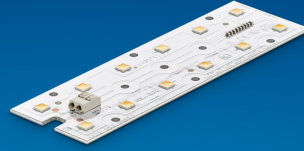


# PHILIPS

## 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
- Embedded module surge protection
- Philips system warranty

March 2025



 Zhaga

## 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 <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)

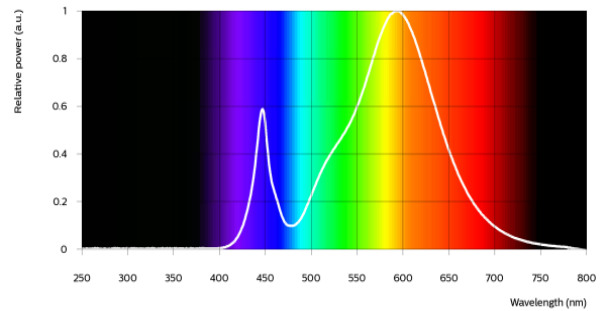
### Fortimo FastFlex LED 2x6/730 DP HE

| Parameter                          | Min  | Typ            | Max           | Unit |
|------------------------------------|------|----------------|---------------|------|
| Luminous flux                      | 2601 | 2890           | 3182          | lm   |
| Efficacy                           | 163  | 182            | 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  |                |               |      |
| Photobiological safety             |      |                | RG1 unlimited |      |



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

| Operation point | 730          | lm   | lm/W |
|-----------------|--------------|------|------|
| 80% I-nom 384mA | Tc 25 °C     | 2490 | 195  |
|                 | Tc-nom 80 °C | 2335 | 185  |
|                 | Tc-max 95 °C | 2281 | 182  |
| I-nom 480mA     | Tc 25 °C     | 3084 | 189  |
|                 | Tc-nom 80 °C | 2890 | 182  |
|                 | Tc-max 95 °C | 2822 | 179  |
| I-max 1500mA    | Tc 25 °C     | 8922 | 156  |
|                 | Tc-nom 80 °C | 8276 | 148  |
|                 | Tc-max 95 °C | 8049 | 144  |



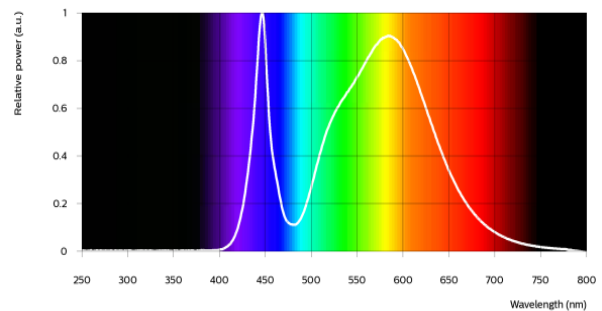
### Fortimo FastFlex LED 2x6/740 DP HE

| Parameter                          | Min  | Typ            | Max           | Unit |
|------------------------------------|------|----------------|---------------|------|
| Luminous flux                      | 2673 | 2970           | 3315          | lm   |
| Efficacy                           | 168  | 187            | 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  |                |               |      |
| Photobiological safety             |      |                | RG1 unlimited |      |



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

| Operation point | 740          | lm   | lm/W |
|-----------------|--------------|------|------|
| 80% I-nom 384mA | Tc 25 °C     | 2558 | 200  |
|                 | Tc-nom 80 °C | 2400 | 190  |
|                 | Tc-max 95 °C | 2344 | 188  |
| I-nom 480mA     | Tc 25 °C     | 3169 | 194  |
|                 | Tc-nom 80 °C | 2970 | 187  |
|                 | Tc-max 95 °C | 2900 | 184  |
| I-max 1500mA    | Tc 25 °C     | 9171 | 161  |
|                 | Tc-nom 80 °C | 8510 | 152  |
|                 | Tc-max 95 °C | 8277 | 148  |



## Electrical characteristics

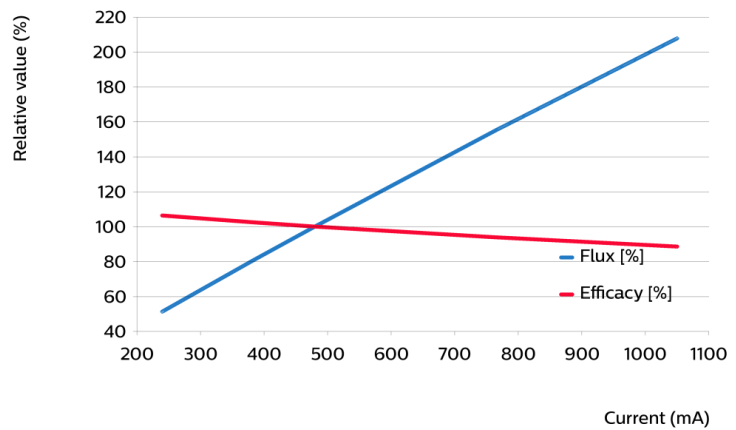
| Parameter                             | Min  | Typ  | Max  | Unit          |
|---------------------------------------|------|------|------|---------------|
| Forward voltage                       | 31.8 | 33.2 | 34.2 | V             |
| Power consumption                     | 15.3 | 15.9 | 16.4 | W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

