

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: P558324

Luminaire Tested: **FUSL-12-4-LD4-3STD-40-UNV-80-86-EDD-90**

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: P558324
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-LD4-3STD-40-UNV-80-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

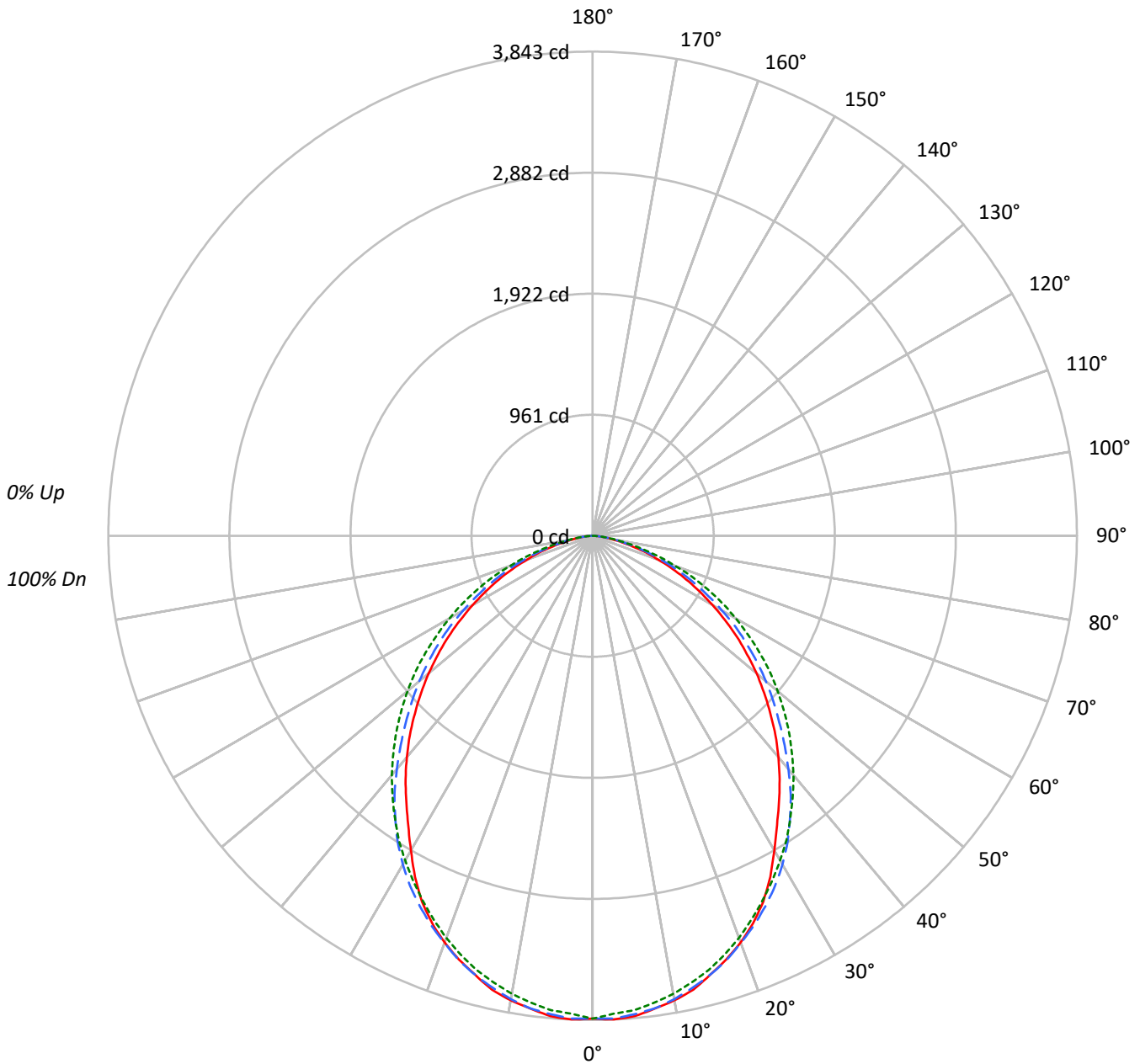
Lumens per Lamp: N/A
Luminaire Lumens: 8862.0 lumens
Efficiency: N/A
Efficacy: 88.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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: P558324

CATALOG NUMBER: FUSL-12-4-LD4-3STD-40-UNV-80-86-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P558324

