euluce
by lightenjin

Lighting
STORES & RETAIL

The importance of lighting

Retail spaces are our speciality!

The manner in which retailers attract consumers and encourage them to buy things has been changing over the decades.

The consumer experience is based on a series of physical and emotional elements that lead to a greater predisposition to buy.

Lighting is a key element in the creation of environments. The comfort that lighting makes us feel leads us to spend more time in certain environments, and as such, increases our propensity to make purchases. Similarly, arousing interest for certain items can be done through accent lighting and/or by creating environments with different levels of lighting and/or different colour temperatures.

Experience in lighting design combined with our expertise in product development and production facilities have established **Lightenjin** as a market leader in the retail sector in Portugal.

In this catalogue, we introduce concepts and products that have been developed over the years and are based on pillars such as: innovation, sustainability, energy efficiency, and enhancement.

light and efficiency

energy efficiency directives and standards

Lighting is a key element in energy efficiency in buildings and in creating a certain ambience, and, as such, there are guidelines and standards in place to ensure its appropriate usage.

In terms of energy efficiency and the amount of light recommended in buildings, the creation of environments that are designed by lighting specialists is ensured on the basis of the requirements of the **EN12464-1:2021 standard**.

In optimised technical lighting design, various factors must be taken into consideration, such as **increased luminous fluxes** associated with **high efficiency**, **reduced levels of glare**, **colour temperature / colour rendering index**, lighting adjusted to the **needs of the user**, **uniformity**, **visual comfort**, **maximum installed power density** (IPD), among other factors.

With the aim of supporting market players in energy transition and within the scope of the Portuguese Government's Recovery and Resilience Plan (RRP), a set of initiatives and reforms were outlined that contribute to «Energy Efficiency in Buildings» and are part of the «Climate Transition» component, which aims to renovate buildings and make them more efficient.

Please refer to the current legislation.

concepts

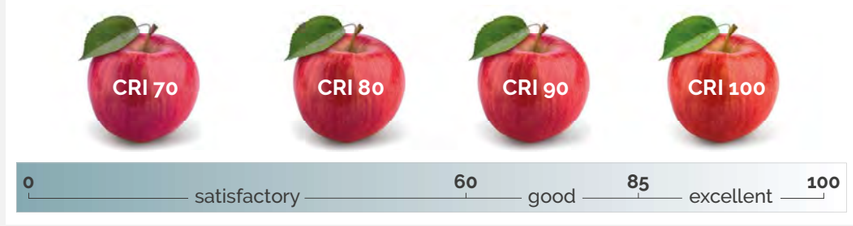
Colour temperature refers to the appearance of light emitted by a light source.

The higher the colour temperature the cooler the colour tone of the light. Simply put, we can say that a warmer (low) colour is more of a yellow/orange and a cooler (high) colour is more of a blue.

Lower colour temperatures give rise to cosy and relaxing environments while higher colour temperatures give rise to stimulating environments that favour work environments.

Flicker

This is the perception of light variations (popularly known as "flashing") caused by fluctuating "voltage" (supply voltage) by the human eye. Flickering causes difficulties in reading and visual disturbance, and can lead to headaches, eye strain, stress, loss of concentration, etc.



Chromatic Restitution Index (CRI)

This represents the degree of fidelity that a light source has in reproducing the true colours of an object when compared to a natural light source (sunlight).

When a light source is able to reproduce colours as sunlight does, then it is rated at CRI 100.

appealing products

emphasising freshness and improving presentation

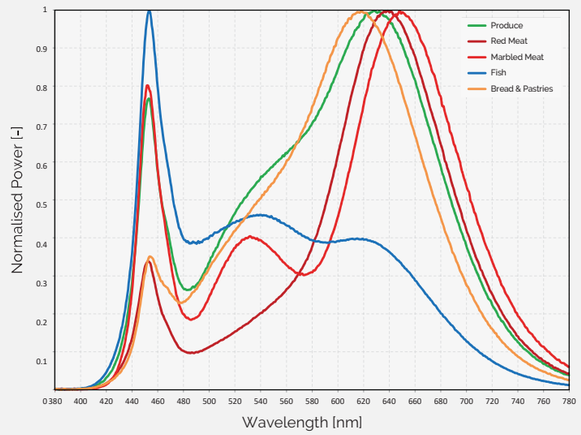
Fresh produce is food with a short shelf life and must be sold within a short period of time. Maintaining its freshness and reducing the time between putting it on the shelf and customers buying it is the goal of any shop.

The selection and marketing of products that are appealing in terms of shape, colour, and size is prized as a means of stimulating the consumption of food products.

The interaction of light on an object influences the perception we have of its colour, causing it to be perceived as being either more or less appealing.

Technological developments in semiconductors allow us to select light sources with the appropriate CRI, thereby meeting market requirements and enhancing the colours required by the product we want to highlight.

Spectral Power Distribution Characteristics



Food Filters

Fish

Cold lighting is recommended in areas where fish is presented on ice.

Meat

The warm light suggested for this type of product provides a more natural appearance in the perception we have of meat.

Charcuterie

The suitable light for the delicatessen area is not as warm as that used on red meat. The colour temperature used for this department highlights the redness of sausages as well as the white veins and fat of ham and smoked bacon.

Fruit and Vegetables

This type of lighting highlights the colours of food: the greens, reds, and yellows.

Cheese and Bakery & Pastries

A warm light will show the bread and cheese in authentic colour highlighting the warmth of freshly baked bread and soft cheese.

vertical farming

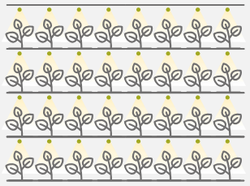
horticulture in retail

The retail sector experiences significant waste on a daily basis caused either by the decomposition or transportation of staple foods, in particular fruit and vegetables.

Consumption of these foods is on the rise, caused by the increasing world population and increasing literacy regarding recommended dietary habits.

With a view to reducing waste and promoting an increase in the shelf life of staple goods, the retail sector is beginning to adopt strategies to implement in-house production through "vertical farming" on its own premises.

The implementation of production areas close to sales locations will simplify logistics and substantially reduce food waste.



Lighting combined with optimised growing conditions (**temperature, humidity, and nutrition**) will enable the production of food products that are optimal in terms of shape, colour, and size, and will also **extend the shelf life of products** without the need to use chemical agents such as fertilisers and resins that delay ripening.

This solution is advantageous not only from an economic point of view, but also from a sustainability and health perspective.

For further information, please take a look at our horticulture brochure.

circularity

end-of-life sustainability and biomaterials

Global organisations are developing operations to implement corporate, public, and private strategies with the purpose of reducing the environmental impact of end-of-life products on our ecosystem.

Every year, the world produces around 500 million tonnes of plastic and by 2020 over 900% more plastic was being generated compared to 1980. It is therefore essential to curb this growth and create new products that have a lower environmental impact at the end of their lives.

As a result of political and economic decisions, we have witnessed the development of various materials that have added advantages from an environmental standpoint while providing the same level of functionality as the other materials used.

The integration of biomaterials is important and should be done by industries in order to preserve our ecosystem.

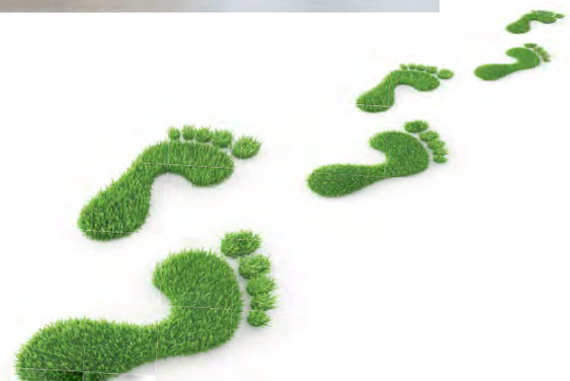
Lightenjin is already committed to this and intends to continue to invest in its deployment both in terms of its products and processes.

