

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: P554004

Luminaire Tested: **FUSL-12-2-LD4-1HI-40-UNV-82-86-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: P554004  
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-LD4-1HI-40-UNV-82-86-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

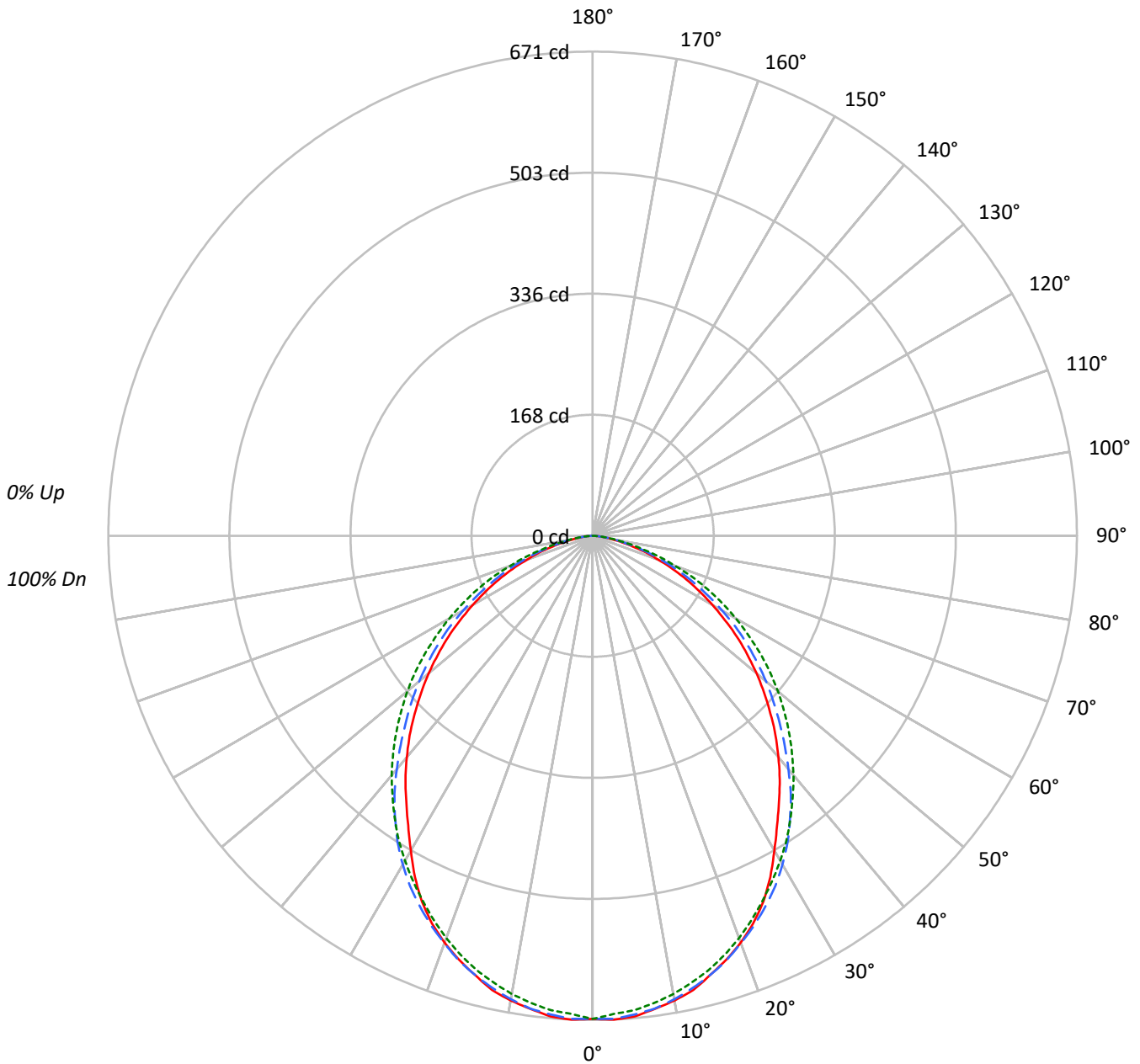
Lumens per Lamp: N/A  
Luminaire Lumens: 1548.0 lumens  
Efficiency: N/A  
Efficacy: 71.7 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 21.6  
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°	3603	3603	3603
5°	3613	3598	3567
10°	3574	3564	3524
15°	3511	3511	3471
20°	3436	3441	3397
25°	3323	3365	3311
30°	3130	3270	3230
35°	2957	3135	3140
40°	2813	2966	3043
45°	2653	2786	2929
50°	2483	2625	2804
55°	2290	2442	2653
60°	2062	2228	2467
65°	1821	1982	2244
70°	1517	1687	1906
75°	1194	1347	1493
80°	852	948	1051
85°	556	556	525



