

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: P553945

Luminaire Tested: **FUSL-12-2-LD4-1HI-35-UNV-82-88-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: P553945  
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-35-UNV-82-88-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

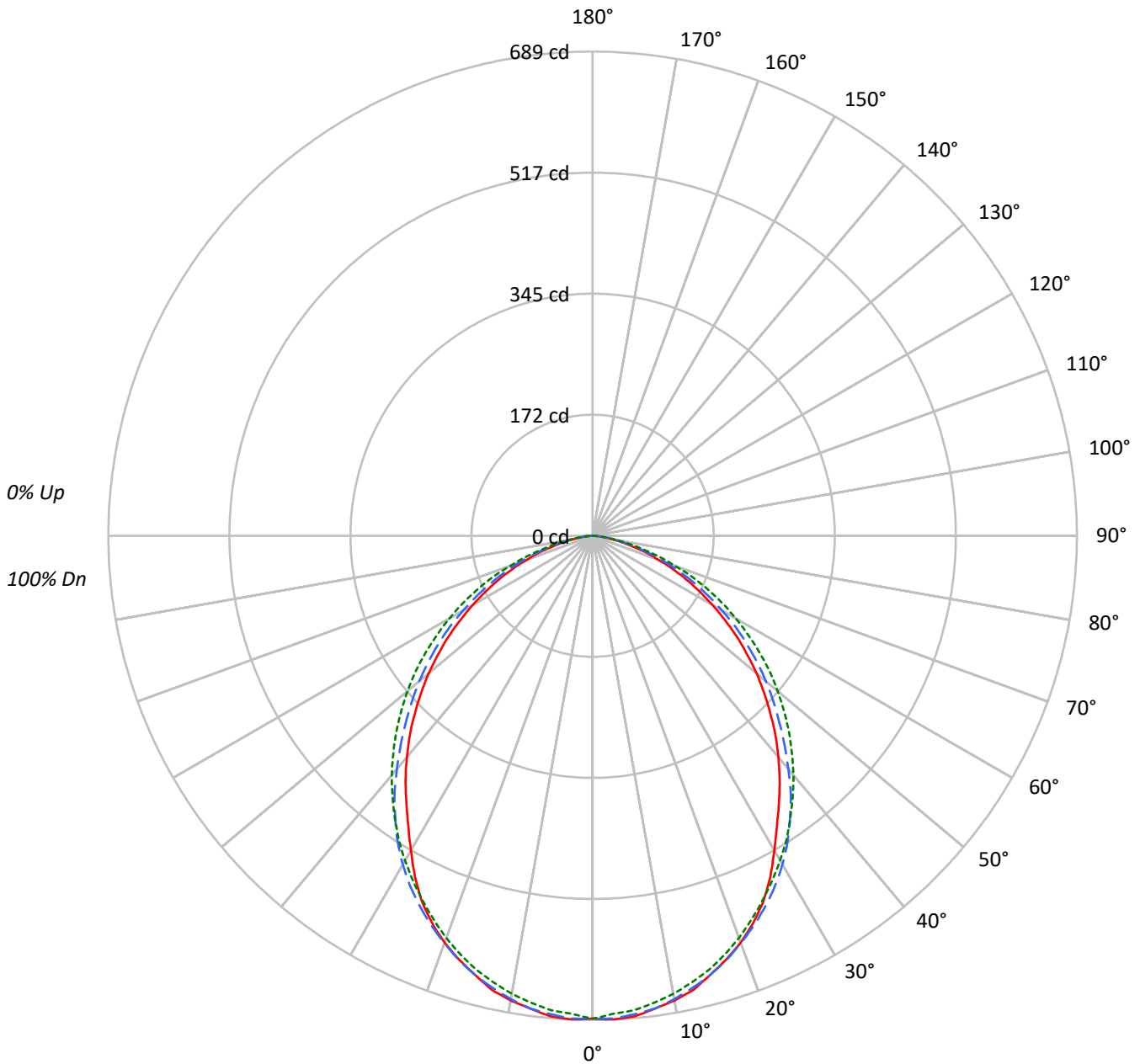
Lumens per Lamp: N/A  
Luminaire Lumens: 1589.0 lumens  
Efficiency: N/A  
Efficacy: 73.6 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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°	3698	3698	3698
5°	3708	3693	3661
10°	3669	3659	3617
15°	3604	3604	3563
20°	3527	3532	3487
25°	3412	3454	3399
30°	3212	3357	3316
35°	3035	3217	3223
40°	2888	3044	3124
45°	2723	2860	3006
50°	2549	2694	2878
55°	2350	2507	2722
60°	2117	2287	2532
65°	1869	2034	2302
70°	1558	1733	1956
75°	1225	1383	1533
80°	874	973	1079
85°	568	568	537



