

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: P554008

Luminaire Tested: **FUSL-12-2-LD4-1HI-40-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: P554008  
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-40-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 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

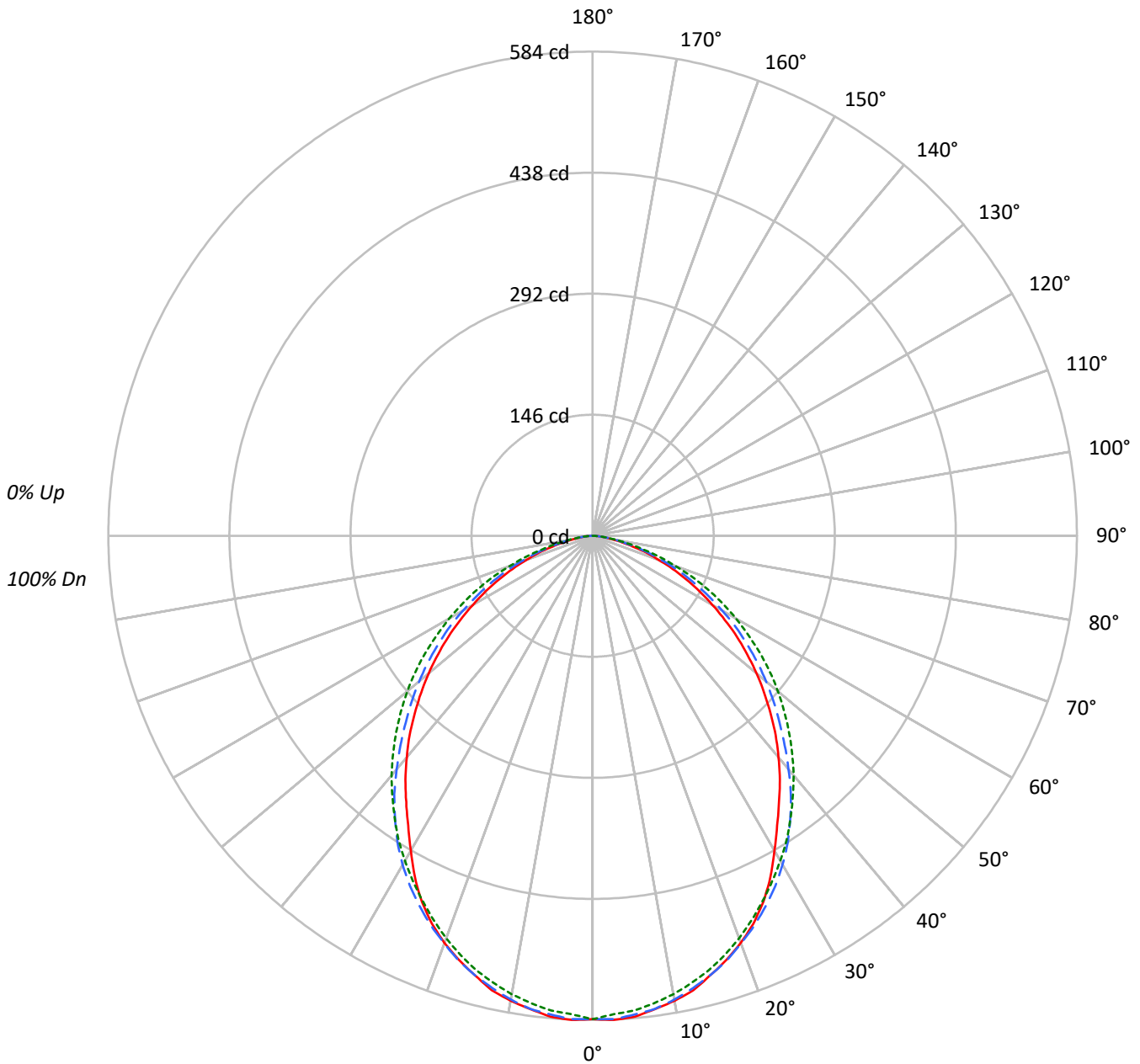
Lumens per Lamp: N/A  
Luminaire Lumens: 1348.0 lumens  
Efficiency: N/A  
Efficacy: 62.4 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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°	3138	3138	3138
5°	3146	3132	3106
10°	3112	3104	3069
15°	3057	3057	3022
20°	2993	2997	2958
25°	2894	2930	2884
30°	2725	2848	2813
35°	2575	2730	2734
40°	2450	2582	2650
45°	2310	2426	2550
50°	2162	2286	2442
55°	1994	2127	2309
60°	1796	1941	2148
65°	1585	1726	1954
70°	1322	1470	1660
75°	1038	1173	1300
80°	744	828	917
85°	482	482	457



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	54.9	4.1
10°-20°	154.2	11.4
20°-30°	225.3	16.7
30°-40°	255.8	19.0
40°-50°	246.9	18.3
50°-60°	203.7	15.1
60°-70°	135.6	10.1
70°-80°	60.7	4.5
80°-90°	10.9	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°	434.4	32.2
0°-40°	690.2	51.2
0°-60°	1140.8	84.6
0°-90°	1348.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1348.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	583	583	583	583	583	
5°	582	582	580	577	575	55
15°	549	550	549	546	542	155
25°	487	491	493	490	486	223
35°	392	397	416	418	416	246
45°	304	309	319	333	335	234
55°	212	216	227	239	246	190
65°	124	128	136	145	153	123
75°	50	53	56	59	62	55
85°	8	8	8	7	7	11
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	583.0	583.0	583.0	583.0	583.0
2.5°	584.5	584.8	583.4	579.8	577.6
5°	582.3	582.1	579.8	576.7	574.9
7.5°	575.8	576.3	575.6	571.1	568.6
10°	569.5	569.8	568.0	564.4	561.5
12.5°	561.5	561.3	558.8	557.0	552.3
15°	548.7	550.1	548.7	546.2	542.4
17.5°	536.4	536.4	537.3	533.0	530.1
20°	522.5	523.2	523.2	519.8	516.5
22.5°	506.4	508.4	509.1	505.5	501.5
25°	487.3	491.2	493.4	489.8	485.6
27.5°	464.3	470.1	476.8	474.1	469.4
30°	438.5	447.0	458.2	456.0	452.6
32.5°	414.1	422.6	438.1	437.2	435.4
35°	391.9	397.3	415.5	417.7	416.1
37.5°	370.9	375.8	392.8	398.0	396.6
40°	348.7	354.1	367.5	376.7	377.2
42.5°	326.8	331.9	342.9	356.1	356.1
45°	303.5	308.6	318.7	333.3	335.0
47.5°	280.6	286.0	295.9	310.4	313.3
50°	258.2	263.2	273.0	287.1	291.6
52.5°	234.9	240.3	249.9	262.9	269.4
55°	212.5	216.1	226.7	239.2	246.1
57.5°	189.2	192.6	204.5	215.2	222.4
60°	166.9	171.1	180.3	191.3	199.6
62.5°	145.4	149.8	157.7	167.3	176.7
65°	124.5	127.9	135.5	145.1	153.4
67.5°	104.4	107.3	114.9	121.6	130.3
70°	84.0	87.8	93.4	99.9	105.5
72.5°	67.6	69.2	73.9	78.6	84.4
75°	49.9	52.6	56.4	59.1	62.5
77.5°	35.8	37.4	39.6	41.9	45.0
80°	24.0	24.6	26.7	27.1	29.6
82.5°	14.6	15.0	15.5	15.7	16.6
85°	7.8	7.8	7.8	7.4	7.4
87.5°	4.5	4.5	3.8	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)