

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: P558396

Luminaire Tested: **FUSL-12-4-LD4-3STD-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: P558396  
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-LD4-3STD-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**

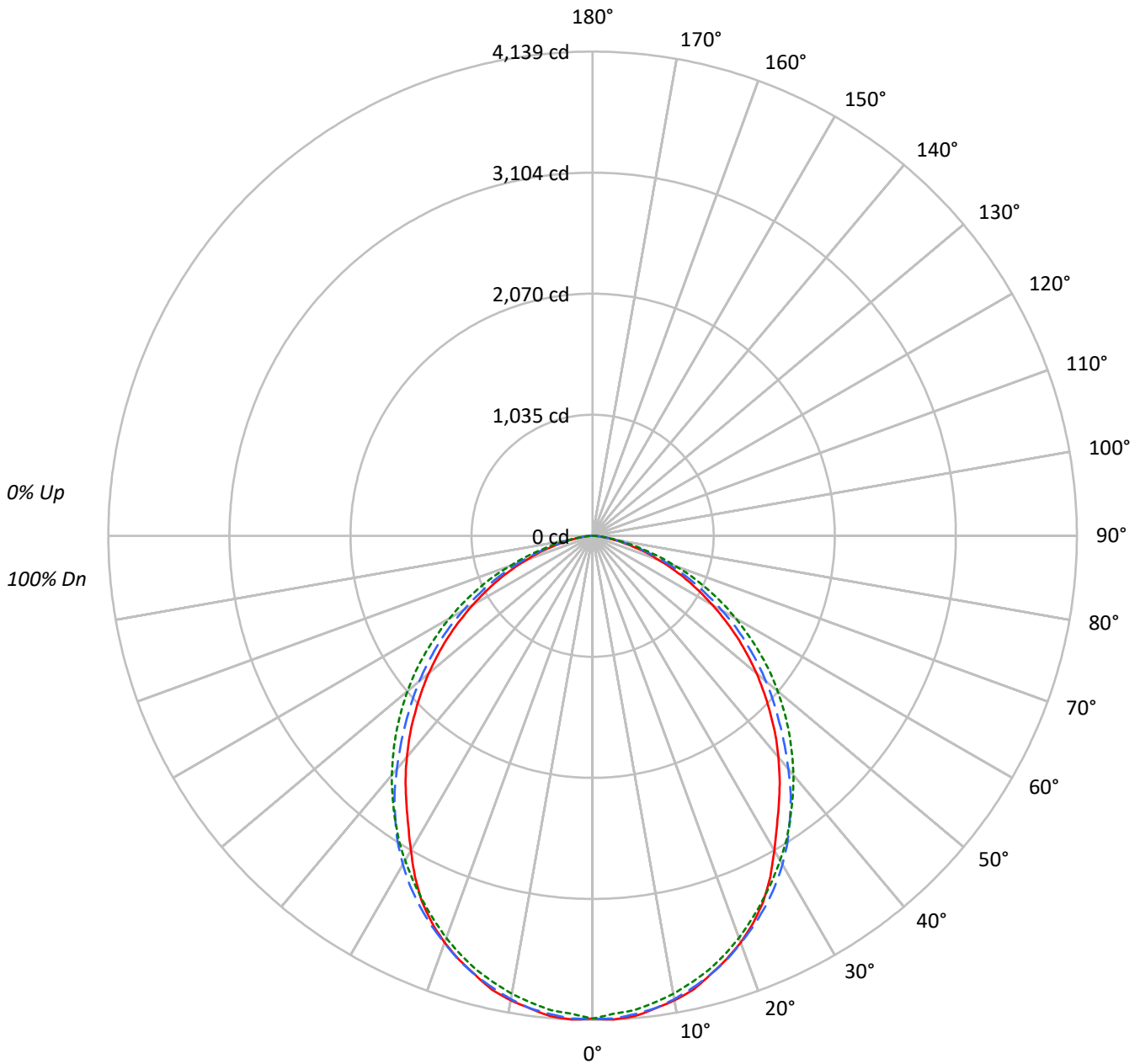
Lumens per Lamp: N/A  
Luminaire Lumens: 9545.0 lumens  
Efficiency: N/A  
Efficacy: 95.5 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 99.9  
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

