

SKY4WELL
blue infinity



When innovation lights up the future

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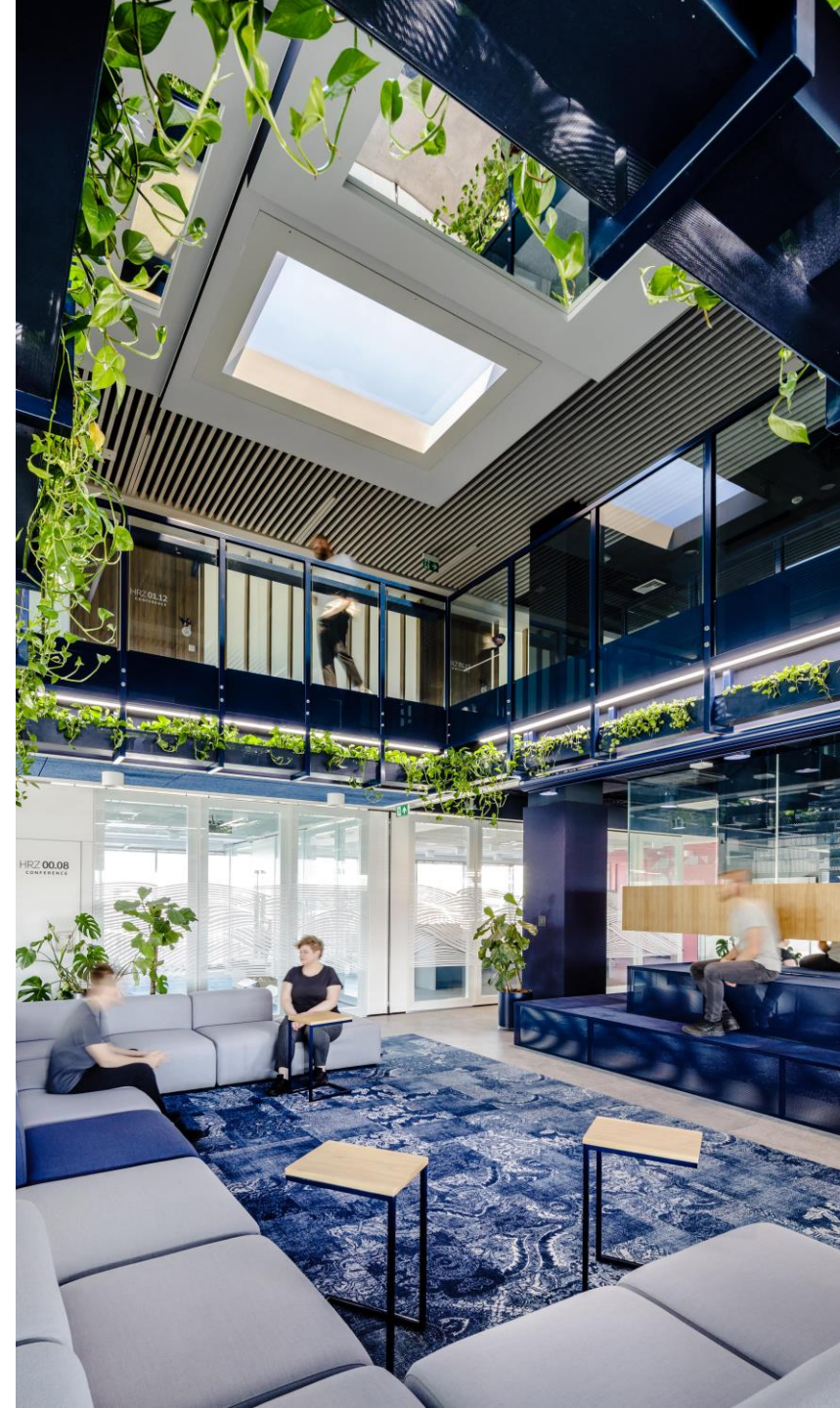
With its innovative vision, **SKY4WELL's** mission is to transform interior environments into true havens of health and well-being. Using cutting-edge optical technologies, we create tailor-made solutions that offer optimal light quality, adapted to every need.

