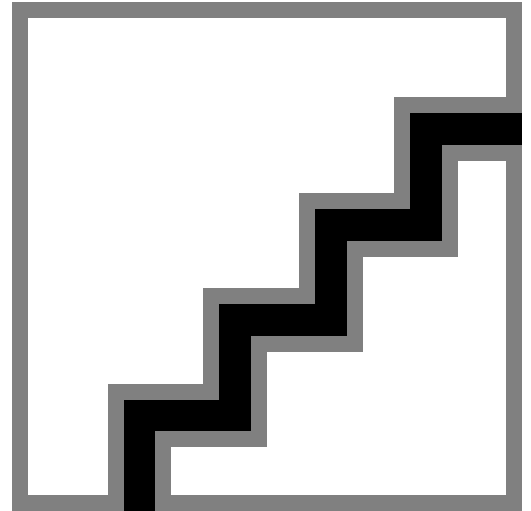




TubePoint - Luminaire range for traffic tunnels

TubePoint

Many tunnel authorities have an outdated tunnel lighting installation that urgently needs to be replaced, but have only limited budget available. We are able to fulfill their requirements. TubePoint is the result of years of experience in tunnel lighting combined with the latest technologies developed by Philips. With its modular design and modern LED architecture, TubePoint is a versatile, cost-effective luminaire that meets the most stringent tunnel lighting requirements. It is made of highest-quality components that are dedicated for tunnels, thus ensuring a long lifetime, good performance and low maintenance costs. The efficiency of the optics means the number of luminaires can be reduced significantly compared with a conventional solution. And a high lumen per watt ratio at system level improves the total cost of ownership. TubePoint is part of Philips' comprehensive solution for tunnel lighting.

Benefits

- Flexible mounting solution, quick release for easy maintenance
- Excellent quality optics, longer distance between luminaires
- Fast payback

Features

- Direct replacement of existing conventional luminaires (exceeding SON-T 400 W)
- Flexibility in application thanks to the large range of lumen outputs and tunnel optics
- Compatible with TunneLogic, BaseLogic and third-party Powerline control systems
- Option of remote driver for quick and easy maintenance
- Wide choice of mounting systems

Application

- Traffic tunnels and underpasses

Specifications

Type	BGP231 (mini version)
	BGP232 (small version)
	BGP233 (medium version)
	BGP234 (large version)
Light source	Integral LED-module
Power	Up to 450 W (depending on LED configuration)
Luminous flux	Up to 52,000 lm
Luminaire efficacy	> 100 lm/W
Correlated Color	4000 K (neutral white, NW)
Temperature	
Color Rendering Index	80
Lumen maintenance at median useful life*	min L80
100000 h	
Control gear failure rate at 10% median useful life 100000 h	
Performance Ambient Temperature T_a	+25 °C
Operating temperature range	-30 to +45 °C
Driver	Integrated or remote in driver box

Mains voltage	220-240 V / 50-60 Hz
Dimming	Local power line
	Constant Light Output (CLO)
	DALI
	Compatible with Tunnel Logic and 3-rd party PowerLine control systems
Options	Correlated Color Temperature 5700 K
	Surge protection device (SPD)
Optic	Tunnel asymmetrical (DTA)
	Tunnel counter-beam (DTCB)
	Tunnel symmetrical (DTS)
	Tunnel asymmetrical wide beam (DTA-WB)
	Tunnel symmetrical wide beam (DTS-WB)
Optical cover	Glass, flat
Material	Housing: die-cast aluminum, high pressure
	Top rail: extruded aluminum, anodized
	Cover: glass, thermally hardened, 5 mm thick
Color	Philips dark grey
	MSP powder painting
Connection	Flying lead with option for customer socket
Installation	Installation on tilted bracket 0-90° (wall or ceiling) or dedicated ceiling bracket

Versions

TubePoint Core BGP221 tunnel-lighting luminaire



TubePoint Core BGP222 tunnel-lighting luminaire



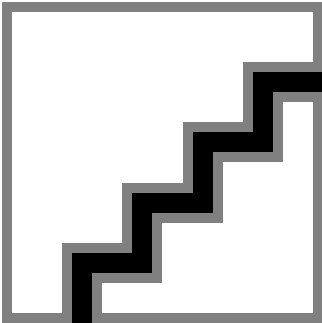
TubePoint Core BGP223 tunnel-lighting luminaire



