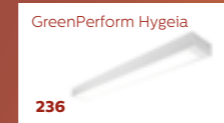
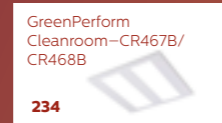


PHILIPS



Cleanroom

As lighting fixtures for cleanroom are working under specific environment, some special criteria should be met in addition to basic lighting requirement. Its applications include areas with strict control on dust and humidity, for its features, dust resistant, long lasting, easy maintenance, to perform at their best.





Cleanroom LED

Hygienic, efficient solution offering excellent vision at work

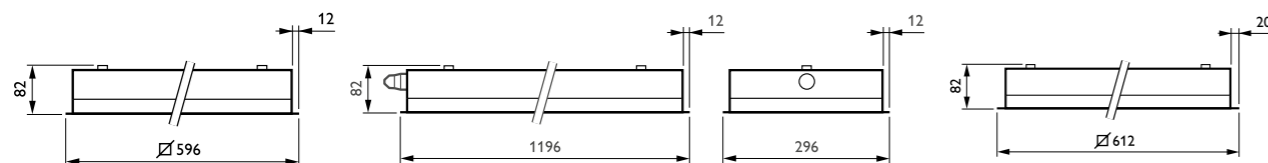
Customers operating highly hygienic facilities – in hospitals, laboratories, and certain production environments, e.g. in the food industry – require special IP65, easy-to-clean, dustfree luminaires that meet all applicable lighting requirements and norms. With the latest LED engine on board, this LED cleanroom luminaire represents the ideal solution, delivering market-leading energy performance – far beyond fluorescent solutions – over 50,000 hours of maintenance-free operation. This means extremely low operational cost over the total lifetime of the luminaire, and so an excellent financial return on investment. The luminaire's high color rendering properties ensure the top-class optical performance required in e.g. clinical areas in hospitals and other areas where it is crucial to be able to distinguish between colors, such as in the graphical and clothing industries.

Features and Benefits

- Excellent functional cleanroom performance
- Market-leading energy efficiency; extremely low operational cost over total lifetime
- Excellent quality of light with high color rendering
- Latest LED engine
- IP65
- ISO class 2-9 Fraunhofer-certified
- CRI 90
- Push-in connector: connection without opening the luminaire

Product size

All dimensions in millimeters



up to
70
Khrs

up to
78
lm/W

Technical parameters

Type	CR434B (lay-in, 596 x 596 / 1196 x 296 mm version) CR444B (lay-out, 612 x 612 / 1212 x 312 mm version) CR436B (lay-in, 621 x 621 / 1246 x 308 mm version) CR446B (lay-out, 637 x 637 / 1262x324 mm version)
Ceiling type	Exposed T-bar ceiling Plaster (board) ceiling
Ceiling grid	Module size in length: 300 and 600 mm Module size in length: 312.5 and 625 mm
Light source	Replaceable LED module
Power (±10%)	LED48: 49.5 W LED88: 80 W
Luminous flux	Square LED48: 3700 lm (3000 K) or 3500 lm (4000 K) (depending type) Square LED88: 6200 lm (3000 K) or 5700 lm (4000 K) (depending type) Rectangular LED88: 6300 lm (3000 K) or 5700 lm (4000 K) (depending type)
Correlated Color Temperature	3000 or 4000 K
Color Rendering Index	> 80 (3000 and 4000 K) > 90 (4000 K)
Median useful life L70B50	70,000 hours
Median useful life L80B50	50,000 hours
Median useful life L90B50	25,000 hours
Driver failure rate	1% per 5000 hours
Average ambient temperature	25 °C
Driver	Built-in
Mains voltage	220-240 V / 50-60 Hz
Dimming	Touch-dim or DALI
Material	Housing: sheet steel, laquerred Cover: glass, tempered Internal optic: aluminum Heatsink: aluminum sheet steel
Color	White RAL 9003
Optical cover	AC-MLO
Connection	Push-in connector
Maintenance	No internal cleaning required
Installation	Lay in: fixation with spring fastener Lay out: fixation with bolt and nuts No through-wiring Installation without removing light source and optical cover (not in case of plaster-ceiling versions)
Accessories	Safety cable



