



## **FUNCTIONAL**

CLEAN II is developed according to hygienic design principles, and achieved both ISO and GMP ratings from the Fraunhofer institute. Couple this with supreme's high efficiency, space-saving profile, and varying light colour options and the result is effective lighting for all visual tasks in the cleanroom.

Form follows function.



Produced with attention to the DIN EN ISO 14644-1 standard and GMP regulations.







# ACTIVE

The ability of the luminaire to change between red, green, blue, and white light, as well as the double-asymmetric distribution actively respond to lighting requirements in medical establishments. The integration of tunableWhite technology can provide excellent support for the human circadian rhythm.

# HUMAN CENTRIC LIGHTING HEALTH-PROMOTING, NATURAL DAYLIGHT

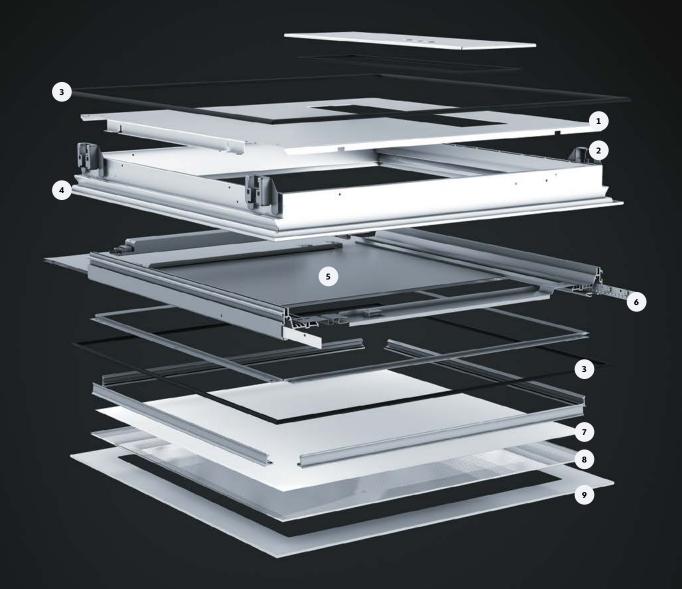
The tunableWhite technology is characterised by its excellent white quality. The calibration of the drivers and LED modules ensures that in the range between 2700K and 6500K, high colour consistency and a constant lumen output at any colour temperature can be achieved. The advantages of tunableWhite are the composition possibilities of different light colours and light intensities. Light in patient rooms and examination rooms can mimic the natural progression of light throughout the day and supports well-being, bodily processes, and concentration.

# ASYMMETRICAL COLOUR CHANGE

During operations, the surgical field should be illuminated with white light (< 2000 lux). It is easy and convenient to switch between one of the two asymmetrical beams of secondary light colours: blue or green. In the otherwise darkened room, the medical personnel are supported and patients can be treated safely.

# DISTURBANCE-FREE LIGHT

Rooms in hospitals require powerful but interference-free light sources. Wide-beam, asymmetric, and glare-free light meets important requirements for carrying out demanding tasks in cleanrooms.



1

Removable rear panel for quick installation, and maintenance without the need to enter the room (only in the CLEAN II supreme ST variant)



Brackets for NIV-Set



Foam seal to protect the luminaire from the ingress of water, steam and cleaning agents

4

Powder-coated steel housing, resistant to aggressive cleaning agents



Removable Light Engine, equipped with side-lit technology, guiding the light over a laser pointed plate in order to guarantee a homogeneous output



High-quality LEDs based on a ceramic chip for excellent thermal management

7

Optical foil ensures homogeneous appearance



MPO+ guides the light precisely and evenly, reduces glare, and ensures high luminous efficiency



Tempered safety glass, specially prestressed for 3 times the resistance to breakage, creates a hygienic, easy-clean, chemicallyresistant cover

## OPTIMISED

The reduced luminaire height of the CLEAN II supreme is the answer to new structural demands. An increasing amount of technology has to be accommodated in ceilings, leaving significantly less space for luminaires. Our unique Light Engine allows us to reduce the height of the luminaire without compromising on functionality. This offers much greater planning freedom for lighting solutions, whilst maintaining maximum quality.

# QUICK AND EASY INSTALLATION

The new luminaire can be installed, the driver maintained, or the Light Engine replaced quickly and easily in just a few minutes thanks to the new CLICK system. Technicians gain valuable time, while intelligent, easy installation saves money. The luminaire body and the frameless glass cover are resistant to cleaning and disinfection agents.

