

A male doctor in a white lab coat and a female nurse in blue scrubs are walking down a brightly lit hospital hallway. The doctor is holding a tablet, and the nurse is pointing at the screen. The hallway is clean and modern, with a high ceiling and recessed lighting. The overall color palette is dominated by light blues and whites, creating a clinical and professional atmosphere.

**THORN**  
LIGHTING

**LIGHT  
THAT CARES**

HEALTHCARE LIGHTING

# **LIGHT FOR HEALTH AND WELL-BEING**

**No application demands more from lighting than healthcare. Skilled, critical work is underway, often under pressure. The clearest, highest quality light is required. But that's only half the challenge. The other half is about the impact that light has on the wellbeing of patients and staff, on people's state of mind and recovery. Light can play a key role in keeping people comfortable and cared for. On top of all this, lighting solutions must be energy efficient, easy to maintain, and support infection control. It's a lot to get right. This brochure shows you where to start, and how Thorn can help along the way.**



# KEY FACTS

## IN HEALTHCARE LIGHTING

At Thorn we believe successful lighting for healthcare comes from a combination of facts.

01

### CLARITY

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Medical diagnosis and treatment require the highest possible precision, with no errors. That means clear, powerful, accurate light. A colour rendering index (CRI) of 90+ is recommended in treatment areas. Task lighting should be available where necessary, and glare and flicker must be prevented.



02

### COMFORT

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High visual performance for clinicians must be balanced with the needs of the people being cared for. Angles of view must be considered, e.g. to avoid glare for patients lying in beds or being pushed down corridors. In spaces designed for rest, recuperation and relaxation, light should provide a pleasant, comfortable atmosphere, with gentler distribution and a warmer colour temperature.

## 03

### CLEANING AND MAINTENANCE

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Good design practice can help control cleanliness in healthcare settings. Lighting products should be designed to avoid collecting dust and dirt, and to be easily cleaned. Ingress protection must prevent anything getting inside. Long-lasting fittings that are easy to maintain will also keep costs down and minimise disruption.



## 04

### DAYLIGHT

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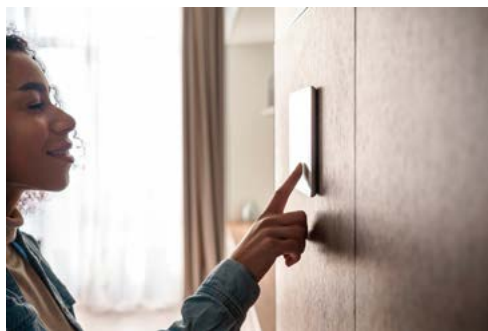
A dose of daylight can work wonders. Studies show that natural light and views from windows can have positive effects on patients, including how well they sleep and how fast they recover. Patients with conditions like dementia, will benefit particularly from natural light that helps keep their body clock in check. And daylight also represents a big opportunity to reduce the energy used for lighting.

## 05

### FLEXIBILITY

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Some areas in a healthcare building will host a variety of tasks and activities. Lighting needs to be flexible, and this is where clever use of controls and task lighting can help. Well designed controls can also make spaces more comfortable for patients and, of course, can help get energy consumption and carbon emissions down.



## 06

### AESTHETICS

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The combination of light fittings, interior design and materials can have a big effect on how a space feels for patients. Soft, diffuse light helps to flatter patients' appearance. White or pale, desaturated colours are generally preferred for surfaces in clinical areas, to maximise reflectance and aid colour recognition, while brighter coloured surfaces can add vibrancy in other areas.

# HEALTHCARE BUILDINGS

## THE KEY AREAS

Every space in a healthcare environment has its own particular priorities and lighting needs.

### 01 Patient rooms and wards

The ward is both a clinical space and a residential one. Lighting must allow staff to perform clinical tasks effectively, while helping patients rest and recuperate. Fittings providing gentle light distribution help create a comfortable atmosphere. Task lighting and controls will be important.

