

CORPORATE BROCHURE





UNIQUE LIGHTING SOLUTION FOR ALL CHALLENGING ENVIRONMENTS

Extreme environmental factors, including very high or low temperatures (-30 °C to +60 °C), humidity, dust or pollution, as well as zones with fluctuating temperatures, different ceiling heights, difficult to access places and/or different lighting needs per zone, can present a major challenge for your lighting plan. Because how do you make sure the best possible work lighting is realised every hour of the day? And in a fast and flexible manner, without sky-high energy costs? Reveb is able to offer a solution for your precise needs and circumstances, whether they involve storage areas, cool storage/freezing warehouses, production halls, office buildings, outdoor terrains or car parks.

A standard lighting solution is often insufficient!

Each production environment, warehouse or office building has its own lighting needs. And Reveb realises that a standard solution is not always appropriate. Our high-end intelligent LED products allow us to offer the best custom made lighting solutions for every specific application. We are also able to rise to all other challenges. We will work with you to create the best solution for your processes and employees, while giving you the unique opportunity to test our LED products in practice. Because seeing is believing.

Intelligent lighting not only helps to save a lot of energy, but also offers opportunities to improve efficiency, productivity, safety and well-being within your company.

Good visibility, reliable safety and effective work lighting play a decisive role in the well-being of your employees. And our lighting solutions have taken this into account. Lighting fixtures can be easily connected to our monitoring system to automatically create a wireless network, which can be accessed and managed via an app on your smartphone or tablet. Also remotely. This offers opportunities for improving efficiency, productivity, safety and well-being within your company. This is partly done by

making connections to alarm, fire and building management systems, but also by analysing system data.

For instance, routing bottlenecks can be identified, and new routes can be devised, by analysing the movement detected by lighting fixtures.



Reveb's Luci Series Industry is the ideal solution for extreme environmental factors, and helps to realise efficiency, productivity, safety and well-being.

More control

Our intelligent lighting collects information 24/7 about factors like e.g. presence, light intensity and energy consumption, which means your lighting plan or company processes can be optimised.

Lower maintenance

We supply high quality LED fixtures that offer over 100,000 operating hours. Periodic replacement and major maintenance are thus a thing of the past. In addition, you also gain an insight into your consumption data.

Better lighting level

Directional lighting (optics) and appropriate fixtures can considerably improve uniformity and lighting levels. This results in the best possible work lighting.

Savings

Our lights only switch on 'if you are present', which means major reductions can be made in energy costs (up to 90%) and CO₂ emissions.

Plug and play

Our lighting plans use existing light points wherever possible, which means (unnecessary) changes to lighting infrastructure can be avoided.

YOUR CUSTOM MADE LIGHTING PLAN

Storage and production environments, cold storage/freezing warehouses and other utility buildings subject to extreme conditions often face major challenges when it comes to lighting. Do the situations below sound familiar?

Challenges in storage & production environments

- Large spaces; only a few areas used intensively.
- Existing HID fixtures need time to start up, which means dimming is not an option.
- Fluorescent light sources allow energy to be saved, but light output decreases during their life-span.
- HID light sources must be replaced periodically, which requires time and a lot of money.
- Daylight-based management is not possible in your (conventional) system, but you really wish it was.

Challenges in cooling and freezing warehouses

- There is only limited personnel activity in zones with large surface areas.
- Your existing gas discharge lighting takes a long time to start up.
- Your gas discharge lighting is practical, but uses extra energy because of the cold.
- Fluorescent lighting offers savings but light output decreases because of the cold.
- The heat generated by light fixtures must be cooled, which results in extra energy costs.
- Only 2% of energy is converted into light, the rest is wasted.





LUCI SERIES INDUSTRY LED FIXTURES ARE ABLE TO DEAL WITH ALL CHALLENGES

Our Luci Series Industry LED fixtures are suitable for use in extreme conditions, like zones with various temperatures (-30° to +60°C), as well as dusty and moist environments and difficult to access areas, where working at a height must be avoided for safety reasons. All fixtures are easy to install thanks to our 'Click & Lock' assembly system. This can be done by an experienced engineer or in-house.

