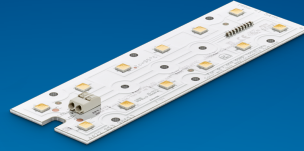


PHILIPS

Fortimo

LED

Fortimo FastFlex LED 2x6
DP HE



Datasheet

High efficiency in familiar form factor with protection on LED module level

Fortimo FastFlex 2x6 DP HE

Combine Fortimo FastFlex DP HE with third-party lenses for high efficiencies and instant protection

Application:

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

Key features and benefits

- High efficiencies on LED module level in familiar form factors
- IP66 protected LED module in combination with third-party lenses
- Mechanically backwards compatible with DP Gen 4+/Gen 5
- Reliability testing for OEM peace of mind
- Patented module surge protection
- Philips system warranty

December 2023



Ordering data

Commercial product name	EOC	12NC	Box quantity
Fortimo FastFlex LED 2x6/730 DP HE	8719514 403314 00	9290 034 02006	25
Fortimo FastFlex LED 2x6/740 DP HE	8719514 403338 00	9290 034 02106	25

Drive currents

Parameter	Nominal*	Life**	Max***	Unit
Fortimo FastFlex LED 2x6 DP HE	480	1050	1500	mA

Module temperatures

Parameter	Nominal*	Life**	Max***	Unit
T _c (case temperature at T _c point)	80	85	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)

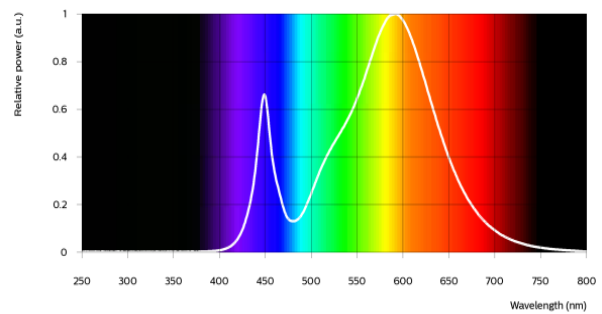
Fortimo FastFlex LED 2x6/730 DP HE

Parameter	Min	Typ	Max	Unit
Luminous flux	2601	2890	3182	lm
Efficacy	163	181	209	lm/W
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.433, 0.404)		-
Color consistency			5	SDCM
CRI	70			
R9	-50			
Photometric code		730/569		
Photobiological safety			RG1 unlimited	



Measurement precision $\pm 5\%$ for the flux data and $\pm 6\%$ for the efficacy data. Measurement precision for color coordinates ± 0.005 . Measurement precision for CRI ± 1.5 .

Operation point	730	lm	lm/W
80% I-nom 384mA	Tc 25 °C	2490	194
	Tc-nom 80 °C	2335	186
	Tc-max 95 °C	2281	182
I-nom 480mA	Tc 25 °C	3084	190
	Tc-nom 80 °C	2890	181
	Tc-max 95 °C	2822	178
I-max 1500mA	Tc 25 °C	8922	156
	Tc-nom 80 °C	8276	148
	Tc-max 95 °C	8049	144



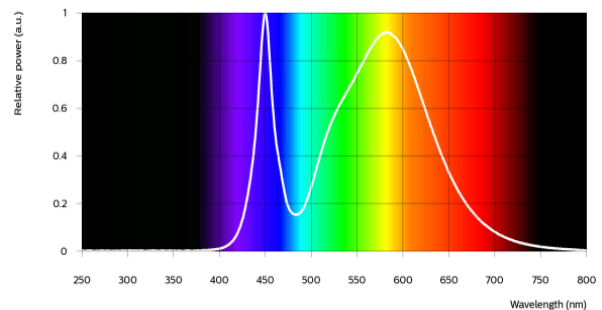
Fortimo FastFlex LED 2x6/740 DP HE

Parameter	Min	Typ	Max	Unit
Luminous flux	2673	2970	3315	lm
Efficacy	168	186	218	lm/W
Correlated color temperature (CCT)		4000		K
Color coordinates (CIEx, CIEy)		(0.379, 0.379)		-
Color consistency			5	SDCM
CRI	70			
R9	-50			
Photometric code		740/569		
Photobiological safety			RG1 unlimited	



Measurement precision $\pm 5\%$ for the flux data and $\pm 6\%$ for the efficacy data. Measurement precision for color coordinates ± 0.005 . Measurement precision for CRI ± 1.5 .

Operation point	740	lm	lm/W
80% I-nom 384mA	Tc 25 °C	2558	199
	Tc-nom 80 °C	2400	191
	Tc-max 95 °C	2344	187
I-nom 480mA	Tc 25 °C	3169	195
	Tc-nom 80 °C	2970	186
	Tc-max 95 °C	2900	183
I-max 1500mA	Tc 25 °C	9171	161
	Tc-nom 80 °C	8510	152
	Tc-max 95 °C	8277	148



