



# Health & Care

 Intra lighting



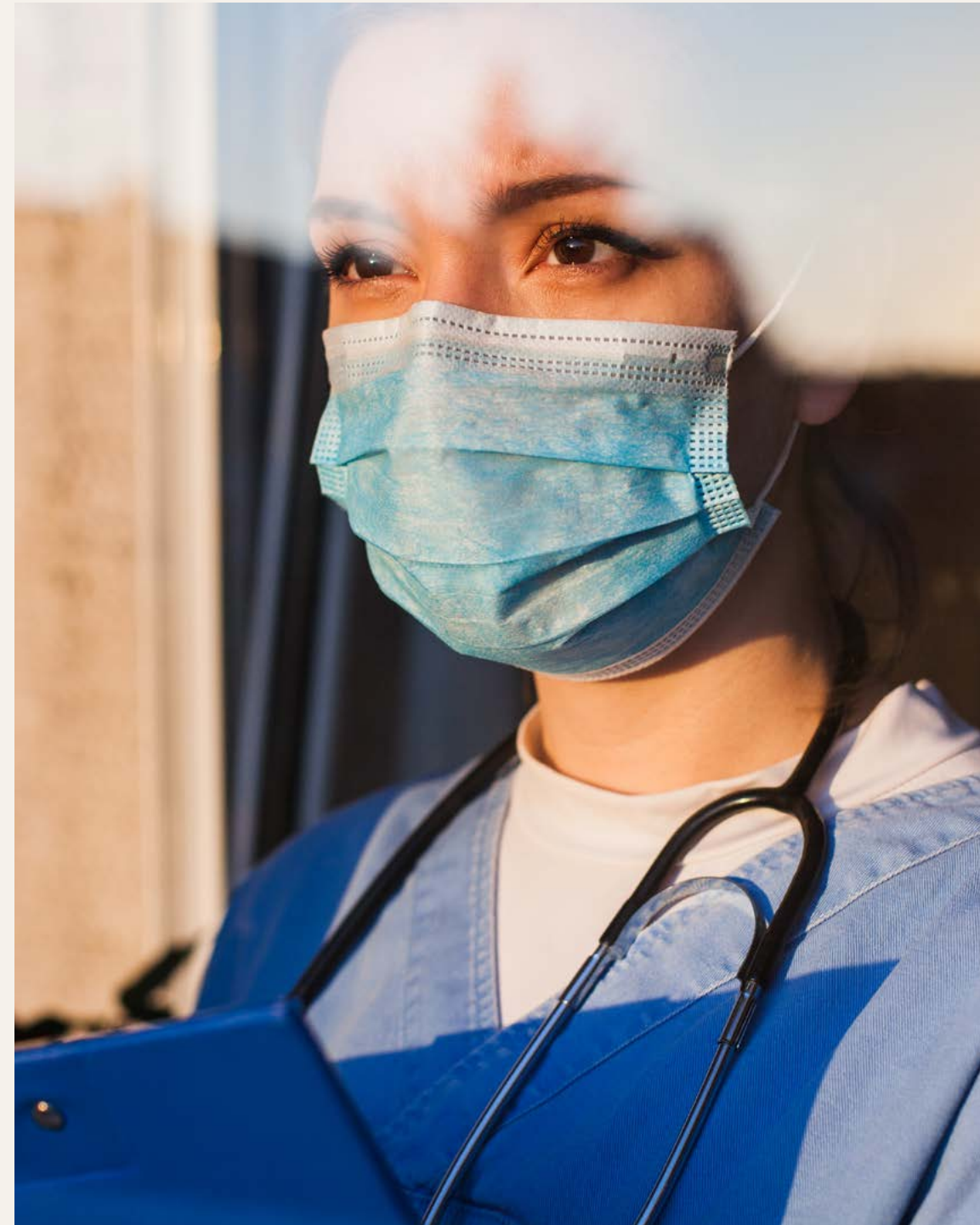
# Human - friendly hospital

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**Patients, medical staff and  
relatives**







## Balancing all needs

When planning a modern hospital, it is important to consider all users and their needs: the comfort and well-being of **patients** and their **relatives**, faster and easier **medical staff** work, easy maintenance, durability and upgradability, energy saving and consequent financial efficiency for the **management**.





**5–9**  
**days**

is the average duration  
of hospitalization

**2x**  
**more energy**

Hospitals consume 2x more energy as  
business and commercial facilities

**90%**

of our time is spent indoors

**25+**  
**years**

is the average period of wear and tear  
when the hospital needs to be rebuilt



# 5–9 days is the average duration of hospitalization

With proper light, we can significantly shorten recovery time. Let the hospital stay be friendly and dignified, the recovery fast. Shorter stay means lower costs and greater savings.



**90% of our time  
is spent indoors,  
often without  
daylight.**

With the concept of 'human centric lighting', we can get closer to daylight, regulate the circadian rhythm, which improves concentration, well-being and efficiency.



# Hospitals consume 2x more energy as commercial facilities

With thoughtful, efficient and energy-saving lighting, we can reduce costs by up to 60% and reduce CO2 emissions into the environment. And not at the expense of poorer services.

**25+ years is the average period of wear and tear when the hospital needs to be rebuilt**

A sustainable hospital has a flexible, future-oriented design. It dynamically adjusts its capabilities according to needs and changes (modular components, multipurpose spaces). It can follow and adapt to technological developments.



# Key areas



# Entrance

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**This is where  
it all begins**





# Welcome light

For the immediate sense of security keep the entrance as friendly and soothing as possible. The excitement of patients and relatives is already large enough to be only increased by vague architectural communication. It is important to expose the reception desk, take care of intuitive orientation and bring the space the sense of warmth.

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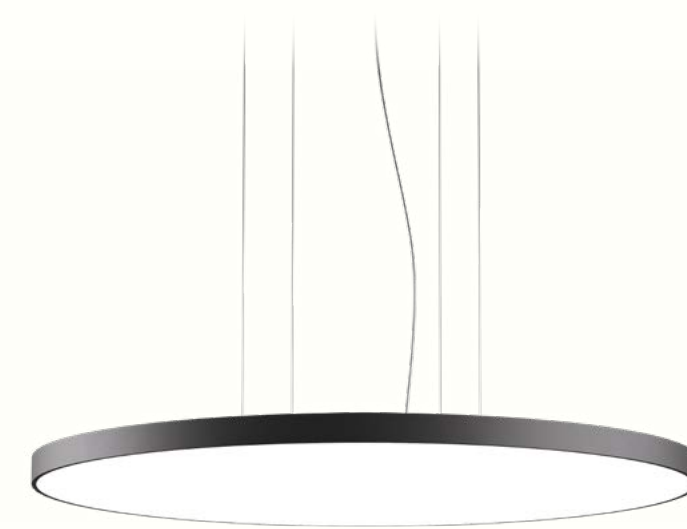
# You can't go wrong with these



**Wave**



**Issa**



**Lona**



# Patient's room

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**There's no place like  
home, but it can be  
almost like home**





# Balancing all needs

The lighting of a hospital room is very complex, as it has to strike a balance between the needs of patients and medical staff. Patients need a calm and homy environment where they feel relaxed. With proper light, we can enhance and prolong their sleep, as well as improve their mood. On the other hand, medical staff needs strong light.

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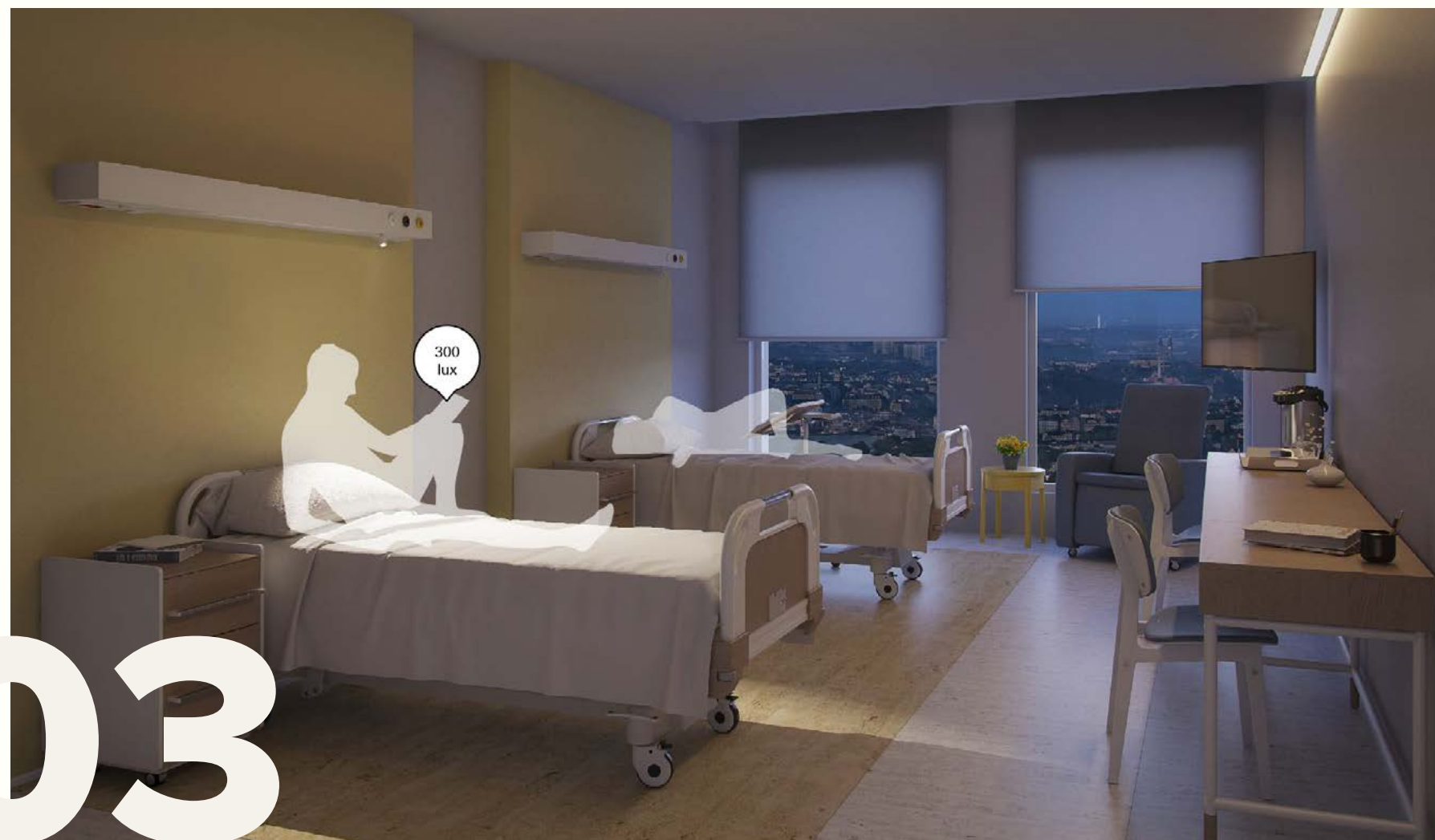
01

