

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: P557288

Luminaire Tested: **FUSL-12-4-LD4-2LO-35-UNV-93-88-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: P557288  
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-93-88-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

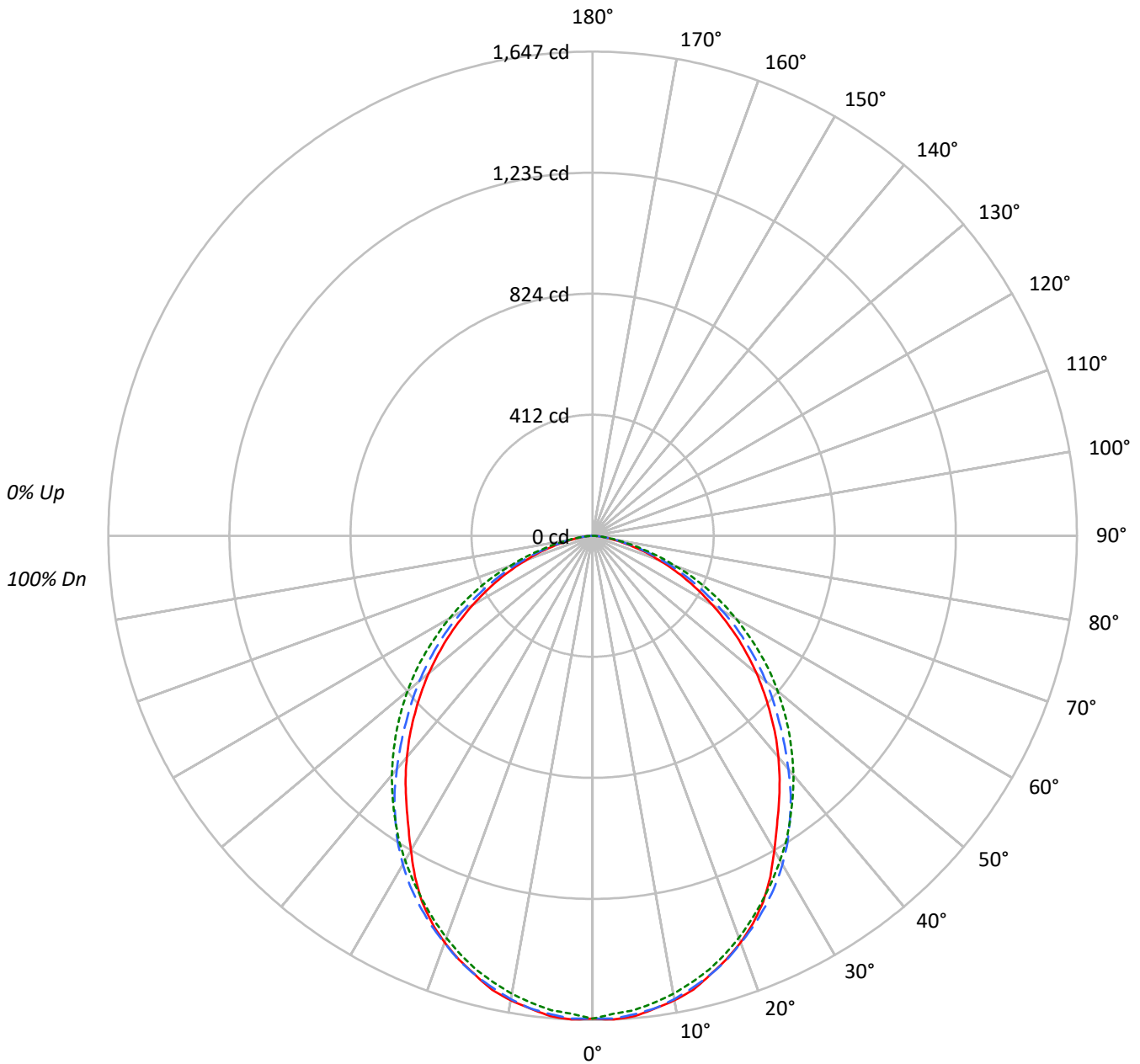
Lumens per Lamp: N/A  
Luminaire Lumens: 3798.0 lumens  
Efficiency: N/A  
Efficacy: 81.2 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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: P557288

