

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: P554055

Luminaire Tested: **FUSL-12-2-LD4-1HI-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: P554055  
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-LD4-1HI-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**

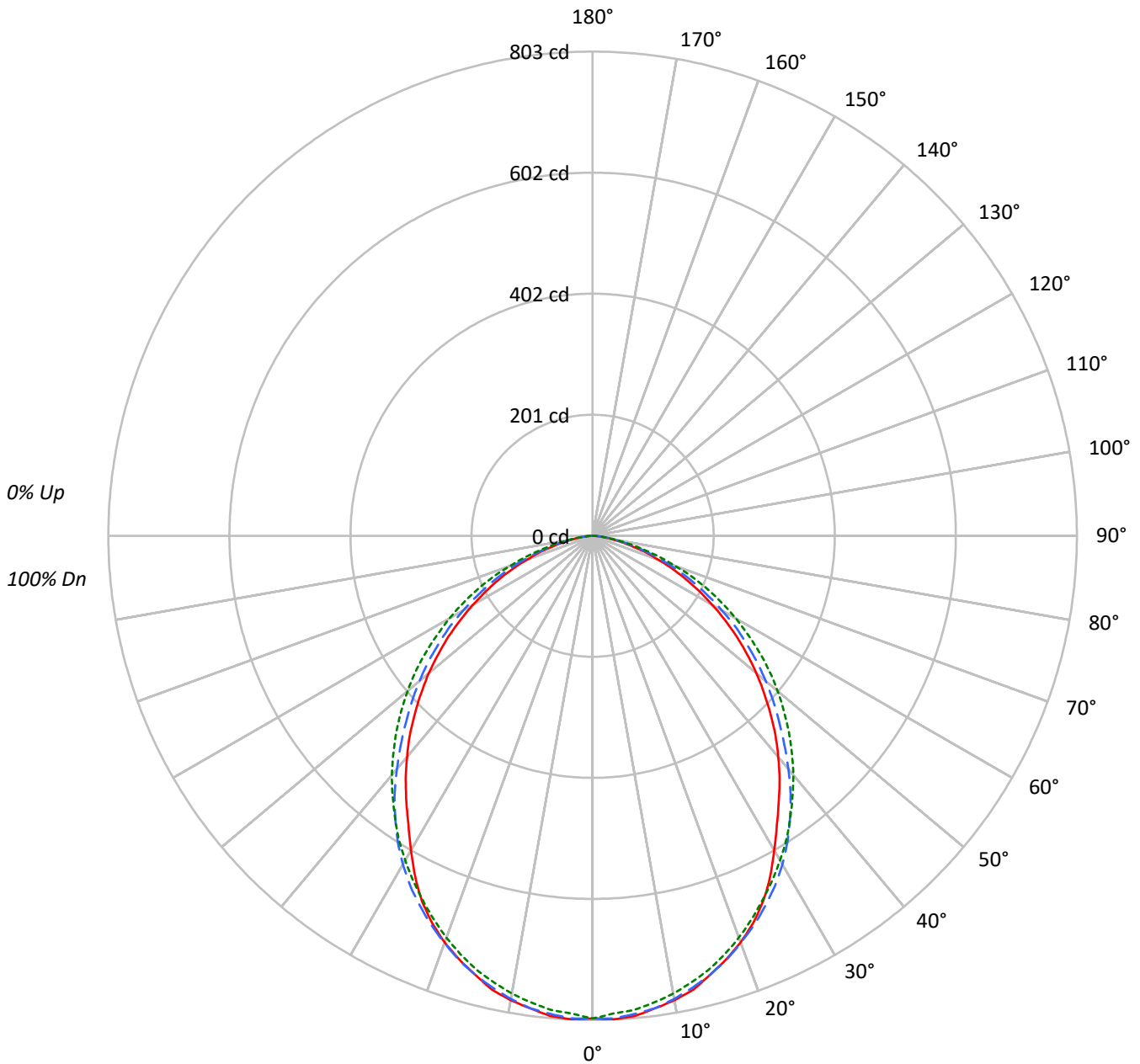
Lumens per Lamp: N/A  
Luminaire Lumens: 1851.0 lumens  
Efficiency: N/A  
Efficacy: 85.7 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 21.6  
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°	4308	4308	4308
5°	4320	4301	4265
10°	4274	4262	4214
15°	4198	4198	4150
20°	4109	4115	4062
25°	3974	4023	3959
30°	3742	3910	3862
35°	3536	3748	3754
40°	3364	3546	3639
45°	3172	3331	3502
50°	2969	3139	3352
55°	2738	2920	3172
60°	2466	2665	2949
65°	2178	2370	2683
70°	1814	2017	2279
75°	1426	1612	1784
80°	1020	1134	1258
85°	667	667	624



