

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: P556771

Luminaire Tested: **FUSL-12-4-LD4-1STD-35-UNV-93-85-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: P556771
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-35-UNV-93-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

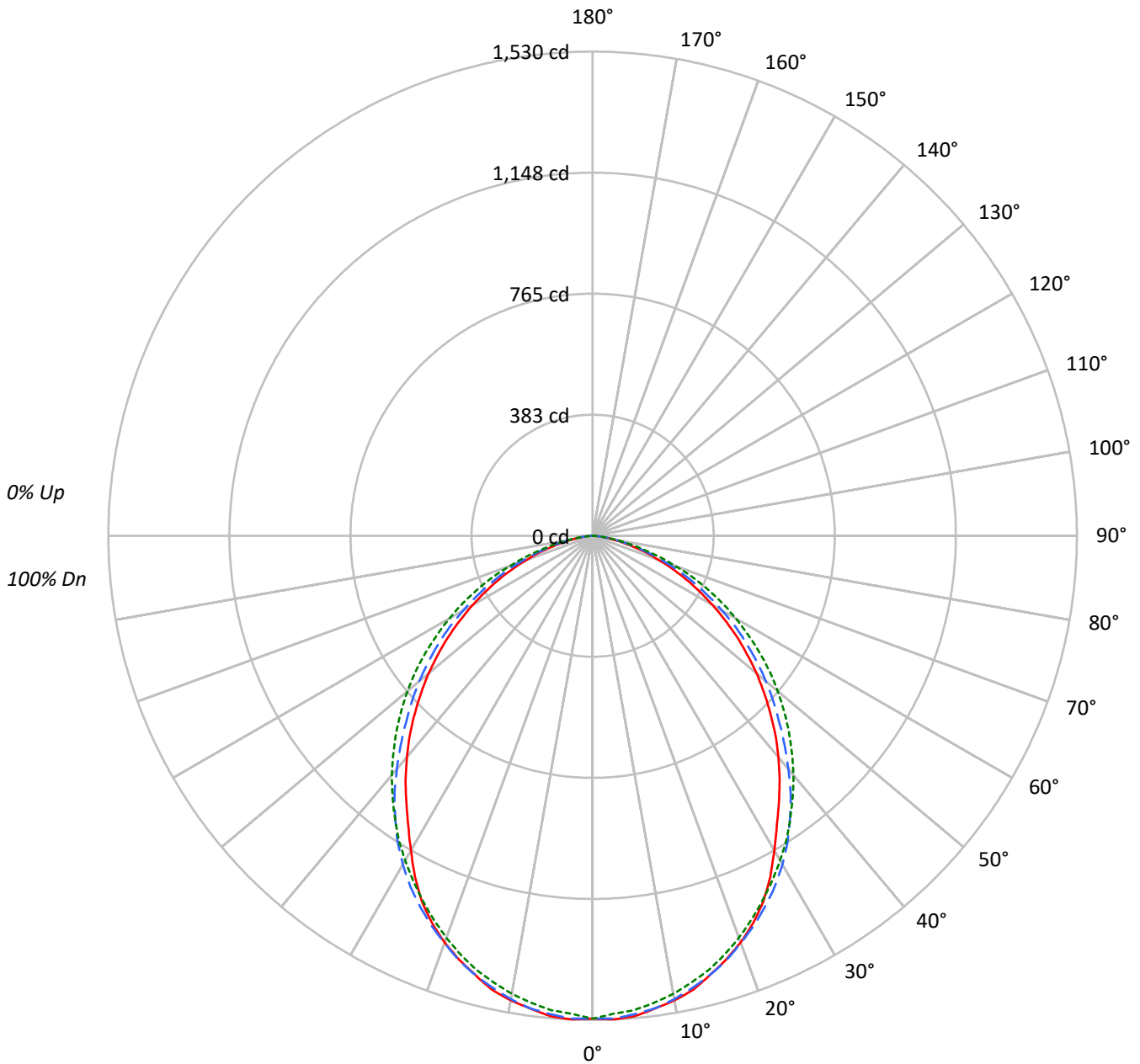
Lumens per Lamp: N/A
Luminaire Lumens: 3528.0 lumens
Efficiency: N/A
Efficacy: 105.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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: P556771

