TAMLITE®

LET'S TALK ABOUT LIGHT...

Healthcare

Tamlite Lighting

Tamlite Lighting is no ordinary lighting manufacturer. Founded in 1967, we live and breathe our philosophy of Lighting for a Living. For us, it is much more than a marketing tagline. It crystallises how we think about light and the impact it has on every aspect of our lives.

How we live, work, play, learn and exist are all basic human needs that are influenced by light. Creating environments that are perfectly lit - comfortable, practical, efficient, safe and promote wellbeing - is what we do, and it is what we have done well for over 50 years.

As we have expanded, Tamlite Lighting remains committed to its British roots, with extensive R&D, testing and manufacturing activities managed out of factories in Redditch and Telford. This gives customers the assurance that any Tamlite product has been made with quality in mind.

Lighting For Healthcare

The ‘Lighting for Healthcare’ module outlines the basic principles and design practices for efficient and effective lighting installations across a wide range of Healthcare applications but mainly focussed on hospitals.

This includes reference to current E.N./B.S. standards and also outlines best practice to ensure the lighting is sustainable and energy efficient.

- Hospitals
- Surgeries
- Care Centres

Other Sectors Include :

Office

Emergency

Residential

Urban

Education

Retail & Leisure

Industrial & Warehousing

Sports

About this guide

This guide highlights these key areas of design that should be at the forefront of everyone involved in the design and install of lighting for Healthcare

People

Technical

Environmental

British Standards

Vision

Lighting controls are now an essential part of any lighting design. They help manage energy and provide the right lighting environment at all times. The Tamlite VISION range offers daylight and presence, manual or automatic and fixed or dimmable control across a wide range of communication platforms.

Healthcare

Healthcare environments have very specific lighting requirements, to ensure that patients, hospital staff and visitors are catered for with the ideal lighting design. Patients must be kept comfortable on the wards, in order to benefit their wellbeing. The right lighting in healthcare facilities minimises glare and can be controlled to suit patient requirements, providing the ideal environment to aid recovery.

Lighting controls are key in hospitals, dimming the lighting when patients are resting, but reaching full output when staff need to work effectively. Lighting controls also manage the time of use, ensuring that lights are only on when they need to be. This reduces energy consumption, providing considerable long-term savings in terms of ongoing energy costs, which is critical on a tightly controlled budget.

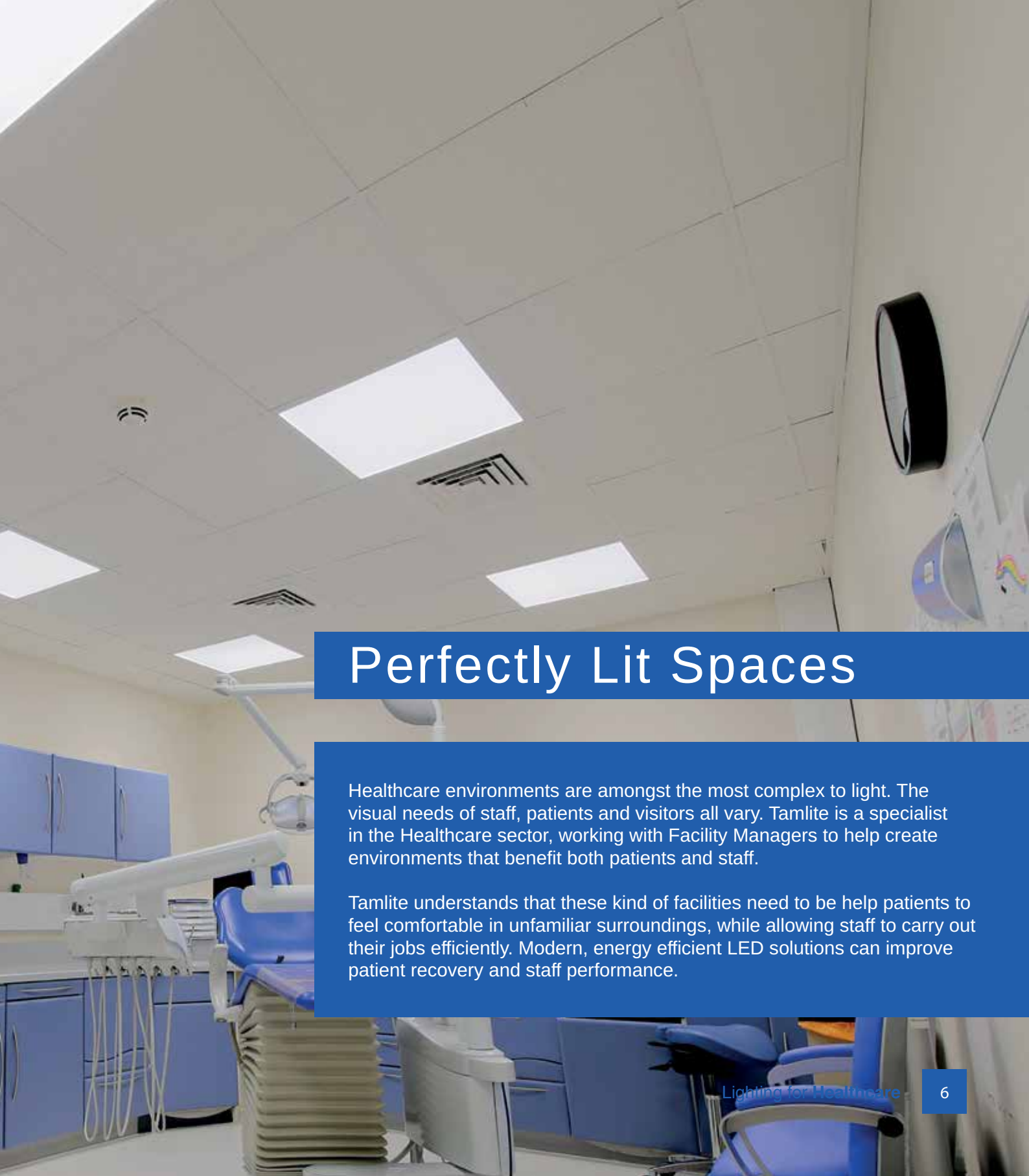
Wellbeing at work

Research has found that a ‘3rd eye’ – a non visual receptor, provides stimulus to the pineal gland which in turn helps regulate our body rhythms.

