

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: P554193

Luminaire Tested: **FUSL-12-2-LD4-1LO-35-UNV-82-84-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: P554193  
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-LD4-1LO-35-UNV-82-84-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

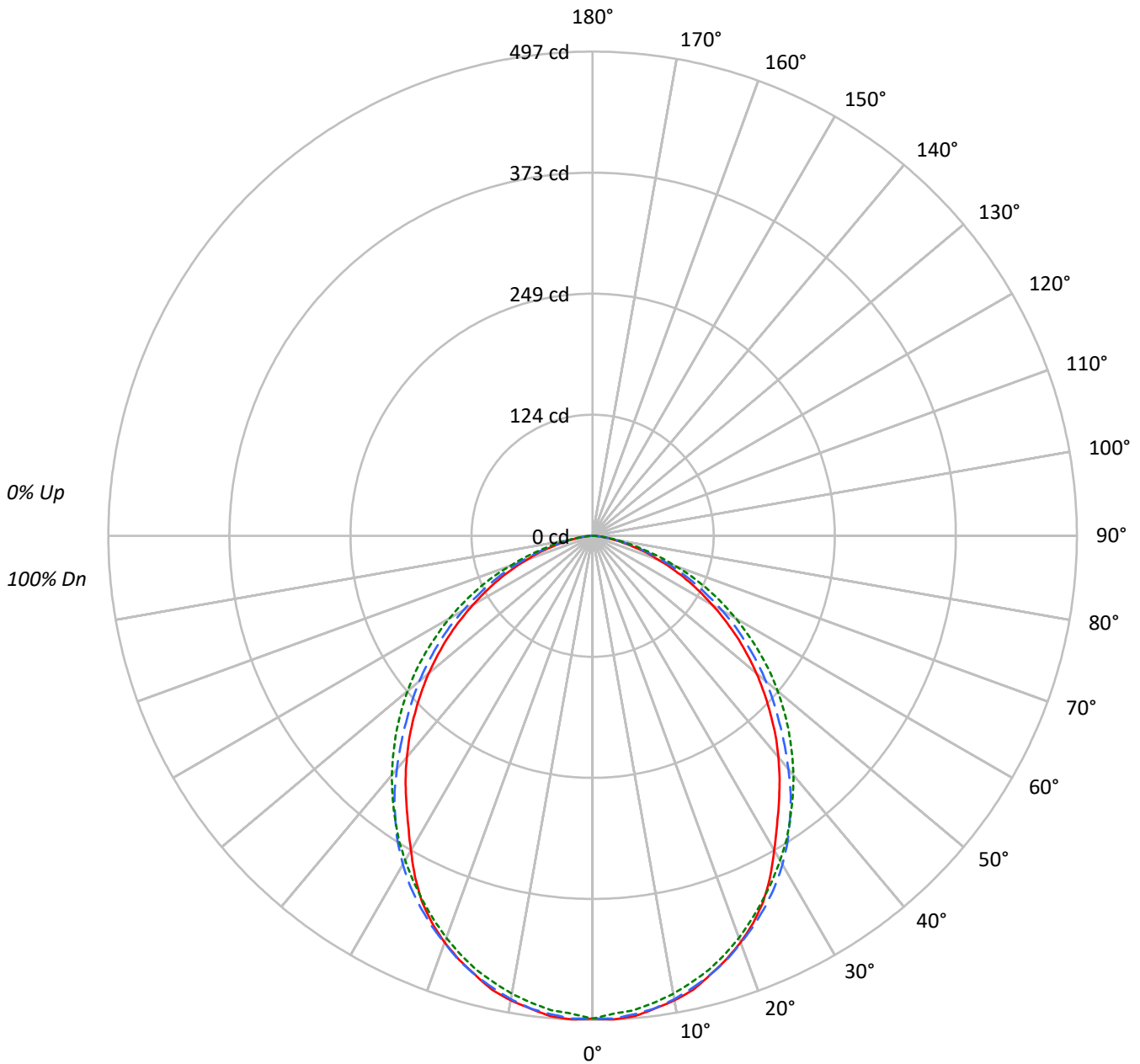
Lumens per Lamp: N/A  
Luminaire Lumens: 1146.0 lumens  
Efficiency: N/A  
Efficacy: 97.9 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 11.7  
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°	2667	2667	2667
5°	2674	2663	2641
10°	2646	2639	2608
15°	2599	2599	2570
20°	2544	2548	2515
25°	2460	2491	2451
30°	2317	2421	2391
35°	2189	2321	2325
40°	2083	2195	2252
45°	1964	2062	2168
50°	1838	1943	2076
55°	1696	1808	1964
60°	1526	1650	1826
65°	1349	1467	1661
70°	1124	1249	1412
75°	884	998	1104
80°	632	704	778
85°	414	414	389



