

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: P554311

Luminaire Tested: **FUSL-12-2-LD4-1LO-50-UNV-81-87-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: P554311  
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-LD4-1LO-50-UNV-81-87-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .156 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**

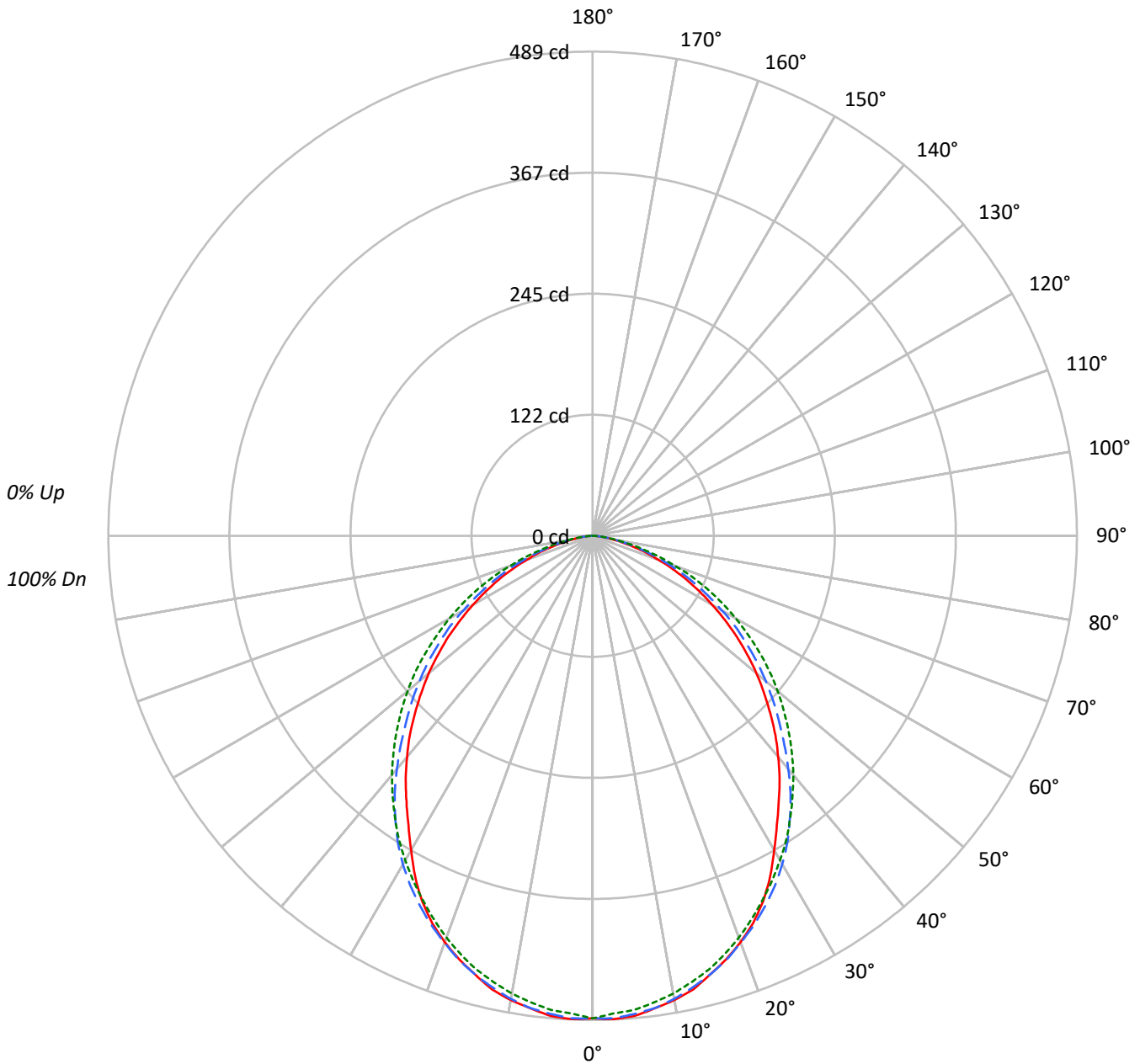
Lumens per Lamp: N/A  
Luminaire Lumens: 1127.0 lumens  
Efficiency: N/A  
Efficacy: 96.3 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 11.7  
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°	2623	2623	2623
5°	2630	2619	2597
10°	2602	2595	2565
15°	2556	2556	2527
20°	2502	2505	2473
25°	2419	2450	2410
30°	2278	2381	2352
35°	2153	2282	2286
40°	2048	2159	2215
45°	1931	2028	2132
50°	1808	1912	2041
55°	1667	1778	1931
60°	1502	1622	1795
65°	1326	1443	1634
70°	1105	1229	1388
75°	869	981	1085
80°	620	691	766
85°	408	408	383



