

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: P835210

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-2LO-35-120-EDD**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835210
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-LD4-2LO-35-120-EDD
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

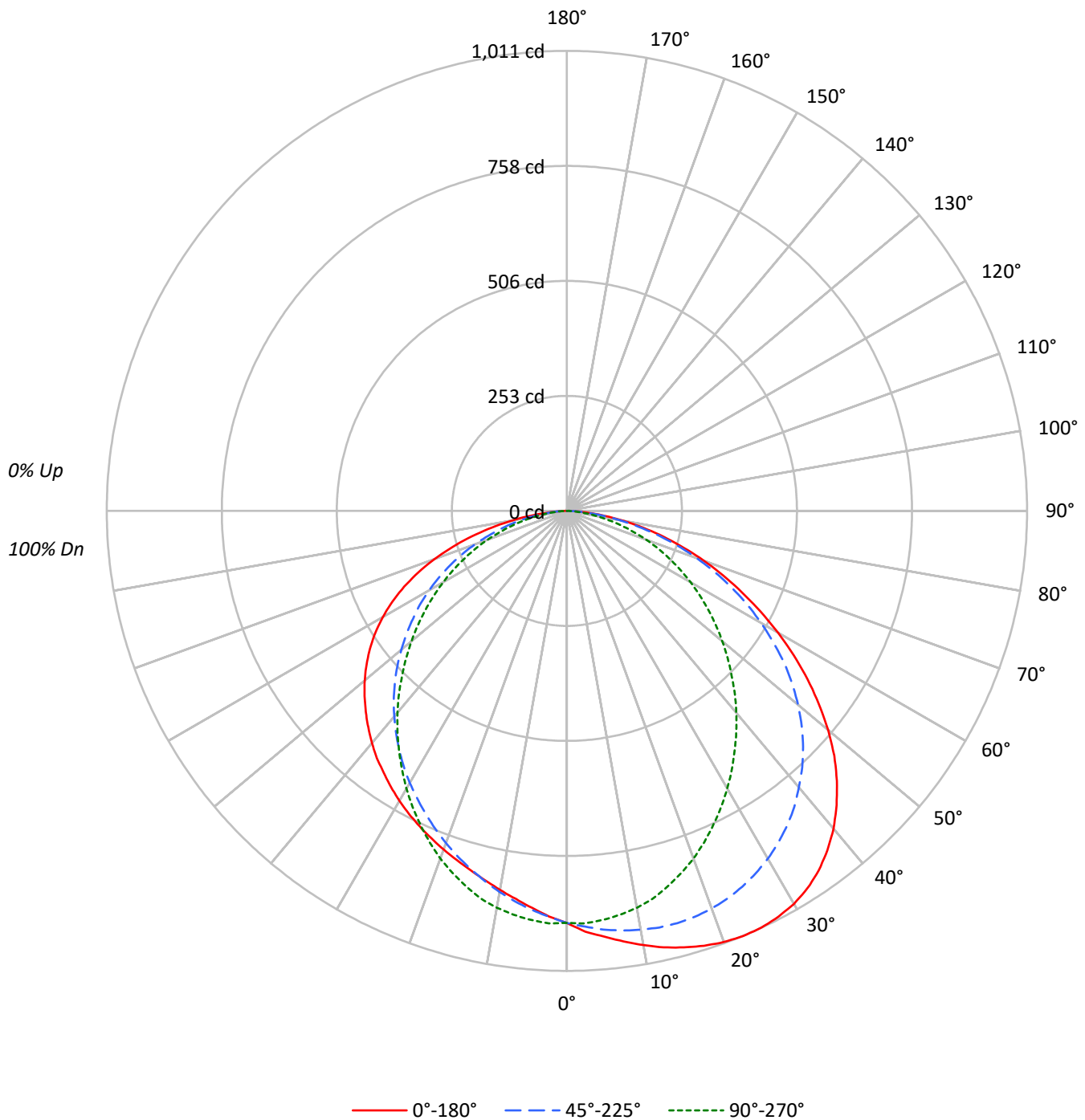
Lumens per Lamp: N/A
Luminaire Lumens: 2663.4 lumens
Efficiency: N/A
Efficacy: 113.8 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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: P835210

CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-2LO-35-120-EDD

Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P835210

CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-2LO-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	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°	2437	2437	2437
5°	2537	2438	2366
10°	2648	2420	2311
15°	2767	2381	2278
20°	2888	2328	2268
25°	3001	2261	2272
30°	3099	2190	2286
35°	3169	2112	2305
40°	3202	2034	2340
45°	3193	1948	2378
50°	3136	1866	2427
55°	3029	1780	2477
60°	2882	1688	2515
65°	2706	1585	2511
70°	2518	1462	2437
75°	2286	1284	2247
80°	1963	1055	1895
85°	1497	722	1303

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P835210

CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-2LO-35-120-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.9	3.2
10°-20°	248.0	9.3
20°-30°	379.9	14.3
30°-40°	463.7	17.4
40°-50°	484.9	18.2
50°-60°	438.8	16.5
60°-70°	332.4	12.5
70°-80°	185.2	7.0
80°-90°	44.7	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°	713.8	26.8
0°-40°	1177.4	44.2
0°-60°	2101.2	78.9
0°-90°	2663.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2663.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	906	906	906	906	906	
5°	939	924	902	880	876	91
15°	993	938	855	815	818	282
25°	1011	911	761	734	765	466
35°	965	844	643	642	702	602
45°	839	734	512	534	625	646
55°	646	583	379	413	528	576
65°	425	400	249	283	394	421
75°	220	208	124	147	216	233
85°	48	43	23	31	42	58
90°	0	0	0	0	0	

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P835210

CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-2LO-35-120-EDD

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	905.5	905.5	905.5	905.5	905.5	905.5	905.5	905.5	905.5	905.5	905.5
2.5°	925.4	921.1	917.5	918.9	919.7	916.9	914.6	915.0	912.6	917.1	906.4
5°	939.1	935.1	931.0	932.6	931.0	926.8	923.5	922.5	916.1	918.7	907.8
7.5°	954.3	950.0	943.9	945.6	942.3	934.5	930.2	927.6	917.9	918.1	906.0
10°	969.0	965.2	956.9	958.1	952.0	941.7	934.7	931.2	917.5	915.5	903.1
12.5°	982.6	977.5	968.6	969.2	960.3	946.6	937.7	932.6	914.8	908.8	896.5
15°	993.1	988.2	977.5	977.3	965.8	948.0	937.9	930.8	908.2	898.9	886.1
17.5°	1002.0	997.5	984.2	983.8	970.0	947.4	935.3	926.4	898.7	887.2	873.0
20°	1008.4	1003.8	989.0	987.6	971.0	944.4	930.0	918.7	886.3	872.6	856.8
22.5°	1011.3	1006.8	990.0	988.0	968.6	938.5	922.3	909.0	872.0	854.2	837.8
25°	1010.7	1006.4	987.4	985.4	964.0	929.6	911.4	896.2	854.0	833.0	816.8
27.5°	1005.8	1002.4	982.4	979.9	955.7	917.5	898.1	881.3	834.0	810.7	793.0
30°	997.3	994.7	973.5	971.2	945.4	904.3	882.7	863.3	812.4	786.1	768.3
32.5°	983.6	981.3	959.9	957.7	931.6	887.2	864.7	844.7	788.9	759.8	742.0
35°	964.8	963.4	942.7	940.3	913.8	867.9	843.9	821.9	764.3	731.5	714.5
37.5°	940.1	940.1	920.1	917.5	891.6	844.1	820.6	797.2	736.6	701.8	685.0
40°	911.4	914.0	893.6	891.0	865.9	818.6	792.8	768.3	706.8	670.5	654.1
42.5°	877.0	879.3	862.3	859.9	836.4	789.1	765.1	738.4	675.5	638.7	621.6
45°	839.0	842.1	826.9	825.1	803.1	756.8	733.9	706.8	642.8	605.4	588.8
47.5°	796.6	800.8	787.5	786.5	766.1	723.8	699.8	672.3	608.6	570.8	555.1
50°	749.1	755.0	744.2	744.2	725.9	683.8	663.0	635.5	573.0	535.2	519.7
52.5°	698.2	705.8	697.6	697.8	683.0	645.2	623.6	596.7	535.8	498.5	484.3
55°	645.6	652.9	647.8	648.6	636.9	602.4	582.9	556.1	497.8	461.5	448.1
57.5°	590.6	598.5	595.1	596.7	588.6	557.7	537.3	514.0	458.6	422.7	411.3
60°	535.4	542.9	541.1	543.3	538.1	511.4	492.8	468.7	419.2	384.7	374.7
62.5°	479.5	486.5	486.1	488.5	485.7	463.5	446.9	426.3	378.4	346.7	337.4
65°	424.9	430.9	430.5	433.0	432.4	414.6	399.6	380.8	337.6	308.5	300.4
67.5°	371.9	376.8	375.4	378.4	379.2	365.0	351.9	335.1	298.8	270.5	263.6
70°	320.0	323.4	321.6	323.6	325.4	314.7	303.6	288.8	257.5	232.5	226.8
72.5°	269.2	271.5	268.8	270.7	272.3	264.6	255.5	242.6	216.7	195.1	190.4
75°	219.9	223.2	217.5	219.5	220.7	213.0	207.6	197.1	174.8	158.1	155.0
77.5°	172.2	174.2	171.0	170.2	171.0	165.5	161.3	153.2	136.4	122.7	120.7
80°	126.7	127.9	124.7	123.9	124.5	120.5	117.4	111.4	99.6	89.3	88.5
82.5°	84.9	85.5	82.7	81.9	82.3	81.1	77.4	73.2	67.7	59.0	58.8
85°	48.5	48.5	46.5	45.7	46.1	44.1	42.7	40.6	38.4	32.5	32.9
87.5°	17.8	17.8	16.8	16.6	18.6	16.4	15.8	14.8	15.4	12.3	13.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P835210

CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-2LO-35-120-EDD

CANDELA DISTRIBUTION (continued):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	905.5	905.5	905.5	905.5	905.5	905.5	905.5	905.5	905.5	905.5	905.5
2.5°	909.4	907.4	905.7	899.5	902.1	895.8	895.4	893.0	891.2	887.8	892.2
5°	906.4	902.5	897.3	890.0	892.2	884.7	883.1	880.3	877.9	873.6	877.0
7.5°	901.7	895.2	887.0	877.7	880.7	871.4	869.0	866.1	864.1	858.9	861.9
10°	894.8	885.5	876.0	864.7	866.9	856.8	853.8	850.6	848.9	844.3	847.3
12.5°	884.1	872.8	859.9	847.7	850.0	840.5	836.6	833.2	832.6	828.9	832.4
15°	870.2	854.6	841.3	828.3	831.0	820.0	818.2	814.8	815.8	813.2	817.6
17.5°	852.6	834.6	820.2	806.1	808.9	799.6	798.2	796.6	797.6	797.2	801.9
20°	832.8	813.0	796.4	782.6	784.1	776.8	777.4	777.0	779.0	781.2	787.7
22.5°	810.5	788.1	770.7	756.4	758.8	752.5	755.2	756.0	759.4	764.3	772.7
25°	785.3	761.4	743.2	729.7	731.9	727.7	732.5	734.5	739.8	748.1	756.6
27.5°	759.0	733.7	714.3	701.4	705.6	701.4	708.5	712.5	720.6	729.7	740.2
30°	731.1	704.8	684.8	673.3	677.3	673.5	685.0	690.3	698.4	710.9	723.4
32.5°	701.8	674.1	654.5	645.6	648.4	647.8	660.6	666.6	677.5	691.7	705.0
35°	671.7	642.8	623.0	615.5	618.9	619.7	635.1	642.0	653.9	671.1	685.4
37.5°	640.6	611.2	591.8	585.6	588.6	591.6	609.6	616.5	630.0	648.8	664.4
40°	608.4	578.9	559.9	555.0	557.9	561.1	580.7	590.2	604.8	625.2	642.2
42.5°	575.7	546.2	527.8	524.3	527.2	533.4	554.2	563.1	578.5	601.1	619.9
45°	542.5	511.8	495.8	493.0	496.2	503.3	523.7	534.4	550.8	575.5	595.7
47.5°	508.8	479.0	463.7	461.9	465.1	473.0	495.6	505.3	522.7	549.0	570.8
50°	474.8	445.7	431.1	430.5	433.4	441.9	463.5	475.0	493.0	522.5	544.9
52.5°	440.4	412.5	399.2	399.2	402.0	410.7	432.4	444.3	462.9	494.0	518.7
55°	405.9	379.4	366.7	367.7	371.7	379.2	400.4	412.8	431.7	463.9	490.0
57.5°	371.5	346.3	334.9	336.3	340.0	347.5	368.3	382.4	399.4	432.8	459.6
