

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: P835332

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-6HI-35-120-EDD-90**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835332
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-35-120-EDD-90
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

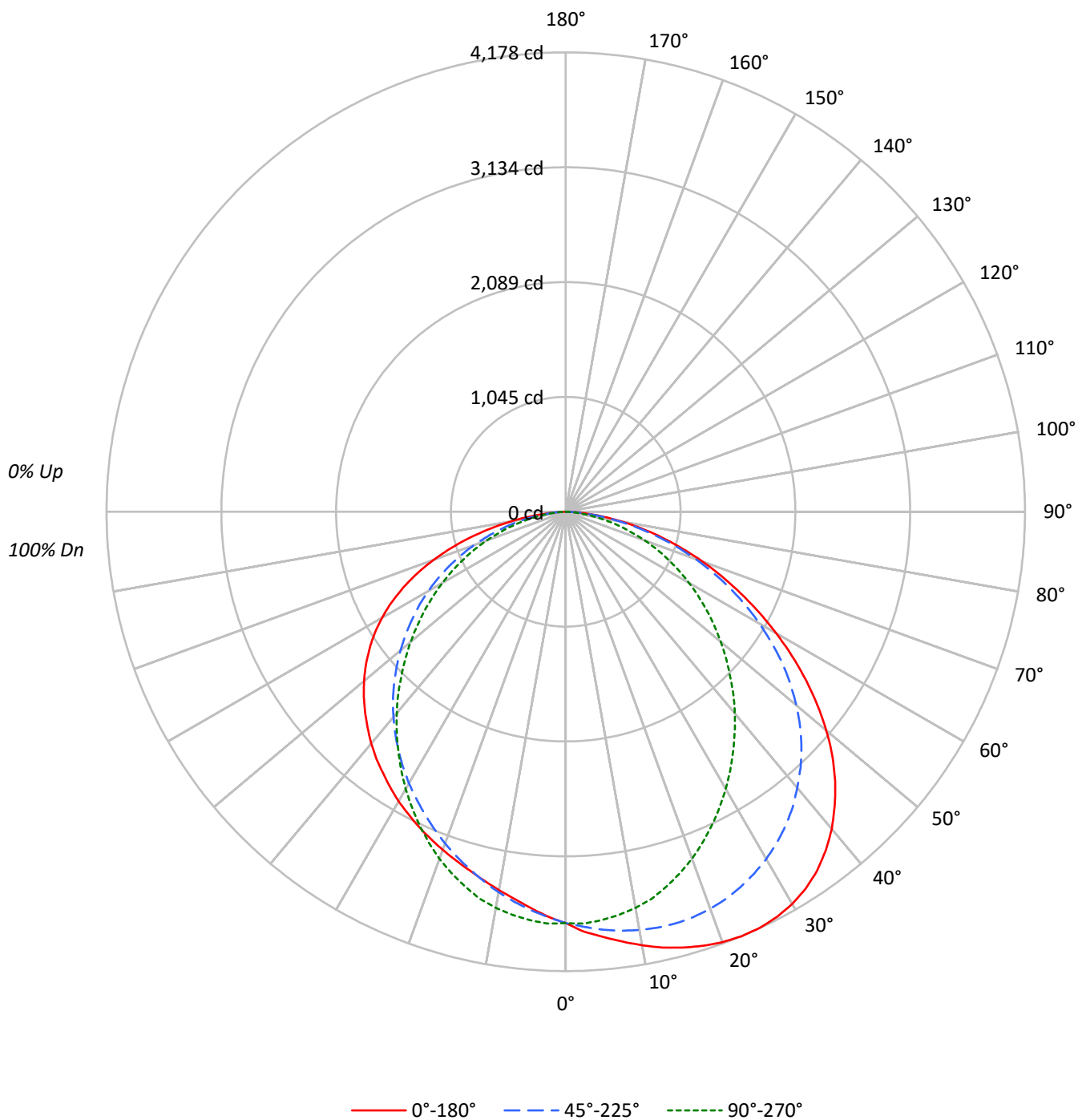
Lumens per Lamp: N/A
Luminaire Lumens: 11003.8 lumens
Efficiency: N/A
Efficacy: 83.4 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	10066	10066	10066
5°	10481	10072	9774
10°	10939	9996	9547
15°	11431	9836	9410
20°	11930	9619	9371
25°	12399	9340	9386
30°	12803	9047	9446
35°	13095	8725	9525
40°	13227	8402	9666
45°	13191	8047	9824
50°	12957	7709	10026
55°	12513	7354	10235
60°	11904	6975	10390
65°	11178	6550	10376
70°	10403	6041	10069
75°	9445	5305	9284
80°	8109	4359	7830
85°	6184	2979	5379

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	354.8	3.2
10°-20°	1024.6	9.3
20°-30°	1569.7	14.3
30°-40°	1915.6	17.4
40°-50°	2003.3	18.2
50°-60°	1813.1	16.5
60°-70°	1373.1	12.5
70°-80°	765.2	7.0
80°-90°	184.6	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°	2949.0	26.8
0°-40°	4864.6	44.2
0°-60°	8680.9	78.9
0°-90°	11003.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11003.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3741	3741	3741	3741	3741	
5°	3880	3815	3729	3637	3618	374
15°	4103	3875	3531	3366	3378	1164
25°	4176	3765	3146	3034	3161	1926
35°	3986	3487	2656	2652	2900	2489
45°	3466	3032	2114	2208	2581	2667
55°	2667	2408	1568	1706	2182	2380
65°	1756	1651	1029	1169	1630	1741
75°	908	858	510	609	893	963
85°	200	177	96	129	174	241
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°	3740.8	3740.8	3740.8	3740.8	3740.8	3740.8	3740.8	3740.8	3740.8	3740.8	3740.8
2.5°	3823.4	3805.4	3790.7	3796.4	3799.7	3788.3	3778.5	3780.1	3770.3	3789.1	3744.9
5°	3879.9	3863.5	3846.3	3852.9	3846.3	3829.2	3815.3	3811.2	3785.0	3795.6	3750.7
7.5°	3942.8	3924.8	3899.5	3906.8	3892.9	3861.0	3843.1	3832.4	3792.4	3793.2	3743.3
10°	4003.3	3987.8	3953.4	3958.3	3933.0	3890.5	3861.9	3847.1	3790.7	3782.5	3731.0
