

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: P558170

Luminaire Tested: **FUSL-12-4-LD4-3LO-50-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: P558170  
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-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 5000K CCT LEDES  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

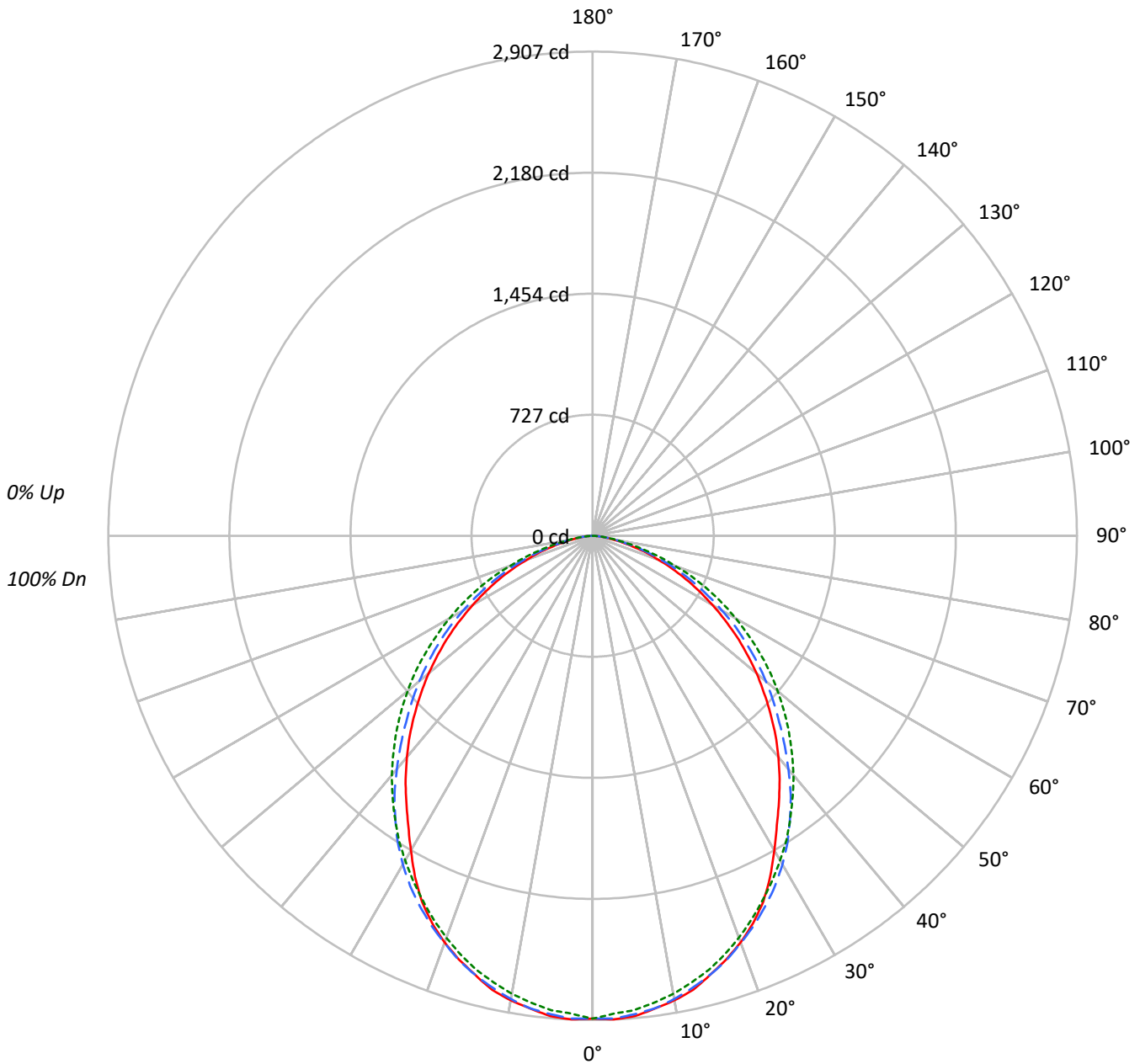
Lumens per Lamp: N/A  
Luminaire Lumens: 6703.0 lumens  
Efficiency: N/A  
Efficacy: 95.5 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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°	7801	7801	7801
5°	7821	7789	7722
10°	7739	7717	7629
15°	7601	7601	7514
20°	7440	7450	7354
25°	7195	7285	7169
30°	6776	7080	6994
35°	6402	6787	6797
40°	6091	6420	6588
45°	5743	6031	6340
50°	5376	5683	6070
55°	4959	5287	5742
60°	4465	4825	5341
65°	3943	4290	4858
70°	3286	3654	4127
75°	2582	2917	3230
80°	1847	2053	2278
85°	1204	1204	1136



