

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: P558347

Luminaire Tested: **FUSL-12-4-LD4-3STD-40-UNV-81-94-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: P558347  
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-LD4-3STD-40-UNV-81-94-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

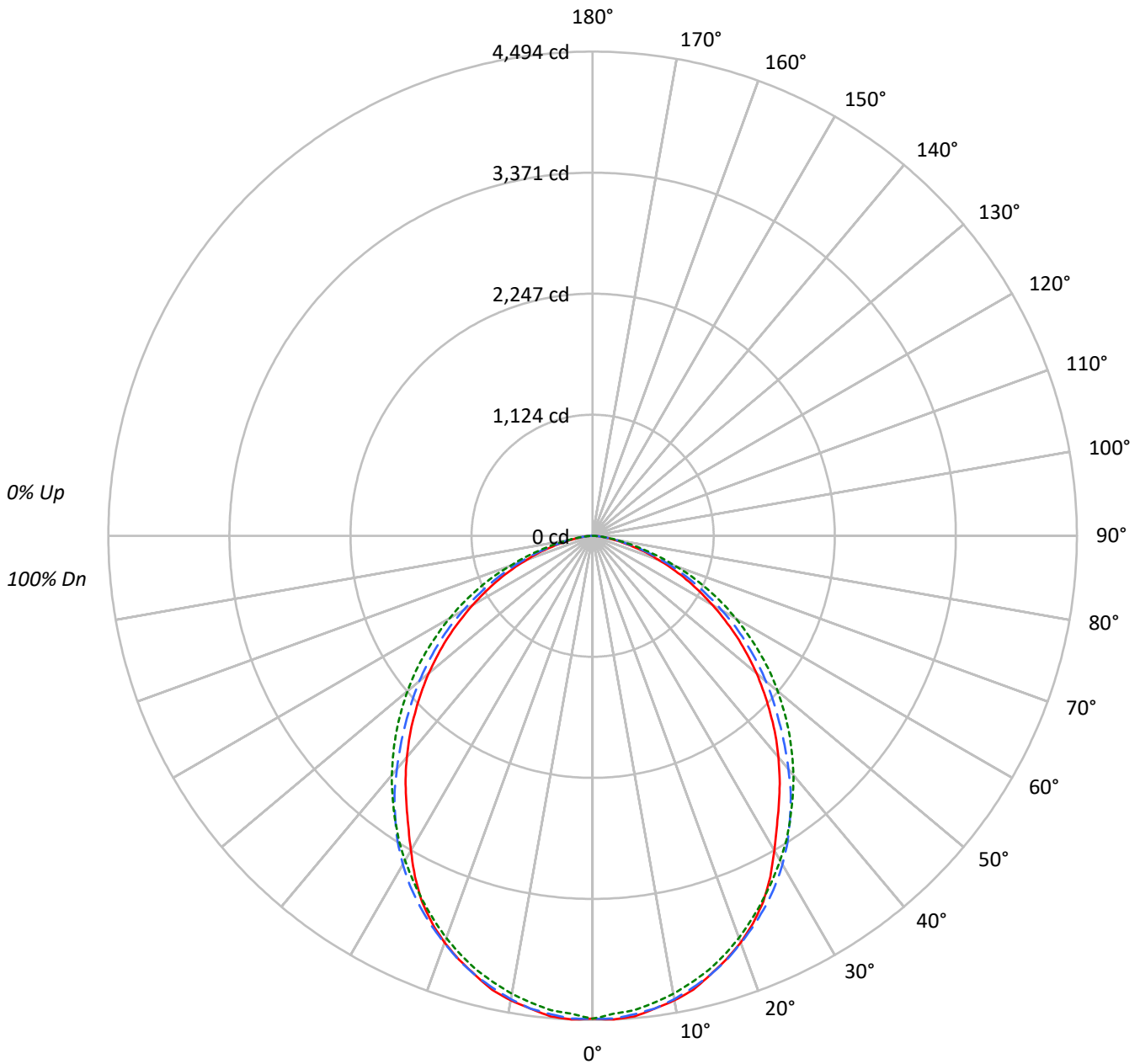
Lumens per Lamp: N/A  
Luminaire Lumens: 10364.0 lumens  
Efficiency: N/A  
Efficacy: 103.7 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 99.9  
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: P558347

