

LED Lighting
for Business and Industry



LED Lighting Systems for Peak Performance

Quality
■ made
■ in
■ Germany



Our passion for light and for quality was the driving force for the founding of the firm AS LED Lighting. From the very beginning, the focus was on creating LED luminaires for commercial applications engineered to be both economical and long lasting. An essential quality attribute of our firm is that our LED luminaires are “Made in Germany”. Having both our product development and production in southern Germany underscores our fundamental sustainability.

From our headquarter in Penzberg, we look daily upon the magnificent mountain peaks of the Bavarian Alps. This view not only delights the eye but also motivates us to achieve peak performance. This manifests itself in a portfolio, developed since our founding in 2010, with over 1000 innovative products in countless LED lighting systems operating trouble-free in Germany and abroad.

And, by the way, our highest LED lighting system installation is located in the Schneefernerhaus on top of the Zugspitze, Germany’s highest mountain. That is why we chose this photograph of the Zugspitz’s summit cross as our invitation to take a closer look at our company.



LED Lighting
 "Made in Germany"
 LED Moduls homemade, too
 Temperature resistance: -30 ° to + 60 °C
 Service life span L80/B10:
 >120.000 hours
 for industrial lighting

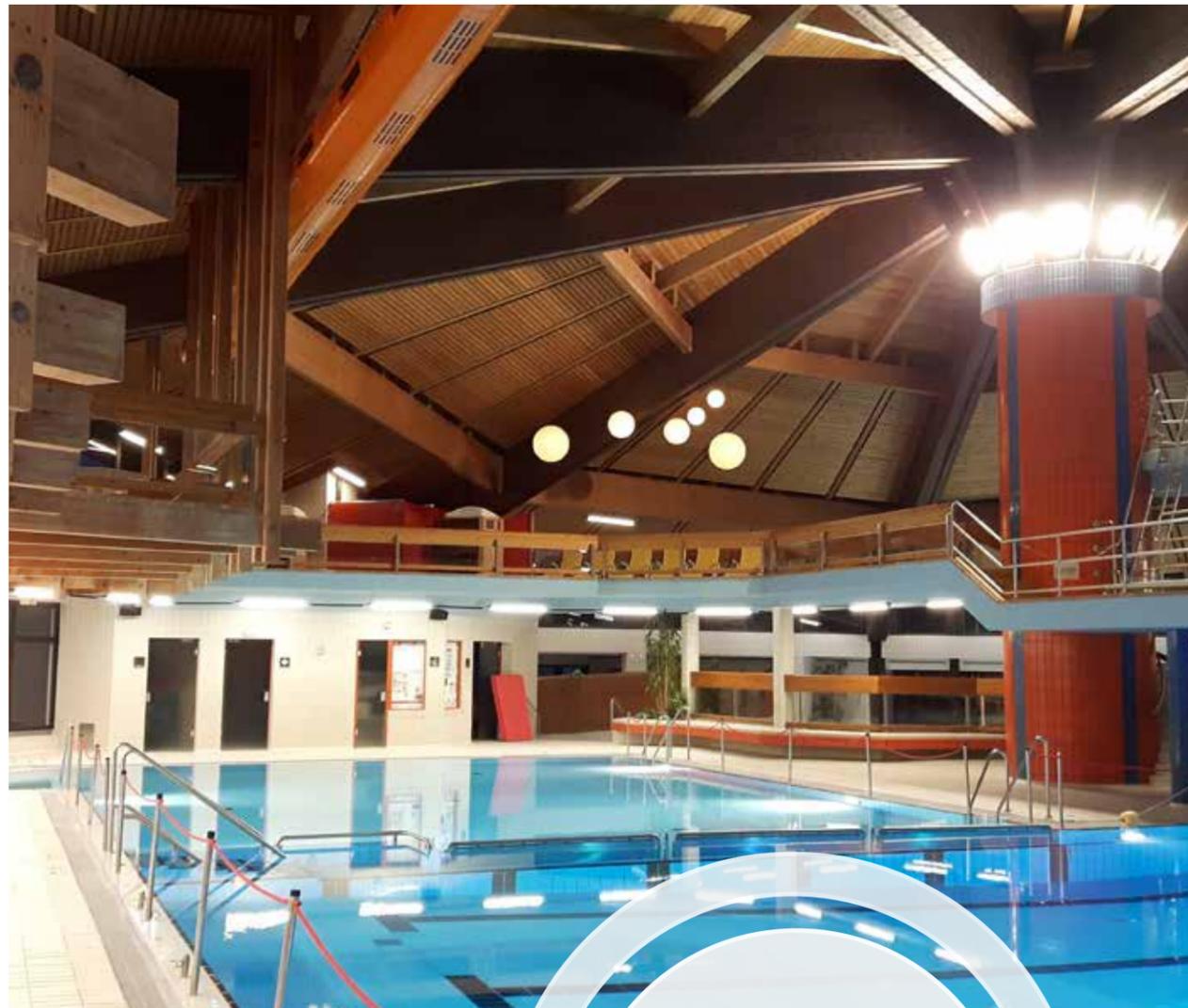
LED champion with powerful products and solid experience

The engineers of AS LED Lighting were the first to pioneer installations where others did not dare to go: into difficult spaces with high temperatures, exposed to rough and dirty environments, and mounted on very high ceilings. Halls with high ceilings are our particular expertise. A shining example is our modern industrial lighting with its lifetime of over 120,000 h (L80/B10) operating hours and its particular robustness in ambient temperatures up to 60 °C and higher. Our experience and expertise working in extreme environments benefits other installations for offices, shops, hospitals, hotels, schools, parking garages and sports facilities. Our diverse product portfolio includes specialized products tailored for efficiency in each of these applications. .

