

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: P835241

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

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835241
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-LD4-6STD-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

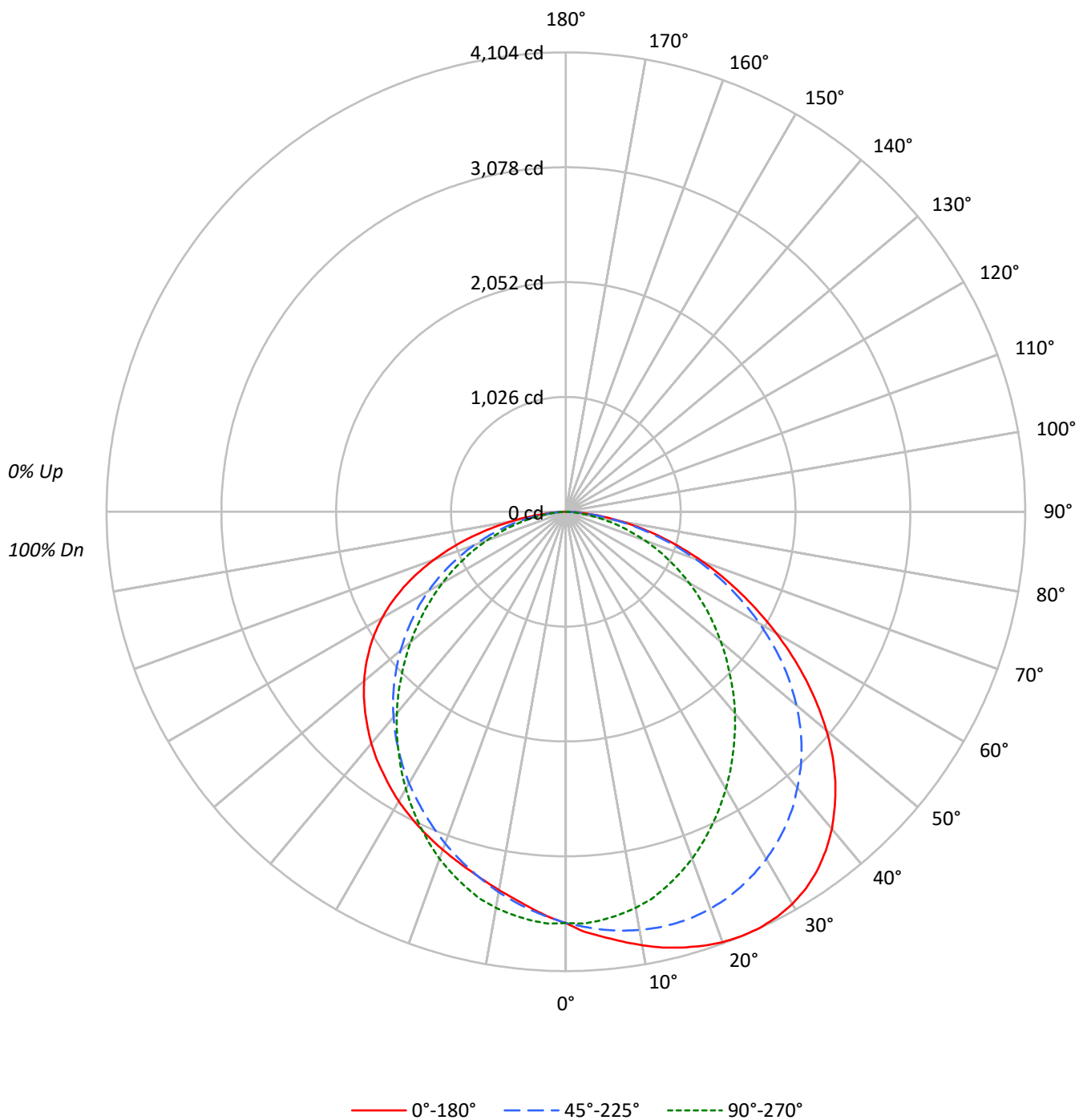
Lumens per Lamp: N/A
Luminaire Lumens: 10808.4 lumens
Efficiency: N/A
Efficacy: 108.2 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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

