

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: P557284

Luminaire Tested: **FUSL-12-4-LD4-2LO-35-UNV-93-86-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: P557284
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-LD4-2LO-35-UNV-93-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

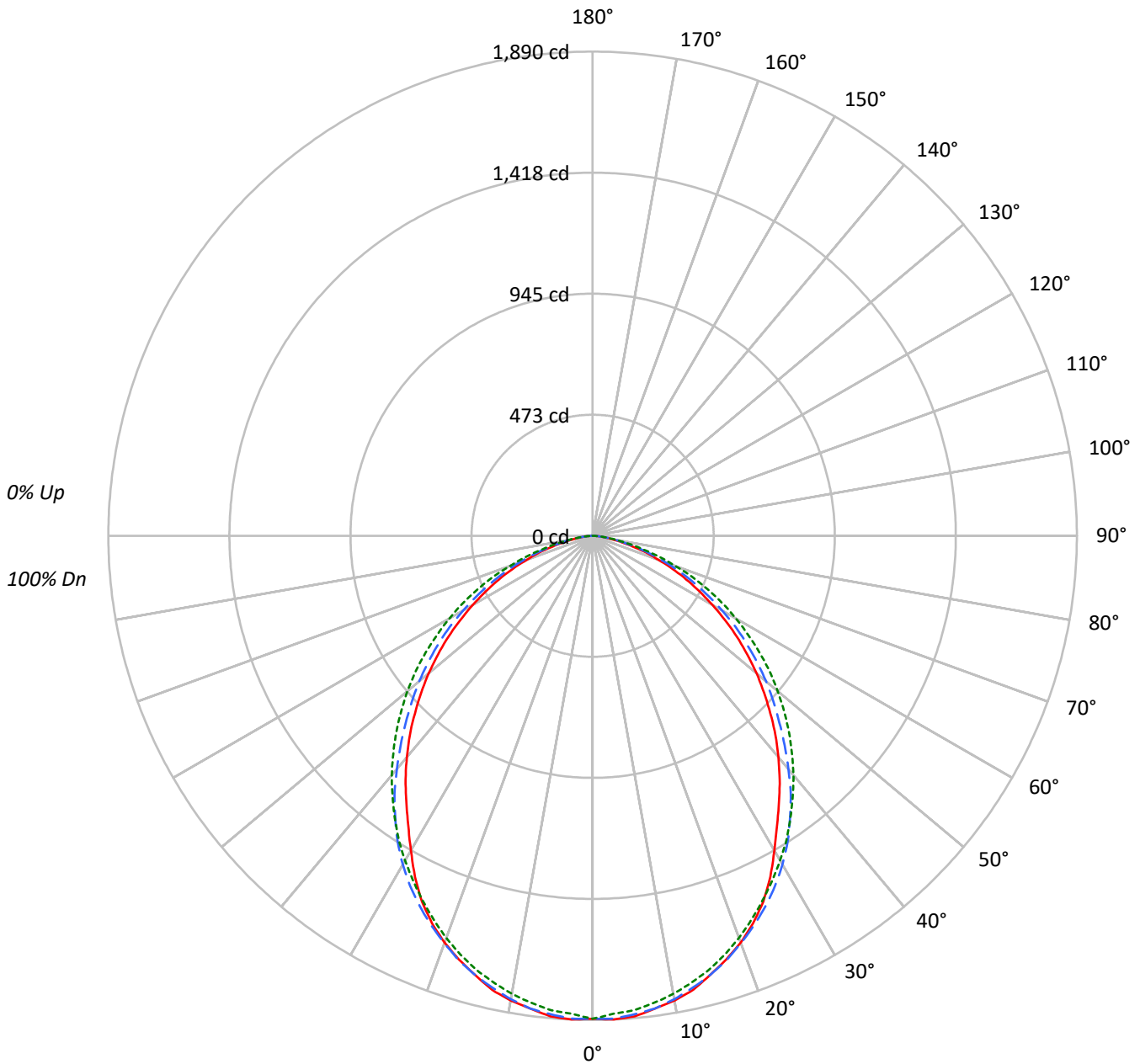
Lumens per Lamp: N/A
Luminaire Lumens: 4359.0 lumens
Efficiency: N/A
Efficacy: 93.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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: P557284

