

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: P554000

Luminaire Tested: **FUSL-12-2-LD4-1HI-40-UNV-82-84-EDD-90**

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: P554000  
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-82-84-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

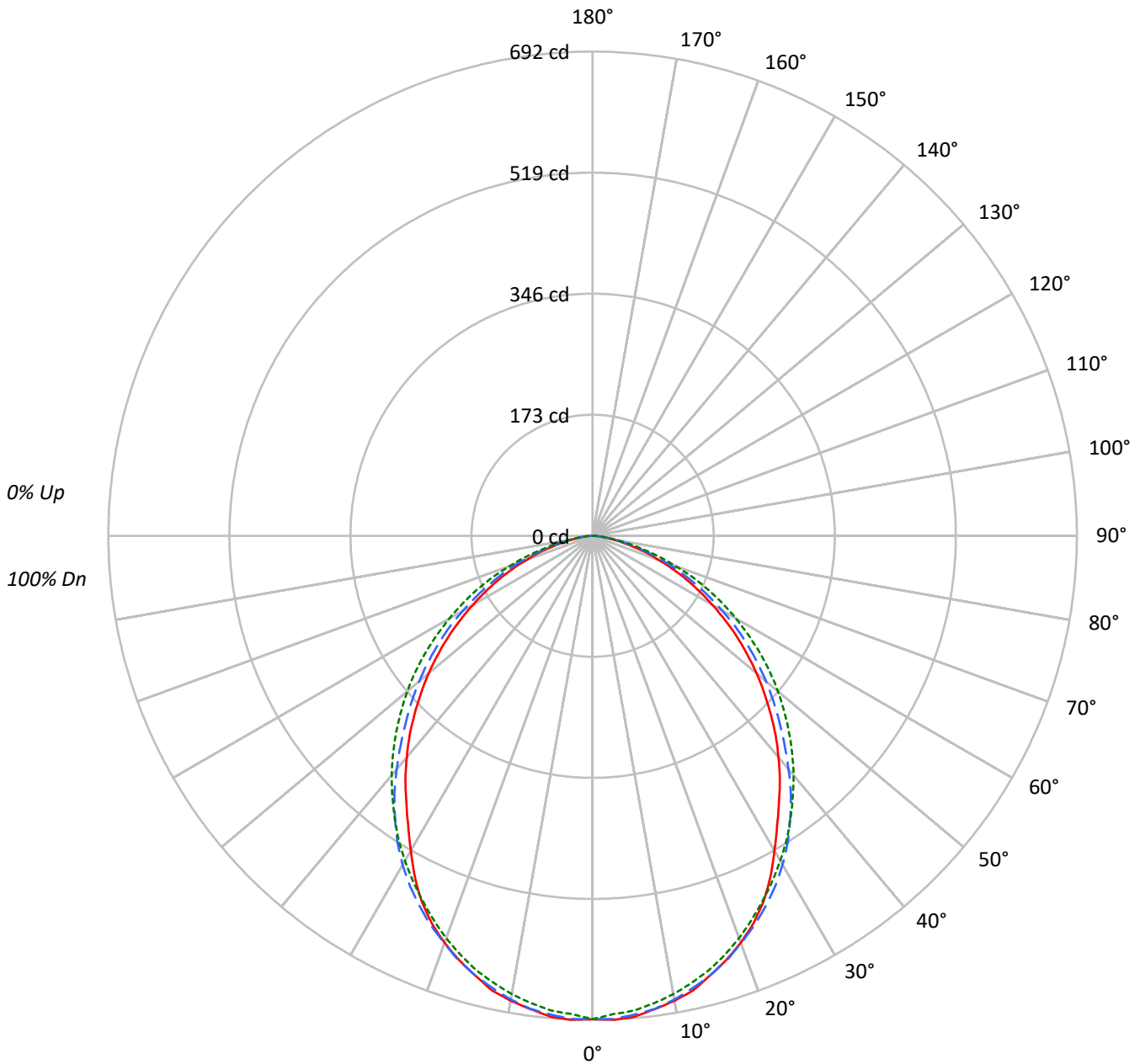
Lumens per Lamp: N/A  
Luminaire Lumens: 1597.0 lumens  
Efficiency: N/A  
Efficacy: 73.9 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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

