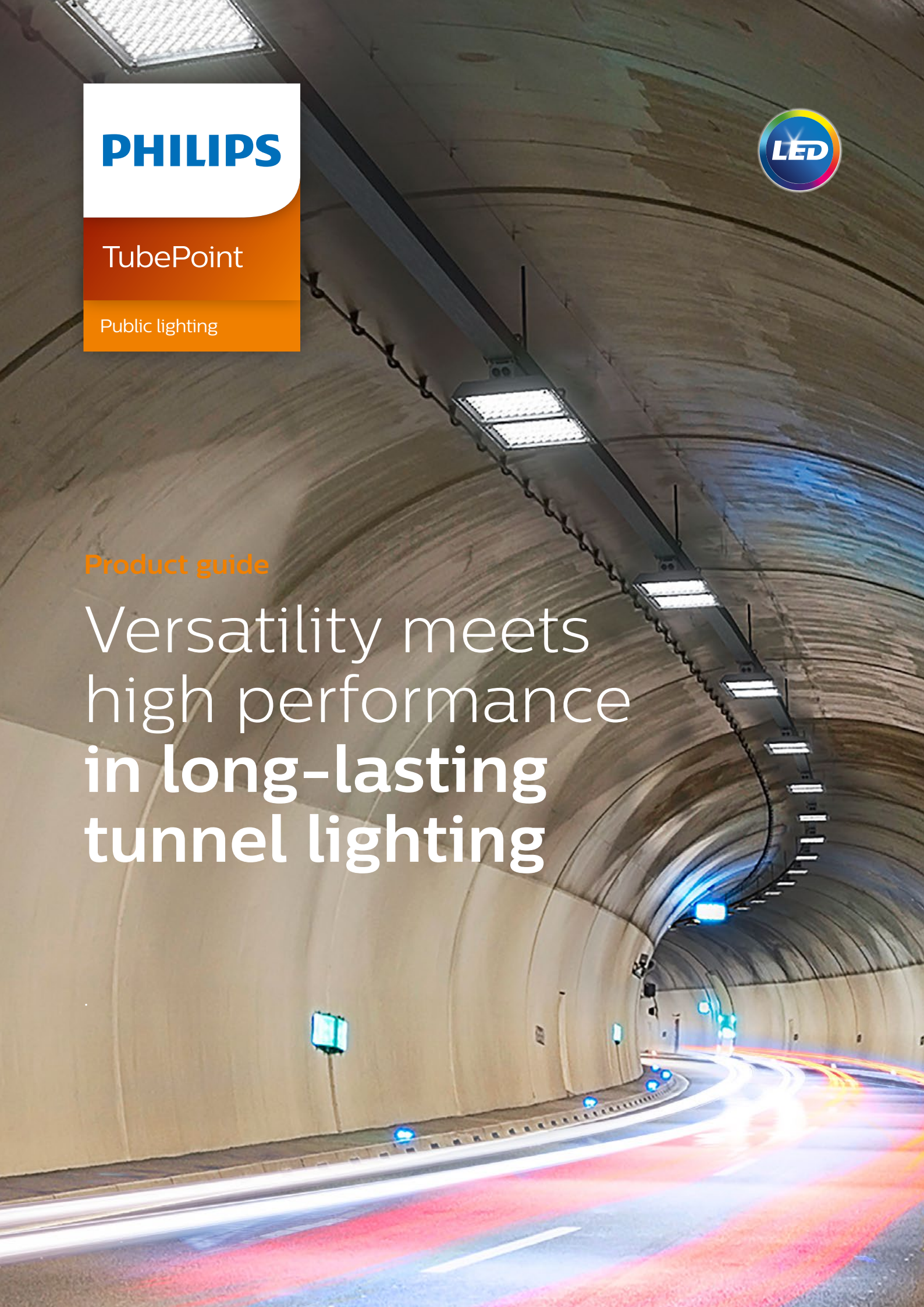

PHILIPS

TubePoint

Public lighting

Product guide

Versatility meets high performance **in long-lasting tunnel lighting**

TubePoint

Lighting the way from entrance to exit

With cities seeking to optimize traffic flow, improve infrastructure, enhance logistics and free up valuable space, tunnels are becoming essential. Tunnels, however, need excellent lighting that is safe, functional, and sustainable in the long-term. In addition, tunnel lighting needs to offer a favorable Return on Investment. Philips Lighting understands these needs and has created TubePoint, a versatile and high perfomance family of LED-based luminaires that is both flexible and long-lasting, and can be easily integrated into a complete tunnel lighting system.