Cleanroom LED CR250B

Uniform, reliable, value-for-money solution

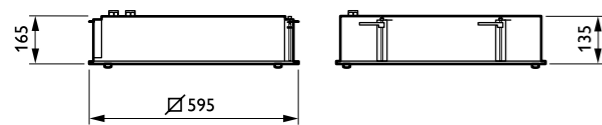
In applications where hygiene is crucially important, such as hospitals and food production facilities, customers want proven IP65 and IP54-rated luminaires that are safe to use and come at an attractive price. This family of fixtures represent true value for money: the Philips LED engine delivers reliable, high-quality light, and the flexible mounting possibilities mean that this family can be used in a wide range of applications. The fixtures are also compliant with all relevant standards (CE, EMC, RoHS).

Features and Benefits

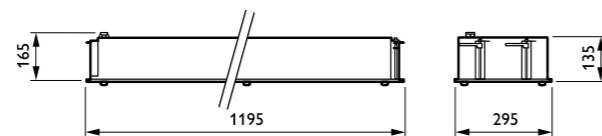
- Value-for-money investment
- Low maintenance due to the long lifetime of the luminaire
- Meets light-level requirements for main applications
- Uniform surface of light
- IP65 (glass cover) and IP54 (PMMA cover) versions
- Light output 3500 to 5500 lm
- Works with different ceiling types
- Class II

Product size

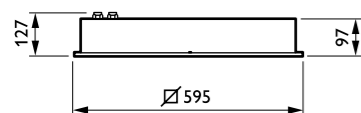
All dimensions in millimeters



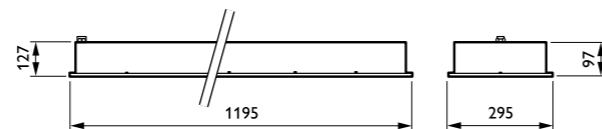
CR250B W60L60



CR250B W30L120



CR150B W60L60



CR150B W30L120



up to
50Khrs

up to
87
lm/W

Technical parameters

Type	CR150B (IP54 PMMA-cover version) CR250B (IP65 glass-cover version)
Ceiling type	Exposed- and symmetrical concealed T-bar ceiling and plaster (board) ceiling
Ceiling grid	Module size in length: 600 mm Module size in length: 1200 mm
Light source	Replaceable LED module
Power	3500 lm, 40 W 5500 lm, 63 W
Beam angle	110°
Luminous flux	3500, 5500 lm
Correlated Color Temperature	4000 K
Color Rendering Index	≥ 80
Median useful life L70B50	50,000 hours
Median useful life L80B50	30,000 hours
Median useful life L90B50	15,000 hours
Driver failure rate	1% per 5000 hours
Average ambient temperature	25 °C
Driver	Built-in
Classification	Class II
Mains voltage	220-240V / 50-60 Hz
Dimming	DALI version available
Material	Housing: sheet steel, lacquered
Color	White RAL9016
Optical cover	Clear glass + Polystyrene diffuser or PMMA diffuser
Connection	Screw terminal block + cable gland
Maintenance	CR250B: maintainance possible CR150B: sealed for life
Installation	CR250B: lay in, concealed and plaster with screw fastener CR150B: lay in, plaster ceiling with additional bracket Surface-mounted with additional brackets No through-wiring possible
Accessories	Surface-mounted brackets (CR250B, CR150B) Plaster ceiling bracket (CR150B) Safety cable (CR250B, CR150B)



GreenPerform Cleanroom– CR467B/CR468B

Philips GreenPerform Cleanroom is a family of cleanroom luminaires offering an energy efficient, long lasting and reliable lighting solutions for specialized applications. These luminaires are designed for providing illumination for application areas in semiconductor industries, pharmaceutical industries, hotel kitchens etc.