TEST NUMBER: P835241

CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-6STD-40-120-EDD

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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	94	91	88	90	88	86	86	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	72	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	61	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	52	52	50
5	76	63	54	47	73	61	53	47	59	52	46	57	51	46	55	50	45	45	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	40	40	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	35	35	33
8	60	46	38	32	59	46	38	32	44	37	32	43	36	31	42	36	31	31	31	29
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	28	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	26	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	9888	9888	9888
5°	10294	9893	9600
10°	10745	9819	9378
15°	11228	9662	9243
20°	11718	9448	9204
25°	12179	9174	9219
30°	12575	8887	9279
35°	12862	8569	9356
40°	12992	8252	9494
45°	12957	7904	9649
50°	12726	7572	9848
55°	12291	7223	10053
60°	11692	6851	10205
65°	10980	6434	10192
70°	10218	5934	9889
75°	9277	5211	9118
80°	7965	4282	7691
85°	6076	2927	5283

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

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Peachtree City, GA 30269



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CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-6STD-40-120-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	348.5	3.2
10°-20°	1006.4	9.3
20°-30°	1541.8	14.3
30°-40°	1881.5	17.4
40°-50°	1967.7	18.2
50°-60°	1780.9	16.5
60°-70°	1348.7	12.5
70°-80°	751.6	7.0
80°-90°	181.3	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°	2896.6	26.8
0°-40°	4778.2	44.2
0°-60°	8526.7	78.9
0°-90°	10808.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10808.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3674	3674	3674	3674	3674	
5°	3811	3748	3662	3572	3554	367
15°	4030	3806	3468	3307	3318	1143
25°	4102	3698	3090	2980	3105	1892
35°	3915	3425	2609	2605	2848	2445
45°	3405	2978	2077	2168	2536	2619
55°	2620	2365	1540	1675	2143	2338
65°	1724	1622	1010	1148	1601	1710
75°	892	842	501	598	877	946
85°	197	174	95	127	171	237
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°	3674.4	3674.4	3674.4	3674.4	3674.4	3674.4	3674.4	3674.4	3674.4	3674.4	3674.4
2.5°	3755.5	3737.9	3723.4	3729.0	3732.2	3721.0	3711.4	3713.0	3703.3	3721.8	3678.4
5°	3810.9	3794.9	3778.0	3784.4	3778.0	3761.2	3747.5	3743.5	3717.8	3728.2	3684.1
7.5°	3872.8	3855.1	3830.2	3837.5	3823.8	3792.5	3774.8	3764.4	3725.0	3725.8	3676.8
10°	3932.2	3917.0	3883.2	3888.1	3863.2	3821.4	3793.3	3778.8	3723.4	3715.4	3664.8
12.5°	3987.6	3966.8	3930.6	3933.0	3896.9	3841.5	3805.3	3784.4	3712.2	3688.1	3638.3
15°	4030.2	4010.1	3966.8	3966.0	3919.4	3847.1	3806.1	3777.2	3685.7	3647.9	3595.7
17.5°	4066.4	4047.9	3994.1	3992.5	3936.2	3844.7	3795.7	3759.5	3647.1	3600.5	3542.7
20°	4092.1	4073.6	4013.3	4007.7	3940.3	3832.6	3774.0	3728.2	3596.5	3541.1	3476.8
