

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: P557728

Luminaire Tested: **FUSL-12-4-LD4-3HI-30-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: P557728
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-93-84-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 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

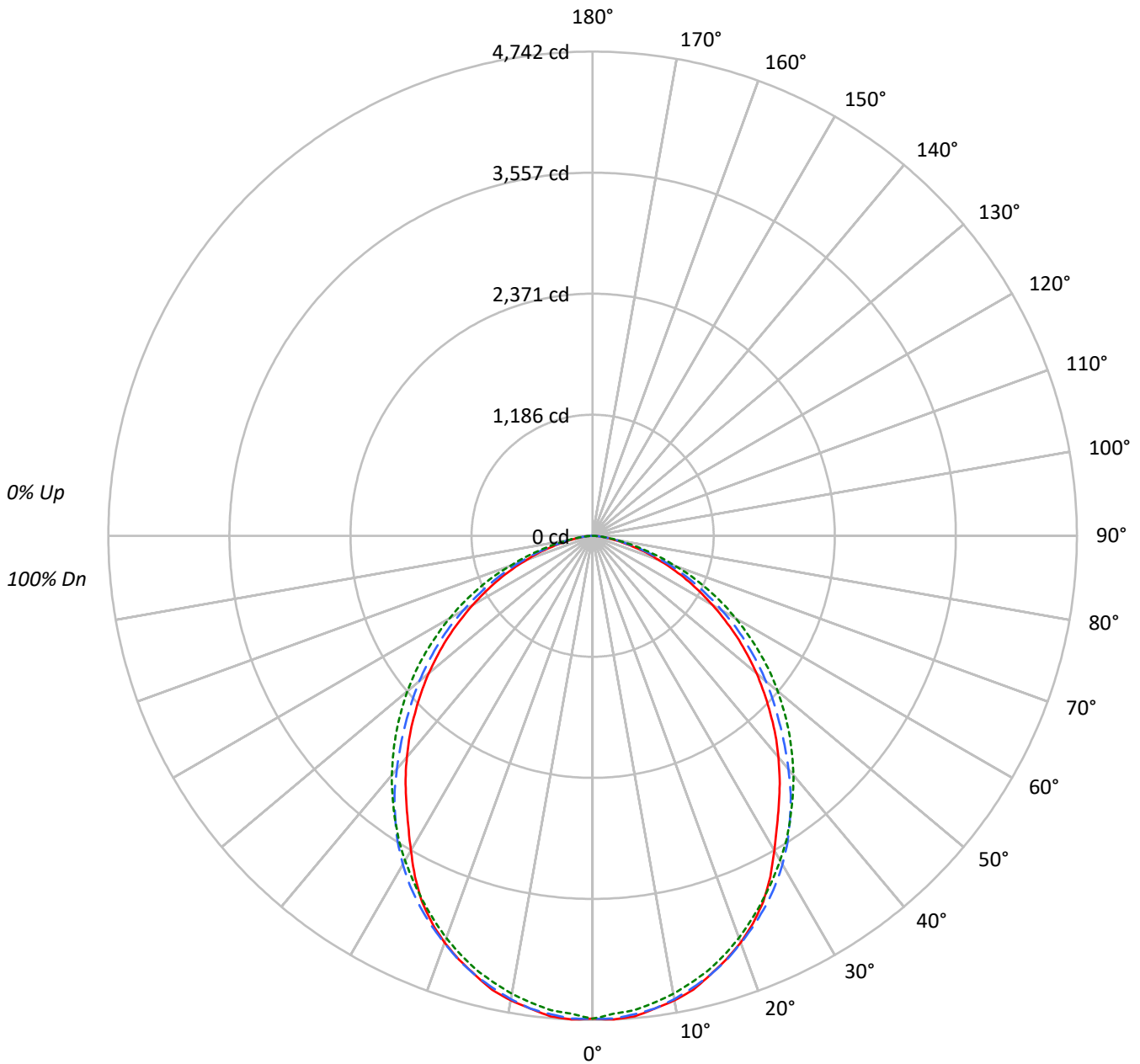
Lumens per Lamp: N/A
Luminaire Lumens: 10936.0 lumens
Efficiency: N/A
Efficacy: 84.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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: P557728

CATALOG NUMBER: FUSL-12-4-LD4-3HI-30-UNV-93-84-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P557728