CATALOG NUMBER: FUSL-12-4-LD4-1STD-35-UNV-93-85-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P556771

CATALOG NUMBER: FUSL-12-4-LD4-1STD-35-UNV-93-85-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°	4106	4106	4106
5°	4117	4099	4065
10°	4073	4062	4015
15°	4001	4001	3955
20°	3916	3921	3871
25°	3787	3834	3773
30°	3566	3727	3681
35°	3370	3572	3578
40°	3206	3379	3468
45°	3022	3174	3337
50°	2829	2991	3195
55°	2610	2783	3022
60°	2350	2540	2811
65°	2075	2258	2557
70°	1729	1923	2172
75°	1359	1536	1700
80°	972	1082	1199
85°	633	633	596



TEST NUMBER: P556771

CATALOG NUMBER: FUSL-12-4-LD4-1STD-35-UNV-93-85-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.7	4.1
10°-20°	403.6	11.4
20°-30°	589.7	16.7
30°-40°	669.4	19.0
40°-50°	646.2	18.3
50°-60°	533.1	15.1
60°-70°	355.0	10.1
70°-80°	158.8	4.5
80°-90°	28.4	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°	1137.0	32.2
0°-40°	1806.4	51.2
0°-60°	2985.7	84.6
0°-90°	3528.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3528.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1526	1526	1526	1526	1526	
5°	1524	1523	1518	1509	1505	144
15°	1436	1440	1436	1430	1420	405
25°	1276	1285	1291	1282	1271	584
35°	1026	1040	1087	1093	1089	643
45°	794	808	834	872	877	613
55°	556	566	593	626	644	496
65°	326	335	355	380	402	323
75°	131	138	148	155	164	143
85°	20	20	20	19	19	28
90°	0	0	0	0	0	



TEST NUMBER: P556771

CATALOG NUMBER: FUSL-12-4-LD4-1STD-35-UNV-93-85-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1525.8	1525.8	1525.8	1525.8	1525.8
2.5°	1529.9	1530.5	1526.9	1517.6	1511.7
5°	1524.0	1523.4	1517.6	1509.4	1504.7
7.5°	1507.0	1508.2	1506.4	1494.7	1488.3
10°	1490.6	1491.2	1486.5	1477.1	1469.5
12.5°	1469.5	1468.9	1462.5	1457.8	1445.5
15°	1436.1	1439.6	1436.1	1429.6	1419.7
17.5°	1403.8	1403.8	1406.2	1395.1	1387.4
20°	1367.5	1369.3	1369.3	1360.5	1351.7
22.5°	1325.3	1330.6	1332.3	1323.0	1312.4
25°	1275.5	1285.4	1291.3	1281.9	1270.8
27.5°	1215.1	1230.3	1247.9	1240.9	1228.6
30°	1147.7	1170.0	1199.3	1193.4	1184.6
32.5°	1083.8	1106.1	1146.5	1144.2	1139.5
35°	1025.8	1039.8	1087.3	1093.2	1089.1
37.5°	970.7	983.6	1028.1	1041.6	1038.1
40°	912.6	926.7	961.9	985.9	987.1
42.5°	855.2	868.7	897.4	932.0	932.0
45°	794.2	807.7	834.1	872.2	876.9
47.5°	734.5	748.5	774.3	812.4	820.0
50°	675.8	688.7	714.5	751.5	763.2
52.5°	614.9	628.9	654.2	688.1	705.1
55°	556.3	565.6	593.2	626.0	644.2
57.5°	495.3	504.1	535.2	563.3	582.1
60°	436.7	447.8	471.9	500.6	522.3
62.5°	380.4	392.1	412.7	437.9	462.5
65°	325.9	334.7	354.6	379.8	401.5
67.5°	273.1	280.8	300.7	318.3	341.1
70°	219.8	229.8	244.4	261.4	276.1
72.5°	177.0	181.1	193.4	205.7	221.0
75°	130.7	137.7	147.7	154.7	163.5
77.5°	93.8	97.9	103.7	109.6	117.8
80°	62.7	64.5	69.8	70.9	77.4
82.5°	38.1	39.3	40.4	41.0	43.4
85°	20.5	20.5	20.5	19.3	19.3
87.5°	11.7	11.7	10.0	8.2	5.9
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)