

**GLOBAL / LIGHTING TRENDS**

**EMOTION ON THE INSIDE**

**Intelligent roads with CityDot**

**Green indoor parking**

**Green outdoor parking**

**Demonstration tools**

**Dynamic shop windows**

**Dynamic shop windows**

**Smart Mirror**

**PLAYFACTORY**  
Interactive multi-use playground

**PLAYFACTORY**  
Interactive industry model

**IndustryPro**  
Demomac

**Demomac**  
CityDot

**Smart**  
petrol stations

**Sustainable**  
factory & warehouse

**Modern light**  
in schools

**OBAL**

**POSTION TRACKING**  
FOR LIGHTING ACCURACY (DIALUX)

**LIGHT WILL NEVER BE JUST LIGHT**

**3D**

**CAMERA LIGHTING CONTROL**

**LQS**

Lighting Quality Standard helps lighting professionals and customers understand how to choose the perfect luminaire.

**THE KEY IS 6 E'S**

**PLASMAIOUS DISTRIBUTION OF BRIGTHNESS**

**LIGHTING QUALITY STANDARD**

**The key Is 6 E's**

**Duelis II**

**Brean S+ Freestanding**

**Ghada 2 Suspended**

**Dalya S**



**ONE OF THE BEST LIGHTING INDUSTRY R&D DEPARTMENTS IN EUROPE**

**INDUSTRIAL DESIGN**  
All the pre-production processes that lead to a fully functional prototype

**OPTICAL DESIGN**  
Selection and refinement of appropriate optical properties and practical experience and theoretical knowledge

**THERMAL DESIGN**  
Implementation of design project to reduce the reliability of mechanical parts through the selection of appropriate materials

**ELECTRONIC DESIGN**  
Advanced system level designs, 3D0 compatibility and long term performance tests performed in-house

**MECHANICAL DESIGN**  
More than 20 years of experience in the mechanical design and manufacturing of luminaires and luminaire tools

**LAB SERVICES**  
Optical, thermal, electrical, mechanical, and pre-production tools and measurements

**FULL LUMINAIRE DEVELOPMENT**  
One of the best-equipped and staffed R&D departments in Europe, delivering seamless industrial, optical, thermal, electronic, and mechanical design, and custom product development

- Optical measurements and evaluation of light distribution curves, luminous flux, and luminance of light emitting surfaces
- Evaluation DiALux results
- 3D scanning
- Evaluation of visual appearance
- Available hardware: Goniosphotometer RIGGO 80L, Radiolux 111, MiniDRE Atos Compact 3D scan, CCT matrix camera, spectrometric integrating sphere

# CORPORATE PRESENTATION PROJECTS



## WHY DO BUSINESS WITH US?

- The strong position at lighting market
- In-House Research and Development Centre
- Customer Oriented Company
- Quality Products with High Efficiency and Warranty Period
- In-House Innovation Centre
- Ability to Respond Quickly to Customer Requirements
- Ability to Produce Rapid In-house Prototypes
- A Short Time to Develop New Products
- A Quick Delivery
- Ultra-Competitive Price to Quality Ratio



**OUR VALUES:**  
**INNOVATION**  
**FLEXIBILITY**  
**PROFESSIONALISM**  
**COOPERATION**  
**CREDIBILITY**

# WHO WE ARE

## Our facilities

OMS, a.s.

Established 1995

Number of employees 600

Export 87 %

Production surface area 103,100 m<sup>2</sup>

LIC surface area 810 m<sup>2</sup>

Office surface area 2,460 m<sup>2</sup>

### OWNERSHIP STRUCTURE

Grafobal Group, a.s. 70%

Vladimír Levársky 30%

Grafobal Group, a.s.

Consolidated turnover 980,000,000 €

Number of employees 6,200



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Ergonomics



Emotion



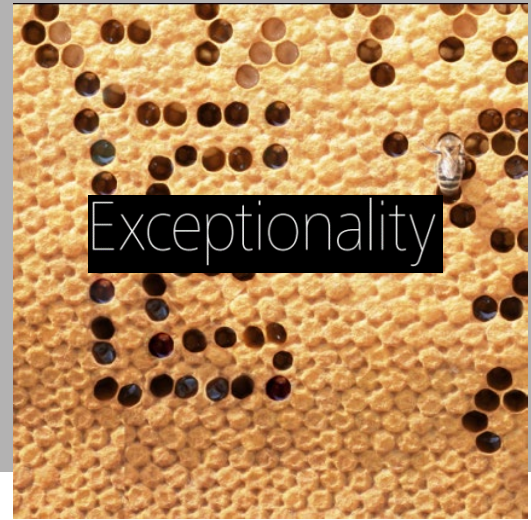
Ecology



Efficiency



Esprit



Exceptionality



LIGHTING  
QUALITY  
STANDARD

The key  
Is 6 E's

# LIGHTING QUALITY STANDARD

Lighting Quality Standard helps lighting professionals and customers understand how to choose the perfect luminaire.

**INDEX (CRI)**  
CRI = 80

0% proportion of IR radiation

**ILLUMINATION LEVEL (TASK AREA)**  
 $E_m = 780 \text{ lux}$

**HARMONIOUS DISTRIBUTION OF BRIGHTNESS**

**LIGHTING UNIFORMITY**  
 $U_s(\text{task}) = 0,95$   
 $U_s(\text{surrounding}) = 0,86$

**TUNABLE WHITE**  
3000 K - 5000 K

**DYNAMIC LIGHTING**  
500 lux - 780 lux



LIGHTING SOLUTIONS

ERGONOMICS

COLOR RENDERING INDEX

LQS value

BIOLOGICAL FACTOR OF ILLUMINATION

EMOTION

LQS value

ECOLOGY

EFFICIENCY

CALLING OF LIGHTING SCENES

ESPRIT

OVERALL IMPRESSION OF THE LUMINAIRE

EXCEPTIONALITY

FOLLOW THE RIGHT LIGHT

# PROJECTS

Special lighting solutions using comprehensive portfolio of products.

**ONS**  
FOLLOW THE RIGHT WAY

# IN HOUSE R&D DEPARTMENT

ONE OF THE BEST LIGHTING INDUSTRY R&D DEPARTMENTS IN EUROPE

## INDUSTRIAL DESIGN

All the pre-production processes that lead to a fully functional prototype

## OPTICAL DESIGN

Selection and refinement of appropriate optical parts using vast practical experience and theoretical knowledge

## THERMAL DESIGN

Characterisation of every product to ensure the reliability of every product and research and development of innovative concepts

## ELECTRONIC DESIGN

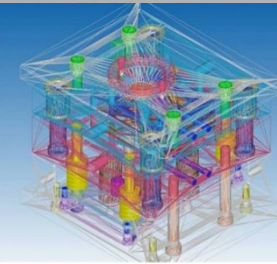
Advanced system level designs, DALI compatibility and long-term performance tests performed in-house

## MECHANICAL DESIGN

More than 20 years of experience in the mechanical design and customisation of luminaires and precision tools

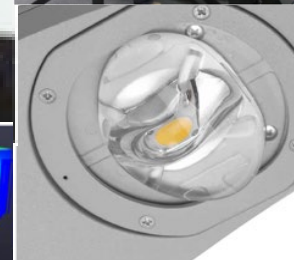
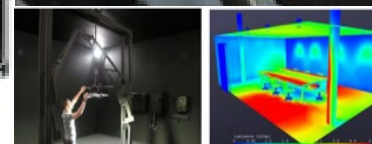
## LAB SERVICES

Optical, thermal, electronic, mechanical, and pre-certification tests and measurements



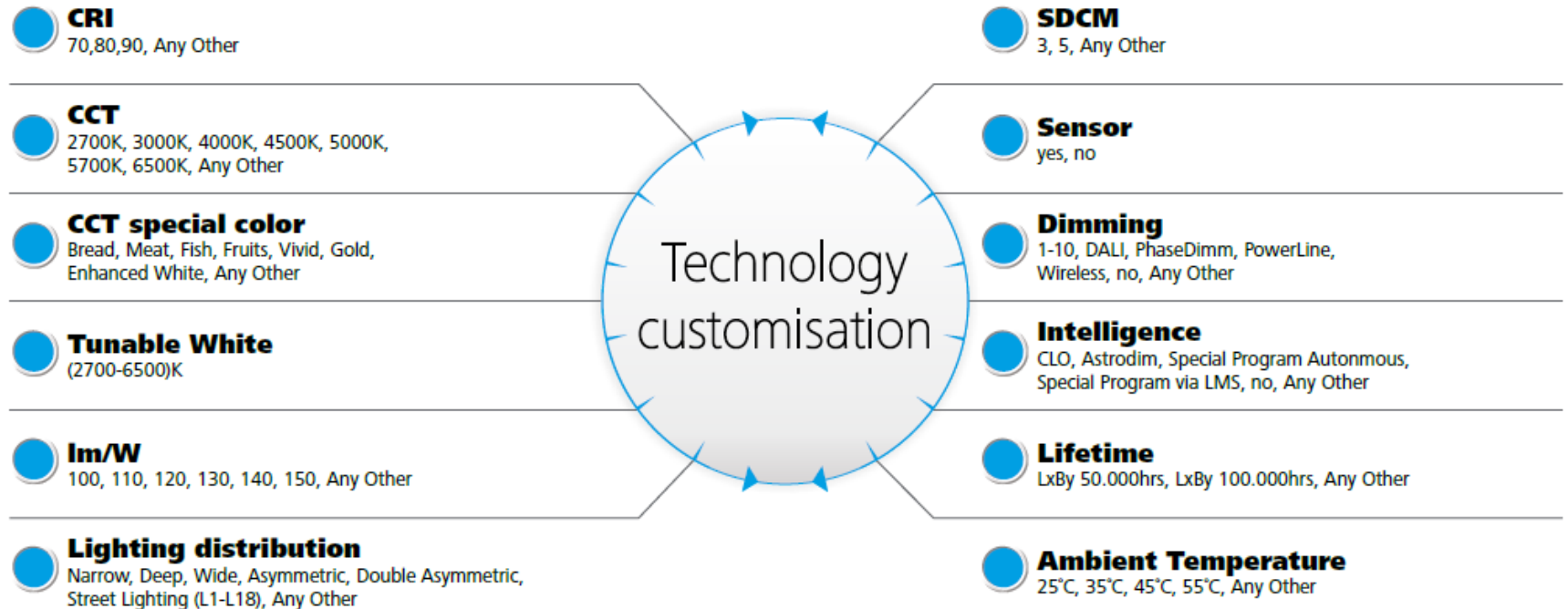
## FULL LUMINAIRE DEVELOPMENT

One of the best-equipped and staffed R&D departments in Europe, delivering seamless industrial, optical, thermal, electronic, and mechanical design, and custom product development



# TECHNOLOGY CUSTOMISATION CAPABILITY

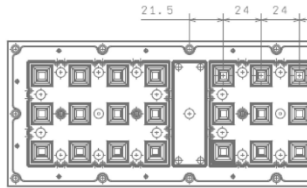
CUSTOMIZED SOLUTIONS READY TO MEET ALL REQUIREMENTS





# TECHNOLOGY CUSTOMISATION CAPABILITY

- After optical design approval, we prepare the mechanical design of the optical system taking into account other luminaire parts, production technologies, materials, and tolerances
- **Used software:** CATIA
- **Output for customer:** 3D STP file, 2D file with exact definition of dimensions and tolerances
- Drawings can be modified according to customer's company standards



## ENGINEERING, TESTING, PROTOTYPING

### COMPREHENSIVE SERVICES UNDER ONE ROOF

iLumTech is a research and development company that blends technology, creativity, and engineering to help customers transform their ideas into world-class products and solutions that follow global trends, focus on energy efficiency and cost reduction, and ensure wellbeing for all. iLumTech innovates lighting, optical, and electronic products for various sectors including the lighting, consumer products, entertainment, transport, and security industries. The convergence of technologies, industries, and markets presents exciting opportunities that challenge companies to innovate and deliver new and enhanced products and services. iLumTech is uniquely positioned within the research and development field thanks to decades-proven capabilities in luminaire, technology, and user experience design, development, and engineering for a wide variety of industries. We leverage this valuable skill set to help our customer create exceptional products, services, and experiences that drive their strategic growth.

