

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: P556511

Luminaire Tested: **FUSL-12-4-LD4-1LO-35-UNV-82-97-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: P556511
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-35-UNV-82-97-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .375
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

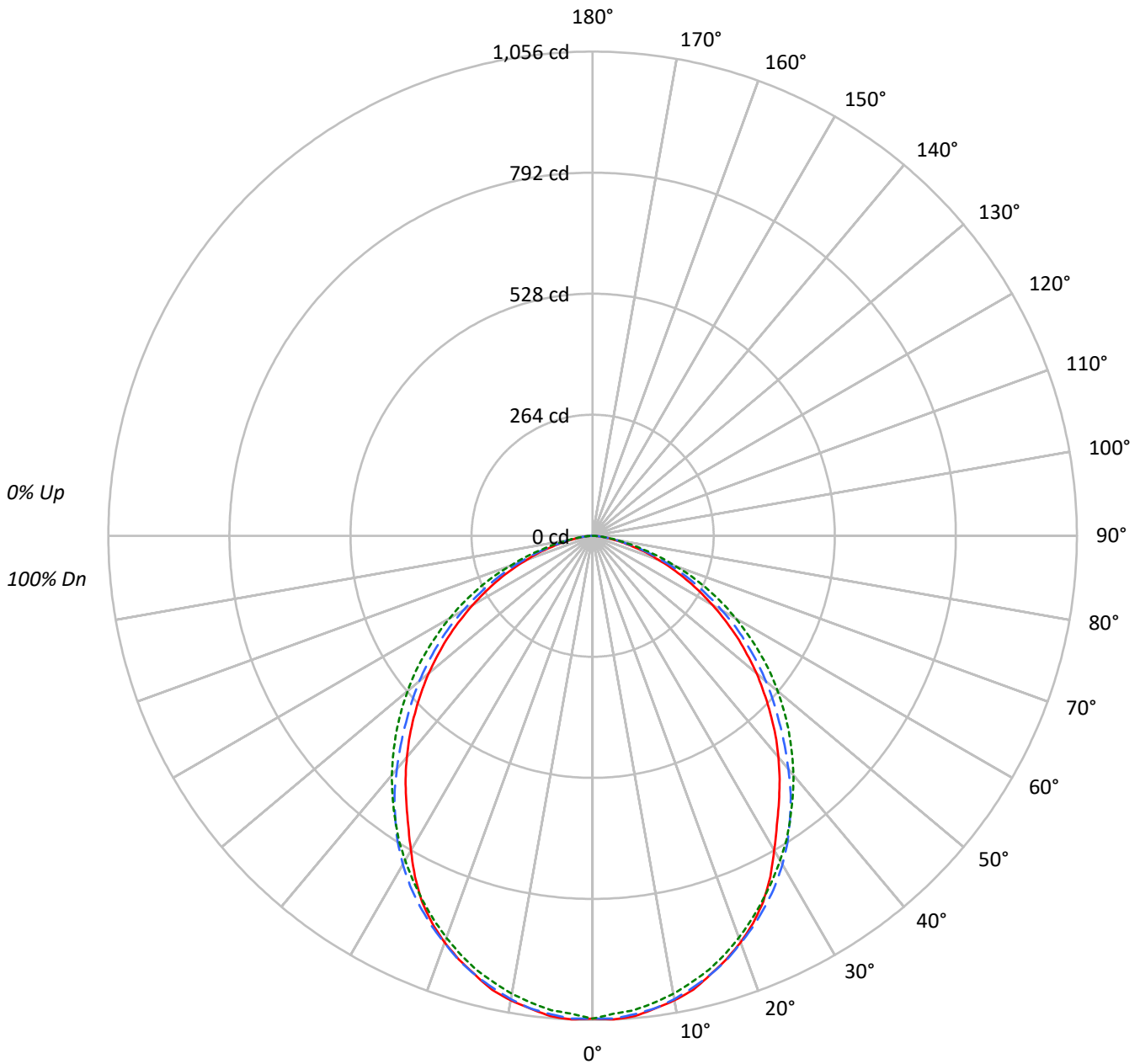
Lumens per Lamp: N/A
Luminaire Lumens: 2435.0 lumens
Efficiency: N/A
Efficacy: 104.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P556511