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	272.9	4.1
10°-20°	766.8	11.4
20°-30°	1120.5	16.7
30°-40°	1271.9	19.0
40°-50°	1227.8	18.3
50°-60°	1012.9	15.1
60°-70°	674.5	10.1
70°-80°	301.8	4.5
80°-90°	54.0	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°	2160.2	32.2
0°-40°	3432.1	51.2
0°-60°	5672.7	84.6
0°-90°	6703.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6703.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2899	2899	2899	2899	2899	
5°	2896	2894	2883	2868	2859	274
15°	2728	2735	2728	2716	2697	769
25°	2423	2442	2453	2436	2414	1110
35°	1949	1976	2066	2077	2069	1221
45°	1509	1535	1585	1657	1666	1164
55°	1057	1075	1127	1189	1224	943
65°	619	636	674	722	763	614
75°	248	262	281	294	311	272
85°	39	39	39	37	37	53
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2898.9	2898.9	2898.9	2898.9	2898.9
2.5°	2906.7	2907.8	2901.1	2883.3	2872.1
5°	2895.5	2894.4	2883.3	2867.7	2858.8
7.5°	2863.2	2865.5	2862.1	2839.9	2827.6
10°	2832.1	2833.2	2824.3	2806.4	2792.0
12.5°	2792.0	2790.8	2778.6	2769.7	2746.3
15°	2728.5	2735.2	2728.5	2716.2	2697.3
17.5°	2667.2	2667.2	2671.7	2650.5	2636.0
20°	2598.2	2601.5	2601.5	2584.8	2568.1
22.5°	2518.0	2528.0	2531.4	2513.5	2493.5
25°	2423.3	2442.3	2453.4	2435.6	2414.4
27.5°	2308.6	2337.6	2371.0	2357.6	2334.2
30°	2180.6	2222.9	2278.6	2267.4	2250.7
32.5°	2059.2	2101.5	2178.3	2173.9	2165.0
35°	1948.9	1975.6	2065.9	2077.0	2069.2
37.5°	1844.2	1868.7	1953.4	1979.0	1972.3
40°	1734.0	1760.7	1827.5	1873.2	1875.4
42.5°	1624.8	1650.5	1705.0	1770.7	1770.7
45°	1509.0	1534.6	1584.7	1657.1	1666.0
47.5°	1395.4	1422.2	1471.2	1543.5	1558.0
50°	1284.1	1308.6	1357.6	1427.7	1450.0
52.5°	1168.2	1195.0	1242.9	1307.4	1339.7
55°	1056.9	1074.7	1127.0	1189.4	1223.9
57.5°	941.0	957.8	1016.8	1070.2	1105.9
60°	829.7	850.8	896.5	951.1	992.3
62.5°	722.8	745.0	784.0	831.9	878.7
65°	619.2	635.9	673.8	721.7	762.9
67.5°	519.0	533.4	571.3	604.7	648.2
70°	417.6	436.6	464.4	496.7	524.5
72.5°	336.3	344.1	367.5	390.9	419.9
75°	248.3	261.7	280.6	294.0	310.7
77.5°	178.2	186.0	197.1	208.3	223.8
80°	119.2	122.5	132.5	134.8	147.0
82.5°	72.4	74.6	76.8	78.0	82.4
85°	39.0	39.0	39.0	36.8	36.8
87.5°	22.3	22.3	18.9	15.6	11.1
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)