

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: P558143

Luminaire Tested: **FUSL-12-4-LD4-3LO-50-UNV-80-97-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: P558143  
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-80-97-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND  
5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

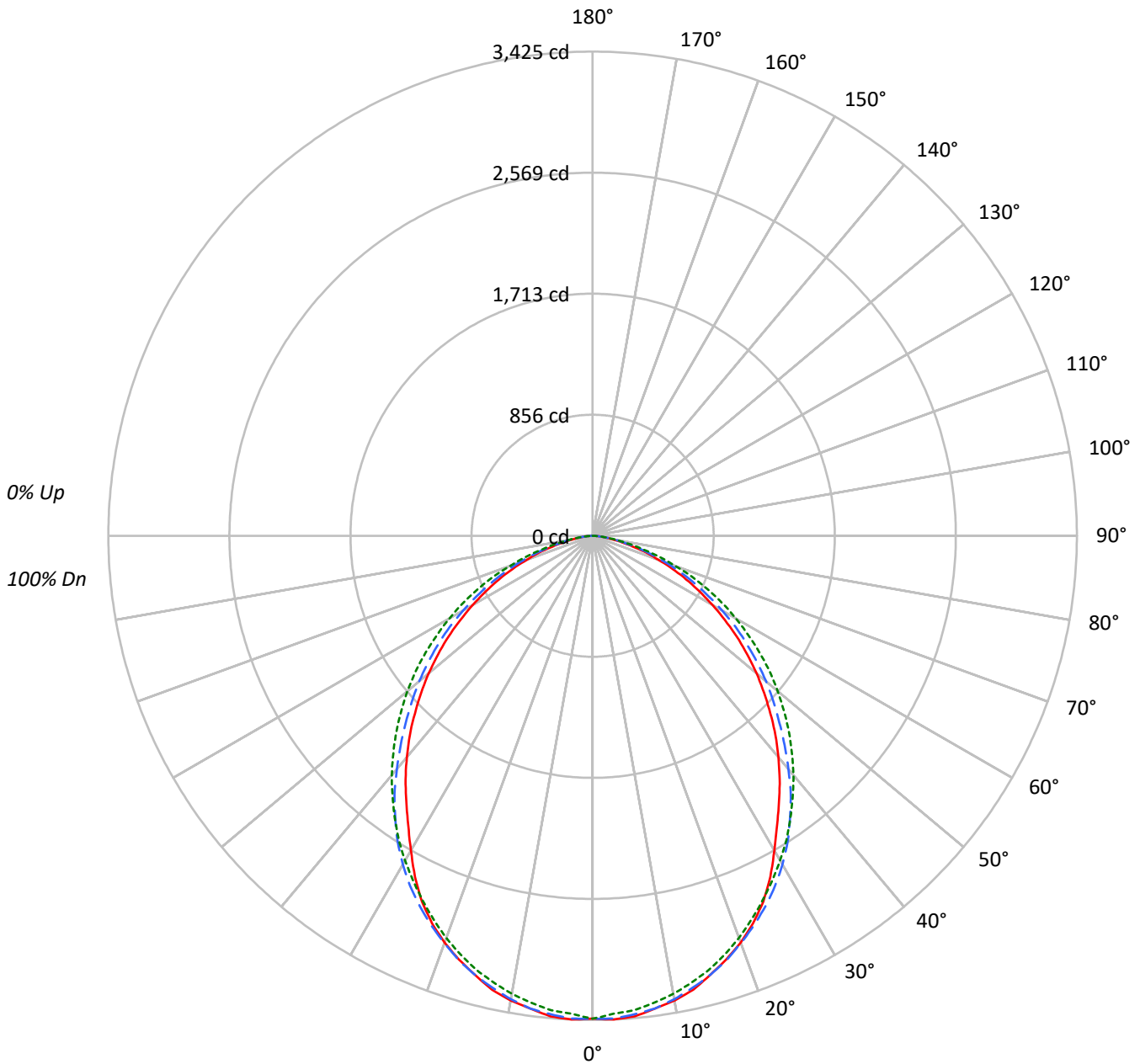
Lumens per Lamp: N/A  
Luminaire Lumens: 7899.0 lumens  
Efficiency: N/A  
Efficacy: 112.5 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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°	9193	9193	9193
5°	9217	9178	9100
10°	9119	9094	8990
15°	8958	8958	8855
20°	8768	8779	8666
25°	8479	8584	8448
30°	7984	8343	8241
35°	7545	7998	8010
40°	7178	7565	7763
45°	6768	7107	7472
50°	6335	6697	7153
55°	5843	6231	6767
60°	5262	5686	6293
65°	4646	5056	5724
70°	3872	4306	4863
75°	3043	3438	3807
80°	2176	2421	2684
85°	1417	1417	1337



