

# LIGHT SUPPORTS

TRUE SWISS INDUSTRY LIGHTING



# CONTENTS

6	APPLICATION AREAS
10	MATERIALS WAREHOUSE AND EXTERNAL STORAGE AREA
12	LOADING BAY, LOADING AREA
14	SHIPMENT AND PACKAGING AREA
16	PRODUCTION PLANT AND ASSEMBLY HALL
18	FOOD PRODUCTION OR PROCESSING
20	PRODUCTION PLANT WITH RISK OF EXPLOSION
21	LUMINAIRES FOR EXTREME ENVIRONMENTS
22	CONTROL ROOM, TEST ROOM
24	LABORATORY, CLEAN ROOM
26	WORKSHOP
28	WAREHOUSE WITH AVERAGE CEILING HEIGHT
30	HIGH-BAY WAREHOUSE
32	CAR WASH AND WASHDOWN YARD
34	SPECIAL AREA: AGRICULTURE, LIVESTOCK FARMING
36	WORKING PIT
38	BREAK ROOM, CANTEEN

# THE TOUGHER THE CONDITIONS, THE MORE SENSITIVITY IS REQUIRED.

Light plays a crucial role in industrial environments – when applied correctly, it not only promotes concentration and productivity, but also safety. The vast majority of information our brain processes we take in through our eyes. Poor lighting conditions impede the work being performed, undermine our feeling of well-being, and can lead to production errors and accidents. It is of utmost importance that lighting solutions comply rigorously with industrial standards. Recommended minimum values must always be adhered to. Should these be exceeded – for example, the illuminance level – under no circumstances must this give rise to disturbing, and thus dangerous, glare. A challenge indeed for those responsible for the lighting. The type of lighting solutions applied depends essentially on the ceiling height and the visual tasks performed at the workplace.

Luminaires are exposed to extreme emissions such as dust, water, chemical substances and hazardous knocks. Damage can endanger safety at the workplace, which is why luminaires with special IP ratings and impact strength are specified.

Special attention needs to be paid to cost efficiency. This can be increased with the use of innovative luminaires. A number of factors play a role here: lower maintenance costs, long lifespan, optimised light distribution, and high luminous efficacy. Intelligent lighting control makes for energy-efficient lighting and reduces CO<sub>2</sub> emissions. In addition, existing lighting systems can be replaced by modern schemes. The payback period is relatively short. The older the existing lighting system is, the more energy and costs can be saved. A maintenance factor covering the anticipated costs for maintenance of the new system must be determined.

Regent take an holistic approach when it comes to the topic of lighting in the industrial sector and the support required to achieve satisfactory results. Only when the lighting fixture, including all the components required for mounting, operating, and protecting the technology, are seen as one, is it possible to reliably comply with standards and guarantee an accident-free working environment.



# TO INCREASE PRODUCTIVITY YOU NEED THE RIGHT PROCESSES, THE RIGHT EMPLOYEES AND THE RIGHT LIGHT.

Every company comprises a number of very different sections and divisions with very different tasks and responsibilities. To be able to ensure smooth operations, the different departments and divisions must be able to rely on each other's performance and efficiency – be that in the production plant, the office, at the loading ramp or in the packaging area – the optimum lighting solution can contribute significantly to enhancing productivity. With lighting solutions that are specially designed for application in the different areas of company activity Regent can provide the optimum answers.

<b>PRODUCTION PLANT AND ASSEMBLY HALL</b>	p. 16
<b>FOOD PRODUCTION OR PROCESSING</b>	p. 18
<b>PRODUCTION PLANT WITH RISK OF EXPLOSION</b>	p. 20
<b>LUMINAIRES FOR EXTREME ENVIRONMENTS</b>	p. 21

