LEDline²

DESIGNATION

				EOC static version	EOC 0-10V DC (D9)*	EOC DALI (D7)*
Surface	BCS713		12LED-LXN WH EB 230-240V I NB6	714141 00	714158 00	714165 00
	BCS713		12LED-LXN WH EB 230-240V I WB60	714172 00	714189 00	714196 00
	BCS713		12LED-LXN BL EB 230-240V I NB6	714202 00	714219 00	714226 00
	BCS713		12LED-LXN BL EB 230-240V I WB60	714233 00	714240 00	714257 00
	BCS713		12LED-LXN RD EB 230-240V I NB6	714264 00	714271 00	714288 00
	BCS713		12LED-LXN RD EB 230-240V I WB60	714295 00	714301 00	714318 00
	BCS713		12LED-LXN GN EB 230-240V I NB6	714325 00	714332 00	714349 00
	BCS713		12LED-LXN GN EB 230-240V I WB60	714356 00	714363 00	714370 00
	BCS713		12LED-LXN AM EB 230-240V I NB6	714387 00	714394 00	714400 00
	BCS713		12LED-LXN AM EB 230-240V I WB60	714417 00	714424 00	714431 00
	BCS716		24LED-LXN WH EB 230-240V I NB6	714448 00	714455 00	714462 00
	BCS716		24LED-LXN WH EB 230-240V I WB60	714479 00	714486 00	714493 00
	BCS716		24LED-LXN BL EB 230-240V I NB6	714509 00	714516 00	714523 00
	BCS716		24LED-LXN BL EB 230-240V I WB60	714530 00	714547 00	714554 00
	BCS716		24LED-LXN RD EB 230-240V I NB6	714561 00	714578 00	714585 00
	BCS716		24LED-LXN RD EB 230-240V I WB60	714592 00	714608 00	714615 00
	BCS716		24LED-LXN GN EB 230-240V I NB6	714622 00	714639 00	714646 00
	BCS716		24LED-LXN GN EB 230-240V I WB60	714653 00	714660 00	714677 00
	BCS716		24LED-LXN AM EB 230-240V I NB6	714684 00	714691 00	714707 00
	BCS716		24LED-LXN AM EB 230-240V I WB60	714714 00	714721 00	714738 00
	BCS722		48LED-LXN WH EB 230-240V I NB6	714745 00	714752 00	714769 00
	BCS722		48LED-LXN WH EB 230-240V I WB60	714776 00	714783 00	714790 00
	BCS722		48LED-LXN BL EB 230-240V I NB6	714806 00	714813 00	714820 00
	BCS722		48LED-LXN BL EB 230-240V I WB60	714837 00	714844 00	714851 00
	BCS722		48LED-LXN RD EB 230-240V I NB6	714868 00	714875 00	714882 00
	BCS722		48LED-LXN RD EB 230-240V I WB60	714899 00	714905 00	714912 00
	BCS722		48LED-LXN GN EB 230-240V I NB6	714929 00	714936 00	714943 00
	BCS722		48LED-LXN GN EB 230-240V I WB60	714950 00	714967 00	714974 00
	BCS722		48LED-LXN AM EB 230-240V I NB6	714981 00	714998 00	715001 00
	BCS722		48LED-LXN AM EB 230-240V I WB60	715018 00	715025 00	715032 00
