

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: P554371

Luminaire Tested: **FUSL-12-2-LD4-1STD-30-UNV-81-85-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: P554371  
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-81-85-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

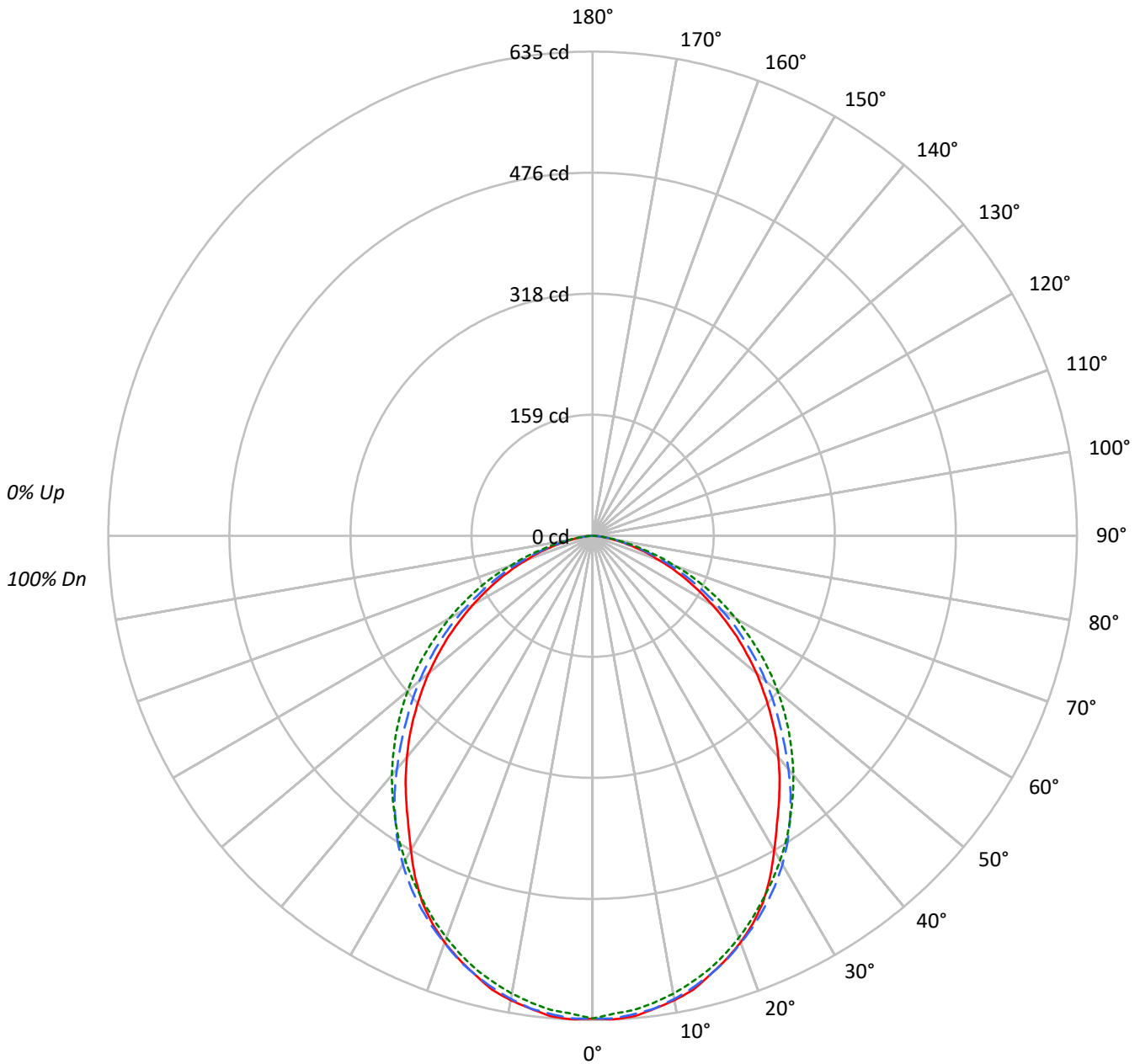
Lumens per Lamp: N/A  
Luminaire Lumens: 1464.0 lumens  
Efficiency: N/A  
Efficacy: 88.2 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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				20				20	
RC	80				70				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				100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86				86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73				73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63				63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54				54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47				47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42				42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37				37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34				34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30				30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28				28