<b>CONTROL ROOM, TEST ROOM</b>	p. 22
<b>LABORATORY, CLEAN ROOM</b>	p. 24

<b>MATERIALS WAREHOUSE AND EXTERNAL STORAGE AREA</b>	p. 10
--	-------

<b>BREAK ROOM, CANTEEN</b>	p. 38
----------------------------	-------

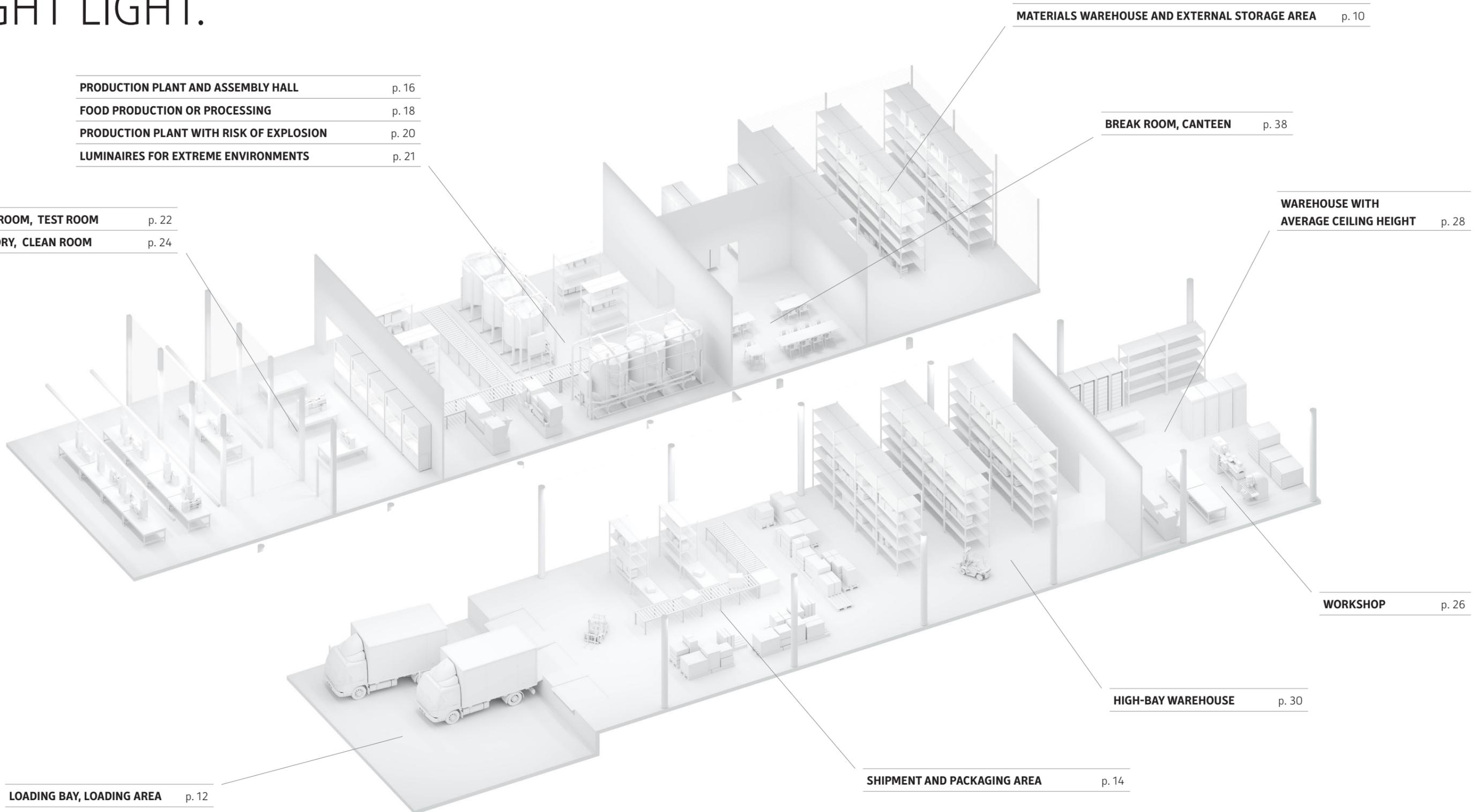
<b>WAREHOUSE WITH AVERAGE CEILING HEIGHT</b>	p. 28
--	-------

<b>WORKSHOP</b>	p. 26
-----------------	-------

<b>HIGH-BAY WAREHOUSE</b>	p. 30
---------------------------	-------

<b>SHIPMENT AND PACKAGING AREA</b>	p. 14
------------------------------------	-------

<b>LOADING BAY, LOADING AREA</b>	p. 12
----------------------------------	-------



# LIGHTING FACTS FOR THE INDUSTRIAL SECTOR.

## ILLUMINANCE

**Illuminance** (lux) describes the luminous flux falling on a specific surface. It is key to the planning of interior lighting, even though the human eye cannot perceive it directly.

Lighting that complies with the standards, or provides even higher illuminances, has a significant impact on the space and reduces the number of accidents at the workplace. At the same time, a higher illuminance level can increase productivity, since work processes can be carried out more easily and safely and are less tiring.

### Typical values

External storage area:	200 lx	Production plant and	
Loading area:	150 lx	assembly hall:	300 – 1500 lx
Shipment and		Control room:	500 – 1500 lx
packaging area:	300 lx	High-bay warehouse:	150 lx

## IK RATING

Among other things, luminaires are also subject to mechanical stress. The IK rating indicates the degree of resistance a luminaire has against external mechanical impact.

In the case of industrial applications, luminaires are frequently positioned within the range of people working in the facility, which may lead to unintentional contact with the luminaires.

### Typical values

An IK05-rated luminaire is protected against hard blows with the hand or fist. And a IK10-rated luminaire can even withstand damage caused by baseball bats, kicks or objects purposefully thrown at it.

