

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: P557122

Luminaire Tested: **FUSL-12-4-LD4-2HI-50-UNV-81-85-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: P557122
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-81-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

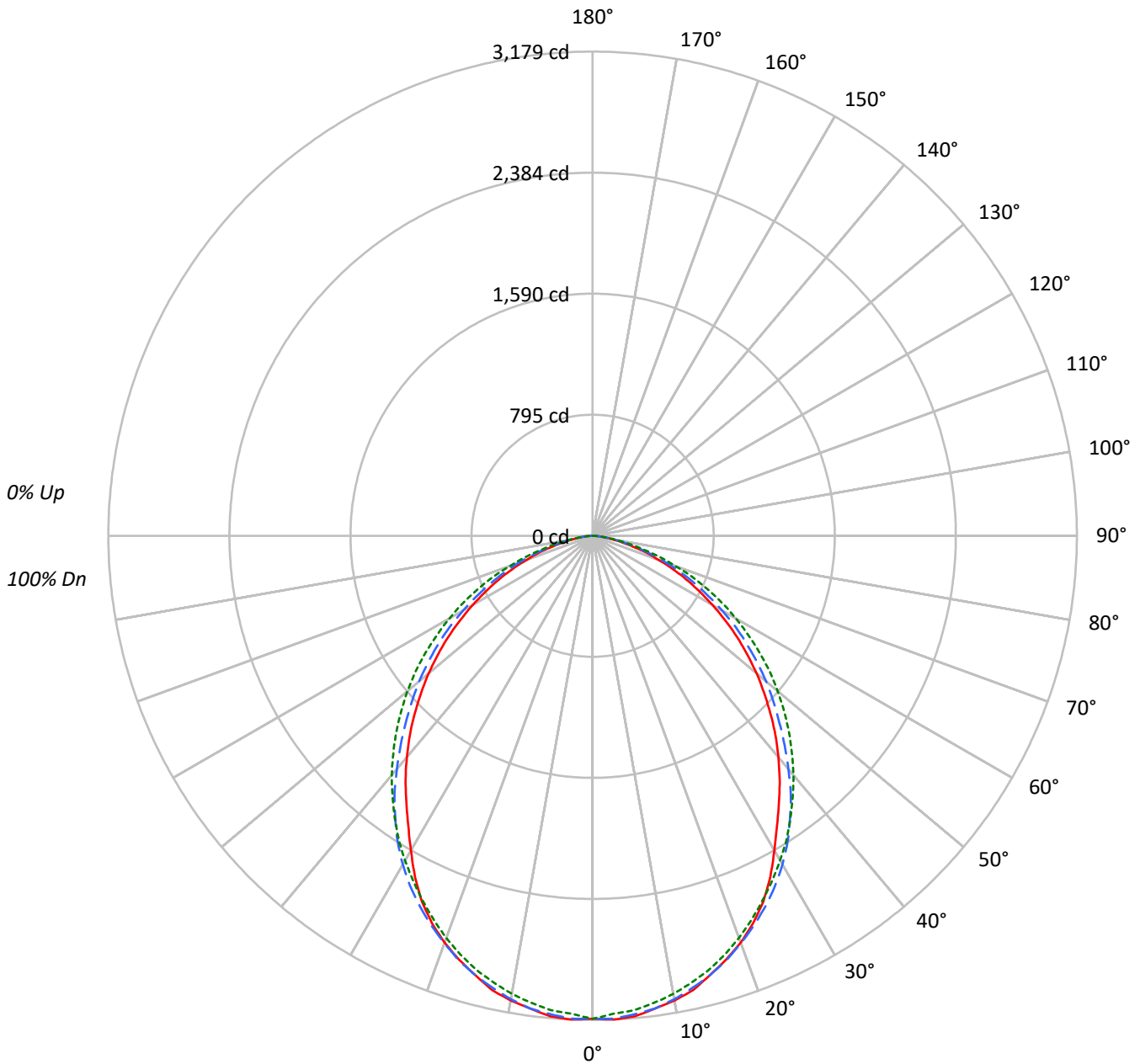
Lumens per Lamp: N/A
Luminaire Lumens: 7332.0 lumens
Efficiency: N/A
Efficacy: 84.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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: P557122

CATALOG NUMBER: FUSL-12-4-LD4-2HI-50-UNV-81-85-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P557122