Discover how to create dynamic, human-centered environments that inspire, revitalize and captivate.





Daylight, which regulates our biological rhythms, is a dynamic and complex mix of visible and non-visible light that has a significant impact on human physiology and behavior.





Experience the Sky

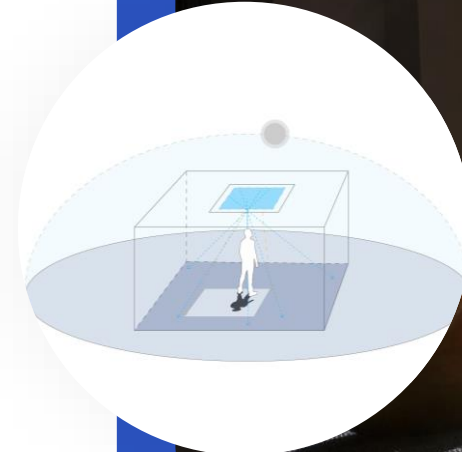
CoeLux

- Appearance of depth behind the window
- Reproduction of the angular and spatial distribution of natural light
- High CRI: reproduction of the natural light spectrum
- Wide color gamut CCT: Emulation of perceived sky color
- Dynamic modulation of all components throughout the day
- Aesthetics of windows and skylights



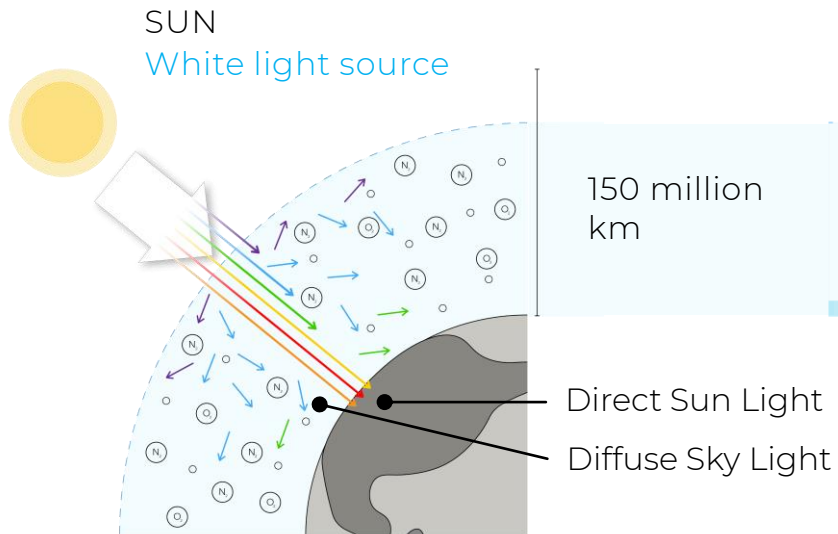
CoeLux skylight

- CoeLux sky illumination on floors and walls (compared with CoeLux sun illumination) is up to an order of magnitude greater than the illumination produced by real sky light.
- As a result, CoeLux internal shadows are closer to external shadows than those produced by a real skylight.
- In other words, CoeLux lighting is more "natural" than lighting produced by a real skylight.