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“At last, **versatile yet high performance and long-lasting tunnel lighting** – from entrance to exit.”

The versatile, modular solution

TubePoint has been specially designed for tunnel lighting applications. This complete, modular solution comes in a universal design and with a wide range of optics. Delivering high quality light, TubePoint ensures a comfortable driving experience. It also provides all the benefits of LED technology – energy savings, long lifetime, low maintenance and digital connectivity options – and is thus a future-proof investment for tunnels and underpasses.

Wide range of optics

TubePoint comes with lumen packages varying from 3 kLm to 61 kLm. A complete range of optics is available to cover a broad spectrum of tunnel applications, ensuring outstanding quality of light.

High level of flexibility

The TubePoint range offers different lumen packages for entrance, exit and interior point source lighting, and also meets the special needs of traffic underpasses. There are two versions of the luminaire available and four sizes to choose from, giving maximum flexibility in each application.

Performance combined with efficiency

The affordability of LED, combined with TubePoint's high lumen per watt at system level, leads to a favorable Return on Investment (ROI) and system energy savings of up to 80% compared to old, conventional lighting.

Easy to install

Thanks to its low weight, quick mounting brackets and plug and play connectivity, TubePoint can be installed in a minimum of time. Installation time and effort is further reduced by optional through wiring. Flexible mounting options for cable tray, wall and ceiling mounting add to the overall customizable design that ensures your specific preferences are fully met.

Future-proof investment

TubePoint is also offered as part of the TotalTunnel program, Philips' holistic approach to tunnel lighting. This intelligent and integrated approach, which offers benefits for owners, operators and tunnel users, makes investments in tunnel lighting truly future-proof.

Wide range of optics

High level of flexibility

Performance combined with efficiency

Easy to install

Future-proof investment

Family range

TubePoint comes in two versions:
Core and Performer.
Simply choose the version that
best suits your requirements

TubePoint Core
If your overriding requirement is low initial cost, then TubePoint Core is ideal. It's optimized for high lumen packages and comes with integrated drivers and a wide range of optics. It also offers basic control capabilities, can be combined with a third-party Powerline Module, and is provided with a basic finish and a flying lead cable with plug.

TubePoint Core operates at ambient temperatures up to 35°C and has a typical lifetime of up to 90k hours. A standard warranty of two years is provided.

TubePoint Performer
If your key requirements are long lifetime with low lifecycle costs and high performance, choose the TubePoint Performer. Offering extended control capabilities, it also comes with a wide range of optics as well as integrated and remote driver options.

TubePoint Performer offers plug and play connectivity (through wiring) and a high grade material and finish. Operation at ambient temperatures up to 45°C is possible, and a warranty of three years is provided as standard.

TubePoint Core version

TubePoint Performer version

Family range

All types are available in Core and Performer versions

TubePoint Mini
BGP221 (Core)/ BGP231 (Performer)

TubePoint Small
BGP222(Core)/ BG232 (Performer)

TubePoint Medium
BGP223 (Core)/ BGP233 (Performer)

TubePoint Large
BGP224 (Core)/ BGP234 (Performer)

TubePoint luminaires can also be ordered without integrated drivers. In this case they are powered by remote multi-driver units mounted outside the driving envelope.

Metis drivers, for example, are well suited as remote driver units for tunnel applications. Extension leads can be used to connect the LED units to the remote multi-driver unit.

Remote driver unit EGP400

TubePoint Performer Large

MBQ bracket (S, M and L)
Quick release bracket

MBA bracket
Tilted bracket

Applications

Travel safely through the tunnel

The TubePoint range is suitable for entrance, exit and interior point source lighting.

At the **tunnel entrance**, TubePoint provides high lumen packages with optimized counterbeam and symmetrical distribution. High lumen packages can be used for entrance lighting to ensure a smooth transition from the bright outdoor conditions to those inside the tunnel.

Inside the tunnel, low lumen packages, in combination with a wide range of symmetrical light distributions ensure optimal lighting and a safe driving environment.