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	321.6	4.1
10°-20°	903.6	11.4
20°-30°	1320.4	16.7
30°-40°	1498.8	19.0
40°-50°	1446.9	18.3
50°-60°	1193.6	15.1
60°-70°	794.8	10.1
70°-80°	355.7	4.5
80°-90°	63.6	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°	2545.6	32.2
0°-40°	4044.4	51.2
0°-60°	6684.9	84.6
0°-90°	7899.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7899.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3416	3416	3416	3416	3416	
5°	3412	3411	3398	3379	3369	323
15°	3215	3223	3215	3201	3179	906
25°	2856	2878	2891	2870	2845	1308
35°	2297	2328	2434	2448	2438	1439
45°	1778	1808	1868	1953	1963	1372
55°	1245	1266	1328	1402	1442	1112
65°	730	749	794	850	899	724
75°	293	308	331	346	366	320
85°	46	46	46	43	43	62
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3416.1	3416.1	3416.1	3416.1	3416.1
2.5°	3425.3	3426.6	3418.7	3397.7	3384.6
5°	3412.2	3410.9	3397.7	3379.4	3368.9
7.5°	3374.1	3376.7	3372.8	3346.6	3332.1
10°	3337.4	3338.7	3328.2	3307.2	3290.1
12.5°	3290.1	3288.8	3274.4	3263.9	3236.3
15°	3215.3	3223.2	3215.3	3200.9	3178.6
17.5°	3143.1	3143.1	3148.4	3123.5	3106.4
20°	3061.8	3065.7	3065.7	3046.0	3026.3
22.5°	2967.3	2979.1	2983.0	2962.0	2938.4
25°	2855.7	2878.0	2891.2	2870.2	2845.2
27.5°	2720.6	2754.7	2794.0	2778.3	2750.7
30°	2569.6	2619.5	2685.1	2672.0	2652.3
32.5°	2426.6	2476.5	2567.0	2561.8	2551.3
35°	2296.7	2328.2	2434.5	2447.6	2438.4
37.5°	2173.3	2202.2	2301.9	2332.1	2324.2
40°	2043.4	2074.9	2153.6	2207.4	2210.0
42.5°	1914.8	1944.9	2009.2	2086.7	2086.7
45°	1778.3	1808.5	1867.5	1952.8	1963.3
47.5°	1644.4	1675.9	1733.6	1819.0	1836.0
50°	1513.2	1542.0	1599.8	1682.5	1708.7
52.5°	1376.7	1408.2	1464.6	1540.7	1578.8
55°	1245.4	1266.4	1328.1	1401.6	1442.3
57.5°	1109.0	1128.6	1198.2	1261.2	1303.2
60°	977.7	1002.7	1056.5	1120.8	1169.3
62.5°	851.7	878.0	923.9	980.3	1035.5
65°	729.7	749.4	794.0	850.4	899.0
67.5°	611.6	628.6	673.2	712.6	763.8
70°	492.1	514.5	547.3	585.3	618.1
72.5°	396.3	405.5	433.1	460.6	494.8
75°	292.7	308.4	330.7	346.5	366.2
77.5°	210.0	219.2	232.3	245.4	263.8
80°	140.4	144.4	156.2	158.8	173.2
82.5°	85.3	87.9	90.6	91.9	97.1
85°	45.9	45.9	45.9	43.3	43.3
87.5°	26.2	26.2	22.3	18.4	13.1
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)