

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: P556623

Luminaire Tested: **FUSL-12-4-LD4-1LO-50-UNV-81-97-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: P556623
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-81-97-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

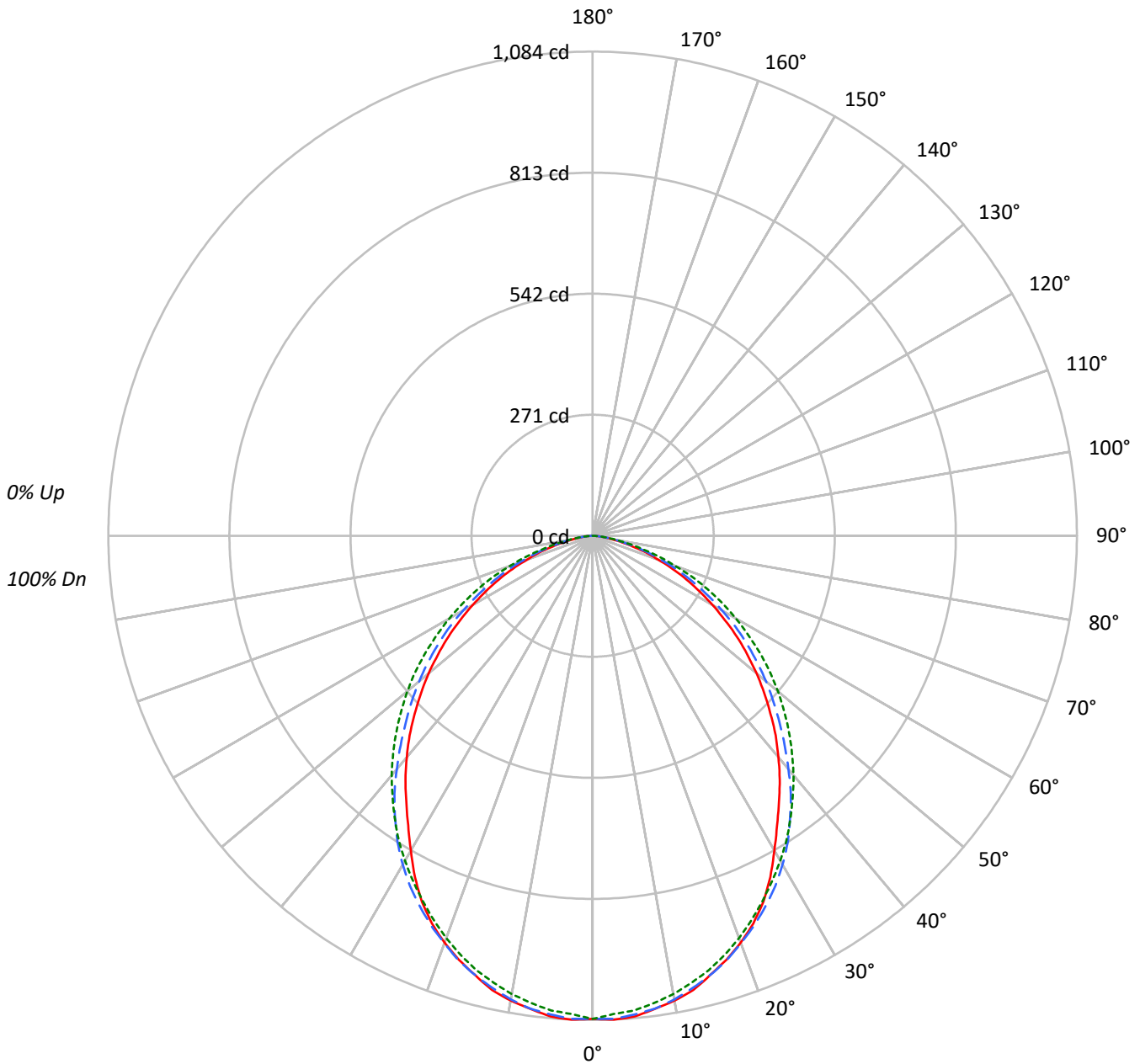
Lumens per Lamp: N/A
Luminaire Lumens: 2501.0 lumens
Efficiency: N/A
Efficacy: 106.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
Input Voltage (V): NR
Input Current (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°	2911	2911	2911
5°	2918	2906	2881
10°	2887	2879	2846
15°	2836	2836	2804
20°	2776	2780	2744
25°	2685	2718	2675
30°	2528	2642	2609
35°	2389	2532	2536
40°	2273	2395	2458
45°	2143	2250	2366
50°	2006	2120	2265
55°	1850	1973	2143
60°	1666	1800	1992
65°	1471	1601	1812
70°	1226	1364	1540
75°	964	1089	1205
80°	690	766	849
85°	448	448	423



