PLDlight®

LIGHT
PAPER
01

PLDlight®

The human at the center of light

Humans have existed for thousands of years thanks to sunlight. It is existential for our lives and our well-being.

It is therefore beneficial for health, biorhythms and vision if artificial light reproduces the spectrum of natural light as closely as possible. *PLDlight® Engines* offer this advantage. With their colour spectrum, they support biological processes they support biological processes and highlight objects of perception in the best possible light.

It influences our mental mood, our body's energy and the quality of our sleep. On average, people spend 87 % of their time indoors under artificial light. The latest studies show that the quality of artificial light sources has a major influence on our body, our thinking and our performance.

At the same time, light determines how we perceive a room as soon as we enter it. It guides us through the room, allows us to discover colours and materials, and is responsible for how we feel and what emotions are aroused in us.

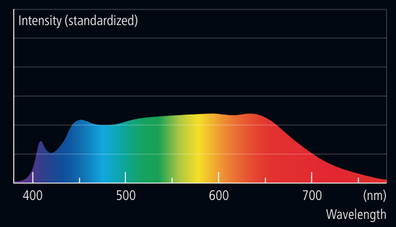
For *PLDlight®*, light quality and lighting effect are the absolute focus. By combining state-of-the-art LED technology with specially matched phosphor compounds, our *Modular Light Engines* produce a colour spectrum that comes very close to that of sunlight.

In addition to the excellent quality of light, the modules offer an additional biological effect, depending on the intended use. They help to improve the well-being of the users by creating a natural lighting environment that supports the natural biorhythm and reduces eye strain. They are used in environments where a high quality of light and a pleasant indoor climate are important.

Perfect colour reproduction by imitating the sunlight spectrum.

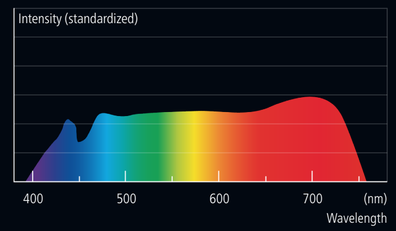
Thanks to their optimized colour spectrum, *sunBALANCE® Light Engines* have a calming and balancing effect on the human body and our well-being. When it comes to health, well-being and the perfect quality of light, *sunBALANCE® Light Engines* are the first choice. They offer a natural and soothing light experience.

sunBALANCE®



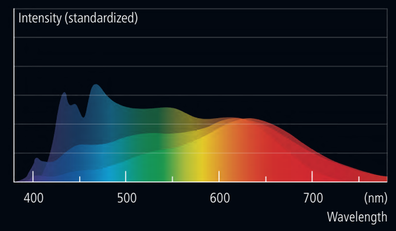
Thanks to their optimized colour spectrum, *sunACTIVE® Light Engines* have an activating and invigorating effect on the human body and our performance. When it comes to health, well-being and high light quality, *sunACTIVE® Light Engines* are the first choice.

sunACTIVE®

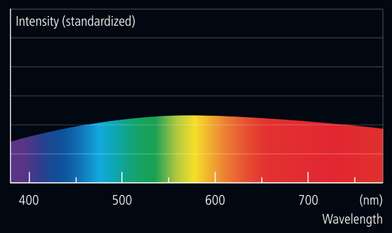


sunDYNAMIC® Light Engines have a positive influence on our circadian rhythm. Their light spectrum and light intensity can be adapted to the natural course of daylight, stimulating our body with different colour spectra.