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3407	3407	3407
5°	3417	3402	3373
10°	3380	3371	3333
15°	3320	3320	3282
20°	3250	3254	3212
25°	3143	3182	3131
30°	2960	3093	3055
35°	2797	2964	2969
40°	2661	2804	2878
45°	2509	2634	2770
50°	2349	2483	2652
55°	2166	2310	2508
60°	1950	2108	2333
65°	1722	1875	2122
70°	1435	1596	1803
75°	1127	1275	1412
80°	806	896	995
85°	525	525	494



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.6	4.1
10°-20°	167.5	11.4
20°-30°	244.7	16.7
30°-40°	277.8	19.0
40°-50°	268.2	18.3
50°-60°	221.2	15.1
60°-70°	147.3	10.1
70°-80°	65.9	4.5
80°-90°	11.8	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°	471.8	32.2
0°-40°	749.6	51.2
0°-60°	1239.0	84.6
0°-90°	1464.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1464.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	633	633	633	633	633	
5°	632	632	630	626	624	60
15°	596	597	596	593	589	168
25°	529	533	536	532	527	242
35°	426	432	451	454	452	267
45°	330	335	346	362	364	254
55°	231	235	246	260	267	206
65°	135	139	147	158	167	134
75°	54	57	61	64	68	59
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°	633.1	633.1	633.1	633.1	633.1
2.5°	634.8	635.1	633.6	629.7	627.3
5°	632.4	632.2	629.7	626.3	624.4
7.5°	625.4	625.8	625.1	620.3	617.6
10°	618.5	618.8	616.8	613.0	609.8
12.5°	609.8	609.5	606.9	604.9	599.8
15°	595.9	597.4	595.9	593.3	589.1
17.5°	582.5	582.5	583.5	578.9	575.7
20°	567.5	568.2	568.2	564.5	560.9
22.5°	550.0	552.1	552.9	549.0	544.6
25°	529.3	533.4	535.8	532.0	527.3
27.5°	504.2	510.6	517.8	514.9	509.8
30°	476.3	485.5	497.7	495.2	491.6
32.5°	449.7	459.0	475.8	474.8	472.8
35°	425.7	431.5	451.2	453.6	451.9
37.5°	402.8	408.1	426.6	432.2	430.8
40°	378.7	384.6	399.1	409.1	409.6
42.5°	354.9	360.5	372.4	386.7	386.7
45°	329.6	335.2	346.1	361.9	363.9
47.5°	304.8	310.6	321.3	337.1	340.3
50°	280.5	285.8	296.5	311.8	316.7
52.5°	255.2	261.0	271.5	285.6	292.6
55°	230.8	234.7	246.2	259.8	267.3
57.5°	205.5	209.2	222.1	233.7	241.5
60°	181.2	185.8	195.8	207.7	216.7
62.5°	157.9	162.7	171.2	181.7	191.9
65°	135.2	138.9	147.2	157.6	166.6
67.5°	113.3	116.5	124.8	132.1	141.6
70°	91.2	95.3	101.4	108.5	114.6
72.5°	73.5	75.2	80.3	85.4	91.7
75°	54.2	57.2	61.3	64.2	67.9
77.5°	38.9	40.6	43.1	45.5	48.9
80°	26.0	26.8	28.9	29.4	32.1
82.5°	15.8	16.3	16.8	17.0	18.0
85°	8.5	8.5	8.5	8.0	8.0
87.5°	4.9	4.9	4.1	3.4	2.4
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)