#### FULL LUMINAIRE DEVELOPMENT

"Perfecting has to do with the end product, but excellence has to do with the process." — Jerry Moran

#### OPTICAL DESIGN

"Music is the arithmetic of sounds as optics is the geometry of light!" — Claude Debussy

#### INDUSTRIAL DESIGN

"I think it's the responsibility of a designer to try to break rules and barriers." — Gianni Versace

#### MECHANICAL ENGINEERING

"An optometrist will tell you the glass is half-full; the pessimist, half-empty; and the engineer will tell you the glass is twice the size it needs to be!" — Anonymous

#### LABORATORY SERVICES & MEASUREMENTS

"Every line is the perfect length if you don't measure it." — Marty Rubin

#### ELECTRONIC DESIGN

"It's hardware that makes a machine fast. It's software that makes a fast machine slow." — Craig Bruce

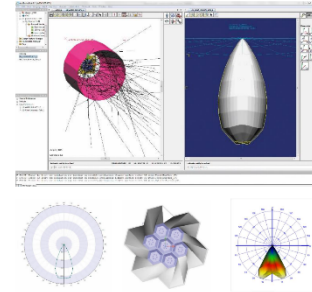
#### THERMAL DESIGN

"Nothing in life is certain except death, taxes and the second law of thermodynamics." — Seth Lloyd

#### RAPID PROTOTYPING

"I love taking an idea... to a prototype and then to a product that millions of people use." — Susan Wojcicki

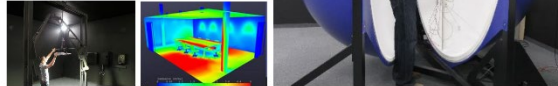
- Proposal of an LIDC shape for the required optical system according to a requested output, production technologies, manufacturing possibilities, and the mechanical design of the luminaire – reflectors, lenses, refractors
- Areas of expertise: street LED lenses, tunnel lighting lenses, flood lighting lenses, PAR38 lenses; downlight, spot, and floodlight reflectors; parabolic louvres; nano-diffusers
- **Used software:** LightTools / DIALux
- **Output for customer:** proposed LIDC in LDT, IES, and pdf format, and as a DIALux file



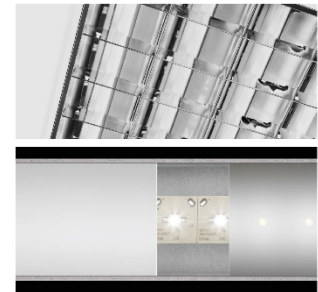
- Rapid prototyping within 14 days – timescale depends of lens type and chosen prototyping technology
- Printoptical Technology (photonics jet printer) offers a 100% smooth and optically functional surface without the need for further finishing such as sanding or polishing
- Milling CNC (plastic machining) offers a high degree of consistency with close tolerances, near-optical grade surface finishes suitable for prototyping and some types of production
- Soft molding (rubber molding) is a simplified tooling process preferred for creation of between one and few hundred parts
- Spinning, punching, turning, diamond turning, CNC machining



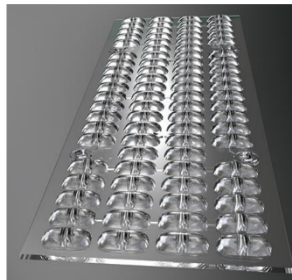
- Optical measurements and evaluation of light distribution curves, luminous flux, and luminance of light emitting surfaces
- Evaluation DIALux results
- 3D scanning
- Evaluation of visual appearance
- Available hardware: Goniophotometer RIGO 801, Radiolux 111, MiniDiff, Atos Compact 3D scan, CCT matrix camera, spectrometer, integrating sphere



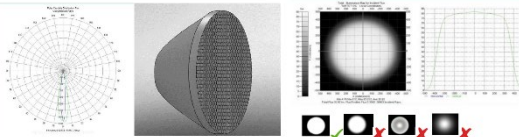
- Tailored design of luminaire optical parts according to customer requirements, application specifications, and/or luminaire design – lenses, reflectors, refractors, diffusers, louvres
- Evaluation of appropriate optical materials according to application specifications, production volumes, and price requirements
- Rapid prototyping
- Measurements, evaluations, simulations
- Tooling design, tool production
- Production of the final parts
- Optical system optimisation



- Requested optical part type – lenses, reflectors, refractors, hybrid systems
- Material characteristics, shape limitations, dimensions, mounting requirements
- Type of luminaire and application
- PCB and luminaire details, 3D STP files of other parts of the luminaire
- Required LIDC, UGR, intensity, road class
- Commercial requirements – target price, sales quantities, packaging details, time schedules, etc.
- **Input from customer:** above requested parameters
- **Output from iLumTech:** time schedule / price offer / technical feedback

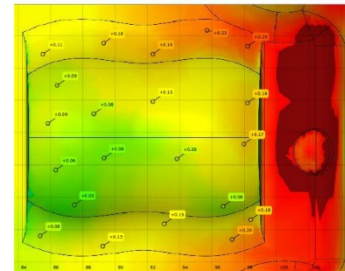


- Creation of 3D models according to customer requirements – optical design, mechanical design
- Optical material selection
- Light source selection and preparation of the optical design according to the defined light source
- LED lens optical simulation
- Optical analysis



- Evaluation of T1 samples – mechanical and optical evaluation
- 3D scanning and photometric measurements
- Comparison of design vs final results
- Proposal of modifications according to need
- Packaging design, label design
- Mould setting

3D scanning / comparison



# TECHNOLOGY CUSTOMISATION CAPABILITY

## OUR OFFER

### EXPERIENCED ENGINEERS

Our engineers have experience in every field related to the development of lighting devices and their parts.



### PROFESSIONAL OUTPUTS

Technical documentation and measurement reports are professionally completed and compiled ready for CE certification and entrance to serial production.

### CONFIDENTIAL ATTITUDE

We have a strict NDA approach to all our work. The confidentiality of information about our cooperation and the projects we work on together is an essential part of our service.



### RILEY EQUIPPED BUD

We have some of the best-equipped optical, thermal, electronic, and mechanical laboratories in Europe, and can provide customers with an array of tests side by side with many other services.



### FUTURE ORIENTED THINKING

Thanks to our experience in the LED industry, all our development and engineering is done with the future in mind.



### CONTINUOUS SERVICES

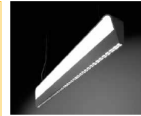
Product development is a never-ending process. We will continue with you on this journey through product optimization, updates, and customizations.

## OUR SERVICES

### FULL LUMINAIRE DEVELOPMENT

"Perfection has to do with the end product, but excellence has to do with the process." Jerry Moran

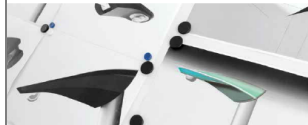
Not every company has the time, capacity or resources to develop a new luminaire in-house. That's where we can help. We make it our business to support your business. By listening to your needs and understanding your business's marketplace, we can best apply our knowledge and experience to develop a final product that will give you a competitive advantage, save your time, and reduce your costs.



### INDUSTRIAL DESIGN

"I think it is the responsibility of a designer to try and break rules and barriers." Gianni Versace

Saint-Augustin said: "A designer knows he has achieved perfection not when there is nothing left to add, but when there is nothing left to take away." Good design is not only about what, but also why, and how, and not only about making things pretty, but also making them work. Our designers work closely with other departments to assure that the final product works, can be manufactured, and will be successful and unique.



### OPTICAL DESIGN

"Music is the arithmetic of sounds; an optics is the geometry of light." Claude Debussy

You can always develop a product using commercially available optical systems. But, if you really want to be the manufacturer of successful, unique, and interesting luminaires while maintaining control over costs, there is only one way to proceed that makes sense: to develop and produce tailored systems. We have the skills and experience to support you throughout the entire process, from design through to tooling and production.



### THERMAL DESIGN

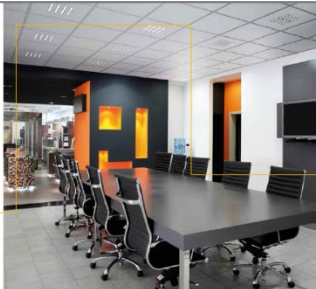
"Nothing in life is certain except death, taxes, and the second law of thermodynamics." Seth Lloyd

The most important part of thermal design is thermal simulation, without which many thermal solutions fail to deliver a required performance for an application. We can verify and compare thermal designs, optimize them for given luminaires, and to ensure that your thermal design will work.



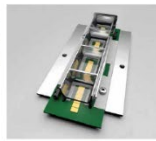
## OUR PRODUCTS

We have developed a range of devices for the professional lighting market with the aim of being minimalist and simple to install for lighting manufacturers, installers, electrical engineers, and even end users. All of the devices were created by our own optical, thermal, and electronic engineers, and produced locally. We are sure you will be satisfied with their user-friendly and intelligent functionality, offered at an appealing price level.



### LED LUMINIS

LED Lumis that offer the attractive feature of requiring no further development as everything is included in one module, making them an ideal choice for luminaire manufacturers and those seeking devices for bespoke solutions.



### ELECTRONIC DESIGN

"It's hardware that makes a machine fast. It's software that makes a fast machine slow." Craig Bruce

Whether you need to develop new hardware, a PCB, or need support in software development, we will help you reach the finishing line. We have the expertise and experience to meet your exact needs, and can take a project from concept through production under one roof.



### MECHANICAL ENGINEERING

"An optometrist will tell you the glass is half-full, the pessimist, half-empty; and the engineer that it is twice the size it needs to be." Anonymous

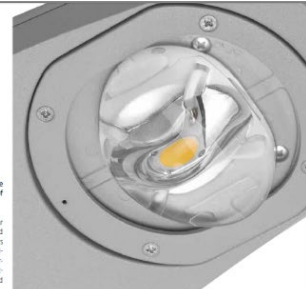
The experience and skill of our engineers combined with the power and flexibility of the latest 3D CAD software allows us to design and customise whole products or their individual parts. Our precise document management system assures that you will receive all proper documentation from which you can work in future.



### 3D/0 PROTOTYPING

"I've taken an idea... to a prototype and then to a product that millions of people use." Susan Wojcicki

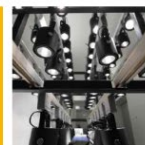
A prototype allows you to explore your ideas and to show the attention behind a feature or the overall concept to users before investing time and money in development. Our functional prototyping guarantees high flexibility and minimal investment as every product mechanism and property is checked before tooling.



### LABORATORY SERVICES & MEASUREMENTS

"Every line is the perfect length if you don't measure it." Marty Rubin

Our laboratory services are designed to increase the speed and precision of product development and certification. What's more, performance of pre-qualification tests acts as the base for CE declaration of conformity and assures positive results from the certification authority.



