

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: P557004

Luminaire Tested: **FUSL-12-4-LD4-2HI-35-UNV-81-96-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: P557004
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-35-UNV-81-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDES
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

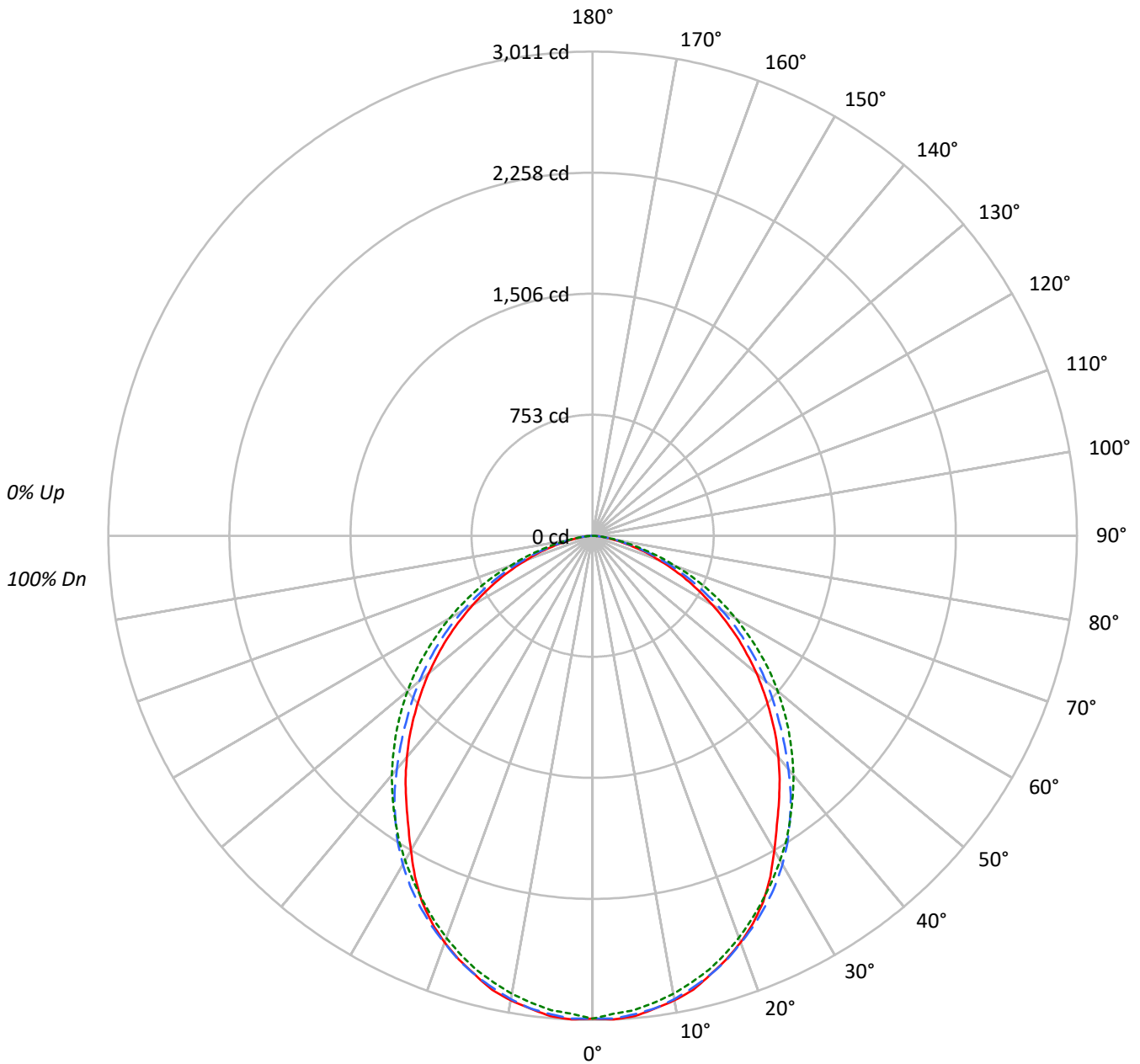
Lumens per Lamp: N/A
Luminaire Lumens: 6943.0 lumens
Efficiency: N/A
Efficacy: 80.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P557004

CATALOG NUMBER: FUSL-12-4-LD4-2HI-35-UNV-81-96-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P557004

