

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: P557121

Luminaire Tested: **FUSL-12-4-LD4-2HI-50-UNV-81-84-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: P557121
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-LD4-2HI-50-UNV-81-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC 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

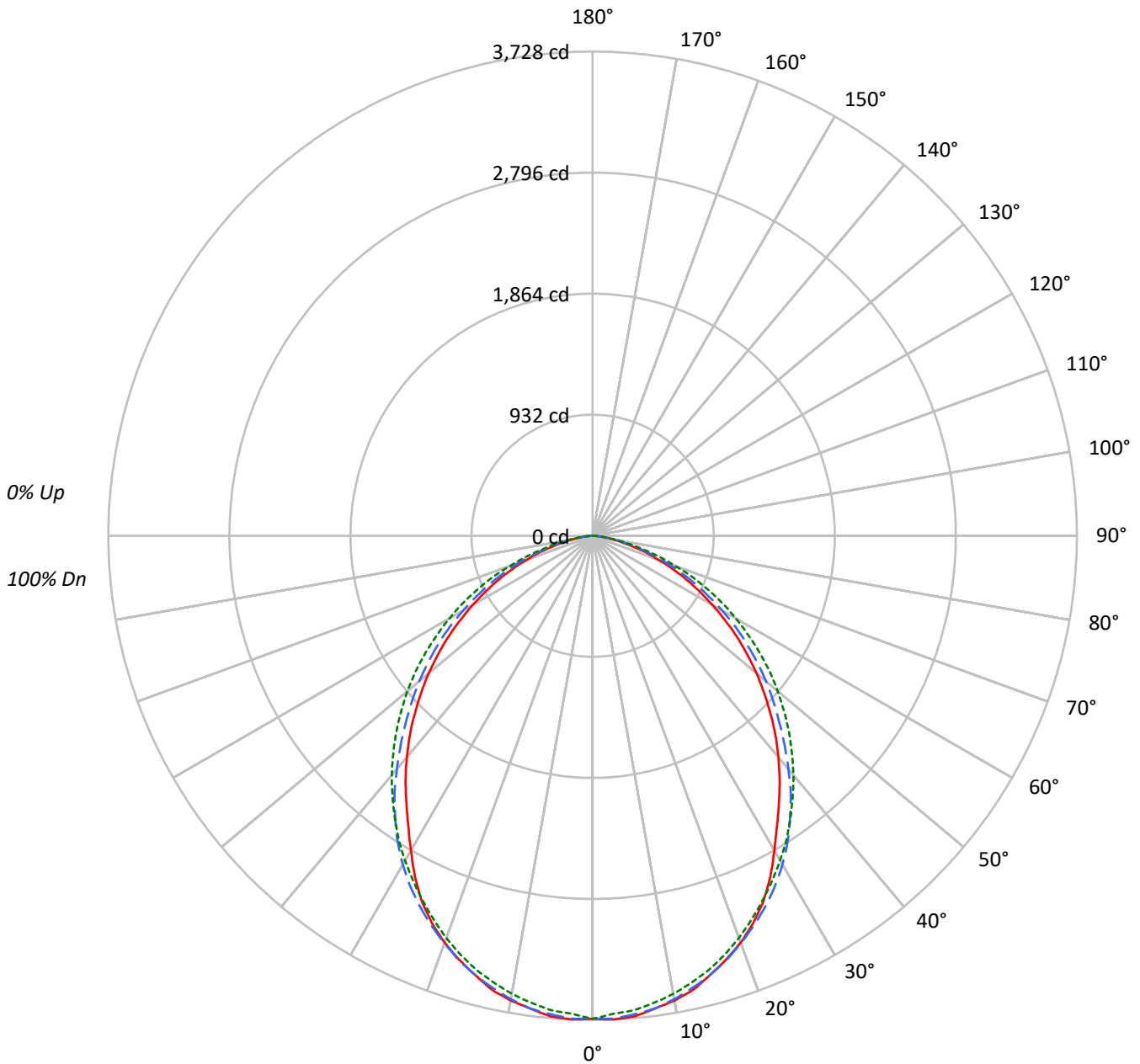
Lumens per Lamp: N/A
Luminaire Lumens: 8598.0 lumens
Efficiency: N/A
Efficacy: 99.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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°	10006	10006	10006
5°	10033	9990	9906
10°	9926	9899	9786
15°	9750	9750	9639
20°	9544	9556	9433
25°	9229	9344	9196
30°	8691	9082	8971
35°	8212	8705	8719
40°	7813	8235	8450
45°	7366	7736	8133
50°	6895	7290	7786
55°	6360	6783	7365
60°	5727	6189	6850
65°	5058	5503	6230
70°	4215	4687	5294
75°	3313	3743	4144
80°	2369	2634	2923
85°	1544	1544	1454



