

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: P554151

Luminaire Tested: **FUSL-12-2-LD4-1LO-30-UNV-93-87-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: P554151  
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-LD4-1LO-30-UNV-93-87-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

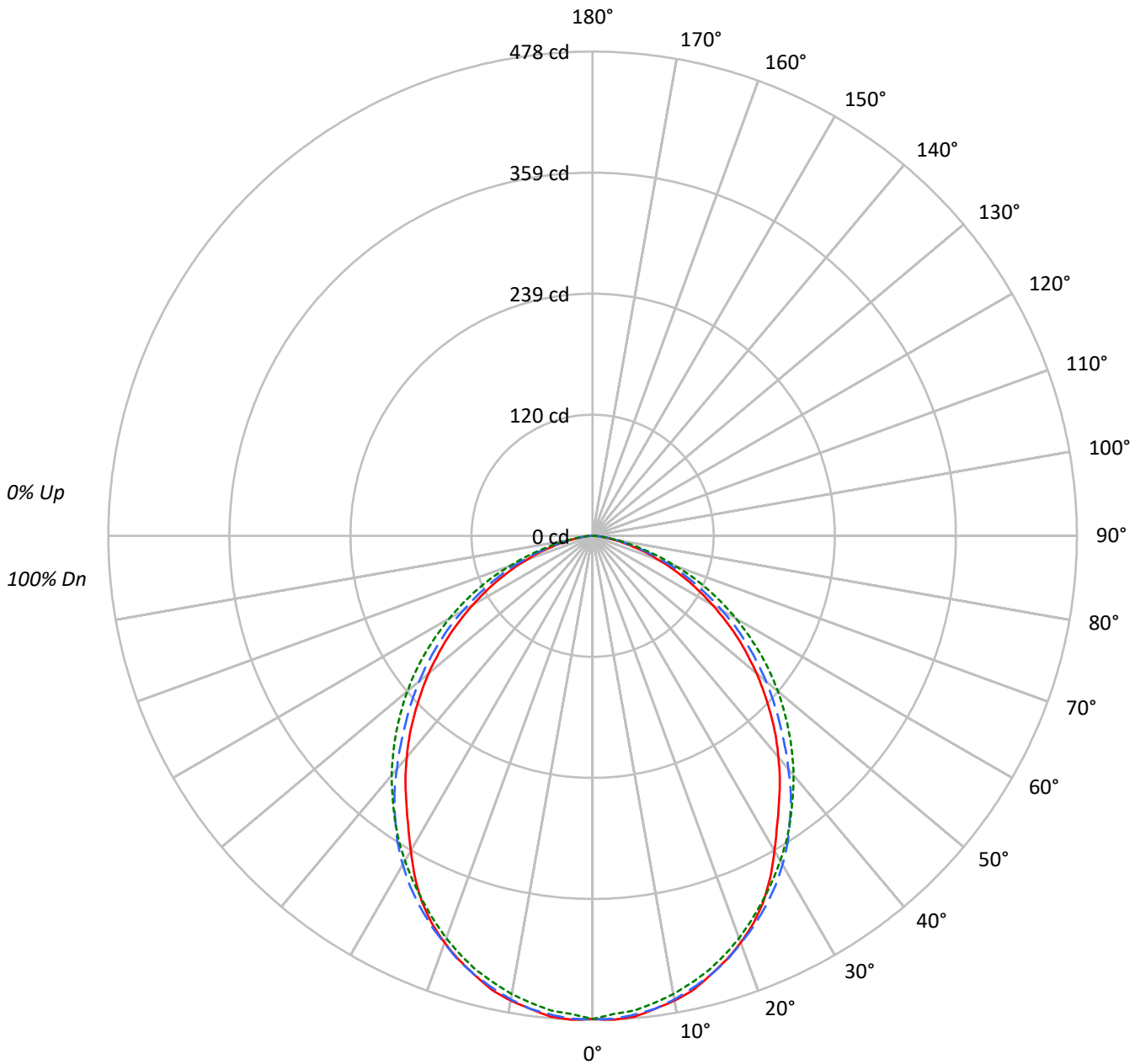
Lumens per Lamp: N/A  
Luminaire Lumens: 1103.0 lumens  
Efficiency: N/A  
Efficacy: 94.3 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 11.7  
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									
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°	2567	2567	2567
5°	2574	2563	2541
10°	2547	2540	2511
15°	2502	2502	2473
20°	2448	2452	2420
25°	2368	2397	2359
30°	2230	2330	2302
35°	2107	2233	2237
40°	2004	2113	2168
45°	1890	1985	2087
50°	1769	1870	1998
55°	1632	1741	1890
60°	1469	1588	1758
65°	1298	1412	1598
70°	1081	1202	1358
75°	850	961	1063
80°	607	676	750
85°	395	395	371