22.5°	4104.1	4085.6	4017.4	4009.3	3930.6	3808.5	3742.7	3688.9	3538.7	3466.4	3399.7
25°	4101.7	4084.0	4006.9	3998.9	3912.1	3772.4	3698.5	3636.7	3465.6	3380.5	3314.6
27.5°	4081.6	4068.0	3986.8	3976.4	3878.4	3723.4	3644.7	3576.4	3384.5	3289.7	3218.2
30°	4047.1	4036.6	3950.7	3941.1	3836.6	3669.6	3582.1	3503.3	3296.9	3190.1	3117.8
32.5°	3991.7	3982.0	3895.3	3886.4	3780.4	3600.5	3509.0	3427.8	3201.4	3083.3	3011.0
35°	3915.4	3909.7	3825.4	3815.8	3708.1	3521.8	3424.6	3335.5	3101.8	2968.4	2899.4
37.5°	3815.0	3815.0	3733.8	3723.4	3618.2	3425.4	3329.9	3235.1	2989.3	2848.0	2779.7
40°	3698.5	3708.9	3626.2	3615.8	3513.8	3321.8	3217.4	3117.8	2868.1	2721.1	2654.4
42.5°	3558.8	3568.4	3499.3	3489.7	3394.1	3202.2	3105.0	2996.6	2741.2	2591.8	2522.7
45°	3404.6	3417.4	3355.6	3348.3	3259.2	3071.2	2978.1	2868.1	2608.6	2456.8	2389.4
47.5°	3232.7	3249.5	3195.7	3191.7	3109.0	2937.1	2839.9	2728.3	2469.7	2316.3	2252.8
50°	3039.9	3064.0	3019.8	3019.8	2946.0	2774.9	2690.6	2578.9	2325.1	2171.7	2109.1
52.5°	2833.5	2864.0	2831.1	2831.9	2771.7	2618.3	2530.7	2421.5	2174.1	2023.1	1965.3
55°	2619.9	2649.6	2628.7	2631.9	2584.5	2444.8	2365.3	2256.9	2019.9	1872.9	1818.3
57.5°	2396.6	2428.7	2415.1	2421.5	2388.6	2263.3	2180.6	2085.8	1860.9	1715.5	1668.9
60°	2172.5	2203.0	2195.8	2204.6	2183.8	2075.3	1999.8	1901.9	1701.1	1561.3	1520.4
62.5°	1946.0	1974.1	1972.5	1982.2	1970.9	1881.0	1813.5	1730.0	1535.6	1407.1	1369.4
65°	1724.4	1748.5	1746.9	1757.3	1754.9	1682.6	1621.6	1545.3	1370.2	1252.1	1219.2
67.5°	1509.1	1529.2	1523.6	1535.6	1538.8	1481.0	1428.0	1359.7	1212.8	1097.9	1069.8
70°	1298.7	1312.3	1305.1	1313.2	1320.4	1277.0	1232.0	1171.8	1044.9	943.7	920.4
72.5°	1092.3	1101.9	1090.7	1098.7	1105.1	1073.8	1036.9	984.7	879.4	791.9	772.6
75°	892.3	906.0	882.7	890.7	895.5	864.2	842.5	799.9	709.2	641.7	628.9
77.5°	698.7	706.8	693.9	690.7	693.9	671.4	654.6	621.6	553.4	498.0	489.9
80°	514.0	518.8	506.0	502.8	505.2	489.1	476.3	452.2	404.0	362.2	359.0
82.5°	344.6	347.0	335.7	332.5	334.1	329.3	314.0	297.2	274.7	239.3	238.5
85°	196.8	196.8	188.7	185.5	187.1	179.1	173.5	164.6	155.8	131.7	133.3
87.5°	72.3	72.3	68.3	67.5	75.5	66.7	64.3	60.2	62.6	49.8	53.0
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°	3674.4	3674.4	3674.4	3674.4	3674.4	3674.4	3674.4	3674.4	3674.4	3674.4	3674.4
2.5°	3690.5	3682.4	3675.2	3650.3	3660.8	3635.1	3633.5	3623.8	3616.6	3602.9	3620.6
5°	3678.4	3662.4	3641.5	3611.8	3620.6	3590.1	3583.7	3572.4	3562.8	3545.1	3558.8
7.5°	3659.2	3632.6	3599.7	3562.0	3574.0	3536.3	3526.6	3514.6	3506.6	3485.7	3497.7
10°	3631.0	3593.3	3554.7	3509.0	3517.8	3476.8	3464.8	3451.9	3444.7	3426.2	3438.3
12.5°	3587.7	3541.9	3489.7	3439.9	3449.5	3411.0	3394.9	3381.3	3378.9	3363.6	3378.1
15°	3531.5	3468.0	3414.2	3361.2	3372.4	3327.5	3320.2	3306.6	3310.6	3300.1	3317.8
17.5°	3460.0	3386.9	3328.3	3271.2	3282.5	3244.7	3239.1	3232.7	3236.7	3235.1	3254.4
20°	3379.7	3299.3	3231.9	3175.7	3182.1	3152.4	3154.8	3153.2	3161.2	3170.0	3196.5
22.5°	3288.9	3198.1	3127.5	3069.6	3079.3	3053.6	3064.8	3068.0	3081.7	3101.8	3135.5