Everyday medical visit



02

When relatives come to visit



03

Reading before going to sleep



04

Night light





## Everyday medical visit

Medis provides homogenous, glare-free light, needed in patient's care and simple clinical examinations. It offers a maximum illumination of 1000 lux in the visit scenario. During the day, the lighting is complemented by natural light, which is ideal for medical examinations and therapies.

## When relatives come to visit

Medis is a flexible multifunctional luminaire. It can quickly and easily adapt to different situations and needs, as it offers many predefined lighting scenarios and changing the intensity of colour and light. While patients prefer indirect asymmetrical lighting, which seemingly enlarges the space, Medis offers many other options.







## Reading before going to sleep

This lamp can create an intimate reading atmosphere that does not disturb other patients in the room. Patients can turn it on independently and regulate it by remote control. The average brightness at the reading settings is 300 lux without any glare.

## Night light

Medis provides night lighting without any glare with an illuminance of 5 lux. Not only a good bed is important for a good night's sleep. Even with the right light, we strengthen rest and thus speed up recovery. In unfamiliar environments, night light orientation is essential for nursing staff who can perform simple tasks without disturbing patients, as well as for patients who feel safe.

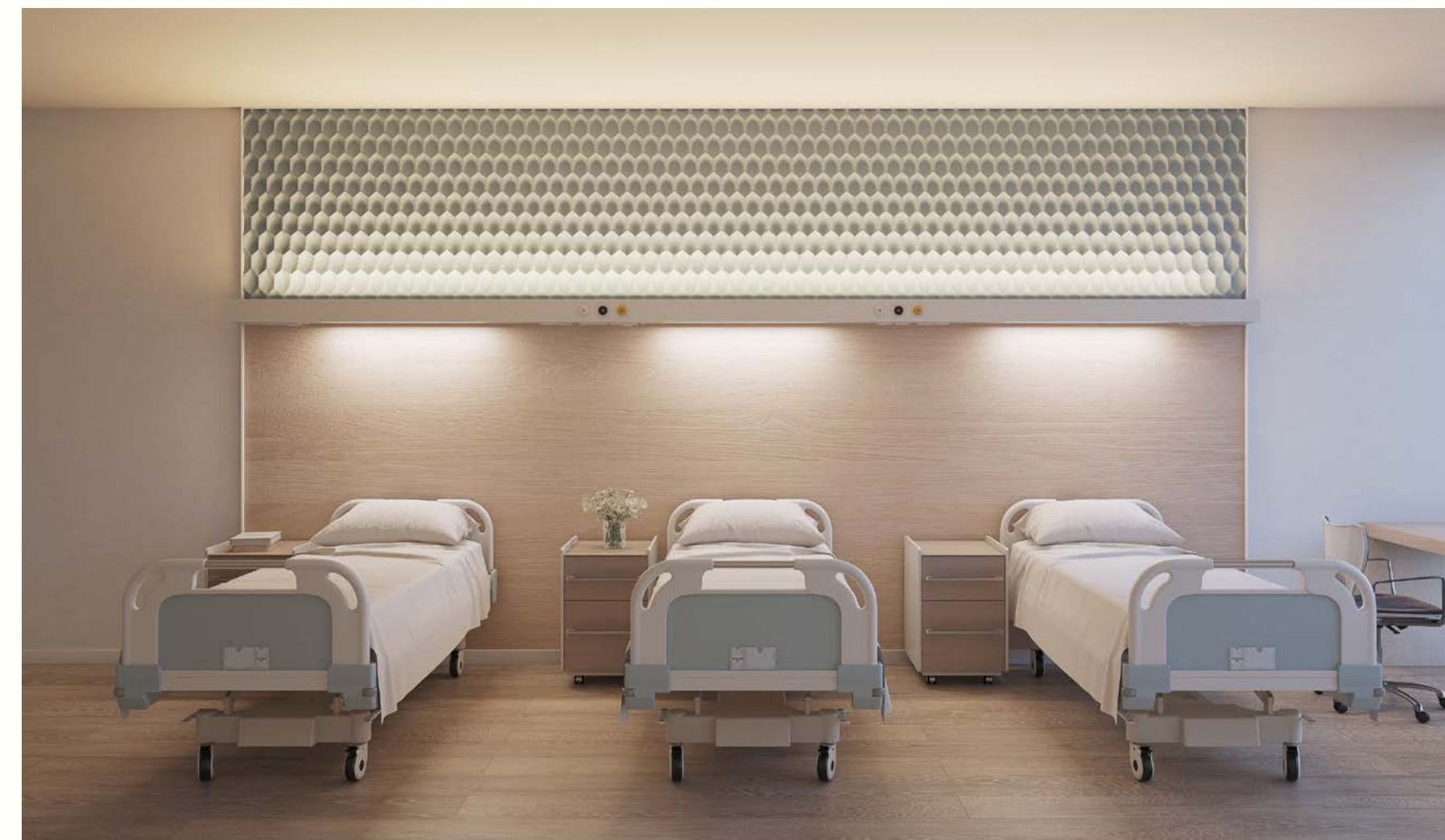




# **2 or 3 beds?** **Both!**

In emergencies, it is even more important to have flexible spaces and be able to add or remove beds. Medis perfectly solves such situations.

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# Children's department

By choosing Medis in a colour that is not typical for hospitals, you will create a friendly, even playful atmosphere. The warmth of the ambience is essential in the children's ward.

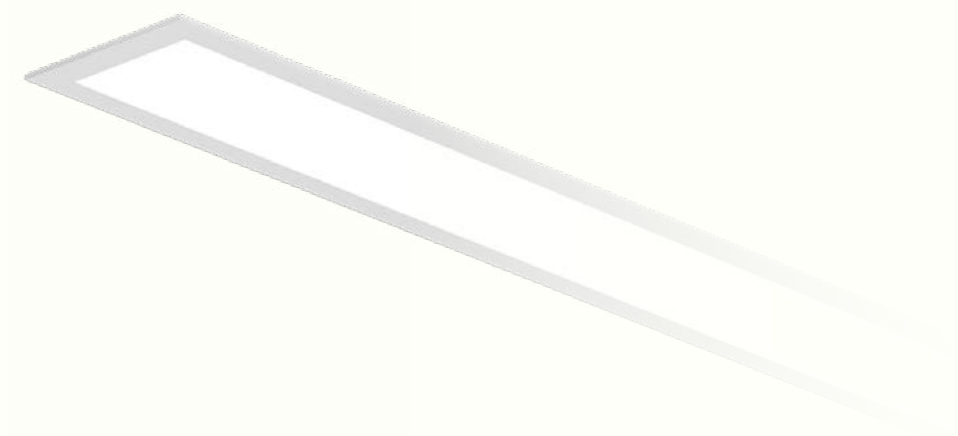
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# You can't go wrong with these



**Medis**



**Gyon**



**Lona R**



# Corridors

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**Spaces with many roles**



# Maximum savings

Corridors are spaces with many roles. They lead to patient's rooms, surgeries, laboratories, and at the same time are a space on their own. However, there is virtually no natural light in the corridors. Corridors are illuminated 24/7 and due to their surface area within a hospital environment the energy consumption is high, by choosing efficient lighting products a considerable amount of energy can be saved.

