

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: P554583

Luminaire Tested: **FUSL-12-2-LD4-1STD-50-UNV-82-87-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: P554583  
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-50-UNV-82-87-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

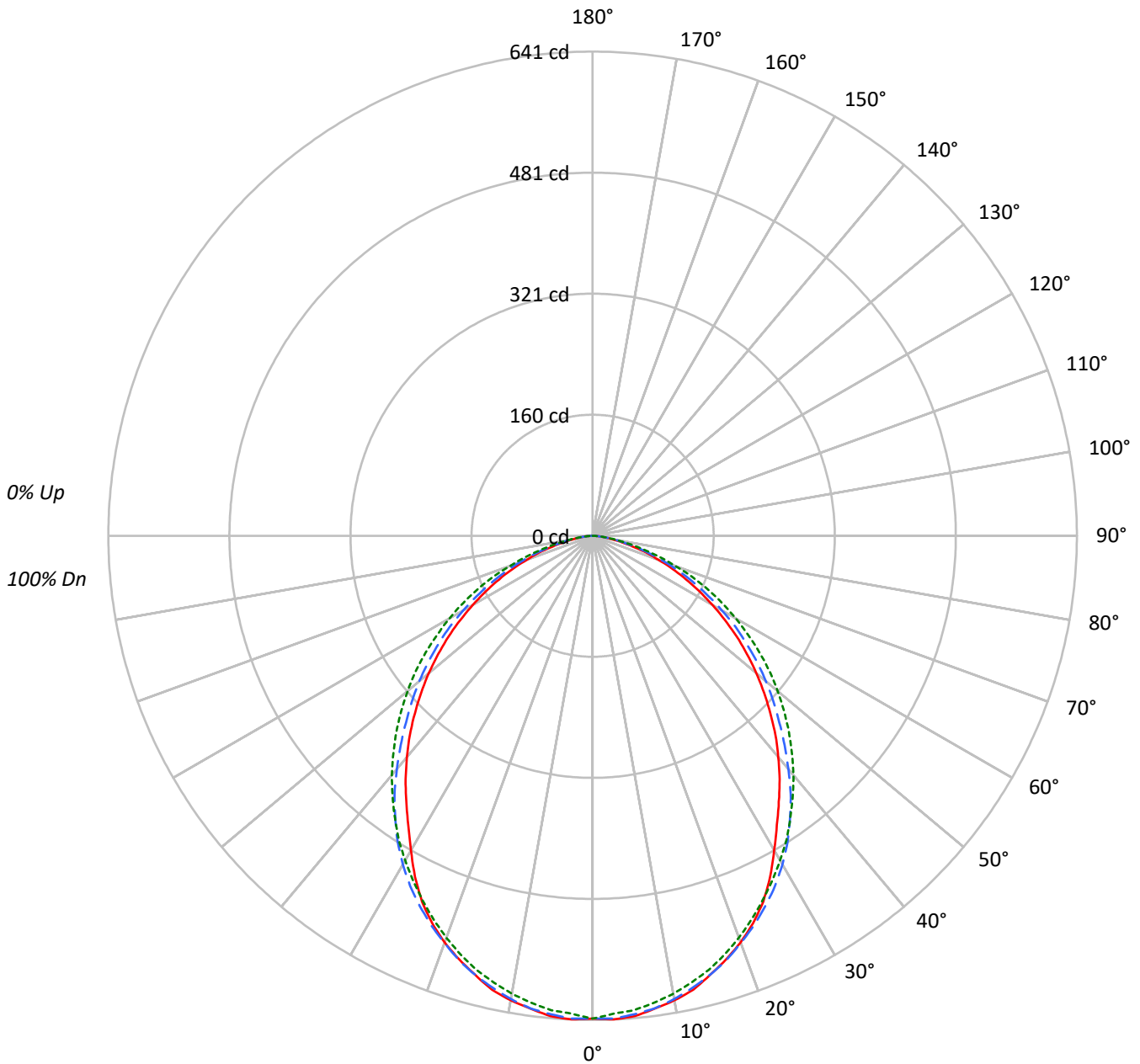
Lumens per Lamp: N/A  
Luminaire Lumens: 1478.0 lumens  
Efficiency: N/A  
Efficacy: 89.0 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 16.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	3440	3440	3440
5°	3450	3435	3406
10°	3413	3403	3364
15°	3352	3352	3314
20°	3281	3285	3243
25°	3173	3213	3162
30°	2988	3122	3084
35°	2823	2993	2998
40°	2686	2831	2905
45°	2532	2659	2796
50°	2370	2506	2677
55°	2186	2332	2533
60°	1969	2128	2355
65°	1738	1892	2142
70°	1449	1611	1821
75°	1140	1287	1424
80°	815	905	1004
85°	531	531	500



