



# The Future Lies Beyond a Luminaire: How to Build a New, State-of-the-Art Lighting Company for the Decades Ahead?

December 4th, 2024



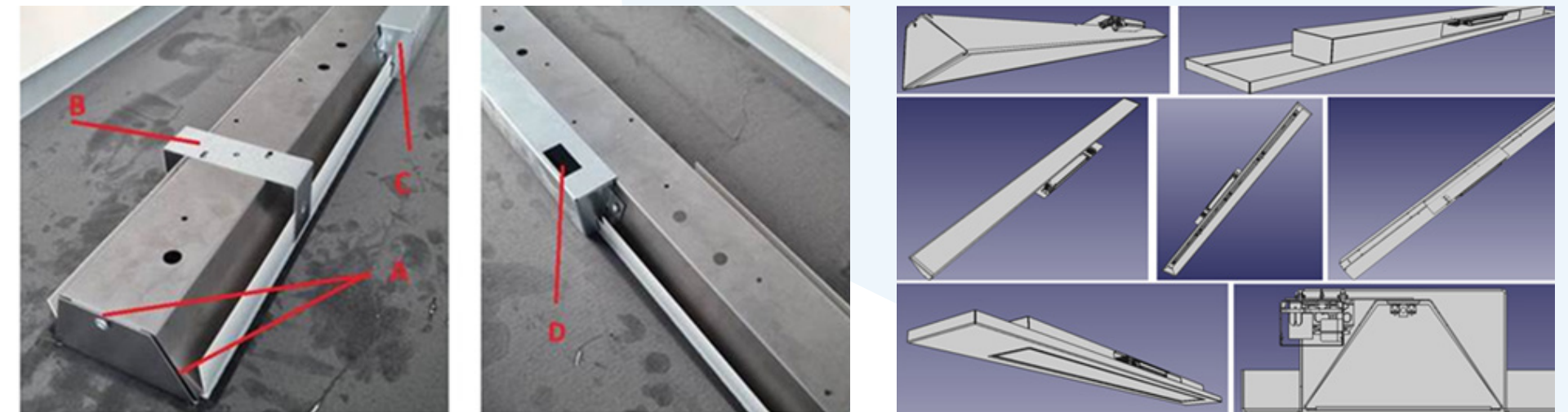
# LED Refurbishment: Upgrading existing lighting systems with LED technology.

True to our circular mission, OMS Lighting has specialized in refurbishment projects for many years. We believe that, in many cases, refurbishment is the best and most sustainable option. However, our experience has shown that it needs to be done the right way to fully realize its benefits.

Today, we are likely the largest and fastest manufacturer of custom-made lighting fixtures with specialized technological requirements in Europe.

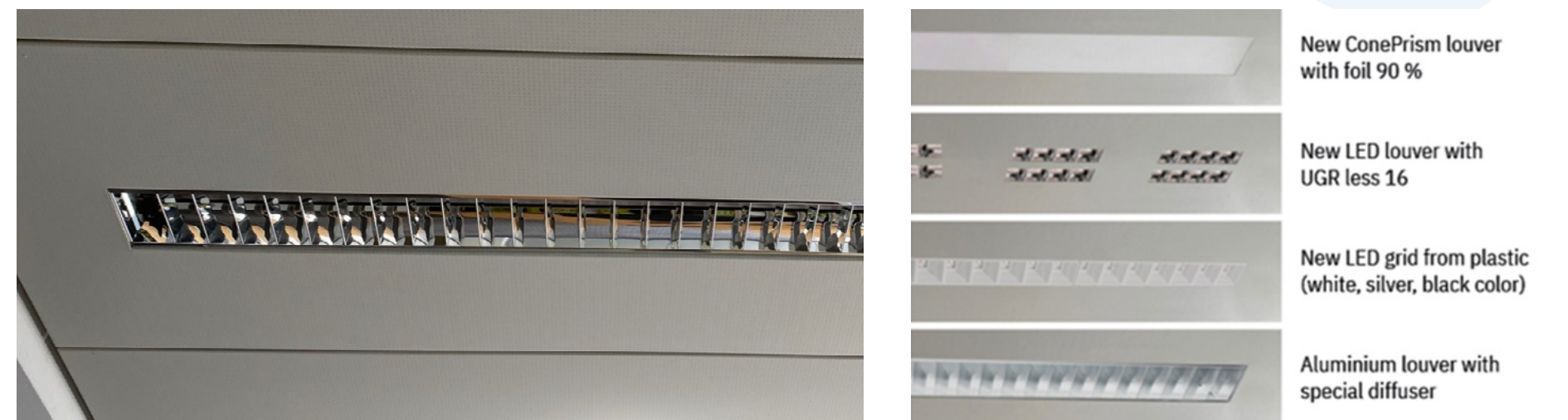
## Layer 1

We replace the light source and optics within the luminaire, but as a complete lighting module, including the electronics, with magnetic attachment to the luminaire



## Layer 2

We replace the entire luminaire with a fixture of the same dimensions



## Layer 3

We replace the entire ceiling panel, including the luminaire



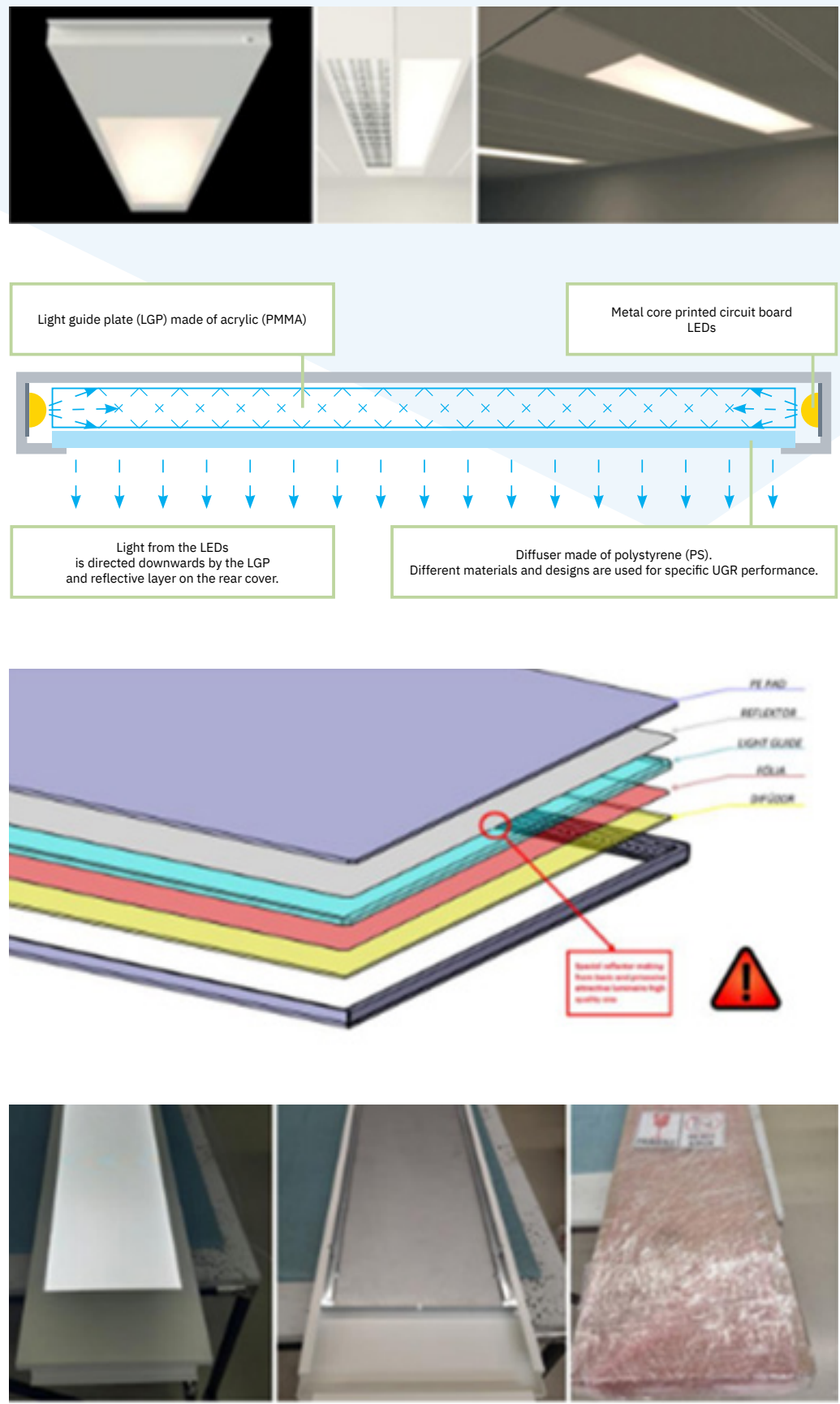
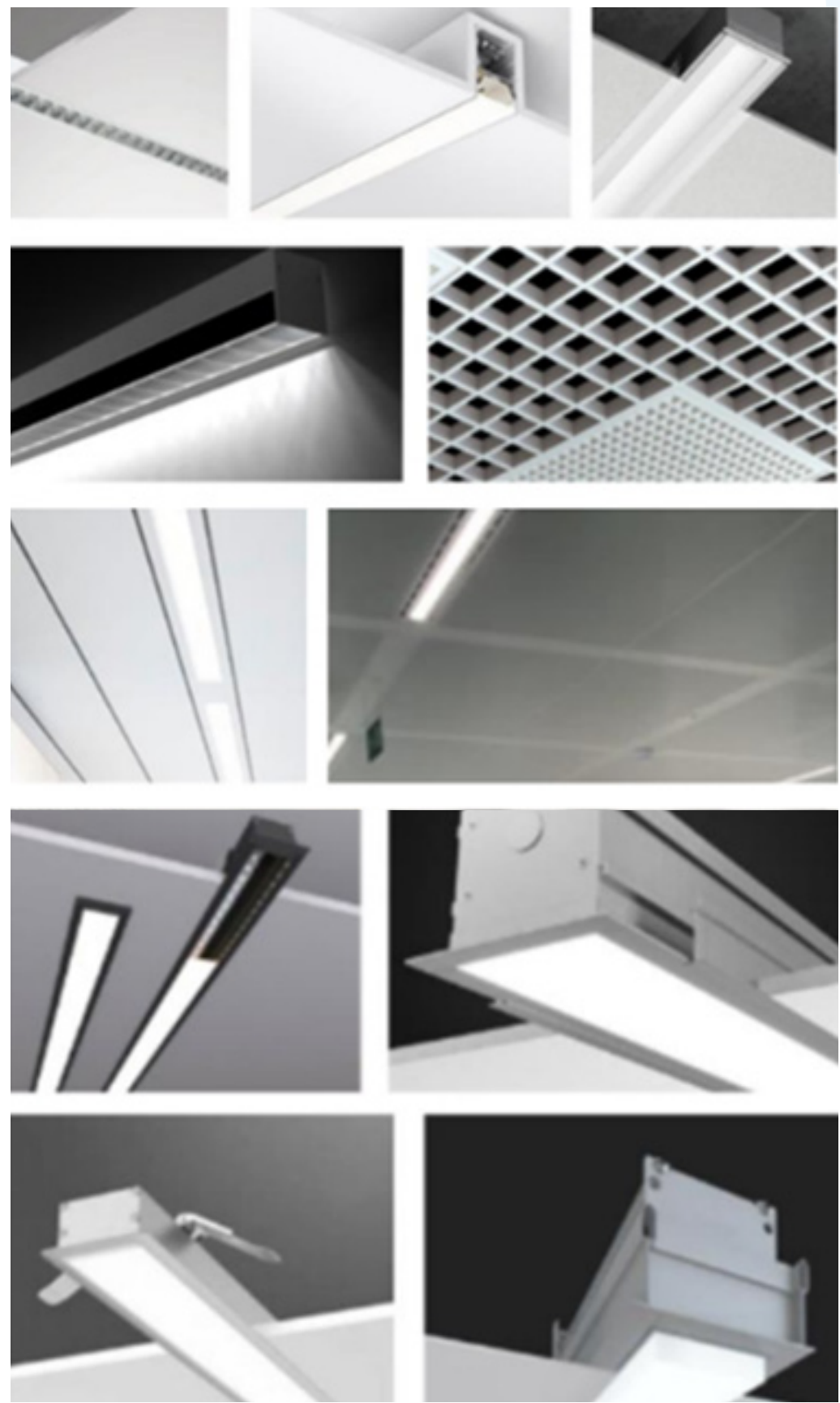
[More information](#)



