

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: P557405

Luminaire Tested: **FUSL-12-4-LD4-2LO-50-UNV-82-96-EDD**

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: P557405  
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-82-96-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250  
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT  
LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

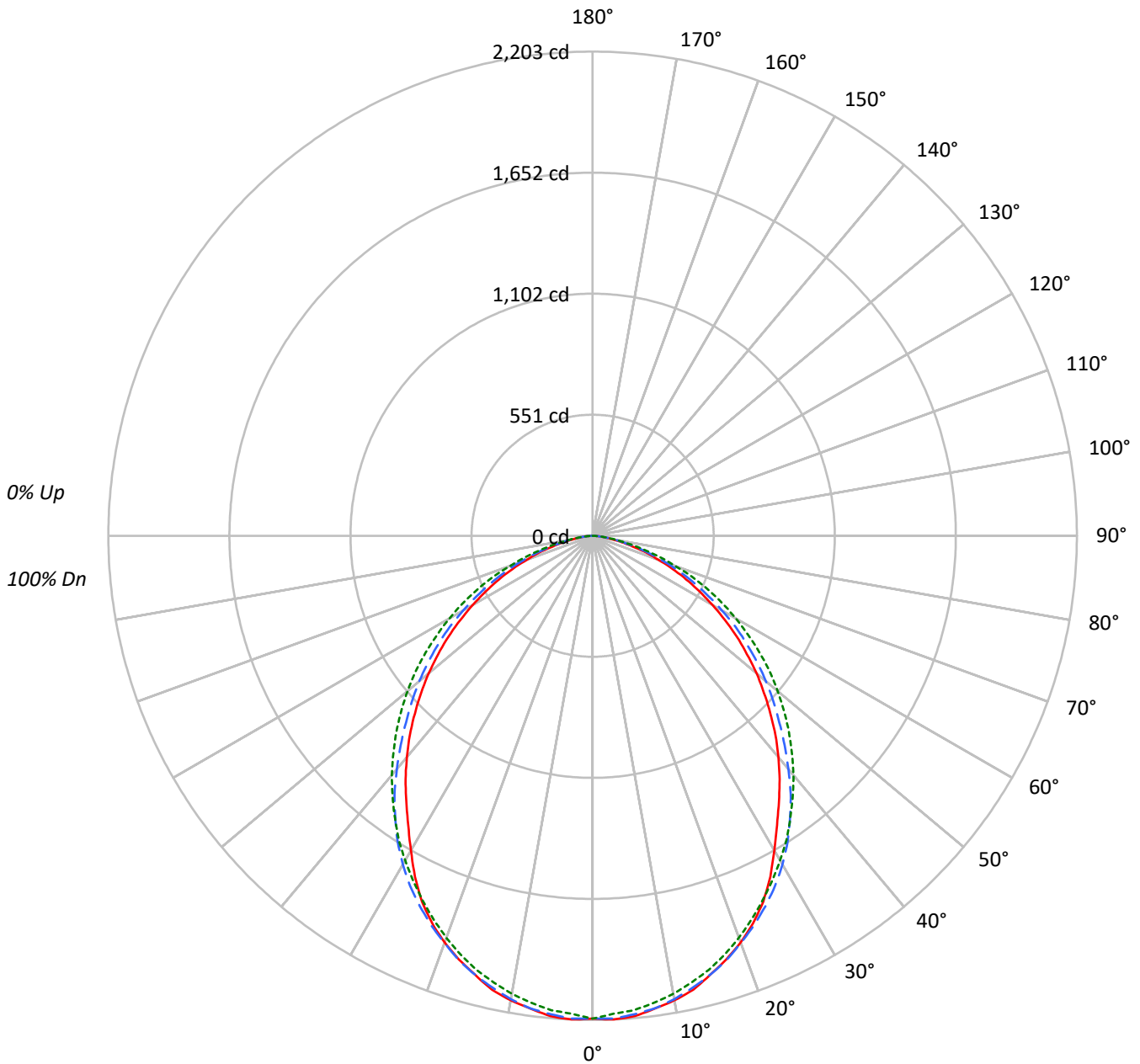
Lumens per Lamp: N/A  
Luminaire Lumens: 5080.0 lumens  
Efficiency: N/A  
Efficacy: 108.5 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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: P557405

