

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: P554243

Luminaire Tested: **FUSL-12-2-LD4-1LO-40-UNV-81-85-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: P554243  
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-40-UNV-81-85-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

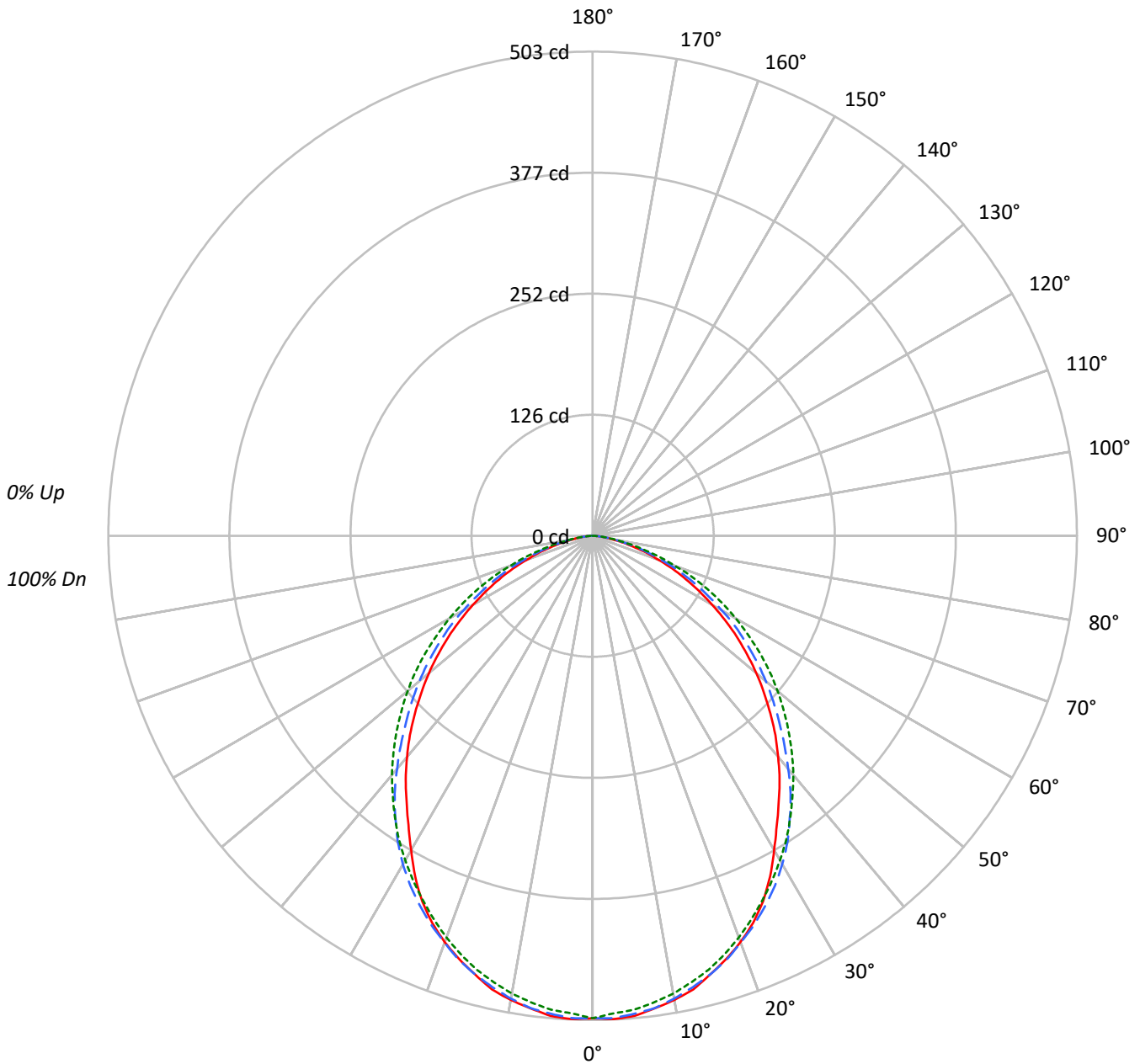
Lumens per Lamp: N/A  
Luminaire Lumens: 1159.0 lumens  
Efficiency: N/A  
Efficacy: 99.1 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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°	2697	2697	2697
5°	2705	2693	2670
10°	2676	2669	2638
15°	2629	2629	2599
20°	2573	2576	2543
25°	2488	2519	2479
30°	2343	2449	2419
35°	2214	2347	2351
40°	2106	2220	2278
45°	1986	2085	2193
50°	1859	1965	2099
55°	1714	1829	1985
60°	1545	1668	1847
65°	1364	1484	1680
70°	1136	1264	1427
75°	892	1009	1117
80°	638	710	787
85°	414	414	395



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	47.2	4.1
10°-20°	132.6	11.4
20°-30°	193.7	16.7
30°-40°	219.9	19.0
40°-50°	212.3	18.3
50°-60°	175.1	15.1
60°-70°	116.6	10.1
70°-80°	52.2	4.5
80°-90°	9.3	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°	373.5	32.2
0°-40°	593.4	51.2
0°-60°	980.9	84.6
0°-90°	1159.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1159.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	501	501	501	501	501	
5°	501	500	498	496	494	47
15°	472	473	472	470	466	133
25°	419	422	424	421	418	192
35°	337	342	357	359	358	211
45°	261	265	274	286	288	201
55°	183	186	195	206	212	163
65°	107	110	116	125	132	106
75°	43	45	48	51	54	47
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°	501.2	501.2	501.2	501.2	501.2
2.5°	502.6	502.8	501.6	498.5	496.6
5°	500.7	500.5	498.5	495.8	494.3
7.5°	495.1	495.5	494.9	491.0	488.9
10°	489.7	489.9	488.3	485.3	482.8
12.5°	482.8	482.6	480.4	478.9	474.9
15°	471.8	472.9	471.8	469.7	466.4
17.5°	461.2	461.2	462.0	458.3	455.8
20°	449.2	449.8	449.8	446.9	444.0
22.5°	435.4	437.1	437.7	434.6	431.1
25°	419.0	422.3	424.2	421.1	417.5
27.5°	399.2	404.2	410.0	407.7	403.6
30°	377.0	384.4	394.0	392.1	389.2
32.5°	356.0	363.4	376.7	375.9	374.3
35°	337.0	341.6	357.2	359.1	357.8
37.5°	318.9	323.1	337.8	342.2	341.0
40°	299.8	304.4	316.0	323.9	324.3
42.5°	280.9	285.4	294.8	306.2	306.2
45°	260.9	265.3	274.0	286.5	288.1
47.5°	241.3	245.9	254.4	266.9	269.4
50°	222.0	226.3	234.7	246.9	250.7
52.5°	202.0	206.6	214.9	226.1	231.7
55°	182.7	185.8	194.9	205.7	211.6
57.5°	162.7	165.6	175.8	185.1	191.2
60°	143.5	147.1	155.0	164.4	171.6
62.5°	125.0	128.8	135.6	143.8	151.9
65°	107.1	110.0	116.5	124.8	131.9
67.5°	89.7	92.2	98.8	104.6	112.1
70°	72.2	75.5	80.3	85.9	90.7
72.5°	58.2	59.5	63.5	67.6	72.6
75°	42.9	45.3	48.5	50.8	53.7
77.5°	30.8	32.2	34.1	36.0	38.7
80°	20.6	21.2	22.9	23.3	25.4
82.5°	12.5	12.9	13.3	13.5	14.2
85°	6.7	6.7	6.7	6.4	6.4
87.5°	3.9	3.9	3.3	2.7	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)