TubePoint Core BGP224 tunnel-lighting luminaire

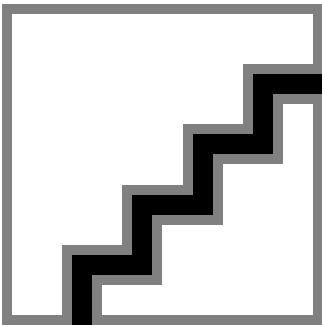


Product details



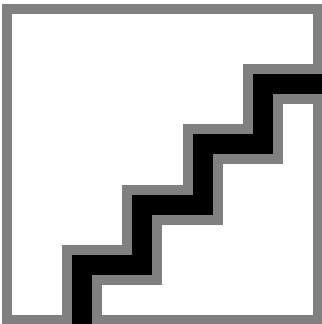
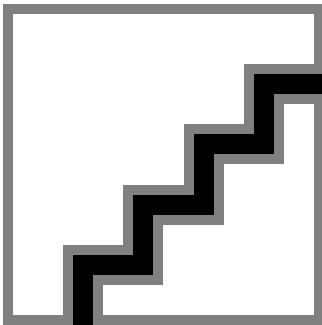
Ultra-efficient heat sink

Bottom view



Ultra-efficient heat sink

Side view



End cap

Approval and Application

Mech. impact protection code	IK08
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General Information

CE mark	CE mark
Optical cover/lens type	Flat glass
Driver included	Yes
ENEC mark	ENEC mark
Flammability mark	For mounting on normally flammable surfaces
Light source replaceable	Yes
Number of gear units	1 unit

Initial Performance (IEC Compliant)

Init. Corr. Color Temperature	4000 K
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Light Technical

Standard tilt angle side entry	0°
Standard tilt angle posttop	0°
Upward light output ratio	0

Application Conditions

Order Code	Full Product Name	Maximum dim level
912300023427	BGP221 LED90/840 PSU II DTS GR CFW	-
912300024017	BGP231 LED30/740 DSM11 SRG D9 CFW MB	10%
912300024018	BGP231 LED50/740 DSM11 SRG D9 CFW MB	10%
912300024019	BGP231 LED90/740 DSM11 SRG D9 CFW MB	10%
912300024020	BGP232 LED180/740 DSM11 D9 CFW FU MB	10%
912300024021	BGP233 LED340/740 DSM11 SRG D9 CFW FU MB	10%
912300024022	BGP234 LED520/740 DSM11 SRG D9 CFW FU MB	10%
912300024023	BGP234 LED610/740 DSM11 SRG D9 CFW FU MB	10%
912300023428	BGP222 LED170/840 PSU II DTS GR CFW	-
912300023429	BGP223 LED340/840 PSU II DTS GR CFW	-
912300023430	BGP224 LED520/840 PSU II DTS GR CFW	-

Approval and Application

Order Code	Full Product Name	Surge Protection (Common/Differential)
912300023427	BGP221 LED90/840 PSU II DTS GR CFW	Philips standard surge protection level
912300024017	BGP231 LED30/740 DSM11 SRG D9 CFW MB	Luminaire surge protection level until 10 kV differential mode and 10 kV common mode
912300024018	BGP231 LED50/740 DSM11 SRG D9 CFW MB	Luminaire surge protection level until 10 kV differential mode and 10 kV common mode
912300024019	BGP231 LED90/740 DSM11 SRG D9 CFW MB	Luminaire surge protection level until 10 kV differential mode and 10 kV common mode
912300024020	BGP232 LED180/740 DSM11 D9 CFW FU MB	Luminaire surge protection level until 10 kV differential mode and 10 kV common mode
912300024021	BGP233 LED340/740 DSM11 SRG D9 CFW FU MB	Luminaire surge protection level until 10 kV differential mode and 10 kV common mode

Order Code	Full Product Name	Surge Protection (Common/Differential)
912300024022	BGP234 LED520/740 DSM11 SRG D9 CFW FU MB	Luminaire surge protection level until 10 kV differential mode and 10 kV common mode
912300024023	BGP234 LED610/740 DSM11 SRG D9 CFW FU MB	Luminaire surge protection level until 10 kV differential mode and 10 kV common mode
912300023428	BGP222 LED170/840 PSU II DTS GR CFW	Philips standard surge protection level
912300023429	BGP223 LED340/840 PSU II DTS GR CFW	Philips standard surge protection level
912300023430	BGP224 LED520/840 PSU II DTS GR CFW	Philips standard surge protection level

