

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: P554880

Luminaire Tested: **FUSL-12-2-LD4-2LO-30-UNV-81-84-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: P554880  
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-81-84-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

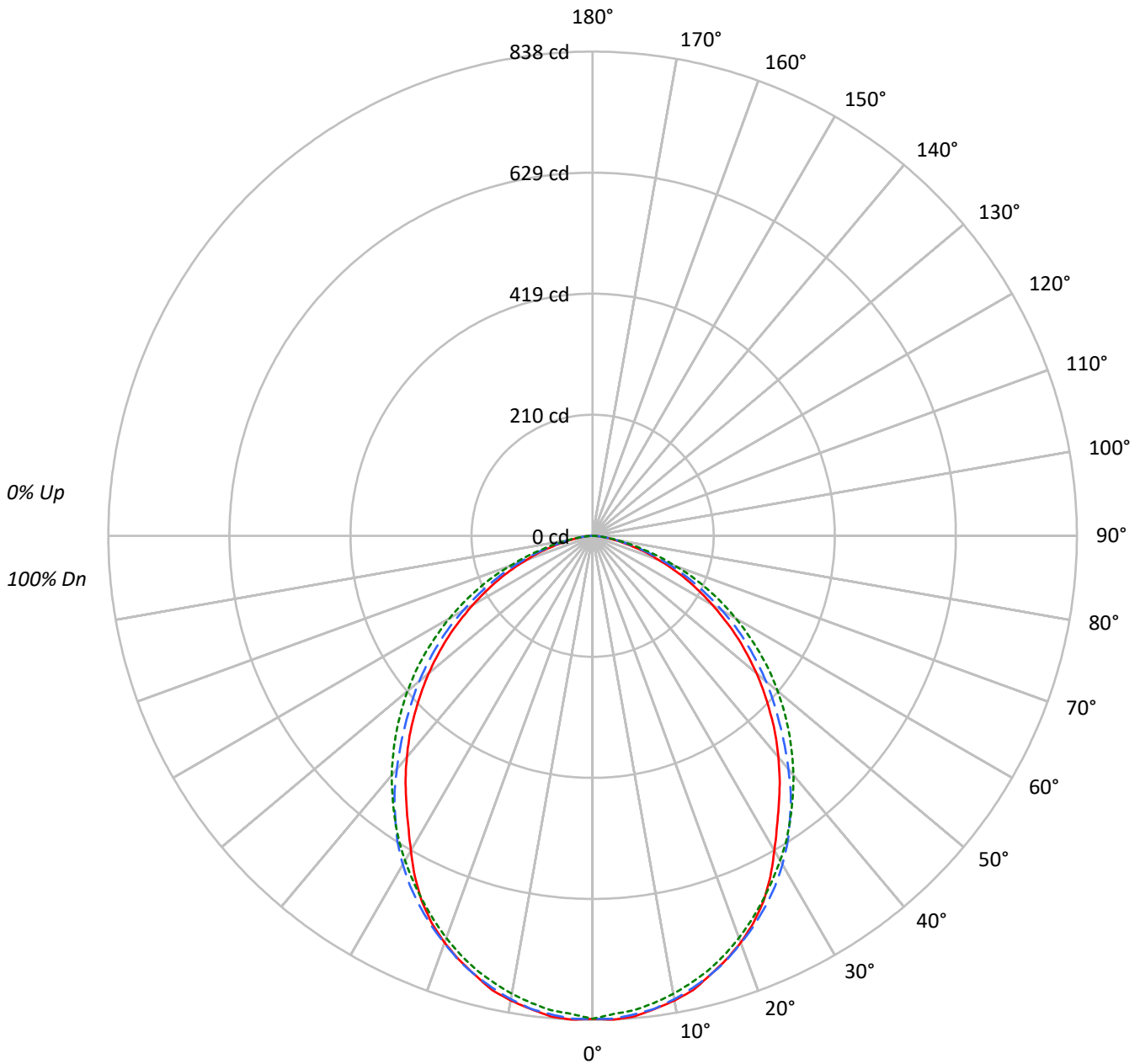
Lumens per Lamp: N/A  
Luminaire Lumens: 1933.0 lumens  
Efficiency: N/A  
Efficacy: 82.6 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 23.4  
Input Voltage (V): NR  
Input Current (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°	4499	4499	4499
5°	4511	4492	4454
10°	4463	4451	4400
15°	4384	4384	4334
20°	4292	4297	4242
25°	4150	4201	4135
30°	3908	4084	4034
35°	3692	3914	3920
40°	3513	3703	3799
45°	3312	3478	3657
50°	3100	3278	3501
55°	2860	3050	3312
60°	2576	2782	3081
65°	2274	2474	2802
70°	1895	2107	2381
75°	1489	1682	1863
80°	1066	1184	1314
85°	692	692	655



