

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: P556508

Luminaire Tested: **FUSL-12-4-LD4-1LO-35-UNV-82-96-EDD-90**

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: P556508  
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-35-UNV-82-96-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDES  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

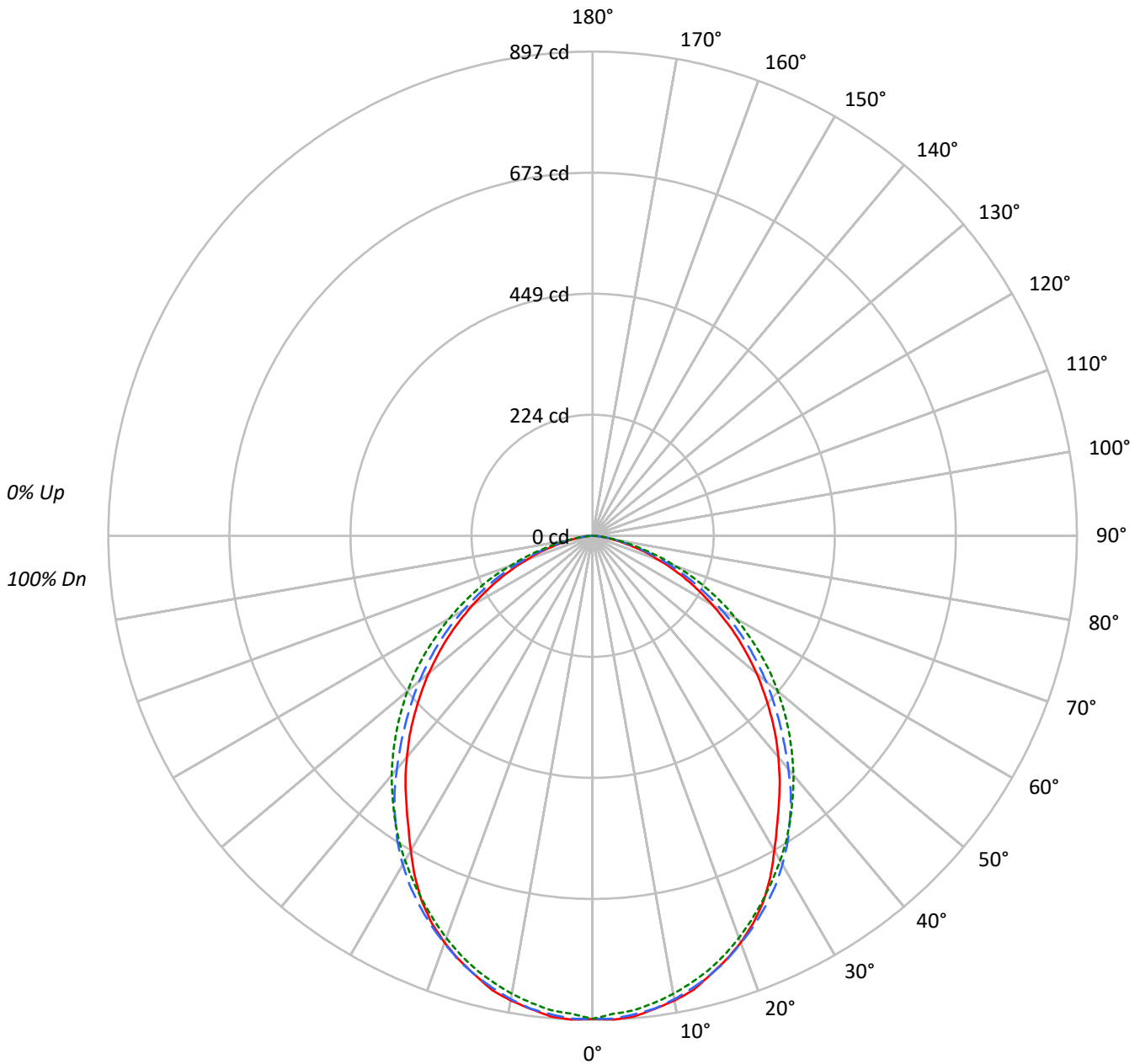
Lumens per Lamp: N/A  
Luminaire Lumens: 2069.0 lumens  
Efficiency: N/A  
Efficacy: 88.4 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 23.4  
Input Voltage (V): NR  
Input Current (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: P556508

