

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: P558154

Luminaire Tested: **FUSL-12-4-LD4-3LO-50-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: P558154
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-LD4-3LO-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

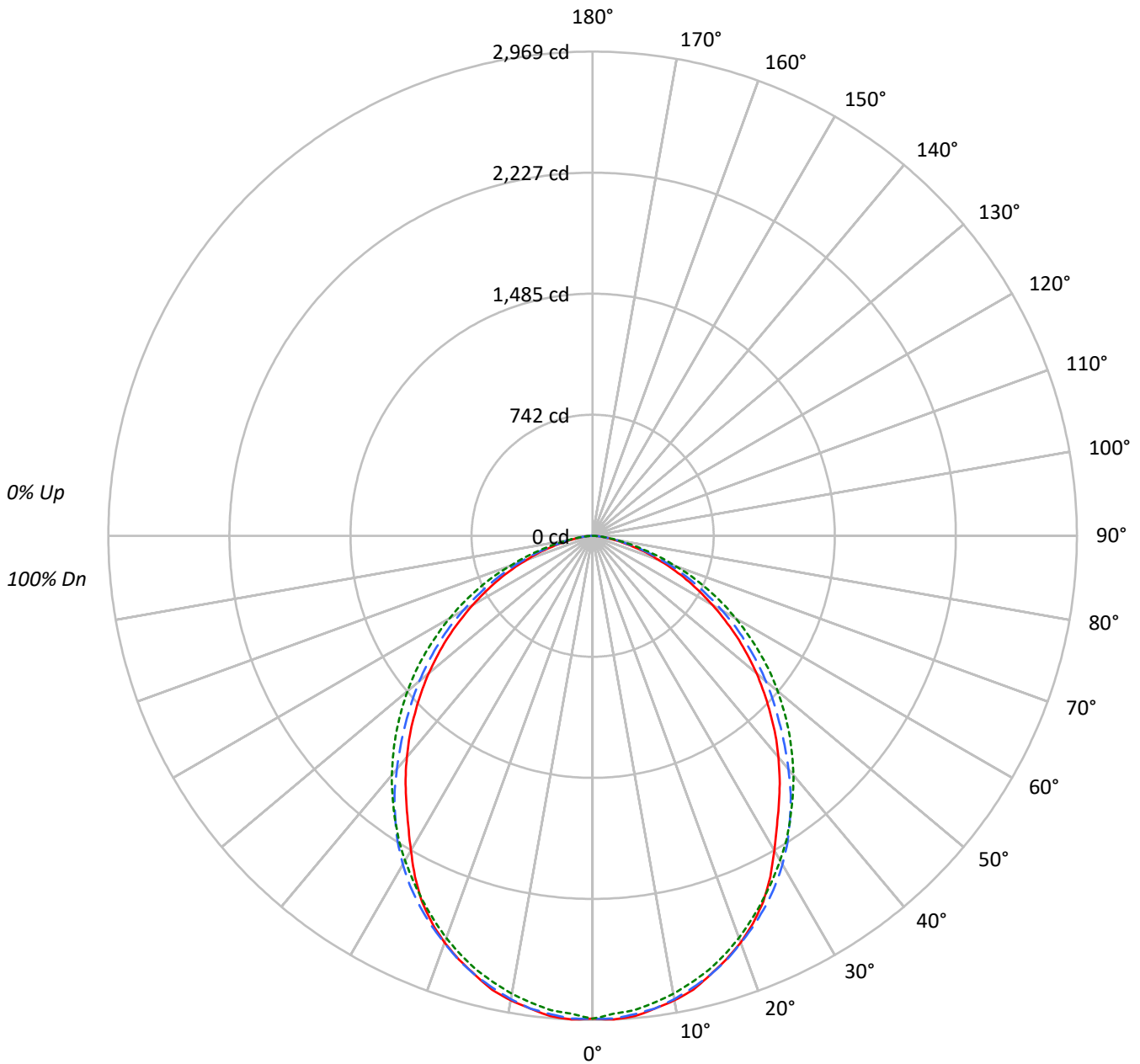
Lumens per Lamp: N/A
Luminaire Lumens: 6847.0 lumens
Efficiency: N/A
Efficacy: 97.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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: P558154

