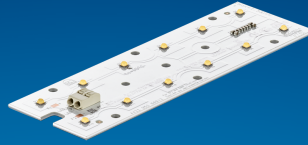


**PHILIPS**

**Fortimo**

**LED**

Fortimo FastFlex LED 2x6  
DP G5



Datasheet

# Protection on LED module level

## FastFlex DP G5

Combine Fortimo FastFlex DP G5 with third-party lenses for instant protection

Application:

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

### Key features and benefits

- IP66 protected LED module in combination with third-party lenses
- Module efficacy upgrade compared to previous generations
- Mechanically backwards compatible with Gen 4+
- Best-in-class reliability testing for OEM peace of mind
- Patented module surge protection
- Philips system warranty

September 2023



**Zhaga**

## Ordering data

Commercial product name	EOC	12NC	Box quantity
Fortimo FastFlex LED 2x6/730 DP G5	8719514 318571 00	9290 028 68306	25
Fortimo FastFlex LED 2x6/740 DP G5	8719514 318595 00	9290 028 68406	25
Fortimo FastFlex LED 2x6/840 DP G5	8719514 318618 00	9290 028 68506	25
Fortimo FastFlex LED 2x6/757 DP G5	8719514 318632 00	9290 028 68606	25

## Drive currents

Parameter	Nominal*	Life**	Max***	Unit
Fortimo FastFlex LED 2x6 DP G5	530	1050	1500	mA

## Module temperatures

Parameter	Nominal*	Life**	Max***	Unit
T <sub>c</sub> (case temperature at T <sub>c</sub> point)	80	85	95	°C

\* Nominal value at which typical performance is specified

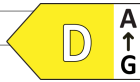
\*\* Value at which life time is specified

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

## Optical characteristics - table per color (CCT)

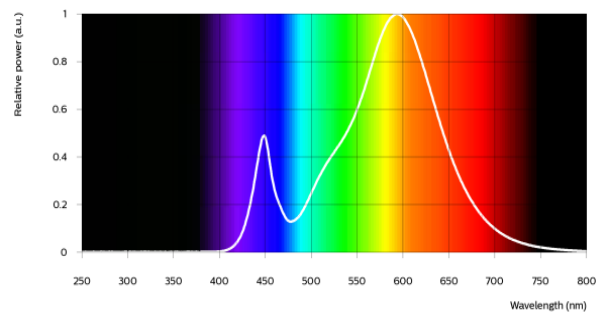
### Fortimo FastFlex LED 2x6/730 DP G5

Parameter	Min	Typ	Max	Unit
Luminous flux	2547	2830	3113	lm
Efficacy	138	159	194	lm/W
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.436, 0.404)		-
Color consistency			5	SDCM
CRI	70			
R9	-50			
Photometric code		730/579		
Photobiological safety			RG2	
Ethr			860	lux



Measurement precision for flux +/- 5%. Measurement precision for efficacy +/- 6%. Measurement precision for x, y +/- 0.005. Measurement precision for CRI 1.5

Operation point	730	lm	lm/W
80% I-nom 424mA	Tc 25 °C	2438	167
	Tc-nom 80 °C	2318	164
	Tc-max 95 °C	2259	161
I-nom 530mA	Tc 25 °C	2976	162
	Tc-nom 80 °C	2830	159
	Tc-max 95 °C	2757	156
I-max 1500mA	Tc 25 °C	7272	131
	Tc-nom 80 °C	6831	127
	Tc-max 95 °C	6612	124



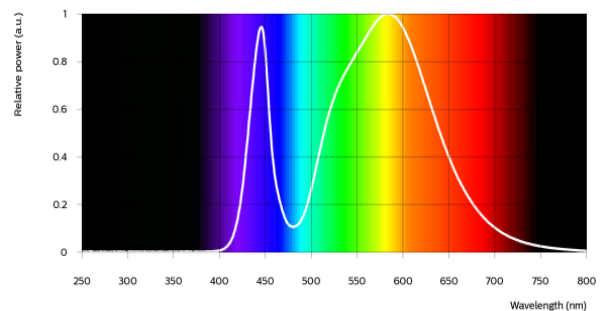
### Fortimo FastFlex LED 2x6/740 DP G5

Parameter	Min	Typ	Max	Unit
Luminous flux	2758	3065	3372	lm
Efficacy	150	172	206	lm/W
Correlated color temperature (CCT)		4000		K
Color coordinates (CIEx, CIEy)		(0.385, 0.383)		-
Color consistency			5	SDCM
CRI	70			
R9	-50			
Photometric code		740/579		
Photobiological safety			RG2	
Ethr			860	lux



Measurement precision for flux +/- 5%. Measurement precision for efficacy +/- 6%. Measurement precision for x, y +/- 0.005. Measurement precision for CRI 1.5

Operation point	740	lm	lm/W
80% I-nom 424mA	Tc 25 °C	2639	181
	Tc-nom 80 °C	2510	178
	Tc-max 95 °C	2447	175
I-nom 530mA	Tc 25 °C	3223	175
	Tc-nom 80 °C	3065	172
	Tc-max 95 °C	2987	169
I-max 1500mA	Tc 25 °C	7877	142
	Tc-nom 80 °C	7407	138
	Tc-max 95 °C	7173	134