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	63.0	4.1
10°-20°	177.1	11.4
20°-30°	258.8	16.7
30°-40°	293.7	19.0
40°-50°	283.6	18.3
50°-60°	233.9	15.1
60°-70°	155.8	10.1
70°-80°	69.7	4.5
80°-90°	12.5	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°	498.9	32.2
0°-40°	792.6	51.2
0°-60°	1310.1	84.6
0°-90°	1548.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1548.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	670	670	670	670	670	
5°	669	668	666	662	660	63
15°	630	632	630	627	623	178
25°	560	564	567	562	558	256
35°	450	456	477	480	478	282
45°	348	354	366	383	385	269
55°	244	248	260	275	283	218
65°	143	147	156	167	176	142
75°	57	60	65	68	72	63
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°	669.5	669.5	669.5	669.5	669.5
2.5°	671.3	671.5	670.0	665.9	663.3
5°	668.7	668.4	665.9	662.3	660.2
7.5°	661.2	661.8	661.0	655.8	653.0
10°	654.0	654.3	652.2	648.1	644.8
12.5°	644.8	644.5	641.7	639.6	634.2
15°	630.1	631.7	630.1	627.3	622.9
17.5°	616.0	616.0	617.0	612.1	608.8
20°	600.0	600.8	600.8	596.9	593.1
22.5°	581.5	583.8	584.6	580.5	575.9
25°	559.6	564.0	566.6	562.5	557.6
27.5°	533.2	539.8	547.6	544.5	539.1
30°	503.6	513.4	526.2	523.6	519.8
32.5°	475.5	485.3	503.1	502.0	500.0
35°	450.1	456.3	477.1	479.7	477.9
37.5°	425.9	431.6	451.1	457.0	455.5
40°	400.4	406.6	422.1	432.6	433.1
42.5°	375.2	381.2	393.8	408.9	408.9
45°	348.5	354.4	366.0	382.7	384.8
47.5°	322.3	328.4	339.8	356.5	359.8
50°	296.5	302.2	313.5	329.7	334.9
52.5°	269.8	276.0	287.0	301.9	309.4
55°	244.1	248.2	260.3	274.7	282.7
57.5°	217.3	221.2	234.8	247.2	255.4
60°	191.6	196.5	207.0	219.6	229.2
62.5°	166.9	172.1	181.1	192.1	202.9
65°	143.0	146.9	155.6	166.7	176.2
67.5°	119.9	123.2	131.9	139.7	149.7
70°	96.4	100.8	107.2	114.7	121.1
72.5°	77.7	79.5	84.9	90.3	97.0
75°	57.4	60.4	64.8	67.9	71.8
77.5°	41.2	43.0	45.5	48.1	51.7
80°	27.5	28.3	30.6	31.1	33.9
82.5°	16.7	17.2	17.7	18.0	19.0
85°	9.0	9.0	9.0	8.5	8.5
87.5°	5.1	5.1	4.4	3.6	2.6
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)