

PHILIPS

Fortimo

LED

Fortimo LEDFlex 500lm/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 500/1000/1500/2000/2500 lm/m
- Colour temperature 2700/3000 Premium White/4000 Premium White/6500 K/WWR with 3 SDCM color consistency
- CRI 90
- Efficacy up to 125 lm/W
- Extremely narrow pitch distance enables outstanding uniformity with 140 leds per meter even with a short distance to the diffuser
- High design freedom by cut-options every 5 cm
- Self-adhesive 3M tape on the back for simple and reliable 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

April 2022



Ordering data

Commercial product name	EOC	12NC	EPREL registration #	Box quantity
Fortimo LEDFlex 5m 500lm/m 827 C10 G1	8719514 359475 00	9290 028 81080	791742	15
Fortimo LEDFlex 5m 500lm/m 830 C10 G1	8719514 359505 00	9290 028 81180	791770	15
Fortimo LEDFlex 5m 500lm/m 840 C10 G1	8719514 359536 00	9290 028 81280	791792	15
Fortimo LEDFlex 50m 500lm/m 830 C10 G1	8719514 359666 00	9290 028 81680	791794	5
Fortimo LEDFlex 50m 500lm/m 840 C10 G1	8719514 359680 00	9290 028 81780	791795	5

Drive currents

Parameter	Nominal*	Life**	Max***	Unit
Fortimo LEDFlex 500lm/m 8xx G1	158	174	174	mA

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

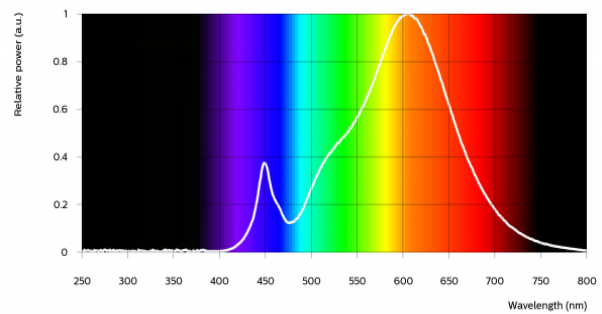
Optical characteristics - table per color (CCT)

Fortimo LEDFlex 5m 500lm/m 827 C10 G1


Parameter	Min	Typ	Max	Unit
Luminous flux	450	500	550	lm
Efficacy		132		lm/W
Correlated color temperature (CCT)		2700		K
Color coordinates (CIEx, CIEy)		(0.458, 0.410)		-
Color consistency			3	SDCM
CRI	80			
R9	0			
Photometric code			827/359	
Photobiological safety				RG1 unlimited

Flux expressed per meter

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

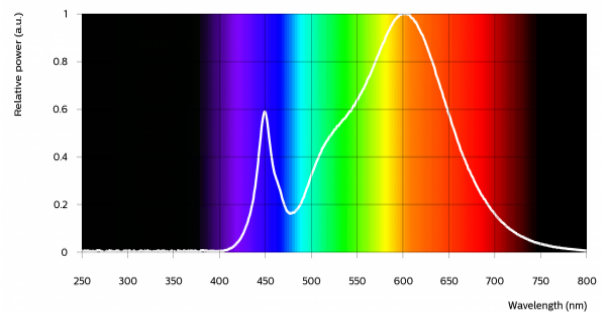


Fortimo LEDFlex 5m 500lm/m 830 C10 G1 Fortimo LEDFlex 50m 500lm/m 830 C10 G1


Parameter	Min	Typ	Max	Unit
Luminous flux	450	500	550	lm
Efficacy		135		lm/W
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.434, 0.403)		-
Color consistency			3	SDCM
CRI	80			
R9	0			
Photometric code			830/359	
Photobiological safety				RG1 unlimited

Flux expressed per meter

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

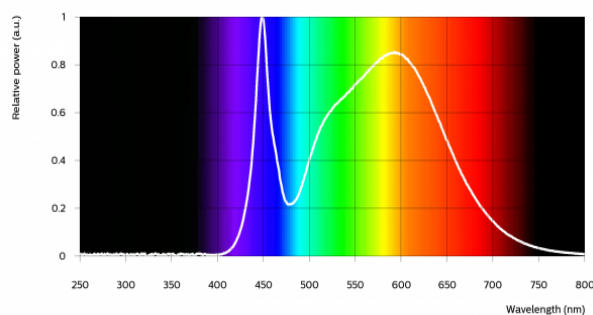


Fortimo LEDFlex 5m 500lm/m 840 C10 G1
 Fortimo LEDFlex 50m 500lm/m 840 C10 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	450	500	550	lm
Efficacy		143		lm/W
Correlated color temperature (CCT)		4000		K
Color coordinates (CIEx, CIEy)		(0.382, 0.380)		-
Color consistency			3	SDCM
CRI	80			
R9	0			
Photometric code		840/359		
Photobiological safety			RG1 unlimited	