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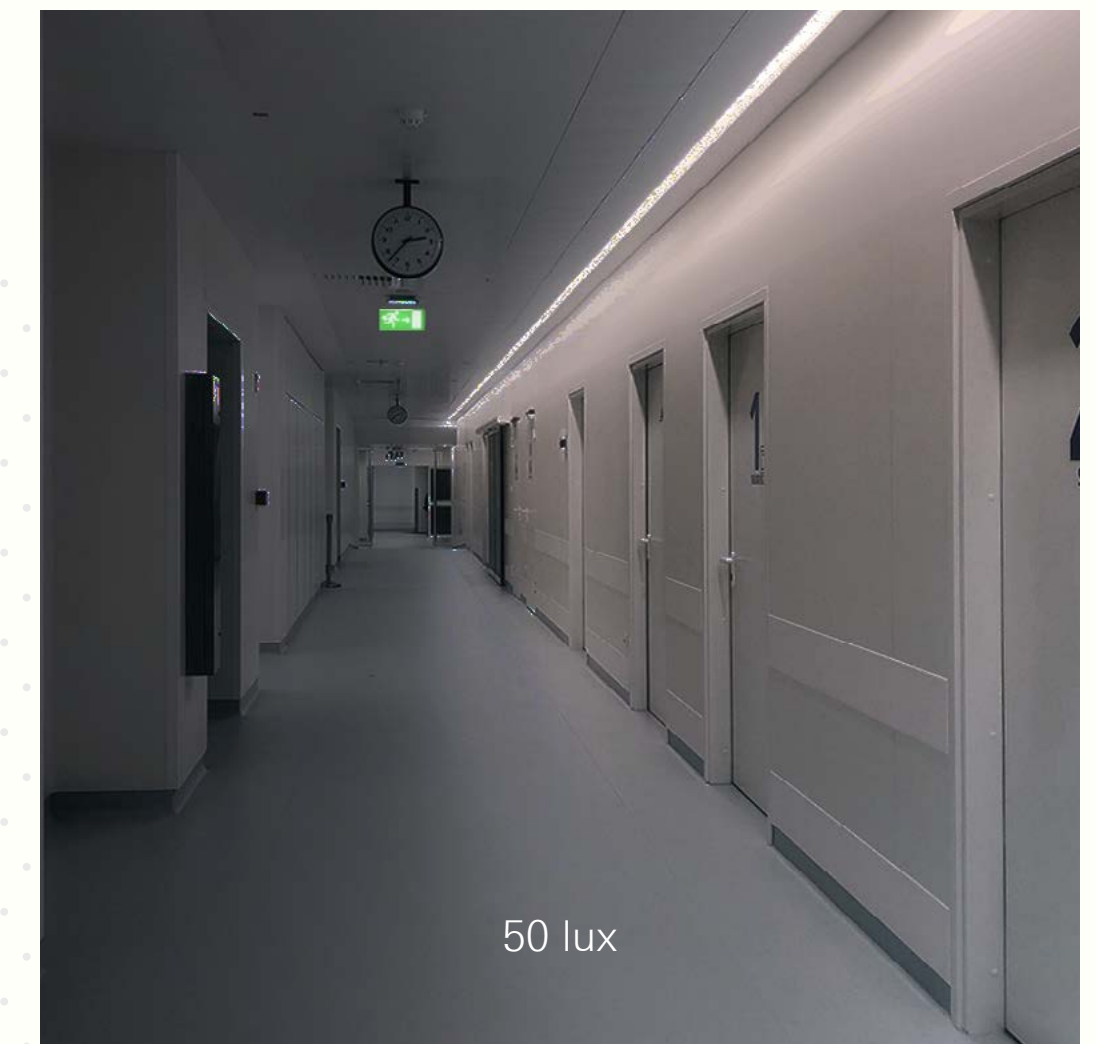


## No glare

A vertical lamp that gives a sense of spaciousness is usually the first choice of medical staff in any hospital. Patients lie all the time with their faces facing the ceiling, so it is essential to create less contrast and no glare.

## Day & Night scenarios

During the day, when corridors are illuminated 24/7 and due to their surface area within a hospital environment the energy consumption is high, by choosing efficient lighting products a considerable amount of energy can be saved. Also, since corridors also serve as workspaces or waiting rooms, the average luminosity should be 200 lux; when used only for transport, 100 lux is enough. At night, the brightness can be reduced to 50 lux. It makes sense to incorporate presence sensors to automatically reduce the illumination when nobody is occupying the area.





# Reception area

The reception area is multifunctional area, it is a task area for receptionists to perform administrative duties, it is an area used to greet and welcome both patients and visitors, therefore the correct illumination is required. During the evening time, where there is less occupancy the lighting can be switched from general lighting to more task oriented lighting for receptionists.

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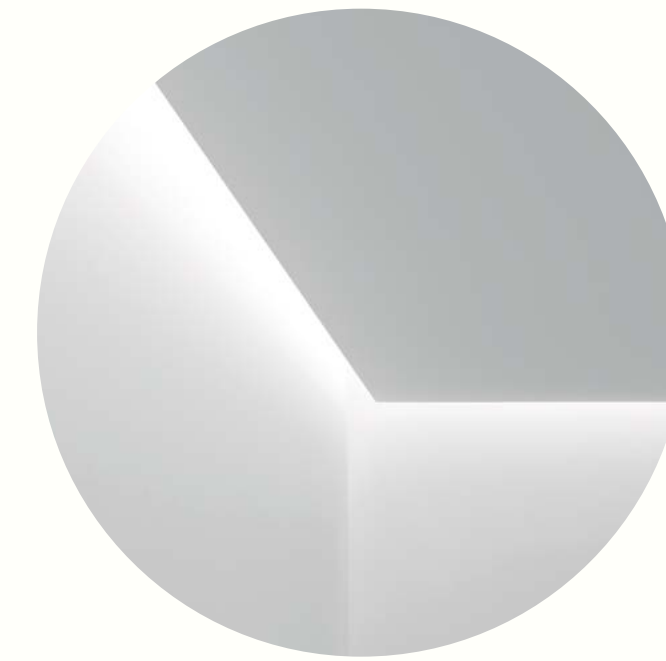
# You can't go wrong with these



**Gyon**



**Alkon**



**Cove 25**



# Waiting room

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**The only place where  
you want your time to  
pass faster**

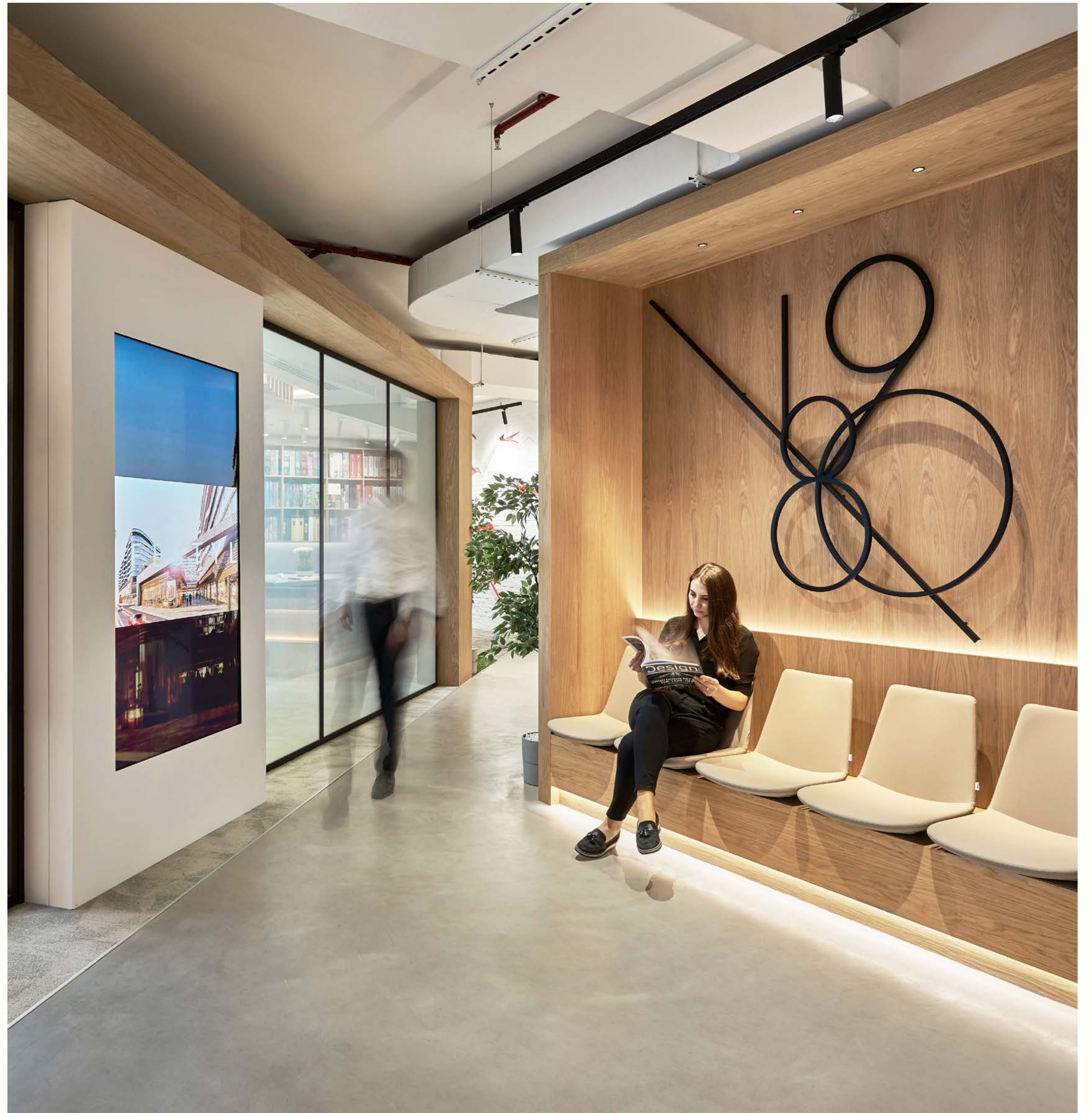




# Do you believe that waiting can be pleasant?

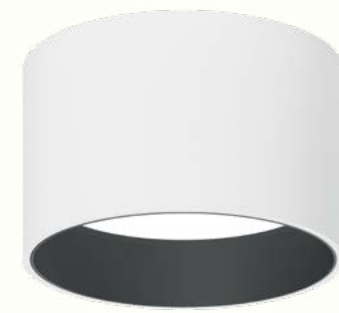
In the waiting room, it is important to create an atmosphere that increases the feeling of security and reduces discomfort. So we wonder why all the waiting rooms are cold and sterile. Warm and homely ambiences **calm the patients, dispel doubts and influence hope**. In addition to the choice of warm colours and materials, homogeneous light without glare, complemented by natural light, is the right solution.