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.7	4.1
10°-20°	221.1	11.4
20°-30°	323.1	16.7
30°-40°	366.8	19.0
40°-50°	354.1	18.3
50°-60°	292.1	15.1
60°-70°	194.5	10.1
70°-80°	87.0	4.5
80°-90°	15.6	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°	623.0	32.2
0°-40°	989.7	51.2
0°-60°	1635.9	84.6
0°-90°	1933.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1933.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	836	836	836	836	836	
5°	835	835	832	827	824	79
15°	787	789	787	783	778	222
25°	699	704	708	702	696	320
35°	562	570	596	599	597	352
45°	435	443	457	478	480	336
55°	305	310	325	343	353	272
65°	179	183	194	208	220	177
75°	72	76	81	85	90	78
85°	11	11	11	11	11	15
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	836.0	836.0	836.0	836.0	836.0
2.5°	838.2	838.5	836.6	831.5	828.3
5°	835.0	834.7	831.5	827.0	824.4
7.5°	825.7	826.3	825.4	819.0	815.4
10°	816.7	817.0	814.5	809.3	805.1
12.5°	805.1	804.8	801.3	798.7	792.0
15°	786.8	788.8	786.8	783.3	777.8
17.5°	769.2	769.2	770.5	764.4	760.2
20°	749.3	750.2	750.2	745.4	740.6
22.5°	726.1	729.0	730.0	724.9	719.1
25°	698.8	704.3	707.5	702.4	696.3
27.5°	665.8	674.1	683.7	679.9	673.1
30°	628.8	641.0	657.1	653.9	649.1
32.5°	593.8	606.0	628.2	626.9	624.3
35°	562.0	569.7	595.7	599.0	596.7
37.5°	531.8	538.9	563.3	570.7	568.8
40°	500.0	507.7	527.0	540.2	540.8
42.5°	468.6	476.0	491.7	510.6	510.6
45°	435.2	442.6	457.0	477.9	480.5
47.5°	402.4	410.1	424.2	445.1	449.3
50°	370.3	377.4	391.5	411.7	418.1
52.5°	336.9	344.6	358.4	377.0	386.4
55°	304.8	309.9	325.0	343.0	353.0
57.5°	271.4	276.2	293.2	308.6	318.9
60°	239.3	245.4	258.5	274.3	286.2
62.5°	208.4	214.9	226.1	239.9	253.4
65°	178.6	183.4	194.3	208.1	220.0
67.5°	149.7	153.8	164.8	174.4	186.9
70°	120.4	125.9	133.9	143.2	151.3
72.5°	97.0	99.2	106.0	112.7	121.1
75°	71.6	75.5	80.9	84.8	89.6
77.5°	51.4	53.6	56.8	60.1	64.6
80°	34.4	35.3	38.2	38.9	42.4
82.5°	20.9	21.5	22.2	22.5	23.8
85°	11.2	11.2	11.2	10.6	10.6
87.5°	6.4	6.4	5.5	4.5	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)