

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: P556596

Luminaire Tested: **FUSL-12-4-LD4-1LO-50-UNV-80-86-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: P556596
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-50-UNV-80-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

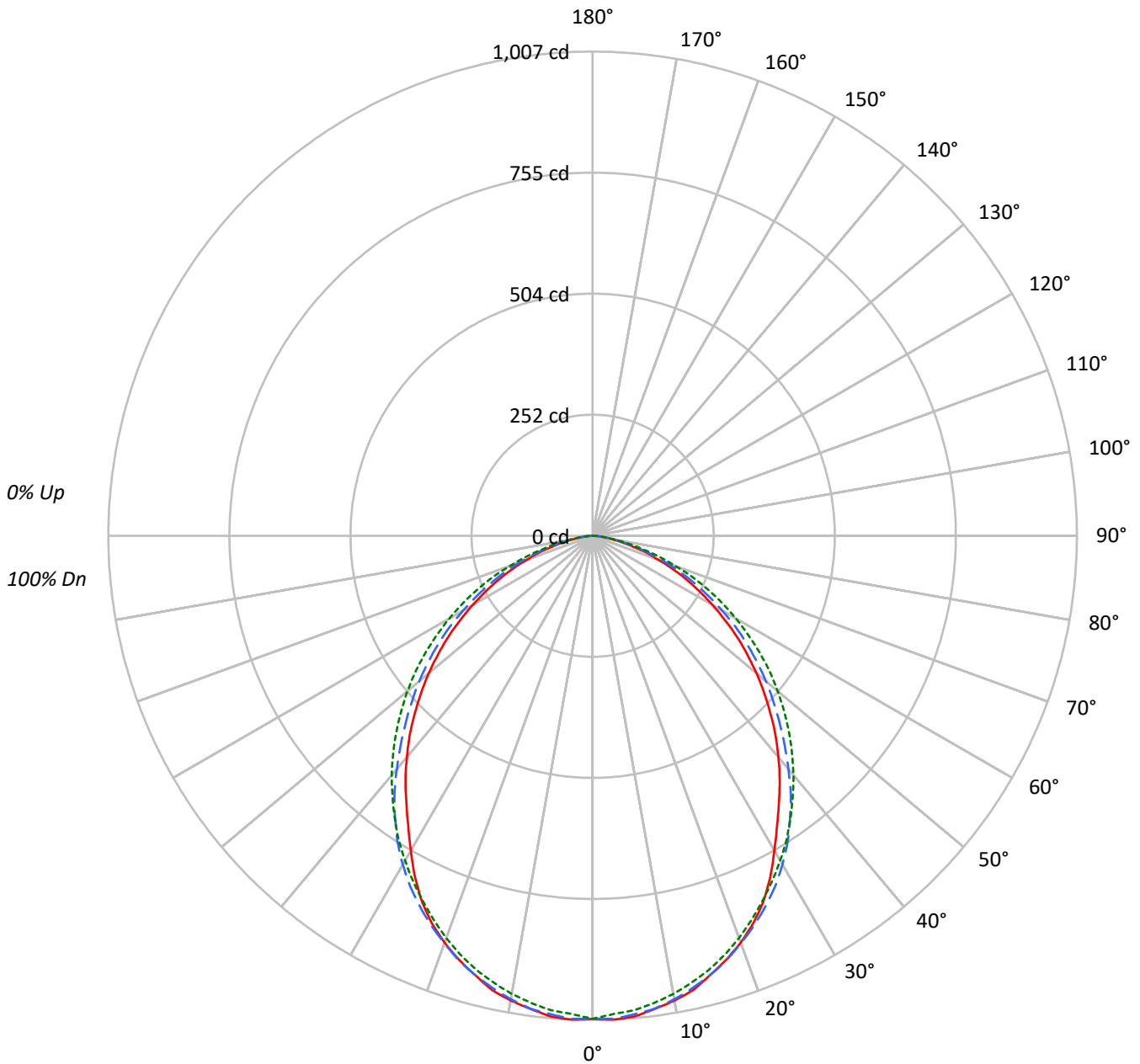
Lumens per Lamp: N/A
Luminaire Lumens: 2323.0 lumens
Efficiency: N/A
Efficacy: 99.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	2703	2703	2703
5°	2711	2699	2676
10°	2682	2675	2644
15°	2634	2634	2604
20°	2578	2582	2549
25°	2494	2525	2484
30°	2348	2454	2424
35°	2219	2352	2356
40°	2111	2225	2283
45°	1990	2090	2197
50°	1863	1970	2104
55°	1719	1833	1990
60°	1547	1672	1851
65°	1366	1487	1684
70°	1138	1266	1430
75°	895	1012	1120
80°	640	711	789
85°	417	417	392



