

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: P554966

Luminaire Tested: **FUSL-12-2-LD4-2LO-35-UNV-82-87-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: P554966  
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-LD4-2LO-35-UNV-82-87-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

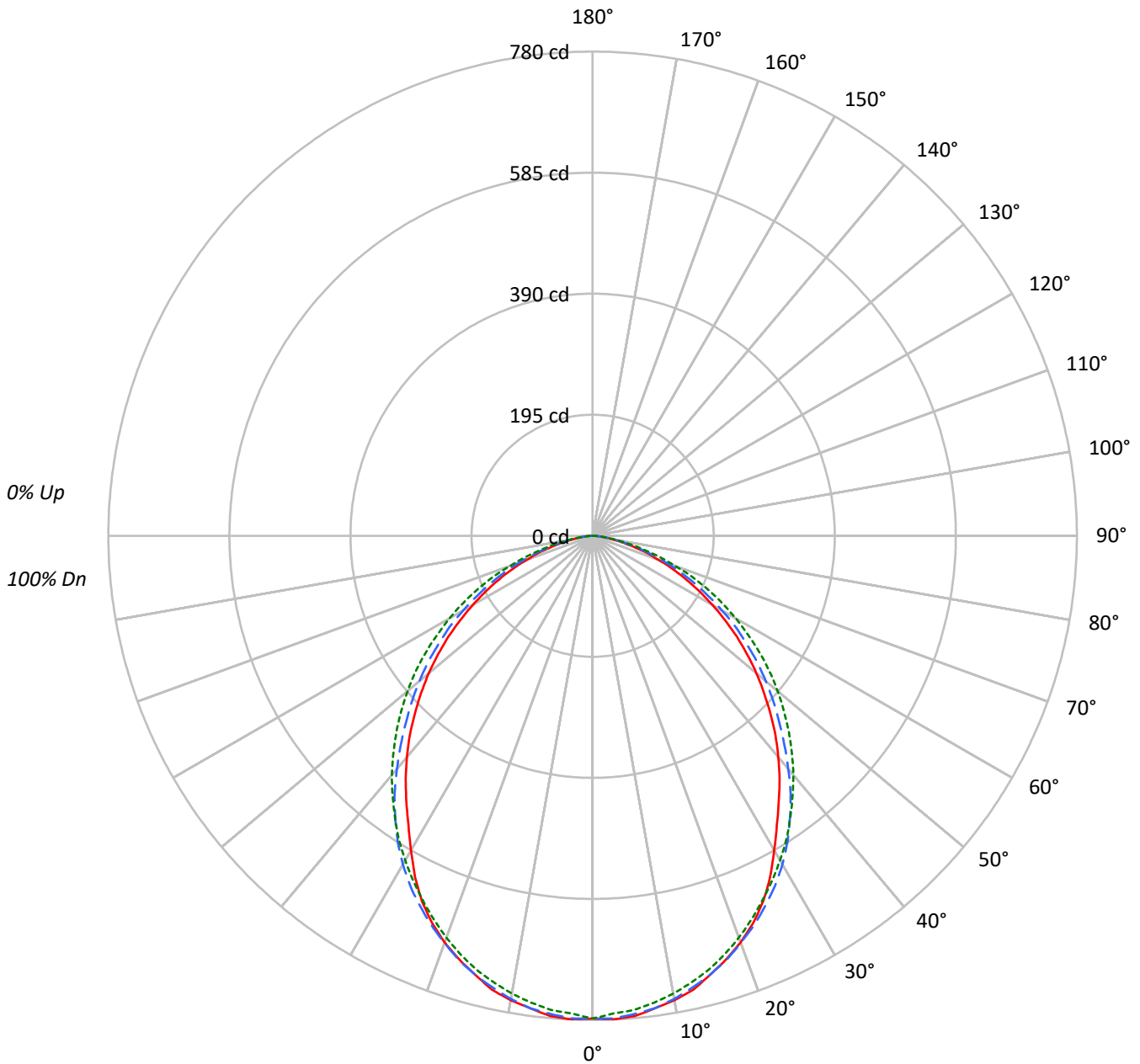
Lumens per Lamp: N/A  
Luminaire Lumens: 1798.0 lumens  
Efficiency: N/A  
Efficacy: 76.8 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 23.4  
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°	4185	4185	4185
5°	4196	4178	4143
10°	4152	4140	4093
15°	4078	4078	4031
20°	3991	3997	3946
25°	3860	3908	3846
30°	3635	3798	3752
35°	3435	3641	3646
40°	3268	3444	3535
45°	3081	3236	3401
50°	2884	3049	3256
55°	2660	2837	3080
60°	2396	2589	2865
65°	2115	2301	2606
70°	1762	1961	2214
75°	1385	1566	1732
80°	992	1100	1221
85°	648	648	611