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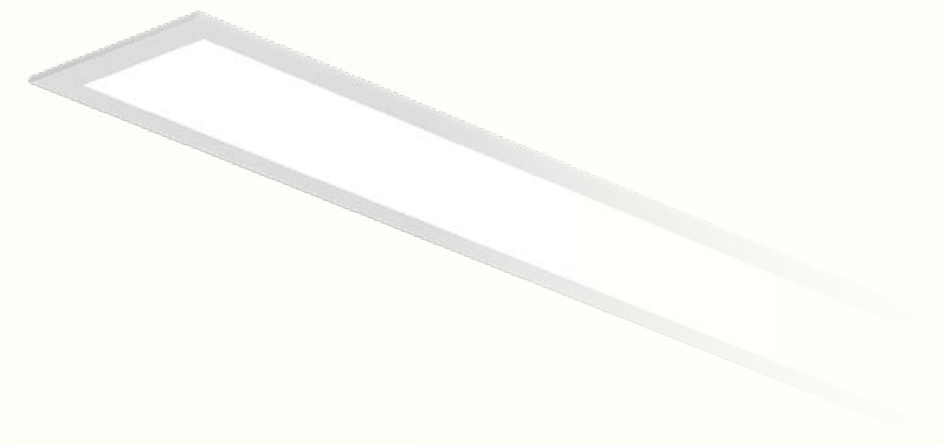




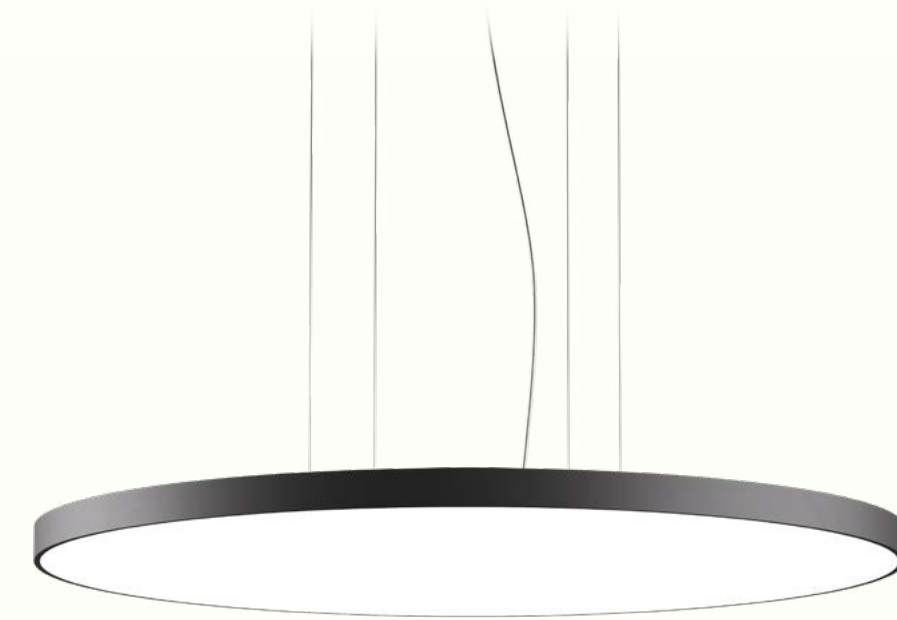
# You can't go wrong with these



**Nola**



**Gyon**



**Lona**



# Out of the room

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**A short escape from the  
hospital**





# Why should patients stay in bed all the time?

Hospitals strive to create pleasant, positive spaces in which patients and their loved ones can socialize in a relaxed manner and spend quality moments together. We can opt for evenly scattered light without contrasts, and more intimacy and warmth will be achieved with directed beams of light to individual points.

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# You can't go wrong with these



**Futon**



**Zoe**



**Lona**



# Examination rooms

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**A multifunctional space**





# Treatment room, a multifunctional space

Adequate lighting levels, colour rendering and the absence of glare will help the patient's sense of security and calm. Make sure that light does not bounce off work surfaces and at the same time allow doctors to examine and write accurately. Such a space is multifunctional; often, it functions as an office.

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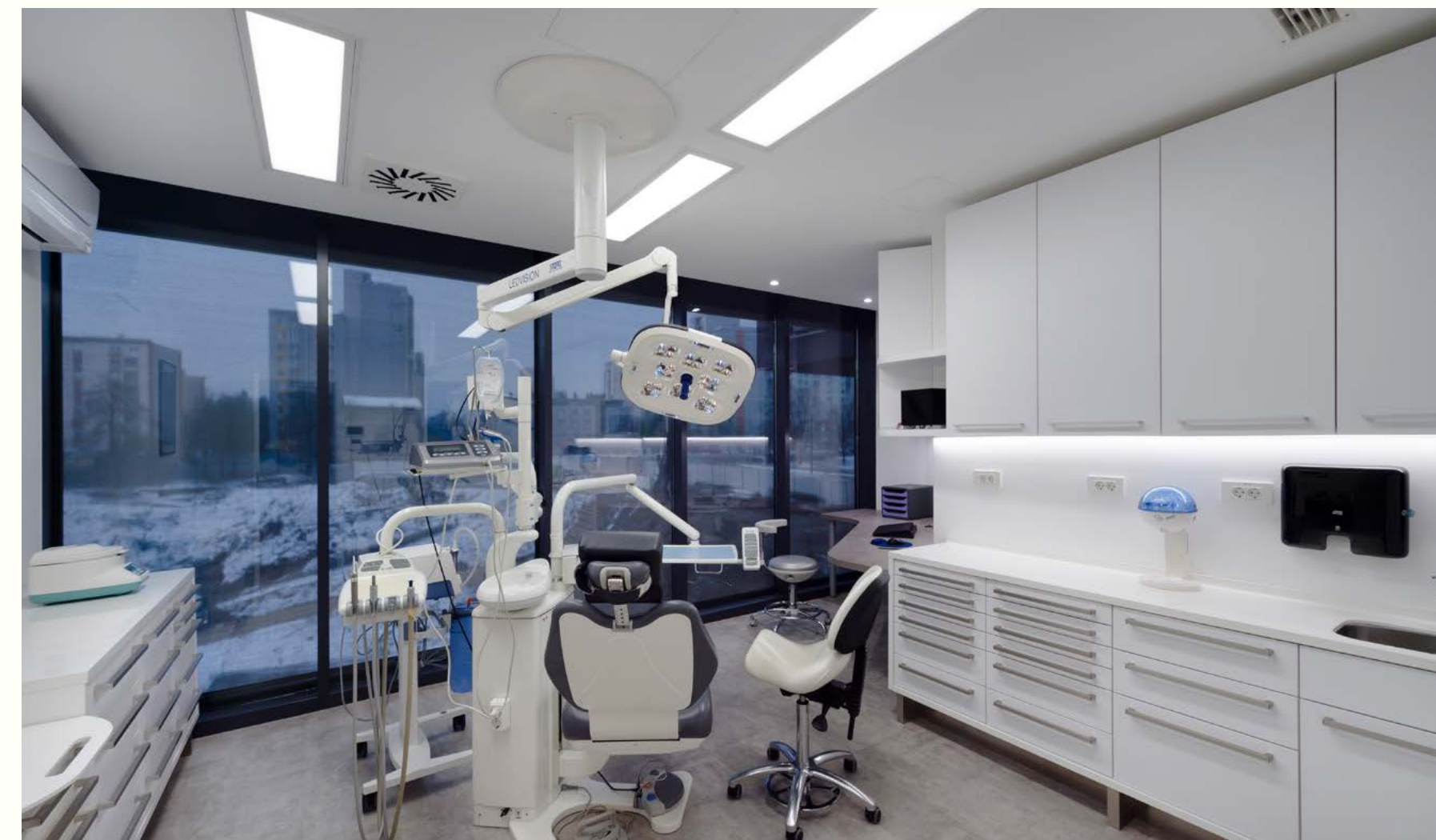




# Dental clinic

Lighting in a dental clinic should provide good vision for the staff and relieve for the patient. It is important to achieve a safe and inviting atmosphere that helps the patients to feel confident and calm. It is recommended to use lighting fixture that combine ambient and task lighting.

