

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: P558106

Luminaire Tested: **FUSL-12-4-LD4-3LO-40-UNV-82-94-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: P558106  
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-40-UNV-82-94-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

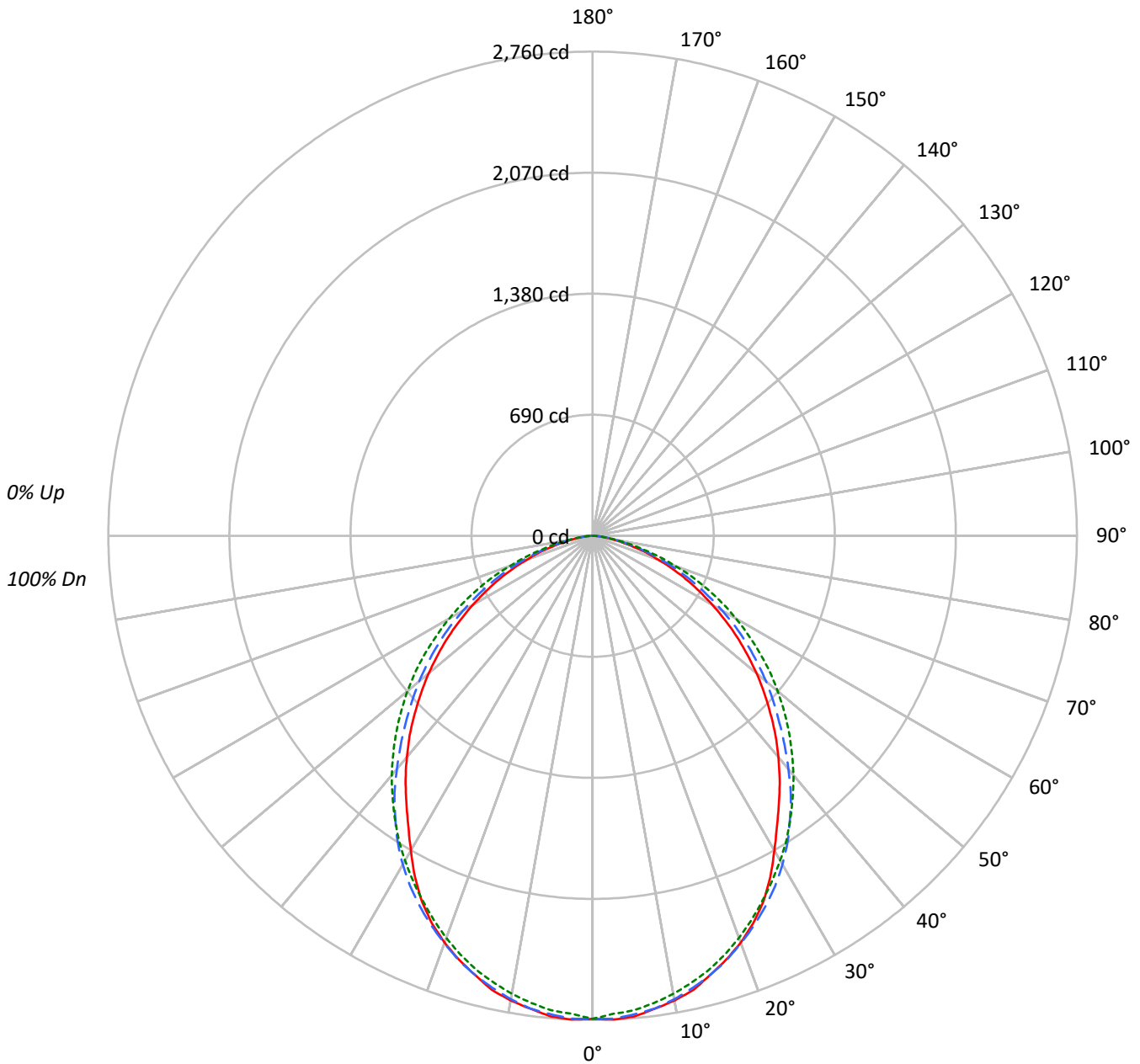
Lumens per Lamp: N/A  
Luminaire Lumens: 6366.0 lumens  
Efficiency: N/A  
Efficacy: 90.7 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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°	7409	7409	7409
5°	7428	7397	7334
10°	7350	7329	7245
15°	7219	7219	7137
20°	7066	7075	6985
25°	6834	6918	6808
30°	6435	6724	6642
35°	6080	6445	6456
40°	5785	6097	6257
45°	5454	5728	6022
50°	5105	5398	5765
55°	4709	5022	5453
60°	4241	4582	5072
65°	3745	4074	4613
70°	3120	3471	3920
75°	2453	2771	3068
80°	1754	1951	2163
85°	1142	1142	1078