The construction of our LED luminaires is based upon a modular, patented principle. Their particularly long lifetime is the result of the quality of the LED modules that come from our own production. The use of high quality materials and skilled workmanship are the key factors resulting in their advanced thermal management characteristics.

We control the entire supply chain starting from the manufacturing of the LED modules to their assembly into luminaires. As a result, we maintain a continuous quality control while achieving a flexible control of the production process. The production process is environmentally friendly and has achieved the highest quality standard (ISO 9001) in Germany with certification by TÜV-Süd.





Strict color tolerance by selected LEDs
Mid- & High Power LED-Modules from our own production
Sophisticated thermal management
High quality and efficient thermally conductive materials

The strength of our LED luminaires lies in their solid internal structure and architecture

Our luminaires are strictly designed to be long-life and maintenance free. The basis for this is the use of our own "Made in Germany" LED modules and our sophisticated thermal management. The better the base, the better the quality of the finished LED luminaires.

This applies, for example, to delivering uniform light colors and brightness. Particularly important is the "binning" of the LED chips dividing them into quality categories based upon their charge tolerance characteristics. Utilizing the well-known MacAdam ellipse binning methodology, we take great care to only select LED chips with the best possible color matching. This is the deciding factor for delivering the optimal light color as an advantage for our customers.

The critical point for thermal management is the dissipation of heat from the light-emitting diodes. Although their light is "cold", very high temperatures arise in a small area. High quality and efficient heat-conducting materials act as a perfect thermal bridge between the LED chip, circuit board, housing and heat sink. We include these in the structures for both our mid-power and high-power LEDs optimally adapted to the application. The modular assembly of our luminaires is patented. The lighting values of our LED luminaires range from a few hundred to several tens of thousands of lumens depending on the product. A variety of light colors are available, from warm white (2700K) to cold white (6500K), with color rendering indices up to Ra.Type 90.





Service life span L80 / B10
as a benchmark

Robustness and resistance

High quality production

Control of the whole supply chain

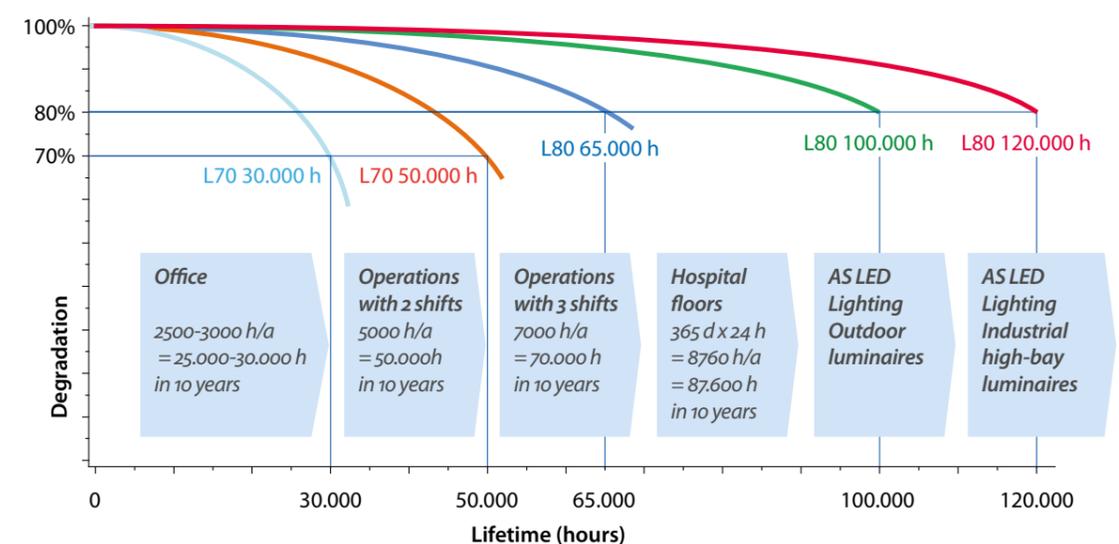
„Made in Germany“

Controlled quality for a maximum service life

Our core competency is the delivery of powerful LED luminaires for industrial production environments. Key factors essential to achieve a long service life in these environments include robustness and modularity. Construction utilizing high-quality materials and processing, while taking into account a variety of IP protections, allows us to achieve the necessary resistance to fine dust particles, to water in all its forms, to oil and to heat.

A special guarantee for quality is our mastery and control of the entire production process. The key to achieving this is the use of LED modules from our own production. The production is both environmentally friendly and conserving of resources and is performed under the highest quality standards. In the countless lighting systems we have realized throughout Germany we not yet had an LED failure.