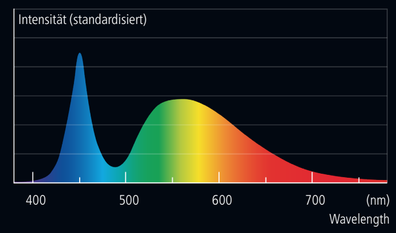
sunDYNAMIC® 2700 K-6500 K



Sunlight



Standard LED



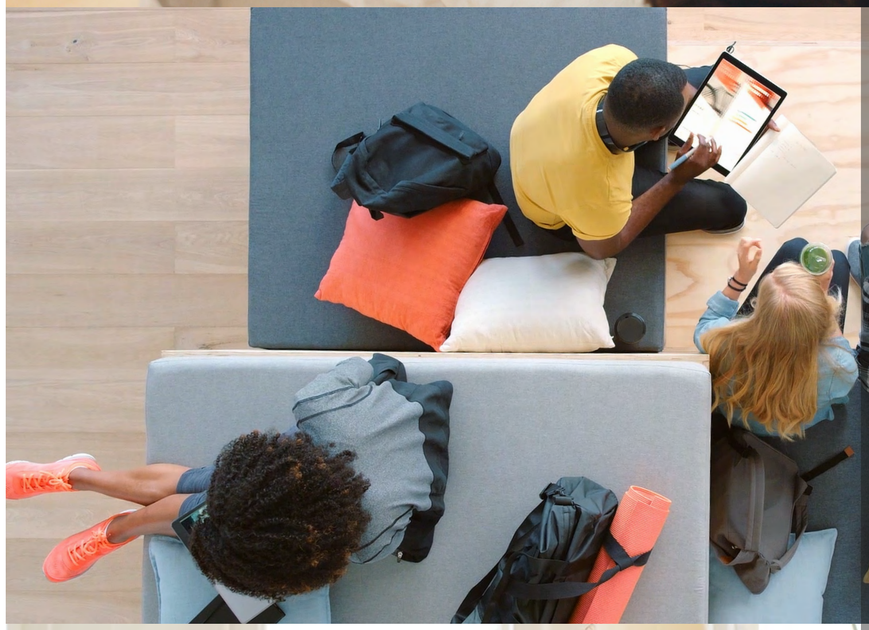
SUNLIGHT

has a direct impact on the human being.

Light is the essential element that influences the aesthetic appeal of a room. Almost eighty percent of all information is perceived by the human eye. Colours and structures appear with *PLDlight® Engines* as they do in natural light. Thanks to their optimized colour spectrum, they have a biological effect on the human body. When it comes to health, well-being and high light quality, *PLDlight® Engines* are the first choice.

sunBALANCE®

Due to the calming colour spectrum, *sunBALANCE® Light Engines* are used in spaces where, in addition to providing a natural light experience, the focus is on the biological relaxation mode of people. Examples of this are relaxation rooms such as bedrooms or hotel rooms, but the spa area and restaurant are also application areas for *sunBALANCE® Light Engines*.



sunACTIVE®

Due to the activating colour spectrum, *sunACTIVE® Light Engines* are used in spaces where, in addition to providing a natural lighting experience, the biological active mode of people is the main focus. Examples include workspaces such as offices or kitchens, as well as fitness studios and medical offices, which are also application areas for *sunACTIVE® Light Engines*.

sunDYNAMIC®

Due to the ability to imitate the course of daylight, *sunDYNAMIC® Light Engines* are used in spaces where the focus is on people's biological rhythms and providing a natural lighting experience. Examples include schools, care facilities, hospitals and offices.

BLUE LIGHT

The human eye perceives different wavelengths (red, green, and blue) and their intensities with the help of three photoreceptors (cones) and transmits this information to the brain. The brain interprets these colours and sends different signals in response. Not all colours of light have the same effect. Blue wavelengths, which are beneficial in daylight because they improve attention, reaction time and mood, seem to be most disruptive in the evening and at night.

