

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: P554005

Luminaire Tested: **FUSL-12-2-LD4-1HI-40-UNV-82-86-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: P554005  
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-40-UNV-82-86-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

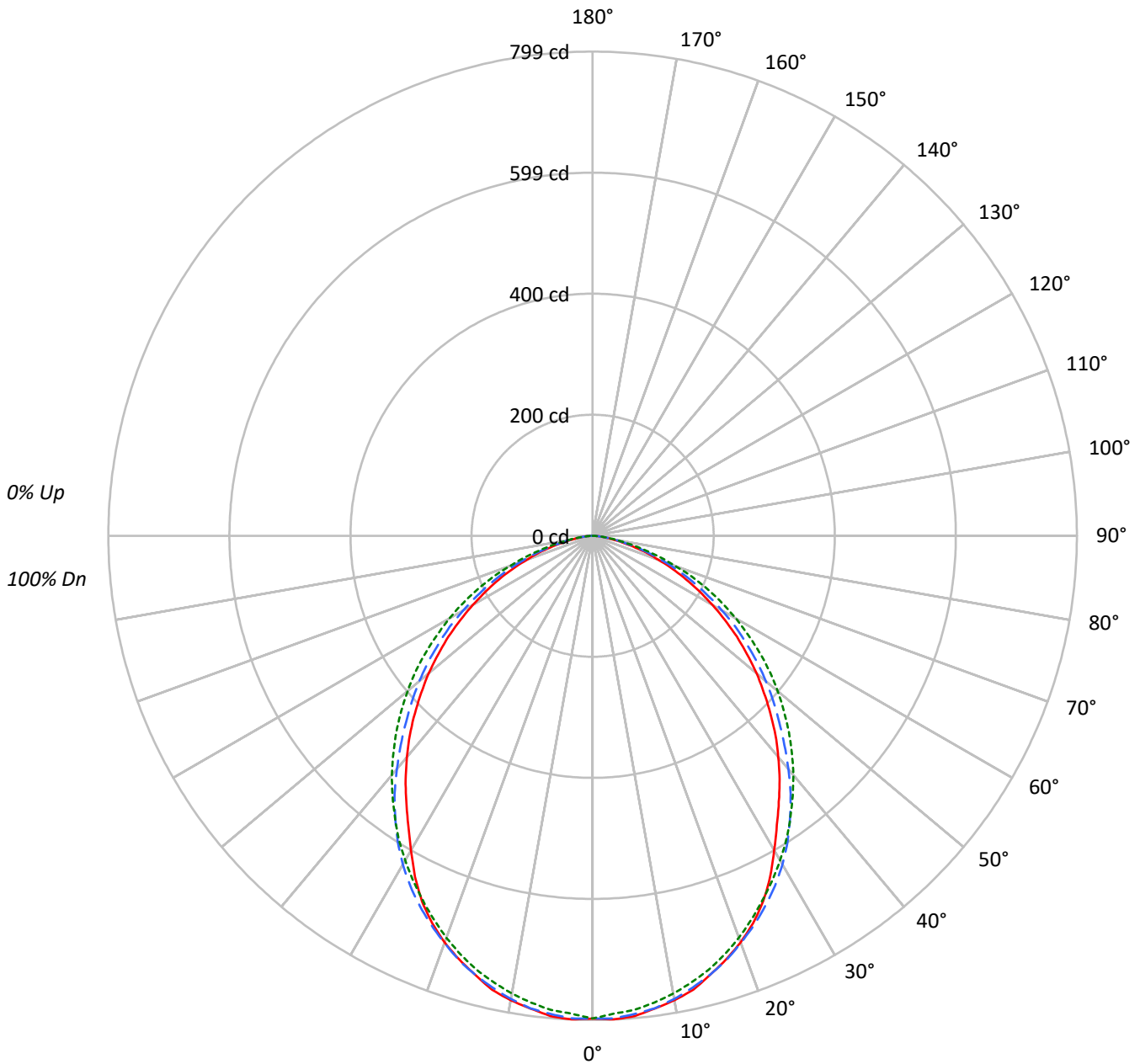
Lumens per Lamp: N/A  
Luminaire Lumens: 1842.0 lumens  
Efficiency: N/A  
Efficacy: 85.3 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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°	4287	4287	4287
5°	4299	4280	4244
10°	4253	4241	4193
15°	4178	4178	4130
20°	4089	4094	4042
25°	3954	4004	3940
30°	3724	3892	3844
35°	3519	3730	3736
40°	3348	3528	3621
45°	3156	3315	3484
50°	2955	3124	3337
55°	2725	2906	3156
60°	2454	2652	2935
65°	2167	2358	2669
70°	1806	2008	2268
75°	1418	1603	1776
80°	1013	1128	1252
85°	661	661	624



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	75.0	4.1
10°-20°	210.7	11.4
20°-30°	307.9	16.7
30°-40°	349.5	19.0
40°-50°	337.4	18.3
50°-60°	278.3	15.1
60°-70°	185.4	10.1
70°-80°	82.9	4.5
80°-90°	14.8	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°	593.6	32.2
0°-40°	943.1	51.2
0°-60°	1558.9	84.6
0°-90°	1842.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1842.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	797	797	797	797	797	
5°	796	795	792	788	786	75
15°	750	752	750	746	741	211
25°	666	671	674	669	664	305
35°	536	543	568	571	569	336
45°	415	422	436	455	458	320
55°	290	295	310	327	336	259
65°	170	175	185	198	210	169
75°	68	72	77	81	85	75
85°	11	11	11	10	10	14
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	796.6	796.6	796.6	796.6	796.6
2.5°	798.8	799.1	797.2	792.3	789.3
5°	795.7	795.4	792.3	788.0	785.6
7.5°	786.8	787.4	786.5	780.4	777.0
10°	778.3	778.6	776.1	771.2	767.2
12.5°	767.2	766.9	763.6	761.1	754.7
15°	749.8	751.6	749.8	746.4	741.2
17.5°	733.0	733.0	734.2	728.4	724.4
20°	714.0	714.9	714.9	710.3	705.7
22.5°	692.0	694.7	695.6	690.7	685.2
25°	665.9	671.1	674.2	669.3	663.5
27.5°	634.4	642.4	651.6	647.9	641.5
30°	599.2	610.9	626.2	623.1	618.5
32.5°	565.9	577.5	598.6	597.4	594.9
35°	535.6	542.9	567.7	570.8	568.6
37.5°	506.8	513.5	536.8	543.8	542.0
40°	476.5	483.8	502.2	514.8	515.4
42.5°	446.5	453.5	468.5	486.6	486.6
45°	414.7	421.7	435.5	455.4	457.8
47.5°	383.5	390.8	404.3	424.2	428.1
50°	352.9	359.6	373.1	392.3	398.5
52.5°	321.0	328.4	341.5	359.3	368.2
55°	290.4	295.3	309.7	326.8	336.3
57.5°	258.6	263.2	279.4	294.1	303.9
60°	228.0	233.8	246.4	261.4	272.7
62.5°	198.6	204.7	215.5	228.6	241.5
65°	170.2	174.7	185.2	198.3	209.6
67.5°	142.6	146.6	157.0	166.2	178.1
70°	114.8	120.0	127.6	136.5	144.1
72.5°	92.4	94.6	101.0	107.4	115.4
75°	68.2	71.9	77.1	80.8	85.4
77.5°	49.0	51.1	54.2	57.2	61.5
80°	32.7	33.7	36.4	37.0	40.4
82.5°	19.9	20.5	21.1	21.4	22.6
85°	10.7	10.7	10.7	10.1	10.1
87.5°	6.1	6.1	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)