

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: P558057

Luminaire Tested: **FUSL-12-4-LD4-3LO-35-UNV-93-88-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: P558057  
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-35-UNV-93-88-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

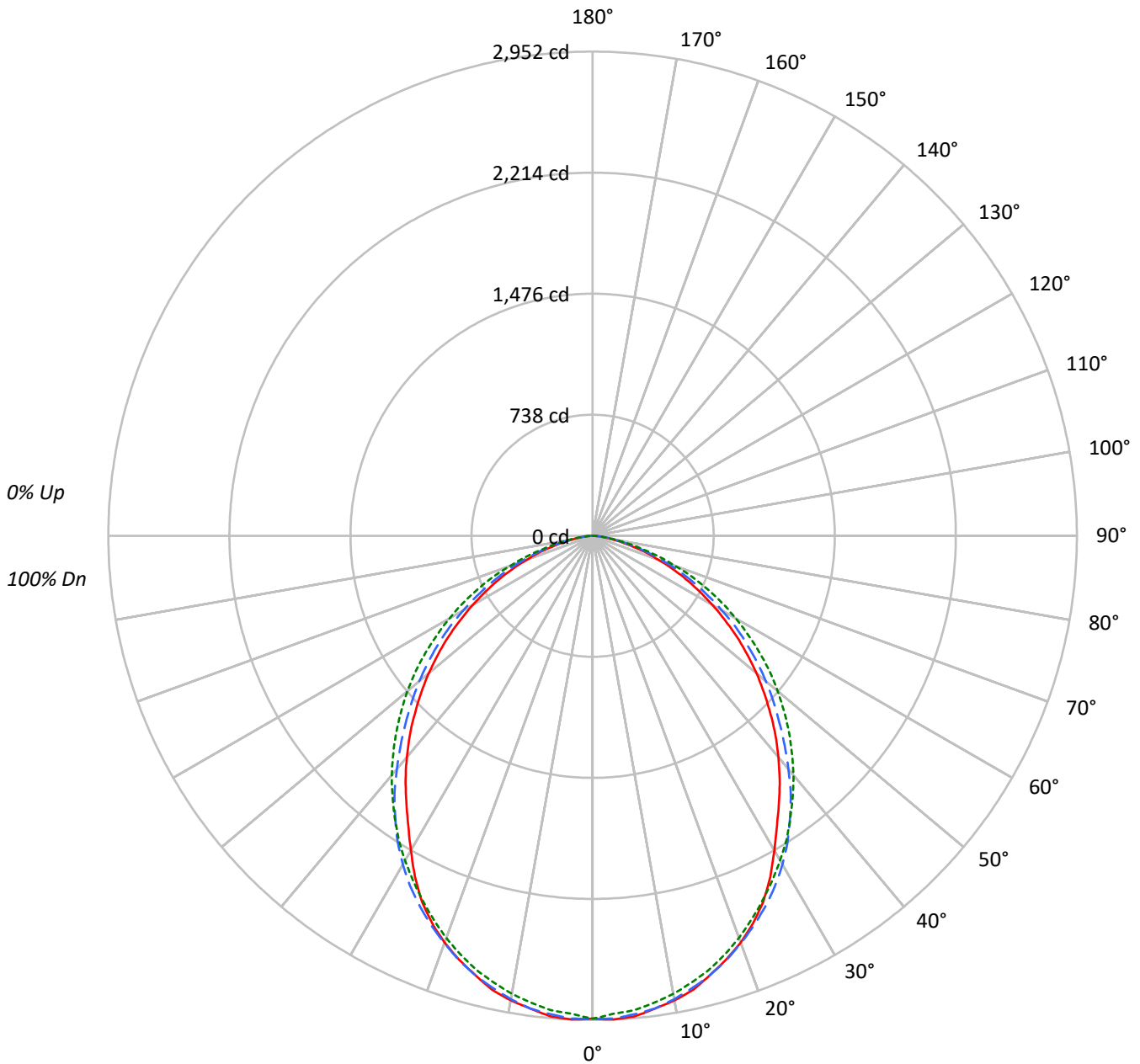
Lumens per Lamp: N/A  
Luminaire Lumens: 6808.0 lumens  
Efficiency: N/A  
Efficacy: 97.0 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 70.2  
Input Voltage (V): NR  
Input Current (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°	7923	7923	7923
5°	7944	7910	7843
10°	7860	7838	7749
15°	7720	7720	7632
20°	7557	7567	7469
25°	7308	7399	7281
30°	6882	7191	7103
35°	6502	6893	6904
40°	6186	6521	6691
45°	5833	6126	6439
50°	5460	5772	6165
55°	5036	5370	5832
60°	4535	4900	5424
65°	4004	4357	4933
70°	3338	3711	4192
75°	2622	2963	3281
80°	1875	2086	2314
85°	1223	1223	1152