Surface Balcony	BCS716		6LED-LXN WH EB 230-240V I WB60	715049 00	715056 00	715063 00
	BCS716		6LED-LXN BL EB 230-240V I WB60	715070 00	715087 00	715094 00
	BCS716		6LED-LXN RD EB 230-240V I WB60	715100 00	715117 00	715124 00
	BCS716		6LED-LXN GN EB 230-240V I WB60	715131 00	715148 00	715155 00
	BCS716		6LED-LXN AM EB 230-240V I WB60	715162 00	715179 00	715186 00
	BCS722		12LED-LXN WH EB 230-240V I WB60	715193 00	715209 00	715216 00
	BCS722		12LED-LXN BL EB 230-240V I WB60	715223 00	715230 00	715247 00
	BCS722		12LED-LXN RD EB 230-240V I WB60	715254 00	715261 00	715278 00
	BCS722		12LED-LXN GN EB 230-240V I WB60	717685 00	715285 00	715292 00
	BCS722		12LED-LXN AM EB 230-240V I WB60	715308 00	715315 00	715322 00
Recessed**	BBS713		12LED-LXN WH EB 230-240V I NB6	715339 00	715346 00	715353 00
	BBS713		12LED-LXN WH EB 230-240V I WB60	715360 00	715377 00	717432 00
	BBS713		12LED-LXN BL EB 230-240V I NB6	715384 00	715391 00	715407 00
	BBS713		12LED-LXN BL EB 230-240V I WB60	715414 00	715421 00	715438 00
	BBS713		12LED-LXN RD EB 230-240V I NB6	715445 00	715452 00	715469 00
	BBS713		12LED-LXN RD EB 230-240V I WB60	715476 00	715483 00	715490 00
	BBS713		12LED-LXN GN EB 230-240V I NB6	715506 00	715513 00	715520 00
	BBS713		12LED-LXN GN EB 230-240V I WB60	715537 00	715544 00	715551 00
	BBS713		12LED-LXN AM EB 230-240V I NB6	715568 00	715575 00	715582 00
	BBS713		12LED-LXN AM EB 230-240V I WB60	715599 00	715605 00	715612 00
	BBS716		24LED-LXN WH EB 230-240V I NB6	715629 00	715636 00	715643 00
	BBS716		24LED-LXN WH EB 230-240V I WB60	715650 00	715667 00	715674 00
	BBS716		24LED-LXN BL EB 230-240V I NB6	715681 00	715698 00	715704 00
	BBS716		24LED-LXN BL EB 230-240V I WB60	715711 00	715728 00	715735 00
	BBS716		24LED-LXN RD EB 230-240V I NB6	715742 00	715759 00	715766 00
	BBS716		24LED-LXN RD EB 230-240V I WB60	715773 00	715780 00	715797 00
	BBS716		24LED-LXN GN EB 230-240V I NB6	715803 00	715810 00	715827 00
	BBS716		24LED-LXN GN EB 230-240V I WB60	715834 00	715841 00	715858 00
	BBS716		24LED-LXN AM EB 230-240V I NB6	715865 00	715872 00	715889 00
	BBS716		24LED-LXN AM EB 230-240V I WB60	715896 00	715902 00	715919 00
Flood***	BVS733		36LED-LXN/AM/GN/BL EB I NB6	715926 00	715933 00	715940 00
	BVS733		36LED-LXN/BL/BL/BL EB I NB6	715957 00	715964 00	715971 00

