

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: P553880

Luminaire Tested: **FUSL-12-2-LD4-1HI-30-UNV-82-88-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: P553880  
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-30-UNV-82-88-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

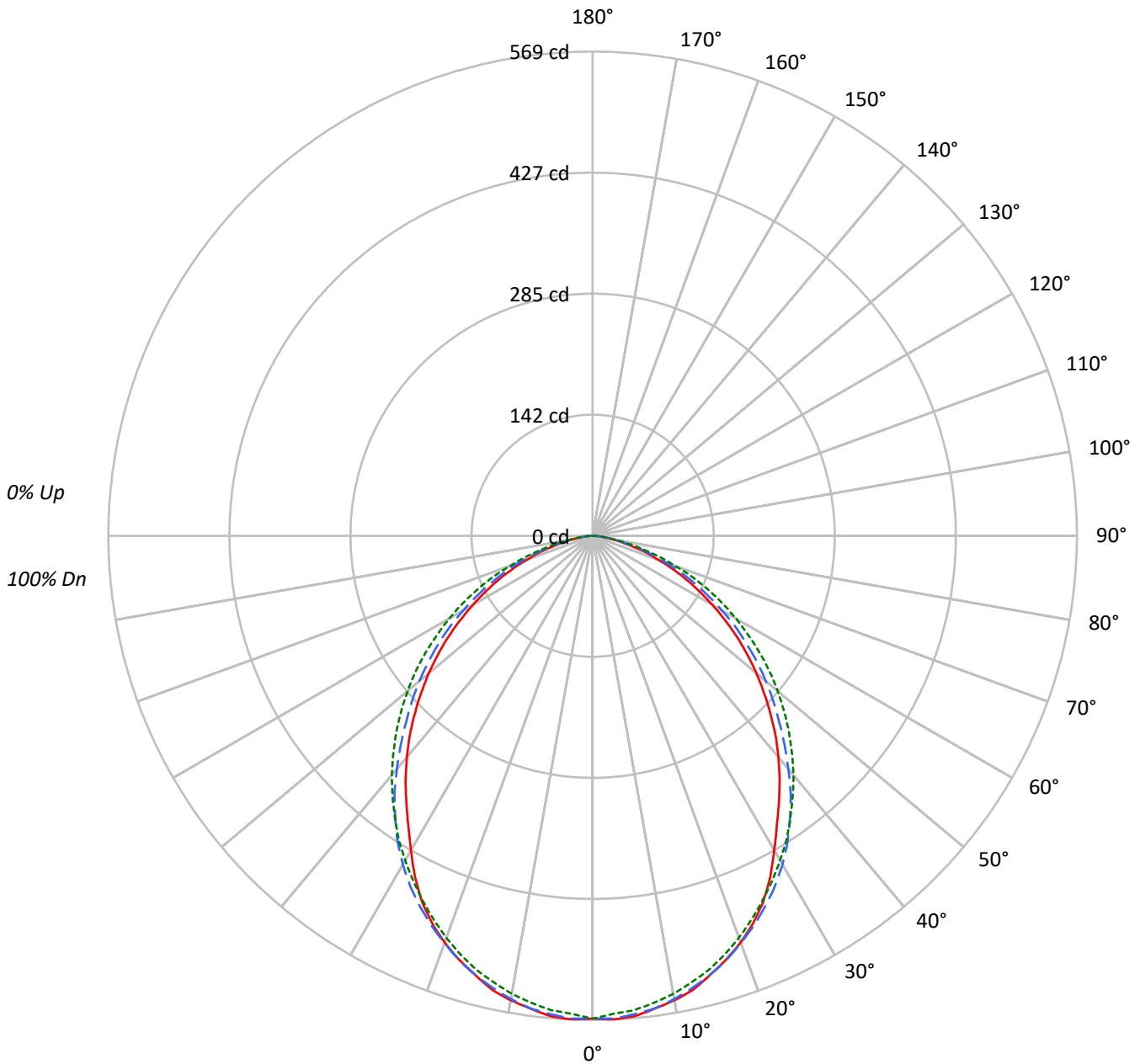
Lumens per Lamp: N/A  
Luminaire Lumens: 1312.0 lumens  
Efficiency: N/A  
Efficacy: 60.7 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 21.6  
Input Voltage (V): NR  
Input Current (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: 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									
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°	3054	3054	3054
5°	3062	3049	3023
10°	3029	3021	2987
15°	2976	2976	2942
20°	2913	2916	2879
25°	2817	2852	2806
30°	2652	2772	2738
35°	2507	2657	2661
40°	2385	2513	2579
45°	2248	2361	2482
50°	2104	2225	2376
55°	1941	2070	2248
60°	1748	1889	2090
65°	1543	1680	1901
70°	1286	1430	1616
75°	1011	1142	1264
80°	722	803	893
85°	469	469	445



