

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: P558297

Luminaire Tested: **FUSL-12-4-LD4-3STD-35-UNV-82-88-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: P558297
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-35-UNV-82-88-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

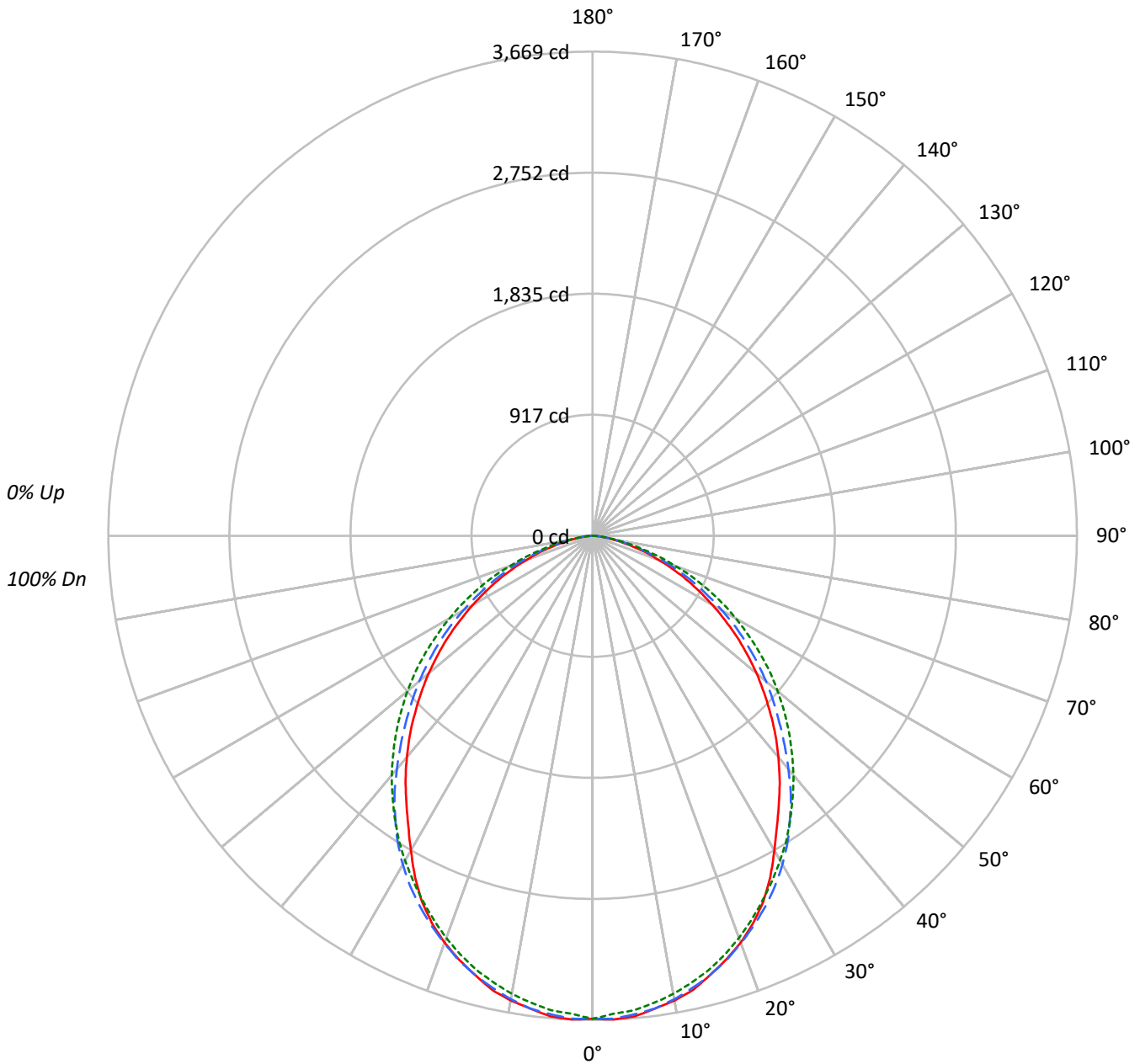
Lumens per Lamp: N/A
Luminaire Lumens: 8462.0 lumens
Efficiency: N/A
Efficacy: 84.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

