

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: P557046

Luminaire Tested: **FUSL-12-4-LD4-2HI-40-UNV-80-87-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: P557046
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-40-UNV-80-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

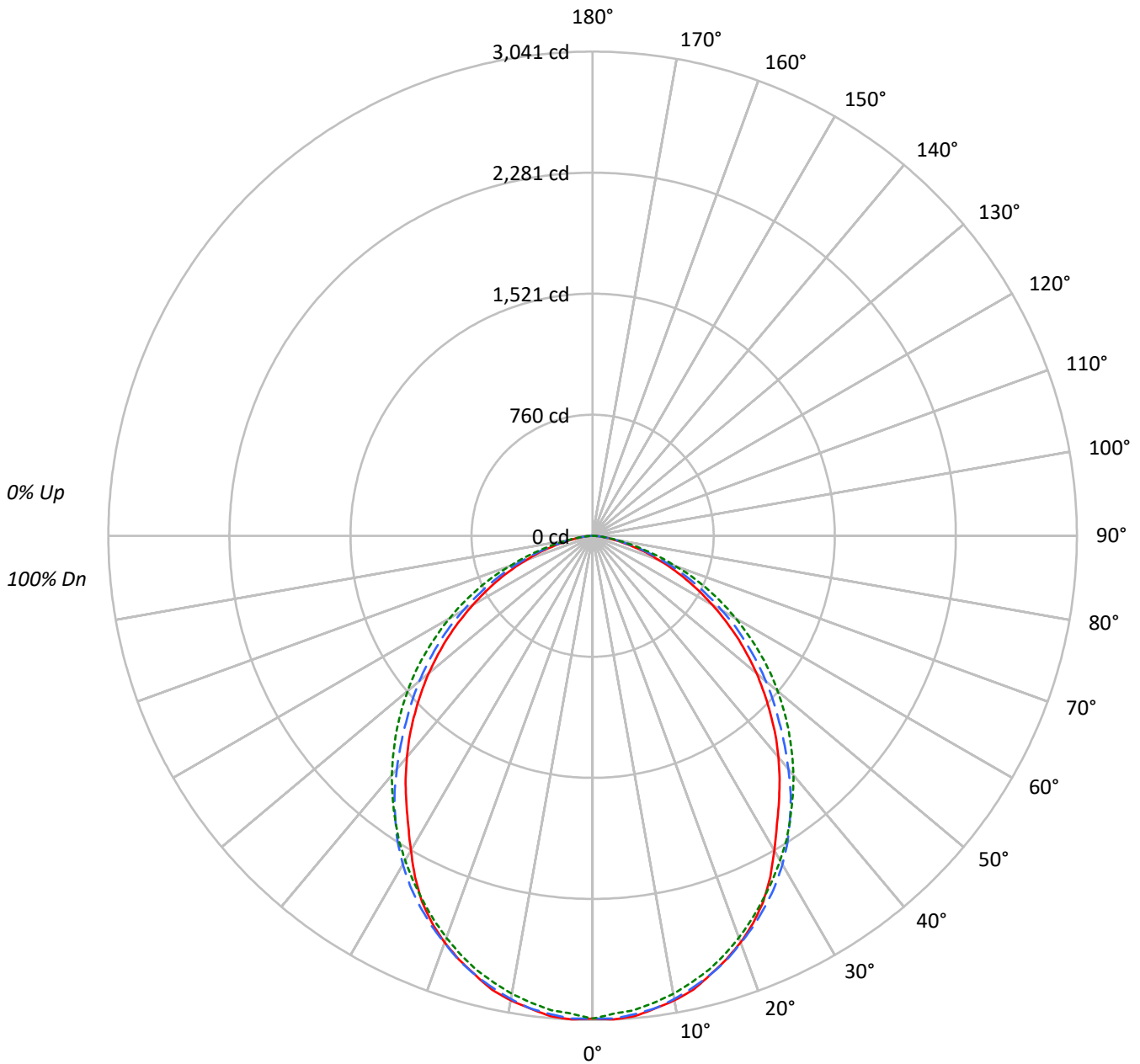
Lumens per Lamp: N/A
Luminaire Lumens: 7012.0 lumens
Efficiency: N/A
Efficacy: 81.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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: P557046

CATALOG NUMBER: FUSL-12-4-LD4-2HI-40-UNV-80-87-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P557046