It has been shown that this gland supresses the formation of melatonin (a hormone that causes you to sleep) if exposed to light of a wavelength around 410-460nm (‘blue’ light).

Only small amounts of this wavelength of light are needed to provide this suppression.

John Scott, Capital Developments Manager at Maple Leaf Health Centre, Solihull, commented, “We consulted patients to gather their thoughts on what would make the reception area more comfortable. We then worked with the architects and Tamlite to develop a space that suited the patients.”



Perfectly Lit Spaces

Healthcare environments are amongst the most complex to light. The visual needs of staff, patients and visitors all vary. Tamlite is a specialist in the Healthcare sector, working with Facility Managers to help create environments that benefit both patients and staff.

Tamlite understands that these kind of facilities need to be help patients to feel comfortable in unfamiliar surroundings, while allowing staff to carry out their jobs efficiently. Modern, energy efficient LED solutions can improve patient recovery and staff performance.

Lighting for Healthcare

Wards

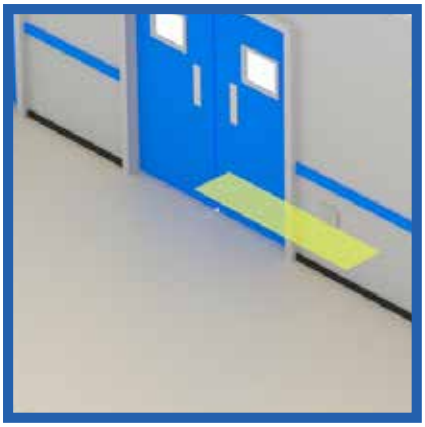
In order to help patients relax and recover in comfort in their hospital ward, healthcare lighting should reproduce the natural circadian light rhythms that human bodies respond to, supporting healthy sleep. Adjustable light improves working conditions for nurses, doctors, and carers too.

Theatres

Operating Theatres and treatment rooms must have high levels of illumination and clarity, without glare. Concentration levels need to be as high as possible in operating rooms, in order to deliver the best care for patients. Creating lighting for a surgical system that enhances focus and concentration requires the right colour temperature and intensity, in order to get the best out of staff and help patients.

Consultation Rooms

Relax patients in the consultation room with soothing, soft lighting. Luminaires with opal diffusers provide a softer and more calming visual stimuli for the patient to focus on, reducing anxiety and making it easier for doctors to carry out assessments.



Corridors

Corridors in healthcare environments must have a well-designed lighting system to help create clearly marked routes for patients, staff and visitors, day or night. Lighting for hospital corridors must also provide secure and safe navigation; bright light without glare for patients being transported in their beds. These areas are constantly being filled with moving people and beds, meaning the lights need to accommodate for this.