Accessories	ZCS711	MB	Mounting Bracket	718088 00

For more information
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ECS PHILIPS LIGHTING CONTROLS

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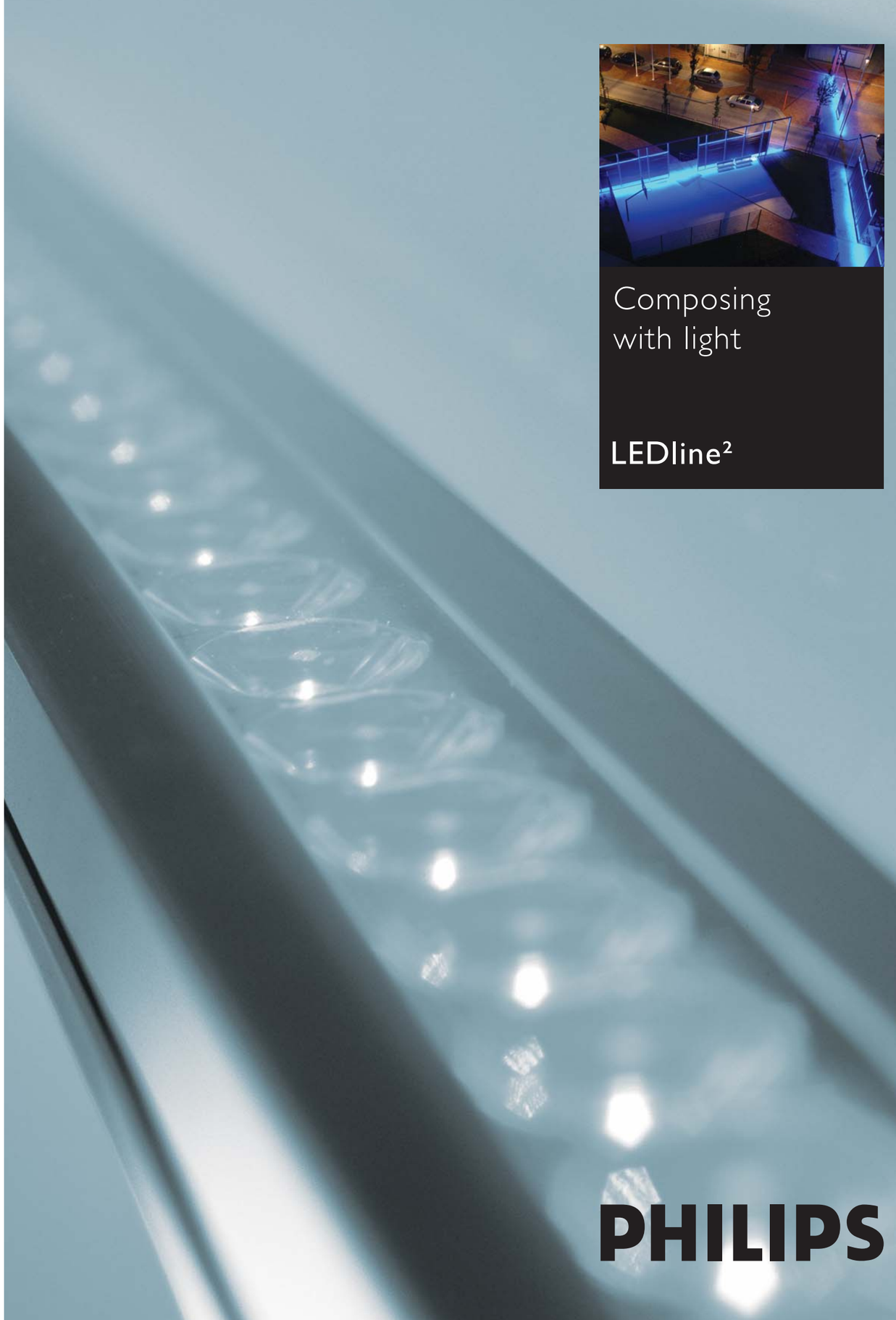
Legend
BBS716 24LED-LXN WH EB 230-240V I WB60
Module type
Number of LEDs
LEDs type
LEDs Colour
Electronic ballast
Insulation class
Wide beam 2 x 30°

NB6 Narrow beam 2 x 3°
*(D9) at the end of the designation means version including 0-10V DC protocol, available in 2005
*(D7) at the end of the designation means version including DALI protocol, available in 2005
** recessing box supplied with the luminaire as standard
*** other colours configuration on request, DALI or 1-10V DC on request

PHILIPS



Composing with light

LEDline²

PHILIPS

Zonnebloempark
Nieuwpoort, Belgium
Michel Pauwels

Orchestrating the nightscape

Architectural lighting plays a central role in the way people feel about their living environment. Employed imaginatively, light can be used to reinterpret everyday city objects and buildings, elevating them from the mundane to the poetic.
By shaping new experiences and emotions, lighting can help build an inclusive, socially dynamic city. As night falls, the architecture of a town or city is expressed through light rather than structure. With the lighting designer seeking to orchestrate the nightscape in a way that resonates for citizens and visitors alike, the individual buildings become the crotchets and quavers on his score, with light providing the rythm and harmony to bring the arrangement to life.

And now Philips is expanding the tonal palette with LEDline², a new lighting concept based on cutting-edge LED technology, providing designers with an additional set of tools to turn their creative vision into reality.
Opening up a virtually infinite range of effects, LEDline² is a versatile range of floodlights that allows light to fill or underline, graze or pinpoint, mark or blend. Available in four colours plus white, the linearity of LEDline² complements the geometry of the architecture, turning surfaces into 'curtains' of light, and transforming light into objects.
In short, LEDline² represents a new language in outdoor lighting.

