

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: P557061

Luminaire Tested: **FUSL-12-4-LD4-2HI-40-UNV-81-86-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: P557061
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-LD4-2HI-40-UNV-81-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

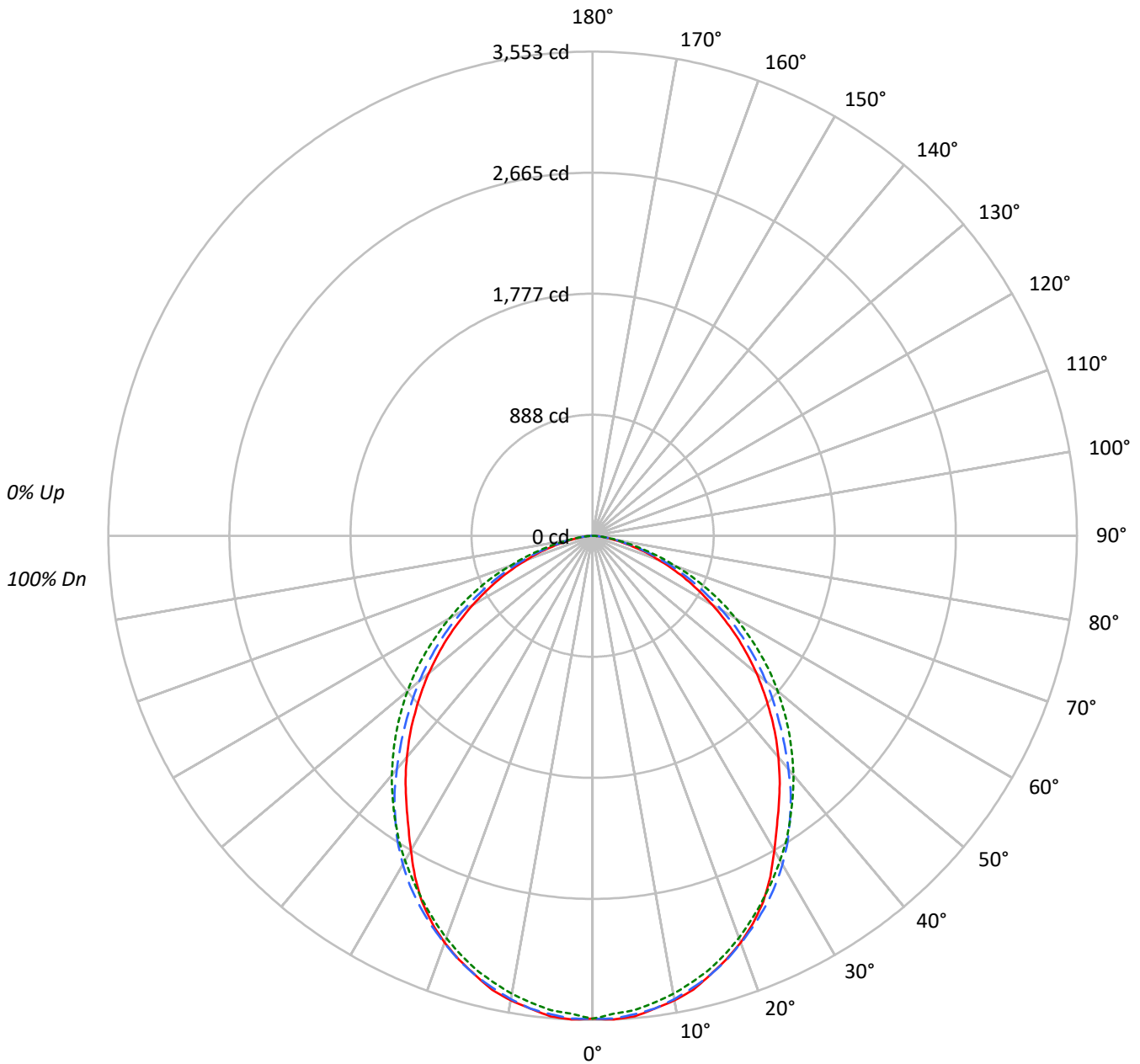
Lumens per Lamp: N/A
Luminaire Lumens: 8194.0 lumens
Efficiency: N/A
Efficacy: 94.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
Input Voltage (V): NR
Input Current (Ain): 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: P557061

CATALOG NUMBER: FUSL-12-4-LD4-2HI-40-UNV-81-86-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P557061