We have set the benchmark L80/B10 for both our industrial hall and outdoor luminaires, to ensure life spans of over 120,000 hours. Our luminaires for offices, special indoor environments and sport facilities ensure life spans of 65,000 hours and more. The “Useful Life” of luminaires is expressed as L_x/B_y . This refers to the length of time during which y% of the operating LED based luminaires of the same type fail to provide at least x% of the initial luminous flux L_x . The value L80 indicates that the luminaires still give 80% of their initial light output. Thus, L80/B10 states that after e.g. 65,000 hours the LED luminaire still delivers 80% of the luminous flux and that only 10% of the luminaires will have a luminous flux below the L value. “The longer the life span, the more economical.” This is the basis for our quality guarantee, providing maintenance-free lighting systems that protect your investment.





Standards conform to ensure safe lighting
 Protection for workers, owners and employers
 Qualified light planning
 Cost-benefit analysis
 LED lights free of harmful materials and fully recyclable
 5-year guarantee

Service and safety are our top priority

Our TÜV-certified light planners implement projects based upon a wealth of experience and knowledge of all the customer-specific requirements from: industry and business, public institutions and regulators, schools and educational institutions, clinics and hotels, sport facilities and agriculture. They provide

- personal and professional advice
- an inventory for a lighting project
- a precise lighting plan and calculation
- an accurate cost-benefit analysis.

Our "Technical Guideline" supports you in the preparation and implementation of your lighting project with various technical explanations which make it easier to compare offers and to confidently prepare the decisions you need to make.

In order to protect workers, owners and employers, we ensure a safe and compliant lighting of work areas, industrial halls, and offices based upon the current workplace guidelines from the Arbeitsstättenrichtlinien (ASR) workplace regulations. Our LED luminaires have all important quality labels, are photo-biological and ENEC certified, and fulfill International Food Standard (IFS) requirements.

The modularity of our products simplifies the exchange of components which may fail prematurely (e.g. power supplies). Our LED luminaires are fully recyclable (cradle to cradle) and, simplified by their modularity, they can be completely disassembled. They are also free of harmful materials. Our products include a 5-year warranty on the entire luminaire.

Quality
 ■ made
 ■ in
 ■ Germany





High-bay luminaires keeping cool at highest temperatures

Temperature resistance from
– 30° bis + 55°C

Service life span L80/B10 > 120.000 h

Luminous flux over 60,000 lumens

120° beam angle

Suitable for emergency and
safety lighting

The lighting of industrial facilities is our core competence. We were the first that dared to tackle harsh environments with extreme temperatures, dirt, fine particles, and moisture provided by IP65 ingress protection rating.

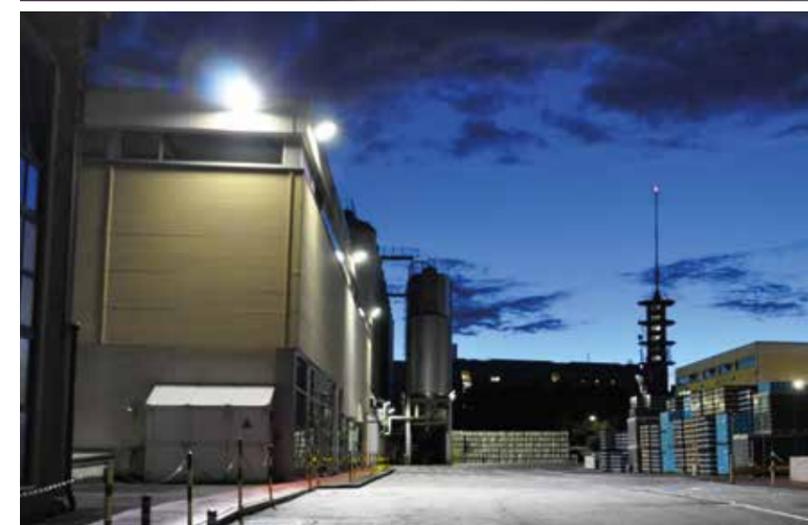
Our industrial lighting is unrivaled for temperature resistance from -30° to + 55° C. Their life span is over 120,000 hours (L80/B10). This is demonstrated by the tens of thousands of lamps from our HCL/HPL series which have been in daily use in the harsh, multi-shift environments of our industrial customers from all types of industries.

Your freedom from maintenance is ensured with trouble-free operation, long service life, and protection of your investment.



The new HPL High-bay luminaires (HPL 057) pictured above as HPL 134 with double spotlights are a new addition to the high-bay luminary series. Their power supply unit is removeable and designed for 200,000 operating hours. Thus grants even more energy efficiency and very long lifetime for the lumen-strong HPL luminaires particularly in extremely high halls, e.g. air hangars and shipyards.





SHL Outdoor luminaires withstand cold (-30° C) and adverse weather

Temperature range
-30° bis + 50°C

Service life span L80/B10
>100.000 h

Luminous flux up to 19.000 Lumen

Large area illumination

Suitable for safety-lighting according to EN50172

90° swivel

The LED spotlight series SHL is predestined for outdoor use in harsh environments. Protection class IP65 and a pressure compensation element prevent the penetration of moisture and ensure that condensation moisture can escape to the outside (membrane effect).

The 120° beam angle and the mounting bracket, which can be swiveled through 90°, enable illumination of large areas. High lumen values with a low input power result in a high energy efficiency. SHL Outdoor luminaires are available in compact square and rectangular forms.

