

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: P558363

Luminaire Tested: **FUSL-12-4-LD4-3STD-40-UNV-82-94-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: P558363
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-40-UNV-82-94-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

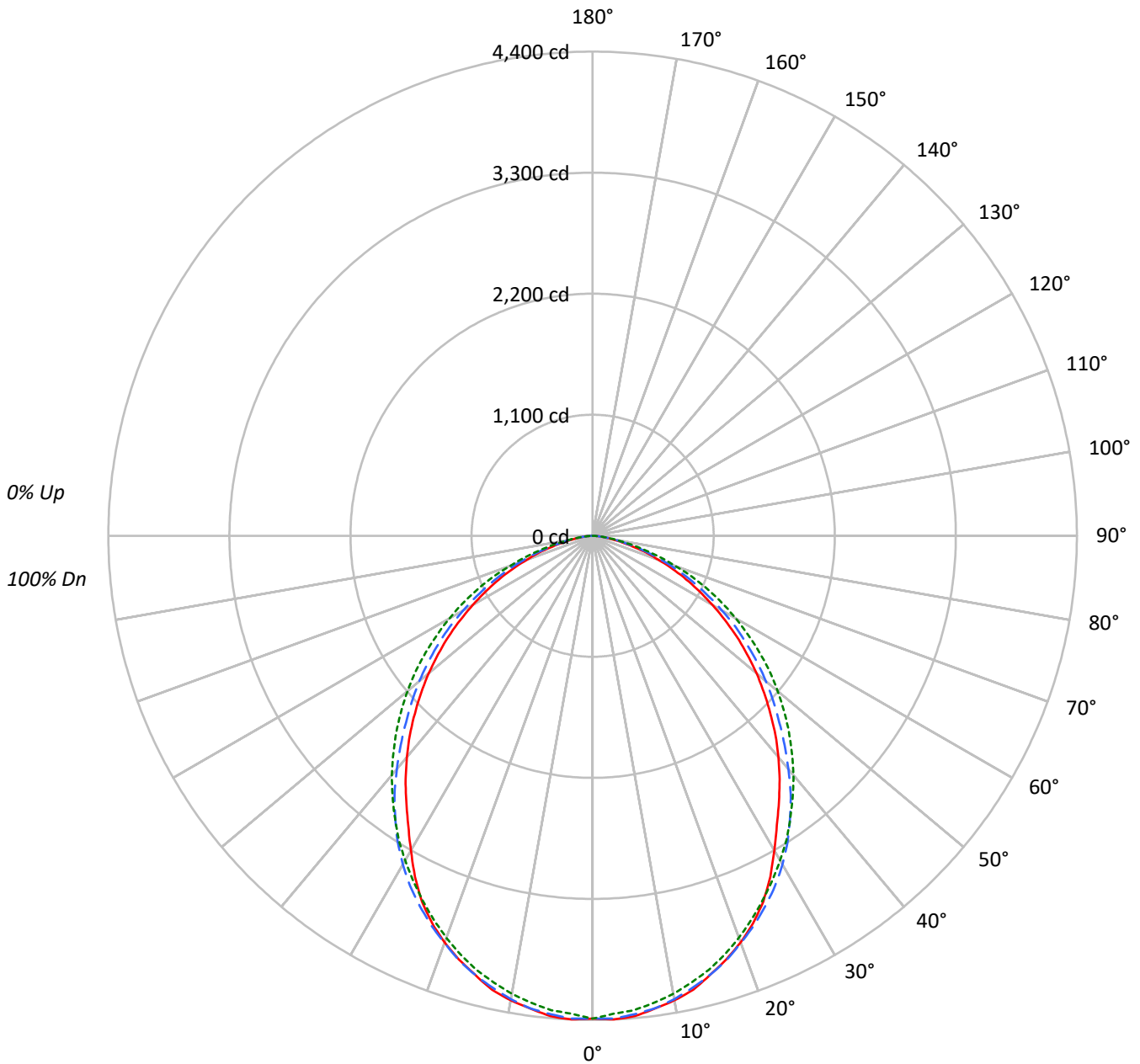
Lumens per Lamp: N/A
Luminaire Lumens: 10146.0 lumens
Efficiency: N/A
Efficacy: 101.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	11808	11808	11808
5°	11839	11789	11689
10°	11713	11681	11548
15°	11506	11506	11374
20°	11262	11277	11132
25°	10891	11026	10851
30°	10256	10717	10586
35°	9691	10272	10289
40°	9220	9717	9972
45°	8692	9129	9597
50°	8137	8603	9188
55°	7505	8003	8692
60°	6759	7303	8084
65°	5968	6493	7352
70°	4973	5530	6247
75°	3908	4417	4890
80°	2796	3109	3448
85°	1822	1822	1717