### CONNECTED LIGHTING

Practical and simple to use devices that are easy to incorporate in our ecosystem. They access work, test, and operate and built around the DALI protocol for the control and commissioning of luminaires.



### OPTICAL SOLUTIONS

Our range of optical solutions includes complete lens systems, reflectors, and customisable diffusers.



## GLOBAL / LIGHTING TRENDS

### Effects Based on Lighting Trends

#### POSITION TRACKING WITHIN OCCUPIED SPACE

In conjunction with smart phones, the lights use the latest technology to accurately search / map people with high precision (10 cm).



#### LIGHT WILL NEVER BE JUST LIGHT

Sensors that become affordable and lights connected to the internet, luminaires begin to produce, along with sensors not only related to lighting, but also to temperature and air quality.



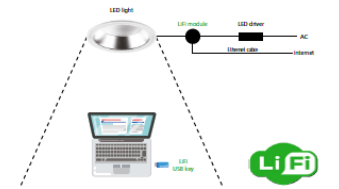
#### CAMERA LIGHTING CONTROL

Camera lighting controls make use of infrared, ultrasonic or microwave sensors to detect movement, which is one of the most cost effective, simple and affordable solution.



#### Li-Fi

Li-Fi is a light connection, it can move data 100 times faster than Wi-Fi through light modulation. This means that large files or movies can be downloaded in seconds rather than minutes using Wi-Fi.



#### SELF-LEARNING CONTROL SYSTEMS

The concept of a device that learns its own settings was promoted by Nest Laboratories in thermostats. The concept is suited to perfect lighting control so it examines how this approach can be taken to enable the system to operate itself and how it is used over time.



#### BLUETOOTH WILL WIN THE PROTOCOL WAR

Bluetooth has ratified the standard in collaboration with beacons to share information with each other. Bluetooth reach, however, will increase from the typical 10 metres that consumers are accustomed to. In 2018, it is expected that this development will lead to the interconnection of IoT lighting in retail, warehouses, offices and other spaces.



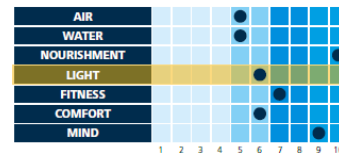
#### INTEGRATED STREET LIGHTING

Street lights nowadays serve as a space for advertising leaflets but they will be filled with technologies from CCTV systems, PA speakers, Wi-Fi transmitters or serve as a place for charging an electric vehicle in the near future.



#### BUILDING WELL BUILDINGS WILL BECOME A STANDARD

WELL Buildings will be the standard in terms of both working conditions and productivity.

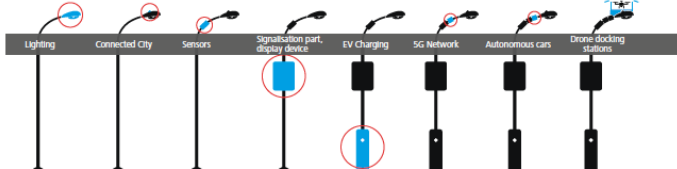


# TRENDS

## GLOBAL / LIGHTING TRENDS

### Effects Based on Lighting Trends

#### PUBLIC LIGHTING POLE – NEW POLE

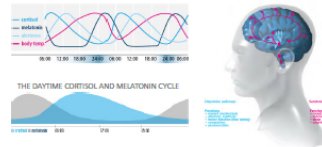


#### MODULAR LIGHTING CONCEPTS



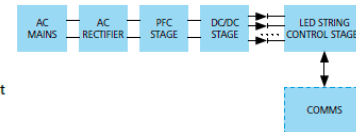
#### HUMAN CENTRIC LIGHTING

Use modern lighting technologies to support health and well-being, performance, and comfort at school and in the workplace.



#### CONTROLS WILL LEAVE THE CUPBOARD

The light controls were stored in a large black box that was in the EDB. In 2018, we can expect that artificial intelligence moves into light systems. The interface will become standard on devices using Bluetooth.

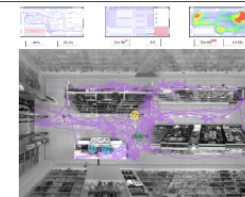


#### SMART PARTY LIGHTING

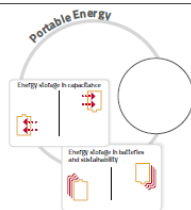
The Smart Home has been haunting many industries for years as a buzzword through trade shows, lectures and sales brochures. The market shares of building automation and intelligent use of light are still low. But usage is skyrocketing thanks to improved apps and intelligent wizards like Google Home or Siri. In the past few years, we have significantly increased our sales with Philips Hue, the market leader in intelligent lighting. And this development will continue. Because energy savings and new light experiences go hand in hand in the Smart Home.

#### LIGHTING AS A METRIC AND ANALYTIC TOOL

With new data, retailers are gaining insights into where customers in the store like to spend their time, and they can showcase sales promotion products. This is achieved through networked LED lights. Their light signals transmit an individual coding for each luminaire, which contains corresponding information about its position.



#### MOBILELIGHTING WITH BATTERY



#### AGRICULTURE: WITH LIGHT RECIPES TO MORE CROP YIELD

Regional products will continue to be very popular in Germany in the coming year. And that's a good thing. LED lights help local farmers in particular to improve their yields by providing the optimal light spectrum for specific plants without having to raise the temperature. Our scientists have developed special "light recipes" that are tailored to the special needs of plants and vegetables. With LED lighting and light recipes for horticulture, farmers can improve taste, vitamin C content and shelf life, save operating costs and better control the growth climate. As demand for locally produced products increases, I expect more initiatives in urban agriculture to use LED lighting to improve yield and quality.

#### MODERN LIGHT TECHNOLOGY AS A CLIMATE SAVER

We live in times of climate change and need to think in all industries about how to use energy efficiently to stop exploiting our planet. What the auto industry is still facing here, the lighting industry has already behind. Signify is committed to delivering more than two billion modern LED lamps and lighting by 2020. And we are well on the way to achieving this goal ahead of time. The modernization of lighting is a key to reducing global energy consumption. Switching from conventional lighting to LED and intelligent lighting systems can cut global electricity needs by 180 percent and reduce carbon emissions by 1,400 million tons annually. This corresponds to a value of 272 billion euros. Now cities, communities.

# IMPLEMENTING MOST ADVANCED LIGHTING TECHNOLOGIES

## PRODUCTS SUITABLE FOR USE IN THE MOST COMPLEX PROJECTS



\* In progressing



IoT sensors allow to manage objects remotely and obtain require data through its network infrastructure.



Creative PI-LED colour space can be set individually to any value within the PI-LED triangle while keeping the CRI constantly high (90+).



### LED FASHION

Colours will retain their quality including visually pleasing surfaces, colour saturation and chromatic values.



### LED FOOD

Colours will retain their original quality including visual colour saturation and chromatic values.



Light Fidelity - uses visible light communication (VLC) and enables high.



Tunable white technology allows to adjust the lighting with regard to the displayed products; their colours can be highlighted as needed.



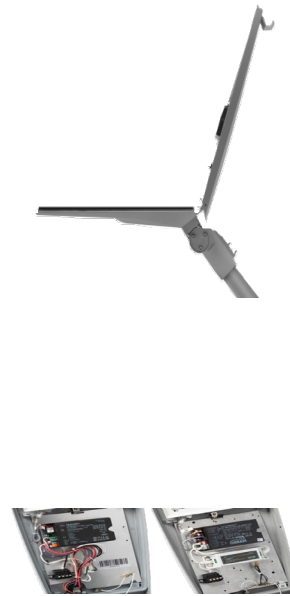
### HUMAN CENTRIC LIGHTING

Human centric lighting is based on the idea of enabling the regulation of light direction, colour temperature and level according to need and desire to positively influence alertness and relaxation, mood, visual acuity and productivity.



### DEE BRIDGE / BLUE BRIDGE

Buildings with already existing wirings, especially with easy installation where is needed to change fixtures for more advanced - DALI / tunable white.



# SENSORS



# LIGHTING CONTROLS

## LIGHTING CONTROL SENSORS

The sensors of the future should be designed to harmonise light with people. In response to this, iLumTech has developed a new series of sensors capable of measuring light intensity, light type, and the presence of people, according to which lighting is switched, dimmed, or altered in some way in order to make light truly match the needs of the user.



## DALI CONTROL INTERFACES

DALI control interfaces enable easy communication between users and their DALI devices. By combining suitable hardware and software, it is possible to control the DALI functions of luminaires and non-lighting DALI devices. All iLumTech DALI interfaces are designed to meet the needs of small to mid-sized installations, with the option for use on available control devices such as smartphones, tablets, and computers, which negates the need for expensive installation of additional control units. The purpose of all our DALI interfaces is that they be easy to use, and truly useful. All software is free to download from Google Play and the Apple App Store, or from our website at [www.ilumtech.eu](http://www.ilumtech.eu).



## TUNABLE WHITE MODULES

As part of the Connected Lighting product family, iLumTech brings to the market a range of Tunable White modules that function based on a totally different principle to standard Tunable White, somewhat like that of a two-way valve. An electronic switch is used to regulate the direction of a single current flow to both warm and cold LED modules, meaning that only one power supply is needed and over-illumination impossible. This leads to higher reliability thanks to simpler dimming and CCT control. What's more, the luminaire's efficiency is stable across all CCTs. iLumTech Tunable White modules come with a range of regulation methods including manual push button control, DALI control, and advanced user-interface control.



## DALI POWER LINE COMMUNICATION

DALI Power line communication is a revolutionary technology which allows to control the DALI devices through existing power lines without additional wiring and saving of up to 30% of total install cost. The main advantage is its flexibility – it works with any DALI driver and the installer is not limited by size of the luminaire since the DALI PLC coupler can be installed outside of the luminaire.



# LIGHTING CONTROLS



## TWO DIFFERENT MODELS / SIZES:

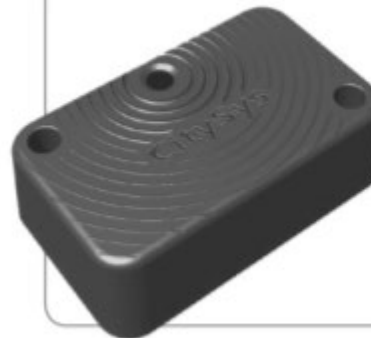


### TALL

Dimensions:  
41 mm (W) x 112 mm (L) x 60 mm (H)

Weight: 310 g

10 years battery life



### FLAT

Dimensions:  
55 mm (W) x 73 mm (L) x 22 mm (H)

Weight: 100 g

7 years battery life



# LIGHTING CONTROLS

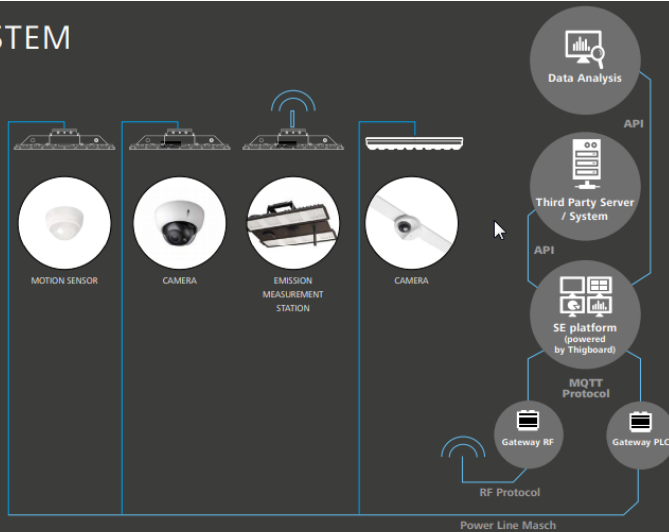
## CONTROL SYSTEM

### LIGHTING GRID AS COMMUNICATION BUS

Lighting grid based on PLC or RF communication is used as a communication bus for all connected IoT smart devices.

