

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: P554078

Luminaire Tested: **FUSL-12-2-LD4-1HI-50-UNV-82-97-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: P554078  
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-12-2-LD4-1HI-50-UNV-82-97-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .375  
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT  
LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

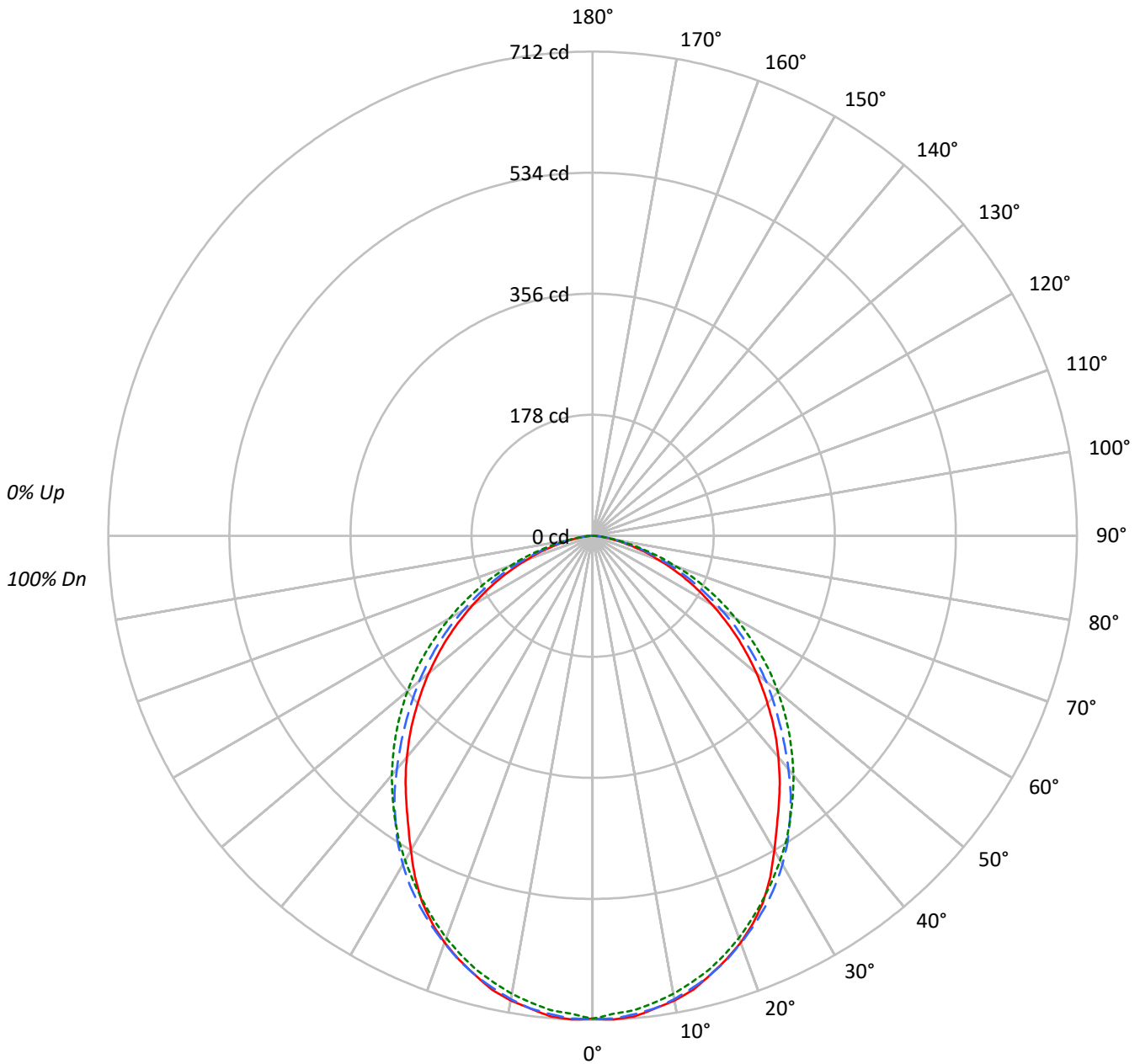
Lumens per Lamp: N/A  
Luminaire Lumens: 1642.0 lumens  
Efficiency: N/A  
Efficacy: 76.0 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 21.6  
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