UNNO PLUS

The use of aluminium profiles (65%), LED technology (99%), the absence of heavy metals (0%), and the integration of biopolymers and natural elements (such as burel wool fabric, cork, and moss) all combine to form our sustainability strategy, which is ever expanding.

Lightenjin is eager to contribute and is intent on making a sustainable and gradual ecological transition. Part of this transition involves the use of recycled and efficient materials.

Recently, we incorporated a biomaterial (polyethylene with coconut/ /hemp fibre) into Lightenjin's best-selling product - UNNO PLUS.



control systems

efficiency with low consumption

In response to market demands, Lightenjin has reinforced its commitment to control and management solutions, strengthening its team with a specific department for the development and implementation of Control Solutions.

Lightenjin light fixtures with LED technology generate substantial savings by providing a high level of luminous efficacy combined with low energy consumption. Our engineering department provides a set of customised solutions for the functionalities sought by our clients for their installations.

When equipped with additional mechanisms, our light fittings can be used in a dynamic fashion, thereby reducing consumption. Lighting control systems are electronic devices that enable us to add one or more functions to a light fixture or group of light fixtures. The interconnection and configuration of all the lighting control systems is done by installing software.

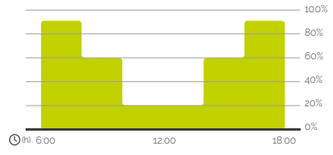
Control Strategies

Flux Regulation

The user adjusts luminous intensity by means of a push button. For this decreased illumination to correspond to a reduction in light consumption, the light fixtures must come with specific electronic equipment.

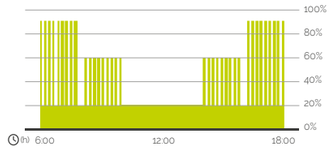
Corridor FUNCTION

The system parameters are set to a constant level of lighting. Intensity is activated through the presence of people. In the absence of people passing by, lights shall be dimmed to previously set values.



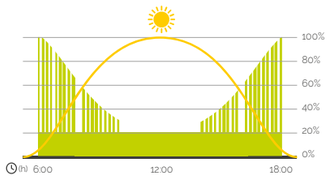
Timer

Lights are adjusted to a previously set time. In addition to the ON/OFF option, the parameters of luminous intensity may also be set using a timer.



Motion Sensor

The motion sensor activates lights when people are in the complex.



Daylight

Illumination based on the natural light + people presence equation associated to the ON/OFF option adjusted using a timer.

Average savings of

50%

control systems

DALI / AxIS

AxIS - Simple intuitive management

The AXIS software enables us to control and monitor every single point of light adapting lighting to the need of users and places. The lighting system is optimised through the moni- toring and permanent diagnosis of the entire network.

This level of flexibility and control also allows for better lighting management ensuring efficiency and safety conditions in buildings.

This Lighting Management Software enables:

History - Look up the data history;

Data - Data is exported into JASON and CSV formats;

Profiles - Schedule and parameter single profiles in every light fixture;

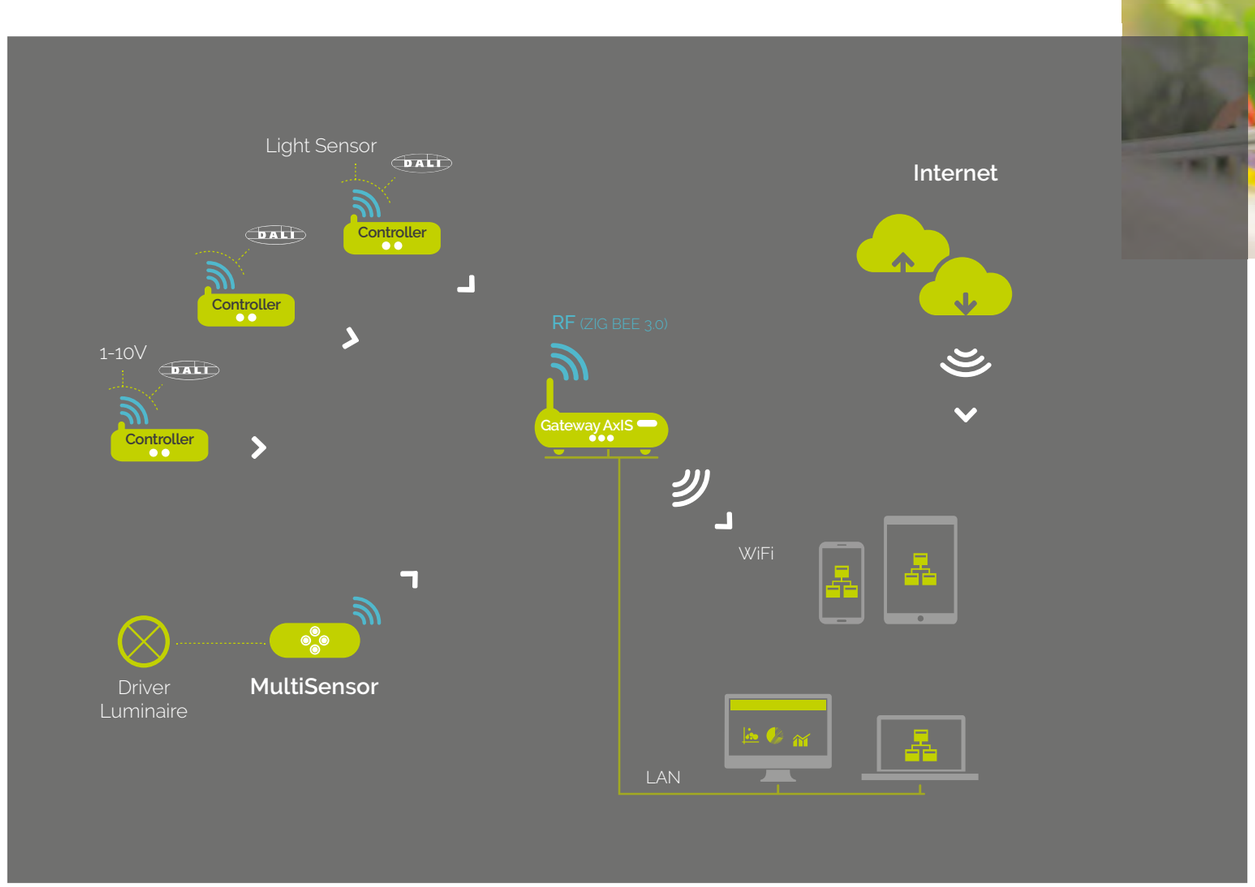
User profiles - Configure and manage user profiles with different accessibility levels;

Luminous flux - Set a luminous flux for every light fixture;

Blueprint - Present and identify the light fixtures in a plant;

Detecting abnormalities - Detect abnormalities in accordance with the standard configurations of each light fixture;

Telemetry - This enables us to apply telemetry to every light fixture;



YellowDot

Lightenjin is a partner of Philips Signify. There are light fixtu- res certified by YellowDot within the range of Lightenjin products.

The Philips Signify YellowDot programme uses the 'Visible Light Communication' technology for enabling indoor geopo- sitioning by means of a unique identity code in each point of light.

Light fixtures with this certification will communicate with customer Smartphone cameras in the shop. Once the shop's app has been downloaded to a mobile phone, this technolo- gy will enable us to locate the customer in the shopping area, which will create an optimised shopping route based on the products on their shopping list with a 30 cm precision, among other features.

The data flow is one-way and no personal data is collected by the lighting system.