## INGRESS PROTECTION – IP

The IP rating indicates whether a luminaire is suitable for application, and can be safely operated, in specific ambient conditions. The IP rating is expressed as the letters IP, standing for “Ingress Protection” plus two numbers: the first number describing protection against the ingress of foreign bodies, the second against moisture.

In order for the luminaires to be operated in the specific application, it is essential to check that the protection rating required in the application environment aligns with the IP rating of the luminaire.

### Typical values

An IP20-rated luminaire is protected against the ingress of foreign bodies  $\geq 12$  mm, but does not provide protection against moisture. Moisture-proof luminaires are generally IP65-rated, meaning that they are protected against the ingress of dust and jets of water.

## PROTECTION CLASSES

Safety Protection classes serve to protect persons from electric shock. The basic principles and requirements for electrical installations are described in EN 61140. Luminaires are categorised under one of three classes (I–III).

### Typical values

In the case of Protection **Class I** luminaires, all exposed parts are connected to a protected conductor. The luminaires do not bear any special mark or label, since there is none available. The earth ground symbol is generally used instead.

If all the live parts of luminaires are insulated, but do not dispose over a protected conductor, they are consequently categorised as Protection **Class II**.

If a luminaire is destined for operation on safety extra-low voltage (50 volts max.), it is marked as Protection **Class III**.

## EXPLOSION PROTECTION

Luminaires to be applied in potentially explosive atmospheres are required to meet more stringent requirements. Basic safety requirements are defined in the 94/9/EG (or 99/92 EG, respectively) directives.

Explosion-proof areas are divided into “combustible dusts” and “combustible gases, vapours and mists”. These areas are further subdivided into three different zones, depending on where the combustible elements are to be found and in what concentrations. Importance with respect to industrial applications

An explosion occurs if a fuel is mixed with oxygen and a source of ignition. Explosion-proof luminaires are designed so that there is no way they can become a source of ignition and therefore cannot be the cause of an explosion.

### Typical values

**Zone 0:** Potentially explosive atmosphere exists permanently or on a long-term basis.

**Zone 1:** It is to be expected that a hazardous, potentially explosive atmosphere may occasionally occur.

**Zone 2:** A dangerous, explosive atmosphere is unlikely to manifest in normal operation and will only persist for a short period if at all.

**Zone 20 (Combustible dusts):** Areas in which the occurrence of explosive atmospheres due to dust mixing with air is very likely and occurs continually, in the long term, or frequently.

**Zone 21:** Areas in which the occurrence of explosive atmospheres due to dust mixing with air is seldom and only short-term in nature.

**Zone 22:** Areas in which the occurrence of explosive atmospheres due to clouds of dispersed dust is possible, but in all probability seldom and only short-term in nature.

## CLEAN ROOM

Clean rooms are required in different areas of medical research, development and production. These rooms protect products from becoming contaminated or soiled, pursuant to the VDI 2083 German directive, for example. Any equipment used in clean rooms must be examined with respect to its particle emission behaviour. This involves measuring the mass or number of fine and ultrafine particles emitted by a luminaire and classifying the luminaire accordingly.

In order not to falsify or invalidate research findings, or to contaminate foodstuffs, only luminaires that have undergone relevant testing are permitted to be applied in clean rooms.

### Typical values

Clean room luminaires are allocated to different ISO classes in accordance with DIN EN ISO 14644-1. ISO classes 1 to 9 define the maximum permissible number and size of particles emitted.

Whereas ISO class 9 permits the largest and highest number of particles per cubic metre, ISO class 1 incorporates the most stringent requirements.

# MATERIALS WAREHOUSE AND EXTERNAL STORAGE AREA

LIGHT AS A GUARANTEE FOR A  
CLEAR OVERVIEW AND SAFETY.

## THE CHALLENGES

The majority of such storage areas are located in the open air. Given the changing environmental conditions, luminaires are subject to special requirements. They are generally mounted at considerable heights, meaning that safety and minimising the risk of accidents can only be guaranteed by first class lighting. In storage areas, an unhindered view into the shelving systems must be ensured.

