

Fortimo InstantFit LV1 is the first truly field replaceable module. This revolutionary breakthrough ensures that an LED troffer containing it will never have to be scrapped on account of the light source.

Replace simply by snapping into connector on the fixture. This enables late stage fixture configuration at factory, RDC, distributor, or even in the field.

Fortimo InstantFit LV1 comes with a range of performance levels both in 2ft and 4ft options; and the rigid aluminum frame provides excellent thermal performance and ease of assembly.

Key features and benefits

- High energy efficacy of up to 170lm/W at nominal conditions
- Available in three performance levels for both 2ft and 4ft lengths
- Rigid module for easy assembly
- Excellent thermal performance
- 3 SDCM color consistency
- Field replaceable modules according to Zhaga Book 21 enabling late stage configuration and peace of mind
- Quick assembly without screws
- High energy efficacy and long lifetime
- 5-year limited system warranty with Advance Xitanium LED drivers

Ordering data

Commercial product name	12NC	Box quantity
FO IF 44in 60L 830 970mA LV1	9290 016 76406	120
FO IF 44in 60L 835 970mA LV1	9290 016 76506	120
FO IF 44in 60L 840 970mA LV1	9290 016 76606	120
FO IF 44in 60L 850 970mA LV1	9290 016 76706	120

Drive currents

Parameter	Nominal*	Life**	Max***	Unit
Fortimo InstantFit 44in 60L 970mA LV1	776	970	970	mA

Module temperatures

Parameter	Nominal*	Life**	Max***	Unit
T _c (case temperature at T _c point)	45	80	90	°C

* Nominal value at which typical performance is specified

** Value at which life time is specified

*** Maximum value for safe operation, do not operate above this value

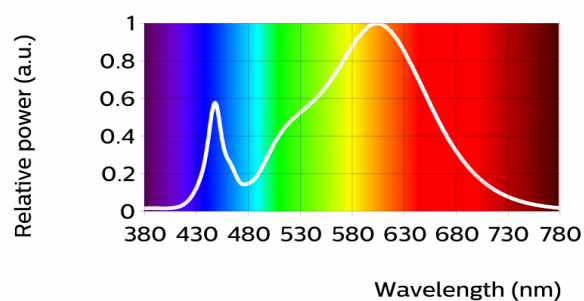
Optical characteristics - table per color (CCT)

FO IF 44in 60L 830 970mA LV1

Parameter	Min	Typ	Max	Unit
Luminous flux	4666	4964	5262	lm
Module efficacy	148	157		lm/W
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.433, 0.401)		-
Color consistency			3	SDCM
CRI	80			
Photometric code		830/359		
Radiation angle		120		deg

Measurement precision $\pm 5\%$ for the flux data and $\pm 6\%$ for the efficacy data. Measurement precision for color coordinates ± 0.005 . Measurement precision for CRI ± 1.5

Operation point	830	lm	lm/W
50% I-nom 388mA	Tc 25 °C	2648	176
	Tc-nom 45 °C	2587	173
	Tc-max 90 °C	2423	165
I-nom 776mA	Tc 25 °C	5099	160
	Tc-nom 45 °C	4964	157
	Tc-max 90 °C	4661	150
I-max 970mA	Tc 25 °C	6265	154
	Tc-nom 45 °C	6118	151
	Tc-max 90 °C	5725	144

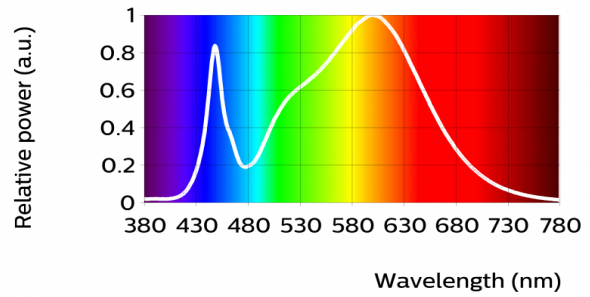


FO IF 44in 60L 835 970mA LV1

Parameter	Min	Typ	Max	Unit
Luminous flux	4953	5269	5585	lm
Module efficacy	157	167		lm/W
Correlated color temperature (CCT)		3500		K
Color coordinates (CIEx, CIEy)		(0.406, 0.390)		-
Color consistency			3	SDCM
CRI	80			
Photometric code		835/359		
Radiation angle		120		deg