Lighting grid will be like communication highway for smart devices.

Luminaires exist as an independent ones or as a rail system.



## CONTROL SYSTEM

### IOT FOR LIGHTING

**ADAC controller** is your easiest way to program complex logic in KNX/EIB, Modbus, BACnet, EnOcean and other networks. Controller will enable you to efficiently customise building automation processes, easily delivering unlimited flexibility benefit to end users in a cost-effective way.

ADAC controller is an embedded platform with integrated Ethernet, USB, GSM, Serial interfaces and I/O ports. Allows to use it as cross-standard gateway, logic engine, visualisation platform, IP Router. Scripting templates provides user-friendly, flexible configuration interface and integration with cloud/web services, 3rd party devices. Via applying custom scripts can simultaneously act as thermostat, security panel, lighting controller, etc.



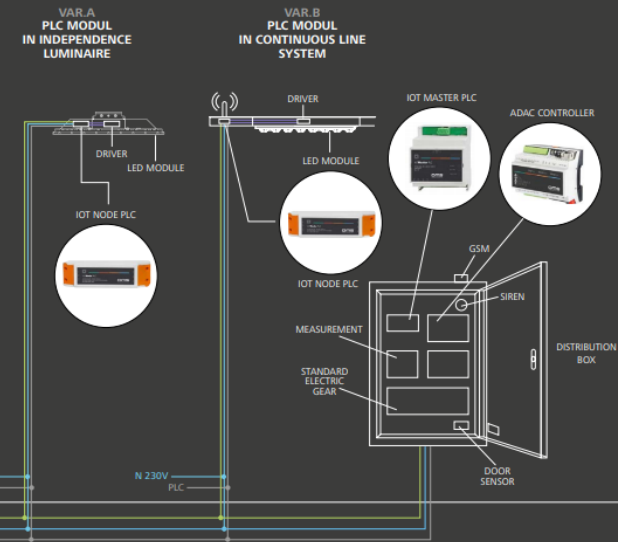
- Logical functions
- WEB SCADA visualisation for PC and touch-devices
- cross-standard gateway
- integration with third party devices over USB, RS485 serial port, Ethernet - AV, IR, HVAC
- Data logger with trends
- Presence monitoring
- Lighting regulation
- Universal controller (lighting, shutter etc.)
- Health/activity monitoring
- Internet of Things
- Cloud server/client
- Energy metering

## CONTROL SYSTEM

### POWER LINE COMMUNICATION

Choose Power Line communication for control that is facilitated along the existing power supply infrastructure. This allows all communication to be done without the need for additional control lines or cabling, thus minimising reconstruction costs. The solution is ideal especially for older installations with a limited number of phases. Special transmitters are located in the distribution boxes, while receivers are within the luminaires, if we talk only about the single luminaires, or in case there is a receiver at the start of rail system in which DALI collector is automatically being implemented.

External movement sensors or control panel buttons can be implemented in the system using the same way.



## CONTROL SYSTEM

### IOT MASTER PLC / RF

- Communication gateway between ADAC and IoT Nodes
- Serial communication with ADAC – RS232
- Provides reliable and secure communication on RF and PLC: AES-128 encryption
- 3 phase support for PLC
- Up to 128 IoT nodes
- Integrated vibration sensor for hit detection
- Support for remote FW update



# LIGHTING SERVICES

## FOLLOW THE RIGHT LIGHT

LIGHTING INNOVATIONS

LIGHTING ENGINEERING

LIGHTING SERVICES

### Project

#### Lighting specification

Luminaire selection  
 Definition of illuminance  
 Lighting design according  
 to the RIGHT LIGHT methodology

#### Visualisation

Lighting design support  
 Lighting design concept  
 2D visualisation  
 3D model  
 3D visualisation  
 Video presentation  
 Lighting demonstration  
 Light for rent

#### Lighting calculations

Calculation of daylight availability  
 Calculation of artificial lighting  
 STORES, SHOPPING CENTRES AND  
 SUPERMARKETS  
 INDUSTRY AND EXTERIOR  
 WORKPLACES  
 OFFICES  
 SCIENCE AND EDUCATION  
 HOTEL AND GASTRO  
 SPORT AND WELLNESS  
 HOSPITALS AND MEDICAL CENTRES  
 ARCHITECTURE AND EXTERIOR  
 ADVERTISEMENT  
 PUBLIC LIGHTING  
 LIVING SPACE

#### LQS project

LQS Composer  
 LQS project optimisation

#### Emergency lighting design

Luminaire selection  
 Emergency lighting calculation  
 Emergency system selection  
 Detailed inspection plan  
 Complete fire protection project

#### Energy savings

Lighting energy audit  
 Economy comparison and return  
 of investment calculation  
 Energy certification of buildings

#### Wiring design and LMS

Wiring design  
 LMS design  
 GUI design

#### Project documentation

### SUPPORT

#### Installation and programming of the lighting system

Wiring installation  
 Lighting installation  
 LMS installation  
 LMS programming  
 Fine-tuning of the lighting  
 Technical supervision  
 Removal and recycling of old lighting  
 components  
 Maintenance plan

#### Technical support

Expert lighting system surveys  
 Lighting measurements  
 Consumption measurements  
 Luminaire administration and  
 maintenance  
 Fine-tuning of the lighting  
 Consultation  
 3D scanning of space  
 Guarantee program  
 Complaints  
 Online services  
 Technical training and education  
 Technical Sales Support  
 Project registration  
 Project management  
 Customer presentations  
 Financing

# LIGHTING INNOVATIONS

## TRENDS

The effects of both natural and artificial light on humans has been the subject of much medical research. The conclusions of such research form the foundation for our own investigative projects. **Our goal is to push and break the boundaries of current knowledge and understanding and to forge our breakthroughs into innovative technologies** that can elevate the common luminaire into a unique item, able to actively influence the visual and psychological wellbeing of people, to improve the safety, security and economy of lighting solutions, and moreover to enter the awareness of customers through original design.

## LIGHT AND PSYCHOLOGY

It is no coincidence that we feel full of life on a sunny day, but as the clouds gather our mood darkens. **The amount of light, length of exposure and colour can have a major influence on human physiology.** The conclusions of various studies show that the human body responds most positively to daylight, leading the lighting industry to attempt to imitate the properties of sunlight as closely as possible with artificial light. **The fundamental fact that natural light is not monotonous in terms of colour, brightness, time of day, season and weather conditions, acts as the basis for innovation.** This effort to adjust the properties of artificial light to match those of natural light has led to the development of dynamic lighting and TunableWhite technology. The result

is the ability to simulate lighting conditions comparable to those that we are exposed to under the open sky. **Correctly chosen complementary temperature of chromaticity, measured in Kelvins (K), defined by optic receptors as a colour can actively influence the psychological state of person.** An appropriately selected CCT of 5000 K or more, perceived by the human eye as cool blue and green, acts to increase the performance of the body. A lower CCT of 2700 K to 3000 K, perceived by the human eye as warm and rich in yellow and red shades, acts to relax and calm the body. The correct selection of light colour can, therefore, support, arouse and correct the specific psychological reactions of people.



## LIGHT AND SAFETY AND SECURITY

**The quality of artificial light provided is a key tool in ensuring safety and security.** It plays a decisive role in spaces where people perform visually demanding tasks that require precision and time, or where there is a high risk of injury. In this regard, the risk of encountering the stroboscopic effect caused by low-frequency light sources is extremely dangerous as it can cause hazardous rotating objects, such as machine parts, to appear as if not moving. **Higher levels of illumination of a sufficient quality provided by an ergonomic lighting system can improve safety for drivers, pedestrians and other users of public spaces. The quality resolution of safety and emergency lighting, the task of which is to ensure adequate lighting in the event of the general lighting system failing, to enable safe evacuation of a building, limit panic and allow for the completion of risk activities, is also highly important.** Nowadays

**special attention is also directed at public lighting as a way to increase safety and security.** A key aspect of such lighting is the fact that the human eye cannot see so well in lower light levels. **Our ability to recognise colours, shapes, obstacles, people, and therefore danger, degenerates in correlation to light levels.** It is no coincidence that the largest number of industrial injuries, traffic accidents and violent crimes occur after dark. **Higher levels of illumination of a sufficient quality provided by an ergonomic lighting system can improve safety for drivers, pedestrians and other users of public spaces. The modern LED technology used in our luminaires enables us to bring to our public spaces a key solution in the form of 'white light' - its spectral composition**

is very similar to daylight enabling better contrast, modelling, colour and shape recognition, all of which helps us stay safe. **White light illumination will improve the overall security of a space.**



## Spend just one day in darkness and you will see light in a different way



## LIGHT AND HEALTH

**80% of our perception of the world around us is facilitated by vision.** A sufficient amount of light is, therefore, not only a key factor for correct visual perception but is essential for our vitality. Scientific research has shown that people should be exposed to the positive effects of daylight for a minimum of 10 hours per day in order to achieve a biologically optimized state. **Our lifestyles do not enable many of us to enjoy such luxury as we spend two thirds of our productive life in enclosed workplaces with little access to daylight. As such, the quality of light provided in these spaces becomes even more important.** In the early 1970s, during which the building of large-area office booms, lighting designers concentrated on maximising worker performance. Due to their understanding of the effects of daylight on the body they focused in particular on the brightness of provided artificial lighting. **However, after the discovery of a third photoreceptor in the human eye that responds especially**

to blue light with a wavelength of 430-500 nm, which affects the production of the sleep hormone melatonin, **a revolution was sparked within the lighting industry in the form of biologically effective light.** Its main benefit is its ability to positively influence certain functions in the human body. Simply put, current technologies allow us to optimise hormone levels, especially melatonin, cortisol and serotonin. **Biologically effective light can contribute to increased performance and concentration, and reduces the risk of damage to vision, it can actively work against Seasonal Affective Disorder, Sick Building Syndrome and suppress pain in chronically ill patients. However, a quality lighting solution must not become blinded by science, but also provides vigilance on maximising worker performance.** Due to their understanding of the effects of daylight on the body they focused in particular on the brightness of provided artificial lighting. **However, after the discovery of a third photoreceptor in the human eye that responds especially**

and damage the eyes. **Special attention must be paid to workplaces where employees perform visually demanding tasks and need to be sensitive to detail or where there is a high risk of injury.**

## DESIGN

There is a starting point for anything. **Our ambition is to bring to the market something entirely new, to create an original product that will become iconic based on its design and exceptionally, whilst at the same time bearing the unmistakable identity of our company.**

The overall effort of our product designers leads us in the direction of our goal. **Who is the product for? What design language should be used? What will differentiate it in the market? These are the questions we ask at the beginning of every creative process, the answers to which will define design concept and realisation.**

Only after answering these questions can the next step be taken, where the idea becomes sketches, bolder and more confident, after which the hands of the designers convert them into a 3D model. **This necessitates a close link between the imagination of the designer and the pragmatic realism of the mechanical, optical and thermal engineers, alongside the possibility of lighting management.** At this point, the courageous vision turns into possibility.