CATALOG NUMBER: FUSL-12-4-LD4-2HI-50-UNV-81-85-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°	8533	8533	8533
5°	8555	8519	8447
10°	8465	8441	8345
15°	8315	8315	8220
20°	8139	8149	8044
25°	7870	7968	7842
30°	7411	7745	7650
35°	7003	7423	7435
40°	6663	7022	7206
45°	6282	6597	6935
50°	5880	6217	6640
55°	5423	5784	6281
60°	4884	5278	5842
65°	4313	4693	5313
70°	3594	3997	4515
75°	2825	3192	3534
80°	2019	2247	2492
85°	1315	1315	1241



TEST NUMBER: P557122

CATALOG NUMBER: FUSL-12-4-LD4-2HI-50-UNV-81-85-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	298.5	4.1
10°-20°	838.7	11.4
20°-30°	1225.6	16.7
30°-40°	1391.2	19.0
40°-50°	1343.0	18.3
50°-60°	1107.9	15.1
60°-70°	737.8	10.1
70°-80°	330.1	4.5
80°-90°	59.1	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°	2362.9	32.2
0°-40°	3754.1	51.2
0°-60°	6205.0	84.6
0°-90°	7332.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7332.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3171	3171	3171	3171	3171	
5°	3167	3166	3154	3137	3127	300
15°	2984	2992	2984	2971	2950	841
25°	2651	2672	2684	2664	2641	1214
35°	2132	2161	2260	2272	2263	1336
45°	1651	1679	1734	1813	1822	1274
55°	1156	1176	1233	1301	1339	1032
65°	677	696	737	789	834	672
75°	272	286	307	322	340	297
85°	43	43	43	40	40	57
90°	0	0	0	0	0	



TEST NUMBER: P557122

CATALOG NUMBER: FUSL-12-4-LD4-2HI-50-UNV-81-85-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3170.9	3170.9	3170.9	3170.9	3170.9
2.5°	3179.4	3180.6	3173.3	3153.8	3141.7
5°	3167.2	3166.0	3153.8	3136.8	3127.0
7.5°	3131.9	3134.4	3130.7	3106.3	3092.9
10°	3097.8	3099.0	3089.3	3069.8	3054.0
12.5°	3054.0	3052.7	3039.3	3029.6	3004.0
15°	2984.5	2991.8	2984.5	2971.1	2950.4
17.5°	2917.5	2917.5	2922.4	2899.2	2883.4
20°	2842.0	2845.6	2845.6	2827.4	2809.1
22.5°	2754.3	2765.2	2768.9	2749.4	2727.5
25°	2650.7	2671.5	2683.6	2664.1	2641.0
27.5°	2525.3	2556.9	2593.5	2578.9	2553.3
30°	2385.2	2431.5	2492.4	2480.2	2461.9
32.5°	2252.4	2298.7	2382.7	2377.9	2368.1
35°	2131.8	2161.0	2259.7	2271.9	2263.4
37.5°	2017.3	2044.1	2136.7	2164.7	2157.4
40°	1896.7	1925.9	1999.0	2049.0	2051.4
42.5°	1777.3	1805.3	1865.0	1936.9	1936.9
45°	1650.6	1678.6	1733.5	1812.6	1822.4
47.5°	1526.4	1555.6	1609.2	1688.4	1704.2
50°	1404.6	1431.4	1485.0	1561.7	1586.1
52.5°	1277.9	1307.1	1359.5	1430.1	1465.5
55°	1156.0	1175.5	1232.8	1301.0	1338.8
57.5°	1029.4	1047.6	1112.2	1170.7	1209.6
60°	907.5	930.7	980.6	1040.3	1085.4
62.5°	790.6	815.0	857.6	910.0	961.1
65°	677.3	695.6	737.0	789.4	834.4
67.5°	567.7	583.5	624.9	661.5	709.0
70°	456.8	477.5	508.0	543.3	573.8
72.5°	367.9	376.4	402.0	427.6	459.3
75°	271.7	286.3	307.0	321.6	339.9
77.5°	194.9	203.4	215.6	227.8	244.9
80°	130.3	134.0	145.0	147.4	160.8
82.5°	79.2	81.6	84.1	85.3	90.1
85°	42.6	42.6	42.6	40.2	40.2
87.5°	24.4	24.4	20.7	17.1	12.2
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)