

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: P557067

Luminaire Tested: **FUSL-12-4-LD4-2HI-40-UNV-81-94-EDD**

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: P557067
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-81-94-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

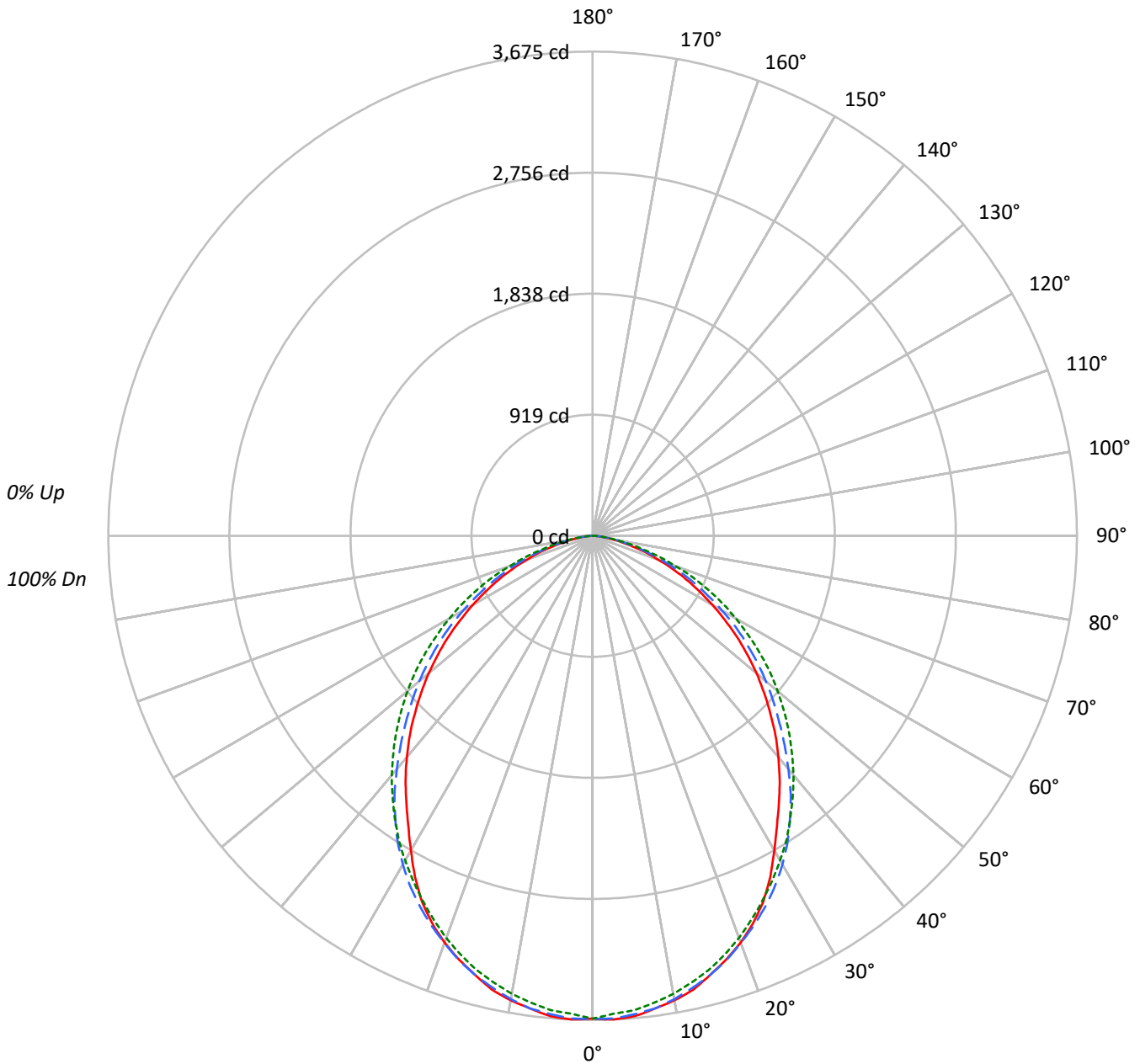
Lumens per Lamp: N/A
Luminaire Lumens: 8475.0 lumens
Efficiency: N/A
Efficacy: 98.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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								
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°	9863	9863	9863
5°	9889	9847	9764
10°	9784	9757	9646
15°	9611	9611	9501
20°	9407	9420	9298
25°	9098	9210	9064
30°	8567	8952	8842
35°	8095	8581	8594
40°	7702	8117	8330
45°	7261	7625	8017
50°	6797	7186	7675
55°	6269	6685	7260
60°	5646	6100	6752
65°	4985	5424	6141
70°	4154	4620	5218
75°	3265	3689	4085
80°	2335	2597	2881
85°	1522	1522	1436



