

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: P556634

Luminaire Tested: **FUSL-12-4-LD4-1LO-50-UNV-82-94-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: P556634
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-LD4-1LO-50-UNV-82-94-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 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

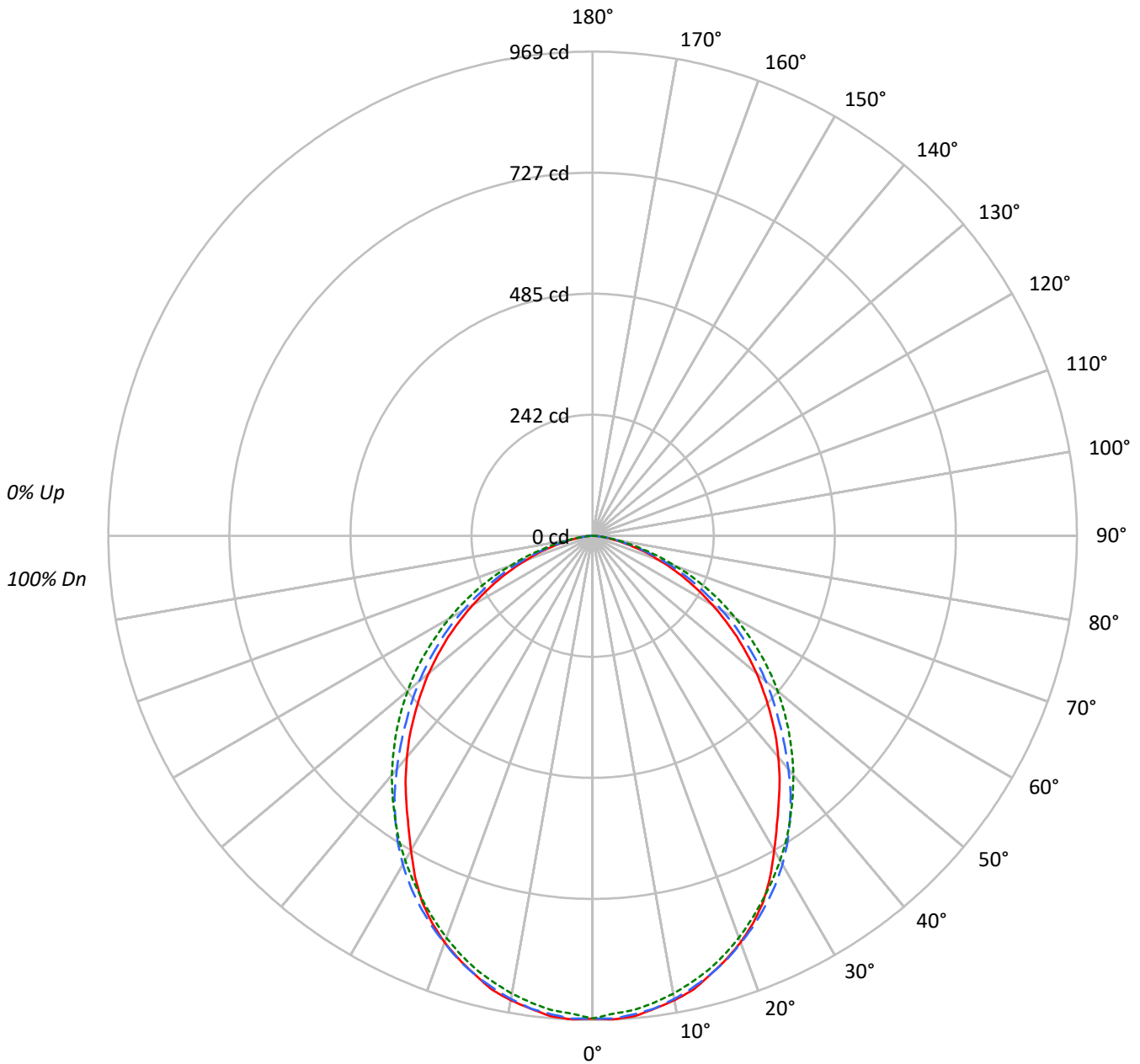
Lumens per Lamp: N/A
Luminaire Lumens: 2234.0 lumens
Efficiency: N/A
Efficacy: 95.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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: P556634