12.5°	4059.7	4038.5	4001.7	4004.1	3967.3	3910.9	3874.1	3852.9	3779.3	3754.7	3704.1
15°	4103.1	4082.6	4038.5	4037.7	3990.2	3916.6	3874.9	3845.5	3752.3	3713.9	3660.7
17.5°	4139.9	4121.1	4066.3	4064.6	4007.4	3914.2	3864.3	3827.5	3713.0	3665.6	3606.7
20°	4166.0	4147.2	4085.9	4080.2	4011.5	3901.9	3842.2	3795.6	3661.5	3605.1	3539.7
22.5°	4178.3	4159.5	4090.0	4081.8	4001.7	3877.4	3810.3	3755.6	3602.7	3529.1	3461.2
25°	4175.8	4157.9	4079.4	4071.2	3982.9	3840.6	3765.4	3702.4	3528.3	3441.6	3374.5
27.5°	4155.4	4141.5	4058.9	4048.3	3948.5	3790.7	3710.6	3641.1	3445.7	3349.2	3276.4
30°	4120.2	4109.6	4022.1	4012.3	3906.0	3735.9	3646.8	3566.7	3356.5	3247.8	3174.2
32.5°	4063.8	4054.0	3965.7	3956.7	3848.8	3665.6	3572.4	3489.8	3259.2	3139.0	3065.5
35°	3986.1	3980.4	3894.6	3884.8	3775.2	3585.5	3486.6	3395.8	3157.8	3022.1	2951.8
37.5°	3883.9	3883.9	3801.4	3790.7	3683.6	3487.4	3390.1	3293.6	3043.4	2899.5	2830.0
40°	3765.4	3776.0	3691.8	3681.2	3577.3	3381.9	3275.6	3174.2	2919.9	2770.3	2702.4
42.5°	3623.1	3632.9	3562.6	3552.8	3455.5	3260.1	3161.1	3050.7	2790.7	2638.6	2568.3
45°	3466.1	3479.2	3416.2	3408.9	3318.1	3126.8	3031.9	2919.9	2655.8	2501.3	2432.6
47.5°	3291.1	3308.3	3253.5	3249.4	3165.2	2990.2	2891.3	2777.6	2514.3	2358.2	2293.6
50°	3094.9	3119.4	3074.4	3074.4	2999.2	2825.1	2739.2	2625.5	2367.2	2211.0	2147.2
52.5°	2884.7	2915.8	2882.3	2883.1	2821.8	2665.6	2576.5	2465.3	2213.4	2059.7	2000.8
55°	2667.2	2697.5	2676.2	2679.5	2631.3	2489.0	2408.0	2297.7	2056.4	1906.8	1851.2
57.5°	2439.9	2472.6	2458.7	2465.3	2431.8	2304.2	2220.0	2123.5	1894.5	1746.5	1699.1
60°	2211.8	2242.9	2235.5	2244.5	2223.2	2112.9	2036.0	1936.2	1731.8	1589.6	1547.9
62.5°	1981.2	2009.8	2008.2	2018.0	2006.6	1915.0	1846.3	1761.3	1563.4	1432.6	1394.1
65°	1755.5	1780.1	1778.4	1789.1	1786.6	1713.0	1650.9	1573.2	1394.9	1274.7	1241.2
67.5°	1536.4	1556.8	1551.1	1563.4	1566.7	1507.8	1453.8	1384.3	1234.7	1117.8	1089.1
70°	1322.2	1336.1	1328.7	1336.9	1344.3	1300.1	1254.3	1193.0	1063.8	960.8	937.1
72.5°	1112.0	1121.8	1110.4	1118.6	1125.1	1093.2	1055.6	1002.5	895.4	806.2	786.6
75°	908.4	922.3	898.6	906.8	911.7	879.8	857.7	814.4	722.0	653.3	640.2
