

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: P553857

Luminaire Tested: **FUSL-12-2-LD4-1HI-30-UNV-81-84-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: P553857  
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-81-84-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

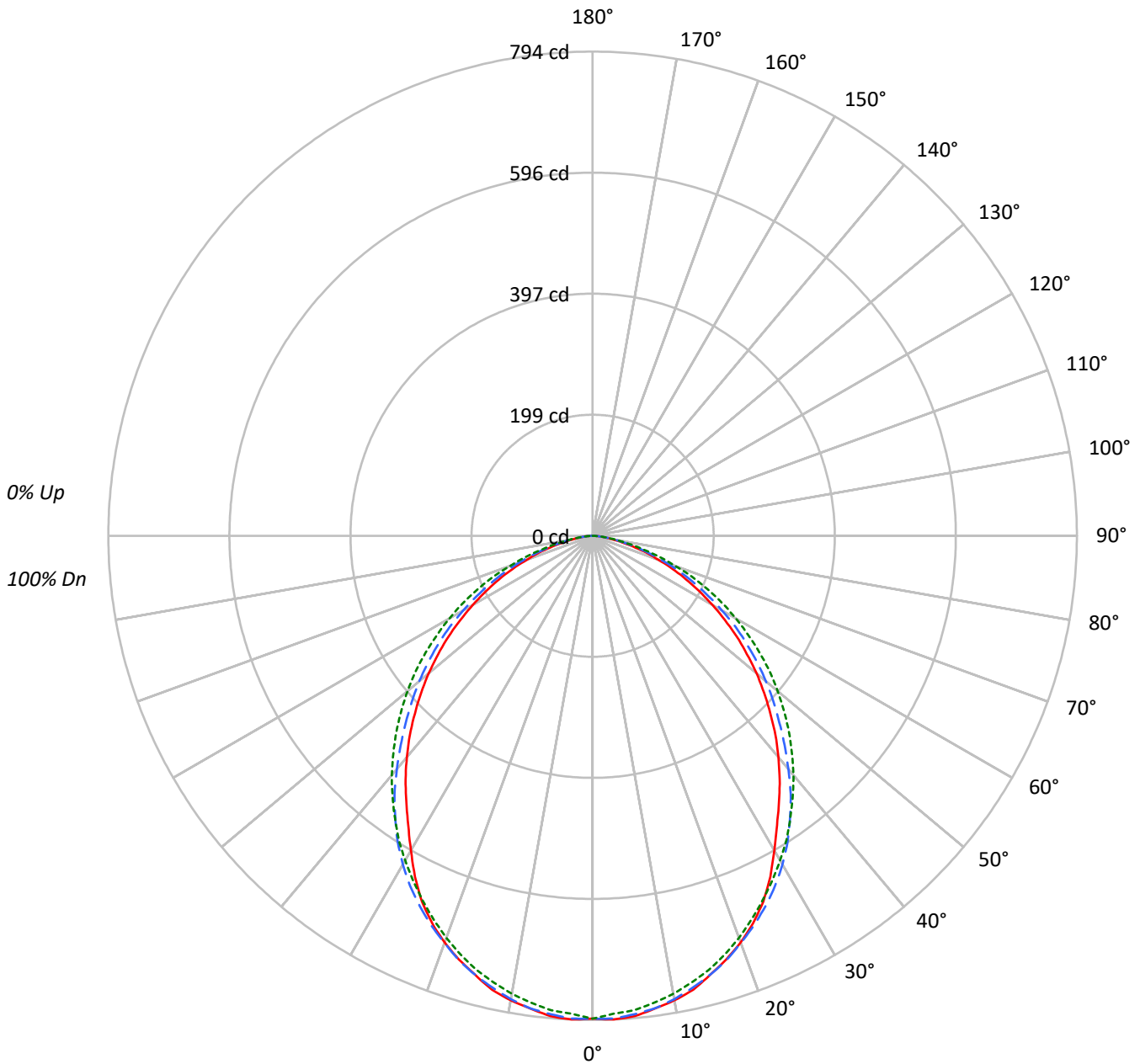
Lumens per Lamp: N/A  
Luminaire Lumens: 1831.0 lumens  
Efficiency: N/A  
Efficacy: 84.8 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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°	4262	4262	4262
5°	4273	4255	4219
10°	4228	4216	4168
15°	4153	4153	4105
20°	4065	4070	4018
25°	3931	3980	3916
30°	3701	3868	3821
35°	3498	3708	3713
40°	3328	3507	3599
45°	3137	3295	3464
50°	2937	3105	3316
55°	2709	2889	3137
60°	2439	2636	2918
65°	2153	2343	2654
70°	1795	1997	2255
75°	1410	1595	1765
80°	1010	1122	1246
85°	655	655	618



