

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: P835246

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

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835246
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-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

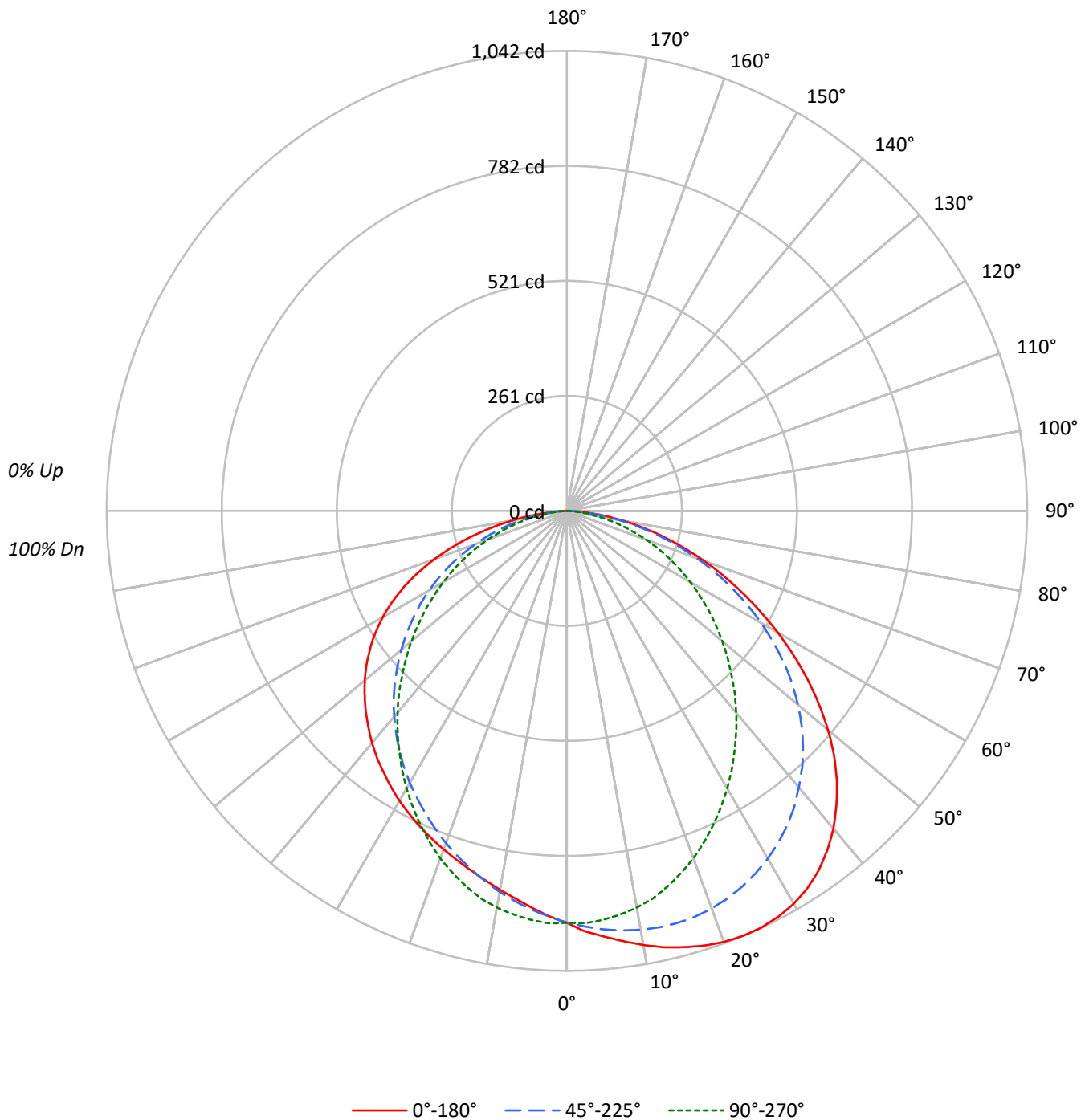
Lumens per Lamp: N/A
Luminaire Lumens: 2744.1 lumens
Efficiency: N/A
Efficacy: 117.3 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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: P835246

CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-2LO-50-120-EDD

Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P835246

CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-2LO-50-120-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°	2510	2510	2510
5°	2614	2512	2437
10°	2728	2493	2381
15°	2851	2453	2347
20°	2975	2399	2337
25°	3092	2329	2341
30°	3193	2256	2356
35°	3266	2176	2375
40°	3299	2095	2410
45°	3290	2007	2450
50°	3231	1922	2501
55°	3121	1834	2552
60°	2969	1739	2591
65°	2788	1633	2588
70°	2594	1507	2511
75°	2355	1323	2315
80°	2022	1086	1953
85°	1544	744	1340

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P835246

CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-2LO-50-120-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.5	3.2
10°-20°	255.5	9.3
20°-30°	391.4	14.3
30°-40°	477.7	17.4
40°-50°	499.6	18.2
50°-60°	452.1	16.5
60°-70°	342.4	12.5
70°-80°	190.8	7.0
80°-90°	46.0	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°	735.4	26.8
0°-40°	1213.1	44.2
0°-60°	2164.8	78.9
0°-90°	2744.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2744.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	933	933	933	933	933	
5°	968	951	930	907	902	93
15°	1023	966	880	840	842	290
25°	1041	939	784	757	788	480
35°	994	870	662	662	723	621
45°	864	756	527	551	644	665
55°	665	600	391	425	544	594
65°	438	412	256	292	406	434
75°	226	214	127	152	223	240
85°	50	44	24	32	43	60
90°	0	0	0	0	0	

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P835246

CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-2LO-50-120-EDD

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	932.9	932.9	932.9	932.9	932.9	932.9	932.9	932.9	932.9	932.9	932.9
2.5°	953.5	949.0	945.3	946.8	947.6	944.7	942.3	942.7	940.2	944.9	933.9
5°	967.6	963.5	959.2	960.8	959.2	954.9	951.4	950.4	943.9	946.6	935.3
7.5°	983.3	978.8	972.5	974.3	970.8	962.9	958.4	955.7	945.7	945.9	933.5
10°	998.3	994.5	985.9	987.1	980.8	970.2	963.1	959.4	945.3	943.3	930.4
12.5°	1012.4	1007.1	997.9	998.6	989.4	975.3	966.1	960.8	942.5	936.4	923.7
15°	1023.2	1018.1	1007.1	1006.9	995.1	976.7	966.3	959.0	935.7	926.2	912.9
17.5°	1032.4	1027.7	1014.1	1013.6	999.4	976.1	963.7	954.5	926.0	914.1	899.5
20°	1038.9	1034.2	1018.9	1017.5	1000.4	973.1	958.2	946.6	913.1	899.0	882.7
22.5°	1042.0	1037.3	1020.0	1017.9	997.9	966.9	950.2	936.6	898.4	880.1	863.2
25°	1041.4	1036.9	1017.3	1015.3	993.3	957.8	939.0	923.3	879.9	858.3	841.5
27.5°	1036.3	1032.8	1012.2	1009.6	984.7	945.3	925.3	908.0	859.3	835.2	817.1
30°	1027.5	1024.9	1003.0	1000.6	974.1	931.7	909.4	889.5	837.1	809.9	791.6
32.5°	1013.4	1011.0	989.0	986.7	959.8	914.1	890.9	870.3	812.8	782.8	764.5
35°	994.1	992.6	971.2	968.8	941.5	894.2	869.5	846.8	787.5	753.7	736.1
37.5°	968.6	968.6	948.0	945.3	918.6	869.7	845.4	821.4	759.0	723.1	705.7
40°	939.0	941.7	920.7	918.0	892.1	843.4	816.9	791.6	728.2	690.9	673.9
42.5°	903.5	906.0	888.4	886.0	861.7	813.0	788.3	760.8	695.9	658.0	640.5
45°	864.4	867.6	851.9	850.1	827.5	779.8	756.1	728.2	662.3	623.8	606.6
47.5°	820.7	825.0	811.4	810.3	789.3	745.7	721.0	692.7	627.0	588.1	572.0
50°	771.8	777.9	766.7	766.7	747.9	704.5	683.1	654.8	590.3	551.4	535.5
52.5°	719.4	727.1	718.8	719.0	703.7	664.8	642.5	614.8	552.0	513.7	499.0
55°	665.2	672.7	667.4	668.2	656.2	620.7	600.5	573.0	512.8	475.5	461.7
57.5°	608.5	616.6	613.2	614.8	606.4	574.6	553.6	529.6	472.5	435.6	423.7
60°	551.6	559.3	557.5	559.7	554.4	526.9	507.7	482.9	431.9	396.4	386.0
62.5°	494.1	501.2	500.8	503.3	500.4	477.6	460.4	439.2	389.9	357.3	347.7
65°	437.8	443.9	443.5	446.2	445.5	427.2	411.7	392.3	347.9	317.9	309.5
67.5°	383.1	388.2	386.8	389.9	390.7	376.0	362.6	345.2	307.9	278.7	271.6
70°	329.7	333.2	331.4	333.4	335.2	324.2	312.8	297.5	265.3	239.6	233.7
72.5°	277.3	279.8	276.9	279.0	280.6	272.6	263.2	250.0	223.3	201.1	196.2
75°	226.5	230.0	224.1	226.1	227.4	219.4	213.9	203.1	180.1	162.9	159.7
77.5°	177.4	179.4	176.2	175.4	176.2	170.5	166.2	157.8	140.5	126.4	124.4
80°	130.5	131.7	128.5	127.6	128.3	124.2	120.9	114.8	102.6	92.0	91.1
82.5°	87.5	88.1	85.2	84.4	84.8	83.6	79.7	75.4	69.7	60.8	60.6
85°	50.0	50.0	47.9	47.1	47.5	45.5	44.0	41.8	39.6	33.4	33.8
87.5°	18.4	18.4	17.3	17.1	19.2	16.9	16.3	15.3	15.9	12.6	13.5
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: P835246

CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-2LO-50-120-EDD

CANDELA DISTRIBUTION (continued):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	932.9	932.9	932.9	932.9	932.9	932.9	932.9	932.9	932.9	932.9	932.9
2.5°	937.0	934.9	933.1	926.8	929.4	922.9	922.5	920.0	918.2	914.7	919.2
5°	933.9	929.8	924.5	917.0	919.2	911.5	909.9	907.0	904.6	900.1	903.5
7.5°	929.0	922.3	913.9	904.3	907.4	897.8	895.4	892.3	890.3	885.0	888.0
10°	921.9	912.3	902.5	890.9	893.1	882.7	879.7	876.4	874.6	869.9	872.9
12.5°	910.9	899.2	886.0	873.4	875.8	866.0	861.9	858.5	857.9	854.0	857.7
15°	896.6	880.5	866.8	853.4	856.2	844.8	843.0	839.5	840.5	837.9	842.4
17.5°	878.4	859.9	845.0	830.5	833.4	823.8	822.4	820.7	821.8	821.4	826.2
20°	858.1	837.7	820.5	806.3	807.9	800.4	801.0	800.6	802.6	804.8	811.6
22.5°	835.0	812.0	794.0	779.3	781.8	775.3	778.1	778.9	782.4	787.5	796.1
25°	809.1	784.4	765.7	751.8	754.1	749.8	754.7	756.7	762.2	770.8	779.6
27.5°	782.0	755.9	735.9	722.7	726.9	722.7	730.0	734.1	742.4	751.8	762.6
30°	753.2	726.1	705.5	693.7	697.8	693.9	705.7	711.2	719.6	732.4	745.3
32.5°	723.1	694.5	674.3	665.2	668.0	667.4	680.7	686.8	698.0	712.7	726.3
35°	692.1	662.3	641.9	634.2	637.6	638.4	654.4	661.5	673.7	691.5	706.1
37.5°	660.1	629.7	609.7	603.4	606.4	609.5	628.0	635.2	649.0	668.4	684.5
40°	626.8	596.4	576.9	571.8	574.8	578.1	598.3	608.1	623.2	644.2	661.7
42.5°	593.2	562.8	543.8	540.2	543.2	549.5	571.0	580.1	596.0	619.3	638.7
45°	558.9	527.3	510.8	507.9	511.2	518.5	539.5	550.6	567.5	593.0	613.8
47.5°	524.3	493.5	477.8	475.9	479.2	487.3	510.6	520.6	538.5	565.6	588.1
50°	489.2	459.2	444.1	443.5	446.6	455.3	477.6	489.4	507.9	538.3	561.4
52.5°	453.7	425.0	411.3	411.3	414.1	423.1	445.5	457.8	476.9	509.0	534.5
55°	418.2	390.9	377.8	378.9	382.9	390.7	412.5	425.4	444.7	478.0	504.9
57.5°	382.7	356.8	345.0	346.4	350.3	358.1	379.5	394.0	411.5	446.0	473.5
