

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: P558177

Luminaire Tested: **FUSL-12-4-LD4-3LO-50-UNV-93-84-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: P558177
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-LD4-3LO-50-UNV-93-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

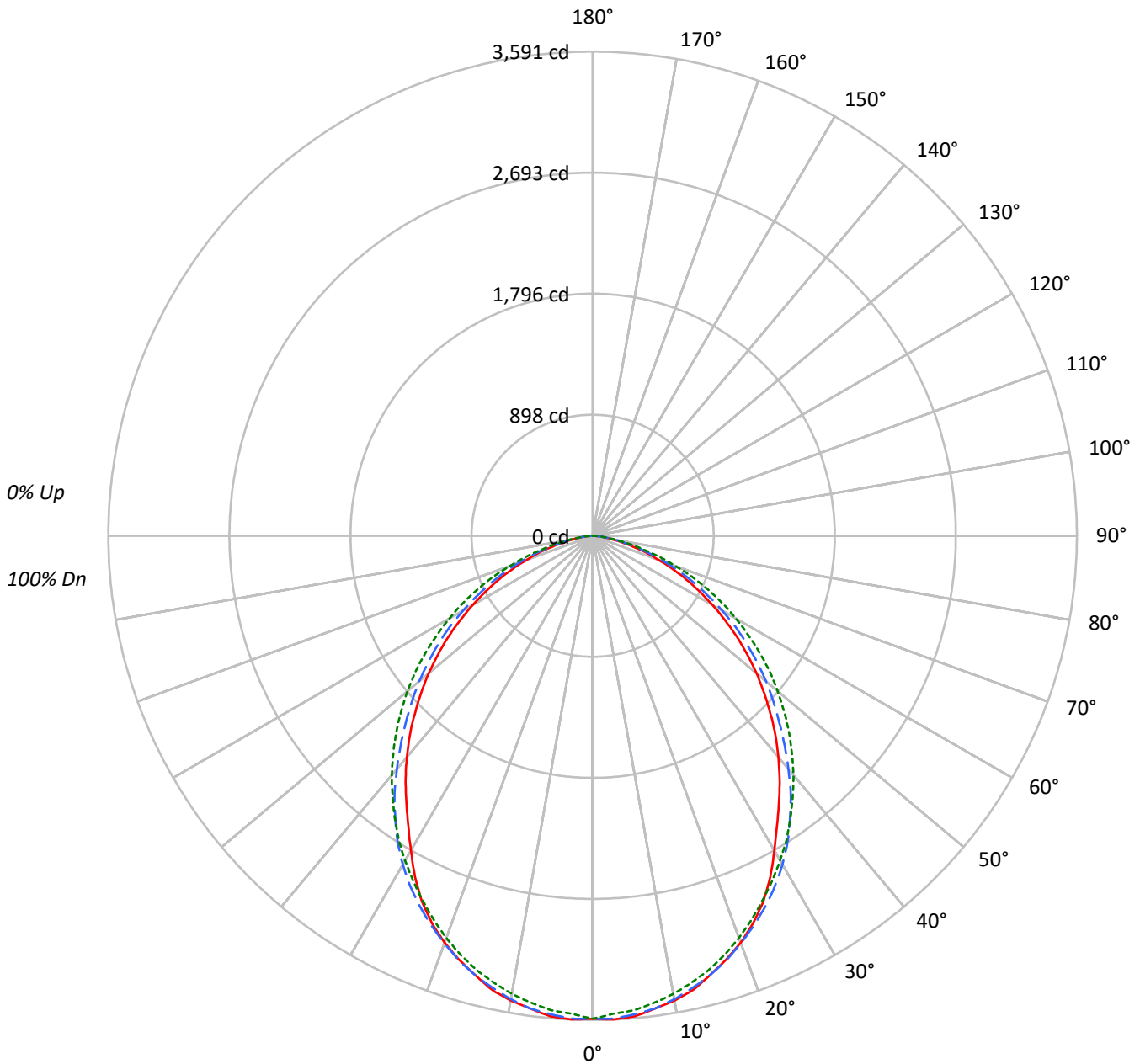
Lumens per Lamp: N/A
Luminaire Lumens: 8282.0 lumens
Efficiency: N/A
Efficacy: 118.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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