Turning the city into art

LEDline² is a new linear LED-based floodlighting range, for use in illuminating and enhancing both contemporary and historical architecture.
The controlled soft-wash effect of LEDline² creates planes of light, transforming the surfaces with colour, so that when night falls the light appears to become an integral element of the architecture.

Architecture, structure and landscape
On a surface, on a landscape, on a bridge structure, the grazing light from LEDline² softly reveals form and texture, creating unforgettable effects through the use of colours on different materials. Precision beam control enables the designer to generate precise blocks of light and colour to highlight form and structure. For the people in the city, the astounding richness and intensity of the light will bring an entirely new and inspired dimension to the night-time cityscape.

Limited access
LEDs can be a huge help in areas in which we currently find it difficult and/or costly to install and maintain fixtures, such as bridges, high structures and obstruction lighting.

Pedestrian lighting
In-ground floodlights have been very popular in recent years, with designers wanting to achieve clean lines and minimise the appearance of exterior lighting fixtures. Since LEDs do not generate any directly radiated UV or heat, they are suited to lighting of heritage buildings and vegetation with no risk of damage.

Dynamic and interactive lighting
LEDs offer us exciting possibilities: they allow us to play with light in a way that we never have before. LEDs can change their light in response to external stimuli, either automatic (weather, time or season) or manual (push button or electronic interface). We can borrow from theatrical effects and play with colour temperature to set the mood and reflect the seasons, with literally millions of possible colours and combinations.

Parc de stationnement Saint Antoine
Lyon, France
Georges Verney-Carron

Play the light

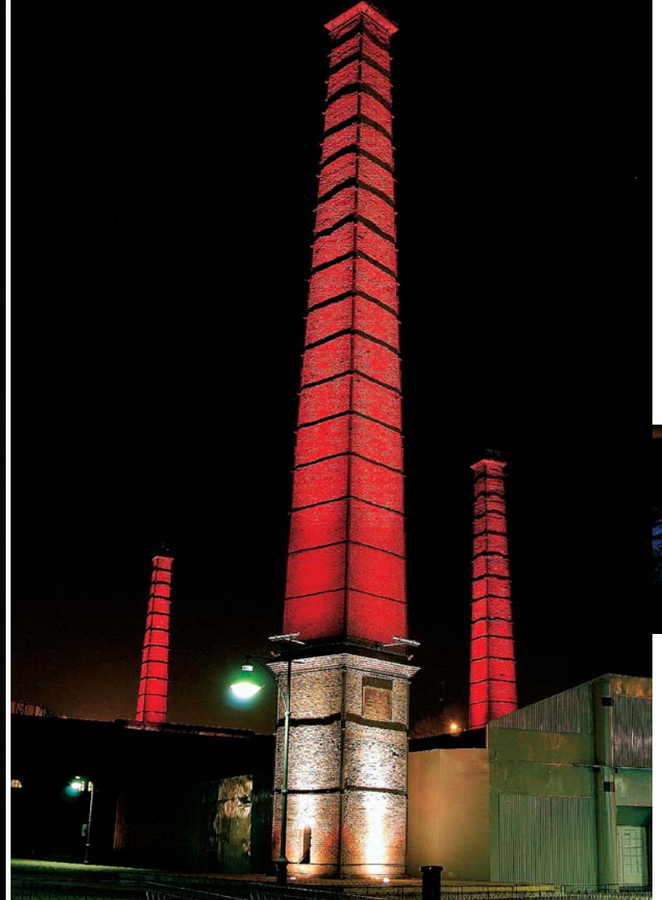
LEDline² offers lighting designers a virtually unlimited range of options for creating appealing light effects. For example, colour contrast using a red / blue combination, transforms the floor with swathes of light. Strong clarity and continuity of colour emphasise the directionality and magic spirit of the path.

Additive colour mixing using red / blue and green with areas of shadow creates a show-stopping effect, that makes use of the texture of the material; the stone becomes a surrealist painting.