They are suitable for the illumination of traffic areas, loading yards, tunnels and locks, as well as the lighting of signs and advertisements. Flexible mounting options facilitate mounting on different surfaces and devices.



TGL Waterproof luminaires remain clear and tight wherever it steams and splashes



- 180° beam angle, with opal glas 210°
- Service life span L80/B10 > 65.000 h
- IP protection 65
- No contamination of the LED
- Food safety according to International Food Standards (IFS)

TGL waterproof luminaires are exceptionally robust and durable. With their pressure compensation membrane and protection class IP65 they are ready for the challenges of rough and humide environments.

They have proven themselves in countless applications such as parking garages, machine lighting, emergency lighting, outdoor lighting as well as in food processing companies according to the International Food Standard (IFS).

The stylish, simple timeless design fits ideally into any environment. The use of TGL waterproof luminaires for the indoor pool Jordanpark in Kaufbeuren provide an optimal and soothing light atmosphere either in the swimming hall or the rest areas. Since the beginning of October 2017 also in the new ice stadion just in the neighborhood.

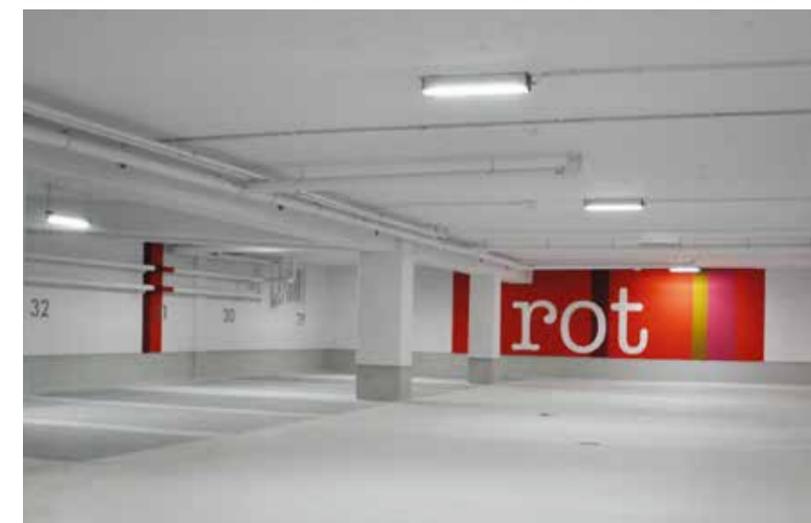
Our large and flexible portfolio of lighting solutions with TGL can be adapted to your needs based upon:

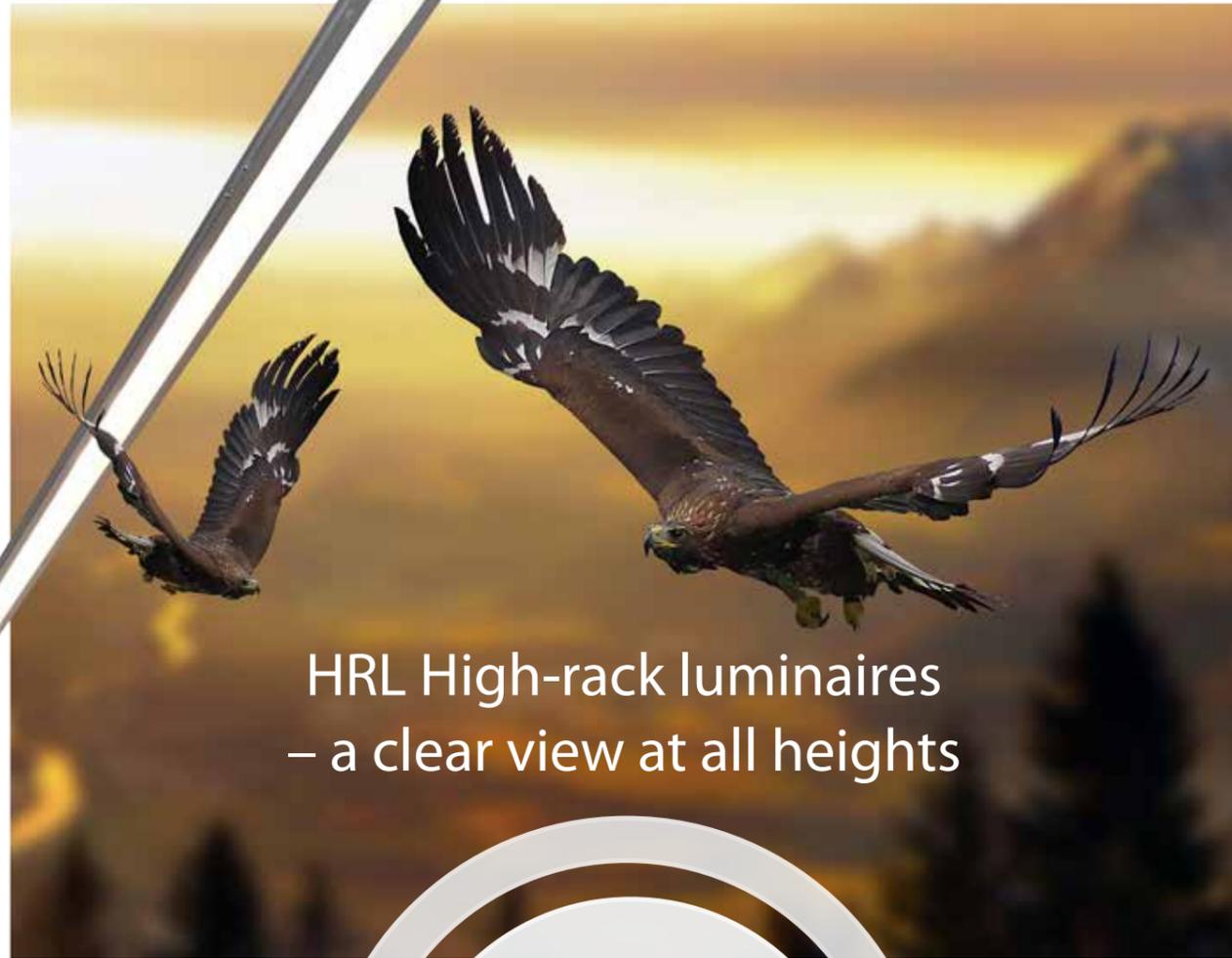
- 4 basic types
- 2 sorts of luminaire glass
- 5 different lengths
- 4 light colors
- 2 LED module types

