

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: P556507

Luminaire Tested: **FUSL-12-4-LD4-1LO-35-UNV-82-94-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: P556507  
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-12-4-LD4-1LO-35-UNV-82-94-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

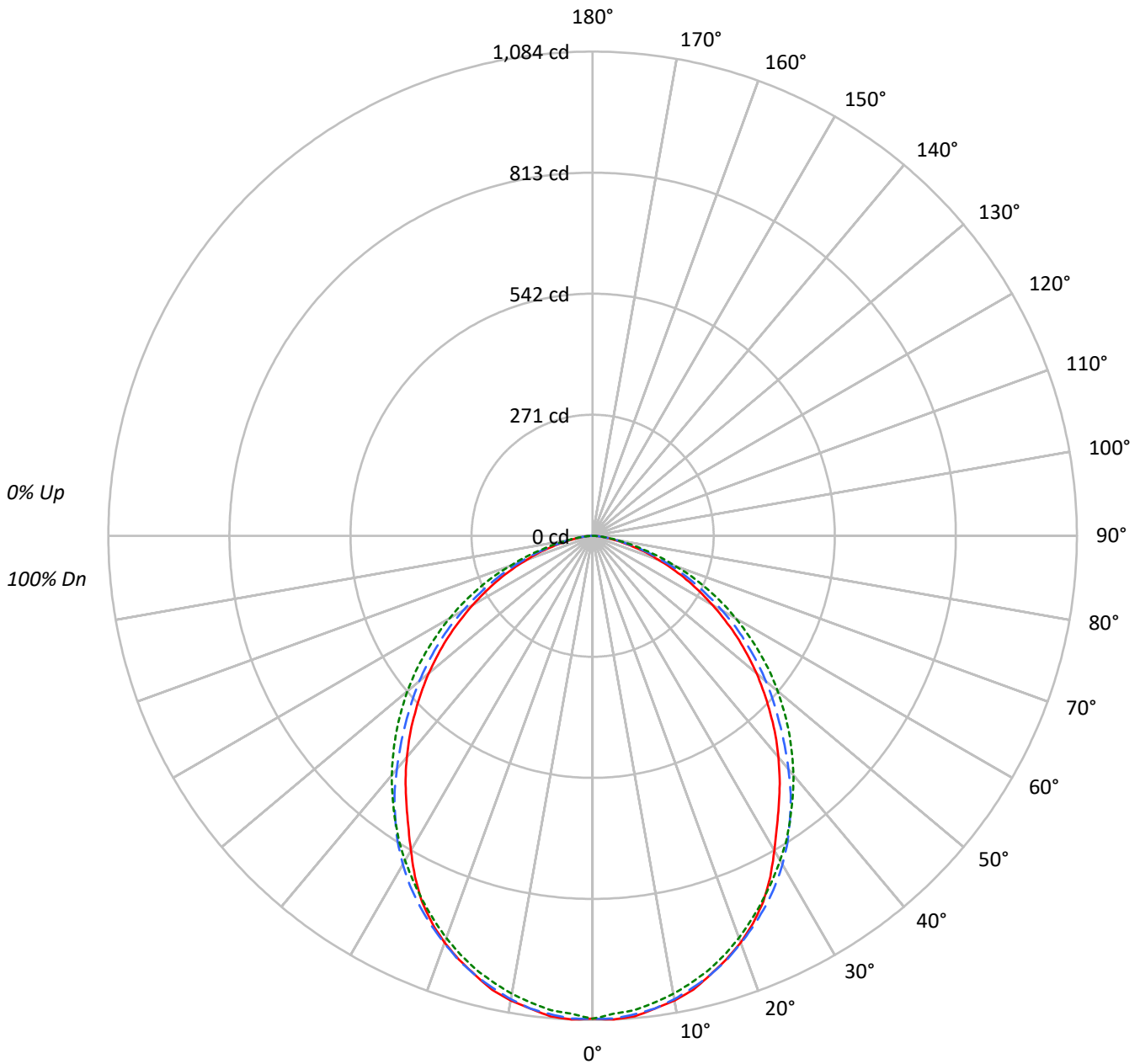
Lumens per Lamp: N/A  
Luminaire Lumens: 2500.0 lumens  
Efficiency: N/A  
Efficacy: 106.8 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 23.4  
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°	2909	2909	2909
5°	2917	2905	2880
10°	2886	2878	2845
15°	2835	2835	2803
20°	2775	2779	2743
25°	2684	2717	2674
30°	2527	2641	2608
35°	2388	2531	2535
40°	2272	2394	2457
45°	2142	2250	2365
50°	2005	2120	2264
55°	1849	1972	2142
60°	1665	1800	1992
65°	1470	1600	1812
70°	1226	1363	1539
75°	963	1089	1205
80°	688	766	849
85°	448	448	423



