

enter a new field of imagination

LEDline

Let's make things better.



PHILIPS

La Verpillère, France 22:20
Externat Sainte-Marie
Georges Adilon



a stroke of genius

Architectural lighting plays a central role in the way people feel about their living environment. Employed imaginatively, it can create a poetry of daily life by elevating the mundane and banal through a reinterpretation of everyday city objects and buildings.

Thanks to its ability to generate new experiences and emotions, lighting can help shape an inclusive, socially dynamic city, where people can feel part of a shared beauty that transcends their daily existence and links them to each other, to their past, and to an enlightened future quality of life.

More and more, the expression of a town or city's architecture will come from its lighting rather than from its structure. If buildings are the monumental canvases on which lighting designers paint their artistic vision of urban renewal, then light has helped to deliver their most telling brushstrokes.

And now Philips is expanding the palette with LEDline, a new lighting concept based on cutting-edge LED technology that will enable lighting designers to realise beauty with light, turning their vision into reality.

Opening up a virtually infinite range of effects, LEDline is a versatile tool that allows light to fill or underline, graze or pinpoint, mark or blend. It offers four colours plus white – and gives free rein to architects' and designers' creativity! The linearity of LEDline complements the geometry of the architecture, transforming surfaces into 'curtains' of light, transforming light into objects. In short, it represents a new language in outdoor lighting.

Our ambition is to support you in undertaking various projects to 'LEDline' contemporary architecture and historical monuments throughout the world.

Welcome to the revolution.



a discreet presence on the facade

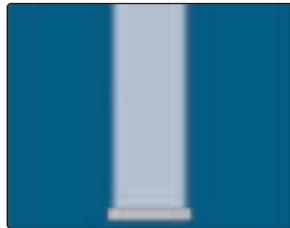
LEDline is a new concept for illuminating and enhancing contemporary architecture and historical monuments with coloured light. Based on high-power LEDs, this linear floodlight creates a controlled, soft wallwash accent with five clearly defined colour bands, opening up the possibilities for exciting new lighting effects. The new Luxeon™ high-power LEDs make it possible to create products that are smaller, lighter, sleeker, cooler, brighter and more environmentally sound than anything we've seen before. Sealed for life, the IP 65 module comes in 4 different lengths [0.3 m, 0.6 m, 0.9 m and 1.2 m]. It can be fixed to uneven surfaces by a single universal aluminium bracket, ensuring maximum flexibility in mounting and aiming.

The LEDline range allows a visually flexible and harmonised luminaire installation, which, thanks to the different lengths of module, can be tailored exactly to the architectural structure. The LEDline is driven by a remote IP 65 driver, which offers maximum freedom in installation and a clean product architecture: optical LED modules can be mounted in a line – continuous or discontinuous. The module's high-quality finish and detailing, excellent corrosion resistance, dust and waterproof sealing, and IP 65 rating for both luminaire and driver, make it ideally suited to outdoor applications.

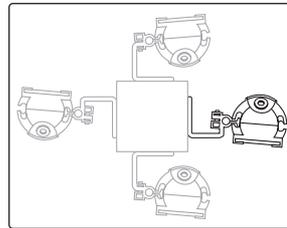
LEDline's range of high-efficiency collimating optics fit all coloured LEDs, ensuring precision control of the light distribution. And there's no spill light, thanks to the very tight beams, which deliver uniform illuminance. Due to the continuous line of light, with no shadows between the modules in the line, surfaces "painted" (wallwashed) in red, blue, green, amber or white (without any accessories) form a powerful screen of light. With its smooth, clean product architecture, LEDline has been designed to blend into its surroundings with minimal visual disturbance, very close to the facade or surface to be lit. LEDline's discreet design puts the focus squarely on the lighting solution.



