

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 40L 830 650mA LV1	9290 016 75506	120
FO IF 44in 40L 835 650mA LV1	9290 016 75606	120
FO IF 44in 40L 840 650mA LV1	9290 016 75706	120
FO IF 44in 40L 850 650mA LV1	9290 016 75806	120

## Drive currents

Parameter	Nominal*	Life**	Max***	Unit
Fortimo InstantFit 44in 40L 650mA LV1	388	650	650	mA

## Module temperatures

Parameter	Nominal*	Life**	Max***	Unit
T <sub>c</sub> (case temperature at T <sub>c</sub> 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

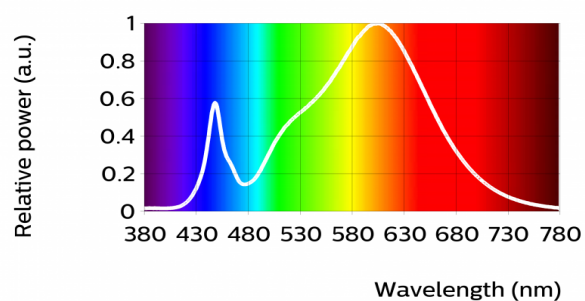
## Optical characteristics - table per color (CCT)

FO IF 44in 40L 830 650mA LV1

Parameter	Min	Typ	Max	Unit
Luminous flux	2333	2482	2631	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  $\pm 0.005$ . Measurement precision for CRI  $\pm 1.5$

Operation point	830	lm	lm/W
50% I-nom 194mA	Tc 25 °C	1324	176
	Tc-nom 45 °C	1293	173
	Tc-max 90 °C	1211	165
I-nom 388mA	Tc 25 °C	2549	160
	Tc-nom 45 °C	2482	157
	Tc-max 90 °C	2331	150
I-max 650mA	Tc 25 °C	4089	144
	Tc-nom 45 °C	3993	142
	Tc-max 90 °C	3734	135

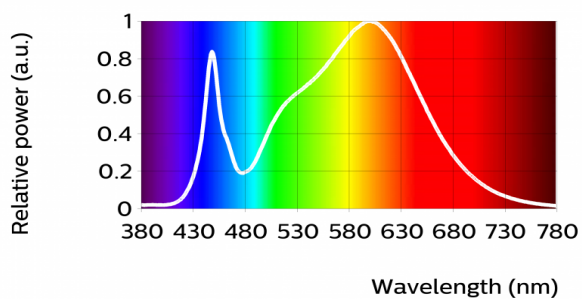


FO IF 44in 40L 835 650mA LV1

Parameter	Min	Typ	Max	Unit
Luminous flux	2476	2634	2793	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  $\pm 0.005$ . Measurement precision for CRI  $\pm 1.5$

Operation point	835	lm	lm/W
		Tc 25 °C	1406
50% I-nom 194mA	Tc-nom 45 °C	1373	183
	Tc-max 90 °C	1286	175
	Tc 25 °C	2706	170
I-nom 388mA	Tc-nom 45 °C	2634	167
	Tc-max 90 °C	2474	159
	Tc 25 °C	4341	153
I-max 650mA	Tc-nom 45 °C	4239	150
	Tc-max 90 °C	3964	143

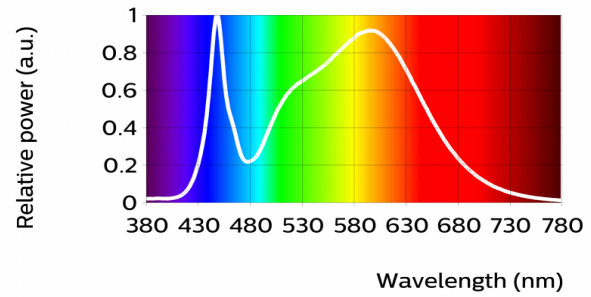


FO IF 44in 40L 840 650mA LV1

Parameter	Min	Typ	Max	Unit
Luminous flux	2517	2678	2839	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  $\pm 0.005$ . Measurement precision for CRI  $\pm 1.5$

Operation point	840	lm	lm/W
50% I-nom 194mA	Tc 25 °C	1429	189
	Tc-nom 45 °C	1396	187
	Tc-max 90 °C	1307	178
I-nom 388mA	Tc 25 °C	2751	173
	Tc-nom 45 °C	2678	170
	Tc-max 90 °C	2515	162
I-max 650mA	Tc 25 °C	4413	156
	Tc-nom 45 °C	4309	153
	Tc-max 90 °C	4030	145

