

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: P558188

Luminaire Tested: **FUSL-12-4-LD4-3LO-50-UNV-93-96-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: P558188
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-50-UNV-93-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

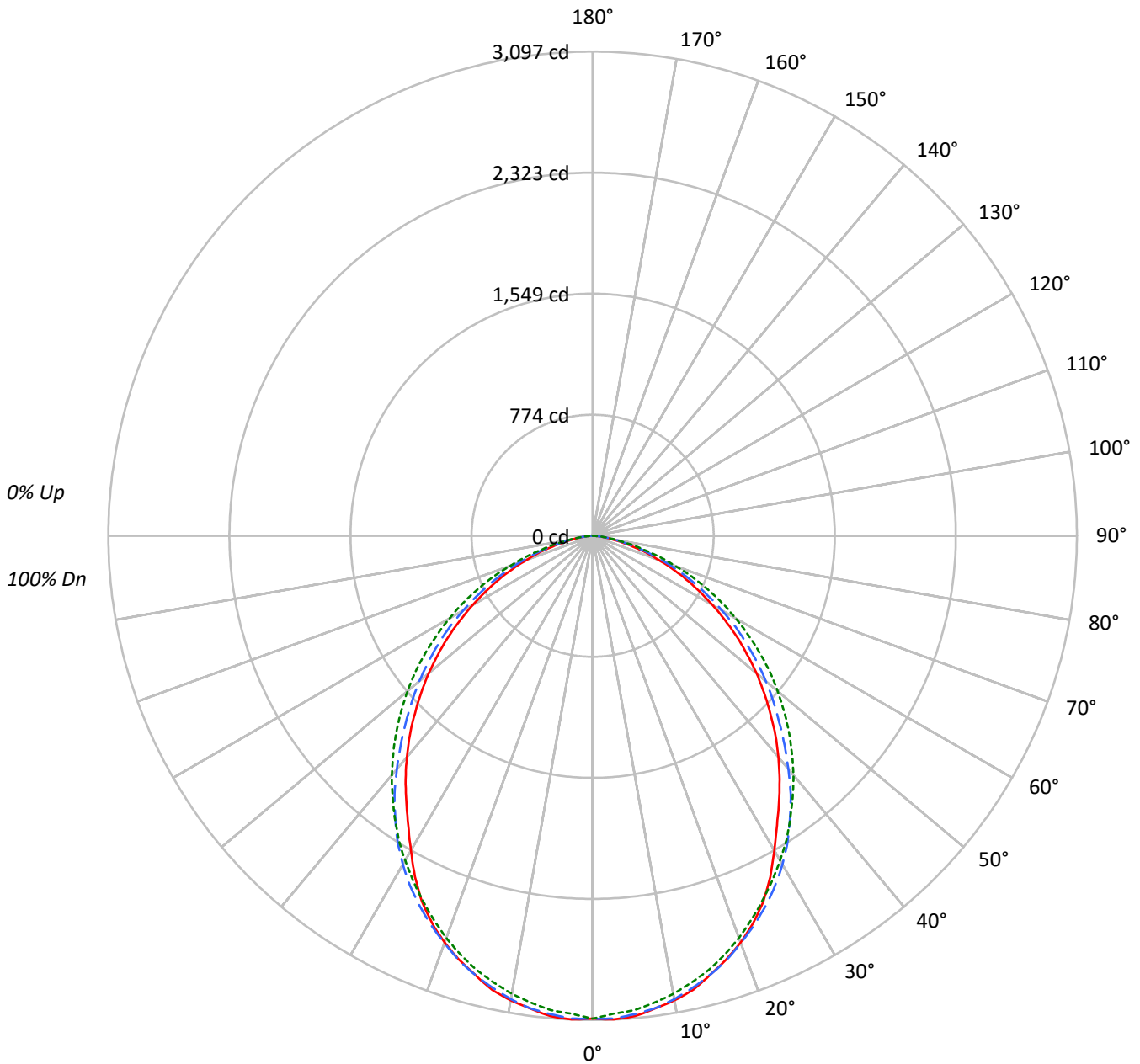
Lumens per Lamp: N/A
Luminaire Lumens: 7142.0 lumens
Efficiency: N/A
Efficacy: 101.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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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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°	8312	8312	8312
5°	8334	8299	8228
10°	8245	8223	8129
15°	8099	8099	8007
20°	7928	7938	7836
25°	7667	7762	7638
30°	7219	7544	7452
35°	6822	7231	7243
40°	6490	6840	7019
45°	6119	6426	6756
50°	5728	6056	6468
55°	5283	5634	6118
60°	4758	5141	5690
65°	4201	4571	5175
70°	3501	3893	4397
75°	2751	3109	3442
80°	1968	2188	2427
85°	1281	1281	1210



