

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 22in 30L 830 485mA LV1	9290 016 73706	200
FO IF 22in 30L 835 485mA LV1	9290 016 73806	200
FO IF 22in 30L 840 485mA LV1	9290 016 73906	200
FO IF 22in 30L 850 485mA LV1	9290 016 74006	200

Drive currents

Parameter	Nominal*	Life**	Max***	Unit
Fortimo InstantFit 22in 30L 485mA LV1	388	485	485	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

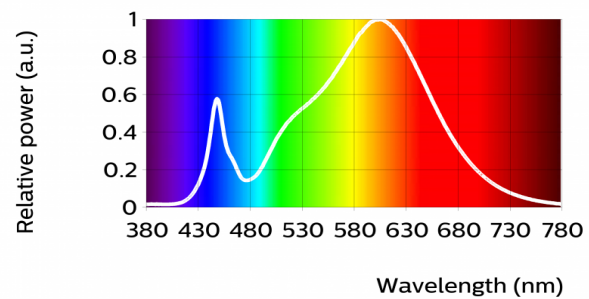
Optical characteristics - table per color (CCT)

FO IF 22in 30L 830 485mA 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 ± 0.005 . Measurement precision for CRI ± 1.5

Operation point	830	lm	lm/W
80% I-nom 310mA	Tc 25 °C	1324	176
	Tc-nom 45 °C	1293	173
	Tc-max 80 °C	1211	165
I-nom 388mA	Tc 25 °C	2549	160
	Tc-nom 45 °C	2482	157
	Tc-max 80 °C	2331	150
I-max 485mA	Tc 25 °C	3133	154
	Tc-nom 45 °C	3059	151
	Tc-max 80 °C	2863	144

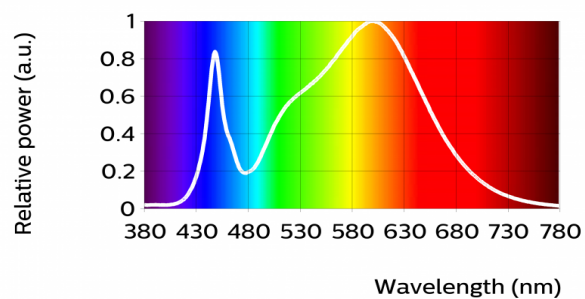


FO IF 22in 30L 835 485mA LV1

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 ± 0.005 . Measurement precision for CRI ± 1.5

Operation point	835	lm	lm/W
50% I-nom 194mA	Tc 25 °C	1406	186
	Tc-nom 45 °C	1373	183
	Tc-max 90 °C	1286	175
I-nom 388mA	Tc 25 °C	2706	170
	Tc-nom 45 °C	2634	167
	Tc-max 90 °C	2474	159
I-max 485mA	Tc 25 °C	3326	163
	Tc-nom 45 °C	3248	161
	Tc-max 90 °C	3039	153

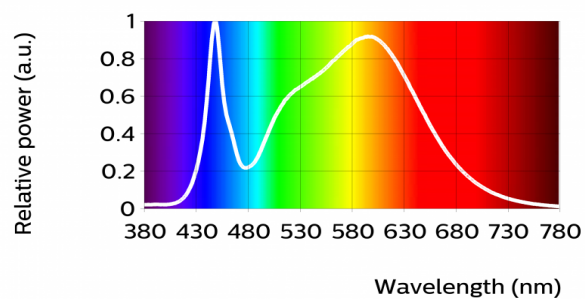


FO IF 22in 30L 840 485mA LV1

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 ± 0.005 . Measurement precision for CRI ± 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 485mA	Tc 25 °C	3381	166
	Tc-nom 45 °C	3301	163
	Tc-max 90 °C	3090	155

