

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: P558443

Luminaire Tested: **FUSL-12-4-LD4-3STD-50-UNV-93-94-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: P558443
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-50-UNV-93-94-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE
AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND
5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

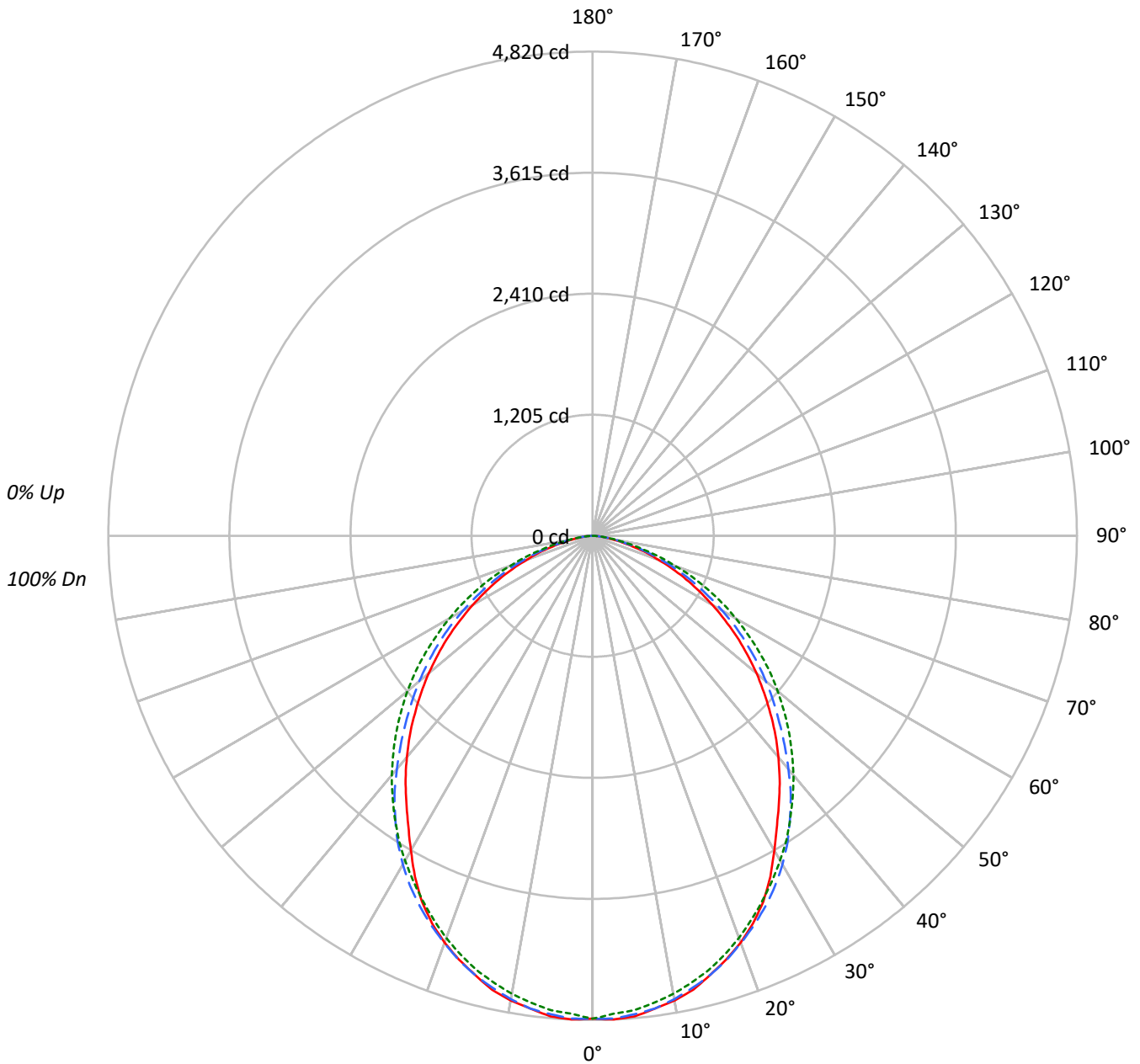
Lumens per Lamp: N/A
Luminaire Lumens: 11116.0 lumens
Efficiency: N/A
Efficacy: 111.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	12937	12937	12937
5°	12971	12916	12806
10°	12833	12798	12652
15°	12606	12606	12462
20°	12339	12355	12196
25°	11932	12080	11889
30°	11237	11741	11598
35°	10617	11254	11273
40°	10101	10646	10925
45°	9524	10002	10515
50°	8915	9425	10067
55°	8223	8769	9522
60°	7405	8001	8857
65°	6539	7115	8055
70°	5449	6059	6844
75°	4283	4839	5358
80°	3062	3406	3778
85°	1995	1995	1880



