

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: P557454

Luminaire Tested: **FUSL-12-4-LD4-2STD-30-UNV-81-97-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: P557454
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-LD4-2STD-30-UNV-81-97-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

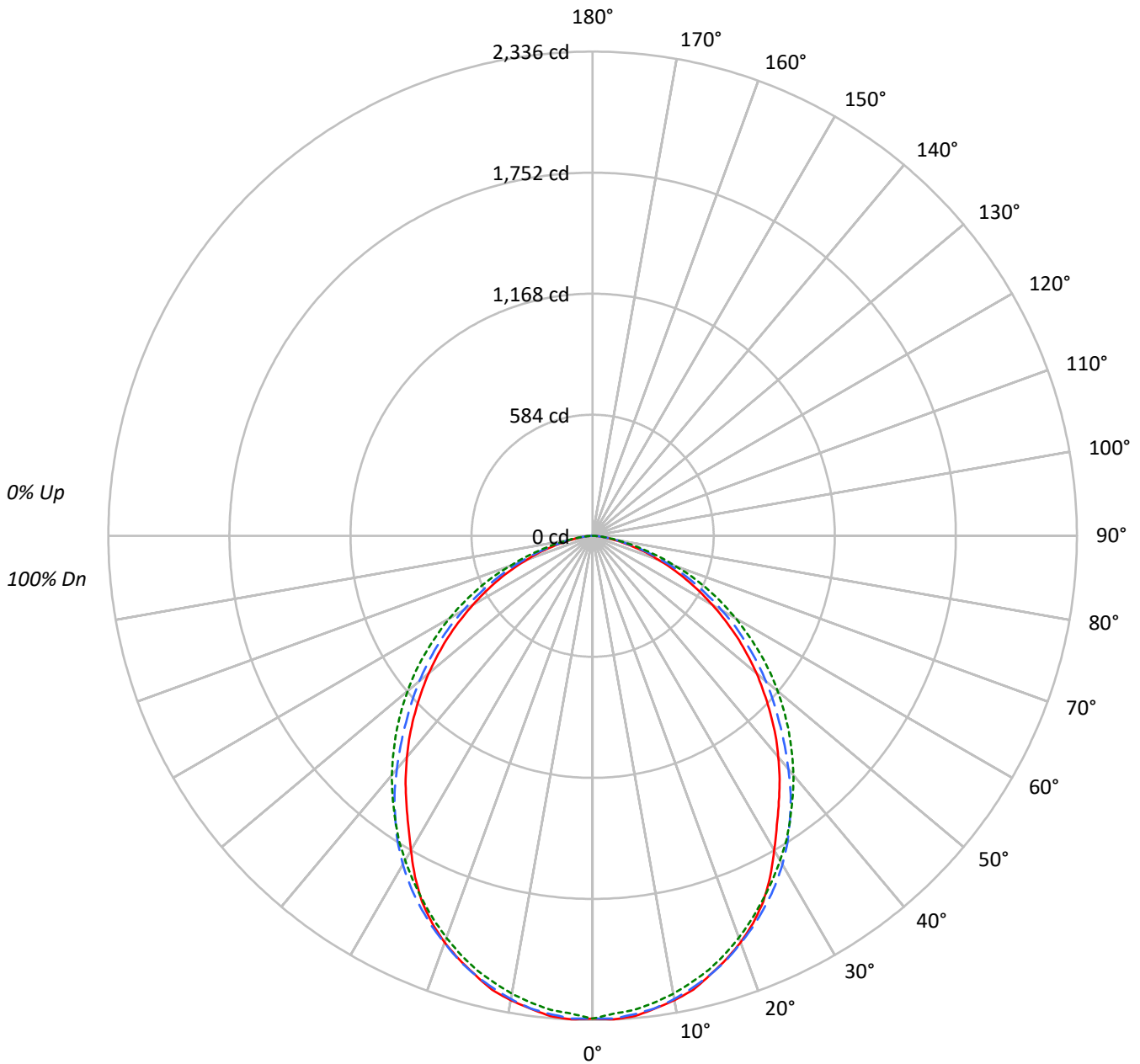
Lumens per Lamp: N/A
Luminaire Lumens: 5386.0 lumens
Efficiency: N/A
Efficacy: 80.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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: P557454

