

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 20L 830 325mA LV1	9290 016 72806	200
FO IF 22in 20L 835 325mA LV1	9290 016 72906	200
FO IF 22in 20L 840 325mA LV1	9290 016 73006	200
FO IF 22in 20L 850 325mA LV1	9290 016 73106	200

Drive currents

Parameter	Nominal*	Life**	Max***	Unit
Fortimo InstantFit 22in 20L 325mA LV1	194	325	325	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

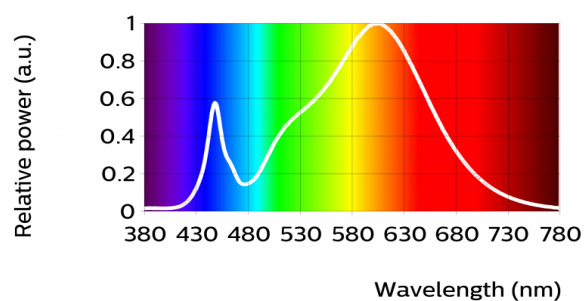
Optical characteristics - table per color (CCT)

FO IF 22in 20L 830 325mA LV1

Parameter	Min	Typ	Max	Unit
Luminous flux	1167	1241	1315	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 97mA	Tc 25 °C	662	176
	Tc-nom 45 °C	647	173
	Tc-max 90 °C	606	165
I-nom 194mA	Tc 25 °C	1275	160
	Tc-nom 45 °C	1241	157
	Tc-max 90 °C	1165	150
I-max 325mA	Tc 25 °C	2045	144
	Tc-nom 45 °C	1996	142
	Tc-max 90 °C	1867	135

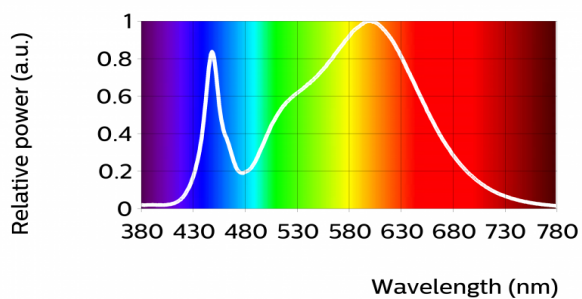


FO IF 22in 20L 835 325mA LV1

Parameter	Min	Typ	Max	Unit
Luminous flux	1238	1317	1396	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 97mA	Tc 25 °C	703	186
	Tc-nom 45 °C	686	183
	Tc-max 90 °C	643	175
I-nom 194mA	Tc 25 °C	1353	170
	Tc-nom 45 °C	1317	167
	Tc-max 90 °C	1237	159
I-max 325mA	Tc 25 °C	2171	153
	Tc-nom 45 °C	2119	150
	Tc-max 90 °C	1982	143

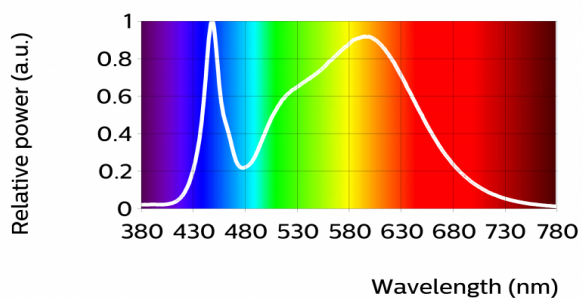


FO IF 22in 20L 840 325mA LV1

Parameter	Min	Typ	Max	Unit
Luminous flux	1259	1339	1419	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 97mA	Tc 25 °C	714	189
	Tc-nom 45 °C	698	187
	Tc-max 90 °C	654	178
I-nom 194mA	Tc 25 °C	1376	173
	Tc-nom 45 °C	1339	170
	Tc-max 90 °C	1258	162
I-max 325mA	Tc 25 °C	2207	156
	Tc-nom 45 °C	2155	153
	Tc-max 90 °C	2015	145

