

PHILIPS

Fortimo

LED

Fortimo LED Strip iXt 2ft
VHF FC HV7



Datasheet

Redefining brilliance with efficiency and innovation

Key features and benefits

- Two lumen output versions: 2000 lm/ft and 3000 lm/ft
- LED module efficiency of 185 Lm/W (4000K, CRI80)
- Robust LED package to withstand high temperatures
- Long life time of >100,000 hours
- High color rendering: CRI >80
- Excellent color consistency of 3 SDCM
- Variation of color temperatures: 3000 K, 4000 K, 5000 K, and 6500 K
- Two lengths: 1ft and 2ft
- Wide case temperature (Tc) range from -40 °C to +95 °C
- A 7 year warranty is granted when combined with an LED Driver from the Xitanium iXt range. Otherwise, the standard 5 year warranty applies

Application: Industry, Warehouse, Office, Marine

January 2026



Ordering data

Commercial product name	EOC	12NC	Box quantity
Fortimo LED Strip iXt 2ft VHF FC 830 HV7	8721103 122575 00	9290 040 10906	168
Fortimo LED Strip iXt 2ft VHF FC 840 HV7	8721103 122599 00	9290 040 11006	168
Fortimo LED Strip iXt 2ft VHF FC 850 HV7	8721103 122612 00	9290 040 11106	168
Fortimo LED Strip iXt 2ft VHF FC 865 HV7	8721103 122636 00	9290 040 11206	168

Drive currents

Parameter	Nominal*	Life**	Max***	Unit
Fortimo LED Strip iXt 2ft VHF FC HV7	411	600	720	mA

Module temperatures

Parameter	Nominal*	Life**	Max***	Unit
T _c (case temperature at T _c point)	55	90	95	°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

[Fortimo LED Strip iXt 2ft VHF FC 830 HV7](#)

[Fortimo LED Strip iXt 2ft VHF FC 840 HV7](#)

[Fortimo LED Strip iXt 2ft VHF FC 850 HV7](#)

[Fortimo LED Strip iXt 2ft VHF FC 865 HV7](#)

CCT	3000K	4000K	5000K	6500K	Unit
Luminous flux (Φ_{use})*	5790	6000	6000	5970	lm
Efficacy*	178	185	185	184	lm/W
Average Luminous flux (tolerance -1% + 7%)	5970	6124	6124	6092	lm
Average Efficacy	187	192	192	191	lm/W
Max. Color consistency	3	3	3	3	SDCM
Color coordinates (CIEx, CIEy)	0.432, 0.399	0.380, 0.375	0.348, 0.352	0.310, 0.323	
Min. CRI	80	80	80	80	
Min. R9	0	0	0	0	
Max. Photobiological safety	RG1 unlimited	RG1 unlimited	RG1 unlimited	RG1 unlimited	
Energy label EPREL	C 	C 	C 	C 	

Measurement precision for flux +/- 5%. Measurement precision for efficacy +/- 6%. Measurement precision for x, y +/- 0.005. Measurement precision for CRI 1.5. Measurement precision for Vf +/- 3%. Measurement precision for power +/- 3.3%.

* Luminous flux (Φ_{use}) and Efficacy refer to Single Lighting Regulation (SLR). Luminous flux (Φ_{use}) means the part of the luminous flux of a light source that is considered when determining its energy efficiency: - for non-directional light sources it is the total flux emitted in a solid angle of 4π sr (corresponding to a 360° sphere)

