

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: P557943

Luminaire Tested: **FUSL-12-4-LD4-3LO-30-UNV-80-87-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: P557943  
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-LD4-3LO-30-UNV-80-87-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

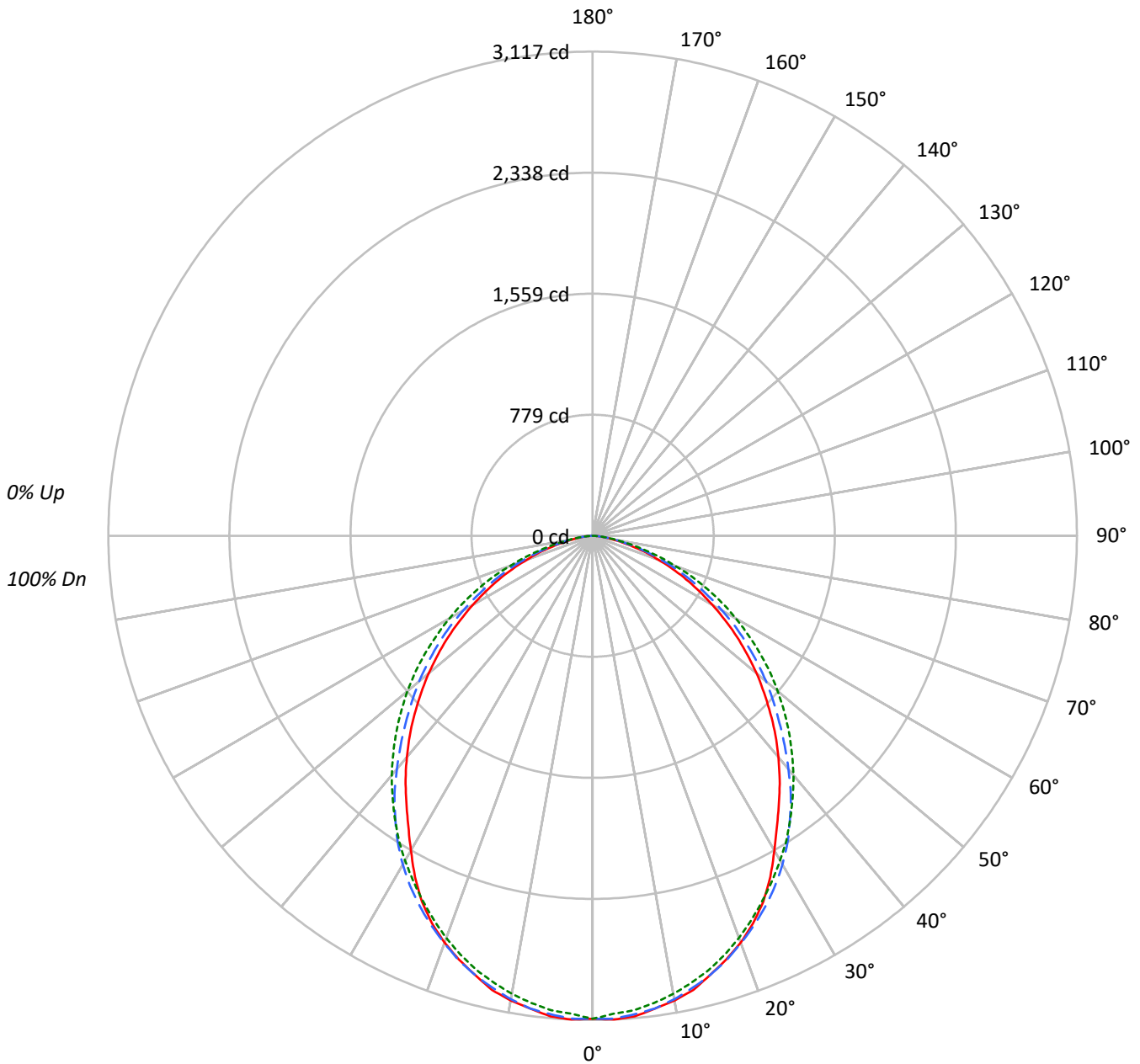
Lumens per Lamp: N/A  
Luminaire Lumens: 7189.0 lumens  
Efficiency: N/A  
Efficacy: 102.4 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 70.2  
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: P557943

