

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: P554133

Luminaire Tested: **FUSL-12-2-LD4-1LO-30-UNV-82-86-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: P554133  
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-30-UNV-82-86-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

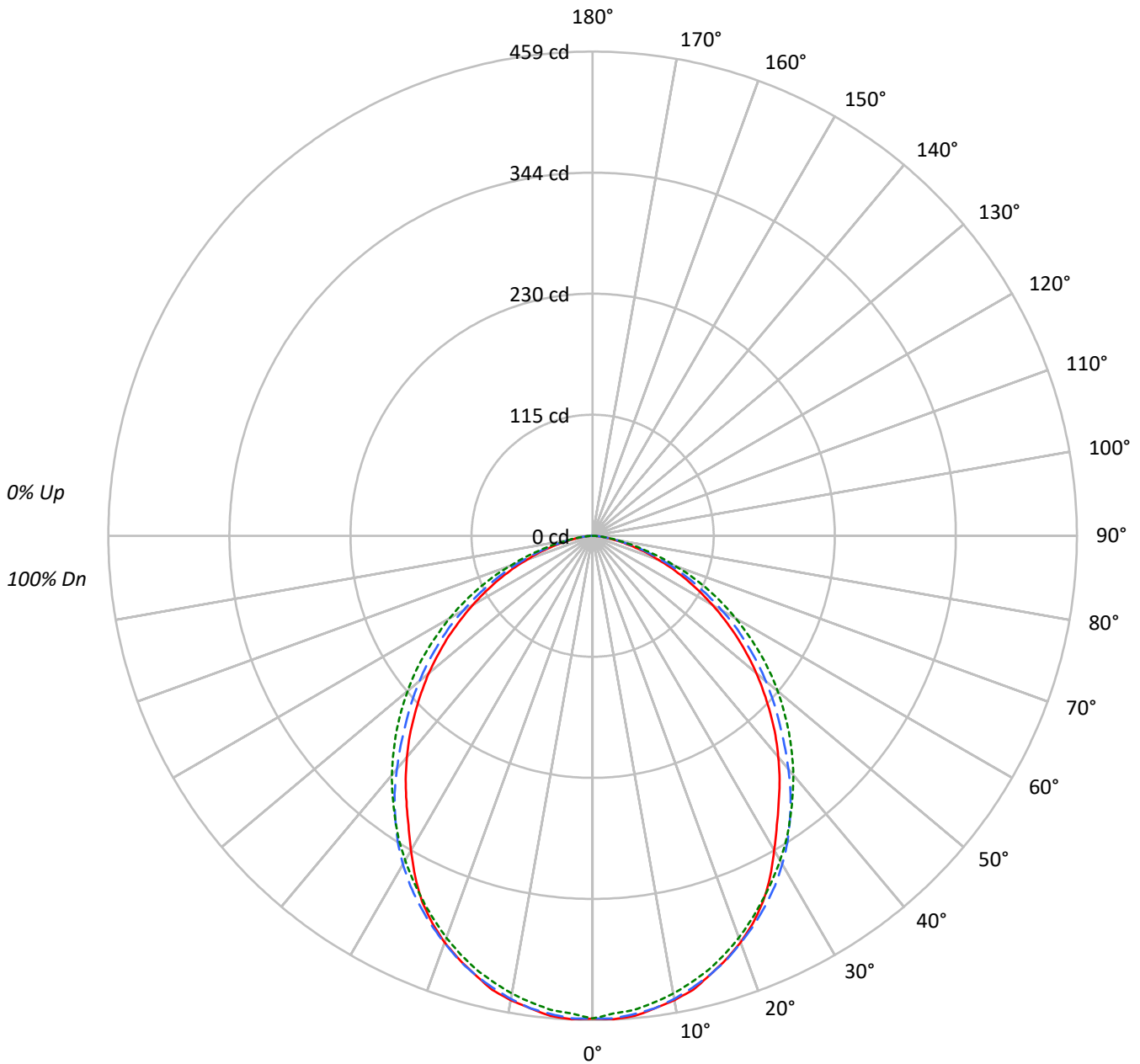
Lumens per Lamp: N/A  
Luminaire Lumens: 1058.0 lumens  
Efficiency: N/A  
Efficacy: 90.4 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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°	2463	2463	2463
5°	2469	2459	2438
10°	2443	2436	2408
15°	2400	2400	2372
20°	2349	2352	2322
25°	2271	2299	2263
30°	2139	2235	2208
35°	2021	2143	2146
40°	1923	2027	2080
45°	1813	1904	2002
50°	1697	1794	1917
55°	1565	1669	1813
60°	1410	1523	1686
65°	1244	1354	1533
70°	1037	1153	1303
75°	815	921	1019
80°	583	648	719
85°	383	383	358



