

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: P556601

Luminaire Tested: **FUSL-12-4-LD4-1LO-50-UNV-80-88-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: P556601  
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-LD4-1LO-50-UNV-80-88-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

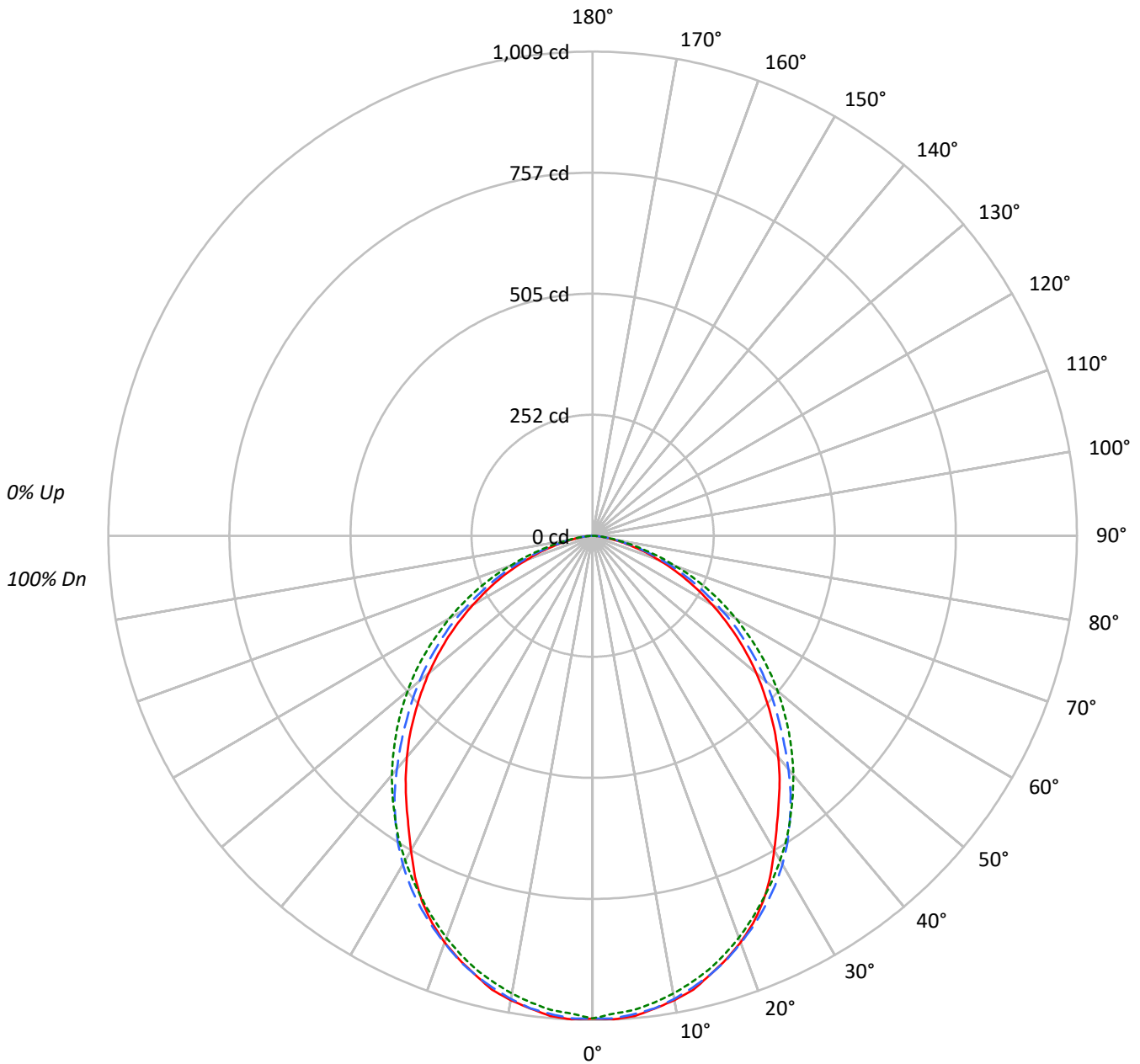
Lumens per Lamp: N/A  
Luminaire Lumens: 2326.0 lumens  
Efficiency: N/A  
Efficacy: 99.4 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 23.4  
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: P556601