When drivers **leave the tunnel**, their eyes need to quickly adapt to the outside light conditions to avoid even the slightest hesitancy or indecision. TubePoint provides this thanks to medium to high lumen packages, a counter beam and symmetrical lighting distribution.

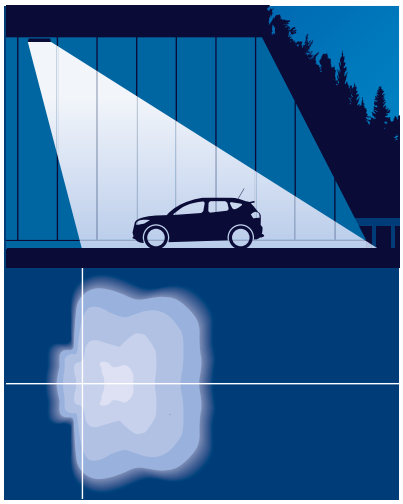
And what's more, these features also make TubePoint ideal for meeting the special needs of **traffic underpasses.**

Tunnels and underpasses
- Tunnel entrance
- Tunnel interior
- Tunnel exit

Lighting **performance**

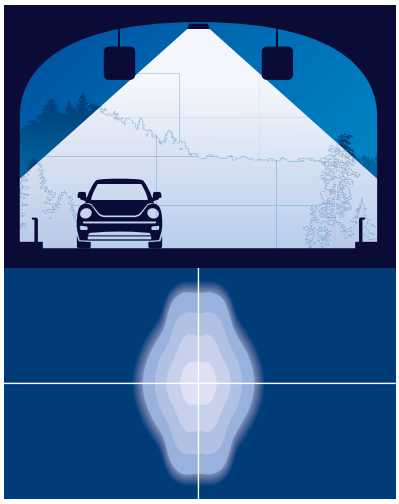
TubePoint offers outstanding flexibility in terms of lighting distributions and luminous flux making it suitable for many different applications.

DTCB Distribution Counterbeam



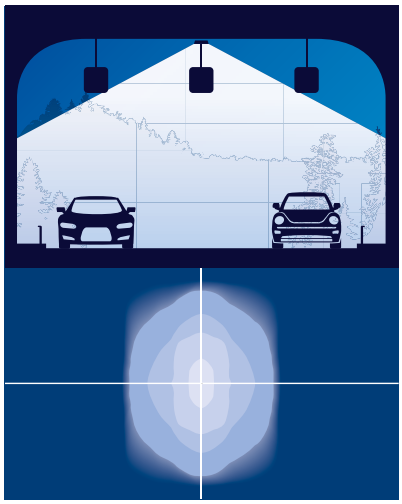
Entrance lighting. Typical 2-3 lane tunnel/ central configuration

DTS Distribution Symmetrical Standard



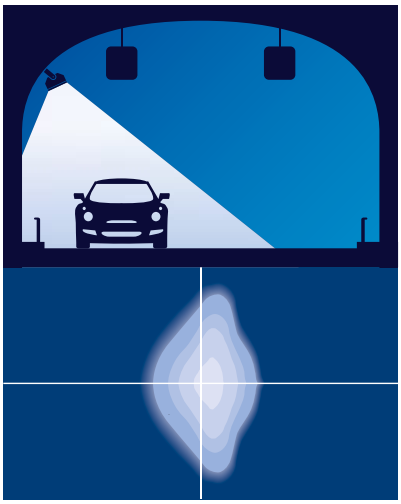
Entrance and interior lighting. Typical 2 lane tunnel/central configuration

DTS-WB Distribution Symmetrical Wide



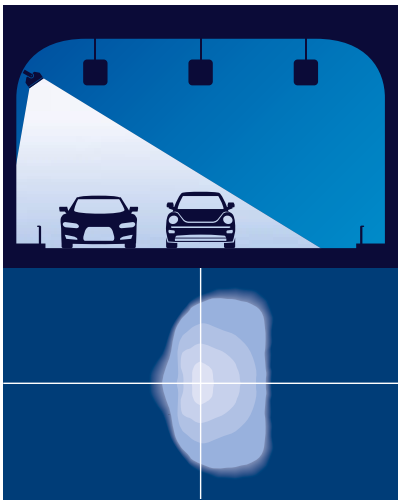
Entrance and interior lighting. Typical 3 lane tunnel/central configuration