**When we create new designs we never lose sight of the possibilities afforded by new technologies.** LED, OLED and nanotechnologies are fed into the design process and offer new perspectives as we fashion the light of the future. **Luminaires with unconventional shapes and those using new methods of distributing the light are trends we can offer thanks to that close collaboration between all elements of a final solution.** Moreover, our luminaires meet normative requirements.

When all aspects of our work fall into harmony it allows us to create a flawless, functional product with authentic design, using the latest technologies, and ready to enter the market and customer awareness as **imitable and exceptional.**



# LIGHTING ENGINEERING

## ENGINEERING

We always aim at achieving perfection in everything we do. **That is the reason why OMS products always have the best design and are made using the most precise and modern construction technologies and methods.** We consistently incorporate the results of our research and innovation into the development and production of all our products. We have become leaders in the LED market and have succeeded in applying them to many of our products, which lead the way in terms of energy efficiency and environmental responsibility. **We have now also entered the age of nanotechnology, and in our laboratories are developing and testing the first samples using this precise optical technology, counted in tenths of nanometers. We have entered the age of nanotechnologies. In our own laboratory, we are developing and testing the first samples of extremely fine and precise optics with perfectly detailed precision, counted in tenths of nanometers. This technology enables us to control and direct the lumi-**

nous output exactly something not possible with currently used technologies. Nanotechnology allows us to direct the luminous output at various angles and to increase or decrease the density according to need. The integration of these ground-breaking technologies into our products ensures the highest level of design too. **We have at our disposal exceptional research and production capabilities.** Our own photometric laboratories provide the ideal conditions for development of the most modern optical, mechanical, electronic and thermal solutions. Our principles of **lean production allow us to react to any client demand**, from small individual orders including the development and production of prototypes to fulfilling large orders for extensive projects. **Our market leading position also gives us the opportunity to work with the best suppliers and partners, and our logistics department guarantees a minimal delivery time of 3 to 5 days depending on the complexity of the order.** Our strength lies in our flexibility and ability to respond to the unique demands and ideas of every one of our customers.



- CONCEPT AND DESIGN
- NANOTECHNOLOGY
- OPTIC DEPARTMENT
- MECHANICAL DEPARTMENT
- THERMAL DEPARTMENT
- ELECTRONIC DEPARTMENT
- LIGHTING SOLUTIONS
- SUPPLY CHAIN MANAGEMENT



## PRODUCTION

**We regularly implement many new modifications to all types of luminaires.** This enables us to satisfy any customer with the customisation of any aspect of a luminaire's design, from construction to LIDC to surface finish.

**Our market leading position has enabled us to create a network of the best suppliers.** We collaborate with established and well-known producers and suppliers, which adds greatly to the quality of our products.

**Thanks to effective production procedures we follow the principles of lean production.** Using state-of-the-art mechanised production and two assembly lines with 3D operation enables us to keep lead times to a minimum, lower than the competition.

**Our effective logistics department uses modern vehicles to ensure reliable and timely delivery of orders all around the world.**



**ELITE** – an exceptional architectural brand of superior quality that represents the highest global level of lighting innovation, following the latest trends and constantly pushing the boundaries of lighting technologies.



**ADVANCED** – a commercially oriented brand of high quality and efficiency that allows for great flexibility and variation by means of product customisation according to individual customer needs.



**UNOLUX** – high quality luminaires for everyone. The whole array of luminaires with excellent lighting parameters for competitive prices. A standardized prototype enables minimal delivery time.



Luminaire selection  
Defining the appropriate illumination  
Lighting design according to the RIGHT LIGHT methodology

## Defining the appropriate illumination

Light has a substantial effect on people, influencing their psyche, performance, concentration and regeneration. The appropriate illumination of a space enables the correct perception of visual information and the recognition of objects and faces. On the contrary, inadequate or inappropriate lighting can have a greatly negative effect on work performance and the state of psychological and physical health. Therefore, **when designing the lighting for any interior or exterior space we implement all valid European legislations and standards.**

The type of space and its use are the basic criteria upon which we determine technical and lighting parameters such as minimum illumination levels, lighting uniformity, glare and colour rendering. For us to be able to design a suitable lighting solution that fulfils all requirements **we require**

**comprehensive information about the space** including the final design documentation.

When determining the lighting we need to consider not only the type of space and workspace specifications, but also the types and colours of surface used. The colour of walls, ceilings and furniture, as well as their position with the space, have a direct influence on how users will perceive the lighting intensity. For that reason customers need to provide us, along with full design documentation, also **detailed drawings and photographs of the space.**



When defining the lighting needed for a particular space we must adhere to valid technical norms and legislation. Key lighting parameters are illumination level, lighting uniformity, colour rendition and glare.



### INPUT

- Drawing documentation, ground plan, profile (DWG, PDF)
- Use of the space
- Location of objects within the space (details, architecture, work places)

### OUTPUT

- Illumination parameters for the particular space
- Lighting uniformity parameters
- Colour rendition parameters
- Colour temperature parameters
- Glare parameters
- Defining for the space to be illuminated
- Setting of the calculated space
- Any other lighting parameters

Luminaire selection  
Defining the appropriate illumination  
Lighting design according to the RIGHT LIGHT methodology

## Lighting design according to the RIGHT LIGHT methodology

European standards define the basic rules to follow when calculating lighting for all types of space. Based on scientific research and our own extensive experience we know that **following those standards does not guarantee a quality lighting solution.** The standards provide an overview of basic ergonomic parameters for both designers and customers, for example, minimum illumination levels, and CRI, glare and lighting uniformity values. However, **they do not consider the biological effects of light, or the emotive, aesthetic or ecological elements that underline the quality of a solution.** To this purpose OMS have developed an industry-wide standard for assessing all aspects of a lighting solution's quality. The Lighting Quality Standard (LQS) comprehensively quantifies and evaluates parameters across six key categories: Ergonomics, Emotion, Spirit, Ecology, Efficiency and Exceptionality.

The specialised **RIGHT LIGHT** manuals demonstrate how to implement the LQS principles into various practical situations. They include all relevant European standards whilst at the same time including principles based on the latest science, experi-

ence and practice, and knowledge of new lighting brands and technologies. **In many cases, advancements in lighting place increased demands on basic parameters, highlighting the necessity to revise them.**

- Take advantage of available daylight
- Recognise the importance of daylight simulation

- Use biologically effective lighting
- Get acquainted with the latest technologies and products in our portfolio
- Understand the difference in lighting quality when the Right Light principles are applied
- Better understand the technical aspects of your lighting project

According to the European norm EN 12464-1



Our recommendation according to the RIGHT LIGHT methodology



### INPUT

- Drawing documentation, ground plan, profile (DWG, PDF)
- Use of the space
- Location of objects within the space (details, architecture, work places)

### OUTPUT

- Illumination parameters for the particular space
- Lighting uniformity parameters
- Colour rendition parameters
- Colour temperature parameters
- Glare parameters
- Defining for the space to be illuminated
- Setting of the calculated space
- Any other lighting parameters

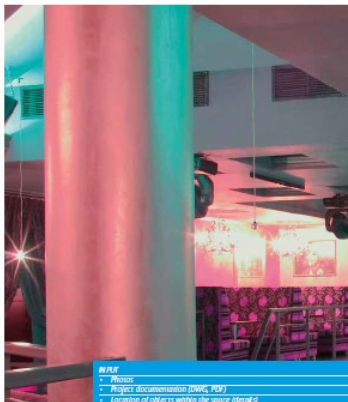
The EN 12464-1 standard requires a minimal illumination level of 300 lx for task areas in classrooms (which due to the usage of the room means such a level for all horizontal areas), for the ceiling 50 lx and for walls 75 lx. However, these illumination levels are not adequate and according to the principles defined in **RIGHT LIGHT** we recommend increasing the level of minimal illumination to 500 lx for the ceiling, and 300 lx for the walls. These lighting conditions will simultaneously ensure sufficient cylindrical illumination to enable facial recognition, along with eliminating dark corners and shadows, which has a psychologically beneficial effect. We can achieve the recommended levels using suspended luminaires that provide both direct and indirect light output at a ratio of 50:50.

# VISUALISATION

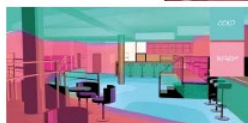
- Lighting design support
- Lighting design concept
- 2D visualisation
- 3D model
- 3D visualisation
- Video presentation
- Lighting demonstration

## Lighting design concept

There is no one formula for all lighting solutions. Light can bring a space to life, however if it is designed incorrectly it can highlight deficiencies or even be harmful to users and can increase costs considerably. To avoid this we provide tailored lighting design concepts you can rely on, perfect for the given interior or exterior space. When creating a lighting concept we take into account all aspects of the space and its use. Modern architecture is an ideal canvas for RGB colour mixing and dynamic lighting, which can be used to conjure unlimited visual experiences. Historical architecture is best illuminated with various colours of white light, which respect the history and the architecture of the building. Based on the chosen concept we will help you select suitable luminaires and light sources.



- INPUT**
- Photos
  - Project documentation (DWG, PDF)
  - Location of objects within the space (detail)
  - Use of the space
  - Functional requirements (acoustics, NIGHT LIGHT)
  - Light colour requirements (white, RGB)
  - Size of dynamic light
  - Location of installation possibilities
  - Estimated budget
- OUTPUT**
- Mooding, presentation
  - Display of various possibilities (RGB, colour temperature)
  - Technical specifications of luminaires (beamwidth, beam angle or other)
  - Luminaire's type
  - Light distribution
  - Light location
  - Approximate location of the luminaires
  - Reference luminaires illustrations
  - Preliminary budget

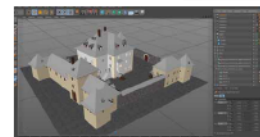
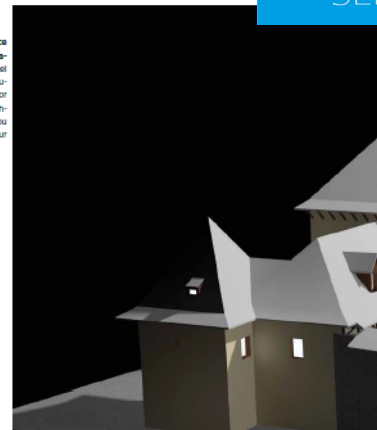


The lighting design in the bar is based on the customer idea to use contrasting color and use of color.

- Lighting design support
- Lighting design concept
- 2D visualisation
- 3D model
- 3D visualisation
- Video presentation
- Lighting demonstration

## 3D model

A realistic 3D model of a space takes full advantage of the imagination, allowing customers to really feel what the space will look like once the solution is realized. It also serves as a basis for subsequent lighting calculations and technological definitions. We will provide you with a 3D model on request, based on your project documentation or DWG files.

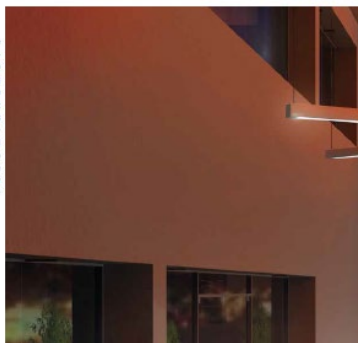


- INPUT**
- Photos
  - Project documentation (DWG, PDF)
  - Location of the space
  - Colour requirements
  - Technical requirements
- OUTPUT**
- 3D model (3Dx, obj, dwg, 3ds, rvt, wdw)
  - 3D render

- Lighting design support
- Lighting design concept
- 2D visualisation
- 3D model
- 3D visualisation
- Video presentation
- Lighting demonstration

## 3D visualisation

A 3D visualisation enables you to see how a lighting design looks in realistic quality. Thanks to the use of sophisticated 3D software we are able to simulate a lighting solution in full detail. Customers can see the real result of the use of specific luminaires, lighting distributions, as well as any reflections. The 3D visualisation allows you to look at the illuminated space or object from any angle, close-up and from a distance, what effects can be achieved with light and shadow, and how to draw attention to noteworthy architectural details.