# Tailor-Made Solutions: Customized luminaires designed to meet specific client needs.




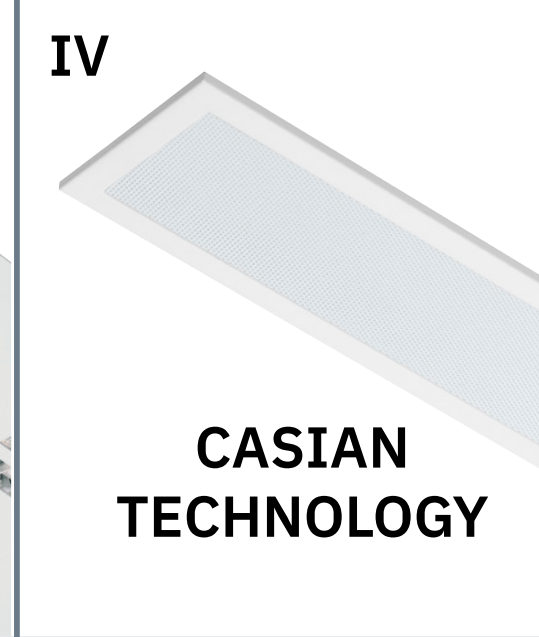


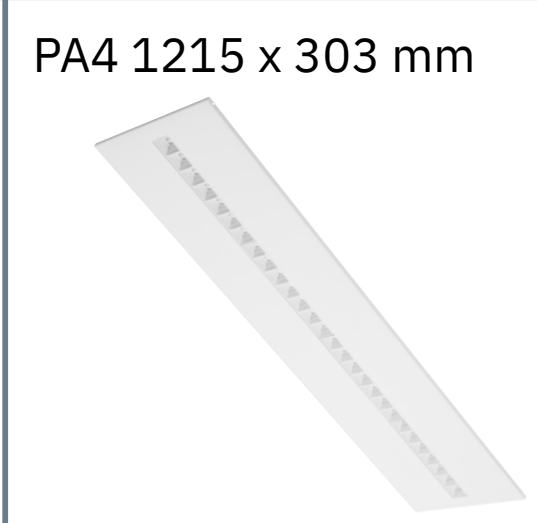

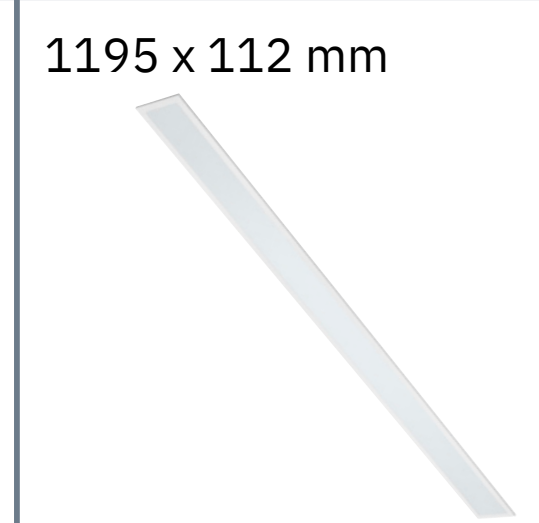



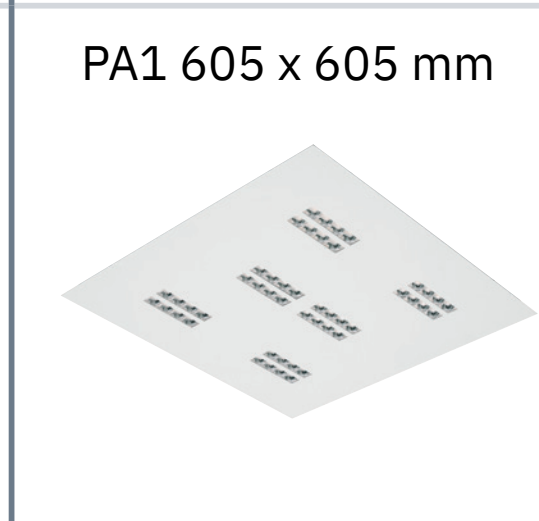


As a company focused on LED modularity and an agile player in the industry, we are unmatched when it comes to tailor-made solutions. Our dedicated and experienced team works full-time on customized projects. All our luminaires are designed and manufactured at our production plant in Central Europe, where our R&D teams – along with one of the strongest optical design teams in Europe – work closely together to develop the perfect solution for your project.

**Tailor-made LED solutions are mostly a seamless process for OMS Lighting, because we have prepared modular packages (optics / PCB / electronics) of technologies, allowing us to easily identify the client's requirements together.**



More information

# Diverse Luminaire Dimensions: Offering all necessary dimensions beyond standard options.

I	II	III	IV	V
 <b>FREYN TECHNOLOGY</b>	 <b>MILINE TECHNOLOGY</b>	 <b>DECLAN TECHNOLOGY</b>	 <b>CASIAN TECHNOLOGY</b>	 <b>RELAX TECHNOLOGY</b>
PR4 1245 x 310 mm 	PA4 1215 x 303 mm 	PF4 1345 x 333 mm 	1195 x 112 mm 	1195 x 112 mm 
PF2 1345 x 670 mm 	PR3 622 x 310 mm 	PA1 605 x 605 mm 	595 x 112 mm 	595 x 112 mm 

**PV** 600 (T-ceiling frame) tolerance comparing to basic dimensions from -2 to -5 mm

mark	standard (mm)	X min.	X max.	Y min.	Y max.	dimension range
PV1	595 x 595	595	598	595	598	(595-598) x (595-598)
PV2	1195 x 595	1195	1198	595	598	(1195-1198) x (595-598)
PV3	595 x 295	595	598	295	298	(595-598) x (295-298)
PV4	1195 x 295	1195	1198	295	298	(1195-1198) x (295-298)
PV5	295 x 295	295	298	295	298	(295-298) x (295-298)
PV6	895 x 295	895	898	295	298	(895-898) x (295-298)
PV7	1495 x 295	1495	1498	295	298	(1495-1498) x (295-298)
PV8	1795 x 295	1795	1798	295	298	(1795-1798) x (295-298)

**PR** 625 (T-ceiling frame) tolerance comparing to basic dimensions from -2 to -5 mm

mark	standard (mm)	X min.	X max.	Y min.	Y max.	dimension range
PR1	622 x 622	620	623	620	623	(620-623) x (620-623)
PR2	1245 x 622	1245	1248	620	623	(1245-1248) x (620-623)
PR3	622 x 310	620	623	308	311	(620-623) x (308-311)
PR4	1245 x 310	1245	1248	308	311	(1245-1248) x (308-311)
PR5	310 x 310	308	311	308	311	(308-311) x (308-311)
PR6	933 x 310	933	936	308	311	(933-936) x (308-311)
PR7	1558 x 310	1558	1561	308	311	(1558-1561) x (308-311)
PR8	1870 x 310	1870	1873	308	311	(1870-1873) x (308-311)

