

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: P558232

Luminaire Tested: **FUSL-12-4-LD4-3STD-30-UNV-82-88-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: P558232
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-30-UNV-82-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

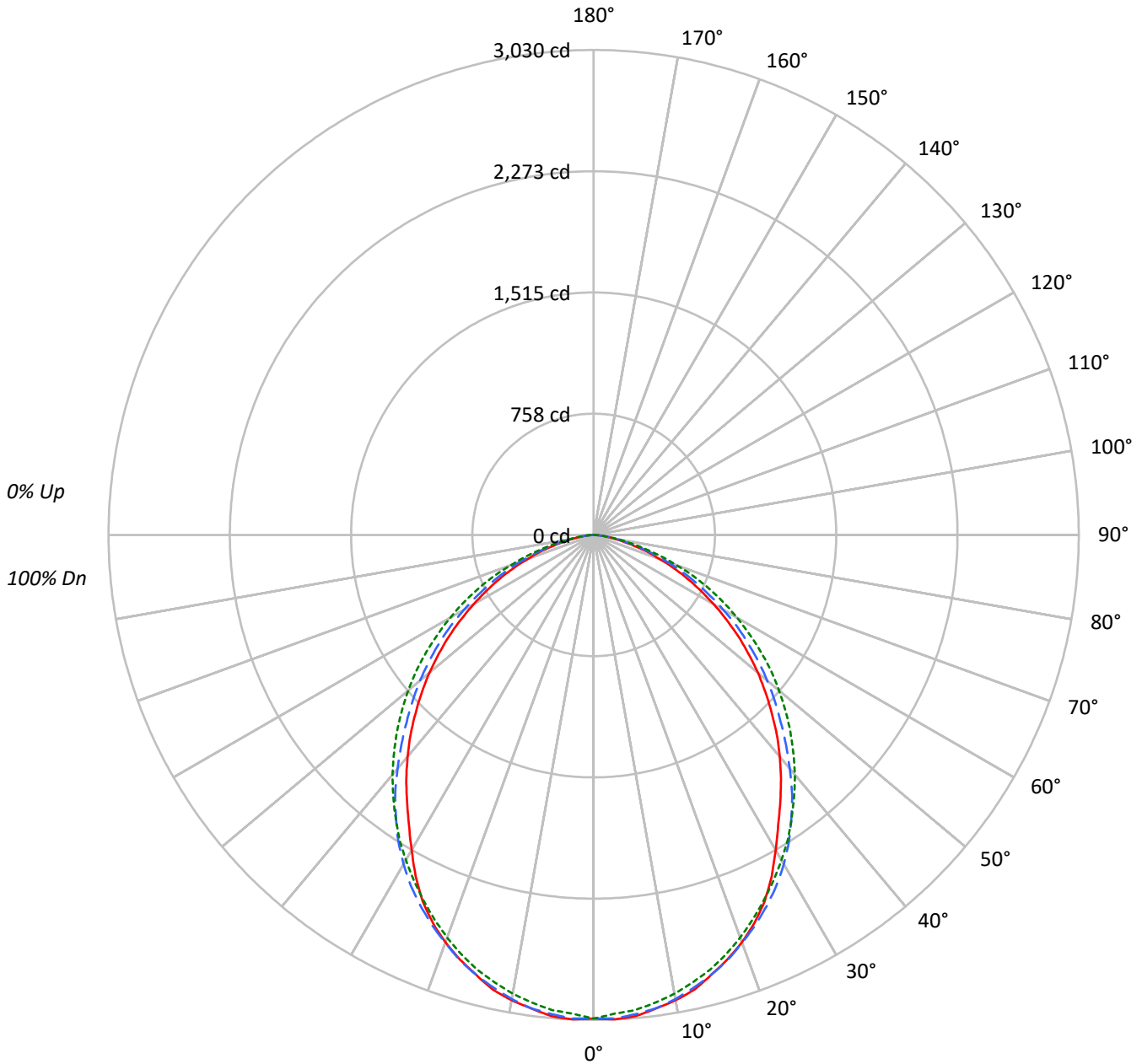
Lumens per Lamp: N/A
Luminaire Lumens: 6987.0 lumens
Efficiency: N/A
Efficacy: 69.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	8131	8131	8131
5°	8153	8118	8049
10°	8066	8044	7952
15°	7923	7923	7833
20°	7756	7765	7666
25°	7500	7593	7473
30°	7063	7380	7290
35°	6674	7074	7086
40°	6349	6692	6867
45°	5986	6287	6609
50°	5604	5924	6327
55°	5168	5512	5986
60°	4654	5029	5567
65°	4110	4472	5063
70°	3425	3809	4302
75°	2692	3041	3368
80°	1925	2140	2374
85°	1254	1254	1183