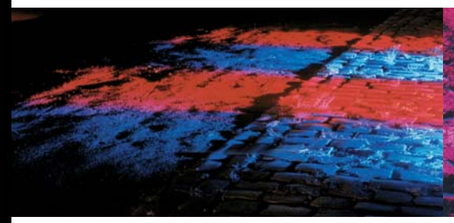
Whilst outdoors, foliage, branches and trees lit with a mix of blue / green light have a supernatural, enchanted look. The colours both blend and contrast with nature, resulting in a heightened sense of reality.

Grues «Picasso»
Rouen, France
Gérald Ellen

Technopolis centre
Athens, Greece
Duilio Passariello

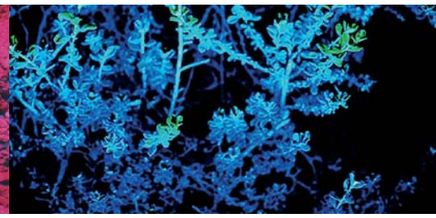


La Salle du Manège
La Roche-sur-Yon, France
Philips Lighting



Colour contrast using a red / blue combination

Additive colour mixing using red, blue and green



Foliage, branches and trees lit with a mix of blue / green light

LEDline²: a complete range for every situation

The LEDline² range represents a perfect combination of high-power Luxeon™ LEDs, new dedicated optics, high-quality materials and lighting electronics. The range comprises three unique models for the widest possible coverage of grazing-light applications.
LEDline² features the latest technical innovations to facilitate installation, including an integrated power supply; all versions are dimmable as an option: with 0-10 V or DALI.
The linearity of LEDline² is designed to complement the geometry of the architecture, turning surfaces into 'curtains' of light, and transforming light into objects.

Beams

Containing high-power Luxeon™ LEDs, the LEDline² range features precise light distribution, uniform illuminance, and is ideal for scene-setting. The unique collimating optic specific to LEDline² generates unrivalled power, enabling the designer to create a strong, continuous wash of light. To further extend the application possibilities, the LEDline² family includes a selection of secondary optic that widens the beam.

Discreet presence

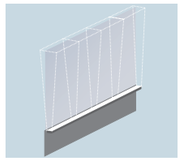
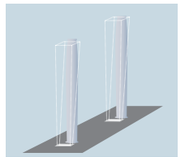
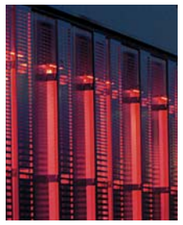
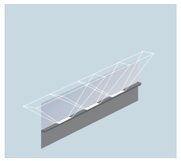
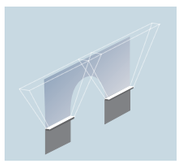
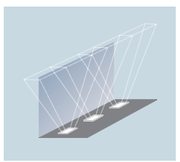
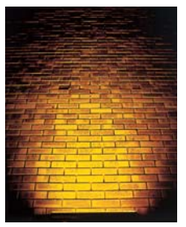
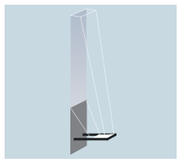
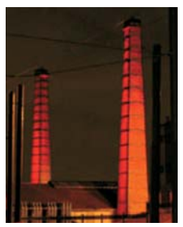
With its smooth, clean product architecture, LEDline² has been designed to blend into its surroundings with minimal visual disturbance. As the LEDline² module is available in different lengths, the luminaire installation can be tailored exactly to the architectural structure. The discreet design puts the focus squarely on the lighting solution.

LEDs

The LEDline² modules are based on Luxeon™ high power LEDs – a revolutionary energy-efficient and ultracompact new light source combining the lifetime and reliability of light-emitting diodes with the brightness of conventional lighting.

Key features of Luxeon™ high-power light-emitting diodes (1W)

- Tiny compact sources.
- Low voltage, cool beam.
- No UV, no IR, resulting in improved safety, especially for public areas.
- High lumen output, 5 pure saturated colours:
  blue (470 nm), 10 lm (typical)
  red (629 nm), 44 lm (typical)
  amber (590 nm), 36 lm (typical)
  green (530 nm), 30 lm (typical)
  white (IRC = 70, 5500 °K), 30 lm (typical).
- Instant light for dimming.
- Environmentally sound: no toxic metals used.
- Long operating life.

