

PHILIPS

Fortimo

LED

FastFlex 2x6 DP G4



Preliminary Datasheet

Optical differentiation with third party IP lenses

FastFlex 2x6 DP G4

Applications

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

Key features and benefits

- Enables OEM optical differentiation with lenses from third party portfolios matching every project's needs
- Enables high efficacy while reducing fixture cost via third party IP lenses
- Best in class reliability testing for OME peace of mind
- Philips system warranty
- Wide operating thermal range
- Temperature and driving current designed for fixture optimization
- Patented module surge protection
- Optical flexibility via third party IP lenses
- Flexible lumen output
- Range of CCT and CRI versions

February 2017

Ordering data

Commercial product name	EOC	12NC	Box quantity
Fortimo Fastflex LED 2x6/730 DP G4	8718696 723975 00	9290 015 64306	25
Fortimo Fastflex LED 2x6/740 DP G4	8718696 723999 00	9290 015 64406	25
Fortimo Fastflex LED 2x6/840 DP G4	8718696 725122 00	9290 015 64906	25

Drive currents

Parameter	Nominal*	Life**	Max***	Unit
FastFlex 2x6 DP 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	95	°C

* Nominal value at which typical performance is specified

** Value at which life time is specified

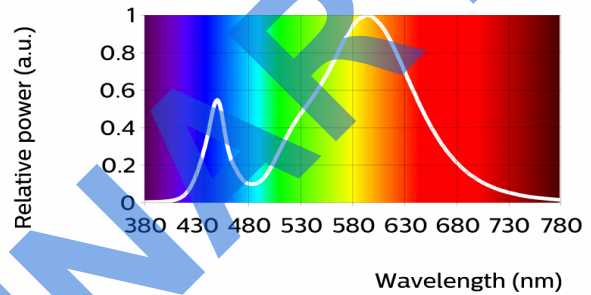
*** Maximum value for safe operation, do not operate above this value

Optical characteristics - table per color (CCT)

Fortimo Fastflex LED 2x6/730 DP G4

Parameter	Min	Typ	Max	Unit
Luminous flux	2329	2588	2846	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	

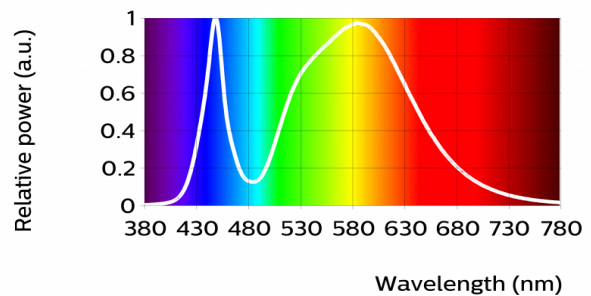
Measurement precision for flux +/- 5%, for efficacy +/- 6%, for x, y +/- 0.005, for CRI +/- 1.5
 A maximum colour shift of 7 SDCM is specified for 55Kh at reference operating conditions



Fortimo Fastflex LED 2x6/740 DP G4

Parameter	Min	Typ	Max	Unit
Luminous flux	2518	2798	3077	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	

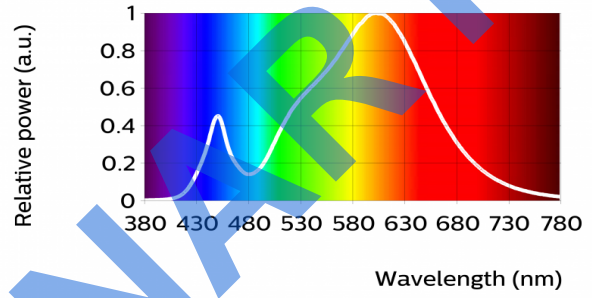
Measurement precision for flux +/- 5%, for efficacy +/- 6%, for x, y +/- 0.005, for CRI +/- 1.5
 A maximum colour shift of 7 SDCM is specified for 55Kh at reference operating conditions



Fortimo Fastflex LED 2x6/840 DP G4

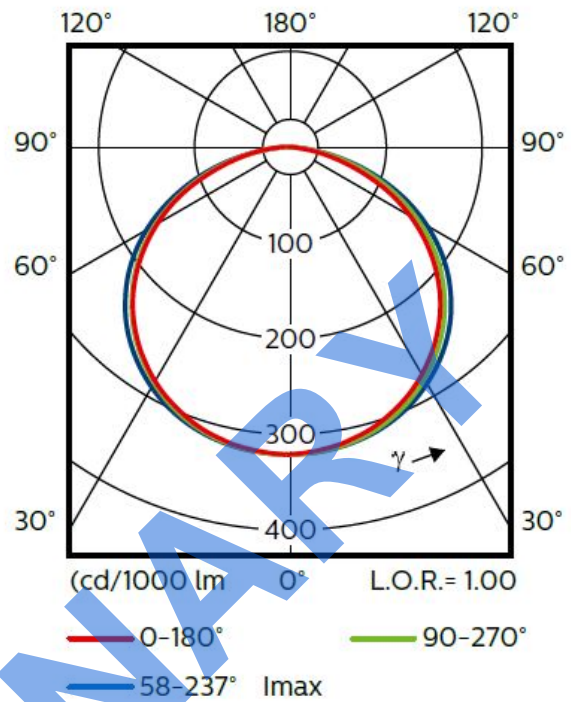
Parameter	Min	Typ	Max	Unit
Luminous flux	2266	2518	2770	lm
Module efficacy	111	138	166	lm/W
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.434, 0.403)		-
Color consistency			4	SDCM
CRI	80			
Photobiological safety			RG1	

