

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: P558094

Luminaire Tested: **FUSL-12-4-LD4-3LO-40-UNV-81-97-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: P558094
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-LD4-3LO-40-UNV-81-97-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

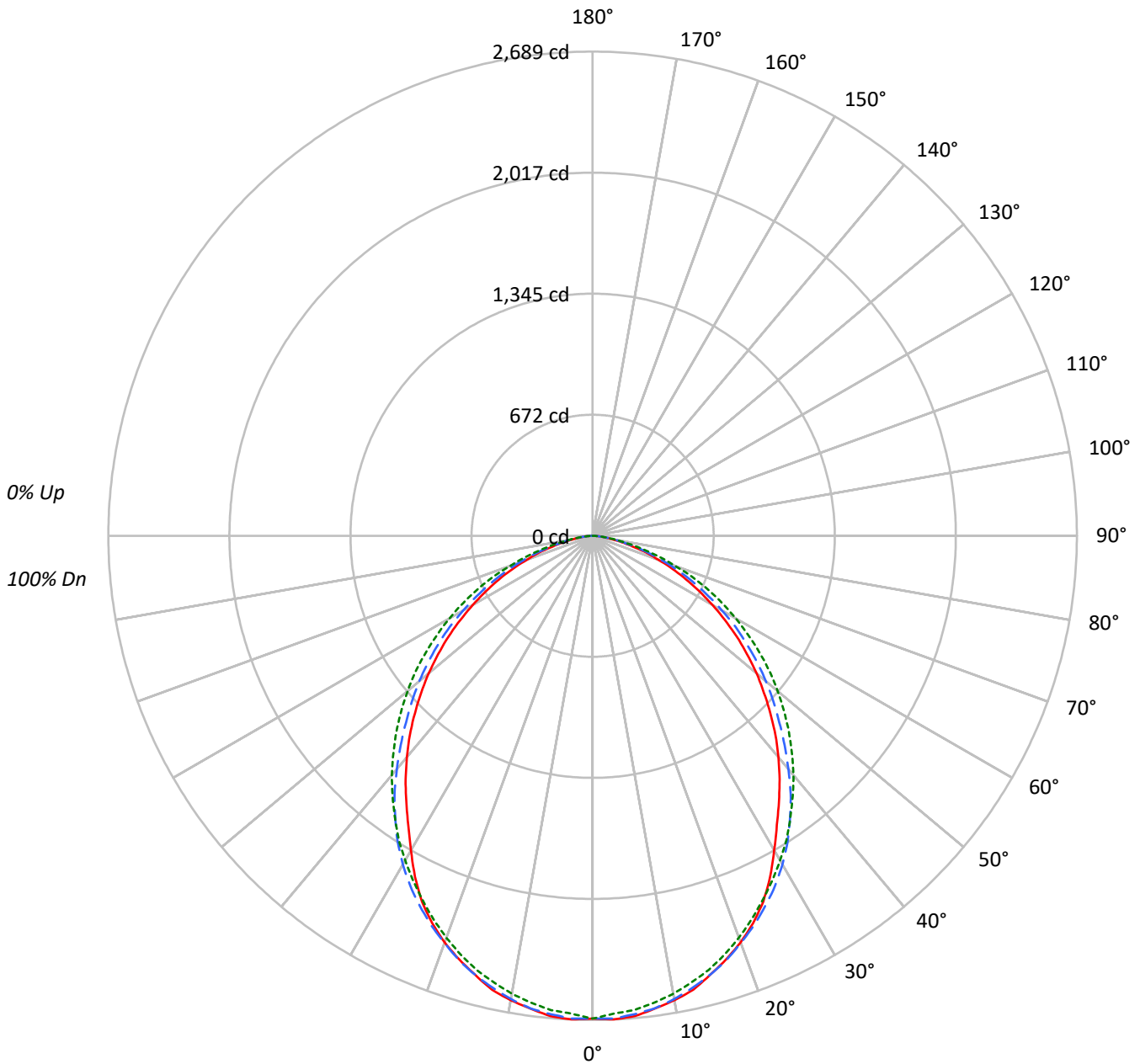
Lumens per Lamp: N/A
Luminaire Lumens: 6200.0 lumens
Efficiency: N/A
Efficacy: 88.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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: P558094

CATALOG NUMBER: FUSL-12-4-LD4-3LO-40-UNV-81-97-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P558094