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	75.4	4.1
10°-20°	211.7	11.4
20°-30°	309.4	16.7
30°-40°	351.2	19.0
40°-50°	339.1	18.3
50°-60°	279.7	15.1
60°-70°	186.3	10.1
70°-80°	83.3	4.5
80°-90°	14.9	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°	596.5	32.2
0°-40°	947.7	51.2
0°-60°	1566.5	84.6
0°-90°	1851.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1851.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	800	800	800	800	800	
5°	800	799	796	792	789	76
15°	754	755	754	750	745	212
25°	669	674	678	673	667	306
35°	538	546	570	574	571	337
45°	417	424	438	458	460	322
55°	292	297	311	328	338	260
65°	171	176	186	199	211	170
75°	69	72	78	81	86	75
85°	11	11	11	10	10	15
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	800.5	800.5	800.5	800.5	800.5
2.5°	802.7	803.0	801.1	796.2	793.1
5°	799.6	799.3	796.2	791.9	789.4
7.5°	790.7	791.3	790.4	784.2	780.8
10°	782.1	782.4	779.9	775.0	771.0
12.5°	771.0	770.7	767.3	764.8	758.4
15°	753.5	755.3	753.5	750.1	744.8
17.5°	736.5	736.5	737.8	731.9	727.9
20°	717.5	718.4	718.4	713.8	709.2
22.5°	695.3	698.1	699.0	694.1	688.6
25°	669.2	674.4	677.5	672.6	666.7
27.5°	637.5	645.5	654.7	651.0	644.6
30°	602.2	613.8	629.2	626.1	621.5
32.5°	568.6	580.3	601.5	600.3	597.8
35°	538.2	545.6	570.5	573.5	571.4
37.5°	509.3	516.0	539.4	546.5	544.6
40°	478.8	486.2	504.7	517.3	517.9
42.5°	448.7	455.8	470.8	489.0	489.0
45°	416.7	423.8	437.6	457.6	460.1
47.5°	385.3	392.7	406.3	426.2	430.2
50°	354.6	361.4	374.9	394.3	400.4
52.5°	322.6	330.0	343.2	361.0	370.0
55°	291.8	296.8	311.2	328.4	338.0
57.5°	259.9	264.5	280.8	295.5	305.4
60°	229.1	235.0	247.6	262.6	274.0
62.5°	199.6	205.7	216.5	229.7	242.6
65°	171.0	175.6	186.1	199.3	210.7
67.5°	143.3	147.3	157.8	167.0	179.0
70°	115.3	120.6	128.2	137.2	144.8
72.5°	92.9	95.0	101.5	107.9	115.9
75°	68.6	72.3	77.5	81.2	85.8
77.5°	49.2	51.4	54.4	57.5	61.8
80°	32.9	33.8	36.6	37.2	40.6
82.5°	20.0	20.6	21.2	21.5	22.8
85°	10.8	10.8	10.8	10.1	10.1
87.5°	6.2	6.2	5.2	4.3	3.1
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)