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 55Kh 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 2x6/730 DP G4
 Fortimo Fastflex LED 2x6/740 DP G4
 Fortimo Fastflex LED 2x6/840 DP G4

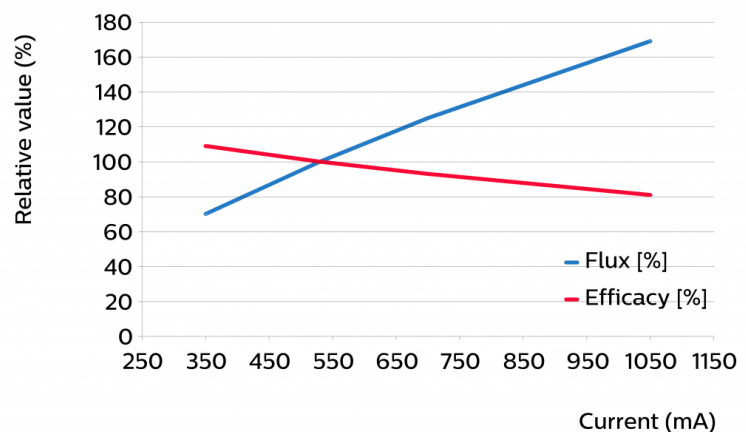
Parameter	Min	Typ	Max	Unit
Forward voltage		34.3	36.0	V
Power consumption		18.2	19.2	W

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

Tuning information

Flux and efficacy versus current (at T_c nominal)

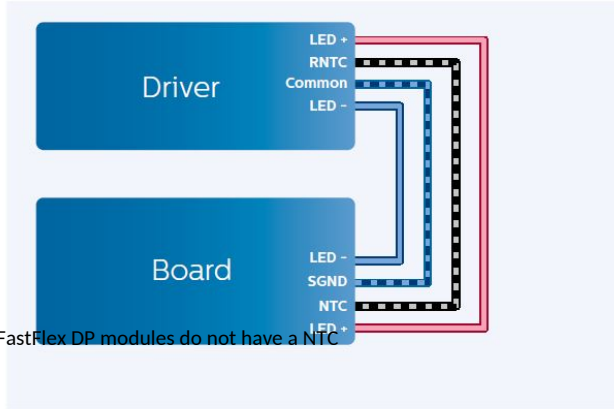
I [mA]	Flux [%]	Efficacy [%]
350	70	109
530	100	100
700	125	93
1050	169	81



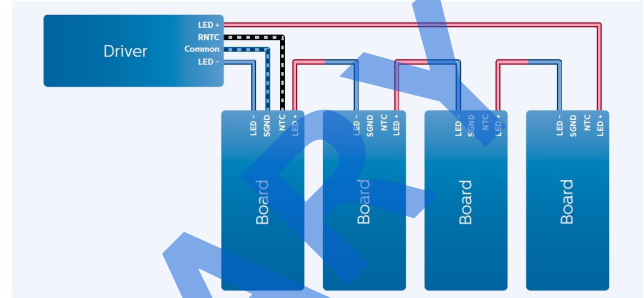
Wiring

Specification item	Value	Unit	Condition
Input wire cross-section	0.25...0.75	mm 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



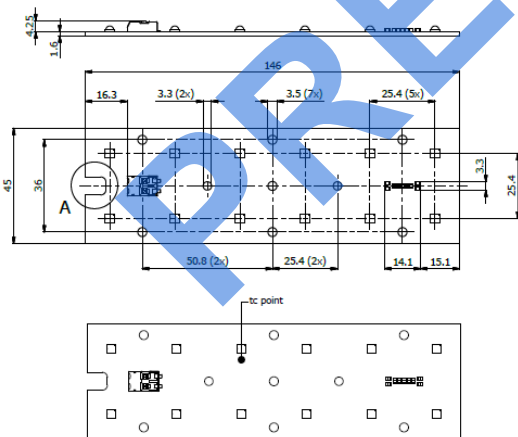
Multiple boards on one driver



Mechanical characteristics

Fortimo Fastflex LED 2x6/730 DP G4
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 Fortimo Fastflex LED 2x6/840 DP G4

Parameter	Min	Typ	Max	Unit
Length		146		mm
Width		45		mm
Height excl. connector		1.6		mm
Height incl. connector		5.85		mm



Absolute ratings

Parameter	Min	Typ	Max	Unit
Current through the LED module (I-max)			1500	mA
Case temperature (Tc-max)			95	°C
Power at rated Vf-max and I-max			40.2	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

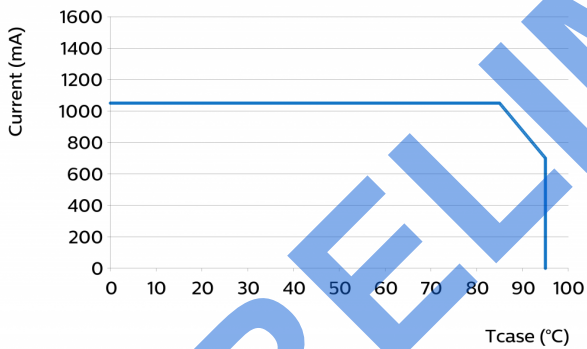
Application information

Certificates and Standards

Application

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

Operating Window



PRELIMINARY



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