

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: P556357

Luminaire Tested: **FUSL-12-4-LD4-1HI-50-UNV-81-86-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: P556357
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-81-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC 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

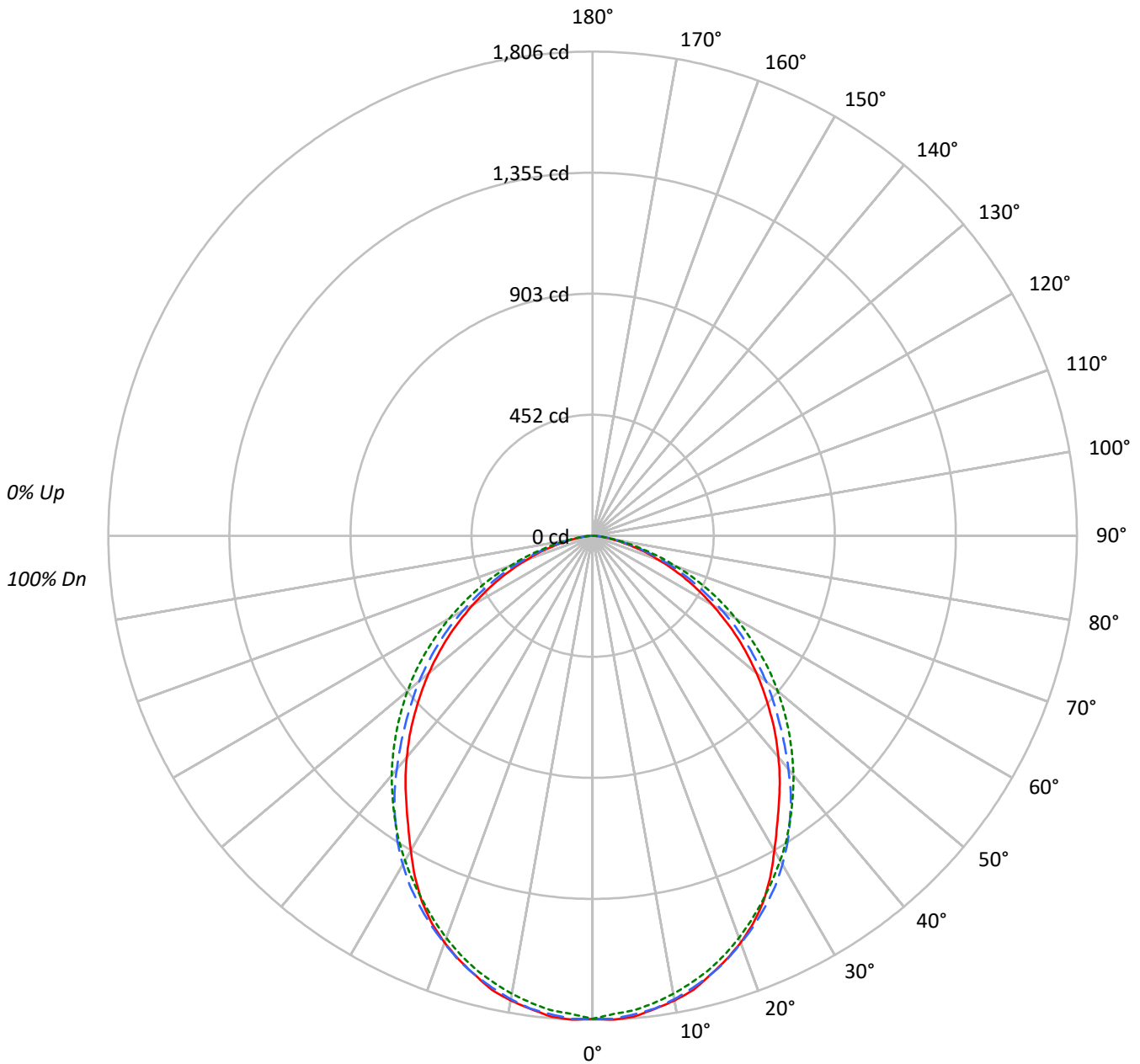
Lumens per Lamp: N/A
Luminaire Lumens: 4166.0 lumens
Efficiency: N/A
Efficacy: 96.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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: P556357

