

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: P554119

Luminaire Tested: **FUSL-12-2-LD4-1LO-30-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: P554119  
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-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 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

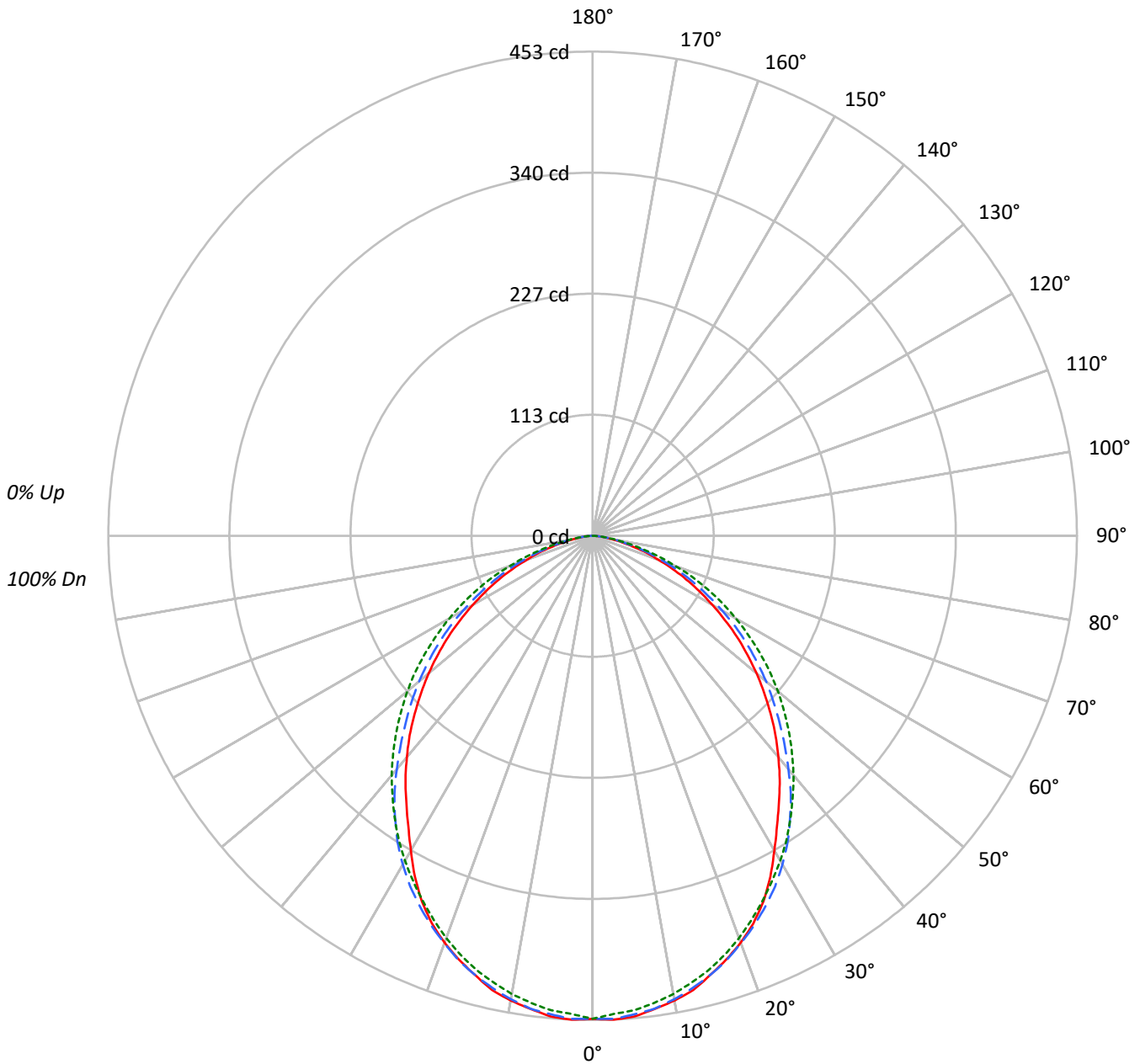
Lumens per Lamp: N/A  
Luminaire Lumens: 1045.0 lumens  
Efficiency: N/A  
Efficacy: 89.3 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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°	2432	2432	2432
5°	2439	2428	2408
10°	2413	2406	2379
15°	2370	2370	2343
20°	2320	2323	2293
25°	2244	2271	2235
30°	2112	2207	2181
35°	1996	2116	2120
40°	1899	2002	2054
45°	1791	1881	1977
50°	1676	1772	1893
55°	1546	1649	1790
60°	1392	1505	1665
65°	1229	1337	1514
70°	1024	1139	1287
75°	805	911	1006
80°	576	642	710
85°	377	377	352



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	42.6	4.1
10°-20°	119.5	11.4
20°-30°	174.7	16.7
30°-40°	198.3	19.0
40°-50°	191.4	18.3
50°-60°	157.9	15.1
60°-70°	105.2	10.1
70°-80°	47.1	4.5
80°-90°	8.4	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°	336.8	32.2
0°-40°	535.1	51.2
0°-60°	884.4	84.6
0°-90°	1045.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1045.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	452	452	452	452	452	
5°	451	451	450	447	446	43
15°	425	426	425	424	420	120
25°	378	381	382	380	376	173
35°	304	308	322	324	323	190
45°	235	239	247	258	260	182
55°	165	168	176	185	191	147
65°	96	99	105	112	119	96
75°	39	41	44	46	48	42
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°	451.9	451.9	451.9	451.9	451.9
2.5°	453.2	453.3	452.3	449.5	447.8
5°	451.4	451.2	449.5	447.1	445.7
7.5°	446.4	446.7	446.2	442.7	440.8
10°	441.5	441.7	440.3	437.5	435.3
12.5°	435.3	435.1	433.2	431.8	428.1
15°	425.4	426.4	425.4	423.5	420.5
17.5°	415.8	415.8	416.5	413.2	411.0
20°	405.1	405.6	405.6	403.0	400.4
22.5°	392.6	394.1	394.6	391.9	388.7
25°	377.8	380.8	382.5	379.7	376.4
27.5°	359.9	364.4	369.6	367.6	363.9
30°	339.9	346.5	355.2	353.5	350.9
32.5°	321.0	327.6	339.6	338.9	337.5
35°	303.8	308.0	322.1	323.8	322.6
37.5°	287.5	291.3	304.5	308.5	307.5
40°	270.3	274.5	284.9	292.0	292.4
42.5°	253.3	257.3	265.8	276.1	276.1
45°	235.3	239.2	247.1	258.3	259.7
47.5°	217.5	221.7	229.4	240.6	242.9
50°	200.2	204.0	211.6	222.6	226.1
52.5°	182.1	186.3	193.8	203.8	208.9
55°	164.8	167.5	175.7	185.4	190.8
57.5°	146.7	149.3	158.5	166.8	172.4
60°	129.3	132.6	139.8	148.3	154.7
62.5°	112.7	116.2	122.2	129.7	137.0
65°	96.5	99.1	105.0	112.5	118.9
67.5°	80.9	83.2	89.1	94.3	101.0
70°	65.1	68.1	72.4	77.4	81.8
72.5°	52.4	53.6	57.3	60.9	65.5
75°	38.7	40.8	43.8	45.8	48.4
77.5°	27.8	29.0	30.7	32.5	34.9
80°	18.6	19.1	20.7	21.0	22.9
82.5°	11.3	11.6	12.0	12.2	12.8
85°	6.1	6.1	6.1	5.7	5.7
87.5°	3.5	3.5	3.0	2.4	1.7
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)