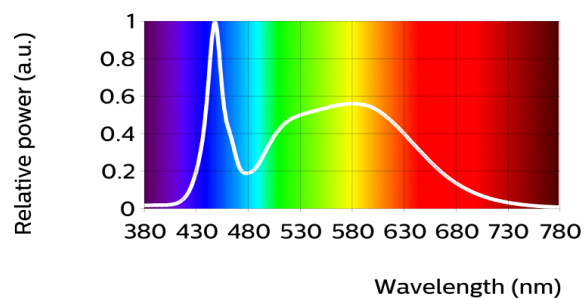


FO IF 22in 30L 850 485mA LV1

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 ± 0.005 . Measurement precision for CRI ± 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 485mA	Tc 25 °C	3381	166
	Tc-nom 45 °C	3301	163
	Tc-max 90 °C	3090	155



Electrical characteristics

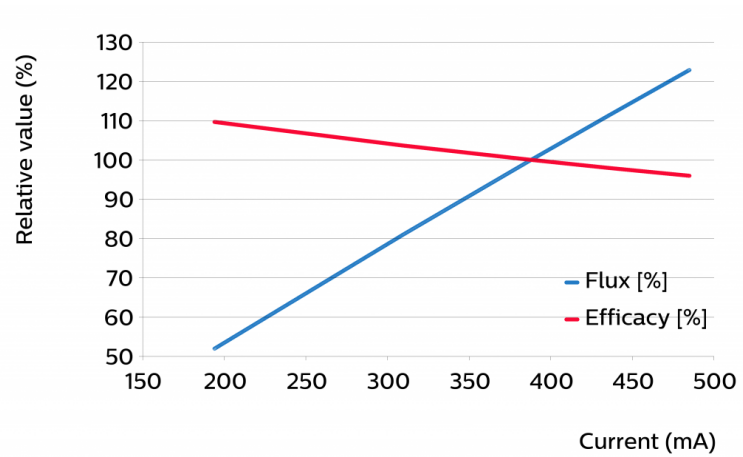
Parameter	Min	Typ	Max	Unit
Forward voltage	39.5	40.7	41.9	V
Power consumption	15.3	15.8	16.3	W = kWh/1000h
Number of modules in series per chain			1	

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

Tuning information

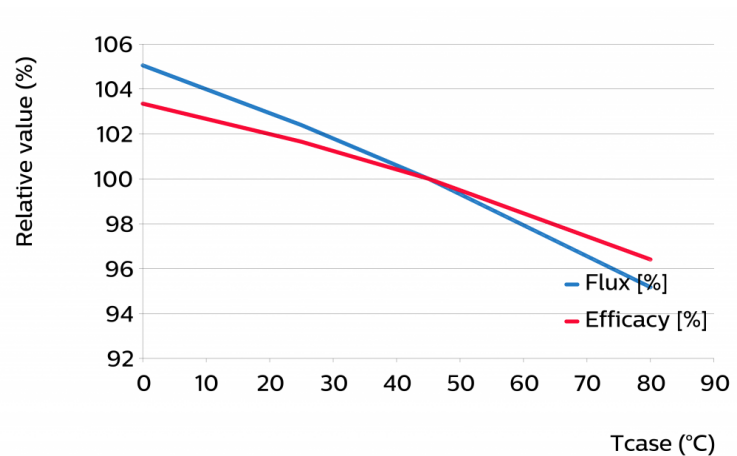
Flux and efficacy versus current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
485	123	96
436	111	98
388	100	100
310	81	104
194	52	110



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

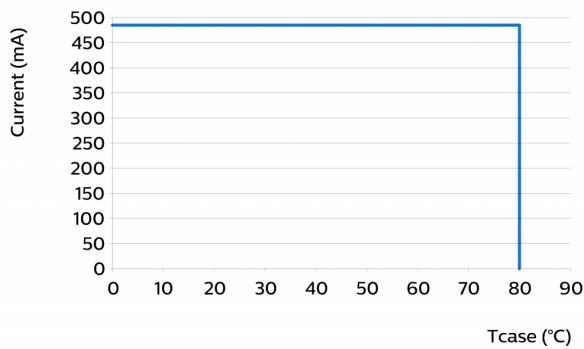
Tc [°C]	Flux [%]	Efficacy [%]
80	95	96
45	100	100
25	102	102
0	105	103