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.2	4.1
10°-20°	205.7	11.4
20°-30°	300.6	16.7
30°-40°	341.2	19.0
40°-50°	329.3	18.3
50°-60°	271.7	15.1
60°-70°	180.9	10.1
70°-80°	81.0	4.5
80°-90°	14.5	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°	579.4	32.2
0°-40°	920.6	51.2
0°-60°	1521.6	84.6
0°-90°	1798.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1798.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	778	778	778	778	778	
5°	777	776	773	769	767	74
15°	732	734	732	729	724	206
25°	650	655	658	653	648	298
35°	523	530	554	557	555	328
45°	405	412	425	444	447	312
55°	284	288	302	319	328	253
65°	166	171	181	194	205	165
75°	67	70	75	79	83	73
85°	10	10	10	10	10	14
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	777.6	777.6	777.6	777.6	777.6
2.5°	779.7	780.0	778.2	773.4	770.4
5°	776.7	776.4	773.4	769.2	766.8
7.5°	768.0	768.6	767.7	761.8	758.5
10°	759.7	760.0	757.6	752.8	748.9
12.5°	748.9	748.6	745.3	742.9	736.7
15°	731.9	733.7	731.9	728.6	723.5
17.5°	715.5	715.5	716.6	711.0	707.1
20°	696.9	697.8	697.8	693.3	688.9
22.5°	675.4	678.1	679.0	674.2	668.9
25°	650.0	655.1	658.1	653.3	647.6
27.5°	619.3	627.0	636.0	632.4	626.1
30°	584.9	596.3	611.2	608.2	603.7
32.5°	552.3	563.7	584.3	583.1	580.7
35°	522.8	529.9	554.1	557.1	555.0
37.5°	494.7	501.3	524.0	530.8	529.0
40°	465.1	472.3	490.2	502.5	503.1
42.5°	435.8	442.7	457.4	475.0	475.0
45°	404.8	411.6	425.1	444.5	446.9
47.5°	374.3	381.5	394.6	414.0	417.9
50°	344.4	351.0	364.1	383.0	388.9
52.5°	313.4	320.5	333.4	350.7	359.4
55°	283.5	288.3	302.3	319.0	328.3
57.5°	252.4	256.9	272.7	287.1	296.6
60°	222.6	228.2	240.5	255.1	266.2
62.5°	193.9	199.8	210.3	223.1	235.7
65°	166.1	170.6	180.7	193.6	204.6
67.5°	139.2	143.1	153.2	162.2	173.9
70°	112.0	117.1	124.6	133.2	140.7
72.5°	90.2	92.3	98.6	104.9	112.6
75°	66.6	70.2	75.3	78.9	83.3
77.5°	47.8	49.9	52.9	55.9	60.0
80°	32.0	32.9	35.5	36.1	39.4
82.5°	19.4	20.0	20.6	20.9	22.1
85°	10.5	10.5	10.5	9.9	9.9
87.5°	6.0	6.0	5.1	4.2	3.0
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)