CATALOG NUMBER: FUSL-12-4-LD4-1LO-50-UNV-82-94-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P556634

CATALOG NUMBER: FUSL-12-4-LD4-1LO-50-UNV-82-94-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°	2600	2600	2600
5°	2607	2596	2574
10°	2579	2572	2543
15°	2534	2534	2505
20°	2480	2483	2451
25°	2398	2428	2389
30°	2258	2360	2331
35°	2134	2262	2265
40°	2030	2140	2196
45°	1914	2010	2113
50°	1792	1894	2023
55°	1652	1762	1914
60°	1488	1608	1780
65°	1314	1430	1619
70°	1095	1218	1375
75°	861	972	1077
80°	615	685	759
85°	401	401	377



TEST NUMBER: P556634

CATALOG NUMBER: FUSL-12-4-LD4-1LO-50-UNV-82-94-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.0	4.1
10°-20°	255.5	11.4
20°-30°	373.4	16.7
30°-40°	423.9	19.0
40°-50°	409.2	18.3
50°-60°	337.6	15.1
60°-70°	224.8	10.1
70°-80°	100.6	4.5
80°-90°	18.0	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°	720.0	32.2
0°-40°	1143.8	51.2
0°-60°	1890.6	84.6
0°-90°	2234.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2234.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	966	966	966	966	966	
5°	965	965	961	956	953	91
15°	909	912	909	905	899	256
25°	808	814	818	812	805	370
35°	650	658	688	692	690	407
45°	503	512	528	552	555	388
55°	352	358	376	396	408	314
65°	206	212	225	240	254	205
75°	83	87	94	98	104	91
85°	13	13	13	12	12	18
90°	0	0	0	0	0	



TEST NUMBER: P556634

CATALOG NUMBER: FUSL-12-4-LD4-1LO-50-UNV-82-94-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	966.1	966.1	966.1	966.1	966.1
2.5°	968.7	969.1	966.9	961.0	957.2
5°	965.0	964.7	961.0	955.8	952.8
7.5°	954.3	955.0	953.9	946.5	942.4
10°	943.9	944.2	941.3	935.3	930.5
12.5°	930.5	930.1	926.1	923.1	915.3
15°	909.4	911.6	909.4	905.3	899.0
17.5°	888.9	888.9	890.4	883.4	878.6
20°	865.9	867.0	867.0	861.5	855.9
22.5°	839.2	842.5	843.7	837.7	831.0
25°	807.7	814.0	817.7	811.7	804.7
27.5°	769.4	779.1	790.2	785.8	778.0
30°	726.7	740.8	759.4	755.7	750.1
32.5°	686.3	700.4	726.0	724.5	721.5
35°	649.5	658.4	688.5	692.2	689.6
37.5°	614.7	622.8	651.0	659.6	657.3
40°	577.9	586.8	609.1	624.3	625.0
42.5°	541.5	550.1	568.3	590.2	590.2
45°	502.9	511.5	528.2	552.3	555.3
47.5°	465.1	474.0	490.3	514.4	519.3
50°	428.0	436.1	452.5	475.8	483.3
52.5°	389.4	398.3	414.2	435.7	446.5
55°	352.2	358.2	375.6	396.4	407.9
57.5°	313.6	319.2	338.9	356.7	368.6
60°	276.5	283.6	298.8	317.0	330.7
62.5°	240.9	248.3	261.3	277.3	292.9
65°	206.4	211.9	224.6	240.5	254.2
67.5°	173.0	177.8	190.4	201.5	216.0
70°	139.2	145.5	154.8	165.5	174.8
72.5°	112.1	114.7	122.5	130.3	139.9
75°	82.8	87.2	93.5	98.0	103.6
77.5°	59.4	62.0	65.7	69.4	74.6
80°	39.7	40.8	44.2	44.9	49.0
82.5°	24.1	24.9	25.6	26.0	27.5
85°	13.0	13.0	13.0	12.2	12.2
87.5°	7.4	7.4	6.3	5.2	3.7
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)