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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°	9639	9639	9639
5°	9664	9623	9541
10°	9562	9535	9426
15°	9392	9392	9285
20°	9193	9205	9087
25°	8890	9000	8858
30°	8372	8748	8641
35°	7910	8385	8399
40°	7526	7932	8140
45°	7096	7452	7834
50°	6642	7022	7500
55°	6126	6533	7095
60°	5517	5962	6598
65°	4872	5301	6002
70°	4060	4515	5099
75°	3190	3606	3991
80°	2281	2537	2814
85°	1488	1488	1402



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	337.2	4.1
10°-20°	947.4	11.4
20°-30°	1384.4	16.7
30°-40°	1571.5	19.0
40°-50°	1517.0	18.3
50°-60°	1251.4	15.1
60°-70°	833.4	10.1
70°-80°	372.9	4.5
80°-90°	66.7	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°	2669.0	32.2
0°-40°	4240.5	51.2
0°-60°	7009.0	84.6
0°-90°	8282.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8282.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3582	3582	3582	3582	3582	
5°	3578	3576	3562	3543	3532	339
15°	3371	3380	3371	3356	3333	950
25°	2994	3018	3031	3009	2983	1371
35°	2408	2441	2552	2566	2557	1509
45°	1864	1896	1958	2048	2058	1439
55°	1306	1328	1392	1470	1512	1165
65°	765	786	832	892	943	759
75°	307	323	347	363	384	336
85°	48	48	48	45	45	65
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3581.8	3581.8	3581.8	3581.8	3581.8
2.5°	3591.4	3592.8	3584.5	3562.5	3548.7
5°	3577.6	3576.2	3562.5	3543.2	3532.2
7.5°	3537.7	3540.5	3536.3	3508.8	3493.7
10°	3499.2	3500.6	3489.6	3467.5	3449.7
12.5°	3449.7	3448.3	3433.1	3422.1	3393.2
15°	3371.2	3379.5	3371.2	3356.1	3332.7
17.5°	3295.5	3295.5	3301.0	3274.9	3257.0
20°	3210.2	3214.4	3214.4	3193.7	3173.1
22.5°	3111.2	3123.5	3127.7	3105.7	3080.9
25°	2994.2	3017.6	3031.3	3009.3	2983.2
27.5°	2852.5	2888.2	2929.5	2913.0	2884.1
30°	2694.2	2746.5	2815.3	2801.6	2780.9
32.5°	2544.2	2596.5	2691.5	2686.0	2675.0
35°	2408.0	2441.0	2552.5	2566.3	2556.6
37.5°	2278.7	2308.9	2413.5	2445.2	2436.9
40°	2142.4	2175.5	2258.0	2314.4	2317.2
42.5°	2007.6	2039.2	2106.7	2187.9	2187.9
45°	1864.5	1896.1	1958.1	2047.5	2058.5
47.5°	1724.1	1757.2	1817.7	1907.1	1925.0
50°	1586.5	1616.8	1677.4	1764.0	1791.6
52.5°	1443.4	1476.5	1535.6	1615.4	1655.3
55°	1305.8	1327.8	1392.5	1469.6	1512.2
57.5°	1162.7	1183.4	1256.3	1322.3	1366.4
60°	1025.1	1051.3	1107.7	1175.1	1226.0
62.5°	893.0	920.5	968.7	1027.9	1085.7
65°	765.1	785.7	832.5	891.7	942.6
67.5°	641.2	659.1	705.9	747.2	800.8
70°	516.0	539.4	573.8	613.7	648.1
72.5°	415.6	425.2	454.1	483.0	518.8
75°	306.8	323.4	346.8	363.3	383.9
77.5°	220.2	229.8	243.6	257.3	276.6
80°	147.2	151.4	163.7	166.5	181.6
82.5°	89.4	92.2	94.9	96.3	101.8
85°	48.2	48.2	48.2	45.4	45.4
87.5°	27.5	27.5	23.4	19.3	13.8
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)