## THE SOLUTIONS

- Weatherproof, UV-resistant materials suitable for outdoor applications
- Symmetrical or asymmetrical light distribution
- Mechanically robust housings
- Higher illuminances than required by standards
- Vertical illumination in storage areas
- Presence detectors, given that often no-one is present



### LIGHTING CHECKLIST

Illuminance: min. 50 lx

Colour rendering: CRI ≥ 80

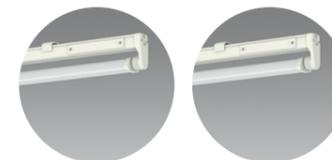
Glare control: UGR ≤ 25

IP rating: IP65/IP66/IP68

## SUITABLE PRODUCTS

Further information on our products can be found under [www.regent.ch](http://www.regent.ch)

### PROTECTION TUBE REFLECTOR LUMINAIRE



Zolid LED<sup>1</sup>

Zolid Flex<sup>1</sup>

### HIGH-BAY SURFACE-MOUNTED LUMINAIRE



Uranus Essential LED<sup>1</sup>

### TUBULAR LUMINAIRE



Zug Essential LED<sup>1</sup>

### DAMP-PROOF DIFFUSER LUMINAIRE



Splash LED

Splash Essential LED

### HIGH-BAY LUMINAIRE



Arny LED<sup>2</sup>

<sup>1</sup> Switzerland only

<sup>2</sup> Suitable for roofed outdoor areas

# LOADING BAY, LOADING AREA

WHERE OUTDOORS  
AND INDOORS MEET.

## THE CHALLENGES

This work area is usually subject to changing climatic conditions since it forms the transition between indoors and out. This is where the goods are delivered. Drivers of approaching vehicles must not have to deal with disturbing glare when manoeuvring backwards or forwards into the loading area. At the same time, there must be sufficient light to ensure high visibility on and around the loading ramp.

## THE SOLUTIONS

- Weatherproof, UV-resistant materials suitable for outdoor applications (without roofs)
- Symmetrical or asymmetrical light distribution
- Robust luminaires
- Reduced glare

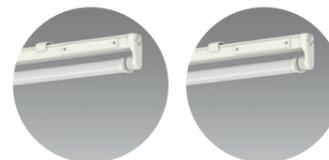


LIGHTING CHECKLIST
Illuminance: 100 lx
Colour rendering: CRI ≥ 80
Glare control: UGR ≤ 25
IP rating: IP54 / IP65

## SUITABLE PRODUCTS

Further information on our products can be found under [www.regent.ch](http://www.regent.ch)

### PROTECTION TUBE REFLECTOR LUMINAIRE



Zolid LED<sup>1</sup>

Zolid Flex<sup>1</sup>

### HIGH-BAY SURFACE-MOUNTED LUMINAIRE



Uranus Essential LED<sup>1</sup>

### HIGH-BAY LUMINAIRE



Army LED<sup>2</sup>

### DAMP-PROOF DIFFUSER LUMINAIRE



Splash LED

Splash Essential LED

### CEILING AND WALL MOUNTED LUMINAIRE



Board LED

### TUBULAR LUMINAIRE



Zug Essential LED<sup>1</sup>

<sup>1</sup> Switzerland only

<sup>2</sup> Suitable for roofed outdoor areas

# SHIPMENT AND PACKAGING AREA

WHERE EVERYTHING IS IN MOTION.

## THE CHALLENGES

The hustle and bustle of forklift trucks and employees dedicated to packaging and shipment carries with it a substantial risk of accidents. Some employees spend a large part of their time reading and scanning codes or checking order forms. The areas where these activities are carried out, and the lanes and areas where vehicles are required to move about, must be well lit. It is naturally also important to keep energy consumption low.

## THE SOLUTIONS

- Efficient lighting
- Presence detectors
- Wide-area lighting in general, possibly with direct lighting for workplaces



LIGHTING CHECKLIST
Illuminance: 300 lx
Colour rendering: CRI ≥ 80
Glare control: UGR ≤ 25
IP rating: IP20/IP54/IP65

## SUITABLE PRODUCTS

Further information on our products can be found under [www.regent.ch](http://www.regent.ch)

### PROTECTION TUBE REFLECTOR LUMINAIRE



Zolid LED<sup>1</sup>

Zolid Flex<sup>1</sup>

### HIGH-BAY SURFACE-MOUNTED LUMINAIRE



Uranus Essential LED<sup>1</sup>

### ROW LIGHTING SYSTEM



Traq LED

Traq Case

### DAMP-PROOF DIFFUSER LUMINAIRE



Splash LED

Splash Essential LED

### CEILING AND WALL MOUNTED LUMINAIRE



Board LED

### TUBULAR LUMINAIRE



Zug Essential LED<sup>1</sup>

### HIGH-BAY LUMINAIRE



Arny LED

<sup>1</sup> Switzerland only

# PRODUCTION PLANT AND ASSEMBLY HALL

WHERE NEW THINGS ARE CREATED.

## THE CHALLENGES

Given the ever-changing range of tasks that need to be dealt with in the production area, visual tasks can also vary immensely – from simple to highly complex. This together with the varying ceiling heights in the assembly halls present special challenges that need to be overcome in order to deliver the right amount of light to where it is required. Glare must be avoided. Further factors that need to be taken into consideration are: incident daylight, humidity, high temperature fluctuations, and aggressive atmospheres caused by chemicals.

