

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: P558176

Luminaire Tested: **FUSL-12-4-LD4-3LO-50-UNV-93-84-EDD-90**

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: P558176  
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-93-84-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

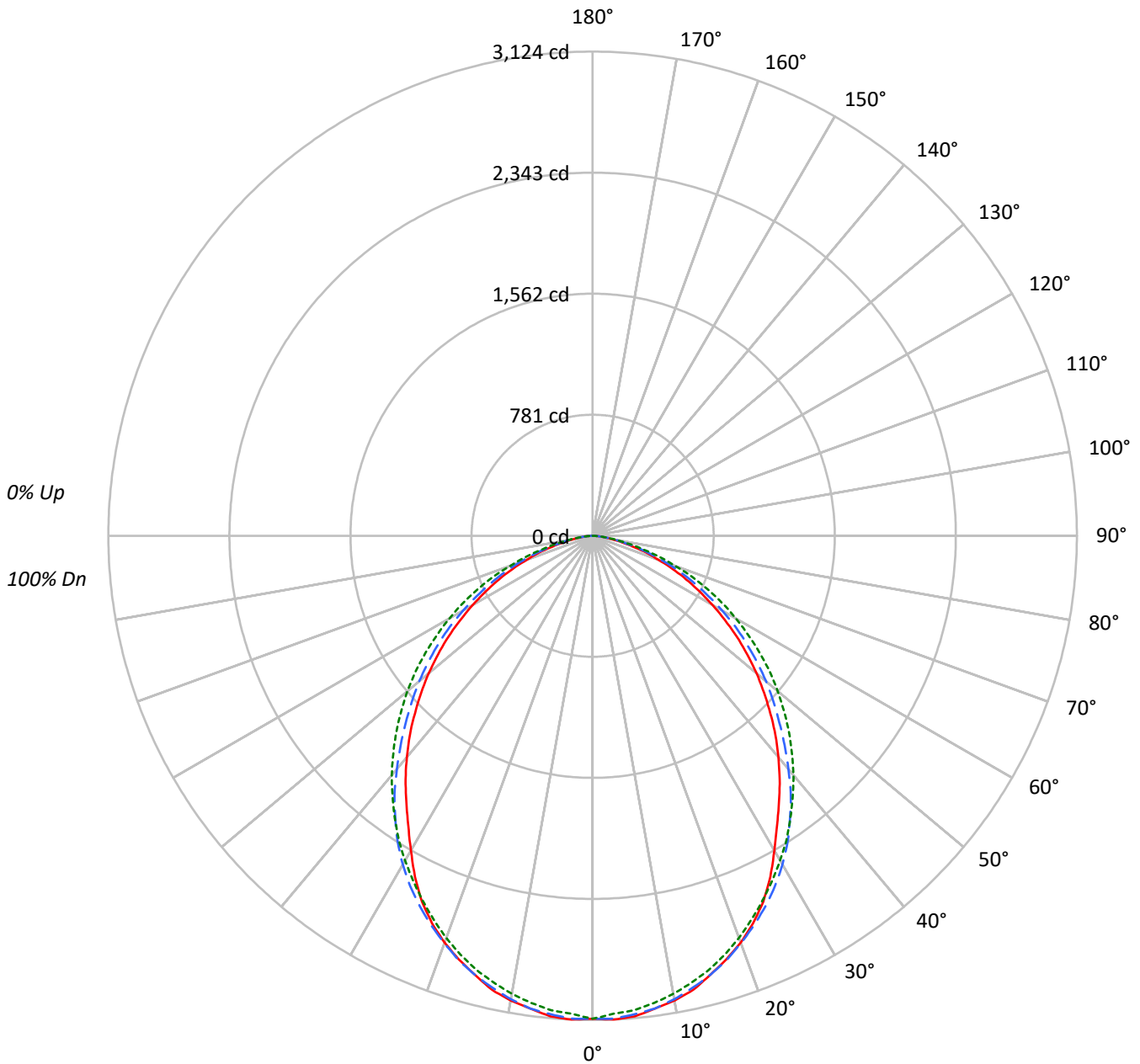
Lumens per Lamp: N/A  
Luminaire Lumens: 7205.0 lumens  
Efficiency: N/A  
Efficacy: 102.6 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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: P558176