**PA** 610 (T-ceiling frame) tolerance comparing to basic dimensions from -2 to -5 mm

mark	standard (mm)	X min.	X max.	Y min.	Y max.	dimension range
PA1	605 x 605	605	608	605	608	(605-608) x (605-608)
PA2	1215 x 605	1215	1218	605	608	(1215-1218) x (605-608)
PA3	605 x 303	605	608	300	303	(605-608) x (300-303)
PA4	1215 x 303	1215	1218	300	303	(1215-1218) x (300-303)
PA5	302,5 x 303	300	303	300	303	(300-303) x (300-303)
PA6	910 x 303	910	913	300	303	(910-913) x (300-303)
PA7	1520 x 303	1520	1523	300	303	(1520-1523) x (300-303)
PA8	1825 x 303	1825	1828	300	303	(1825-1828) x (300-303)

**PF** 675 (T-ceiling frame) tolerance comparing to basic dimensions from -2 to -5 mm

mark	standard (mm)	X min.	X max.	Y min.	Y max.	dimension range
PF1	670 x 670	670	673	670	673	(670-673) x (670-673)
PF2	1345 x 670	1345	1348	670	673	(1345-1348) x (670-673)
PF3	670 x 333	670	673	333	336	(670-673) x (332,5-335,5)
PF4	1345 x 333	1345	1348	333	336	(1345-1348) x (333-336)
PF5	333 x 333	333	336	333	336	(333-336) x (333-336)
PF6	1008 x 333	1008	1011	333	336	(1008-1011) x (333-336)
PF7	1683 x 333	1683	1686	333	336	(1683-1686) x (333-336)
PF8	2020 x 333	2020	2023	333	336	(2020-2023) x (333-336)

More information





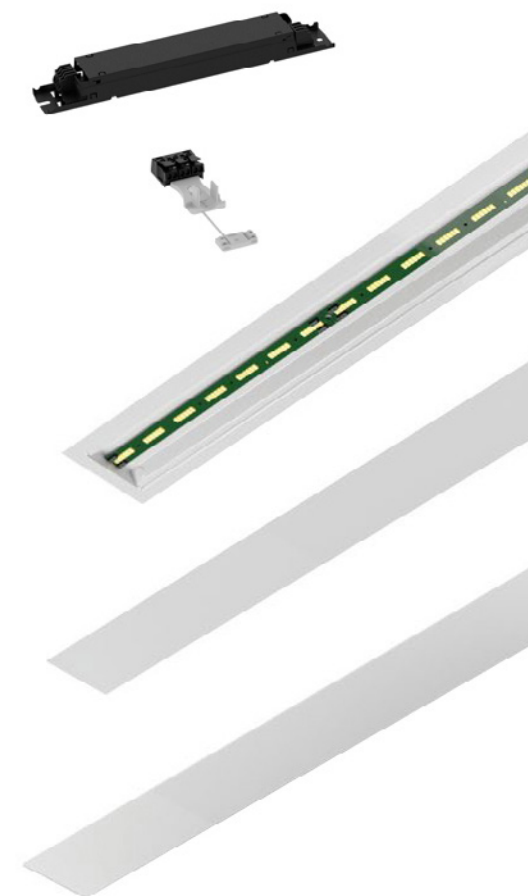
# Creating the best ready-made LED packages for supporting modularity modularity: 26 x Pre-configured LED technology packages (optic + PCB + driver), enabling modularity.

We have created the best ready-made LED technology packages (optic + PCB + driver) for you, which enable modularity in the process of developing new luminaires.



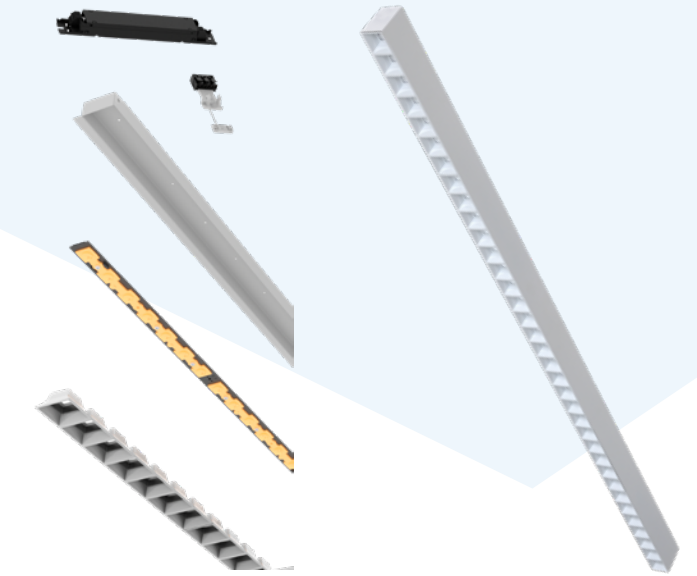
## Examples 1

- Terminal block with cable holder
- Electronic control gear
- Simple construction for easy implementation of luminaire, ceiling, etc.
- PCB Board
- The optical part is composed of two different types of diffusers



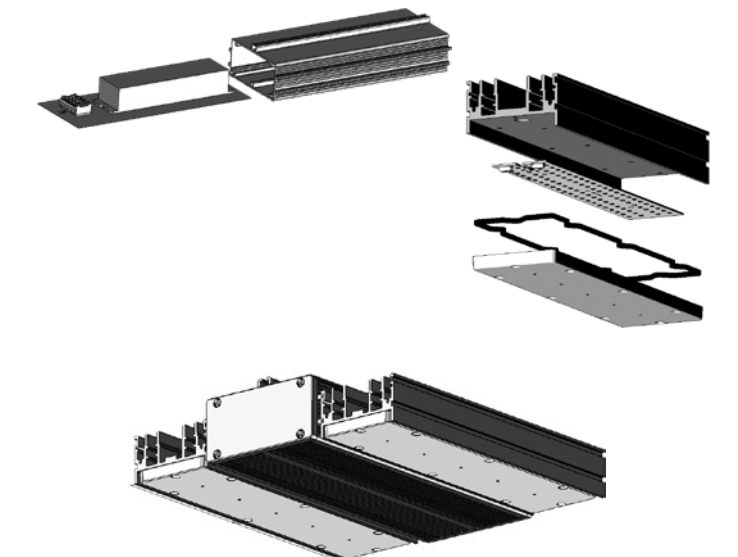
## Examples 2

- Terminal block with cable holder
- Electronic control gear
- Simple construction for easy implementation of luminaire, ceiling, etc.
- PCB Board
- The optical part is composed of lenses and louvers



## Examples 3

- Terminal block with cable holder
- Electronic control gear
- Simple construction for easy implementation of luminaire, ceiling, etc.
- Heatsink
- PCB Board
- The optical part lenses





# Offers Luminaire Development with 3D technology: Developing models for luminaires & innovative optical components.

We provide advanced 3D modeling services to create highly detailed and refined CAD models.

Our CAD services include reverse engineering and developing models for lighting applications and modern optical design components of luminaires.

## 3D/CAD Modeling

The OMS Lighting external 3D design team transforms concepts and customer requirements into finished 3D CAD data or .stl files ready for 3D printing.

With a fully equipped 3D technologies range and the latest software tools, our team handles both large and small projects, leveraging years of experience to deliver high-quality 3D printing files. We accelerate all 3D modeling of lighting fixtures and optical components with our state-of-the-art scanning services.



## 3D Scanning

We offer various scanning applications, including reverse engineering and models for optics and complete lighting fixtures based on technical specifications.

### Technical Specifications of 3D Scanning

- Maximum dimensions: 700 x 700 x 700 mm
- Minimum dimensions: 30 x 30 x 30 mm
- Accuracy:  $\pm 0.05$  mm
- Resolution in pixels: 1.3 MP
- Data format types: .obj, .stl, .asc, .ply



## What types of 3D printing do we use? What 3D printing technologies do we utilize?

### FDM/FFF

The most widespread and commonly used technology in 3D printing. It offers a wide range of colors and materials with various properties. This technology is primarily suited for larger and smaller objects without fine details. Individual layers are visible to the naked eye, with a slightly rough surface. Production costs are lower compared to SLA/DLP technology.

- Cost: The most affordable among all production technologies
- Delivery: For small and simple parts, 3D printing completed within 24 hours
- Materials: PLA, ABS, PETG, ASA, TPU/FLEX, WOOD...

### SLA/DLP

This technology is more suitable for smaller objects with fine details or products requiring high precision. However, the material is somewhat more brittle compared to the materials used in FDM/FFF technology. Individual layers are not visible to the naked eye, resulting in a relatively smooth surface.

Production costs are higher than with FDM/FFF technology.