Lumen maintenance

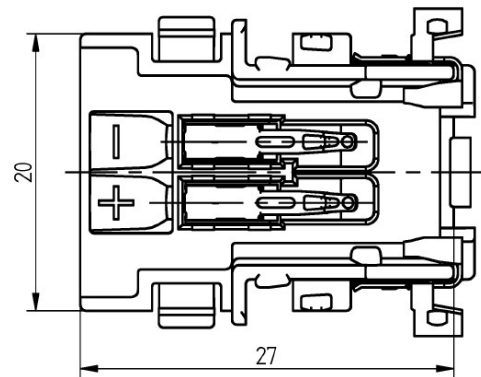
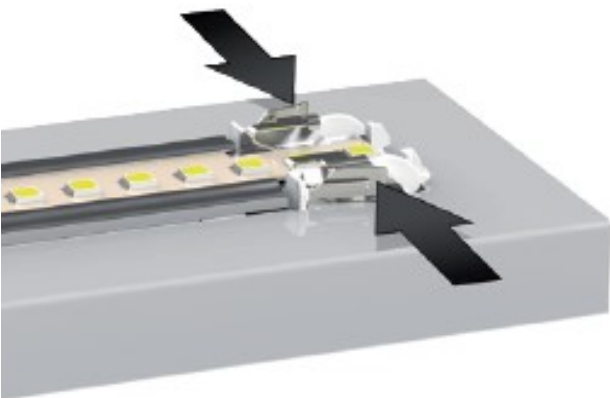
Operation point	Lumen maintenance x 1000 hours	L70			L80			L90		
		B50	B20	B10	B50	B20	B10	B50	B20	B10
80% I nom 310 mA	Tc 25°C	>100	>100	>100	>100	>100	>100	62	61	61
	Tc nom 45°C	>100	>100	>100	>100	>100	87	49	48	48
	Tc life 80°C	>100	>100	>100	74	72	71	34	34	33
I nom 388 mA	Tc 25°C	>100	>100	>100	>100	>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 485 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	43
	Tc life 80°C	>100	>100	>100	67	65	64	31	30	30

Performance Window



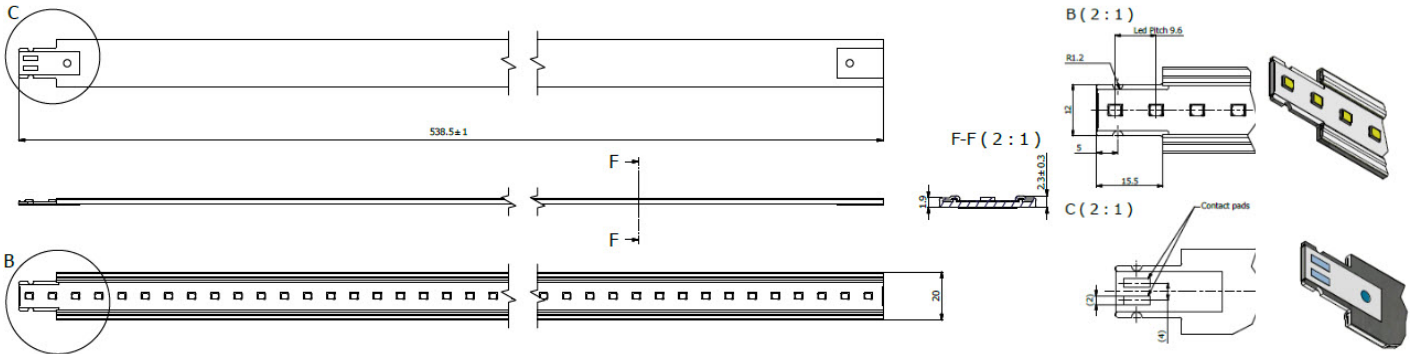
Wiring

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	537.5	538.5	539.5	mm
Width	19.8	20	20.2	mm
Height Total	2	2.3	2.6	mm
Product mass		40		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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