CATALOG NUMBER: FUSL-12-4-LD4-3LO-50-UNV-93-84-EDD-90

### Luminous Intensity Polar Plot





TEST NUMBER: P558176

CATALOG NUMBER: FUSL-12-4-LD4-3LO-50-UNV-93-84-EDD-90

**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°	8385	8385	8385
5°	8407	8372	8301
10°	8318	8295	8200
15°	8171	8171	8077
20°	7998	8008	7905
25°	7734	7830	7706
30°	7283	7610	7517
35°	6882	7295	7307
40°	6547	6901	7082
45°	6173	6482	6815
50°	5778	6109	6525
55°	5330	5683	6172
60°	4800	5186	5740
65°	4238	4611	5221
70°	3532	3928	4436
75°	2775	3137	3473
80°	1985	2208	2448
85°	1294	1294	1220



TEST NUMBER: P558176

CATALOG NUMBER: FUSL-12-4-LD4-3LO-50-UNV-93-84-EDD-90

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	293.4	4.1
10°-20°	824.2	11.4
20°-30°	1204.4	16.7
30°-40°	1367.1	19.0
40°-50°	1319.7	18.3
50°-60°	1088.7	15.1
60°-70°	725.0	10.1
70°-80°	324.4	4.5
80°-90°	58.0	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°	2322.0	32.2
0°-40°	3689.1	51.2
0°-60°	6097.6	84.6
0°-90°	7205.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7205.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3116	3116	3116	3116	3116	
5°	3112	3111	3099	3082	3073	295
15°	2933	2940	2933	2920	2899	827
25°	2605	2625	2637	2618	2595	1193
35°	2095	2124	2221	2232	2224	1313
45°	1622	1650	1703	1781	1791	1251
55°	1136	1155	1211	1278	1316	1014
65°	666	684	724	776	820	660
75°	267	281	302	316	334	292
85°	42	42	42	40	40	56
90°	0	0	0	0	0	



TEST NUMBER: P558176

CATALOG NUMBER: FUSL-12-4-LD4-3LO-50-UNV-93-84-EDD-90

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3116.0	3116.0	3116.0	3116.0	3116.0
2.5°	3124.4	3125.6	3118.4	3099.2	3087.2
5°	3112.4	3111.2	3099.2	3082.5	3072.9
7.5°	3077.7	3080.1	3076.5	3052.5	3039.4
10°	3044.2	3045.3	3035.8	3016.6	3001.1
12.5°	3001.1	2999.9	2986.7	2977.1	2952.0
15°	2932.8	2940.0	2932.8	2919.7	2899.3
17.5°	2867.0	2867.0	2871.8	2849.0	2833.5
20°	2792.8	2796.4	2796.4	2778.4	2760.4
22.5°	2706.6	2717.4	2720.9	2701.8	2680.2
25°	2604.8	2625.2	2637.1	2618.0	2595.3
27.5°	2481.5	2512.7	2548.6	2534.2	2509.1
30°	2343.9	2389.4	2449.2	2437.2	2419.3
32.5°	2213.4	2258.9	2341.5	2336.7	2327.1
35°	2094.9	2123.6	2220.6	2232.5	2224.2
37.5°	1982.3	2008.7	2099.7	2127.2	2120.0
40°	1863.8	1892.6	1964.4	2013.5	2015.9
42.5°	1746.5	1774.1	1832.7	1903.3	1903.3
45°	1622.0	1649.6	1703.4	1781.2	1790.8
47.5°	1499.9	1528.7	1581.3	1659.1	1674.7
50°	1380.2	1406.6	1459.2	1534.6	1558.6
52.5°	1255.7	1284.5	1335.9	1405.4	1440.1
55°	1136.0	1155.2	1211.4	1278.5	1315.6
57.5°	1011.5	1029.5	1092.9	1150.4	1188.7
60°	891.8	914.6	963.6	1022.3	1066.6
62.5°	776.9	800.8	842.7	894.2	944.5
65°	665.6	683.5	724.2	775.7	820.0
67.5°	557.8	573.4	614.1	650.0	696.7
70°	448.9	469.3	499.2	533.9	563.8
72.5°	361.5	369.9	395.0	420.2	451.3
75°	266.9	281.3	301.7	316.0	334.0
77.5°	191.5	199.9	211.9	223.9	240.6
80°	128.1	131.7	142.5	144.8	158.0
82.5°	77.8	80.2	82.6	83.8	88.6
85°	41.9	41.9	41.9	39.5	39.5
87.5°	23.9	23.9	20.4	16.8	12.0
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)