

PHILIPS

Fortimo

LED

Fortimo LEDFlex
1500lm/m 8xx G1



Datasheet

Fortimo LEDFlex system

Key features and benefits

- Ideal for built-in applications on aluminum extrusions and for various decorative lighting applications such as cove lighting, indoor facade accent lighting.
- Luminous flux range of 1000/1500/2000/2500 lm/m
- Colour temperature 2700/3000/4000/6500 K with 3 SDCM color consistency
- CRI 80
- Efficacy up to 150lm/W
- Narrow pitch distance with 70 leds per meter enables best uniformity
- High design freedom by cut-options every 10 cm
- Self-adhesive 3M tape on the back for simple mounting on various surfaces
- PCB to PCB and wire to PCB connectors for toolless handling and connection
- Life-time of 50,000 hours
- Five year warranty

September 2021



indirect



instant



Ordering data

Commercial product name	EOC	12NC	Box quantity
Fortimo LEDFlex 5m 1500lm/m 830 C10 G1	8718699 661601 00	9290 014 91280	15
Fortimo LEDFlex 5m 1500lm/m 840 C10 G1	8718699 661625 00	9290 014 91380	15
Fortimo LEDFlex 5m 1500lm/m 827 C10 G1	8718699 661649 00	9290 014 91480	15
Fortimo LEDFlex 5m 1500lm/m 865 C10 G1	8718699 661663 00	9290 014 91580	15
Fortimo LEDFlex 50m 1500lm/m 830 C10 G1	8718699 662042 00	9290 014 93480	5
Fortimo LEDFlex 50m 1500lm/m 840 C10 G1	8718699 662066 00	9290 014 93580	5

Module temperatures

Parameter	Nominal*	Life**	Max***	Unit
T _c (case temperature at T _c point)	65	75	85	°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)

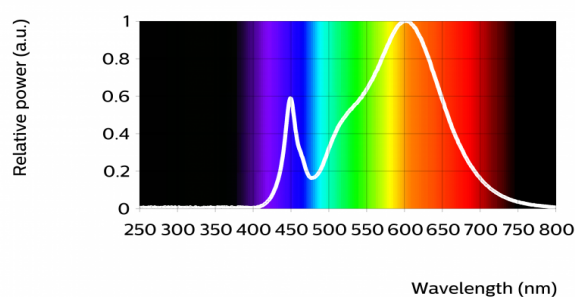
Fortimo LEDFlex 5m 1500lm/m 830 C10 G1
Fortimo LEDFlex 50m 1500lm/m 830 C10 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	1350	1500	1650	lm
Module efficacy		138		lm/W
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.434, 0.403)		-
Color consistency			3	SDCM
CRI	80			
Photometric code		830/359		
Radiation angle		120		deg
Photobiological safety			RG1 unlimited	

R9>0.

Flux expressed per meter

Measurement precision for flux +/- 5%, for efficacy +/- 6%, for x, y +/- 0.005, for CRI +/- 1.5



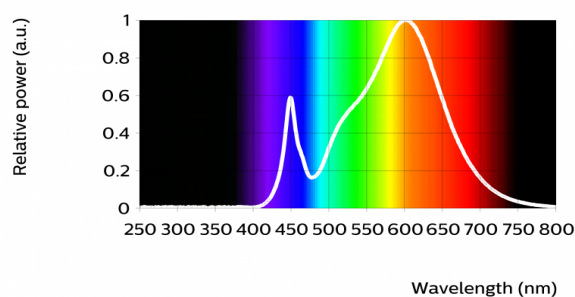
Fortimo LEDFlex 5m 1500lm/m 840 C10 G1
Fortimo LEDFlex 50m 1500lm/m 840 C10 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	1350	1500	1650	lm
Module efficacy		150		lm/W
Correlated color temperature (CCT)		4000		K
Color coordinates (CIEx, CIEy)		(0.382, 0.380)		-
Color consistency			3	SDCM
CRI	80			
Photometric code		840/359		
Radiation angle		120		deg
Photobiological safety			RG1 unlimited	

R9>0.