DTA Distribution Asymmetrical Standard



Entrance and interior lighting. Typical 2 lane tunnel/central configuration

DTA-WB Distribution Asymmetrical Wide



Entrance and interior lighting. Typical 3 lane tunnel/central configuration

Installation and maintenance

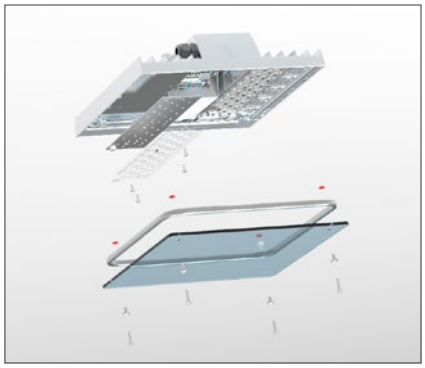
TubePoint is quick and efficient to install thanks to its low weight, the use of quick mounting brackets, and plug and play connectivity (through wiring).

Mounting options include: cable tray mounting (with quick release brackets in different dimensions); adjustable wall mounting; and ceiling mounting. All mounting brackets are stainless steel and have galvanic separation from the luminaire and the mounting structure.

Easy maintenance

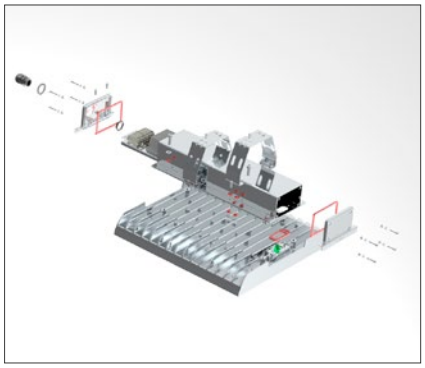
Even though TubePoint is built to last a lifetime, it is designed to make maintenance easy. In only a couple of minutes, service engineers can access the most critical components on site using only a screwdriver.

For other maintenance activities, TubePoint can be completely disassembled, because no glue is used; everything is fixed with screws. The driver and LED unit are fully repairable off-site, and spare parts are readily available.



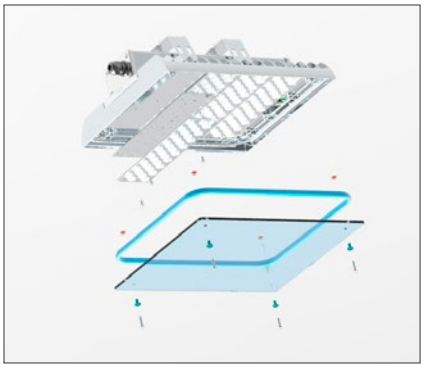
Tubepoint Mini

By releasing the cover, both the LEDs and the driver are accessible for maintenance



The modular solution

By opening the end caps the gear tray can slide out and the driver is accessible for maintenance



The modular solution

By releasing the cover, the LEDs are accessible for maintenance

TubePoint **in control**

By adding controls to your tunnel lighting, you optimize the total installation and ensure that you get the greatest value from your TubePoint investment.

One of the advantages offered by lighting controls is that they continuously adapt the lighting to the changing brightness outside the tunnel, so that the driver experiences a smooth transition when entering, passing through and exiting the tunnel. In addition, lighting controls provide valuable status and health information about the tunnel lighting installation.

TunneLogic
TubePoint Performer can be connected to **TunneLogic**, Philips' advanced tunnel control and monitoring system designed specifically for LED technology. The control system, which is easy to install, commission, operate and maintain, provides the customer with safe lighting control and information on the health of the installed lighting system.

BaseLogic
Alternatively, TubePoint can be connected to **BaseLogic**, a retrofit entry level adaptive control lighting system. BaseLogic communicates via the powerline and incorporates enterprise server software and a photometer, tunnel control unit, data transmitter and monitoring module.

TotalTunnel,
the end-to-end solution

TubePoint is also offered as part of the TotalTunnel program, Philips' holistic approach for tunnel lighting that combines a networked lighting system with a full set of services.