- INPUT**
- Lighting design concept
  - Photos, virtual content, 3D model if available
  - Location of objects within the space (detail)
  - Detail layout of the space
  - Project documentation (DWG, PDF)
  - Use of the space
  - Functional requirements (acoustics, NIGHT LIGHT)
  - Light colour requirements (white, RGB)
  - Size of dynamic light
  - Location of installation possibilities
  - Estimated budget
- OUTPUT**
- 3D presentation
  - Display of various possibilities (RGB, colour temperature)
  - Technical specifications of luminaires (beamwidth, beam angle or other)
  - Luminaire's and content's detail type
  - Light distribution
  - Approximate location of the luminaires
  - Reference luminaires illustrations
  - Preliminary budget



The customer decided to update the lighting system at the same time as the plant's reconstruction.

- Lighting design support
- Lighting design concept
- 2D visualisation
- 3D model
- 3D visualisation
- Video presentation
- Lighting demonstration

## Video presentation

Static visualisations can give a good idea of how a lighting solution will look, however in order to pass the boundaries of imagination we can also provide a dynamic video rendition. We use the 2D and 3D visualisations to create a realistic image of how your lighting design will look across individual sequences. The video presentation will show in detail how the light harmonises with the space and surroundings, how changes in colour look in applications where RGB colour mixing is used, it will provide you with a true picture of how light can change the space.



- INPUT**
- Lighting design concept
  - Photos, virtual content, 3D model if available
  - Location of objects within the space (detail)
  - Overall layout of the space
  - Project documentation (DWG, PDF)
  - Use of the space
  - Functional requirements (acoustics, NIGHT LIGHT)
  - Light colour requirements (white, RGB)
  - Size of dynamic light
  - Location of installation possibilities
  - Estimated budget
- OUTPUT**
- Motion presentation, presentations
  - Display of various possibilities (RGB, colour temperature)
  - Technical specifications of luminaires (beamwidth, beam angle or other)
  - Luminaire's and content's type
  - Light distribution type (the angle of emission)
  - Light distribution
  - Approximate location of the luminaires
  - Reference luminaires illustrations
  - Preliminary budget



When working on a lighting solution for a cafe area, the customer asked for a video presentation. Here the real lighting during opening hours has a maximum level of 50lx.

# LIGHTING CALCULATIONS

Calculation of daylight availability  
Calculation of artificial lighting

The choice of luminaire and light source and the lighting parameters provided are only the first steps in determining the illumination of the space. Amongst the additional parameters that we must consider, the calculation of artificial lighting is foremost.

Within the framework of the calculation of artificial lighting we are able to determine the exact number and location of luminaires needed, and to choose the required efficiency and light distribution. If all these parameters are in harmony the lighting system will not only provide sufficient illumination, but will be of the highest quality in other respects.

Other important factors that enter into the equation are the colours and surface finishes of furniture, fixtures and walls. Different materials have different reflectance. Light or glossy surfaces will appear brighter and brighten the space,

whereas dark and matt surfaces give the impression of lower illumination. This makes the reflective properties of all surfaces within the space key within the overall lighting design.

Lighting calculations are performed using specialist software. Precise quantification of the required number of luminaires and their parameters ensures that the highest quality artificial illumination is provided for customers in both interior and exterior spaces.

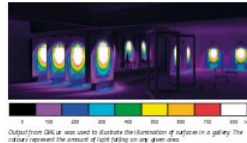


**INPUT**

- Clear position of the space
- Geometry (dimensions, vertical datum, profile (SNC, T&E))
- Location of objects within the space (furniture, architecture, work places)
- Illumination requirements (levels, height, LIGHT LEVEL)
- Luminaire location
- Required type of lighting installation
- Colouring of the ceiling
- Estimated energy

**OUTPUT**

- The exact type of luminaires to be used
- Number of luminaires
- Position of the luminaires
- Location of the luminaires
- Installation height of the luminaires
- Maintenance factor of the luminaires
- Electrical load (power) for the particular space
- Lighting scheme

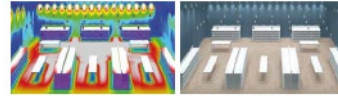


Output from DALI is used to illustrate the illumination of a room in a gallery. The colour represents the amount of light falling on any given area.



## Shops, supermarkets and shopping malls

Shops, supermarkets and shopping malls often have little or no access to daylight, therefore a proper artificial lighting calculation is vital, as effective lighting of such spaces can have a profound effect on the buying behaviour of customers.



## Industry and outdoor workplaces

The appropriate lighting of manufacturing, warehouse and outdoor workplaces can greatly improve workforce performance including efficiency and accuracy. It also ensures safety and reduces the risk of injury.



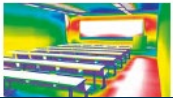
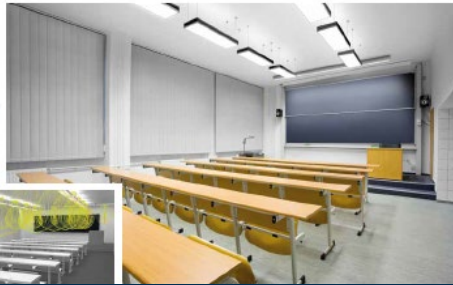
## Offices

Workers in administrative buildings perform visually demanding tasks for long periods of time, and in order to maintain visual comfort and acuity adequate and appropriate lighting is crucial. The calculation of artificial illumination is therefore essential.



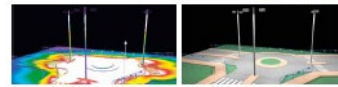
## Education and science

The proper illumination of educational premises is primarily focused on the relationship of students to their learning. The kind of artificial lighting provided can have a highly positive influence on a student's ability to concentrate and learn, and helps them to feel comfortable.



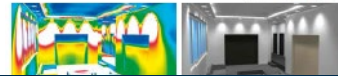
## Public lighting

As the sun fades in the evening the importance of supplementary artificial illumination increases. Only appropriately illuminated streets and public spaces can be safe after dark, and without the right lighting calculation this is not possible.



## Living areas

Candles can create an intimate and relaxing atmosphere, however, by today's standards their illumination is not enough. Artificial lighting and its quality are just as important in our homes as elsewhere. By using lighting calculations we can ensure that your home truly is your castle.

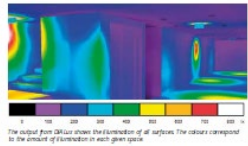
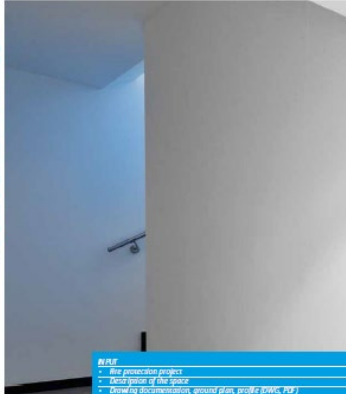


# EMERGENCY LIGHTING DESIGN

- Luminaire selection
- Emergency lighting calculation
- Emergency system selection
- Detailed inspection plan
- Fire protection project

## Emergency lighting calculation

The planning of safety lighting involves a series of accurate lighting calculations that determine the number and positioning of signs, emergency and anti-panic luminaires. Comprehensive emergency lighting also covers parameters regarding the location of safety equipment such as fire extinguishers and first aid kits. So-called risk areas where auxiliary lighting is required to ensure the completion of risk activities during a power cut have additional specific demands. Hospitals, metal and chemical processing facilities and sports grounds are examples of high-risk areas where a minimum replacement illumination must be provided. Our team of highly trained specialists are able to design safety lighting for any kind of space.



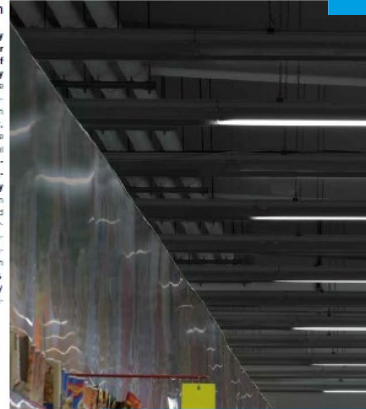
The output from different areas (intensity) of light. The color corresponds to the amount of lux in each given space.

- INPUT**
- Site inspection project
  - Needs of the space
  - Drawing documentation, ground plan, profile (EMC, PEP)
  - Electrical codes and the space plan
  - Workplace positions
  - Electrical load centers
  - Luminaire selection
  - Required illumination type
  - Wiring and connection of the cabling
- OUTPUT**
- Luminaire type
  - Number of the luminaires
  - Location of the luminaires
  - Positioning of the luminaires
  - Maintenance Factor of the luminaires
  - Wiring and connection for the particular space
  - Lighting tables

- Luminaire selection
- Emergency lighting calculation
- Emergency system selection
- Detailed inspection plan
- Fire protection project

## Emergency system selection

When choosing the emergency system it is important to consider the size of the space and number of luminaires used to provide auxiliary illumination. In smaller applications, we recommend using an independent solution where each luminaire is equipped with a battery and inverter. During a power cut, the inverter supplies the luminaire from the battery ensuring the required safety level of illumination is maintained. More extensive applications supply emergency luminaires from a central battery system or diesel generator, a solution which is also economical due to reduced maintenance during inspections of emergency system functionality. We recommend the use of a central monitoring system, especially for larger systems that can consist of several thousand luminaires, which can monitor system functionality through a computer rather than its needing to be performed manually.



Central monitoring system

- INPUT**
- Description of the space
  - Technical documentation
  - Computer for monitoring project
  - Emergency lighting calculation
  - Scope of the project
  - Luminaire type
- OUTPUT**
- Emergency system selection
  - Luminaire selection
  - Selection of the components for manual testing, monitoring and controlling the system
  - Battery selection and forecasting

- Luminaire selection
- Emergency lighting calculation
- Emergency system selection
- Detailed inspection plan
- Fire protection project

## Detailed inspection plan

The owner or user of a space is required by law to carry out inspection of emergency lighting on a regular basis, sometimes every day, sometimes only annually. Within the framework of the detailed inspection plans we provide, we ensure the full training of staff concerning the rules of inspection, the operation of the emergency system and the performance of necessary maintenance.



Adherence to the provided maintenance and testing plan is binding in accordance with legislation

- INPUT**
- Luminaire type
  - Emergency system type
- OUTPUT**
- Maintenance plan
  - Emergency system control method
  - Testing plan
  - Care of protocol

- Luminaire selection
- Emergency lighting calculation
- Emergency system selection
- Detailed inspection plan
- Fire protection project

## Fire protection project

A complete fire protection project ensures that the emergency system fulfills not only the lighting needs but also the fire prevention and protection needs of the space. This includes determining the use of battery and monitoring systems, and the defining of suitable electrical materials and routing of wiring.