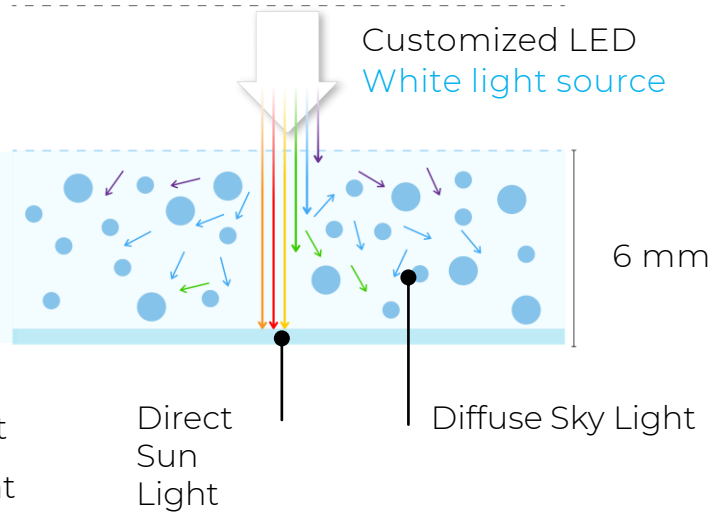


How CoeLux technology works

The sky effect in nature



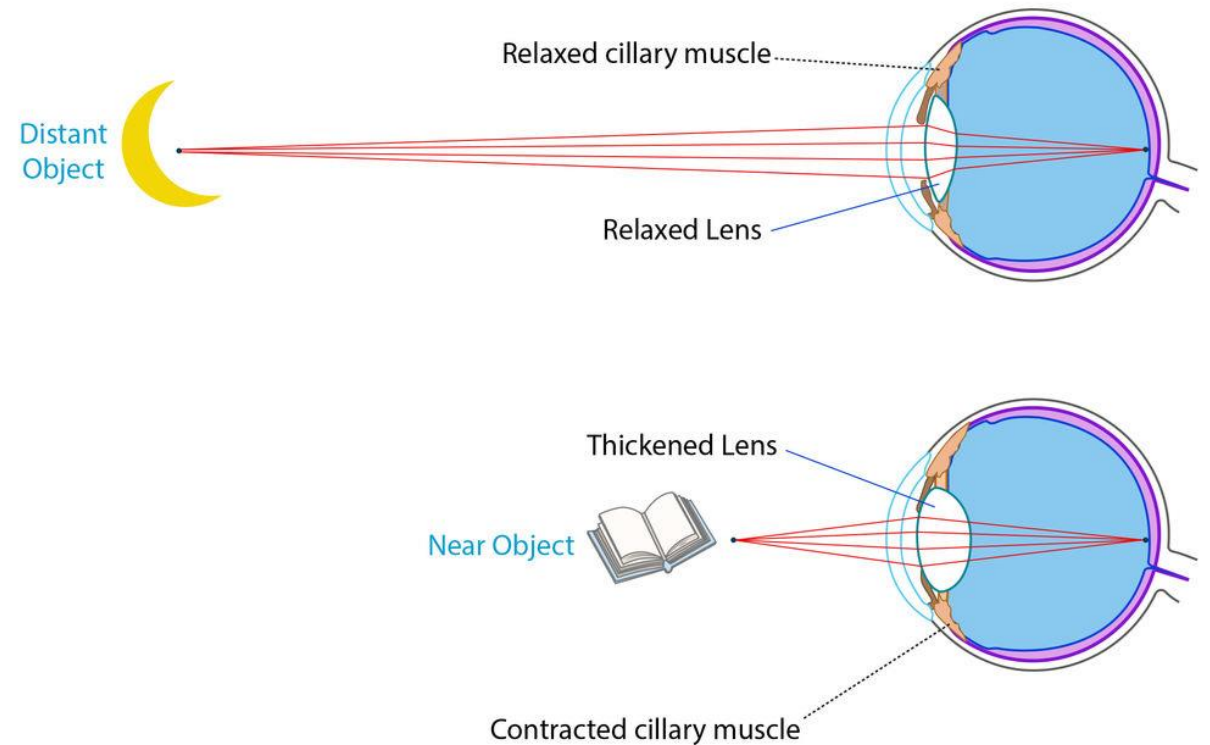
How the CoeLux Technologies works



Infinite depth technology

- Binocular vision
- Focus and accommodation
- Parallax motion
- Perspective and overlap
- Shadows and lighting
- Sizing and scaling

How the eye focuses light







Technology based on three pillars

Pillar 01

THE LIGHT-EMITTING DIODE "SUN" SIMULATOR

Custom-built, high-brightness light-emitting diodes, organized in a tight optical pattern, provide the spectral quality, luminance and direction necessary to produce a convincing simulation of the sun.