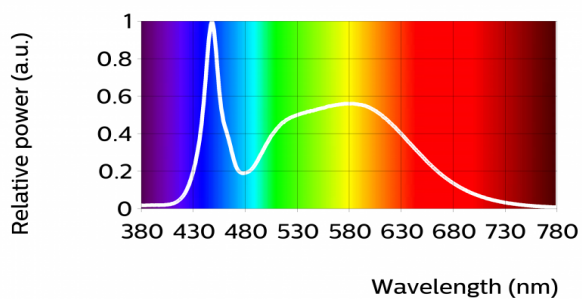


FO IF 44in 40L 850 650mA LV1

Parameter	Min	Typ	Max	Unit
Luminous flux	2517	2678	2839	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  $\pm 0.005$ . Measurement precision for CRI  $\pm 1.5$

Operation point	850	lm	lm/W
50% I-nom 194mA	Tc 25 °C	1429	189
	Tc-nom 45 °C	1396	187
	Tc-max 90 °C	1307	178
I-nom 388mA	Tc 25 °C	2751	173
	Tc-nom 45 °C	2678	170
	Tc-max 90 °C	2515	162
I-max 650mA	Tc 25 °C	4413	156
	Tc-nom 45 °C	4309	153
	Tc-max 90 °C	4030	145



## Electrical characteristics

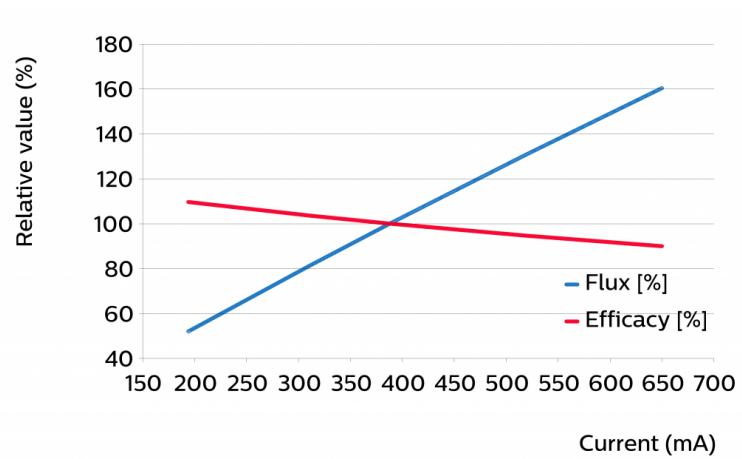
Parameter	Min	Typ	Max	Unit
Forward voltage	38.7	40.7	42.7	V
Power consumption	15.0	15.8	16.6	W = kWh/1000h
Number of modules in series per chain			1	

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

## Tuning information

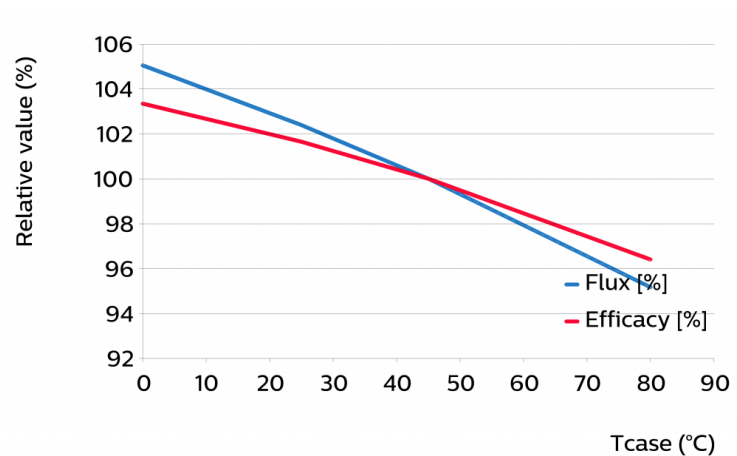
Flux and efficacy versus current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
650	160	90
519	131	95
388	100	100
310	81	104
194	52	110



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

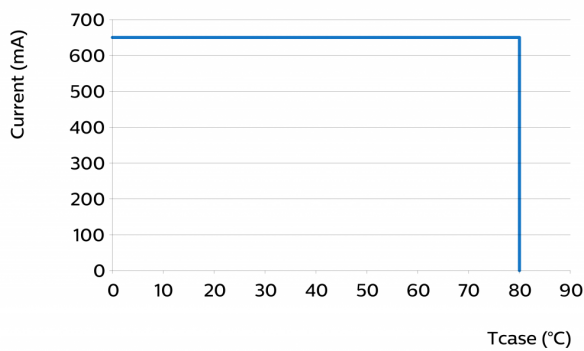
Tc [°C]	Flux [%]	Efficacy [%]
80	95	96
45	100	100
25	102	102
0	105	103



