

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: P557088

Luminaire Tested: **FUSL-12-4-LD4-2HI-40-UNV-93-84-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: P557088
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-93-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDES
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

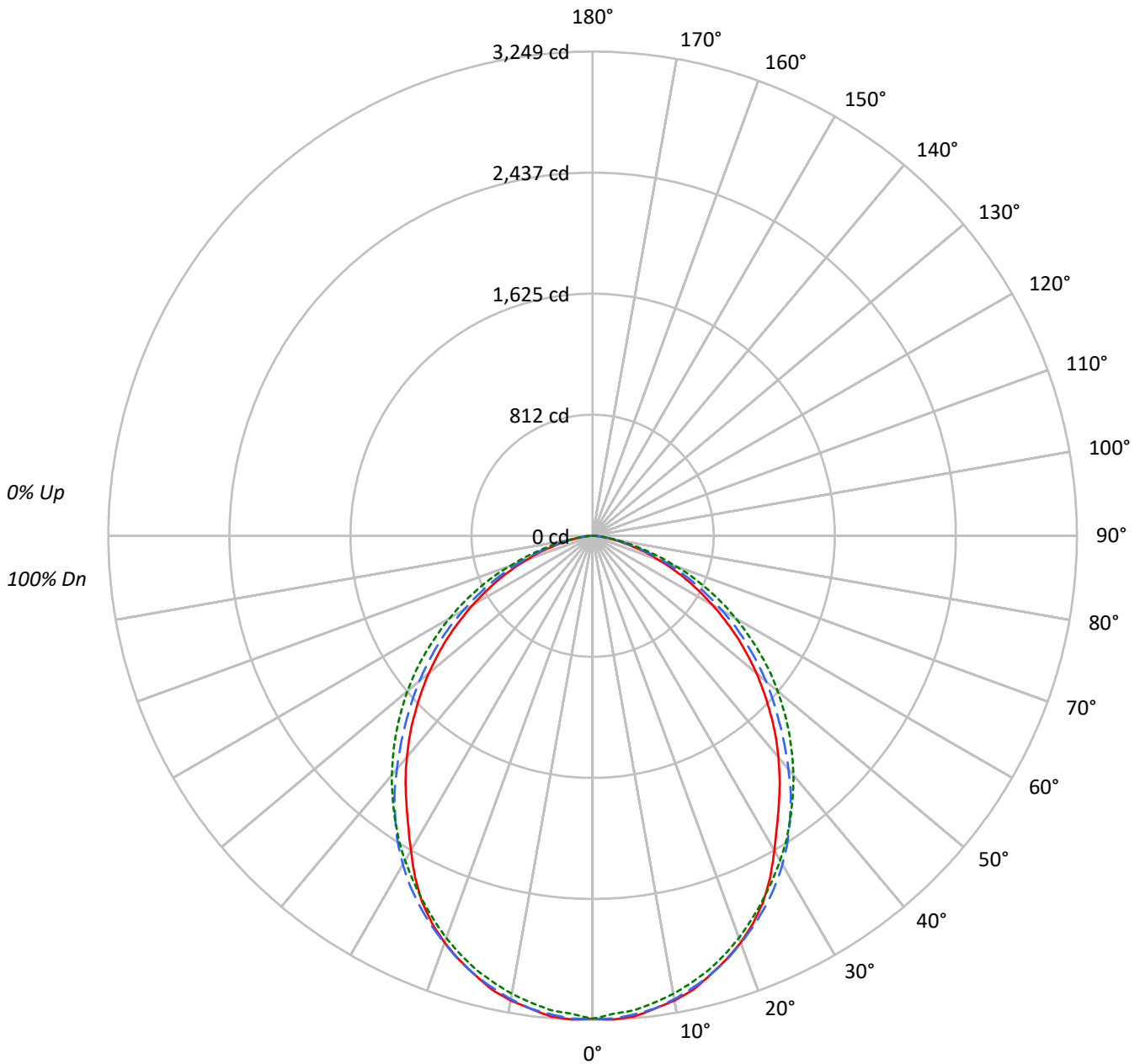
Lumens per Lamp: N/A
Luminaire Lumens: 7493.0 lumens
Efficiency: N/A
Efficacy: 86.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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: P557088

CATALOG NUMBER: FUSL-12-4-LD4-2HI-40-UNV-93-84-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P557088

