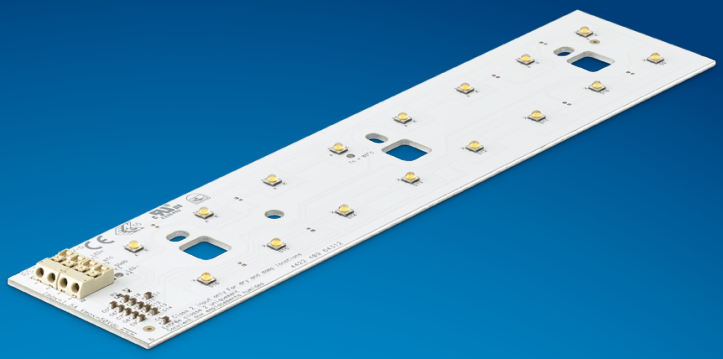
PHILIPS

Fortimo

LED

FastFlex 2x8 X G4



Datasheet

Short time to market with lenses from standard FastFlex portfolio

FastFlex 2x8 X G4

Applications
- Road lighting
- Urban street lighting
- Flood and Area lighting
- Tunnel lighting

Key features and benefits
- Enables short time to market with lenses from standard FastFlex portfolio matching every project's needs
- Unparalleled 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

March 2017

Ordering data

Commercial product name	EOC	12NC	Box quantity
Fortimo Fastflex LED 2x8/730 X G4	8718696 723678 00	9290 015 72906	25
Fortimo Fastflex LED 2x8/740 X G4	8718696 724866 00	9290 015 73006	25

Drive currents

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

Module temperatures

Parameter	Nominal*	Life**	Max***	Unit
T_c (case temperature at T_c point)	80	see operating window	85	°C

* Nominal value at which typical performance is specified

** Value at which life time is specified

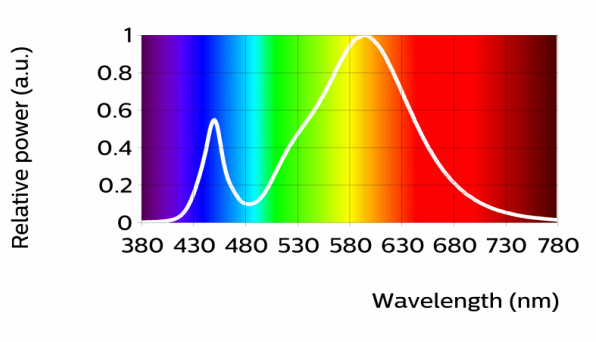
*** Maximum value for safe operation, do not operate above this value

Optical characteristics - table per color (CCT)

Fortimo Fastflex LED 2x8/730 X G4

Parameter	Min	Typ	Max	Unit
Luminous flux	3321	3690	4059	lm
Module efficacy	125	156		lm/W
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.434, 0.403)		-
Color consistency			4	SDCM
CRI	70			

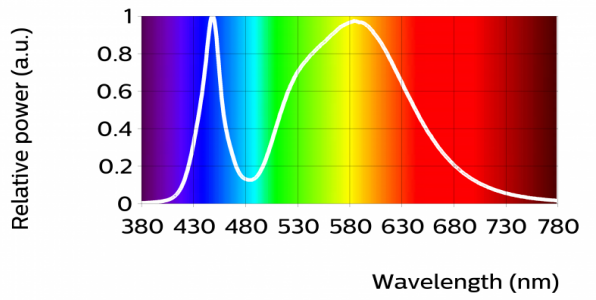
Above data are initial data.
Measurement precision for flux +/- 5%, for efficacy +/- 6%., for x, y +/- 0.005, for CRI +/- 1.5
A maximum color shift of 7 SDCM is specified for 55000 h at reference operating conditions.



Fortimo Fastflex LED 2x8/740 X G4

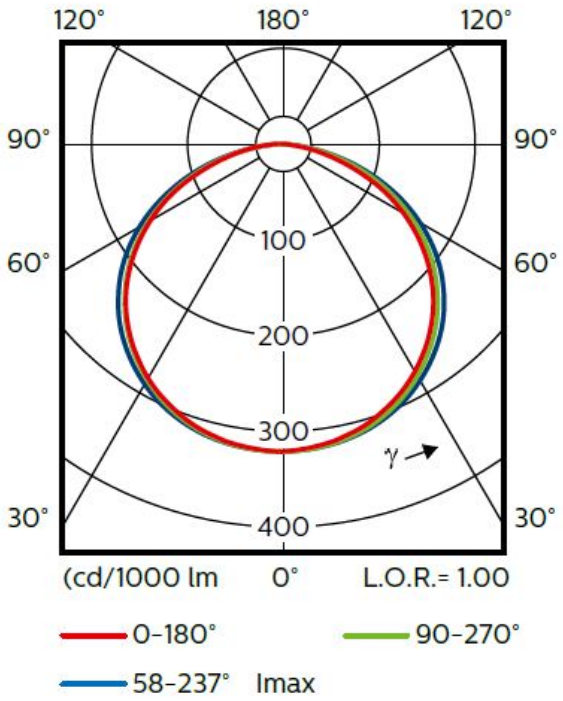
Parameter	Min	Typ	Max	Unit
Luminous flux	3496	3884	4272	lm
Module efficacy	132	165		lm/W
Correlated color temperature (CCT)		4000		K
Color coordinates (CIEx, CIEy)		(0.382, 0.380)		-
Color consistency			4	SDCM
CRI	70			

Above data are initial data.
Measurement precision for flux +/- 5%, for efficacy +/- 6%., for x, y +/- 0.005, for CRI +/- 1.5
A maximum color shift of 7 SDCM is specified for 55000 h 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 X G4
Fortimo Fastflex LED 2x8/740 X G4