CATALOG NUMBER: FUSL-12-4-LD4-3STD-40-UNV-80-86-EDD-90

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°	10313	10313	10313
5°	10341	10297	10210
10°	10231	10203	10086
15°	10050	10050	9935
20°	9837	9850	9723
25°	9513	9631	9478
30°	8958	9361	9246
35°	8465	8973	8987
40°	8053	8488	8710
45°	7593	7974	8383
50°	7107	7514	8025
55°	6556	6990	7591
60°	5903	6379	7061
65°	5212	5672	6422
70°	4344	4831	5456
75°	3413	3857	4271
80°	2441	2715	3013
85°	1590	1590	1501



TEST NUMBER: P558324

CATALOG NUMBER: FUSL-12-4-LD4-3STD-40-UNV-80-86-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	360.8	4.1
10°-20°	1013.7	11.4
20°-30°	1481.4	16.7
30°-40°	1681.5	19.0
40°-50°	1623.3	18.3
50°-60°	1339.1	15.1
60°-70°	891.7	10.1
70°-80°	399.0	4.5
80°-90°	71.4	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°	2856.0	32.2
0°-40°	4537.5	51.2
0°-60°	7499.9	84.6
0°-90°	8862.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8862.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3833	3833	3833	3833	3833	
5°	3828	3827	3812	3791	3780	362
15°	3607	3616	3607	3591	3566	1017
25°	3204	3229	3244	3220	3192	1467
35°	2577	2612	2731	2746	2736	1614
45°	1995	2029	2095	2191	2203	1539
55°	1397	1421	1490	1572	1618	1247
65°	819	841	891	954	1009	812
75°	328	346	371	389	411	359
85°	52	52	52	49	49	69
90°	0	0	0	0	0	



TEST NUMBER: P558324

CATALOG NUMBER: FUSL-12-4-LD4-3STD-40-UNV-80-86-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3832.6	3832.6	3832.6	3832.6	3832.6
2.5°	3842.9	3844.4	3835.5	3812.0	3797.2
5°	3828.2	3826.7	3812.0	3791.4	3779.6
7.5°	3785.5	3788.4	3784.0	3754.6	3738.4
10°	3744.2	3745.7	3733.9	3710.4	3691.2
12.5°	3691.2	3689.8	3673.6	3661.8	3630.9
15°	3607.3	3616.1	3607.3	3591.1	3566.1
17.5°	3526.3	3526.3	3532.2	3504.2	3485.1
20°	3435.0	3439.5	3439.5	3417.4	3395.3
22.5°	3329.0	3342.3	3346.7	3323.1	3296.6
25°	3203.9	3228.9	3243.6	3220.1	3192.1
27.5°	3052.2	3090.5	3134.7	3117.0	3086.1
30°	2882.9	2938.9	3012.5	2997.8	2975.7
32.5°	2722.4	2778.4	2880.0	2874.1	2862.3
35°	2576.7	2612.0	2731.3	2746.0	2735.7
37.5°	2438.2	2470.6	2582.5	2616.4	2607.6
40°	2292.5	2327.8	2416.2	2476.5	2479.5
42.5°	2148.2	2182.1	2254.2	2341.1	2341.1
45°	1995.1	2028.9	2095.2	2190.9	2202.7
47.5°	1844.9	1880.2	1945.0	2040.7	2059.8
50°	1697.6	1730.0	1794.8	1887.6	1917.0
52.5°	1544.5	1579.9	1643.2	1728.6	1771.3
55°	1397.3	1420.8	1490.0	1572.5	1618.1
57.5°	1244.2	1266.2	1344.3	1415.0	1462.1
60°	1096.9	1124.9	1185.3	1257.4	1311.9
62.5°	955.6	985.0	1036.6	1099.9	1161.7
65°	818.6	840.7	890.8	954.1	1008.6
67.5°	686.1	705.3	755.3	799.5	856.9
70°	552.1	577.2	614.0	656.7	693.5
72.5°	444.7	455.0	485.9	516.8	555.1
75°	328.3	346.0	371.0	388.7	410.8
77.5°	235.6	245.9	260.6	275.3	295.9
80°	157.5	162.0	175.2	178.2	194.4
82.5°	95.7	98.6	101.6	103.1	109.0
85°	51.5	51.5	51.5	48.6	48.6
87.5°	29.4	29.4	25.0	20.6	14.7
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)