

LED Downlighters

Venus Midi is a truly outstanding environmentally friendly luminaire with 50,000 hours of tested life. Not only is this revolutionary LED downlighter extremely low maintenance and energy efficient, saving both time, money and resources, the Venus Mini offers a performance that will rival that of a 2x26w downlighter luminaire. The Venus Midi is the ideal LED lighting for offices, hotels, museums, galleries and retail applications.



Features:

- High performance Philips Fortimo Downlight LED (see page 2)
- Low power consumption (energy efficient)
- Output: 17w: 54 lm/w, 24w: 50 lm/w, 45w: 62 lm/w
- CRI (colour rendering index) of 80, LED colour temperature 17w: 3000°k and 24w/45w: 4000°k
- LED life of 50,000 hrs (equal to 10/12 years)
- Instant start without frequency limits over time
- Lamellar heat sink and high speed oscillating diaphragm allow for advanced thermal management with no fan
- No ultraviolet (UV) or infrared (IR) rays - no discolouration of displays
- Lambertian Diffuser allows equal 54° light distribution in all directions giving a better luminous efficiency
- Environmentally friendly; LED module contains no mercury
- Easy to install via rapid spring system
- Recessed mounting in false ceilings ranging from 1mm to 30mm thick
- Contemporary design
- To be used in conjunction with external driver unit



Options:

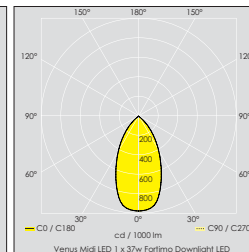
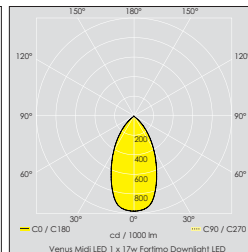
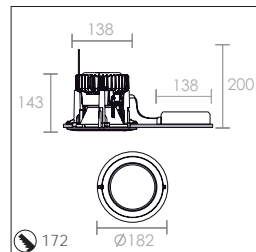
- Choice of bezel finishes
- Dali dimmable version available on request
- RGB version available on request

Material:

- Bezel: Die-cast aluminium
- Heat sink: aluminium

Finish:

- White or metallic grey

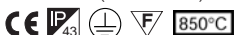


Venus Midi

Lamp type (Supplied)	Ordering Code	
	White	Metallic grey
1 x 17w LED 1100 lm/830 - 3000°k	IDRE 117/WH	IDRE 117/MGY
1 x 24w LED 2000 lm/830 - 3000°k	IDRE 124/WH	IDRE 124/MGY
1 x 45w LED 4000 lm/840 - 4000°k	IDRE 145/WH	IDRE 145/MGY



These luminaires are designed to comply with EN 60598-1 (BS 4533:101)



What is Fortimo?

Fortimo is a LED module, developed by Philips, with remote phosphor technology. An absolute evolution in the world of LEDs that enables an important leap forward for energy efficiency, colour rendering quality and light output.

Benefits

The Fortimo LED DLM module ensures the end user almost zero maintenance costs thanks to its long life (50,000 hours, equal to 10/12 years). It is sturdy and robust, providing long term reliability.

It turns on immediately, without frequency limits over time.

The low level of heat makes it possible to control and reduce the load on conditioning and, accordingly, the design of the cooling systems.

With no harmful ultraviolet (UV) and infrared (IR) rays, the quality and freshness of produce can be demonstrated with close-up lighting.

The module is environmentally friendly and does not contain mercury.



Performance

This table shows a comparison between the Philips Fortimo LED and standards fluorescent. The values are based on the lamps being used to obtain a level of 300 lux in an average size room.

	Venus Midi/Maxi			Resessed Fluorescent		
	1100lm	2000lm	3000lm	1x26w	2x18w	2x26w
Efficiency (%)	93	93	93	45	57	47
Efficiency (lm)	1023	1860	2790	810	1272	1692
Lamp power (w)	17	24	45	26	36	52
Ratio flux-power (lm/w)	54	50	62	31	31	32
Number of fittings	5	4	3	10	9	8
Energy consumption (Kwh)	4250	7400	4650	11,700	18,000	20,800
CO ₂ emission (405gr x Kwh)	1721	2997	2733	4738	7290	8424

TECHNOLOGY

Venus Midi/Maxi utilises the remote phosphor technology of Philips Fortimo LED combined with a Lambertian diffuser to obtain light distribution with equal intensity in all directions, which results in high luminous efficiency. The Fortimo module is composed of emitters that generate blue light radiation, placed inside a diffusion chamber. A yellow phosphor diffusion screen transforms the light upon closing from blue to white.

HEAT LOSS

In conventional lamps, thermal energy is lost almost entirely via radiation. The LEDs dissipate excess energy via conduction. The precise contact between the aluminium exterior shell and the specially designed lamellar heat sink, ensures that the Fortimo LED module runs at its optimal capacity giving it a long life functionality and luminous efficiency.

ACTIVE COOLING

To ensure optimal functionality and durability of the LED light source, it is very important that the heat generated is dispersed by means of a suitable cooling device. On the Venus Midi/Maxi (2000 and 3000 lumen versions), an advanced cooling technology device has been applied. This new, more durable and reliable system utilises a high speed oscillating diaphragm that generates air pulses which force cool air towards the heat sink fins. This enables optimal dissipation of the heat generated by the Fortimo LED module in total silence.

COLOUR RENDERING

The colour of an object depends on the light source lighting it. The colour rendering index (CRI) of a light source represents the effect that the light source has on the appearance of an object's colour. The CRI is expressed as a rating from 0 to 100, where 100 represents the colour rendering of a source where the light does not change the perception of colours. Venus Midi/Maxi have a CRI colour rendering index > 80 and a colour temperature of 3000°K or 4000°K, thus maintaining a lively and brilliant colour for the entire life of the fixture.