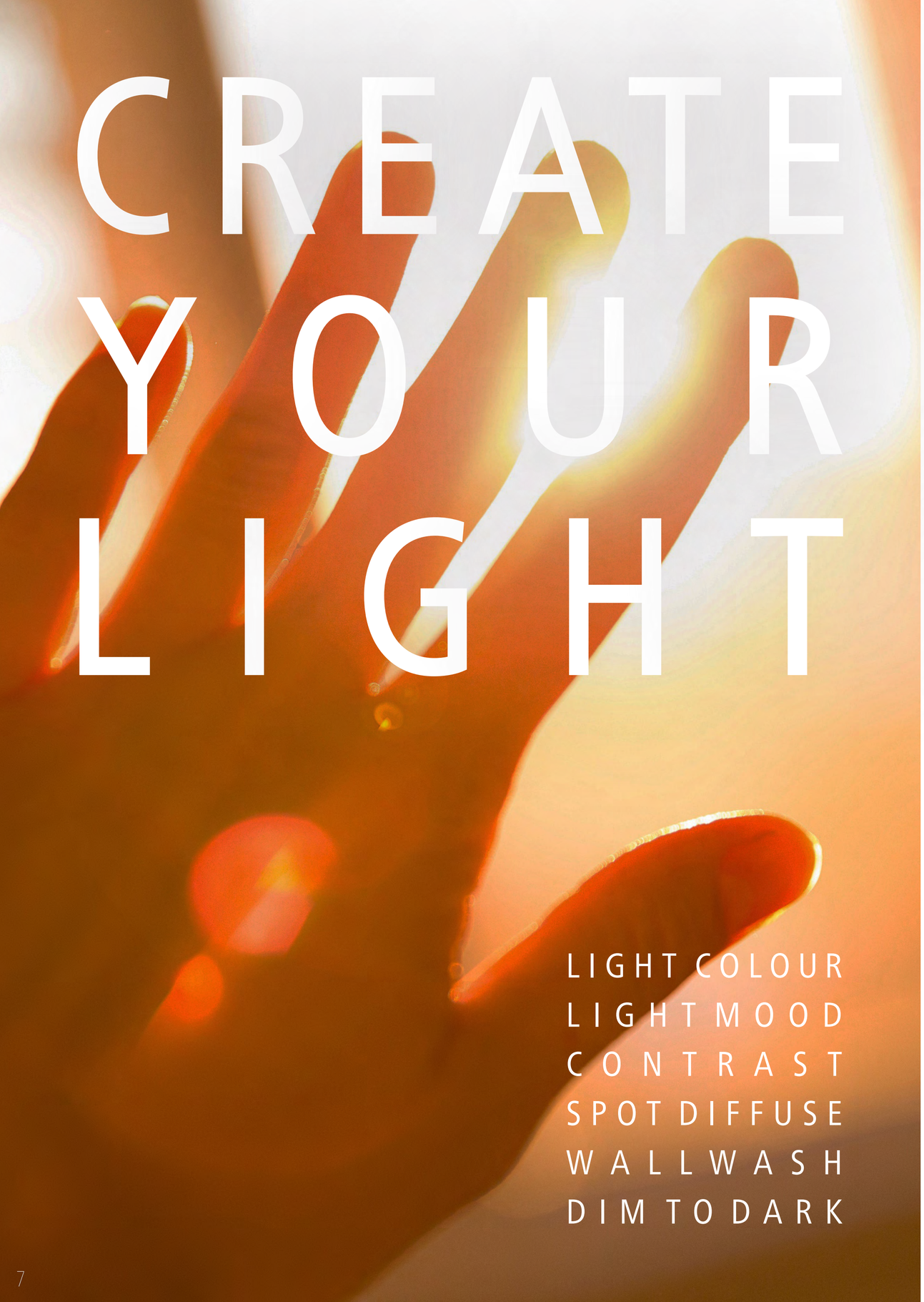
A conventional LED light source emits a strong visible and invisible blue light beam, which the eye perceives as flickering and glare. At the same time, melatonin secretion, disrupting the circadian rhythm (biological clock) and significantly impacting the quality of our sleep. Researchers link poor sleep quality with an increased risk of depression, diabetes and cardiovascular problems.

