

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: P558140

Luminaire Tested: **FUSL-12-4-LD4-3LO-50-UNV-80-96-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: P558140  
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-LD4-3LO-50-UNV-80-96-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND  
5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

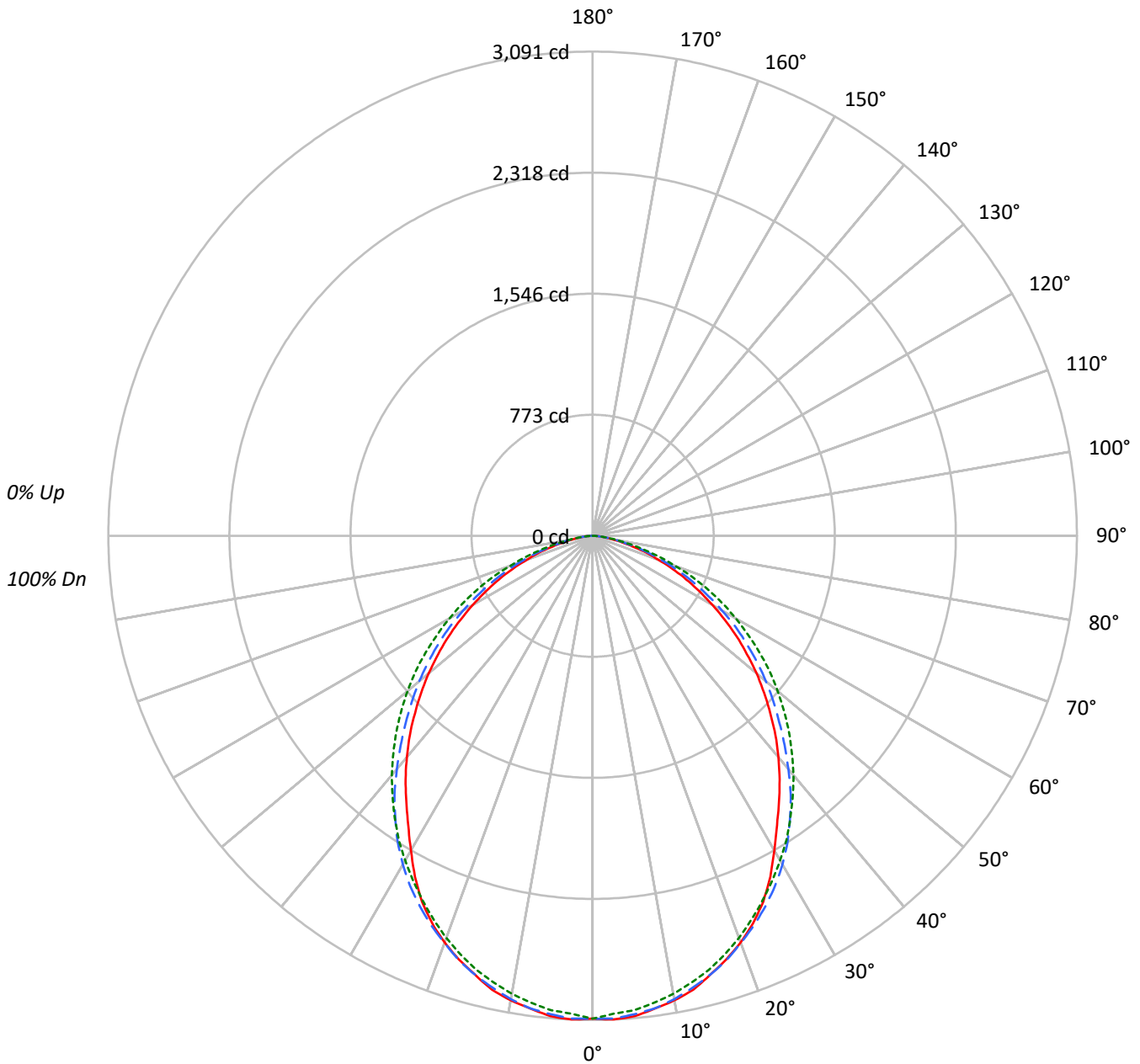
Lumens per Lamp: N/A  
Luminaire Lumens: 7128.0 lumens  
Efficiency: N/A  
Efficacy: 101.5 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 70.2  
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°	8295	8295	8295
5°	8317	8282	8212
10°	8229	8206	8113
15°	8083	8083	7991
20°	7912	7922	7820
25°	7652	7747	7623
30°	7205	7529	7437
35°	6808	7217	7228
40°	6477	6827	7006
45°	6107	6413	6742
50°	5717	6044	6455
55°	5273	5623	6106
60°	4749	5131	5679
65°	4193	4562	5165
70°	3494	3885	4389
75°	2746	3103	3435
80°	1963	2183	2422
85°	1278	1278	1207