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.4	4.1
10°-20°	150.1	11.4
20°-30°	219.3	16.7
30°-40°	248.9	19.0
40°-50°	240.3	18.3
50°-60°	198.3	15.1
60°-70°	132.0	10.1
70°-80°	59.1	4.5
80°-90°	10.6	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°	422.8	32.2
0°-40°	671.8	51.2
0°-60°	1110.4	84.6
0°-90°	1312.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1312.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	567	567	567	567	567	
5°	567	566	564	561	560	54
15°	534	535	534	532	528	151
25°	474	478	480	477	473	217
35°	382	387	404	406	405	239
45°	295	300	310	324	326	228
55°	207	210	221	233	240	185
65°	121	124	132	141	149	120
75°	49	51	55	58	61	53
85°	8	8	8	7	7	10
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	567.4	567.4	567.4	567.4	567.4
2.5°	568.9	569.1	567.8	564.4	562.2
5°	566.8	566.5	564.4	561.3	559.6
7.5°	560.4	560.9	560.2	555.9	553.5
10°	554.3	554.5	552.8	549.3	546.5
12.5°	546.5	546.3	543.9	542.1	537.5
15°	534.1	535.4	534.1	531.7	528.0
17.5°	522.1	522.1	522.9	518.8	516.0
20°	508.6	509.2	509.2	505.9	502.7
22.5°	492.9	494.8	495.5	492.0	488.1
25°	474.3	478.0	480.2	476.7	472.6
27.5°	451.9	457.5	464.1	461.5	456.9
30°	426.8	435.1	446.0	443.8	440.5
32.5°	403.0	411.3	426.4	425.5	423.8
35°	381.5	386.7	404.4	406.5	405.0
37.5°	361.0	365.8	382.3	387.4	386.0
40°	339.4	344.6	357.7	366.6	367.1
42.5°	318.0	323.0	333.7	346.6	346.6
45°	295.4	300.4	310.2	324.4	326.1
47.5°	273.1	278.4	288.0	302.1	305.0
50°	251.3	256.1	265.7	279.5	283.8
52.5°	228.7	233.9	243.3	255.9	262.2
55°	206.9	210.4	220.6	232.8	239.6
57.5°	184.2	187.5	199.0	209.5	216.5
60°	162.4	166.5	175.5	186.2	194.2
62.5°	141.5	145.8	153.5	162.8	172.0
65°	121.2	124.5	131.9	141.3	149.3
67.5°	101.6	104.4	111.8	118.4	126.9
70°	81.7	85.4	90.9	97.2	102.7
72.5°	65.8	67.4	71.9	76.5	82.2
75°	48.6	51.2	54.9	57.5	60.8
77.5°	34.9	36.4	38.6	40.8	43.8
80°	23.3	24.0	25.9	26.4	28.8
82.5°	14.2	14.6	15.0	15.3	16.1
85°	7.6	7.6	7.6	7.2	7.2
87.5°	4.4	4.4	3.7	3.1	2.2
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)