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.6	4.1
10°-20°	265.7	11.4
20°-30°	388.3	16.7
30°-40°	440.8	19.0
40°-50°	425.5	18.3
50°-60°	351.0	15.1
60°-70°	233.8	10.1
70°-80°	104.6	4.5
80°-90°	18.7	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°	748.6	32.2
0°-40°	1189.4	51.2
0°-60°	1965.9	84.6
0°-90°	2323.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2323.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1005	1005	1005	1005	1005	
5°	1004	1003	999	994	991	95
15°	946	948	946	941	935	267
25°	840	846	850	844	837	385
35°	675	685	716	720	717	423
45°	523	532	549	574	577	404
55°	366	372	391	412	424	327
65°	215	220	234	250	264	213
75°	86	91	97	102	108	94
85°	14	14	14	13	13	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1004.6	1004.6	1004.6	1004.6	1004.6
2.5°	1007.3	1007.7	1005.4	999.2	995.4
5°	1003.5	1003.1	999.2	993.8	990.7
7.5°	992.3	993.1	991.9	984.2	979.9
10°	981.5	981.9	978.8	972.6	967.6
12.5°	967.6	967.2	963.0	959.9	951.8
15°	945.6	947.9	945.6	941.3	934.8
17.5°	924.4	924.4	925.9	918.6	913.6
20°	900.4	901.6	901.6	895.8	890.0
22.5°	872.6	876.1	877.3	871.1	864.2
25°	839.8	846.4	850.3	844.1	836.7
27.5°	800.1	810.1	821.7	817.1	809.0
30°	755.7	770.4	789.7	785.8	780.0
32.5°	713.6	728.3	754.9	753.4	750.3
35°	675.4	684.7	715.9	719.8	717.1
37.5°	639.1	647.6	677.0	685.8	683.5
40°	600.9	610.2	633.4	649.2	649.9
42.5°	563.1	572.0	590.9	613.7	613.7
45°	523.0	531.8	549.2	574.3	577.4
47.5°	483.6	492.9	509.8	534.9	539.9
50°	445.0	453.5	470.5	494.8	502.5
52.5°	404.9	414.1	430.7	453.1	464.3
55°	366.3	372.4	390.6	412.2	424.2
57.5°	326.1	331.9	352.4	370.9	383.3
60°	287.5	294.9	310.7	329.6	343.9
62.5°	250.5	258.2	271.7	288.3	304.5
65°	214.6	220.4	233.5	250.1	264.4
67.5°	179.9	184.9	198.0	209.6	224.6
70°	144.7	151.3	160.9	172.1	181.8
72.5°	116.6	119.3	127.4	135.5	145.5
75°	86.1	90.7	97.3	101.9	107.7
77.5°	61.8	64.5	68.3	72.2	77.6
80°	41.3	42.5	45.9	46.7	50.9
82.5°	25.1	25.9	26.6	27.0	28.6
85°	13.5	13.5	13.5	12.7	12.7
87.5°	7.7	7.7	6.6	5.4	3.9
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)