

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: P554512

Luminaire Tested: **FUSL-12-2-LD4-1STD-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: P554512  
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-LD4-1STD-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**

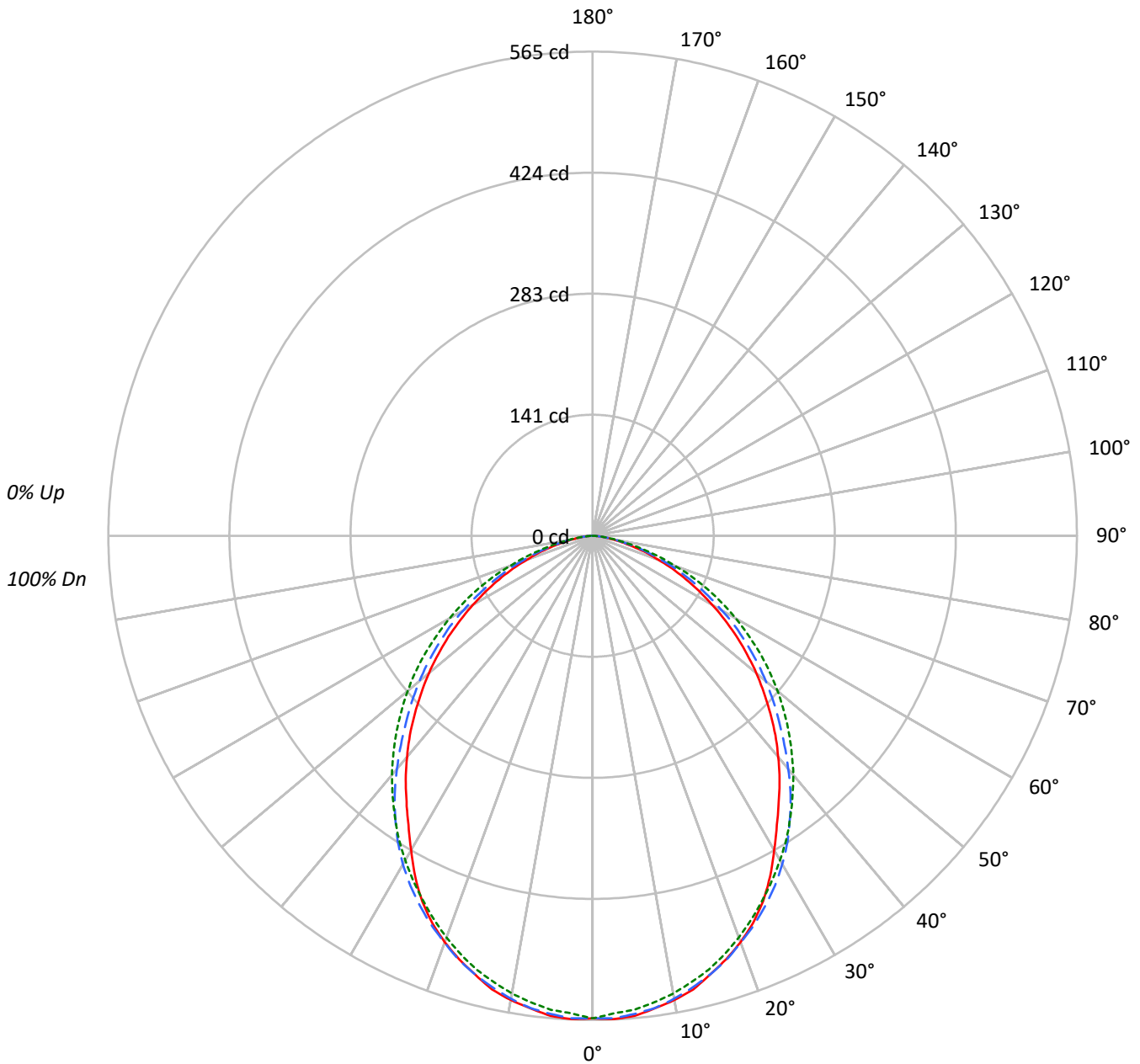
Lumens per Lamp: N/A  
Luminaire Lumens: 1302.0 lumens  
Efficiency: N/A  
Efficacy: 78.4 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 16.6  
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°	3031	3031	3031
5°	3038	3026	3000
10°	3006	2998	2964
15°	2953	2953	2919
20°	2891	2894	2857
25°	2795	2830	2785
30°	2632	2751	2717
35°	2487	2637	2641
40°	2366	2494	2559
45°	2231	2343	2463
50°	2088	2208	2358
55°	1926	2054	2230
60°	1735	1874	2074
65°	1532	1667	1887
70°	1276	1419	1603
75°	1002	1133	1256
80°	716	797	886
85°	469	469	438



