

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: P835242

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-6HI-40-120-EDD**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835242
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-40-120-EDD
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

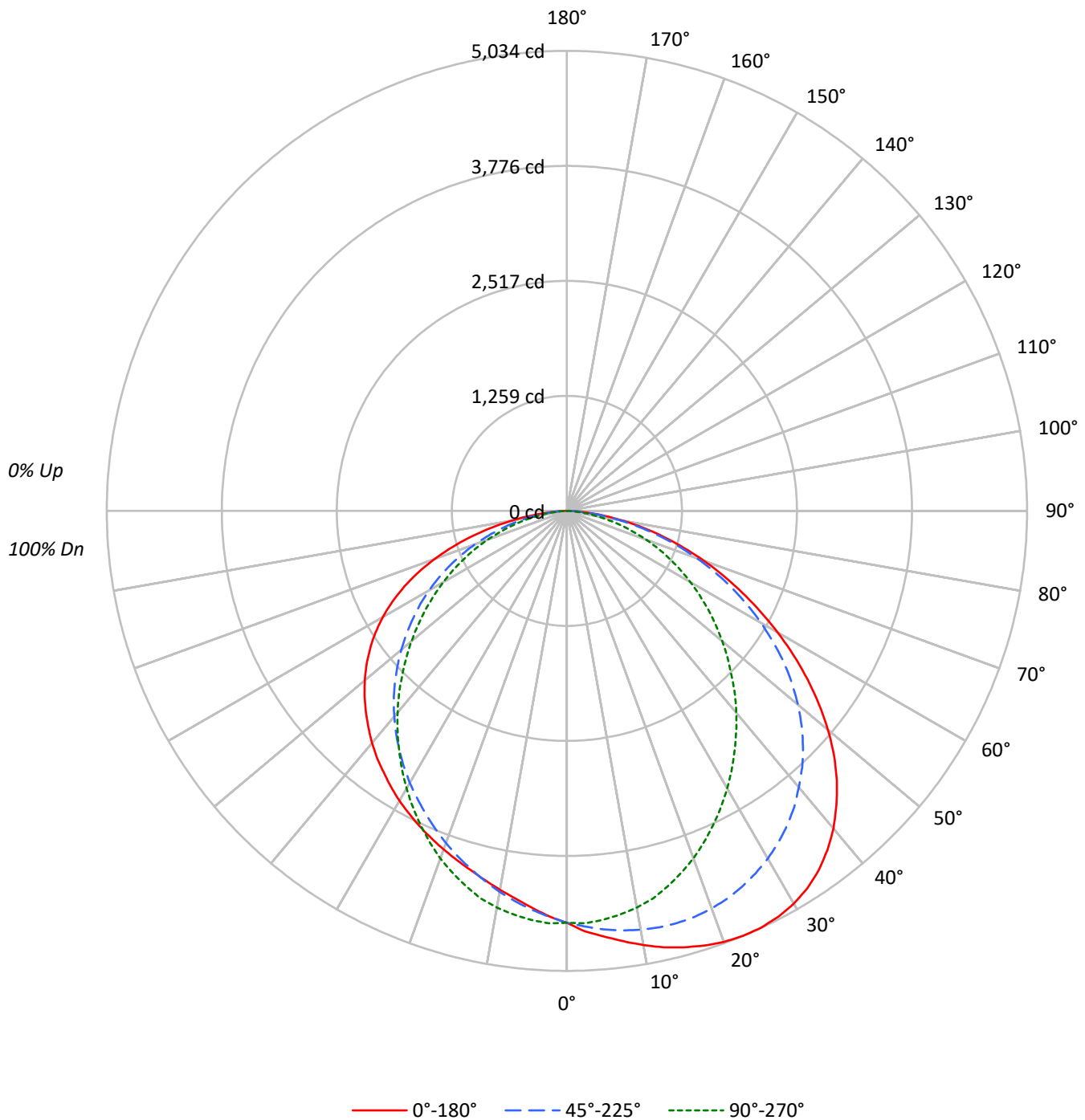
Lumens per Lamp: N/A
Luminaire Lumens: 13257.6 lumens
Efficiency: N/A
Efficacy: 100.4 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	12128	12128	12128
5°	12627	12135	11776
10°	13180	12043	11502
15°	13772	11851	11338
20°	14374	11589	11290
25°	14938	11253	11308
30°	15425	10901	11381
35°	15777	10512	11476
40°	15936	10123	11645
45°	15892	9695	11836
50°	15610	9288	12080
55°	15076	8860	12331
60°	14342	8404	12518
65°	13468	7891	12502
70°	12534	7279	12131
75°	11380	6391	11185
80°	9771	5252	9434
85°	7453	3588	6478

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	427.5	3.2
10°-20°	1234.4	9.3
20°-30°	1891.1	14.3
30°-40°	2307.9	17.4
40°-50°	2413.6	18.2
50°-60°	2184.4	16.5
60°-70°	1654.4	12.5
70°-80°	921.9	7.0
80°-90°	222.4	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°	3553.0	26.8
0°-40°	5860.9	44.2
0°-60°	10458.9	78.9
0°-90°	13257.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13257.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4507	4507	4507	4507	4507	
5°	4674	4597	4492	4382	4359	451
15°	4944	4669	4254	4056	4070	1402
25°	5031	4537	3790	3656	3809	2321
35°	4803	4201	3200	3196	3493	2999
45°	4176	3653	2548	2660	3110	3213
55°	3214	2901	1888	2055	2628	2868
65°	2115	1989	1239	1409	1963	2098
75°	1094	1033	615	734	1076	1161
85°	241	213	116	156	210	290
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°	4507.0	4507.0	4507.0	4507.0	4507.0	4507.0	4507.0	4507.0	4507.0	4507.0	4507.0
2.5°	4606.5	4584.9	4567.1	4574.0	4578.0	4564.2	4552.4	4554.3	4542.5	4565.2	4512.0
5°	4674.5	4654.8	4634.1	4642.0	4634.1	4613.4	4596.7	4591.8	4560.2	4573.0	4518.9
7.5°	4750.4	4728.7	4698.2	4707.0	4690.3	4651.9	4630.2	4617.4	4569.1	4570.1	4510.0
10°	4823.3	4804.6	4763.2	4769.1	4738.6	4687.3	4652.8	4635.1	4567.1	4557.3	4495.2