Measurement precision $\pm 5\%$ for the flux data and $\pm 6\%$ for the efficacy data. Measurement precision for color coordinates ± 0.005 . Measurement precision for CRI ± 1.5

Operation point	835	lm	lm/W
50% I-nom 388mA	Tc 25 °C	2811	186
	Tc-nom 45 °C	2746	183
	Tc-max 90 °C	2572	175
I-nom 776mA	Tc 25 °C	5413	170
	Tc-nom 45 °C	5269	167
	Tc-max 90 °C	4949	159
I-max 970mA	Tc 25 °C	6651	163
	Tc-nom 45 °C	6495	161
	Tc-max 90 °C	6078	153

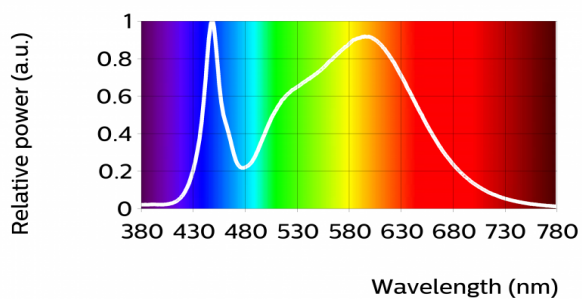


FO IF 44in 60L 840 970mA LV1

Parameter	Min	Typ	Max	Unit
Luminous flux	5035	5356	5677	lm
Module efficacy	159	170		lm/W
Correlated color temperature (CCT)		4000		K
Color coordinates (CIEx, CIEy)		(0.381, 0.378)		-
Color consistency			3	SDCM
CRI	80			
Photometric code		840/359		
Radiation angle		120		deg

Measurement precision $\pm 5\%$ for the flux data and $\pm 6\%$ for the efficacy data. Measurement precision for color coordinates ± 0.005 . Measurement precision for CRI ± 1.5

Operation point	840	lm	lm/W
50% I-nom 388mA	Tc 25 °C	2858	189
	Tc-nom 45 °C	2791	187
	Tc-max 90 °C	2614	178
I-nom 776mA	Tc 25 °C	5502	173
	Tc-nom 45 °C	5356	170
	Tc-max 90 °C	5031	162
I-max 970mA	Tc 25 °C	6761	166
	Tc-nom 45 °C	6603	163
	Tc-max 90 °C	6179	155

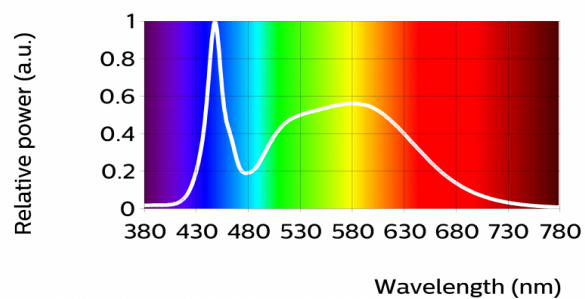


FO IF 44in 60L 850 970mA LV1

Parameter	Min	Typ	Max	Unit
Luminous flux	5035	5356	5677	lm
Module efficacy	159	170		lm/W
Correlated color temperature (CCT)		5000		K
Color coordinates (CIEx, CIEy)		(0.341, 0.350)		-
Color consistency			3	SDCM
CRI	80			
Photometric code		850/359		
Radiation angle		120		deg

Measurement precision $\pm 5\%$ for the flux data and $\pm 6\%$ for the efficacy data. Measurement precision for color coordinates ± 0.005 . Measurement precision for CRI ± 1.5

Operation point	850	lm	lm/W
50% I-nom 388mA	Tc 25 °C	2858	189
	Tc-nom 45 °C	2791	187
	Tc-max 90 °C	2614	178
I-nom 776mA	Tc 25 °C	5502	173
	Tc-nom 45 °C	5356	170
	Tc-max 90 °C	5031	162
I-max 970mA	Tc 25 °C	6761	166
	Tc-nom 45 °C	6603	163
	Tc-max 90 °C	6179	155