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	452.6	4.1
10°-20°	1271.6	11.4
20°-30°	1858.2	16.7
30°-40°	2109.2	19.0
40°-50°	2036.1	18.3
50°-60°	1679.7	15.1
60°-70°	1118.5	10.1
70°-80°	500.5	4.5
80°-90°	89.5	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°	3582.4	32.2
0°-40°	5691.6	51.2
0°-60°	9407.4	84.6
0°-90°	11116.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11116.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4807	4807	4807	4807	4807	
5°	4802	4800	4782	4756	4741	454
15°	4525	4536	4525	4504	4473	1276
25°	4019	4050	4069	4039	4004	1840
35°	3232	3276	3426	3444	3432	2025
45°	2502	2545	2628	2748	2763	1931
55°	1753	1782	1869	1972	2030	1564
65°	1027	1055	1117	1197	1265	1018
75°	412	434	465	488	515	450
85°	65	65	65	61	61	87
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4807.4	4807.4	4807.4	4807.4	4807.4
2.5°	4820.3	4822.2	4811.1	4781.5	4763.1
5°	4801.8	4800.0	4781.5	4755.7	4740.9
7.5°	4748.3	4752.0	4746.4	4709.5	4689.2
10°	4696.6	4698.4	4683.6	4654.1	4630.1
12.5°	4630.1	4628.2	4607.9	4593.1	4554.4
15°	4524.8	4535.9	4524.8	4504.5	4473.1
17.5°	4423.2	4423.2	4430.6	4395.5	4371.5
20°	4308.7	4314.3	4314.3	4286.6	4258.9
22.5°	4175.8	4192.4	4197.9	4168.4	4135.1
25°	4018.8	4050.2	4068.6	4039.1	4004.0
27.5°	3828.5	3876.6	3932.0	3909.8	3871.0
30°	3616.2	3686.3	3778.7	3760.2	3732.5
32.5°	3414.8	3485.0	3612.5	3605.1	3590.3
35°	3232.0	3276.3	3425.9	3444.4	3431.5
37.5°	3058.4	3099.0	3239.4	3281.9	3270.8
40°	2875.6	2919.9	3030.7	3106.4	3110.1
42.5°	2694.6	2737.1	2827.5	2936.5	2936.5
45°	2502.5	2545.0	2628.1	2748.1	2762.9
47.5°	2314.1	2358.4	2439.7	2559.8	2583.8
50°	2129.4	2170.1	2251.3	2367.7	2404.6
52.5°	1937.4	1981.7	2061.1	2168.2	2221.8
55°	1752.7	1782.2	1869.0	1972.4	2029.7
57.5°	1560.6	1588.3	1686.2	1774.8	1833.9
60°	1375.9	1411.0	1486.7	1577.2	1645.6
62.5°	1198.6	1235.6	1300.2	1379.6	1457.2
65°	1026.9	1054.6	1117.4	1196.8	1265.1
67.5°	860.6	884.6	947.4	1002.8	1074.9
70°	692.6	724.0	770.1	823.7	869.9
72.5°	557.8	570.7	609.5	648.2	696.3
75°	411.9	434.0	465.4	487.6	515.3
77.5°	295.5	308.4	326.9	345.4	371.2
80°	197.6	203.2	219.8	223.5	243.8
82.5°	120.0	123.7	127.4	129.3	136.7
85°	64.6	64.6	64.6	60.9	60.9
87.5°	36.9	36.9	31.4	25.9	18.5
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)