12.5°	4891.3	4865.6	4821.3	4824.3	4779.9	4712.0	4667.6	4642.0	4553.3	4523.8	4462.7
15°	4943.5	4918.8	4865.6	4864.7	4807.5	4718.9	4668.6	4633.1	4520.8	4474.5	4410.5
17.5°	4987.8	4965.1	4899.1	4897.2	4828.2	4715.9	4655.8	4611.5	4473.5	4416.4	4345.5
20°	5019.3	4996.7	4922.8	4915.9	4833.1	4701.1	4629.2	4573.0	4411.5	4343.5	4264.7
22.5°	5034.1	5011.4	4927.7	4917.9	4821.3	4671.6	4590.8	4524.8	4340.6	4251.9	4170.1
25°	5031.1	5009.5	4914.9	4905.0	4798.6	4627.2	4536.6	4460.7	4250.9	4146.5	4065.7
27.5°	5006.5	4989.8	4890.3	4877.5	4757.3	4567.1	4470.6	4386.9	4151.4	4035.2	3947.5
30°	4964.2	4951.3	4845.9	4834.1	4706.0	4501.1	4393.8	4297.2	4044.0	3913.0	3824.3
32.5°	4896.2	4884.4	4778.0	4767.1	4637.1	4416.4	4304.1	4204.6	3926.8	3782.0	3693.3
35°	4802.6	4795.7	4692.3	4680.4	4548.4	4319.9	4200.7	4091.3	3804.6	3641.1	3556.4
37.5°	4679.4	4679.4	4579.9	4567.1	4438.1	4201.6	4084.4	3968.2	3666.7	3493.3	3409.6
40°	4536.6	4549.4	4447.9	4435.1	4310.0	4074.6	3946.5	3824.3	3518.0	3337.7	3255.9
42.5°	4365.2	4377.0	4292.3	4280.5	4163.2	3927.8	3808.6	3675.6	3362.3	3179.1	3094.3
45°	4176.0	4191.8	4115.9	4107.1	3997.7	3767.2	3652.9	3518.0	3199.8	3013.6	2930.8
47.5°	3965.2	3985.9	3919.9	3915.0	3813.5	3602.7	3483.5	3346.5	3029.3	2841.2	2763.3
50°	3728.8	3758.3	3704.2	3704.2	3613.5	3403.7	3300.2	3163.3	2852.0	2663.8	2587.0
52.5°	3475.6	3513.0	3472.6	3473.6	3399.7	3211.6	3104.2	2970.2	2666.8	2481.6	2410.7
55°	3213.5	3250.0	3224.4	3228.3	3170.2	2998.8	2901.3	2768.3	2477.6	2297.4	2230.4
57.5°	2939.7	2979.1	2962.3	2970.2	2929.8	2776.1	2674.7	2558.4	2282.6	2104.3	2047.1
60°	2664.8	2702.3	2693.4	2704.2	2678.6	2545.6	2453.0	2332.8	2086.5	1915.1	1864.9
62.5°	2387.0	2421.5	2419.5	2431.3	2417.5	2307.2	2224.5	2122.0	1883.6	1726.0	1679.7
65°	2115.1	2144.7	2142.7	2155.5	2152.5	2063.9	1989.0	1895.4	1680.7	1535.8	1495.5
67.5°	1851.1	1875.7	1868.8	1883.6	1887.5	1816.6	1751.6	1667.9	1487.6	1346.7	1312.2
70°	1593.0	1609.7	1600.9	1610.7	1619.6	1566.4	1511.2	1437.3	1281.7	1157.5	1129.0
72.5°	1339.8	1351.6	1337.8	1347.7	1355.6	1317.1	1271.8	1207.8	1078.7	971.4	947.7
75°	1094.5	1111.2	1082.7	1092.5	1098.4	1060.0	1033.4	981.2	869.9	787.1	771.4
