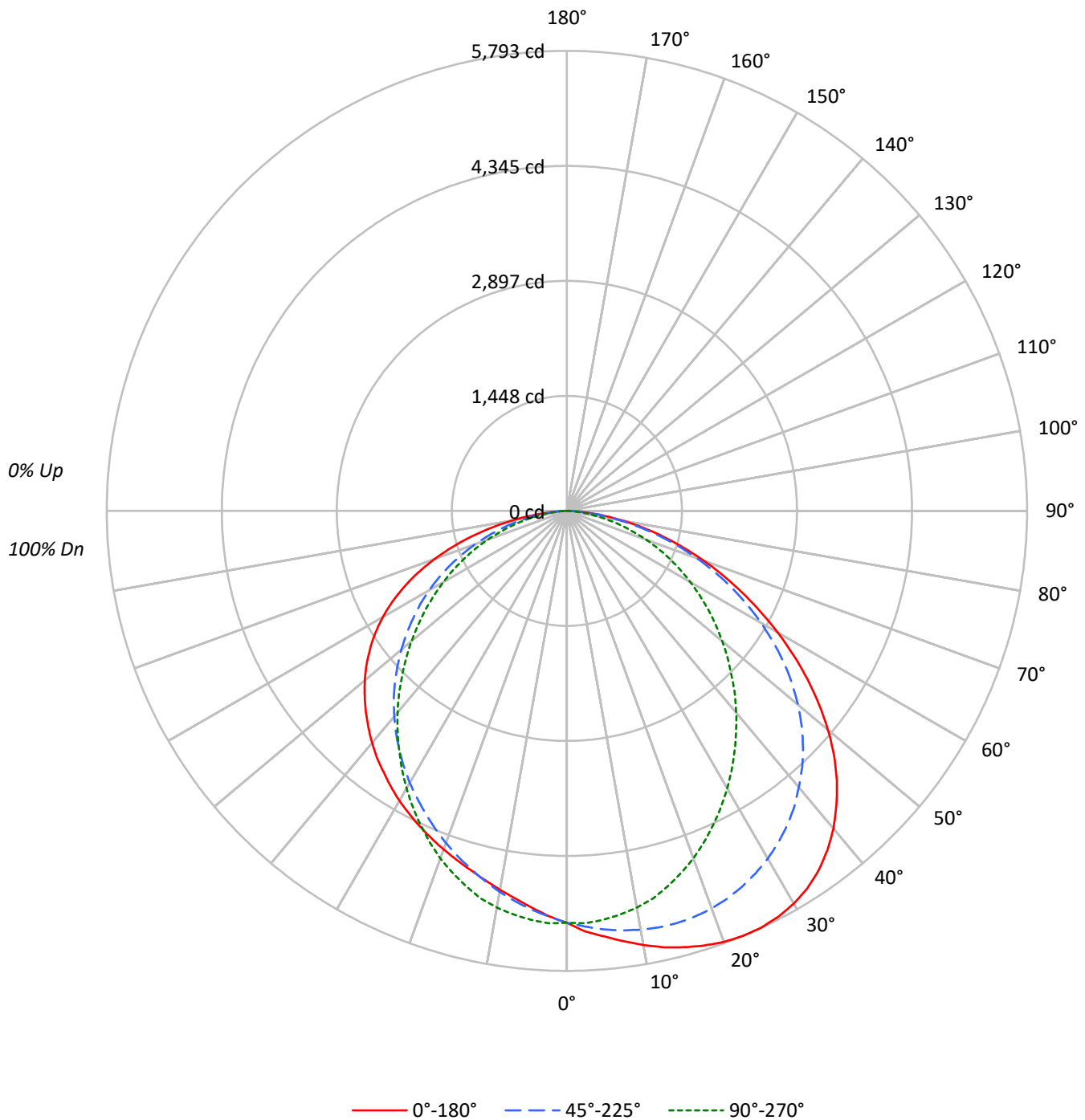
Lumens per Lamp: N/A
Luminaire Lumens: 15255.7 lumens
Efficiency: N/A
Efficacy: 115.6 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

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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°	13956	13956	13956
5°	14530	13964	13550
10°	15166	13859	13236
15°	15848	13637	13046
20°	16540	13336	12992
25°	17190	12949	13013
30°	17750	12543	13097
35°	18155	12096	13205
40°	18338	11648	13400
45°	18288	11156	13620
50°	17963	10688	13901
55°	17349	10196	14190
60°	16503	9670	14405
65°	15498	9081	14386
70°	14423	8375	13958
75°	13095	7355	12871
80°	11243	6044	10857
85°	8574	4131	7456

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	491.9	3.2
10°-20°	1420.5	9.3
20°-30°	2176.2	14.3
30°-40°	2655.7	17.4
40°-50°	2777.3	18.2
50°-60°	2513.7	16.5
60°-70°	1903.7	12.5
70°-80°	1060.9	7.0
80°-90°	255.9	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°	4088.5	26.8
0°-40°	6744.2	44.2
0°-60°	12035.2	78.9
0°-90°	15255.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	15255.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	5186	5186	5186	5186	5186	
5°	5379	5290	5169	5042	5016	519
15°	5688	5372	4895	4667	4683	1613
25°	5789	5220	4361	4207	4383	2671
35°	5526	4834	3682	3678	4020	3451
45°	4805	4204	2932	3061	3579	3697
55°	3698	3338	2173	2365	3024	3300
65°	2434	2289	1426	1621	2259	2414
75°	1260	1189	707	844	1238	1336
85°	278	245	134	179	242	334
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°	5186.3	5186.3	5186.3	5186.3	5186.3	5186.3	5186.3	5186.3	5186.3	5186.3	5186.3
2.5°	5300.8	5275.9	5255.5	5263.4	5267.9	5252.1	5238.5	5240.7	5227.1	5253.2	5192.0
5°	5379.0	5356.4	5332.6	5341.6	5332.6	5308.7	5289.5	5283.8	5247.5	5262.3	5199.9
7.5°	5466.3	5441.4	5406.2	5416.4	5397.2	5353.0	5328.0	5313.3	5257.7	5258.9	5189.7
10°	5550.2	5528.7	5481.1	5487.9	5452.7	5393.8	5354.1	5333.7	5255.5	5244.1	5172.7
12.5°	5628.4	5599.0	5547.9	5551.3	5500.3	5422.1	5371.1	5341.6	5239.6	5205.6	5135.3
15°	5688.5	5660.2	5599.0	5597.8	5532.1	5430.0	5372.2	5331.4	5202.2	5148.9	5075.2
