

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: P556451

Luminaire Tested: **FUSL-12-4-LD4-1LO-30-UNV-93-85-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: P556451
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-93-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

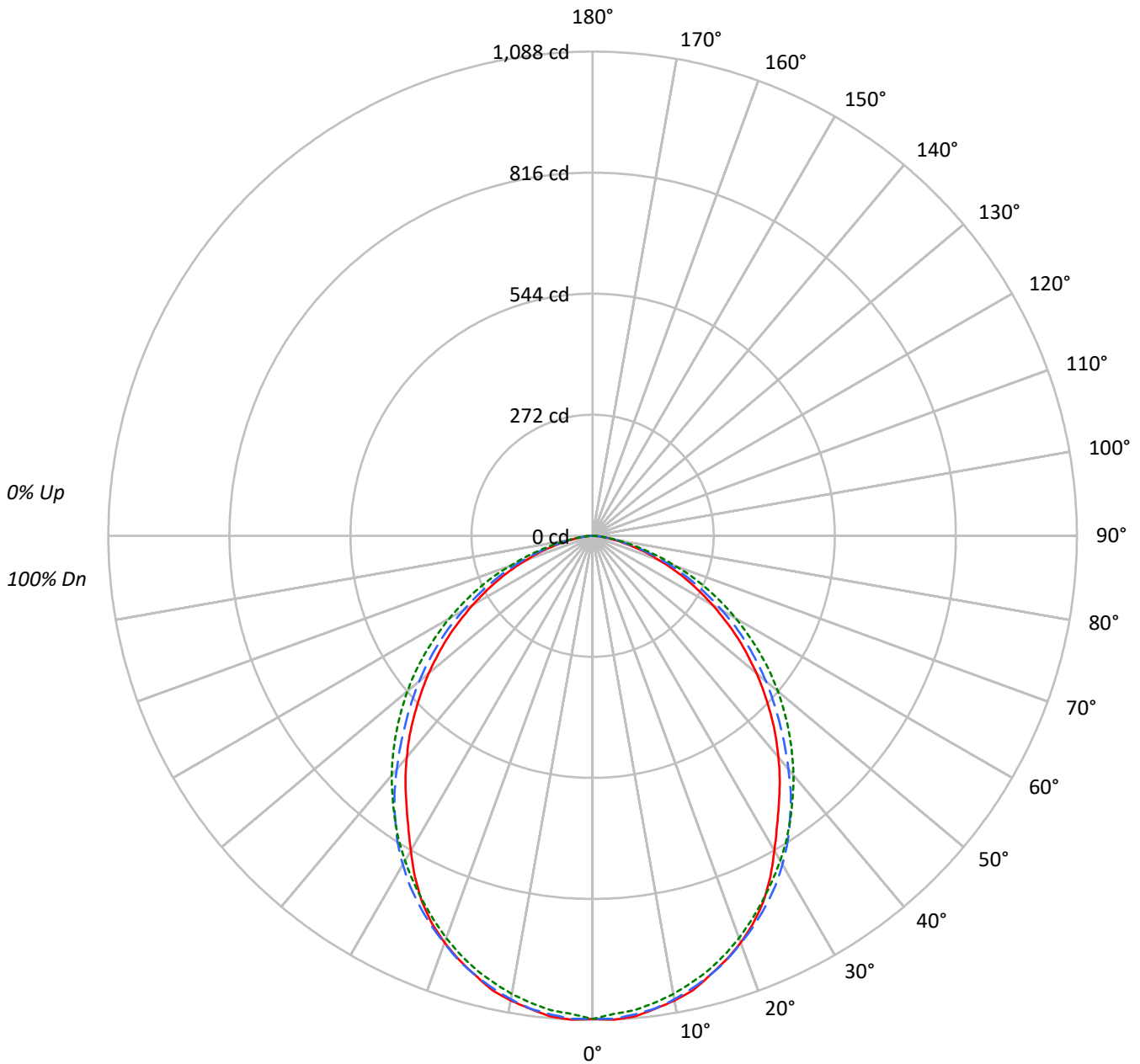
Lumens per Lamp: N/A
Luminaire Lumens: 2510.0 lumens
Efficiency: N/A
Efficacy: 107.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
Input Voltage (V): NR
Input Current (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°	2921	2921	2921
5°	2929	2917	2892
10°	2898	2890	2857
15°	2846	2846	2814
20°	2786	2790	2754
25°	2694	2728	2684
30°	2537	2651	2619
35°	2397	2541	2545
40°	2281	2404	2467
45°	2151	2258	2374
50°	2013	2128	2273
55°	1857	1980	2150
60°	1672	1807	2000
65°	1477	1606	1819
70°	1231	1368	1545
75°	967	1093	1209
80°	691	769	852
85°	451	451	426