Product characteristics Nichia LED

- 1 basic fixture (80LED)
- High efficiency up to 120 lumen/watt
- High reliability with high lumen packages up to 18,822 Lm
- Light colour of 4,000 Kelvin (neutral white)
- Guaranteed high colour (CRI 83+) in colour temperature 4,000 Kelvin (specially developed for industrial applications).
- PIR XL - range 15 metres

The colour fastness of the light means the various parts of your storage/production environment or cooling/freezing warehouse can be better distinguished.



Lighting only switches on 'if you are present'

All Luci Series Industry LED fixtures feature a movement sensor as standard. When movement is detected, the fixture automatically switches on at a pre-programmed light intensity, bearing in mind the temperature in the room, the amount of daylight and applicable health and safety norms. And, if necessary, surrounding fixtures can also be activated. Thermal shocks will be consigned to the past, as will voltage spikes in the grid.

If the temperature of the LED board exceeds +80 °C, AOP - Active Overheat Protection - is automatically activated to reduce the light's temperature. In addition, the fixtures feature a Light Normalizer that continuously measures reductions in light output and, if necessary, automatically compensates for them. Light output remains constant throughout the fixture's life-span (>100,000 operating hours).



EOS TECHNOLOGY: WIRELESS CONNECTION WITH THE SURROUNDINGS

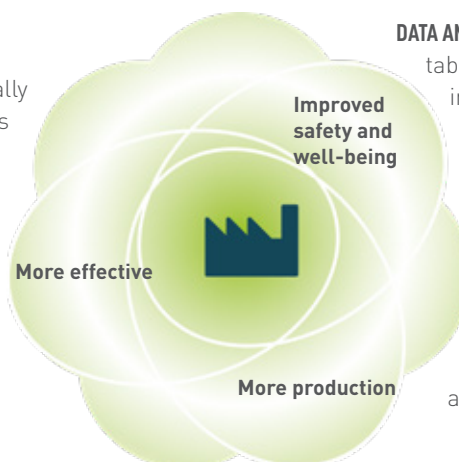
Light fixtures can be easily connected to our EOS network functionality to automatically create a standalone wireless network, which can be accessed and managed via an app on your smartphone or tablet. Each fixture operates like a hub within the network, and automatically exchanges information with other 'hubs'. This creates a safer and more stable network than when communicating via often overfull wifi networks.

Safety is further improved because no form of internet connection is required.

This closed lighting network helps to create unprecedented opportunities for improving well-being, safety, efficiency and productivity in your organisation. We do this by offering various EOS packages, which can be easily expanded in a step-by-step manner in accordance with your specific needs and wishes. A quick snapshot of our possibilities:

SPECIFIC LIGHTING: individually configurable Luci Series fixtures switch on and off automatically thanks to in-built sensors.

If necessary, surrounding fixtures can also be activated. Effective colour fastness and high colour rendition allow good visibility to be realised.



DATA ANALYSIS: the EOS Manager on your tablet or smartphone offers an effective insight into movement detections per lamp, which can e.g. help to identify routing bottlenecks.

SYSTEM INTERACTION is possible with e.g. alarm, fire and building management systems, so lighting can be managed and the latest statuses can be monitored.

Our Luci Series Industry LED fixtures feature EOS technology and are ideal for:

Lighting issues

- Dynamic lighting based on activity and daylight
- Intelligent lighting (Smart Lighting)
- Energy savings thanks to a well-balanced lighting plan
- Movement-related observations
- Intelligent use of sensors

Our fixtures automatically create a wireless network and can be easily configured via the comprehensive EOS Manager application.