77.5°	711.4	719.6	706.5	703.2	706.5	683.6	666.4	632.9	563.4	507.0	498.8
80°	523.3	528.2	515.1	511.9	514.3	498.0	484.9	460.3	411.3	368.8	365.5
82.5°	350.8	353.2	341.8	338.5	340.2	335.2	319.7	302.5	279.6	243.7	242.8
85°	200.3	200.3	192.2	188.9	190.5	182.3	176.6	167.6	158.6	134.1	135.7
87.5°	73.6	73.6	69.5	68.7	76.9	67.9	65.4	61.3	63.8	50.7	54.0
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°	3740.8	3740.8	3740.8	3740.8	3740.8	3740.8	3740.8	3740.8	3740.8	3740.8	3740.8
2.5°	3757.2	3749.0	3741.7	3716.3	3726.9	3700.8	3699.1	3689.3	3682.0	3668.1	3686.1
5°	3744.9	3728.6	3707.3	3677.1	3686.1	3655.0	3648.5	3637.0	3627.2	3609.2	3623.1
7.5°	3725.3	3698.3	3664.8	3626.4	3638.6	3600.2	3590.4	3578.1	3570.0	3548.7	3561.0
10°	3696.7	3658.3	3619.0	3572.4	3581.4	3539.7	3527.4	3514.4	3507.0	3488.2	3500.5
12.5°	3652.5	3605.9	3552.8	3502.1	3511.9	3472.7	3456.3	3442.4	3439.9	3424.4	3439.1
15°	3595.3	3530.7	3475.9	3422.0	3433.4	3387.6	3380.3	3366.4	3370.4	3359.8	3377.8
17.5°	3522.5	3448.1	3388.4	3330.4	3341.8	3303.4	3297.7	3291.1	3295.2	3293.6	3313.2
20°	3440.8	3359.0	3290.3	3233.1	3239.6	3209.4	3211.8	3210.2	3218.4	3227.3	3254.3
22.5°	3348.4	3256.0	3184.0	3125.1	3135.0	3108.8	3120.2	3123.5	3137.4	3157.8	3192.2
25°	3244.5	3145.6	3070.4	3014.8	3023.7	3006.6	3026.2	3034.4	3056.5	3090.8	3126.0
27.5°	3135.8	3031.1	2951.0	2897.8	2915.0	2897.8	2927.3	2943.6	2977.1	3014.8	3058.1
30°	3020.5	2911.7	2829.1	2781.7	2798.1	2782.5	2830.0	2852.0	2885.6	2937.1	2988.6
32.5°	2899.5	2785.0	2704.0	2667.2	2678.7	2676.2	2729.4	2753.9	2798.9	2857.8	2912.5
35°	2775.2	2655.8	2574.0	2543.0	2556.9	2560.1	2623.9	2652.5	2701.6	2772.7	2831.6
37.5°	2646.8	2525.0	2444.8	2419.5	2431.8	2444.0	2518.4	2547.0	2602.6	2680.3	2744.9
40°	2513.5	2391.7	2313.2	2292.8	2305.0	2318.1	2399.0	2438.3	2498.8	2583.0	2653.3
42.5°	2378.6	2256.8	2180.7	2166.0	2178.3	2203.6	2289.5	2326.3	2390.1	2483.3	2560.9
45°	2241.2	2114.5	2048.3	2036.8	2049.9	2079.3	2163.6	2207.7	2275.6	2377.8	2461.2
47.5°	2102.2	1978.8	1915.8	1908.4	1921.5	1954.2	2047.4	2087.5	2159.5	2268.2	2358.2
50°	1961.6	1841.4	1780.9	1778.4	1790.7	1825.9	1915.0	1962.4	2036.8	2158.7	2251.0