Flux expressed per meter

Measurement precision for flux +/- 5%, for efficacy +/- 6%, for x, y +/- 0.005, for CRI +/- 1.5



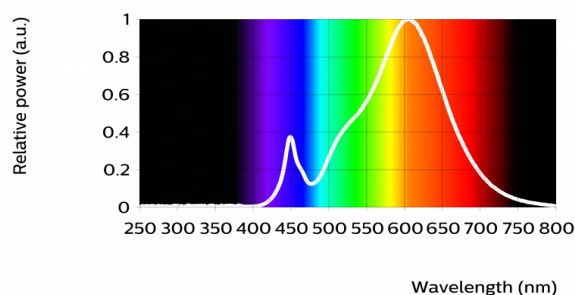
Fortimo LEDFlex 5m 1500lm/m 827 C10 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	1350	1500	1650	lm
Module efficacy		134		lm/W
Correlated color temperature (CCT)		2700		K
Color coordinates (CIEx, CIEy)		(0.458, 0.410)		-
Color consistency			3	SDCM
CRI	80			
Photometric code		827/359		
Radiation angle		120		deg
Photobiological safety			RG1 unlimited	

R9>0.

Flux expressed per meter

Measurement precision for flux +/- 5%, for efficacy +/- 6%, for x, y +/- 0.005, for CRI +/- 1.5



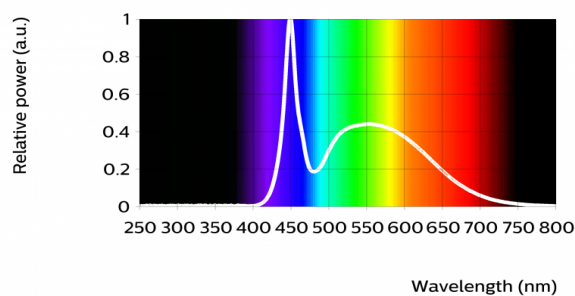
Fortimo LEDFlex 5m 1500lm/m 865 C10 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	1350	1500	1650	lm
Module efficacy		150		lm/W
Correlated color temperature (CCT)		6500		K
Color coordinates (CIEx, CIEy)		(0.312, 0.328)		-
Color consistency			3	SDCM
CRI	80			
Photometric code		865/359		
Radiation angle		120		deg
Photobiological safety			RG1 unlimited	

R9>0.

Flux expressed per meter

Measurement precision for flux +/- 5%, for efficacy +/- 6%, for x, y +/- 0.005, for CRI +/- 1.5



Electrical characteristics

Fortimo LEDFlex 5m 1500lm/m 830 C10 G1 Fortimo LEDFlex 50m 1500lm/m 830 C10 G1

Parameter	Min	Typ	Max	Unit
Forward voltage	22.8	24.0	25.2	V
Power consumption		10.9		W = kWh/1000h
Thermal power		6.4		W

Power expressed per meter. Measurement precision for power +/- 3.3%.

Maximum LEDFlex length is 9 meter, using 250mm cable at Tc nominal where luminous flux is above 90% of claimed.

For details see Design in Guide on www.philips.com/oem.

Fortimo LEDFlex 5m 1500lm/m 840 C10 G1 Fortimo LEDFlex 50m 1500lm/m 840 C10 G1

Parameter	Min	Typ	Max	Unit
Forward voltage	22.8	24.0	25.2	V
Power consumption		10.0		W = kWh/1000h
Thermal power		5.6		W

Power expressed per meter. Measurement precision for power +/- 3.3%.

Maximum LEDFlex length is 9 meter, using 250mm cable at Tc nominal where luminous flux is above 90% of claimed.

For details see Design in Guide on www.philips.com/oem.

Fortimo LEDFlex 5m 1500lm/m 827 C10 G1

Parameter	Min	Typ	Max	Unit
Forward voltage	22.8	24.0	25.2	V
Power consumption		11.2		W = kWh/1000h
Thermal power		6.8		W

Power expressed per meter. Measurement precision for power +/- 3.3%.

Maximum LEDFlex length is 9 meter, using 250mm cable at Tc nominal where luminous flux is above 90% of claimed.

For details see Design in Guide on www.philips.com/oem.

Fortimo LEDFlex 5m 1500lm/m 865 C10 G1

Parameter	Min	Typ	Max	Unit
Forward voltage	22.8	24.0	25.2	V
Power consumption		10.0		W = kWh/1000h
Thermal power		5.4		W

Power expressed per meter. Measurement precision for power +/- 3.3%.

Maximum LEDFlex length is 9 meter, using 250mm cable at Tc nominal where luminous flux is above 90% of claimed.

For details see Design in Guide on www.philips.com/oem.