This indoor positioning system will turn the lighting network into a marketing tool based on location:

- Highly accurate location data;
- Respect for privacy (location is anonymous);
- An optimised shopping route is created;
- Special offer reminders and notifications based on customer location;
- Storage of analytical data (pace chart; length of stay; density of customers; etc.)

consumption analysis

Hypermarket

example Department Store

ceiling: 8 metres high
light fixtures height: 5m
area: 8400 m²

Energy efficiency is a crucial issue in the retail sector.

In terms of consumption, lighting plays a highly significant role, and as such, it is essential to analyse consumption without jeopardising the lighting of the space.

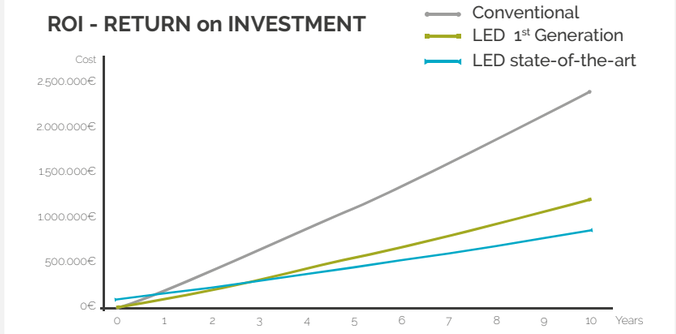
Technological developments have brought about significant improvements over the years, most notably with the implementation of LED technology, which provides guaranteed **energy savings of up to 70%** compared to conventional technology.

LED technology has undergone significant improvements over the years, with **38% greater efficiency** today compared to the technology installed 5 years ago.

Below are a few of the different approaches that could have an impact on energy consumption and environmental savings.

- **Situation A** - comparison between conventional fluorescent and state-of-the-art LED fittings
- **Situation B** - comparison between 1st generation LED fittings and state-of-the-art LED fittings

In the context of Climate Transition, incentives to improve Energy Efficiency in Buildings have been implemented. Please take a look at the legislation in force.



A	10,5 months	67%	67%
B	2,6 years	38%	38%

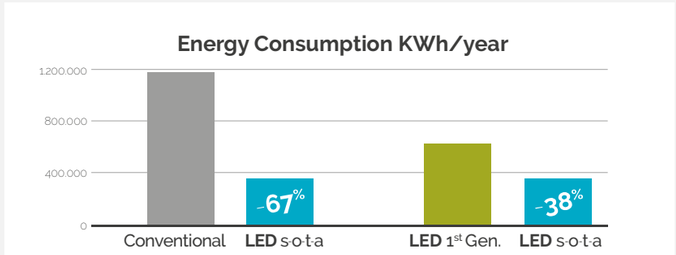
SITUATION A - from conventional fitting to *state-of-the-art* LED fitting

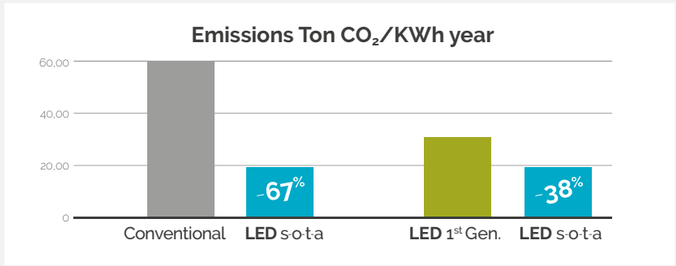
SITUATION B - from 1st gen. LED to *state-of-the-art* LED fittings

	Conventional FITTINGS	1st Generation LED	state-of-the-art LED
		using existing points of light in the existing installation	using existing points of light in the existing installation
Light Fixtures	fluorescent 2x58W aluminum ref. η=63%	Linne W 1475 HE 840	Eco Linne V 1705 HE 840
Number of Lights	1684	1684	1497
Lamp Wattage	2x58 W	63 W	44 W
Absorbed Power of the Equipment	120 W	63 W	44 W
System Efficacy	89 lm/W	129 lm/W	154 lm/W
Luminous Flux / Light Fixtures	10.400 lm	8.152 lm	6.803 lm
Work Plan Luminance	1.172 lux	1.542 lux	1.215 lux
Energy Consumption	1.176.914 kWh/year	617.880 kWh/year	383.615 kWh/year
Emissions	60,26 Ton CO_2/ kWh year	31,64 Ton CO_2/ kWh year	19,64 Ton CO_2/ kWh year

more up to date

ANNUAL SAVINGS





different applications

Different Requirements

Fashion

One of the most important factors in the clothing retail sector is the quality and colour of the material. Colour representation of a garment must be accurate. LED filters function in this way, promoting a maximised perception of the real colour of the illuminated object.

Bakery

In addition to the sales area, bakeries also have an area where food is made. Food production follows the same guidelines as the food industry. The product's design should prevent some parts from eventually falling off or detaching themselves from the light fixtures. The hygiene guidelines stipulate that accumulated dust should be easily removed. The light fixtures should have a high protective index as to be apt for humid, hot, and cold areas. Materials used should be resistant to chemical agents used in cleaning. Lighting levels should be suitable for inspection at each manufacturing stage.

Fresh Fish Area

The fresh fish area in shops includes an area for washing and preparing fish. These places are potential splashing areas and because of this lighting must have an increased level of protection.

These areas meet high hygienic standards for which reason lighting equipment must be resistant to cleaning agents.

LED shelf lighting system

As a marketing tool, shelf lighting is an excellent way to highlight a product in a line of shelves where all products are set in the same way and with the same lighting. Due to its proximity to the product and accessibility to the customer, shelf lighting requires additional care - the product's IK must be high, while its IP must also be protected from getting wet.

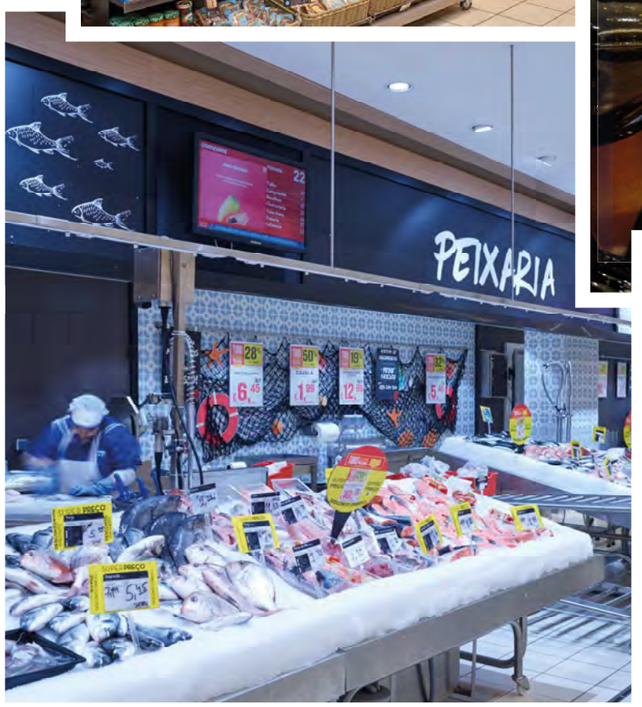
Wine Cellars

Colour temperature within the wine section of a shop must emphasise the colour saturation of red wine or make white wine seem light and refreshing. These are visual characteristics that customers perceive emotionally to attribute a superior quality to the product.