CATALOG NUMBER: FUSL-12-4-LD4-1LO-35-UNV-82-96-EDD-90

### Luminous Intensity Polar Plot





TEST NUMBER: P556508

CATALOG NUMBER: FUSL-12-4-LD4-1LO-35-UNV-82-96-EDD-90

**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°	2408	2408	2408
5°	2414	2404	2384
10°	2389	2382	2355
15°	2346	2346	2320
20°	2297	2300	2270
25°	2221	2249	2213
30°	2092	2185	2159
35°	1976	2095	2098
40°	1880	1982	2034
45°	1773	1862	1957
50°	1659	1754	1874
55°	1530	1632	1772
60°	1378	1489	1648
65°	1217	1324	1500
70°	1014	1127	1274
75°	797	900	997
80°	570	634	704
85°	371	371	349



TEST NUMBER: P556508

CATALOG NUMBER: FUSL-12-4-LD4-1LO-35-UNV-82-96-EDD-90

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	84.2	4.1
10°-20°	236.7	11.4
20°-30°	345.9	16.7
30°-40°	392.6	19.0
40°-50°	379.0	18.3
50°-60°	312.6	15.1
60°-70°	208.2	10.1
70°-80°	93.2	4.5
80°-90°	16.7	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°	666.8	32.2
0°-40°	1059.4	51.2
0°-60°	1751.0	84.6
0°-90°	2069.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2069.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	895	895	895	895	895	
5°	894	893	890	885	882	85
15°	842	844	842	838	833	237
25°	748	754	757	752	745	343
35°	602	610	638	641	639	377
45°	466	474	489	512	514	359
55°	326	332	348	367	378	291
65°	191	196	208	223	236	190
75°	77	81	87	91	96	84
85°	12	12	12	11	11	16
90°	0	0	0	0	0	



TEST NUMBER: P556508

CATALOG NUMBER: FUSL-12-4-LD4-1LO-35-UNV-82-96-EDD-90

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	894.8	894.8	894.8	894.8	894.8
2.5°	897.2	897.5	895.5	890.0	886.5
5°	893.8	893.4	890.0	885.2	882.4
7.5°	883.8	884.5	883.4	876.6	872.8
10°	874.2	874.5	871.8	866.3	861.8
12.5°	861.8	861.4	857.7	854.9	847.7
15°	842.2	844.3	842.2	838.4	832.6
17.5°	823.3	823.3	824.7	818.1	813.7
20°	802.0	803.0	803.0	797.9	792.7
22.5°	777.2	780.3	781.4	775.9	769.7
25°	748.0	753.9	757.3	751.8	745.3
27.5°	712.6	721.5	731.9	727.7	720.5
30°	673.1	686.1	703.3	699.9	694.7
32.5°	635.6	648.7	672.4	671.0	668.3
35°	601.6	609.8	637.7	641.1	638.7
37.5°	569.3	576.8	602.9	610.8	608.8
40°	535.2	543.5	564.1	578.2	578.9
42.5°	501.5	509.4	526.3	546.6	546.6
45°	465.8	473.7	489.2	511.5	514.3
47.5°	430.7	439.0	454.1	476.4	480.9
50°	396.3	403.9	419.0	440.7	447.6
52.5°	360.6	368.8	383.6	403.6	413.5
55°	326.2	331.7	347.9	367.1	377.8
57.5°	290.5	295.6	313.8	330.3	341.3
60°	256.1	262.6	276.7	293.6	306.3
62.5°	223.1	230.0	242.0	256.8	271.2
65°	191.1	196.3	208.0	222.8	235.5
67.5°	160.2	164.7	176.3	186.7	200.1
70°	128.9	134.8	143.3	153.3	161.9
72.5°	103.8	106.2	113.4	120.7	129.6
75°	76.7	80.8	86.6	90.8	95.9
77.5°	55.0	57.4	60.8	64.3	69.1
80°	36.8	37.8	40.9	41.6	45.4
82.5°	22.3	23.0	23.7	24.1	25.4
85°	12.0	12.0	12.0	11.3	11.3
87.5°	6.9	6.9	5.8	4.8	3.4
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)