

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: P558440

Luminaire Tested: **FUSL-12-4-LD4-3STD-50-UNV-93-88-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: P558440
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-93-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

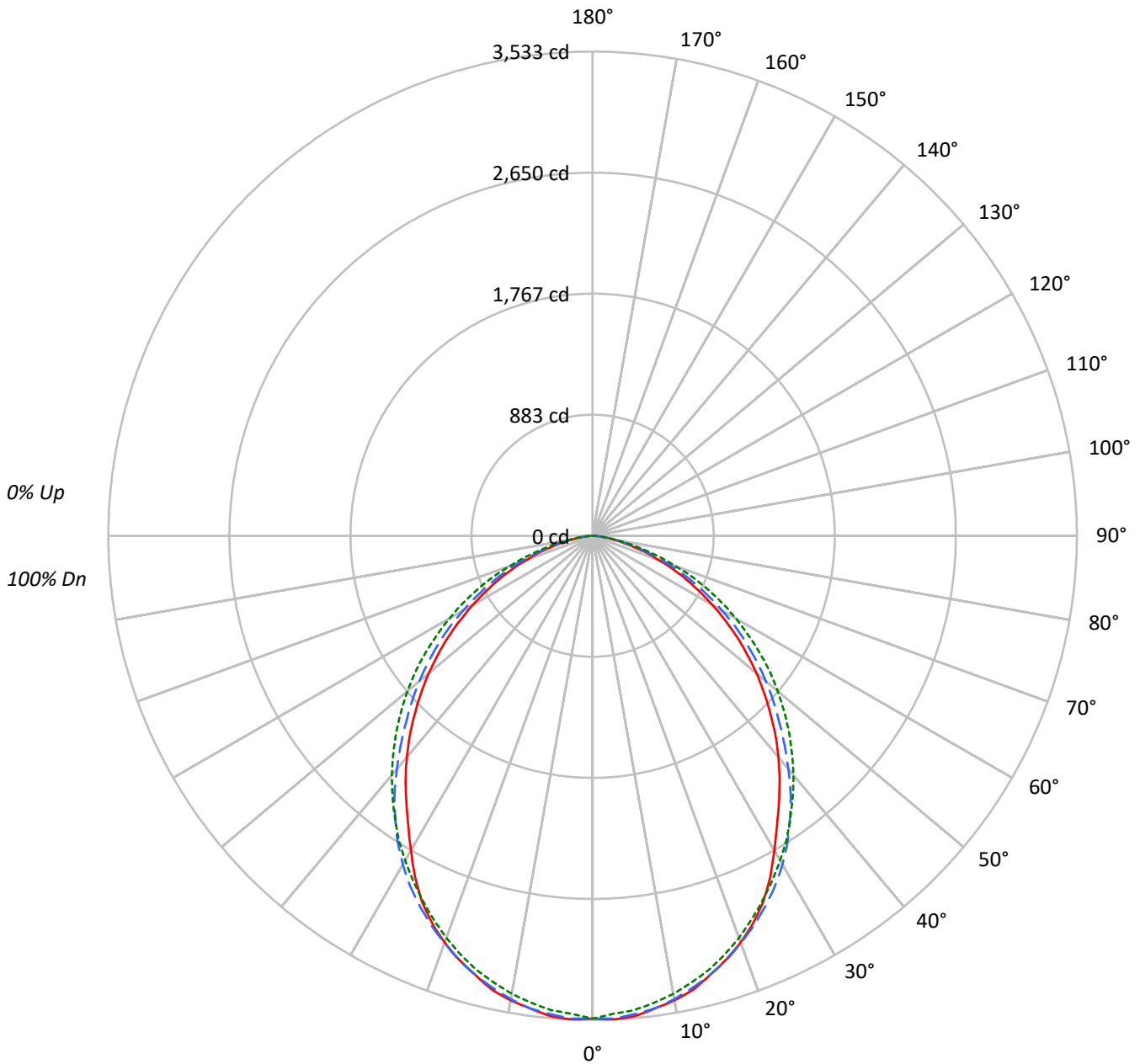
Lumens per Lamp: N/A
Luminaire Lumens: 8147.0 lumens
Efficiency: N/A
Efficacy: 81.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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: P558440

CATALOG NUMBER: FUSL-12-4-LD4-3STD-50-UNV-93-88-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P558440