CATALOG NUMBER: FUSL-12-4-LD4-2HI-35-UNV-81-96-EDD-90

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20					
RC	80					70					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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86					86			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73					73			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63					63			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54					54			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47					47			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42					42			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37					37			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34					34			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30					30			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28					28			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8080	8080	8080
5°	8102	8067	7999
10°	8016	7994	7902
15°	7874	7874	7784
20°	7707	7717	7618
25°	7453	7546	7426
30°	7018	7333	7244
35°	6632	7029	7041
40°	6309	6650	6824
45°	5948	6247	6567
50°	5568	5887	6288
55°	5136	5477	5948
60°	4625	4998	5532
65°	4084	4444	5032
70°	3404	3784	4275
75°	2674	3022	3346
80°	1912	2128	2360
85°	1247	1247	1176



TEST NUMBER: P557004

CATALOG NUMBER: FUSL-12-4-LD4-2HI-35-UNV-81-96-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	282.7	4.1
10°-20°	794.2	11.4
20°-30°	1160.6	16.7
30°-40°	1317.4	19.0
40°-50°	1271.8	18.3
50°-60°	1049.1	15.1
60°-70°	698.6	10.1
70°-80°	312.6	4.5
80°-90°	55.9	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°	2237.5	32.2
0°-40°	3554.9	51.2
0°-60°	5875.8	84.6
0°-90°	6943.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6943.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3003	3003	3003	3003	3003	
5°	2999	2998	2986	2970	2961	284
15°	2826	2833	2826	2814	2794	797
25°	2510	2530	2541	2523	2501	1150
35°	2019	2046	2140	2151	2143	1265
45°	1563	1590	1642	1716	1726	1206
55°	1095	1113	1167	1232	1268	977
65°	641	659	698	748	790	636
75°	257	271	291	304	322	281
85°	40	40	40	38	38	54
90°	0	0	0	0	0	



TEST NUMBER: P557004

CATALOG NUMBER: FUSL-12-4-LD4-2HI-35-UNV-81-96-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3002.7	3002.7	3002.7	3002.7	3002.7
2.5°	3010.7	3011.9	3005.0	2986.5	2975.0
5°	2999.2	2998.1	2986.5	2970.4	2961.1
7.5°	2965.8	2968.1	2964.6	2941.5	2928.8
10°	2933.5	2934.6	2925.4	2906.9	2891.9
12.5°	2891.9	2890.8	2878.1	2868.9	2844.6
15°	2826.2	2833.1	2826.2	2813.5	2793.9
17.5°	2762.7	2762.7	2767.3	2745.4	2730.4
20°	2691.2	2694.7	2694.7	2677.4	2660.1
22.5°	2608.2	2618.5	2622.0	2603.5	2582.8
25°	2510.1	2529.7	2541.3	2522.8	2500.9
27.5°	2391.3	2421.3	2455.9	2442.0	2417.8
30°	2258.6	2302.5	2360.1	2348.6	2331.3
32.5°	2132.9	2176.7	2256.3	2251.7	2242.5
35°	2018.7	2046.4	2139.8	2151.4	2143.3
37.5°	1910.3	1935.6	2023.3	2049.8	2042.9
40°	1796.1	1823.7	1893.0	1940.3	1942.6
42.5°	1683.0	1709.5	1766.1	1834.1	1834.1
45°	1563.0	1589.6	1641.5	1716.5	1725.7
47.5°	1445.4	1473.1	1523.8	1598.8	1613.8
50°	1330.0	1355.4	1406.2	1478.8	1501.9
52.5°	1210.1	1237.7	1287.4	1354.3	1387.7
55°	1094.7	1113.2	1167.4	1232.0	1267.7
57.5°	974.7	992.0	1053.2	1108.6	1145.5
60°	859.4	881.3	928.6	985.1	1027.8
62.5°	748.6	771.7	812.1	861.7	910.1
65°	641.4	658.7	697.9	747.5	790.2
67.5°	537.6	552.5	591.8	626.4	671.4
70°	432.6	452.2	481.0	514.5	543.3
72.5°	348.4	356.4	380.7	404.9	434.9
75°	257.2	271.1	290.7	304.5	321.8
77.5°	184.6	192.6	204.2	215.7	231.9
80°	123.4	126.9	137.3	139.6	152.3
82.5°	75.0	77.3	79.6	80.7	85.4
85°	40.4	40.4	40.4	38.1	38.1
87.5°	23.1	23.1	19.6	16.1	11.5
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)