- Cost: More expensive than FDM/FFF
- Delivery: For small and simple parts, 3D printing completed within 24 hours
- 3D Model: If you don't have the required model, you can use our 3D modeling and 3D scanning services
- Materials: Resin

## Prototyping

### ALMOST THE REAL THING

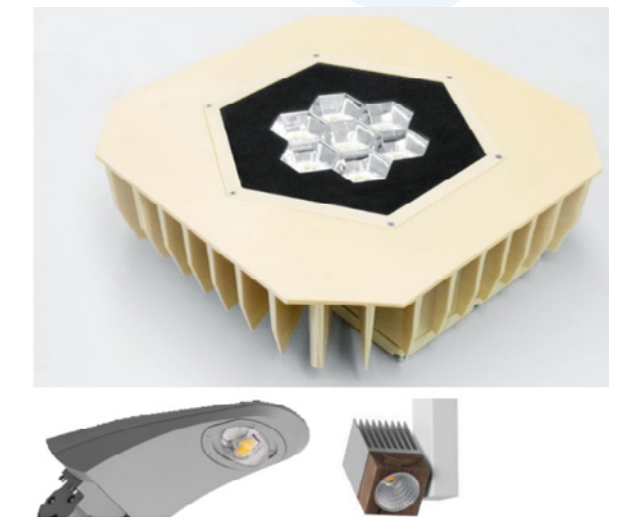
- 3D printed parts
- CNC milled parts
- Real functionality
- Inclusion of real components

### HIGH-FIDELITY MOCK-UPS

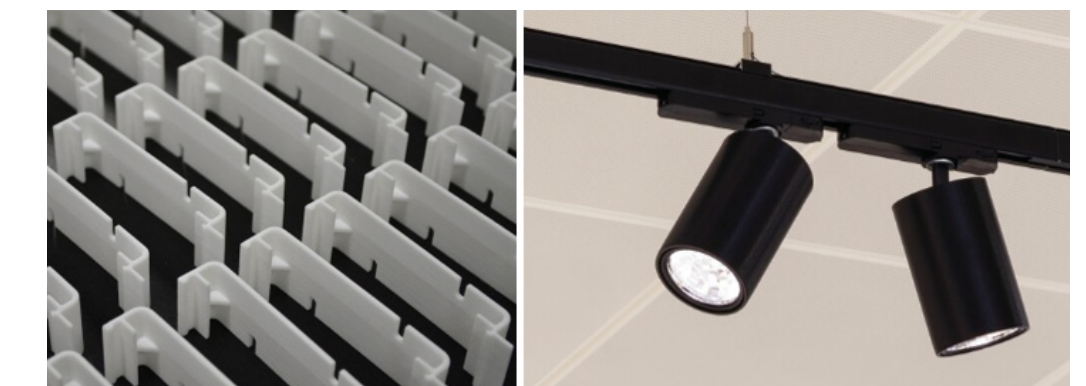
We have various technological possibilities at our fingertips, including 3D printing and CNC milling, that allow us to make cost- and time-effective high-fidelity models with complex structures and interior cavities. To these mock-ups, it is possible to add components, full functionality and even a realistic surface finish, bringing it almost to the level of a full prototype. Such mock-ups can be used in lieu of prototypes for final functionality and design assessment and presentation to investors.

### FULL PROTOTYPES

Full prototypes are identical to the final product in every way, but made using different production methods. Usually, such products are produced by CNC milling of aluminum, which achieves the same result as a mass production method such as extrusion or forging, but on a smaller scale, and faster. It is often the case that several full prototypes are made prior to product entering mass production for various uses, such as testing and certification, or for presentation to sales personnel and key customers.



## Our serial production

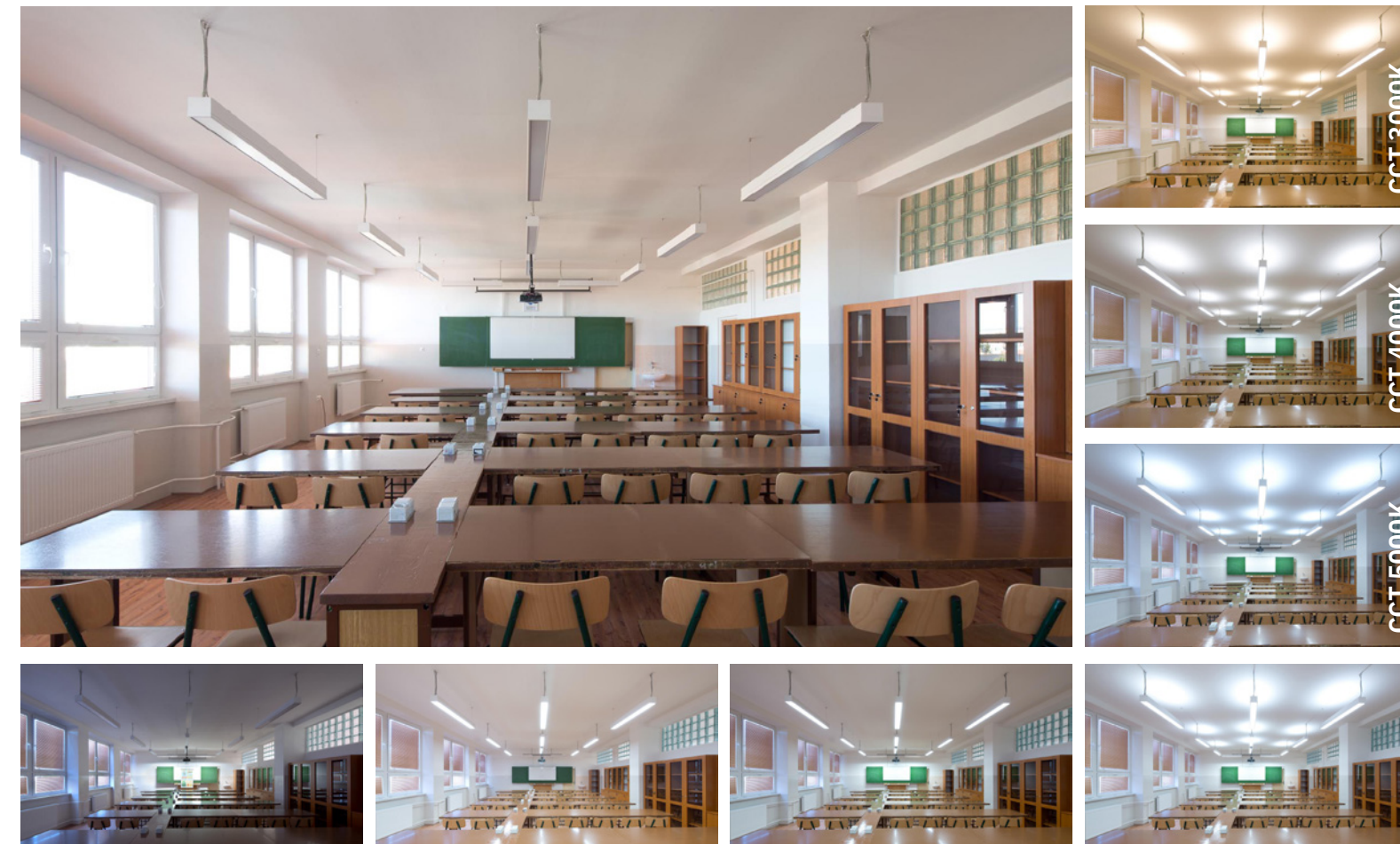




# Lighting Packages with Integrated Control Systems: Pre-configured packages e.g. “Classroom Package” for seamless installation and operation.

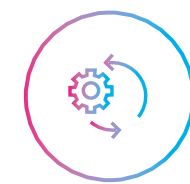
Motion-based control is an intelligent lighting management solution that uses presence detection technology to automatically adjust lighting based on occupancy.

By activating lights only when movement is detected, motion-based systems provide a seamless and efficient approach to lighting control. This approach minimizes energy waste and enhances user convenience, making it ideal for spaces like hallways, offices, warehouses, and parking areas where lighting isn't needed continuously.



### Energy Savings

By ensuring that lights are only on when spaces are occupied, motion-based control reduces unnecessary energy consumption. This approach lowers energy bills and contributes to a sustainable environment.



### Enhanced Automation

With presence detection technology, motion-based systems create a fully automated lighting experience, eliminating the need for manual intervention. Lights turn on automatically when someone enters a room and turn off after a specified period of inactivity.



### Extended Lamp Life

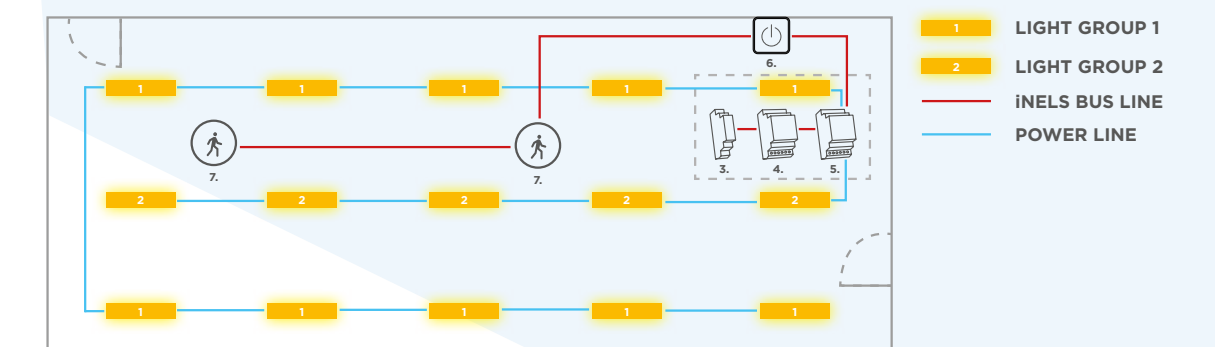
Reducing the duration that lights remain on helps extend the lifespan of lighting fixtures, decreasing replacement and maintenance costs over time.



### Improved Safety and Convenience

Automatic lighting ensures well-lit environments when needed, enhancing safety in areas such as stairways, parking garages, and hallways. Additionally, it offers hands-free operation, improving convenience for occupants.

### Schemes: Step by step



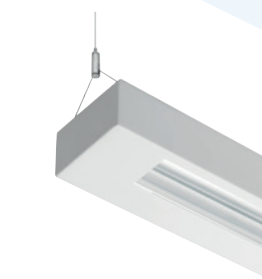
LAMBDA



LAMBDA D-I



LAMBDA ASYM



ESO D-I



### Units: all for motion control

#### 1. Central Unit (CU3-09M)

The CU3-09M central unit acts as the brain of the system, processing signals from connected sensors and controlling lighting circuits based on pre-configured logic. It also has Dali bus to control 64 Dali lights individually or as group.

