

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: P556199

Luminaire Tested: **FUSL-12-4-LD4-1HI-30-UNV-93-87-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: P556199
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-30-UNV-93-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

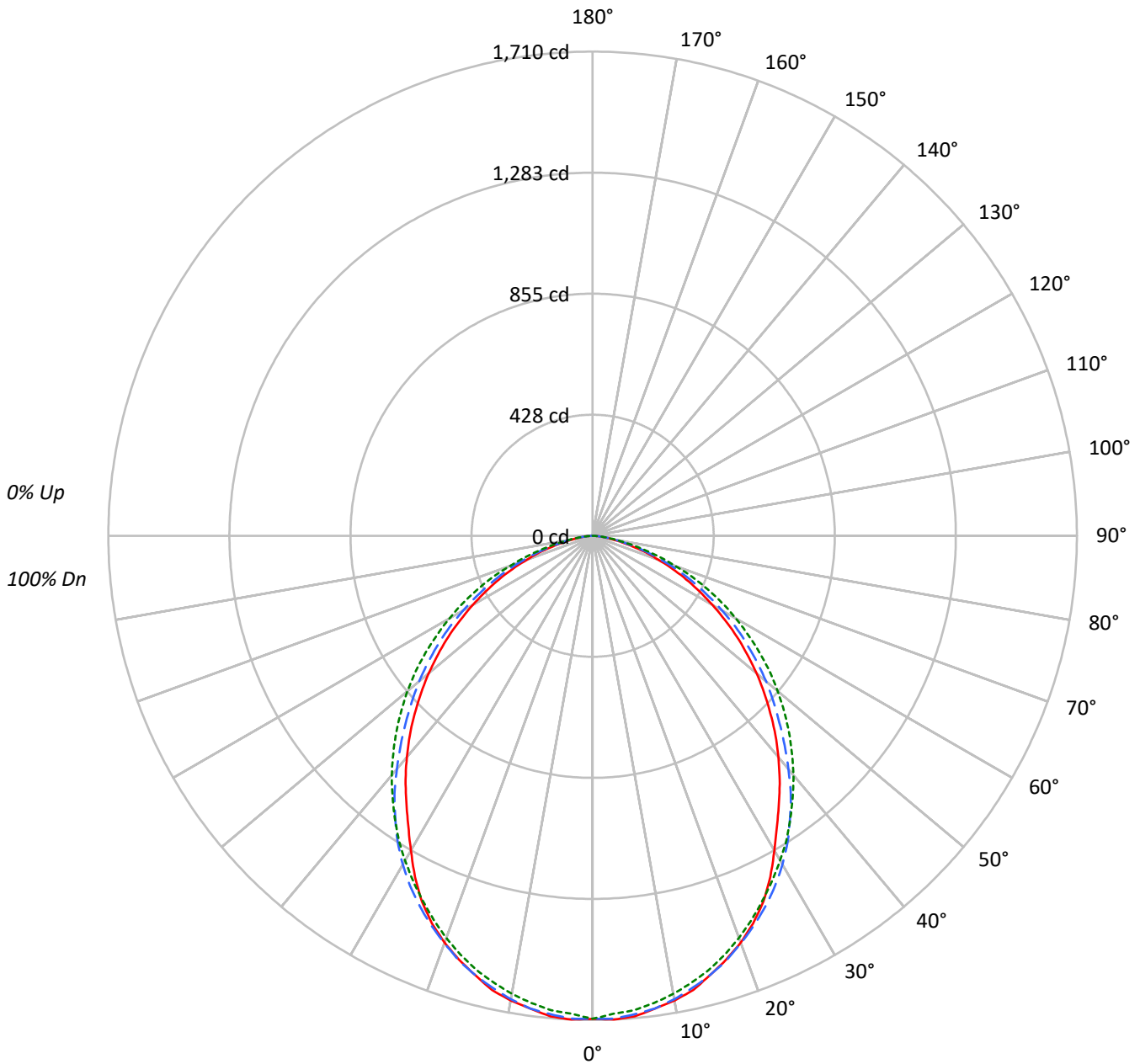
Lumens per Lamp: N/A
Luminaire Lumens: 3944.0 lumens
Efficiency: N/A
Efficacy: 91.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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: P556199

