

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: P835257

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-5HI-50-120-EDD**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835257
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-LD4-5HI-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

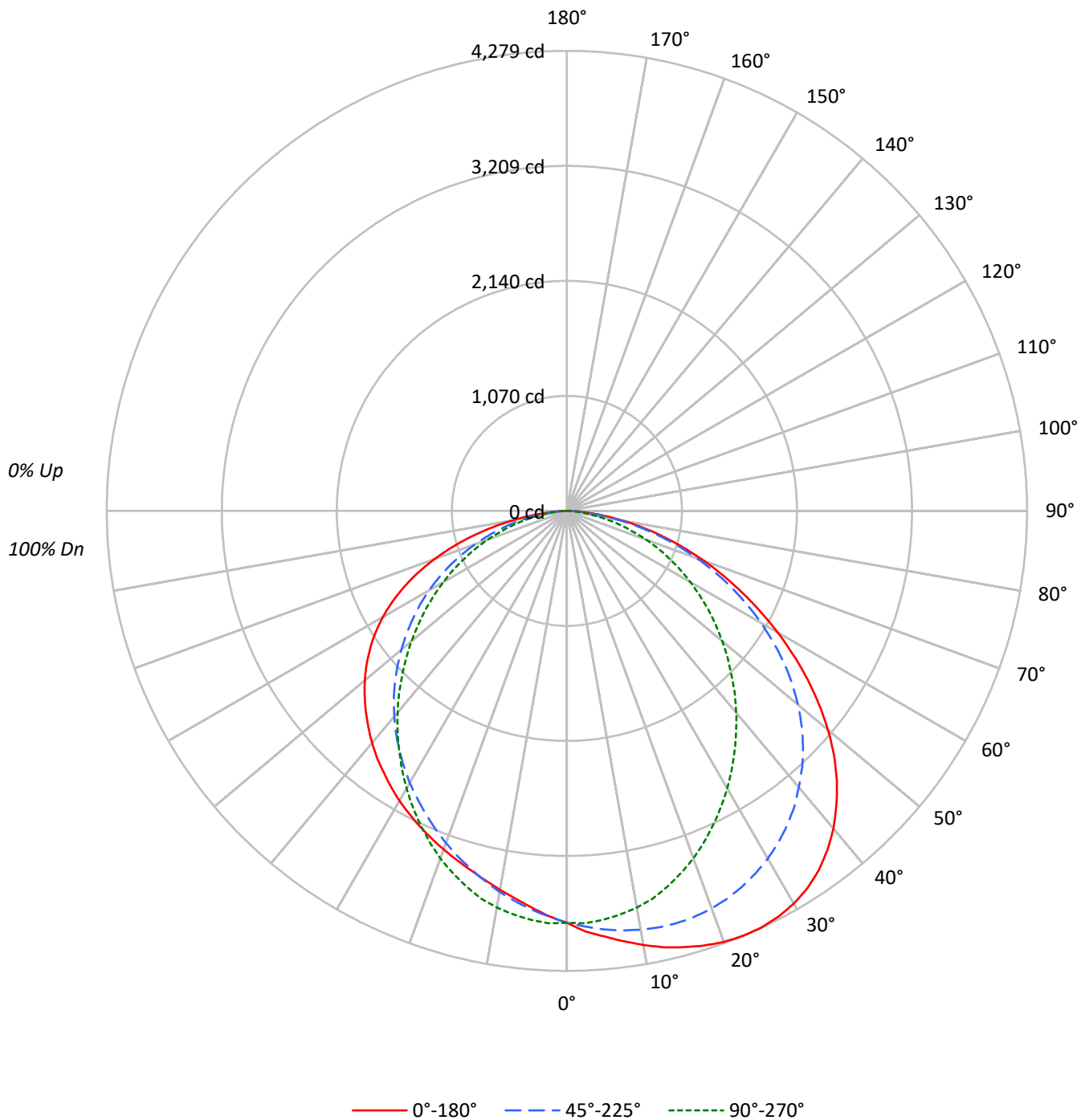
Lumens per Lamp: N/A
Luminaire Lumens: 11268.6 lumens
Efficiency: N/A
Efficacy: 102.4 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 110
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°	10309	10309	10309
5°	10733	10314	10009
10°	11202	10237	9777
15°	11706	10073	9637
20°	12217	9850	9596
25°	12697	9565	9612
30°	13111	9265	9674
35°	13410	8934	9754
40°	13545	8604	9898
45°	13508	8241	10060
50°	13268	7894	10268
55°	12815	7531	10481
60°	12190	7143	10640
65°	11447	6707	10626
70°	10653	6187	10310
75°	9672	5433	9507
80°	8305	4463	8020
85°	6336	3051	5508

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	363.3	3.2
10°-20°	1049.2	9.3
20°-30°	1607.4	14.3
30°-40°	1961.6	17.4
40°-50°	2051.5	18.2
50°-60°	1856.7	16.5
60°-70°	1406.2	12.5
70°-80°	783.6	7.0
80°-90°	189.0	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°	3020.0	26.8
0°-40°	4981.6	44.2
0°-60°	8889.8	78.9
0°-90°	11268.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11268.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3831	3831	3831	3831	3831	
5°	3973	3907	3818	3724	3705	383
15°	4202	3968	3616	3447	3459	1192
25°	4276	3856	3221	3107	3237	1973
35°	4082	3570	2720	2716	2969	2549
45°	3550	3105	2165	2261	2644	2731
55°	2731	2466	1605	1747	2234	2437
65°	1798	1691	1053	1197	1669	1783
75°	930	878	522	624	914	987
85°	205	181	99	132	178	247
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°	3830.9	3830.9	3830.9	3830.9	3830.9	3830.9	3830.9	3830.9	3830.9	3830.9	3830.9
2.5°	3915.4	3897.0	3881.9	3887.8	3891.2	3879.4	3869.4	3871.1	3861.0	3880.3	3835.0
5°	3973.2	3956.5	3938.9	3945.6	3938.9	3921.3	3907.1	3902.9	3876.1	3887.0	3840.9
7.5°	4037.7	4019.3	3993.3	4000.8	3986.6	3954.0	3935.5	3924.6	3883.6	3884.5	3833.4
10°	4099.7	4083.7	4048.6	4053.6	4027.6	3984.1	3954.8	3939.7	3881.9	3873.6	3820.8