#### 2. Power supply (PS3-30/INELS)

The PS3-30/INELS is a switched, stabilized power supply designed specifically for the INELS BUS wiring system, providing a total power output of 30 W. It serves as a reliable power source for central units and external masters within the INELS network, ensuring consistent operation of all connected devices.

#### 3. On/Off Circuits (SA3-06M)

The SA3-06M module allows for direct control of lighting circuits. It receives instructions from the CU3-09M central unit and enables the on/off control of connected lighting fixtures based on motion sensor signals.

#### 4. Motion sensor (PMS3)

This motion sensor detects occupancy within its designated range and sends a signal to the central unit to trigger lighting activation or deactivation. The PMS3 is ideal for standard room applications where precise motion detection is required.

#### 5. Manual Control (WSB3-20)



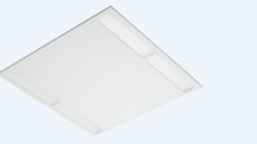

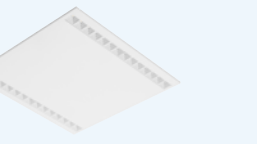
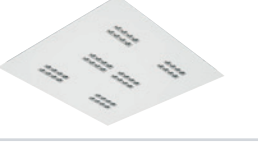








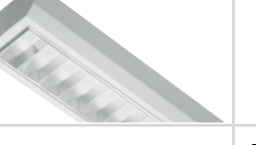









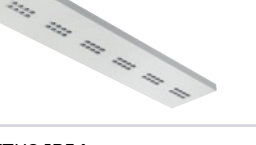


















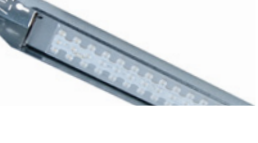

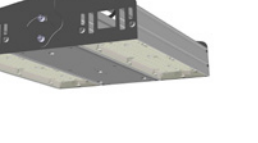
For added flexibility, the WSB3-20 provides manual control, allowing users to control lighting as needed. This controller works alongside the automated system, giving users control over specific lighting adjustments without disrupting the overall automation settings.

[More information](#)



# Maximizing Sensor Capabilities: We will assist you in deciding which sensor is suitable for each application.

EasyAir Office sensor advanced grouping SNS200 	EasyAir SNS210 MC 	EasyAir SNH200 	
basicDIM DGC Sensor 5DPI 14f 	DALI MSensor G3 PIR 5DPI 	DALI MSensor SFI 40 PIR 5DP bDW 	5630 ActiveAhead Sense 
5635 Multisense R44 	324D2 Multisensor DALI-2 R44 	DALIECO LS/PD LI NP 	HF LS LI 
DALI sensor HDD02 	Daylight Sensor DS02 	Daylight Sensor DS02/FM 	Photocell Advance™ Daylight Sensor DS05 
Photocell Advance™ Daylight Sensor DS06 	Photocell Advance™ Daylight Sensor DS07 	PD4-M-1C-GH-SM 	