Optionally , TGL waterproof luminaires also provide emergency lighting functions:

- Either suitable for connection to DC central battery (EN50172)
- Or stand-alone emergency lighting with integrated battery.

This saves costs, since the installation of separate safety lights is unnecessary.





HRL High-rack luminaires
– a clear view at all heights

Suitable for > 50m light point

Service life span
L80/B10 >100.000 h

Different beam angles
available for
different light point heights
and pitches

The LED luminaires of the series HRL are specifically developed for high-rack warehouses and available in various configurations, low-beam and wide-beam. Therefore they are ideally suited for very high heights and very narrow corridors.

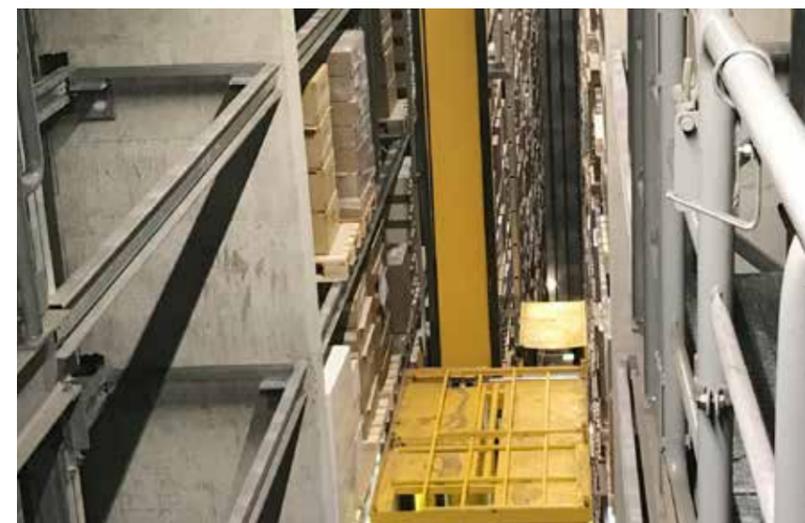
In Europe's highest high-rack warehouse (picture right), the HRL luminaires have a light spot height of 50 meters.

The long-lasting stability of the 2.50 m long luminaires is ensured by the use of a high quality aluminum extrusion profile.

A closed optical system prevents contamination of the LED modules.

The sophisticated AS LED thermal management and the high quality of the LEDs ensures a maintenance-free and long service life.

The HRL luminaires are able as emergency lighting and are suitable for connection to central batteries according to EN50172 – a cost-saving feature which should not be underestimated. Our lighting planners will be pleased to advise you.





PIL suspended luminaires –
representative, timeless
and incredible flexible

**High quality LED luminaires
with direct and indirect lighting**
Striking and timeless design
**Proofed to relevant lighting
standards for office workstations**
Service life span L80/B10 > 65.000 h
Photo-biologically certified