12.5°	4157.4	4135.7	4098.0	4100.5	4062.8	4005.0	3967.4	3945.6	3870.2	3845.1	3793.2
15°	4201.8	4180.9	4135.7	4134.8	4086.3	4010.9	3968.2	3938.0	3842.6	3803.2	3748.8
17.5°	4239.5	4220.2	4164.1	4162.5	4103.8	4008.4	3957.3	3919.6	3802.4	3753.8	3693.5
20°	4266.3	4247.0	4184.2	4178.4	4108.0	3995.8	3934.7	3887.0	3749.6	3691.9	3624.9
22.5°	4278.8	4259.6	4188.4	4180.0	4098.0	3970.7	3902.0	3845.9	3689.4	3614.0	3544.5
25°	4276.3	4257.9	4177.5	4169.2	4078.7	3933.0	3856.0	3791.5	3613.2	3524.4	3455.7
27.5°	4255.4	4241.2	4156.6	4145.7	4043.5	3881.9	3799.9	3728.7	3528.6	3429.8	3355.2
30°	4219.4	4208.5	4118.9	4108.9	4000.0	3825.8	3734.6	3652.5	3437.3	3325.9	3250.6
32.5°	4161.6	4151.6	4061.1	4051.9	3941.4	3753.8	3658.4	3573.8	3337.7	3214.6	3139.2
35°	4082.1	4076.2	3988.3	3978.2	3866.0	3671.8	3570.4	3477.5	3233.8	3094.8	3022.8
37.5°	3977.4	3977.4	3892.8	3881.9	3772.2	3571.3	3471.6	3372.8	3116.6	2969.2	2898.1
40°	3856.0	3866.9	3780.6	3769.7	3663.4	3463.3	3354.4	3250.6	2990.2	2836.9	2767.4
42.5°	3710.3	3720.3	3648.3	3638.3	3538.6	3338.5	3237.2	3124.1	2857.9	2702.1	2630.1
45°	3549.5	3562.9	3498.4	3490.9	3398.0	3202.0	3104.9	2990.2	2719.7	2561.4	2491.1
47.5°	3370.3	3387.9	3331.8	3327.6	3241.4	3062.2	2960.9	2844.5	2574.8	2414.9	2348.8
50°	3169.4	3194.5	3148.4	3148.4	3071.4	2893.0	2805.1	2688.7	2424.1	2264.2	2198.9
52.5°	2954.2	2986.0	2951.6	2952.5	2889.7	2729.8	2638.5	2524.6	2266.7	2109.3	2049.0
55°	2731.4	2762.4	2740.6	2744.0	2694.6	2548.9	2466.0	2352.9	2105.9	1952.7	1895.8
57.5°	2498.6	2532.1	2517.9	2524.6	2490.3	2359.6	2273.4	2174.6	1940.1	1788.6	1740.0
60°	2265.0	2296.8	2289.3	2298.5	2276.7	2163.7	2085.0	1982.8	1773.5	1627.8	1585.1
62.5°	2028.9	2058.2	2056.5	2066.6	2054.8	1961.1	1890.7	1803.6	1601.0	1467.0	1427.7
65°	1797.8	1822.9	1821.2	1832.1	1829.6	1754.2	1690.6	1611.1	1428.5	1305.4	1271.1
67.5°	1573.4	1594.3	1588.4	1601.0	1604.4	1544.1	1488.8	1417.6	1264.4	1144.7	1115.3
70°	1354.0	1368.2	1360.7	1369.1	1376.6	1331.4	1284.5	1221.7	1089.4	983.9	959.6
72.5°	1138.8	1148.8	1137.1	1145.5	1152.2	1119.5	1081.0	1026.6	916.9	825.6	805.5
75°	930.3	944.5	920.2	928.6	933.6	901.0	878.4	834.0	739.4	669.0	655.6