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	259.2	4.1
10°-20°	728.2	11.4
20°-30°	1064.2	16.7
30°-40°	1207.9	19.0
40°-50°	1166.1	18.3
50°-60°	961.9	15.1
60°-70°	640.6	10.1
70°-80°	286.6	4.5
80°-90°	51.3	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°	2051.6	32.2
0°-40°	3259.5	51.2
0°-60°	5387.5	84.6
0°-90°	6366.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6366.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2753	2753	2753	2753	2753	
5°	2750	2749	2738	2724	2715	260
15°	2591	2598	2591	2580	2562	731
25°	2302	2320	2330	2313	2293	1054
35°	1851	1876	1962	1973	1965	1160
45°	1433	1458	1505	1574	1582	1106
55°	1004	1021	1070	1130	1162	896
65°	588	604	640	685	724	583
75°	236	249	266	279	295	258
85°	37	37	37	35	35	50
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2753.1	2753.1	2753.1	2753.1	2753.1
2.5°	2760.5	2761.6	2755.2	2738.3	2727.7
5°	2750.0	2748.9	2738.3	2723.5	2715.1
7.5°	2719.3	2721.4	2718.2	2697.1	2685.4
10°	2689.7	2690.7	2682.3	2665.3	2651.6
12.5°	2651.6	2650.5	2638.9	2630.4	2608.2
15°	2591.3	2597.7	2591.3	2579.7	2561.7
17.5°	2533.1	2533.1	2537.4	2517.3	2503.5
20°	2467.6	2470.7	2470.7	2454.9	2439.0
22.5°	2391.4	2400.9	2404.1	2387.2	2368.1
25°	2301.5	2319.5	2330.1	2313.1	2293.0
27.5°	2192.6	2220.1	2251.8	2239.1	2216.9
30°	2070.9	2111.1	2164.0	2153.4	2137.6
32.5°	1955.6	1995.8	2068.8	2064.6	2056.1
35°	1850.9	1876.3	1962.0	1972.6	1965.2
37.5°	1751.5	1774.8	1855.2	1879.5	1873.1
40°	1646.8	1672.2	1735.6	1779.0	1781.1
42.5°	1543.1	1567.5	1619.3	1681.7	1681.7
45°	1433.2	1457.5	1505.1	1573.8	1582.3
47.5°	1325.3	1350.7	1397.2	1465.9	1479.7
50°	1219.5	1242.8	1289.3	1355.9	1377.1
52.5°	1109.5	1134.9	1180.4	1241.7	1272.4
55°	1003.7	1020.7	1070.4	1129.6	1162.4
57.5°	893.7	909.6	965.7	1016.4	1050.3
60°	788.0	808.1	851.4	903.3	942.4
62.5°	686.4	707.6	744.6	790.1	834.5
65°	588.1	603.9	639.9	685.4	724.5
67.5°	492.9	506.6	542.6	574.3	615.6
70°	396.6	414.6	441.1	471.7	498.2
72.5°	319.4	326.8	349.0	371.2	398.7
75°	235.9	248.6	266.5	279.2	295.1
77.5°	169.2	176.6	187.2	197.8	212.6
80°	113.2	116.3	125.9	128.0	139.6
82.5°	68.7	70.9	73.0	74.0	78.3
85°	37.0	37.0	37.0	34.9	34.9
87.5°	21.2	21.2	18.0	14.8	10.6
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)