CATALOG NUMBER: FUSL-12-4-LD4-2LO-35-UNV-93-86-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P557284

CATALOG NUMBER: FUSL-12-4-LD4-2LO-35-UNV-93-86-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°	5073	5073	5073
5°	5086	5065	5022
10°	5032	5018	4961
15°	4943	4943	4887
20°	4838	4845	4783
25°	4679	4737	4662
30°	4406	4604	4548
35°	4164	4413	4420
40°	3961	4175	4284
45°	3734	3922	4123
50°	3496	3696	3947
55°	3225	3438	3734
60°	2904	3138	3473
65°	2564	2790	3159
70°	2137	2376	2684
75°	1679	1897	2101
80°	1201	1336	1481
85°	781	781	738



TEST NUMBER: P557284

CATALOG NUMBER: FUSL-12-4-LD4-2LO-35-UNV-93-86-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	177.5	4.1
10°-20°	498.6	11.4
20°-30°	728.7	16.7
30°-40°	827.1	19.0
40°-50°	798.4	18.3
50°-60°	658.7	15.1
60°-70°	438.6	10.1
70°-80°	196.3	4.5
80°-90°	35.1	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°	1404.8	32.2
0°-40°	2231.9	51.2
0°-60°	3689.0	84.6
0°-90°	4359.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4359.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1885	1885	1885	1885	1885	
5°	1883	1882	1875	1865	1859	178
15°	1774	1779	1774	1766	1754	500
25°	1576	1588	1596	1584	1570	722
35°	1267	1285	1343	1351	1346	794
45°	981	998	1031	1078	1083	757
55°	687	699	733	774	796	613
65°	403	414	438	469	496	399
75°	162	170	182	191	202	177
85°	25	25	25	24	24	34
90°	0	0	0	0	0	



TEST NUMBER: P557284

CATALOG NUMBER: FUSL-12-4-LD4-2LO-35-UNV-93-86-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1885.2	1885.2	1885.2	1885.2	1885.2
2.5°	1890.2	1890.9	1886.6	1875.0	1867.8
5°	1883.0	1882.3	1875.0	1864.9	1859.1
7.5°	1862.0	1863.4	1861.3	1846.8	1838.8
10°	1841.7	1842.4	1836.6	1825.0	1815.6
12.5°	1815.6	1814.9	1806.9	1801.1	1785.9
15°	1774.3	1778.7	1774.3	1766.4	1754.1
17.5°	1734.5	1734.5	1737.4	1723.7	1714.2
20°	1689.6	1691.8	1691.8	1680.9	1670.1
22.5°	1637.5	1644.0	1646.2	1634.6	1621.5
25°	1575.9	1588.2	1595.5	1583.9	1570.1
27.5°	1501.3	1520.1	1541.9	1533.2	1518.0
30°	1418.0	1445.6	1481.8	1474.5	1463.7
32.5°	1339.1	1366.6	1416.6	1413.7	1407.9
35°	1267.4	1284.8	1343.4	1350.7	1345.6
37.5°	1199.3	1215.2	1270.3	1286.9	1282.6
40°	1127.6	1145.0	1188.5	1218.1	1219.6
42.5°	1056.6	1073.3	1108.8	1151.5	1151.5
45°	981.3	998.0	1030.6	1077.6	1083.4
47.5°	907.5	924.8	956.7	1003.8	1013.2
50°	835.0	851.0	882.8	928.5	942.9
52.5°	759.7	777.1	808.2	850.2	871.2
55°	687.3	698.9	732.9	773.5	795.9
57.5°	612.0	622.8	661.2	696.0	719.2
60°	539.5	553.3	583.0	618.5	645.3
62.5°	470.0	484.5	509.9	541.0	571.4
65°	402.7	413.5	438.2	469.3	496.1
67.5°	337.5	346.9	371.5	393.3	421.5
70°	271.6	283.9	302.0	323.0	341.1
72.5°	218.7	223.8	239.0	254.2	273.0
75°	161.5	170.2	182.5	191.2	202.1
77.5°	115.9	120.9	128.2	135.4	145.6
80°	77.5	79.7	86.2	87.6	95.6
82.5°	47.1	48.5	50.0	50.7	53.6
85°	25.3	25.3	25.3	23.9	23.9
87.5°	14.5	14.5	12.3	10.1	7.2
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)