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	284.5	4.1
10°-20°	799.2	11.4
20°-30°	1168.0	16.7
30°-40°	1325.8	19.0
40°-50°	1279.8	18.3
50°-60°	1055.8	15.1
60°-70°	703.0	10.1
70°-80°	314.6	4.5
80°-90°	56.3	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°	2251.7	32.2
0°-40°	3577.5	51.2
0°-60°	5913.1	84.6
0°-90°	6987.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6987.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3022	3022	3022	3022	3022	
5°	3018	3017	3005	2989	2980	286
15°	2844	2851	2844	2831	2812	802
25°	2526	2546	2557	2539	2517	1157
35°	2032	2059	2153	2165	2157	1273
45°	1573	1600	1652	1727	1737	1214
55°	1102	1120	1175	1240	1276	983
65°	645	663	702	752	795	640
75°	259	273	292	306	324	283
85°	41	41	41	38	38	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3021.7	3021.7	3021.7	3021.7	3021.7
2.5°	3029.8	3031.0	3024.0	3005.4	2993.8
5°	3018.2	3017.1	3005.4	2989.2	2979.9
7.5°	2984.5	2986.9	2983.4	2960.2	2947.4
10°	2952.0	2953.2	2943.9	2925.3	2910.3
12.5°	2910.3	2909.1	2896.3	2887.0	2862.7
15°	2844.1	2851.1	2844.1	2831.3	2811.6
17.5°	2780.2	2780.2	2784.9	2762.8	2747.7
20°	2708.3	2711.7	2711.7	2694.3	2676.9
22.5°	2624.7	2635.1	2638.6	2620.0	2599.1
25°	2526.0	2545.7	2557.4	2538.8	2516.7
27.5°	2406.4	2436.6	2471.5	2457.5	2433.1
30°	2272.9	2317.1	2375.1	2363.5	2346.1
32.5°	2146.4	2190.5	2270.6	2266.0	2256.7
35°	2031.5	2059.4	2153.4	2165.0	2156.9
37.5°	1922.4	1947.9	2036.1	2062.8	2055.9
40°	1807.4	1835.3	1905.0	1952.6	1954.9
42.5°	1693.7	1720.4	1777.3	1845.8	1845.8
45°	1573.0	1599.7	1651.9	1727.3	1736.6
47.5°	1454.5	1482.4	1533.5	1608.9	1624.0
50°	1338.5	1364.0	1415.1	1488.2	1511.4
52.5°	1217.7	1245.6	1295.5	1362.8	1396.5
55°	1101.6	1120.2	1174.8	1239.8	1275.8
57.5°	980.9	998.3	1059.9	1115.6	1152.7
60°	864.8	886.9	934.5	991.4	1034.3
62.5°	753.4	776.6	817.2	867.2	915.9
65°	645.4	662.8	702.3	752.2	795.2
67.5°	541.0	556.0	595.5	630.3	675.6
70°	435.3	455.1	484.1	517.7	546.8
72.5°	350.6	358.7	383.1	407.5	437.6
75°	258.9	272.8	292.5	306.5	323.9
77.5°	185.7	193.9	205.5	217.1	233.3
80°	124.2	127.7	138.1	140.5	153.2
82.5°	75.5	77.8	80.1	81.3	85.9
85°	40.6	40.6	40.6	38.3	38.3
87.5°	23.2	23.2	19.7	16.3	11.6
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)