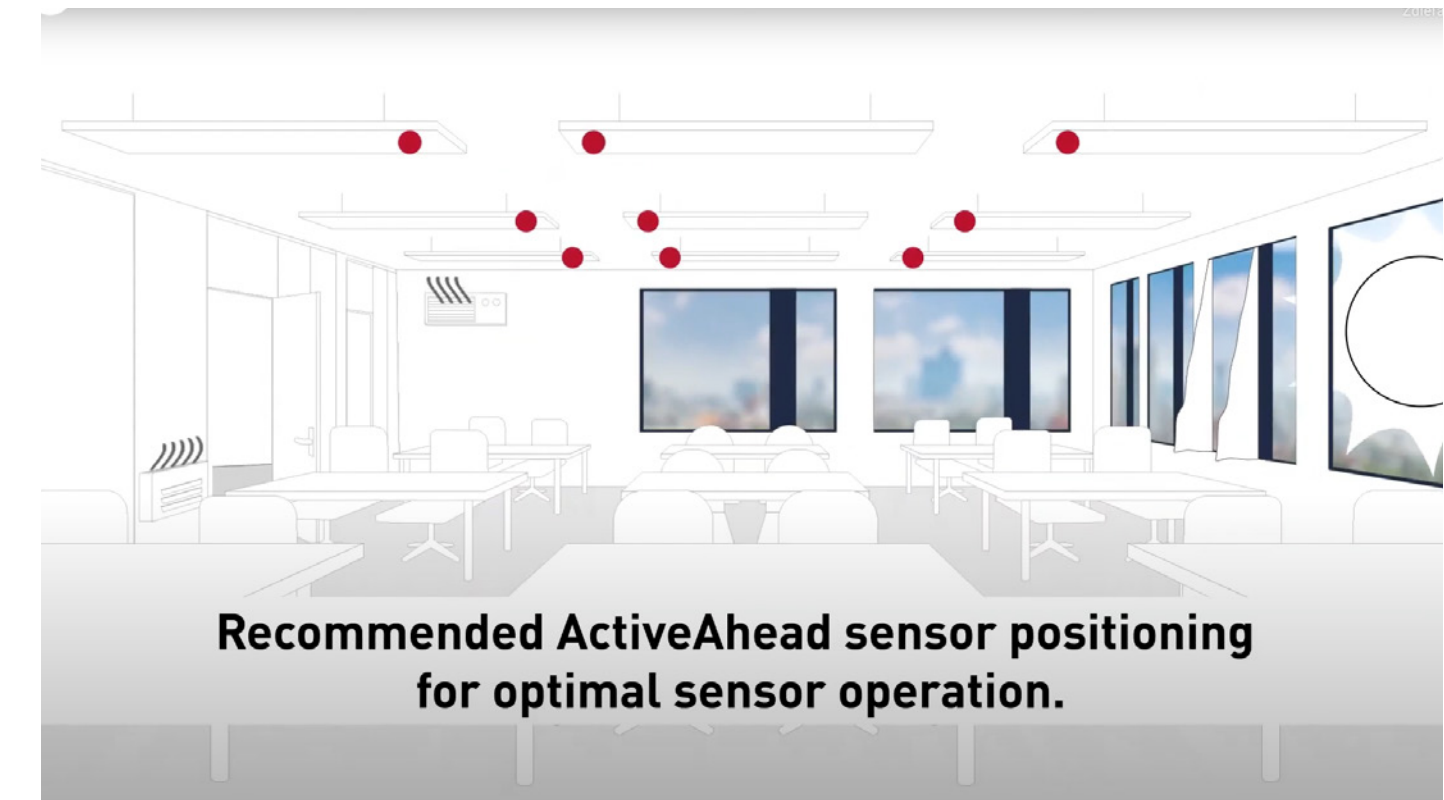
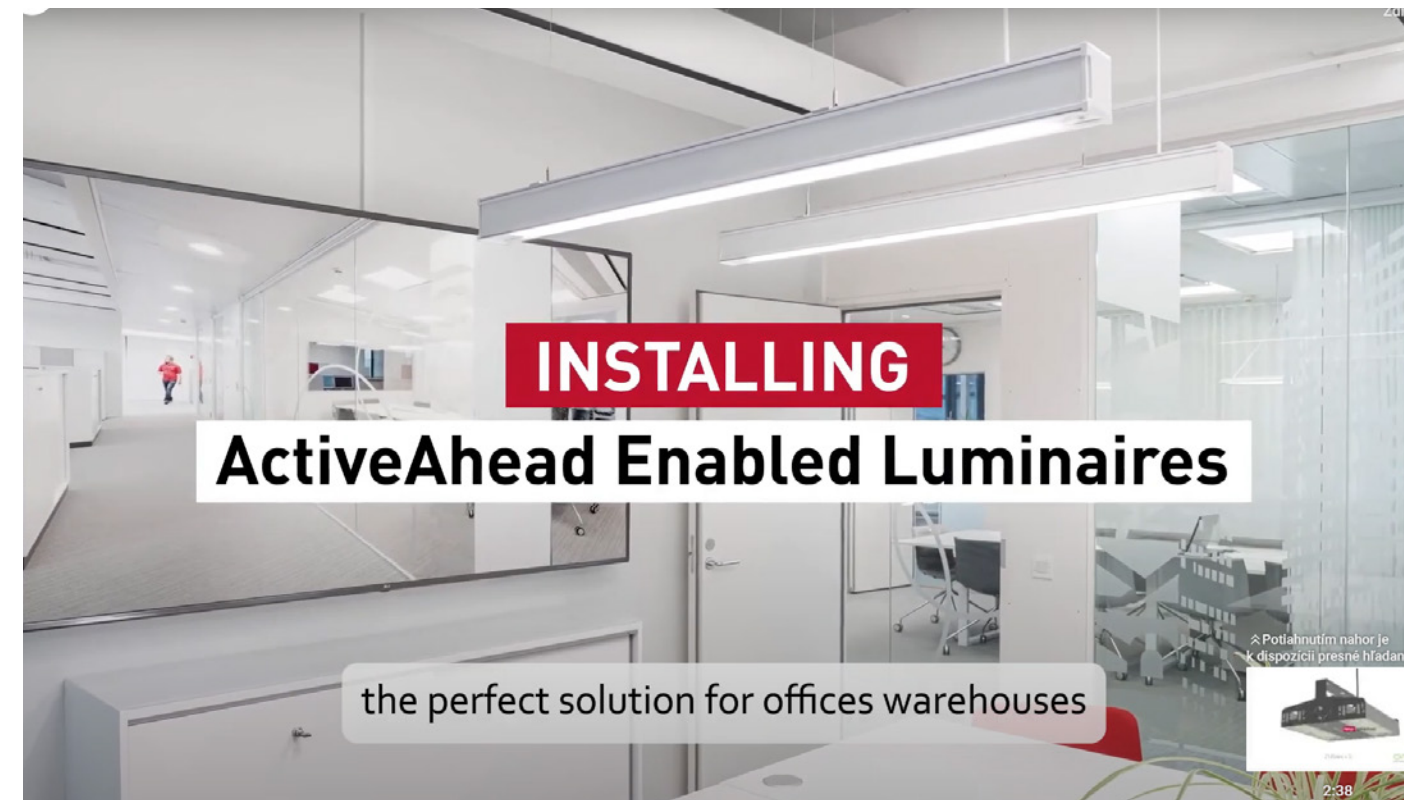
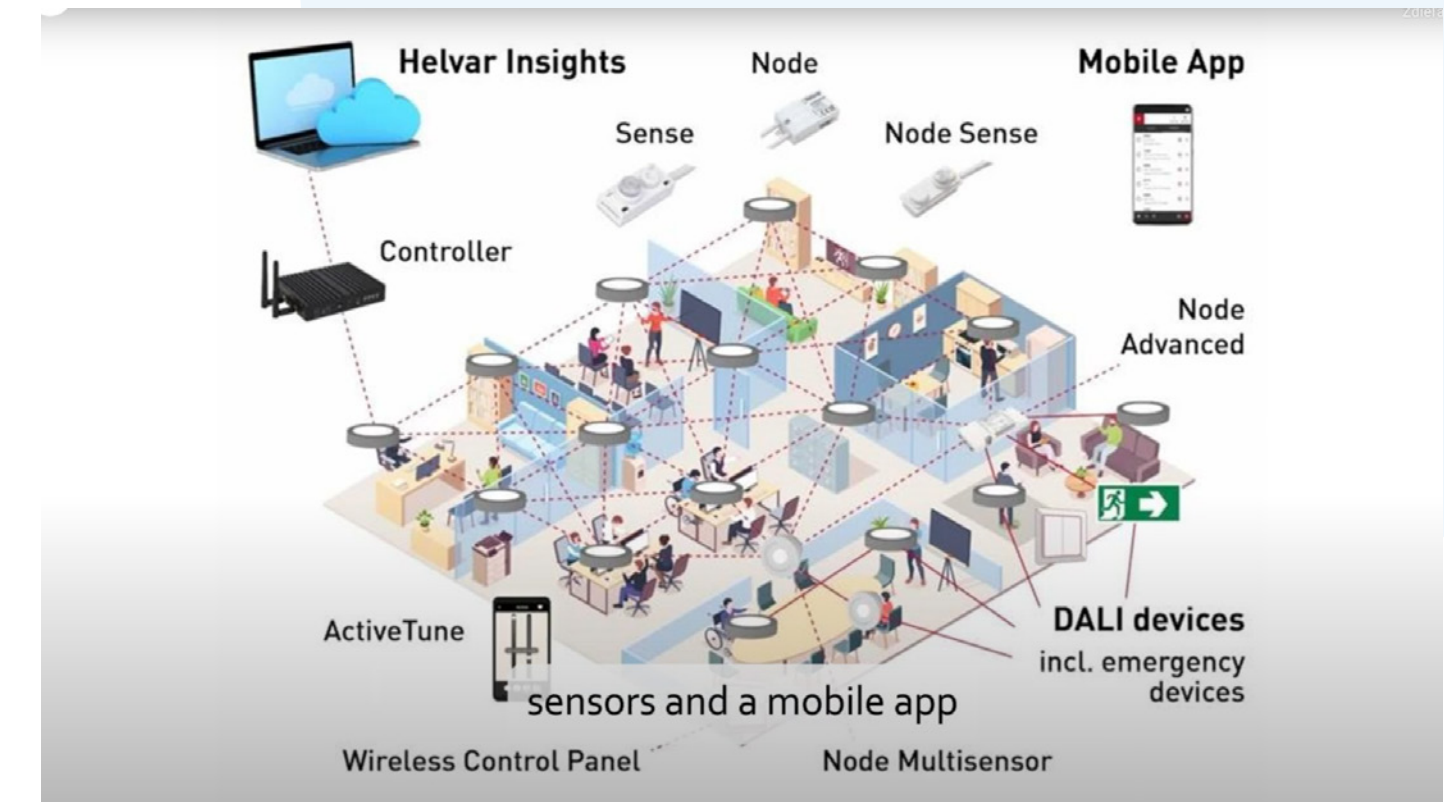
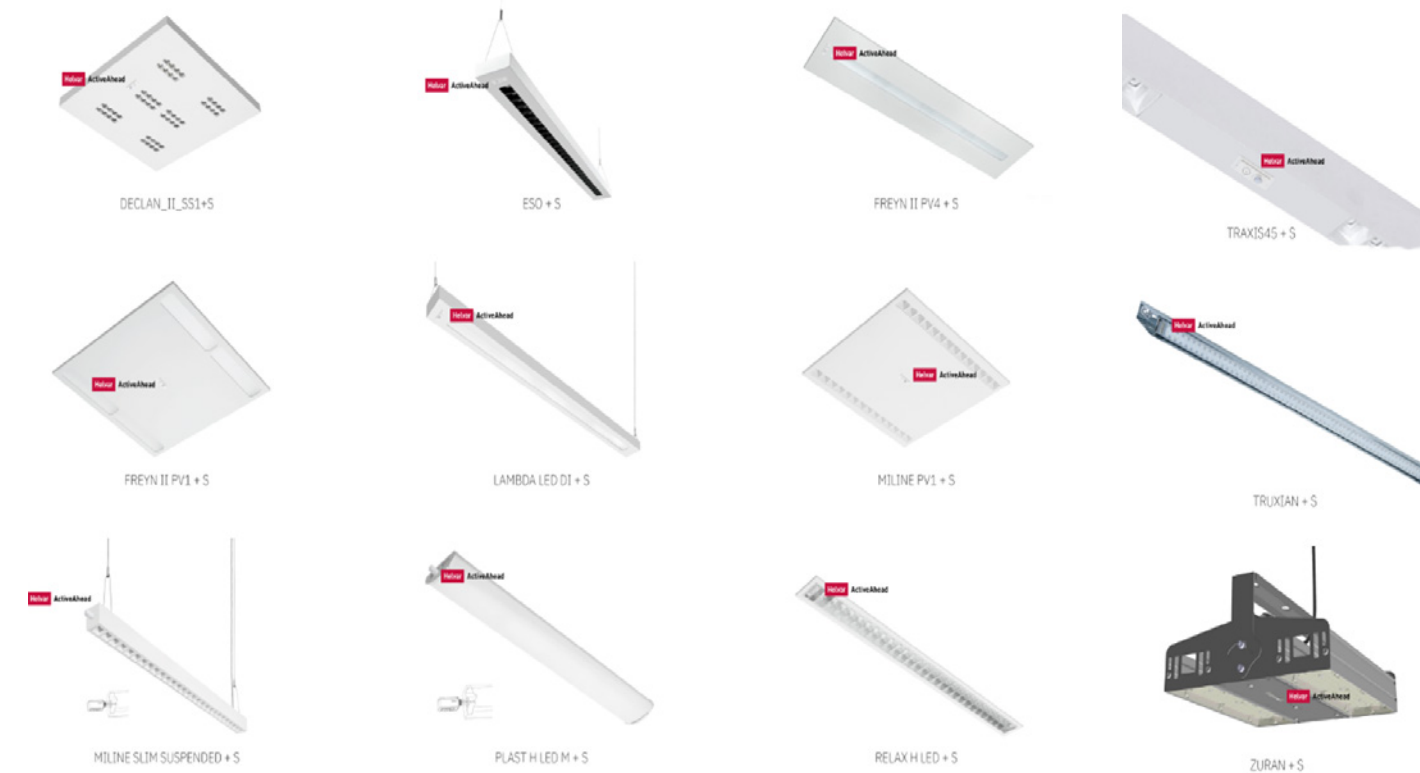
	BATEN 	LUMIXIAN 	FREYN 	FREYN PV4 	MILINE 
DECLAN PV1 	DECLAN PV4 	RELAX H 	RELAX ASYMMETRIC 	MILINE SLIM SURFACED 	MILINE SLIM SUSPENDED 
MILINE SLIM ADJUSTABLE 	MILINE FREESTANDING 	LAMBDA FREESTANDING 	CLASSIC 	LAMBDA 	LAMBDA DIF 
LAMBDA D-I 	LAMBDA ASYMMETRIC 	LAMBDA LINE D-I 	ESO 	ESO D-I 	ESO DIF D-I 
DECLAN SS1 	DECLAN SS4 	DECLAN D-I 	PRESTIGE RAIL 	TRAXIS 45 	TRAXIS 45 
PRETTUS IP40 	PRETTUS IP54 	NOVEL IP40 	NOVEL IP44 	BANOR IP40 	BANOR IP65 RD 
BANOR IP65 SQ 	PLAST PMD 	PLAST H IP44 	BALLPROOF 	TEMPERA IP66 	COMIR 
	SOMIR 	ATEX 	TRUXIAN 	LUSIDA 	ZURAN 

More information



# AI-Driven Self-Learning Lighting Control: The future of autonomous lighting.

Refer to lighting fixtures equipped with pre-installed sensors and electronics that are compatible with the Helvar ActiveAhead® lighting control system. This system is designed to offer intelligent, adaptive lighting by using sensors that detect movement, ambient light levels, and other environmental factors. The installed sensors and electronics allow the luminaires to communicate with each other and adjust the lighting dynamically, providing energy efficiency and optimal lighting conditions without the need for manual intervention.



More information



# Light Fixtures as Data Infrastructure: Utilizing lighting systems as data hubs to support broader data collection and processing.