Pillar 02

THE OPTICAL "INFINITY VIEW"

By making appropriate use of the psychophysiological effects of eye focus and convergence, parallax and aerial perspective, the device creates the optical illusion of a sky and sun at an infinite distance from the observer.

Pillar 03

NANOTECHNOLOGY'S BROADCASTING "SKY"

A random dispersion of nanoparticles in a thin transparent material reproduces the same quality and quantity of Rayleigh scattering as the sun's rays as they pass through the atmosphere, giving our skies a luminous, blue appearance. The technology is compatible with different types of material, for small/large or indoor/outdoor applications.



The benefits

Effects on humans:

- Objective (statistics)
- Based on age, situation, status

Visuals:

Requirements to perform tasks according to activity, environment and personal conditions.

Emotional :

Acute effects, such as emotions, mood swings, performance, stress and fatigue.

Biological :

Photobiological safety and visual comfort (e.g. retinal damage, headaches caused by flicker). Physiological impact - synchronization of the biological clock.

In **2020**, the definition of light drawn up by the International Commission on Illumination (CIE) extended the concept of vision to include non-visual reactions.





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The impact of light on circadian rhythms

Beyond visual performance, natural light has an influence on many psychophysiological parameters in human beings, acting also as a circadian rhythm regulation system, it regulates stress, fatigue and mood, has an effect on performance (e.g. cognitive performance) and on quality of life.

BODY TEMPERATURE

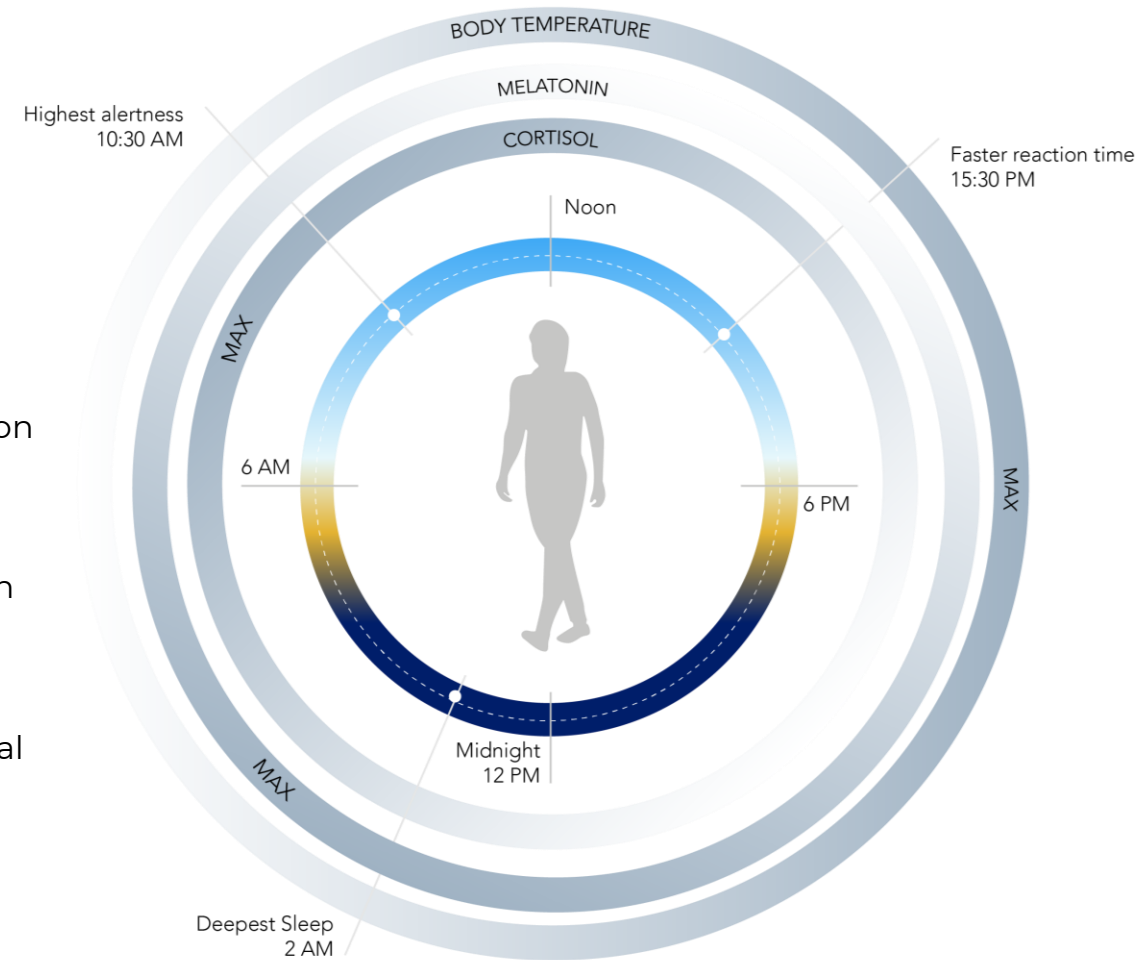
Body temperature varies cyclically throughout the day, according to a circadian rhythm.