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### Luminous Intensity Polar Plot





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

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

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

	0°	45°	90°
0°	3822	3822	3822
5°	3832	3816	3783
10°	3792	3781	3738
15°	3724	3724	3681
20°	3645	3650	3603
25°	3525	3569	3513
30°	3320	3469	3426
35°	3137	3325	3330
40°	2984	3145	3228
45°	2814	2955	3106
50°	2633	2785	2974
55°	2429	2591	2813
60°	2187	2364	2617
65°	1932	2101	2380
70°	1610	1791	2022
75°	1264	1429	1582
80°	905	1007	1116
85°	587	587	556



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.9	4.1
10°-20°	187.8	11.4
20°-30°	274.5	16.7
30°-40°	311.6	19.0
40°-50°	300.8	18.3
50°-60°	248.1	15.1
60°-70°	165.2	10.1
70°-80°	73.9	4.5
80°-90°	13.2	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°	529.2	32.2
0°-40°	840.7	51.2
0°-60°	1389.6	84.6
0°-90°	1642.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1642.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	710	710	710	710	710	
5°	709	709	706	702	700	67
15°	668	670	668	665	661	188
25°	594	598	601	597	592	272
35°	477	484	506	509	507	299
45°	370	376	388	406	408	285
55°	259	263	276	291	300	231
65°	152	156	165	177	187	150
75°	61	64	69	72	76	67
85°	10	10	10	9	9	13
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	710.1	710.1	710.1	710.1	710.1
2.5°	712.0	712.3	710.7	706.3	703.6
5°	709.3	709.0	706.3	702.5	700.3
7.5°	701.4	701.9	701.1	695.7	692.7
10°	693.8	694.0	691.8	687.5	683.9
12.5°	683.9	683.7	680.7	678.5	672.7
15°	668.4	670.0	668.4	665.4	660.7
17.5°	653.4	653.4	654.5	649.3	645.7
20°	636.5	637.3	637.3	633.2	629.1
22.5°	616.8	619.3	620.1	615.7	610.8
25°	593.6	598.3	601.0	596.6	591.5
27.5°	565.5	572.6	580.8	577.5	571.8
30°	534.2	544.5	558.2	555.4	551.3
32.5°	504.4	514.8	533.6	532.5	530.3
35°	477.4	484.0	506.1	508.8	506.9
37.5°	451.8	457.8	478.5	484.8	483.1
40°	424.8	431.3	447.7	458.9	459.4
42.5°	398.0	404.3	417.7	433.8	433.8
45°	369.7	375.9	388.2	405.9	408.1
47.5°	341.8	348.4	360.4	378.1	381.7
50°	314.5	320.6	332.6	349.7	355.2
52.5°	286.2	292.7	304.5	320.3	328.2
55°	258.9	263.3	276.1	291.4	299.8
57.5°	230.5	234.6	249.1	262.2	270.9
60°	203.2	208.4	219.6	233.0	243.1
62.5°	177.1	182.5	192.1	203.8	215.2
65°	151.7	155.8	165.0	176.8	186.9
67.5°	127.1	130.7	140.0	148.1	158.8
70°	102.3	106.9	113.8	121.7	128.5
72.5°	82.4	84.3	90.0	95.8	102.8
75°	60.8	64.1	68.7	72.0	76.1
77.5°	43.6	45.6	48.3	51.0	54.8
80°	29.2	30.0	32.5	33.0	36.0
82.5°	17.7	18.3	18.8	19.1	20.2
85°	9.5	9.5	9.5	9.0	9.0
87.5°	5.5	5.5	4.6	3.8	2.7
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)