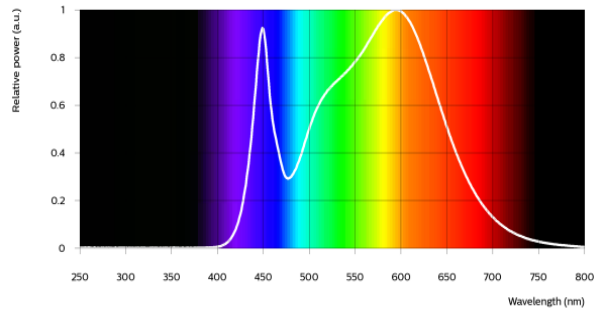
Fortimo FastFlex LED 2x6/840 DP G5

Parameter	Min	Typ	Max	Unit
Luminous flux	2412	2680	2948	lm
Efficacy	131	150	184	lm/W
Correlated color temperature (CCT)		4000		K
Color coordinates (CIEx, CIEy)		(0.385, 0.383)		-
Color consistency			5	SDCM
CRI	80			
R9	0			
Photometric code		840/579		
Photobiological safety			RG2	
Ethr			860	lux



Measurement precision for flux +/- 5%. Measurement precision for efficacy +/- 6%. Measurement precision for x, y +/- 0.005. Measurement precision for CRI 1.5

Operation point	840	lm	lm/W
80% I-nom 424mA	Tc 25 °C	2309	159
	Tc-nom 80 °C	2195	156
	Tc-max 95 °C	2139	153
I-nom 530mA	Tc 25 °C	2820	154
	Tc-nom 80 °C	2680	150
	Tc-max 95 °C	2611	148
I-max 1500mA	Tc 25 °C	6887	124
	Tc-nom 80 °C	6465	120
	Tc-max 95 °C	6255	117



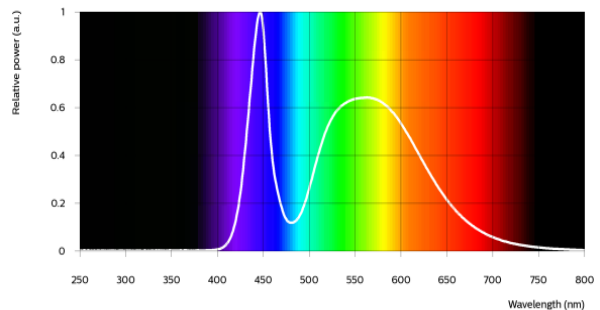
Fortimo FastFlex LED 2x6/757 DP G5

Parameter	Min	Typ	Max	Unit
Luminous flux	2776	3085	3394	lm
Efficacy	151	173	177	lm/W
Correlated color temperature (CCT)		5700		K
Color coordinates (CIEx, CIEy)		(0.330, 0.345)		-
Color consistency			5	SDCM
CRI	70			
R9	-50			
Photometric code		757/579		
Photobiological safety			RG2	
Ethr			860	lux



Measurement precision for flux +/- 5%. Measurement precision for efficacy +/- 6%. Measurement precision for x, y +/- 0.005. Measurement precision for CRI 1.5

Operation point	757	lm	lm/W
80% I-nom 424mA	Tc 25 °C	2656	182
	Tc-nom 80 °C	2526	179
	Tc-max 95 °C	2462	176
I-nom 530mA	Tc 25 °C	3243	177
	Tc-nom 80 °C	3085	173
	Tc-max 95 °C	3006	170
I-max 1500mA	Tc 25 °C	7927	143
	Tc-nom 80 °C	7455	138
	Tc-max 95 °C	7220	135



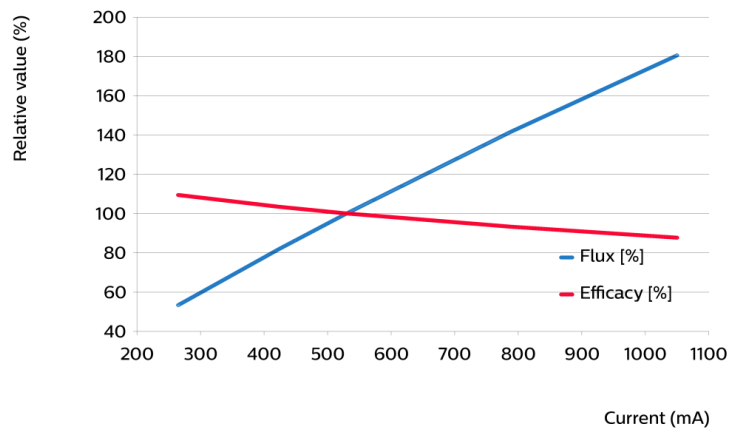
## Electrical characteristics

Parameter	Min	Typ	Max	Unit
Forward voltage	31.8	33.6	34.8	V
Power consumption	16.9	17.8	18.4	W = kWh/1000h
Number of modules in series per chain			10	
Number of modules in parallel			1	

