

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: P558283

Luminaire Tested: **FUSL-12-4-LD4-3STD-35-UNV-81-94-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: P558283
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-81-94-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

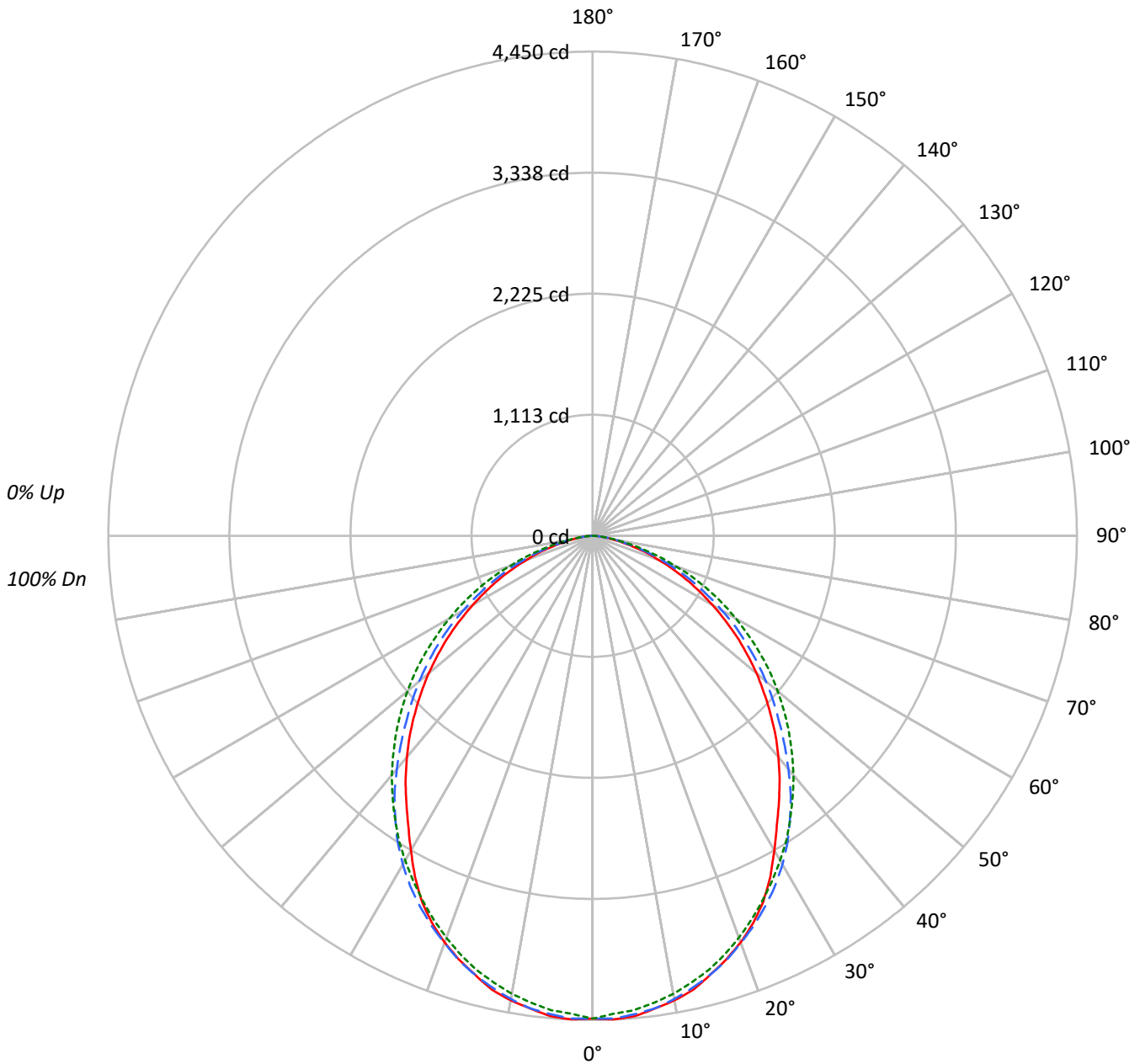
Lumens per Lamp: N/A
Luminaire Lumens: 10261.0 lumens
Efficiency: N/A
Efficacy: 102.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
Input Voltage (V): NR
Input Current (A_{in}): 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°	11941	11941	11941
5°	11973	11923	11821
10°	11846	11814	11679
15°	11636	11636	11503
20°	11390	11404	11258
25°	11015	11151	10974
30°	10372	10838	10706
35°	9801	10389	10405
40°	9324	9827	10085
45°	8791	9232	9706
50°	8229	8700	9293
55°	7591	8094	8790
60°	6836	7386	8175
65°	6036	6567	7436
70°	5030	5593	6318
75°	3953	4467	4945
80°	2827	3144	3487
85°	1843	1843	1738