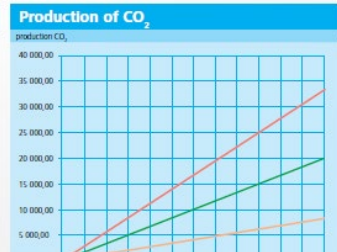
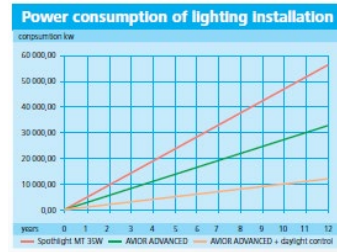
A fire protection project includes the selection of appropriate luminaires and signage as well as the calculation of any suitable safety lighting. It also defines the number and location of fire extinguishers and fire exits in the space.

- INPUT**
- Description of the space
  - Project documentation
  - Fire protection documentation for existing buildings
- OUTPUT**
- Emergency lighting type
  - Emergency system selection
  - Luminaire and component selection
  - Fire protection and emergency lighting documentation
  - Overall fire protection project for new buildings



# ENERGY SAVINGS

Total costs of ownership (the comparison)			
Type of luminaire	Spotlight MT 35W	AVIOR ADVANCED	AVIOR ADVANCED + daylight control
Type of lamp	MT	LED	LED
power consumption	35	25	25 W
number of lamps in luminaire	1	1	1
control gear	ECG	ECG	ECG
Type of lighting control	none	none	light sensor
life of lamp	12 000	50 000	50 000
power consumption of luminaire	42	25	25 W
luminaire flux	3 500	2 400	2 400 lm
LOR	65	100	100 %
luminaire light output	2 275	2 400	2 400 lm
number of luminaires	20	20	20
average time when luminaire switch on between 6.00 - 18.00	5	9	9 hour
average time when luminaire switch on between 18.00 - 6.00	3	3	3 hour
number of days in week when luminaire switch on	7	7	7 day
price for electrical energy	0,15	0,15	0,15 €/kWh
purchase price of luminaire	72	125	125 €
purchase price of light source	36	9	9 €
purchase price of service hour	20	20	20 €
time needed for the exchange of one source	0,25	0,25	0,25 hour
<b>COOLING ENERGY</b>			
Cooling system usage factor	50%	50%	50%
Cooling efficiency	2,5	2,5	2,5 W/WK
purchase for initial installation	1 940,00	2 500,00	2 500,00 €
number of maintenance required per 12 years	4	1	1
Maintenance fee	600,00	100,00	100,00 €
power consumption of luminaires	42,00	25,00	13,00 W
power consumption of cooling system	8,40	5,00	2,60 W
completely power consumption of room	1 008,00	600,00	312,00 W
consumption of energy for			
month	362,52	210,00	82,12 kWh
year	4 411,04	2 628,00	1 045,42 kWh
production of emission CO2 per year	2 820,63	1 681,92	669,07 kg
price for electricity			
day	1,81	1,08	0,41 €
month	55,19	32,85	13,07 €
year	662,28	394,20	156,81 €
difference between input cost		540,00	540,00 €
saving difference per year - power consumption		-268,06	-268,06 €
saving CO2 per year		1 142,71	1 142,71 kg
payback excluding maintenance		2,1	1,1 Years
payback including maintenance		2,2	1,2 Years



## Lighting energy audit

- Lighting energy audit
- Return of investment calculation
- Energy certification of buildings

### Lighting energy audit

The lighting energy audit is a key part of the energy saving aspect of a lighting project, whether it is a reconstruction or a new installation. It also provides all the basic information needed for the compulsory energy certification of buildings. The goal is to gain a comprehensive overview of the current state of your lighting system, based upon which we can design a new and better solution and provide quantifiable energy saving, financial and return of investment values. The lighting energy audit is a systematic process that includes:

- Expert assessment of the lighting system within the framework of the reconstruction project or the assessment of the lighting design for a new project
- Collection of all information about the lighting system
  - Lighting measurements
  - Energy measurements
- Processing and analysis of collected data
- Optimization of the collected data (to its convenient solution)
- The energy balance of a solution
- The design and implementation of the newly optimized solution



When planning the reconstruction of any public lighting system, the first step is to measure the current illumination of all roads and paths.

- AVIOR**
- Deposition of the area
  - Energy certification
  - Location of workplaces
  - Location of projects
  - Measurement of the area
  - Analysis of current used lamp cases
  - Energy consumption
  - Energy balance
  - Energy price
- OUTPUT**
- Energy assessment of the current system
  - Quality assessment of the current system
  - Estimated cost and the economy rate
  - Overall estimated investment costs

We will assess the current state of your lighting system and offer you a new, better solution.



Even the smallest reconstruction does not mean no major requirements.

A comprehensive evaluation of the currently used luminaires and light source is included as part of the overall energy audit. Based upon the audit findings, lighting is upgraded to the customer's complete replacement of the original luminaires with new ones using LED technology.

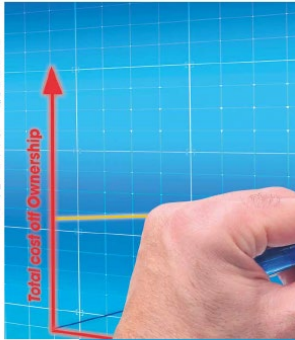
# ENERGY SAVINGS

## Economic comparison and return on investment calculation

Lighting energy audit  
Return of investment calculation  
Energy certification of buildings

**Return of investment calculation**  
Using the latest technologies and high levels of short term savings can seem very attractive. However, based on many years of experience in the production of lighting fixtures and provision of tailored lighting solutions, we are able to calculate the best result from a long term point of view.

Our return of investment calculations are based on the lighting energy audits of existing or theoretical solutions. If the parameters are unsuitable we will propose several additional variants and calculate for each. In this way **customers can compare all options and decide which is best for them.** Return of investment calculations are provided as part of the lighting energy audit or as an independent service.



- INVEST**
- Cost of new lighting solution
  - Energy price
  - Number of the time zones
  - Working hours
  - Price of the unit
  - Labour costs
  - Cost of maintenance
- OUTPUT**
- Energy consumption comparison
  - Annual operational cost comparison
  - Annual energy consumption and CO2 emission comparison
  - Investment energy payback
  - Payback comparison

A high level of savings over a short period of time are not always profitable long term, we will help you decide what is best for now and the future.

Product	FORESTREET D4 (S7)	SEGUN S14
Light source	S7	LED
Energy consumption (W)	86	47
Light output (lm)	3403	3890
System efficacy (lm/W)	40	82
Savings comparison with LED (%)	51	-

The total cost of ownership for both luminaires. Cost of the luminaire and installation. Cost of electricity and maintenance.

Comparison of the energy consumption, light output and system efficacy of both solutions. Cost of electricity and maintenance for selected application. If this selected lighting parameters, an impressive energy and an acceptable price.

## Energy certification of buildings

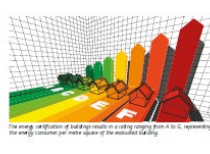
Lighting energy audit  
Return of investment calculation  
Energy certification of buildings

**Energy certification of buildings**

Energy is inseparable from each space in buildings. It ensures people are warm and comfortable and contributes to quality of life. However, this **comfort must be balanced with responsibility.** We offer customers the service of energy and green building certification.

The energy certification of buildings is based upon the European Directive 2002/91/EC, which is obligatory for EU member states. This document contains all the necessary instructions concerning the energy economy and assessment of buildings, covering the following parameters: heating, insulation, water heating, wiring (for lighting, air conditioning and ventilation).

The value assigned, from A to E, is the result of the energy certification



- INVEST**
- Building use
  - Energy consumption, assessed price, average climate (Kf)
  - Regulation of the space
  - Energy consumption
  - Working hours
  - Energy price
- OUTPUT**
- Energy consumption of the car park system
  - Quality assessment of the car park system
  - Estimated energy consumption
  - Estimated energy consumption
  - Estimated energy consumption
  - Estimated energy consumption
  - Estimated energy consumption
  - Estimated energy consumption

One letter, from A to E, will tell you all you need to know about the energy efficiency of your building.

# WIRING DESIGN AND LMS

Wiring design  
LMS design  
GUI design

## Lighting management system (LMS)

An LMS is part of the electrical and lighting design, used for the control and regulation of a lighting system in order to increase the potential for energy savings and provide user comfort in the form of autonomous lighting. The wide range of control devices and methods available means that each LMS can be tailored to the simplest or most demanding of needs. If you choose a controlled lighting system we will be able to specify and plan in detail the functional connection of all incorporated components including the luminaires, sensors and control devices. Selection of the correct kind of control device depends to a large extent on the type of lighting system and the space for which it is determined, and can be controlled using standard wall switches or touch panels, using a smart phone, tablet or computer, and even from a remote location over the Internet. The effective design and implementation of an LMS will enable light to be provided to the correct level at the time and place needed. We can provide the LMS design service both along with the wiring design or independently, for new lighting solutions or for reconstructed ones where lighting regulation is not yet implemented.



An LMS project for the Architekturbüro company detailed not only on how to connect luminaires and control components to create a functional whole.

- INPUT**
- Description of the space
  - Electrical project
  - Existing documentation, ground plan, profile drawings, etc.
  - Control requirements
  - If not part of the electrical installation project it is necessary to submit a technical specification on the positioning of all electrical components
  - Type, number and location of control components
  - Photo documentation of the designed space
  - Location of windows and skylights, and the orientation of the building
  - Simplified floor plan of the area to be lighting
- OUTPUT**
- Summary of the control components
  - Full electrical wiring and connection schematic
  - Ground plan of the wiring
  - Description of functionality



Wiring design  
LMS design  
GUI design

## GUI design

The tools used in an LMS provide the lighting system with an autonomous character and bring great potential for savings in energy. However, customers need to choose the most suitable type of control device for their needs, with the most modern devices enabling control by touch display or using a smartphone or tablet. For such devices we can design a customised GUI. The first step is to choose the device and then we match the interface to your needs and incorporate corporate elements such as logos. Thanks to simple to understand icons, through a panel of buttons you can easily and effortlessly control all functions of the LMS. Our tailored GUI will transform your imagination of lighting control into reality.



The Graphical User Interface (GUI) can be used on a computer, tablet or smartphone with internet access.

- INPUT**
- LMS project
  - Graphic design requirements
- OUTPUT**
- Graphical design for the interface
  - Data for programming the user interface (PC, touch panel, tablet, ...)
  - Functional menu of the application
  - Description of functionality



Used by application mobile interfaces to regulate the lighting using a smartphone touch screen. The GUI allows for the remote and wireless control of the lighting system. The choice of panel color according to client's needs.

# INSTALLATION

- Wiring installation
- Lighting installation
- LMS installation
- LMS programming
- Fine-tuning of the lighting
- Technical supervision
- Removal and recycling of old lighting components
- Maintenance plan

**Wiring installation**  
 Wiring distributes the electric energy that supplies the lighting system. Its design and realization is subject to stringent standards and legislation in order to ensure safety. **High quality wiring is a necessary element in the flawless operation of a lighting system.** It is realized in full compliance with project documentation it provides users with convenience, thanks to which they are unaware of its presence. Wiring includes the installation of wires, distributors, switches and all the components necessary for lighting fixture mounting.



**RESULT**  
 Electrical project  
**QUALITY**  
 Fully installed lighting system

The professional realization of an electrical project in accordance with the appropriate documentation guarantees the smooth operation of the final lighting system.

High quality wiring is characterised by the fact that you never notice it.



Even the seemingly simplest of things require a professional approach and the presence of an expert.