## THE SOLUTIONS

- Row lighting for low and medium-high ceilings
- Spotlights for high ceilings
- Lower UGR for less glare
- Use of daylight sensors
- Application of protected luminaires with resistant optics



LIGHTING CHECKLIST
Illuminance: 300 – 1500 lx
Colour rendering: CRI ≥ 80
Glare control: UGR ≤ 22
IP rating: IP54 / IP65

## SUITABLE PRODUCTS

Further information on our products can be found under [www.regent.ch](http://www.regent.ch)

### ROW LIGHTING SYSTEM



Traq LED



Traq Case



Traq Office C-LED

### DAMP-PROOF DIFFUSER LUMINAIRE



Splash LED



Splash Essential LED

### CEILING AND WALL MOUNTED LUMINAIRE



Board LED

### HIGH-BAY LUMINAIRE



Army LED

# FOOD PRODUCTION OR PROCESSING

WHERE GREAT EMPHASIS IS PLACED ON HYGIENE.

## THE CHALLENGES

In the food industry, value is attached to break-proof materials and luminaires that are easy to clean. Only when the high standards and guidelines have been met can the required levels of hygiene be guaranteed. Cleanliness is high on the list of priorities. And the sometimes high temperatures involved in food processing, caused by escaping vapours, must not be allowed to damage the luminaire materials. In addition, the visual quality control of foodstuffs demands first class lighting.

## THE SOLUTIONS

- Robust luminaires with high ingress protection (against humidity and extreme temperatures)
- Resistance to cleaning agents
- Smooth surfaces, easy to clean



LIGHTING CHECKLIST
Illuminance: 300 – 500 lx
Colour rendering: CRI ≥ 80
Glare control: UGR ≤ 25
IP rating: IP54 / IP65 / IP66 / IP69 K

## SUITABLE PRODUCTS

Further information on our products can be found under [www.regent.ch](http://www.regent.ch)

### PROTECTION TUBE REFLECTOR LUMINAIRE



Zolid LED<sup>1</sup>

### TUBULAR LUMINAIRE



Zug Essential LED<sup>1</sup>

### DAMP-PROOF DIFFUSER LUMINAIRE



Splash LED

### HIGH-BAY SURFACE-MOUNTED LUMINAIRE



Uranus Essential LED<sup>1</sup>

# PRODUCTION PLANT WITH RISK OF EXPLOSION

WHERE SAFETY HAS TOP PRIORITY.

## THE CHALLENGES

Not conforming to the norms can be life-threatening in this sector. The risk of explosion caused by gases and dust is great, which is why the possibility of a luminaire causing risk must be excluded. Escaping gases or oils can lead to corrosion of the luminaire and may reduce its performance. Different sections of the production plant – depending on the risk of explosion – require luminaires with different levels of protection.

## THE SOLUTIONS

- Certified explosion-proof luminaires
- High ingress protection

## LIGHTING CHECKLIST

Illuminance: 100 – 500 lx

Colour rendering: CRI ≥ 80

Glare control: UGR ≤ 22

IP rating: IP65 plus the Explosion Protection Marking

# LUMINAIRES FOR EXTREME ENVIRONMENTS

POWERFUL LIGHT ON THE BRINK OF FEASIBILITY.

## THE CHALLENGES

These are environments where luminaires are subjected to extreme conditions. Continuously. The materials are exposed to corrosive action from external agents and are subject to harsh wear throughout their life cycle. This applies to the housing, the LEDs and all electronic components. The material must not become brittle, or develop cracks, so that humidity and dust can infiltrate the housing. The required luminous flux must be maintained for a long period of time.

## THE SOLUTIONS

- Luminaires with good thermal management to ensure thermal convection even under higher temperatures
- Luminaires with high ingress protection and marked with the D symbol, indicating the limited surface temperature
- Application of protected luminaires with resistant optics

## LIGHTING CHECKLIST

Illuminance: 100 – 500 lx

Colour rendering: CRI ≥ 80

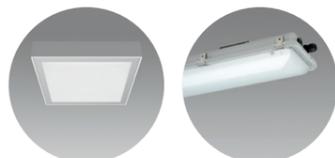
Glare control: UGR ≤ 25

IP rating: IP65

## SUITABLE PRODUCTS

Further information on our products can be found under [www.regent.ch](http://www.regent.ch)

### EXPLOSION-PROOF DAMP-PROOF DIFFUSER LUMINAIRE



Puro Ex LED

Ex LED<sup>1</sup>

### EXPLOSION-PROOF PROTECTION TUBE REFLECTOR LUMINAIRE



Basel LED<sup>1</sup>

## SUITABLE PRODUCTS

Further information on our products can be found under [www.regent.ch](http://www.regent.ch)

### HIGH-BAY LUMINAIRE



Arny LED

### DAMP-PROOF DIFFUSER LUMINAIRE



Splash LED

<sup>1</sup> Switzerland only

# CONTROL ROOM, TEST ROOM

TRUST IS GOOD. CONTROL  
IS BETTER.