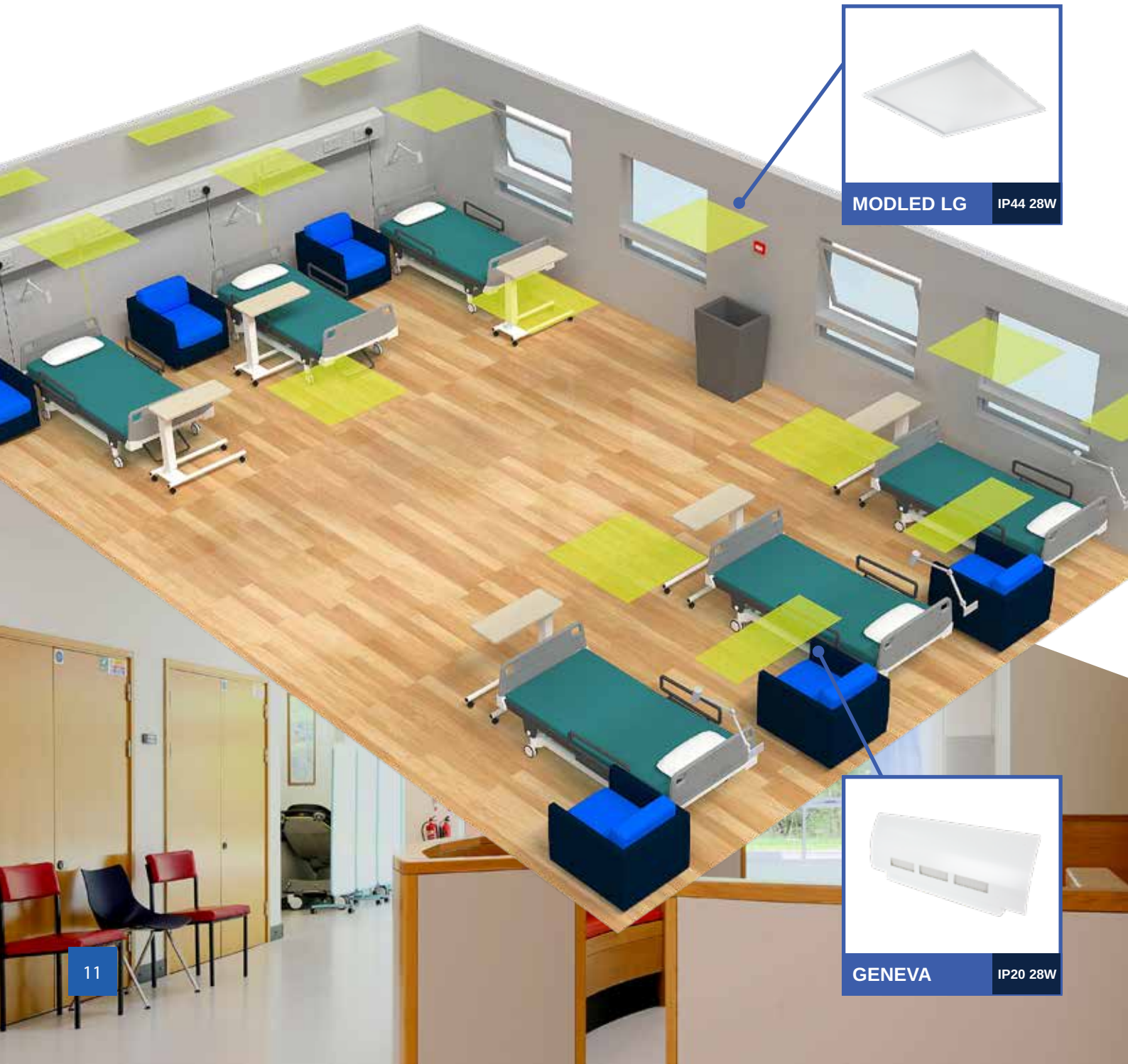
Waiting Rooms

Waiting for the doctor to see you can be a tense experience, and time can go by very slowly. Designs for these types of areas need to be focused on creating comfortable environments that make the wait easier for patients and their families. A waiting room will often be the first stop in a patient's time in a medical facility, and therefore needs to set an example for the rest of the establishment, putting them at instant ease with soft, low glare lighting throughout.

Ancillary Areas

In healthcare, Ancillary areas are those that provide supplemental care to support a patient's overall diagnosis and care. Lighting in these areas needs to facilitate safe, quick, and accurate work by creating a good visual environment. Lighting should be adaptable use these areas can facilitate work such as Laboratory, Pharmacy, Radiology and Physical Rehabilitation. Due to the multiple focus that these areas can have, effective and simple to use lighting controls are recommended.

Wards



Vision

VISION SMART wirelessly controls all lighting to create scenes and if required, monitor emergency lighting performance through its system.

People

To maximise personnel comfort and contentedness , consider the benefits of natural daylight, light quality, light colour and individual or zonal control where possible.

Ensure no glare is apparent to the patient when in bed.

Technical

Metal clad ceilings may need bespoke luminaire solutions. Also consider other building services above suspended ceilings in case of clashes.

Environmental

Artificial lighting not only benefits occupants well being but reduces energy!. Controls linking daylight sensors, dimming will add energy savings. Consider zonal groupings based upon Nurse workstations and density of personnel.

Standards

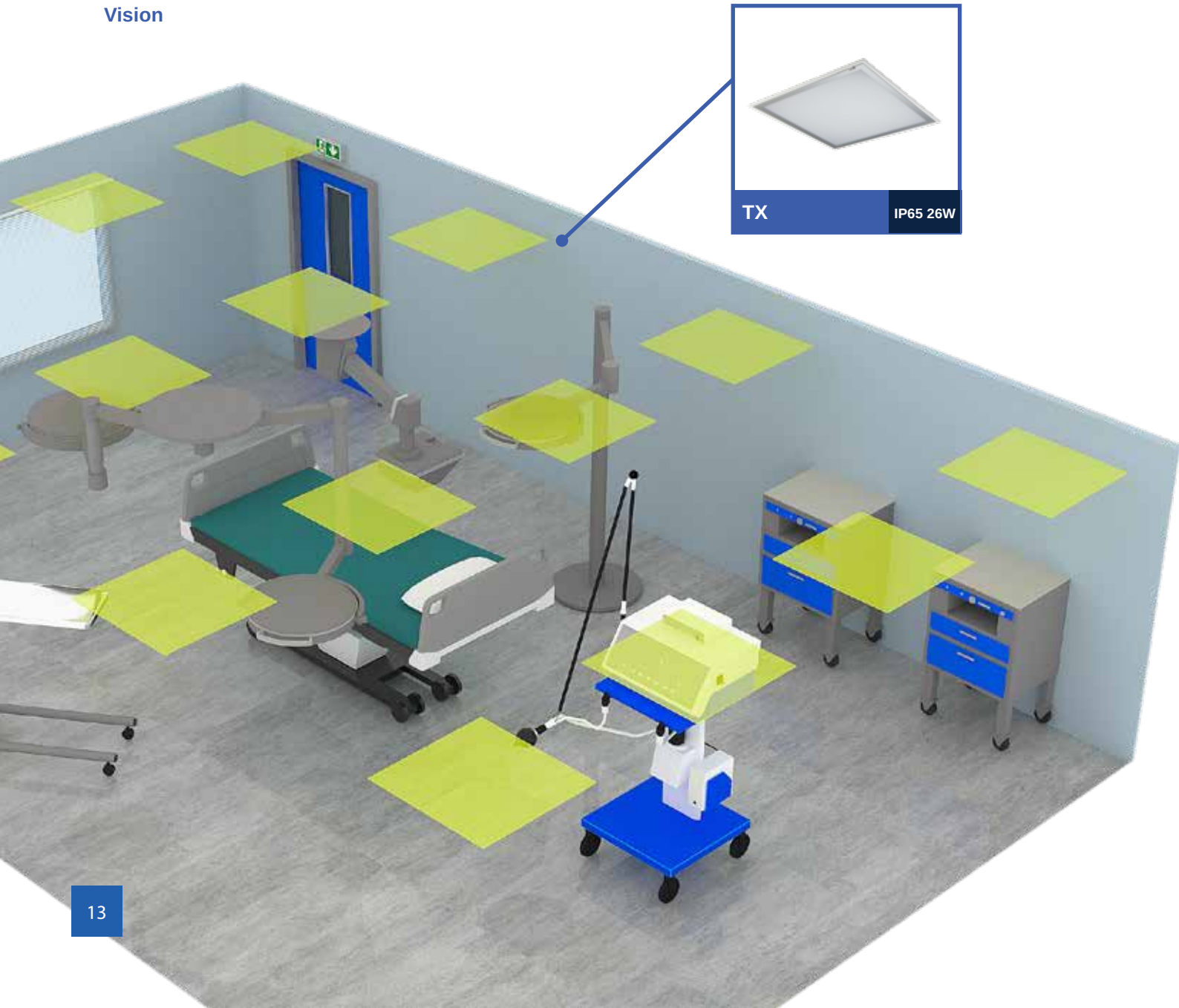
CIBSE LG5 & BS EN12464-1:2011

	Average Illuminance (lx)	Uniformity (av/max)	UGRL
General Circulation	100 - ffl		<19
General Nursing & Patient Activity	300 - bed		<19
Night Light	5 - 0.85m 0.5 - pillow		<19

Theatres

VISION SMART wirelessly controls all lighting to create scenes and if required, monitor emergency lighting performance through its system.