Cold Areas

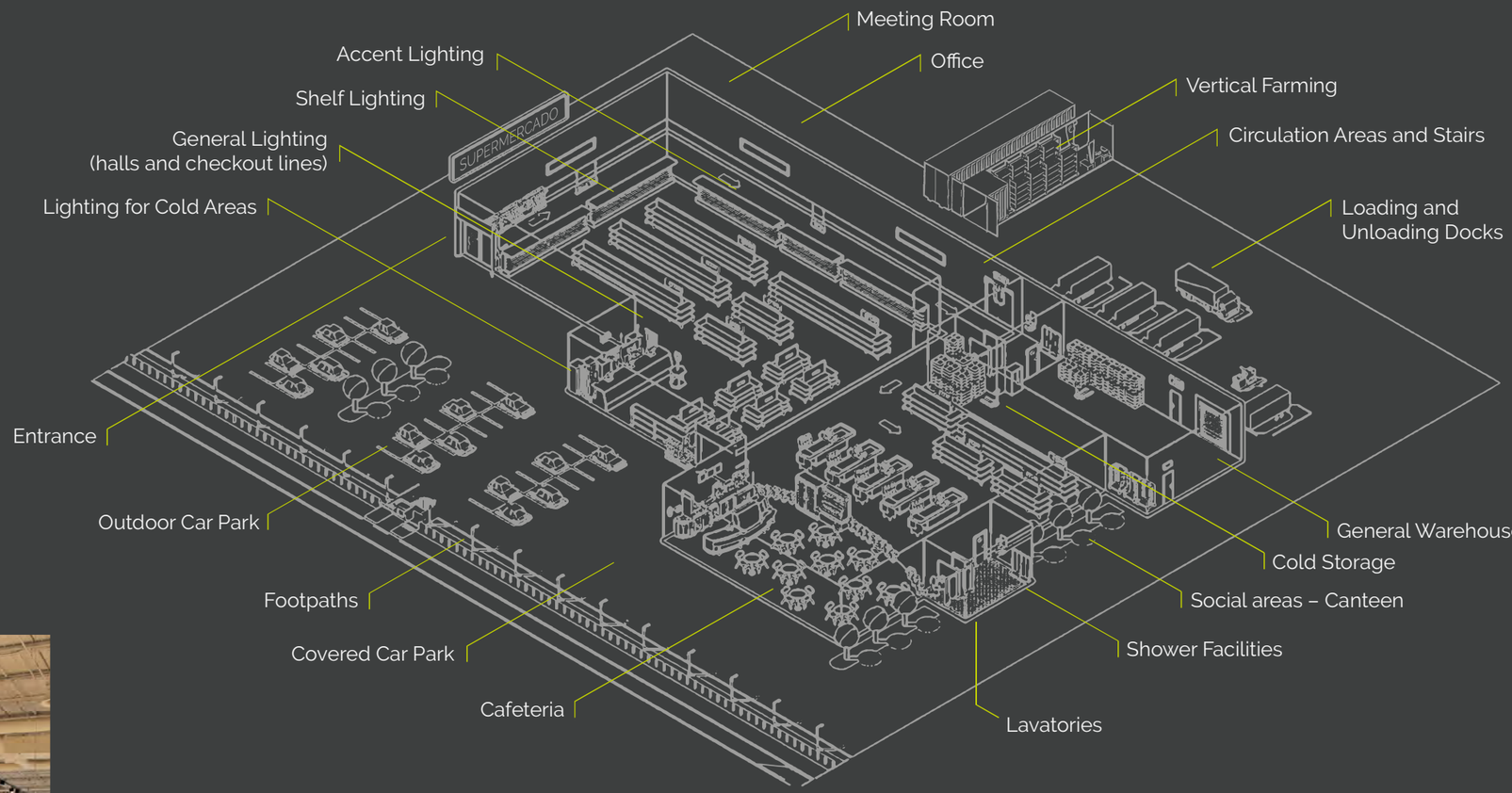
There are two different cold areas. The cold area with negative temperatures between -20°C and -5°C (-4°F and 23°F) where the freezers are kept and the cold area with positive temperatures between 1°C and 8°C (33.8°F and 46.4°F) intended for fresh produce (dairy, meat, and vegetables).

The IP level of these light fittings must be high, due to the humidity and condensation generated by the cold. In relation to the protective index against impact (IK), it is important in both environments, in the warehouse due to handling goods and inside the shop due to light fixtures located inside freezers where customers are able to access them.



areas of intervention

We provide solutions for the different areas in your shopping space.



Each space has its own particular characteristics and at Lightenjin we always follow a careful set of requirements to be met when developing our light fixtures so that the choice is always the right one for each type of space.

accent lighting

highlight and attention

The light projected into a space influences our visual perception. Therefore, the choice of where to place light fixtures coupled with the quantity and quality of light that interacts with the object are fundamental to the projection of the image we want to transmit.

All projectors have an excellent **IRC >90**

TIGER

Round projector applied to a three-phase rail with integrated driver. Versatile solutions.
- Colour temperatures [**2700-5700**] K
- Wide range of fluxes [**2874-3427**] lm
- Typical efficiency **110 lm/W**.
- Possibility of using colour filters

UNNO PLUS

Sustainable projectors made from biomaterials, applied on a three-phase rail. Versatile solution.
- Colour temperatures [**2700-5700**] K
- Wide range of fluxes [**2010-5465**] lm
- Typical efficiency **110 lm/W**.
- Possibility of using colour filters

CODEX P

Three-phase projector with an elegant and differentiating design.
-Colour temperatures [**2700-5700**] K
- Wide range of fluxes [**3162-4560**] lm
- Typical efficiency **100 lm/W**.

SHEER R

Sheer R (round) in **100**, **150** and **180mm** diameters. Light orientation in one or two axes.
- Colour temperatures [**2700-5000**] K
- Wide range of fluxes [**1131-4563**] lm
- Typical efficiency **105 lm/W**.
- Possibility of using colour filters

SHEER Q

Sheer Q (square) with light orientation in one or two axes. In **80**, **130** and **170mm** diameters.
- Colour temperatures [**2700-5000**] K
- Wide range of fluxes [**1138-5465**] lm
- Typical efficiency **120 lm/W**.
- Possibility of using colour filters

ELEMENTARE R

Elementary Family R (round shape), available in **60**, **90**, **125** and **280mm** diameters.
- Colour temperatures [**2700-5000**] K
- Luminous flux ranges [**878-5028**] lm
- Typical efficiency **130 lm/W**.
- Possibility of using colour filters

aisle lighting

controlled uniformity

Lighting for the aisle areas is of particular interest and can be particularly difficult in terms of lighting, given the large areas of exposure.
Lightenjin has a wide range of optical solutions that provide for photometrically diverse lighting settings.

Two simple concepts are used:
- Linear lighting applied in a continuous line or equally spaced
- and projector lighting used to highlight specific products.

ECO LINNE W

Light fixtures made from sheet steel for large continuous lines.
- Lens available with different photometries.
- Colour temperatures [**3000-5000**] K
- Luminous flux ranges [**7215-20895**] lm
- Typical efficiency **130 lm/W**.

ECO LINNE V

Economic aluminium profile light fixture designed for suspension or surface mounting.
- Lens available with different photometries.
- Colour temperatures [**2700-5000**] K
- Luminous flux ranges [**2004-18350**] lm
- Typical efficiency **150 lm/W**.

LINNE W

Light fixtures in aluminium that will adapt to the electrified rails.
- Lens available with different photometries.
- Colour temperatures [**2700-5000**] K
- Luminous flux ranges [**5923-26119**] lm
- Typical efficiency **130 lm/W**.

SLID

Light fixtures with three-phase rail electrification. Possibility of 2 or 3 lines.
- Lens available with different photometries.
- Colour temperatures [**3000-5000**] K
- Luminous flux ranges [**5309-8392**] lm
- Typical efficiency **140 lm/W**.