CATALOG NUMBER: FUSL-12-4-LD4-2HI-40-UNV-93-84-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°	8720	8720	8720
5°	8743	8706	8632
10°	8651	8627	8528
15°	8497	8497	8400
20°	8317	8328	8221
25°	8043	8143	8014
30°	7574	7915	7818
35°	7157	7586	7599
40°	6809	7176	7364
45°	6420	6742	7088
50°	6009	6353	6786
55°	5543	5911	6419
60°	4992	5394	5970
65°	4408	4796	5430
70°	3673	4084	4614
75°	2886	3262	3611
80°	2064	2295	2546
85°	1346	1346	1269



TEST NUMBER: P557088

CATALOG NUMBER: FUSL-12-4-LD4-2HI-40-UNV-93-84-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	305.1	4.1
10°-20°	857.1	11.4
20°-30°	1252.5	16.7
30°-40°	1421.8	19.0
40°-50°	1372.5	18.3
50°-60°	1132.2	15.1
60°-70°	754.0	10.1
70°-80°	337.4	4.5
80°-90°	60.4	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°	2414.8	32.2
0°-40°	3836.6	51.2
0°-60°	6341.3	84.6
0°-90°	7493.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7493.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3240	3240	3240	3240	3240	
5°	3237	3236	3223	3206	3196	306
15°	3050	3058	3050	3036	3015	860
25°	2709	2730	2743	2723	2699	1241
35°	2179	2208	2309	2322	2313	1365
45°	1687	1716	1772	1852	1862	1302
55°	1181	1201	1260	1330	1368	1054
65°	692	711	753	807	853	686
75°	278	293	314	329	347	304
85°	44	44	44	41	41	59
90°	0	0	0	0	0	



TEST NUMBER: P557088

CATALOG NUMBER: FUSL-12-4-LD4-2HI-40-UNV-93-84-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3240.5	3240.5	3240.5	3240.5	3240.5
2.5°	3249.2	3250.5	3243.0	3223.1	3210.7
5°	3236.8	3235.5	3223.1	3205.7	3195.7
7.5°	3200.7	3203.2	3199.4	3174.5	3160.9
10°	3165.8	3167.1	3157.1	3137.2	3121.0
12.5°	3121.0	3119.8	3106.1	3096.1	3070.0
15°	3050.1	3057.5	3050.1	3036.4	3015.2
17.5°	2981.6	2981.6	2986.6	2962.9	2946.7
20°	2904.4	2908.1	2908.1	2889.5	2870.8
22.5°	2814.8	2826.0	2829.7	2809.8	2787.4
25°	2708.9	2730.1	2742.6	2722.6	2699.0
27.5°	2580.7	2613.1	2650.4	2635.5	2609.4
30°	2437.6	2484.9	2547.1	2534.7	2516.0
32.5°	2301.9	2349.2	2435.1	2430.1	2420.1
35°	2178.6	2208.5	2309.3	2321.8	2313.1
37.5°	2061.6	2089.0	2183.6	2212.2	2204.8
40°	1938.3	1968.2	2042.9	2094.0	2096.4
42.5°	1816.3	1845.0	1906.0	1979.4	1979.4
45°	1686.9	1715.5	1771.5	1852.4	1862.4
47.5°	1559.9	1589.8	1644.5	1725.5	1741.6
50°	1435.4	1462.8	1517.6	1596.0	1620.9
52.5°	1305.9	1335.8	1389.3	1461.5	1497.6
55°	1181.4	1201.3	1259.9	1329.6	1368.2
57.5°	1052.0	1070.6	1136.6	1196.4	1236.2
60°	927.5	951.1	1002.2	1063.2	1109.2
62.5°	808.0	832.9	876.4	930.0	982.2
65°	692.2	710.8	753.2	806.7	852.8
67.5°	580.1	596.3	638.6	676.0	724.5
70°	466.8	488.0	519.1	555.2	586.4
72.5°	376.0	384.7	410.8	437.0	469.3
75°	277.6	292.6	313.7	328.7	347.3
77.5°	199.2	207.9	220.4	232.8	250.2
80°	133.2	136.9	148.1	150.6	164.3
82.5°	80.9	83.4	85.9	87.1	92.1
85°	43.6	43.6	43.6	41.1	41.1
87.5°	24.9	24.9	21.2	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)