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	44.9	4.1
10°-20°	126.2	11.4
20°-30°	184.4	16.7
30°-40°	209.3	19.0
40°-50°	202.0	18.3
50°-60°	166.7	15.1
60°-70°	111.0	10.1
70°-80°	49.7	4.5
80°-90°	8.9	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°	355.5	32.2
0°-40°	564.8	51.2
0°-60°	933.5	84.6
0°-90°	1103.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1103.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	477	477	477	477	477	
5°	476	476	474	472	470	45
15°	449	450	449	447	444	127
25°	399	402	404	401	397	183
35°	321	325	340	342	340	201
45°	248	252	261	273	274	192
55°	174	177	186	196	201	155
65°	102	105	111	119	126	101
75°	41	43	46	48	51	45
85°	6	6	6	6	6	9
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	477.0	477.0	477.0	477.0	477.0
2.5°	478.3	478.5	477.4	474.5	472.6
5°	476.5	476.3	474.5	471.9	470.4
7.5°	471.2	471.5	471.0	467.3	465.3
10°	466.0	466.2	464.7	461.8	459.4
12.5°	459.4	459.2	457.2	455.8	451.9
15°	449.0	450.1	449.0	447.0	443.8
17.5°	438.9	438.9	439.6	436.2	433.8
20°	427.5	428.1	428.1	425.3	422.6
22.5°	414.3	416.0	416.5	413.6	410.3
25°	398.8	401.9	403.7	400.8	397.3
27.5°	379.9	384.7	390.2	388.0	384.1
30°	358.8	365.8	374.9	373.1	370.4
32.5°	338.8	345.8	358.5	357.7	356.3
35°	320.7	325.1	339.9	341.8	340.5
37.5°	303.5	307.5	321.4	325.6	324.5
40°	285.3	289.7	300.7	308.2	308.6
42.5°	267.4	271.6	280.6	291.4	291.4
45°	248.3	252.5	260.8	272.7	274.2
47.5°	229.6	234.0	242.1	254.0	256.4
50°	211.3	215.3	223.4	234.9	238.6
52.5°	192.2	196.6	204.5	215.1	220.5
55°	173.9	176.8	185.5	195.7	201.4
57.5°	154.9	157.6	167.3	176.1	182.0
60°	136.5	140.0	147.5	156.5	163.3
62.5°	118.9	122.6	129.0	136.9	144.6
65°	101.9	104.6	110.9	118.8	125.5
67.5°	85.4	87.8	94.0	99.5	106.7
70°	68.7	71.8	76.4	81.7	86.3
72.5°	55.3	56.6	60.5	64.3	69.1
75°	40.9	43.1	46.2	48.4	51.1
77.5°	29.3	30.6	32.4	34.3	36.8
80°	19.6	20.2	21.8	22.2	24.2
82.5°	11.9	12.3	12.6	12.8	13.6
85°	6.4	6.4	6.4	6.0	6.0
87.5°	3.7	3.7	3.1	2.6	1.8
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)