CATALOG NUMBER: FUSL-12-4-LD4-1HI-50-UNV-81-86-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P556357

CATALOG NUMBER: FUSL-12-4-LD4-1HI-50-UNV-81-86-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°	4848	4848	4848
5°	4861	4841	4800
10°	4810	4796	4741
15°	4724	4724	4670
20°	4624	4630	4571
25°	4472	4527	4456
30°	4211	4401	4347
35°	3979	4218	4225
40°	3786	3990	4095
45°	3569	3748	3941
50°	3341	3532	3773
55°	3082	3286	3569
60°	2775	2999	3319
65°	2450	2667	3019
70°	2043	2271	2565
75°	1605	1813	2008
80°	1148	1277	1416
85°	747	747	704



TEST NUMBER: P556357

CATALOG NUMBER: FUSL-12-4-LD4-1HI-50-UNV-81-86-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	169.6	4.1
10°-20°	476.5	11.4
20°-30°	696.4	16.7
30°-40°	790.5	19.0
40°-50°	763.1	18.3
50°-60°	629.5	15.1
60°-70°	419.2	10.1
70°-80°	187.6	4.5
80°-90°	33.6	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°	1342.6	32.2
0°-40°	2133.1	51.2
0°-60°	3525.7	84.6
0°-90°	4166.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4166.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1802	1802	1802	1802	1802	
5°	1800	1799	1792	1782	1777	170
15°	1696	1700	1696	1688	1676	478
25°	1506	1518	1525	1514	1501	690
35°	1211	1228	1284	1291	1286	759
45°	938	954	985	1030	1036	724
55°	657	668	700	739	761	586
65°	385	395	419	448	474	382
75°	154	163	174	183	193	169
85°	24	24	24	23	23	33
90°	0	0	0	0	0	



TEST NUMBER: P556357

CATALOG NUMBER: FUSL-12-4-LD4-1HI-50-UNV-81-86-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1801.7	1801.7	1801.7	1801.7	1801.7
2.5°	1806.5	1807.2	1803.1	1792.0	1785.1
5°	1799.6	1798.9	1792.0	1782.3	1776.8
7.5°	1779.5	1780.9	1778.8	1765.0	1757.4
10°	1760.2	1760.9	1755.3	1744.2	1735.2
12.5°	1735.2	1734.5	1726.9	1721.4	1706.9
15°	1695.8	1699.9	1695.8	1688.2	1676.4
17.5°	1657.7	1657.7	1660.5	1647.3	1638.3
20°	1614.8	1616.9	1616.9	1606.5	1596.1
22.5°	1565.0	1571.2	1573.3	1562.2	1549.7
25°	1506.1	1517.9	1524.8	1513.7	1500.6
27.5°	1434.8	1452.8	1473.6	1465.3	1450.8
30°	1355.2	1381.5	1416.2	1409.2	1398.9
32.5°	1279.8	1306.1	1353.9	1351.1	1345.6
35°	1211.3	1227.9	1284.0	1290.9	1286.0
37.5°	1146.2	1161.4	1214.0	1230.0	1225.8
40°	1077.7	1094.3	1135.8	1164.2	1165.6
42.5°	1009.9	1025.8	1059.7	1100.5	1100.5
45°	937.9	953.8	984.9	1029.9	1035.5
47.5°	867.3	883.9	914.3	959.3	968.3
50°	798.1	813.3	843.7	887.3	901.2
52.5°	726.1	742.7	772.4	812.6	832.7
55°	656.9	667.9	700.5	739.2	760.7
57.5°	584.9	595.3	631.9	665.2	687.3
60°	515.7	528.8	557.2	591.1	616.7
62.5°	449.2	463.1	487.3	517.0	546.1
65°	384.8	395.2	418.8	448.5	474.1
67.5°	322.5	331.5	355.1	375.8	402.8
70°	259.6	271.3	288.6	308.7	326.0
72.5°	209.0	213.9	228.4	242.9	260.9
75°	154.4	162.7	174.4	182.7	193.1
77.5°	110.7	115.6	122.5	129.4	139.1
80°	74.1	76.1	82.4	83.8	91.4
82.5°	45.0	46.4	47.8	48.5	51.2
85°	24.2	24.2	24.2	22.8	22.8
87.5°	13.8	13.8	11.8	9.7	6.9
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)