HLV

Cost-effective sheet steel light fixtures for continuous lines.
- Colour temperatures [**2700-5000**] K
- Luminous flux ranges [**2004-18350**] lm
- Typical efficiency **150 lm/W**.
- Different photometric configurations possible

SLINDA

Versatile and cost-effective light fixtures for three-phase rail application.
- Colour temperatures [**3000-5000**] K
- Luminous flux **2000** lm
- Typical efficiency **140 lm/W**
- Opal diffuser

shelf lighting

proximity and protection

Shelf lighting enables lighting for small distances and uniform scanning so as not to cast shadows on products.

VLED S

Appropriate economic and compact equipment for short-distance lighting .
- Colour temperatures [**2700-5000**] K
- **IP40** device
- Luminous flux ranges [**846-8954**] lm
- Typical efficiency **140 lm/W**.

lighting for cold areas

The need to preserve foods that require low temperatures is one of the greatest areas of interest in the retail sector. As a result, the way in which it is displayed and presented is crucial.

DRILED (positive cold)

Ideal light fixtures for small spaces.
- Enables the incorporation of diffusers with 60º, 120º and double asymmetry angles.
- Can be used up to a height of **6 meters**
- Luminous flux ranges [**738-10233**] lm
- Typical efficiency **140 lm/W**.

FRIGUS (negative cold)

Surface mounted light fixtures to be applied onto refrigerated chambers with **IP54**.
- Designed for a simple or double beam.
- Colour temperatures [**2700-5000**] K
- Luminous flux ranges [**905-7620**] lm
- Typical efficiency **100 lm/W**.

entrance

transition and comfort

The entrance area in retail spaces should have lighting that promotes visual and physical comfort for its visitors. We offer solutions for surface-mounted, suspended, and recessed applications with different formats for customising spaces according to the client's needs.

cafeteria

decoration and harmony

The cafeteria area is a space where people go to take a break. The environment chosen for this should be comfortable and harmonious, so this effect can be achieved. The type of lighting used is crucial.

Discover the new cafeteria concept unveiled in Continente supermarkets - page 44.

LINNE S90 Pris

Light fixtures in aluminium profile with prismatic diffusers and greater visual comfort.
- Colour temperatures [**2700-5700**] K
- Luminous flux ranges [**1843-16471**] lm
- Typical efficiency **140 lm/W**.
- Available in various sizes.

LUNA

Light fixtures in aluminium profile with opal diffuser.
- Colour temperatures [**2700-5000**] K
- Luminous flux ranges [**2989-10454**] lm
- Typical efficiency **120 lm/W**.
- Available in various diameters

ORBIS R

Elegant downlights that bring simplicity to the surrounding space. Recessed finishing rim which imparts a low glare.
- 120 mm diameter appliance with **IP44**
- Luminous flux ranges [**804-4321**] lm
- Typical efficiency **110 lm/W**.

CALIDUS

Suspended light fixture made of spun aluminium.
- To fit lamps with **E27** sockets
- output power of **60W**.

PLUVIA

Suspended light fixture made of spun aluminium in three different sizes
- To fit lamps with **E27** sockets
- LED lamps recommended with an output of **60W**.

LIGNA

Suspended minimalist light fixtures that adapt easily to the surrounding environment.
- To fit lamps with **E27** sockets
- Maximum recommended output of **60W**.

circulation areas

stability and security

Circulation areas are transitional areas that require uniform lighting and aim to not promote the tunnel effect.

ELEMENTARE R

Recessed downlights, available with or without opal or transparent diffusers.
- Luminous flux ranges [**878-5028**] lm
- Typical efficiency **130 lm/W**.

CODEX S

Surface-mounted light fixture with an elegant and distinctive design.
- Luminous flux ranges [**3162-4560**] lm
- Typical efficiency **100 lm/W**.
- Reduced levels of glare
- Different photometric configurations possible

FLAT

A small uplight designed by architect Adalberto Dias.
- Luminous flux ranges [**895-1515**] lm
- Typical efficiency **85 lm/W**.
- Enables direct or indirect lighting

bathrooms

SHEER Q GU10

A small downlight suitable for small spaces with light orientation capacity in two axes.
- **IP20** device
- To fit **GU10** lamps
- Maximum recommended output of **10W**.

ALTUS R

Surface-mounted round fixture that adds simplicity to the space.
- **IP20** device
- Luminous flux ranges [**1500-2000**] lm
- Typical efficiency **130 lm/W**.

DRILED IP44

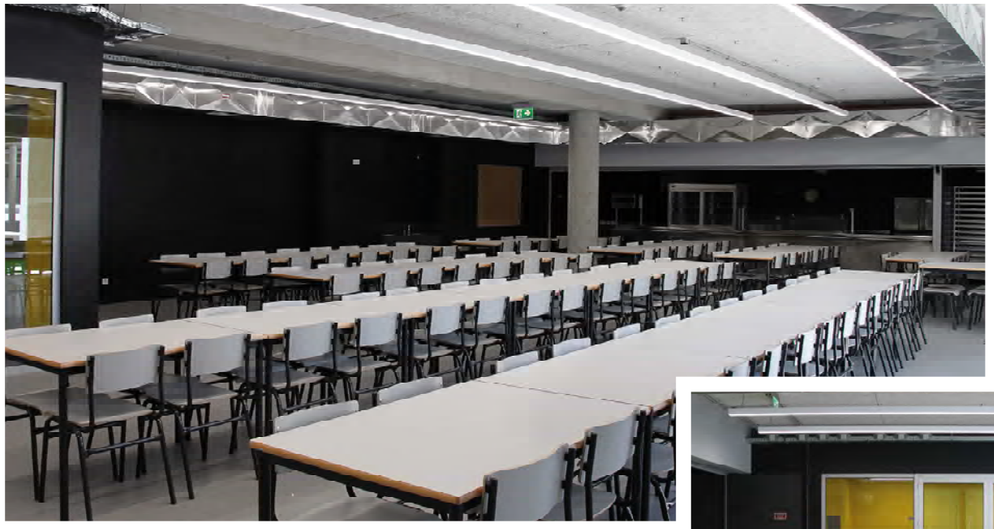
Ideal light fixtures for small areas like crown molding, handrails and shelves.
- Allowing the integration of diffusers with an angle of 120º.
- Can be used up to a height of **6 meters**
- Luminous flux ranges [**219-2464**] lm
- Typical efficiency **140 lm/W**.

shower facilities

reliability and impermeability

Shower facilities are very challenging areas when it comes to the use of light fittings.
Light fixtures are required to have a high water ingress protection level (IP65 minimum).

canteen



ASEPTIC

IP65 rated light fixtures suitable for installation in areas prone to the proliferation of micro-or-ganisms.
- Colour temperatures [**2700-5000**] K
- Wide range of fluxes [**748-11294**] lm
- Typical efficiency **120 lm/W**.
- Glass diffuser

LACUS

Waterproof luminaire for surface mounting.
- Three available sizes
- Colour temperatures [**2700-5000**] K
- Luminous flux ranges [**1988-6179**] lm
- Typical efficiency **110 lm/W**.
- **IP65** enables integration into high humidity environments

TULED 50 O

Waterproof light fixture suitable for high humidity environments (**IP67**).
- Colour temperatures [**2700-5000**] K
- Wide range of fluxes [**1767-10462**] lm
- Typical efficiency **143 lm/W**.