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.2	4.1
10°-20°	287.1	11.4
20°-30°	419.6	16.7
30°-40°	476.3	19.0
40°-50°	459.8	18.3
50°-60°	379.3	15.1
60°-70°	252.6	10.1
70°-80°	113.0	4.5
80°-90°	20.2	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°	808.9	32.2
0°-40°	1285.2	51.2
0°-60°	2124.2	84.6
0°-90°	2510.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2510.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1086	1086	1086	1086	1086	
5°	1084	1084	1080	1074	1070	103
15°	1022	1024	1022	1017	1010	288
25°	907	914	919	912	904	416
35°	730	740	774	778	775	457
45°	565	575	593	620	624	436
55°	396	402	422	445	458	353
65°	232	238	252	270	286	230
75°	93	98	105	110	116	102
85°	15	15	15	14	14	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1085.5	1085.5	1085.5	1085.5	1085.5
2.5°	1088.4	1088.8	1086.3	1079.7	1075.5
5°	1084.3	1083.8	1079.7	1073.8	1070.5
7.5°	1072.2	1073.0	1071.7	1063.4	1058.8
10°	1060.5	1060.9	1057.6	1050.9	1045.5
12.5°	1045.5	1045.1	1040.5	1037.1	1028.4
15°	1021.7	1024.2	1021.7	1017.1	1010.0
17.5°	998.8	998.8	1000.4	992.5	987.1
20°	972.9	974.2	974.2	967.9	961.7
22.5°	942.9	946.6	947.9	941.2	933.7
25°	907.4	914.5	918.7	912.0	904.1
27.5°	864.5	875.3	887.8	882.8	874.1
30°	816.5	832.4	853.2	849.1	842.8
32.5°	771.1	786.9	815.7	814.0	810.7
35°	729.8	739.8	773.6	777.7	774.8
37.5°	690.6	699.8	731.5	741.0	738.5
40°	649.3	659.3	684.3	701.4	702.3
42.5°	608.4	618.0	638.5	663.1	663.1
45°	565.1	574.7	593.4	620.5	623.9
47.5°	522.5	532.5	550.9	578.0	583.4
50°	480.8	490.0	508.4	534.6	543.0
52.5°	437.5	447.5	465.4	489.6	501.7
55°	395.8	402.4	422.0	445.4	458.3
57.5°	352.4	358.6	380.7	400.8	414.1
60°	310.7	318.6	335.7	356.1	371.6
62.5°	270.6	279.0	293.6	311.5	329.0
65°	231.9	238.1	252.3	270.2	285.7
67.5°	194.3	199.8	213.9	226.4	242.7
70°	156.4	163.5	173.9	186.0	196.4
72.5°	125.9	128.9	137.6	146.4	157.2
75°	93.0	98.0	105.1	110.1	116.3
77.5°	66.7	69.6	73.8	78.0	83.8
80°	44.6	45.9	49.6	50.5	55.0
82.5°	27.1	27.9	28.8	29.2	30.9
85°	14.6	14.6	14.6	13.8	13.8
87.5°	8.3	8.3	7.1	5.8	4.2
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)