

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: P554051

Luminaire Tested: **FUSL-12-2-LD4-1HI-50-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: P554051  
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-81-85-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

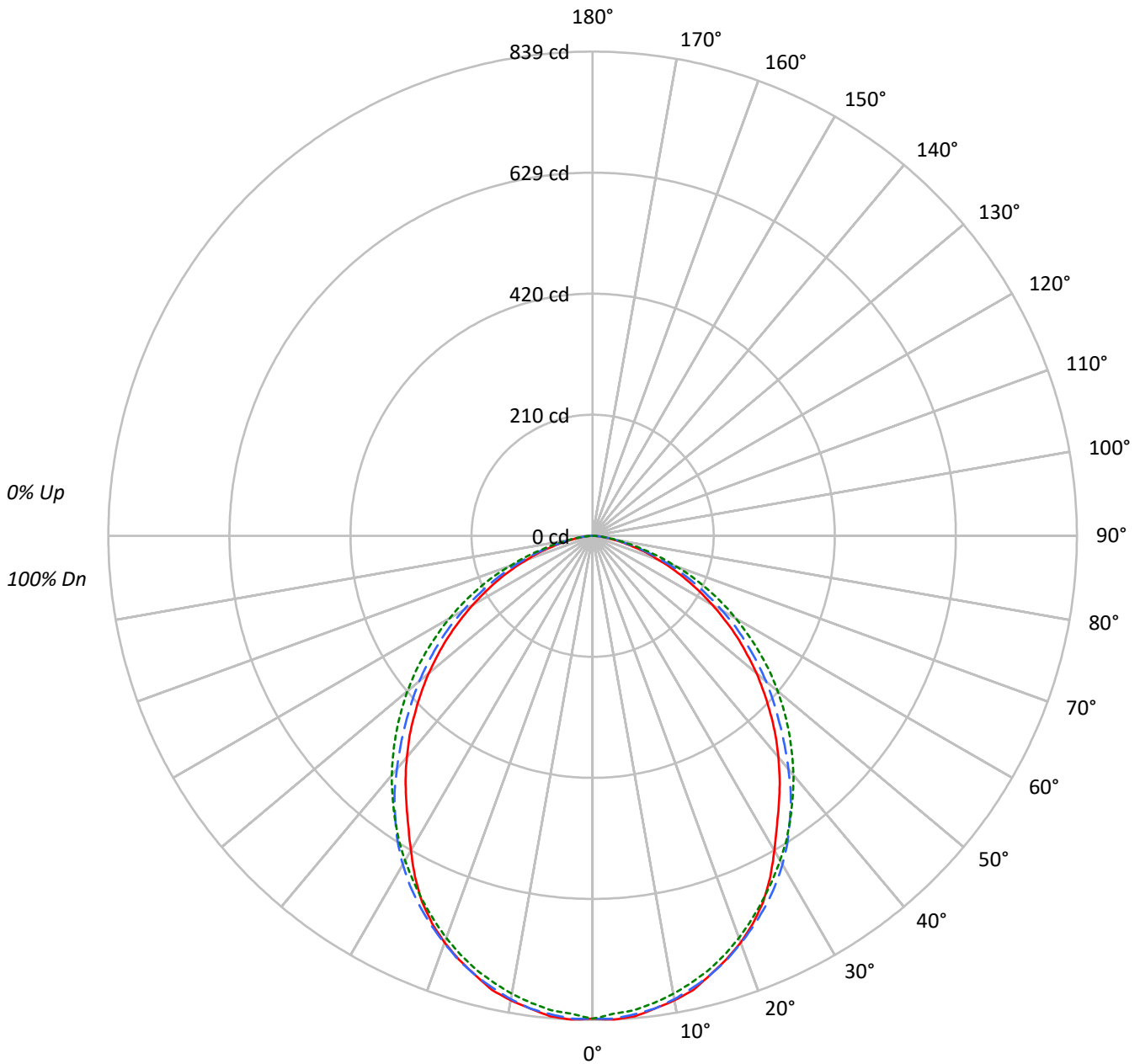
Lumens per Lamp: N/A  
Luminaire Lumens: 1935.0 lumens  
Efficiency: N/A  
Efficacy: 89.6 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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°	4504	4504	4504
5°	4516	4497	4459
10°	4468	4456	4405
15°	4388	4388	4338
20°	4296	4301	4246
25°	4154	4206	4139
30°	3912	4088	4038
35°	3696	3918	3924
40°	3517	3707	3804
45°	3315	3482	3660
50°	3104	3281	3505
55°	2863	3052	3315
60°	2578	2786	3083
65°	2276	2477	2804
70°	1898	2110	2382
75°	1491	1684	1865
80°	1066	1187	1314
85°	698	698	655



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.8	4.1
10°-20°	221.3	11.4
20°-30°	323.5	16.7
30°-40°	367.2	19.0
40°-50°	354.4	18.3
50°-60°	292.4	15.1
60°-70°	194.7	10.1
70°-80°	87.1	4.5
80°-90°	15.6	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°	623.6	32.2
0°-40°	990.8	51.2
0°-60°	1637.6	84.6
0°-90°	1935.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1935.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	837	837	837	837	837	
5°	836	836	832	828	825	79
15°	788	790	788	784	779	222
25°	700	705	708	703	697	320
35°	563	570	596	600	597	353
45°	436	443	458	478	481	336
55°	305	310	325	343	353	272
65°	179	184	194	208	220	177
75°	72	76	81	85	90	78
85°	11	11	11	11	11	15
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	836.8	836.8	836.8	836.8	836.8
2.5°	839.1	839.4	837.5	832.3	829.1
5°	835.9	835.6	832.3	827.8	825.3
7.5°	826.5	827.2	826.2	819.8	816.3
10°	817.5	817.9	815.3	810.2	806.0
12.5°	806.0	805.7	802.1	799.5	792.8
15°	787.6	789.6	787.6	784.1	778.6
17.5°	770.0	770.0	771.3	765.1	761.0
20°	750.0	751.0	751.0	746.2	741.4
22.5°	726.9	729.8	730.7	725.6	719.8
25°	699.6	705.0	708.2	703.1	697.0
27.5°	666.4	674.8	684.5	680.6	673.8
30°	629.5	641.7	657.8	654.6	649.7
32.5°	594.4	606.7	628.8	627.5	625.0
35°	562.6	570.3	596.4	599.6	597.3
37.5°	532.4	539.5	563.9	571.3	569.4
40°	500.6	508.3	527.6	540.7	541.4
42.5°	469.1	476.4	492.2	511.2	511.2
45°	435.6	443.0	457.5	478.4	480.9
47.5°	402.8	410.5	424.7	445.6	449.8
50°	370.7	377.8	391.9	412.1	418.6
52.5°	337.2	345.0	358.8	377.4	386.8
55°	305.1	310.2	325.3	343.4	353.3
57.5°	271.7	276.5	293.5	309.0	319.2
60°	239.5	245.6	258.8	274.6	286.4
62.5°	208.6	215.1	226.3	240.2	253.7
65°	178.7	183.6	194.5	208.3	220.2
67.5°	149.8	154.0	164.9	174.6	187.1
70°	120.6	126.0	134.1	143.4	151.4
72.5°	97.1	99.3	106.1	112.8	121.2
75°	71.7	75.6	81.0	84.9	89.7
77.5°	51.4	53.7	56.9	60.1	64.6
80°	34.4	35.4	38.3	38.9	42.4
82.5°	20.9	21.5	22.2	22.5	23.8
85°	11.3	11.3	11.3	10.6	10.6
87.5°	6.4	6.4	5.5	4.5	3.2
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)