

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: P556405

Luminaire Tested: **FUSL-12-4-LD4-1LO-30-UNV-80-86-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: P556405
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-LD4-1LO-30-UNV-80-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

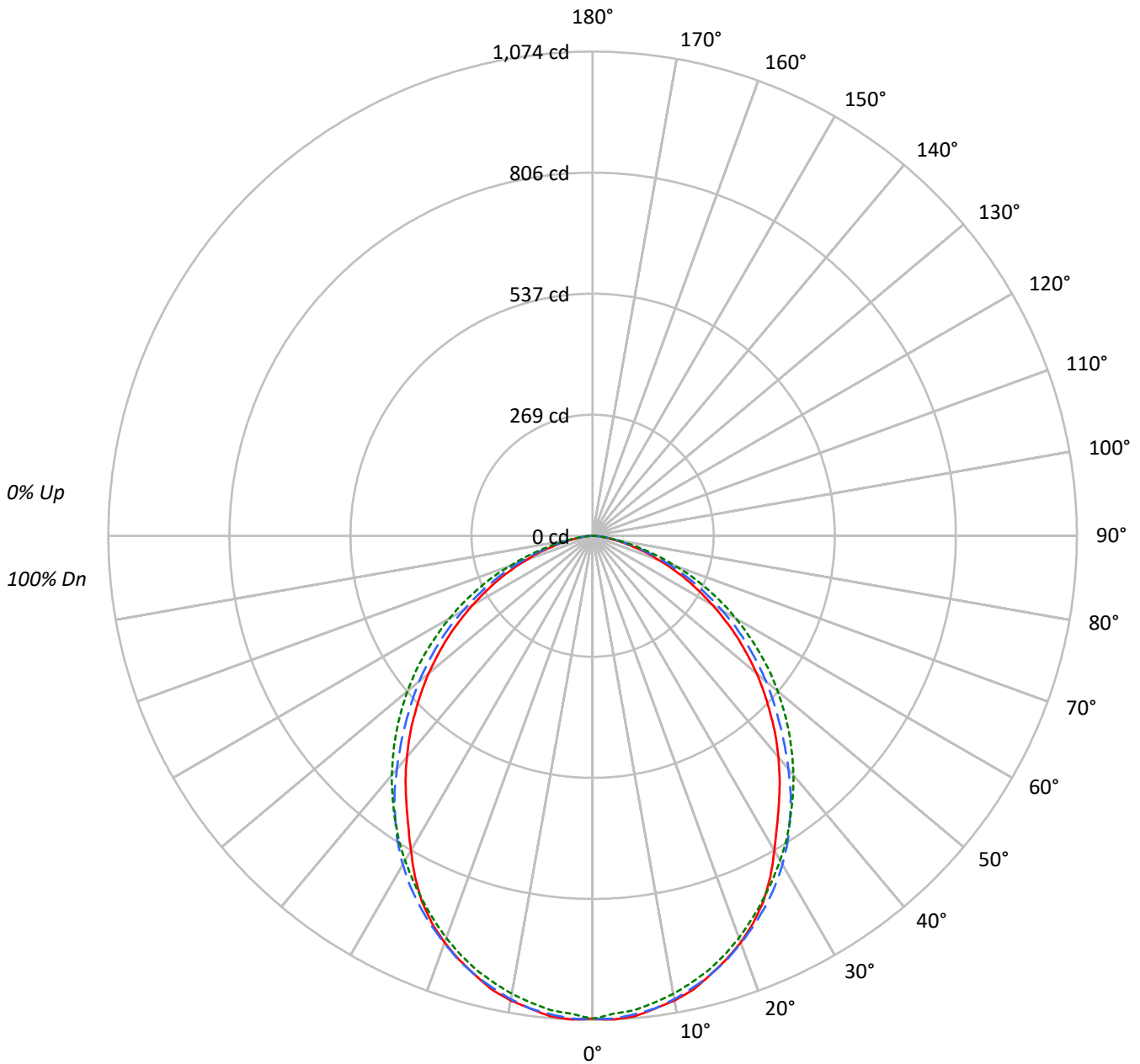
Lumens per Lamp: N/A
Luminaire Lumens: 2477.0 lumens
Efficiency: N/A
Efficacy: 105.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
Input Voltage (V): NR
Input Current (Ain): 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°	2883	2883	2883
5°	2890	2878	2854
10°	2860	2852	2819
15°	2809	2809	2777
20°	2749	2753	2718
25°	2659	2692	2649
30°	2504	2616	2584
35°	2366	2508	2512
40°	2251	2372	2434
45°	2122	2229	2343
50°	1986	2100	2243
55°	1833	1954	2122
60°	1650	1783	1974
65°	1457	1585	1795
70°	1214	1350	1525
75°	954	1078	1194
80°	682	759	841
85°	445	445	420