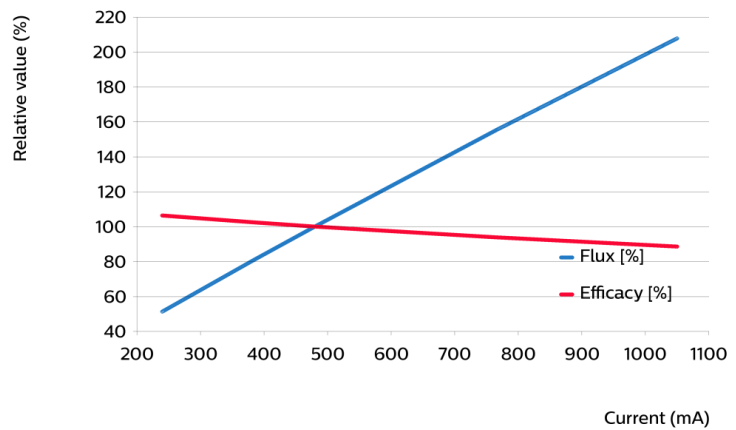
Electrical characteristics

Parameter	Min	Typ	Max	Unit
Forward voltage	31.8	33.2	34.2	V
Power consumption	15.3	15.9	16.4	W = kWh/1000h
Number of modules in series per chain			10	
Number of modules in parallel			1	

Tuning information

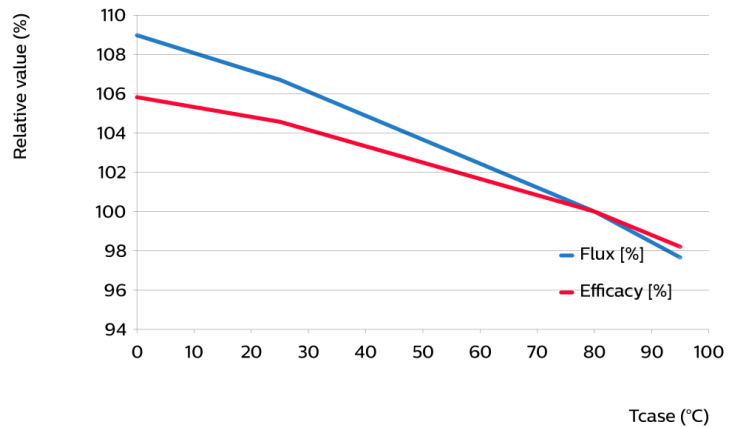
Flux and efficacy versus current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
1050	208	89
765	155	94
480	100	100
384	81	102
240	51	106



Flux and efficacy versus temperature at Tc (at I nominal)

Tc [°C]	Flux [%]	Efficacy [%]
95	98	98
80	100	100
25	107	105
0	109	106



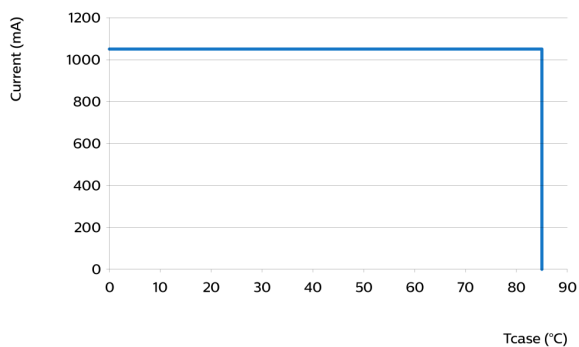
Lumen maintenance

Operation point	Lumen maintenance x 1000 hours	L70			L80			L90		
		B50	B20	B10	B50	B20	B10	B50	B20	B10
I-nom 480mA	Tc 60°C	>100	>100	>100	>100	>100	>100	85	75	66
	Tc 70°C	>100	>100	>100	>100	>100	>100	74	62	57
	Tc 80°C	>100	>100	>100	>100	>100	>100	64	54	50
I 700mA	Tc 60°C	>100	>100	>100	>100	>100	>100	79	66	61
	Tc 70°C	>100	>100	>100	>100	>100	>100	68	58	53
	Tc 80°C	>100	>100	>100	>100	>100	98	60	50	46
I-life 1050mA	Tc 60°C	>100	>100	>100	>100	>100	>100	72	61	56
	Tc 70°C	>100	>100	>100	>100	>100	>100	63	53	49
	Tc 80°C	>100	>100	>100	>100	98	90	55	46	42

Lifetime

Parameter	Value	Unit
M70F50 nominal	>100000	hours
M70F50 life	>100000	hours

Performance Window

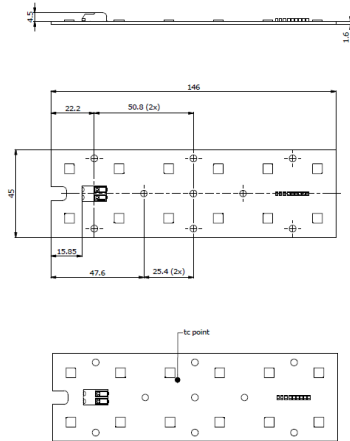


Wiring

Specification item	Value	Unit	Condition
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	
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	

Mechanical characteristics

Parameter	Min	Typ	Max	Unit
Length	145.8	146	146.4	mm
Width	44.8	45	45.4	mm
Height including connector	6	6.1	6.2	mm
Height PCB		1.6		mm
Product mass		29		gram



Absolute ratings

Parameter	Min	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		56.3	W
ESD (direct contact)	8		kV
ESD (air)	15		kV
Working voltage		575	V _{dc}
Ambient temperature	-40	50	°C
Storage temperature	-20	80	°C

Application information

Certificates and Standards

CE
ENEC
ENEC+
IEC 62031
IEC 62717
UL 8750
CSA-C22,2 No. 250.13

Environmental

RoHS/REACH

Application

Overheating protection	No
Dimming	Yes



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07/12/2023