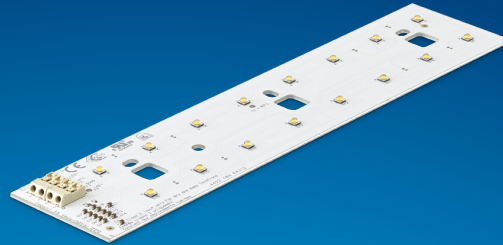


**PHILIPS**

**Fortimo**

**LED**

**FastFlex 2x8 G4**



Preliminary Datasheet

# Short time to market with lenses from standard FastFlex portfolio

## FastFlex 2x8 G4

Applications

- Road lighting
- Urban street lighting
- Flood and Area lighting
- Tunnel lighting
- High bay lighting

### Key features and benefits

- Short time to market with lenses from standard FastFlex portfolio matching every project's needs
- High module efficiency for fixture performance
- Best in class reliability testing for OEM peace of mind
- Philips system warranty
- State of the art specifications
- Temperature and driving current designed for fixture optimization
- Patented module surge protection
- Optical flexibility via FastFlex lenses
- Flexible lumen output
- Range of CCT and CRI versions

February 2017

## Ordering data

Commercial product name	EOC	12NC	Box quantity
Fortimo Fastflex LED 2x8/730 G4	8718696 723630 00	9290 015 62506	25
Fortimo Fastflex LED 2x8/740 G4	8718696 723654 00	9290 015 62606	25
Fortimo Fastflex LED 2x8/830 G4	8718696 724927 00	9290 015 62806	25
Fortimo Fastflex LED 2x8/840 G4	8718696 724941 00	9290 015 62906	25

## Drive currents

Parameter	Nominal*	Life**	Max***	Unit
FastFlex 2x8 G4	530	see operating window	1500	mA

## Module temperatures

Parameter	Nominal*	Life**	Max***	Unit
T <sub>c</sub> (case temperature at T <sub>c</sub> point)	80	see operating window	85	°C

\* Nominal value at which typical performance is specified

\*\* Value at which life time is specified

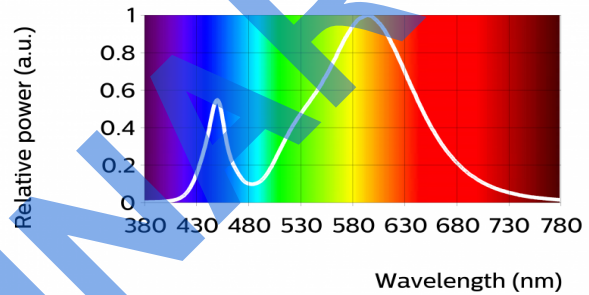
\*\*\* Maximum value for safe operation, do not operate above this value

## Optical characteristics - table per color (CCT)

### Fortimo Fastflex LED 2x8/730 G4

Parameter	Min	Typ	Max	Unit
Luminous flux	3105	3450	3795	lm
Module efficacy	113	142	170	lm/W
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.434, 0.403)		-
Color consistency			4	SDCM
CRI	70			
Photobiological safety			RG1	

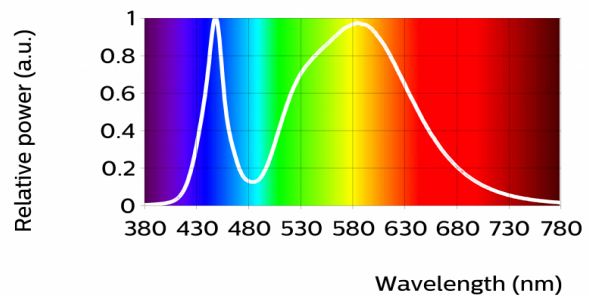
Measurement precision for flux +/- 5%, for efficacy +/- 6%, for x, y +/- 0.005, for CRI +/- 1.5  
 A maximum colour shift of 7 SDCM is specified for 55K at reference operating conditions



### Fortimo Fastflex LED 2x8/740 G4

Parameter	Min	Typ	Max	Unit
Luminous flux	3357	3730	4103	lm
Module efficacy	123	154	185	lm/W
Correlated color temperature (CCT)		4000		K
Color coordinates (CIEx, CIEy)		(0.382, 0.380)		-
Color consistency			4	SDCM
CRI	70			
Photobiological safety			RG1	

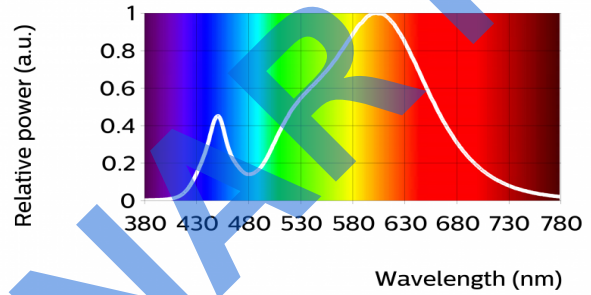
Measurement precision for flux +/- 5%, for efficacy +/- 6%, for x, y +/- 0.005, for CRI +/- 1.5  
 A maximum colour shift of 7 SDCM is specified for 55K at reference operating conditions