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.0	4.1
10°-20°	148.9	11.4
20°-30°	217.6	16.7
30°-40°	247.1	19.0
40°-50°	238.5	18.3
50°-60°	196.7	15.1
60°-70°	131.0	10.1
70°-80°	58.6	4.5
80°-90°	10.5	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°	419.6	32.2
0°-40°	666.6	51.2
0°-60°	1101.9	84.6
0°-90°	1302.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1302.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	563	563	563	563	563	
5°	562	562	560	557	555	53
15°	530	531	530	528	524	149
25°	471	474	477	473	469	216
35°	379	384	401	403	402	237
45°	293	298	308	322	324	226
55°	205	209	219	231	238	183
65°	120	124	131	140	148	119
75°	48	51	54	57	60	53
85°	8	8	8	7	7	10
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	563.1	563.1	563.1	563.1	563.1
2.5°	564.6	564.8	563.5	560.1	557.9
5°	562.4	562.2	560.1	557.0	555.3
7.5°	556.2	556.6	555.9	551.6	549.2
10°	550.1	550.3	548.6	545.1	542.3
12.5°	542.3	542.1	539.7	538.0	533.4
15°	530.0	531.3	530.0	527.6	523.9
17.5°	518.1	518.1	519.0	514.8	512.0
20°	504.7	505.3	505.3	502.1	498.8
22.5°	489.1	491.0	491.7	488.2	484.3
25°	470.7	474.4	476.6	473.1	469.0
27.5°	448.4	454.1	460.5	457.9	453.4
30°	423.6	431.8	442.6	440.4	437.2
32.5°	400.0	408.2	423.1	422.3	420.5
35°	378.6	383.8	401.3	403.4	401.9
37.5°	358.2	363.0	379.4	384.4	383.1
40°	336.8	342.0	355.0	363.9	364.3
42.5°	315.6	320.6	331.2	343.9	343.9
45°	293.1	298.1	307.8	321.9	323.6
47.5°	271.0	276.2	285.8	299.8	302.6
50°	249.4	254.2	263.7	277.3	281.6
52.5°	226.9	232.1	241.4	254.0	260.2
55°	205.3	208.7	218.9	231.0	237.7
57.5°	182.8	186.0	197.5	207.9	214.8
60°	161.2	165.3	174.1	184.7	192.7
62.5°	140.4	144.7	152.3	161.6	170.7
65°	120.3	123.5	130.9	140.2	148.2
67.5°	100.8	103.6	111.0	117.5	125.9
70°	81.1	84.8	90.2	96.5	101.9
72.5°	65.3	66.8	71.4	75.9	81.6
75°	48.2	50.8	54.5	57.1	60.4
77.5°	34.6	36.1	38.3	40.5	43.5
80°	23.1	23.8	25.7	26.2	28.6
82.5°	14.1	14.5	14.9	15.1	16.0
85°	7.6	7.6	7.6	7.1	7.1
87.5°	4.3	4.3	3.7	3.0	2.2
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)