Vision



Avoiding glare to theatre staff both disability and discomfort glare is vary important to their wellbeing and that of the patient.

People

Metal clad ceilings may need bespoke luminaire solutions. Also consider other building services above suspended ceilings in case of clashes.

Technical

Discuss the use of presence or absence detection with the client. Whilst efficient, inappropriate switching could be a health risk.

Environmental

CIBSE LG5 & BS EN12464-1:2011

Standards

	Average Illuminance (lx)	Uniformity (av/max)	UGRL
Theatre	1000 - working height	0.81	<19
Recovery	500	0.81	N/A
Prep/Anaesthetic	500	N/A	N/A

Consultation Rooms

Vision

VISION SMART wirelessly controls all lighting to create scenes and if required, monitor emergency lighting performance through its system.

People

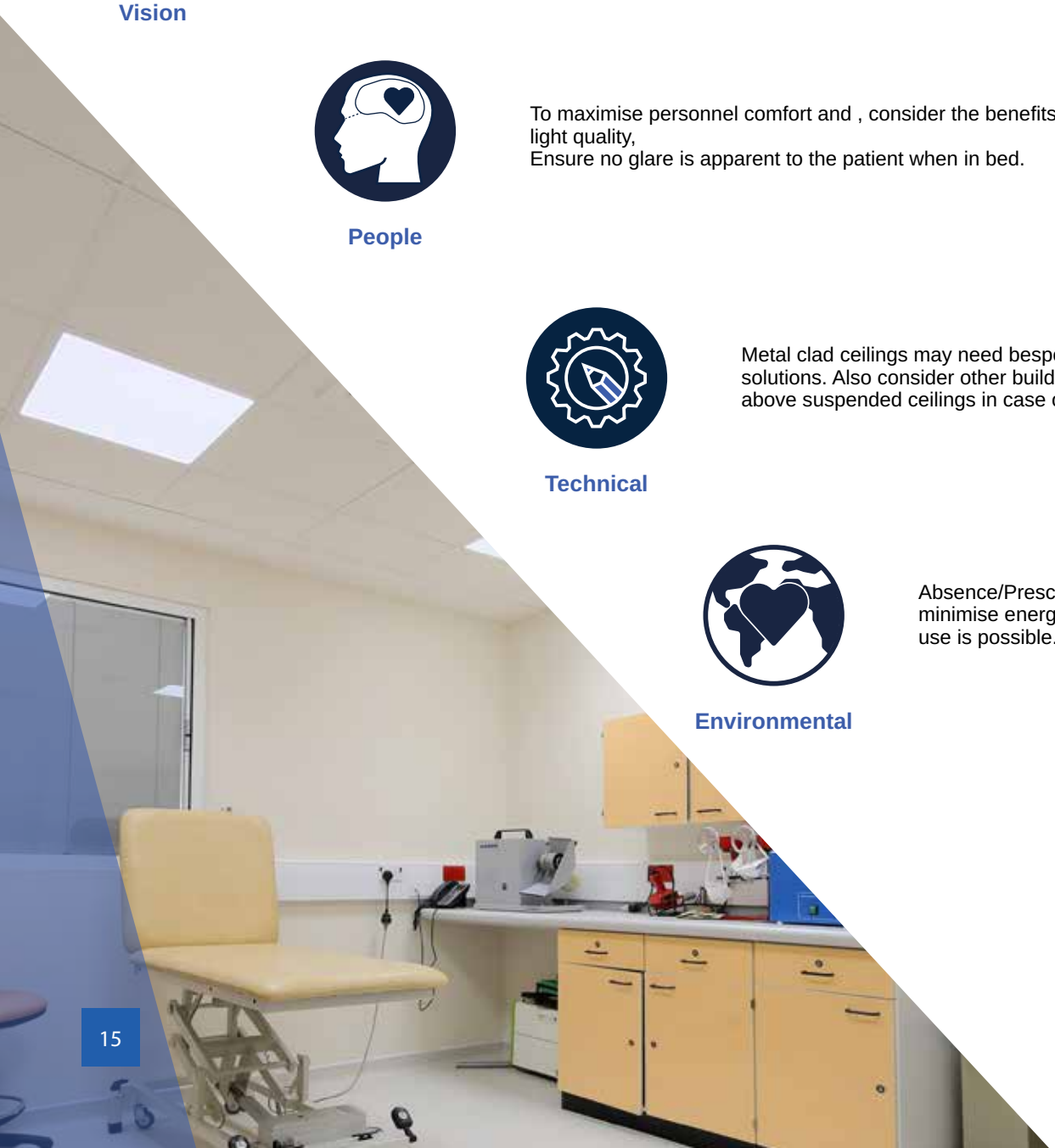
To maximise personnel comfort and , consider the benefits of any natural daylight, light quality,
Ensure no glare is apparent to the patient when in bed.

Technical

Metal clad ceilings may need bespoke luminaire solutions. Also consider other building services above suspended ceilings in case of clashes.