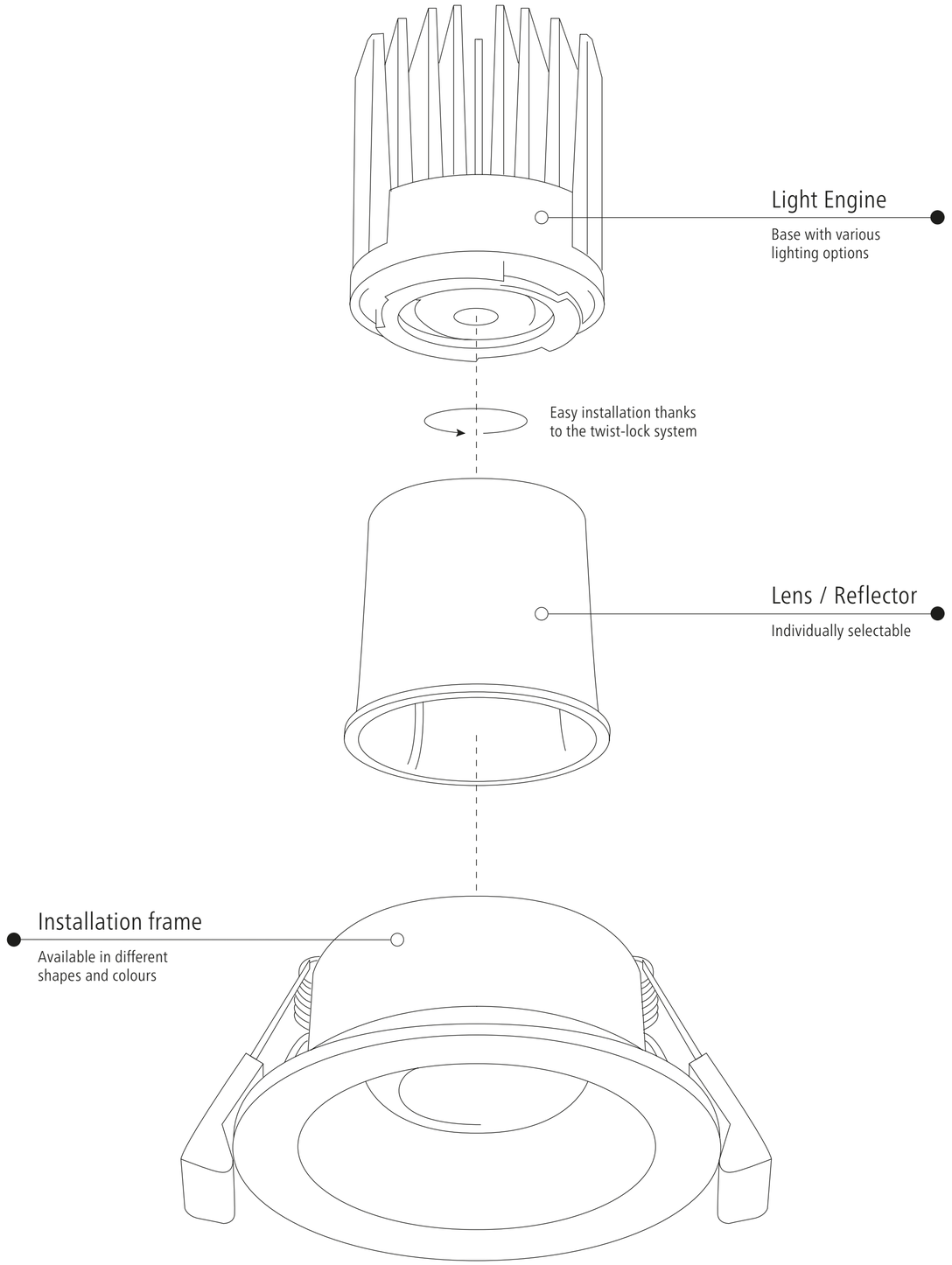
Such blue „peaks" do not occur with *PLDlight*®. Thanks to the latest semiconductor technology combined with specially matched phosphor compounds, unhealthy blue peaks are filtered out and the healthy blue spectral range is optimized for each area of application.

FLICKER FREE

PLDlight® only uses „Flicker Free" power supply units for a healthier indoor climate and better visual perception.

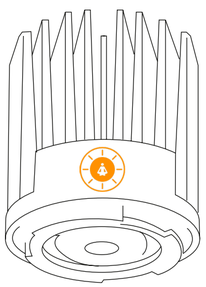
Flicker-free power supplies have several advantages over those that produce flickering and flashing. Although flickering is usually not visible, it significantly impacts our health and well-being. Flickering can lead to eye discomfort, headaches and dry eyes. In addition to impaired concentration and reduced alertness, flickering can also disrupt melatonin production, throwing our circadian rhythm out of balance, which can lead to sleep disturbances.


