

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: P554018

Luminaire Tested: **FUSL-12-2-LD4-1HI-40-UNV-93-85-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: P554018
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-12-2-LD4-1HI-40-UNV-93-85-EDD-90
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

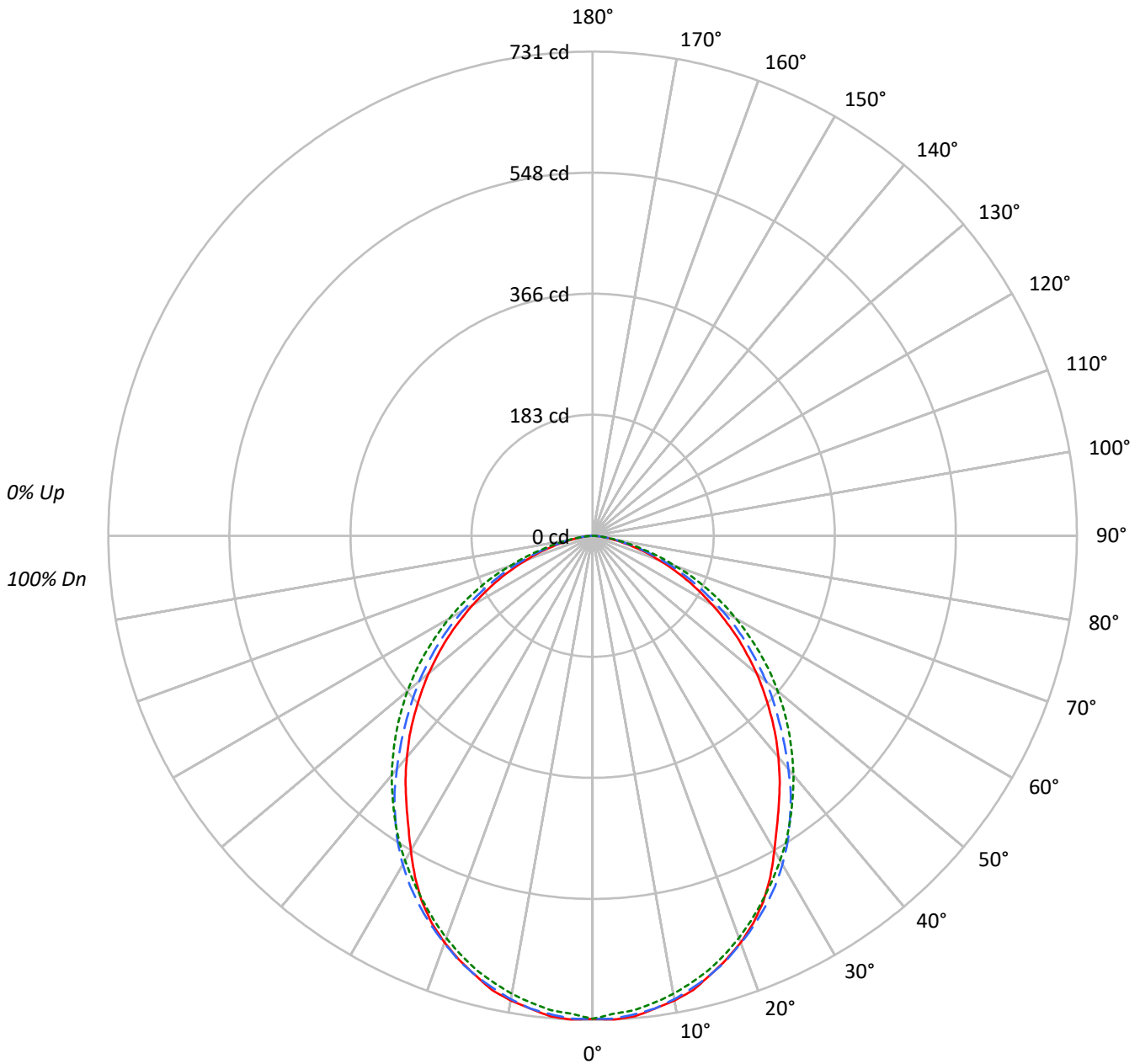
Lumens per Lamp: N/A
Luminaire Lumens: 1686.0 lumens
Efficiency: N/A
Efficacy: 78.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
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°	3925	3925	3925
5°	3935	3918	3885
10°	3893	3882	3838
15°	3824	3824	3780
20°	3743	3748	3700
25°	3619	3665	3606
30°	3409	3562	3518
35°	3221	3414	3420
40°	3064	3230	3314
45°	2889	3034	3190
50°	2704	2859	3054
55°	2494	2660	2889
60°	2246	2427	2687
65°	1983	2159	2444
70°	1652	1838	2076
75°	1300	1468	1626
80°	930	1032	1147
85°	605	605	568



