

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: P557740

Luminaire Tested: **FUSL-12-4-LD4-3HI-30-UNV-93-96-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: P557740
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-LD4-3HI-30-UNV-93-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

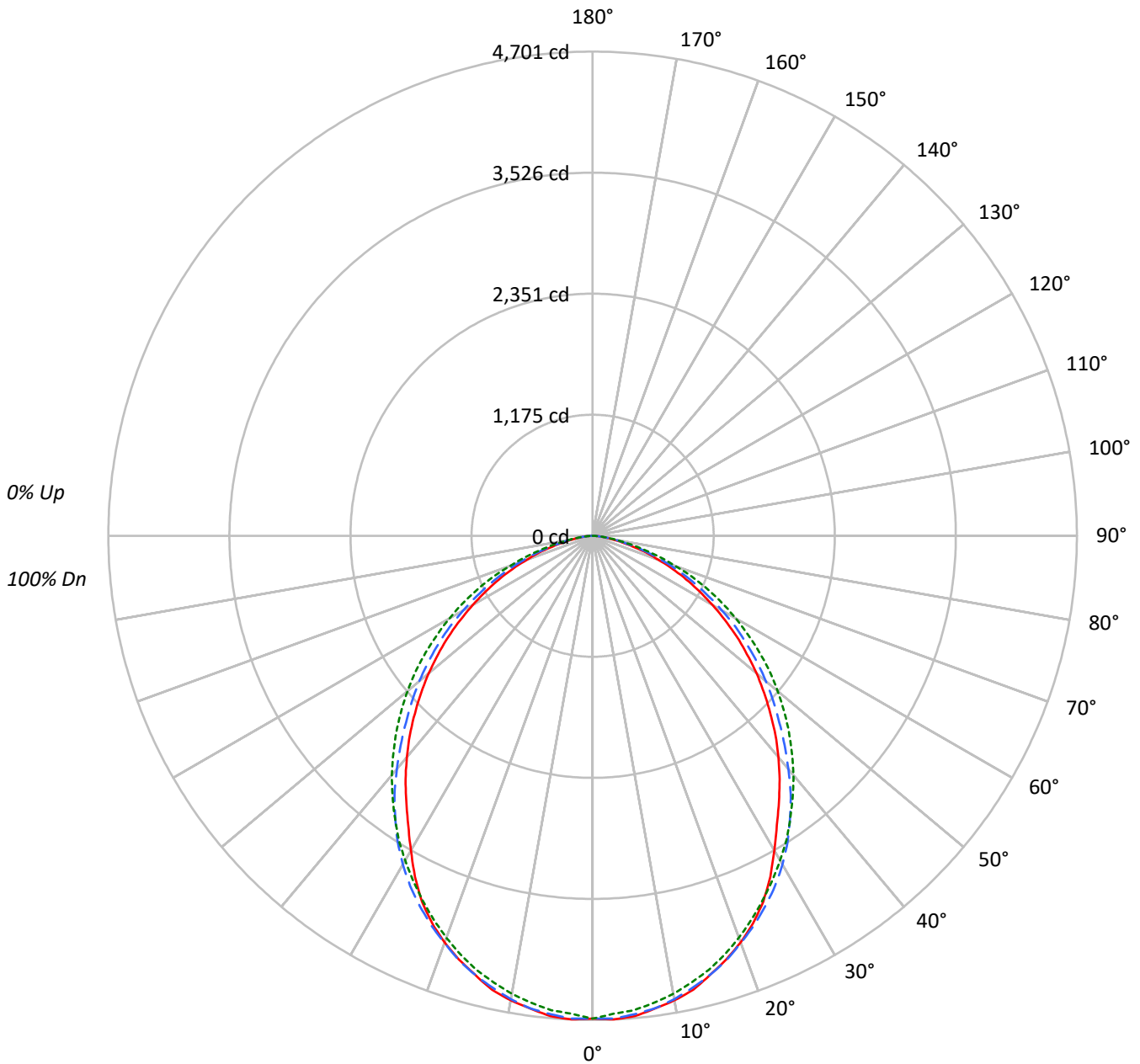
Lumens per Lamp: N/A
Luminaire Lumens: 10840.0 lumens
Efficiency: N/A
Efficacy: 83.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
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: P557740

CATALOG NUMBER: FUSL-12-4-LD4-3HI-30-UNV-93-96-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P557740