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	74.6	4.1
10°-20°	209.4	11.4
20°-30°	306.1	16.7
30°-40°	347.4	19.0
40°-50°	335.4	18.3
50°-60°	276.7	15.1
60°-70°	184.2	10.1
70°-80°	82.5	4.5
80°-90°	14.7	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°	590.1	32.2
0°-40°	937.5	51.2
0°-60°	1549.6	84.6
0°-90°	1831.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1831.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	792	792	792	792	792	
5°	791	791	788	783	781	75
15°	745	747	745	742	737	210
25°	662	667	670	665	660	303
35°	532	540	564	567	565	334
45°	412	419	433	453	455	318
55°	289	294	308	325	334	258
65°	169	174	184	197	208	168
75°	68	72	77	80	85	74
85°	11	11	11	10	10	14
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	791.9	791.9	791.9	791.9	791.9
2.5°	794.0	794.3	792.5	787.6	784.6
5°	790.9	790.6	787.6	783.3	780.9
7.5°	782.1	782.7	781.8	775.7	772.4
10°	773.6	773.9	771.5	766.6	762.7
12.5°	762.7	762.4	759.0	756.6	750.2
15°	745.3	747.1	745.3	742.0	736.8
17.5°	728.6	728.6	729.8	724.0	720.1
20°	709.7	710.6	710.6	706.1	701.5
22.5°	687.8	690.6	691.5	686.6	681.1
25°	662.0	667.1	670.2	665.3	659.5
27.5°	630.6	638.5	647.7	644.0	637.6
30°	595.6	607.2	622.4	619.4	614.8
32.5°	562.5	574.0	595.0	593.8	591.4
35°	532.4	539.7	564.3	567.4	565.2
37.5°	503.8	510.5	533.6	540.6	538.8
40°	473.7	481.0	499.2	511.7	512.3
42.5°	443.8	450.8	465.7	483.7	483.7
45°	412.2	419.2	432.9	452.7	455.1
47.5°	381.2	388.5	401.9	421.6	425.6
50°	350.8	357.4	370.8	390.0	396.1
52.5°	319.1	326.4	339.5	357.1	366.0
55°	288.7	293.6	307.9	324.9	334.3
57.5°	257.1	261.6	277.7	292.3	302.1
60°	226.6	232.4	244.9	259.8	271.1
62.5°	197.4	203.5	214.2	227.2	240.0
65°	169.1	173.7	184.0	197.1	208.4
67.5°	141.8	145.7	156.1	165.2	177.1
70°	114.1	119.3	126.9	135.7	143.3
72.5°	91.9	94.0	100.4	106.8	114.7
75°	67.8	71.5	76.7	80.3	84.9
77.5°	48.7	50.8	53.8	56.9	61.1
80°	32.6	33.5	36.2	36.8	40.2
82.5°	19.8	20.4	21.0	21.3	22.5
85°	10.6	10.6	10.6	10.0	10.0
87.5°	6.1	6.1	5.2	4.3	3.0
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)