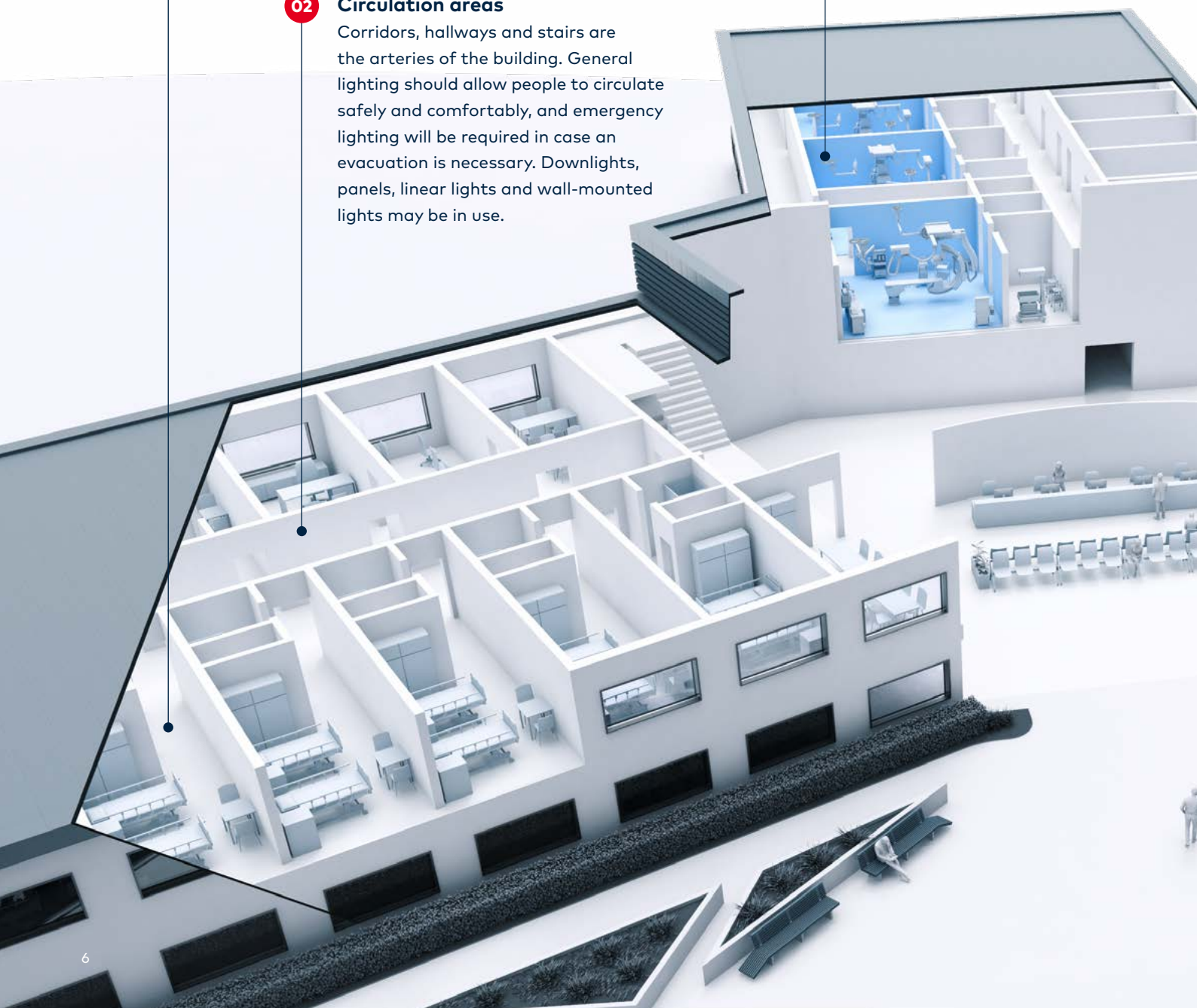
### 02 Circulation areas

Corridors, hallways and stairs are the arteries of the building. General lighting should allow people to circulate safely and comfortably, and emergency lighting will be required in case an evacuation is necessary. Downlights, panels, linear lights and wall-mounted lights may be in use.

### 03 Operation theatres and recovery rooms

This is the most critical space of all. Medical staff require clear and accurate illumination to carry out surgical procedures with absolute precision.

Powerful, high quality light with excellent colour rendering will be needed.