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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°	3717	3717	3717
5°	3727	3711	3680
10°	3687	3677	3635
15°	3622	3622	3580
20°	3545	3550	3505
25°	3429	3471	3416
30°	3228	3374	3332
35°	3051	3234	3239
40°	2902	3059	3139
45°	2736	2874	3021
50°	2561	2708	2893
55°	2363	2519	2736
60°	2128	2299	2545
65°	1878	2044	2315
70°	1566	1740	1967
75°	1231	1391	1539
80°	880	979	1085
85°	574	574	543



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.0	4.1
10°-20°	182.7	11.4
20°-30°	267.0	16.7
30°-40°	303.0	19.0
40°-50°	292.5	18.3
50°-60°	241.3	15.1
60°-70°	160.7	10.1
70°-80°	71.9	4.5
80°-90°	12.9	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°	514.7	32.2
0°-40°	817.7	51.2
0°-60°	1351.5	84.6
0°-90°	1597.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1597.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	691	691	691	691	691	
5°	690	690	687	683	681	65
15°	650	652	650	647	643	183
25°	577	582	584	580	575	264
35°	464	471	492	495	493	291
45°	360	366	378	395	397	277
55°	252	256	268	283	292	225
65°	148	152	160	172	182	146
75°	59	62	67	70	74	65
85°	9	9	9	9	9	13
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	690.7	690.7	690.7	690.7	690.7
2.5°	692.5	692.8	691.2	686.9	684.3
5°	689.9	689.6	686.9	683.2	681.1
7.5°	682.2	682.7	681.9	676.6	673.7
10°	674.7	675.0	672.9	668.6	665.2
12.5°	665.2	664.9	662.0	659.9	654.3
15°	650.1	651.7	650.1	647.1	642.6
17.5°	635.5	635.5	636.5	631.5	628.0
20°	619.0	619.8	619.8	615.8	611.9
22.5°	599.9	602.3	603.1	598.9	594.1
25°	577.4	581.9	584.5	580.3	575.2
27.5°	550.0	556.9	564.9	561.7	556.1
30°	519.5	529.6	542.9	540.2	536.2
32.5°	490.6	500.7	519.0	517.9	515.8
35°	464.3	470.7	492.2	494.8	493.0
37.5°	439.4	445.2	465.4	471.5	469.9
40°	413.1	419.5	435.4	446.3	446.8
42.5°	387.1	393.2	406.2	421.9	421.9
45°	359.5	365.6	377.6	394.8	396.9
47.5°	332.5	338.8	350.5	367.8	371.2
50°	305.9	311.8	323.4	340.2	345.5
52.5°	278.3	284.7	296.1	311.5	319.2
55°	251.8	256.0	268.5	283.4	291.6
57.5°	224.2	228.2	242.2	255.0	263.5
60°	197.7	202.7	213.6	226.6	236.4
62.5°	172.2	177.5	186.8	198.2	209.3
65°	147.5	151.5	160.5	171.9	181.8
67.5°	123.6	127.1	136.1	144.1	154.4
70°	99.5	104.0	110.6	118.3	125.0
72.5°	80.1	82.0	87.6	93.1	100.0
75°	59.2	62.4	66.9	70.0	74.0
77.5°	42.5	44.3	47.0	49.6	53.3
80°	28.4	29.2	31.6	32.1	35.0
82.5°	17.2	17.8	18.3	18.6	19.6
85°	9.3	9.3	9.3	8.8	8.8
87.5°	5.3	5.3	4.5	3.7	2.7
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)