The installation of switches, controls and other components must be done with care.  
 For luminaires to work correctly only a quality of a material is required to connect them properly under the supervision of professionals.

Are you afraid of the dark... we will install a Lighting Management System that will turn on the lighting before you even pass through the door.



Lighting intensity sensors detect the level of illumination in a given area and automatically regulate the output of controlled luminaires in order to ensure a desired brightness.

# INSTALLATION

- Wiring installation
- Lighting installation
- LMS installation
- LMS programming**
- Fine-tuning of the lighting
- Technical supervision
- Removal and recycling of old lighting components
- Maintenance plan

## LMS programming

After the professional installation of the lighting and all control components it is necessary to fine-tune the system, starting with the programming of the lighting fixtures and control devices. According to customer requirements we create a control program and using a series of tests verify the functionality of all equipment. Next, we train customers how to operate the system. We also offer the service of remote administration and maintenance of the LMS through the internet, a service that allows us to connect to and adjust the control program at any time and to monitor all system components, taking the burden off your shoulders.



Before a lighting system can come to life, the control functionality must be programmed.

### INPUT

- LMS design

### OUTPUT

- Operation of the control logic
- Setting of the functionality
- Maintenance training

For the wiring, lighting fixtures and control components to properly communicate with each other, it is necessary to program them.



All areas with linked activity in the space it is possible to switch on only the equipment needed in the necessary location by selecting the outdoor lighting zones according to production and energy activity of for a time. In a space with a control lighting system it is possible to choose a lighting scene according to production and energy activity of for a time. Outside of working hours the lighting can be directed to a safety area without any monitoring.

- Wiring installation
- Lighting installation
- LMS installation
- LMS programming
- Fine-tuning of the lighting
- Technical supervision**
- Removal and recycling of old lighting components
- Maintenance plan

## Technical supervision

Before we perform the first start-up of the lighting system we want to make sure, again and again, that everything is ready. Within the framework of technical supervision we offer you the expertise and practical knowledge of our specialists at every stage of the project. Our technical supervision will assure you that all wiring, lighting fixtures and control components are installed and set-up perfectly so that the system we hand over to you will function without error.



So that our customers can see that their lighting system is installed properly, we offer to check and adjust it before operation.



### INPUT

- Complete technical documentation

### OUTPUT

- Correct following of all defined installation steps
- The technical issues that require attention placed upon it

- Wiring installation
- Lighting installation
- LMS installation
- LMS programming
- Fine-tuning of the lighting
- Technical supervision
- Removal and recycling of old lighting components**
- Maintenance plan

## Removal and recycling of old lighting components

Any old lighting installation consists of many components which must be removed and recycled in compliance with relevant legislation. The biggest part of this process is the disposal of conventional light sources, all of which contain various amounts of heavy metals like mercury and lead, along with other dangerous substances. They must therefore be disposed of as hazardous waste and recycled using special equipment in order to ensure that no damage is caused to the environment, and no harm caused to individuals. We will provide this service, disposing of all removed components including light sources and wiring. In this way you don't need to think about this complex task, we will take away everything and arrange for its disposal at specialist facilities. This will save you stress, time and money.



### INPUT

- Access to the site
- Time schedule or the space

### OUTPUT

- Decommissioning of the lighting
- Ecological and safe removal of waste materials

# TECHNICAL SUPPORT

## Expert lighting system surveys Lighting measurements Consumption measurements

### Luminaire administration and maintenance Fine-tuning of the lighting Consultation

### 3D scanning of space Guarantee program Complaints Online services Technical training and education Technical Sales Support Project registration Project management Customer presentations Financing

#### Expert lighting system surveys

Obsolete luminaires, yellowed reflectors and defective wiring? Are you still hesitating to begin reconstruction? Call us, and we will carry out an expert survey for you. Based on this simple assessment we can draw your attention to the problematic and dangerous aspects of your current lighting system, and then we will advise you how to resolve those issues.

- INPUT**
- Making the premises to be inspected accessible
  - Expert
- OUTPUT**
- Assessment of the current state
  - Highlighting of the advantages and disadvantages of the lighting system

#### Lighting measurements

Does the level of illumination in your space meet standards? Our lighting measurements service means you can have the answer within just a few hours.

- INPUT**
- Making the premises accessible during the measurement period
  - Presenting the measurement plan
  - Specifying the type of measurement
- OUTPUT**
- Protocol of measuring the illuminance

#### Consumption measurements

Why pay more than necessary? Do you know the current energy consumption of your lighting system? Based on a few simple measurements, our technicians can tell you what you can do to save, and if reconstruction could help. The measurements will inform you about the annual consumption of your current system, and what that means in terms of quantifiable energy payments.

- INPUT**
- Electrical design documentation
  - Expert
  - Making the premises and measuring points accessible
- OUTPUT**
- Protocol of measuring the consumption

#### Luminaire administration and maintenance

If you task the workforces and techniques needed for the management and maintenance of your lighting system, we can do it for you. We provide cleaning and repair services as well as the replacement of light sources as needed. All without disruption to the routine operation of the spaces being serviced.

- INPUT**
- Documenting signal elements and levels
  - Adjustments
  - Maintenance plan
- OUTPUT**
- Maintenance and administration of the lighting system

#### Fine-tuning of the lighting

For the lighting to fulfill requested parameters, it is not enough to just correctly install the luminaires. It is necessary to direct them properly, so that the light is cast right where it's needed. We realize directing the luminaires within the installation, but on demand also as a separate service.

- INPUT**
- Functional location of luminaires
  - Lighting calculation
  - Position of luminaires
  - Drawing documentation
- OUTPUT**
- Adjusting the lighting system



## Expert lighting system surveys Lighting measurements Consumption measurements

### Luminaire administration and maintenance Fine-tuning of the lighting Consultation

### 3D scanning of space Guarantee program Complaints Online services Technical training and education Technical Sales Support Project registration Project management Customer presentations Financing

#### Consultation

Does your lighting system need reconstructing? Are you rebuilding a space and need advice about which luminaires to use? Do you need a more economical lighting solution? We will gladly provide answers to all your questions, and if needed we will visit you in person.

- INPUT**
- Presentation of the technical problem
- OUTPUT**
- Providing solution

#### 3D scanning of a space

Do you need a 3D model or visualisation? Do you have incomplete project documentation? We can do a 3D scan of your space to provide you with all the information you need. This can be done as part of our visualisation service or independently.

- INPUT**
- Presentation of the measurement levels
  - Making the space of interest accessible
- OUTPUT**
- 3D files of the space

#### Guarantee program

We offer, after a project is registered with our partners, a five year guarantee for the key components of your lighting systems: light sources, control gears, LMS elements and LED luminaires.

- INPUT**
- Technical description of the project
- OUTPUT**
- Contract of guarantee

#### Complaints

We are always here for you and want to eliminate any faults in our services and products

- INPUT**
- Subject of the claim
  - Expert examination and measurement of the technical parameters
- OUTPUT**
- Clarification of possibilities and the offer of a solution

#### Online services

We are here for you 24 hours a day. Our specialists will help you solve your minor technical problems online or ensure their resolution within the shortest possible time.

- INPUT**
- Technical description of the problem
- OUTPUT**
- Clarification of the possibility and offering a solution

#### Technical training and education

We will gladly share our knowledge with you. We can provide comprehensive training to users on how to manage our products. We can also provide longer term and continuous training and seminars

- INPUT**
- Specification of the scope of the training
- OUTPUT**
- Training regarding the defined issues

## Expert lighting system surveys Lighting measurements Consumption measurements

### Luminaire administration and maintenance Fine-tuning of the lighting Consultation

### 3D scanning of space Guarantee program Complaints Online services Technical training and education Technical Sales Support Project registration Project management Customer presentations Financing

#### Technical support

Are you interested in our luminaires and technology? Before you decide to buy we can explain the possibilities and functionality of any product face to face, and help you understand how each product can affect the quality of illumination in any space.

- INPUT**
- Explanation of the location under discussion
- OUTPUT**
- Preparation of the lighting solution
  - Preparation of project documentation
  - Preparation of technical back-up for the project
  - Presentations for customers

#### Project registration

We want to make sure that only the best people work on your project. To this purpose, we keep an extensive database of customers, partners and projects. Once we register your project in our database we can select the best and most appropriate partners to work on your solution.

- INPUT**
- Project form with the necessary information about a project
  - Registration of the specific technical solution
  - Presentation of a business model
- OUTPUT**
- Registration of the project with OMS

#### Project management

We use a very simple type of project management. Each project is entrusted to one key person who will communicate with all departments and specialists on your behalf. So, should there be any question or problem, you know exactly who to contact.

- INPUT**
- Project documentation
  - List of necessary contacts
  - Definition task schedule
- OUTPUT**
- Management of all stages and processes of the project

#### Customer presentations

Have you decided to use OMS? We will pay a visit to your company and present to you a comprehensive explanation of the many services we provide and how we structure our solutions. And if you have any questions, we are there to answer them.

- INPUT**
- Time and place of the presentation
  - Subject of the presentation
  - Communication language
- OUTPUT**
- Presentation of the solution

#### Financing

Are you wondering about how to finance your project? Our strong position as a leading company with provable results enables us to help you find the best and safest deals with finance institutions.

- INPUT**
- Presentation of the project
  - Means of the project
  - Time management
- OUTPUT**
- Financing model

# PROJECTS – LIGHTING SOLUTIONS

INNOVATIVE LIGHTING SOLUTIONS EASY TO SELL, SIMPLE TO IMPLEMENT AND BENEFICIAL TO USE



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Professional technology and lighting provider from Europe



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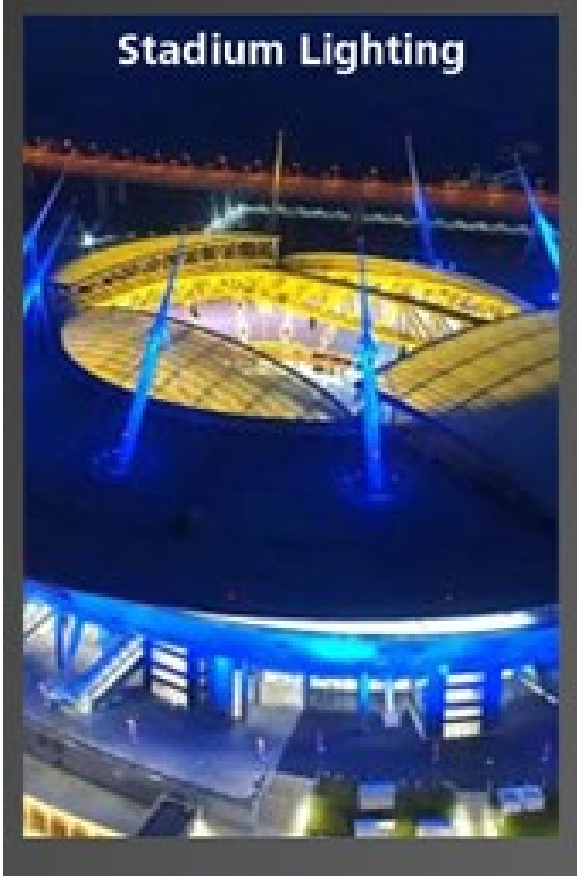
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# REFERENCES



STEFFL VIENNA  
- AUSTRIA

MARTIN AUER BAKERY  
GRAZ - AUSTRIA

CARREFOUR EXPRESS  
ANTWERP - BELGIUM

SHOWROOM MERCEDES  
AUBIERE - FRANCE

LANDI STORE BUCHRAIN  
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