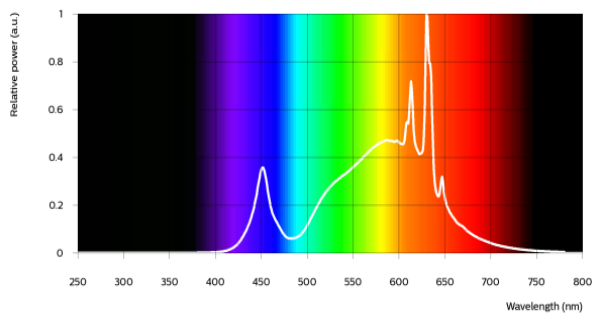
Tuning table

Operation Point		Current	3000K	4000K	5000K	6500K	Unit
T _c = 25°C	Luminous flux	80% I-nom 329mA	5002	5134	5134	5116	lm
		I-nom 411mA	6185	6355	6355	6339	lm
		I-max 720mA	10457	10786	10786	10770	lm
	Efficacy	80% I-nom 329mA	198	204	204	203	lm/W
		I-nom 411mA	194	199	199	199	lm/W
		I-max 720mA	179	185	185	184	lm/W
T _c = 55°C	Luminous flux	80% I-nom 329mA	4829	4949	4949	4918	lm
		I-nom 411mA	5970	6124	6124	6092	lm
		I-max 720mA	10091	10383	10383	10348	lm
	Efficacy	80% I-nom 329mA	194	199	199	197	lm/W
		I-nom 411mA	187	192	192	191	lm/W
		I-max 720mA	175	180	180	179	lm/W
T _c = 95°C	Luminous flux	80% I-nom 329mA	4563	4424	4424	4588	lm
		I-nom 411mA	5641	5470	5470	5683	lm
		I-max 720mA	9530	9234	9234	9645	lm
	Efficacy	80% I-nom 329mA	185	181	181	187	lm/W
		I-nom 411mA	181	176	176	183	lm/W
		I-max 720mA	167	162	162	169	lm/W

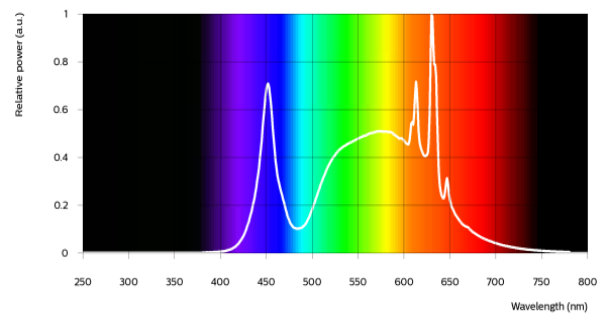
*Based on average value

Spectral characteristics

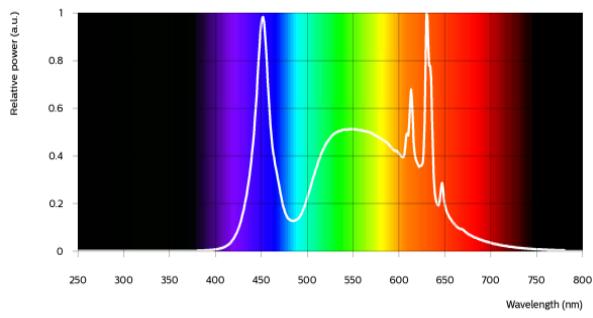
CRI80 3000K



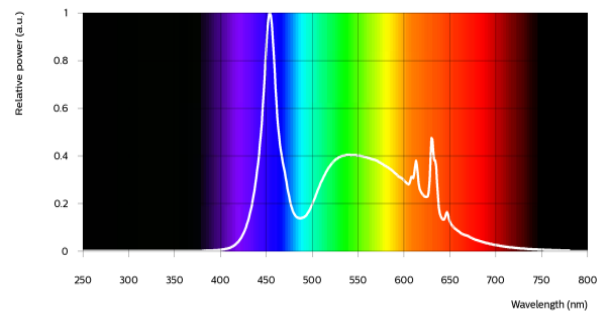
CRI80 4000K



CRI80 5000K



CRI80 6500K



Electrical characteristics

Fortimo LED Strip iXt 2ft VHF FC 865 HV7

Fortimo LED Strip iXt 2ft VHF FC 830 HV7

Parameter	Min	Typ	Max	Unit
Forward voltage	74.7	79.0	80.4	V
Power consumption	30.7	32.5	33.1	W = kWh/1000h
Number of modules in series per chain			4	
Number of modules in parallel			2	