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	345.1	4.1
10°-20°	969.5	11.4
20°-30°	1416.7	16.7
30°-40°	1608.1	19.0
40°-50°	1552.4	18.3
50°-60°	1280.6	15.1
60°-70°	852.8	10.1
70°-80°	381.6	4.5
80°-90°	68.3	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°	2731.2	32.2
0°-40°	4339.4	51.2
0°-60°	7172.3	84.6
0°-90°	8475.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8475.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3665	3665	3665	3665	3665	
5°	3661	3660	3646	3626	3614	347
15°	3450	3458	3450	3434	3410	973
25°	3064	3088	3102	3080	3053	1403
35°	2464	2498	2612	2626	2616	1544
45°	1908	1940	2004	2095	2106	1472
55°	1336	1359	1425	1504	1548	1193
65°	783	804	852	912	964	776
75°	314	331	355	372	393	343
85°	49	49	49	46	46	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3665.2	3665.2	3665.2	3665.2	3665.2
2.5°	3675.1	3676.5	3668.0	3645.5	3631.4
5°	3661.0	3659.6	3645.5	3625.8	3614.5
7.5°	3620.2	3623.0	3618.8	3590.6	3575.1
10°	3580.7	3582.1	3570.9	3548.3	3530.0
12.5°	3530.0	3528.6	3513.1	3501.9	3472.3
15°	3449.8	3458.2	3449.8	3434.3	3410.4
17.5°	3372.3	3372.3	3378.0	3351.2	3332.9
20°	3285.0	3289.3	3289.3	3268.1	3247.0
22.5°	3183.7	3196.3	3200.6	3178.0	3152.7
25°	3064.0	3087.9	3102.0	3079.5	3052.7
27.5°	2918.9	2955.5	2997.8	2980.9	2951.3
30°	2757.0	2810.5	2880.9	2866.8	2845.7
32.5°	2603.5	2657.0	2754.2	2748.6	2737.3
35°	2464.1	2497.9	2612.0	2626.1	2616.2
37.5°	2331.8	2362.7	2469.8	2502.1	2493.7
40°	2192.4	2226.2	2310.7	2368.4	2371.2
42.5°	2054.4	2086.8	2155.8	2238.8	2238.8
45°	1907.9	1940.3	2003.7	2095.2	2106.5
47.5°	1764.3	1798.1	1860.1	1951.6	1969.9
50°	1623.5	1654.5	1716.4	1805.2	1833.3
52.5°	1477.1	1510.9	1571.4	1653.1	1693.9
55°	1336.3	1358.8	1425.0	1503.8	1547.5
57.5°	1189.8	1210.9	1285.6	1353.2	1398.2
60°	1049.0	1075.8	1133.5	1202.5	1254.6
62.5°	913.8	942.0	991.3	1051.8	1111.0
65°	782.9	804.0	851.9	912.4	964.5
67.5°	656.2	674.5	722.3	764.6	819.5
70°	528.0	552.0	587.2	628.0	663.2
72.5°	425.2	435.1	464.7	494.2	530.8
75°	314.0	330.9	354.8	371.7	392.9
77.5°	225.3	235.1	249.2	263.3	283.0
80°	150.7	154.9	167.6	170.4	185.9
82.5°	91.5	94.3	97.2	98.6	104.2
85°	49.3	49.3	49.3	46.5	46.5
87.5°	28.2	28.2	23.9	19.7	14.1
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)