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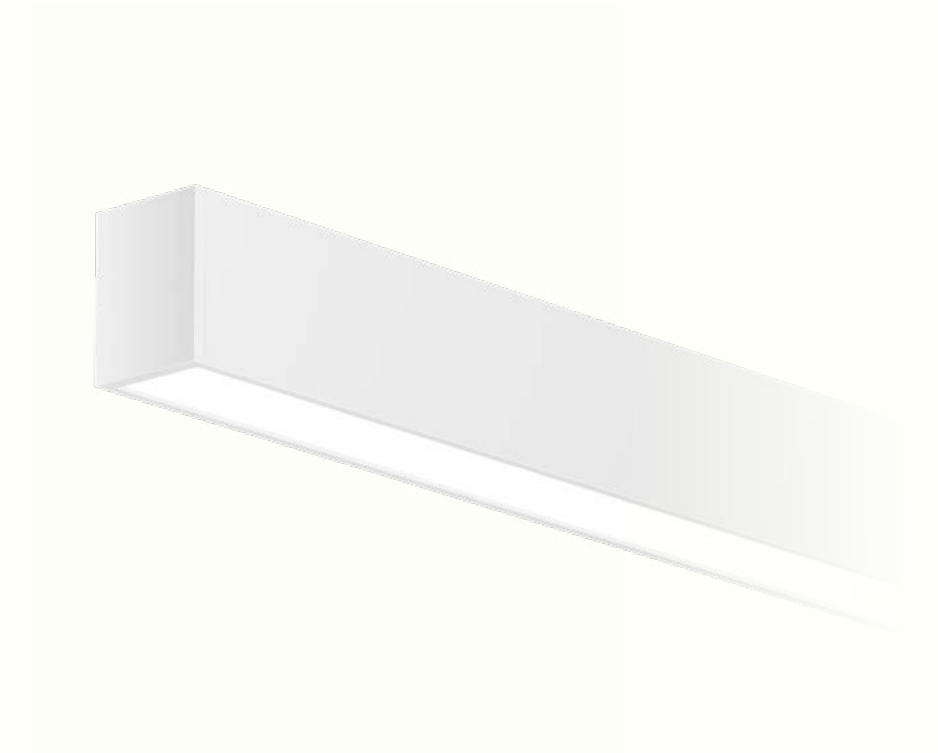




# You can't go wrong with these



**Alkon**



**Gyon**



**Lona**



# Laboratory

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**Precise light for  
precise work**





# The best combination is powerful and cold.

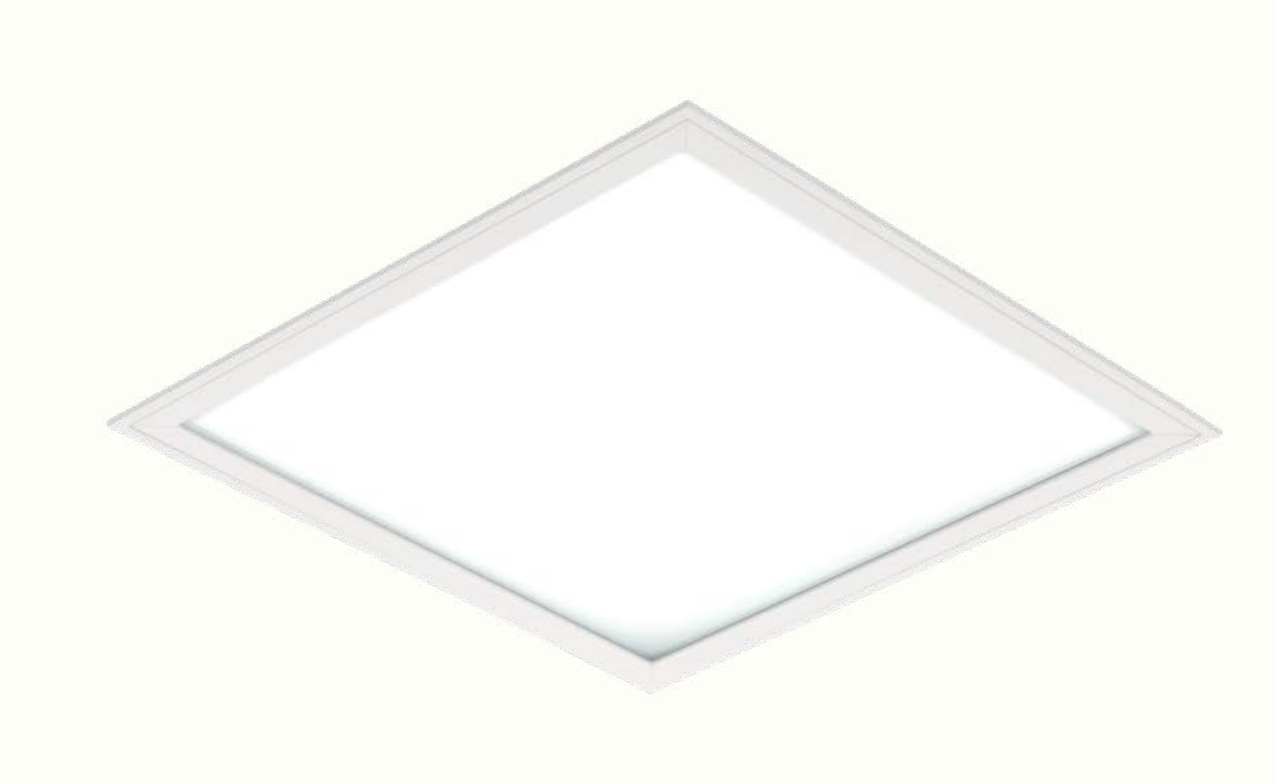
Precise work and necessity for high concentration need powerful and efficient lighting with cold colour temperature. Gyon offers homogenous light with no glare (UGR<19) and a high colour rendering index >90. With the presence and daylight sensors, the lighting can automatically adjust or turn on/off, increasing saving potential. Cove luminaire under the counter softly diffuses light across the working surface. For blood color sampling a colour temperature of 6000K is needed.

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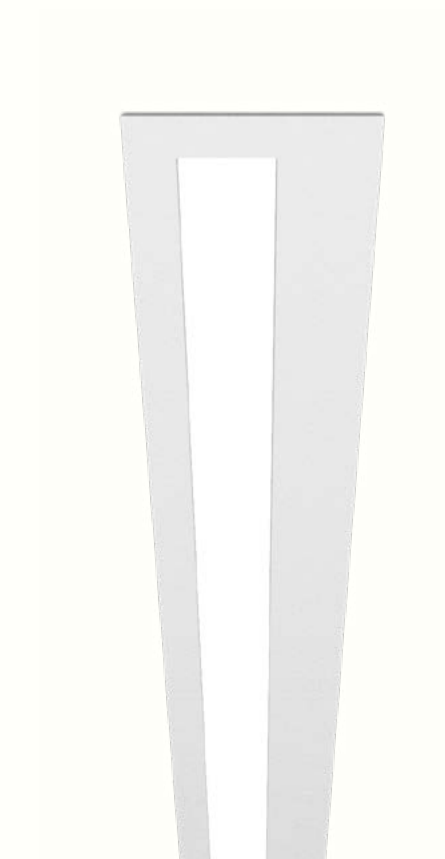
# You can't go wrong with these



**Alkon**



**Gyon**



**Cove**



# Retirement home

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**The older we get the  
more light we need**





# Retired but not tired

The need for light increases with age and the ageing of eyesight. Therefore, adequate lighting in a retirement home is essential, as it affects its residents' well-being, motivation, vitality and health.

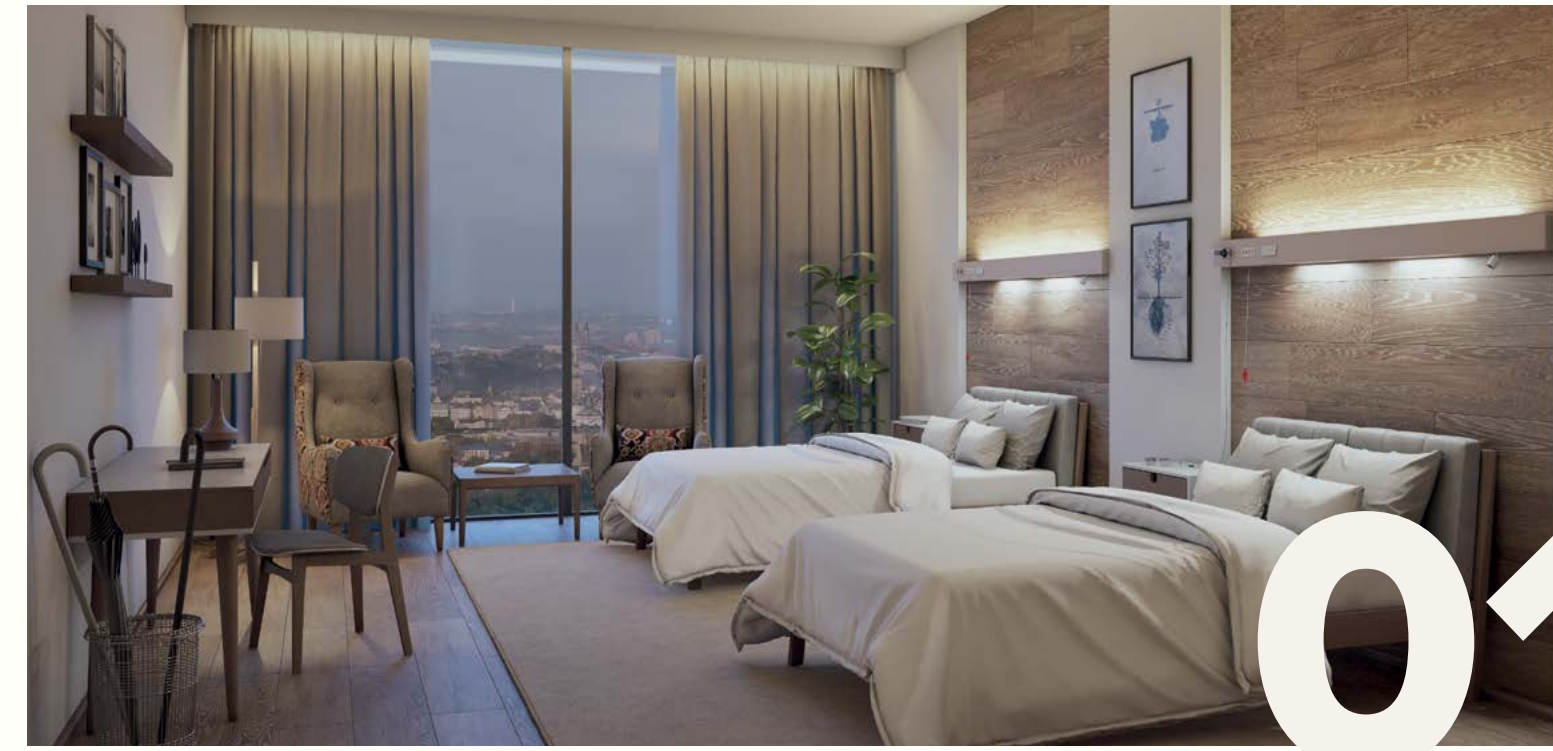
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# A multi-space room

A room in a retirement home is much more than a bedroom. The residents spend most of their time there. It's a place of multiple activities and a multitude of needs. Medis can quickly adapt to them. The flexible illumination enhances well-being while providing better living comfort.



