

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: P558345

Luminaire Tested: **FUSL-12-4-LD4-3STD-40-UNV-81-88-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: P558345
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-81-88-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

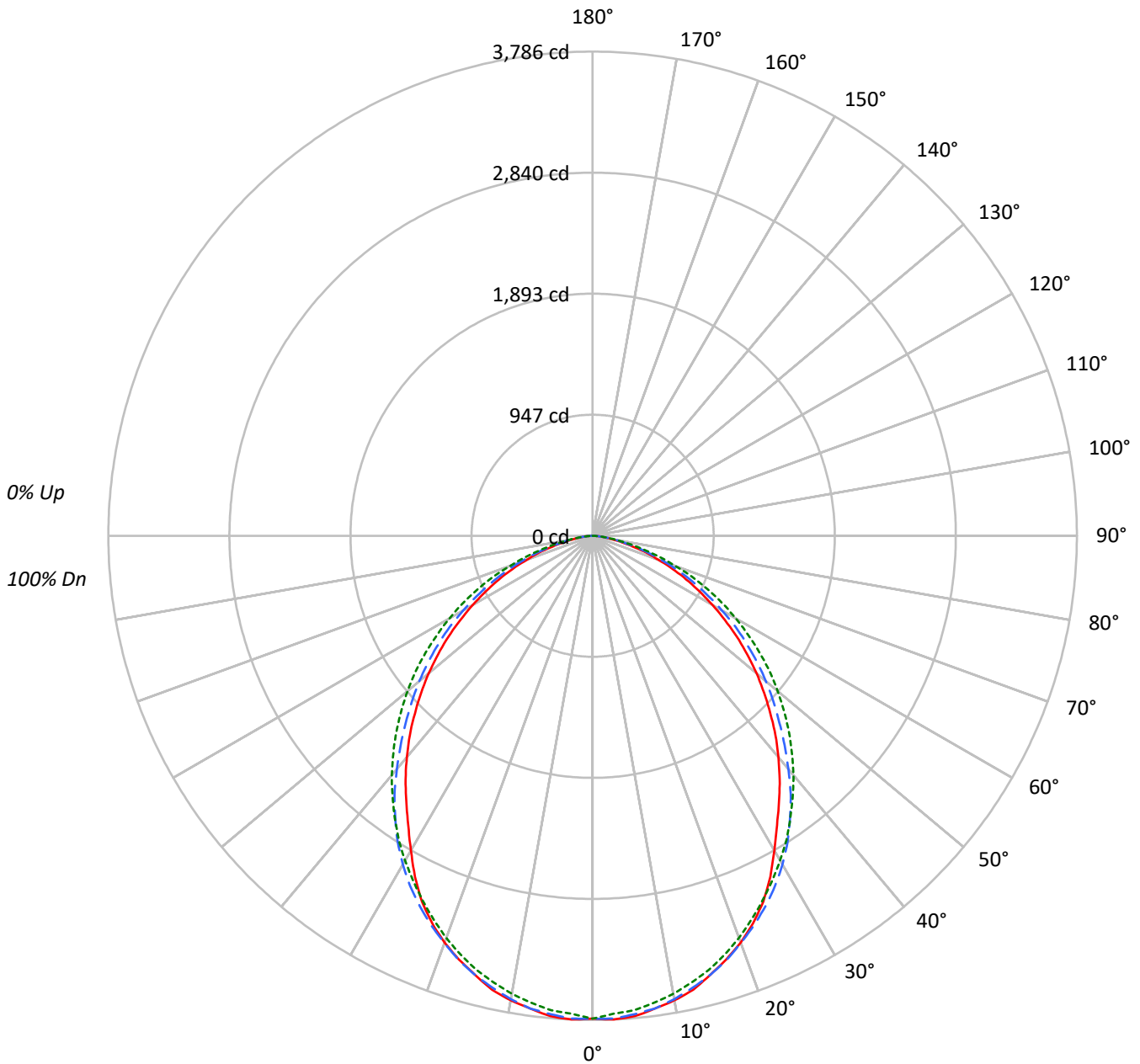
Lumens per Lamp: N/A
Luminaire Lumens: 8731.0 lumens
Efficiency: N/A
Efficacy: 87.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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: P558345

