

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: P557877

Luminaire Tested: **FUSL-12-4-LD4-3HI-50-UNV-80-86-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: P557877  
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-LD4-3HI-50-UNV-80-86-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

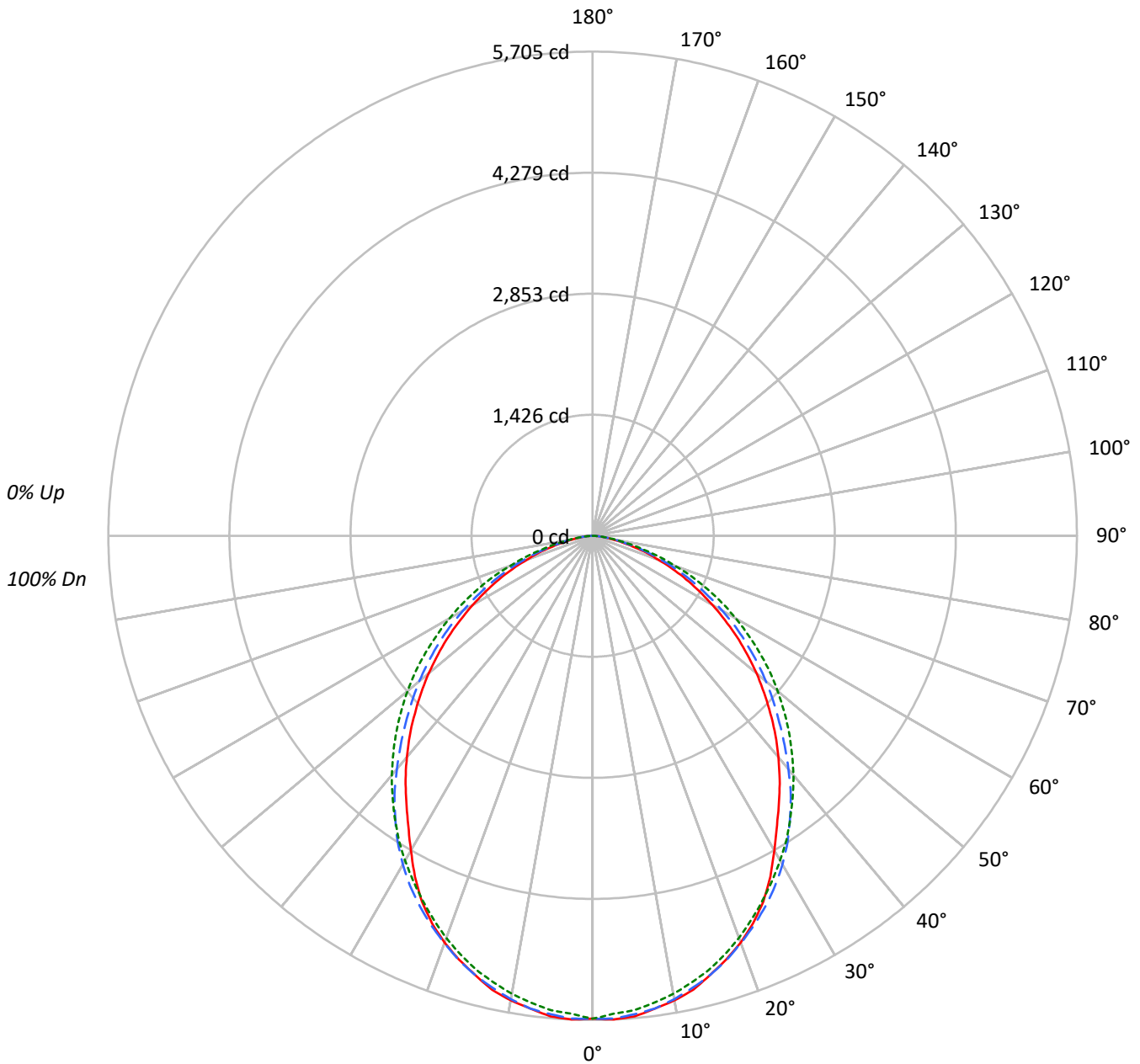
Lumens per Lamp: N/A  
Luminaire Lumens: 13157.0 lumens  
Efficiency: N/A  
Efficacy: 101.5 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 129.6  
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