Controls and Dimming

Order Code	Full Product Name	Dimmable
912300023427	BGP221 LED90/840 PSU II DTS GR CFW	No
912300024017	BGP231 LED30/740 DSM11 SRG D9 CFW MB	Yes
912300024018	BGP231 LED50/740 DSM11 SRG D9 CFW MB	Yes
912300024019	BGP231 LED90/740 DSM11 SRG D9 CFW MB	Yes
912300024020	BGP232 LED180/740 DSM11 D9 CFW FU MB	Yes
912300024021	BGP233 LED340/740 DSM11 SRG D9 CFW FU MB	Yes

Order Code	Full Product Name	Dimmable
912300024022	BGP234 LED520/740 DSM11 SRG D9 CFW FU MB	Yes
912300024023	BGP234 LED610/740 DSM11 SRG D9 CFW FU MB	Yes
912300023428	BGP222 LED170/840 PSU II DTS GR CFW	No
912300023429	BGP223 LED340/840 PSU II DTS GR CFW	No
912300023430	BGP224 LED520/840 PSU II DTS GR CFW	No

Operating and Electrical

Order Code	Full Product Name	Driver current
912300023427	BGP221 LED90/840 PSU II DTS GR CFW	600 mA

Order Code	Full Product Name	Driver current
912300024017	BGP231 LED30/740 DSM11 SRG D9 CFW MB	-

Order Code	Full Product Name	Driver current
912300024018	BGP231 LED50/740 DSM11 SRG D9 CFW MB	-
912300024019	BGP231 LED90/740 DSM11 SRG D9 CFW MB	-
912300024020	BGP232 LED180/740 DSM11 D9 CFW FU MB	-
912300024021	BGP233 LED340/740 DSM11 SRG D9 CFW FU MB	-
912300024022	BGP234 LED520/740 DSM11 SRG D9 CFW FU MB	-

Order Code	Full Product Name	Driver current
912300024023	BGP234 LED610/740 DSM11 SRG D9 CFW FU MB	-
912300023428	BGP222 LED170/840 PSU II DTS GR CFW	600 mA
912300023429	BGP223 LED340/840 PSU II DTS GR CFW	600 mA
912300023430	BGP224 LED520/840 PSU II DTS GR CFW	600 mA

General Information (1/2)

Order Code	Full Product Name	Luminaire light		Light source	
		beam spread	Coating	color	Gear
912300023427	BGP221 LED90/840 PSU II DTS GR CFW	148° x 148°	Single layer powder coating	840 neutral white	-
912300024017	BGP231 LED30/740 DSM11 SRG D9 CFW MB	101° x 158°	-	740 neutral white	-
912300024018	BGP231 LED50/740 DSM11 SRG D9 CFW MB	101° x 158°	-	740 neutral white	-
912300024019	BGP231 LED90/740 DSM11 SRG D9 CFW MB	148° x 148°	-	740 neutral white	-
912300024020	BGP232 LED180/740 DSM11 D9 CFW FU MB	101° x 158°	Marine salt protected coating	740 neutral white	-
912300024021	BGP233 LED340/740 DSM11 SRG D9 CFW FU MB	101° x 158°	-	740 neutral white	-

Order Code	Full Product Name	Luminaire light		Light source	
		beam spread	Coating	color	Gear
912300024022	BGP234 LED520/740 DSM11 SRG D9 CFW FU MB	101° x 158°	-	740 neutral white	-
912300024023	BGP234 LED610/740 DSM11 SRG D9 CFW FU MB	101° x 158°	-	740 neutral white	-
912300023428	BGP222 LED170/840 PSU II DTS GR CFW	148° x 148°	Single layer powder coating	840 neutral white	-
912300023429	BGP223 LED340/840 PSU II DTS GR CFW	148° x 148°	Single layer powder coating	840 neutral white	-
912300023430	BGP224 LED520/840 PSU II DTS GR CFW	148° x 148°	Single layer powder coating	840 neutral white	-

General Information (2/2)