## THE CHALLENGES

Accuracy and thoroughness is key to the work performed here. In order to be able to assess the quality of the product effectively, the high illuminances required must not give rise to disturbing glare or multiple shadows on the test samples, which would have a strong impact on the test results. Depending on the kind of control being performed high colour rendering may be required.

## THE SOLUTIONS

- Row lighting systems prevent multiple shadowing
- Special optics to reduce glare
- Powerful luminaires



### LIGHTING CHECKLIST

Illuminance: 500 – 1500 lx

Colour rendering: CRI ≥ 80

Glare control: UGR ≤ 16 – 22

IP rating: IP20

### SUITABLE PRODUCTS

Further information on our products can be found under [www.regent.ch](http://www.regent.ch)

### ROW LIGHTING SYSTEM



Traq LED

Traq Case

Traq Office C-LED

# LABORATORY, CLEAN ROOM

IT ALL BEGINS WITH RESEARCH.

## THE CHALLENGES

The luminaires in clean rooms should release as few particles as possible into the environment and they are required to meet various standards. They must be certified as suitable for application in clean rooms. The luminaire must guarantee extremely high-quality light for performing demanding tasks. Given their exposed locations, they need to be easy to clean at regular intervals. The research findings must not be falsified or invalidated due to emissions.

## THE SOLUTIONS

- Only certified products for application in clean rooms
- Reduced glare thanks to large light emission surfaces and dedicated optics
- Diffusers made of smooth safety glass



### LIGHTING CHECKLIST

Illuminance: 500 – 1500 lx

Colour rendering: CRI ≥ 80

Glare control: UGR ≤ 16 – 22

IP rating: IP65

### SUITABLE PRODUCTS

Further information on our products can be found under [www.regent.ch](http://www.regent.ch)

RECESSED LUMINAIRE FOR CLEAN ROOM,  
CEILING-MOUNTED LUMINAIRE FOR CLEAN ROOM



Puro LED

EXPLOSION-PROOF CEILING-MOUNTED  
LUMINAIRE FOR CLEAN ROOM



Puro Ex LED

# WORKSHOP

WHERE LIGHT DESERVES SPECIAL PROTECTION.

## THE CHALLENGES

The first priority is to reduce the risk of accidents as far as possible. This means adhering to Health and Safety guidelines, and providing the right light. Glare and reflections on machines must be prevented. A wide range of visual tasks, from general to highly detailed, require the lighting concept to be flexible. And since the work performed here may involve the use of aggressive substances, the luminaires mounted at varying heights must be extremely robust.

## THE SOLUTIONS

- Row lighting and spotlights, depending on height
- Powerful luminaires
- Robust luminaires



LIGHTING CHECKLIST
Illuminance: 500 – 1500 lx
Colour rendering: CRI ≥ 80
Glare control: UGR ≤ 22
IP rating: IP20/IP65

## SUITABLE PRODUCTS

Further information on our products can be found under [www.regent.ch](http://www.regent.ch)

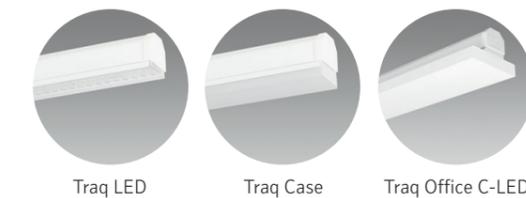
### PROTECTION TUBE REFLECTOR LUMINAIRE



Zolid LED<sup>1</sup>

Zolid Flex<sup>1</sup>

### ROW LIGHTING SYSTEM



Traq LED

Traq Case

Traq Office C-LED

### DAMP-PROOF DIFFUSER LUMINAIRE



Splash LED

Splash Essential LED

### HIGH-BAY LUMINAIRE



Arny LED

<sup>1</sup> Switzerland only

# WAREHOUSE WITH AVERAGE CEILING HEIGHT

LIGHT ON ALL LEVELP.

## THE CHALLENGES

Optimum illumination of the shelving system is key to the lighting concept for these spaces to enable the control of stored items, order completion, inventories and many other activities performed regularly in warehouses. This ensures the legibility of the products stored there and the labels that mark them. Incident daylight is a factor that must be taken into account. Electric lighting is often only required for short periods of time.

