

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: P558402

Luminaire Tested: **FUSL-12-4-LD4-3STD-50-UNV-81-85-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: P558402
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-81-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

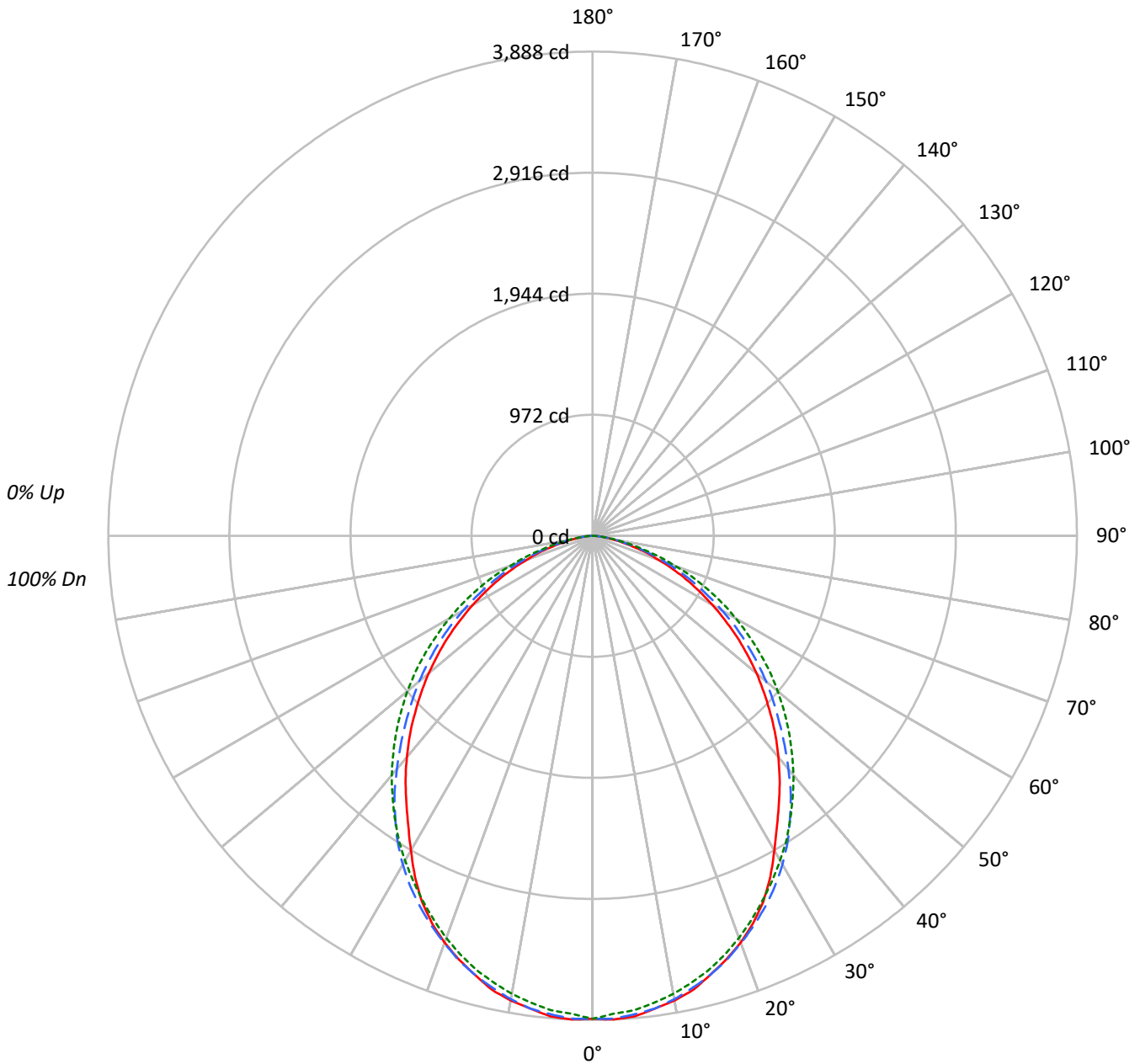
Lumens per Lamp: N/A
Luminaire Lumens: 8967.0 lumens
Efficiency: N/A
Efficacy: 89.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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: P558402

CATALOG NUMBER: FUSL-12-4-LD4-3STD-50-UNV-81-85-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P558402

