

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: P834575

Luminaire Tested: **ORLG-24-4-INS-ASY2-LD4-6STD-35-120-EDD**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P834575
Test Lab: INNOVATION CENTER(G2)
Issue Date: 5/16/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: ORLG-24-4-INS-ASY2-LD4-6STD-35-120-EDD
Description: 2FT x 4FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

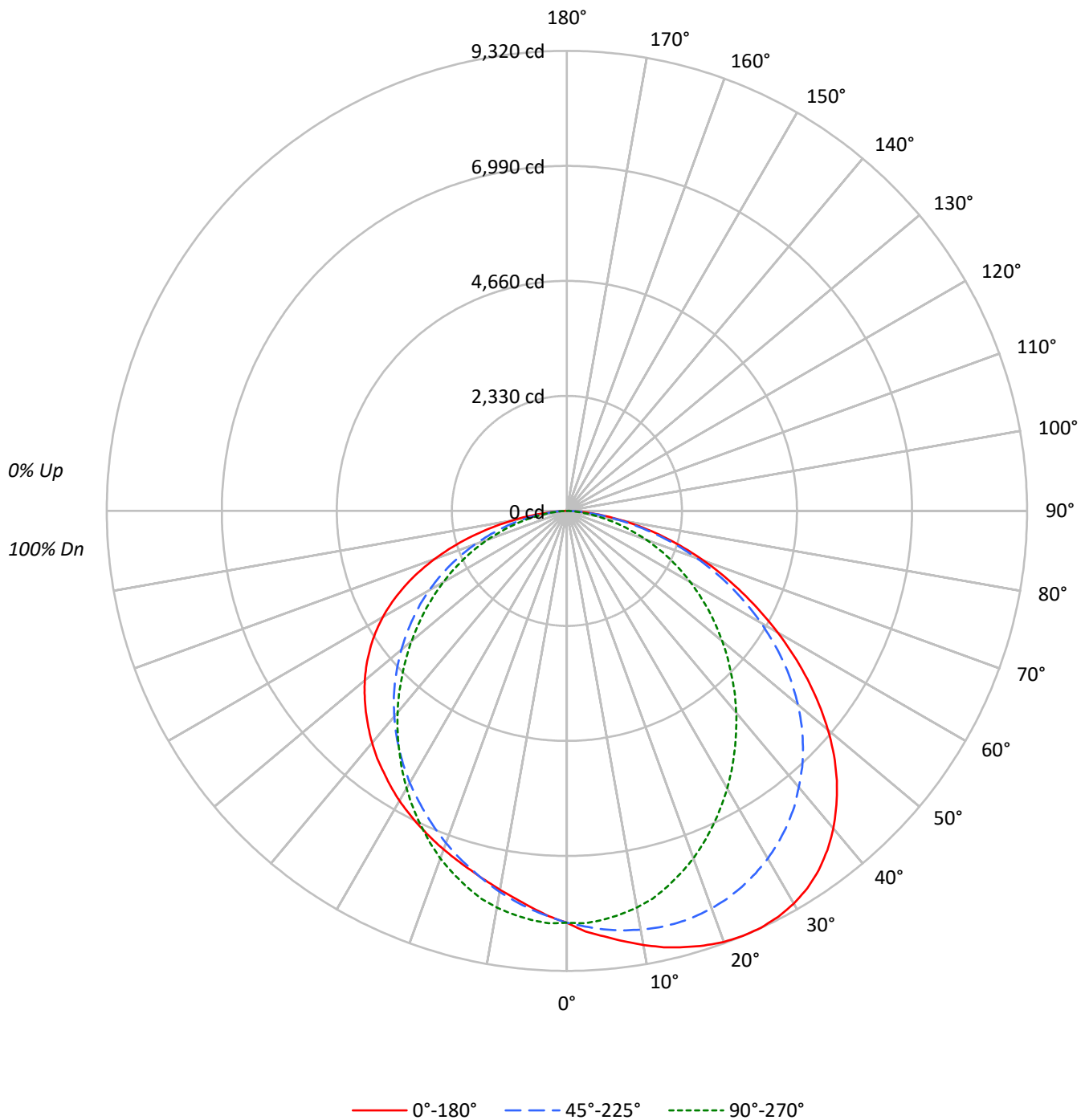
Lumens per Lamp: N/A
Luminaire Lumens: 24543.6 lumens
Efficiency: N/A
Efficacy: 122.8 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 199.8
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: P834575

