

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: P556615

Luminaire Tested: **FUSL-12-4-LD4-1LO-50-UNV-81-87-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: P556615
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-81-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

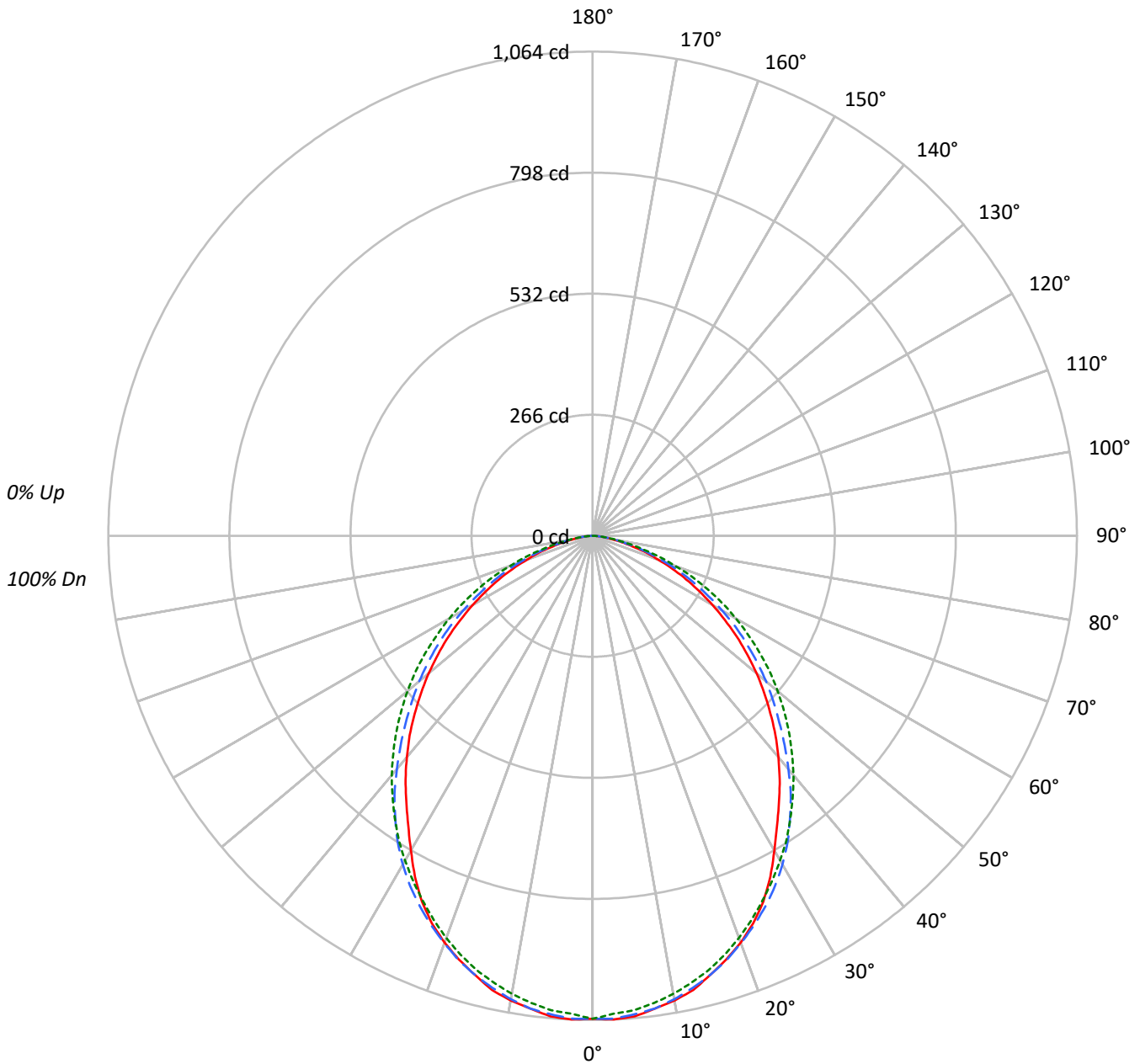
Lumens per Lamp: N/A
Luminaire Lumens: 2454.0 lumens
Efficiency: N/A
Efficacy: 104.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P556615