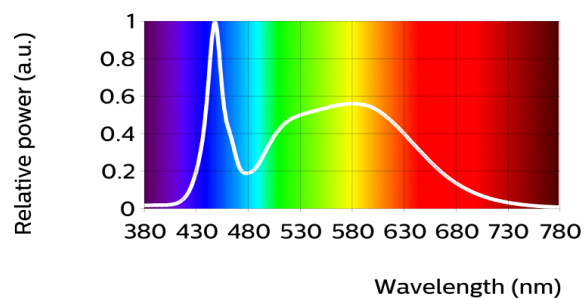


FO IF 22in 20L 850 325mA LV1

Parameter	Min	Typ	Max	Unit
Luminous flux	1259	1339	1419	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 97mA	Tc 25 °C	714	189
	Tc-nom 45 °C	698	187
	Tc-max 90 °C	654	178
I-nom 194mA	Tc 25 °C	1376	173
	Tc-nom 45 °C	1339	170
	Tc-max 90 °C	1258	162
I-max 325mA	Tc 25 °C	2207	156
	Tc-nom 45 °C	2155	153
	Tc-max 90 °C	2015	145



Electrical characteristics

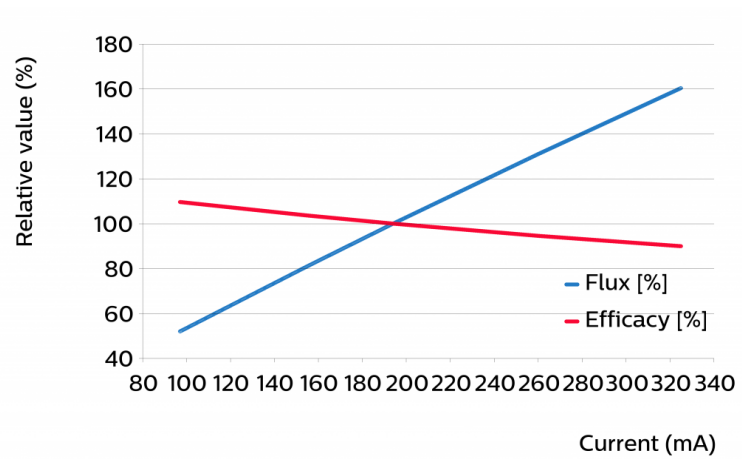
Parameter	Min	Typ	Max	Unit
Forward voltage	39.5	40.7	41.9	V
Power consumption	7.7	7.9	8.1	W = kWh/1000h
Number of modules in series per chain			1	

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

Tuning information

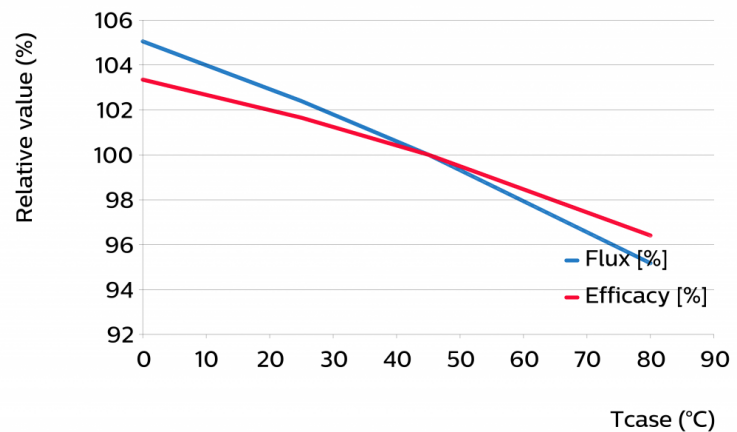
Flux and efficacy versus current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
325	160	90
260	131	95
194	100	100
155	81	104
97	52	110



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

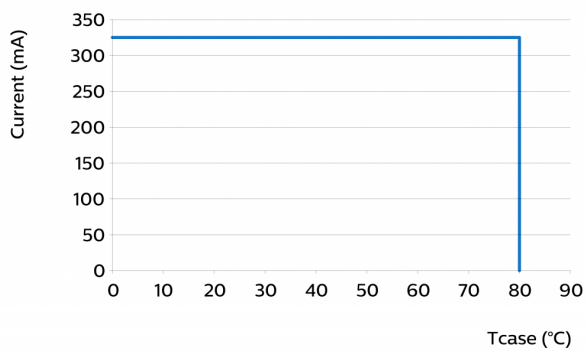
Tc [°C]	Flux [%]	Efficacy [%]
80	95	96
45	100	100
25	102	102
0	105	103



