PHILIPS
ADVANCE

LED Modules

Fortimo

High Brightness Module (HBMt) Gen3+ 6000lm

The Fortimo LED HBMt is a high efficacy, easy to design-in solution for OEMs looking to incorporate LEDs into their outdoor, high bay or industrial luminaire portfolios. With a compact rectangular light engine[1] and non-integrated driver, the Fortimo LED HBMt system allows for creation of different light distributions using a metal reflector, similar to HID lamps. OEMs with experience in traditional luminaire design can easily leverage that expertise in developing a LED-based luminaire. The Fortimo LED HBMt offers outstanding efficacy with a range of 130-140 lm/w at the module level. The energy savings can also be extended with dimming capabilities. By lowering the light levels during off peak hours, both energy usage and light pollution can be minimized.

Features

· Module efficiency of up to 140 lm/W

· Rated at Tc max 85°C[2]

· Fixed light emitting area, lumen package and mechanical interface

· Color rendering index at CRI 70 (minimum)

Benefits

· LED "lamp" that provides high lumen output from a small area

· Cost-effective LED light engine

· Luminaire design based on traditional reflector optics

· Interchangeability of light engines from different manufacturers

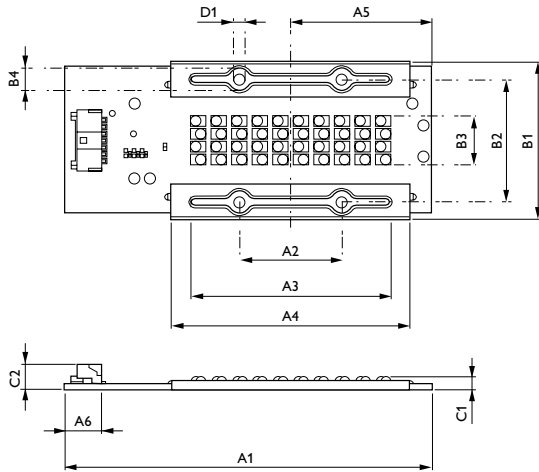· Sustainability story with energy-efficiency and zero mercury

Applications

· Road and street lighting

· Flood and area lighting

· High bay and industrial lighting

· Tunnel lighting

See footnotes on page 4.
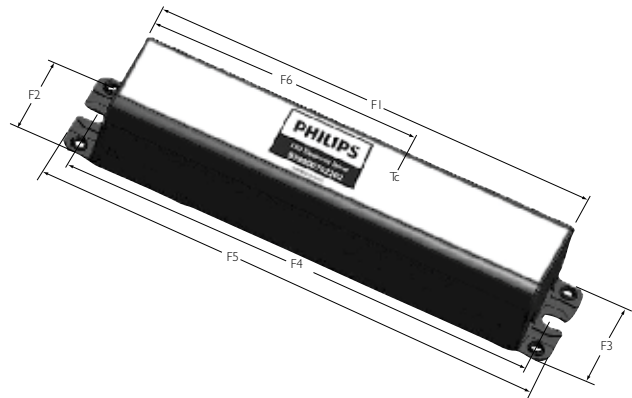
Fortimo LED HBMt Gen3+ System

Module Dimensions (typical data; ± 2mm)

Fortimo LED HBMt	A1	A2	A3	A4	A5	A6	B1	B2	B3	B4	C1	C2	D1
inches	4.244	1.181	2.315	2.756	1.630	0.433	1.811	1.417	0.571	0.244	0.157	0.315	0.130
mm	107.8	30	58.8	70	41.4	11	46	36	14.5	6.2	4	8	3.3

Driver Dimensions (± 2mm)

LED Driver Type	F1	F2	F3	F4	F5
40W Programmable LED Driver					
inches	5.47	1.11	1.81	5.68	5.84
mm	138.9	28.2	46.0	144.3	148.3
75W and 150W Programmable LED Driver					
inches	8.31	1.50	2.33	8.91	9.47
mm	211.1	38.1	59.2	226.3	240.5
75W Dimmable Driver					
inches	5.44	1.50	2.33	6.03	6.59
mm	138.2	38.1	59.2	153.2	167.4
150W Dimmable Driver					
inches	8.31	1.58	2.33	8.91	9.47
mm	211.1	40.1	59.2	226.3	240.5

Technical note

The 150W Xitanium Programmable LED driver will automatically deliver the optimal output current for any combination of Fortimo LED HBMt modules. 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 1–10V dimming. Dimmable drivers will provide a nominal 530mA to the module.

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LED Modules

Description	Color Temperature (K)	Module Power Nominal (W)	Module Efficacy Typical (lm/W)	Light Output Nominal (lm)	Color Rendering Index (min. Ra)	Rated Average Life (Hours) T Case 85°C	Thermal Load Typical (W)	Color Consistency (SDCM)
Fortimo LED HBMt 6000 43W/740	4000	43	140	6000	70	50K	25.0	<7
Fortimo LED HBMt 6000 43W/757	5700	43	140	6000	70	50K	25.0	<7
Fortimo LED HBMt 6000 46W/840	4000	46	130	6000	80	50K	28.0	<7

Ordering Data

Type	Order Quantity Multiple	Ordering Code
Fortimo LED HBMt 6000 43W/740	10	9290 009 40406
Fortimo LED HBMt 6000 43W/757	10	9290 009 40506
Fortimo LED HBMt 6000 46W/840	10	9290 009 40606
Philips Advance Xitanium 75W Programmable Driver	10	9290 007 02302
Philips Advance Xitanium 150W Programmable Driver	10	9290 007 02202
Philips Advance Xitanium 75W Dimmable Driver	10	XI075C053V140CNY1
Philips Advance Xitanium 150W Dimmable Driver	10	LEDINTA0530C280DO
Cable Fortimo 7 pins to wire – 600mm	10	9290 008 03903

1. Light engine = LED module+driver

2. For luminaire released for ambient termperature of 25° C. For higher luminaire ambients, Tc max = 85 ° C.