25°	3186.9	3089.7	3015.8	2961.2	2970.1	2953.2	2972.5	2980.5	3002.2	3035.9	3070.4
27.5°	3080.1	2977.3	2898.6	2846.4	2863.2	2846.4	2875.3	2891.3	2924.3	2961.2	3003.8
30°	2966.8	2860.0	2778.9	2732.3	2748.4	2733.1	2779.7	2801.4	2834.3	2884.9	2935.5
32.5°	2848.0	2735.5	2656.0	2619.9	2631.1	2628.7	2680.9	2705.0	2749.2	2807.0	2860.8
35°	2725.9	2608.6	2528.3	2497.8	2511.5	2514.7	2577.3	2605.4	2653.6	2723.5	2781.3
37.5°	2599.8	2480.1	2401.4	2376.5	2388.6	2400.6	2473.7	2501.8	2556.4	2632.7	2696.2
40°	2468.9	2349.2	2272.1	2252.0	2264.1	2276.9	2356.4	2395.0	2454.4	2537.2	2606.2
42.5°	2336.4	2216.7	2142.0	2127.5	2139.6	2164.5	2248.8	2285.0	2347.6	2439.2	2515.5
45°	2201.4	2076.9	2011.9	2000.6	2013.5	2042.4	2125.1	2168.5	2235.2	2335.6	2417.5
47.5°	2064.9	1943.6	1881.8	1874.6	1887.4	1919.5	2011.1	2050.4	2121.1	2227.9	2316.3
50°	1926.8	1808.7	1749.3	1746.9	1758.9	1793.4	1881.0	1927.6	2000.6	2120.3	2211.1
52.5°	1787.0	1673.8	1620.0	1620.0	1631.2	1666.5	1754.9	1803.1	1878.6	2004.7	2105.1
55°	1647.3	1539.6	1488.2	1492.3	1508.3	1538.8	1624.8	1675.4	1751.7	1882.6	1988.6
57.5°	1507.5	1405.5	1358.9	1364.6	1379.8	1410.3	1494.7	1551.7	1620.8	1756.5	1864.9
60°	1369.4	1273.0	1232.0	1238.5	1252.1	1282.6	1370.2	1419.2	1488.2	1626.4	1734.8
62.5°	1229.6	1142.1	1103.5	1111.6	1123.6	1154.1	1236.9	1284.2	1352.5	1488.2	1597.5
65°	1091.5	1010.4	977.4	985.5	996.7	1024.8	1102.7	1148.5	1213.6	1346.1	1450.5
67.5°	954.9	881.1	853.7	861.8	870.6	897.1	961.4	1011.2	1072.2	1198.3	1297.1
70°	820.0	754.2	730.1	738.1	746.1	770.2	826.4	872.2	928.4	1044.1	1135.7
72.5°	686.7	622.4	610.4	617.6	624.0	644.9	698.7	734.9	783.9	886.7	965.4
75°	556.6	501.2	493.1	500.4	506.0	522.0	567.0	598.3	639.3	728.5	792.7
77.5°	431.3	384.7	381.5	387.1	392.7	404.0	439.3	472.3	504.4	570.2	627.3
80°	314.0	276.3	276.3	281.9	280.3	294.0	318.9	345.4	368.6	416.0	457.8
82.5°	207.2	177.5	181.5	185.5	187.9	193.6	208.8	228.9	243.4	272.3	299.6
85°	114.9	94.8	98.8	102.0	100.4	106.8	114.9	126.9	134.1	147.8	162.2
87.5°	42.6	35.3	36.1	38.6	40.2	43.4	43.4	50.6	51.4	53.0	56.2
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°	3674.4	3674.4	3674.4
2.5°	3586.9	3606.1	3620.6
5°	3525.0	3541.1	3553.9
7.5°	3464.8	3479.2	3490.5
10°	3407.8	3423.8	3431.9
12.5°	3349.1	3367.6	3374.0
15°	3291.3	3309.8	3317.8
17.5°	3231.9	3256.0	3264.8
20°	3176.5	3207.0	3214.2
22.5°	3120.2	3151.6	3160.4
25°	3059.2	3096.1	3105.0
27.5°	2994.1	3038.3	3047.2
30°	2929.1	2977.3	2986.1
32.5°	2859.2	2911.4	2919.5
35°	2786.1	2838.3	2848.0
37.5°	2705.0	2762.0	2781.3
40°	2620.7	2682.5	2702.6
42.5°	2532.3	2599.8	2620.7
45°	2437.6	2511.5	2535.5
47.5°	2342.0	2425.5	2446.4
50°	2238.4	2327.5	2352.4
52.5°	2130.0	2227.1	2252.0
55°	2017.5	2115.5	2142.8
57.5°	1895.4	1996.6	2025.5
60°	1767.7	1868.9	1896.2
62.5°	1636.8	1728.4	1754.9
65°	1490.6	1576.6	1600.7
67.5°	1335.6	1414.3	1434.4
70°	1171.0	1239.3	1256.9
72.5°	999.1	1046.5	1069.8
75°	821.6	859.4	877.0
77.5°	643.3	669.8	684.3
80°	469.0	484.3	496.3
82.5°	306.8	313.2	322.1
85°	165.4	165.4	171.1
87.5°	56.2	53.8	56.2
90°	0.0	0.0	0.0

(END OF REPORT)