Environmental

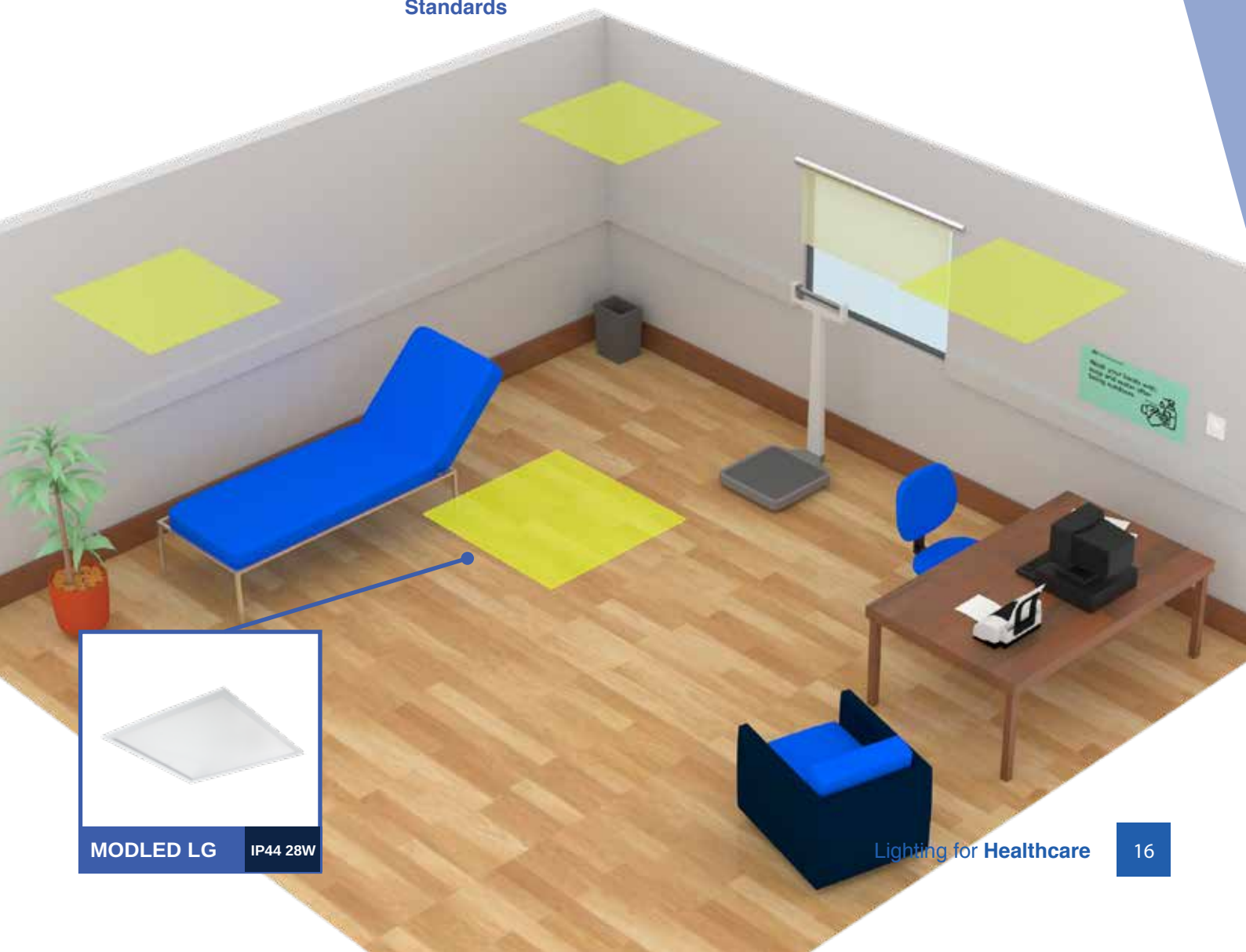
Absence/Prescence detection to minimise energy where infrequent use is possible.



	Average Illuminance (lx)	Uniformity (av/max)	UGRL
Consulting	500	0.88	<19
Examination	500	0.88	<19
Treatment	500 (1000 local)	0.87	<19

CIBSE LG5 & BS EN12464-1:2011

Standards

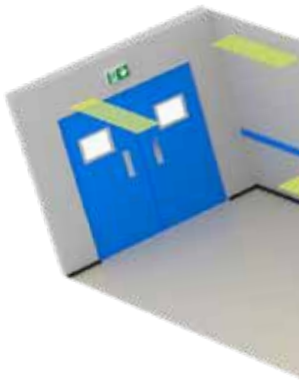


MODLED LG IP44 28W

Corridors

People

Ensuring safe movement is obviously important, together with adequate illumination of signage. Patients on trolleys moved through corridors can be disturbed by the ‘stroboscopic’ type effect of luminaires flicking past their line of sight. Consider off setting luminaires to reduce this.



Technical

Be aware of potential clashes with other services in these confined spaces.

Environmental

Unlike many other corridor environments, these are likely to be inhabited by personnel throughout the day. Daylight sensing may still be appropriate linked with dimming. It may be possible to have time control for day/night

Standards

CIBSE LG5 & BS EN12464-1:2011

	Average Illuminance (lx)	Uniformity (av/max)
Circulation corridors	200	0.86
Circulation night time	100	0.86
Corridors around wards	(night 5)	0.86

VISION SMART wirelessly controls all lighting to create scenes and if required, monitor emergency lighting performance through its system.