CATALOG NUMBER: ORLG-24-4-INS-ASY2-LD4-6STD-35-120-EDD

Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P834575

CATALOG NUMBER: ORLG-24-4-INS-ASY2-LD4-6STD-35-120-EDD

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°	11226	11226	11226
5°	11688	11233	10900
10°	12200	11148	10647
15°	12748	10970	10495
20°	13305	10727	10451
25°	13828	10416	10467
30°	14278	10090	10535
35°	14604	9730	10622
40°	14751	9370	10779
45°	14711	8974	10956
50°	14449	8597	11182
55°	13956	8201	11414
60°	13275	7779	11587
65°	12466	7304	11572
70°	11602	6737	11228
75°	10533	5916	10353
80°	9044	4861	8733
85°	6898	3322	5998

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P834575

CATALOG NUMBER: ORLG-24-4-INS-ASY2-LD4-6STD-35-120-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	791.3	3.2
10°-20°	2285.3	9.3
20°-30°	3501.1	14.3
30°-40°	4272.6	17.4
40°-50°	4468.2	18.2
50°-60°	4044.0	16.5
60°-70°	3062.7	12.5
70°-80°	1706.8	7.0
80°-90°	411.7	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°	6577.7	26.8
0°-40°	10850.2	44.2
0°-60°	19362.5	78.9
0°-90°	24543.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	24543.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	8344	8344	8344	8344	8344	
5°	8654	8510	8316	8112	8070	834
15°	9152	8643	7875	7508	7534	2595
25°	9314	8398	7016	6768	7051	4297
35°	8891	7777	5924	5916	6467	5552
45°	7731	6763	4716	4924	5758	5948
55°	5949	5371	3496	3804	4866	5309
65°	3916	3682	2294	2608	3635	3884
75°	2026	1913	1138	1359	1992	2149
85°	447	394	215	288	388	538
90°	0	0	0	0	0	

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P834575

CATALOG NUMBER: ORLG-24-4-INS-ASY2-LD4-6STD-35-120-EDD

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	8343.8	8343.8	8343.8	8343.8	8343.8	8343.8	8343.8	8343.8	8343.8	8343.8	8343.8
2.5°	8528.0	8487.9	8455.1	8467.8	8475.1	8449.6	8427.7	8431.4	8409.5	8451.4	8352.9
5°	8653.9	8617.4	8579.1	8593.7	8579.1	8540.8	8509.8	8500.7	8442.3	8466.0	8365.7
7.5°	8794.3	8754.2	8697.6	8714.1	8683.0	8611.9	8571.8	8548.1	8458.7	8460.5	8349.3
10°	8929.3	8894.6	8818.0	8829.0	8772.4	8677.6	8613.7	8580.9	8455.1	8436.8	8321.9
12.5°	9055.1	9007.7	8925.6	8931.1	8849.0	8723.2	8641.1	8593.7	8429.5	8374.8	8261.8
15°	9151.8	9106.2	9007.7	9005.9	8900.1	8735.9	8642.9	8577.3	8369.4	8283.6	8165.1
17.5°	9233.8	9191.9	9069.7	9066.0	8938.4	8730.5	8619.2	8537.1	8281.8	8176.0	8044.7
20°	9292.2	9250.2	9113.5	9100.7	8947.5	8703.1	8570.0	8466.0	8166.9	8041.1	7895.2
22.5°	9319.6	9277.6	9122.6	9104.3	8925.6	8648.4	8498.8	8376.7	8035.6	7871.5	7720.1
25°	9314.1	9274.0	9098.9	9080.6	8883.7	8566.3	8398.5	8258.1	7869.6	7676.3	7526.8
27.5°	9268.5	9237.5	9053.3	9029.6	8807.1	8455.1	8276.3	8121.3	7685.4	7470.2	7307.9
30°	9190.1	9166.4	8971.2	8949.3	8712.2	8332.9	8134.1	7955.4	7486.6	7244.1	7079.9
32.5°	9064.2	9042.3	8845.4	8825.3	8584.6	8176.0	7968.1	7783.9	7269.6	7001.5	6837.4
35°	8891.0	8878.2	8686.7	8664.8	8420.4	7997.3	7776.6	7574.2	7043.5	6740.7	6583.9
37.5°	8663.0	8663.0	8478.8	8455.1	8216.2	7778.5	7561.4	7346.2	6788.1	6467.1	6312.1
40°	8398.5	8422.2	8234.4	8210.7	7979.1	7543.2	7306.1	7079.9	6512.7	6179.0	6027.6
42.5°	8081.2	8103.1	7946.2	7924.4	7707.3	7271.4	7050.8	6804.5	6224.6	5885.4	5728.5
45°	7731.0	7760.2	7619.8	7603.4	7400.9	6974.2	6762.6	6512.7	5923.7	5579.0	5425.8
47.5°	7340.7	7379.0	7256.8	7247.7	7059.9	6669.6	6448.9	6195.4	5608.1	5259.8	5115.7
50°	6903.0	6957.7	6857.4	6857.4	6689.7	6301.2	6109.7	5856.2	5279.9	4931.5	4789.3
52.5°	6434.3	6503.6	6428.8	6430.7	6293.9	5945.5	5746.8	5498.7	4937.0	4594.1	4462.8
55°	5949.2	6016.7	5969.3	5976.6	5868.9	5551.6	5371.1	5124.8	4586.8	4253.1	4129.1
57.5°	5442.2	5515.1	5484.1	5498.7	5423.9	5139.4	4951.6	4736.4	4225.7	3895.6	3789.8
60°	4933.3	5002.6	4986.2	5006.3	4958.9	4712.7	4541.2	4318.7	3862.8	3545.4	3452.4
62.5°	4419.0	4482.9	4479.2	4501.1	4475.6	4271.3	4118.1	3928.4	3487.1	3195.3	3109.6
65°	3915.7	3970.4	3966.7	3990.4	3985.0	3820.8	3682.2	3509.0	3111.4	2843.3	2768.5
67.5°	3426.9	3472.5	3459.7	3487.1	3494.4	3363.1	3242.7	3087.7	2753.9	2493.1	2429.3
70°	2949.1	2980.1	2963.7	2981.9	2998.3	2899.8	2797.7	2660.9	2372.7	2142.9	2090.1
72.5°	2480.4	2502.2	2476.7	2494.9	2509.5	2438.4	2354.5	2236.0	1997.0	1798.3	1754.5
75°	2026.2	2057.2	2004.3	2022.6	2033.5	1962.4	1913.2	1816.5	1610.4	1457.2	1428.0
77.5°	1586.7	1604.9	1575.8	1568.5	1575.8	1524.7	1486.4	1411.6	1256.6	1130.7	1112.5
80°	1167.2	1178.2	1149.0	1141.7	1147.2	1110.7	1081.5	1026.8	917.4	822.5	815.2
82.5°	782.4	787.9	762.3	755.0	758.7	747.8	713.1	674.8	623.7	543.5	541.7
85°	446.8	446.8	428.6	421.3	424.9	406.7	393.9	373.9	353.8	299.1	302.7
87.5°	164.1	164.1	155.0	153.2	171.4	151.4	145.9	136.8	142.3	113.1	120.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P834575