CATALOG NUMBER: FUSL-12-4-LD4-3LO-50-UNV-81-94-EDD-90

Luminous Intensity Polar Plot





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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°	7969	7969	7969
5°	7990	7956	7888
10°	7905	7883	7793
15°	7765	7765	7676
20°	7600	7610	7512
25°	7350	7441	7323
30°	6921	7232	7144
35°	6540	6932	6943
40°	6222	6558	6730
45°	5866	6161	6476
50°	5491	5805	6201
55°	5065	5401	5865
60°	4561	4929	5455
65°	4027	4382	4962
70°	3356	3733	4216
75°	2638	2981	3300
80°	1886	2098	2328
85°	1229	1229	1158



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	278.8	4.1
10°-20°	783.2	11.4
20°-30°	1144.6	16.7
30°-40°	1299.2	19.0
40°-50°	1254.2	18.3
50°-60°	1034.6	15.1
60°-70°	689.0	10.1
70°-80°	308.3	4.5
80°-90°	55.1	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°	2206.6	32.2
0°-40°	3505.8	51.2
0°-60°	5794.5	84.6
0°-90°	6847.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6847.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2961	2961	2961	2961	2961	
5°	2958	2957	2945	2929	2920	280
15°	2787	2794	2787	2775	2755	786
25°	2475	2495	2506	2488	2466	1134
35°	1991	2018	2110	2122	2114	1247
45°	1541	1568	1619	1693	1702	1189
55°	1080	1098	1151	1215	1250	964
65°	632	650	688	737	779	627
75°	254	267	287	300	317	277
85°	40	40	40	38	38	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2961.2	2961.2	2961.2	2961.2	2961.2
2.5°	2969.1	2970.3	2963.4	2945.2	2933.8
5°	2957.7	2956.6	2945.2	2929.3	2920.2
7.5°	2924.7	2927.0	2923.6	2900.9	2888.3
10°	2892.9	2894.0	2884.9	2866.7	2851.9
12.5°	2851.9	2850.8	2838.3	2829.2	2805.3
15°	2787.1	2793.9	2787.1	2774.6	2755.2
17.5°	2724.5	2724.5	2729.1	2707.5	2692.7
20°	2654.0	2657.4	2657.4	2640.3	2623.3
22.5°	2572.1	2582.3	2585.7	2567.5	2547.1
25°	2475.4	2494.7	2506.1	2487.9	2466.3
27.5°	2358.2	2387.8	2421.9	2408.3	2384.4
30°	2227.4	2270.6	2327.5	2316.1	2299.1
32.5°	2103.4	2146.6	2225.1	2220.6	2211.5
35°	1990.8	2018.1	2110.2	2121.6	2113.6
37.5°	1883.9	1908.9	1995.3	2021.5	2014.7
40°	1771.2	1798.5	1866.8	1913.4	1915.7
42.5°	1659.7	1685.9	1741.7	1808.8	1808.8
45°	1541.4	1567.6	1618.8	1692.7	1701.8
47.5°	1425.4	1452.7	1502.8	1576.7	1591.5
50°	1311.6	1336.7	1386.7	1458.4	1481.1
52.5°	1193.3	1220.6	1269.6	1335.5	1368.5
55°	1079.6	1097.8	1151.2	1214.9	1250.2
57.5°	961.3	978.3	1038.6	1093.2	1129.6
60°	847.5	869.1	915.8	971.5	1013.6
62.5°	738.3	761.0	800.9	849.8	897.6
65°	632.5	649.6	688.2	737.2	779.3
67.5°	530.1	544.9	583.6	617.7	662.1
70°	426.6	445.9	474.4	507.4	535.8
72.5°	343.6	351.5	375.4	399.3	428.9
75°	253.7	267.3	286.7	300.3	317.4
77.5°	182.0	190.0	201.4	212.7	228.7
80°	121.7	125.1	135.4	137.6	150.2
82.5°	73.9	76.2	78.5	79.6	84.2
85°	39.8	39.8	39.8	37.5	37.5
87.5°	22.8	22.8	19.3	15.9	11.4
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)