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	46.7	4.1
10°-20°	131.1	11.4
20°-30°	191.6	16.7
30°-40°	217.5	19.0
40°-50°	209.9	18.3
50°-60°	173.2	15.1
60°-70°	115.3	10.1
70°-80°	51.6	4.5
80°-90°	9.2	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°	369.3	32.2
0°-40°	586.8	51.2
0°-60°	969.8	84.6
0°-90°	1146.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1146.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	496	496	496	496	496	
5°	495	495	493	490	489	47
15°	466	468	466	464	461	132
25°	414	418	420	416	413	190
35°	333	338	353	355	354	209
45°	258	262	271	283	285	199
55°	181	184	193	203	209	161
65°	106	109	115	123	130	105
75°	42	45	48	50	53	46
85°	7	7	7	6	6	9
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	495.6	495.6	495.6	495.6	495.6
2.5°	496.9	497.1	496.0	492.9	491.0
5°	495.0	494.9	492.9	490.3	488.8
7.5°	489.5	489.9	489.3	485.5	483.4
10°	484.2	484.4	482.9	479.8	477.3
12.5°	477.3	477.1	475.1	473.5	469.5
15°	466.5	467.6	466.5	464.4	461.2
17.5°	456.0	456.0	456.8	453.2	450.7
20°	444.2	444.8	444.8	441.9	439.1
22.5°	430.5	432.2	432.8	429.7	426.3
25°	414.3	417.6	419.5	416.4	412.8
27.5°	394.7	399.7	405.4	403.1	399.1
30°	372.8	380.0	389.6	387.7	384.8
32.5°	352.1	359.3	372.4	371.7	370.1
35°	333.2	337.8	353.2	355.1	353.8
37.5°	315.3	319.5	334.0	338.3	337.2
40°	296.5	301.0	312.4	320.3	320.6
42.5°	277.8	282.2	291.5	302.7	302.7
45°	258.0	262.4	270.9	283.3	284.8
47.5°	238.6	243.1	251.5	263.9	266.4
50°	219.5	223.7	232.1	244.1	247.9
52.5°	199.7	204.3	212.5	223.5	229.1
55°	180.7	183.7	192.7	203.3	209.3
57.5°	160.9	163.7	173.8	183.0	189.1
60°	141.8	145.5	153.3	162.6	169.6
62.5°	123.6	127.4	134.0	142.2	150.2
65°	105.9	108.7	115.2	123.4	130.4
67.5°	88.7	91.2	97.7	103.4	110.8
70°	71.4	74.6	79.4	84.9	89.7
72.5°	57.5	58.8	62.8	66.8	71.8
75°	42.5	44.7	48.0	50.3	53.1
77.5°	30.5	31.8	33.7	35.6	38.3
80°	20.4	20.9	22.7	23.0	25.1
82.5°	12.4	12.8	13.1	13.3	14.1
85°	6.7	6.7	6.7	6.3	6.3
87.5°	3.8	3.8	3.2	2.7	1.9
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)