

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: P557148

Luminaire Tested: **FUSL-12-4-LD4-2HI-50-UNV-82-96-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: P557148
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-LD4-2HI-50-UNV-82-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDES
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

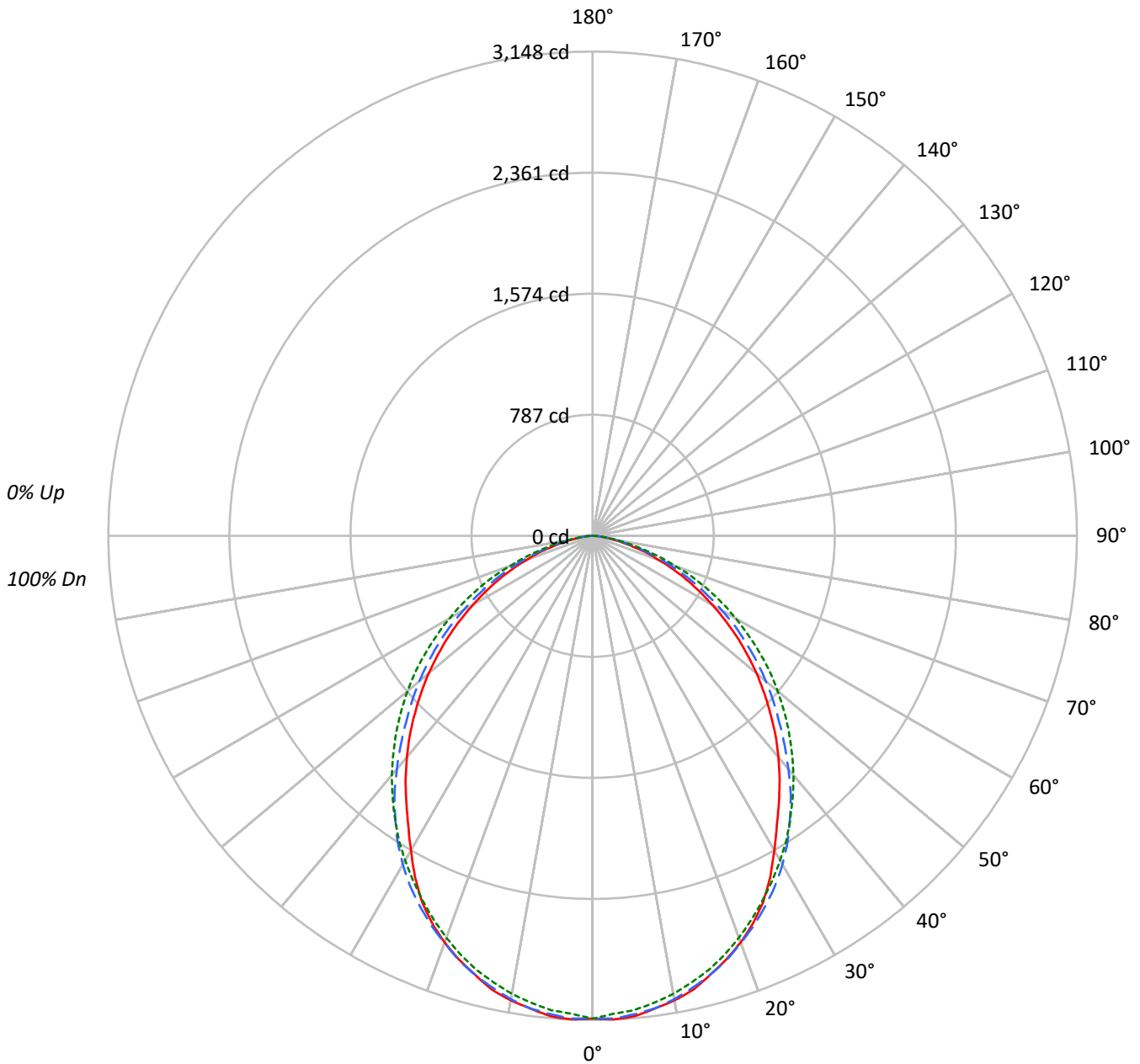
Lumens per Lamp: N/A
Luminaire Lumens: 7259.0 lumens
Efficiency: N/A
Efficacy: 84.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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°	8448	8448	8448
5°	8470	8434	8363
10°	8381	8357	8262
15°	8232	8232	8138
20°	8058	8068	7964
25°	7792	7889	7763
30°	7338	7668	7574
35°	6933	7349	7361
40°	6596	6952	7135
45°	6219	6531	6866
50°	5822	6155	6574
55°	5370	5726	6218
60°	4836	5225	5783
65°	4270	4646	5260
70°	3559	3957	4469
75°	2796	3160	3499
80°	1999	2224	2467
85°	1303	1303	1229