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	277.2	4.1
10°-20°	778.8	11.4
20°-30°	1138.0	16.7
30°-40°	1291.8	19.0
40°-50°	1247.0	18.3
50°-60°	1028.7	15.1
60°-70°	685.0	10.1
70°-80°	306.5	4.5
80°-90°	54.8	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°	2194.0	32.2
0°-40°	3485.8	51.2
0°-60°	5761.6	84.6
0°-90°	6808.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6808.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2944	2944	2944	2944	2944	
5°	2941	2940	2928	2913	2904	278
15°	2771	2778	2771	2759	2740	781
25°	2461	2480	2492	2474	2452	1127
35°	1979	2007	2098	2110	2102	1240
45°	1533	1559	1610	1683	1692	1183
55°	1073	1092	1145	1208	1243	958
65°	629	646	684	733	775	624
75°	252	266	285	299	316	276
85°	40	40	40	37	37	53
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2944.3	2944.3	2944.3	2944.3	2944.3
2.5°	2952.2	2953.3	2946.5	2928.4	2917.1
5°	2940.9	2939.8	2928.4	2912.6	2903.6
7.5°	2908.1	2910.4	2907.0	2884.3	2871.9
10°	2876.4	2877.5	2868.5	2850.4	2835.7
12.5°	2835.7	2834.6	2822.1	2813.1	2789.3
15°	2771.2	2778.0	2771.2	2758.8	2739.6
17.5°	2709.0	2709.0	2713.5	2692.0	2677.3
20°	2638.9	2642.3	2642.3	2625.3	2608.3
22.5°	2557.4	2567.6	2571.0	2552.9	2532.6
25°	2461.3	2480.5	2491.8	2473.7	2452.3
27.5°	2344.8	2374.2	2408.1	2394.6	2370.8
30°	2214.7	2257.7	2314.3	2302.9	2286.0
32.5°	2091.4	2134.4	2212.5	2207.9	2198.9
35°	1979.4	2006.6	2098.2	2109.5	2101.6
37.5°	1873.1	1898.0	1984.0	2010.0	2003.2
40°	1761.1	1788.3	1856.2	1902.5	1904.8
42.5°	1650.3	1676.3	1731.7	1798.5	1798.5
45°	1532.7	1558.7	1609.6	1683.1	1692.1
47.5°	1417.3	1444.4	1494.2	1567.7	1582.4
50°	1304.2	1329.1	1378.8	1450.1	1472.7
52.5°	1186.5	1213.7	1262.3	1327.9	1360.7
55°	1073.4	1091.5	1144.7	1208.0	1243.1
57.5°	955.8	972.8	1032.7	1087.0	1123.2
60°	842.7	864.2	910.5	966.0	1007.8
62.5°	734.1	756.7	796.3	844.9	892.4
65°	628.9	645.9	684.3	733.0	774.8
67.5°	527.1	541.8	580.3	614.2	658.3
70°	424.2	443.4	471.7	504.5	532.8
72.5°	341.6	349.5	373.3	397.0	426.4
75°	252.2	265.8	285.0	298.6	315.6
77.5°	181.0	188.9	200.2	211.5	227.4
80°	121.0	124.4	134.6	136.9	149.3
82.5°	73.5	75.8	78.0	79.2	83.7
85°	39.6	39.6	39.6	37.3	37.3
87.5°	22.6	22.6	19.2	15.8	11.3
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)