Lumen maintenance

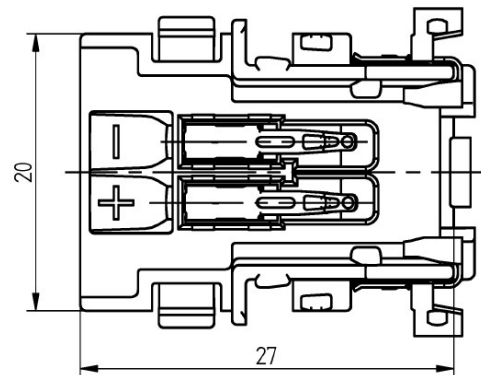
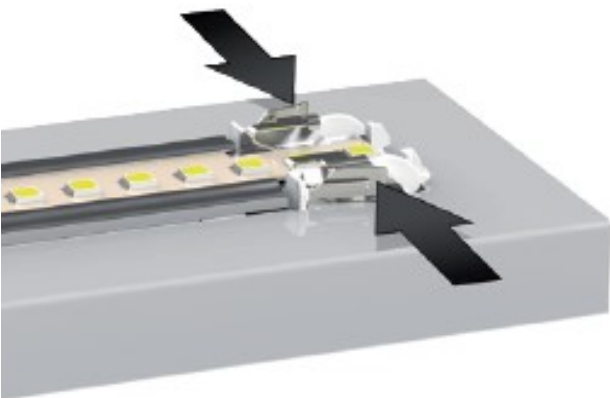
Operation point	Lumen maintenance x 1000 hours	L70			L80			L90		
		B50	B20	B10	B50	B20	B10	B50	B20	B10
80% I nom 155 mA	Tc 25°C	>100	>100	>100	>100	>100	>100	62	61	61
	Tc nom 45°C	>100	>100	>100	>100	>100	87	49	48	48
	Tc life 80°C	>100	>100	>100	74	72	71	34	34	33
I nom 194 mA	Tc 25°C	>100	>100	>100	>100	>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 325 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	97	95	63	60	59	29	28	27

Performance Window



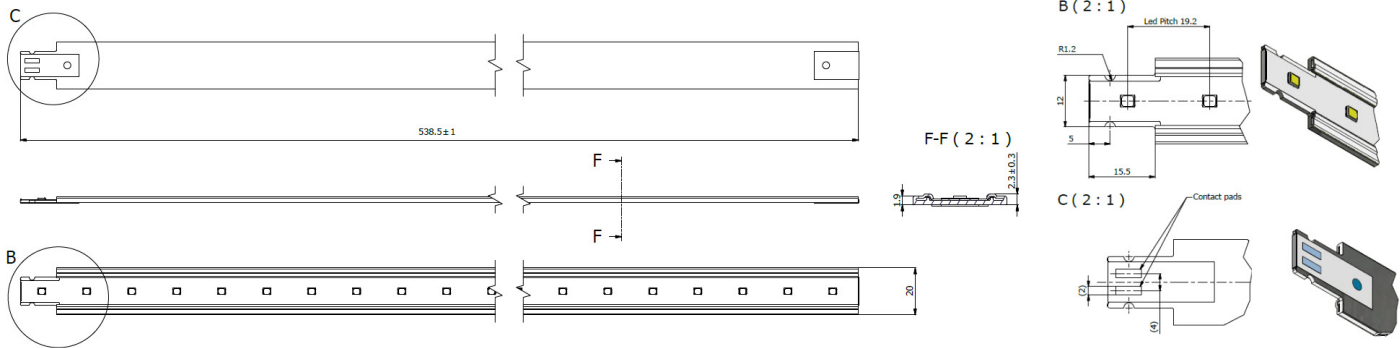
Wiring

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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