77.5°	857.1	866.9	851.2	847.2	851.2	823.6	802.9	762.5	678.8	610.8	600.9
80°	630.5	636.4	620.6	616.7	619.7	600.0	584.2	554.6	495.5	444.3	440.4
82.5°	422.6	425.6	411.8	407.9	409.8	403.9	385.2	364.5	336.9	293.6	292.6
85°	241.4	241.4	231.5	227.6	229.5	219.7	212.8	202.0	191.1	161.6	163.5
87.5°	88.7	88.7	83.7	82.8	92.6	81.8	78.8	73.9	76.8	61.1	65.0
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°	4507.0	4507.0	4507.0	4507.0	4507.0	4507.0	4507.0	4507.0	4507.0	4507.0	4507.0
2.5°	4526.7	4516.9	4508.0	4477.5	4490.3	4458.8	4456.8	4445.0	4436.1	4419.4	4441.0
5°	4512.0	4492.3	4466.7	4430.2	4441.0	4403.6	4395.7	4381.9	4370.1	4348.4	4365.2
7.5°	4488.3	4455.8	4415.4	4369.1	4383.9	4337.6	4325.8	4311.0	4301.1	4275.5	4290.3
10°	4453.8	4407.5	4360.3	4304.1	4314.9	4264.7	4249.9	4234.2	4225.3	4202.6	4217.4
12.5°	4400.6	4344.5	4280.5	4219.4	4231.2	4183.9	4164.2	4147.5	4144.5	4125.8	4143.5
15°	4331.7	4253.9	4187.9	4122.8	4136.6	4081.5	4072.6	4055.8	4060.8	4048.0	4069.6
17.5°	4244.0	4154.4	4082.4	4012.5	4026.3	3980.0	3973.1	3965.2	3970.1	3968.2	3991.8
20°	4145.5	4047.0	3964.2	3895.3	3903.1	3866.7	3869.7	3867.7	3877.5	3888.4	3920.9
22.5°	4034.2	3922.9	3836.2	3765.2	3777.1	3745.5	3759.3	3763.3	3780.0	3804.6	3846.0
25°	3909.1	3789.9	3699.2	3632.2	3643.1	3622.4	3646.0	3655.9	3682.5	3723.9	3766.2
27.5°	3778.0	3651.9	3555.4	3491.4	3512.0	3491.4	3526.8	3546.5	3586.9	3632.2	3684.4
30°	3639.1	3508.1	3408.6	3351.5	3371.2	3352.5	3409.6	3436.2	3476.6	3538.6	3600.7
32.5°	3493.3	3355.4	3257.9	3213.5	3227.3	3224.4	3288.4	3318.0	3372.2	3443.1	3509.1
35°	3343.6	3199.8	3101.2	3063.8	3080.6	3084.5	3161.3	3195.8	3254.9	3340.6	3411.6
37.5°	3188.9	3042.1	2945.6	2915.0	2929.8	2944.6	3034.3	3068.7	3135.7	3229.3	3307.1
40°	3028.3	2881.6	2787.0	2762.4	2777.1	2792.9	2890.4	2937.7	3010.6	3112.1	3196.8
42.5°	2865.8	2719.0	2627.4	2609.7	2624.4	2655.0	2758.4	2802.7	2879.6	2991.9	3085.5
45°	2700.3	2547.6	2467.8	2454.0	2469.8	2505.2	2606.7	2659.9	2741.7	2864.8	2965.3
47.5°	2532.8	2384.1	2308.2	2299.3	2315.1	2354.5	2466.8	2515.1	2601.8	2732.8	2841.2
50°	2363.4	2218.5	2145.6	2142.7	2157.5	2199.8	2307.2	2364.4	2454.0	2600.8	2712.1