Vision

MODLED LG IP44 28W

Waiting Rooms

Vision

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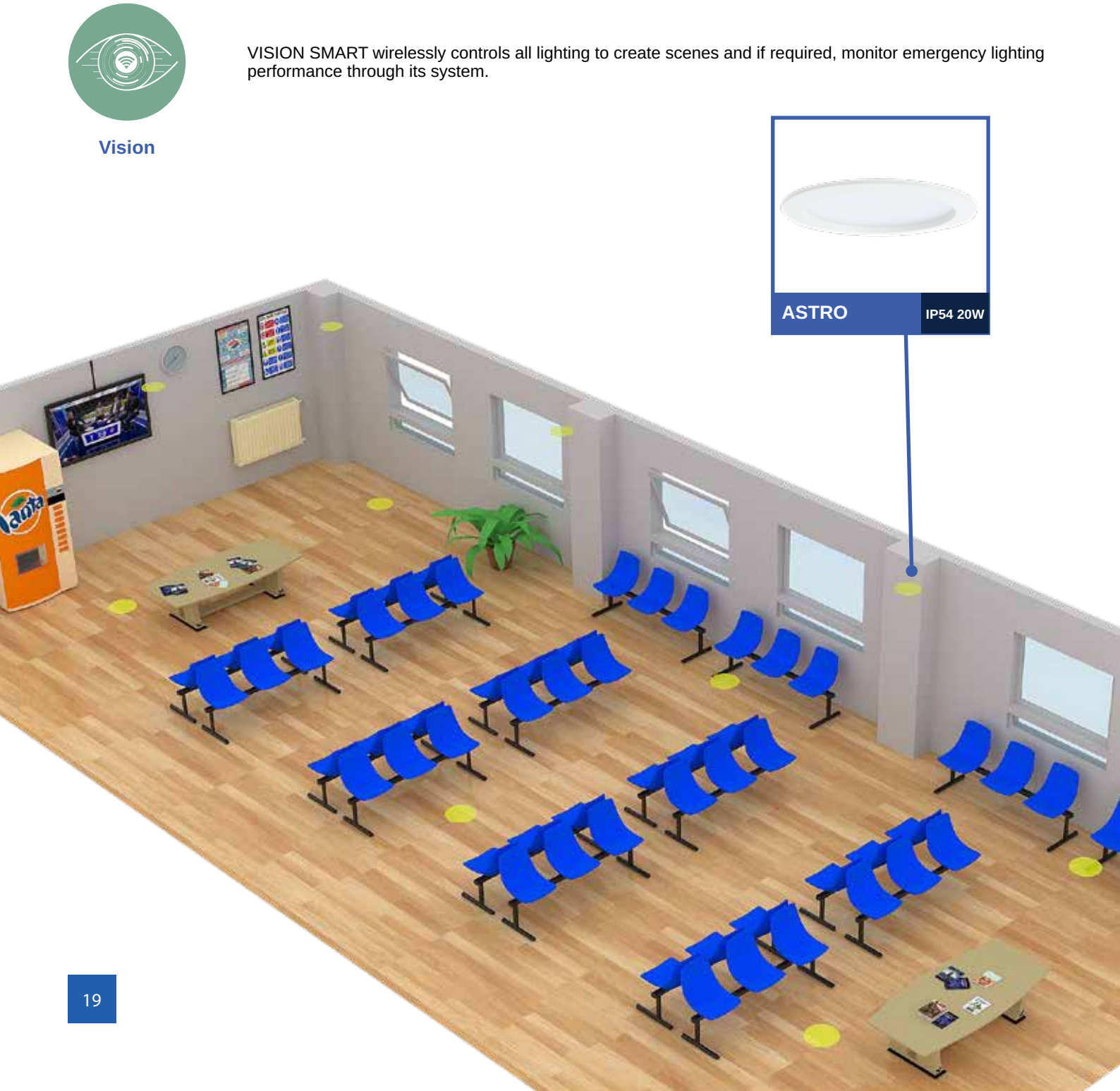


People

Gentle soft lighting is important here to help produce a sense of calm. Warmer colour temperatures also helps with this impression.

Technical

If the area has high ceilings with difficult access, ensure long life luminaires/drivers are used. Think about access to replaceable items such as emergency batteries.

Environmental

Daylight linking to luminaires can make large energy savings in these environments

Standards

CIBSE LG5 & BS EN12464-1:2011

	Average Illuminance (lx)	Uniformity (av/max)
Waiting Rooms	300	0.80

Ancillary Areas

Vision

VISION SMART wirelessly controls all lighting to create scenes and if required, monitor emergency lighting performance through its system.

People

Storage areas can be small and full! Ensure lighting is adequate level and instant when entering.

Technical

A variety of ceiling types may be found in these areas from plaster to lay in tile or metal tile. Product range needs to be able to cover all of these.

Environmental

Some of these areas will have infrequent personnel. Movement detection will keep energy usage at a minimum. Or possibly be used in conjunction with dimming to create different timed illumination settings.

Standards

CIBSE LG5 & BS EN12464-1:2011

	Average Illuminance (lx)	Uniformity (av/max)
Plant rooms	200	0.81
Laundry	300	0.81
Drug Storage	500	0.81

CYCLONE P IP66 29W

Vision Connected Lighting

Change the way your space is illuminated with Tamlite Vision Connect. Lighting controls and connected systems are revolutionising the way we light office spaces, and Tamlite Vision Connect uses state of the art technology to provide the most flexible lighting design available.