## THE SOLUTIONS

- Luminaires with double asymmetric light distribution or wide beam
- Row lighting systems in the case of low ceiling heights
- Integration of presence detectors and daylight sensors
- Vertical illuminance



### LIGHTING CHECKLIST

Illuminance: 150 lx

Colour rendering: CRI ≥ 80

Glare control: UGR ≤ 22

IP rating: IP20

### SUITABLE PRODUCTS

#### ROW LIGHTING SYSTEM



Traq LED



Traq Case

#### HIGH-BAY LUMINAIRE



Arny LED

Further information on our products can be found under [www.regent.ch](http://www.regent.ch)

# HIGH-BAY WAREHOUSE

OPTIMUM ILLUMINATION RIGHT DOWN TO THE FLOOR.

## THE CHALLENGES

High-bay warehouses are extremely high-ceilinged spaces. Normal spotlights are not enough to meet the needs of the space and its users. Only special luminaires can ensure sufficient light reaches the floor and illuminate the shelving system. At the same time, the luminaire must be designed so that it is easy to install and maintenance-friendly. Extremely high ceilings require special presence detectors and daylight sensors for these heights.

## THE SOLUTIONS

- Powerful downlights, narrow beam
- Integration von special presence detectors and daylight sensors for high ceiling heights
- Maintenance-friendly luminaires
- Extremely high luminous flux



## SUITABLE PRODUCTS

Further information on our products can be found under [www.regent.ch](http://www.regent.ch)

### HIGH-BAY LUMINAIRE



Army LED

### ROW LIGHTING SYSTEM



Traq LED

## LIGHTING CHECKLIST

Illuminance: 150 lx

Colour rendering: CRI  $\geq$  80

Glare control: UGR  $\leq$  22

IP rating: IP20

# CAR WASH AND WASHDOWN YARD

PUTTING CLEANLINESS FIRST.

## THE CHALLENGES

The only way to remove the most stubborn dirt is to use aggressive solvents and high-concentration tensides. These may cause damage to the luminaires over time. Added to this are the enormous temperature fluctuations. In such environments, luminaires designed and constructed to be extremely robust have a long lifespan and remain resistant to moisture and high water pressure.

## THE SOLUTIONS

- Luminaires with high ingress protection
- Resistant materials
- Luminaires that can withstand high ambient temperatures



### LIGHTING CHECKLIST

Illuminance: 300 lx

Colour rendering: CRI  $\geq$  80

Glare control: UGR  $\leq$  22

IP rating: IP65/IP66/IP67/IP68/IP69K

## SUITABLE PRODUCTS

Further information on our products can be found under [www.regent.ch](http://www.regent.ch)

### TUBULAR LUMINAIRE



Zug Essential LED<sup>1,3</sup>

# SPECIAL AREA: AGRICULTURE, LIVESTOCK FARMING

ANIMAL HUSBANDRY AS A  
SPECIAL CHALLENGE.

## THE CHALLENGES

The kind of dirt and soiling occurring in this sector is especially stubborn and hard to remove. Luminaires applied in such locations are exposed to high levels of ammoniac. In many cases, the luminaires are mounted at considerable heights, making it difficult to access them readily. Luminaires designed to be robust maintenance-friendly helps reduce effort and costs.

## THE SOLUTIONS

- Luminaires with high ingress protection
- to ammoniac and cleaning agents
- Resistant to aggressive cleaning methods, e.g. high-pressure washers (requires IP69K protection)
- Powerful luminaires / higher illuminances (200 lx) than stated in the norm (50 lx) are required / recommended



LIGHTING CHECKLIST
Illuminance: 50 – 200 lx
Colour rendering: CRI ≥ 80
Glare control: UGR ≤ 25
IP rating: min. IP44 / IP65 / IP66 / IP69K

## SUITABLE PRODUCTS

Further information on our products can be found under [www.regent.ch](http://www.regent.ch)

### PROTECTION TUBE REFLECTOR LUMINAIRE



Zolid Resist LED<sup>1</sup>

### DAMP-PROOF DIFFUSER LUMINAIRE



Splash LED

# WORKING PIT

THE WORST OF ALL DIRT.

## THE CHALLENGES

Stubborn dirt and grime, such as oil, dust, water and earth, collects under transport vehicles of all kinds – trains, lorries, tractors. Luminaires applied in working pits become dark and dirty very fast. Since they are mounted in exposed locations, they must be especially robust and be extremely tightly sealed.

## THE SOLUTIONS

- Luminaires that are easy to clean
- Protected against moisture and humidity
- Robust design



### LIGHTING CHECKLIST

Illuminance: 300 lx

Colour rendering: CRI  $\geq$  80

Glare control: UGR  $\leq$  22

IP rating: IP65/IP66/IP67/IP68/IP69K

## SUITABLE PRODUCTS

### TUBULAR LUMINAIRE



Zug Essential LED

Further information on our products can be found under [www.regent.ch](http://www.regent.ch)

# BREAK ROOM, CANTEEN

WHERE EMPLOYEES  
CAN TRULY ENJOY A BREAK  
FROM WORK.

