

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: P554375

Luminaire Tested: **FUSL-12-2-LD4-1STD-30-UNV-81-87-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: P554375  
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-LD4-1STD-30-UNV-81-87-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC 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**

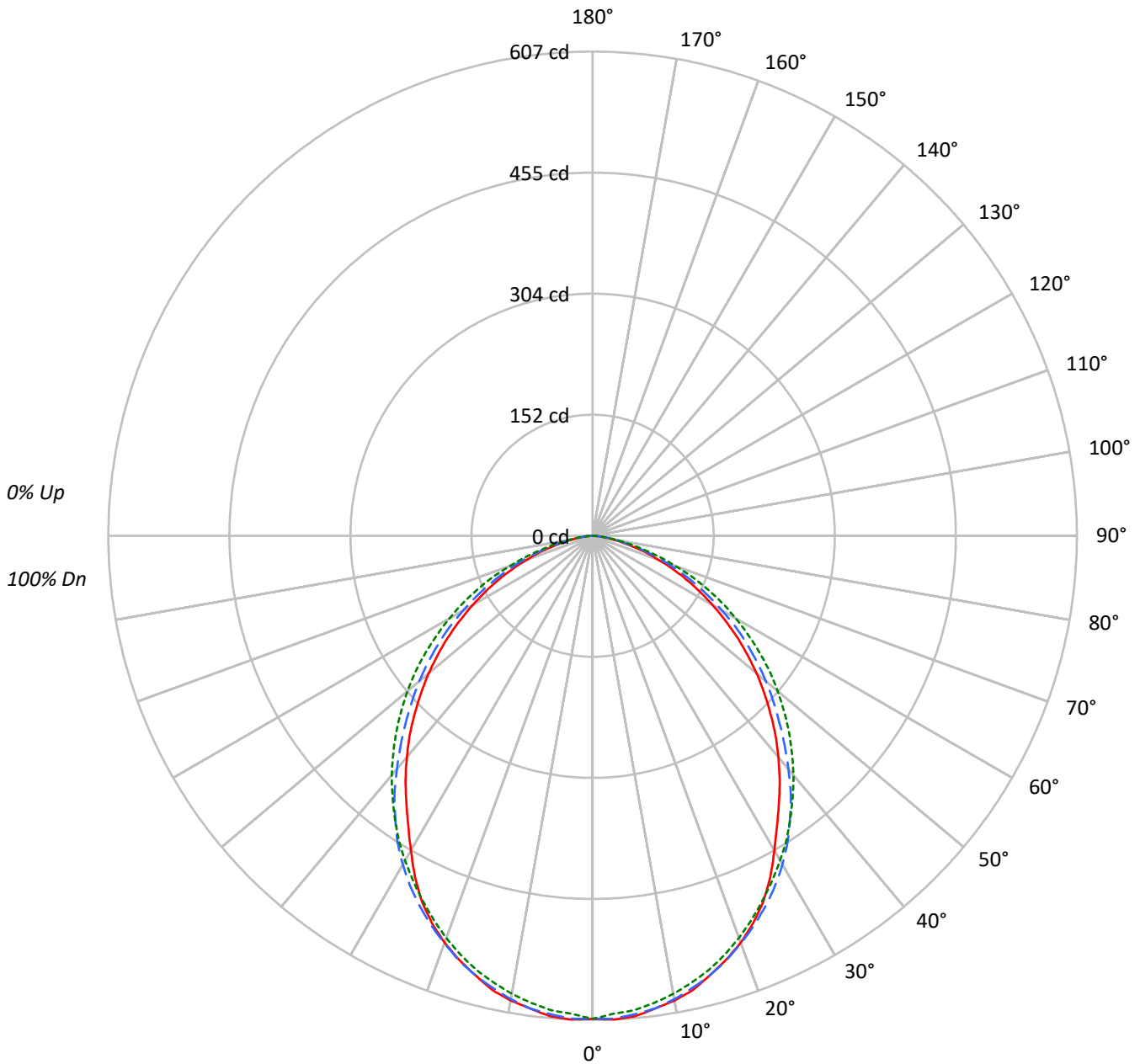
Lumens per Lamp: N/A  
Luminaire Lumens: 1400.0 lumens  
Efficiency: N/A  
Efficacy: 84.3 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 16.6  
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°	3259	3259	3259
5°	3267	3253	3226
10°	3233	3224	3187
15°	3175	3175	3139
20°	3108	3112	3072
25°	3005	3043	2995
30°	2830	2958	2921
35°	2675	2835	2840
40°	2545	2682	2752
45°	2399	2519	2649
50°	2246	2374	2535
55°	2071	2209	2398
60°	1865	2015	2230
65°	1647	1792	2029
70°	1372	1526	1725
75°	1079	1219	1350
80°	772	859	951
85°	500	500	475