CATALOG NUMBER: FUSL-12-4-LD4-3STD-50-UNV-81-85-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°	10436	10436	10436
5°	10463	10419	10331
10°	10352	10324	10206
15°	10169	10169	10052
20°	9953	9966	9838
25°	9625	9745	9590
30°	9064	9472	9356
35°	8565	9079	9093
40°	8148	8588	8813
45°	7682	8068	8482
50°	7191	7603	8120
55°	6633	7073	7682
60°	5973	6455	7144
65°	5274	5739	6498
70°	4396	4888	5521
75°	3454	3903	4322
80°	2470	2748	3048
85°	1609	1609	1519



TEST NUMBER: P558402

CATALOG NUMBER: FUSL-12-4-LD4-3STD-50-UNV-81-85-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	365.1	4.1
10°-20°	1025.7	11.4
20°-30°	1498.9	16.7
30°-40°	1701.5	19.0
40°-50°	1642.5	18.3
50°-60°	1354.9	15.1
60°-70°	902.3	10.1
70°-80°	403.8	4.5
80°-90°	72.2	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°	2889.8	32.2
0°-40°	4591.3	51.2
0°-60°	7588.7	84.6
0°-90°	8967.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8967.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3878	3878	3878	3878	3878	
5°	3874	3872	3857	3836	3824	367
15°	3650	3659	3650	3634	3608	1029
25°	3242	3267	3282	3258	3230	1485
35°	2607	2643	2764	2778	2768	1634
45°	2019	2053	2120	2217	2229	1558
55°	1414	1438	1508	1591	1637	1262
65°	828	851	901	965	1020	821
75°	332	350	375	393	416	363
85°	52	52	52	49	49	70
90°	0	0	0	0	0	



TEST NUMBER: P558402

CATALOG NUMBER: FUSL-12-4-LD4-3STD-50-UNV-81-85-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3878.0	3878.0	3878.0	3878.0	3878.0
2.5°	3888.4	3889.9	3881.0	3857.1	3842.2
5°	3873.5	3872.0	3857.1	3836.3	3824.4
7.5°	3830.3	3833.3	3828.8	3799.0	3782.6
10°	3788.6	3790.1	3778.2	3754.3	3735.0
12.5°	3735.0	3733.5	3717.1	3705.2	3673.9
15°	3650.1	3659.0	3650.1	3633.7	3608.3
17.5°	3568.1	3568.1	3574.1	3545.8	3526.4
20°	3475.7	3480.2	3480.2	3457.9	3435.5
22.5°	3368.5	3381.9	3386.4	3362.5	3335.7
25°	3241.8	3267.2	3282.1	3258.2	3229.9
27.5°	3088.4	3127.1	3171.8	3153.9	3122.7
30°	2917.1	2973.7	3048.2	3033.3	3010.9
32.5°	2754.7	2811.3	2914.1	2908.1	2896.2
35°	2607.2	2642.9	2763.6	2778.5	2768.1
37.5°	2467.1	2499.9	2613.1	2647.4	2638.5
40°	2319.6	2355.4	2444.8	2505.9	2508.9
42.5°	2173.6	2207.9	2280.9	2368.8	2368.8
45°	2018.7	2053.0	2120.0	2216.8	2228.8
47.5°	1866.7	1902.5	1968.0	2064.9	2084.3
50°	1717.8	1750.5	1816.1	1909.9	1939.7
52.5°	1562.8	1598.6	1662.6	1749.0	1792.3
55°	1413.8	1437.7	1507.7	1591.1	1637.3
57.5°	1258.9	1281.2	1360.2	1431.7	1479.4
60°	1109.9	1138.2	1199.3	1272.3	1327.4
62.5°	966.9	996.7	1048.8	1112.9	1175.5
65°	828.3	850.7	901.3	965.4	1020.5
67.5°	694.3	713.6	764.3	809.0	867.1
70°	558.7	584.0	621.3	664.5	701.7
72.5°	449.9	460.4	491.6	522.9	561.7
75°	332.2	350.1	375.4	393.3	415.7
77.5°	238.4	248.8	263.7	278.6	299.5
80°	159.4	163.9	177.3	180.3	196.7
82.5°	96.8	99.8	102.8	104.3	110.2
85°	52.1	52.1	52.1	49.2	49.2
87.5°	29.8	29.8	25.3	20.9	14.9
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)