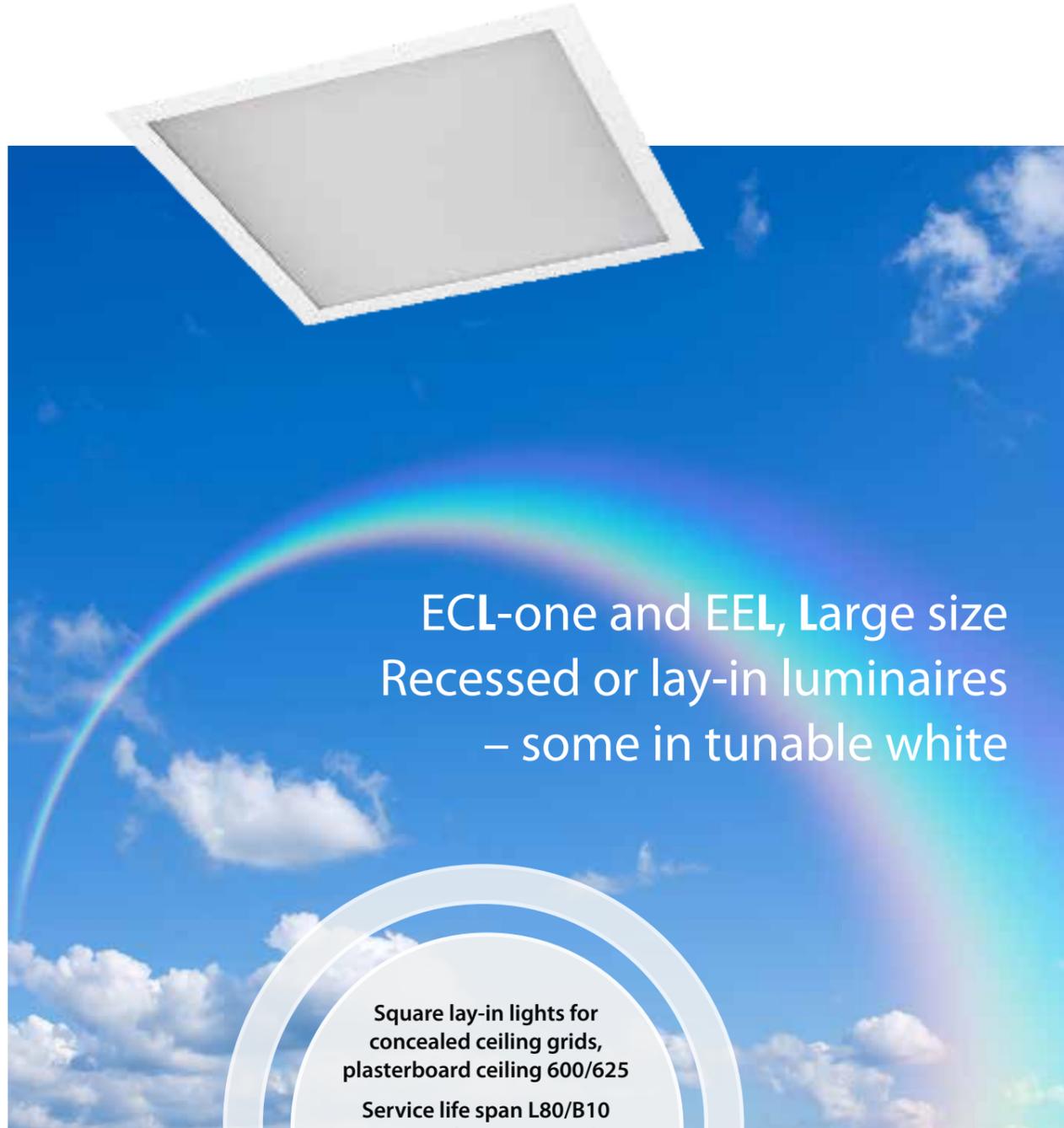
The high-quality suspended luminaires from the series PIL provide an economic and attractive lighting family with both direct and indirect lighting for offices, service counters and representative rooms.

The timeless, striking design of PIL fits unobtrusively into rooms. In addition, the PIL suspended luminaires are chosen for data centers and schools since they are proofed as screen and panel lighting. The luminaires can be smoothly adjusted in height thanks to the adjustable fittings on their back sides. They are also suitable for installation on ventilated ceilings.

The photo-biological certification of the LED modules of our luminaires ensures that the human retina will not be damaged.

All suspended luminaires of the PIL series are DALI controllable and also suitable for use as safety lighting according to the EN50172 standard.





ECL-one and EEL, Large size
Recessed or lay-in luminaires
– some in tunable white

Square lay-in lights for
concealed ceiling grids,
plasterboard ceiling 600/625

Service life span L80/B10
>50.000 bzw. >65.000 h

High efficiency

Highly suitable for office
compliant lighting

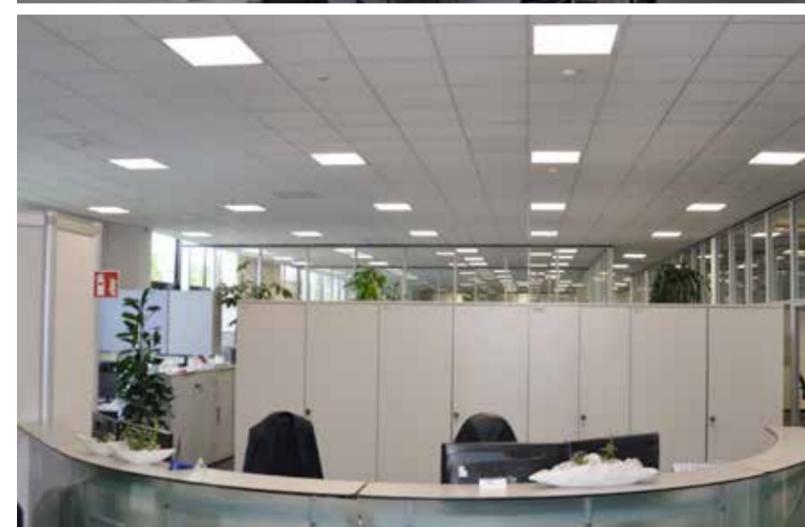
The recessed and lay-in luminaires of the ECL-one and EEL series are ideal for suspended grid ceilings, ceiling systems with visible or concealed suspension modules 600/625, as well as with ceiling cut-outs. Despite an unobtrusive form, they present a high-quality and elegant appearance with a variety of different light characteristics.