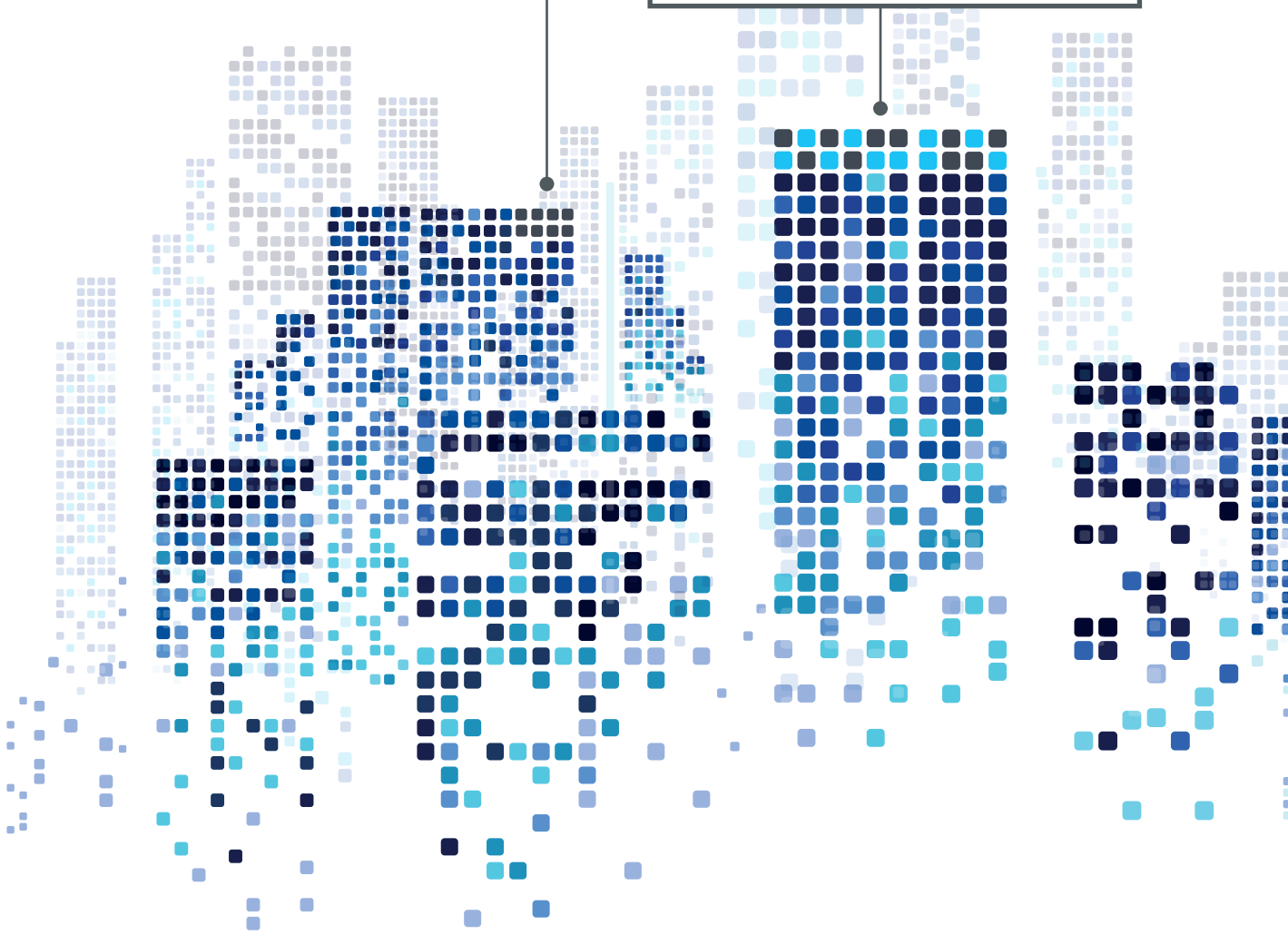
Set the scene and choose your style with connected lighting. Tamlite Vision Connect gives you total control of your lighting design, allowing you to change the brightness, colour temperature and timing of an entire office building, all from a control panel, laptop or smartphone/tablet.

Room Solution

Set the lighting in individual offices that suit your requirements, to keep you focused throughout the day. Tune the colour temperature and intensity in your space to your needs.

Floor Solution

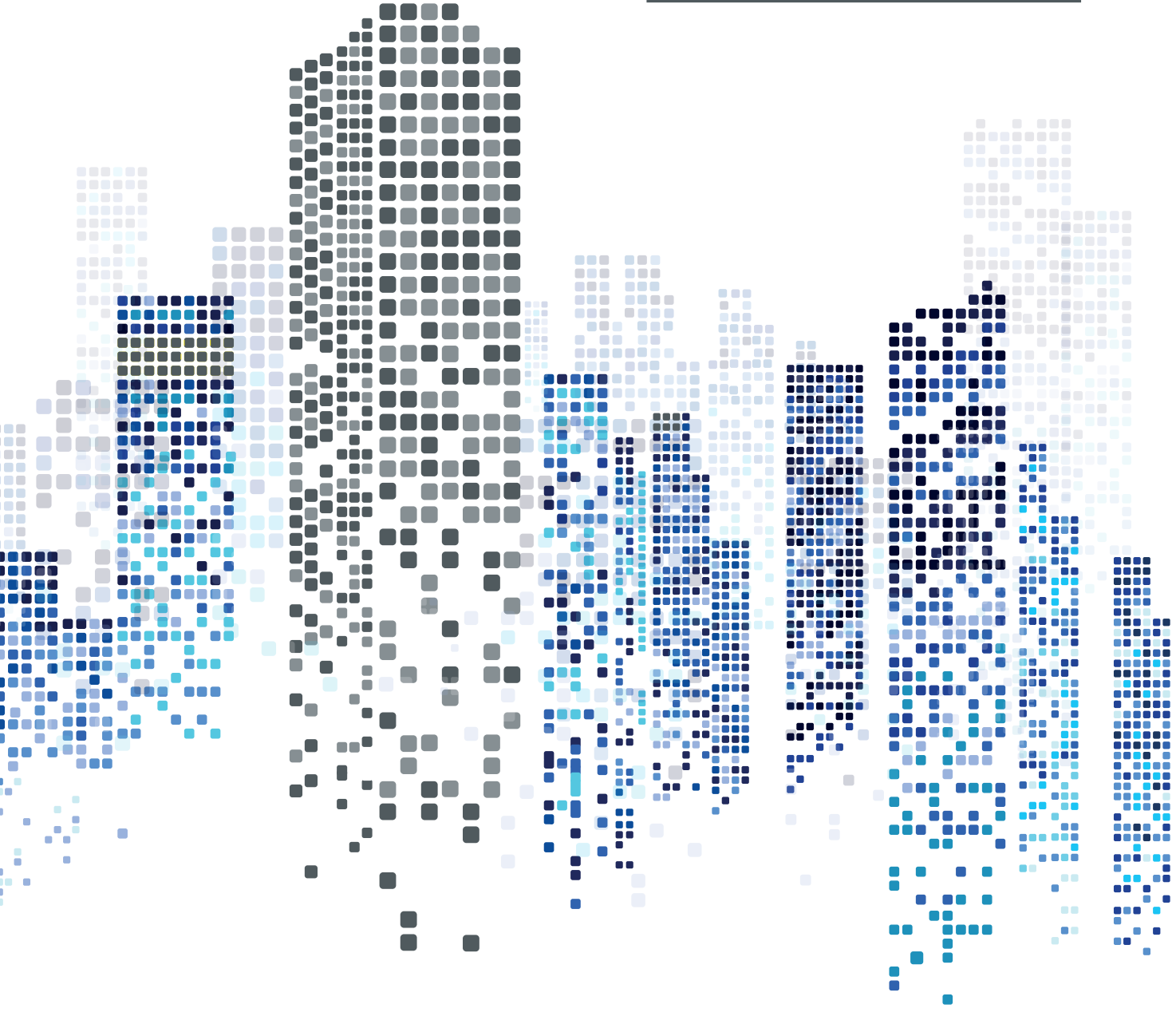
Control the lighting in open plan offices from one central point. Create a lighting system that suits your employees needs, and reduces your energy consumption to provide long term savings.



