PHILIPS

Fortimo

LED

FastFlex 2x8 DAS G4

Datasheet

Optical differentiation with third party lenses

FastFlex 2x8 DAS G4

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

Key features and benefits
- Enables OEM optical differentiation with lenses from third party portfolios matching every project's needs
- Unparalleled module efficiency for fixture performance
- Best in class reliability testing for OEM peace of mind
- Philips system warranty
- Best in class current and thermal operating range
- Temperature and driving current designed for fixture optimization
- Patented module surge protection
- Optical flexibility via third party lenses
- Instant full light
- Flexible lumen output
- Range of CCT and CRI versions

December 2017

Zhaga

Ordering data

Commercial product name	EOC	12NC	Box quantity
Fortimo FastFlex LED 2x8/740 DAS G4	8718696 801284 00	9290 016 17606	25

Drive currents

Parameter	Nominal*	Life**	Max***	Unit
FastFlex 2x8 DAS G4	530	see performance window	1050	mA

Module temperatures

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

* Nominal value at which typical performance is specified

** Value at which life time is specified

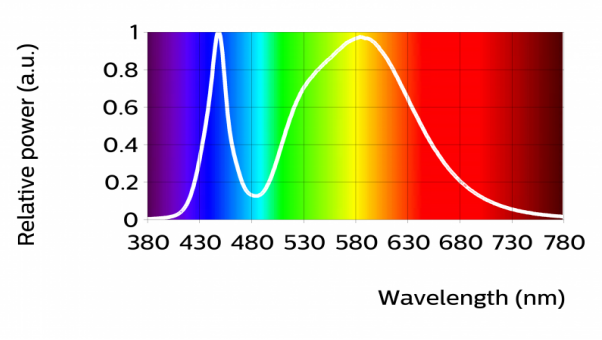
*** Maximum value for safe operation, do not operate above this value

Optical characteristics - table per color (CCT)

Fortimo FastFlex LED 2x8/740 DAS G4

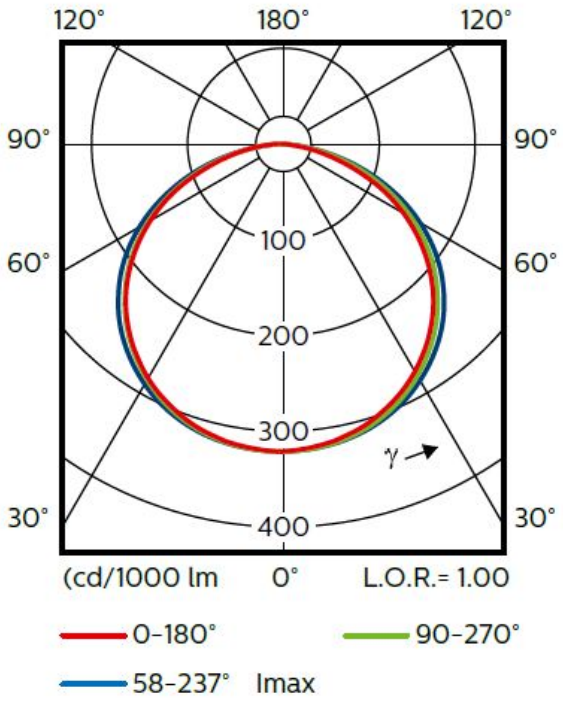
Parameter	Min	Typ	Max	Unit
Luminous flux	3496	3884	4272	lm
Module efficacy	132	165		lm/W
Correlated color temperature (CCT)		4000		K
Color coordinates (CIEx, CIEy)		(0.382, 0.380)		-
Color consistency			4	SDCM
CRI	70			
Radiation angle		115		deg
Photobiological safety			RG2	
Ethr			520	lux

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 2x8/740 DAS G4

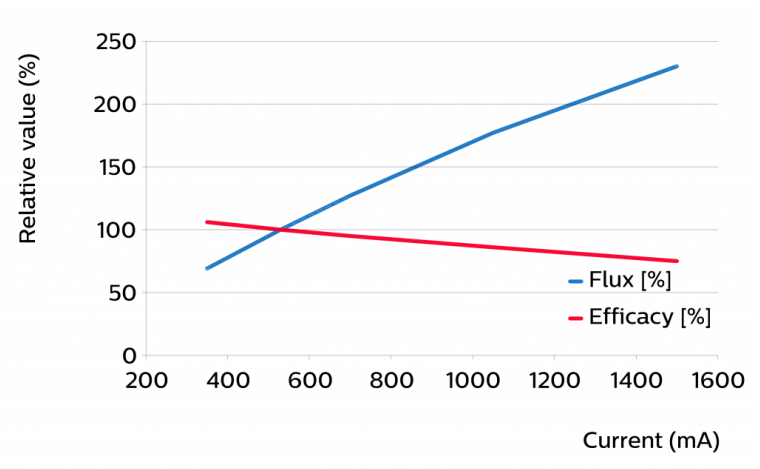
Parameter	Min	Typ	Max	Unit
Forward voltage	42.3	44.5	48.0	V
Power consumption		23.6	25.7	W