CREATE
YOUR
LIGHT
LIGHT COLOUR
LIGHT MOOD
CONTRAST
SPOT DIFFUSE
WALLWASH
DIM TO DARK

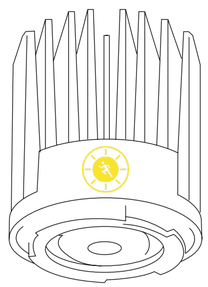

Light Engine
Base with various lighting options
Easy installation thanks to the twist-lock system
Lens / Reflector
Individually selectable
Installation frame
Available in different shapes and colours

MODULAR LIGHT ENGINES

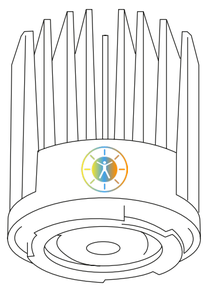
CC



sunBALANCE®



sunACTIVE®

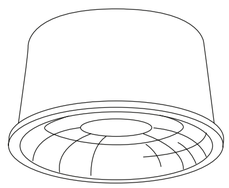


sunDYNAMIC®

Power	13 Watt		
Colour Temperature / Luminous Flux	2700 K / 740-950 lm* 3000 K / 770-970 lm*	2700 K / 810-995 lm* 3000 K / 880-1075 lm* 3500 K / 910-1115 lm*	2700-6500 K / 660-1020 lm*
Colour Rendering	CRI 97	CRI 98	CRI 98
Lighting Effect	Calming Effect	Activating Effect	Dynamic Effect
Technology	Sunlight Colour Spectrum / Natural Blue Component / Flicker Free / 0 % Dimming		
Power Source	Constant Current 300 mA / 36 V		
Control System	Switchable Phase Dimmable DALI Casambi		

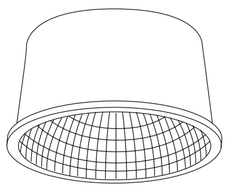
* Depending on lens/reflector

LENSES



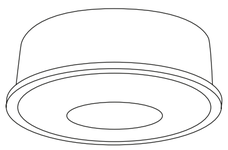
HEL OPTIK – High Efficiency Lens
Highly efficient lens for maximum light output.

15° 24° 36° 60°



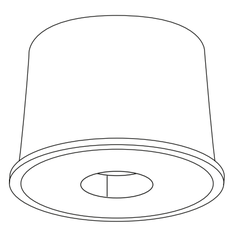
HER OPTIK – High Efficiency Reflector
Highly efficient reflector for maximum light output.

15° 25° 38° 60°



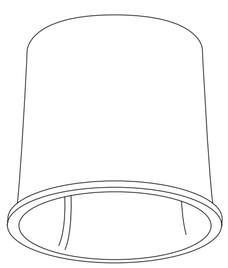
LPL OPTIK – Low Profile Lens
Highly efficient lens for a shallow installation depth.

15° 24° 36° 60°



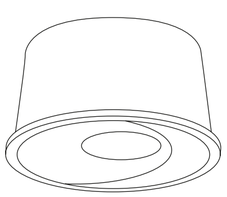
LGL OPTIK – Low Glare Lens
Highly efficient lens for maximum glare control.

18° 24° 38° 50°



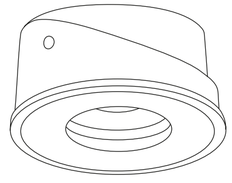
38°

ADL OPTIK – Architecture Design Lens
Highly efficient lens for maximum glare control with coloured reflector for design-oriented applications.



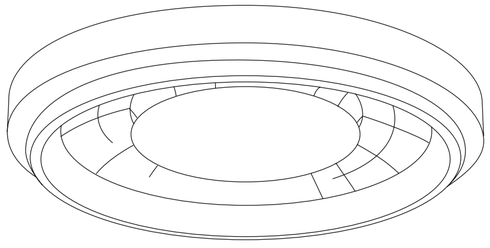
20° 26°

AWL – Asymmetric Wall Lens
DAWL – Double Asymmetric Wall Lens
Highly efficient lens for single or double-sided asymmetrical light emission.



FLGL OPTIK – Low Glare Lens
Highly efficient lens for maximum glare control, tiltable from 0-30°.