LINNE S90 O

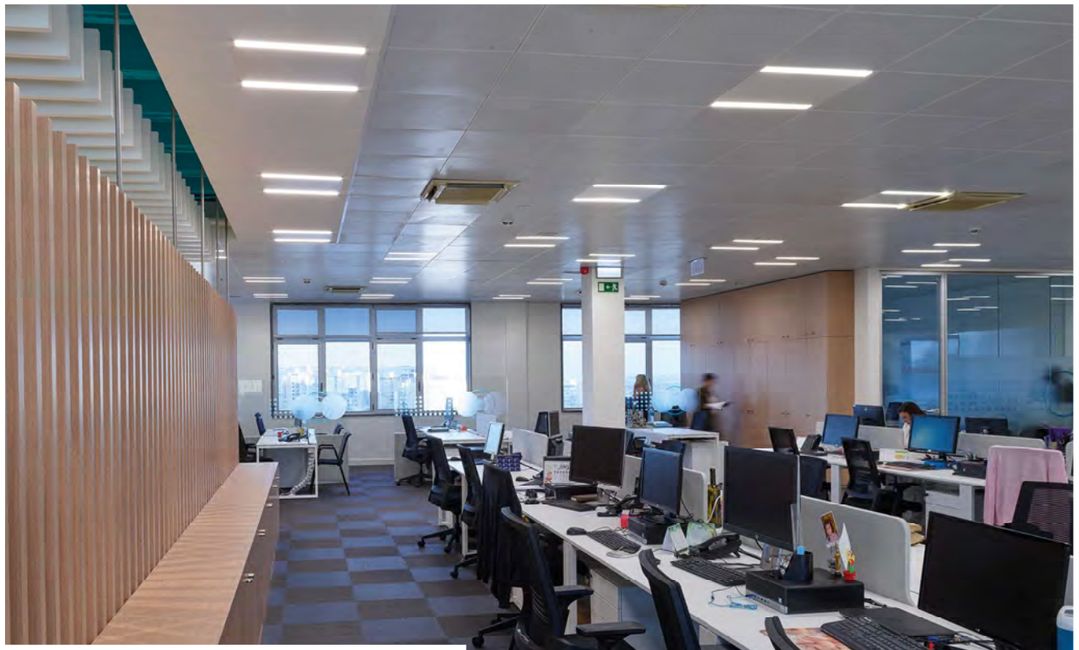
Surface-mounted or suspended light fixture in aluminium profile with opal diffusers.
- Colour temperatures [**2700-5700**] K
- Luminous flux ranges [**1833-16384**] lm
- Typical efficiency **140 lm/W**.
- Available in various sizes.

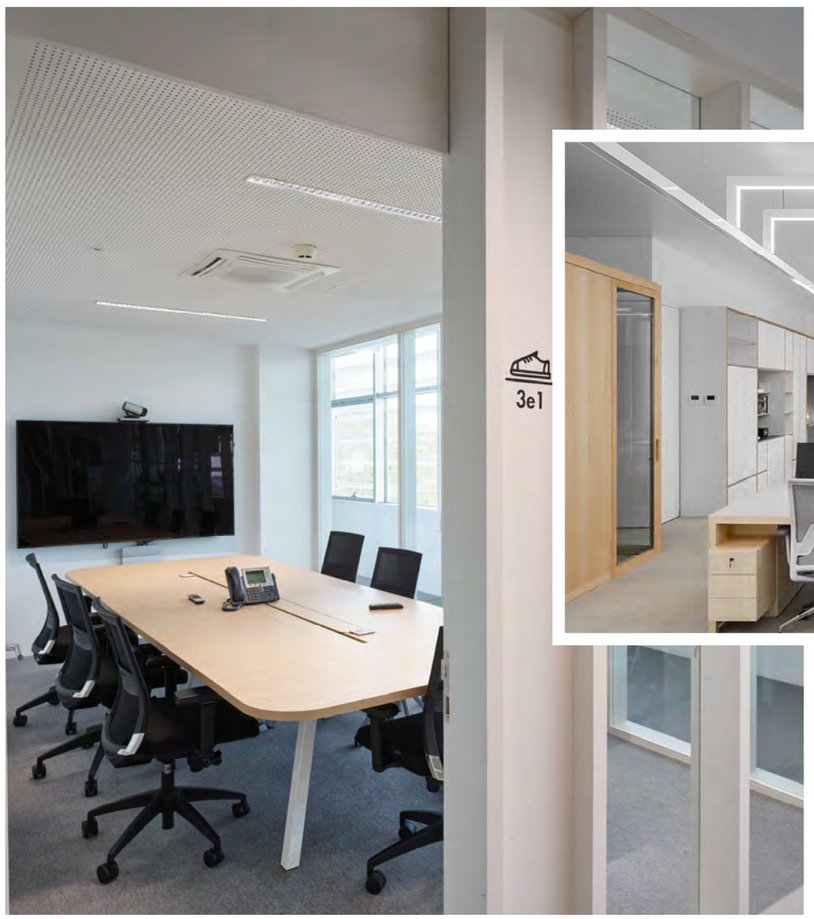
MANGUS

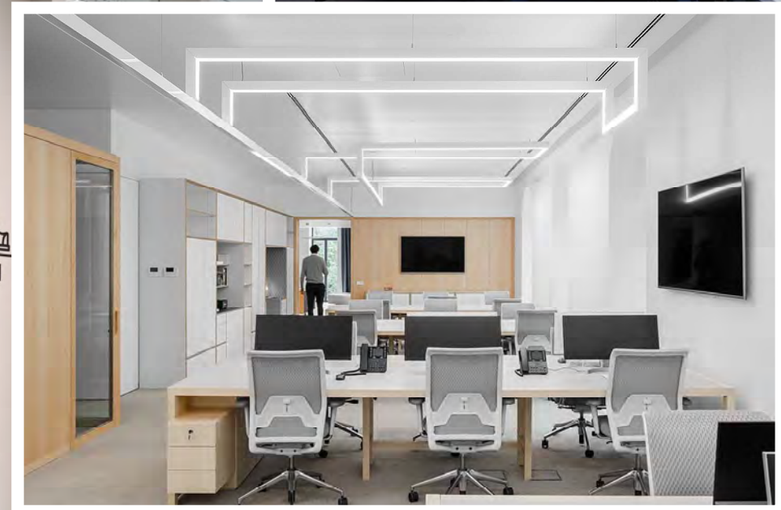
Suspended light fixture, suitable for indoor spaces
- Luminous flux ranges [**1120-1214**] lm
- Typical efficiency **84 lm/W**.

ALTUS Q

Surface-mounted light fixtures. Enables to create a different environment within the general environment.
- Luminous flux ranges [**1458-2989**] lm
- Typical efficiency **130 lm/W**.







offices

Offices are working spaces where lighting plays a major role in the health and well-being of users.
Light fixtures with levels adjusted to the work area, low glare, low flickering, and lighting controlled on the basis of user circadian rhythms are fundamental aspects to consider when choosing a lighting system.

OPUS E ECO (UGR <19)

Specially designed for office environments with anti-glare micro prismatic diffusers (UGR<19), suitable for working with screens (Standard 12464-1).
- Wide range of fluxes [**3686-13726**] lm
- Typical efficiency **140 lm/W**.
- "**Circadian Rhythm Control**" system available

OPUS E PW45

Specially designed for office environments with PW45 diffuser, suitable for working with screens (Standard 12464-1).
- Wide range of fluxes [**3226-12015**] lm
- Typical efficiency **120 lm/W**.
- "**Circadian Rhythm Control**" system available

meeting room

LINNE S90 PREMIUM

Linear equipment made of aluminium profile, with low glare lenses (UGR<19), suitable for continuous lines.
- Luminous flux ranges [**1752-6547**] lm
- Typical efficiency **140 lm/W**.
- "**Circadian Rhythm Control**" system available

PROLINNE

Slim design light fixtures made of aluminium profile, incorporating lenses with low glare levels (**UGR<19**)
- Luminous flux ranges [**2370-14612**] lm
- Typical efficiency **160 lm/W**.
- "**Circadian Rhythm Control**" system available

cold storage

Warehouse areas are places where goods and people move around a great deal and where weather conditions can vary greatly.