CATALOG NUMBER: FUSL-12-4-LD4-2HI-40-UNV-81-86-EDD

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°	9536	9536	9536
5°	9561	9521	9440
10°	9460	9434	9326
15°	9292	9292	9186
20°	9095	9107	8990
25°	8796	8905	8763
30°	8283	8655	8549
35°	7826	8296	8310
40°	7446	7848	8053
45°	7020	7373	7751
50°	6571	6947	7420
55°	6062	6464	7020
60°	5458	5898	6528
65°	4819	5244	5938
70°	4017	4467	5045
75°	3157	3567	3949
80°	2258	2510	2785
85°	1470	1470	1386



TEST NUMBER: P557061

CATALOG NUMBER: FUSL-12-4-LD4-2HI-40-UNV-81-86-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	333.6	4.1
10°-20°	937.3	11.4
20°-30°	1369.7	16.7
30°-40°	1554.8	19.0
40°-50°	1500.9	18.3
50°-60°	1238.1	15.1
60°-70°	824.5	10.1
70°-80°	369.0	4.5
80°-90°	66.0	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°	2640.7	32.2
0°-40°	4195.5	51.2
0°-60°	6934.5	84.6
0°-90°	8194.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8194.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3544	3544	3544	3544	3544	
5°	3540	3538	3525	3506	3495	335
15°	3335	3344	3335	3320	3297	940
25°	2962	2986	2999	2977	2952	1357
35°	2382	2415	2525	2539	2530	1493
45°	1845	1876	1937	2026	2037	1423
55°	1292	1314	1378	1454	1496	1153
65°	757	777	824	882	933	751
75°	304	320	343	359	380	332
85°	48	48	48	45	45	64
90°	0	0	0	0	0	



TEST NUMBER: P557061

CATALOG NUMBER: FUSL-12-4-LD4-2HI-40-UNV-81-86-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3543.7	3543.7	3543.7	3543.7	3543.7
2.5°	3553.2	3554.6	3546.4	3524.6	3511.0
5°	3539.6	3538.2	3524.6	3505.6	3494.7
7.5°	3500.1	3502.9	3498.8	3471.5	3456.6
10°	3462.0	3463.4	3452.5	3430.7	3413.0
12.5°	3413.0	3411.6	3396.7	3385.8	3357.2
15°	3335.4	3343.6	3335.4	3320.4	3297.3
17.5°	3260.5	3260.5	3266.0	3240.1	3222.4
20°	3176.1	3180.2	3180.2	3159.8	3139.4
22.5°	3078.1	3090.4	3094.4	3072.7	3048.1
25°	2962.4	2985.5	2999.1	2977.4	2951.5
27.5°	2822.2	2857.6	2898.4	2882.1	2853.5
30°	2665.6	2717.3	2785.4	2771.8	2751.4
32.5°	2517.2	2568.9	2662.9	2657.4	2646.5
35°	2382.4	2415.1	2525.4	2539.0	2529.5
37.5°	2254.5	2284.4	2387.9	2419.2	2411.0
40°	2119.7	2152.4	2234.0	2289.9	2292.6
42.5°	1986.3	2017.6	2084.3	2164.6	2164.6
45°	1844.7	1876.0	1937.3	2025.7	2036.6
47.5°	1705.8	1738.5	1798.4	1886.9	1904.6
50°	1569.7	1599.6	1659.5	1745.3	1772.5
52.5°	1428.1	1460.8	1519.3	1598.3	1637.7
55°	1292.0	1313.7	1377.7	1454.0	1496.2
57.5°	1150.4	1170.8	1242.9	1308.3	1351.9
60°	1014.2	1040.1	1095.9	1162.6	1213.0
62.5°	883.5	910.8	958.4	1017.0	1074.1
65°	756.9	777.4	823.6	882.2	932.6
67.5°	634.4	652.1	698.4	739.2	792.3
70°	510.5	533.7	567.7	607.2	641.2
72.5°	411.1	420.7	449.3	477.8	513.2
75°	303.6	319.9	343.1	359.4	379.8
77.5°	217.8	227.4	241.0	254.6	273.6
80°	145.7	149.8	162.0	164.7	179.7
82.5°	88.5	91.2	93.9	95.3	100.7
85°	47.6	47.6	47.6	44.9	44.9
87.5°	27.2	27.2	23.1	19.1	13.6
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)