77.5°	728.5	736.9	723.5	720.1	723.5	700.0	682.4	648.1	576.9	519.2	510.8
80°	535.9	540.9	527.5	524.2	526.7	509.9	496.5	471.4	421.2	377.6	374.3
82.5°	359.2	361.7	350.0	346.7	348.3	343.3	327.4	309.8	286.4	249.5	248.7
85°	205.2	205.2	196.8	193.4	195.1	186.7	180.9	171.7	162.4	137.3	139.0
87.5°	75.4	75.4	71.2	70.3	78.7	69.5	67.0	62.8	65.3	51.9	55.3
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°	3830.9	3830.9	3830.9	3830.9	3830.9	3830.9	3830.9	3830.9	3830.9	3830.9	3830.9
2.5°	3847.6	3839.2	3831.7	3805.7	3816.6	3789.8	3788.2	3778.1	3770.6	3756.3	3774.8
5°	3835.0	3818.3	3796.5	3765.5	3774.8	3742.9	3736.2	3724.5	3714.5	3696.0	3710.3
7.5°	3815.0	3787.3	3753.0	3713.6	3726.2	3686.8	3676.8	3664.2	3655.9	3634.1	3646.6
10°	3785.6	3746.3	3706.1	3658.4	3667.6	3624.9	3612.3	3598.9	3591.4	3572.1	3584.7
12.5°	3740.4	3692.7	3638.3	3586.4	3596.4	3556.2	3539.5	3525.2	3522.7	3506.8	3521.9
15°	3681.8	3615.7	3559.6	3504.3	3516.0	3469.1	3461.6	3447.4	3451.5	3440.7	3459.1
17.5°	3607.3	3531.1	3470.0	3410.5	3422.2	3382.9	3377.0	3370.3	3374.5	3372.8	3392.9
20°	3523.6	3439.8	3369.5	3310.9	3317.6	3286.6	3289.1	3287.4	3295.8	3305.0	3332.6
22.5°	3428.9	3334.3	3260.6	3200.3	3210.4	3183.6	3195.3	3198.7	3212.9	3233.8	3269.0
25°	3322.6	3221.3	3144.2	3087.3	3096.5	3078.9	3099.0	3107.4	3130.0	3165.2	3201.2
27.5°	3211.2	3104.0	3022.0	2967.6	2985.1	2967.6	2997.7	3014.4	3048.8	3087.3	3131.7
30°	3093.2	2981.8	2897.2	2848.7	2865.4	2849.5	2898.1	2920.7	2955.0	3007.8	3060.5
32.5°	2969.2	2852.0	2769.1	2731.4	2743.1	2740.6	2795.1	2820.2	2866.2	2926.5	2982.6
35°	2842.0	2719.7	2636.0	2604.1	2618.4	2621.7	2687.0	2716.4	2766.6	2839.4	2899.7
37.5°	2710.5	2585.7	2503.7	2477.7	2490.3	2502.8	2579.0	2608.3	2665.3	2744.8	2811.0
40°	2574.0	2449.2	2368.9	2347.9	2360.5	2373.9	2456.8	2497.0	2558.9	2645.2	2717.2
42.5°	2435.8	2311.1	2233.2	2218.1	2230.7	2256.7	2344.6	2382.3	2447.6	2543.0	2622.6
45°	2295.2	2165.4	2097.6	2085.8	2099.2	2129.4	2215.6	2260.8	2330.3	2435.0	2520.4
47.5°	2152.8	2026.4	1961.9	1954.4	1967.8	2001.3	2096.7	2137.7	2211.4	2322.8	2414.9
50°	2008.8	1885.7	1823.7	1821.2	1833.8	1869.8	1961.1	2009.6	2085.8	2210.6	2305.2