When some more light is needed

01



Relaxing mood before falling asleep

02



Reading at night without disturbing the neighbour

03





## Make it feel like home

In the later stages of life, people need extra care, help and support. The transition to a retirement home is often challenging, so it is essential to take care of their well-being, to make them feel comfortable like at home. Ambiances should be warm and pleasant, and at the same time adapted to their limitations and needs.

## Night activities. Like going to the toilet.

At night, turning on the light is disturbing. The ideal solution is sensor lighting under the bed, which illuminates the room sufficiently so that the path to the toilet is visible but not unpleasant for the eyes.

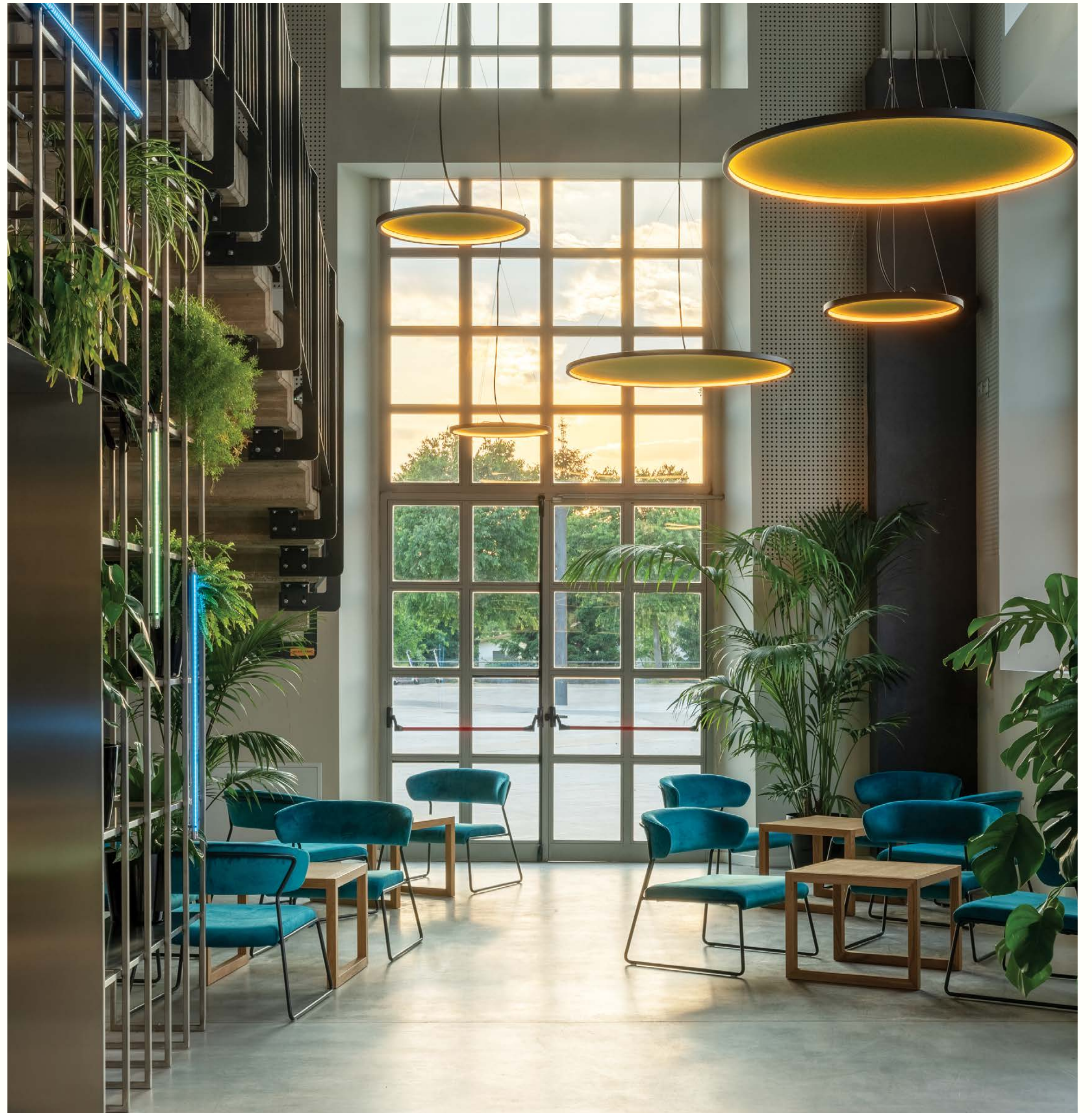




# Common spaces. Different light for different activities.

Older people like to socialize a lot. They meet in common areas where they chat, sing, play cards and board games. It is important that they feel calm and relaxed but at the same time motivated for various activities.

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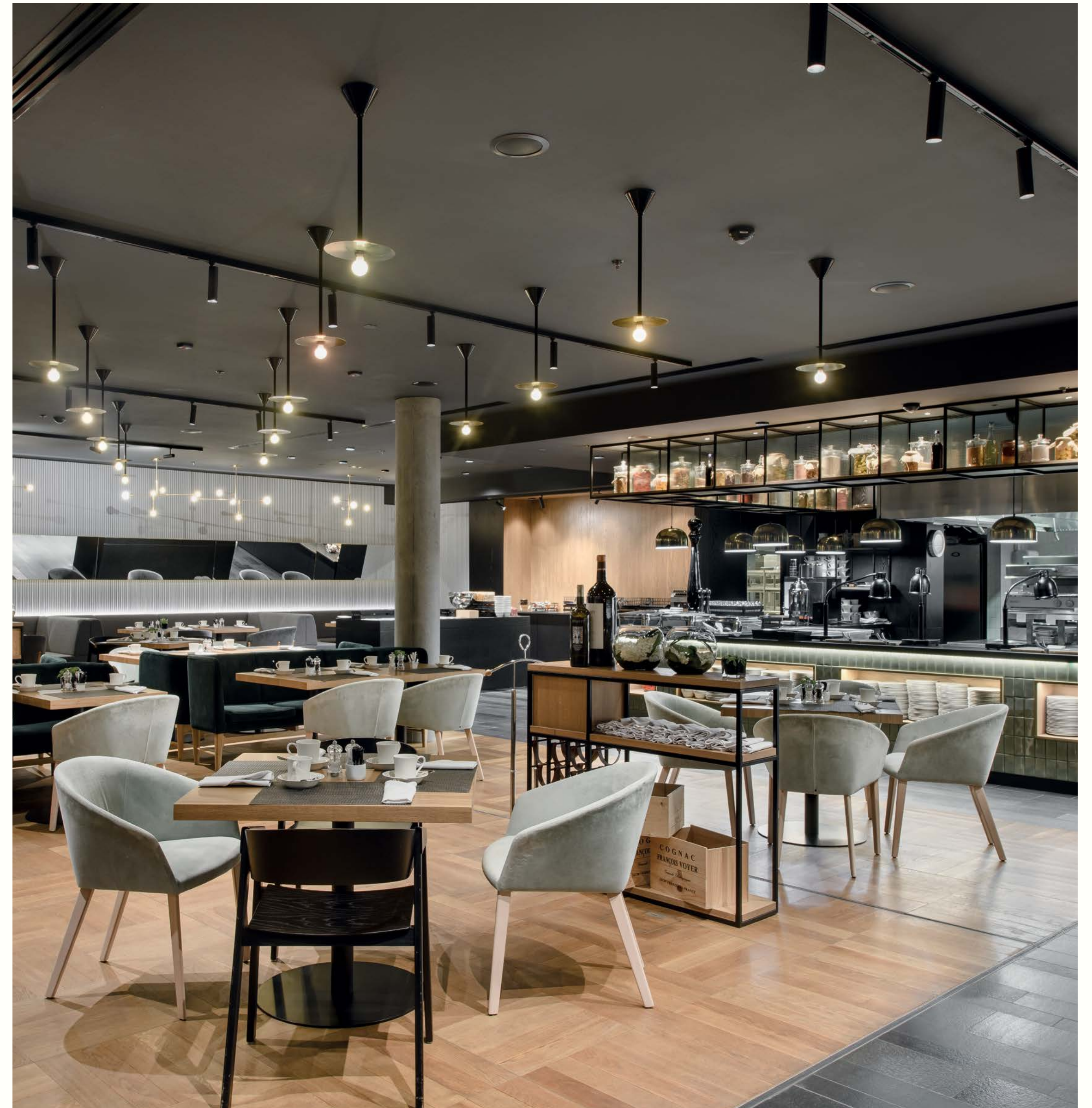




# From breakfast to dinner and all in-between.

A healthy diet in a pleasant environment is extremely important for the health of the elderly. Such a space can serve as a social space for various ways of spending free time.