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



Lifetime

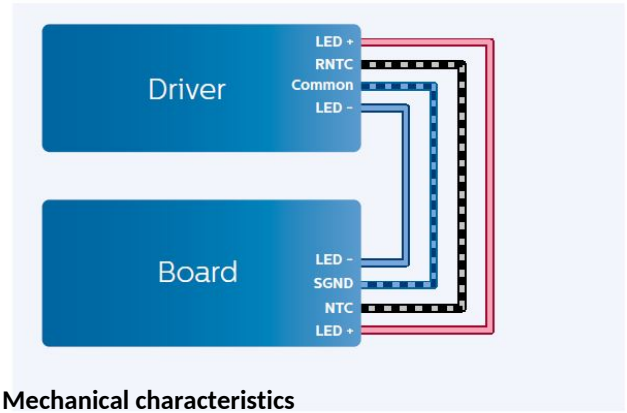
Parameter	Value	Unit
C10 at Tc life	55000	hours

At I life L70B50>55000 hours.
Charts presenting module's Tc and current vs expected lifetime , as well as module's Tc and current vs expected lumen depreciation (L70 and above) are available via your sales representative.

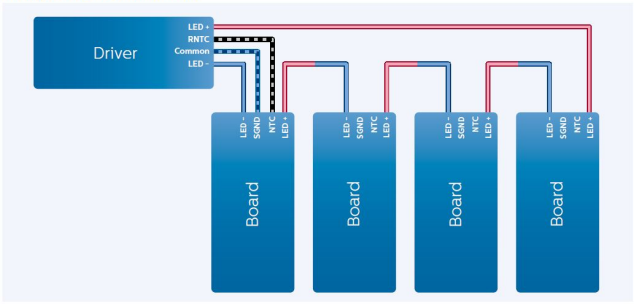
Wiring

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



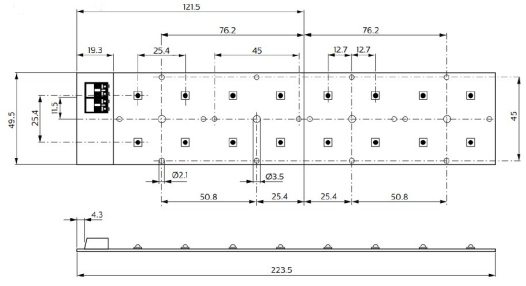
Multiple boards on one driver

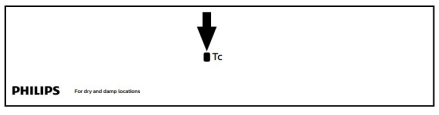


Mechanical characteristics

Fortimo FastFlex LED 2x8/740 DAS G4

Parameter	Min	Typ	Max	Unit
Length	222.9	223	223.1	mm
Width	49.4	49.5	49.6	mm
Height excl.connector	1.5	1.6	1.7	mm
Height incl. connector	5.75	5.85	5.95	mm





Backside

Absolute ratings

Parameter	Min	Typ	Max	Unit
Current through the LED module (I-max)			1050	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
CE
ENEC
UL 8750

Environmental
RoHS/REACH

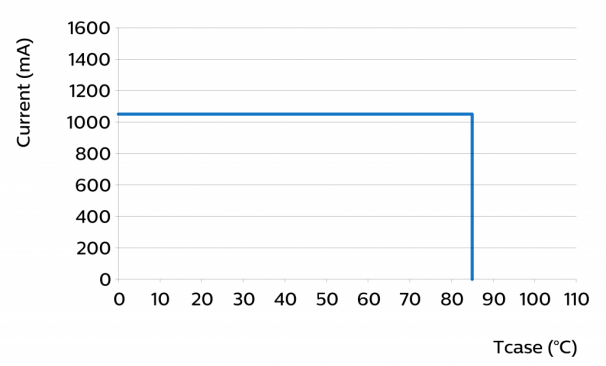
Zhaga	Compliant*

*Book15, 2x8-DA

Application	
IP rating	No IP-rating
Overheating protection	NTC 15k Ohm + 2000 Ohm resistor in series
Luminaire class	IEC Class I and Class II
Dimming	Yes

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

Performance Window



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