#### 04 Reception and waiting areas

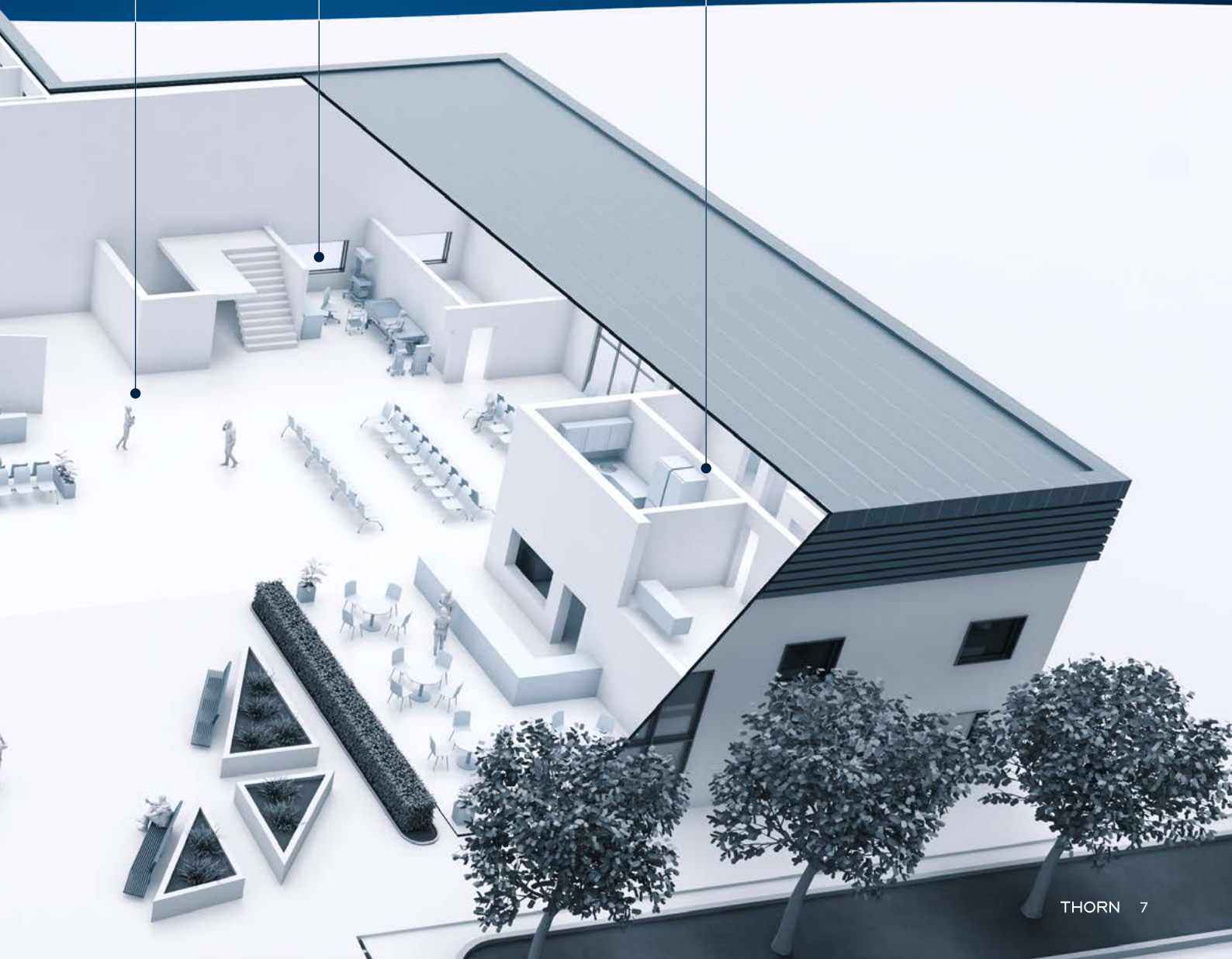
This is the area that welcomes us to the healthcare setting – and first impressions count. The reception desk and staff should be well lit, and the general atmosphere should be comfortable and relaxing, perhaps with decorative lighting.

#### 05 Examination rooms

Clinicians will be doing critical diagnostic work in these rooms. Lighting needs to be clear and high quality, with excellent colour rendering.