17.5°	5739.5	5713.4	5637.5	5635.2	5555.9	5426.6	5357.5	5306.5	5147.8	5082.0	5000.4
20°	5775.8	5749.7	5664.7	5656.8	5561.5	5409.6	5326.9	5262.3	5076.4	4998.1	4907.4
22.5°	5792.8	5766.7	5670.4	5659.0	5547.9	5375.6	5282.7	5206.7	4994.7	4892.7	4798.6
25°	5789.4	5764.5	5655.6	5644.3	5521.9	5324.6	5220.3	5133.0	4891.6	4771.4	4678.5
27.5°	5761.1	5741.8	5627.3	5612.6	5474.3	5255.5	5144.4	5048.0	4777.1	4643.3	4542.4
30°	5712.3	5697.6	5576.3	5562.7	5415.3	5179.5	5055.9	4944.9	4653.5	4502.7	4400.7
32.5°	5634.1	5620.5	5498.1	5485.6	5336.0	5082.0	4952.8	4838.3	4518.6	4352.0	4249.9
35°	5526.4	5518.5	5399.4	5385.8	5233.9	4970.9	4833.8	4707.9	4378.0	4189.9	4092.4
37.5°	5384.7	5384.7	5270.2	5255.5	5107.0	4834.9	4700.0	4566.2	4219.3	4019.8	3923.5
40°	5220.3	5235.1	5118.3	5103.6	4959.6	4688.7	4541.3	4400.7	4048.2	3840.7	3746.6
42.5°	5023.1	5036.7	4939.2	4925.6	4790.7	4519.7	4382.6	4229.5	3869.0	3658.2	3560.7
45°	4805.4	4823.6	4736.3	4726.1	4600.2	4335.0	4203.5	4048.2	3682.0	3467.7	3372.5
47.5°	4562.8	4586.6	4510.7	4505.0	4388.2	4145.7	4008.5	3850.9	3485.9	3269.4	3179.8
50°	4290.8	4324.8	4262.4	4262.4	4158.1	3916.7	3797.6	3640.1	3281.8	3065.3	2976.9
52.5°	3999.4	4042.5	3996.0	3997.1	3912.1	3695.6	3572.0	3417.9	3068.7	2855.6	2774.0
55°	3697.9	3739.8	3710.3	3714.9	3648.0	3450.7	3338.5	3185.5	2851.1	2643.6	2566.5
57.5°	3382.7	3428.1	3408.8	3417.9	3371.4	3194.5	3077.8	2944.0	2626.6	2421.4	2355.7
60°	3066.4	3109.5	3099.3	3111.8	3082.3	2929.3	2822.7	2684.4	2401.0	2203.8	2145.9
62.5°	2746.8	2786.4	2784.2	2797.8	2781.9	2654.9	2559.7	2441.8	2167.5	1986.1	1932.8
65°	2433.9	2467.9	2465.6	2480.4	2477.0	2374.9	2288.8	2181.1	1934.0	1767.3	1720.8
67.5°	2130.1	2158.4	2150.5	2167.5	2172.0	2090.4	2015.6	1919.2	1711.8	1549.7	1510.0
70°	1833.1	1852.3	1842.1	1853.5	1863.7	1802.5	1739.0	1654.0	1474.8	1332.0	1299.1
72.5°	1541.7	1555.3	1539.5	1550.8	1559.9	1515.7	1463.5	1389.8	1241.3	1117.8	1090.5
75°	1259.5	1278.7	1245.8	1257.2	1264.0	1219.8	1189.2	1129.1	1001.0	905.8	887.6
77.5°	986.3	997.6	979.4	974.9	979.4	947.7	923.9	877.4	781.1	702.8	691.5
80°	725.5	732.3	714.2	709.6	713.0	690.4	672.2	638.2	570.2	511.3	506.7