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

## Tuning information

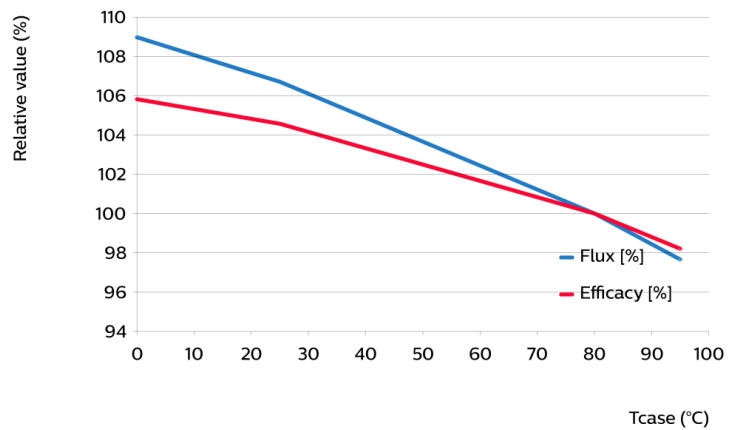
Flux and efficacy versus current (at Tc nominal)

| I [mA] | Flux [%] | Efficacy [%] |
|--------|----------|--------------|
| 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          |



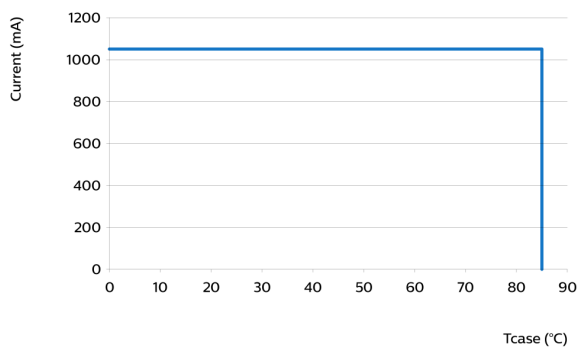
## Lumen maintenance

| Operation point | Lumen maintenance<br>x 1000 hours | L70  |      |      | L80  |      |      | L90  |      |      |
|-----------------|-----------------------------------|------|------|------|------|------|------|------|------|------|
|                 |                                   | B50  | B20  | B10  | B50  | B20  | B10  | B50  | B20  | B10  |
| I 480mA         | Tc 25°C                           | >100 | >100 | >100 | >100 | >100 | >100 | >100 | >100 | >100 |
|                 | Tc 65°C                           | >100 | >100 | >100 | >100 | >100 | >100 | >100 | >100 | >100 |
|                 | Tc 85°C                           | >100 | >100 | >100 | >100 | >100 | >100 | >100 | >100 | >100 |
| I 700mA         | Tc 25°C                           | >100 | >100 | >100 | >100 | >100 | >100 | >100 | >100 | >100 |
|                 | Tc 65°C                           | >100 | >100 | >100 | >100 | >100 | >100 | >100 | >100 | >100 |
|                 | Tc 85°C                           | >100 | >100 | >100 | >100 | >100 | >100 | >100 | >100 | >100 |
| I 1050mA        | Tc 25°C                           | >100 | >100 | >100 | >100 | >100 | >100 | >100 | >100 | >100 |
|                 | Tc 65°C                           | >100 | >100 | >100 | >100 | >100 | >100 | >100 | >100 | >100 |
|                 | Tc 85°C                           | >100 | >100 | >100 | >100 | >100 | >100 | >100 | >100 | >100 |

## Lifetime

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

## Performance Window

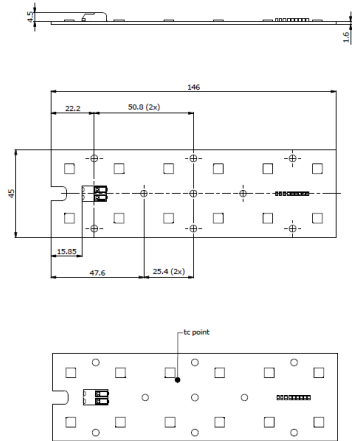


## Wiring

| 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                     | 145.8 | 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 <sub>dc</sub> |
| Ambient temperature                    | -40 | 50   | °C              |
| Storage temperature                    | -20 | 80   | °C              |

## Application information

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### Certificates and Standards

CE  
ENEC  
cULus  
ENEC+

### Environmental

RoHS/REACH

### Zhaga

### Compliant\*

\*Book 19, 2x6-DP

### Application

Overheating protection

No

Dimming

Yes



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