Electrical characteristics

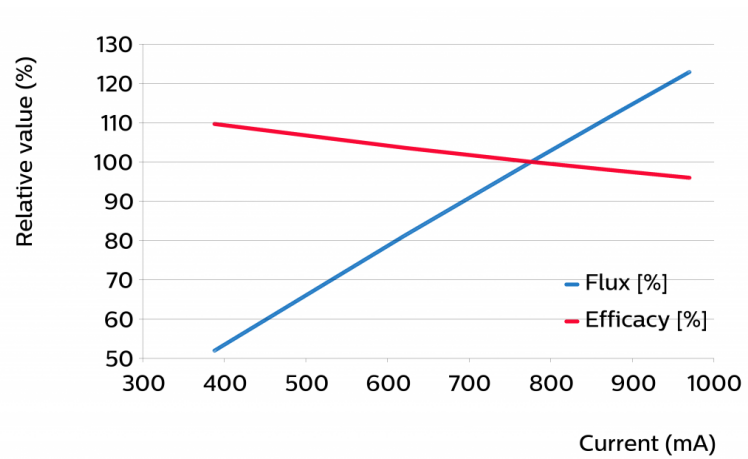
Parameter	Min	Typ	Max	Unit
Forward voltage	38.7	40.7	42.7	V
Power consumption	30.0	31.6	33.2	W = kWh/1000h
Number of modules in series per chain			1	

Measurement precision for Vf +/- 3%. Measurement precision for power +/- 3.3%

Tuning information

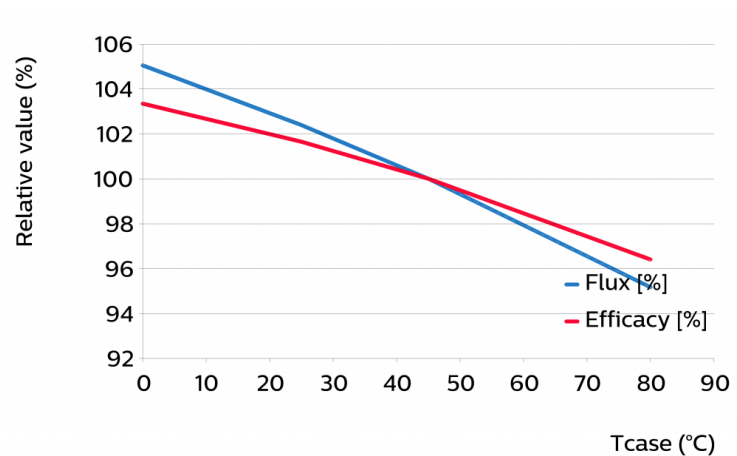
Flux and efficacy versus current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
970	123	96
873	112	98
776	100	100
621	81	104
388	52	110



Flux and efficacy versus temperature at Tc (at I nominal)

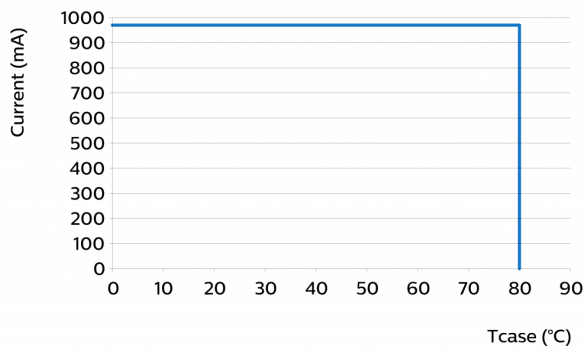
Tc [°C]	Flux [%]	Efficacy [%]
80	95	96
45	100	100
25	102	102
0	105	103