Optic types	Details	Schemes		Example 1	Example 2	Example 3	Application
NARROW BEAM	 • 2 x 3° • Collimating lenses • 40 LEDs per metre	 • Facade (surface) • Wash of light covering more than 9 m	 • Column (recessed) • Wash of light covering more than 9 m				
WIDE BEAM **Balustrade**	 • 2 x 27°- horizontal plane • Collimating lenses and complementary secondary optic • 10 LEDs per metre	 • Balustrade lighting • Soft wash of light covering 1 to 2 m					
WIDE BEAM	 • 2 x 27°- horizontal plane • Collimating lenses and complementary secondary optic • 40 LEDs per metre	 • Facade (surface) • Wash of light covering 4 to 5 m	 • Facade (recessed) • Wash of light covering 4 to 5 m				
NARROW BEAM **Flood**	 • 2 x 3° • Collimating lenses • 40 LEDs per metre	 • Tower • Wash of light covering more than 20 m					

Product information

SURFACE VERSIONS
BCS 713 – BCS 716 – BCS 722
Linear surface-mounted LED floodlights

Product Description

Main Features
- LEDline² features a choice of lengths: 300 / 600 / 1200 mm to suit the architecture.
- Collimating lens is 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 x 3°).
- The secondary optic widens and smooths the beam in the horizontal plane (2 x 27°).
- The optical units are fixed close to the surface to be lit by means of an universal bracket.
- Smaller, sleeker, brighter with long life and practical maintenance-free advantages of contemporary high-power Luxeon™ LEDs.
- Long lifetime: 50 000 hours; -30% flux depreciation.

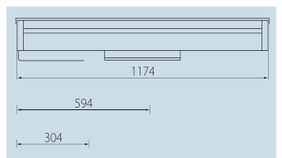
Materials and finish
- All modules and the bracket are made of anodised extruded aluminium.
- Mid-grey polycarbonate end caps display the Philips brand name.
- Flush and clear front cover made of PMMA.
- All screws made of electro-zinc-plated steel.

Electrical features
- Integrated mains supply: 230/240 V AC – 50/60 Hz
- The optical unit is supplied with a HO7RNF cable section 3 x 1.5 mm², length 1 m.
- For dimming, two protocols are available: DALI and 0-10 V DC, HO7RNF cable section 2 x 1 mm², length 1 m.
- Consumption: 65 W per metre (typical).

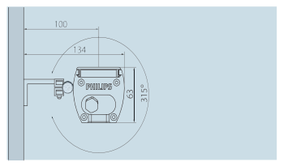
Installation
- Wall and surface mounting; the optical module can be fixed in position by means of an universal and tiltable bracket.
- Safe because of the low temperature of the surface (50 °C)
- Only one junction box (not supplied) for 2 optical units is needed for electrical connection to the mains V AC.

Classification
- IP66
- Ambient temperature: -20 °C to 35 °C
- Class I
- Glow wire test 650 °C
- Optical module sealed for life
- EN60598-1 / IEC 598-1

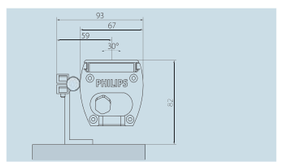
Measurements



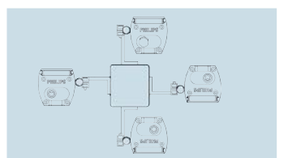
Length of optical modules



Wall mounting



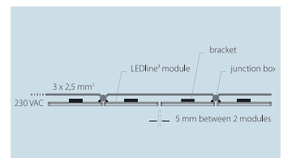
Surface mounting


Wall and surface mounting positions; uplighting or downlighting

Light Effects


Kindergarten, Udenheim, Germany

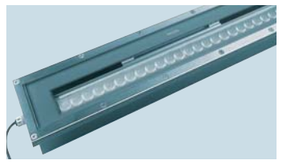
Details



Wiring diagram


Bracket – « 0 » reference point for installation

RECESSED VERSIONS
BBS 713 – BBS 716
Recessed linear LED floodlights



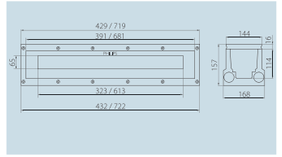
Main features
- LEDline² features two lengths to suit the architecture.
- Linear recessed version supplied with the collimating lens (2 x 3°) and also with secondary optic (2 x 27°).
- Static load = 2000 kg (pedestrian areas).
- Long lifetime: 50 000 hours; -30 % flux depreciation.
- Ingress protection secured by the silicone gasket.