Fortimo Fastflex LED 2x8/830 G4

Parameter	Min	Typ	Max	Unit
Luminous flux	2887	3208	3529	lm
Module efficacy	105	131	158	lm/W
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.434, 0.403)		-
Color consistency			4	SDCM
CRI	80			
Photobiological safety			RG1	

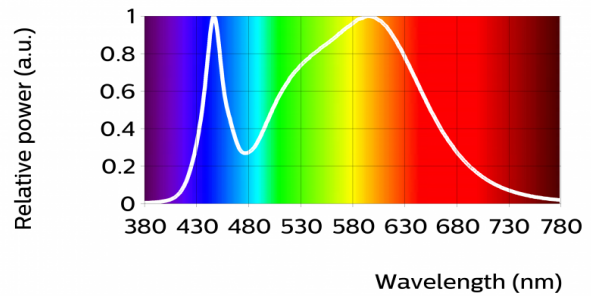
Measurement precision for flux +/- 5%, for efficacy +/- 6%, for x, y +/- 0.005, for CRI +/- 1.5  
 A maximum colour shift of 7 SDCM is specified for 55K at reference operating conditions



Fortimo Fastflex LED 2x8/840 G4

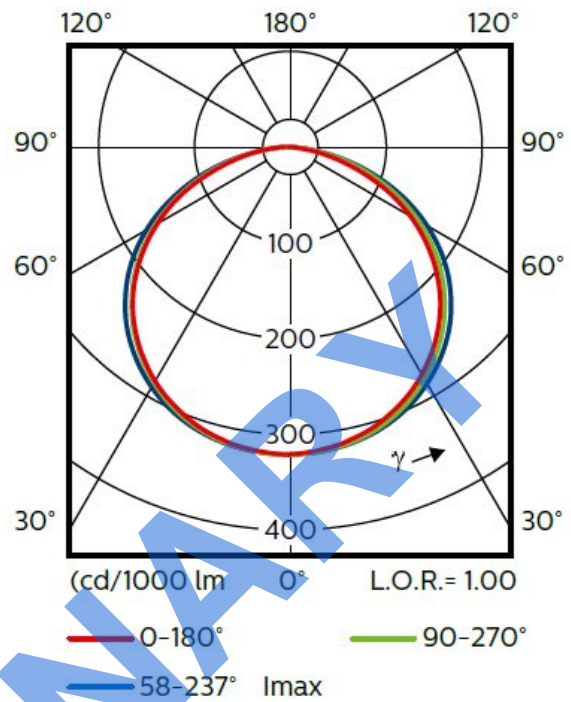
Parameter	Min	Typ	Max	Unit
Luminous flux	3021	3357	3693	lm
Module efficacy	111	138	166	lm/W
Correlated color temperature (CCT)		4000		K
Color coordinates (CIEx, CIEy)		(0.382, 0.380)		-
Color consistency			4	SDCM
CRI	80			
Photobiological safety			RG1	

Measurement precision for flux +/- 5%, for efficacy +/- 6%, for x, y +/- 0.005, for CRI +/- 1.5  
 A maximum colour shift of 7 SDCM is specified for 55K at reference operating conditions



## Beam shape

The Philips LED module generates a Lambertian beam shape, which is a pragmatic starting point for OEMs wishing to design secondary optics.



## Electrical characteristics

Fortimo Fastflex LED 2x8/730 G4  
 Fortimo Fastflex LED 2x8/740 G4  
 Fortimo Fastflex LED 2x8/830 G4  
 Fortimo Fastflex LED 2x8/840 G4

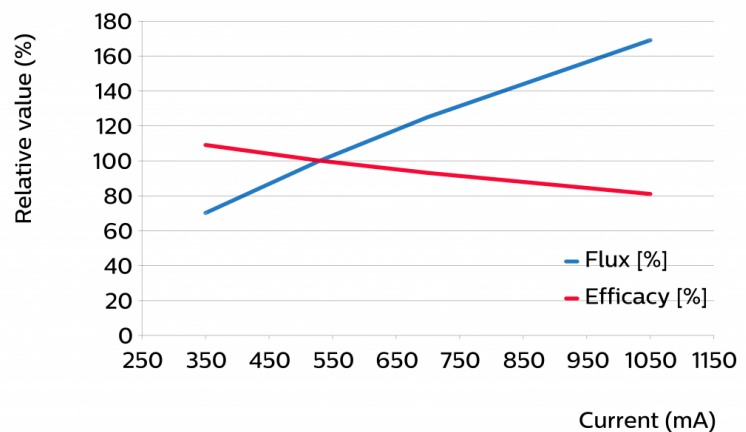
Parameter	Min	Typ	Max	Unit
Forward voltage		45.8	48.0	V
Power consumption		24.3	25.7	W