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.8	4.1
10°-20°	286.1	11.4
20°-30°	418.1	16.7
30°-40°	474.6	19.0
40°-50°	458.1	18.3
50°-60°	377.9	15.1
60°-70°	251.7	10.1
70°-80°	112.6	4.5
80°-90°	20.1	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°	806.0	32.2
0°-40°	1280.6	51.2
0°-60°	2116.6	84.6
0°-90°	2501.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2501.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1082	1082	1082	1082	1082	
5°	1080	1080	1076	1070	1067	102
15°	1018	1020	1018	1014	1006	287
25°	904	911	915	909	901	414
35°	727	737	771	775	772	456
45°	563	573	591	618	622	434
55°	394	401	420	444	457	352
65°	231	237	251	269	285	229
75°	93	98	105	110	116	101
85°	14	14	14	14	14	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1081.6	1081.6	1081.6	1081.6	1081.6
2.5°	1084.5	1084.9	1082.4	1075.8	1071.6
5°	1080.4	1080.0	1075.8	1070.0	1066.7
7.5°	1068.3	1069.2	1067.9	1059.6	1055.0
10°	1056.7	1057.1	1053.8	1047.1	1041.7
12.5°	1041.7	1041.3	1036.7	1033.4	1024.7
15°	1018.0	1020.5	1018.0	1013.5	1006.4
17.5°	995.2	995.2	996.9	989.0	983.6
20°	969.4	970.7	970.7	964.4	958.2
22.5°	939.5	943.2	944.5	937.8	930.4
25°	904.2	911.3	915.4	908.8	900.9
27.5°	861.4	872.2	884.7	879.7	870.9
30°	813.6	829.4	850.2	846.0	839.8
32.5°	768.3	784.1	812.8	811.1	807.8
35°	727.2	737.1	770.8	775.0	772.0
37.5°	688.1	697.3	728.8	738.4	735.9
40°	647.0	656.9	681.9	698.9	699.7
42.5°	606.3	615.8	636.2	660.7	660.7
45°	563.0	572.6	591.3	618.3	621.6
47.5°	520.7	530.6	548.9	575.9	581.3
50°	479.1	488.2	506.5	532.7	541.0
52.5°	435.9	445.9	463.7	487.8	499.9
55°	394.3	401.0	420.5	443.8	456.7
57.5°	351.1	357.4	379.4	399.3	412.6
60°	309.6	317.5	334.5	354.9	370.2
62.5°	269.7	278.0	292.5	310.4	327.9
65°	231.0	237.3	251.4	269.3	284.6
67.5°	193.6	199.0	213.2	225.6	241.8
70°	155.8	162.9	173.3	185.3	195.7
72.5°	125.5	128.4	137.1	145.9	156.7
75°	92.7	97.6	104.7	109.7	115.9
77.5°	66.5	69.4	73.5	77.7	83.5
80°	44.5	45.7	49.4	50.3	54.8
82.5°	27.0	27.8	28.7	29.1	30.7
85°	14.5	14.5	14.5	13.7	13.7
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)