CATALOG NUMBER: FUSL-12-4-LD4-2STD-30-UNV-81-97-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P557454

CATALOG NUMBER: FUSL-12-4-LD4-2STD-30-UNV-81-97-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°	6268	6268	6268
5°	6285	6258	6205
10°	6218	6201	6130
15°	6108	6108	6038
20°	5979	5986	5909
25°	5782	5853	5760
30°	5444	5689	5620
35°	5144	5453	5462
40°	4894	5159	5293
45°	4614	4846	5095
50°	4320	4567	4878
55°	3984	4249	4614
60°	3588	3877	4291
65°	3168	3447	3903
70°	2640	2936	3316
75°	2075	2345	2596
80°	1483	1650	1830
85°	966	966	911



TEST NUMBER: P557454

CATALOG NUMBER: FUSL-12-4-LD4-2STD-30-UNV-81-97-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	219.3	4.1
10°-20°	616.1	11.4
20°-30°	900.3	16.7
30°-40°	1022.0	19.0
40°-50°	986.6	18.3
50°-60°	813.9	15.1
60°-70°	542.0	10.1
70°-80°	242.5	4.5
80°-90°	43.4	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°	1735.8	32.2
0°-40°	2757.7	51.2
0°-60°	4558.2	84.6
0°-90°	5386.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5386.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2329	2329	2329	2329	2329	
5°	2327	2326	2317	2304	2297	220
15°	2192	2198	2192	2182	2167	618
25°	1947	1962	1971	1957	1940	892
35°	1566	1588	1660	1669	1663	981
45°	1212	1233	1273	1332	1339	936
55°	849	864	906	956	983	758
65°	498	511	541	580	613	493
75°	200	210	226	236	250	218
85°	31	31	31	30	30	42
90°	0	0	0	0	0	



TEST NUMBER: P557454

CATALOG NUMBER: FUSL-12-4-LD4-2STD-30-UNV-81-97-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2329.3	2329.3	2329.3	2329.3	2329.3
2.5°	2335.6	2336.5	2331.1	2316.8	2307.8
5°	2326.6	2325.7	2316.8	2304.2	2297.1
7.5°	2300.7	2302.5	2299.8	2281.9	2272.0
10°	2275.6	2276.5	2269.4	2255.0	2243.4
12.5°	2243.4	2242.5	2232.7	2225.5	2206.7
15°	2192.4	2197.8	2192.4	2182.5	2167.3
17.5°	2143.2	2143.2	2146.8	2129.8	2118.1
20°	2087.7	2090.4	2090.4	2077.0	2063.5
22.5°	2023.3	2031.3	2034.0	2019.7	2003.6
25°	1947.2	1962.4	1971.4	1957.0	1940.0
27.5°	1855.0	1878.3	1905.1	1894.4	1875.6
30°	1752.1	1786.1	1830.9	1821.9	1808.5
32.5°	1654.6	1688.6	1750.3	1746.8	1739.6
35°	1566.0	1587.5	1660.0	1668.9	1662.6
37.5°	1481.9	1501.6	1569.6	1590.2	1584.8
40°	1393.3	1414.8	1468.5	1505.1	1506.9
42.5°	1305.6	1326.2	1370.0	1422.8	1422.8
45°	1212.5	1233.1	1273.4	1331.5	1338.7
47.5°	1121.3	1142.7	1182.1	1240.3	1251.9
50°	1031.8	1051.5	1090.8	1147.2	1165.1
52.5°	938.7	960.2	998.7	1050.6	1076.5
55°	849.2	863.5	905.6	955.7	983.4
57.5°	756.2	769.6	817.0	860.0	888.6
60°	666.7	683.7	720.4	764.2	797.3
62.5°	580.8	598.7	630.0	668.5	706.0
65°	497.5	511.0	541.4	579.9	613.0
67.5°	417.0	428.6	459.1	485.9	520.8
70°	335.6	350.8	373.2	399.1	421.5
72.5°	270.2	276.5	295.3	314.1	337.4
75°	199.6	210.3	225.5	236.2	249.7
77.5°	143.2	149.4	158.4	167.3	179.9
80°	95.7	98.4	106.5	108.3	118.1
82.5°	58.2	60.0	61.7	62.6	66.2
85°	31.3	31.3	31.3	29.5	29.5
87.5°	17.9	17.9	15.2	12.5	8.9
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)