

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: P556691

Luminaire Tested: **FUSL-12-4-LD4-1STD-30-UNV-82-85-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: P556691
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-LD4-1STD-30-UNV-82-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

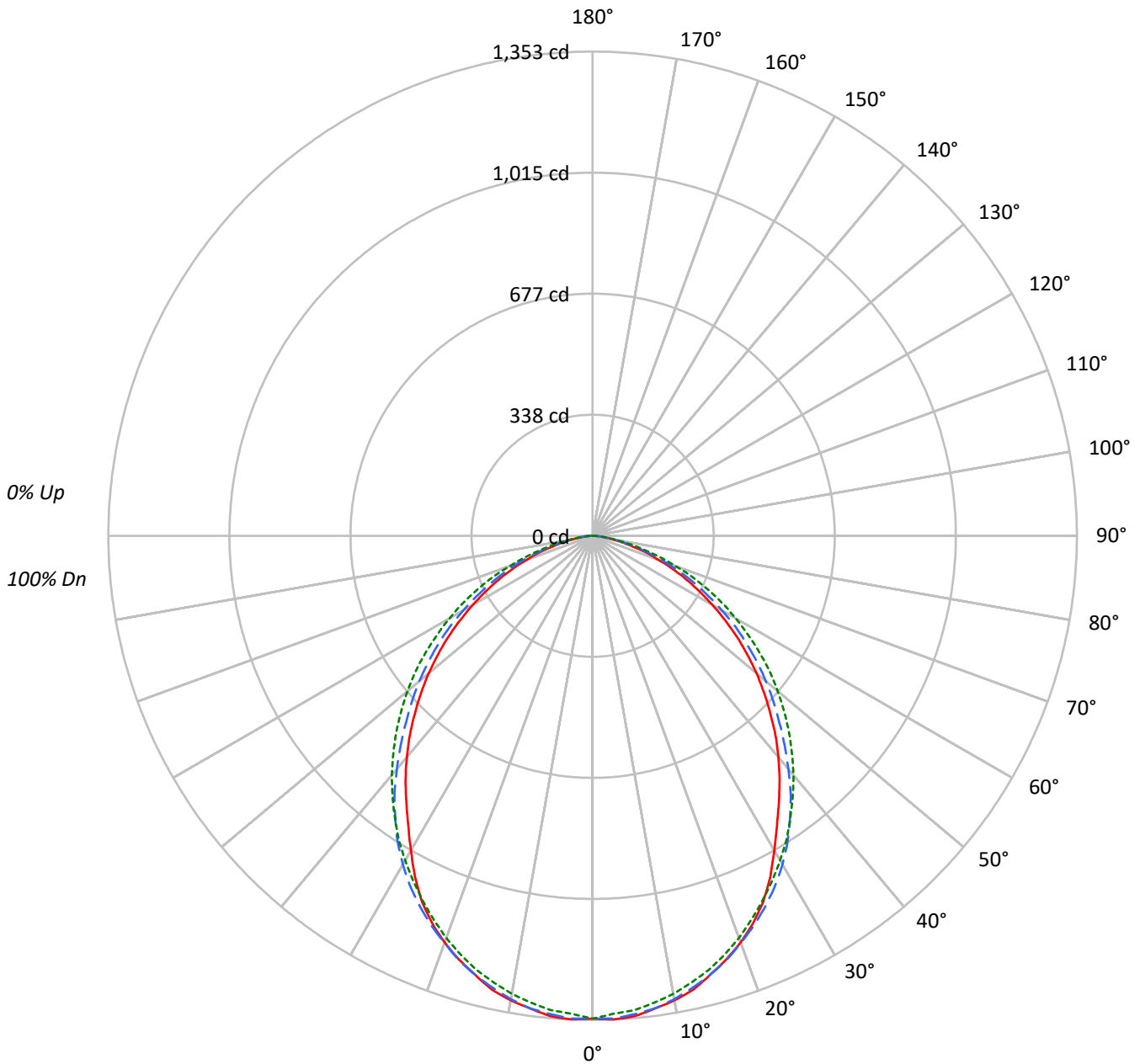
Lumens per Lamp: N/A
Luminaire Lumens: 3120.0 lumens
Efficiency: N/A
Efficacy: 93.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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: P556691

CATALOG NUMBER: FUSL-12-4-LD4-1STD-30-UNV-82-85-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P556691