This system is the pinnacle of cloud-native connectivity and IoT ecosystems developed by entity which is a part of OMS Holding. With its cutting-edge technology unlocks the full potential of luminaires of OMS Lighting and other manufacturers across various settings such as buildings, offices, industries, nursing homes, exhibitions, schools, airports, shopping malls, and retail chains. By seamlessly integrating smart key features, it enables cost-efficient and intelligent property operations, revolutionizing how spaces are managed and optimized for efficiency and sustainability.



## Airport

Optimize passenger flow and make real-time queue management in airports controllable and predictable.



## Retail

Understand customers by analyzing flow. Improve store performance and enhance customer journeys.



## Transportation

Automatic passenger counting to keep track of all passengers accurately and improve operations.



## Museum

Guide and manage visitor flow a museum, gallery, or library. Analyze exhibition success and optimize operations.



## Building

Get more efficient by knowing how people move in high-demand areas such as meeting rooms and restaurants.



**What is a SMART EXHIBITION STAND?**  
The system solution created especially for the stand proprietors which enables them to gain the statistical overview of volume, type and movement of their visitors.

Data processing and analysing

- Browsing: AVERAGE TIME OF DAY, OCCUPANCY, VISITORS PER HOUR
- Traffic monitoring: OUTSIDE TRAFFIC INTENSITY, IN-TIME TRAFFIC INTENSITY, RETURNING VISITORS
- Demographic monitoring: AVERAGE AGE OF VISITORS, DEMOGRAPHIC GROUP VISITORS
- Security monitoring: FIRE DETECTION

**What is a SMART CLASSROOM?**  
The system solution created especially for the school and educational companies proprietors which enables them to gain the statistical overview of volume and movement of their students, including detailed overview of energy savings, air monitoring and much more.

Data processing and analysing

- Browsing: TRACKING, SPACE MANAGEMENT, OCCUPANCY
- Air quality: CO2, DUST, HUMIDITY
- Demographic monitoring: FACE & AGE RECOGNITION
- An energy saving: AIR ENERGY SAVING

**What is a SMART REST HOME?**  
The system solution created for the Care Centres and Rest Home providers. The Smart solution ensures the high-quality care by improving the quality of care, optimizing the workflow and reducing the capital expenditure. It provides Smart functions as statistical overview of employee/patient movement, navigation, Nurse-call, slip & fall detection and much more.

All Smart Homes will be recognized for their excellent providing care solutions.

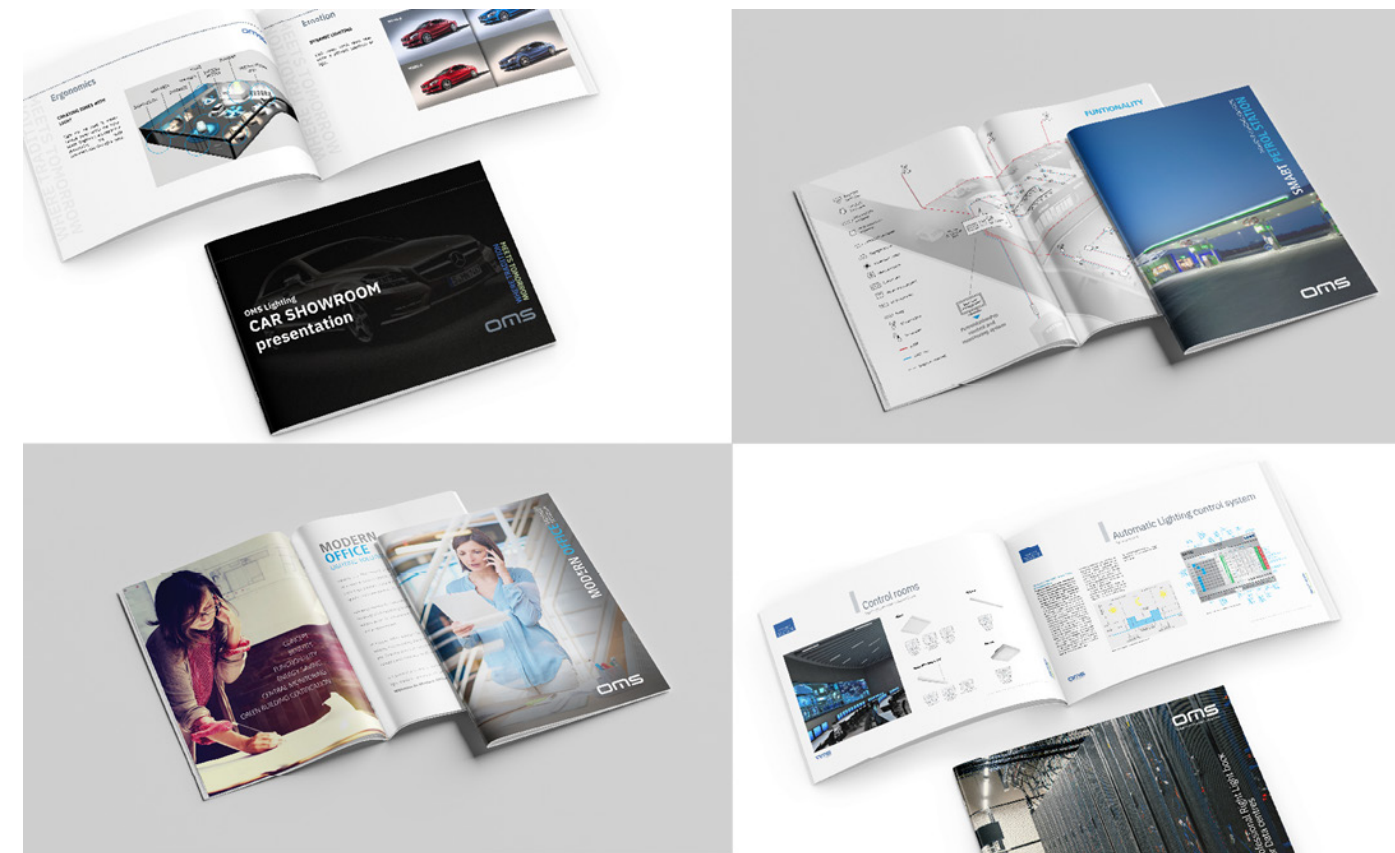
Data processing and analysing

- Medical equipment tracking
- Navigation of visitors
- Average stay duration
- Room occupancy
- Slip & fall detection
- Exit detection
- Specific incident movement detection

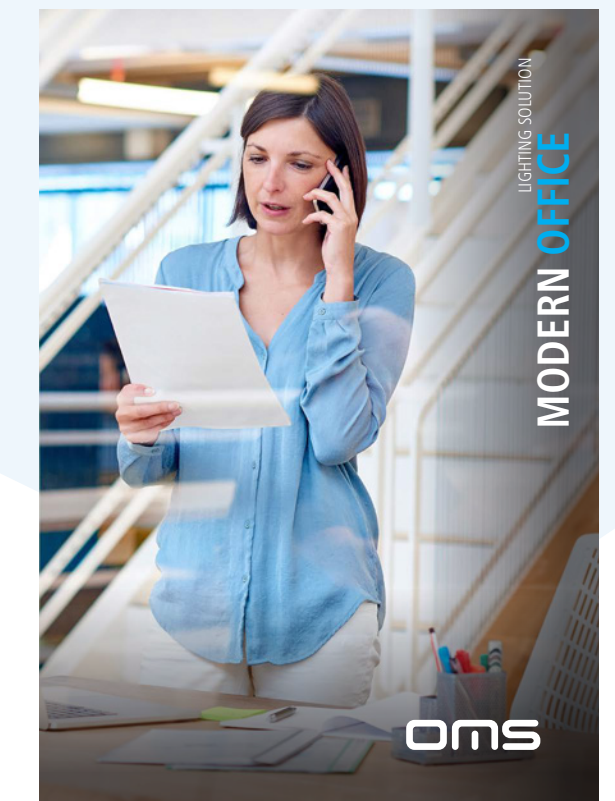
More information



# Expert Application Manuals: Your step-by-step guide to flawless lighting projects.



## Expert Manuals: Your Guide to Perfect Lighting





# Generative AI for Lighting Solutions: Data from the sensors can be utilized secondary powered of algorithms to expand services beyond lighting.



Work zones with task-specific lighting. Collaborative spaces with dynamic lighting to enhance the atmosphere.



Auditoriums with dynamic ambient lighting.



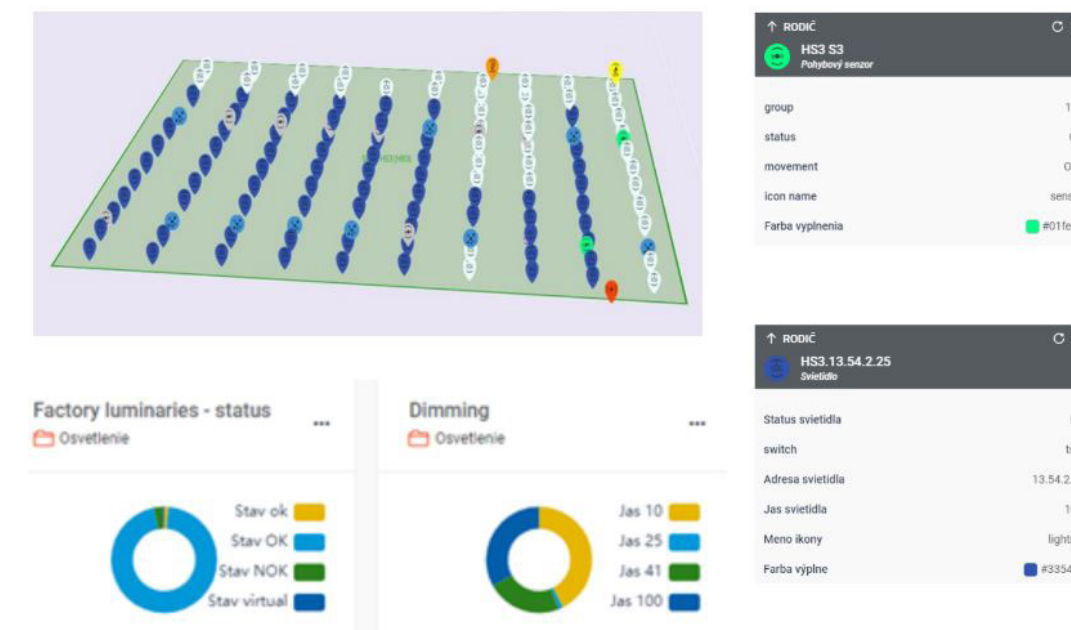
Intelligent training centers with lighting focused on specific sport exercise.



