

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: P557368

Luminaire Tested: **FUSL-12-4-LD4-2LO-50-UNV-80-88-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: P557368  
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-50-UNV-80-88-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

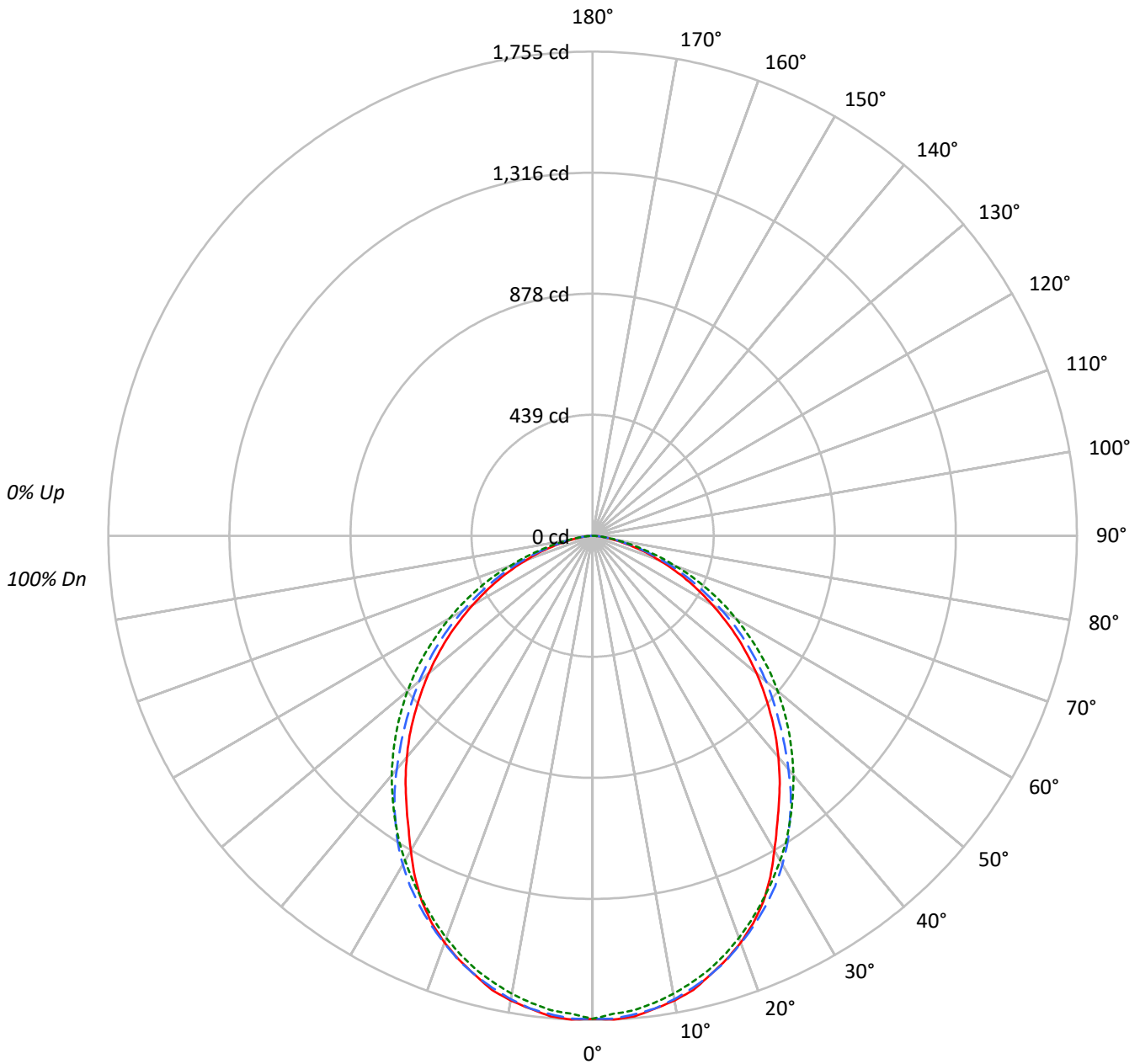
Lumens per Lamp: N/A  
Luminaire Lumens: 4048.0 lumens  
Efficiency: N/A  
Efficacy: 86.5 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 46.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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: P557368