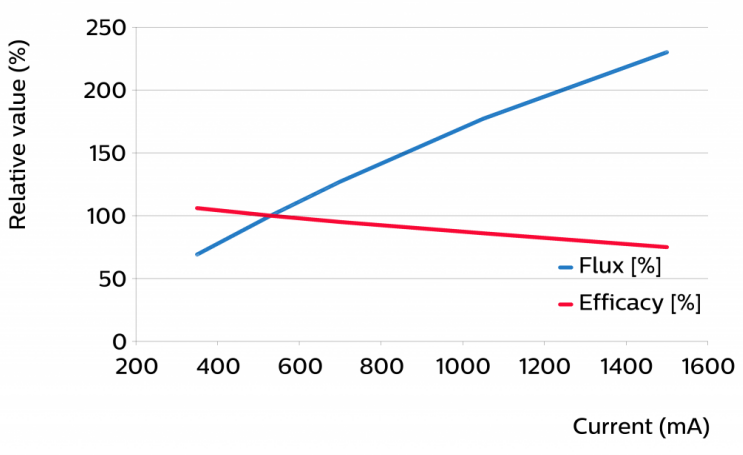
Parameter	Min	Typ	Max	Unit
Forward voltage	42.3	44.5	48.0	V
Power consumption		23.6	25.7	W

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	69	106
530	100	100
700	127	95
1050	177	86
1500	230	75



Lumen maintenance

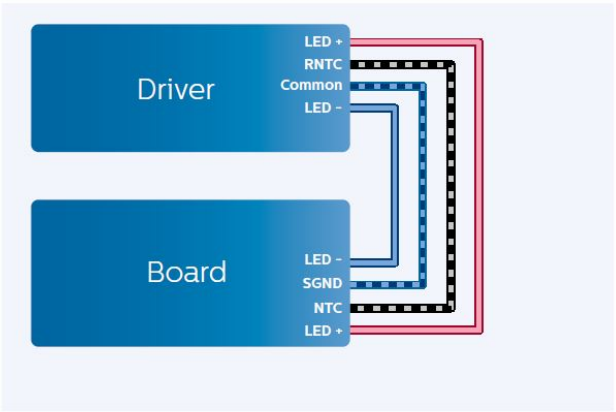
Parameter	Value	Unit
C10 at Tc life	55000	hours

Charts presenting module's Tc and current vs expected lifetime (Up to 120,000 hours), as well as module's Tc and current vs expected lumen depreciation (L70 and above) are available via your sales representative.

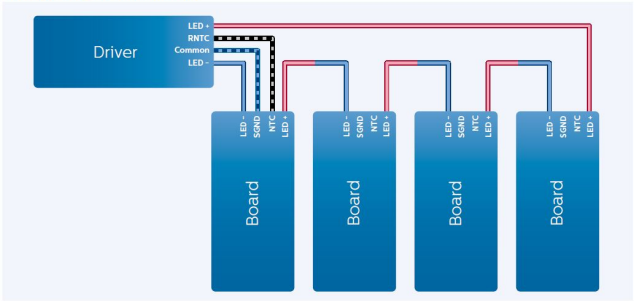
Wiring

Specification item	Value	Unit	Condition
Input wire cross-section	0.25...0.75	mm^2	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^2	stranded wire
	20...22	AWG	stranded wire
Input wire strip length	7.5...8.5	mm	

Connection between driver and FF-module



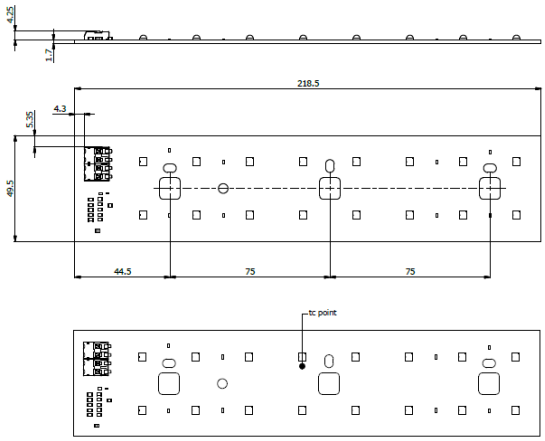
Multiple boards on one driver



Mechanical characteristics

Fortimo Fastflex LED 2x8/730 X G4
Fortimo Fastflex LED 2x8/740 X 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
Working voltage			575	V_{dc}
Ambient temperature	-40		50	°C

Surge capability at module level up to 6kV when operating in combination with a Xitanium outdoor driver.

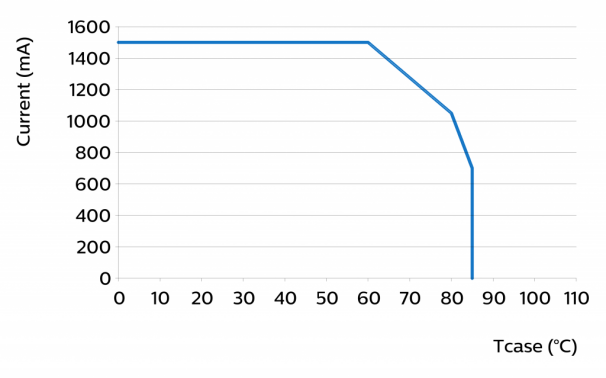
Application information

Certificates and Standards
ENEC
CE
UL 8750

Environmental
RoHS/REACH

Application	
IP rating	No IP-rating
Overheating protection	NTC 15k Ohm + 390 Ohm resistor in series
Luminaire class	IEC Class I and Class II
Dimming	Yes

Operating Window



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