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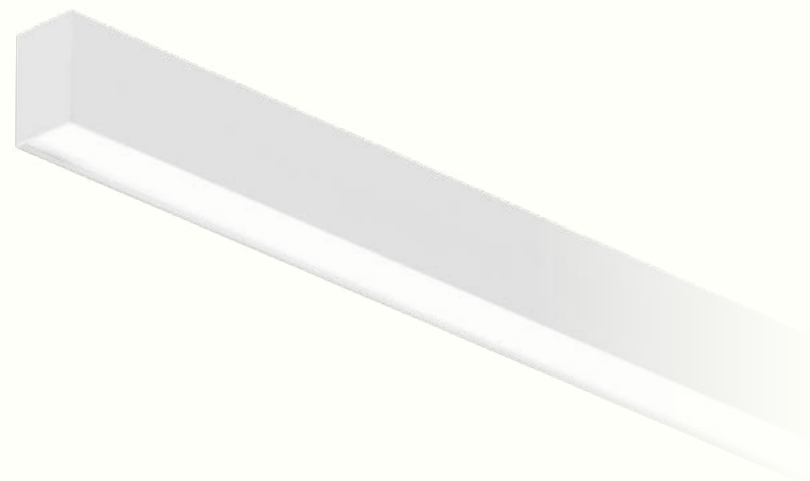




# You can't go wrong with these



**Medis**



**Kalis W**



**Gyon**



# Toilet

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**There's no toilet like  
your own.**





# A perfect light for every good night and every good morning

Usually, there is no daylight in the bathroom. A bathroom serves different purposes at different times of the day. For this reason, lighting should go beyond ON and OFF, including dimming and unique lighting settings for different occasions. In the morning, the lighting should be brighter, whereas, at night, it should be warmer. It should also cover different bathroom areas separately, one covering the mirror, the other one shower, toilet, etc. Also, temperature and moisture should be taken into consideration.

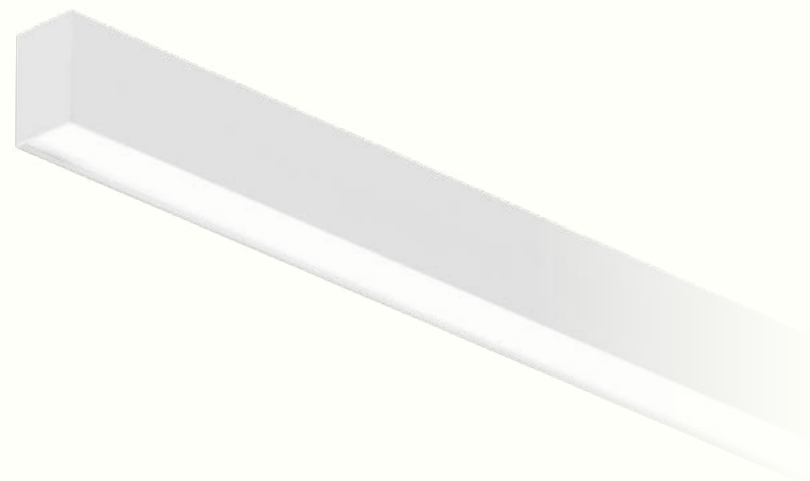




# You can't go wrong with these



**Futon Mirror**



**Kalis W**



**Nola**



# References

## SLOVENIA

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**UKC Ljubljana**, Slovenia

**Hospital Novo mesto**, Slovenia

**Soča Rehabilitation centre**, Ljubljana, Slovenia

**Hospital Stara Gora**, Slovenia

**Onkološki inštitut**, Ljubljana, Slovenia

**Beauty clinic Fabjan**, Šenčur, Slovenia

**D-Center**, Ljubljana, Slovenia

**Dental centre Križnar**, Ljubljana, Slovenia

## CROATIA

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**Pula General Hospital**, Pula, Croatia

**Hospital Varaždin**, Croatia

**Hospital Slavonski Brod**, Croatia

**Hospital Bielovar**, Croatia

**Hospital Požega**, Croatia

**Policlinic Medikol**, Zagreb, Croatia

## ITALY

---

**Borgo Roma**, Verona, Italy

**Borgo Trento**, Verona, Italy

**Fondazione casa di cura RSA Pietro**

**Beretta**, Gardone Val Trompia BS, Italy

## UNITED KINGDOM

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**Golden Jubilee National Hospital**, Glasgow, United Kingdom

## ISRAEL

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**Rambam Children Hospital**, Haifa, Israel

## SPAIN

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**Hospital Quironsalud**, Marbella and Malaga, Spain

**Hospital Quironsalud Materno Infantil**, Sevilla, Spain

**Hospital Quironsalud Sagrado Corazon**, Sevilla, Spain

## NETHERLANDS

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**Trans Klazienaveen Hospital**, The Netherlands

## FRANCE

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**Hopital De Vichy**, France

## EGYPT

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**El Qabarer El Khairy Burn Treatment canter hospital**, Cairo, Egypt

**Saudi German hospital**, Alexandria, Egypt

## QUATAR

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**View Diplomat Hospital**, Doha, Quatar

