

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: P558027

Luminaire Tested: **FUSL-12-4-LD4-3LO-35-UNV-81-94-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: P558027
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-LD4-3LO-35-UNV-81-94-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

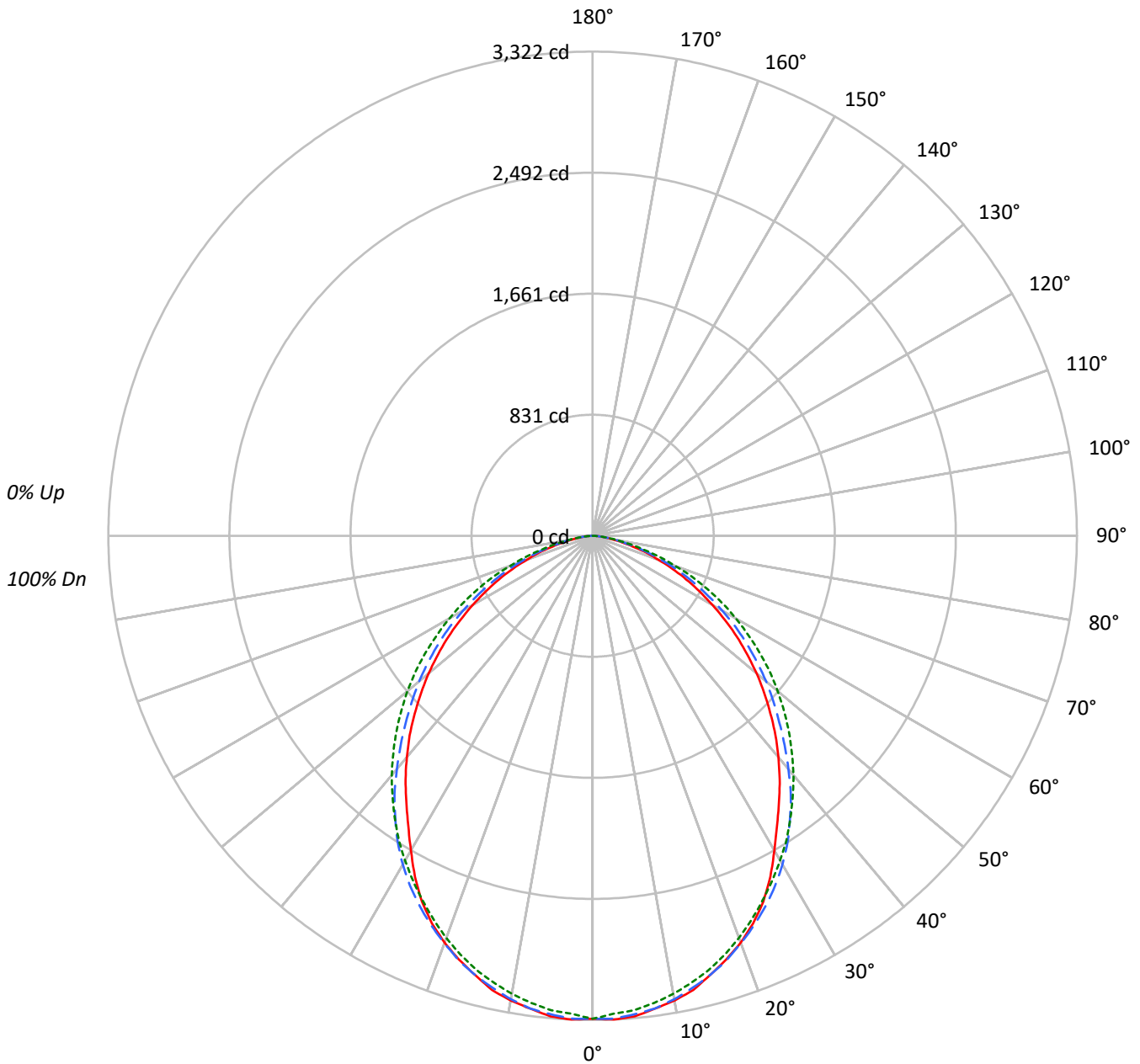
Lumens per Lamp: N/A
Luminaire Lumens: 7662.0 lumens
Efficiency: N/A
Efficacy: 109.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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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CATALOG NUMBER: FUSL-12-4-LD4-3LO-35-UNV-81-94-EDD