Control of lighting is essential for the reduction of energy consumption, the comfort of employees and the lifespan of luminaires. Sensors, control panels and lighting networks ensure that luminaires are only on when they are needed, minimising energy usage.

Building Solution

Customise each room and floor individually, or control the building as a whole, to create the lighting system that reflects your company.



Healthcare Products

Tamlite designs and manufactures a range of lighting solutions that are ideal for the healthcare sector. There are a number of considerations when specifying lighting products for healthcare environments, but most importantly the luminaires must be versatile, providing enough light for people to work while reducing the visible glare for patients and visitors.

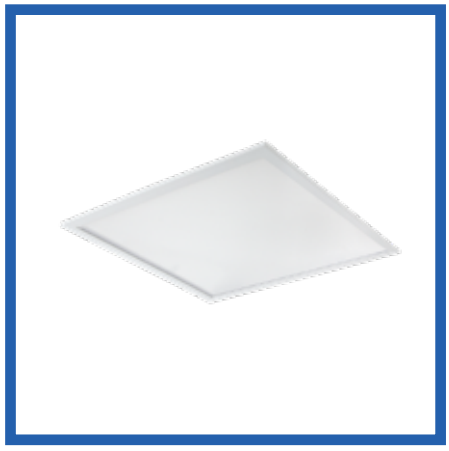
It is also important that lighting in healthcare environments can be wiped down, to prevent the spread of infection in the building. Tamlite healthcare fittings are IP rated, making them water resistant, so that they can be regularly cleaned. Tamlite supplies a range of different fixtures, to supplying lighting to different spaces within a healthcare building.

TX

- Sealed to IP65 rating for medical and cleanrooms
- Recessed lay-in for exposed 25mm ceiling grid. Brackets available for plasterboard mount. Frame available for metal pan ceilings
- Self-tightening fixing clips
- Extruded aluminium frame with silicone gasket

IKON

- Suitable for general and accent areas or retail application
- Recessed downlight range with choice of attachments and optics
- Recessed into plasterboard or exposed grid ceiling via spring clips



MODLED LG

- Tamlite I-Tech diffuser designed for low glare reduction to EN-12464
- High performance LED module and driver
- Tunable white also available

OPTIS

- Suitable for hospital corridors and ward lighting
- Available in 2 lengths
- Asymmetric distribution
- Polycarbonate Tp(a) rated microprism diffuser
- Integral driver

CYCLONE P

- Suitable for internal or external use in industrial-warehousing areas
- Ceiling fix via suspension points or ceiling mount brackets and powered via loop in/out side cable entries to termination block.
- Stainless steel fixing clips

PRIMA

- Surface mount via rear entry fixings or suspended via wire suspension kit, BESA options available (Specify when ordering)
- Opal diffuser for wide beam distribution
- Polycarbonate extruded diffuser with end caps and screw fixings

Leominster Community Hospital
Wards

Hinchingbrooke Hospital
Consultation Rooms

Birmingham & Solihull Mental Health Hospital
Corridors

Princess Elizabeth Hospital
Plant Rooms

Crawley Hospital
Drug Storage

Hinchingbrooke Hospital
Theatres

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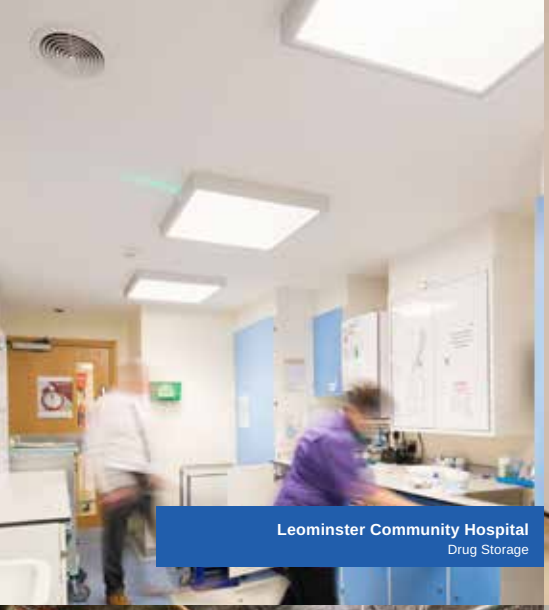

Leominster Community Hospital
Drug Storage

Crawley Hospital
Corridors

Hinchingbrooke Hospital
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Princess Elizabeth Hospital
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Hinchingbrooke Hospital
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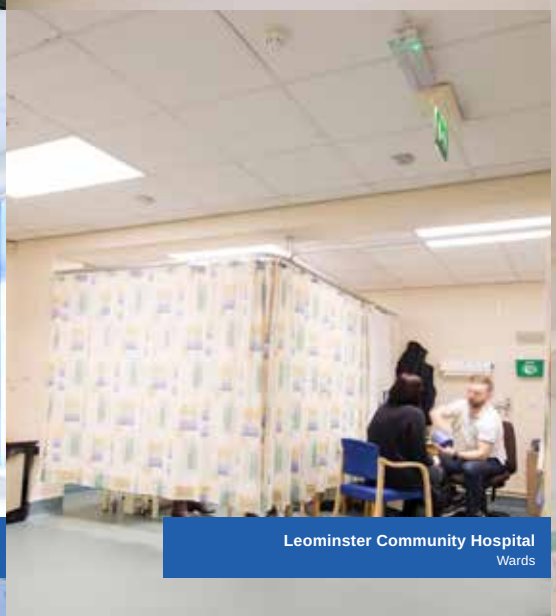

Leominster Community Hospital
Wards

Leominster Community Hospital
Ancillary Areas

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Over 50 years Lighting for **a Living**

LIAQA AWARD WINNER 2017

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ICEL

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SUSTAINING MEMBER Society of Light and Lighting

CORPORATE MEMBER ILP