

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: P558346

Luminaire Tested: **FUSL-12-4-LD4-3STD-40-UNV-81-94-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: P558346
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-40-UNV-81-94-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 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

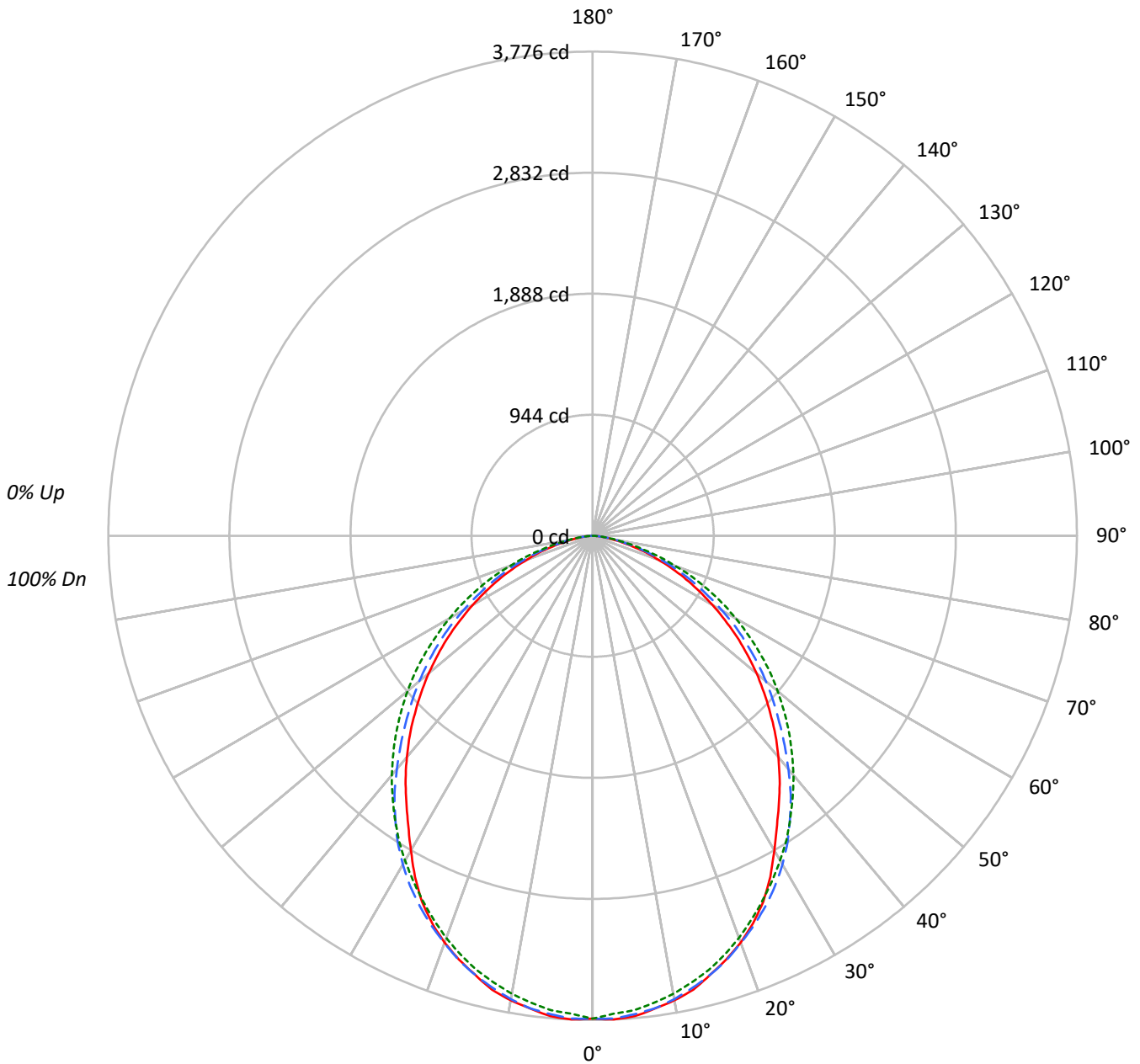
Lumens per Lamp: N/A
Luminaire Lumens: 8708.0 lumens
Efficiency: N/A
Efficacy: 87.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
Input Voltage (V): NR
Input Current (A_{in}): 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: P558346

CATALOG NUMBER: FUSL-12-4-LD4-3STD-40-UNV-81-94-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P558346