CATALOG NUMBER: FUSL-12-4-LD4-1LO-50-UNV-80-88-EDD

### Luminous Intensity Polar Plot





TEST NUMBER: P556601

CATALOG NUMBER: FUSL-12-4-LD4-1LO-50-UNV-80-88-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°	2707	2707	2707
5°	2714	2703	2680
10°	2685	2678	2647
15°	2638	2638	2608
20°	2582	2585	2552
25°	2497	2528	2488
30°	2351	2457	2427
35°	2222	2355	2359
40°	2114	2228	2286
45°	1993	2093	2200
50°	1865	1972	2107
55°	1720	1835	1993
60°	1549	1674	1853
65°	1368	1489	1685
70°	1140	1268	1432
75°	896	1013	1121
80°	642	713	790
85°	417	417	395



TEST NUMBER: P556601

CATALOG NUMBER: FUSL-12-4-LD4-1LO-50-UNV-80-88-EDD

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	94.7	4.1
10°-20°	266.1	11.4
20°-30°	388.8	16.7
30°-40°	441.4	19.0
40°-50°	426.1	18.3
50°-60°	351.5	15.1
60°-70°	234.0	10.1
70°-80°	104.7	4.5
80°-90°	18.7	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°	749.6	32.2
0°-40°	1191.0	51.2
0°-60°	1968.5	84.6
0°-90°	2326.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2326.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1006	1006	1006	1006	1006	
5°	1005	1004	1000	995	992	95
15°	947	949	947	943	936	267
25°	841	848	851	845	838	385
35°	676	686	717	721	718	424
45°	524	532	550	575	578	404
55°	367	373	391	413	425	327
65°	215	221	234	250	265	213
75°	86	91	97	102	108	94
85°	14	14	14	13	13	18
90°	0	0	0	0	0	



TEST NUMBER: P556601

CATALOG NUMBER: FUSL-12-4-LD4-1LO-50-UNV-80-88-EDD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1005.9	1005.9	1005.9	1005.9	1005.9
2.5°	1008.6	1009.0	1006.7	1000.5	996.7
5°	1004.8	1004.4	1000.5	995.1	992.0
7.5°	993.6	994.3	993.2	985.5	981.2
10°	982.7	983.1	980.0	973.9	968.8
12.5°	968.8	968.4	964.2	961.1	953.0
15°	946.8	949.1	946.8	942.6	936.0
17.5°	925.6	925.6	927.1	919.8	914.7
20°	901.6	902.8	902.8	897.0	891.2
22.5°	873.8	877.2	878.4	872.2	865.3
25°	840.9	847.5	851.4	845.2	837.8
27.5°	801.1	811.2	822.8	818.1	810.0
30°	756.7	771.4	790.7	786.8	781.0
32.5°	714.6	729.2	755.9	754.4	751.3
35°	676.3	685.6	716.9	720.7	718.0
37.5°	640.0	648.5	677.8	686.7	684.4
40°	601.7	611.0	634.2	650.0	650.8
42.5°	563.8	572.7	591.7	614.5	614.5
45°	523.6	532.5	549.9	575.0	578.1
47.5°	484.2	493.5	510.5	535.6	540.6
50°	445.6	454.1	471.1	495.4	503.2
52.5°	405.4	414.7	431.3	453.7	464.9
55°	366.7	372.9	391.1	412.7	424.7
57.5°	326.6	332.3	352.8	371.4	383.7
60°	287.9	295.2	311.1	330.0	344.3
62.5°	250.8	258.5	272.1	288.7	304.9
65°	214.9	220.7	233.8	250.4	264.7
67.5°	180.1	185.1	198.2	209.8	224.9
70°	144.9	151.5	161.2	172.4	182.0
72.5°	116.7	119.4	127.5	135.6	145.7
75°	86.2	90.8	97.4	102.0	107.8
77.5°	61.8	64.5	68.4	72.3	77.7
80°	41.4	42.5	46.0	46.8	51.0
82.5°	25.1	25.9	26.7	27.1	28.6
85°	13.5	13.5	13.5	12.8	12.8
87.5°	7.7	7.7	6.6	5.4	3.9
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)