CATALOG NUMBER: FUSL-12-4-LD4-3STD-40-UNV-81-94-EDD

### Luminous Intensity Polar Plot





TEST NUMBER: P558347

CATALOG NUMBER: FUSL-12-4-LD4-3STD-40-UNV-81-94-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°	12062	12062	12062
5°	12094	12042	11940
10°	11965	11932	11796
15°	11753	11753	11619
20°	11504	11519	11371
25°	11125	11263	11084
30°	10476	10947	10813
35°	9899	10493	10510
40°	9418	9926	10186
45°	8879	9325	9803
50°	8312	8787	9386
55°	7667	8176	8878
60°	6904	7460	8257
65°	6096	6634	7510
70°	5080	5649	6381
75°	3993	4511	4995
80°	2854	3175	3522
85°	1862	1862	1754



TEST NUMBER: P558347

CATALOG NUMBER: FUSL-12-4-LD4-3STD-40-UNV-81-94-EDD

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	422.0	4.1
10°-20°	1185.5	11.4
20°-30°	1732.5	16.7
30°-40°	1966.6	19.0
40°-50°	1898.4	18.3
50°-60°	1566.0	15.1
60°-70°	1042.9	10.1
70°-80°	466.7	4.5
80°-90°	83.5	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°	3340.0	32.2
0°-40°	5306.6	51.2
0°-60°	8771.0	84.6
0°-90°	10364.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10364.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4482	4482	4482	4482	4482	
5°	4477	4475	4458	4434	4420	424
15°	4219	4229	4219	4200	4170	1189
25°	3747	3776	3793	3766	3733	1716
35°	3013	3055	3194	3211	3199	1888
45°	2333	2373	2450	2562	2576	1800
55°	1634	1662	1743	1839	1892	1458
65°	957	983	1042	1116	1180	949
75°	384	405	434	455	480	420
85°	60	60	60	57	57	81
90°	0	0	0	0	0	



TEST NUMBER: P558347

CATALOG NUMBER: FUSL-12-4-LD4-3STD-40-UNV-81-94-EDD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4482.2	4482.2	4482.2	4482.2	4482.2
2.5°	4494.2	4495.9	4485.6	4458.1	4440.8
5°	4477.0	4475.3	4458.1	4433.9	4420.2
7.5°	4427.1	4430.5	4425.3	4390.9	4372.0
10°	4378.8	4380.6	4366.8	4339.2	4316.9
12.5°	4316.9	4315.1	4296.2	4282.4	4246.3
15°	4218.7	4229.0	4218.7	4199.8	4170.5
17.5°	4124.0	4124.0	4130.9	4098.2	4075.8
20°	4017.2	4022.4	4022.4	3996.6	3970.8
22.5°	3893.3	3908.8	3913.9	3886.4	3855.4
25°	3746.9	3776.2	3793.4	3765.8	3733.1
27.5°	3569.5	3614.3	3666.0	3645.3	3609.1
30°	3371.5	3437.0	3523.1	3505.8	3480.0
32.5°	3183.8	3249.3	3368.1	3361.2	3347.4
35°	3013.4	3054.7	3194.2	3211.4	3199.3
37.5°	2851.5	2889.4	3020.3	3059.9	3049.5
40°	2681.0	2722.4	2825.7	2896.3	2899.7
42.5°	2512.3	2551.9	2636.3	2737.9	2737.9
45°	2333.2	2372.8	2450.3	2562.2	2576.0
47.5°	2157.6	2198.9	2274.7	2386.6	2409.0
50°	1985.4	2023.3	2099.0	2207.5	2241.9
52.5°	1806.3	1847.6	1921.7	2021.5	2071.5
55°	1634.1	1661.7	1742.6	1839.0	1892.4
57.5°	1455.0	1480.9	1572.1	1654.8	1709.9
60°	1282.8	1315.5	1386.1	1470.5	1534.2
62.5°	1117.5	1152.0	1212.2	1286.3	1358.6
65°	957.4	983.2	1041.8	1115.8	1179.5
67.5°	802.4	824.8	883.3	935.0	1002.2
70°	645.7	675.0	718.0	768.0	811.0
72.5°	520.0	532.1	568.2	604.4	649.2
75°	384.0	404.7	433.9	454.6	480.4
77.5°	275.5	287.6	304.8	322.0	346.1
80°	184.2	189.4	204.9	208.4	227.3
82.5°	111.9	115.4	118.8	120.5	127.4
85°	60.3	60.3	60.3	56.8	56.8
87.5°	34.4	34.4	29.3	24.1	17.2
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)