

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: P557742

Luminaire Tested: **FUSL-12-4-LD4-3HI-30-UNV-93-97-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: P557742
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-93-97-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

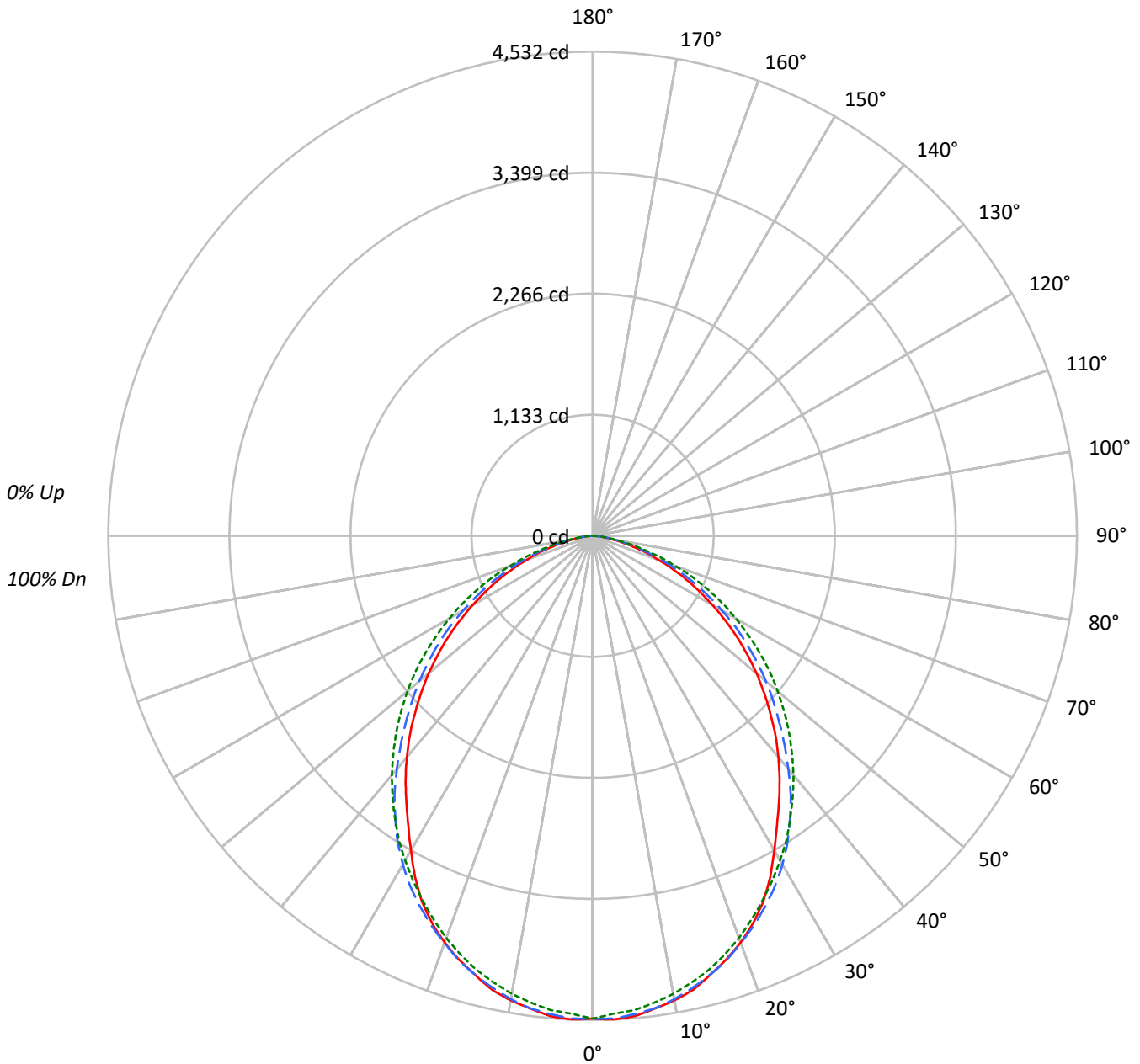
Lumens per Lamp: N/A
Luminaire Lumens: 10451.0 lumens
Efficiency: N/A
Efficacy: 80.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