#### 06 Support spaces

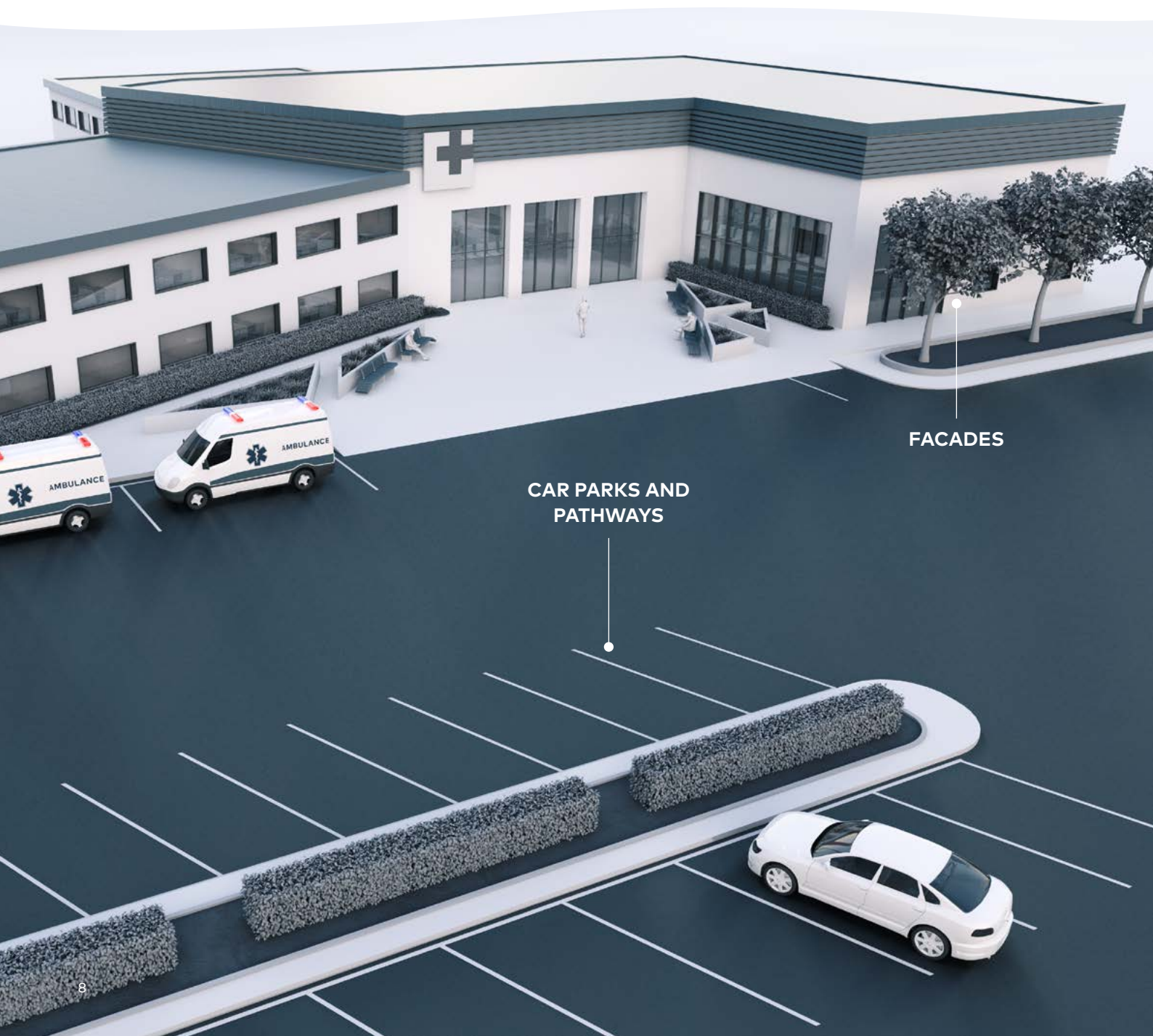
Spaces such as cafeterias need to provide a more homely atmosphere for patients to relax. This is especially important for long-term patients. There will also be areas such as offices, toilets and storage spaces, which must all be lit appropriately.



# OUTDOORS

## SAFETY AND REASSURANCE, NAVIGATION AND ORIENTATION

Areas around a healthcare building should feel safe, secure and comfortable at night. Lighting must support wayfinding in entrance areas, pathways and car parks, and should take into account the needs of vehicles, pedestrians and cyclists. Luminaires should complement the architecture of the building and the surrounding area.



