

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: P557120

Luminaire Tested: **FUSL-12-4-LD4-2HI-50-UNV-81-84-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: P557120
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-81-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

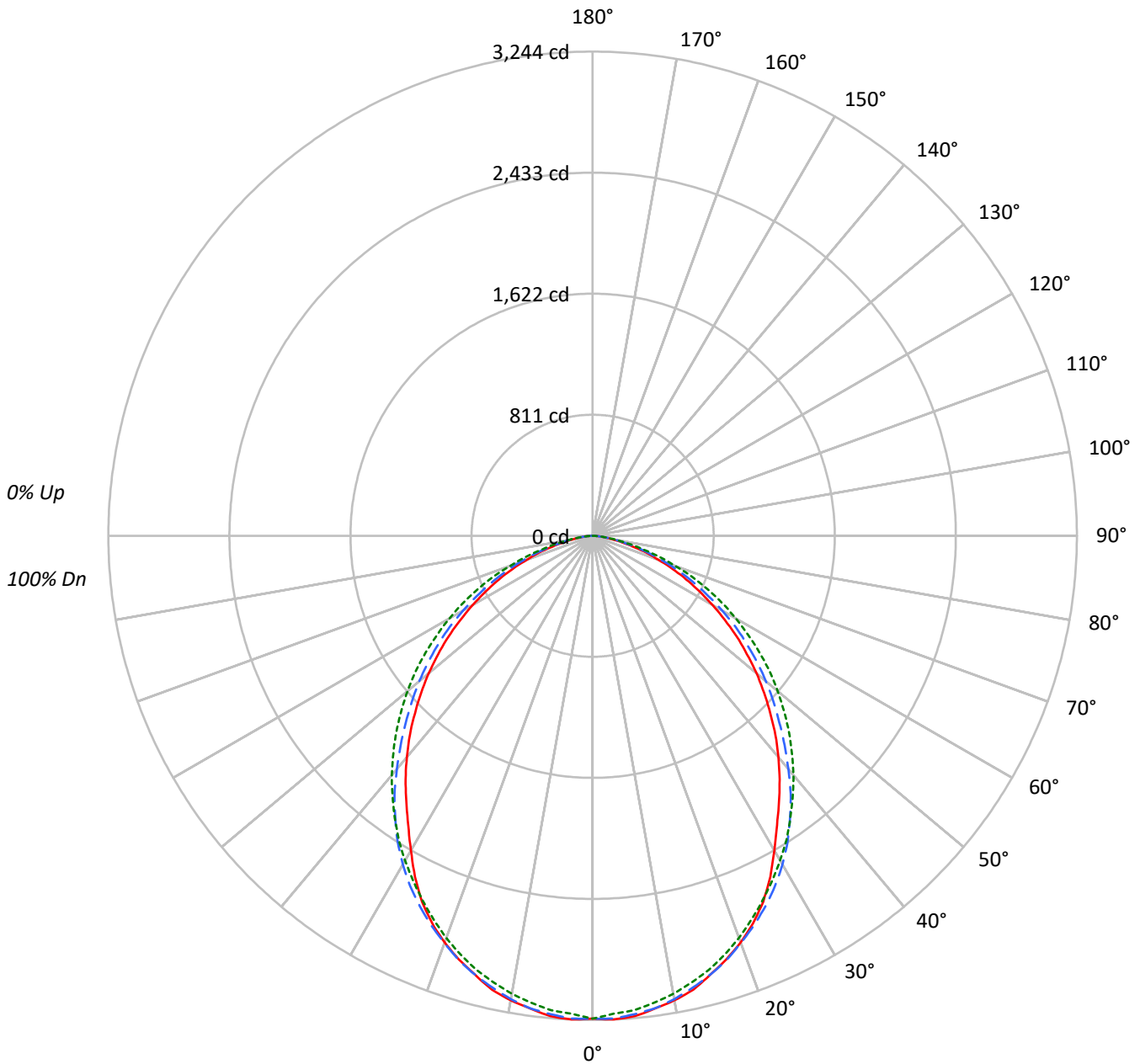
Lumens per Lamp: N/A
Luminaire Lumens: 7481.0 lumens
Efficiency: N/A
Efficacy: 86.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
Input Voltage (V): NR
Input Current (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

TEST NUMBER: P557120

CATALOG NUMBER: FUSL-12-4-LD4-2HI-50-UNV-81-84-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P557120