CATALOG NUMBER: FUSL-12-4-LD4-2LO-50-UNV-82-96-EDD

### Luminous Intensity Polar Plot





TEST NUMBER: P557405

CATALOG NUMBER: FUSL-12-4-LD4-2LO-50-UNV-82-96-EDD

**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°	5912	5912	5912
5°	5928	5903	5853
10°	5865	5849	5782
15°	5761	5761	5695
20°	5639	5646	5574
25°	5453	5521	5433
30°	5135	5366	5300
35°	4852	5143	5152
40°	4616	4865	4993
45°	4352	4571	4805
50°	4074	4307	4600
55°	3758	4007	4352
60°	3384	3657	4047
65°	2988	3251	3681
70°	2490	2769	3127
75°	1957	2211	2449
80°	1399	1556	1726
85°	911	911	861



TEST NUMBER: P557405

CATALOG NUMBER: FUSL-12-4-LD4-2LO-50-UNV-82-96-EDD

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	206.9	4.1
10°-20°	581.1	11.4
20°-30°	849.2	16.7
30°-40°	963.9	19.0
40°-50°	930.5	18.3
50°-60°	767.6	15.1
60°-70°	511.2	10.1
70°-80°	228.7	4.5
80°-90°	40.9	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°	1637.1	32.2
0°-40°	2601.1	51.2
0°-60°	4299.2	84.6
0°-90°	5080.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5080.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2197	2197	2197	2197	2197	
5°	2194	2194	2185	2173	2167	208
15°	2068	2073	2068	2059	2044	583
25°	1837	1851	1859	1846	1830	841
35°	1477	1497	1566	1574	1568	925
45°	1144	1163	1201	1256	1263	882
55°	801	814	854	901	928	715
65°	469	482	511	547	578	465
75°	188	198	213	223	236	206
85°	30	30	30	28	28	40
90°	0	0	0	0	0	



TEST NUMBER: P557405

CATALOG NUMBER: FUSL-12-4-LD4-2LO-50-UNV-82-96-EDD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2197.0	2197.0	2197.0	2197.0	2197.0
2.5°	2202.9	2203.7	2198.7	2185.2	2176.7
5°	2194.4	2193.6	2185.2	2173.3	2166.6
7.5°	2170.0	2171.6	2169.1	2152.2	2143.0
10°	2146.3	2147.2	2140.4	2126.9	2115.9
12.5°	2115.9	2115.1	2105.8	2099.1	2081.3
15°	2067.8	2072.9	2067.8	2058.6	2044.2
17.5°	2021.4	2021.4	2024.8	2008.8	1997.8
20°	1969.1	1971.6	1971.6	1959.0	1946.3
22.5°	1908.3	1915.9	1918.4	1904.9	1889.7
25°	1836.6	1850.9	1859.4	1845.9	1829.8
27.5°	1749.6	1771.6	1796.9	1786.8	1769.1
30°	1652.6	1684.7	1726.9	1718.4	1705.8
32.5°	1560.6	1592.7	1650.9	1647.5	1640.8
35°	1477.0	1497.3	1565.6	1574.1	1568.2
37.5°	1397.7	1416.3	1480.4	1499.8	1494.7
40°	1314.1	1334.4	1385.0	1419.6	1421.3
42.5°	1231.4	1250.8	1292.2	1342.0	1342.0
45°	1143.6	1163.1	1201.0	1255.9	1262.6
47.5°	1057.5	1077.8	1114.9	1169.8	1180.8
50°	973.1	991.7	1028.9	1082.0	1098.9
52.5°	885.4	905.6	941.9	990.9	1015.3
55°	801.0	814.5	854.1	901.4	927.6
57.5°	713.2	725.9	770.6	811.1	838.1
60°	628.8	644.8	679.4	720.8	752.0
62.5°	547.8	564.6	594.2	630.5	665.9
65°	469.3	481.9	510.6	546.9	578.1
67.5°	393.3	404.3	433.0	458.3	491.2
70°	316.5	330.9	352.0	376.4	397.5
72.5°	254.9	260.8	278.5	296.2	318.2
75°	188.2	198.3	212.7	222.8	235.5
77.5°	135.0	141.0	149.4	157.8	169.6
80°	90.3	92.8	100.4	102.1	111.4
82.5°	54.9	56.5	58.2	59.1	62.5
85°	29.5	29.5	29.5	27.9	27.9
87.5°	16.9	16.9	14.3	11.8	8.4
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)