CATALOG NUMBER: FUSL-12-4-LD4-3LO-30-UNV-80-87-EDD

### Luminous Intensity Polar Plot





TEST NUMBER: P557943

CATALOG NUMBER: FUSL-12-4-LD4-3LO-30-UNV-80-87-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°	8367	8367	8367
5°	8389	8353	8282
10°	8300	8277	8182
15°	8152	8152	8059
20°	7980	7990	7887
25°	7717	7813	7689
30°	7267	7594	7501
35°	6866	7278	7290
40°	6533	6885	7066
45°	6159	6468	6800
50°	5766	6095	6510
55°	5318	5671	6159
60°	4789	5175	5727
65°	4229	4601	5210
70°	3524	3919	4426
75°	2770	3130	3464
80°	1980	2202	2444
85°	1291	1291	1216



TEST NUMBER: P557943

CATALOG NUMBER: FUSL-12-4-LD4-3LO-30-UNV-80-87-EDD

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	292.7	4.1
10°-20°	822.4	11.4
20°-30°	1201.7	16.7
30°-40°	1364.1	19.0
40°-50°	1316.8	18.3
50°-60°	1086.3	15.1
60°-70°	723.4	10.1
70°-80°	323.7	4.5
80°-90°	57.9	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°	2316.8	32.2
0°-40°	3680.9	51.2
0°-60°	6084.0	84.6
0°-90°	7189.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7189.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3109	3109	3109	3109	3109	
5°	3106	3104	3092	3076	3066	294
15°	2926	2934	2926	2913	2893	825
25°	2599	2619	2631	2612	2590	1190
35°	2090	2119	2216	2228	2219	1310
45°	1618	1646	1700	1777	1787	1249
55°	1134	1153	1209	1276	1313	1012
65°	664	682	723	774	818	658
75°	266	281	301	315	333	291
85°	42	42	42	39	39	56
90°	0	0	0	0	0	



TEST NUMBER: P557943

CATALOG NUMBER: FUSL-12-4-LD4-3LO-30-UNV-80-87-EDD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3109.1	3109.1	3109.1	3109.1	3109.1
2.5°	3117.4	3118.6	3111.4	3092.3	3080.4
5°	3105.5	3104.3	3092.3	3075.6	3066.1
7.5°	3070.8	3073.2	3069.6	3045.8	3032.6
10°	3037.4	3038.6	3029.0	3009.9	2994.4
12.5°	2994.4	2993.2	2980.1	2970.5	2945.4
15°	2926.3	2933.5	2926.3	2913.2	2892.9
17.5°	2860.6	2860.6	2865.4	2842.7	2827.2
20°	2786.6	2790.1	2790.1	2772.2	2754.3
22.5°	2700.6	2711.3	2714.9	2695.8	2674.3
25°	2599.0	2619.3	2631.3	2612.2	2589.5
27.5°	2476.0	2507.1	2542.9	2528.6	2503.5
30°	2338.7	2384.0	2443.8	2431.8	2413.9
32.5°	2208.5	2253.9	2336.3	2331.5	2321.9
35°	2090.2	2118.9	2215.6	2227.6	2219.2
37.5°	1977.9	2004.2	2095.0	2122.5	2115.3
40°	1859.7	1888.4	1960.0	2009.0	2011.4
42.5°	1742.6	1770.1	1828.6	1899.1	1899.1
45°	1618.4	1645.9	1699.6	1777.3	1786.8
47.5°	1496.6	1525.3	1577.8	1655.5	1671.0
50°	1377.2	1403.4	1456.0	1531.2	1555.1
52.5°	1252.9	1281.6	1333.0	1402.2	1436.9
55°	1133.5	1152.6	1208.7	1275.6	1312.7
57.5°	1009.3	1027.2	1090.5	1147.8	1186.1
60°	889.8	912.5	961.5	1020.0	1064.2
62.5°	775.2	799.1	840.9	892.2	942.4
65°	664.1	682.0	722.6	774.0	818.2
67.5°	556.6	572.1	612.7	648.6	695.1
70°	447.9	468.2	498.1	532.7	562.6
72.5°	360.7	369.1	394.2	419.2	450.3
75°	266.4	280.7	301.0	315.3	333.2
77.5°	191.1	199.5	211.4	223.4	240.1
80°	127.8	131.4	142.1	144.5	157.7
82.5°	77.6	80.0	82.4	83.6	88.4
85°	41.8	41.8	41.8	39.4	39.4
87.5°	23.9	23.9	20.3	16.7	11.9
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)