52.5°	1819.3	1704.0	1649.2	1649.2	1660.7	1696.7	1786.6	1835.7	1912.5	2040.9	2143.1
55°	1677.0	1567.5	1515.1	1519.2	1535.6	1566.7	1654.1	1705.7	1783.3	1916.6	2024.6
57.5°	1534.8	1430.9	1383.5	1389.2	1404.8	1435.8	1521.7	1579.7	1650.1	1788.2	1898.6
60°	1394.1	1296.0	1254.3	1260.8	1274.7	1305.8	1394.9	1444.8	1515.1	1655.8	1766.2
62.5°	1251.9	1162.7	1123.5	1131.7	1143.9	1175.0	1259.2	1307.5	1377.0	1515.1	1626.3
65°	1111.2	1028.6	995.1	1003.3	1014.7	1043.3	1122.7	1169.3	1235.5	1370.4	1476.7
67.5°	972.2	897.0	869.2	877.4	886.4	913.3	978.8	1029.4	1091.6	1220.0	1320.5
70°	834.8	767.8	743.3	751.4	759.6	784.1	841.4	888.0	945.2	1063.0	1156.2
72.5°	699.1	633.7	621.4	628.8	635.3	656.6	711.4	748.2	798.0	902.7	982.8
75°	566.6	510.2	502.1	509.4	515.1	531.5	577.3	609.2	650.9	741.6	807.0
77.5°	439.1	391.7	388.4	394.1	399.8	411.3	447.3	480.8	513.5	580.5	638.6
80°	319.7	281.3	281.3	287.0	285.4	299.3	324.6	351.6	375.3	423.6	466.1
82.5°	211.0	180.7	184.8	188.9	191.3	197.1	212.6	233.0	247.8	277.2	305.0
85°	116.9	96.5	100.6	103.8	102.2	108.8	116.9	129.2	136.6	150.5	165.2
87.5°	43.3	36.0	36.8	39.2	40.9	44.2	44.2	51.5	52.3	54.0	57.2
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°	3740.8	3740.8	3740.8
2.5°	3651.7	3671.3	3686.1
5°	3588.8	3605.1	3618.2
7.5°	3527.4	3542.2	3553.6
10°	3469.4	3485.7	3493.9
12.5°	3409.7	3428.5	3435.0
15°	3350.8	3369.6	3377.8
17.5°	3290.3	3314.8	3323.8
20°	3233.9	3265.0	3272.3
22.5°	3176.7	3208.5	3217.5
25°	3114.5	3152.1	3161.1
27.5°	3048.3	3093.3	3102.2
30°	2982.0	3031.1	3040.1
32.5°	2910.9	2964.1	2972.2
35°	2836.5	2889.7	2899.5
37.5°	2753.9	2812.0	2831.6
40°	2668.1	2731.0	2751.5
42.5°	2578.1	2646.8	2668.1
45°	2481.6	2556.9	2581.4
47.5°	2384.3	2469.4	2490.6
50°	2278.9	2369.6	2395.0
52.5°	2168.5	2267.4	2292.8
55°	2054.0	2153.7	2181.5
57.5°	1929.7	2032.7	2062.2
60°	1799.7	1902.7	1930.5
62.5°	1666.4	1759.6	1786.6
65°	1517.6	1605.1	1629.6
67.5°	1359.8	1439.9	1460.4
70°	1192.2	1261.7	1279.7
72.5°	1017.2	1065.4	1089.1
75°	836.5	874.9	892.9
77.5°	655.0	681.9	696.7
80°	477.5	493.1	505.3
82.5°	312.4	318.9	327.9
85°	168.4	168.4	174.2
87.5°	57.2	54.8	57.2
90°	0.0	0.0	0.0

(END OF REPORT)