CATALOG NUMBER: FUSL-12-4-LD4-3HI-30-UNV-93-96-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°	12615	12615	12615
5°	12649	12595	12488
10°	12515	12480	12337
15°	12293	12293	12152
20°	12032	12048	11893
25°	11636	11780	11593
30°	10957	11450	11310
35°	10354	10975	10993
40°	9851	10382	10654
45°	9287	9753	10253
50°	8694	9191	9817
55°	8019	8551	9286
60°	7221	7803	8636
65°	6376	6938	7855
70°	5314	5909	6674
75°	4175	4719	5225
80°	2986	3321	3684
85°	1945	1945	1834



TEST NUMBER: P557740

CATALOG NUMBER: FUSL-12-4-LD4-3HI-30-UNV-93-96-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	441.4	4.1
10°-20°	1240.0	11.4
20°-30°	1812.0	16.7
30°-40°	2056.9	19.0
40°-50°	1985.6	18.3
50°-60°	1638.0	15.1
60°-70°	1090.8	10.1
70°-80°	488.1	4.5
80°-90°	87.3	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°	3493.4	32.2
0°-40°	5550.3	51.2
0°-60°	9173.9	84.6
0°-90°	10840.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10840.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4688	4688	4688	4688	4688	
5°	4683	4681	4663	4638	4623	443
15°	4412	4423	4412	4393	4362	1244
25°	3919	3950	3968	3939	3905	1795
35°	3152	3195	3341	3359	3346	1975
45°	2440	2482	2563	2680	2694	1883
55°	1709	1738	1823	1924	1979	1526
65°	1001	1028	1090	1167	1234	993
75°	402	423	454	476	502	439
85°	63	63	63	59	59	85
90°	0	0	0	0	0	



TEST NUMBER: P557740

CATALOG NUMBER: FUSL-12-4-LD4-3HI-30-UNV-93-96-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4688.0	4688.0	4688.0	4688.0	4688.0
2.5°	4700.6	4702.4	4691.6	4662.8	4644.8
5°	4682.6	4680.8	4662.8	4637.6	4623.2
7.5°	4630.4	4634.0	4628.6	4592.6	4572.8
10°	4580.0	4581.8	4567.4	4538.5	4515.1
12.5°	4515.1	4513.3	4493.5	4479.1	4441.3
15°	4412.5	4423.3	4412.5	4392.7	4362.0
17.5°	4313.4	4313.4	4320.6	4286.4	4263.0
20°	4201.7	4207.2	4207.2	4180.1	4153.1
22.5°	4072.1	4088.3	4093.7	4064.9	4032.5
25°	3919.0	3949.6	3967.6	3938.8	3904.6
27.5°	3733.5	3780.3	3834.3	3812.7	3774.9
30°	3526.4	3594.8	3684.9	3666.8	3639.8
32.5°	3330.1	3398.5	3522.8	3515.6	3501.2
35°	3151.8	3195.0	3340.9	3358.9	3346.3
37.5°	2982.5	3022.1	3159.0	3200.4	3189.6
40°	2804.2	2847.4	2955.5	3029.3	3032.9
42.5°	2627.7	2669.1	2757.3	2863.6	2863.6
45°	2440.4	2481.8	2562.8	2679.9	2694.3
47.5°	2256.7	2299.9	2379.1	2496.2	2519.6
50°	2076.6	2116.2	2195.4	2308.9	2344.9
52.5°	1889.3	1932.5	2009.9	2114.4	2166.6
55°	1709.2	1738.0	1822.6	1923.5	1979.3
57.5°	1521.9	1548.9	1644.3	1730.8	1788.4
60°	1341.7	1376.0	1449.8	1538.1	1604.7
62.5°	1168.9	1204.9	1267.9	1345.4	1421.0
65°	1001.4	1028.4	1089.6	1167.1	1233.7
67.5°	839.3	862.7	923.9	977.9	1048.2
70°	675.4	706.0	751.0	803.2	848.3
72.5°	543.9	556.5	594.3	632.2	679.0
75°	401.6	423.2	453.9	475.5	502.5
77.5°	288.2	300.8	318.8	336.8	362.0
80°	192.7	198.1	214.3	217.9	237.7
82.5°	117.1	120.7	124.3	126.1	133.3
85°	63.0	63.0	63.0	59.4	59.4
87.5°	36.0	36.0	30.6	25.2	18.0
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)