Materials and finish
- Housing made of black painted cast aluminium.
- Frosted frame and screws made of stainless steel.
- Recessing box and its cover made of sheet steel.
- Tempered front glass with dark-grey screen print and transparent optical window.
- Optical module (see description above).

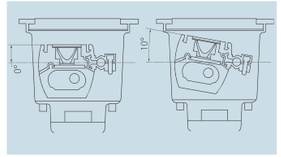
Electrical features
- Integrated mains supply: 230/240 V AC – 50/60 Hz Fixed at the bottom of the housing for better cooling.
- Two M20 cable glands suitable for looping connection (3 x 2.5 mm²); the luminaire is supplied with a HO7RNF cable section 3 x 1.5 mm², length 2m as standard.
- All gear components are integrated in the housing.
- Consumption 30 W, version with 24 LEDs (typical).
- Dimming option available on request; two protocols are available: DALI and 0-10 V DC.

Installation
- Recessed version supplied with sheet-metal recessing box and cover for ground or wall preparation: flush luminaire.
- Wall and in-ground position.
- Suitable for permanent installation in ground with drainage system.
- Internal optical unit tiltable 10 ° for accurate adjustment.
- Safe because of the low temperature of the surface (< 50 °C).
- Optimised distance wall / optical unit centre: 150 mm to 300 mm.
- One junction box (not supplied) for optical units is needed for electrical connection to the mains V AC.

Classification
- IP67
- Ambient temperature: -20 °C to 35 °C
- Class I
- Glow wire test 850 °C
- EN60598-1 / IEC 598-1

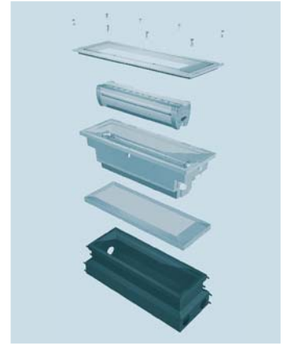


Dimensions of front view, housing and recessing box. 2 lengths available, based on 300 and 600 mm optical modules.



Optical module tilt


3 recessed LEDline² wide beam (BBS 716)
Distance wall / optical unit: 250 mm
Wall height: 4.5 m

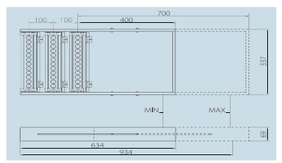

Exploded View

FLOOD VERSION
BVS 733
Surface-mounted Floodlight

General information
Surface-mounted LED floodlights (BVS 733) designed for close offset lighting; the continuous wash of light covering a variety of distances up to 25 m. The LEDline² Flood is based on an adjustable extruded-aluminium bracket integrating three independent LEDline² modules of 300 mm, which delivers a most powerful and homogeneous lighting effect.

Features and installation
- All characteristics are based on LEDline² modules for surface and wall applications.
- Each optical unit is supplied with a HO7RNF cable section 3 x 1.5 mm², length 2 m.
- On request, the optical unit can be supplied with another HO7RNF cable section 2 x 1 mm², length 2 m for dimming.
- The three independent optical modules are fixed together within a bracket made of anodised extruded aluminium; all three modules can be tilted separately +/- 15°.
- According to the height at which the light is aimed, the bracket is adjustable from 400 mm to 700 mm.
- The LEDline² Flood can be fixed at heights of up to 8 m on a wall, for uplighting and downlighting.

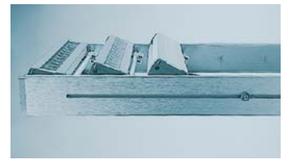
Classification
- IP66
- Ambient temperature: -20 °C to 35 °C
- Class I
- Glow wire test 650 °C
- Optical module sealed for life
- EN60598-1 / IEC 598-1



Dimensions


Mix of amber, green and blue modules
Wall height: 20 m


Adjustable bracket


Independent optical modules; tilt +/-15°