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	57.0	4.1
10°-20°	160.1	11.4
20°-30°	234.0	16.7
30°-40°	265.6	19.0
40°-50°	256.4	18.3
50°-60°	211.5	15.1
60°-70°	140.9	10.1
70°-80°	63.0	4.5
80°-90°	11.3	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°	451.2	32.2
0°-40°	716.8	51.2
0°-60°	1184.8	84.6
0°-90°	1400.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1400.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	606	606	606	606	606	
5°	605	604	602	599	597	57
15°	570	571	570	567	563	161
25°	506	510	512	509	504	232
35°	407	413	432	434	432	255
45°	315	320	331	346	348	243
55°	221	224	235	248	256	197
65°	129	133	141	151	159	128
75°	52	55	59	61	65	57
85°	8	8	8	8	8	11
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	605.5	605.5	605.5	605.5	605.5
2.5°	607.1	607.3	605.9	602.2	599.9
5°	604.8	604.5	602.2	599.0	597.1
7.5°	598.0	598.5	597.8	593.1	590.6
10°	591.5	591.7	589.9	586.2	583.1
12.5°	583.1	582.9	580.3	578.5	573.6
15°	569.9	571.3	569.9	567.3	563.4
17.5°	557.1	557.1	558.0	553.6	550.6
20°	542.7	543.4	543.4	539.9	536.4
22.5°	525.9	528.0	528.7	525.0	520.8
25°	506.1	510.1	512.4	508.7	504.3
27.5°	482.2	488.2	495.2	492.4	487.5
30°	455.4	464.3	475.9	473.6	470.1
32.5°	430.1	438.9	455.0	454.0	452.2
35°	407.1	412.6	431.5	433.8	432.2
37.5°	385.2	390.3	408.0	413.3	411.9
40°	362.2	367.7	381.7	391.2	391.7
42.5°	339.4	344.7	356.1	369.8	369.8
45°	315.2	320.5	331.0	346.1	348.0
47.5°	291.5	297.0	307.3	322.4	325.4
50°	268.2	273.3	283.5	298.2	302.8
52.5°	244.0	249.6	259.6	273.1	279.8
55°	220.7	224.5	235.4	248.4	255.6
57.5°	196.5	200.0	212.4	223.5	231.0
60°	173.3	177.7	187.2	198.6	207.2
62.5°	151.0	155.6	163.8	173.8	183.5
65°	129.3	132.8	140.7	150.7	159.3
67.5°	108.4	111.4	119.3	126.3	135.4
70°	87.2	91.2	97.0	103.7	109.6
72.5°	70.2	71.9	76.8	81.6	87.7
75°	51.9	54.7	58.6	61.4	64.9
77.5°	37.2	38.8	41.2	43.5	46.8
80°	24.9	25.6	27.7	28.1	30.7
82.5°	15.1	15.6	16.0	16.3	17.2
85°	8.1	8.1	8.1	7.7	7.7
87.5°	4.7	4.7	4.0	3.3	2.3
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)