CATALOG NUMBER: ORLG-24-4-INS-ASY2-LD4-6STD-35-120-EDD

CANDELA DISTRIBUTION (continued):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	8343.8	8343.8	8343.8	8343.8	8343.8	8343.8	8343.8	8343.8	8343.8	8343.8	8343.8
2.5°	8380.3	8362.1	8345.6	8289.1	8312.8	8254.5	8250.8	8228.9	8212.5	8181.5	8221.6
5°	8352.9	8316.5	8269.1	8201.6	8221.6	8152.3	8137.7	8112.2	8090.3	8050.2	8081.2
7.5°	8309.2	8249.0	8174.2	8088.5	8115.9	8030.1	8008.2	7980.9	7962.7	7915.2	7942.6
10°	8245.3	8159.6	8072.1	7968.1	7988.2	7895.2	7867.8	7838.6	7822.2	7780.3	7807.6
12.5°	8146.9	8042.9	7924.4	7811.3	7833.2	7745.6	7709.1	7678.1	7672.7	7638.0	7670.8
15°	8019.2	7875.1	7752.9	7632.5	7658.1	7555.9	7539.5	7508.5	7517.7	7493.9	7534.1
17.5°	7856.9	7690.9	7557.8	7428.3	7453.8	7368.1	7355.3	7340.7	7349.9	7346.2	7390.0
20°	7674.5	7492.1	7338.9	7211.3	7225.8	7158.4	7163.8	7160.2	7178.4	7198.5	7258.7
22.5°	7468.4	7262.3	7101.8	6970.5	6992.4	6934.0	6959.6	6966.9	6997.9	7043.5	7120.1
25°	7236.8	7016.1	6848.3	6724.3	6744.4	6706.1	6749.8	6768.1	6817.3	6893.9	6972.3
27.5°	6994.2	6760.8	6582.0	6463.5	6501.8	6463.5	6529.2	6565.6	6640.4	6724.3	6821.0
30°	6737.1	6494.5	6310.3	6204.5	6241.0	6206.3	6312.1	6361.4	6436.1	6551.0	6665.9
32.5°	6467.1	6211.8	6031.3	5949.2	5974.7	5969.3	6087.8	6142.5	6242.8	6374.1	6496.3
35°	6189.9	5923.7	5741.3	5672.0	5703.0	5710.3	5852.5	5916.4	6025.8	6184.5	6315.8
37.5°	5903.6	5631.9	5453.1	5396.6	5423.9	5451.3	5617.3	5681.1	5805.1	5978.4	6122.5
40°	5606.3	5334.6	5159.5	5113.9	5141.3	5170.4	5351.0	5438.5	5573.5	5761.3	5918.2
42.5°	5305.4	5033.7	4864.0	4831.2	4858.6	4915.1	5106.6	5188.7	5330.9	5538.8	5712.1
45°	4999.0	4716.3	4568.6	4543.1	4572.2	4637.9	4825.7	4924.2	5075.6	5303.6	5489.6
47.5°	4689.0	4413.6	4273.1	4256.7	4285.9	4358.9	4566.8	4656.1	4816.6	5059.2	5259.8
50°	4375.3	4107.2	3972.2	3966.7	3994.1	4072.5	4271.3	4377.1	4543.1	4814.8	5020.9
52.5°	4057.9	3800.8	3678.6	3678.6	3704.1	3784.4	3985.0	4094.4	4265.8	4552.2	4780.1
55°	3740.6	3496.2	3379.5	3388.6	3425.1	3494.4	3689.5	3804.4	3977.7	4275.0	4515.7
57.5°	3423.2	3191.6	3085.8	3098.6	3133.3	3202.6	3394.1	3523.6	3680.4	3988.6	4234.8