52.5°	2192.0	2053.0	1987.0	1987.0	2000.8	2044.2	2152.5	2211.7	2304.3	2458.9	2582.1
55°	2020.5	1888.5	1825.5	1830.4	1850.1	1887.5	1993.0	2055.0	2148.6	2309.2	2439.2
57.5°	1849.1	1724.0	1666.9	1673.8	1692.5	1729.9	1833.4	1903.3	1988.0	2154.5	2287.5
60°	1679.7	1561.5	1511.2	1519.1	1535.8	1573.3	1680.7	1740.8	1825.5	1994.9	2127.9
62.5°	1508.3	1400.9	1353.6	1363.4	1378.2	1415.7	1517.1	1575.2	1659.0	1825.5	1959.5
65°	1338.8	1239.3	1198.9	1208.8	1222.6	1257.0	1352.6	1408.8	1488.6	1651.1	1779.2
67.5°	1171.3	1080.7	1047.2	1057.1	1067.9	1100.4	1179.2	1240.3	1315.2	1469.8	1591.0
70°	1005.8	925.1	895.5	905.3	915.2	944.8	1013.7	1069.9	1138.8	1280.7	1393.0
72.5°	842.3	763.5	748.7	757.6	765.5	791.1	857.1	901.4	961.5	1087.6	1184.1
75°	682.7	614.7	604.9	613.7	620.6	640.3	695.5	733.9	784.2	893.5	972.3
77.5°	529.0	471.9	467.9	474.8	481.7	495.5	538.9	579.3	618.7	699.5	769.4
80°	385.2	338.9	338.9	345.8	343.8	360.6	391.1	423.6	452.2	510.3	561.5
82.5°	254.2	217.7	222.6	227.6	230.5	237.4	256.1	280.8	298.5	334.0	367.5
85°	140.9	116.2	121.2	125.1	123.1	131.0	140.9	155.7	164.5	181.3	199.0
87.5°	52.2	43.3	44.3	47.3	49.3	53.2	53.2	62.1	63.0	65.0	69.0
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°	4507.0	4507.0	4507.0
2.5°	4399.7	4423.3	4441.0
5°	4323.8	4343.5	4359.3
7.5°	4249.9	4267.7	4281.4
10°	4180.0	4199.7	4209.5
12.5°	4108.1	4130.7	4138.6
15°	4037.1	4059.8	4069.6
17.5°	3964.2	3993.8	4004.6
20°	3896.3	3933.7	3942.6
22.5°	3827.3	3865.7	3876.6
25°	3752.4	3797.7	3808.6
27.5°	3672.6	3726.8	3737.6
30°	3592.8	3651.9	3662.8
32.5°	3507.1	3571.2	3581.0
35°	3417.5	3481.5	3493.3
37.5°	3318.0	3387.9	3411.6
40°	3214.5	3290.4	3315.0
42.5°	3106.2	3188.9	3214.5
45°	2989.9	3080.6	3110.1
47.5°	2872.7	2975.1	3000.8
50°	2745.6	2855.0	2885.5
52.5°	2612.6	2731.8	2762.4
55°	2474.7	2594.9	2628.4
57.5°	2324.9	2449.1	2484.5
60°	2168.3	2292.4	2325.9
62.5°	2007.7	2120.0	2152.5
65°	1828.4	1933.8	1963.4
67.5°	1638.3	1734.8	1759.5
70°	1436.3	1520.1	1541.8
72.5°	1225.5	1283.6	1312.2
75°	1007.8	1054.1	1075.8
77.5°	789.1	821.6	839.3
80°	575.3	594.0	608.8
82.5°	376.3	384.2	395.0
85°	202.9	202.9	209.8
87.5°	69.0	66.0	69.0
90°	0.0	0.0	0.0

(END OF REPORT)