

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: P556338

Luminaire Tested: **FUSL-12-4-LD4-1HI-50-UNV-80-85-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: P556338  
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-LD4-1HI-50-UNV-80-85-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

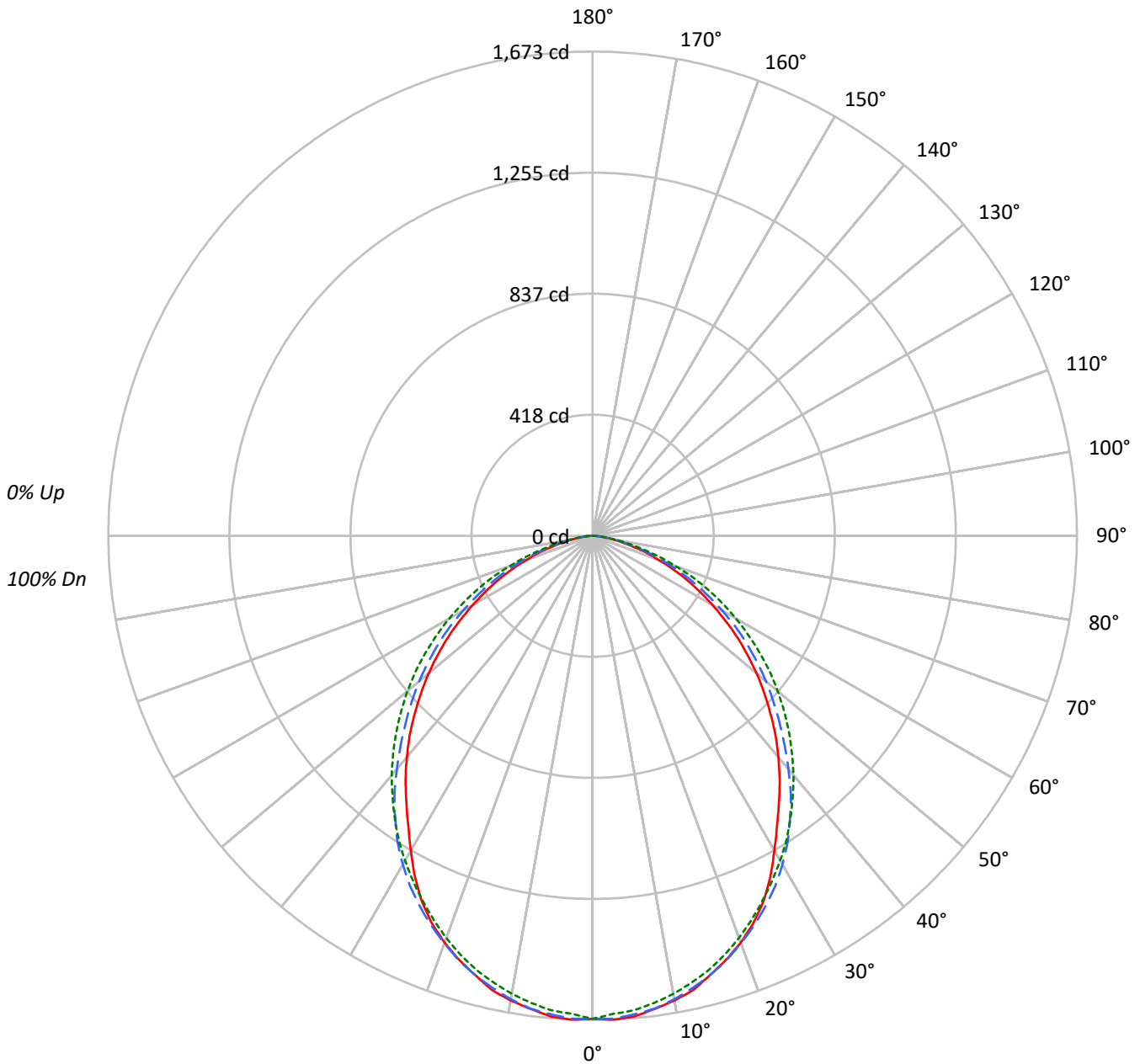
Lumens per Lamp: N/A  
Luminaire Lumens: 3859.0 lumens  
Efficiency: N/A  
Efficacy: 89.3 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 43.2  
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