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°	8917	8917	8917
5°	8941	8903	8827
10°	8846	8821	8720
15°	8689	8689	8590
20°	8505	8516	8406
25°	8225	8327	8195
30°	7745	8093	7994
35°	7318	7757	7770
40°	6963	7338	7530
45°	6564	6894	7247
50°	6145	6496	6939
55°	5668	6044	6564
60°	5104	5515	6104
65°	4507	4904	5552
70°	3756	4176	4718
75°	2952	3335	3693
80°	2111	2348	2603
85°	1377	1377	1297



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	312.0	4.1
10°-20°	876.5	11.4
20°-30°	1280.8	16.7
30°-40°	1453.8	19.0
40°-50°	1403.5	18.3
50°-60°	1157.8	15.1
60°-70°	771.0	10.1
70°-80°	345.0	4.5
80°-90°	61.7	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°	2469.2	32.2
0°-40°	3923.1	51.2
0°-60°	6484.3	84.6
0°-90°	7662.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7662.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3314	3314	3314	3314	3314	
5°	3310	3308	3296	3278	3268	313
15°	3119	3126	3119	3105	3083	879
25°	2770	2792	2804	2784	2760	1269
35°	2228	2258	2361	2374	2365	1396
45°	1725	1754	1812	1894	1904	1331
55°	1208	1228	1288	1360	1399	1078
65°	708	727	770	825	872	702
75°	284	299	321	336	355	310
85°	45	45	45	42	42	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3313.6	3313.6	3313.6	3313.6	3313.6
2.5°	3322.5	3323.8	3316.2	3295.8	3283.1
5°	3309.8	3308.5	3295.8	3278.0	3267.8
7.5°	3272.9	3275.4	3271.6	3246.1	3232.1
10°	3237.2	3238.5	3228.3	3208.0	3191.4
12.5°	3191.4	3190.1	3176.1	3165.9	3139.2
15°	3118.8	3126.5	3118.8	3104.8	3083.2
17.5°	3048.8	3048.8	3053.9	3029.7	3013.2
20°	2969.9	2973.7	2973.7	2954.6	2935.5
22.5°	2878.3	2889.7	2893.5	2873.2	2850.2
25°	2770.0	2791.7	2804.4	2784.0	2759.9
27.5°	2638.9	2672.0	2710.2	2694.9	2668.2
30°	2492.5	2540.9	2604.6	2591.8	2572.7
32.5°	2353.8	2402.1	2490.0	2484.9	2474.7
35°	2227.7	2258.3	2361.4	2374.1	2365.2
37.5°	2108.1	2136.1	2232.8	2262.1	2254.5
40°	1982.1	2012.6	2089.0	2141.2	2143.7
42.5°	1857.3	1886.6	1949.0	2024.1	2024.1
45°	1724.9	1754.2	1811.5	1894.2	1904.4
47.5°	1595.1	1625.6	1681.6	1764.4	1780.9
50°	1467.8	1495.8	1551.8	1632.0	1657.4
52.5°	1335.4	1365.9	1420.7	1494.5	1531.4
55°	1208.1	1228.4	1288.3	1359.6	1399.0
57.5°	1075.7	1094.8	1162.2	1223.4	1264.1
60°	948.4	972.6	1024.8	1087.1	1134.2
62.5°	826.2	851.6	896.2	950.9	1004.4
65°	707.8	726.9	770.2	824.9	872.0
67.5°	593.2	609.8	653.0	691.2	740.9
70°	477.4	499.0	530.8	567.8	599.6
72.5°	384.4	393.4	420.1	446.8	479.9
75°	283.9	299.2	320.8	336.1	355.2
77.5°	203.7	212.6	225.3	238.1	255.9
80°	136.2	140.0	151.5	154.0	168.0
82.5°	82.7	85.3	87.8	89.1	94.2
85°	44.6	44.6	44.6	42.0	42.0
87.5°	25.5	25.5	21.6	17.8	12.7
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)