FACADES

CAR PARKS AND  
PATHWAYS

# EMERGENCY LIGHTING

## A SAFE WAY OUT WHEN NEEDED

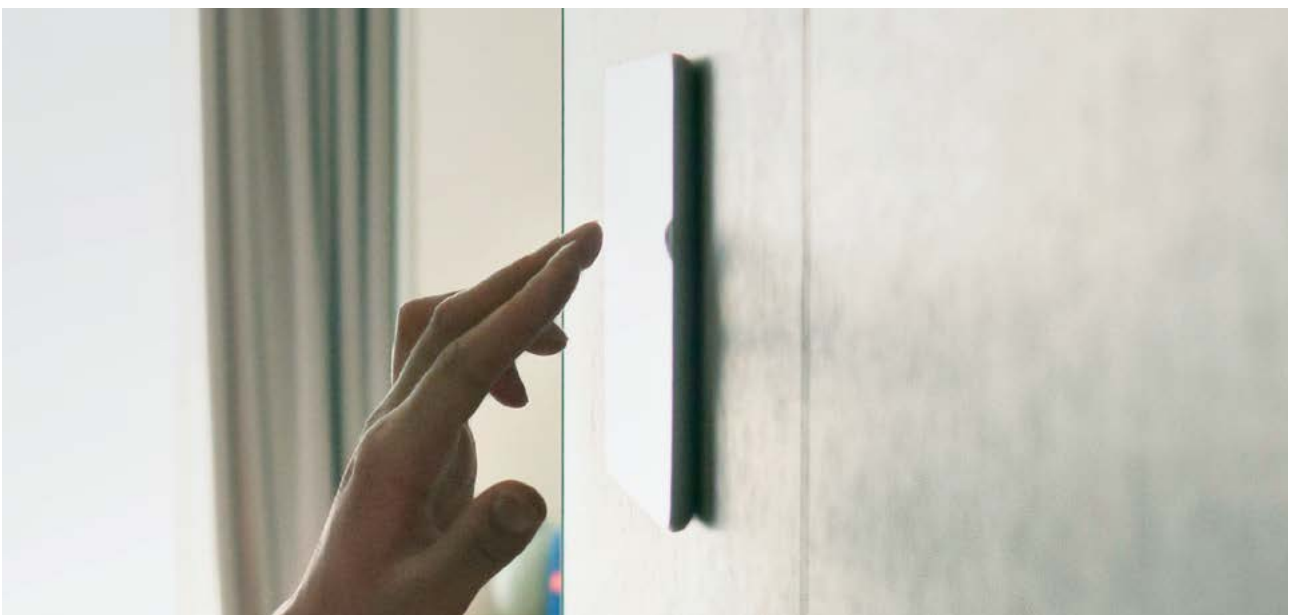
All buildings must have emergency lighting so people can safely get out in the event of a power failure. Nowhere is this more important than in a healthcare environment. Emergency lighting should meet the European standard EN1838, providing the right levels of light for escape routes and refuge points. Areas like operating theatres and delivery rooms will require standby lighting so that loss of power does not interrupt procedures.



# CONTROLS SOLUTIONS

## THAT ADAPT TO YOUR NEEDS

Lighting controls should make sure that the right light is available to perform all tasks safely and effectively, but that energy is not wasted when light is not needed. Controls can also help to make patients more comfortable, and to make spaces more flexible for a variety of uses and tasks. This can be achieved using simple manual controls, daylight harvesting, occupancy detection, or a combination.



## CASE STUDY

# DURHAM TREATMENT CENTRE, UK

## A STATE-OF-THE-ART CARE ENVIRONMENT WHERE THORN'S LIGHTING SOLUTIONS ARE HELPING TO DELIVER THE BEST POSSIBLE PATIENT EXPERIENCE

This new facility has been designed to provide an outstanding patient experience, using a variety of fittings. Thorn's Beta 2 recessed LED panels and Omega surface-mounted panels are installed in treatment areas, while Chalice downlights are used in waiting areas, and the innovative IQ Wave provides comfortable, diffuse light in open-plan offices. The overall solution provides high quality of light, energy efficiency and low maintenance costs.