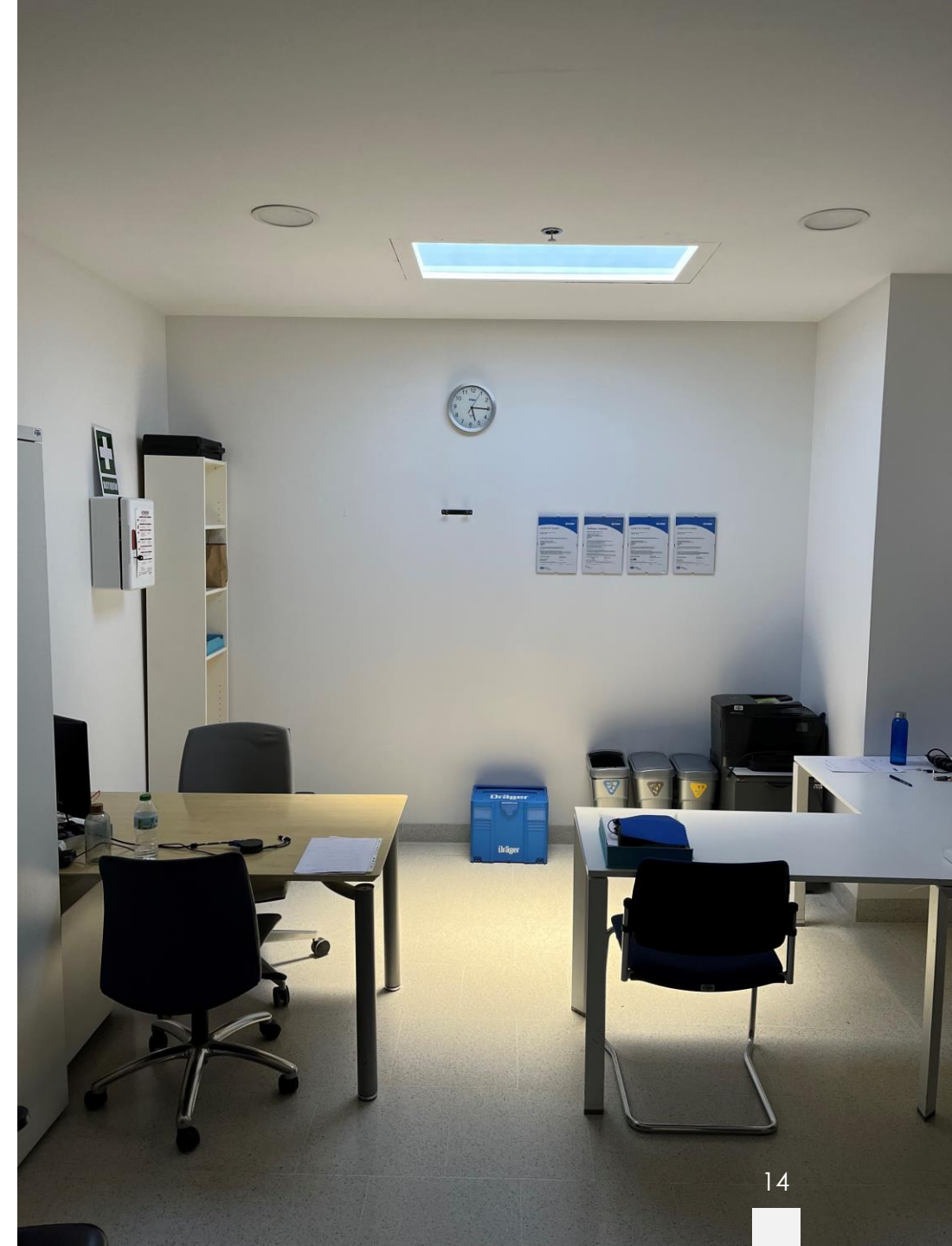
MELATONIN SECRETION

Secretion is regulated by light: when a light stimulus reaches the retina, a signal is transmitted to the epiphysis, where secretion is inhibited. Darkness, on the