This intelligent and integrated tunnel lighting solution brings benefits for tunnel owners and operators, tunnel users, installation and maintenance companies by creating a safe, energy efficient, and compliant tunnel design.

TotalTunnel consists of five key building blocks: luminaires, guidance lighting, dynamic control systems, architectural lighting and services.

Luminaires

Our LED luminaires are designed to deliver functional tunnel lighting that ensures a safe journey and excellent efficiency, supporting all main tunnel lighting techniques.

Guidance lighting

Our state-of-the-art guidance lighting solution keeps traffic moving, bringing increased driver comfort and maximum safety.

Dynamic control systems

From basic controls to elaborate monitoring systems, our lighting control systems give you full control over the total lighting system.

Architectural lighting

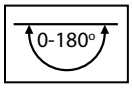
To help reduce the feeling of monotony, improve spacial awareness and add to the driving experience.

Services

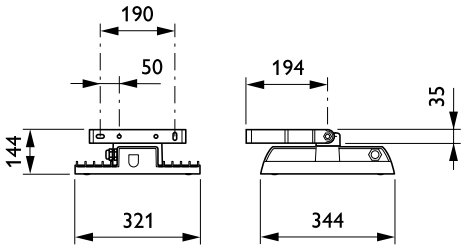
From concept design and commissioning to lifecycle services including maintenance and performance optimization, Philips can deliver you a turnkey project. It's the surest way to protect your investment.

Dimensional drawings

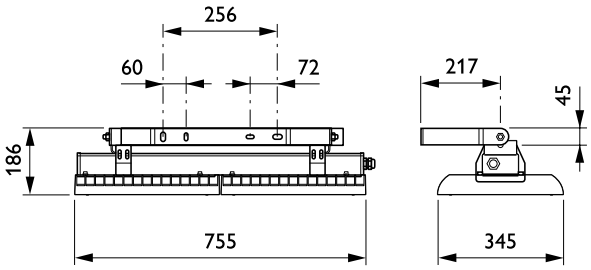
TubePoint Performer version



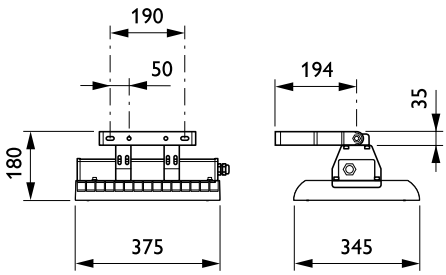
TubePoint Performer BGP231 (Mini)



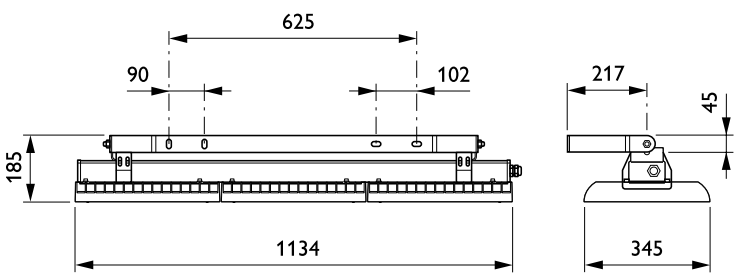
TubePoint Performer BGP233 (Medium)



TubePoint Performer BGP232 (Small)

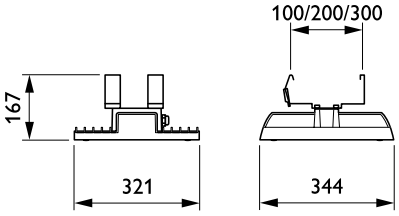


TubePoint Performer BGP234 (Large)

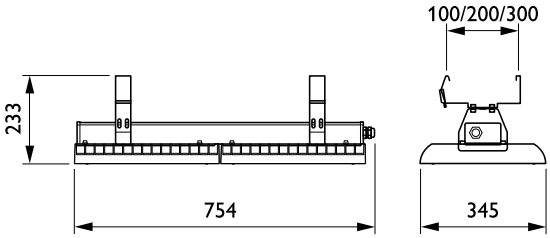


TubePoint Core version

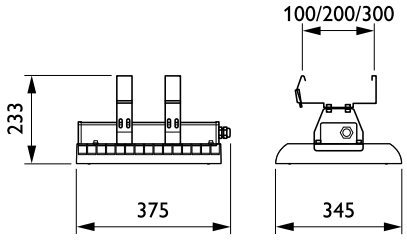
TubePoint Core BGP221 (Mini)



