

PHILIPS

Fortimo

LED system

HBMt Gen3



Setting the standard in **LED modules**

An easy to design-in, compact LED module
for white light applications

Outdoor lighting

Fortimo LED HMBt Gen3

Maximum flexibility



Elegant solution for OEMs **looking to incorporate LEDs**





What is new in Fortimo LED HBMt Gen3?

- LED “lamp” – high lumen output from a small area
- Cost-effective LED light engine
- Luminaire design is based on traditional reflector optics
- Reduced time to market and simplified supply chain
- Interchangeability of light engines from different manufacturers

Long-lasting and low maintenance, LED-based luminaires are an excellent white light solution. LED technology is rapidly evolving, with each generation of LEDs increasing in efficacy. To take full advantage of these efficiency improvements, luminaire creators working with peak design (optic lenses -based applications) had to frequently re-design the luminaire. Now, with Philips Fortimo LED high brightness module (HBMt) Gen3, luminaire designers receive the full benefit of LED modules without the complexity and high R&D costs.

Design-in ease and flexibility

The compact rectangular light engine allows the creation of different light distributions using a metal reflector, similar to HID lamps. OEMs with years of experience in traditional luminaire design can leverage that expertise in developing a LED-based luminaire. The design-in is further simplified because the same form factor offers multiple lumen packages, leveraging a single design into a full portfolio to better meet end user needs.

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Full benefit of LED modules with HBMt Gen3 without the complexity and high R&D costs.”

Future-proof light engine

Fortimo LED HBMt is truly future-proof - light emitting area, optical and electrical characteristics and mechanical interface will remain constant. With HBMt, Philips Lighting has taken over the task of incorporating future LED efficacy upgrades. There is no need to change the luminaire and reflector design. The future-proof promise also means that end users will never have a problem replacing the light engine¹ in a HBMt luminaire.

Thermal management

The design-in process is further simplified with passive thermal management, subject to luminaire form factor and lumen package. By mounting the modules directly on the interior of the luminaire casing, the heat is dissipated into the ambient atmosphere.²

Energy efficiency and the environment

Fortimo LED HBMt offers the best energy efficacy in the market, with minimum performance efficiency of 150 lm/W on a module level. The remarkable energy savings and CO₂ reductions achieved with an HBMt lighting solution can be further extended with dimming. By lowering the light levels during off-peak hours, energy usage is reduced and light pollution is minimized, improving quality of life for local residents. In addition to high energy efficiency, Fortimo LED HBMt is a Green Product, containing no mercury.

Features

- Module efficiency of up to 150lm/W
- Fixed light emitting area, lumen package and mechanical interface
- Color temperature 4000 K & 5700 K
- Color rendering index CRI 70 & CRI 80
- Compliant to IEC edition 8

Applications

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

¹ Light engine = LED module+driver

² For full thermal management details, please refer to the Design-in guide



Specifications and ordering details

Philips Fortimo LED system HBMT Gen3

Type	Module power	Module efficacy typical	Light output	Correlated color temperature	Color rendering index	Tcase	Thermal load	Max input voltage	Color consistency	Rset current
	W	lm/W	lm	K	min. R _a	°C	W	V	SDCM	mA
Fortimo LED HBMT 2500/740 17W Gen3	17	150	2500	4000	70	85	10	54	<-7	350
Fortimo LED HBMT 4000/740 30W Gen3	30	140	4000	4000	70	85	18	60	<-7	530
Fortimo LED HBMT 4000/757 30W Gen3	30	140	4000	5700	70	85	17,5	60	<-7	530
Fortimo LED HBMT 4000/840 31W Gen3	31	130	4000	4000	80	85	19,5	63	<-7	530
Fortimo LED HBMT 6000/740 43W Gen3	43	140	6000	4000	70	85	25	87	<-7	530
Fortimo LED HBMT 6000/757 43W Gen3	43	140	6000	5700	70	85	25	87	<-7	530
Fortimo LED HBMT 6000/840 46W Gen3	46	130	6000	4000	80	85	28	93	<-7	530

Note: +/-10% tolerance is applicable to all performance characteristics. Fortimo LED HBMT has a 5 year system warranty. All modules are specified to 50,000 hours lifetime with 90% survivals.

Recommended Xitanium LED drivers :

For all possible module-driver combinations see each datasheet of the specific LED board or visit our website: www.philips.com/technology.