CATALOG NUMBER: FUSL-12-4-LD4-1STD-30-UNV-82-85-EDD

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				20	
RC	80				70				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				100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86				86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73				73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63				63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54				54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47				47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42				42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37				37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34				34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30				30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28				28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3631	3631	3631
5°	3641	3625	3595
10°	3602	3592	3551
15°	3538	3538	3498
20°	3463	3468	3423
25°	3349	3391	3337
30°	3154	3296	3255
35°	2980	3159	3164
40°	2835	2988	3066
45°	2673	2807	2951
50°	2502	2645	2825
55°	2308	2461	2673
60°	2079	2246	2486
65°	1835	1997	2261
70°	1530	1701	1921
75°	1202	1358	1503
80°	860	956	1060
85°	559	559	528



TEST NUMBER: P556691

CATALOG NUMBER: FUSL-12-4-LD4-1STD-30-UNV-82-85-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.0	4.1
10°-20°	356.9	11.4
20°-30°	521.6	16.7
30°-40°	592.0	19.0
40°-50°	571.5	18.3
50°-60°	471.4	15.1
60°-70°	313.9	10.1
70°-80°	140.5	4.5
80°-90°	25.1	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°	1005.5	32.2
0°-40°	1597.5	51.2
0°-60°	2640.4	84.6
0°-90°	3120.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3120.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1349	1349	1349	1349	1349	
5°	1348	1347	1342	1335	1331	128
15°	1270	1273	1270	1264	1256	358
25°	1128	1137	1142	1134	1124	517
35°	907	920	962	967	963	568
45°	702	714	738	771	776	542
55°	492	500	525	554	570	439
65°	288	296	314	336	355	286
75°	116	122	131	137	145	126
85°	18	18	18	17	17	24
90°	0	0	0	0	0	



TEST NUMBER: P556691

CATALOG NUMBER: FUSL-12-4-LD4-1STD-30-UNV-82-85-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1349.3	<i>1349.3</i>	1349.3	1349.3	1349.3
2.5°	<i>1352.9</i>	<i>1353.5</i>	<i>1350.4</i>	<i>1342.1</i>	<i>1336.9</i>
5°	1347.8	<i>1347.2</i>	1342.1	1334.8	1330.7
7.5°	1332.7	<i>1333.8</i>	1332.2	1321.8	1316.1
10°	1318.2	<i>1318.7</i>	1314.6	1306.3	1299.6
12.5°	1299.6	<i>1299.0</i>	1293.3	1289.2	1278.3
15°	1270.0	<i>1273.1</i>	1270.0	1264.3	1255.5
17.5°	1241.5	<i>1241.5</i>	1243.6	1233.7	1227.0
20°	1209.4	<i>1210.9</i>	1210.9	1203.1	1195.4
22.5°	1172.0	<i>1176.7</i>	1178.3	1170.0	1160.6
25°	1128.0	<i>1136.8</i>	1142.0	1133.7	1123.8
27.5°	1074.6	<i>1088.1</i>	1103.6	1097.4	1086.5
30°	1015.0	<i>1034.7</i>	1060.6	1055.4	1047.6
32.5°	958.5	<i>978.2</i>	1013.9	1011.9	1007.7
35°	907.1	<i>919.6</i>	961.6	966.8	963.1
37.5°	858.4	<i>869.8</i>	909.2	921.1	918.0
40°	807.1	<i>819.5</i>	850.6	871.9	872.9
42.5°	756.3	<i>768.2</i>	793.6	824.2	824.2
45°	702.4	<i>714.3</i>	737.6	771.3	775.5
47.5°	649.5	<i>662.0</i>	684.8	718.5	725.2
50°	597.7	<i>609.1</i>	631.9	664.6	674.9
52.5°	543.8	<i>556.2</i>	578.5	608.6	623.6
55°	491.9	<i>500.2</i>	524.6	553.6	569.7
57.5°	438.0	<i>445.8</i>	473.3	498.2	514.7
60°	386.2	<i>396.0</i>	417.3	442.7	461.9
62.5°	336.4	<i>346.8</i>	364.9	387.2	409.0
65°	288.2	<i>296.0</i>	313.6	335.9	355.1
67.5°	241.6	<i>248.3</i>	265.9	281.5	301.7
70°	194.4	<i>203.2</i>	216.2	231.2	244.2
72.5°	156.5	<i>160.2</i>	171.1	181.9	195.4
75°	115.6	<i>121.8</i>	130.6	136.8	144.6
77.5°	82.9	<i>86.6</i>	91.8	96.9	104.2
80°	55.5	<i>57.0</i>	61.7	62.7	68.4
82.5°	33.7	<i>34.7</i>	35.8	36.3	38.4
85°	18.1	<i>18.1</i>	18.1	17.1	17.1
87.5°	10.4	<i>10.4</i>	8.8	7.3	5.2
90°	0.0	<i>0.0</i>	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)