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	417.8	4.1
10°-20°	1173.8	11.4
20°-30°	1715.2	16.7
30°-40°	1947.0	19.0
40°-50°	1879.5	18.3
50°-60°	1550.5	15.1
60°-70°	1032.5	10.1
70°-80°	462.0	4.5
80°-90°	82.7	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°	3306.8	32.2
0°-40°	5253.8	51.2
0°-60°	8683.8	84.6
0°-90°	10261.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10261.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4438	4438	4438	4438	4438	
5°	4432	4431	4414	4390	4376	420
15°	4177	4187	4177	4158	4129	1177
25°	3710	3739	3756	3728	3696	1699
35°	2983	3024	3162	3180	3168	1869
45°	2310	2349	2426	2537	2550	1782
55°	1618	1645	1725	1821	1874	1444
65°	948	973	1031	1105	1168	940
75°	380	401	430	450	476	416
85°	60	60	60	56	56	80
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4437.6	4437.6	4437.6	4437.6	4437.6
2.5°	4449.6	4451.3	4441.0	4413.8	4396.7
5°	4432.5	4430.8	4413.8	4389.9	4376.2
7.5°	4383.1	4386.5	4381.4	4347.3	4328.5
10°	4335.3	4337.0	4323.4	4296.1	4274.0
12.5°	4274.0	4272.3	4253.5	4239.9	4204.1
15°	4176.8	4187.0	4176.8	4158.0	4129.0
17.5°	4083.0	4083.0	4089.8	4057.4	4035.3
20°	3977.3	3982.4	3982.4	3956.9	3931.3
22.5°	3854.6	3869.9	3875.0	3847.8	3817.1
25°	3709.7	3738.6	3755.7	3728.4	3696.0
27.5°	3534.1	3578.4	3629.5	3609.1	3573.3
30°	3338.0	3402.8	3488.0	3471.0	3445.4
32.5°	3152.2	3217.0	3334.6	3327.8	3314.1
35°	2983.4	3024.3	3162.4	3179.5	3167.5
37.5°	2823.2	2860.7	2990.2	3029.4	3019.2
40°	2654.4	2695.3	2797.6	2867.5	2870.9
42.5°	2487.3	2526.5	2610.1	2710.6	2710.6
45°	2310.0	2349.2	2425.9	2536.8	2550.4
47.5°	2136.1	2177.0	2252.1	2362.9	2385.0
50°	1965.6	2003.2	2078.2	2185.6	2219.7
52.5°	1788.3	1829.3	1902.6	2001.4	2050.9
55°	1617.9	1645.1	1725.3	1820.7	1873.6
57.5°	1440.6	1466.1	1556.5	1638.3	1692.9
60°	1270.1	1302.5	1372.4	1455.9	1519.0
62.5°	1106.4	1140.5	1200.2	1273.5	1345.1
65°	947.9	973.4	1031.4	1104.7	1167.8
67.5°	794.4	816.6	874.6	925.7	992.2
70°	639.3	668.3	710.9	760.3	803.0
72.5°	514.9	526.8	562.6	598.4	642.7
75°	380.2	400.6	429.6	450.1	475.6
77.5°	272.8	284.7	301.8	318.8	342.7
80°	182.4	187.5	202.9	206.3	225.0
82.5°	110.8	114.2	117.6	119.3	126.2
85°	59.7	59.7	59.7	56.3	56.3
87.5°	34.1	34.1	29.0	23.9	17.0
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)