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

Fortimo LED Strip iXt 2ft VHF FC 850 HV7

Fortimo LED Strip iXt 2ft VHF FC 840 HV7

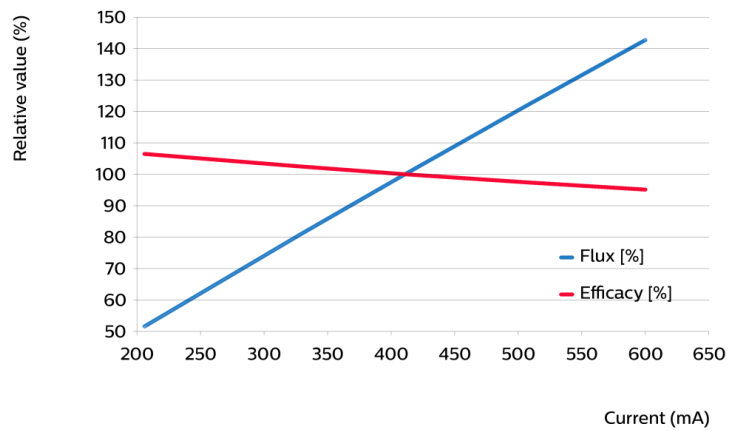
Parameter	Min	Typ	Max	Unit
Forward voltage	74.6	78.9	80.4	V
Power consumption	30.7	32.4	33.0	W = kWh/1000h
Number of modules in series per chain			4	
Number of modules in parallel			2	

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

Tuning information

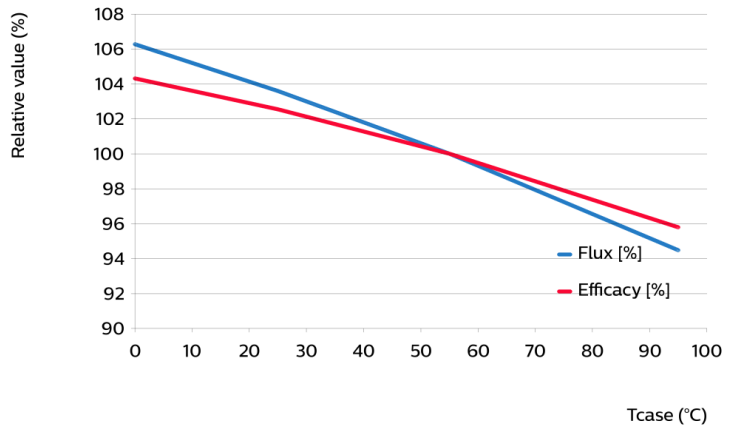
Flux and efficacy versus current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
600	143	95
505	121	97
411	100	100
329	81	102
206	52	106



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

Tc [°C]	Flux [%]	Efficacy [%]
95	94	96
55	100	100
25	104	103
0	106	104



Lumen maintenance

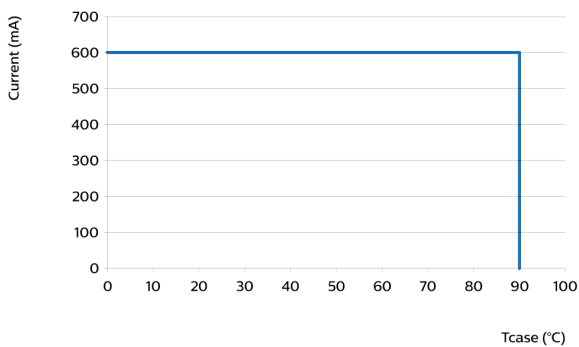
Operation point	Lumen maintenance x 1000 hours	L70			L80			L90		
		B50	B20	B10	B50	B20	B10	B50	B20	B10
80% Inom= 328,8 mA	Tc=25°C	>100	>100	>100	>100	>100	>100	>100	>100	>100
	Tc_nom=55°C	>100	>100	>100	>100	>100	>100	78	77	76
	Tc_life=90°C	86	56	41	86	56	41	55	53	41
Inom=411 mA	Tc=25°C	>100	>100	>100	>100	>100	>100	>100	>100	>100
	Tc_nom=55°C	>100	>100	>100	>100	>100	>100	76	75	74
	Tc_life=90°C	86	56	41	86	56	41	54	52	41
Ilife=600 mA	Tc=25°C	>100	>100	>100	>100	>100	>100	99	98	97
	Tc_nom=55°C	>100	>100	>100	>100	>100	>100	70	69	68
	Tc_life=90°C	86	56	41	86	56	41	50	48	41

We use a Philips designed lifetime model, which uses LM80 data as only one of its inputs, and assumes a continues operation of the module. Please check design-in guide for more information on industry conditions.

Lifetime

Parameter	Value	Unit
M70F50 nominal	>100000	hours
M70F50 life	>100000	hours

Performance Window



Application information

Certificates and Standards

CB
ENEC
ENEC+
CE

Application

Dimming

Yes



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