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	290.8	4.1
10°-20°	817.0	11.4
20°-30°	1193.9	16.7
30°-40°	1355.2	19.0
40°-50°	1308.2	18.3
50°-60°	1079.2	15.1
60°-70°	718.6	10.1
70°-80°	321.6	4.5
80°-90°	57.5	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°	2301.7	32.2
0°-40°	3656.8	51.2
0°-60°	6044.2	84.6
0°-90°	7142.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7142.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3089	3089	3089	3089	3089	
5°	3085	3084	3072	3056	3046	292
15°	2907	2914	2907	2894	2874	820
25°	2582	2602	2614	2595	2573	1182
35°	2077	2105	2201	2213	2205	1301
45°	1608	1635	1688	1766	1775	1241
55°	1126	1145	1201	1267	1304	1005
65°	660	678	718	769	813	654
75°	265	279	299	313	331	289
85°	42	42	42	39	39	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3088.7	3088.7	3088.7	3088.7	3088.7
2.5°	3097.0	3098.2	3091.1	3072.1	3060.3
5°	3085.2	3084.0	3072.1	3055.5	3046.0
7.5°	3050.8	3053.1	3049.6	3025.8	3012.8
10°	3017.5	3018.7	3009.2	2990.2	2974.8
12.5°	2974.8	2973.6	2960.6	2951.1	2926.2
15°	2907.2	2914.3	2907.2	2894.1	2874.0
17.5°	2841.9	2841.9	2846.7	2824.1	2808.7
20°	2768.3	2771.9	2771.9	2754.1	2736.3
22.5°	2682.9	2693.6	2697.2	2678.2	2656.8
25°	2582.1	2602.2	2614.1	2595.1	2572.6
27.5°	2459.8	2490.7	2526.3	2512.0	2487.1
30°	2323.4	2368.5	2427.8	2415.9	2398.1
32.5°	2194.0	2239.1	2321.0	2316.3	2306.8
35°	2076.6	2105.0	2201.2	2213.0	2204.7
37.5°	1965.0	1991.1	2081.3	2108.6	2101.5
40°	1847.5	1876.0	1947.2	1995.9	1998.2
42.5°	1731.3	1758.5	1816.7	1886.7	1886.7
45°	1607.8	1635.1	1688.5	1765.7	1775.2
47.5°	1486.8	1515.3	1567.5	1644.6	1660.1
50°	1368.2	1394.3	1446.5	1521.2	1545.0
52.5°	1244.7	1273.2	1324.3	1393.1	1427.5
55°	1126.1	1145.1	1200.8	1267.3	1304.1
57.5°	1002.7	1020.5	1083.4	1140.3	1178.3
60°	884.0	906.6	955.2	1013.4	1057.3
62.5°	770.1	793.8	835.4	886.4	936.2
65°	659.8	677.6	717.9	768.9	812.8
67.5°	553.0	568.4	608.7	644.3	690.6
70°	445.0	465.1	494.8	529.2	558.9
72.5°	358.4	366.7	391.6	416.5	447.3
75°	264.6	278.9	299.0	313.3	331.1
77.5°	189.9	198.2	210.0	221.9	238.5
80°	127.0	130.5	141.2	143.6	156.6
82.5°	77.1	79.5	81.9	83.1	87.8
85°	41.5	41.5	41.5	39.2	39.2
87.5°	23.7	23.7	20.2	16.6	11.9
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)