Data analysis

- Identify and optimise routing based on movement detections
- Access energy consumption per network and per individual fixture
- Access maintenance status per fixture
- Remotely modify and maintain the entire lighting plan
- Access consumption-related data


Interfaces with other systems

- Connection to fire systems (extra lighting for e.g. emergency exits, evacuation routes and corridors)
- Connection to alarm systems (detection, reporting and lighting)
- Fork-lift trucks (switch on lights, limit speed)
- Physical switch where there is not yet any infrastructure

PACKAGE OVERVIEW

The basic version of the Luci Series Industry EOS LED fixture is already very complete:

STANDARD



Set light level

- Set output percentage

Dimming

- Use PIR
- Time to dim
- Dim saving (in %)

Basic statistics

- Total power consumption
- Kwh saved

Self-controlled operating conditions

- Luminaire Intelligent Protection System (LIPS).
- Active Overheat Protection (AOP).
- Light Normalizer – No Lumen drop during lifetime.

SELECT YOUR ADDITIONAL PACKAGES:

PAKKET	STANDARD	PREMIUM	SENSOR SHARING	BRIDGE CONNECT	DATA EXPORT	EMERGENCY LIGHTING
Set Light Level	✓	✓	✓	✓	✓	✓
Dimming	✓	✓	✓	✓	✓	✓
Basic statistics	✓	✓	✓	✓	✓	✓
Deep-dimming		✓				
DLS (Luci)		✓				
Night-time dimming (Ambiente)		✓				
Attended timeout		✓				
Detailed statistics		✓				
Share/Use motion/ Light without Bridge			✓			
Share/Use motion/ Light/Level with Bridge				✓		
Export statistics to mail/disk					✓	
Adjustable and flexible emergency lighting						✓
Minimum EOS Manager level required:	Basic	Advanced	Advanced	Advanced	Advanced	Expert

ADD FUNCTIONALITY TO YOUR EOS FIXTURE

Combine all packages and create your own, ideal LED lighting device with only those functions you require.

PREMIUM

Allows following configuration items to be set;

Deep dimming

- Use deep dimming
- Time to deep dimming
- Deep dimming percentage

Day light sensor (only Luci EOS)

- Use DLS
- High dim above
- Low dim below
- DLS high dim percentage
- DLS low dim percentage
- DLS behaviour between thresholds

Night-time dimming (only Ambiente EOS³)

Attended timeout

Detailed statistics

➔ Advanced EOS Manager level

SENSOR SHARING

Share and use information between EOS luminaires (Motion and Light)

➔ Advanced EOS Manager level

BRIDGE CONNECT

Interact with an EOS Bridge;
add devices and networks to the EOS network.

- Solution is based on client request

➔ Advanced EOS Manager level

DATA EXPORT

Allows to view, and export all statistics

- Save as Excel compatible .csv to disk
- Send as Excel compatible .csv to email

➔ Advanced EOS Manager level

EMERGENCY LIGHTING

Use your EOS fixture as a central emergency lighting

- Detect power cut
- Configure dim level

➔ Expert EOS Manager level

EASILY CONFIGURE AND CONNECT TO THE EOS MANAGER APP

EOS Manager offers users an intuitive and intelligent analysis and configuration tool for devices with EOS technology. After finding and authorising all your EOS fixtures, EOS Manager will show the whole EOS network on your tablet or smartphone by showing the location of all devices on a single map. By selecting one or more fixtures on this map, you can easily configure devices and extract the latest performance and consumption statistics for your fixtures. Offers an effective insight and overview.



TRANSPARENT APPLICATION FOR YOUR SMARTPHONE OR TABLET

EOS Manager is an application which is available for Android devices (via the Google Play Store). Besides the commonly used EOS management functionality, it also offers product specifications and user manuals for all EOS products.



Configuration
Easily modify your lighting settings per lamp or group of lamps.

Integration and grouping
Connect other company systems to the EOS network for optimum insight and management.

Statistics
Easily access operating hours, energy consumption, movement detections and more.