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.7	4.1
10°-20°	192.9	11.4
20°-30°	281.8	16.7
30°-40°	319.9	19.0
40°-50°	308.8	18.3
50°-60°	254.8	15.1
60°-70°	169.6	10.1
70°-80°	75.9	4.5
80°-90°	13.6	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°	543.4	32.2
0°-40°	863.3	51.2
0°-60°	1426.9	84.6
0°-90°	1686.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1686.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	729	729	729	729	729	
5°	728	728	725	721	719	69
15°	686	688	686	683	678	193
25°	610	614	617	613	607	279
35°	490	497	520	522	520	307
45°	380	386	399	417	419	293
55°	266	270	284	299	308	237
65°	156	160	170	182	192	154
75°	62	66	71	74	78	68
85°	10	10	10	9	9	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	729.2	729.2	729.2	729.2	729.2
2.5°	731.1	731.4	729.7	725.2	722.4
5°	728.3	728.0	725.2	721.3	719.1
7.5°	720.2	720.7	719.9	714.3	711.2
10°	712.3	712.6	710.4	705.9	702.3
12.5°	702.3	702.0	698.9	696.7	690.8
15°	686.3	688.0	686.3	683.2	678.4
17.5°	670.9	670.9	672.0	666.7	663.0
20°	653.5	654.4	654.4	650.2	646.0
22.5°	633.4	635.9	636.7	632.2	627.2
25°	609.5	614.3	617.1	612.6	607.3
27.5°	580.7	588.0	596.4	593.0	587.1
30°	548.5	559.1	573.1	570.3	566.1
32.5°	517.9	528.6	547.9	546.8	544.6
35°	490.2	496.9	519.6	522.4	520.5
37.5°	463.9	470.0	491.3	497.8	496.1
40°	436.1	442.9	459.7	471.2	471.7
42.5°	408.7	415.1	428.9	445.4	445.4
45°	379.6	386.0	398.6	416.8	419.1
47.5°	351.0	357.7	370.0	388.2	391.9
50°	323.0	329.1	341.5	359.1	364.7
52.5°	293.8	300.6	312.6	328.9	337.0
55°	265.8	270.3	283.5	299.2	307.9
57.5°	236.7	240.9	255.7	269.2	278.2
60°	208.7	214.0	225.5	239.2	249.6
62.5°	181.8	187.4	197.2	209.2	221.0
65°	155.7	159.9	169.5	181.5	191.9
67.5°	130.5	134.2	143.7	152.1	163.0
70°	105.0	109.8	116.8	124.9	131.9
72.5°	84.6	86.6	92.4	98.3	105.6
75°	62.5	65.8	70.6	74.0	78.2
77.5°	44.8	46.8	49.6	52.4	56.3
80°	30.0	30.8	33.3	33.9	37.0
82.5°	18.2	18.8	19.3	19.6	20.7
85°	9.8	9.8	9.8	9.2	9.2
87.5°	5.6	5.6	4.8	3.9	2.8
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)