

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: P556582

Luminaire Tested: **FUSL-12-4-LD4-1LO-40-UNV-93-87-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: P556582
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-40-UNV-93-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

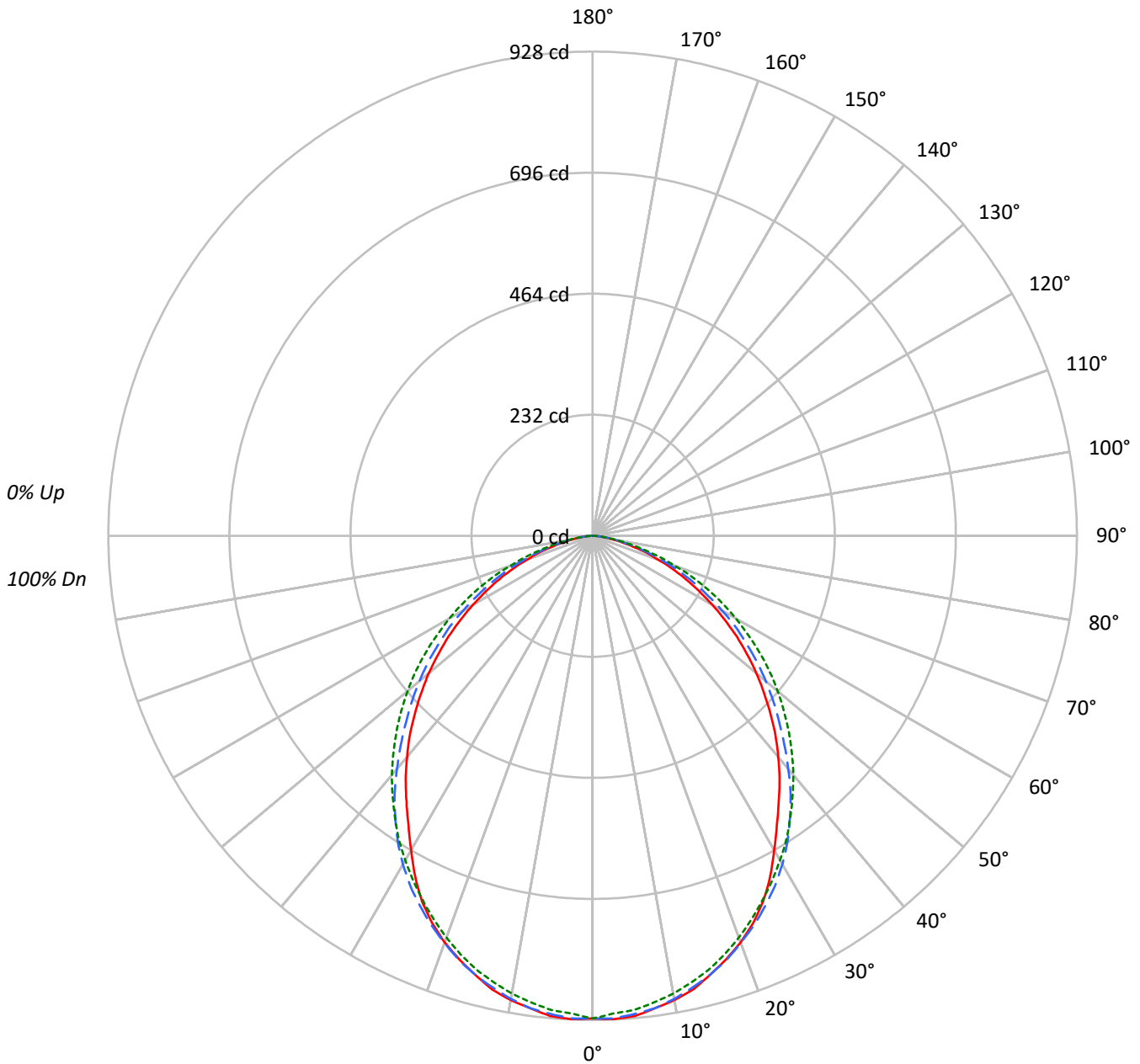
Lumens per Lamp: N/A
Luminaire Lumens: 2139.0 lumens
Efficiency: N/A
Efficacy: 91.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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: P556582