CATALOG NUMBER: FUSL-12-4-LD4-3STD-40-UNV-81-88-EDD

Luminous Intensity Polar Plot





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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°	10161	10161	10161
5°	10188	10145	10059
10°	10080	10052	9937
15°	9901	9901	9788
20°	9692	9704	9579
25°	9372	9489	9338
30°	8826	9222	9110
35°	8340	8840	8854
40°	7934	8362	8581
45°	7480	7856	8259
50°	7002	7403	7907
55°	6458	6887	7479
60°	5816	6285	6956
65°	5135	5588	6327
70°	4280	4759	5375
75°	3363	3801	4208
80°	2405	2675	2968
85°	1568	1568	1479



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	355.5	4.1
10°-20°	998.7	11.4
20°-30°	1459.5	16.7
30°-40°	1656.7	19.0
40°-50°	1599.3	18.3
50°-60°	1319.3	15.1
60°-70°	878.5	10.1
70°-80°	393.2	4.5
80°-90°	70.3	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°	2813.7	32.2
0°-40°	4470.4	51.2
0°-60°	7389.0	84.6
0°-90°	8731.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8731.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3776	3776	3776	3776	3776	
5°	3772	3770	3756	3735	3724	357
15°	3554	3563	3554	3538	3513	1002
25°	3156	3181	3196	3172	3145	1446
35°	2539	2573	2691	2705	2695	1591
45°	1966	1999	2064	2158	2170	1517
55°	1377	1400	1468	1549	1594	1229
65°	806	828	878	940	994	800
75°	324	341	366	383	405	354
85°	51	51	51	48	48	68
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3775.9	3775.9	3775.9	3775.9	3775.9
2.5°	3786.1	3787.5	3778.8	3755.6	3741.1
5°	3771.6	3770.1	3755.6	3735.3	3723.7
7.5°	3729.5	3732.4	3728.1	3699.0	3683.1
10°	3688.9	3690.3	3678.7	3655.5	3636.7
12.5°	3636.7	3635.2	3619.3	3607.7	3577.2
15°	3554.0	3562.7	3554.0	3538.0	3513.4
17.5°	3474.2	3474.2	3480.0	3452.4	3433.6
20°	3384.3	3388.6	3388.6	3366.9	3345.1
22.5°	3279.8	3292.9	3297.2	3274.0	3247.9
25°	3156.5	3181.2	3195.7	3172.5	3144.9
27.5°	3007.1	3044.8	3088.3	3070.9	3040.5
30°	2840.3	2895.4	2967.9	2953.4	2931.7
32.5°	2682.2	2737.3	2837.4	2831.6	2820.0
35°	2538.6	2573.4	2690.9	2705.4	2695.2
37.5°	2402.2	2434.1	2544.4	2577.7	2569.0
40°	2258.6	2293.4	2380.4	2439.9	2442.8
42.5°	2116.4	2149.8	2220.9	2306.5	2306.5
45°	1965.6	1998.9	2064.2	2158.5	2170.1
47.5°	1817.6	1852.4	1916.3	2010.5	2029.4
50°	1672.6	1704.5	1768.3	1859.7	1888.7
52.5°	1521.7	1556.5	1618.9	1703.0	1745.1
55°	1376.6	1399.8	1468.0	1549.2	1594.2
57.5°	1225.8	1247.5	1324.4	1394.0	1440.5
60°	1080.7	1108.3	1167.7	1238.8	1292.5
62.5°	941.4	970.5	1021.2	1083.6	1144.5
65°	806.5	828.3	877.6	940.0	993.7
67.5°	676.0	694.8	744.2	787.7	844.3
70°	544.0	568.6	604.9	647.0	683.2
72.5°	438.1	448.2	478.7	509.2	546.9
75°	323.5	340.9	365.6	383.0	404.7
77.5°	232.1	242.3	256.8	271.3	291.6
80°	155.2	159.6	172.6	175.5	191.5
82.5°	94.3	97.2	100.1	101.5	107.3
85°	50.8	50.8	50.8	47.9	47.9
87.5°	29.0	29.0	24.7	20.3	14.5
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)