

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: P556653

Luminaire Tested: **FUSL-12-4-LD4-1LO-50-UNV-93-96-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: P556653  
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-LD4-1LO-50-UNV-93-96-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

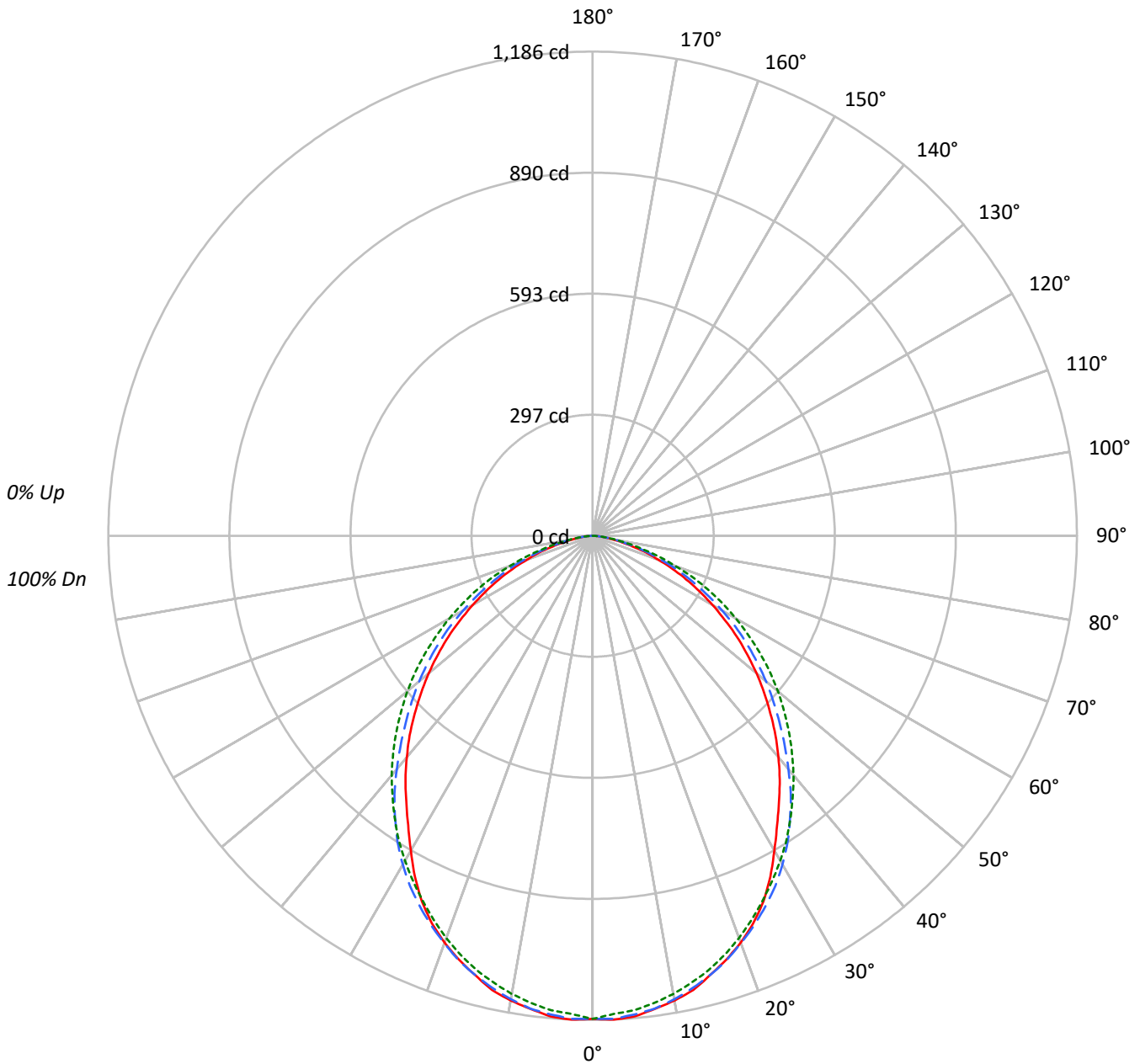
Lumens per Lamp: N/A  
Luminaire Lumens: 2736.0 lumens  
Efficiency: N/A  
Efficacy: 116.9 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 23.4  
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: P556653