ECL-one luminary classic line bring a unique combination of aesthetics and light quality. Their prismatic glass with optical effects creates a vibrant atmosphere in offices and all representative rooms. ECL-one offers standards-conform lighting for office work-stations, even for use with high ceilings (see photo right below) because of an adjustable current luminosity.

EEL Economy Line lay-in lights meet the highest requirements for LED technology and service life span. They are ideal as replacements for 3X18W or 4X18W fluorescent lamps. They are a cost-effective alternative with a light appearance resembling them from L-tubes. Because of their low input power requirements they provide a high potential for cost savings. Furthermore, upscale EEL models are available with prismatic glass.

Tunable White (TW) – dynamic white light Studies have shown that the right lighting atmosphere, with a well-tempered light, benefits the concentration, performance, and well-being of people. Using the Tunable White version, the ECL-one and EEL luminaires can be continuously adjusted, manually or automatically, to adapt to the natural progression of daylight or to the human biorhythms. The light temperature range reaches from 2700 (warm white) to 6500 Kelvin (cold white).

The EEL TW with opal glass provides a flat, mild light. Positive feedback from schools and offices confirm the pleasant light atmosphere from our innovative tunable white series.





ASL and ESL, Slim size
Surface mounted and recessed luminaires
– square, practical, versatile

- Flat luminaire aluminum housing
- Quick and easy assembly
- Service life span L80/B10 >50.000 bzw. 65.000 h
- Integrable in central controls and safety lighting

Slim Line LED luminaires provide versatile and economic solutions for many rooms due to their small 31 x 31 cm form. Although their form and their price are “slim”, the choice of light intensities and colors is rich. This enables applications in areas targeting an optimum use of space and light output. This flexibility is supported by the variety of different designs available for Slim Line recessed and surface mounted luminaires.

ASL surface mounted luminaires are easy to mount on existing ceiling systems in order to quickly provide an uncomplicated LED solution for corridors and auxiliary rooms. The current capability is adjustable individually by the power adapter. In the strongest setting, it can become a replacement for 4x18W T8 L-lamps.

ESL recessed luminaires are suited for elegant solutions in shops, showrooms, foyers, and corridors. Utilizing prismatic luminaire glass, they generate a pleasant atmosphere with a lively lighting effect. Their small flat housing facilitates a tool-free installation. Their luminous power is also steplessly adjustable.

ASL and ESL luminaires are equipped by default with DALI and SwitchDIM and allow for either integration into central controllers or manual dimming with a button. They can also be used for emergency lighting when integrated with a central battery according to EN 50172 and EN 60598-2-22.





AFL Flatline
Surface Mounted luminaires
 – Attractive, flat & lightweight



Surface mounted LED luminaires for walls and ceilings
 Quick and easy assembly
 AS LED Lighting Thermal management guarantees long service life: L80/B10 > 65.000 h
 Proofed for office compliant lighting

The luminaires of the new series AFL are both simple and slim. With an overall height of only 3 cm, they blend discreet and harmoniously into any ceiling system. They also fit perfectly on walls.

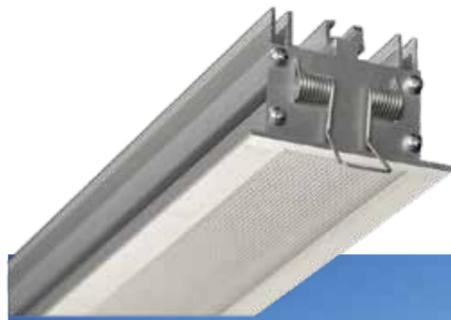
Made of solid aluminum profile weighing only 5.5kg, the AFL is a true lightweight that can be easily and quickly installed anywhere.

Optionally, it is available as a one-row or two-row headed lighting. Due to its high light output with low input power requirements, the AFL proves to be the perfect replacement for fluorescent lamps with 1x 58 or 2x 58 Watt.

The AFL surface-mounted luminaire is glare-free and meets the standards for office compliant lighting. Like all AS luminaires, the LED modules are photobiologically certified and offer the certainty that their light is completely harmless to the human eye. This also qualifies the AFL luminaires for demanding lighting solutions in offices, medical practices, schools, and commercial kitchens.

With its extremely long service life span and high energy efficiency, the AFL lighting series is a visually attractive and economical choice.





EKL recessed luminaires
– an elegant, slim light strip design

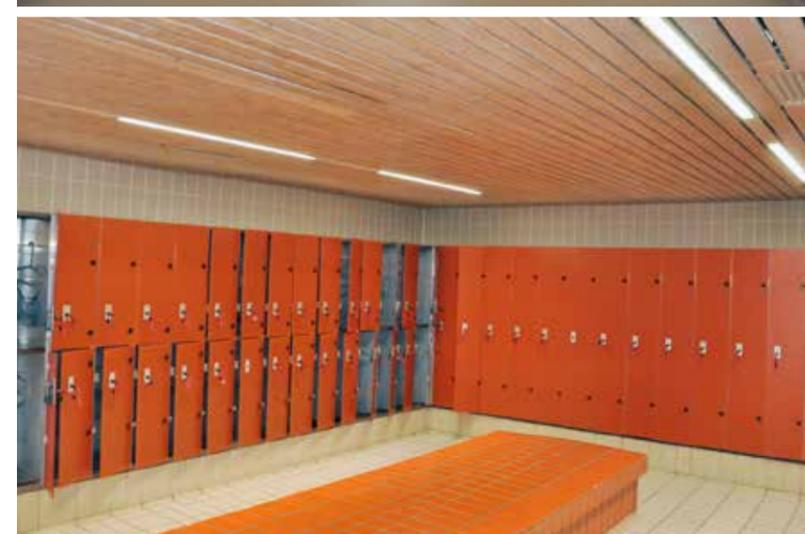
- Very narrow design, with a timeless, high-quality look
- Low installation depth
- Tool-free assembly
- Service life span L80/B10 > 65.000 h
- Suitable for emergency lighting

