

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: P554385

Luminaire Tested: **FUSL-12-2-LD4-1STD-30-UNV-82-84-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: P554385  
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-82-84-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .187 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**

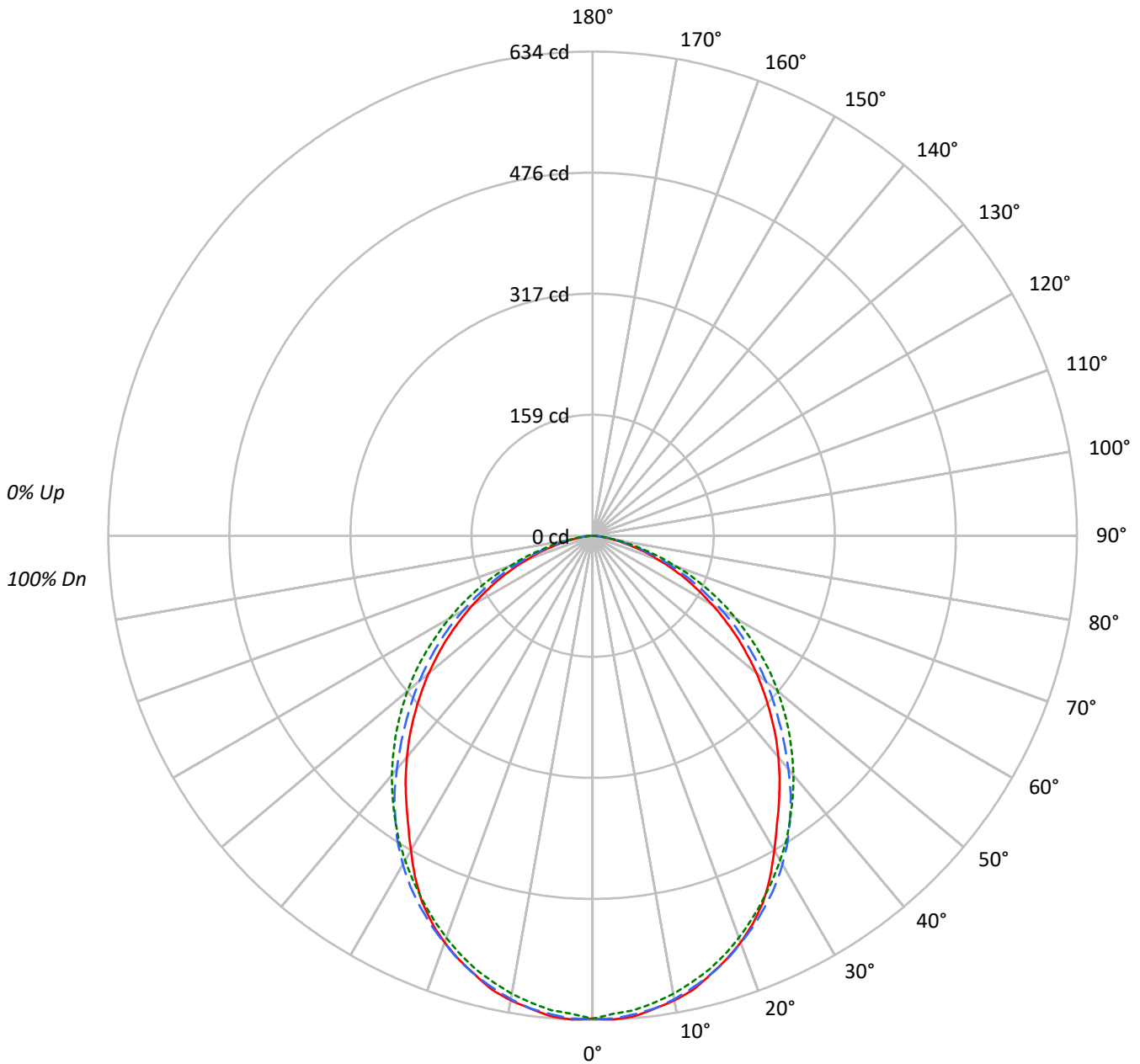
Lumens per Lamp: N/A  
Luminaire Lumens: 1462.0 lumens  
Efficiency: N/A  
Efficacy: 88.1 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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°	3403	3403	3403
5°	3412	3398	3368
10°	3376	3366	3328
15°	3316	3316	3278
20°	3246	3250	3208
25°	3139	3178	3127
30°	2956	3089	3051
35°	2793	2961	2965
40°	2657	2800	2873
45°	2505	2631	2766
50°	2345	2479	2648
55°	2163	2306	2505
60°	1948	2104	2329
65°	1720	1872	2119
70°	1434	1594	1800
75°	1127	1273	1410
80°	806	896	995
85°	525	525	494



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.5	4.1
10°-20°	167.2	11.4
20°-30°	244.4	16.7
30°-40°	277.4	19.0
40°-50°	267.8	18.3
50°-60°	220.9	15.1
60°-70°	147.1	10.1
70°-80°	65.8	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°	471.2	32.2
0°-40°	748.6	51.2
0°-60°	1237.3	84.6
0°-90°	1462.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1462.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	632	632	632	632	632	
5°	632	631	629	626	624	60
15°	595	597	595	592	588	168
25°	529	533	535	531	527	242
35°	425	431	451	453	451	266
45°	329	335	346	361	363	254
55°	230	234	246	259	267	206
65°	135	139	147	157	166	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°	632.3	632.3	632.3	632.3	632.3
2.5°	634.0	634.2	632.8	628.9	626.4
5°	631.5	631.3	628.9	625.5	623.5
7.5°	624.5	625.0	624.3	619.4	616.7
10°	617.7	617.9	616.0	612.1	609.0
12.5°	609.0	608.7	606.0	604.1	599.0
15°	595.1	596.6	595.1	592.4	588.3
17.5°	581.8	581.8	582.7	578.1	575.0
20°	566.7	567.4	567.4	563.8	560.1
22.5°	549.2	551.4	552.1	548.2	543.9
25°	528.6	532.7	535.1	531.2	526.6
27.5°	503.5	509.9	517.1	514.2	509.1
30°	475.6	484.8	497.0	494.6	490.9
32.5°	449.1	458.4	475.1	474.1	472.2
35°	425.1	430.9	450.6	453.0	451.3
37.5°	402.2	407.6	426.1	431.6	430.2
40°	378.2	384.0	398.6	408.6	409.0
42.5°	354.4	360.0	371.9	386.2	386.2
45°	329.1	334.7	345.7	361.4	363.4
47.5°	304.4	310.2	320.9	336.7	339.8
50°	280.1	285.4	296.1	311.4	316.3
52.5°	254.8	260.6	271.1	285.2	292.2
55°	230.5	234.4	245.8	259.4	267.0
57.5°	205.3	208.9	221.8	233.4	241.2
60°	181.0	185.6	195.5	207.4	216.4
62.5°	157.6	162.5	171.0	181.4	191.7
65°	135.1	138.7	147.0	157.4	166.4
67.5°	113.2	116.4	124.6	131.9	141.4
70°	91.1	95.2	101.3	108.3	114.4
72.5°	73.4	75.1	80.2	85.3	91.6
75°	54.2	57.1	61.2	64.1	67.8
77.5°	38.9	40.6	43.0	45.4	48.8
80°	26.0	26.7	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)