

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: P558131

Luminaire Tested: **FUSL-12-4-LD4-3LO-50-UNV-80-85-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: P558131  
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-50-UNV-80-85-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

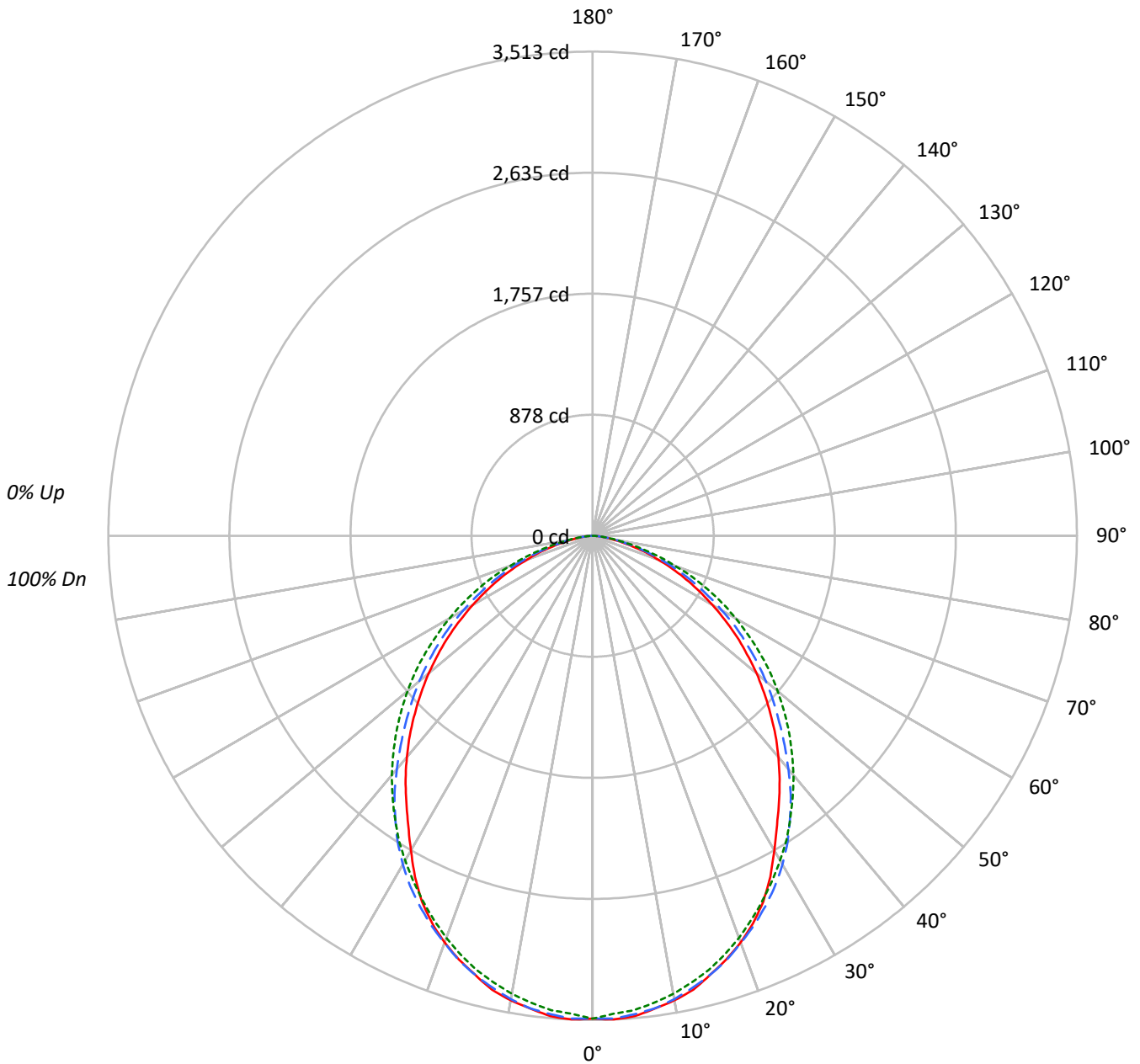
Lumens per Lamp: N/A  
Luminaire Lumens: 8101.0 lumens  
Efficiency: N/A  
Efficacy: 115.4 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 70.2  
Input Voltage (V): NR  
Input Current (Ain): 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

