

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: P556901

Luminaire Tested: **FUSL-12-4-LD4-1STD-50-UNV-93-86-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: P556901
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-50-UNV-93-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS 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

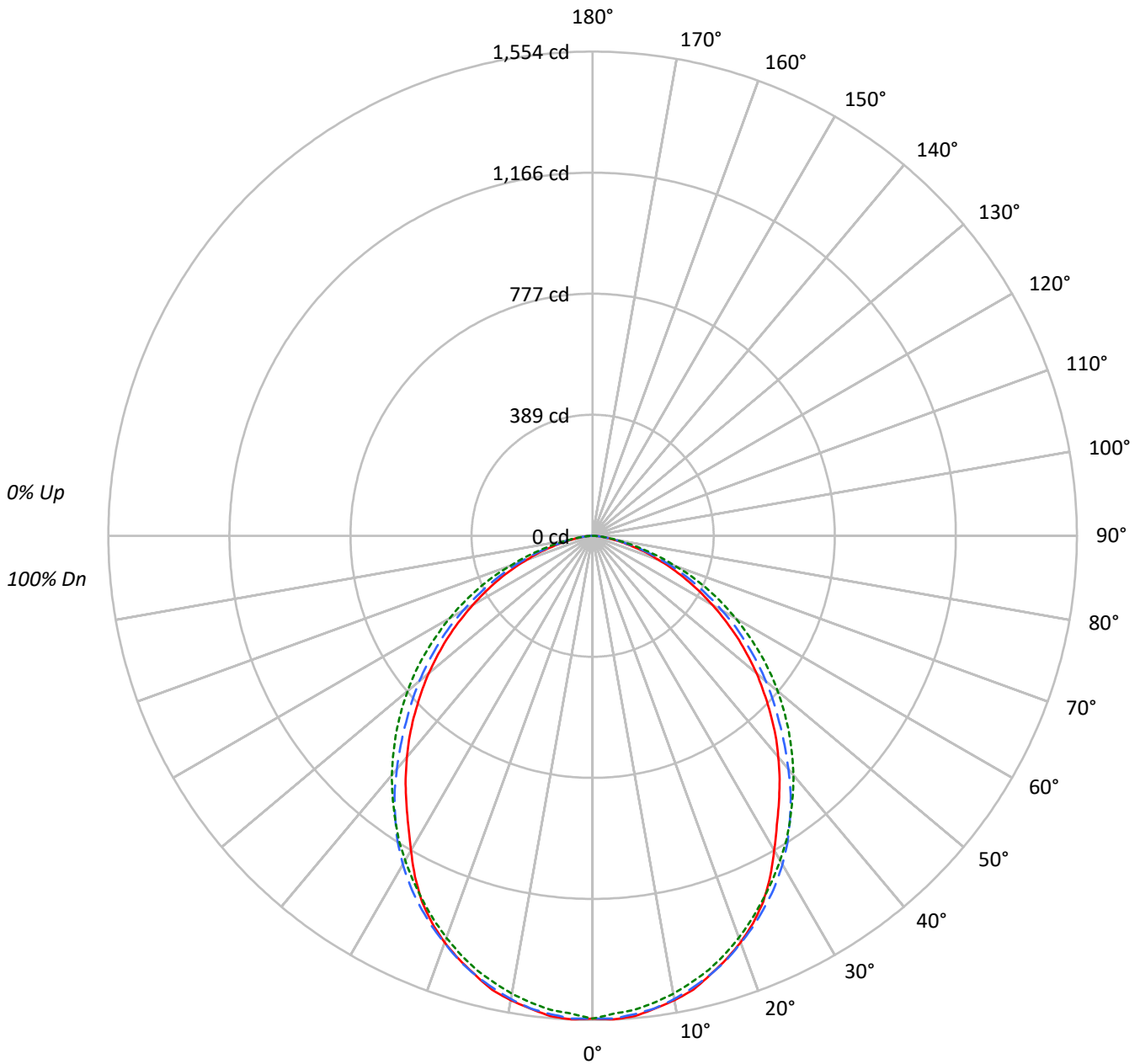
Lumens per Lamp: N/A
Luminaire Lumens: 3583.0 lumens
Efficiency: N/A
Efficacy: 107.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (A_{in}): 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: P556901