## THE CHALLENGES

Break rooms are where employees go to relax, for a change of scenery, and to chat to colleagues. In a relaxed environment, employees find they can converse at ease and enjoy a break from work. The right coffee, the right furnishings, and the right light all go towards creating a space in which to recuperate and hold constructive conversations.

If there is also the opportunity to order and enjoy food, this must be lit to look attractive and appetising. The checkout area needs to round off the whole experience in a pleasant way. The checkout area is subject to various labour standards, which encompass more specific requirements.

## THE SOLUTIONS

- Relaxing atmospheres thanks to pleasant, calming lighting
- The avoidance of direct glare and reflections on surfaces has a calming effect
- High illuminances in places where meals are served make the food look appetising



LIGHTING CHECKLIST
Illuminance: 200 – 300 lx
Colour rendering: CRI ≥ 80
Glare control: UGR ≤ 22
IP rating: IP20 – IP65

## SUITABLE PRODUCTS

Further information on our products can be found under [www.regent.ch](http://www.regent.ch)

### ROW LIGHTING SYSTEM



Traq LED



Traq Case



Traq Office C-LED



Puro LED



Purelite

### RECESSED LUMINAIRE, PROTECTED AGAINST DUST AND WATER INGRESS

### RECESSED CEILING LUMINAIRE

### CEILING MOUNTED LUMINAIRE

### PENDANT LUMINAIRE



Flow



Milano



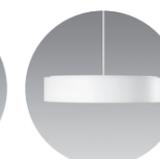
Item



Solo Slim



Torino



Milano

# Contact

**Hauptsitz Schweiz** Regent Beleuchtungskörper AG, Dornacherstrasse 390, Postfach 139, CH-4018 Basel, Tel. +41 61 335 51 11, Fax +41 61 335 52 01, info.bs@regent.ch **Bern** Regent Beleuchtungskörper AG, Jupiterstrasse 15, Postfach 170, CH-3000 Bern 15, Tel. +41 31 940 10 10, Fax +41 31 940 10 11, info.be@regent.ch **Genève** Régent Appareils d'éclairage SA, Rue de Saint-Jean 30, CH-1203 Genève, Tél. +41 22 340 34 00, Fax +41 22 340 38 82, info.ge@regent.ch **Lausanne** Régent Appareils d'éclairage SA, Chemin du Rionzi 60, Case postale 432, CH-1052 Le Mont-sur-Lausanne, Tél. +41 21 642 02 02, Fax +41 21 648 21 19, info.ls@regent.ch **Lugano** Regent Illuminazione SA, Via al Mulino 22, CH-6814 Cadempino, Tel. +41 91 966 77 33, Fax +41 91 967 11 01, info.ti@regent.ch **Zürich** Regent Beleuchtungskörper AG, Luggwegstrasse 9, CH-8048 Zürich, Tel. +41 44 497 31 11, Fax +41 44 497 31 61, info.zh@regent.ch **Head Office International** Regent Beleuchtungskörper AG, Dornacherstrasse 390, P.O. Box 139, CH-4018 Basel Switzerland, Tel. +41 61 335 53 70, Fax +41 61 335 55 96, export.bs@regent.ch **Deutschland** Regent Licht GmbH, Plange Mühle 1, D-40221 Düsseldorf, Tel. +49 211 598 972 10, Fax +49 211 598 972 59, info@regent-licht.de **France** Régent Appareils d'éclairage SA, Siège social, 38 bis Boulevard Beaumarchais, F-75011 Paris, Régent Appareils d'éclairage SA, Siège commercial, Dornacherstrasse 390, Case postale 139, CH-4018 Bâle Suisse, Tél. +33 1 45 72 46 88, Fax +41 61 335 55 96, info.fr@regent.ch **Israel** Regent Lighting Marketing Ltd., 4, Moshe Sharet St., IL-75704 Rishon Letzion, Phone +972 3 962 29 70, Fax +972 3 962 29 98, service@regentlighting.co.il **Italia** Regent Illuminazione pag.r.l., Sede legale, Via Vittor Pisani 16, I-20124 Milano, Tel. +39 02 667 183 78, Fax +39 02 673 861 09, info.it@regent.ch **Österreich** Regent Licht GmbH, Karl-Farkas-Gasse 22, A-1030 Wien, Tel. +43 1 879 12 10, Fax +43 1 879 12 09, info@regent-licht.at **India** Regent Lighting Asia Private Limited, A-19, Ground Floor, Sector-64, Noida - 201301, Uttar Pradesh, India, Phone +91 120 404 4600 (North India), +91 120 473 3028/+91 120 473 3030 (South & West India) info@regent-lighting.in

[www.regent.ch](http://www.regent.ch)



232869.EN