# MAINTENANCE OUTSIDE THE CLEANROOM

Access via the rear of the luminaire (only valid for CLEAN II supreme top-mounting version) is particularly useful when it comes to maintenance in cleanrooms. Even as a recessed luminaire – with top mounting – sterile maintenance is guaranteed. The frameless luminaire is easy to clean and the room does not need to be entered again after first installation. The Light Engine can therefore be replaced outside the cleanroom.



## PRECISE

A special feature of the CLEAN II supreme is the multi-layer micro-pyramidal optic MPO+. The light is refracted and guided in a controlled manner, with pleasant distribution even at steep emission angles. This allows for flexible positioning of the luminaire and offers precise light from any angle.

#### SAFE AND CLEAN

The CLEAN II supreme's non-porous, antistatic glass cover prevents the build-up of germs and bacteria – perfect qualities in a high-class cleanroom luminaire. The safety glass cover is 98% less like to spontaneously break than conventional tempered safety glass. The use of extra-white glass avoids the green tint of conventional glass covers and ensures the high quality of light needed for precise and complex tasks.

#### MPO+ TECHNOLOGY - IN BRIEF

The micro-pyramidal optic refracts the light in a very defined and specific way. The light is directed and creates contrasts without multiple shadows, ensuring precise lighting that is particularly suitable for operating theatres and laboratories. Due to the rough surface of the pyramids on similar optics, it is noticeable that the light is refracted in different directions and the distance between the individual light beams varies. The result: diffused, imprecise light in the room. With Zumtobel MPO+, on the other hand, the refracted light beams are always parallel. The perfectly controlled light refraction creates a pleasant light with a perfect balance between diffused and directional light. High lumen packages ensure rooms flooded with light and optimal glare control.





Frauenklinik Freiburg | DE



Clinica Merli, Rimini | IT

#### industry \*

#### RECESSED LUMINAIRE



Lumen package:	4600 lm, 5600 lm, 6200 lm	
Dimensions:	M600Q 598 x 598 x 80 mm M625Q 623 x 623 x 80 mm	
Lumen package: Dimensions:	4600 lm, 5400 lm, 6200 lm M600L 1198 x 298 x 80 mm M625L 1248 x 311 x 80 mm	
	IK03	
	IP65 (IP50 from above)	
	Powder-coated sheet steel	
	PMMA (polymethyl methacrylate)	
	Ra 80, Ra 90	
	Symmetrical (opal optic)	
	3000К, 4000К, 6000К	
	DALI dimmable (LDO), bmLINK, Bluetooth® Control (BC)	
	E3D, central battery supply	
	Dimensions:  Lumen package:	

<sup>\*</sup> CLEAN II industry provides the right light for demanding visual tasks in cleanrooms. The heat- and chemical-resistant cover combines hygiene with brilliant illumination for the food industry, laboratories and commercial kitchens.

#### supreme

	supreme	
RECESSED LUMINAIRE	RECESSED TOP-MOUNTING LUMINAIRE	S U R F A C E - M O U N T E D L U M I N A I R E
4600 lm, 6600 lm	4600 lm, 6600 lm	4600 lm, 6600 lm
M600Q 598 x 598 x 75 mm M625Q 623 x 623 x 75 mm	M600Q 598 x 598 x 75 mm M625Q 623 x 623 x 75 mm	Q610 609 x 609 x 57 mm
6200 lm, 6600 lm	6200 lm, 6600 lm	6600 lm, 8000 lm, 10000 lm
M600L 1198 x 298 x 75 mm M625L 1248 x 311 x 75 mm	M600L 1198 x 298 x 75 mm M625L 1248 x 311 x 75 mm	L1250: 1249 x 349 x 57 mm L1550: 1549 x 349 x 57 mm
	IKO7	
	IP65 (IP50 or IP54 from behind for recessed	luminaires)
	Powder-coated sheet steel	
	Tempered safety glass	
	Ra 80, Ra 90	
	Symmetrical, asymmetrical (red, green, bl	ue, white)
	3000K, 4000K tunableWhite (2700K to 6500K)	
	DALI dimmable (LDO), bmLINK, Bluetooth® Control (BC)	
	E3D, central battery supply	

# T H E L I G H T



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