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

## Tuning information

Flux and efficacy versus current (at Tc nominal)

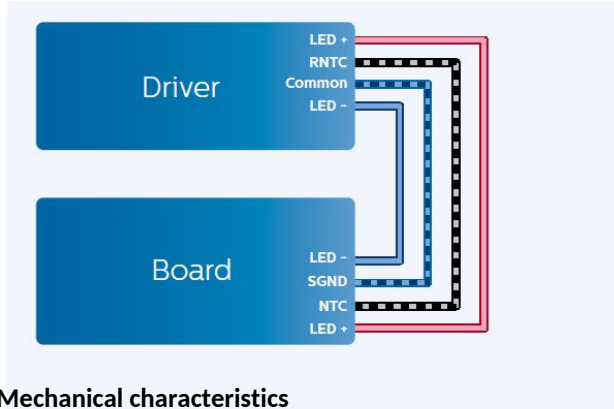
I [mA]	Flux [%]	Efficacy [%]
350	70	109
530	100	100
700	125	93
1050	169	81



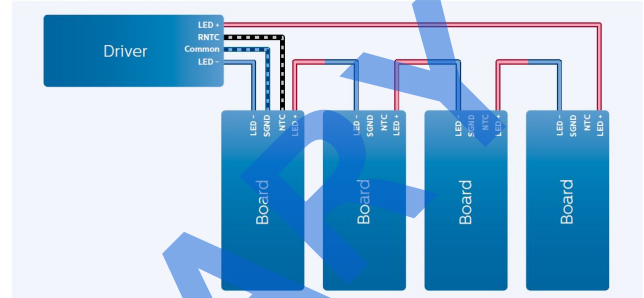
## Wiring

Specification item	Value	Unit	Condition
Input wire cross-section	0.25...0.75	mm <sup>2</sup>	solid wire
	18...24	AWG	solid wire
Input wire strip length	7.5...8.5	mm	
Input wire cross-section	0.33...0.5	mm <sup>2</sup>	stranded wire
	20...22	AWG	stranded wire
Input wire strip length	7.5...8.5	mm	

### Connection between driver and FF-module



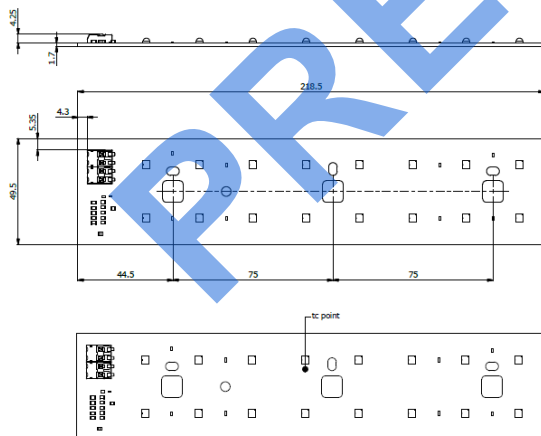
### Multiple boards on one driver



### Mechanical characteristics

Fortimo Fastflex LED 2x8/730 G4  
 Fortimo Fastflex LED 2x8/740 G4  
 Fortimo Fastflex LED 2x8/830 G4  
 Fortimo Fastflex LED 2x8/840 G4

Parameter	Min	Typ	Max	Unit
Length		218.5		mm
Width		49.5		mm
Height excl. connector		1.7		mm
Height incl. connector		5.95		mm



## Absolute ratings

Parameter	Min	Typ	Max	Unit
Current through the LED module (I-max)			1500	mA
Case temperature (Tc-max)			85	°C
Power at rated Vf-max and I-max			53.6	W
ESD (direct contact)			8	kV
ESD (air)			15	kV
Ambient temperature	-40		50	°C

Surge capability at module level is 6 kV when used in combination with a Philips driver

## Application information

### Certificates and Standards

CE  
ENEC  
UL 8750

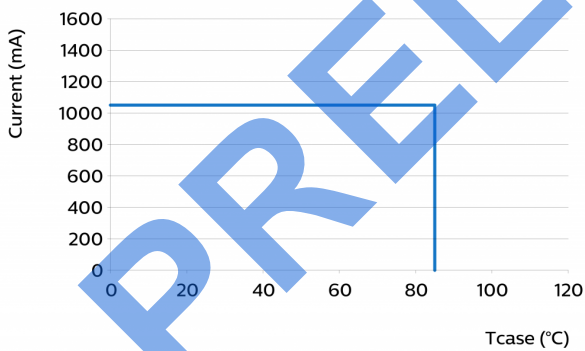
### Environmental

RoHS/REACH

### Application

IP rating	No IP-rating
Overheating protection	Yes
Luminaire class	IEC Class I and Class II
Dimming	Yes

## Operating Window



PRELIMINARY



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