## Luminaire solutions used in the project:



**Beta 2**  
for treatment and  
clean utility areas



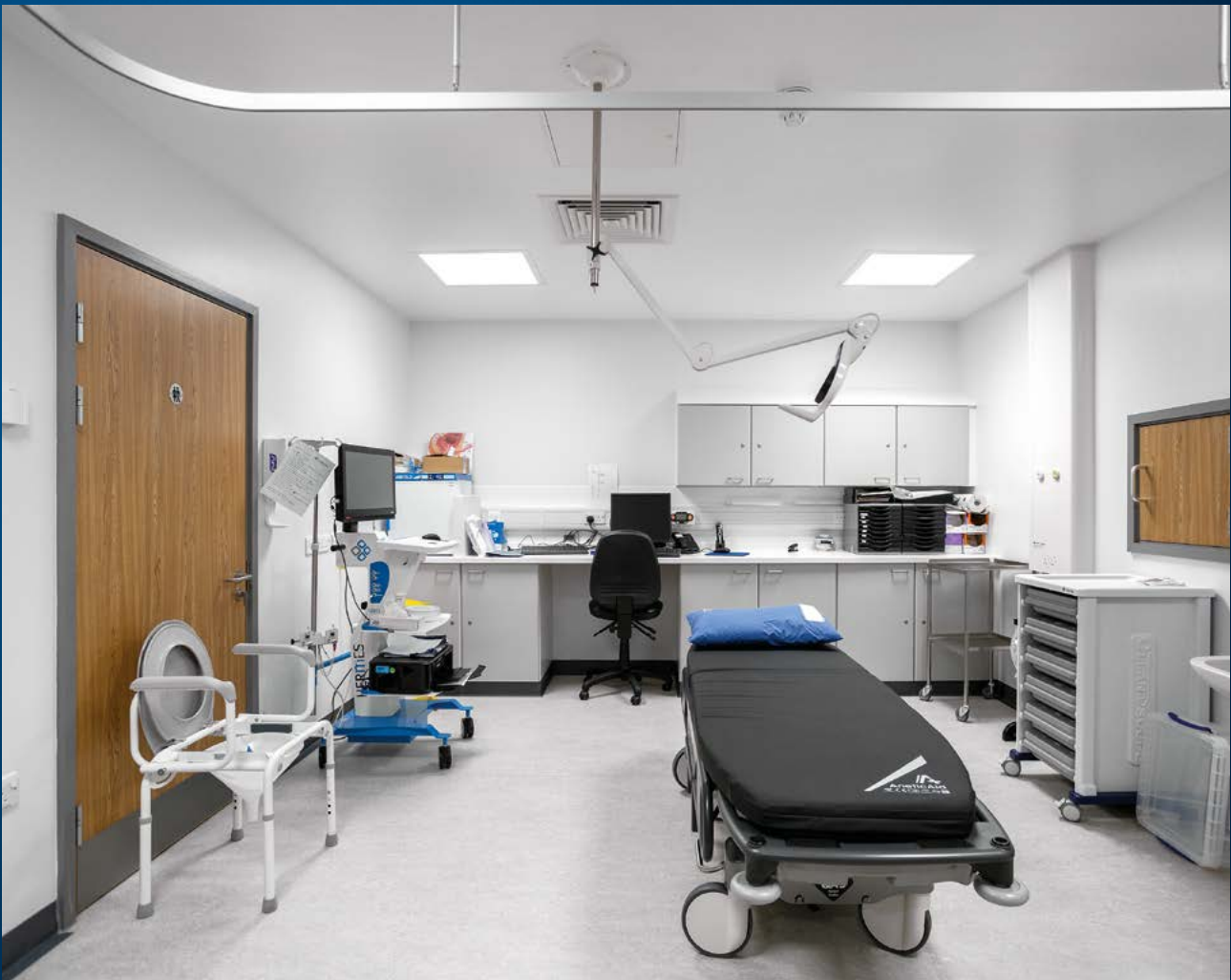
**Omega**  
for treatment areas



**Chalice**  
for waiting areas



**IQ Wave**  
For open plan offices



# GET IN TOUCH

[www.thornlighting.com/offices](http://www.thornlighting.com/offices)