## Tuning information

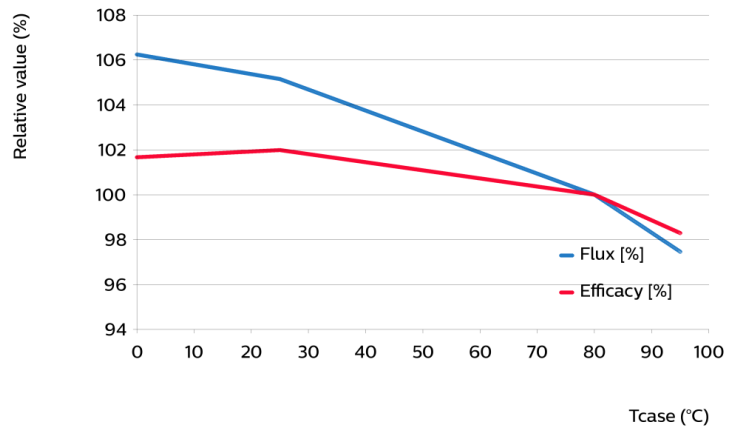
Flux and efficacy versus current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
1050	180	88
790	142	93
530	100	100
424	82	103
265	53	109



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

Tc [°C]	Flux [%]	Efficacy [%]
95	97	98
80	100	100
25	105	102
0	106	102



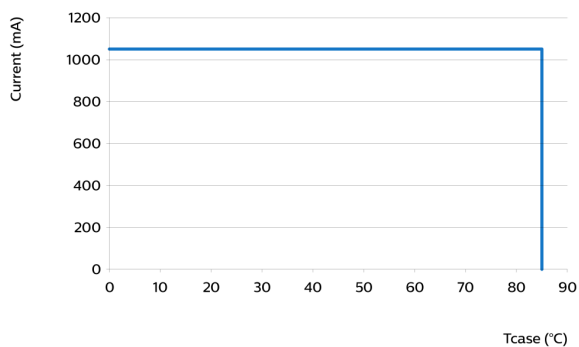
## Lumen maintenance

Operation point	Lumen maintenance x 1000 hours	L70			L80			L90		
		B50	B20	B10	B50	B20	B10	B50	B20	B10
I 530 mA	Tc 60°C	>100	>100	>100	>100	>100	>100	>100	>100	>100
	Tc 70°C	>100	>100	>100	>100	>100	>100	>100	>100	>100
	Tc 80°C	>100	>100	>100	>100	>100	>100	>100	>100	>100
I 700 mA	Tc 60°C	>100	>100	>100	>100	>100	>100	>100	>100	>100
	Tc 70°C	>100	>100	>100	>100	>100	>100	>100	>100	>100
	Tc 80°C	>100	>100	>100	>100	>100	>100	>100	>100	>100
I 1050 mA	Tc 60°C	>100	>100	>100	>100	>100	>100	>100	>100	>100
	Tc 70°C	>100	>100	>100	>100	>100	>100	>100	>100	>100
	Tc 80°C	>100	>100	>100	>100	>100	>100	>100	>100	>100

## Lifetime

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

## Performance Window

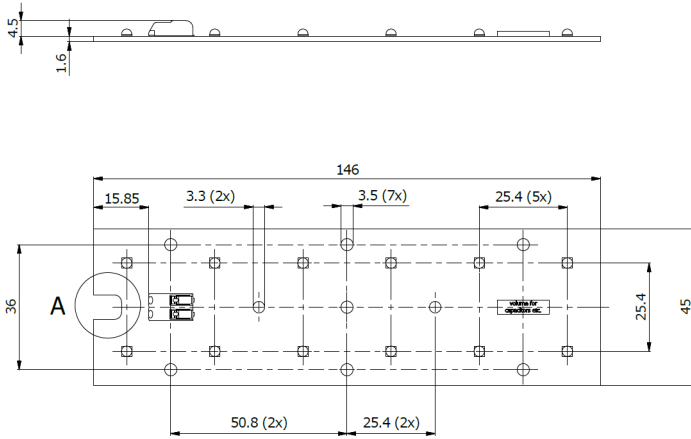


## Wiring

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

## Mechanical characteristics

Parameter	Min	Typ	Max	Unit
Length	145.9	146	146.1	mm
Width	44.9	45	45.1	mm
Height excl. connector	1.5	1.6	1.7	mm
Height incl. connector	6	6.1	6.2	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
Thermal power at I-max and Tc-max (Pth)		36.01	W
ESD (direct contact)	8		kV
ESD (air)	15		kV
Working voltage		575	V <sub>dc</sub>
Ambient temperature	-40	50	°C
Storage temperature	-20	80	°C

## Application information

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### Certificates and Standards

CE  
ENEC  
ENEC+  
UL

### Zhaga

Compliant\*

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\*Book 19, 2x6-IP

### Application

Overheating protection

No

Dimming

Yes





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