

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: P554918

Luminaire Tested: **FUSL-12-2-LD4-2LO-30-UNV-93-87-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: P554918  
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-LD4-2LO-30-UNV-93-87-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

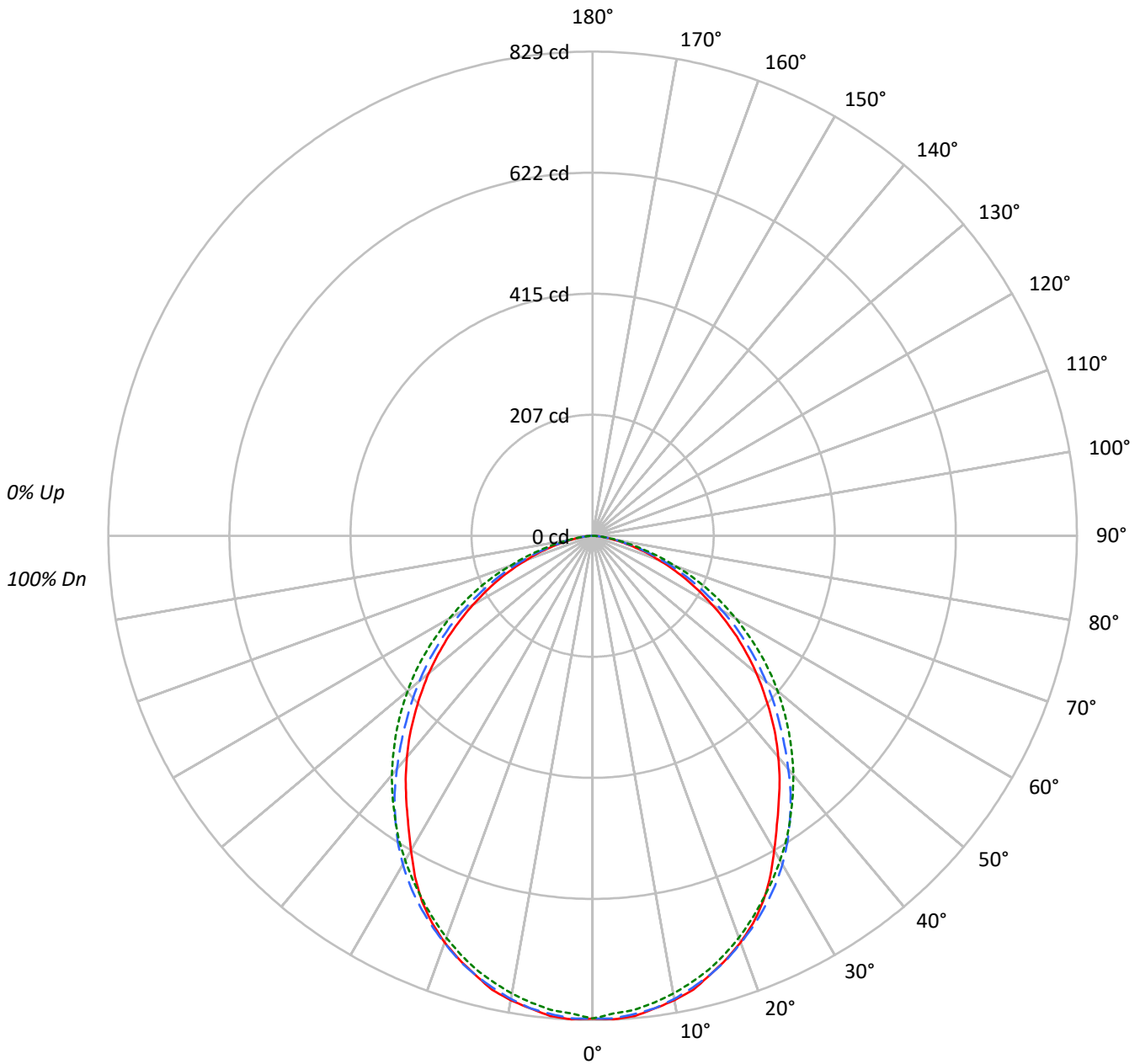
Lumens per Lamp: N/A  
Luminaire Lumens: 1911.0 lumens  
Efficiency: N/A  
Efficacy: 81.7 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 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