CATALOG NUMBER: FUSL-12-4-LD4-2LO-35-UNV-93-88-EDD-90

### Luminous Intensity Polar Plot





TEST NUMBER: P557288

CATALOG NUMBER: FUSL-12-4-LD4-2LO-35-UNV-93-88-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°	4420	4420	4420
5°	4432	4413	4375
10°	4385	4373	4323
15°	4307	4307	4258
20°	4216	4221	4167
25°	4077	4127	4062
30°	3839	4012	3963
35°	3628	3845	3851
40°	3451	3638	3733
45°	3254	3417	3593
50°	3046	3220	3440
55°	2809	2996	3254
60°	2530	2734	3026
65°	2234	2431	2752
70°	1862	2070	2338
75°	1463	1653	1831
80°	1046	1164	1291
85°	682	682	642



TEST NUMBER: P557288

CATALOG NUMBER: FUSL-12-4-LD4-2LO-35-UNV-93-88-EDD-90

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	154.6	4.1
10°-20°	434.5	11.4
20°-30°	634.9	16.7
30°-40°	720.7	19.0
40°-50°	695.7	18.3
50°-60°	573.9	15.1
60°-70°	382.2	10.1
70°-80°	171.0	4.5
80°-90°	30.6	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°	1224.0	32.2
0°-40°	1944.6	51.2
0°-60°	3214.2	84.6
0°-90°	3798.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3798.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1642	1642	1642	1642	1642	
5°	1641	1640	1634	1625	1620	155
15°	1546	1550	1546	1539	1528	436
25°	1373	1384	1390	1380	1368	629
35°	1104	1119	1170	1177	1172	692
45°	855	870	898	939	944	660
55°	599	609	639	674	694	534
65°	351	360	382	409	432	348
75°	141	148	159	167	176	154
85°	22	22	22	21	21	30
90°	0	0	0	0	0	



TEST NUMBER: P557288

CATALOG NUMBER: FUSL-12-4-LD4-2LO-35-UNV-93-88-EDD-90

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1642.5	1642.5	1642.5	1642.5	1642.5
2.5°	1647.0	1647.6	1643.8	1633.7	1627.4
5°	1640.6	1640.0	1633.7	1624.9	1619.8
7.5°	1622.3	1623.6	1621.7	1609.1	1602.2
10°	1604.7	1605.3	1600.3	1590.2	1582.0
12.5°	1582.0	1581.3	1574.4	1569.3	1556.1
15°	1546.0	1549.8	1546.0	1539.1	1528.3
17.5°	1511.3	1511.3	1513.8	1501.8	1493.6
20°	1472.2	1474.1	1474.1	1464.6	1455.1
22.5°	1426.7	1432.4	1434.3	1424.2	1412.8
25°	1373.1	1383.8	1390.1	1380.0	1368.0
27.5°	1308.1	1324.5	1343.4	1335.9	1322.6
30°	1235.5	1259.5	1291.1	1284.8	1275.3
32.5°	1166.8	1190.7	1234.3	1231.7	1226.7
35°	1104.3	1119.4	1170.5	1176.8	1172.4
37.5°	1045.0	1058.8	1106.8	1121.3	1117.5
40°	982.5	997.6	1035.5	1061.4	1062.6
42.5°	920.7	935.2	966.1	1003.3	1003.3
45°	855.0	869.5	897.9	939.0	944.0
47.5°	790.7	805.8	833.6	874.6	882.8
50°	727.6	741.4	769.2	809.0	821.6
52.5°	661.9	677.1	704.2	740.8	759.1
55°	598.8	608.9	638.6	673.9	693.5
57.5°	533.2	542.7	576.1	606.4	626.6
60°	470.1	482.1	508.0	538.9	562.2
62.5°	409.5	422.2	444.2	471.4	497.9
65°	350.8	360.3	381.8	408.9	432.2
67.5°	294.1	302.3	323.7	342.6	367.3
70°	236.6	247.4	263.1	281.4	297.2
72.5°	190.6	195.0	208.2	221.5	237.9
75°	140.7	148.3	159.0	166.6	176.1
77.5°	101.0	105.4	111.7	118.0	126.8
80°	67.5	69.4	75.1	76.4	83.3
82.5°	41.0	42.3	43.5	44.2	46.7
85°	22.1	22.1	22.1	20.8	20.8
87.5°	12.6	12.6	10.7	8.8	6.3
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)