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Luminous Intensity Polar Plot





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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°	12163	12163	12163
5°	12195	12144	12040
10°	12066	12033	11895
15°	11852	11852	11716
20°	11601	11616	11466
25°	11219	11358	11177
30°	10564	11039	10904
35°	9982	10581	10598
40°	9497	10009	10272
45°	8954	9403	9885
50°	8381	8861	9465
55°	7731	8244	8953
60°	6962	7523	8326
65°	6147	6689	7573
70°	5123	5697	6434
75°	4026	4550	5036
80°	2879	3202	3552
85°	1877	1877	1769



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	425.6	4.1
10°-20°	1195.5	11.4
20°-30°	1747.0	16.7
30°-40°	1983.0	19.0
40°-50°	1914.3	18.3
50°-60°	1579.2	15.1
60°-70°	1051.6	10.1
70°-80°	470.6	4.5
80°-90°	84.2	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°	3368.1	32.2
0°-40°	5351.1	51.2
0°-60°	8844.6	84.6
0°-90°	10451.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10451.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4520	4520	4520	4520	4520	
5°	4515	4513	4496	4471	4457	427
15°	4254	4264	4254	4235	4206	1199
25°	3778	3808	3825	3798	3764	1730
35°	3039	3080	3221	3238	3226	1904
45°	2353	2393	2471	2584	2598	1815
55°	1648	1676	1757	1854	1908	1471
65°	965	992	1050	1125	1189	957
75°	387	408	438	458	484	423
85°	61	61	61	57	57	82
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4519.8	4519.8	4519.8	4519.8	4519.8
2.5°	4531.9	4533.7	4523.3	4495.5	4478.1
5°	4514.6	4512.8	4495.5	4471.2	4457.3
7.5°	4464.2	4467.7	4462.5	4427.8	4408.7
10°	4415.6	4417.3	4403.5	4375.7	4353.1
12.5°	4353.1	4351.4	4332.3	4318.4	4281.9
15°	4254.1	4264.5	4254.1	4235.0	4205.5
17.5°	4158.6	4158.6	4165.6	4132.6	4110.0
20°	4051.0	4056.2	4056.2	4030.1	4004.1
22.5°	3925.9	3941.6	3946.8	3919.0	3887.7
25°	3778.4	3807.9	3825.2	3797.5	3764.5
27.5°	3599.5	3644.7	3696.7	3675.9	3639.4
30°	3399.8	3465.8	3552.6	3535.3	3509.2
32.5°	3210.6	3276.5	3396.4	3389.4	3375.5
35°	3038.7	3080.3	3221.0	3238.3	3226.2
37.5°	2875.4	2913.6	3045.6	3085.5	3075.1
40°	2703.5	2745.2	2849.4	2920.6	2924.1
42.5°	2533.4	2573.3	2658.4	2760.8	2760.8
45°	2352.8	2392.7	2470.9	2583.7	2597.6
47.5°	2175.7	2217.4	2293.8	2406.6	2429.2
50°	2002.0	2040.2	2116.6	2226.0	2260.8
52.5°	1821.5	1863.1	1937.8	2038.5	2088.9
55°	1647.8	1675.6	1757.2	1854.4	1908.3
57.5°	1467.2	1493.3	1585.3	1668.7	1724.2
60°	1293.6	1326.6	1397.8	1482.9	1547.1
62.5°	1126.9	1161.6	1222.4	1297.1	1370.0
65°	965.4	991.5	1050.5	1125.2	1189.4
67.5°	809.2	831.7	890.8	942.9	1010.6
70°	651.1	680.7	724.1	774.4	817.8
72.5°	524.4	536.5	573.0	609.5	654.6
75°	387.2	408.0	437.6	458.4	484.4
77.5°	277.8	290.0	307.3	324.7	349.0
80°	185.8	191.0	206.6	210.1	229.2
82.5°	112.9	116.3	119.8	121.5	128.5
85°	60.8	60.8	60.8	57.3	57.3
87.5°	34.7	34.7	29.5	24.3	17.4
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)