82.5°	486.3	489.7	473.9	469.3	471.6	464.8	443.2	419.4	387.7	337.8	336.7
85°	277.7	277.7	266.4	261.9	264.1	252.8	244.9	232.4	219.9	185.9	188.2
87.5°	102.0	102.0	96.4	95.2	106.6	94.1	90.7	85.0	88.4	70.3	74.8
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):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	5186.3	5186.3	5186.3	5186.3	5186.3	5186.3	5186.3	5186.3	5186.3	5186.3	5186.3
2.5°	5209.0	5197.7	5187.4	5152.3	5167.0	5130.8	5128.5	5114.9	5104.7	5085.4	5110.4
5°	5192.0	5169.3	5139.8	5097.9	5110.4	5067.3	5058.2	5042.3	5028.7	5003.8	5023.1
7.5°	5164.8	5127.4	5080.9	5027.6	5044.6	4991.3	4977.7	4960.7	4949.4	4919.9	4936.9
10°	5125.1	5071.8	5017.4	4952.8	4965.3	4907.4	4890.4	4872.3	4862.1	4836.0	4853.0
12.5°	5063.9	4999.3	4925.6	4855.3	4868.9	4814.5	4791.8	4772.5	4769.1	4747.6	4768.0
15°	4984.5	4895.0	4819.0	4744.2	4760.1	4696.6	4686.4	4667.1	4672.8	4658.0	4683.0
17.5°	4883.6	4780.5	4697.7	4617.2	4633.1	4579.8	4571.9	4562.8	4568.5	4566.2	4593.4
20°	4770.3	4656.9	4561.7	4482.3	4491.4	4449.5	4452.9	4450.6	4461.9	4474.4	4511.8
22.5°	4642.2	4514.1	4414.3	4332.7	4346.3	4310.0	4325.9	4330.4	4349.7	4378.0	4425.7
25°	4498.2	4361.0	4256.7	4179.7	4192.1	4168.3	4195.5	4206.9	4237.5	4285.1	4333.8
27.5°	4347.4	4202.3	4091.2	4017.6	4041.4	4017.6	4058.4	4081.0	4127.5	4179.7	4239.7
30°	4187.6	4036.8	3922.3	3856.6	3879.3	3857.7	3923.5	3954.1	4000.5	4072.0	4143.4
32.5°	4019.8	3861.1	3748.9	3697.9	3713.7	3710.3	3784.0	3818.0	3880.4	3962.0	4038.0
35°	3847.5	3682.0	3568.6	3525.6	3544.8	3549.4	3637.8	3677.5	3745.5	3844.1	3925.7
37.5°	3669.5	3500.6	3389.5	3354.4	3371.4	3388.4	3491.6	3531.2	3608.3	3716.0	3805.6
40°	3484.8	3315.8	3207.0	3178.7	3195.7	3213.8	3326.0	3380.5	3464.3	3581.1	3678.6
42.5°	3297.7	3128.8	3023.4	3003.0	3020.0	3055.1	3174.1	3225.2	3313.6	3442.8	3550.5
45°	3107.3	2931.5	2839.7	2823.8	2842.0	2882.8	2999.6	3060.8	3154.9	3296.6	3412.2
47.5°	2914.5	2743.4	2656.1	2645.9	2664.0	2709.4	2838.6	2894.1	2993.9	3144.7	3269.4
50°	2719.6	2552.9	2469.0	2465.6	2482.6	2531.4	2654.9	2720.7	2823.8	2992.8	3120.9
52.5°	2522.3	2362.5	2286.5	2286.5	2302.4	2352.3	2477.0	2545.0	2651.5	2829.5	2971.2