CATALOG NUMBER: FUSL-12-4-LD4-1STD-50-UNV-93-86-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P556901

CATALOG NUMBER: FUSL-12-4-LD4-1STD-50-UNV-93-86-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°	4170	4170	4170
5°	4181	4163	4128
10°	4136	4125	4078
15°	4063	4063	4017
20°	3977	3982	3931
25°	3846	3894	3832
30°	3622	3785	3738
35°	3422	3628	3634
40°	3256	3432	3522
45°	3070	3224	3389
50°	2874	3038	3245
55°	2650	2826	3069
60°	2387	2579	2855
65°	2108	2294	2597
70°	1756	1953	2206
75°	1381	1560	1727
80°	987	1097	1218
85°	642	642	605



TEST NUMBER: P556901

CATALOG NUMBER: FUSL-12-4-LD4-1STD-50-UNV-93-86-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.9	4.1
10°-20°	409.9	11.4
20°-30°	598.9	16.7
30°-40°	679.9	19.0
40°-50°	656.3	18.3
50°-60°	541.4	15.1
60°-70°	360.5	10.1
70°-80°	161.3	4.5
80°-90°	28.9	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°	1154.7	32.2
0°-40°	1834.6	51.2
0°-60°	3032.3	84.6
0°-90°	3583.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3583.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1550	1550	1550	1550	1550	
5°	1548	1547	1541	1533	1528	146
15°	1458	1462	1458	1452	1442	411
25°	1295	1306	1311	1302	1291	593
35°	1042	1056	1104	1110	1106	653
45°	807	820	847	886	891	622
55°	565	574	602	636	654	504
65°	331	340	360	386	408	328
75°	133	140	150	157	166	145
85°	21	21	21	20	20	28
90°	0	0	0	0	0	



TEST NUMBER: P556901

CATALOG NUMBER: FUSL-12-4-LD4-1STD-50-UNV-93-86-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1549.6	1549.6	1549.6	1549.6	1549.6
2.5°	1553.7	1554.3	1550.7	1541.2	1535.3
5°	1547.8	1547.2	1541.2	1532.9	1528.1
7.5°	1530.5	1531.7	1529.9	1518.0	1511.5
10°	1513.8	1514.4	1509.7	1500.1	1492.4
12.5°	1492.4	1491.8	1485.3	1480.5	1468.0
15°	1458.5	1462.0	1458.5	1451.9	1441.8
17.5°	1425.7	1425.7	1428.1	1416.8	1409.1
20°	1388.8	1390.6	1390.6	1381.7	1372.8
22.5°	1346.0	1351.3	1353.1	1343.6	1332.9
25°	1295.4	1305.5	1311.4	1301.9	1290.6
27.5°	1234.0	1249.5	1267.4	1260.2	1247.7
30°	1165.6	1188.2	1218.0	1212.0	1203.1
32.5°	1100.7	1123.3	1164.4	1162.0	1157.3
35°	1041.8	1056.1	1104.3	1110.2	1106.1
37.5°	985.8	998.9	1044.1	1057.8	1054.3
40°	926.9	941.2	976.9	1001.3	1002.5
42.5°	868.5	882.2	911.4	946.5	946.5
45°	806.6	820.3	847.1	885.8	890.6
47.5°	745.9	760.2	786.4	825.1	832.8
50°	686.4	699.5	725.7	763.2	775.1
52.5°	624.5	638.8	664.4	698.9	716.1
55°	564.9	574.5	602.4	635.8	654.2
57.5°	503.0	512.0	543.5	572.1	591.1
60°	443.5	454.8	479.2	508.4	530.4
62.5°	386.3	398.3	419.1	444.7	469.7
65°	331.0	339.9	360.2	385.8	407.8
67.5°	277.4	285.1	305.4	323.2	346.5
70°	223.2	233.4	248.2	265.5	280.4
72.5°	179.8	183.9	196.4	208.9	224.4
75°	132.8	139.9	150.0	157.2	166.1
77.5°	95.2	99.4	105.4	111.3	119.7
80°	63.7	65.5	70.8	72.0	78.6
82.5°	38.7	39.9	41.1	41.7	44.1
85°	20.8	20.8	20.8	19.6	19.6
87.5°	11.9	11.9	10.1	8.3	6.0
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)