CATALOG NUMBER: FUSL-12-4-LD4-1LO-40-UNV-93-87-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P556582

CATALOG NUMBER: FUSL-12-4-LD4-1LO-40-UNV-93-87-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°	2489	2489	2489
5°	2496	2485	2464
10°	2469	2463	2434
15°	2426	2426	2398
20°	2374	2377	2347
25°	2296	2325	2288
30°	2162	2259	2232
35°	2043	2166	2169
40°	1944	2049	2102
45°	1832	1925	2023
50°	1716	1814	1937
55°	1582	1687	1833
60°	1425	1540	1704
65°	1258	1369	1550
70°	1049	1166	1317
75°	824	932	1031
80°	589	656	727
85°	383	383	361



TEST NUMBER: P556582

CATALOG NUMBER: FUSL-12-4-LD4-1LO-40-UNV-93-87-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.1	4.1
10°-20°	244.7	11.4
20°-30°	357.6	16.7
30°-40°	405.9	19.0
40°-50°	391.8	18.3
50°-60°	323.2	15.1
60°-70°	215.2	10.1
70°-80°	96.3	4.5
80°-90°	17.2	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°	689.3	32.2
0°-40°	1095.2	51.2
0°-60°	1810.2	84.6
0°-90°	2139.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2139.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	925	925	925	925	925	
5°	924	924	920	915	912	87
15°	871	873	871	867	861	245
25°	773	779	783	777	770	354
35°	622	630	659	663	660	390
45°	482	490	506	529	532	372
55°	337	343	360	380	391	301
65°	198	203	215	230	243	196
75°	79	84	90	94	99	87
85°	12	12	12	12	12	17
90°	0	0	0	0	0	



TEST NUMBER: P556582

CATALOG NUMBER: FUSL-12-4-LD4-1LO-40-UNV-93-87-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	925.1	925.1	925.1	925.1	925.1
2.5°	927.5	927.9	925.8	920.1	916.5
5°	924.0	923.6	920.1	915.1	912.3
7.5°	913.7	914.4	913.3	906.2	902.3
10°	903.7	904.1	901.3	895.6	890.9
12.5°	890.9	890.6	886.7	883.8	876.4
15°	870.7	872.8	870.7	866.8	860.7
17.5°	851.1	851.1	852.6	845.8	841.2
20°	829.1	830.2	830.2	824.8	819.5
22.5°	803.5	806.7	807.8	802.1	795.7
25°	773.3	779.4	782.9	777.2	770.5
27.5°	736.7	745.9	756.6	752.3	744.9
30°	695.8	709.3	727.1	723.6	718.2
32.5°	657.1	670.6	695.1	693.7	690.9
35°	621.9	630.4	659.2	662.8	660.3
37.5°	588.5	596.3	623.3	631.5	629.4
40°	553.3	561.9	583.2	597.8	598.5
42.5°	518.5	526.7	544.1	565.1	565.1
45°	481.5	489.7	505.7	528.8	531.7
47.5°	445.3	453.8	469.5	492.6	497.2
50°	409.8	417.6	433.2	455.6	462.7
52.5°	372.8	381.3	396.6	417.2	427.5
55°	337.3	342.9	359.6	379.5	390.6
57.5°	300.3	305.6	324.5	341.5	352.9
60°	264.8	271.5	286.1	303.5	316.6
62.5°	230.6	237.8	250.2	265.5	280.4
65°	197.6	202.9	215.0	230.3	243.4
67.5°	165.6	170.2	182.3	193.0	206.8
70°	133.3	139.3	148.2	158.5	167.4
72.5°	107.3	109.8	117.3	124.7	134.0
75°	79.3	83.5	89.6	93.8	99.2
77.5°	56.9	59.3	62.9	66.5	71.4
80°	38.0	39.1	42.3	43.0	46.9
82.5°	23.1	23.8	24.5	24.9	26.3
85°	12.4	12.4	12.4	11.7	11.7
87.5°	7.1	7.1	6.0	5.0	3.6
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)