

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: P556597

Luminaire Tested: **FUSL-12-4-LD4-1LO-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: P556597  
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-80-86-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**

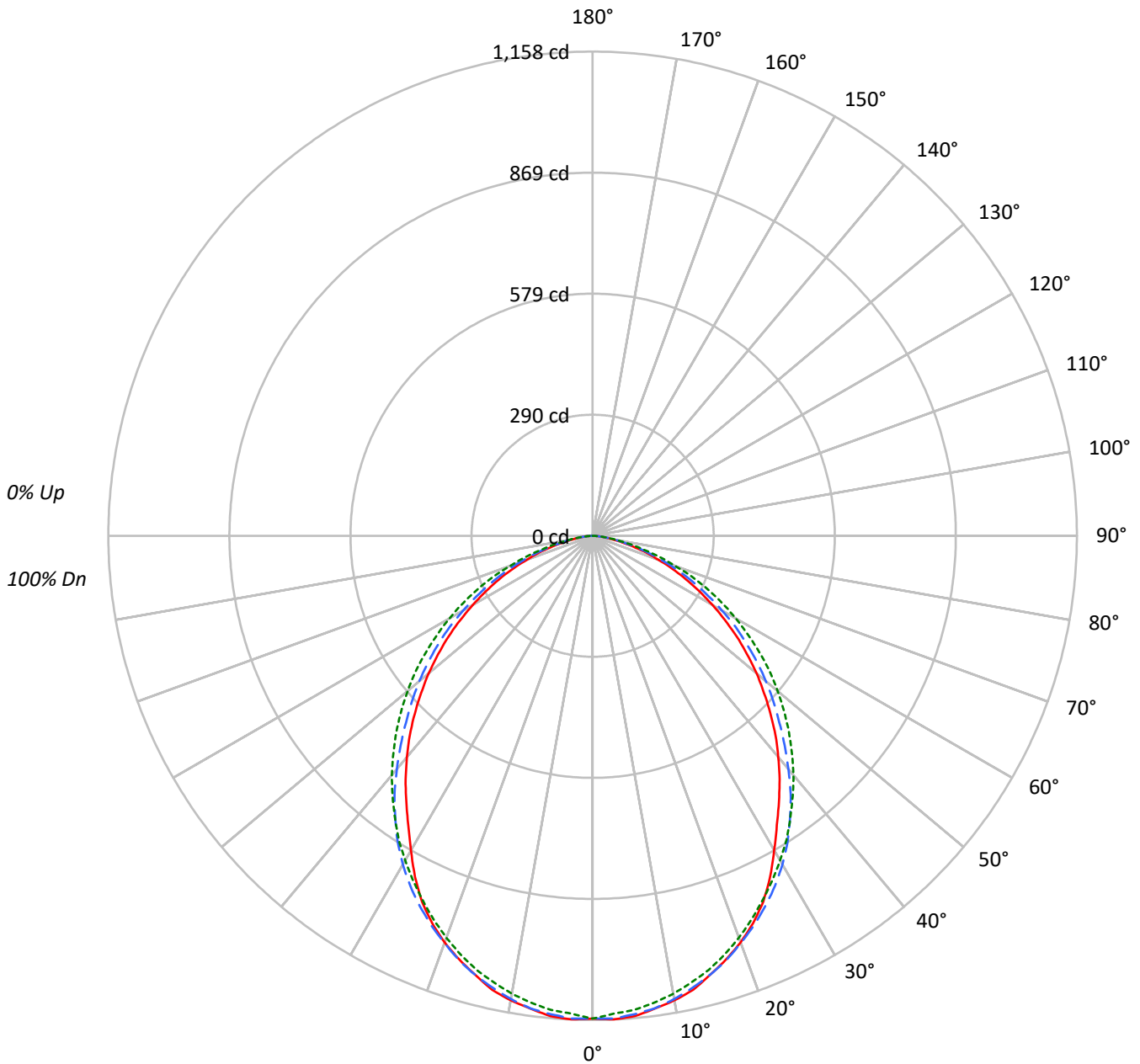
Lumens per Lamp: N/A  
Luminaire Lumens: 2670.0 lumens  
Efficiency: N/A  
Efficacy: 114.1 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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: P556597

