

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: P558295

Luminaire Tested: **FUSL-12-4-LD4-3STD-35-UNV-82-87-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: P558295
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-82-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

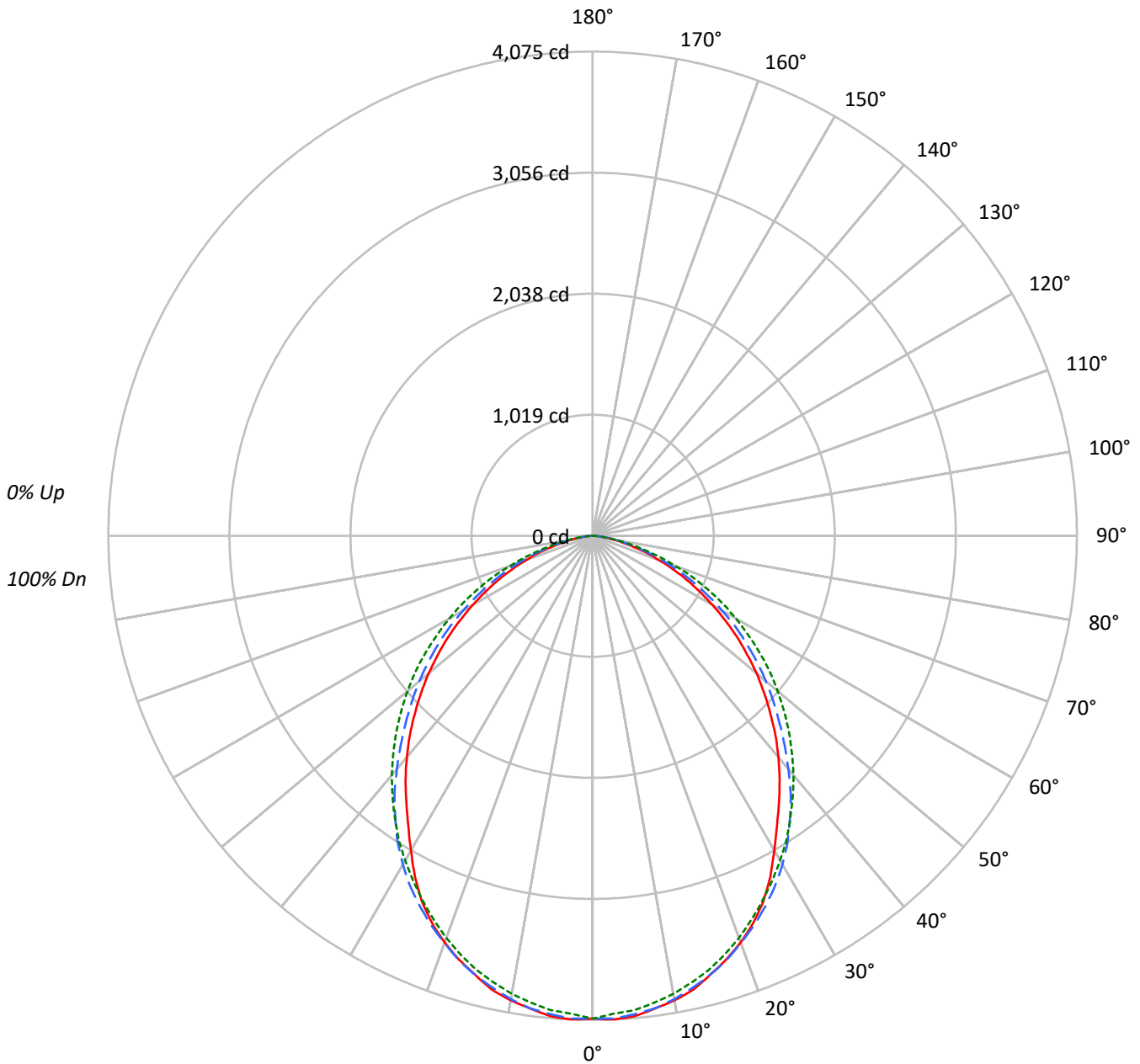
Lumens per Lamp: N/A
Luminaire Lumens: 9397.0 lumens
Efficiency: N/A
Efficacy: 94.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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				20				20	
RC	80				70				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				100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86				86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73				73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63				63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54				54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47				47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42				42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37				37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34				34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30				30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28				28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10936	10936	10936
5°	10965	10919	10826
10°	10849	10819	10695
15°	10656	10656	10535
20°	10431	10444	10310
25°	10087	10212	10050
30°	9499	9926	9804
35°	8975	9514	9529
40°	8539	9000	9236
45°	8051	8455	8888
50°	7536	7968	8510
55°	6951	7413	8050
60°	6260	6764	7487
65°	5528	6015	6810
70°	4607	5122	5786
75°	3620	4090	4529
80°	2590	2879	3194
85°	1686	1686	1590