other hand, stimulates its release.

CORTISOL SECRETION

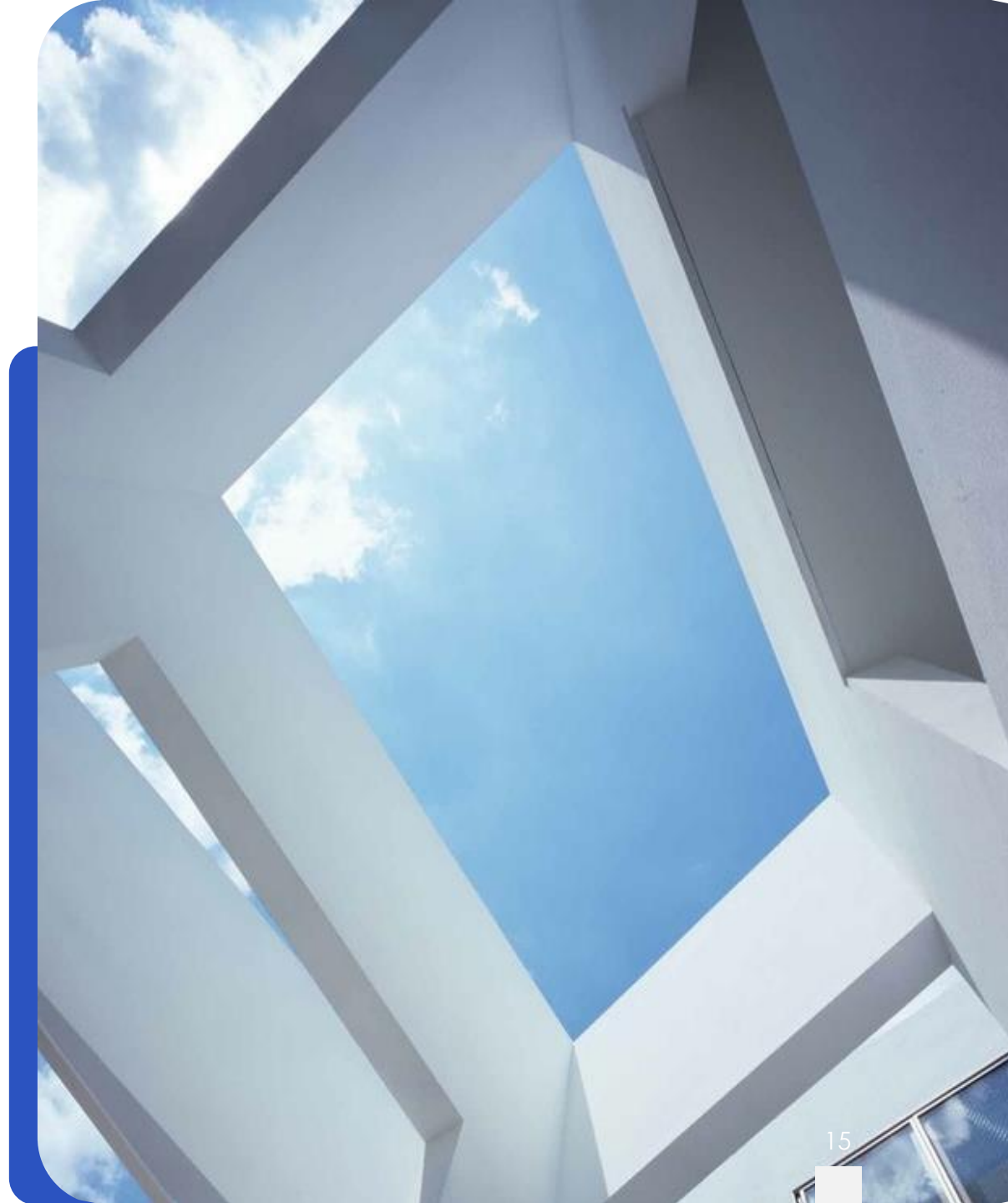
Cortisol is often referred to as the "stress hormone", as its production increases under conditions of psychophysical stress.