CATALOG NUMBER: FUSL-12-4-LD4-1LO-50-UNV-81-87-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P556615

CATALOG NUMBER: FUSL-12-4-LD4-1LO-50-UNV-81-87-EDD

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°	2856	2856	2856
5°	2864	2851	2827
10°	2833	2825	2793
15°	2783	2783	2751
20°	2724	2727	2692
25°	2634	2667	2624
30°	2481	2592	2560
35°	2344	2485	2488
40°	2230	2350	2412
45°	2103	2208	2321
50°	1968	2081	2222
55°	1815	1936	2102
60°	1635	1766	1955
65°	1443	1571	1778
70°	1203	1338	1511
75°	945	1068	1183
80°	676	752	834
85°	442	442	417



TEST NUMBER: P556615

CATALOG NUMBER: FUSL-12-4-LD4-1LO-50-UNV-81-87-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.9	4.1
10°-20°	280.7	11.4
20°-30°	410.2	16.7
30°-40°	465.6	19.0
40°-50°	449.5	18.3
50°-60°	370.8	15.1
60°-70°	246.9	10.1
70°-80°	110.5	4.5
80°-90°	19.8	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°	790.8	32.2
0°-40°	1256.5	51.2
0°-60°	2076.8	84.6
0°-90°	2454.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2454.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1061	1061	1061	1061	1061	
5°	1060	1060	1056	1050	1047	100
15°	999	1001	999	994	988	282
25°	887	894	898	892	884	406
35°	714	723	756	760	758	447
45°	552	562	580	607	610	426
55°	387	393	413	435	448	345
65°	227	233	247	264	279	225
75°	91	96	103	108	114	99
85°	14	14	14	14	14	19
90°	0	0	0	0	0	



TEST NUMBER: P556615

CATALOG NUMBER: FUSL-12-4-LD4-1LO-50-UNV-81-87-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1061.3	1061.3	1061.3	1061.3	1061.3
2.5°	1064.1	1064.6	1062.1	1055.6	1051.5
5°	1060.1	1059.7	1055.6	1049.9	1046.6
7.5°	1048.2	1049.1	1047.8	1039.7	1035.2
10°	1036.8	1037.2	1034.0	1027.5	1022.2
12.5°	1022.2	1021.7	1017.3	1014.0	1005.4
15°	998.9	1001.4	998.9	994.4	987.5
17.5°	976.5	976.5	978.1	970.4	965.1
20°	951.2	952.4	952.4	946.3	940.2
22.5°	921.9	925.5	926.7	920.2	912.9
25°	887.2	894.1	898.2	891.7	883.9
27.5°	845.2	855.8	868.0	863.1	854.6
30°	798.3	813.8	834.2	830.1	824.0
32.5°	753.9	769.4	797.5	795.9	792.6
35°	713.5	723.3	756.3	760.4	757.5
37.5°	675.2	684.2	715.1	724.5	722.1
40°	634.8	644.6	669.1	685.8	686.6
42.5°	594.9	604.2	624.2	648.3	648.3
45°	552.5	561.8	580.2	606.7	609.9
47.5°	510.9	520.7	538.6	565.1	570.4
50°	470.1	479.1	497.0	522.7	530.8
52.5°	427.7	437.5	455.0	478.7	490.5
55°	386.9	393.4	412.6	435.4	448.1
57.5°	344.5	350.6	372.2	391.8	404.9
60°	303.8	311.5	328.2	348.2	363.3
62.5°	264.6	272.8	287.0	304.6	321.7
65°	226.7	232.8	246.7	264.2	279.3
67.5°	190.0	195.3	209.2	221.4	237.3
70°	152.9	159.8	170.0	181.8	192.0
72.5°	123.1	126.0	134.5	143.1	153.7
75°	90.9	95.8	102.7	107.6	113.8
77.5°	65.2	68.1	72.2	76.2	82.0
80°	43.6	44.8	48.5	49.3	53.8
82.5°	26.5	27.3	28.1	28.5	30.2
85°	14.3	14.3	14.3	13.5	13.5
87.5°	8.2	8.2	6.9	5.7	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)