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 500lm/m 827 C10 G1

Parameter	Min	Typ	Max	Unit
Forward voltage	22.8	24.0	25.2	V
Power consumption	3.60	3.79	3.98	W = kWh/1000h

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

Maximum LEDFlex length is 12 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 500lm/m 830 C10 G1

Fortimo LEDFlex 50m 500lm/m 830 C10 G1

Parameter	Min	Typ	Max	Unit
Forward voltage	22.8	24.0	25.2	V
Power consumption	3.51	3.70	3.88	W = kWh/1000h

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

Maximum LEDFlex length is 12 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 500lm/m 840 C10 G1

Fortimo LEDFlex 50m 500lm/m 840 C10 G1

Parameter	Min	Typ	Max	Unit
Forward voltage	22.8	24.0	25.2	V
Power consumption	3.33	3.50	3.68	W = kWh/1000h

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

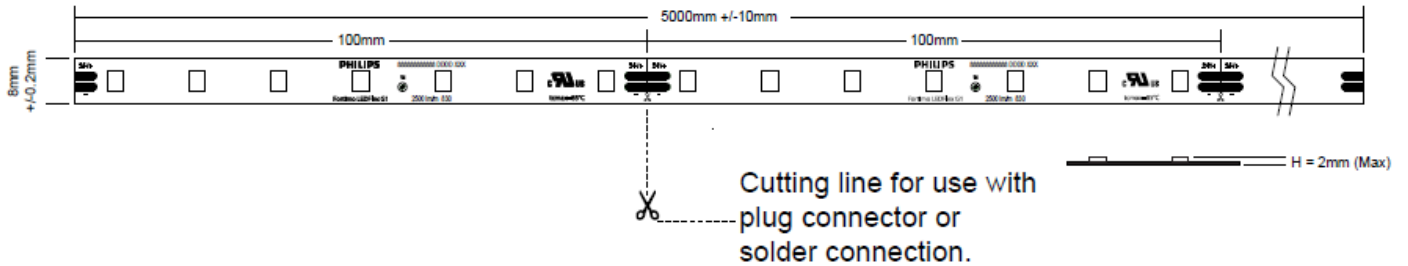
Parameter	Value	Unit
C10 at Tc life	>50000	hours
M70F50 nominal	>50000	hours
M70F50 life	>50000	hours

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

Mechanical characteristics

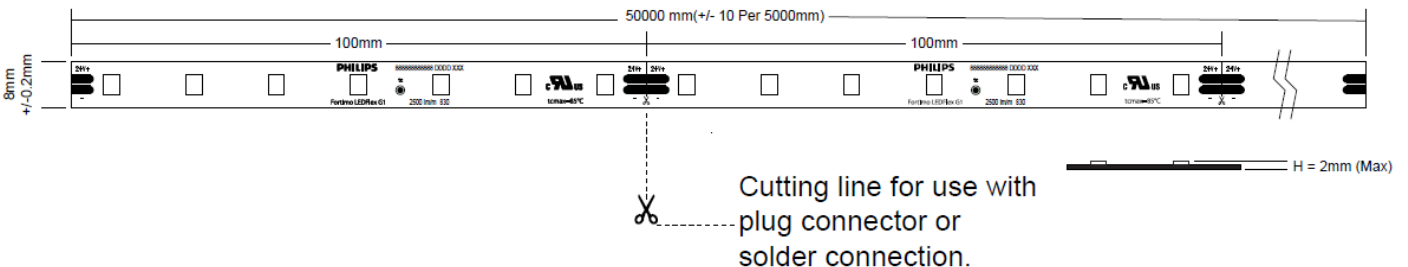
Fortimo LEDFlex 5m 500lm/m 827 C10 G1
 Fortimo LEDFlex 5m 500lm/m 840 C10 G1
 Fortimo LEDFlex 5m 500lm/m 830 C10 G1

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



Fortimo LEDFlex 50m 500lm/m 830 C10 G1
 Fortimo LEDFlex 50m 500lm/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)		174	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
UKCA

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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