60°	3109.6	2890.7	2797.7	2812.3	2843.3	2912.6	3111.4	3222.6	3379.5	3693.2	3939.4
62.5°	2792.2	2593.4	2505.9	2524.1	2551.5	2620.8	2808.6	2916.2	3071.3	3379.5	3627.5
65°	2478.5	2294.3	2219.5	2237.8	2263.3	2327.2	2504.1	2608.0	2755.7	3056.7	3293.8
67.5°	2168.5	2000.7	1938.7	1956.9	1977.0	2037.2	2183.1	2296.1	2434.8	2721.1	2945.4
70°	1862.1	1712.5	1657.8	1676.1	1694.3	1749.0	1876.7	1980.6	2108.3	2370.9	2578.8
72.5°	1559.3	1413.4	1386.1	1402.5	1417.1	1464.5	1586.7	1668.8	1780.0	2013.5	2192.2
75°	1263.9	1138.0	1119.8	1136.2	1149.0	1185.5	1287.6	1358.7	1451.7	1654.2	1800.1
77.5°	979.4	873.6	866.3	879.1	891.8	917.4	997.6	1072.4	1145.3	1294.9	1424.4
80°	713.1	627.4	627.4	640.1	636.5	667.5	724.0	784.2	837.1	944.7	1039.6
82.5°	470.5	403.1	412.2	421.3	426.8	439.5	474.2	519.8	552.6	618.3	680.3
85°	260.8	215.2	224.3	231.6	228.0	242.6	260.8	288.2	304.6	335.6	368.4
87.5°	96.7	80.2	82.1	87.5	91.2	98.5	98.5	114.9	116.7	120.4	127.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P834575

CATALOG NUMBER: ORLG-24-4-INS-ASY2-LD4-6STD-35-120-EDD

CANDELA DISTRIBUTION (continued):

	160°	170°	180°
0°	8343.8	8343.8	8343.8
2.5°	8145.0	8188.8	8221.6
5°	8004.6	8041.1	8070.3
7.5°	7867.8	7900.6	7926.2
10°	7738.3	7774.8	7793.0
12.5°	7605.2	7647.1	7661.7
15°	7473.9	7515.8	7534.1
17.5°	7338.9	7393.6	7413.7
20°	7213.1	7282.4	7298.8
22.5°	7085.4	7156.5	7176.6
25°	6946.8	7030.7	7050.8
27.5°	6799.1	6899.4	6919.4
30°	6651.4	6760.8	6780.8
32.5°	6492.7	6611.2	6629.5
35°	6326.7	6445.3	6467.1
37.5°	6142.5	6272.0	6315.8
40°	5951.0	6091.4	6137.0
42.5°	5750.4	5903.6	5951.0
45°	5535.2	5703.0	5757.7
47.5°	5318.2	5507.8	5555.3
50°	5082.9	5285.3	5341.9
52.5°	4836.7	5057.4	5113.9
55°	4581.4	4803.9	4865.9
57.5°	4304.1	4533.9	4599.6
60°	4014.2	4244.0	4306.0
62.5°	3716.9	3924.8	3985.0
65°	3384.9	3580.1	3634.8
67.5°	3033.0	3211.7	3257.3
70°	2659.1	2814.1	2854.2
72.5°	2268.8	2376.4	2429.3
75°	1865.7	1951.5	1991.6
77.5°	1460.9	1521.0	1553.9
80°	1065.1	1099.7	1127.1
82.5°	696.7	711.3	731.3
85°	375.7	375.7	388.5
87.5°	127.7	122.2	127.7
90°	0.0	0.0	0.0

(END OF REPORT)