CATALOG NUMBER: FUSL-12-4-LD4-3STD-50-UNV-93-88-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°	9481	9481	9481
5°	9507	9466	9386
10°	9406	9380	9272
15°	9239	9239	9133
20°	9043	9055	8939
25°	8745	8854	8713
30°	8235	8605	8500
35°	7782	8249	8262
40°	7403	7803	8007
45°	6980	7330	7706
50°	6534	6908	7378
55°	6026	6427	6979
60°	5427	5864	6491
65°	4792	5214	5904
70°	3994	4441	5016
75°	3138	3546	3926
80°	2244	2497	2769
85°	1463	1463	1380



TEST NUMBER: P558440

CATALOG NUMBER: FUSL-12-4-LD4-3STD-50-UNV-93-88-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	331.7	4.1
10°-20°	931.9	11.4
20°-30°	1361.9	16.7
30°-40°	1545.9	19.0
40°-50°	1492.3	18.3
50°-60°	1231.0	15.1
60°-70°	819.8	10.1
70°-80°	366.8	4.5
80°-90°	65.6	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°	2625.5	32.2
0°-40°	4171.4	51.2
0°-60°	6894.8	84.6
0°-90°	8147.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8147.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3523	3523	3523	3523	3523	
5°	3519	3518	3504	3486	3475	333
15°	3316	3324	3316	3301	3278	935
25°	2945	2968	2982	2960	2935	1349
35°	2369	2401	2511	2524	2515	1484
45°	1834	1865	1926	2014	2025	1415
55°	1284	1306	1370	1446	1488	1146
65°	753	773	819	877	927	746
75°	302	318	341	357	378	330
85°	47	47	47	45	45	64
90°	0	0	0	0	0	



TEST NUMBER: P558440

CATALOG NUMBER: FUSL-12-4-LD4-3STD-50-UNV-93-88-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3523.4	3523.4	3523.4	3523.4	3523.4
2.5°	3532.8	3534.2	3526.1	3504.4	3490.9
5°	3519.3	3518.0	3504.4	3485.5	3474.6
7.5°	3480.1	3482.8	3478.7	3451.6	3436.7
10°	3442.2	3443.5	3432.7	3411.0	3393.4
12.5°	3393.4	3392.1	3377.2	3366.4	3337.9
15°	3316.3	3324.4	3316.3	3301.4	3278.4
17.5°	3241.8	3241.8	3247.2	3221.5	3203.9
20°	3157.9	3162.0	3162.0	3141.7	3121.4
22.5°	3060.4	3072.6	3076.7	3055.0	3030.7
25°	2945.4	2968.4	2981.9	2960.3	2934.6
27.5°	2806.0	2841.2	2881.8	2865.5	2837.1
30°	2650.3	2701.7	2769.4	2755.9	2735.6
32.5°	2502.8	2554.2	2647.6	2642.2	2631.4
35°	2368.8	2401.2	2510.9	2524.4	2515.0
37.5°	2241.5	2271.3	2374.2	2405.3	2397.2
40°	2107.5	2140.0	2221.2	2276.7	2279.4
42.5°	1974.9	2006.0	2072.3	2152.2	2152.2
45°	1834.1	1865.2	1926.1	2014.1	2025.0
47.5°	1696.0	1728.5	1788.1	1876.1	1893.7
50°	1560.7	1590.5	1650.0	1735.3	1762.4
52.5°	1419.9	1452.4	1510.6	1589.1	1628.4
55°	1284.5	1306.2	1369.8	1445.6	1487.6
57.5°	1143.8	1164.1	1235.8	1300.8	1344.1
60°	1008.4	1034.1	1089.6	1156.0	1206.0
62.5°	878.5	905.5	952.9	1011.1	1068.0
65°	752.6	772.9	818.9	877.1	927.2
67.5°	630.8	648.4	694.4	735.0	787.8
70°	507.6	530.6	564.4	603.7	637.5
72.5°	408.8	418.3	446.7	475.1	510.3
75°	301.8	318.1	341.1	357.3	377.6
77.5°	216.6	226.0	239.6	253.1	272.1
80°	144.8	148.9	161.1	163.8	178.7
82.5°	88.0	90.7	93.4	94.8	100.2
85°	47.4	47.4	47.4	44.7	44.7
87.5°	27.1	27.1	23.0	19.0	13.5
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)