60°	337.4	313.7	303.6	305.2	308.5	316.1	337.6	349.7	366.7	400.8	427.5
62.5°	303.0	281.4	271.9	273.9	276.9	284.4	304.8	316.5	333.3	366.7	393.7
65°	269.0	249.0	240.9	242.8	245.6	252.5	271.7	283.0	299.0	331.7	357.4
67.5°	235.3	217.1	210.4	212.4	214.5	221.1	236.9	249.2	264.2	295.3	319.6
70°	202.1	185.8	179.9	181.9	183.9	189.8	203.7	214.9	228.8	257.3	279.9
72.5°	169.2	153.4	150.4	152.2	153.8	158.9	172.2	181.1	193.2	218.5	237.9
75°	137.2	123.5	121.5	123.3	124.7	128.6	139.7	147.4	157.5	179.5	195.3
77.5°	106.3	94.8	94.0	95.4	96.8	99.6	108.3	116.4	124.3	140.5	154.6
80°	77.4	68.1	68.1	69.5	69.1	72.4	78.6	85.1	90.8	102.5	112.8
82.5°	51.1	43.7	44.7	45.7	46.3	47.7	51.5	56.4	60.0	67.1	73.8
85°	28.3	23.4	24.3	25.1	24.7	26.3	28.3	31.3	33.1	36.4	40.0
87.5°	10.5	8.7	8.9	9.5	9.9	10.7	10.7	12.5	12.7	13.1	13.9
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: P835210

CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-2LO-35-120-EDD

CANDELA DISTRIBUTION (continued):

	160°	170°	180°
0°	905.5	905.5	905.5
2.5°	883.9	888.6	892.2
5°	868.6	872.6	875.8
7.5°	853.8	857.4	860.1
10°	839.7	843.7	845.7
12.5°	825.3	829.9	831.4
15°	811.1	815.6	817.6
17.5°	796.4	802.3	804.5
20°	782.7	790.3	792.1
22.5°	768.9	776.6	778.8
25°	753.9	763.0	765.1
27.5°	737.8	748.7	750.9
30°	721.8	733.7	735.8
32.5°	704.6	717.4	719.4
35°	686.6	699.4	701.8
37.5°	666.6	680.6	685.4
40°	645.8	661.0	666.0
42.5°	624.0	640.6	645.8
45°	600.7	618.9	624.8
47.5°	577.1	597.7	602.8
50°	551.6	573.6	579.7
52.5°	524.9	548.8	555.0
55°	497.2	521.3	528.0
57.5°	467.1	492.0	499.1
60°	435.6	460.5	467.3
62.5°	403.3	425.9	432.4
65°	367.3	388.5	394.4
67.5°	329.1	348.5	353.5
70°	288.6	305.4	309.7
72.5°	246.2	257.9	263.6
75°	202.5	211.8	216.1
77.5°	158.5	165.1	168.6
80°	115.6	119.3	122.3
82.5°	75.6	77.2	79.4
85°	40.8	40.8	42.2
87.5°	13.9	13.3	13.9
90°	0.0	0.0	0.0

(END OF REPORT)