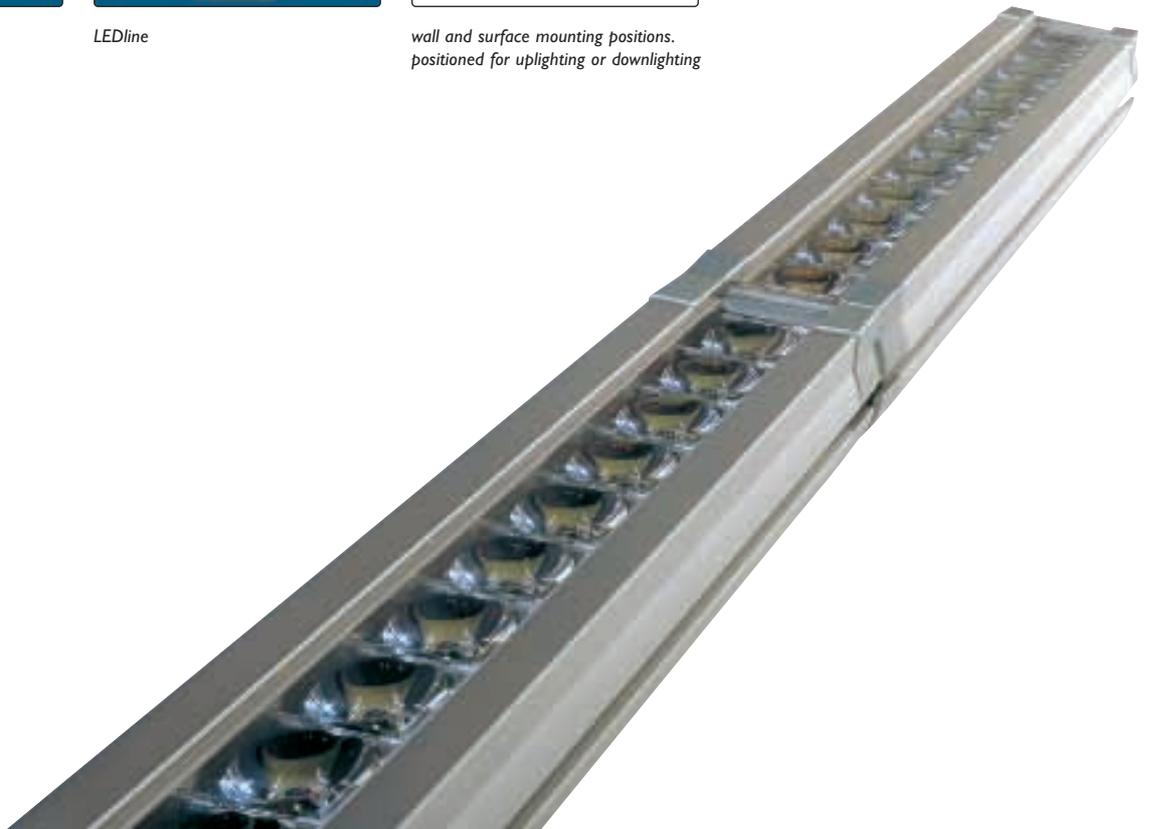
Decoflood



LEDline



wall and surface mounting positions.
positioned for uplighting or downlighting





collimator - narrow beam 2x3°

taking LED technology to the next level

Many years ago, the invention of the fluorescent tube saw the advent of the linear light source, which gave off a diffused light. These economical lamps did not, however, allow effective light control, not even when used in conjunction with a narrow-beam optic.