CATALOG NUMBER: FUSL-12-4-LD4-1HI-30-UNV-93-87-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P556199

CATALOG NUMBER: FUSL-12-4-LD4-1HI-30-UNV-93-87-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°	4590	4590	4590
5°	4602	4583	4544
10°	4553	4541	4489
15°	4472	4472	4422
20°	4378	4383	4327
25°	4234	4286	4218
30°	3987	4166	4115
35°	3767	3993	4000
40°	3584	3777	3876
45°	3379	3549	3731
50°	3163	3344	3572
55°	2918	3111	3378
60°	2627	2839	3142
65°	2320	2524	2858
70°	1933	2150	2428
75°	1519	1717	1901
80°	1086	1209	1340
85°	707	707	667



TEST NUMBER: P556199

CATALOG NUMBER: FUSL-12-4-LD4-1HI-30-UNV-93-87-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.6	4.1
10°-20°	451.2	11.4
20°-30°	659.3	16.7
30°-40°	748.4	19.0
40°-50°	722.4	18.3
50°-60°	595.9	15.1
60°-70°	396.9	10.1
70°-80°	177.6	4.5
80°-90°	31.8	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°	1271.0	32.2
0°-40°	2019.4	51.2
0°-60°	3337.8	84.6
0°-90°	3944.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3944.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1706	1706	1706	1706	1706	
5°	1704	1703	1696	1687	1682	161
15°	1605	1609	1605	1598	1587	453
25°	1426	1437	1444	1433	1421	653
35°	1147	1162	1216	1222	1218	718
45°	888	903	932	975	980	685
55°	622	632	663	700	720	555
65°	364	374	396	425	449	361
75°	146	154	165	173	183	160
85°	23	23	23	22	22	31
90°	0	0	0	0	0	



TEST NUMBER: P556199

CATALOG NUMBER: FUSL-12-4-LD4-1HI-30-UNV-93-87-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1705.7	1705.7	1705.7	1705.7	1705.7
2.5°	1710.3	1710.9	1707.0	1696.5	1690.0
5°	1703.7	1703.1	1696.5	1687.3	1682.1
7.5°	1684.7	1686.0	1684.1	1670.9	1663.7
10°	1666.4	1667.0	1661.8	1651.3	1642.8
12.5°	1642.8	1642.1	1634.9	1629.7	1615.9
15°	1605.4	1609.4	1605.4	1598.2	1587.1
17.5°	1569.4	1569.4	1572.0	1559.6	1551.0
20°	1528.8	1530.7	1530.7	1520.9	1511.1
22.5°	1481.6	1487.5	1489.4	1479.0	1467.2
25°	1425.9	1437.0	1443.6	1433.1	1420.6
27.5°	1358.4	1375.4	1395.1	1387.2	1373.5
30°	1283.0	1307.9	1340.7	1334.1	1324.3
32.5°	1211.6	1236.5	1281.7	1279.1	1273.9
35°	1146.7	1162.5	1215.5	1222.1	1217.5
37.5°	1085.1	1099.5	1149.4	1164.4	1160.5
40°	1020.3	1036.0	1075.3	1102.2	1103.5
42.5°	956.0	971.1	1003.2	1041.9	1041.9
45°	887.9	903.0	932.5	975.0	980.3
47.5°	821.1	836.8	865.6	908.2	916.7
50°	755.5	769.9	798.8	840.1	853.2
52.5°	687.4	703.1	731.3	769.3	788.3
55°	621.9	632.3	663.1	699.8	720.1
57.5°	553.7	563.5	598.3	629.7	650.7
60°	488.2	500.6	527.5	559.6	583.8
62.5°	425.3	438.4	461.3	489.5	517.0
65°	364.3	374.2	396.4	424.6	448.9
67.5°	305.4	313.9	336.2	355.8	381.4
70°	245.7	256.9	273.2	292.3	308.6
72.5°	197.9	202.5	216.2	230.0	247.0
75°	146.1	154.0	165.1	173.0	182.8
77.5°	104.8	109.4	116.0	122.5	131.7
80°	70.1	72.1	78.0	79.3	86.5
82.5°	42.6	43.9	45.2	45.9	48.5
85°	22.9	22.9	22.9	21.6	21.6
87.5°	13.1	13.1	11.1	9.2	6.6
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)