warehouse

STAGNUM PRO LED

Watertight light fixtures suitable for a very humid environment.
- Colour temperatures [**3000-5000**] K
- Luminous flux ranges [**2246-8253**] lm
- Typical efficiency **130 lm/W**.
- **IP66** device

MULTIS ECO

Die cast aluminium light fixture, developed to integrate industrial production units.
- Available in 2 different sizes,
- Luminous flux ranges [**13726-30505**] lm
- Typical efficiency **142 lm/W**.
- **IK08** and **IP65** device

GYRUS M

Circular shaped die cast aluminium fixture, ideal for placing in industrial facilities
- Luminous flux ranges [**21282-28249**] lm
- Typical efficiency **143 lm/W**.
- **IK08** and **IP65** device

STAGNUM LED II

Waterproof fixture for surface mounting. Fibreglass-reinforced polyester body
- Available in 3 different sizes
- Luminous flux ranges [**4000-14000**] lm
- Typical efficiency **150 lm/W**.
- **IK08** e **IP66**

loading and unloading docks

sturdiness and security

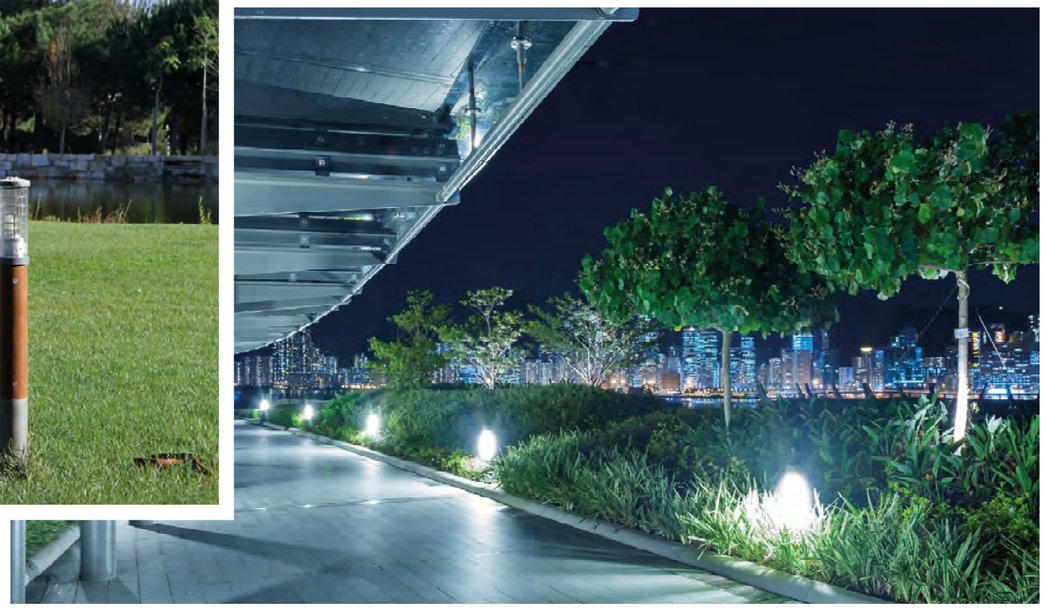
These areas, which are usually outdoors, require high levels of protection from impacts and the ingress of water.

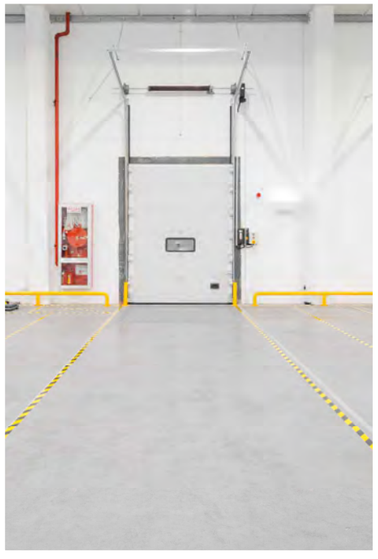
STAGNUM LED I

Waterproof fixture for surface mounting.
Fibreglass-reinforced polyester body
- Available in 3 different sizes
- Luminous flux ranges [**2000-7000**] lm
- Typical efficiency **140 lm/W**.
- **IK08** and **IP66** device

CITHARA EVO

Projector with adjustable bracket
- Luminous flux ranges [**4291-71404**] lm
- Typical efficiency **137 lm/W**.
- **IK08** and **IP66** device





footpaths

paths and signposting

PHARUS LED

Bollard fixture with integrated LED technology with radial light dispersion.
- Colour temperatures **2700-4000** K
- Luminous flux ranges [**808-2412**] lm
- Typical efficiency **164 lm/W**.
- **IK09** and **IP65** device

REDUCTA 30

Versatile recessed light fittings for indoor and outdoor use on floors, ceilings, and walls. Also, for wall sweeps.
- Luminous flux ranges [**80-179**] lm
- Typical efficiency **84 lm/W**.
- **IK06** and **IP67** device

outdoor parking

covered parking

Light fixtures for car parks must guarantee protection against the ingress of water and solid objects (IP66, IK08) and the luminous flux and photometry must be appropriate for these locations to ensure user safety.

Our design office will assist you in this regard.

DUCIS

Light fixtures suitable for road lighting which can be used in parking areas with different photometry levels available
- Colour temperatures [**2700-5000**] K
- Luminous flux ranges [**3509-22440**] lm
- Typical efficiency **141 lm/W**.
- **IK09** and **IP66** device

VIA S

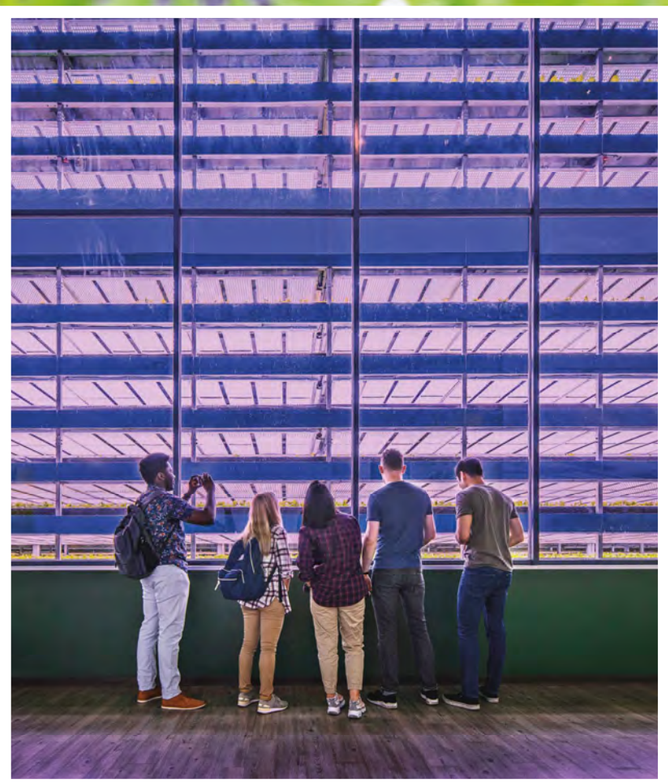
Light fixtures suitable for car or truck parking areas that can be mounted on posts or columns.
- Colour temperatures [**2700-5000**] K
- Luminous flux ranges [**1679-15011**] lm
- Typical efficiency **131 lm/W**.
- **IP66** device

PRIMAVIR EVO

Light fixtures suitable for car or truck parking areas that can be mounted on posts or columns.
- Colour temperatures [**2700-5000**] K
- Luminous flux ranges [**2137-13876**] lm
- Typical efficiency **128 lm/W**.
- **IP67** device

TULED 50

Waterproof light fixture suitable for high humidity environments (**IP67**).
- Colour temperatures [**2700-5000**] K
- Wide range of fluxes [**1767-10462**] lm
- Typical efficiency **143 lm/W**.



vertical horticulture

Vertical Horticulture consists of a multi-layer solution in which crops are displayed on shelves, one on top of the other. Optimising space.