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	295.6	4.1
10°-20°	830.4	11.4
20°-30°	1213.4	16.7
30°-40°	1377.4	19.0
40°-50°	1329.6	18.3
50°-60°	1096.9	15.1
60°-70°	730.4	10.1
70°-80°	326.9	4.5
80°-90°	58.5	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°	2339.4	32.2
0°-40°	3716.7	51.2
0°-60°	6143.2	84.6
0°-90°	7259.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7259.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3139	3139	3139	3139	3139	
5°	3136	3134	3122	3106	3096	297
15°	2955	2962	2955	2942	2921	833
25°	2624	2645	2657	2638	2615	1202
35°	2111	2140	2237	2249	2241	1322
45°	1634	1662	1716	1795	1804	1261
55°	1144	1164	1220	1288	1325	1022
65°	671	689	730	782	826	665
75°	269	283	304	318	336	294
85°	42	42	42	40	40	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3139.3	3139.3	3139.3	3139.3	3139.3
2.5°	3147.8	3149.0	3141.7	3122.4	3110.4
5°	3135.7	3134.5	3122.4	3105.6	3095.9
7.5°	3100.7	3103.1	3099.5	3075.4	3062.1
10°	3067.0	3068.2	3058.5	3039.2	3023.5
12.5°	3023.5	3022.3	3009.1	2999.4	2974.1
15°	2954.8	2962.0	2954.8	2941.5	2921.0
17.5°	2888.5	2888.5	2893.3	2870.4	2854.7
20°	2813.7	2817.3	2817.3	2799.2	2781.1
22.5°	2726.9	2737.7	2741.3	2722.0	2700.3
25°	2624.3	2644.9	2656.9	2637.6	2614.7
27.5°	2500.1	2531.5	2567.7	2553.2	2527.9
30°	2361.4	2407.3	2467.6	2455.5	2437.4
32.5°	2230.0	2275.8	2359.0	2354.2	2344.5
35°	2110.6	2139.5	2237.2	2249.3	2240.8
37.5°	1997.2	2023.7	2115.4	2143.1	2135.9
40°	1877.8	1906.8	1979.1	2028.6	2031.0
42.5°	1759.6	1787.4	1846.5	1917.6	1917.6
45°	1634.2	1661.9	1716.2	1794.6	1804.2
47.5°	1511.2	1540.1	1593.2	1671.6	1687.3
50°	1390.6	1417.1	1470.2	1546.1	1570.3
52.5°	1265.1	1294.1	1345.9	1415.9	1450.9
55°	1144.5	1163.8	1220.5	1288.1	1325.4
57.5°	1019.1	1037.2	1101.1	1159.0	1197.6
60°	898.5	921.4	970.9	1030.0	1074.6
62.5°	782.7	806.8	849.1	900.9	951.6
65°	670.6	688.7	729.7	781.5	826.1
67.5°	562.0	577.7	618.7	654.9	701.9
70°	452.3	472.8	502.9	537.9	568.0
72.5°	364.2	372.7	398.0	423.3	454.7
75°	268.9	283.4	303.9	318.4	336.5
77.5°	193.0	201.4	213.5	225.5	242.4
80°	129.0	132.7	143.5	145.9	159.2
82.5°	78.4	80.8	83.2	84.4	89.2
85°	42.2	42.2	42.2	39.8	39.8
87.5°	24.1	24.1	20.5	16.9	12.1
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)