CATALOG NUMBER: FUSL-12-4-LD4-2LO-50-UNV-80-88-EDD-90

### Luminous Intensity Polar Plot





TEST NUMBER: P557368

CATALOG NUMBER: FUSL-12-4-LD4-2LO-50-UNV-80-88-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°	4711	4711	4711
5°	4723	4703	4663
10°	4673	4661	4607
15°	4591	4591	4538
20°	4493	4499	4441
25°	4345	4399	4329
30°	4092	4276	4223
35°	3867	4098	4105
40°	3679	3877	3979
45°	3468	3642	3829
50°	3247	3432	3666
55°	2995	3193	3468
60°	2697	2914	3225
65°	2381	2591	2933
70°	1984	2207	2493
75°	1560	1762	1951
80°	1116	1240	1376
85°	726	726	685



TEST NUMBER: P557368

CATALOG NUMBER: FUSL-12-4-LD4-2LO-50-UNV-80-88-EDD-90

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	164.8	4.1
10°-20°	463.1	11.4
20°-30°	676.7	16.7
30°-40°	768.1	19.0
40°-50°	741.5	18.3
50°-60°	611.7	15.1
60°-70°	407.3	10.1
70°-80°	182.3	4.5
80°-90°	32.6	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°	1304.6	32.2
0°-40°	2072.7	51.2
0°-60°	3425.8	84.6
0°-90°	4048.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4048.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1751	1751	1751	1751	1751	
5°	1749	1748	1741	1732	1726	166
15°	1648	1652	1648	1640	1629	465
25°	1464	1475	1482	1471	1458	670
35°	1177	1193	1248	1254	1250	737
45°	911	927	957	1001	1006	703
55°	638	649	681	718	739	570
65°	374	384	407	436	461	371
75°	150	158	170	178	188	164
85°	24	24	24	22	22	32
90°	0	0	0	0	0	



TEST NUMBER: P557368

CATALOG NUMBER: FUSL-12-4-LD4-2LO-50-UNV-80-88-EDD-90

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1750.7	1750.7	1750.7	1750.7	1750.7
2.5°	1755.4	1756.0	1752.0	1741.2	1734.5
5°	1748.6	1748.0	1741.2	1731.8	1726.4
7.5°	1729.1	1730.5	1728.5	1715.0	1707.6
10°	1710.3	1711.0	1705.6	1694.8	1686.1
12.5°	1686.1	1685.4	1678.0	1672.6	1658.5
15°	1647.8	1651.8	1647.8	1640.4	1628.9
17.5°	1610.8	1610.8	1613.5	1600.7	1591.9
20°	1569.1	1571.1	1571.1	1561.0	1550.9
22.5°	1520.6	1526.7	1528.7	1518.0	1505.8
25°	1463.5	1474.9	1481.6	1470.9	1458.1
27.5°	1394.2	1411.7	1431.9	1423.8	1409.7
30°	1316.9	1342.4	1376.0	1369.3	1359.2
32.5°	1243.6	1269.1	1315.5	1312.8	1307.4
35°	1177.0	1193.1	1247.6	1254.3	1249.6
37.5°	1113.7	1128.5	1179.7	1195.1	1191.1
40°	1047.2	1063.3	1103.7	1131.2	1132.6
42.5°	981.3	996.7	1029.7	1069.4	1069.4
45°	911.3	926.8	957.0	1000.8	1006.1
47.5°	842.7	858.9	888.4	932.2	940.9
50°	775.5	790.2	819.8	862.2	875.7
52.5°	705.5	721.6	750.6	789.6	809.1
55°	638.3	649.0	680.6	718.3	739.1
57.5°	568.3	578.4	614.0	646.3	667.8
60°	501.1	513.8	541.4	574.4	599.2
62.5°	436.5	449.9	473.5	502.4	530.6
65°	373.9	384.0	406.9	435.8	460.7
67.5°	313.4	322.2	345.0	365.2	391.4
70°	252.2	263.6	280.5	300.0	316.8
72.5°	203.1	207.8	221.9	236.1	253.6
75°	150.0	158.0	169.5	177.6	187.6
77.5°	107.6	112.3	119.0	125.8	135.2
80°	72.0	74.0	80.0	81.4	88.8
82.5°	43.7	45.1	46.4	47.1	49.8
85°	23.5	23.5	23.5	22.2	22.2
87.5°	13.5	13.5	11.4	9.4	6.7
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)