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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°	4448	4448	4448
5°	4460	4441	4403
10°	4412	4400	4350
15°	4334	4334	4285
20°	4242	4248	4194
25°	4103	4154	4087
30°	3864	4037	3988
35°	3650	3870	3876
40°	3473	3660	3757
45°	3274	3439	3615
50°	3065	3240	3461
55°	2827	3015	3274
60°	2546	2751	3045
65°	2248	2446	2770
70°	1874	2083	2353
75°	1472	1664	1842
80°	1054	1172	1299
85°	685	685	648



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.8	4.1
10°-20°	218.6	11.4
20°-30°	319.5	16.7
30°-40°	362.6	19.0
40°-50°	350.0	18.3
50°-60°	288.8	15.1
60°-70°	192.3	10.1
70°-80°	86.0	4.5
80°-90°	15.4	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°	615.9	32.2
0°-40°	978.5	51.2
0°-60°	1617.3	84.6
0°-90°	1911.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1911.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	826	826	826	826	826	
5°	826	825	822	818	815	78
15°	778	780	778	774	769	219
25°	691	696	700	694	688	316
35°	556	563	589	592	590	348
45°	430	438	452	472	475	332
55°	301	306	321	339	349	269
65°	176	181	192	206	218	175
75°	71	75	80	84	89	77
85°	11	11	11	10	10	15
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	826.5	826.5	826.5	826.5	826.5
2.5°	828.7	829.0	827.1	822.0	818.8
5°	825.5	825.2	822.0	817.6	815.0
7.5°	816.3	816.9	816.0	809.6	806.1
10°	807.4	807.7	805.2	800.1	796.0
12.5°	796.0	795.7	792.2	789.6	783.0
15°	777.9	779.8	777.9	774.4	769.0
17.5°	760.4	760.4	761.7	755.7	751.5
20°	740.7	741.7	741.7	736.9	732.2
22.5°	717.9	720.7	721.7	716.6	710.9
25°	690.9	696.3	699.5	694.4	688.3
27.5°	658.2	666.4	676.0	672.2	665.5
30°	621.7	633.7	649.6	646.4	641.7
32.5°	587.1	599.1	621.0	619.8	617.2
35°	555.6	563.2	589.0	592.1	589.9
37.5°	525.8	532.8	556.9	564.2	562.3
40°	494.4	502.0	521.0	534.0	534.7
42.5°	463.2	470.5	486.1	504.8	504.8
45°	430.2	437.5	451.8	472.4	475.0
47.5°	397.8	405.5	419.4	440.1	444.2
50°	366.1	373.1	387.0	407.0	413.4
52.5°	333.1	340.7	354.3	372.7	382.0
55°	301.3	306.4	321.3	339.1	348.9
57.5°	268.3	273.1	289.9	305.1	315.3
60°	236.5	242.6	255.6	271.1	282.9
62.5°	206.1	212.4	223.5	237.2	250.5
65°	176.5	181.3	192.1	205.7	217.5
67.5°	148.0	152.1	162.9	172.4	184.8
70°	119.1	124.5	132.4	141.6	149.5
72.5°	95.9	98.1	104.8	111.4	119.7
75°	70.8	74.6	80.0	83.8	88.6
77.5°	50.8	53.0	56.2	59.4	63.8
80°	34.0	34.9	37.8	38.4	41.9
82.5°	20.6	21.3	21.9	22.2	23.5
85°	11.1	11.1	11.1	10.5	10.5
87.5°	6.4	6.4	5.4	4.4	3.2
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)