Through top or vertical illumination, light fixtures are usually located at a distance of 30-50 cm.

The compact layered design of this method makes it possible to completely forego any natural light, ensuring complete and effective control over every stage of the process.

TULED 20

Light fixtures with stainless steel end caps and polycarbonate diffusers resulting in a robust **IP68** and **IK09** light fitting.
It contains red, blue, infrared, and white LEDs, so that it can meet the lighting needs of various horticultural facilities.

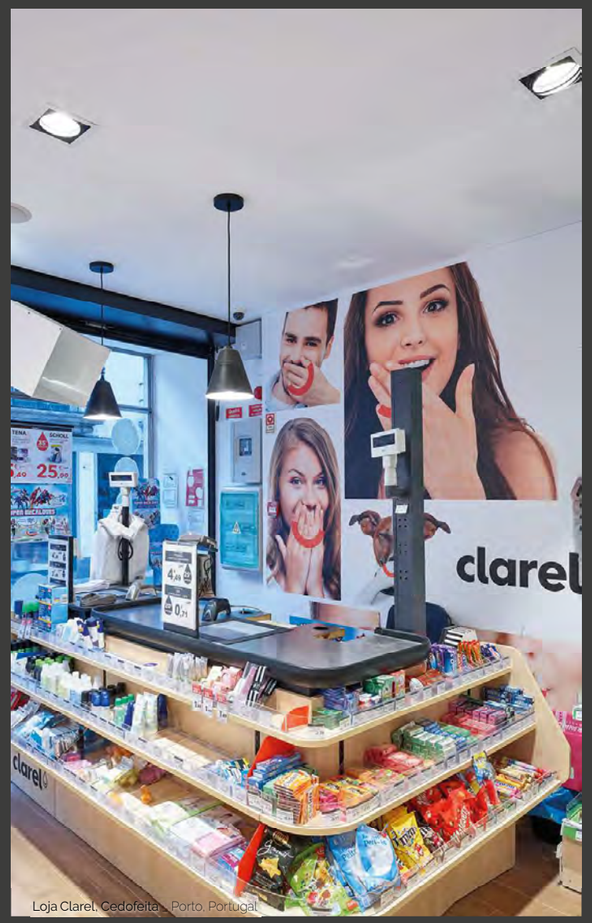
Lightenjin Projects

Loja Continente _ C.C.Minho Center _ Braga, Portugal

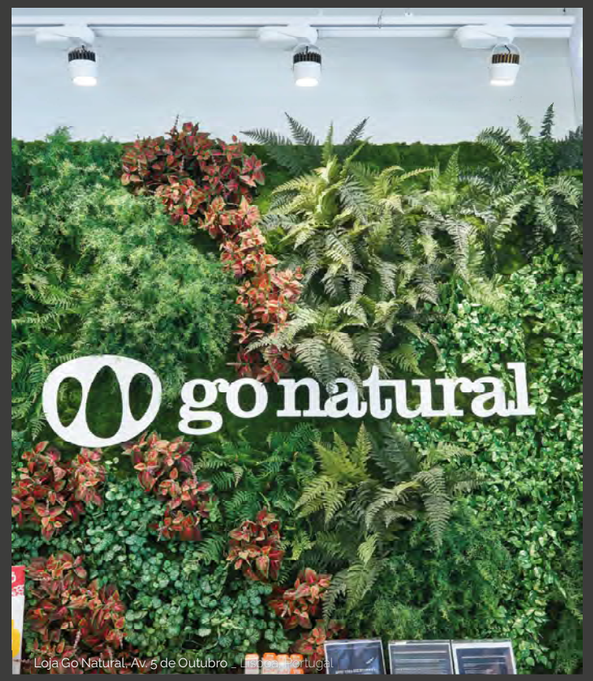
Loja FuturSport _ Braga, Portugal

loja NOS Forum Algarve _ Faro, Portugal

Quinta do Saloio _ Marina de Cascais, Portugal



Loja Clarel, Cedofeita _ Porto, Portugal



Loja Go Natural, Av. 5 de Outubro _ Lisboa, Portugal

Loja Radio Popular _ Figueira da Foz, Portugal

Loja Note _ Lumiar, Portugal

Casa Peixoto _ Porto, Portugal

concept and design

Cozinha Continente

One of our partners is the SONAE retail chain and we embrace challenges on a daily basis.

The new kitchen concept that we have developed together has led to the creation of a dynamic, welcoming space, which combines vintage touches in a modern space.

Challenges are what drive us to create new concepts. We are constantly reinventing ourselves and innovating to improve your well-being.

Products included in this project

CALIDUS | PLUVIA | MANGUS | ORBIS | TIGER

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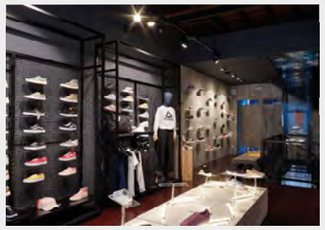
20 Accent Lighting




TIGER


UNNO PLUS


CODEX P


SHEER R


SHEER Q

22 Aisle Lighting


ECO LINNE W


ECO LINNE V


SLID


HLV


SLINDA

24 Shelf lighting & Cold Areas


VLED S


DRILED


FRIGUS

26 Entrance


LINNE S90 Pris


LUNA

ORBIS R

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CALIDUS


PLUVIA

LIGNA

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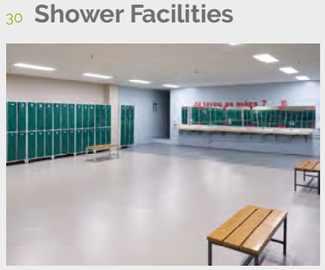
29 Lavatories


ALTUS R

SHEER Q GU10


DRILED IP44

30 Shower Facilities




ASEPTIC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31 Canteen


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Lightenjin

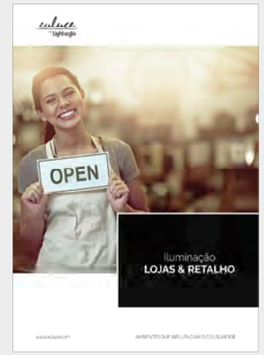
Lightenjin manufactures professional lighting solutions to be applied in interiors and exteriors.

Lightenjin products combine technology, ergonomic design, lighting control, and energy efficiency always keeping in mind user well-being as the main goal.

If you do not find the technical solution you are looking for, please do not hesitate to contact our engineering department.

This brochure is available in other languages:

PT FR ES DE



We are constantly updating our documentation. Whatever your business field, please read the related brochure, where you will find more detailed and specific information.

Documentation available on
www.lightenjin.pt/en/downloads

Products manufactured according to low voltage, RoHS, and electromagnetic compatibility directives.

For more information, please request the technical sheets.

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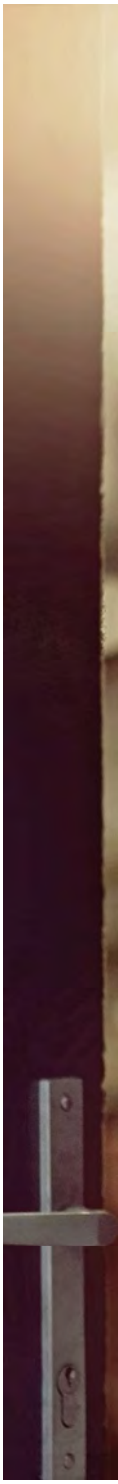

www.euluce.pt

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