TEST NUMBER: P556338

CATALOG NUMBER: FUSL-12-4-LD4-1HI-50-UNV-80-85-EDD-90

### Luminous Intensity Polar Plot





TEST NUMBER: P556338

CATALOG NUMBER: FUSL-12-4-LD4-1HI-50-UNV-80-85-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°	4491	4491	4491
5°	4503	4484	4446
10°	4455	4443	4392
15°	4376	4376	4326
20°	4283	4289	4234
25°	4142	4194	4127
30°	3901	4076	4026
35°	3686	3907	3914
40°	3507	3696	3793
45°	3306	3472	3650
50°	3095	3272	3495
55°	2855	3044	3306
60°	2571	2778	3075
65°	2270	2470	2797
70°	1891	2104	2376
75°	1487	1680	1860
80°	1063	1182	1311
85°	692	692	655



TEST NUMBER: P556338

CATALOG NUMBER: FUSL-12-4-LD4-1HI-50-UNV-80-85-EDD-90

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	157.1	4.1
10°-20°	441.4	11.4
20°-30°	645.1	16.7
30°-40°	732.2	19.0
40°-50°	706.9	18.3
50°-60°	583.1	15.1
60°-70°	388.3	10.1
70°-80°	173.8	4.5
80°-90°	31.1	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°	1243.6	32.2
0°-40°	1975.9	51.2
0°-60°	3265.9	84.6
0°-90°	3859.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3859.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1669	1669	1669	1669	1669	
5°	1667	1666	1660	1651	1646	158
15°	1571	1575	1571	1564	1553	443
25°	1395	1406	1412	1402	1390	639
35°	1122	1137	1189	1196	1191	703
45°	869	884	912	954	959	670
55°	608	619	649	685	705	543
65°	356	366	388	416	439	353
75°	143	151	162	169	179	156
85°	22	22	22	21	21	30
90°	0	0	0	0	0	



TEST NUMBER: P556338

CATALOG NUMBER: FUSL-12-4-LD4-1HI-50-UNV-80-85-EDD-90

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1668.9	1668.9	1668.9	1668.9	1668.9
2.5°	1673.4	1674.0	1670.2	1659.9	1653.5
5°	1667.0	1666.4	1659.9	1651.0	1645.8
7.5°	1648.4	1649.7	1647.8	1634.9	1627.9
10°	1630.4	1631.1	1626.0	1615.7	1607.4
12.5°	1607.4	1606.7	1599.7	1594.5	1581.1
15°	1570.8	1574.7	1570.8	1563.8	1552.9
17.5°	1535.6	1535.6	1538.1	1525.9	1517.6
20°	1495.8	1497.7	1497.7	1488.1	1478.5
22.5°	1449.6	1455.4	1457.3	1447.1	1435.5
25°	1395.1	1406.0	1412.5	1402.2	1390.0
27.5°	1329.1	1345.8	1365.0	1357.3	1343.9
30°	1255.4	1279.7	1311.8	1305.4	1295.8
32.5°	1185.5	1209.9	1254.1	1251.5	1246.4
35°	1122.0	1137.4	1189.3	1195.7	1191.3
37.5°	1061.7	1075.9	1124.6	1139.3	1135.5
40°	998.3	1013.7	1052.1	1078.4	1079.7
42.5°	935.4	950.2	981.6	1019.4	1019.4
45°	868.8	883.5	912.4	954.0	959.2
47.5°	803.4	818.8	847.0	888.6	897.0
50°	739.2	753.4	781.6	822.0	834.8
52.5°	672.6	688.0	715.5	752.7	771.3
55°	608.5	618.7	648.8	684.8	704.6
57.5°	541.8	551.4	585.4	616.1	636.7
60°	477.7	489.8	516.1	547.5	571.3
62.5°	416.1	428.9	451.4	478.9	505.9
65°	356.5	366.1	387.9	415.5	439.2
67.5°	298.8	307.1	328.9	348.1	373.2
70°	240.4	251.3	267.4	286.0	302.0
72.5°	193.6	198.1	211.6	225.0	241.7
75°	143.0	150.7	161.6	169.3	178.9
77.5°	102.6	107.1	113.5	119.9	128.9
80°	68.6	70.5	76.3	77.6	84.6
82.5°	41.7	43.0	44.2	44.9	47.4
85°	22.4	22.4	22.4	21.2	21.2
87.5°	12.8	12.8	10.9	9.0	6.4
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)