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.2	4.1
10°-20°	169.1	11.4
20°-30°	247.1	16.7
30°-40°	280.4	19.0
40°-50°	270.7	18.3
50°-60°	223.3	15.1
60°-70°	148.7	10.1
70°-80°	66.6	4.5
80°-90°	11.9	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°	476.3	32.2
0°-40°	756.8	51.2
0°-60°	1250.8	84.6
0°-90°	1478.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1478.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	639	639	639	639	639	
5°	638	638	636	632	630	60
15°	602	603	602	599	595	170
25°	534	538	541	537	532	245
35°	430	436	456	458	456	269
45°	333	338	349	365	367	257
55°	233	237	248	262	270	208
65°	136	140	149	159	168	135
75°	55	58	62	65	68	60
85°	9	9	9	8	8	12
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	639.2	639.2	639.2	639.2	639.2
2.5°	640.9	641.2	639.7	635.8	633.3
5°	638.5	638.2	635.8	632.3	630.4
7.5°	631.3	631.8	631.1	626.2	623.5
10°	624.5	624.7	622.7	618.8	615.6
12.5°	615.6	615.4	612.7	610.7	605.6
15°	601.6	603.1	601.6	598.9	594.8
17.5°	588.1	588.1	589.1	584.4	581.2
20°	572.9	573.6	573.6	569.9	566.3
22.5°	555.2	557.4	558.2	554.2	549.8
25°	534.3	538.5	541.0	537.0	532.4
27.5°	509.0	515.4	522.8	519.9	514.7
30°	480.8	490.1	502.4	500.0	496.3
32.5°	454.0	463.4	480.3	479.3	477.4
35°	429.7	435.6	455.5	458.0	456.3
37.5°	406.7	412.1	430.7	436.4	434.9
40°	382.3	388.2	403.0	413.0	413.5
42.5°	358.3	363.9	376.0	390.4	390.4
45°	332.7	338.4	349.4	365.4	367.4
47.5°	307.7	313.6	324.4	340.3	343.5
50°	283.1	288.5	299.3	314.8	319.7
52.5°	257.6	263.5	274.0	288.3	295.4
55°	233.0	237.0	248.5	262.3	269.9
57.5°	207.5	211.2	224.2	236.0	243.8
60°	182.9	187.6	197.7	209.7	218.8
62.5°	159.4	164.3	172.9	183.4	193.7
65°	136.5	140.2	148.6	159.1	168.2
67.5°	114.4	117.6	126.0	133.3	142.9
70°	92.1	96.3	102.4	109.5	115.7
72.5°	74.2	75.9	81.0	86.2	92.6
75°	54.8	57.7	61.9	64.8	68.5
77.5°	39.3	41.0	43.5	45.9	49.4
80°	26.3	27.0	29.2	29.7	32.4
82.5°	16.0	16.5	16.9	17.2	18.2
85°	8.6	8.6	8.6	8.1	8.1
87.5°	4.9	4.9	4.2	3.4	2.5
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)