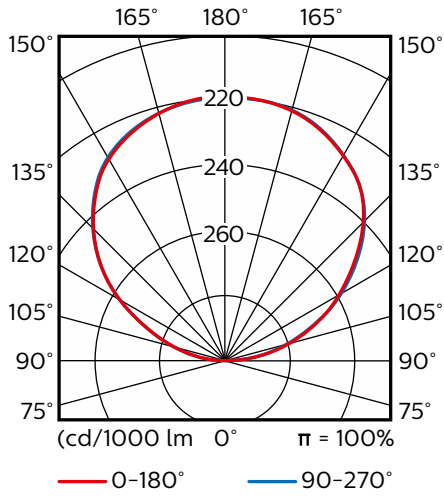
For Xitanium LED driver specifications, please visit: www.philips.com/xitanium.

Technical note

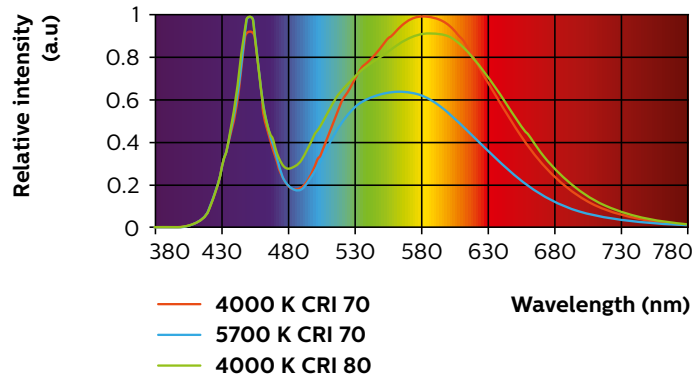
The Xitanium Programmable LED driver will automatically deliver the optimal output current for any Fortimo LED HBMT module via Rset. No programming interface or software are necessary, simply connect the modules to the driver according to the instructions in the Design-in guide. The driver is factory set to provide 1-10 V dimming.

Specifications and ordering details

Optical data



Mechanical Characteristics



Ordering details

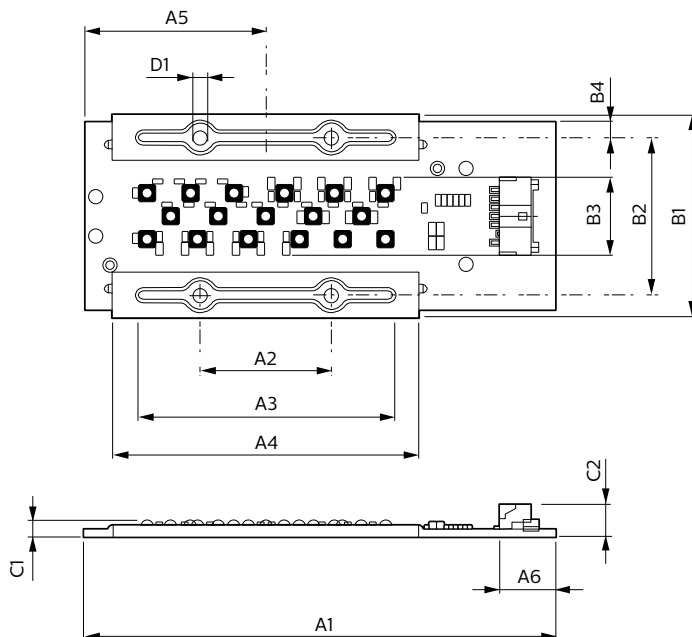
Fortimo LED HBMT Gen3	GPC	EOC	Minimum order quantity
Fortimo LED HBMT 2500/740 17W Gen3	9290 009 40006	8718696 437247 00	10
Fortimo LED HBMT 4000/740 30W Gen3	9290 009 40106	8718696 437308 00	10
Fortimo LED HBMT 4000/757 30W Gen3	9290 009 40206	8718696 437346 00	10
Fortimo LED HBMT 4000/840 31W Gen3	9290 009 40306	8718696 437360 00	10
Fortimo LED HBMT 6000/740 43W Gen3	9290 009 40406	8718696 437384 00	10
Fortimo LED HBMT 6000/757 43W Gen3	9290 009 40506	8718696 437407 00	10
Fortimo LED HBMT 6000/840 46W Gen3	9290 009 40606	8718696 437421 00	10

¹ Made to order. Longer lead times apply.

Dimensions

	A1	A2	A3	A4	A5	A6	A7	B1	B2	B3	C1	C2	C3
Fortimo LED HBMT Gen3	107.8	30	58.8	70	6.2	13.5	41.4	46	36	14.5	8	4	11

Tc Position: Marked on the back of the module.



Dimensions in mm, typical data; ± 2 mm





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