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	290.2	4.1
10°-20°	815.4	11.4
20°-30°	1191.5	16.7
30°-40°	1352.5	19.0
40°-50°	1305.6	18.3
50°-60°	1077.1	15.1
60°-70°	717.2	10.1
70°-80°	320.9	4.5
80°-90°	57.4	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°	2297.1	32.2
0°-40°	3649.7	51.2
0°-60°	6032.4	84.6
0°-90°	7128.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7128.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3083	3083	3083	3083	3083	
5°	3079	3078	3066	3050	3040	291
15°	2902	2909	2902	2888	2868	818
25°	2577	2597	2609	2590	2568	1180
35°	2072	2101	2197	2209	2200	1299
45°	1605	1632	1685	1762	1772	1238
55°	1124	1143	1198	1265	1302	1003
65°	658	676	716	767	811	653
75°	264	278	298	313	330	289
85°	41	41	41	39	39	56
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3082.7	3082.7	3082.7	3082.7	3082.7
2.5°	3091.0	3092.2	3085.0	3066.1	3054.3
5°	3079.1	3077.9	3066.1	3049.5	3040.0
7.5°	3044.8	3047.1	3043.6	3019.9	3006.9
10°	3011.6	3012.8	3003.3	2984.4	2969.0
12.5°	2969.0	2967.8	2954.8	2945.3	2920.4
15°	2901.5	2908.6	2901.5	2888.5	2868.3
17.5°	2836.3	2836.3	2841.1	2818.6	2803.2
20°	2762.9	2766.5	2766.5	2748.7	2730.9
22.5°	2677.7	2688.3	2691.9	2672.9	2651.6
25°	2577.0	2597.1	2609.0	2590.0	2567.5
27.5°	2455.0	2485.8	2521.3	2507.1	2482.2
30°	2318.8	2363.8	2423.0	2411.2	2393.4
32.5°	2189.7	2234.7	2316.4	2311.7	2302.2
35°	2072.5	2100.9	2196.8	2208.7	2200.4
37.5°	1961.2	1987.2	2077.2	2104.5	2097.4
40°	1843.9	1872.3	1943.4	1992.0	1994.3
42.5°	1727.9	1755.1	1813.1	1883.0	1883.0
45°	1604.7	1631.9	1685.2	1762.2	1771.7
47.5°	1483.9	1512.3	1564.4	1641.4	1656.8
50°	1365.5	1391.5	1443.6	1518.2	1541.9
52.5°	1242.3	1270.7	1321.7	1390.3	1424.7
55°	1123.9	1142.8	1198.5	1264.8	1301.5
57.5°	1000.7	1018.5	1081.2	1138.1	1176.0
60°	882.3	904.8	953.3	1011.4	1055.2
62.5°	768.6	792.3	833.7	884.7	934.4
65°	658.5	676.2	716.5	767.4	811.2
67.5°	551.9	567.3	607.5	643.1	689.2
70°	444.1	464.2	493.8	528.2	557.8
72.5°	357.7	365.9	390.8	415.7	446.5
75°	264.1	278.3	298.4	312.6	330.4
77.5°	189.5	197.8	209.6	221.5	238.0
80°	126.7	130.3	140.9	143.3	156.3
82.5°	77.0	79.3	81.7	82.9	87.6
85°	41.4	41.4	41.4	39.1	39.1
87.5°	23.7	23.7	20.1	16.6	11.8
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)