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	382.6	4.1
10°-20°	1074.9	11.4
20°-30°	1570.8	16.7
30°-40°	1783.1	19.0
40°-50°	1721.3	18.3
50°-60°	1419.9	15.1
60°-70°	945.6	10.1
70°-80°	423.1	4.5
80°-90°	75.7	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°	3028.4	32.2
0°-40°	4811.4	51.2
0°-60°	7952.6	84.6
0°-90°	9397.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9397.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4064	4064	4064	4064	4064	
5°	4059	4058	4042	4020	4008	384
15°	3825	3834	3825	3808	3781	1078
25°	3397	3424	3440	3414	3385	1556
35°	2732	2770	2896	2912	2901	1712
45°	2116	2151	2222	2323	2336	1632
55°	1482	1507	1580	1667	1716	1322
65°	868	892	945	1012	1070	861
75°	348	367	393	412	436	381
85°	55	55	55	52	52	74
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4064.0	4064.0	4064.0	4064.0	4064.0
2.5°	4074.9	4076.4	4067.1	4042.1	4026.5
5°	4059.3	4057.7	4042.1	4020.2	4007.8
7.5°	4014.0	4017.1	4012.4	3981.2	3964.0
10°	3970.3	3971.8	3959.4	3934.4	3914.1
12.5°	3914.1	3912.5	3895.3	3882.9	3850.1
15°	3825.1	3834.5	3825.1	3807.9	3781.4
17.5°	3739.2	3739.2	3745.5	3715.8	3695.5
20°	3642.4	3647.1	3647.1	3623.7	3600.3
22.5°	3530.0	3544.1	3548.7	3523.8	3495.7
25°	3397.3	3423.8	3439.5	3414.5	3384.8
27.5°	3236.5	3277.1	3323.9	3305.2	3272.4
30°	3056.9	3116.3	3194.3	3178.7	3155.3
32.5°	2886.8	2946.1	3053.8	3047.6	3035.1
35°	2732.2	2769.7	2896.1	2911.7	2900.8
37.5°	2585.4	2619.8	2738.5	2774.4	2765.0
40°	2430.9	2468.4	2562.0	2626.0	2629.2
42.5°	2277.9	2313.8	2390.3	2482.4	2482.4
45°	2115.5	2151.4	2221.7	2323.2	2335.6
47.5°	1956.3	1993.7	2062.4	2163.9	2184.2
50°	1800.1	1834.5	1903.2	2001.5	2032.8
52.5°	1637.8	1675.2	1742.4	1832.9	1878.2
55°	1481.6	1506.6	1580.0	1667.4	1715.8
57.5°	1319.3	1342.7	1425.4	1500.4	1550.3
60°	1163.1	1192.8	1256.8	1333.3	1391.1
62.5°	1013.3	1044.5	1099.1	1166.3	1231.8
65°	868.1	891.5	944.6	1011.7	1069.5
67.5°	727.5	747.8	800.9	847.8	908.7
70°	585.5	612.0	651.0	696.3	735.4
72.5°	471.5	482.4	515.2	548.0	588.6
75°	348.2	366.9	393.4	412.2	435.6
77.5°	249.8	260.7	276.3	292.0	313.8
80°	167.1	171.7	185.8	188.9	206.1
82.5°	101.5	104.6	107.7	109.3	115.5
85°	54.6	54.6	54.6	51.5	51.5
87.5°	31.2	31.2	26.5	21.9	15.6
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)