

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: P554069

Luminaire Tested: **FUSL-12-2-LD4-1HI-50-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: P554069  
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-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 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

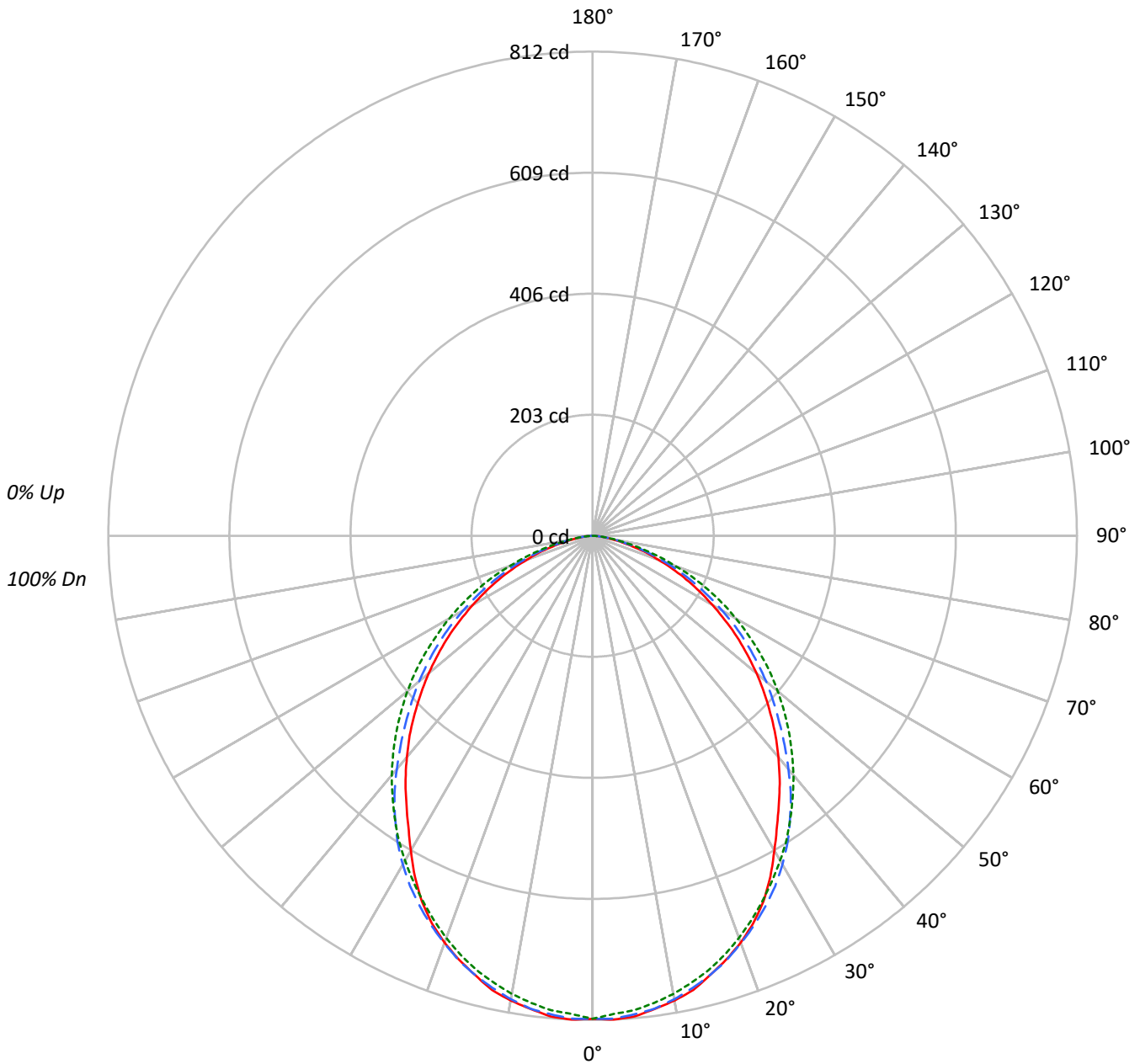
Lumens per Lamp: N/A  
Luminaire Lumens: 1873.0 lumens  
Efficiency: N/A  
Efficacy: 86.7 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 21.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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