CATALOG NUMBER: FUSL-12-4-LD4-3HI-30-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°	12727	12727	12727
5°	12761	12707	12599
10°	12625	12591	12447
15°	12401	12401	12260
20°	12139	12155	11999
25°	11739	11885	11696
30°	11054	11551	11410
35°	10446	11072	11090
40°	9938	10474	10749
45°	9369	9839	10344
50°	8771	9273	9904
55°	8090	8627	9368
60°	7285	7872	8713
65°	6432	7000	7925
70°	5361	5962	6733
75°	4213	4761	5270
80°	3013	3350	3716
85°	1964	1964	1853



TEST NUMBER: P557728

CATALOG NUMBER: FUSL-12-4-LD4-3HI-30-UNV-93-84-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	445.3	4.1
10°-20°	1251.0	11.4
20°-30°	1828.1	16.7
30°-40°	2075.1	19.0
40°-50°	2003.2	18.3
50°-60°	1652.5	15.1
60°-70°	1100.4	10.1
70°-80°	492.4	4.5
80°-90°	88.1	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°	3524.4	32.2
0°-40°	5599.4	51.2
0°-60°	9255.1	84.6
0°-90°	10936.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10936.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4730	4730	4730	4730	4730	
5°	4724	4722	4704	4679	4664	447
15°	4452	4462	4452	4432	4401	1255
25°	3954	3985	4003	3974	3939	1811
35°	3180	3223	3370	3389	3376	1992
45°	2462	2504	2586	2704	2718	1900
55°	1724	1753	1839	1940	1997	1539
65°	1010	1038	1099	1177	1245	1002
75°	405	427	458	480	507	443
85°	64	64	64	60	60	86
90°	0	0	0	0	0	



TEST NUMBER: P557728

CATALOG NUMBER: FUSL-12-4-LD4-3HI-30-UNV-93-84-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4729.5	4729.5	4729.5	4729.5	4729.5
2.5°	4742.3	4744.1	4733.2	4704.1	4685.9
5°	4724.1	4722.3	4704.1	4678.7	4664.1
7.5°	4671.4	4675.0	4669.6	4633.2	4613.3
10°	4620.5	4622.3	4607.8	4578.7	4555.1
12.5°	4555.1	4553.3	4533.3	4518.8	4480.6
15°	4451.5	4462.4	4451.5	4431.6	4400.7
17.5°	4351.6	4351.6	4358.9	4324.4	4300.7
20°	4239.0	4244.4	4244.4	4217.2	4189.9
22.5°	4108.1	4124.5	4129.9	4100.9	4068.2
25°	3953.7	3984.6	4002.8	3973.7	3939.2
27.5°	3766.6	3813.8	3868.3	3846.5	3808.3
30°	3557.6	3626.6	3717.5	3699.3	3672.1
32.5°	3359.6	3428.6	3554.0	3546.7	3532.2
35°	3179.7	3223.3	3370.5	3388.6	3375.9
37.5°	3008.9	3048.9	3186.9	3228.7	3217.8
40°	2829.0	2872.6	2981.6	3056.1	3059.8
42.5°	2650.9	2692.7	2781.8	2889.0	2889.0
45°	2462.0	2503.8	2585.5	2703.6	2718.2
47.5°	2276.6	2320.3	2400.2	2518.3	2541.9
50°	2095.0	2134.9	2214.9	2329.3	2365.7
52.5°	1906.0	1949.6	2027.7	2133.1	2185.8
55°	1724.3	1753.4	1838.8	1940.5	1996.8
57.5°	1535.3	1562.6	1658.9	1746.1	1804.2
60°	1353.6	1388.2	1462.6	1551.7	1618.9
62.5°	1179.2	1215.5	1279.1	1357.3	1433.6
65°	1010.2	1037.5	1099.3	1177.4	1244.6
67.5°	846.7	870.3	932.1	986.6	1057.5
70°	681.4	712.2	757.7	810.4	855.8
72.5°	548.7	561.4	599.6	637.8	685.0
75°	405.2	427.0	457.9	479.7	506.9
77.5°	290.7	303.4	321.6	339.8	365.2
80°	194.4	199.9	216.2	219.9	239.8
82.5°	118.1	121.7	125.4	127.2	134.5
85°	63.6	63.6	63.6	60.0	60.0
87.5°	36.3	36.3	30.9	25.4	18.2
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)