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	64.7	4.1
10°-20°	181.8	11.4
20°-30°	265.6	16.7
30°-40°	301.5	19.0
40°-50°	291.1	18.3
50°-60°	240.1	15.1
60°-70°	159.9	10.1
70°-80°	71.5	4.5
80°-90°	12.8	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°	512.1	32.2
0°-40°	813.6	51.2
0°-60°	1344.8	84.6
0°-90°	1589.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1589.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	687	687	687	687	687	
5°	686	686	684	680	678	65
15°	647	648	647	644	639	182
25°	574	579	582	577	572	263
35°	462	468	490	492	490	289
45°	358	364	376	393	395	276
55°	250	255	267	282	290	224
65°	147	151	160	171	181	146
75°	59	62	66	70	74	64
85°	9	9	9	9	9	12
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	687.2	687.2	687.2	687.2	687.2
2.5°	689.0	689.3	687.7	683.5	680.9
5°	686.4	686.1	683.5	679.8	677.7
7.5°	678.8	679.3	678.5	673.2	670.3
10°	671.4	671.6	669.5	665.3	661.9
12.5°	661.9	661.6	658.7	656.6	651.0
15°	646.8	648.4	646.8	643.9	639.4
17.5°	632.3	632.3	633.3	628.3	624.9
20°	615.9	616.7	616.7	612.8	608.8
22.5°	596.9	599.3	600.1	595.9	591.1
25°	574.5	579.0	581.6	577.4	572.4
27.5°	547.3	554.1	562.1	558.9	553.4
30°	516.9	527.0	540.2	537.5	533.6
32.5°	488.1	498.2	516.4	515.3	513.2
35°	462.0	468.3	489.7	492.4	490.5
37.5°	437.2	443.0	463.1	469.1	467.6
40°	411.1	417.4	433.2	444.1	444.6
42.5°	385.2	391.3	404.2	419.8	419.8
45°	357.7	363.8	375.7	392.8	394.9
47.5°	330.8	337.1	348.7	365.9	369.3
50°	304.4	310.2	321.8	338.5	343.7
52.5°	276.9	283.3	294.6	309.9	317.6
55°	250.5	254.8	267.2	282.0	290.1
57.5°	223.1	227.0	241.0	253.7	262.2
60°	196.7	201.7	212.5	225.5	235.2
62.5°	171.3	176.6	185.9	197.2	208.3
65°	146.8	150.7	159.7	171.1	180.8
67.5°	123.0	126.5	135.4	143.4	153.7
70°	99.0	103.5	110.1	117.7	124.3
72.5°	79.7	81.6	87.1	92.7	99.5
75°	58.9	62.0	66.5	69.7	73.7
77.5°	42.2	44.1	46.7	49.4	53.1
80°	28.2	29.0	31.4	31.9	34.8
82.5°	17.2	17.7	18.2	18.5	19.5
85°	9.2	9.2	9.2	8.7	8.7
87.5°	5.3	5.3	4.5	3.7	2.6
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)