TEST NUMBER: P554069

CATALOG NUMBER: FUSL-12-2-LD4-1HI-50-UNV-82-86-EDD

### Luminous Intensity Polar Plot





TEST NUMBER: P554069

CATALOG NUMBER: FUSL-12-2-LD4-1HI-50-UNV-82-86-EDD

**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°	4359	4359	4359
5°	4371	4353	4316
10°	4325	4313	4264
15°	4248	4248	4199
20°	4158	4163	4110
25°	4021	4071	4007
30°	3787	3957	3908
35°	3578	3793	3799
40°	3404	3588	3681
45°	3210	3370	3543
50°	3004	3176	3393
55°	2771	2955	3209
60°	2495	2696	2985
65°	2203	2398	2715
70°	1836	2043	2307
75°	1443	1630	1805
80°	1032	1147	1274
85°	673	673	636



TEST NUMBER: P554069

CATALOG NUMBER: FUSL-12-2-LD4-1HI-50-UNV-82-86-EDD

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	76.3	4.1
10°-20°	214.3	11.4
20°-30°	313.1	16.7
30°-40°	355.4	19.0
40°-50°	343.1	18.3
50°-60°	283.0	15.1
60°-70°	188.5	10.1
70°-80°	84.3	4.5
80°-90°	15.1	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°	603.6	32.2
0°-40°	959.0	51.2
0°-60°	1585.1	84.6
0°-90°	1873.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1873.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	810	810	810	810	810	
5°	809	809	806	801	799	77
15°	762	764	762	759	754	215
25°	677	682	686	681	675	310
35°	545	552	577	580	578	341
45°	422	429	443	463	466	325
55°	295	300	315	332	342	264
65°	173	178	188	202	213	172
75°	69	73	78	82	87	76
85°	11	11	11	10	10	15
90°	0	0	0	0	0	



TEST NUMBER: P554069

CATALOG NUMBER: FUSL-12-2-LD4-1HI-50-UNV-82-86-EDD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	810.0	810.0	810.0	810.0	810.0
2.5°	812.2	812.5	810.6	805.7	802.6
5°	809.1	808.8	805.7	801.3	798.8
7.5°	800.1	800.7	799.8	793.5	790.1
10°	791.4	791.7	789.2	784.2	780.2
12.5°	780.2	779.8	776.4	773.9	767.4
15°	762.4	764.3	762.4	759.0	753.7
17.5°	745.3	745.3	746.5	740.6	736.6
20°	726.0	726.9	726.9	722.3	717.6
22.5°	703.6	706.4	707.3	702.4	696.8
25°	677.1	682.4	685.5	680.6	674.7
27.5°	645.1	653.2	662.5	658.8	652.3
30°	609.3	621.1	636.7	633.6	628.9
32.5°	575.4	587.2	608.7	607.4	605.0
35°	544.6	552.0	577.3	580.4	578.2
37.5°	515.3	522.2	545.8	553.0	551.1
40°	484.5	492.0	510.7	523.4	524.0
42.5°	454.0	461.2	476.4	494.8	494.8
45°	421.7	428.8	442.8	463.0	465.5
47.5°	389.9	397.4	411.1	431.3	435.4
50°	358.8	365.6	379.3	398.9	405.2
52.5°	326.4	333.9	347.3	365.3	374.4
55°	295.3	300.3	314.9	332.3	342.0
57.5°	263.0	267.6	284.1	299.1	309.0
60°	231.8	237.7	250.5	265.8	277.3
62.5°	202.0	208.2	219.1	232.5	245.5
65°	173.0	177.7	188.3	201.7	213.2
67.5°	145.0	149.1	159.6	169.0	181.1
70°	116.7	122.0	129.8	138.8	146.6
72.5°	94.0	96.2	102.7	109.2	117.3
75°	69.4	73.1	78.4	82.2	86.8
77.5°	49.8	52.0	55.1	58.2	62.5
80°	33.3	34.2	37.0	37.7	41.1
82.5°	20.2	20.8	21.5	21.8	23.0
85°	10.9	10.9	10.9	10.3	10.3
87.5°	6.2	6.2	5.3	4.4	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)