Lumen maintenance

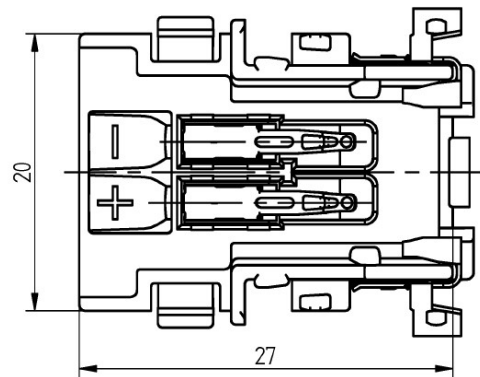
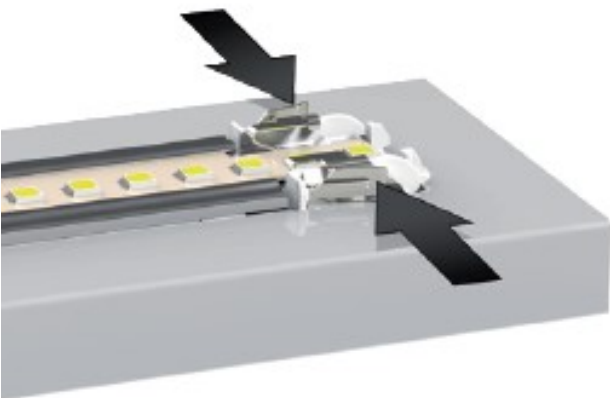
Operation point	Lumen maintenance x 1000 hours	L70			L80			L90		
		B50	B20	B10	B50	B20	B10	B50	B20	B10
80% I nom 621 mA	Tc 25°C	>100	>100	>100	>100	>100	>100	62	61	61
	Tc nom 45°C	>100	>100	>100	>100	>100	87	49	48	48
	Tc life 80°C	>100	>100	>100	74	72	71	34	34	33
I nom 776 mA	Tc 25°C	>100	>100	>100	>100	>100	>100	60	58	58
	Tc nom 45°C	>100	>100	>100	>100	99	98	47	46	46
	Tc life 80°C	>100	>100	>100	70	69	68	33	32	32
I life 970 mA	Tc 25°C	>100	>100	>100	>100	>100	>100	57	56	55
	Tc nom 45°C	>100	>100	>100	97	94	93	45	44	46
	Tc life 80°C	>100	>100	>100	67	66	65	31	31	30

Performance Window



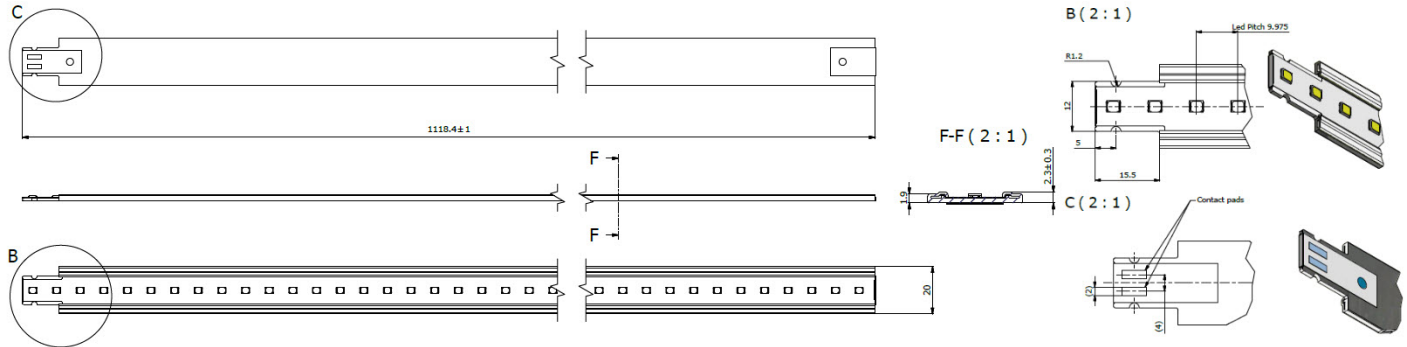
Wiring

Specification item	Value	Unit	Condition
Input wire cross-section	0.75...0.75	mm ²	BJB 47.303, solid wire, tinned wire
	18...18	AWG	BJB 47.303, solid wire, tinned wire
Input wire strip length	6...8	mm	



Mechanical characteristics

Parameter	Min	Typ	Max	Unit
Length	1117.4	1118.4	1119.4	mm
Width	19.8	20	20.2	mm
Height Total	2	2.3	2.6	mm
Product mass		83		gram



Absolute ratings

Parameter	Min	Max	Unit
Case temperature (Tc-max)		90	°C
ESD (direct contact)		8	kV
Working voltage		60	V _{dc}

Application information

Certificates and Standards

CE
ENEC
UL

Environmental

RoHS/REACH

Application

Dimming	Yes
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