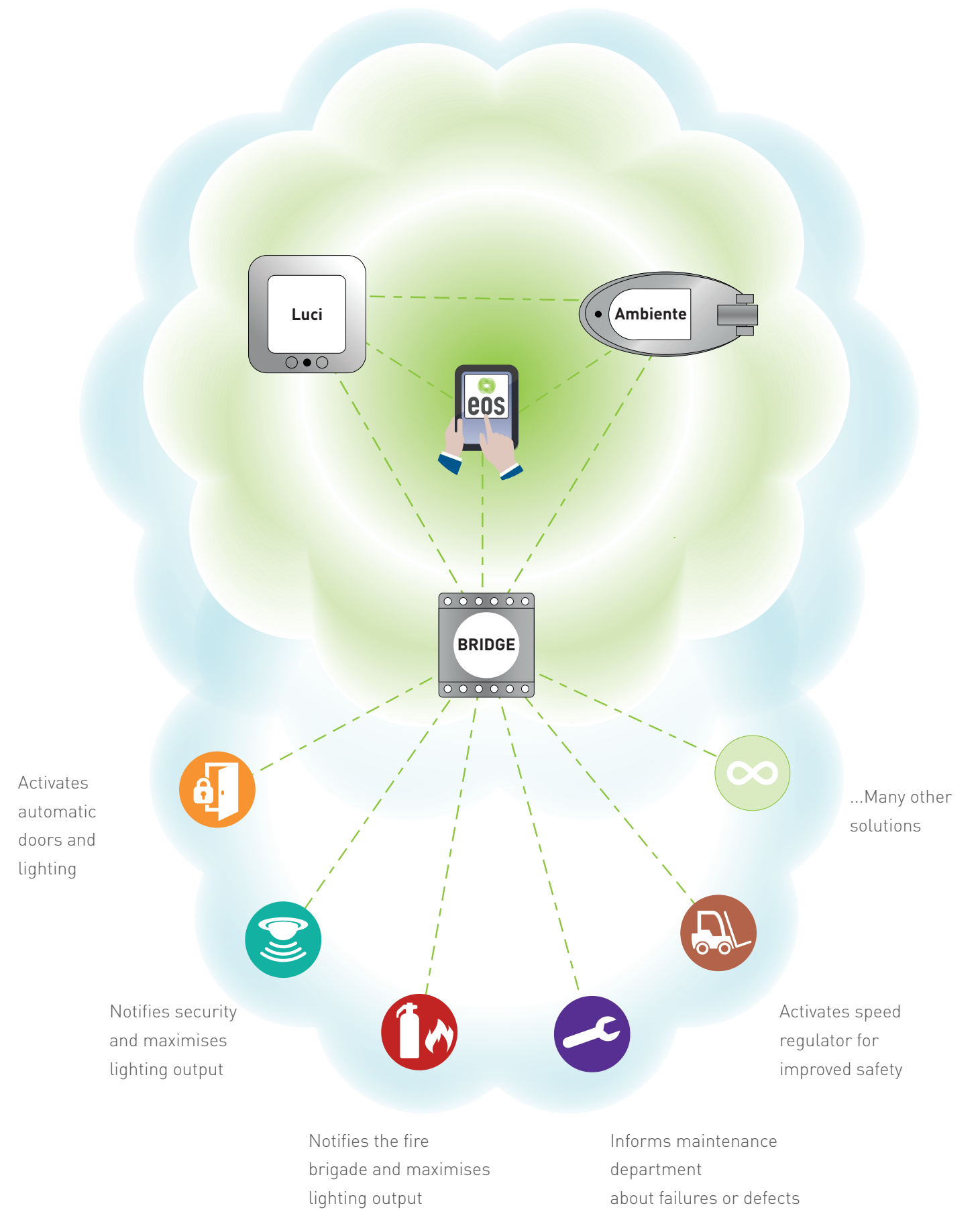


EOS BRIDGE SERVES AS A BRIDGE TO YOUR EXTERNAL CONTROL AND ANALYSIS TOOLS

The EOS Bridge allows you to connect external control and analysis tools to the EOS network, for fully flexible integration with every business process and access to an unlimited number of functions. The EOS Bridge thus acts like an interpreter that allows your products to 'speak' EOS. Various Bridges are available for integrating your specific control or analysis products in the EOS network.

The EOS Manager allows you to easily configure specific input and output for your LED products when interacting with other EOS products.