Infinite depth of view

- The natural sky is perceived vertically above us. Its appeal encourages us to stand up and look up, which has a positive impact on our posture and mood. Up means positive.
- The appearance of the device when viewed directly creates the visual impression of infinite depth for the sky and infinite position for the light source simulating the sun. An observer inside the room who can look directly at the sun perceives it as being located at an infinite position, a feature made possible by the optical configuration implemented in the lighting system.
- This effect creates the perception of depth and space beyond the opening of the device.



Healthcare fields

Specific application

- Prolonged stays in spaces such as treatment rooms, medical clinics, bunkers, doctor's surgeries, control rooms, etc.
- Short-stay spaces: corridors, waiting areas, elevator areas, recreation areas, religious areas

Main effects

- Better sleep quality and regulation of circadian rhythm
- Perception of the environment as less claustrophobic and stressful
- Decrease in heart rate and increase in recorded heart rate variability
- Improved mood. Enhanced cognitive functions
- Requalification of underground spaces (frequently found in hospitals and clinics), bunker and MRI rooms and other functional spaces

Patient:

- Increased energy levels and reduced depression
- Improved sleep quality
- Improved patient satisfaction

Employees :

- Increased concentration
- Reducing the risk of accidents
- Less fatigue

Healthcare service providers :

- Reduced hospital stays
- Increased efficiency of the digitization process

EXAMPLES OF POSSIBLE INSTALLATIONS

Hospitals

Hospital wards, outpatient clinics, doctors' surgeries, offices, waiting rooms, corridors, elevator landings, basements, canteens and catering services, sacred places, conference rooms (university hospitals).

Medical offices

Outpatient clinics, waiting rooms, lactation rooms, specialized practices (dental, pediatric).

Laboratoires

Research centers, test laboratories





Exposure to natural light

Exposure to natural light is the first quality that adds value to a residential property.

01 Specific application

- **Long stay in space:** living spaces, kitchens, bathrooms, basements, home offices.
- **Short stays in the space:** corridors, elevator zones, common areas.

02 Key impact

- Better sleep quality and regulation of circadian rhythm.
- Perception of the environment as less claustrophobic and stressful.
- Better use of basements and other windowless spaces.
- Increase in property value in chf-euros/m².





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