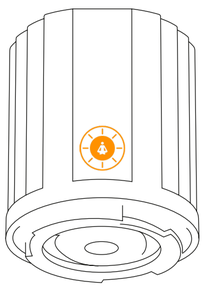
30° 40° 50°



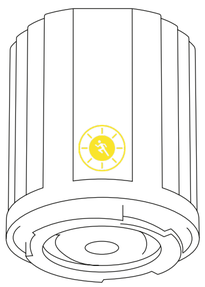
HEL111 OPTIK – High Efficiency Lens
Highly efficient lens for maximum light output as AR111 variant.

10° 20° 30° 65°

MODULAR LIGHT ENGINES



sunBALANCE®



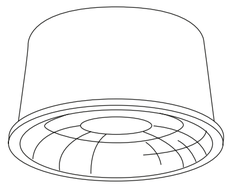
sunACTIVE®

Power	10 Watt	
Colour Temperature / Luminous Flux	2700 K / 540-700 lm* 3000 K / 600-770 lm*	2700 K / 600-800 lm* 3000 K / 710-865 lm* 3500 K / 740-900 lm*
Colour Rendering	CRI 97	CRI 98
Lighting effect	Calming Effect	Activating Effect
Technology	Sunlight Colour Spectrum / Natural Blue Component / Flicker Free	
Power Source	200-240 VAC 50/60 Hz	
Control system	Switchable Phase Dimmable Casambi	

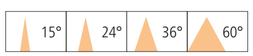
* Depending on lens/reflector

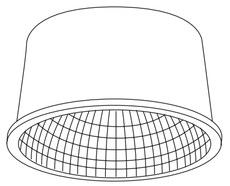
HV

LENSES

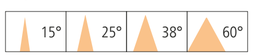


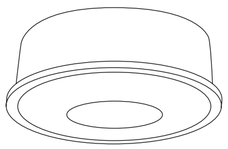
HEL OPTIK – High Efficiency Lens
Highly efficient lens for maximum light output.



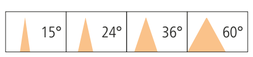


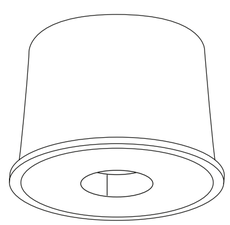
HER OPTIK – High Efficiency Reflector
Highly efficient reflector for maximum light output.



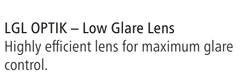


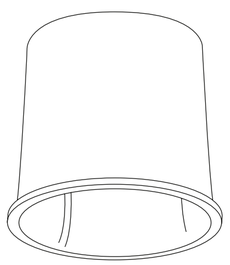
LPL OPTIK – Low Profile Lens
Highly efficient lens for a shallow installation depth.



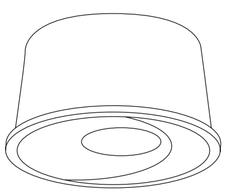


LGL OPTIK – Low Glare Lens
Highly efficient lens for maximum glare control.





ADL OPTIK – Architecture Design Lens
Highly efficient lens for maximum glare control with coloured reflector for design-oriented applications.



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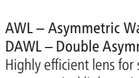
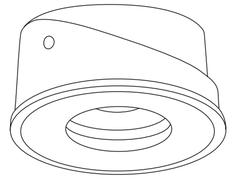
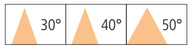
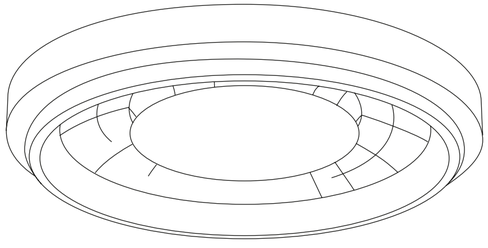


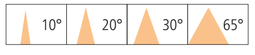


FLGL OPTIK – Low Glare Lens
Highly efficient lens for maximum glare control, tiltable from 0-30°.



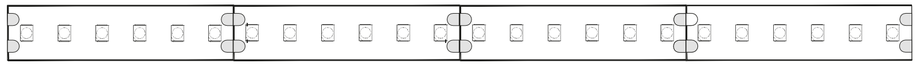


HEL111 OPTIK – High Efficiency Lens
Highly efficient lens for maximum light output as AR111 variant.