CATALOG NUMBER: FUSL-12-4-LD4-1LO-50-UNV-80-86-EDD

### Luminous Intensity Polar Plot





TEST NUMBER: P556597

CATALOG NUMBER: FUSL-12-4-LD4-1LO-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°	3107	3107	3107
5°	3116	3102	3076
10°	3083	3074	3039
15°	3028	3028	2993
20°	2964	2968	2930
25°	2866	2902	2855
30°	2699	2820	2786
35°	2550	2703	2708
40°	2426	2557	2624
45°	2288	2402	2525
50°	2141	2264	2418
55°	1975	2106	2287
60°	1779	1922	2127
65°	1570	1709	1935
70°	1309	1456	1644
75°	1028	1162	1287
80°	736	818	908
85°	479	479	451



TEST NUMBER: P556597

CATALOG NUMBER: FUSL-12-4-LD4-1LO-50-UNV-80-86-EDD

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	108.7	4.1
10°-20°	305.4	11.4
20°-30°	446.3	16.7
30°-40°	506.6	19.0
40°-50°	489.1	18.3
50°-60°	403.4	15.1
60°-70°	268.7	10.1
70°-80°	120.2	4.5
80°-90°	21.5	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°	860.5	32.2
0°-40°	1367.1	51.2
0°-60°	2259.6	84.6
0°-90°	2670.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2670.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1155	1155	1155	1155	1155	
5°	1153	1153	1148	1142	1139	109
15°	1087	1090	1087	1082	1074	306
25°	965	973	977	970	962	442
35°	776	787	823	827	824	486
45°	601	611	631	660	664	464
55°	421	428	449	474	488	376
65°	247	253	268	288	304	245
75°	99	104	112	117	124	108
85°	16	16	16	15	15	21
90°	0	0	0	0	0	



TEST NUMBER: P556597

CATALOG NUMBER: FUSL-12-4-LD4-1LO-50-UNV-80-86-EDD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1154.7	1154.7	1154.7	1154.7	1154.7
2.5°	1157.8	1158.3	1155.6	1148.5	1144.1
5°	1153.4	1152.9	1148.5	1142.3	1138.7
7.5°	1140.5	1141.4	1140.1	1131.2	1126.3
10°	1128.1	1128.5	1125.0	1117.9	1112.1
12.5°	1112.1	1111.7	1106.8	1103.2	1093.9
15°	1086.8	1089.5	1086.8	1082.0	1074.4
17.5°	1062.4	1062.4	1064.2	1055.8	1050.0
20°	1034.9	1036.3	1036.3	1029.6	1023.0
22.5°	1003.0	1007.0	1008.3	1001.2	993.2
25°	965.3	972.8	977.3	970.2	961.7
27.5°	919.6	931.1	944.4	939.1	929.8
30°	868.6	885.4	907.6	903.2	896.5
32.5°	820.2	837.1	867.7	865.9	862.4
35°	776.3	787.0	822.9	827.3	824.2
37.5°	734.6	744.4	778.1	788.3	785.6
40°	690.7	701.3	728.0	746.1	747.0
42.5°	647.2	657.4	679.2	705.3	705.3
45°	601.1	611.3	631.3	660.1	663.6
47.5°	555.8	566.5	586.0	614.8	620.6
50°	511.5	521.2	540.8	568.7	577.6
52.5°	465.3	476.0	495.1	520.8	533.7
55°	421.0	428.1	448.9	473.8	487.5
57.5°	374.8	381.5	405.0	426.3	440.5
60°	330.5	338.9	357.1	378.8	395.3
62.5°	287.9	296.8	312.3	331.4	350.0
65°	246.6	253.3	268.4	287.5	303.9
67.5°	206.7	212.5	227.6	240.9	258.2
70°	166.4	173.9	185.0	197.8	208.9
72.5°	134.0	137.1	146.4	155.7	167.2
75°	98.9	104.2	111.8	117.1	123.8
77.5°	71.0	74.1	78.5	83.0	89.2
80°	47.5	48.8	52.8	53.7	58.6
82.5°	28.8	29.7	30.6	31.1	32.8
85°	15.5	15.5	15.5	14.6	14.6
87.5°	8.9	8.9	7.5	6.2	4.4
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)