Warehouses with active monitoring of forklift efficiency and storage utilization.

## Specific Use Case

Use of motion sensors for monitoring, optimization and warehouse utilization - IoT system bringing comprehensive Factory Digitization.

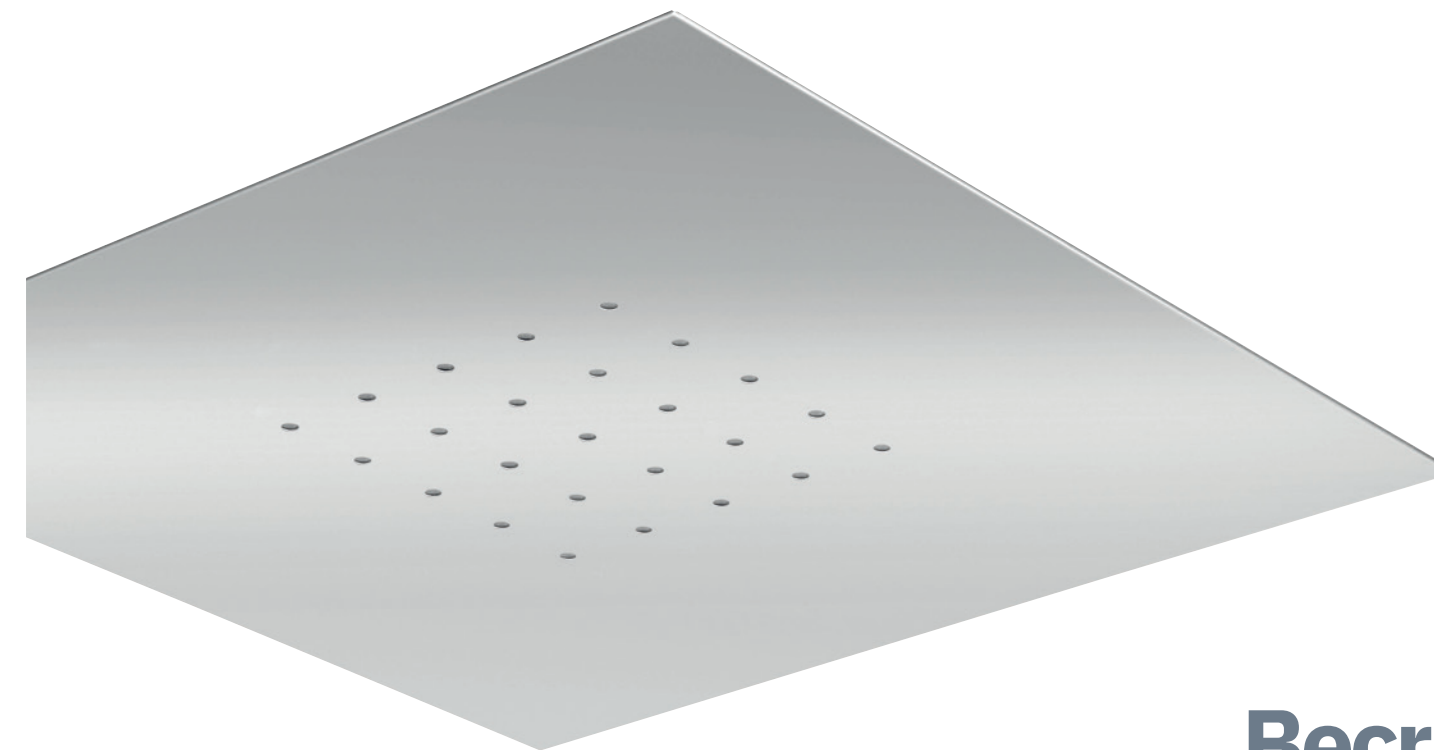
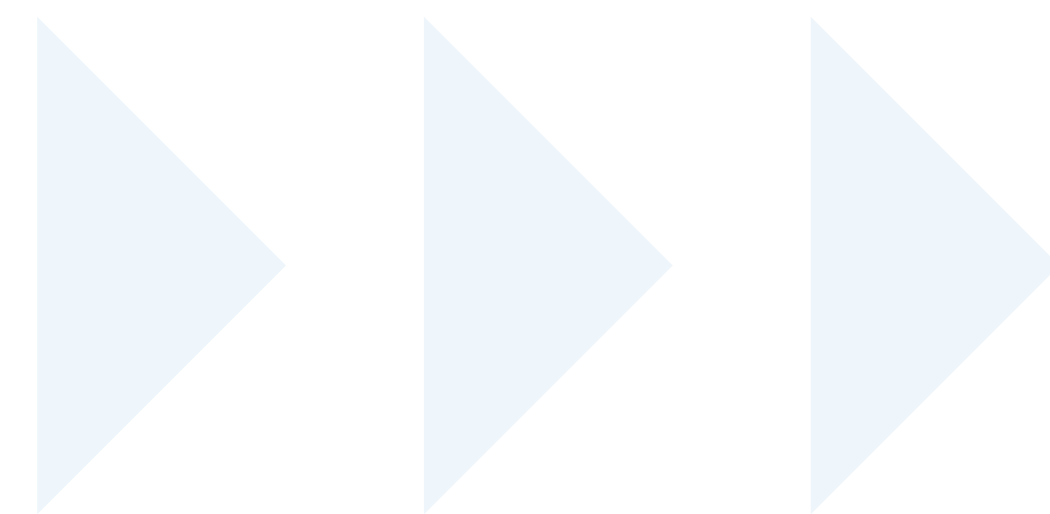
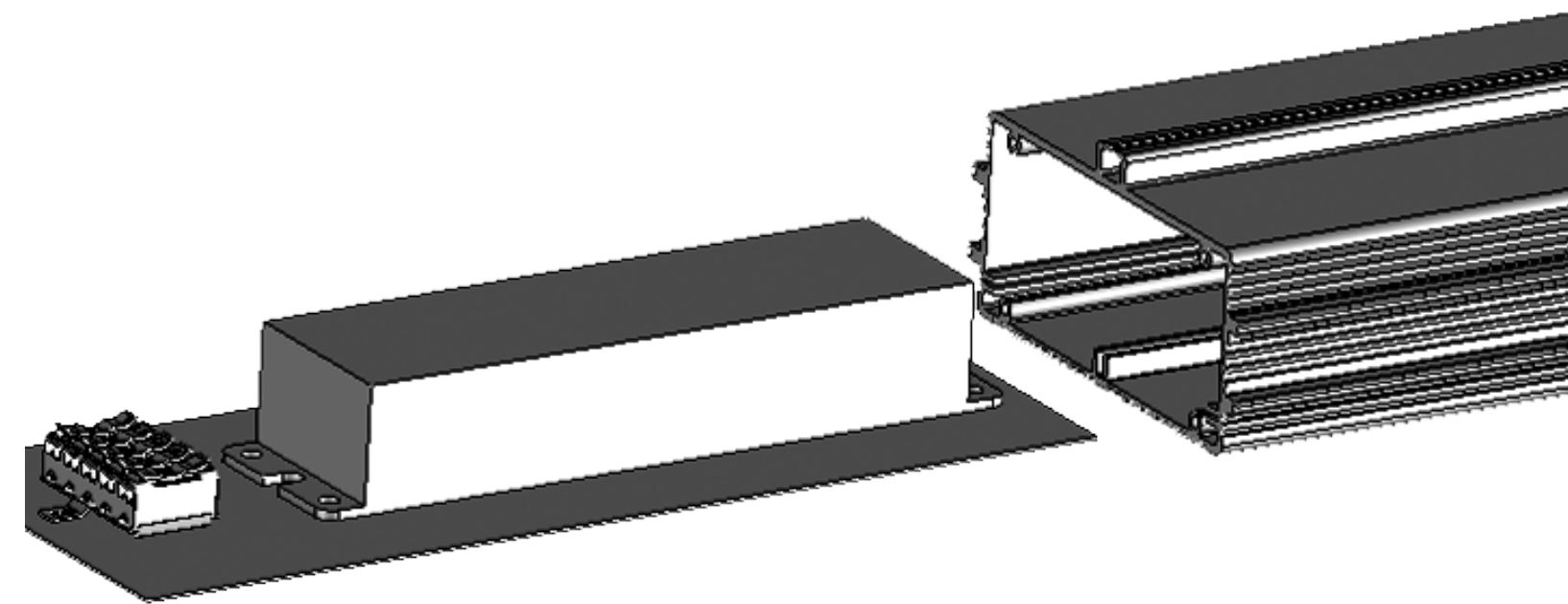


[More information](#)



# Bringing Luminaires Closer to Designers' Visions: not the other way around.

Thanks to our approach to lighting and the integration of innovative lighting technologies, there is an increasing harmony between luminaires and interior elements such as suspended and false ceilings.



**Becrux**

**Gyptone Point 11**