The LEDline modules are based on Luxeon™ high-power LEDs - "a revolutionary energy-efficient and ultra-compact new light source, combining the lifetime and reliability of light-emitting diodes with the brightness of conventional lighting" first introduced by LumiLeds Lighting (a joint venture between Philips and Agilent Technologies) in 1999.

how it works

The basic structure of a light-emitting diode consists of a dye or a light-emitting semiconductor material, a lead frame in which the dye is placed, and the encapsulation epoxy that surrounds and protects the dye. The semiconductor crystal, which is laboratory-grown, emits light initiated by a forward current within the LED. The light colour varies depending on the nature and composition of the crystal used. Performance levels are continuing to rise dramatically. New packages are increasing the cooling efficiency for the dye, thus permitting higher current levels and hence higher light output.

key features of LEDs

- Tiny sources ; Compact, small luminaries
- Low voltage sources, Cool beam, no UV; much safer, especially for public areas
- High lumen output - Amber 12,5 lm mini per LEDs
- Instant light, dimming ; flexible floodlighting applications
- Environmental; no toxic metals used (mercury)
- Long operating life ; sealed for life concept.



optical module cross section



high power LED with collimator



white
(CRI=70, 5500°K typical)



blue (470 nm)



amber (590 nm)



green (530 nm)

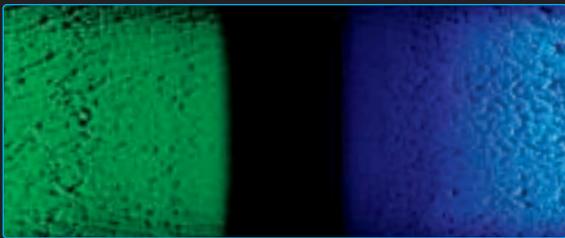


red (629 nm)

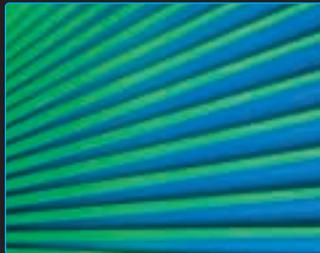
when your dreams come true

Today, establishing a synthesis between high-energy electroluminescent diodes and precision control of light, Philips' Led Line is opening up new vistas for the application of light. The linear beam has become a true

'wall of light', allowing the creation of spaces in which architecture and the city can come to life. At night falls, colour light begins to transform the architecture



lateral grazing light



brushed and corrugated aluminium



metallic structure



bricks



archway



colour mixing



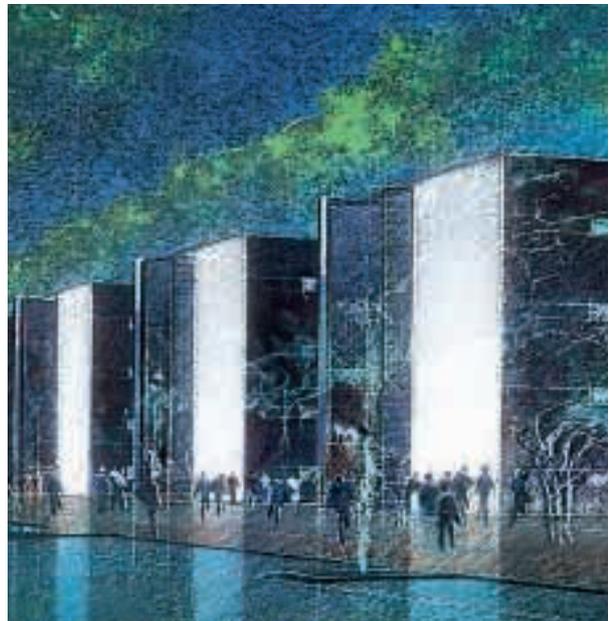
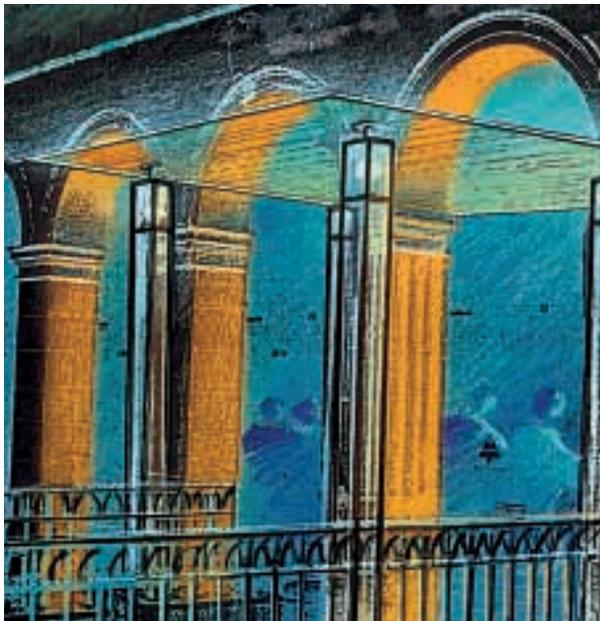
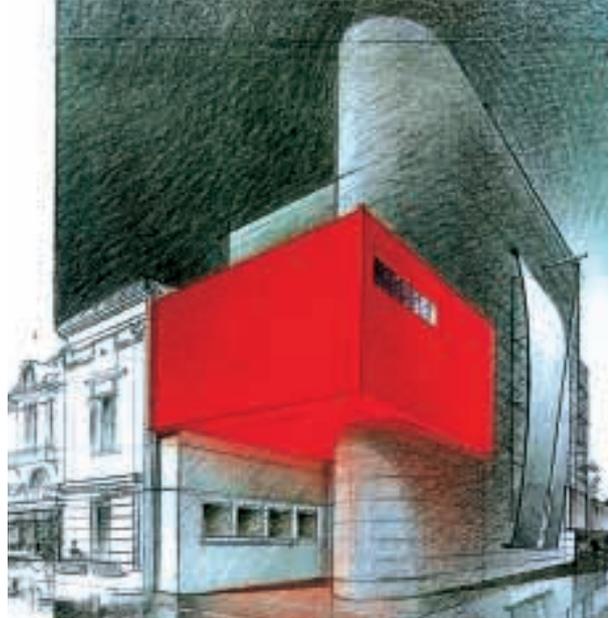
revealing the structure