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.9	4.1
10°-20°	283.3	11.4
20°-30°	414.1	16.7
30°-40°	470.0	19.0
40°-50°	453.7	18.3
50°-60°	374.3	15.1
60°-70°	249.2	10.1
70°-80°	111.5	4.5
80°-90°	20.0	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°	798.3	32.2
0°-40°	1268.3	51.2
0°-60°	2096.3	84.6
0°-90°	2477.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2477.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1071	1071	1071	1071	1071	
5°	1070	1070	1066	1060	1056	101
15°	1008	1011	1008	1004	997	284
25°	896	902	907	900	892	410
35°	720	730	763	768	765	451
45°	558	567	586	612	616	430
55°	391	397	416	440	452	349
65°	229	235	249	267	282	227
75°	92	97	104	109	115	100
85°	14	14	14	14	14	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1071.2	1071.2	1071.2	1071.2	1071.2
2.5°	1074.1	1074.5	1072.1	1065.5	1061.4
5°	1070.0	1069.6	1065.5	1059.7	1056.4
7.5°	1058.1	1058.9	1057.7	1049.4	1044.9
10°	1046.5	1047.0	1043.7	1037.1	1031.7
12.5°	1031.7	1031.3	1026.8	1023.5	1014.9
15°	1008.3	1010.7	1008.3	1003.7	996.7
17.5°	985.6	985.6	987.3	979.5	974.1
20°	960.1	961.4	961.4	955.2	949.0
22.5°	930.5	934.2	935.4	928.8	921.4
25°	895.5	902.5	906.6	900.0	892.2
27.5°	853.1	863.8	876.2	871.2	862.6
30°	805.8	821.4	842.0	837.9	831.7
32.5°	760.9	776.6	805.0	803.3	800.0
35°	720.2	730.1	763.4	767.5	764.6
37.5°	681.5	690.6	721.8	731.3	728.8
40°	640.8	650.6	675.3	692.2	693.0
42.5°	600.4	609.9	630.1	654.3	654.3
45°	557.6	567.1	585.6	612.4	615.7
47.5°	515.7	525.5	543.6	570.4	575.7
50°	474.5	483.6	501.7	527.6	535.8
52.5°	431.7	441.6	459.3	483.1	495.1
55°	390.6	397.1	416.5	439.5	452.3
57.5°	347.8	353.9	375.7	395.5	408.7
60°	306.6	314.4	331.3	351.5	366.7
62.5°	267.1	275.3	289.7	307.4	324.7
65°	228.8	235.0	249.0	266.7	281.9
67.5°	191.8	197.1	211.1	223.5	239.5
70°	154.3	161.3	171.6	183.5	193.8
72.5°	124.3	127.2	135.8	144.5	155.2
75°	91.8	96.7	103.7	108.6	114.8
77.5°	65.8	68.7	72.8	77.0	82.7
80°	44.0	45.3	49.0	49.8	54.3
82.5°	26.8	27.6	28.4	28.8	30.5
85°	14.4	14.4	14.4	13.6	13.6
87.5°	8.2	8.2	7.0	5.8	4.1
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)