FLEX LIGHT ENGINES

CV

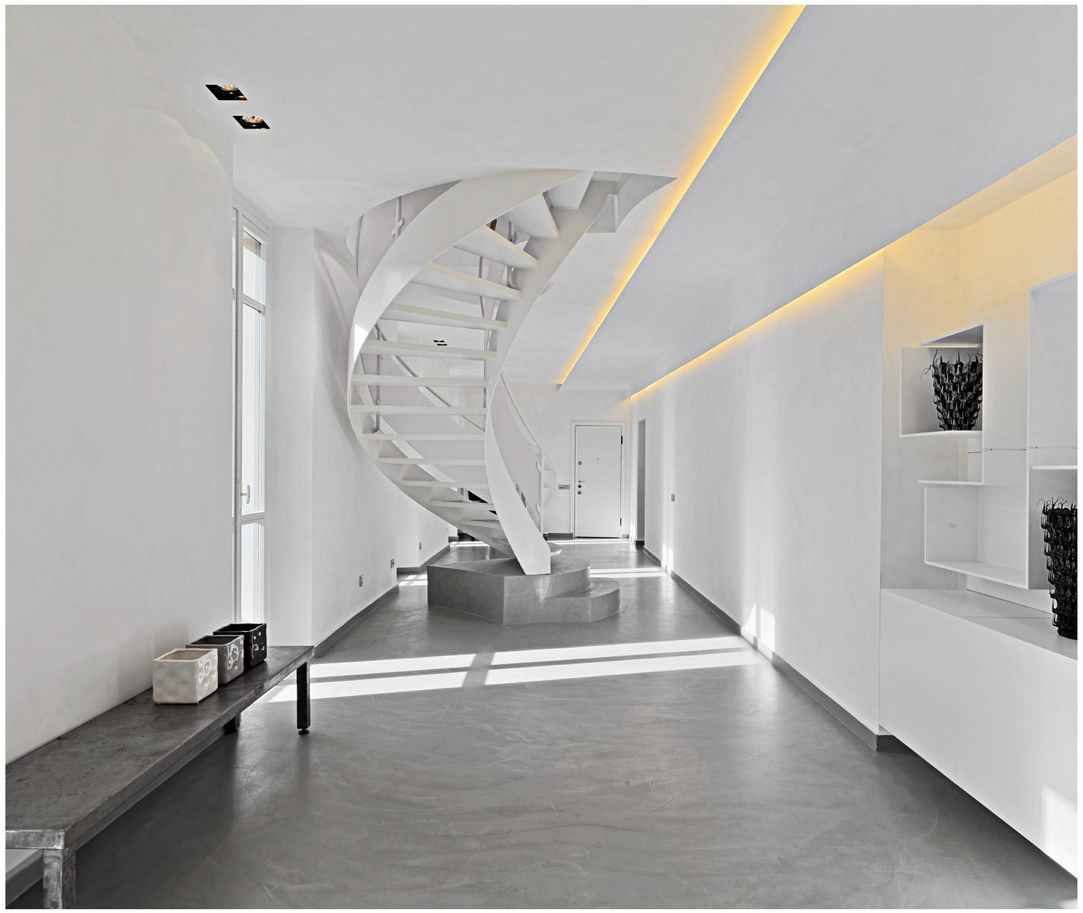


sunBALANCE®

sunACTIVE®

sunDYNAMIC®

Power	28,8 Watt/m		
Colour Temperature / Luminous Flux	2700 K / 2050 lm/m 3000 K / 2100 lm/m	2700 K / 2050 lm/m 3000 K / 2100 lm/m 3500 K / 2200 lm/m	2700-6500 K / 1025-1100 lm/m
Colour Rendering	CRI 97	CRI 98	CRI 98
Lighting Effect	Calming Effect	Activating Effect	Dynamic Effect
Technology	Sunlight Colour Spectrum / Natural Blue Component / Flicker Free / 0 % Dimming		
Power Source	24 VDC		
Control System	Switchable DALI Casambi		



A new lighting experience

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