Order Code	Full Product Name	Gland material	Glow-wire test	Lamp family code	Number of light sources	Optic type	Product Family	
							Code	UL mark
912300023427	BGP221 LED90/840 PSU II DTS GR CFW	Cable gland plastic	-	LED90	72 pcs	Distribution tunnel symmetrical	BGP221	-
912300024017	BGP231 LED30/740 DSM11 SRG D9 CFW MB	-	-	LED30	-	Distribution symmetrical medium 11	BGP231	-
912300024018	BGP231 LED50/740 DSM11 SRG D9 CFW MB	-	-	LED50	-	Distribution symmetrical medium 11	BGP231	-
912300024019	BGP231 LED90/740 DSM11 SRG D9 CFW MB	-	-	LED90	-	Distribution symmetrical medium 11	BGP231	-
912300024020	BGP232 LED180/740 DSM11 D9 CFW FU MB	Cable gland plastic	-	LED180	-	Distribution symmetrical medium 11	BGP232	-
912300024021	BGP233 LED340/740 DSM11 SRG D9 CFW FU MB	-	-	LED340	-	Distribution symmetrical medium 11	BGP233	-
912300024022	BGP234 LED520/740 DSM11 SRG D9 CFW FU MB	-	-	LED520	-	Distribution symmetrical medium 11	BGP234	-
912300024023	BGP234 LED610/740 DSM11 SRG D9 CFW FU MB	-	-	LED610	-	Distribution symmetrical medium 11	BGP234	-
912300023428	BGP222 LED170/840 PSU II DTS GR CFW	Cable gland plastic	-	LED170	144 pcs	Distribution tunnel symmetrical	BGP222	-

Order Code	Full Product Name	Gland material	Glow-wire test	Lamp family code	Number of light sources	Optic type	Product Family Code	UL mark
912300023429	BGP223 LED340/840 PSU II DTS GR CFW	Cable gland plastic	-	LED340	250 pcs	Distribution tunnel symmetrical	BGP223	-
912300023430	BGP224 LED520/840 PSU II DTS GR CFW	Cable gland plastic	-	LED520	432 pcs	Distribution tunnel symmetrical	BGP224	-

Initial Performance (IEC Compliant)

Order Code	Full Product Name	Init. Color Rendering Index	Initial luminous flux
912300023427	BGP221 LED90/840 PSU II DTS GR CFW	>80	9000 lm
912300024017	BGP231 LED30/740 DSM11 SRG D9 CFW MB	>70	3000 lm
912300024018	BGP231 LED50/740 DSM11 SRG D9 CFW MB	>70	5000 lm
912300024019	BGP231 LED90/740 DSM11 SRG D9 CFW MB	>70	9000 lm
912300024020	BGP232 LED180/740 DSM11 D9 CFW FU MB	>70	18000 lm
912300024021	BGP233 LED340/740 DSM11 SRG D9 CFW FU MB	>70	34000 lm

Order Code	Full Product Name	Init. Color Rendering Index	Initial luminous flux
912300024022	BGP234 LED520/740 DSM11 SRG D9 CFW FU MB	>70	52000 lm
912300024023	BGP234 LED610/740 DSM11 SRG D9 CFW FU MB	>70	61000 lm
912300023428	BGP222 LED170/840 PSU II DTS GR CFW	>80	17000 lm
912300023429	BGP223 LED340/840 PSU II DTS GR CFW	>80	34000 lm
912300023430	BGP224 LED520/840 PSU II DTS GR CFW	>80	52000 lm

Mechanical and Housing

Order Code	Full Product Name	Color
912300023427	BGP221 LED90/840 PSU II DTS GR CFW	Gray
912300024017	BGP231 LED30/740 DSM11 SRG D9 CFW MB	Dark gray
912300024018	BGP231 LED50/740 DSM11 SRG D9 CFW MB	Dark gray
912300024019	BGP231 LED90/740 DSM11 SRG D9 CFW MB	Dark gray
912300024020	BGP232 LED180/740 DSM11 D9 CFW FU MB	Dark gray
912300024021	BGP233 LED340/740 DSM11 SRG D9 CFW FU MB	Dark gray

Order Code	Full Product Name	Color
912300024022	BGP234 LED520/740 DSM11 SRG D9 CFW FU MB	Dark gray
912300024023	BGP234 LED610/740 DSM11 SRG D9 CFW FU MB	Dark gray
912300023428	BGP222 LED170/840 PSU II DTS GR CFW	Gray
912300023429	BGP223 LED340/840 PSU II DTS GR CFW	Gray
912300023430	BGP224 LED520/840 PSU II DTS GR CFW	Gray