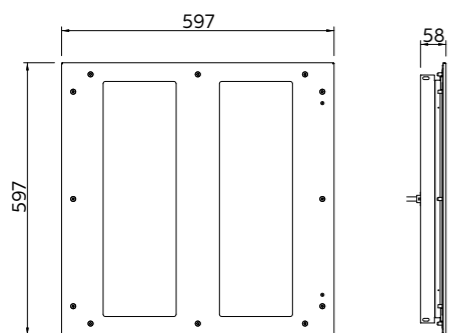
GreenPerform Cleanroom family provides a lighting solution with excellent energy performance, long reliable lifetime, well protected against ingress of dust and moisture while contributing to a healthy and comfortable working environment.

Features and Benefits

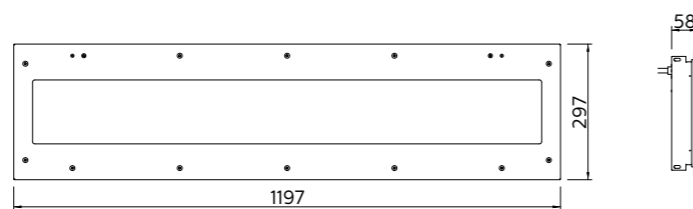
- System efficacy >105lm/W; 3500/5500lm
- High energy saving up to 56% comparing with conventional fluorescent systems
- Integrated design
- Optimized design for easy installation and reliable system performance
- Option of rear opening and front opening variants
- Versatile installation possibilities
- Sturdy cold rolled sheet steel with high quality powder coated housing and PC cover plate
- Robust and reliable construction
- Protection rating IP65, IP40 in the ceiling; Suitable for 1000–100,000 Class cleanroom
- Reliable performance through the lifetime of the product
- Frosted Polycarbonate front cover
- Uniform comfortable light with good glare control

Product size

All dimensions in millimeters



GreenPerform Cleanroom CR467B-S001



GreenPerform Cleanroom CR467B-S002



Technical parameters

Type	GreenPerform Cleanroom–CR467B/CR468B	
Product family	RearOpen	Front Open
Product spec.	CR467B	CR467B
System output	3500lm/5500lm	
System power	31W/52W	
System efficacy	110lm/W/105lm/W	
Driver	FIXED / DALI (Option)	
Lifetime	50,000hrs@L70B50	
CCT	CW (6500K)/ NW (4000K)	
CRI	>80	
SDCM	<5 SDCM	
Optic	Opal	
Temperature	–20°C–35°C/ Ta25°C	
Driver	Philips Xitaniumdriver	
Materials	Housing: Sturdy cold rolled sheet steel ; Optical cover: PC plate;	
Color	White RAL9003	
IP rate	Front: IP65; Rear: IP40	
Classification	class I	
Input voltage	220–240V,50/60 Hz	
Power factor	> 0.90	
Installation	Recessed	



GreenPerform Hygeia

Energy-efficient lighting for industrial and commercial applications

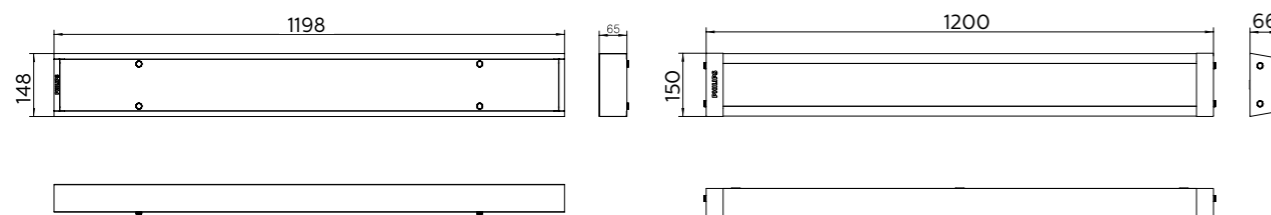
Customers operating highly hygienic facilities require, easy-to-clean, dust-free luminaires that meet all lighting requirements and norms. The New Hygeia with a IP40 and compliance to 1,000 – 100,000 class cleanroom makes it a good choice. The new Hygeia CR308 has a stream-lined shape that minimizes dust gathering and disturbed air flow. The cleanroom luminaire uses the latest Philips LED Line platform to provide most value for money. This means extremely low operational cost over the total lifetime of the luminaire, and so an excellent financial return on investment.