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	413.1	4.1
10°-20°	1160.6	11.4
20°-30°	1696.0	16.7
30°-40°	1925.2	19.0
40°-50°	1858.5	18.3
50°-60°	1533.1	15.1
60°-70°	1020.9	10.1
70°-80°	456.8	4.5
80°-90°	81.7	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°	3269.8	32.2
0°-40°	5194.9	51.2
0°-60°	8586.5	84.6
0°-90°	10146.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10146.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4388	4388	4388	4388	4388	
5°	4383	4381	4364	4341	4327	415
15°	4130	4140	4130	4111	4083	1164
25°	3668	3697	3714	3687	3655	1680
35°	2950	2990	3127	3144	3132	1848
45°	2284	2323	2399	2508	2522	1762
55°	1600	1627	1706	1800	1853	1428
65°	937	962	1020	1092	1155	929
75°	376	396	425	445	470	411
85°	59	59	59	56	56	80
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4387.9	<i>4387.9</i>	4387.9	4387.9	4387.9
2.5°	<i>4399.7</i>	<i>4401.4</i>	<i>4391.3</i>	<i>4364.3</i>	<i>4347.4</i>
5°	4382.8	<i>4381.1</i>	4364.3	4340.7	4327.2
7.5°	4333.9	<i>4337.3</i>	4332.3	4298.5	4280.0
10°	4286.7	<i>4288.4</i>	4274.9	4248.0	4226.1
12.5°	4226.1	<i>4224.4</i>	4205.8	4192.3	4156.9
15°	4130.0	<i>4140.1</i>	4130.0	4111.4	4082.8
17.5°	4037.3	<i>4037.3</i>	4044.0	4012.0	3990.1
20°	3932.7	<i>3937.8</i>	3937.8	3912.5	3887.2
22.5°	3811.4	<i>3826.5</i>	3831.6	3804.6	3774.3
25°	3668.1	<i>3696.7</i>	3713.6	3686.6	3654.6
27.5°	3494.5	<i>3538.3</i>	3588.9	3568.6	3533.2
30°	3300.6	<i>3364.7</i>	3448.9	3432.1	3406.8
32.5°	3116.9	<i>3180.9</i>	3297.2	3290.5	3277.0
35°	2950.0	<i>2990.4</i>	3127.0	3143.8	3132.0
37.5°	2791.5	<i>2828.6</i>	2956.7	2995.5	2985.4
40°	2624.6	<i>2665.1</i>	2766.2	2835.4	2838.7
42.5°	2459.4	<i>2498.2</i>	2580.8	2680.3	2680.3
45°	2284.1	<i>2322.9</i>	2398.8	2508.3	2521.8
47.5°	2112.2	<i>2152.6</i>	2226.8	2336.4	2358.3
50°	1943.6	<i>1980.7</i>	2054.9	2161.1	2194.8
52.5°	1768.3	<i>1808.8</i>	1881.2	1979.0	2027.9
55°	1599.7	<i>1626.7</i>	1705.9	1800.3	1852.6
57.5°	1424.4	<i>1449.7</i>	1539.0	1620.0	1673.9
60°	1255.8	<i>1287.9</i>	1357.0	1439.6	1502.0
62.5°	1094.0	<i>1127.7</i>	1186.7	1259.2	1330.0
65°	937.3	<i>962.5</i>	1019.8	1092.3	1154.7
67.5°	785.5	<i>807.5</i>	864.8	915.3	981.1
70°	632.1	<i>660.8</i>	702.9	751.8	794.0
72.5°	509.1	<i>520.9</i>	556.3	591.7	635.5
75°	375.9	<i>396.1</i>	424.8	445.0	470.3
77.5°	269.7	<i>281.5</i>	298.4	315.2	338.8
80°	180.4	<i>185.4</i>	200.6	204.0	222.5
82.5°	109.6	<i>112.9</i>	116.3	118.0	124.7
85°	59.0	<i>59.0</i>	59.0	55.6	55.6
87.5°	33.7	<i>33.7</i>	28.7	23.6	16.9
90°	0.0	<i>0.0</i>	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)