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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°	9848	9848	9848
5°	9874	9832	9749
10°	9769	9742	9631
15°	9596	9596	9486
20°	9393	9405	9284
25°	9084	9196	9050
30°	8554	8938	8829
35°	8083	8567	8581
40°	7690	8104	8317
45°	7250	7614	8004
50°	6786	7175	7663
55°	6260	6675	7249
60°	5637	6091	6742
65°	4977	5416	6132
70°	4148	4613	5210
75°	3260	3684	4079
80°	2331	2593	2876
85°	1519	1519	1433



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	344.6	4.1
10°-20°	968.0	11.4
20°-30°	1414.5	16.7
30°-40°	1605.6	19.0
40°-50°	1550.0	18.3
50°-60°	1278.6	15.1
60°-70°	851.5	10.1
70°-80°	381.0	4.5
80°-90°	68.2	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°	2727.1	32.2
0°-40°	4332.7	51.2
0°-60°	7161.3	84.6
0°-90°	8462.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8462.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3660	3660	3660	3660	3660	
5°	3655	3654	3640	3620	3609	346
15°	3444	3453	3444	3429	3405	971
25°	3059	3083	3097	3075	3048	1401
35°	2460	2494	2608	2622	2612	1542
45°	1905	1937	2001	2092	2103	1470
55°	1334	1357	1423	1502	1545	1191
65°	782	803	851	911	963	775
75°	314	330	354	371	392	343
85°	49	49	49	46	46	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3659.6	3659.6	3659.6	3659.6	3659.6
2.5°	3669.4	3670.8	3662.4	3639.9	3625.9
5°	3655.4	3654.0	3639.9	3620.2	3609.0
7.5°	3614.6	3617.4	3613.2	3585.1	3569.6
10°	3575.2	3576.6	3565.4	3542.9	3524.6
12.5°	3524.6	3523.2	3507.8	3496.5	3467.0
15°	3444.5	3452.9	3444.5	3429.0	3405.1
17.5°	3367.2	3367.2	3372.8	3346.1	3327.8
20°	3280.0	3284.2	3284.2	3263.1	3242.0
22.5°	3178.8	3191.4	3195.6	3173.1	3147.8
25°	3059.3	3083.2	3097.2	3074.7	3048.0
27.5°	2914.5	2951.0	2993.2	2976.3	2946.8
30°	2752.8	2806.2	2876.5	2862.4	2841.4
32.5°	2599.5	2653.0	2750.0	2744.3	2733.1
35°	2460.4	2494.1	2608.0	2622.0	2612.2
37.5°	2328.2	2359.1	2466.0	2498.3	2489.9
40°	2189.0	2222.8	2307.1	2364.7	2367.6
42.5°	2051.2	2083.6	2152.5	2235.4	2235.4
45°	1905.0	1937.4	2000.6	2092.0	2103.2
47.5°	1761.6	1795.4	1857.2	1948.6	1966.9
50°	1621.0	1652.0	1713.8	1802.4	1830.5
52.5°	1474.8	1508.5	1569.0	1650.5	1691.3
55°	1334.2	1356.7	1422.8	1501.5	1545.1
57.5°	1188.0	1209.1	1283.6	1351.1	1396.1
60°	1047.4	1074.1	1131.8	1200.7	1252.7
62.5°	912.4	940.6	989.8	1050.2	1109.3
65°	781.7	802.8	850.6	911.0	963.1
67.5°	655.2	673.4	721.2	763.4	818.2
70°	527.2	551.1	586.3	627.0	662.2
72.5°	424.6	434.4	464.0	493.5	530.0
75°	313.5	330.4	354.3	371.2	392.3
77.5°	224.9	234.8	248.8	262.9	282.6
80°	150.4	154.7	167.3	170.1	185.6
82.5°	91.4	94.2	97.0	98.4	104.0
85°	49.2	49.2	49.2	46.4	46.4
87.5°	28.1	28.1	23.9	19.7	14.1
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)