EOS Bridge guarantees endless connection possibilities with your existing company systems:



REVEB SMART TECHNOLOGY

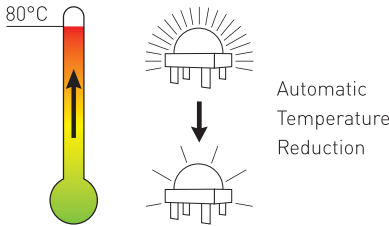
- Intelligent dimming thanks to unique and programmable flexibility
- Easy installation thanks to Click & Lock assembly plate
- Built-in Smart Technology as standard:
 - PIR XL 15 mtr range movement sensor
 - Daylight sensor
 - Status indicator, shows fixture's latest status activity
 - LIPS (Luminaire Intelligent Protection System)
 - AOP (Active Overheat Protection)
 - Light Normalizer: No light losses during life-span (> 100,000 operating hours)
- Wireless configuration and modification via the EOS Manager
- Wide range of optics, resulting in appropriate lighting levels
- Guaranteed high colour (CRI 83+) in colour temperature 4,000 Kelvin

Reliable safety



Active Overheat protection

If the temperature of LED's on the circuit board (PCB) becomes too high (+80°C), the light is automatically dimmed to protect the fixture and maintain its life-span.



Light Intelligent Protection System

Every segment of the PCB is continuously checked for e.g. voltage spikes, short circuits and temperature breaches.

A status indicator with simple colour codes is used to continuously display the latest operating status of your fixtures:



- Green** = Economy mode
- White** = Full capacity
- Cyan** = Controlled start-up, fewer voltage spikes/ thermal shocks
- Yellow** = Performance modification/status insight via EOS Manager
- Red** = LIPS and AOP active
- Blue** = Daylight control active





GROUND-BREAKING INNOVATION

Reveb is an innovator in the LED lighting industry and offers the best quality Dutch LED lighting solutions. This results in the lowest Total Cost of Ownership (TCO) without making concessions in our social values (CSR) and environment. Our team always knows how to make the most of all available LED technology. We continuously broaden our horizons by improving our performance, which make us more competitive and allows us to offer more added value to our customers.

Reveb's key words:

- Reliable and committed
- Solution and service-oriented
- Long-term vision and market knowledge
- Corporate Social Responsibility (CSR)
- Innovation and a proactive mindset

Key words for Reveb products:

- High quality
- Safe and reliable
- Suitable for all climate zones
- 100% Dutch product
- 5-year no-nonsense product guarantee

SOCIAL VALUES AND CSR

Reveb is a no-nonsense Dutch company and is a 100% subsidiary of Bever Innovations, which has been a household name in the LED lighting industry for over 20 years. Since being founded in 1996, Bever Innovations has been manufacturing intelligent outdoor LED solutions for the benzene retail market (fuel stations), and supplies its products to over 80 countries worldwide. Besides the benzene retail market, our proven LED products are also suitable for use in other industries - both indoor and outdoor.

Reveb has a track record of specialising in situations where extreme environmental factors are encountered and/or where the weather has a major impact. This includes very high or low temperatures (-30°C to +60°C), humidity, dust or pollution, as well as zones with fluctuating temperatures, different ceiling heights, difficult to access places and/or different lighting needs per zone. Reveb Innovations supplies products for storage areas, cool storage/freezing warehouses, production halls, office buildings, outdoor terrains or car parks, although the company also deals with other special situations.



Intelligent LED lighting

Our high-end materials and standard configurable intelligence allows us to always offer custom made and dynamic lighting solutions, where you can continuously modify lighting to suit your specific needs. This helps to keep your lighting up-to-date!

Social values and CSR

We distinguish ourselves by using our dedication and strong belief in innovation to continuously develop and manufacture top quality Dutch energy-saving products.

Over 300 people, at all levels, are involved in the production processes at our sheltered workplaces. A detailed quality control system makes sure every product phase complies with the strictest requirements. Our policy is to fully manufacture all products in the Netherlands and to be true to our social values and commitment. This will allow us to maximise control over our production activities and guarantee absolute quality and short delivery times of maximum 2 weeks.

RECENT PROJECTS





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