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	43.1	4.1
10°-20°	121.0	11.4
20°-30°	176.9	16.7
30°-40°	200.8	19.0
40°-50°	193.8	18.3
50°-60°	159.9	15.1
60°-70°	106.5	10.1
70°-80°	47.6	4.5
80°-90°	8.5	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°	341.0	32.2
0°-40°	541.7	51.2
0°-60°	895.4	84.6
0°-90°	1058.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1058.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	458	458	458	458	458	
5°	457	457	455	453	451	43
15°	431	432	431	429	426	121
25°	382	386	387	384	381	175
35°	308	312	326	328	327	193
45°	238	242	250	262	263	184
55°	167	170	178	188	193	149
65°	98	100	106	114	120	97
75°	39	41	44	46	49	43
85°	6	6	6	6	6	8
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	457.6	457.6	457.6	457.6	457.6
2.5°	458.8	459.0	457.9	455.1	453.3
5°	457.0	456.9	455.1	452.6	451.2
7.5°	451.9	452.3	451.8	448.2	446.3
10°	447.0	447.2	445.8	443.0	440.7
12.5°	440.7	440.5	438.6	437.2	433.5
15°	430.7	431.7	430.7	428.7	425.7
17.5°	421.0	421.0	421.7	418.4	416.1
20°	410.1	410.6	410.6	408.0	405.4
22.5°	397.4	399.0	399.5	396.7	393.6
25°	382.5	385.5	387.2	384.4	381.1
27.5°	364.4	369.0	374.2	372.1	368.4
30°	344.2	350.9	359.6	357.9	355.3
32.5°	325.0	331.7	343.8	343.1	341.7
35°	307.6	311.8	326.1	327.8	326.6
37.5°	291.1	295.0	308.3	312.4	311.3
40°	273.7	277.9	288.5	295.7	296.0
42.5°	256.5	260.5	269.1	279.5	279.5
45°	238.2	242.2	250.1	261.6	263.0
47.5°	220.3	224.5	232.2	243.6	245.9
50°	202.7	206.5	214.3	225.4	228.9
52.5°	184.4	188.6	196.2	206.4	211.5
55°	166.8	169.6	177.9	187.7	193.2
57.5°	148.5	151.2	160.5	168.9	174.6
60°	131.0	134.3	141.5	150.1	156.6
62.5°	114.1	117.6	123.7	131.3	138.7
65°	97.7	100.4	106.3	113.9	120.4
67.5°	81.9	84.2	90.2	95.4	102.3
70°	65.9	68.9	73.3	78.4	82.8
72.5°	53.1	54.3	58.0	61.7	66.3
75°	39.2	41.3	44.3	46.4	49.0
77.5°	28.1	29.4	31.1	32.9	35.3
80°	18.8	19.3	20.9	21.3	23.2
82.5°	11.4	11.8	12.1	12.3	13.0
85°	6.2	6.2	6.2	5.8	5.8
87.5°	3.5	3.5	3.0	2.5	1.8
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)