52.5°	1863.1	1745.0	1688.9	1688.9	1700.7	1737.5	1829.6	1879.8	1958.6	2090.0	2194.7
55°	1717.4	1605.2	1551.6	1555.8	1572.5	1604.4	1694.0	1746.7	1826.3	1962.7	2073.3
57.5°	1571.7	1465.4	1416.8	1422.7	1438.6	1470.4	1558.3	1617.8	1689.8	1831.3	1944.3
60°	1427.7	1327.2	1284.5	1291.2	1305.4	1337.2	1428.5	1479.6	1551.6	1695.6	1808.7
62.5°	1282.0	1190.7	1150.5	1158.9	1171.4	1203.3	1289.5	1338.9	1410.1	1551.6	1665.5
65°	1138.0	1053.4	1019.1	1027.4	1039.1	1068.5	1149.7	1197.4	1265.2	1403.4	1512.2
67.5°	995.6	918.6	890.1	898.5	907.7	935.3	1002.3	1054.2	1117.9	1249.3	1352.3
70°	854.9	786.3	761.1	769.5	777.9	803.0	861.6	909.4	968.0	1088.6	1184.0
72.5°	715.9	648.9	636.4	643.9	650.6	672.4	728.5	766.2	817.3	924.4	1006.5
75°	580.3	522.5	514.1	521.7	527.5	544.3	591.2	623.8	666.5	759.5	826.5
77.5°	449.7	401.1	397.7	403.6	409.5	421.2	458.0	492.4	525.9	594.5	654.0
80°	327.4	288.0	288.0	293.9	292.2	306.5	332.4	360.1	384.3	433.7	477.3
82.5°	216.0	185.1	189.2	193.4	195.9	201.8	217.7	238.6	253.7	283.9	312.3
85°	119.7	98.8	103.0	106.3	104.7	111.4	119.7	132.3	139.8	154.1	169.1
87.5°	44.4	36.8	37.7	40.2	41.9	45.2	45.2	52.8	53.6	55.3	58.6
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°	3830.9	3830.9	3830.9
2.5°	3739.6	3759.7	3774.8
5°	3675.1	3691.9	3705.3
7.5°	3612.3	3627.4	3639.1
10°	3552.9	3569.6	3578.0
12.5°	3491.7	3511.0	3517.7
15°	3431.4	3450.7	3459.1
17.5°	3369.5	3394.6	3403.8
20°	3311.7	3343.5	3351.1
22.5°	3253.1	3285.7	3295.0
25°	3189.5	3228.0	3237.2
27.5°	3121.6	3167.7	3176.9
30°	3053.8	3104.0	3113.3
32.5°	2981.0	3035.4	3043.8
35°	2904.8	2959.2	2969.2
37.5°	2820.2	2879.6	2899.7
40°	2732.3	2796.7	2817.7
42.5°	2640.2	2710.5	2732.3
45°	2541.3	2618.4	2643.5
47.5°	2441.7	2528.8	2550.6
50°	2333.7	2426.6	2452.6
52.5°	2220.6	2322.0	2347.9
55°	2103.4	2205.6	2234.0
57.5°	1976.1	2081.6	2111.8
60°	1843.0	1948.5	1977.0
62.5°	1706.5	1802.0	1829.6
65°	1554.1	1643.7	1668.8
67.5°	1392.5	1474.6	1495.5
70°	1220.9	1292.0	1310.4
72.5°	1041.7	1091.1	1115.3
75°	856.6	896.0	914.4
77.5°	670.7	698.3	713.4
80°	489.0	504.9	517.5
82.5°	319.9	326.6	335.8
85°	172.5	172.5	178.4
87.5°	58.6	56.1	58.6
90°	0.0	0.0	0.0

(END OF REPORT)