55°	2325.1	2173.2	2100.6	2106.3	2128.9	2172.0	2293.3	2364.7	2472.4	2657.2	2806.8
57.5°	2127.8	1983.8	1918.1	1926.0	1947.6	1990.6	2109.7	2190.2	2287.6	2479.2	2632.3
60°	1932.8	1796.8	1739.0	1748.0	1767.3	1810.4	1934.0	2003.1	2100.6	2295.6	2448.6
62.5°	1735.6	1612.0	1557.6	1568.9	1585.9	1629.0	1745.8	1812.7	1909.0	2100.6	2254.8
65°	1540.6	1426.1	1379.6	1391.0	1406.8	1446.5	1556.5	1621.1	1712.9	1899.9	2047.3
67.5°	1347.9	1243.6	1205.0	1216.4	1228.8	1266.3	1356.9	1427.2	1513.4	1691.4	1830.8
70°	1157.4	1064.5	1030.5	1041.8	1053.1	1087.1	1166.5	1231.1	1310.5	1473.7	1602.9
72.5°	969.2	878.6	861.6	871.8	880.8	910.3	986.3	1037.3	1106.4	1251.5	1362.6
75°	785.6	707.4	696.0	706.2	714.2	736.9	800.3	844.5	902.4	1028.2	1118.9
77.5°	608.8	543.0	538.5	546.4	554.3	570.2	620.1	666.6	711.9	804.9	885.4
80°	443.2	390.0	390.0	397.9	395.6	414.9	450.0	487.5	520.3	587.2	646.2
82.5°	292.5	250.5	256.2	261.9	265.3	273.2	294.7	323.1	343.5	384.3	422.8
85°	162.1	133.8	139.4	144.0	141.7	150.8	162.1	179.1	189.3	208.6	229.0
87.5°	60.1	49.9	51.0	54.4	56.7	61.2	61.2	71.4	72.6	74.8	79.4
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°	5186.3	5186.3	5186.3
2.5°	5062.8	5090.0	5110.4
5°	4975.5	4998.1	5016.3
7.5°	4890.4	4910.8	4926.7
10°	4810.0	4832.6	4844.0
12.5°	4727.2	4753.3	4762.3
15°	4645.6	4671.7	4683.0
17.5°	4561.7	4595.7	4608.2
20°	4483.5	4526.5	4536.8
22.5°	4404.1	4448.3	4460.8
25°	4318.0	4370.1	4382.6
27.5°	4226.1	4288.5	4301.0
30°	4134.3	4202.3	4214.8
32.5°	4035.7	4109.4	4120.7
35°	3932.5	4006.2	4019.8
37.5°	3818.0	3898.5	3925.7
40°	3699.0	3786.3	3814.6
42.5°	3574.3	3669.5	3699.0
45°	3440.5	3544.8	3578.8
47.5°	3305.6	3423.5	3453.0
50°	3159.4	3285.2	3320.4
52.5°	3006.4	3143.5	3178.7
55°	2847.7	2986.0	3024.5
57.5°	2675.3	2818.2	2859.0
60°	2495.1	2637.9	2676.5
62.5°	2310.3	2439.6	2477.0
65°	2104.0	2225.3	2259.3
67.5°	1885.2	1996.3	2024.6
70°	1652.8	1749.2	1774.1
72.5°	1410.2	1477.1	1510.0
75°	1159.7	1213.0	1237.9
77.5°	908.0	945.4	965.8
80°	662.0	683.6	700.6
82.5°	433.0	442.1	454.6
85°	233.5	233.5	241.5
87.5°	79.4	76.0	79.4
90°	0.0	0.0	0.0

(END OF REPORT)