

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: P558191

Luminaire Tested: **FUSL-12-4-LD4-3LO-50-UNV-93-97-EDD**

Issue Date: 7/16/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



**Test Information**

Test Method: LM-79-08  
Report Number: P558191  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2105-257-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/16/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FUSL-12-4-LD4-3LO-50-UNV-93-97-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

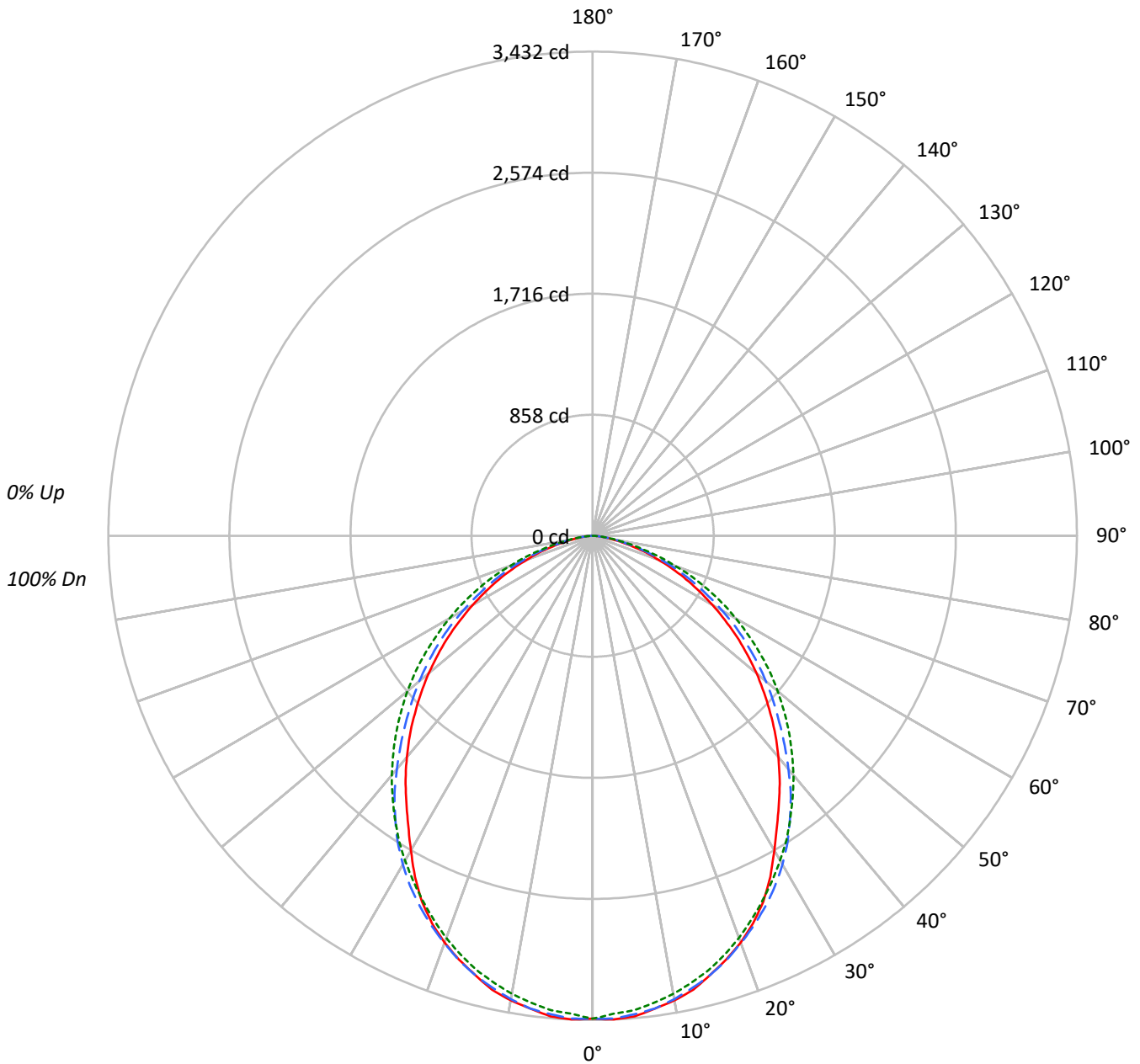
Lumens per Lamp: N/A  
Luminaire Lumens: 7915.0 lumens  
Efficiency: N/A  
Efficacy: 112.7 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 70.2  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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: 25 FT