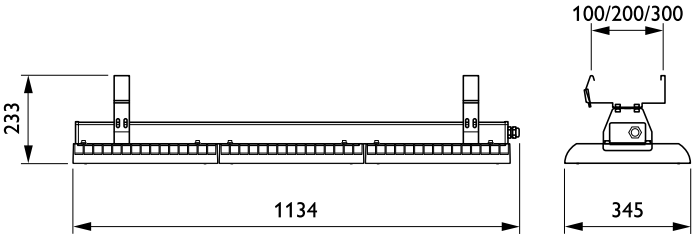
TubePoint Core BGP223 (Medium)



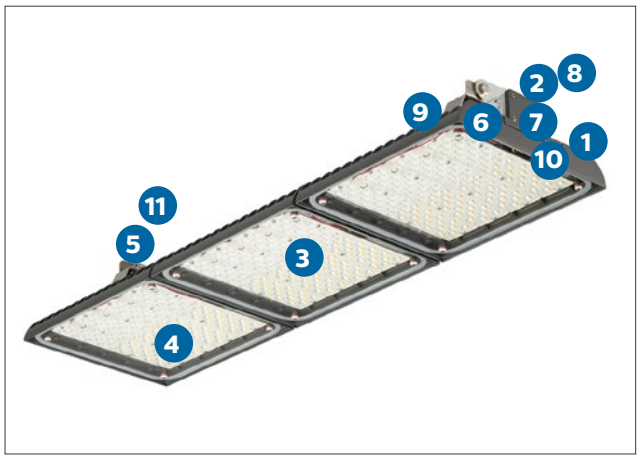
TubePoint Core BGP222 (Small)

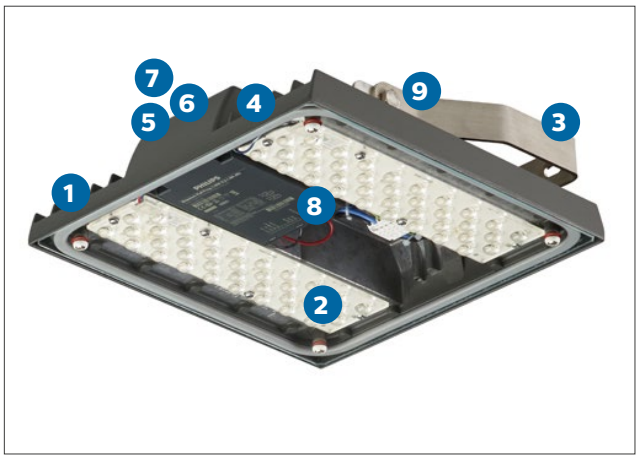


TubePoint Core BGP224 (Large)



Components





Modular construction

1 **Housing:** Driver compartment on the back retaining up to three LED units

2 **Driver compartment:** Extruded Aluminum driver compartment, (AlMg Si 0.5) anodize (25um), with diecasted endcaps (powder coated Aluminum LM6)

3 **LED unit:** up to 3 diecasted LED units (powder coated, Aluminum LM6)

4 **Glass cover:** thermally toughened and assembled with 4 screws

5 **Mounting brackets**: Stainless steel (304) Base bracket (BA), suitable for additional ceiling (MB), wall (MBA) or quick release (MBQ) brackets

6 **Connectivity:** plug connections mounted on the endcaps or flying leads (LSOH)

7 **Driver unit:** equipped with fuse accessible from the outside

8 **Gear:** maximum of one LED driver in the small version, two in the medium version and three in the large version. The drivers are programmable and fully compliant with our TunneLogic control and monitoring system

9 **Remote gear:** optional, remote gear in combination with the EGP400 multi driver unit

10 **Wiring:** options for through wiring to ensure efficient cabling

11 **Galvanic separation:** brackets are fully galvanically separated from the Aluminum parts

TubePoint Mini construction

1 **Housing:** Integrated compartment (powder coated Aluminum LM6), both for gear and LEDs