CATALOG NUMBER: FUSL-12-4-LD4-1LO-35-UNV-82-97-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P556511

CATALOG NUMBER: FUSL-12-4-LD4-1LO-35-UNV-82-97-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°	2834	2834	2834
5°	2841	2829	2805
10°	2811	2804	2771
15°	2761	2761	2730
20°	2703	2706	2672
25°	2614	2646	2604
30°	2461	2572	2541
35°	2326	2465	2469
40°	2213	2332	2393
45°	2086	2191	2303
50°	1953	2065	2205
55°	1801	1921	2086
60°	1622	1753	1940
65°	1432	1559	1764
70°	1194	1327	1499
75°	938	1059	1174
80°	671	745	828
85°	438	438	414



TEST NUMBER: P556511

CATALOG NUMBER: FUSL-12-4-LD4-1LO-35-UNV-82-97-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.1	4.1
10°-20°	278.5	11.4
20°-30°	407.0	16.7
30°-40°	462.0	19.0
40°-50°	446.0	18.3
50°-60°	367.9	15.1
60°-70°	245.0	10.1
70°-80°	109.6	4.5
80°-90°	19.6	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°	784.7	32.2
0°-40°	1246.8	51.2
0°-60°	2060.7	84.6
0°-90°	2435.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2435.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1053	1053	1053	1053	1053	
5°	1052	1052	1047	1042	1038	100
15°	991	994	991	987	980	279
25°	880	887	891	885	877	403
35°	708	718	750	754	752	444
45°	548	558	576	602	605	423
55°	384	390	409	432	445	343
65°	225	231	245	262	277	223
75°	90	95	102	107	113	99
85°	14	14	14	13	13	19
90°	0	0	0	0	0	



TEST NUMBER: P556511

CATALOG NUMBER: FUSL-12-4-LD4-1LO-35-UNV-82-97-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1053.1	1053.1	1053.1	1053.1	1053.1
2.5°	1055.9	1056.3	1053.9	1047.4	1043.4
5°	1051.9	1051.5	1047.4	1041.7	1038.5
7.5°	1040.1	1040.9	1039.7	1031.6	1027.2
10°	1028.8	1029.2	1026.0	1019.5	1014.2
12.5°	1014.2	1013.8	1009.4	1006.1	997.6
15°	991.2	993.6	991.2	986.7	979.8
17.5°	968.9	968.9	970.5	962.9	957.6
20°	943.8	945.1	945.1	939.0	932.9
22.5°	914.7	918.4	919.6	913.1	905.8
25°	880.3	887.2	891.2	884.8	877.1
27.5°	838.7	849.2	861.3	856.5	848.0
30°	792.1	807.5	827.7	823.7	817.6
32.5°	748.0	763.4	791.3	789.7	786.5
35°	708.0	717.7	750.5	754.5	751.7
37.5°	670.0	678.9	709.6	718.9	716.5
40°	629.9	639.6	663.9	680.5	681.3
42.5°	590.3	599.6	619.4	643.3	643.3
45°	548.2	557.5	575.7	602.0	605.2
47.5°	506.9	516.6	534.4	560.7	566.0
50°	466.5	475.4	493.2	518.6	526.7
52.5°	424.4	434.1	451.5	475.0	486.7
55°	383.9	390.4	409.4	432.1	444.6
57.5°	341.9	347.9	369.4	388.8	401.7
60°	301.4	309.1	325.7	345.5	360.5
62.5°	262.6	270.7	284.8	302.2	319.2
65°	224.9	231.0	244.8	262.2	277.1
67.5°	188.5	193.8	207.5	219.7	235.5
70°	151.7	158.6	168.7	180.4	190.5
72.5°	122.2	125.0	133.5	142.0	152.5
75°	90.2	95.1	101.9	106.8	112.9
77.5°	64.7	67.6	71.6	75.7	81.3
80°	43.3	44.5	48.1	49.0	53.4
82.5°	26.3	27.1	27.9	28.3	29.9
85°	14.2	14.2	14.2	13.4	13.4
87.5°	8.1	8.1	6.9	5.7	4.0
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)