contrasting colours



enhancing



a new field of imagination

Jean-Christophe Liermier
Jean-Vincent Berlottier
Richard Harland
Albert Constantin

technical data

Linear floodlight for new architectural applications based on high-power flux LEDs

LEDline module

The IP 65 modules are made from anodised extruded aluminium.

All anodised parts can withstand harsh outdoor conditions.

The ends caps are made of polycarbonate (RAL 9006) and display the Philips brand name. The clear front cover is made of PMMA. All components are recyclable.

The optical unit is supplied with a HO7RN-F cable: section $2 \times 1 \text{ mm}^2$, length 1m.

All screws are made of stainless steel.

The modules are available in four lengths.

Twelve High power LEDs are connected by soldering onto a printed circuit.

The controller card inserted

in the optical module ensures a constant current to the LEDs.

collimators

This lens, which is made of PMMA, has been designed to fit exactly on the top of each LED, whatever the colour.

Its function is to focus the beam and to limit the spill light ($2 \times 3^\circ$).

wall & surface mounting

Optical units are fixed close to the surface to be lit by means of a universal aluminium bracket.

driver

Mains supply: 230VAC / 55VDC

All gear components are integrated in an aluminium IP65 box.

This remote driver can drive up to 10 m of optical modules, whatever their length or colour, and can be installed at a distance of 20 m from the first module.

classification

- IP 65
- $T_a = -20^\circ$ to 35°C Outdoor

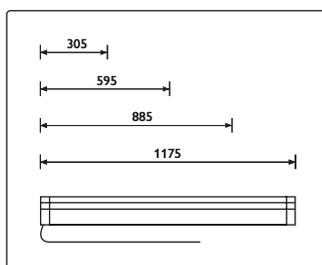
- Optical unit (VDC): Class III,
- Remote driver: Class I
- Glow wire test: 650°C
- Optical module sealed for life 10 years
- EN60598-1 / IEC 598-1
- Surface T° : 60°C