CATALOG NUMBER: FUSL-12-4-LD4-1LO-50-UNV-93-96-EDD

### Luminous Intensity Polar Plot





TEST NUMBER: P556653

CATALOG NUMBER: FUSL-12-4-LD4-1LO-50-UNV-93-96-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°	3184	3184	3184
5°	3193	3179	3152
10°	3159	3150	3114
15°	3103	3103	3067
20°	3037	3041	3002
25°	2937	2973	2926
30°	2766	2890	2855
35°	2613	2770	2775
40°	2486	2621	2689
45°	2344	2462	2588
50°	2194	2320	2478
55°	2024	2158	2344
60°	1823	1969	2180
65°	1609	1751	1983
70°	1341	1492	1685
75°	1054	1192	1318
80°	753	838	930
85°	491	491	463



TEST NUMBER: P556653

CATALOG NUMBER: FUSL-12-4-LD4-1LO-50-UNV-93-96-EDD

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	111.4	4.1
10°-20°	313.0	11.4
20°-30°	457.4	16.7
30°-40°	519.2	19.0
40°-50°	501.2	18.3
50°-60°	413.4	15.1
60°-70°	275.3	10.1
70°-80°	123.2	4.5
80°-90°	22.0	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°	881.7	32.2
0°-40°	1400.9	51.2
0°-60°	2315.5	84.6
0°-90°	2736.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2736.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1183	1183	1183	1183	1183	
5°	1182	1181	1177	1170	1167	112
15°	1114	1116	1114	1109	1101	314
25°	989	997	1001	994	986	453
35°	796	806	843	848	845	498
45°	616	626	647	676	680	475
55°	431	439	460	486	500	385
65°	253	260	275	295	311	251
75°	101	107	115	120	127	111
85°	16	16	16	15	15	21
90°	0	0	0	0	0	



TEST NUMBER: P556653

CATALOG NUMBER: FUSL-12-4-LD4-1LO-50-UNV-93-96-EDD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1183.2	1183.2	1183.2	1183.2	1183.2
2.5°	1186.4	1186.9	1184.2	1176.9	1172.3
5°	1181.9	1181.4	1176.9	1170.5	1166.9
7.5°	1168.7	1169.6	1168.2	1159.2	1154.2
10°	1156.0	1156.4	1152.8	1145.5	1139.6
12.5°	1139.6	1139.2	1134.2	1130.5	1121.0
15°	1113.7	1116.4	1113.7	1108.7	1101.0
17.5°	1088.7	1088.7	1090.5	1081.9	1076.0
20°	1060.5	1061.9	1061.9	1055.1	1048.2
22.5°	1027.8	1031.9	1033.2	1026.0	1017.8
25°	989.1	996.9	1001.4	994.1	985.5
27.5°	942.3	954.1	967.8	962.3	952.8
30°	890.1	907.3	930.1	925.5	918.7
32.5°	840.5	857.8	889.1	887.3	883.7
35°	795.5	806.4	843.2	847.8	844.6
37.5°	752.8	762.8	797.3	807.8	805.0
40°	707.8	718.7	746.0	764.6	765.5
42.5°	663.2	673.7	695.9	722.8	722.8
45°	615.9	626.4	646.9	676.4	680.0
47.5°	569.6	580.5	600.5	630.0	635.9
50°	524.1	534.1	554.1	582.8	591.9
52.5°	476.8	487.8	507.3	533.7	546.8
55°	431.4	438.7	460.0	485.5	499.6
57.5°	384.1	390.9	415.0	436.8	451.4
60°	338.7	347.3	365.9	388.2	405.0
62.5°	295.0	304.1	320.0	339.6	358.7
65°	252.7	259.6	275.0	294.6	311.4
67.5°	211.8	217.7	233.2	246.8	264.6
70°	170.5	178.2	189.6	202.7	214.1
72.5°	137.3	140.5	150.0	159.6	171.4
75°	101.4	106.8	114.6	120.0	126.8
77.5°	72.7	75.9	80.5	85.0	91.4
80°	48.6	50.0	54.1	55.0	60.0
82.5°	29.5	30.5	31.4	31.8	33.6
85°	15.9	15.9	15.9	15.0	15.0
87.5°	9.1	9.1	7.7	6.4	4.5
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)