

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: P557714

Luminaire Tested: **FUSL-12-4-LD4-3HI-30-UNV-82-85-EDD-90**

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: P557714
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-LD4-3HI-30-UNV-82-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

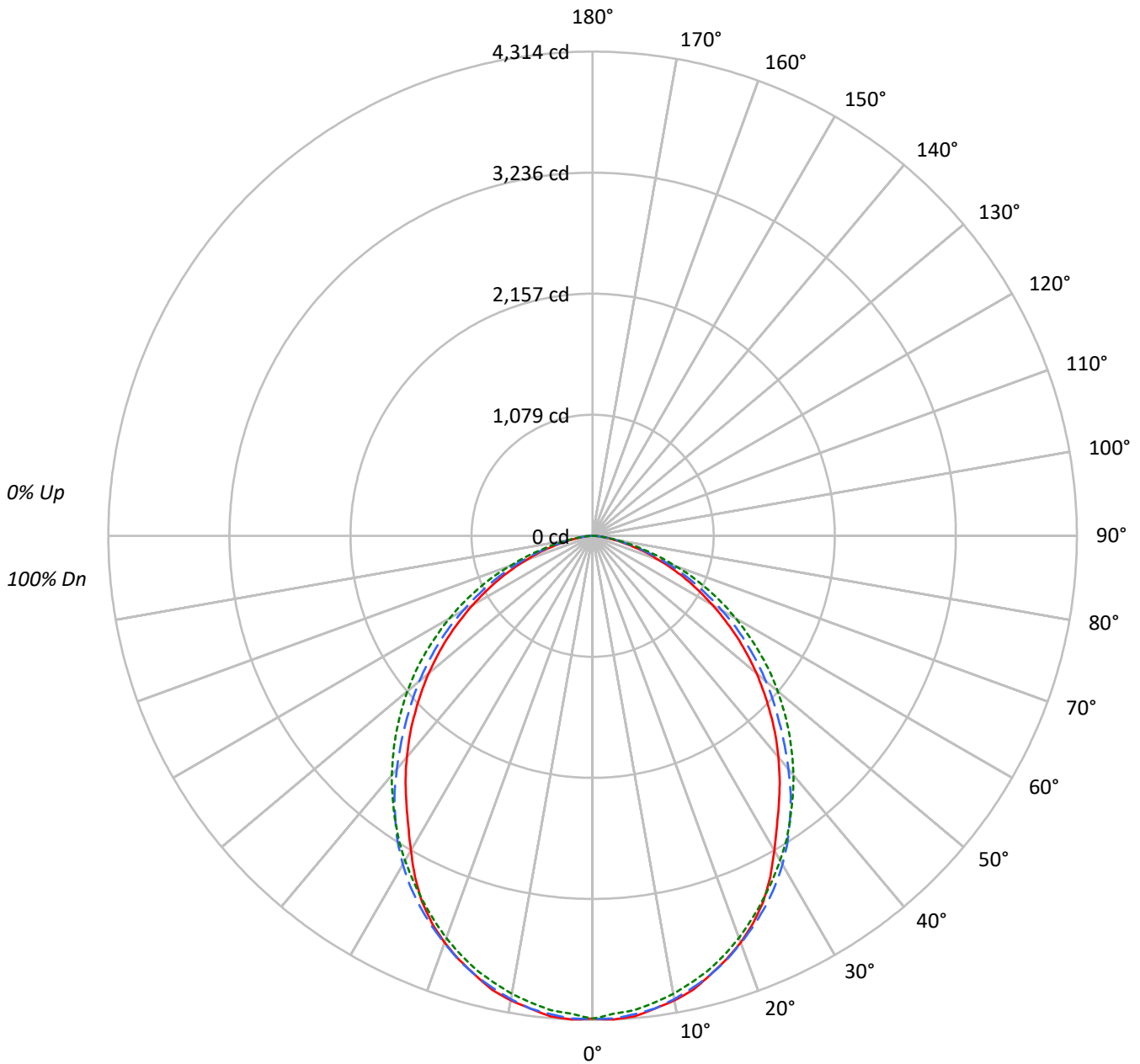
Lumens per Lamp: N/A
Luminaire Lumens: 9949.0 lumens
Efficiency: N/A
Efficacy: 76.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
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°	11578	11578	11578
5°	11609	11560	11462
10°	11486	11454	11323
15°	11282	11282	11153
20°	11043	11058	10916
25°	10680	10812	10640
30°	10057	10509	10380
35°	9503	10073	10089
40°	9041	9529	9778
45°	8524	8952	9411
50°	7979	8436	9010
55°	7360	7848	8523
60°	6628	7161	7927
65°	5852	6367	7210
70°	4877	5423	6125
75°	3832	4330	4795
80°	2741	3048	3381
85°	1788	1788	1683