TEST NUMBER: P558396

CATALOG NUMBER: FUSL-12-4-LD4-3STD-50-UNV-80-96-EDD-90

### Luminous Intensity Polar Plot





TEST NUMBER: P558396

CATALOG NUMBER: FUSL-12-4-LD4-3STD-50-UNV-80-96-EDD-90

**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°	11108	11108	11108
5°	11138	11091	10997
10°	11020	10989	10864
15°	10824	10824	10700
20°	10595	10609	10472
25°	10246	10373	10208
30°	9648	10082	9959
35°	9117	9664	9679
40°	8674	9142	9381
45°	8178	8588	9028
50°	7655	8093	8644
55°	7061	7530	8176
60°	6359	6871	7605
65°	5614	6109	6917
70°	4679	5203	5877
75°	3676	4155	4601
80°	2630	2924	3243
85°	1714	1714	1615



TEST NUMBER: P558396

CATALOG NUMBER: FUSL-12-4-LD4-3STD-50-UNV-80-96-EDD-90

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	388.7	4.1
10°-20°	1091.9	11.4
20°-30°	1595.6	16.7
30°-40°	1811.1	19.0
40°-50°	1748.4	18.3
50°-60°	1442.3	15.1
60°-70°	960.4	10.1
70°-80°	429.8	4.5
80°-90°	76.9	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°	3076.1	32.2
0°-40°	4887.2	51.2
0°-60°	8077.9	84.6
0°-90°	9545.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9545.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4128	4128	4128	4128	4128	
5°	4123	4122	4106	4084	4071	390
15°	3885	3895	3885	3868	3841	1095
25°	3451	3478	3494	3468	3438	1580
35°	2775	2813	2942	2958	2946	1739
45°	2149	2185	2257	2360	2372	1658
55°	1505	1530	1605	1694	1743	1343
65°	882	906	959	1028	1086	874
75°	354	373	400	419	442	387
85°	56	56	56	52	52	75
90°	0	0	0	0	0	



TEST NUMBER: P558396

CATALOG NUMBER: FUSL-12-4-LD4-3STD-50-UNV-80-96-EDD-90

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4128.0	4128.0	4128.0	4128.0	4128.0
2.5°	4139.1	4140.7	4131.1	4105.8	4089.9
5°	4123.2	4121.6	4105.8	4083.6	4070.9
7.5°	4077.2	4080.4	4075.6	4043.9	4026.5
10°	4032.8	4034.4	4021.7	3996.3	3975.7
12.5°	3975.7	3974.1	3956.7	3944.0	3910.7
15°	3885.3	3894.8	3885.3	3867.9	3840.9
17.5°	3798.1	3798.1	3804.5	3774.3	3753.7
20°	3699.8	3704.5	3704.5	3680.8	3657.0
22.5°	3585.6	3599.9	3604.6	3579.3	3550.7
25°	3450.8	3477.8	3493.6	3468.3	3438.1
27.5°	3287.5	3328.7	3376.3	3357.2	3323.9
30°	3105.1	3165.4	3244.6	3228.8	3205.0
32.5°	2932.2	2992.5	3101.9	3095.6	3082.9
35°	2775.2	2813.3	2941.8	2957.6	2946.5
37.5°	2626.2	2661.1	2781.6	2818.1	2808.5
40°	2469.2	2507.2	2602.4	2667.4	2670.6
42.5°	2313.8	2350.2	2427.9	2521.5	2521.5
45°	2148.8	2185.3	2256.7	2359.7	2372.4
47.5°	1987.1	2025.1	2094.9	2198.0	2218.6
50°	1828.5	1863.4	1933.2	2033.1	2064.8
52.5°	1663.6	1701.6	1769.8	1861.8	1907.8
55°	1505.0	1530.3	1604.9	1693.7	1742.8
57.5°	1340.0	1363.8	1447.9	1524.0	1574.7
60°	1181.5	1211.6	1276.6	1354.3	1413.0
62.5°	1029.2	1060.9	1116.4	1184.6	1251.2
65°	881.7	905.5	959.4	1027.6	1086.3
67.5°	739.0	759.6	813.5	861.1	923.0
70°	594.7	621.7	661.3	707.3	746.9
72.5°	478.9	490.0	523.3	556.6	597.9
75°	353.6	372.7	399.6	418.7	442.5
77.5°	253.7	264.8	280.7	296.6	318.8
80°	169.7	174.4	188.7	191.9	209.3
82.5°	103.1	106.3	109.4	111.0	117.4
85°	55.5	55.5	55.5	52.3	52.3
87.5°	31.7	31.7	27.0	22.2	15.9
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)