CATALOG NUMBER: FUSL-12-4-LD4-3STD-40-UNV-81-94-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°	10134	10134	10134
5°	10161	10118	10032
10°	10053	10026	9911
15°	9875	9875	9762
20°	9666	9678	9554
25°	9348	9464	9313
30°	8802	9198	9086
35°	8317	8816	8831
40°	7913	8340	8559
45°	7461	7835	8237
50°	6983	7383	7886
55°	6442	6869	7460
60°	5801	6268	6938
65°	5122	5573	6310
70°	4268	4747	5361
75°	3354	3791	4197
80°	2399	2669	2960
85°	1562	1562	1473



TEST NUMBER: P558346

CATALOG NUMBER: FUSL-12-4-LD4-3STD-40-UNV-81-94-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	354.6	4.1
10°-20°	996.1	11.4
20°-30°	1455.6	16.7
30°-40°	1652.3	19.0
40°-50°	1595.1	18.3
50°-60°	1315.8	15.1
60°-70°	876.2	10.1
70°-80°	392.1	4.5
80°-90°	70.1	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°	2806.3	32.2
0°-40°	4458.7	51.2
0°-60°	7369.5	84.6
0°-90°	8708.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8708.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3766	3766	3766	3766	3766	
5°	3762	3760	3746	3726	3714	356
15°	3545	3553	3545	3529	3504	999
25°	3148	3173	3187	3164	3137	1442
35°	2532	2567	2684	2698	2688	1586
45°	1960	1994	2059	2153	2164	1513
55°	1373	1396	1464	1545	1590	1225
65°	804	826	875	938	991	798
75°	323	340	365	382	404	353
85°	51	51	51	48	48	68
90°	0	0	0	0	0	



TEST NUMBER: P558346

CATALOG NUMBER: FUSL-12-4-LD4-3STD-40-UNV-81-94-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3766.0	3766.0	3766.0	3766.0	3766.0
2.5°	3776.1	3777.6	3768.9	3745.7	3731.3
5°	3761.6	3760.2	3745.7	3725.5	3713.9
7.5°	3719.7	3722.6	3718.2	3689.3	3673.4
10°	3679.2	3680.6	3669.1	3645.9	3627.1
12.5°	3627.1	3625.6	3609.7	3598.2	3567.8
15°	3544.6	3553.3	3544.6	3528.7	3504.1
17.5°	3465.1	3465.1	3470.8	3443.4	3424.5
20°	3375.4	3379.7	3379.7	3358.0	3336.3
22.5°	3271.2	3284.2	3288.5	3265.4	3239.4
25°	3148.2	3172.8	3187.3	3164.1	3136.6
27.5°	2999.2	3036.8	3080.2	3062.8	3032.5
30°	2832.8	2887.8	2960.1	2945.7	2924.0
32.5°	2675.1	2730.1	2829.9	2824.1	2812.6
35°	2531.9	2566.6	2683.8	2698.3	2688.1
37.5°	2395.9	2427.7	2537.7	2570.9	2562.3
40°	2252.6	2287.4	2374.2	2433.5	2436.4
42.5°	2110.9	2144.1	2215.0	2300.4	2300.4
45°	1960.4	1993.7	2058.8	2152.8	2164.4
47.5°	1812.8	1847.5	1911.2	2005.2	2024.1
50°	1668.1	1700.0	1763.6	1854.8	1883.7
52.5°	1517.7	1552.4	1614.6	1698.5	1740.5
55°	1373.0	1396.1	1464.1	1545.2	1590.0
57.5°	1222.5	1244.2	1320.9	1390.4	1436.7
60°	1077.9	1105.3	1164.7	1235.6	1289.1
62.5°	939.0	967.9	1018.5	1080.7	1141.5
65°	804.4	826.1	875.3	937.5	991.0
67.5°	674.2	693.0	742.2	785.6	842.0
70°	542.5	567.1	603.3	645.3	681.4
72.5°	436.9	447.1	477.4	507.8	545.4
75°	322.6	340.0	364.6	382.0	403.7
77.5°	231.5	241.6	256.1	270.5	290.8
80°	154.8	159.1	172.2	175.1	191.0
82.5°	94.0	96.9	99.8	101.3	107.1
85°	50.6	50.6	50.6	47.7	47.7
87.5°	28.9	28.9	24.6	20.3	14.5
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)