**Medcare Hospital-Sharjah**, Value Medical Complex, Doha, Quatar

## UAE

---

**Mediclinic**, Dubai, UAE



# Borgo Roma Children's Hospital

VERONA, ITALY



**Source:**

<https://www.cmbcarpi.com/en/projects/borgo-roma-bor-go-trento-hospitals>





# Emergency Center, Hospital Novo mesto

NOVO MESTO, SLOVENIA

**Architecture:**  
Styria Arhitektura

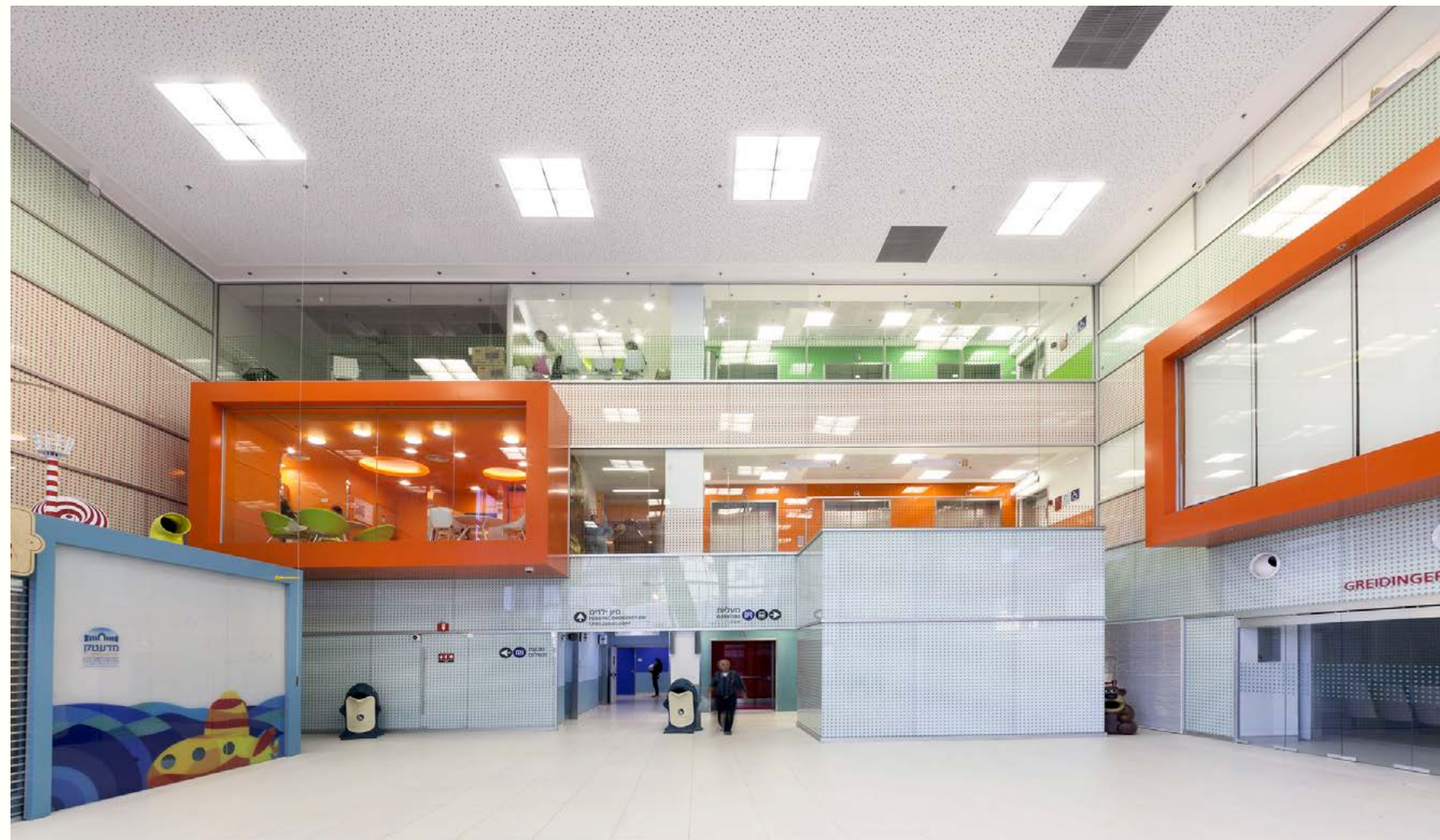
**Photography:**  
Žiga Lovšin





# Rambam Ruth Rappaport Children's Hospital

HAIFA, IZRAEL



**Architecture:**  
Sharon Architects

**Photography:**  
Arjen Veldt



# Rehabilitation Institute Soča

LJUBLJANA, SLOVENIA

**Architecture:**

DANS Arhitekti

**Photography:**

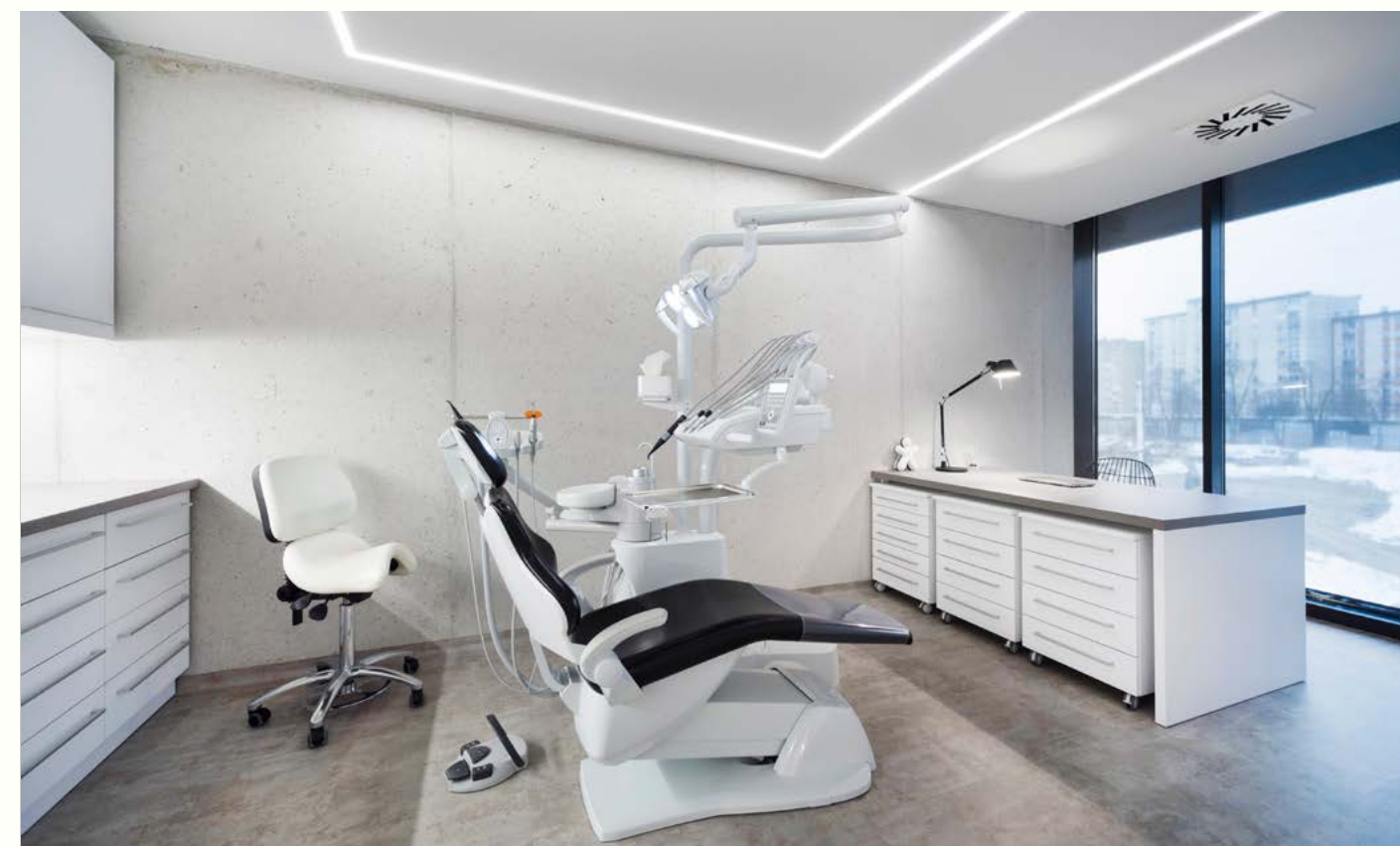
Miran Kambič





# Dental Center Dovšak

LJUBLJANA, SLOVENIA



**Architecture:**  
Polona Filipič, ARCO

**Lighting design:**  
Svetlarna

**Photography:**  
Janez Marolt



# Hospital Varaždin

VARAŽDIN, CROATIA



**Architecture:**

Katusic Kocbek Arhitekti

**Lighting design:**

Svetlarna

**Photography:**

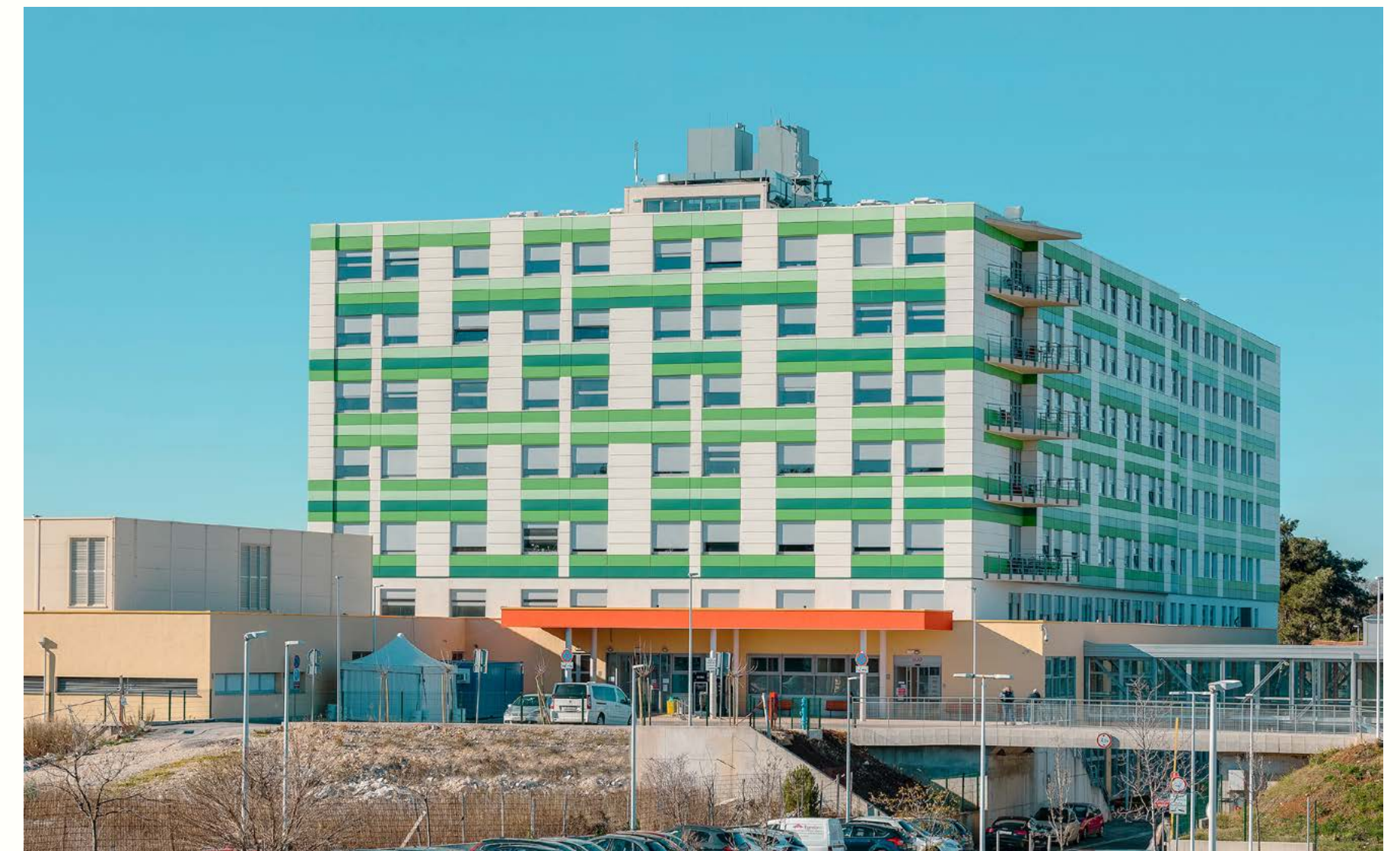
Bosnic Dorotic





# Pula General Hospital

PULA, CROATIA



**Architecture:**  
Urbis 72

**Photography:**  
Manuel Paljuh





# UKC Ljubljana

LJUBLJANA, SLOVENIA



**Architecture:**

Api Arhitekti

**Photography:**

Intra lighting



# Institute of Oncology

LJUBLJANA, SLOVENIA

**Architecture:**

Api Arhitekti

**Photography:**

Miran Kambič





# It's a matter of life. Of light.

The impact of light on humans is versatile. It affects our visual perception of the world, our emotional experience and biorhythm. It is essential to have the right light at the right time. Light can vary in colour (warm, cool, RGB), light direction (spot, wall washer) and style (functional, artistic, interactive.)

## 01 Influence of light on visual perception

An adequate level of illumination makes work easier. These criteria set the standard for designing lighting for various spaces and activities.

## 02 Influence of light on biorhythm

Light can improve productivity during the day and strengthen sleep at night. In the short term, light can promote concentration or help us calm down.

## 03 Influence of light on feelings

Smart buildings offer users greater comfort. They automatically adjust the light via sensors to the needs and help reduce costs.

## 04 Smart building

Connected, smart buildings offer users greater comfort, automatically adjust the light to their needs via sensors and help reduce costs. In this case, light design follows interdisciplinary guidelines and is based on good practice.



# Products