electrical features

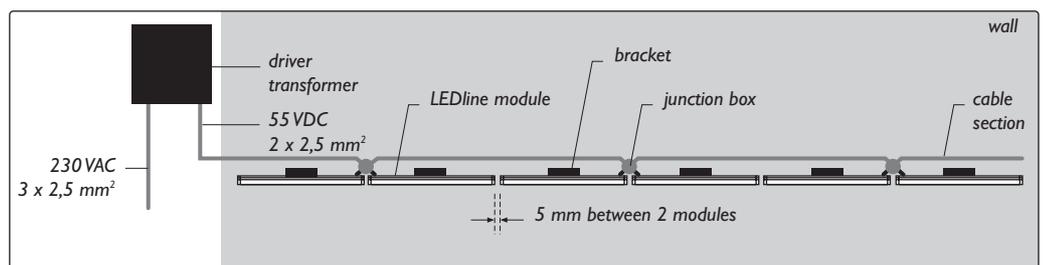
- Consumption 60W per metre (consumption of driver included)
- Optical unit HO7RN-F cable: section $2 \times 1 \text{ mm}^2$; length 1m
- Driver 'IN' Mains : 230VAC
- Driver 'OUT' Mains : 55 VDC - HO7RN-F cable section $2 \times 2.5 \text{ mm}^2$

installation

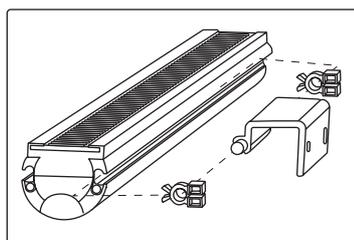
- The optical module can be fixed to the wall or other surface by means of a universal bracket; tiltable from -15° to $+45^\circ$
- The remote driver (230VAC / 55VDC).
- Only one junction box, connector 16 A (not supplied) for 2 optical units is needed for the electrical connection on the mains VDC.



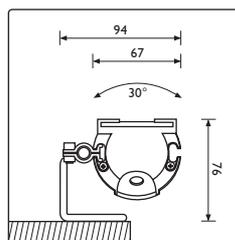
optical modules lengths



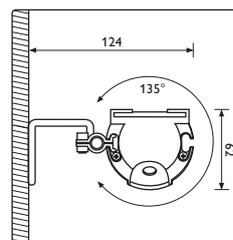
wiring diagram



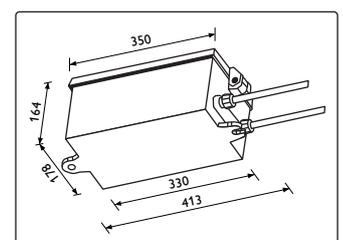
bracket



surface mounting



wall mounting



driver



LEDline

designation		colour	EOC
BCS703	AM PM CLIII	Amber	57543800
BCS703	RD PM CLIII	Red	57544500
BCS703	BL PM CLIII	Blue	57545200
BCS703	GN PM CLIII	Green	57546900
BCS703	WH PM CLIII	White	57547600
BCS706	AM PM CLIII	Amber	57548300
BCS706	RD PM CLIII	Red	57549000
BCS706	BL PM CLIII	Blue	57550600
BCS706	GN PM CLIII	Green	57551300
BCS706	WH PM CLIII	White	57552000
BCS709	AM PM CLIII	Amber	57553700
BCS709	RD PM CLIII	Red	57554400
BCS709	BL PM CLIII	Blue	57555100
BCS709	GN PM CLIII	Green	57556800
BCS709	WH PM CLIII	White	57557500
BCS712	AM PM CLIII	Amber	57558200
BCS712	RD PM CLIII	Red	57559900
BCS712	BL PM CLIII	Blue	57560500
BCS712	GN PM CLIII	Green	57561200
BCS712	WH PM CLIII	White	57562900
GCS700	230V AC/55V DC CLI	Grey	57563600

ordering information

Please contact your local Philips sales representative for assistance, additional technical specifications, photometrical data and information on prices and delivery time.