PHILIPS

Lighting

FlowStar – LED tunnel entrance and point-source interior lighting

FlowStar

Tunnel operators are looking for an LED solution for both interior and entrance lighting that delivers cost, safety and availability benefits over the full lifetime of the product. FlowStar's stainless-steel modular build and dedicated LED design provide a long-lasting and efficient LED alternative to conventional HPS lighting. FlowStar can also be combined with our controls and services for the highest levels of performance.

Benefits

- High lumen output
- Dedicated tunnel luminaire that can replace HPS entrance lighting
- Long-lasting, highly efficient lighting solution for the whole tunnel
- Easy to install and maintain
- Equipped with Service tag, a QR-based identification system that makes each luminaire uniquely identifiable and provides maintenance, installation and spare part information

FlowStar

Features

- A lifetime solution for both tunnel entrance and interior lighting in combination with service packages
- Designed for maintenance (modular build and glass cover)
- Can be integrated with controls (e.g. TunneLogic) and services for best system performance
- True point-for-point LED alternative to HPS up to 400 W
- For pointsource entrance and interior lighting
- Can compete on Total Cost of Ownership with current HPS solutions within the TotalTunnel approach

Application

- Traffic tunnels and underpasses

Specifications

Type	BGB300 (ENTRANCE version)
	BGB310 (INTERIOR version)
Light source	Integral LED-module
System power	BGB300: 79 up to 435 W
	BGB310: 68 up to 370 W
Luminous flux	BGB300: 9,200 up to 50,000 lm
	BGB310: 8,200 up to 44,000 lm
Luminaire efficacy	> 100 lm/W
Correlated Color	4000 K (neutral white, NW)
Temperature	5700 K (cool white, CW)
Color Rendering Index	> 70
Lumen maintenance at median useful life* 100000 h	up to L92
Control gear failure rate at median useful life 100000 h	10%
Performance Ambient Temperature Tq	+25 ºC
Operating temperature range	-25 to +40 ºC
Driver	Separate (non-self ballasted LED-module)
Mains voltage	220-240 V / 50-60 Hz
Dimming	DALI or SDU dimmable
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	Tempered glass, hard
Material	Housing: stainless steel
	Heatsink: aluminum
	Cover: glass, thermally toughened
Color	Not painted stainless steel and anodized aluminum
Connection	Plugs connections or flying lead
Maintenance	Long lasting sealed units easy and fast to exchange
Installation	Ceiling mounted
	6 flange mounting clamps included for fast installation and allignment in the horizontal plane
	Option for plugs connection for plug and play installation
	Recommended mounting height: > 4 m
Cable gland	Flying lead versions: M20
	Plug and play version: 2 receptacles for DALI (in and out) and 1 receptacle for power in
Remarks	Separate FlowStar LED units are available (BGB300 and BGB310 with dedicated designations)
	Separate FlowStar driver units are available (EGB300 and EGB310 with dedicated designations)
	Separate mounting clamp sets (set of 4 and set of 6 pcs) are available
	For the versions equiped with connection sockets, cables with matching plugs are available

Versions

FlowStar large BGB300/BGB310 tunnel and underpass luminaire

FLOWSTAR MEDIUM - LED module 35700 lm - LED - Power supply unit with DALI interface - Special housing - Distribution tunnel symmetrical - Flat glass - 148° x 148° - DALI - -

FLOWSTAR SMALL - LED module 21400 lm - LED - Power supply unit with DALI interface - Special housing - Distribution tunnel symmetrical - Flat glass - 148° x 148° - DALI - -

Application conditions	
Maximum dim level	10%
Approval and application	
Mech. impact protection code	IK08
Surge Protection (Common/ Differential)	Philips standard surge protection level
Controls and dimming	
Dimmable	Yes
General information	
Luminaire light beam spread	148° x 148°
CE mark	CE mark
Light source color	740 neutral white
Optical cover/lens type	Flat glass
Driver included	Yes
Flammability mark	For mounting on normally flammable surfaces
Light source replaceable	No
Optic type	Distribution symmetrical medium 11
Initial performance (IEC compliant)	
Init. Corr. Color Temperature	4000 K
Init. Color Rendering Index	>70
Light technical	
Standard tilt angle side entry	0°
Standard tilt angle posttop	0°
Upward light output ratio	0
Mechanical and housing	
Color	Steel

General information

Order Code	Full Product Name	Lamp family code	Number of gear units	Product Family Code
912300060083	BGB300 LED700-4S/740 PSD BV DSM11 D9 MDD	LED700	3 units	BGB300
912300060084	BGB301 LED420-4S/740 PSD DSM11 D9 MDD	LED420	2 units	BGB301
912300060085	BGB302 LED250-4S/740 PSD DSM11 D9 MDD	LED250	1 unit	BGB302
912300060086	BGB302 LED110-4S/740 PSD DSM11 D9 MDD	LED110	1 unit	BGB302

Initial performance (IEC compliant)

Order Code	Full Product Name	Initial luminous flux
912300060083	BGB300 LED700-4S/740 PSD BV DSM11 D9 MDD	54780 lm
912300060084	BGB301 LED420-4S/740 PSD DSM11 D9 MDD	33200 lm

Order Code	Full Product Name	Initial luminous flux
912300060085	BGB302 LED250-4S/740 PSD DSM11 D9 MDD	19920 lm
912300060086	BGB302 LED110-4S/740 PSD DSM11 D9 MDD	8925 lm

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