TEST NUMBER: P558191

CATALOG NUMBER: FUSL-12-4-LD4-3LO-50-UNV-93-97-EDD

### Luminous Intensity Polar Plot





TEST NUMBER: P558191

CATALOG NUMBER: FUSL-12-4-LD4-3LO-50-UNV-93-97-EDD

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86																			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73																			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63																			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54																			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47																			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42																			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37																			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34																			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30																			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	9211	9211	9211
5°	9236	9197	9119
10°	9138	9113	9008
15°	8976	8976	8873
20°	8786	8797	8684
25°	8496	8602	8465
30°	8001	8360	8258
35°	7560	8014	8026
40°	7193	7581	7779
45°	6781	7121	7487
50°	6347	6711	7168
55°	5855	6244	6780
60°	5273	5697	6306
65°	4656	5066	5736
70°	3880	4315	4873
75°	3049	3446	3815
80°	2180	2425	2690
85°	1420	1420	1340



TEST NUMBER: P558191

CATALOG NUMBER: FUSL-12-4-LD4-3LO-50-UNV-93-97-EDD

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	322.3	4.1
10°-20°	905.4	11.4
20°-30°	1323.1	16.7
30°-40°	1501.8	19.0
40°-50°	1449.8	18.3
50°-60°	1196.0	15.1
60°-70°	796.4	10.1
70°-80°	356.4	4.5
80°-90°	63.8	0.8
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°	2550.8	32.2
0°-40°	4052.6	51.2
0°-60°	6698.4	84.6
0°-90°	7915.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7915.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3423	3423	3423	3423	3423	
5°	3419	3418	3405	3386	3376	324
15°	3222	3230	3222	3207	3185	908
25°	2862	2884	2897	2876	2851	1310
35°	2301	2333	2439	2452	2443	1442
45°	1782	1812	1871	1957	1967	1375
55°	1248	1269	1331	1404	1445	1114
65°	731	751	796	852	901	725
75°	293	309	331	347	367	321
85°	46	46	46	43	43	62
90°	0	0	0	0	0	



TEST NUMBER: P558191

CATALOG NUMBER: FUSL-12-4-LD4-3LO-50-UNV-93-97-EDD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3423.0	3423.0	3423.0	3423.0	3423.0
2.5°	3432.2	3433.6	3425.7	3404.6	3391.5
5°	3419.1	3417.8	3404.6	3386.2	3375.7
7.5°	3381.0	3383.6	3379.6	3353.3	3338.9
10°	3344.1	3345.4	3334.9	3313.9	3296.8
12.5°	3296.8	3295.5	3281.0	3270.5	3242.9
15°	3221.8	3229.7	3221.8	3207.4	3185.0
17.5°	3149.5	3149.5	3154.8	3129.8	3112.7
20°	3068.0	3071.9	3071.9	3052.2	3032.5
22.5°	2973.3	2985.1	2989.1	2968.0	2944.4
25°	2861.5	2883.9	2897.0	2876.0	2851.0
27.5°	2726.1	2760.3	2799.7	2783.9	2756.3
30°	2574.8	2624.8	2690.6	2677.4	2657.7
32.5°	2431.5	2481.5	2572.2	2566.9	2556.4
35°	2301.3	2332.9	2439.4	2452.5	2443.3
37.5°	2177.7	2206.6	2306.6	2336.8	2328.9
40°	2047.5	2079.1	2158.0	2211.9	2214.5
42.5°	1918.6	1948.9	2013.3	2090.9	2090.9
45°	1781.9	1812.1	1871.3	1956.8	1967.3
47.5°	1647.7	1679.3	1737.2	1822.6	1839.7
50°	1516.2	1545.2	1603.0	1685.9	1712.2
52.5°	1379.5	1411.0	1467.6	1543.8	1582.0
55°	1248.0	1269.0	1330.8	1404.5	1445.2
57.5°	1111.2	1130.9	1200.6	1263.7	1305.8
60°	979.7	1004.7	1058.6	1123.0	1171.7
62.5°	853.5	879.8	925.8	982.3	1037.6
65°	731.2	750.9	795.6	852.1	900.8
67.5°	612.8	629.9	674.6	714.1	765.3
70°	493.1	515.5	548.4	586.5	619.4
72.5°	397.1	406.3	434.0	461.6	495.8
75°	293.3	309.0	331.4	347.2	366.9
77.5°	210.4	219.6	232.8	245.9	264.3
80°	140.7	144.7	156.5	159.1	173.6
82.5°	85.5	88.1	90.7	92.1	97.3
85°	46.0	46.0	46.0	43.4	43.4
87.5°	26.3	26.3	22.4	18.4	13.2
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC







— 0°-180°    - - 45°-225°    - - - - 90°-270°







(END OF REPORT)