60°	347.7	323.2	312.8	314.4	317.9	325.6	347.9	360.3	377.8	412.9	440.4
62.5°	312.2	290.0	280.2	282.2	285.3	293.0	314.0	326.1	343.4	377.8	405.6
65°	277.1	256.5	248.2	250.2	253.1	260.2	280.0	291.6	308.1	341.8	368.3
67.5°	242.5	223.7	216.8	218.8	221.0	227.8	244.1	256.7	272.2	304.2	329.3
70°	208.2	191.5	185.4	187.4	189.4	195.6	209.8	221.4	235.7	265.1	288.3
72.5°	174.3	158.0	155.0	156.8	158.4	163.7	177.4	186.6	199.0	225.1	245.1
75°	141.3	127.2	125.2	127.0	128.5	132.5	144.0	151.9	162.3	184.9	201.3
77.5°	109.5	97.7	96.9	98.3	99.7	102.6	111.5	119.9	128.1	144.8	159.3
80°	79.7	70.1	70.1	71.6	71.2	74.6	81.0	87.7	93.6	105.6	116.2
82.5°	52.6	45.1	46.1	47.1	47.7	49.1	53.0	58.1	61.8	69.1	76.1
85°	29.2	24.1	25.1	25.9	25.5	27.1	29.2	32.2	34.1	37.5	41.2
87.5°	10.8	9.0	9.2	9.8	10.2	11.0	11.0	12.8	13.1	13.5	14.3
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: P835246

CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-2LO-50-120-EDD

CANDELA DISTRIBUTION (continued):

	160°	170°	180°
0°	932.9	932.9	932.9
2.5°	910.7	915.6	919.2
5°	895.0	899.0	902.3
7.5°	879.7	883.3	886.2
10°	865.2	869.3	871.3
12.5°	850.3	855.0	856.6
15°	835.6	840.3	842.4
17.5°	820.5	826.7	828.9
20°	806.5	814.2	816.1
22.5°	792.2	800.1	802.4
25°	776.7	786.1	788.3
27.5°	760.2	771.4	773.6
30°	743.7	755.9	758.1
32.5°	725.9	739.2	741.2
35°	707.4	720.6	723.1
37.5°	686.8	701.3	706.1
40°	665.4	681.1	686.2
42.5°	642.9	660.1	665.4
45°	618.9	637.6	643.7
47.5°	594.6	615.8	621.1
50°	568.3	590.9	597.3
52.5°	540.8	565.4	571.8
55°	512.2	537.1	544.0
57.5°	481.2	506.9	514.3
60°	448.8	474.5	481.4
62.5°	415.6	438.8	445.5
65°	378.5	400.3	406.4
67.5°	339.1	359.1	364.2
70°	297.3	314.6	319.1
72.5°	253.7	265.7	271.6
75°	208.6	218.2	222.7
77.5°	163.3	170.1	173.7
80°	119.1	123.0	126.0
82.5°	77.9	79.5	81.8
85°	42.0	42.0	43.4
87.5°	14.3	13.7	14.3
90°	0.0	0.0	0.0

(END OF REPORT)