## Lumen maintenance

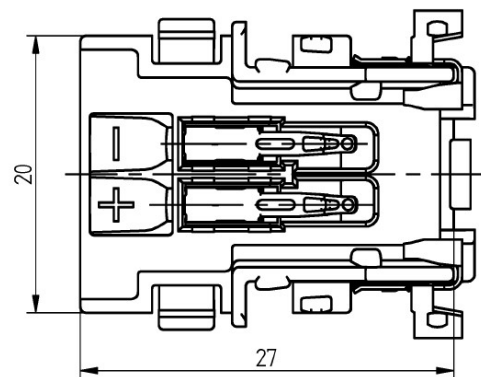
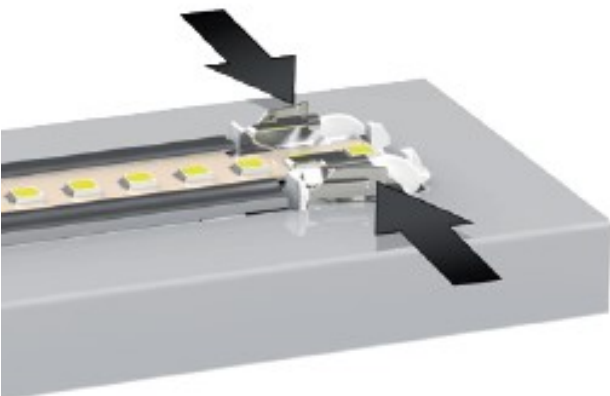
Operation point	Lumen maintenance x 1000 hours	L70			L80			L90		
		B50	B20	B10	B50	B20	B10	B50	B20	B10
80% I nom 310 mA	Tc 25°C	>100	>100	>100	>100	>100	>100	62	61	61
	Tc nom 45°C	>100	>100	>100	>100	>100	87	49	48	48
	Tc life 80°C	>100	>100	>100	74	72	71	34	34	33
I nom 388 mA	Tc 25°C	>100	>100	>100	>100	>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 650 mA	Tc 25°C	>100	>100	>100	>100	>100	>100	54	53	52
	Tc nom 45°C	>100	>100	>100	91	88	87	43	41	40
	Tc life 80°C	>100	99	97	63	61	60	29	28	28

## Performance Window



## Wiring

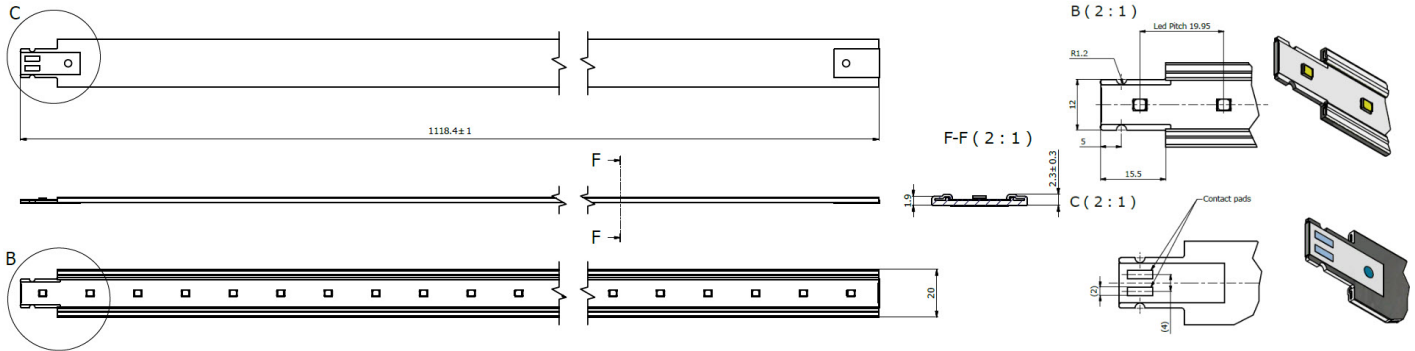
Specification item	Value	Unit	Condition
Input wire cross-section	0.75...0.75	mm <sup>2</sup>	BJB 47.303, solid wire, tinned wire
	18...18	AWG	BJB 47.303, solid wire, tinned wire
Input wire strip length	6...8	mm	





## 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 <sub>dc</sub>

## Application information

### Certificates and Standards

CE  
ENEC  
UL

### Environmental

RoHS/REACH

### Application

Dimming	Yes
---------	-----