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	45.9	4.1
10°-20°	128.9	11.4
20°-30°	188.4	16.7
30°-40°	213.8	19.0
40°-50°	206.4	18.3
50°-60°	170.3	15.1
60°-70°	113.4	10.1
70°-80°	50.7	4.5
80°-90°	9.1	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°	363.2	32.2
0°-40°	577.0	51.2
0°-60°	953.8	84.6
0°-90°	1127.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1127.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	487	487	487	487	487	
5°	487	487	485	482	481	46
15°	459	460	459	457	454	129
25°	407	411	412	410	406	187
35°	328	332	347	349	348	205
45°	254	258	266	279	280	196
55°	178	181	190	200	206	159
65°	104	107	113	121	128	103
75°	42	44	47	49	52	46
85°	7	7	7	6	6	9
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	487.4	487.4	487.4	487.4	487.4
2.5°	488.7	488.9	487.8	484.8	482.9
5°	486.8	486.6	484.8	482.2	480.7
7.5°	481.4	481.8	481.2	477.5	475.4
10°	476.2	476.4	474.9	471.9	469.4
12.5°	469.4	469.2	467.2	465.7	461.7
15°	458.7	459.9	458.7	456.7	453.5
17.5°	448.5	448.5	449.2	445.6	443.2
20°	436.8	437.4	437.4	434.6	431.8
22.5°	423.4	425.0	425.6	422.6	419.2
25°	407.4	410.6	412.5	409.5	405.9
27.5°	388.2	393.0	398.6	396.4	392.5
30°	366.6	373.7	383.1	381.2	378.4
32.5°	346.2	353.3	366.3	365.5	364.0
35°	327.7	332.2	347.3	349.2	347.9
37.5°	310.1	314.2	328.4	332.7	331.6
40°	291.5	296.0	307.3	314.9	315.3
42.5°	273.2	277.5	286.7	297.7	297.7
45°	253.7	258.0	266.4	278.6	280.1
47.5°	234.6	239.1	247.4	259.5	262.0
50°	215.9	220.0	228.3	240.0	243.8
52.5°	196.4	200.9	209.0	219.8	225.3
55°	177.7	180.7	189.5	200.0	205.8
57.5°	158.2	161.0	171.0	179.9	185.9
60°	139.5	143.1	150.7	159.9	166.8
62.5°	121.5	125.3	131.8	139.9	147.7
65°	104.1	106.9	113.3	121.3	128.3
67.5°	87.3	89.7	96.1	101.7	109.0
70°	70.2	73.4	78.1	83.5	88.2
72.5°	56.5	57.9	61.8	65.7	70.6
75°	41.8	44.0	47.2	49.4	52.2
77.5°	30.0	31.3	33.1	35.0	37.6
80°	20.0	20.6	22.3	22.7	24.7
82.5°	12.2	12.5	12.9	13.1	13.9
85°	6.6	6.6	6.6	6.2	6.2
87.5°	3.7	3.7	3.2	2.6	1.9
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)