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	405.1	4.1
10°-20°	1138.1	11.4
20°-30°	1663.1	16.7
30°-40°	1887.8	19.0
40°-50°	1822.4	18.3
50°-60°	1503.3	15.1
60°-70°	1001.1	10.1
70°-80°	448.0	4.5
80°-90°	80.1	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°	3206.3	32.2
0°-40°	5094.1	51.2
0°-60°	8419.8	84.6
0°-90°	9949.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9949.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4303	4303	4303	4303	4303	
5°	4298	4296	4280	4256	4243	407
15°	4050	4060	4050	4032	4004	1142
25°	3597	3625	3642	3615	3584	1647
35°	2893	2932	3066	3083	3071	1812
45°	2240	2278	2352	2460	2473	1728
55°	1569	1595	1673	1765	1817	1400
65°	919	944	1000	1071	1132	911
75°	369	388	416	436	461	403
85°	58	58	58	54	54	78
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4302.7	4302.7	4302.7	4302.7	4302.7
2.5°	4314.3	4315.9	4306.0	4279.5	4263.0
5°	4297.7	4296.1	4279.5	4256.4	4243.2
7.5°	4249.8	4253.1	4248.1	4215.1	4196.9
10°	4203.5	4205.2	4191.9	4165.5	4144.0
12.5°	4144.0	4142.3	4124.2	4110.9	4076.2
15°	4049.8	4059.7	4049.8	4031.6	4003.5
17.5°	3958.9	3958.9	3965.5	3934.1	3912.6
20°	3856.4	3861.3	3861.3	3836.5	3811.8
22.5°	3737.4	3752.2	3757.2	3730.8	3701.0
25°	3596.9	3625.0	3641.5	3615.0	3583.6
27.5°	3426.6	3469.6	3519.2	3499.3	3464.6
30°	3236.5	3299.3	3382.0	3365.5	3340.7
32.5°	3056.3	3119.2	3233.2	3226.6	3213.4
35°	2892.7	2932.4	3066.3	3082.8	3071.2
37.5°	2737.3	2773.7	2899.3	2937.3	2927.4
40°	2573.7	2613.3	2712.5	2780.3	2783.6
42.5°	2411.7	2449.7	2530.7	2628.2	2628.2
45°	2239.8	2277.8	2352.2	2459.6	2472.8
47.5°	2071.2	2110.8	2183.6	2291.0	2312.5
50°	1905.9	1942.2	2015.0	2119.1	2152.2
52.5°	1734.0	1773.6	1844.7	1940.6	1988.5
55°	1568.7	1595.1	1672.8	1765.4	1816.6
57.5°	1396.8	1421.6	1509.2	1588.5	1641.4
60°	1231.5	1262.9	1330.6	1411.6	1472.8
62.5°	1072.8	1105.8	1163.7	1234.8	1304.2
65°	919.1	943.8	1000.0	1071.1	1132.3
67.5°	770.3	791.8	848.0	897.6	962.0
70°	619.9	648.0	689.3	737.2	778.5
72.5°	499.2	510.8	545.5	580.2	623.2
75°	368.6	388.4	416.5	436.4	461.2
77.5°	264.5	276.0	292.6	309.1	332.2
80°	176.9	181.8	196.7	200.0	218.2
82.5°	107.4	110.7	114.1	115.7	122.3
85°	57.9	57.9	57.9	54.5	54.5
87.5°	33.1	33.1	28.1	23.1	16.5
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)