TEST NUMBER: P557877

CATALOG NUMBER: FUSL-12-4-LD4-3HI-50-UNV-80-86-EDD

### Luminous Intensity Polar Plot





TEST NUMBER: P557877

CATALOG NUMBER: FUSL-12-4-LD4-3HI-50-UNV-80-86-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°	15312	15312	15312
5°	15353	15288	15158
10°	15190	15148	14975
15°	14920	14920	14750
20°	14604	14623	14435
25°	14123	14299	14071
30°	13299	13897	13727
35°	12567	13321	13342
40°	11956	12601	12931
45°	11272	11838	12445
50°	10551	11156	11915
55°	9733	10379	11271
60°	8765	9471	10482
65°	7739	8421	9535
70°	6449	7172	8101
75°	5069	5728	6341
80°	3625	4031	4471
85°	2362	2362	2226



TEST NUMBER: P557877

CATALOG NUMBER: FUSL-12-4-LD4-3HI-50-UNV-80-86-EDD

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	535.7	4.1
10°-20°	1505.0	11.4
20°-30°	2199.4	16.7
30°-40°	2496.5	19.0
40°-50°	2410.0	18.3
50°-60°	1988.1	15.1
60°-70°	1323.9	10.1
70°-80°	592.4	4.5
80°-90°	106.0	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°	4240.1	32.2
0°-40°	6736.6	51.2
0°-60°	11134.7	84.6
0°-90°	13157.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13157.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5690	5690	5690	5690	5690	
5°	5684	5681	5660	5629	5611	538
15°	5356	5369	5356	5332	5294	1510
25°	4757	4794	4816	4781	4739	2178
35°	3825	3878	4055	4077	4062	2397
45°	2962	3012	3111	3253	3270	2285
55°	2074	2110	2212	2335	2402	1852
65°	1215	1248	1322	1416	1497	1205
75°	488	514	551	577	610	533
85°	76	76	76	72	72	103
90°	0	0	0	0	0	



TEST NUMBER: P557877

CATALOG NUMBER: FUSL-12-4-LD4-3HI-50-UNV-80-86-EDD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5690.1	5690.1	5690.1	5690.1	5690.1
2.5°	5705.4	5707.6	5694.4	5659.5	5637.6
5°	5683.5	5681.3	5659.5	5628.9	5611.4
7.5°	5620.1	5624.5	5617.9	5574.2	5550.2
10°	5558.9	5561.1	5543.6	5508.6	5480.2
12.5°	5480.2	5478.0	5454.0	5436.5	5390.6
15°	5355.6	5368.7	5355.6	5331.6	5294.4
17.5°	5235.4	5235.4	5244.1	5202.6	5174.2
20°	5099.9	5106.4	5106.4	5073.6	5040.8
22.5°	4942.5	4962.1	4968.7	4933.7	4894.4
25°	4756.7	4793.8	4815.7	4780.7	4739.2
27.5°	4531.5	4588.3	4653.9	4627.7	4581.8
30°	4280.1	4363.2	4472.5	4450.6	4417.8
32.5°	4041.8	4124.9	4275.7	4267.0	4249.5
35°	3825.4	3877.9	4055.0	4076.8	4061.5
37.5°	3620.0	3668.0	3834.2	3884.5	3871.3
40°	3403.5	3456.0	3587.2	3676.8	3681.2
42.5°	3189.3	3239.6	3346.7	3475.7	3475.7
45°	2962.0	3012.3	3110.6	3252.7	3270.2
47.5°	2739.0	2791.5	2887.7	3029.7	3058.2
50°	2520.4	2568.5	2664.7	2802.4	2846.1
52.5°	2293.1	2345.5	2439.5	2566.3	2629.7
55°	2074.5	2109.5	2212.2	2334.6	2402.4
57.5°	1847.1	1879.9	1995.8	2100.7	2170.7
60°	1628.5	1670.1	1759.7	1866.8	1947.7
62.5°	1418.7	1462.4	1538.9	1632.9	1724.7
65°	1215.4	1248.2	1322.5	1416.5	1497.4
67.5°	1018.7	1047.1	1121.4	1187.0	1272.2
70°	819.7	856.9	911.5	974.9	1029.6
72.5°	660.2	675.5	721.4	767.3	824.1
75°	487.5	513.7	550.9	577.1	609.9
77.5°	349.8	365.1	386.9	408.8	439.4
80°	233.9	240.5	260.1	264.5	288.5
82.5°	142.1	146.5	150.8	153.0	161.8
85°	76.5	76.5	76.5	72.1	72.1
87.5°	43.7	43.7	37.2	30.6	21.9
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)