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	101.8	4.1
10°-20°	286.0	11.4
20°-30°	417.9	16.7
30°-40°	474.4	19.0
40°-50°	457.9	18.3
50°-60°	377.8	15.1
60°-70°	251.6	10.1
70°-80°	112.6	4.5
80°-90°	20.1	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°	805.7	32.2
0°-40°	1280.0	51.2
0°-60°	2115.7	84.6
0°-90°	2500.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2500.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1081	1081	1081	1081	1081	
5°	1080	1080	1075	1070	1066	102
15°	1018	1020	1018	1013	1006	287
25°	904	911	915	908	900	414
35°	727	737	770	775	772	455
45°	563	572	591	618	621	434
55°	394	401	420	444	456	352
65°	231	237	251	269	284	229
75°	93	98	105	110	116	101
85°	14	14	14	14	14	20
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1081.2	1081.2	1081.2	1081.2	1081.2
2.5°	1084.1	1084.5	1082.0	1075.4	1071.2
5°	1079.9	1079.5	1075.4	1069.6	1066.2
7.5°	1067.9	1068.7	1067.5	1059.2	1054.6
10°	1056.3	1056.7	1053.4	1046.7	1041.3
12.5°	1041.3	1040.9	1036.3	1033.0	1024.3
15°	1017.6	1020.1	1017.6	1013.1	1006.0
17.5°	994.8	994.8	996.5	988.6	983.2
20°	969.0	970.3	970.3	964.1	957.8
22.5°	939.1	942.9	944.1	937.5	930.0
25°	903.8	910.9	915.0	908.4	900.5
27.5°	861.0	871.8	884.3	879.3	870.6
30°	813.3	829.1	849.8	845.7	839.4
32.5°	768.0	783.8	812.4	810.8	807.5
35°	726.9	736.9	770.5	774.6	771.7
37.5°	687.8	697.0	728.5	738.1	735.6
40°	646.7	656.7	681.6	698.6	699.5
42.5°	606.0	615.6	635.9	660.4	660.4
45°	562.8	572.4	591.1	618.1	621.4
47.5°	520.4	530.4	548.7	575.7	581.1
50°	478.9	488.0	506.3	532.5	540.8
52.5°	435.7	445.7	463.5	487.6	499.7
55°	394.2	400.8	420.3	443.6	456.5
57.5°	351.0	357.2	379.2	399.2	412.5
60°	309.4	317.3	334.4	354.7	370.1
62.5°	269.6	277.9	292.4	310.3	327.7
65°	230.9	237.2	251.3	269.2	284.5
67.5°	193.6	199.0	213.1	225.5	241.7
70°	155.8	162.8	173.2	185.3	195.6
72.5°	125.4	128.3	137.1	145.8	156.6
75°	92.6	97.6	104.7	109.7	115.9
77.5°	66.5	69.4	73.5	77.7	83.5
80°	44.4	45.7	49.4	50.3	54.8
82.5°	27.0	27.8	28.7	29.1	30.7
85°	14.5	14.5	14.5	13.7	13.7
87.5°	8.3	8.3	7.1	5.8	4.2
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)