CATALOG NUMBER: FUSL-12-4-LD4-2HI-40-UNV-80-87-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°	8160	8160	8160
5°	8182	8148	8078
10°	8095	8073	7981
15°	7952	7952	7861
20°	7783	7794	7693
25°	7527	7620	7499
30°	7088	7406	7316
35°	6698	7099	7111
40°	6372	6716	6892
45°	6008	6309	6632
50°	5624	5945	6350
55°	5187	5531	6007
60°	4671	5047	5586
65°	4124	4488	5081
70°	3437	3822	4317
75°	2701	3053	3379
80°	1932	2148	2383
85°	1260	1260	1186



TEST NUMBER: P557046

CATALOG NUMBER: FUSL-12-4-LD4-2HI-40-UNV-80-87-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	285.5	4.1
10°-20°	802.1	11.4
20°-30°	1172.1	16.7
30°-40°	1330.5	19.0
40°-50°	1284.4	18.3
50°-60°	1059.5	15.1
60°-70°	705.6	10.1
70°-80°	315.7	4.5
80°-90°	56.5	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°	2259.8	32.2
0°-40°	3590.3	51.2
0°-60°	5934.2	84.6
0°-90°	7012.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7012.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3032	3032	3032	3032	3032	
5°	3029	3028	3016	3000	2991	287
15°	2854	2861	2854	2841	2822	805
25°	2535	2555	2566	2548	2526	1161
35°	2039	2067	2161	2173	2165	1277
45°	1579	1605	1658	1734	1743	1218
55°	1106	1124	1179	1244	1280	987
65°	648	665	705	755	798	642
75°	260	274	294	308	325	284
85°	41	41	41	38	38	55
90°	0	0	0	0	0	



TEST NUMBER: P557046

CATALOG NUMBER: FUSL-12-4-LD4-2HI-40-UNV-80-87-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3032.5	3032.5	3032.5	3032.5	3032.5
2.5°	3040.7	3041.8	3034.8	3016.2	3004.5
5°	3029.0	3027.8	3016.2	2999.9	2990.6
7.5°	2995.2	2997.6	2994.1	2970.8	2957.9
10°	2962.6	2963.8	2954.5	2935.8	2920.7
12.5°	2920.7	2919.5	2906.7	2897.4	2872.9
15°	2854.3	2861.3	2854.3	2841.4	2821.6
17.5°	2790.2	2790.2	2794.8	2772.7	2757.6
20°	2718.0	2721.5	2721.5	2704.0	2686.5
22.5°	2634.1	2644.6	2648.1	2629.4	2608.4
25°	2535.1	2554.9	2566.5	2547.9	2525.7
27.5°	2415.1	2445.3	2480.3	2466.3	2441.9
30°	2281.1	2325.4	2383.6	2372.0	2354.5
32.5°	2154.1	2198.4	2278.8	2274.1	2264.8
35°	2038.8	2066.7	2161.1	2172.7	2164.6
37.5°	1929.2	1954.9	2043.4	2070.2	2063.2
40°	1813.9	1841.9	1911.8	1959.5	1961.9
42.5°	1699.7	1726.5	1783.6	1852.4	1852.4
45°	1578.6	1605.4	1657.8	1733.5	1742.8
47.5°	1459.8	1487.7	1539.0	1614.7	1629.8
50°	1343.3	1368.9	1420.1	1493.5	1516.8
52.5°	1222.1	1250.1	1300.1	1367.7	1401.5
55°	1105.6	1124.2	1179.0	1244.2	1280.3
57.5°	984.4	1001.9	1063.6	1119.6	1156.9
60°	867.9	890.1	937.8	994.9	1038.0
62.5°	756.1	779.4	820.2	870.3	919.2
65°	647.7	665.2	704.8	754.9	798.0
67.5°	542.9	558.0	597.6	632.6	678.0
70°	436.9	456.7	485.8	519.6	548.7
72.5°	351.8	360.0	384.5	408.9	439.2
75°	259.8	273.8	293.6	307.6	325.0
77.5°	186.4	194.6	206.2	217.9	234.2
80°	124.7	128.2	138.6	141.0	153.8
82.5°	75.7	78.1	80.4	81.6	86.2
85°	40.8	40.8	40.8	38.4	38.4
87.5°	23.3	23.3	19.8	16.3	11.7
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)