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CATALOG NUMBER: FUSL-12-4-LD4-3LO-50-UNV-80-85-EDD

### Luminous Intensity Polar Plot





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**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°	9428	9428	9428
5°	9453	9413	9333
10°	9352	9327	9220
15°	9187	9187	9082
20°	8992	9004	8888
25°	8696	8804	8664
30°	8189	8557	8452
35°	7738	8202	8215
40°	7361	7759	7962
45°	6940	7289	7663
50°	6497	6869	7336
55°	5993	6390	6940
60°	5396	5831	6454
65°	4765	5185	5871
70°	3971	4416	4987
75°	3120	3527	3904
80°	2232	2483	2754
85°	1454	1454	1371



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	329.9	4.1
10°-20°	926.7	11.4
20°-30°	1354.2	16.7
30°-40°	1537.2	19.0
40°-50°	1483.9	18.3
50°-60°	1224.1	15.1
60°-70°	815.1	10.1
70°-80°	364.8	4.5
80°-90°	65.3	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°	2610.7	32.2
0°-40°	4147.9	51.2
0°-60°	6855.8	84.6
0°-90°	8101.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8101.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3504	3504	3504	3504	3504	
5°	3499	3498	3485	3466	3455	331
15°	3298	3306	3298	3283	3260	930
25°	2929	2952	2965	2944	2918	1341
35°	2355	2388	2497	2510	2501	1476
45°	1824	1855	1915	2003	2014	1407
55°	1277	1299	1362	1438	1479	1140
65°	748	768	814	872	922	742
75°	300	316	339	355	376	328
85°	47	47	47	44	44	64
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3503.5	3503.5	3503.5	3503.5	3503.5
2.5°	3512.9	3514.2	3506.2	3484.6	3471.2
5°	3499.4	3498.1	3484.6	3465.8	3455.0
7.5°	3460.4	3463.1	3459.1	3432.1	3417.3
10°	3422.7	3424.1	3413.3	3391.8	3374.3
12.5°	3374.3	3372.9	3358.1	3347.3	3319.1
15°	3297.5	3305.6	3297.5	3282.7	3259.9
17.5°	3223.5	3223.5	3228.9	3203.3	3185.8
20°	3140.1	3144.1	3144.1	3123.9	3103.7
22.5°	3043.2	3055.3	3059.3	3037.8	3013.6
25°	2928.8	2951.6	2965.1	2943.6	2918.0
27.5°	2790.1	2825.1	2865.5	2849.3	2821.1
30°	2635.3	2686.5	2753.8	2740.3	2720.1
32.5°	2488.6	2539.8	2632.7	2627.3	2616.5
35°	2355.4	2387.7	2496.7	2510.2	2500.8
37.5°	2228.9	2258.5	2360.8	2391.7	2383.7
40°	2095.6	2127.9	2208.7	2263.9	2266.6
42.5°	1963.7	1994.7	2060.6	2140.0	2140.0
45°	1823.7	1854.7	1915.3	2002.8	2013.5
47.5°	1686.5	1718.8	1778.0	1865.5	1883.0
50°	1551.9	1581.5	1640.7	1725.5	1752.4
52.5°	1411.9	1444.2	1502.1	1580.1	1619.2
55°	1277.3	1298.8	1362.1	1437.5	1479.2
57.5°	1137.3	1157.5	1228.8	1293.4	1336.5
60°	1002.7	1028.3	1083.5	1149.4	1199.2
62.5°	873.5	900.4	947.5	1005.4	1061.9
65°	748.3	768.5	814.3	872.2	922.0
67.5°	627.2	644.7	690.5	730.8	783.3
70°	504.7	527.6	561.3	600.3	633.9
72.5°	406.5	415.9	444.2	472.4	507.4
75°	300.1	316.3	339.2	355.3	375.5
77.5°	215.3	224.8	238.2	251.7	270.5
80°	144.0	148.1	160.2	162.9	177.7
82.5°	87.5	90.2	92.9	94.2	99.6
85°	47.1	47.1	47.1	44.4	44.4
87.5°	26.9	26.9	22.9	18.8	13.5
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)