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	350.1	4.1
10°-20°	983.5	11.4
20°-30°	1437.3	16.7
30°-40°	1631.5	19.0
40°-50°	1574.9	18.3
50°-60°	1299.2	15.1
60°-70°	865.2	10.1
70°-80°	387.1	4.5
80°-90°	69.3	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°	2770.9	32.2
0°-40°	4402.3	51.2
0°-60°	7276.4	84.6
0°-90°	8598.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8598.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3718	3718	3718	3718	3718	
5°	3714	3713	3698	3678	3667	352
15°	3500	3508	3500	3484	3460	987
25°	3108	3133	3147	3124	3097	1424
35°	2500	2534	2650	2664	2654	1566
45°	1936	1968	2033	2126	2137	1493
55°	1356	1378	1446	1526	1570	1210
65°	794	816	864	926	978	788
75°	319	336	360	377	399	348
85°	50	50	50	47	47	67
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3718.4	3718.4	3718.4	3718.4	3718.4
2.5°	3728.4	3729.8	3721.3	3698.4	3684.1
5°	3714.1	3712.7	3698.4	3678.4	3667.0
7.5°	3672.7	3675.6	3671.3	3642.7	3627.0
10°	3632.7	3634.1	3622.7	3599.8	3581.3
12.5°	3581.3	3579.8	3564.1	3552.7	3522.7
15°	3499.9	3508.4	3499.9	3484.1	3459.9
17.5°	3421.3	3421.3	3427.0	3399.9	3381.3
20°	3332.7	3337.0	3337.0	3315.6	3294.1
22.5°	3229.9	3242.7	3247.0	3224.1	3198.4
25°	3108.4	3132.7	3147.0	3124.2	3097.0
27.5°	2961.3	2998.4	3041.3	3024.2	2994.2
30°	2797.0	2851.3	2922.7	2908.4	2887.0
32.5°	2641.3	2695.6	2794.2	2788.5	2777.0
35°	2499.9	2534.2	2649.9	2664.2	2654.2
37.5°	2365.6	2397.0	2505.6	2538.5	2529.9
40°	2224.2	2258.5	2344.2	2402.8	2405.6
42.5°	2084.2	2117.1	2187.0	2271.3	2271.3
45°	1935.6	1968.5	2032.8	2125.6	2137.1
47.5°	1789.9	1824.2	1887.1	1979.9	1998.5
50°	1647.1	1678.5	1741.4	1831.4	1859.9
52.5°	1498.5	1532.8	1594.2	1677.1	1718.5
55°	1355.7	1378.5	1445.7	1525.6	1569.9
57.5°	1207.1	1228.5	1304.2	1372.8	1418.5
60°	1064.2	1091.4	1150.0	1219.9	1272.8
62.5°	927.1	955.7	1005.7	1067.1	1127.1
65°	794.3	815.7	864.2	925.7	978.5
67.5°	665.7	684.3	732.8	775.7	831.4
70°	535.7	560.0	595.7	637.1	672.8
72.5°	431.4	441.4	471.4	501.4	538.5
75°	318.6	335.7	360.0	377.1	398.6
77.5°	228.6	238.6	252.8	267.1	287.1
80°	152.9	157.1	170.0	172.8	188.6
82.5°	92.9	95.7	98.6	100.0	105.7
85°	50.0	50.0	50.0	47.1	47.1
87.5°	28.6	28.6	24.3	20.0	14.3
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)