

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: P554504

Luminaire Tested: **FUSL-12-2-LD4-1STD-40-UNV-81-88-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: P554504  
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-LD4-1STD-40-UNV-81-88-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

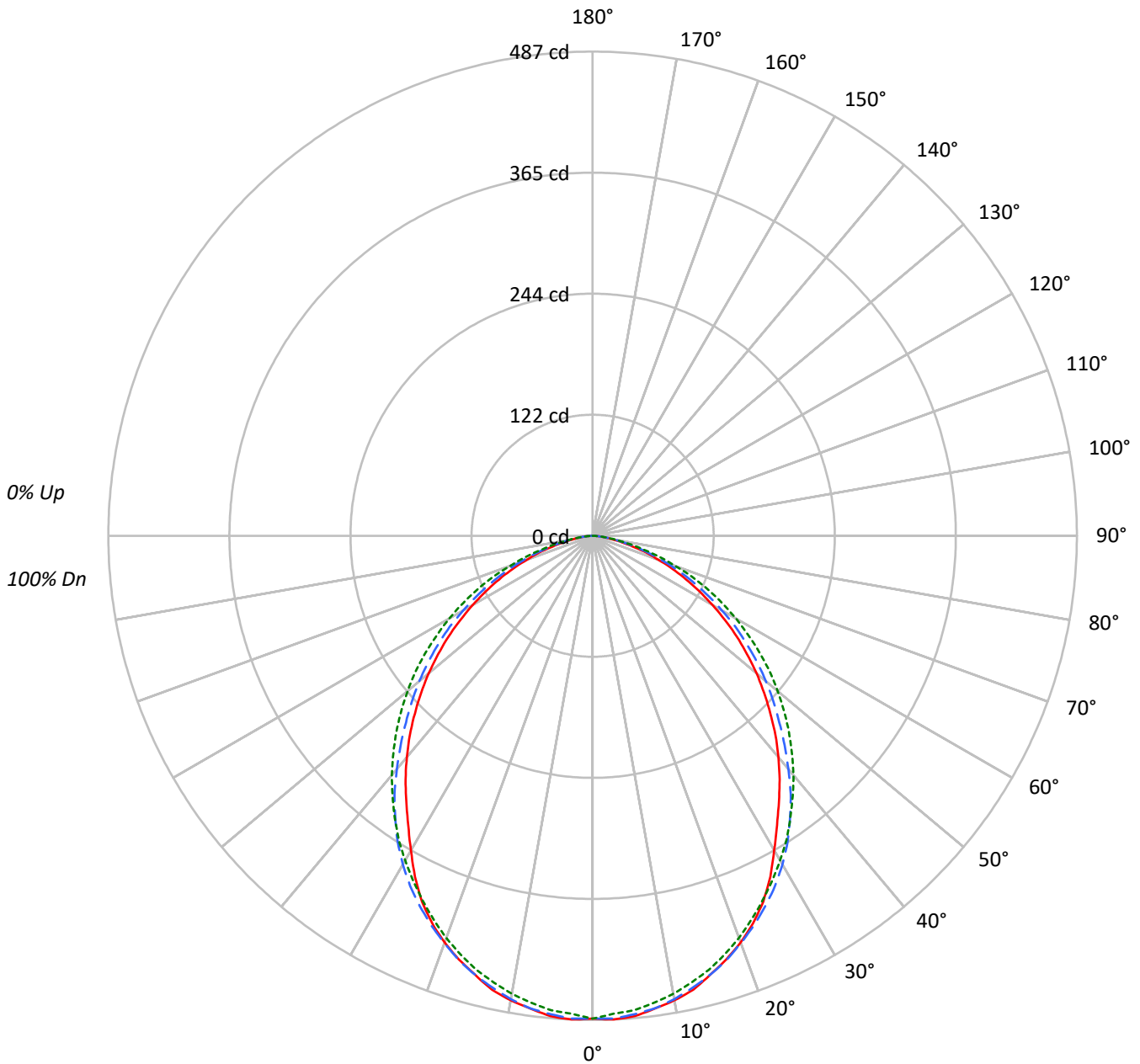
Lumens per Lamp: N/A  
Luminaire Lumens: 1123.0 lumens  
Efficiency: N/A  
Efficacy: 67.7 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 16.6  
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°	2614	2614	2614
5°	2621	2610	2588
10°	2593	2586	2557
15°	2547	2547	2518
20°	2493	2497	2464
25°	2411	2441	2402
30°	2270	2372	2344
35°	2145	2274	2278
40°	2041	2151	2207
45°	1924	2021	2124
50°	1801	1904	2034
55°	1662	1772	1924
60°	1496	1617	1789
65°	1321	1438	1628
70°	1102	1224	1383
75°	865	977	1083
80°	620	688	762
85°	401	401	383



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	45.7	4.1
10°-20°	128.5	11.4
20°-30°	187.7	16.7
30°-40°	213.1	19.0
40°-50°	205.7	18.3
50°-60°	169.7	15.1
60°-70°	113.0	10.1
70°-80°	50.6	4.5
80°-90°	9.0	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°	361.9	32.2
0°-40°	575.0	51.2
0°-60°	950.4	84.6
0°-90°	1123.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1123.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	486	486	486	486	486	
5°	485	485	483	480	479	46
15°	457	458	457	455	452	129
25°	406	409	411	408	404	186
35°	326	331	346	348	347	205
45°	253	257	266	278	279	195
55°	177	180	189	199	205	158
65°	104	106	113	121	128	103
75°	42	44	47	49	52	46
85°	6	6	6	6	6	9
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	485.7	485.7	485.7	485.7	485.7
2.5°	487.0	487.2	486.0	483.1	481.2
5°	485.1	484.9	483.1	480.4	479.0
7.5°	479.7	480.1	479.5	475.8	473.7
10°	474.5	474.7	473.2	470.2	467.8
12.5°	467.8	467.6	465.5	464.0	460.1
15°	457.1	458.2	457.1	455.1	451.9
17.5°	446.9	446.9	447.6	444.1	441.6
20°	435.3	435.9	435.9	433.1	430.3
22.5°	421.9	423.5	424.1	421.1	417.8
25°	406.0	409.2	411.0	408.1	404.5
27.5°	386.8	391.6	397.2	395.0	391.1
30°	365.3	372.4	381.7	379.9	377.1
32.5°	345.0	352.1	365.0	364.2	362.7
35°	326.5	331.0	346.1	348.0	346.7
37.5°	309.0	313.1	327.3	331.6	330.4
40°	290.5	295.0	306.2	313.8	314.2
42.5°	272.2	276.5	285.7	296.7	296.7
45°	252.8	257.1	265.5	277.6	279.1
47.5°	233.8	238.3	246.5	258.6	261.0
50°	215.1	219.2	227.4	239.2	242.9
52.5°	195.7	200.2	208.2	219.0	224.5
55°	177.1	180.0	188.8	199.3	205.1
57.5°	157.7	160.5	170.3	179.3	185.3
60°	139.0	142.5	150.2	159.3	166.2
62.5°	121.1	124.8	131.4	139.4	147.2
65°	103.7	106.5	112.9	120.9	127.8
67.5°	86.9	89.4	95.7	101.3	108.6
70°	70.0	73.1	77.8	83.2	87.9
72.5°	56.3	57.7	61.6	65.5	70.3
75°	41.6	43.8	47.0	49.3	52.1
77.5°	29.9	31.2	33.0	34.9	37.5
80°	20.0	20.5	22.2	22.6	24.6
82.5°	12.1	12.5	12.9	13.1	13.8
85°	6.5	6.5	6.5	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)