Features and Benefits

- Professional design, streamlined shape minimizes dust gathering and disturbed airflow
- Reliable and sustainable lifetime
- Slim and lither, 7kgs, easy to install
- Suitable for 1,000 to 100,000 Class cleanroom
- IP40 with smooth surface and easy to clean
- 30% lighter compare to the older version

Product size

All dimensions in millimeters



GreenPerform Hygeia CR418B/CR418C

GreenPerform Hygeia CR418B/CR418C

IP40

50
Khrs

Technical parameters

Product	GreenPerform Hygeia	
Type	CR308	CR418
Dimension	1235x180x90(mm)	1200x150x65(mm)
Mounting Types	CR308B - recessed CR308C - surface/suspended	CR418B - recessed CR418C - surface mounted
Voltage	220-240V, 50/60Hz	220-240V, 50/60Hz
Ballast	Electronic ballast, HFS	Philips LP platform
LOR	>0.7	
Output	4000/6000/7000lm	3800lm/6700lm
Lifetime	20,000 hr	50,000 hr @ L70
Ambient temperature range	-25 to 35 °C	
Average ambient temperature	25 °C	
Maximum dim level	Not applicable	
Mech. impact protection code	IK03	
Ingress protection code	IP40	
Dimmable	No	
CE mark	-	
Protection class IEC	Safety class I	
Optical cover/lens type	Polycarbonate bowl/cover frosted	
Driver included	Yes	
ENEC mark	-	
Flammability mark	-	
Gear	-	
Glow-wire test	Temperature 650 °C, duration 30 s	
Light source replaceable	No	
Number of gear units	1 unit	
Optic type	Wide beam	
UL mark	-	
Initial chromaticity	-	
Init. Color Rendering Index	80	
Luminous flux tolerance	±7.5%	



GreenPerform Teardrop

Energy-efficient lighting for industrial and commercial applications

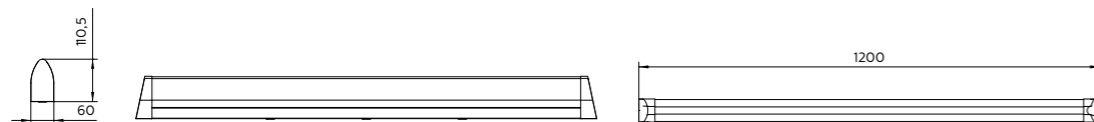
Features and Benefits

Highly hygienic facilities require special easy to clean, dust free luminaires that meet all lighting requirements and norms. Teardrop LED CR385 is suitable for 10 to 1000 Class cleanroom facilities. With the latest LED engine on board, this LED cleanroom luminaire represents the ideal solution, delivering market leading energy performance – far beyond fluorescent solutions – over 50,000 hours of maintenance-free operation. In short, Teardrop LED represents an excellent deal for those looking for pleasant and efficient cleanroom lighting.

- Safety reinforced, LED light source contains no hazardous matters mercury
- Reliable and sustainable lifetime
- Slim and lither, 2.4kgs, easy to install
- Suitable for 10 to 1000 Class cleanroom
- 93lm/W that provides best value for money
- 2.4 kg only, can be installed by 1 person

Product size

All dimensions in millimeters



GreenPerform Teardrop CR385

IP40

50
Khrs

Technical parameters

Product	GreenPerform Teardrop, CR385
Dimension	1200x60x110
Mounting Types	Surface mounted
Voltage	220-240V, 50/60Hz
LED	Philips Lumileds Rebel PC Amber
Platform	Philips LP platform
Lifetime	50,000 hr @ L70
Ambient temperature range	-25 to 35 °C
Average ambient temperature	25 °C
Mech. impact protection code	IK02
Ingress protection code	IP40
Input Voltage	220-240
CE mark	-
Protection class IEC	Safety class I
Optical cover/lens type	Linear-lens array in polycarbonate cover
Driver included	Yes
ENEC mark	-
Flammability mark	-
Gear	-
Glow-wire test	Temperature 650 °C, duration 30 s
Light source replaceable	No
Number of gear units	1 unit
Optic type	Wide beam
UL mark	-
Initial chromaticity	-
Init. Color Rendering Index	80
Luminous flux tolerance	±7,5%