2 **Glass cover:** thermally toughened and assembled with 4 screws

3 **Mounting brackets:** Stainless steel (304) Base bracket (BA), suitable for additional ceiling (MB), wall (MBA) or quick release (MBQ) brackets

4 **Connectivity:** plug connections at gear compartment or flying leads (LSOH)

5 **Driver unit:** equipped with fuse accessible from the outside

6 **Gear:** equipped with one LED drive. The drivers are programmable and fully compliant with our TunneLogic control and monitoring system

7 **Remote gear:** optional, remote gear in combination with the EGP400 multi driver unit

8 **Wiring:** options for through wiring to ensure efficient cabling

9 **Galvanic separation:** brackets offer full galvanic separation from the Aluminum parts

Specifications

Name	TubePoint Core	TubePoint Performer
Product Family Code (PFC)	BGP221, BGP222, BGP223, BGP224	BGP231, BGP232, BGP233, BGP234
“Range: LED lumens (±7%) /	Mini: BGP221 => Max. 10,000 lm (81 W)	Mini: BGP231 => Max. 9,000 lm (73 W)
Total system watt (±11%)”	Small: BGP222 => Max. 19,000 lm (152 W)	Small: BGP232 => Max. 17,000 lm (134 W)
	Medium: BGP223 => Max. 38,000 lm (305 W)	Medium: BGP233 => Max. 34,000 lm (270 W)
	Large: BGP224 => Max. 61,000 lm (476 W)	Large: BGP234 => Max. 52,000 lm (409 W)
“Luminaire/system efficacy (incl Optical and driver efficacy)”	> 100 Lm/W	
CCT and CRI	CCT: 4000 K (NW) and CRI >80	
Inrush current	Philips Qitanium outdoor drivers	
“System life/lumen maintenance (system = light modules & drivers)”	L80B10 = min 90.000 hours	L80B10 = 100.000 hours
Light distributions / Optics	DTCB; DTS; DTS-WB; DTA; DTA-WB	
	Optic lenses behind glass cover. Optic material: plastic (PC)	
Operating temperature range	-30 to +35ºC	-30 to 45ºC depend on version
Electrical insulation class	Class I or Class II	
IK rating	IK08	
IP rating	IP66	
System surge protection	Standard 6 kV	Standard 10 kV
Material	Housing : Die-cast aluminum (LM6), finishing in powder painting	Housing : Die-cast aluminum (LM6), finishing in powder painting. Standard Marine Salt Protection (1000 hrs Salt Spray Test)
	Electric cover (rail): aluminum (AlMg Si 0.5) anodize (25 um)	
	RAL 7035	RAL 10714 (Philips Ultra dark grey) other colors are upon request
	Optic cover: Tempered flat glass (Extra white) 5 mm	
Weight excl. brackets (kg)	Mini: 4,4 Kg	
	Small: 7,3 Kg	
	Medium: 14 Kg	
	Large: 20,7 Kg	
Electrical connection	Flying lead, with or without plug (Wieland, Gewiss IEC309)	Socket connections on luminaire: Option loop IN/OUT 1: 1x IN and 1x OUT (Mains and DALI combined). Option Through wiring: Mains IN/OUT + DALI IN/OUT (Connectors: Wieland RST20i5)
Control	NC, option for non Philips PL module	Standard D9, optional D7
Cable type:	LS0H and FG7OM (others on request)	
Options	Optional 5700 K (CW) and CRI > 70	
	Constant Light Output (CLO)	
	Marine salt protected coating (MSP): standard for Performer, option for Core	
	Delivered with cable at project length (CFW)	
	Metal cable gland instead of PA	
	Through wiring or loop-in/loop-out	
	Other RAL & AKZO colors available	
Luminaire mounting	Ceiling mounting bracket (Stainless steel)	
	Quick relase bracket 100, 200, 300 mm by 75 mm (for cable tray mounting) Stainless steel AISI304	
	Adjustable Wall mounting bracket 0 to 90° (Stainless steel)	
	All brackets have galvanic separation (PA spacer) from Luminaire and mounting structure	
	Ready for other customized bracket	
Certification / Listing	CE, ENEC	
	Corrosion resistance: Salt Spray test 500 h	Corrosion resistance: Salt Spray test 1000 h compliant
Packaging	Carton box or multipack	

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