CATALOG NUMBER: FUSL-12-4-LD4-2HI-50-UNV-81-84-EDD-90

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°	8706	8706	8706
5°	8729	8692	8619
10°	8637	8613	8514
15°	8484	8484	8387
20°	8304	8315	8208
25°	8030	8130	8001
30°	7562	7902	7805
35°	7145	7574	7587
40°	6798	7165	7353
45°	6409	6731	7076
50°	6000	6343	6775
55°	5534	5901	6409
60°	4984	5385	5960
65°	4401	4788	5421
70°	3667	4078	4606
75°	2882	3256	3606
80°	2061	2292	2543
85°	1343	1343	1266



TEST NUMBER: P557120

CATALOG NUMBER: FUSL-12-4-LD4-2HI-50-UNV-81-84-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	304.6	4.1
10°-20°	855.8	11.4
20°-30°	1250.5	16.7
30°-40°	1419.5	19.0
40°-50°	1370.3	18.3
50°-60°	1130.4	15.1
60°-70°	752.8	10.1
70°-80°	336.9	4.5
80°-90°	60.3	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°	2410.9	32.2
0°-40°	3830.4	51.2
0°-60°	6331.1	84.6
0°-90°	7481.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7481.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3235	3235	3235	3235	3235	
5°	3232	3230	3218	3200	3191	306
15°	3045	3053	3045	3032	3010	858
25°	2705	2726	2738	2718	2695	1239
35°	2175	2205	2306	2318	2309	1363
45°	1684	1713	1769	1850	1859	1299
55°	1180	1199	1258	1327	1366	1053
65°	691	710	752	805	851	685
75°	277	292	313	328	347	303
85°	44	44	44	41	41	59
90°	0	0	0	0	0	



TEST NUMBER: P557120

CATALOG NUMBER: FUSL-12-4-LD4-2HI-50-UNV-81-84-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3235.3	3235.3	3235.3	3235.3	3235.3
2.5°	3244.0	3245.3	3237.8	3217.9	3205.5
5°	3231.6	3230.4	3217.9	3200.5	3190.6
7.5°	3195.6	3198.1	3194.3	3169.5	3155.8
10°	3160.8	3162.0	3152.1	3132.2	3116.0
12.5°	3116.0	3114.8	3101.1	3091.2	3065.1
15°	3045.2	3052.6	3045.2	3031.5	3010.4
17.5°	2976.8	2976.8	2981.8	2958.2	2942.0
20°	2899.7	2903.5	2903.5	2884.8	2866.2
22.5°	2810.3	2821.4	2825.2	2805.3	2782.9
25°	2704.6	2725.7	2738.2	2718.3	2694.7
27.5°	2576.6	2608.9	2646.2	2631.3	2605.2
30°	2433.7	2480.9	2543.0	2530.6	2512.0
32.5°	2298.2	2345.4	2431.2	2426.2	2416.3
35°	2175.1	2205.0	2305.6	2318.1	2309.4
37.5°	2058.3	2085.6	2180.1	2208.7	2201.2
40°	1935.2	1965.1	2039.6	2090.6	2093.1
42.5°	1813.4	1842.0	1902.9	1976.3	1976.3
45°	1684.2	1712.8	1768.7	1849.5	1859.4
47.5°	1557.4	1587.2	1641.9	1722.7	1738.9
50°	1433.1	1460.4	1515.1	1593.4	1618.3
52.5°	1303.8	1333.7	1387.1	1459.2	1495.2
55°	1179.5	1199.4	1257.8	1327.4	1366.0
57.5°	1050.3	1068.9	1134.8	1194.5	1234.2
60°	926.0	949.6	1000.6	1061.5	1107.4
62.5°	806.7	831.5	875.0	928.5	980.7
65°	691.1	709.7	752.0	805.4	851.4
67.5°	579.2	595.4	637.6	674.9	723.4
70°	466.1	487.2	518.3	554.3	585.4
72.5°	375.4	384.1	410.2	436.3	468.6
75°	277.2	292.1	313.2	328.1	346.8
77.5°	198.9	207.6	220.0	232.4	249.8
80°	133.0	136.7	147.9	150.4	164.1
82.5°	80.8	83.3	85.8	87.0	92.0
85°	43.5	43.5	43.5	41.0	41.0
87.5°	24.9	24.9	21.1	17.4	12.4
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)