CATALOG NUMBER: FUSL-12-4-LD4-3LO-40-UNV-81-97-EDD-90

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	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°	7215	7215	7215
5°	7235	7204	7143
10°	7158	7138	7057
15°	7031	7031	6951
20°	6882	6891	6802
25°	6655	6738	6631
30°	6267	6549	6469
35°	5922	6277	6287
40°	5634	5938	6094
45°	5312	5578	5864
50°	4972	5257	5615
55°	4586	4891	5311
60°	4130	4463	4940
65°	3647	3968	4493
70°	3039	3380	3818
75°	2388	2699	2988
80°	1708	1900	2108
85°	1115	1115	1050



TEST NUMBER: P558094

CATALOG NUMBER: FUSL-12-4-LD4-3LO-40-UNV-81-97-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	252.5	4.1
10°-20°	709.2	11.4
20°-30°	1036.4	16.7
30°-40°	1176.4	19.0
40°-50°	1135.7	18.3
50°-60°	936.8	15.1
60°-70°	623.9	10.1
70°-80°	279.2	4.5
80°-90°	49.9	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°	1998.1	32.2
0°-40°	3174.5	51.2
0°-60°	5247.0	84.6
0°-90°	6200.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6200.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2681	2681	2681	2681	2681	
5°	2678	2677	2667	2652	2644	253
15°	2524	2530	2524	2512	2495	711
25°	2242	2259	2269	2253	2233	1026
35°	1803	1827	1911	1921	1914	1129
45°	1396	1420	1466	1533	1541	1077
55°	978	994	1042	1100	1132	873
65°	573	588	623	668	706	568
75°	230	242	260	272	287	251
85°	36	36	36	34	34	49
90°	0	0	0	0	0	



TEST NUMBER: P558094

CATALOG NUMBER: FUSL-12-4-LD4-3LO-40-UNV-81-97-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2681.3	2681.3	2681.3	2681.3	2681.3
2.5°	2688.6	2689.6	2683.4	2666.9	2656.6
5°	2678.2	2677.2	2666.9	2652.5	2644.3
7.5°	2648.4	2650.4	2647.3	2626.7	2615.4
10°	2619.5	2620.6	2612.3	2595.8	2582.5
12.5°	2582.5	2581.4	2570.1	2561.8	2540.2
15°	2523.7	2529.9	2523.7	2512.4	2494.9
17.5°	2467.1	2467.1	2471.2	2451.6	2438.2
20°	2403.2	2406.3	2406.3	2390.9	2375.4
22.5°	2329.0	2338.3	2341.4	2324.9	2306.4
25°	2241.5	2259.0	2269.3	2252.8	2233.2
27.5°	2135.4	2162.2	2193.1	2180.7	2159.1
30°	2016.9	2056.1	2107.6	2097.3	2081.8
32.5°	1904.6	1943.8	2014.9	2010.7	2002.5
35°	1802.7	1827.4	1910.8	1921.1	1913.9
37.5°	1705.8	1728.5	1806.8	1830.5	1824.3
40°	1603.9	1628.6	1690.4	1732.6	1734.7
42.5°	1502.9	1526.6	1577.1	1637.9	1637.9
45°	1395.8	1419.5	1465.8	1532.8	1541.0
47.5°	1290.7	1315.4	1360.8	1427.7	1441.1
50°	1187.7	1210.4	1255.7	1320.6	1341.2
52.5°	1080.6	1105.3	1149.6	1209.3	1239.2
55°	977.6	994.0	1042.5	1100.1	1132.1
57.5°	870.4	885.9	940.5	989.9	1022.9
60°	767.4	787.0	829.2	879.7	917.8
62.5°	668.5	689.1	725.2	769.5	812.7
65°	572.7	588.2	623.2	667.5	705.6
67.5°	480.0	493.4	528.4	559.3	599.5
70°	386.3	403.8	429.6	459.4	485.2
72.5°	311.1	318.3	339.9	361.6	388.3
75°	229.7	242.1	259.6	271.9	287.4
77.5°	164.8	172.0	182.3	192.6	207.0
80°	110.2	113.3	122.6	124.6	136.0
82.5°	67.0	69.0	71.1	72.1	76.2
85°	36.1	36.1	36.1	34.0	34.0
87.5°	20.6	20.6	17.5	14.4	10.3
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)