Lumen maintenance

Operation point	Lumen maintenance x 1000 hours	L70		
		B50	B20	B10
	Tc 55°C	>50	>50	>50
	Tc 65°C	>50	>50	>50
	Tc 75°C	>50	>50	>50

Lifetime

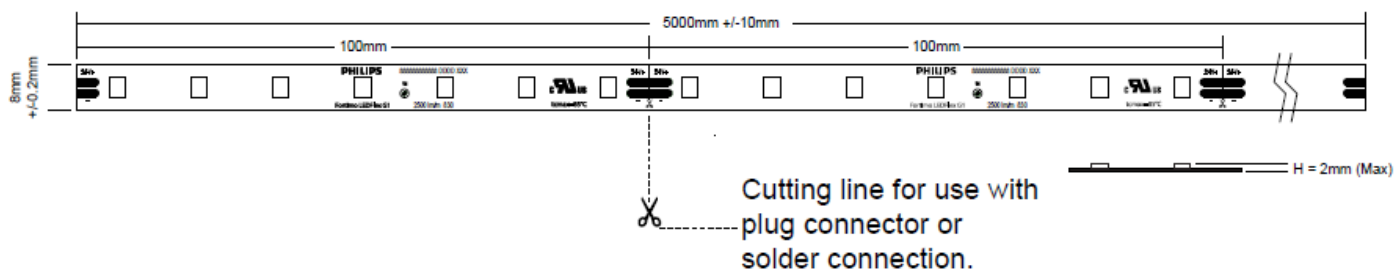
Parameter	Value	Unit
C10 at Tc life	>50000	hours
M70F50 nominal	>50000	hours
M70F50 life	>50000	hours

Switching cycles in accordance to EU 1194/2012: >15000

Mechanical characteristics

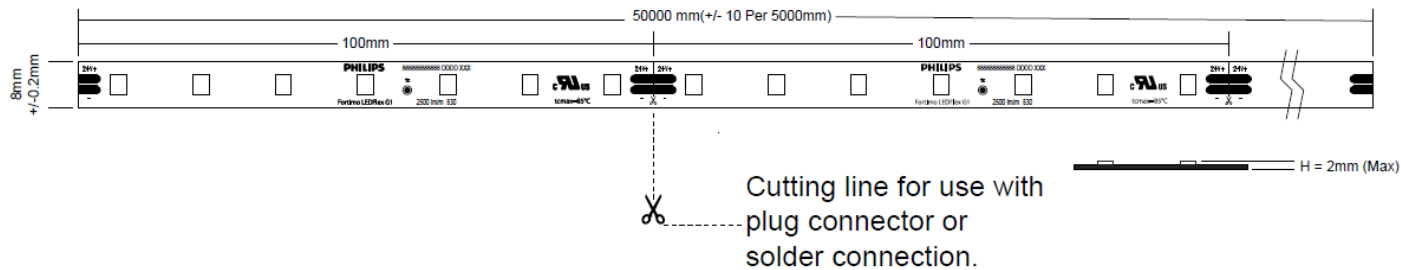
Fortimo LEDFlex 5m 1500lm/m 827 C10 G1
 Fortimo LEDFlex 5m 1500lm/m 865 C10 G1
 Fortimo LEDFlex 50m 1500lm/m 830 C10 G1
 Fortimo LEDFlex 50m 1500lm/m 840 C10 G1

Parameter	Min	Typ	Max	Unit
Length		5000		mm
Width	7.8	8	8.2	mm
Height			2	mm
Product mass		70		gram



Fortimo LEDFlex 5m 1500lm/m 830 C10 G1
 Fortimo LEDFlex 5m 1500lm/m 840 C10 G1

Parameter	Min	Typ	Max	Unit
Length		50000		mm
Width	7.8	8	8.2	mm
Height			2	mm
Product mass		700		gram



Absolute ratings

Parameter	Min	Max	Unit
Current through the LED module (I-max)		5000	mA
Case temperature (Tc-max)		85	°C
ESD (direct contact)	8		kV
ESD (air)	15		kV
Ambient temperature	-20	50	°C
Storage temperature	-30	85	°C

Application information

Certificates and Standards

CB
CE
ENEC
ENEC+
CQC

Application

IP rating	no IP-rating
Overheating protection	No protection
Luminaire class	IEC class I, II and III. SELV input only, constant voltage 24V.
Dimming	Yes

Built-in applications only. Dimming by pulse width modulation.



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