

Glowing round the bend

The linear LED system that twists and turns in two planes.

Text: Jill Entwistle

LEDs have always snapped at the heels of cold cathode as an alternative source for linear applications.

Luminaire designers David Morgan Associates has now created two new highly flexible modular, linear LED systems for both exterior and interior applications. Developed for the Radiant division of US company Belfer Lighting, they can both be hand-bent on site to create very precise solutions.

Exterior system

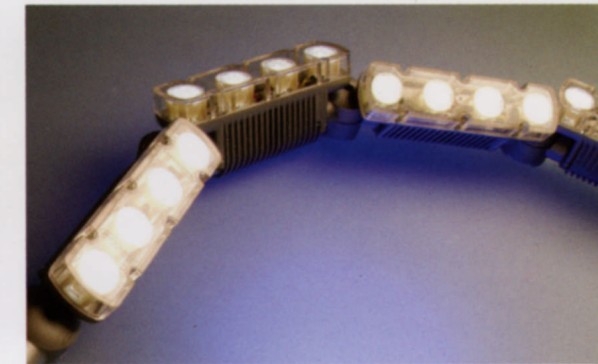
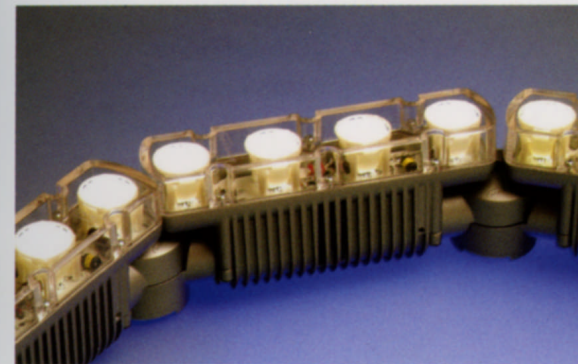
Designed to be used in a wide variety of exterior architectural lighting applications, including building facade lighting and wall-grazing, the Radiant Serpentine LED Lighting System is the first system of its type to be hand-bendable on-site and to offer adjustment in both the axial and vertical planes.

The individual LED lighting modules can rotate through 30 degrees around the axis of the system and 30 degrees between the joints, allowing the system to be curved to follow building profiles and architectural details. The system can actually be bent to 90 degrees in the horizontal plane although this will limit the tilt angle. The flexibility also allows for the light output to be aimed more precisely to give optimum grazing or feature lighting. Continuous runs up to 18 metres can be achieved.

A variety of high efficiency TIR lenses can also be fitted to the system enabling complete control of the light distribution. The aluminium die-cast modules house a constant current driver circuit running four high power white or RGB LEDs with a total power rating of up to 20 watts per module, depending on the type of LED.

Interior system

The Radiant Power Cove Interior LED Lighting System is designed for use in a variety of interior architectural and retail applications, including indirect, cove and cabinet-lighting. The concept, says creator David Morgan, is 'to combine the long-life advantages of LEDs with the ability to fit any space, providing the effect



The exterior system can be rotated in both the axial and vertical planes.

of a bespoke installation while offering the convenience and value for money of an off-the-shelf system.'

Each section of the linear system can be joined together with an inline connector that is itself illuminated with matching LEDs. This enables the system to provide continuous lighting, without unlit gaps, up to a maximum length of 30 metres for the two-LED module and 12 metres for the four-LED module (or potentially longer, depending on the power of the LEDs and drive current specified).

The track can be cut to length on site and the modules simply fixed to it so that any length of cove can be fully lit. Although the system is not twistable like its exterior counterpart, the power rail can also be hand-bent on site, without any tools, to a 300 millimetre radius.

The modules are attached to a four-conductor, extruded aluminium power rail. This provides both power and data channels, for dimming and colour-change control, in addition to providing additional heat sinking for the LED system.

Light source: two LED or four-LED modules; the interior version has a maximum power of 8 watts per module (each module is 100 mm long); the exterior system has a maximum power per module of 20 watts, but each module is 200 mm long; both systems incorporate a constant current driver

Options: (both versions) a variety of high efficiency TIR lenses can be fitted to the system to control light distribution

Adjustability: (exterior version) 30 degrees around the axis of the system and 30 degrees between the joints

Protective rating: (exterior version) IP 67

David Morgan Associates is a London-based international design consultancy specialising in luminaire design and development. The firm has designed more than 1000 luminaires during its 26 years in business, with clients including Designplan and Louis Poulsen. DMA has worked with the US-based Belfer Group for 10 years. It is acting as the Radiant UK office until Belfer Lighting (which operates from Farmingdale, New Jersey) sets up its own UK company in the near future.

www.dmadesign.co.uk

An inline connector which also has LEDs avoids the problem of dark gaps.