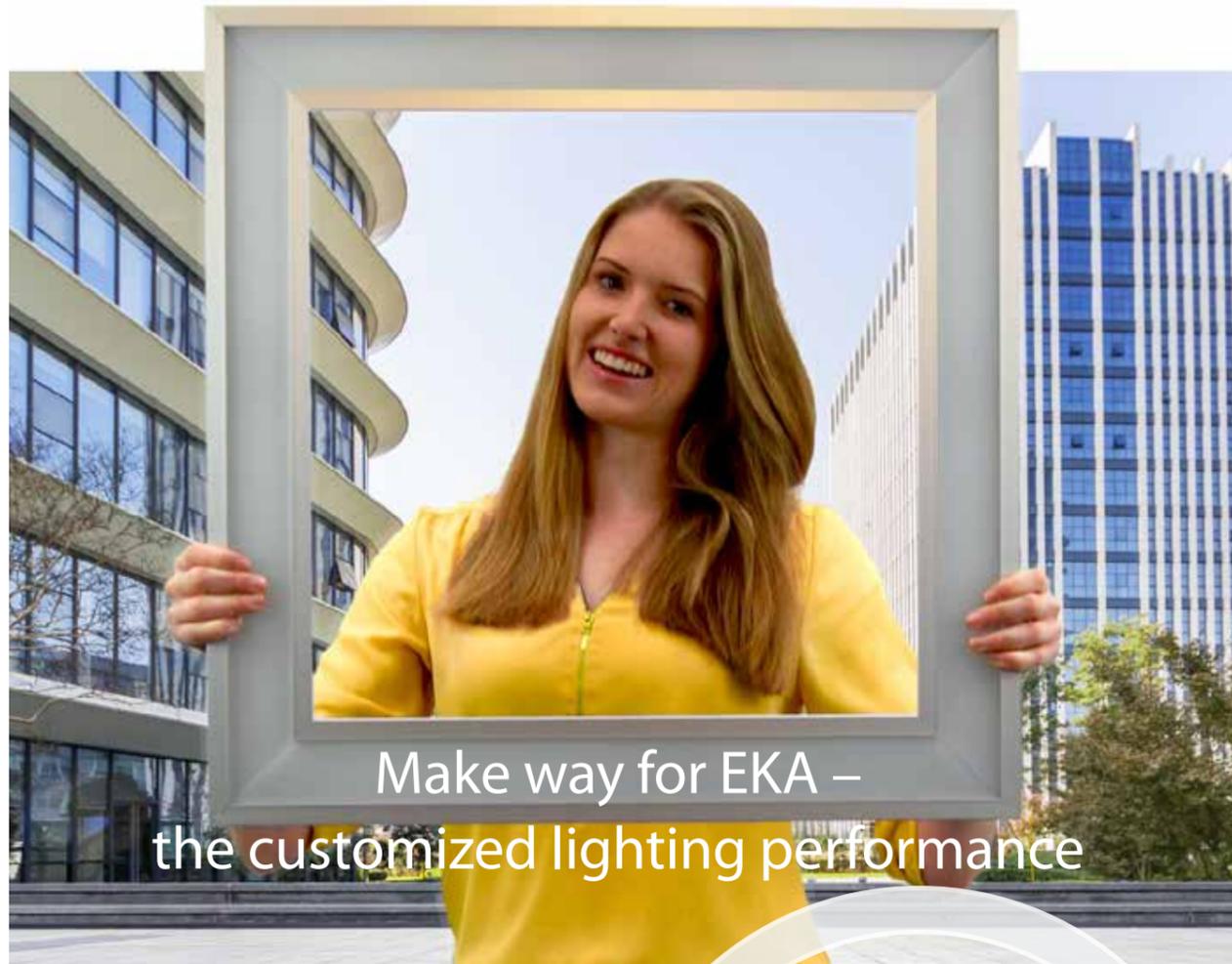
EKL luminaires provide an extremely elegant and slim solution for corridors and other areas that require a continuously high quality lighting. As a recessed luminaire EKL is ideal for suspended ceilings constructed by different materials. It can be integrated into metal, plaster or wood ceilings.

It is available in 3 different lengths as well as various light colors and light intensities. This allows their light quality to be individually adapted to each environment.

Our examples show the versatility of the EKL in practical use, i.e. in clinic corridors, school kitchens, changing rooms of sport facilities.

The highest luminaire efficiency is ensured through the use of state-of-the-art brand-name LEDs and LED modules „Made in Germany“ like all luminaires manufactured by AS LED Lighting.





Make way for EKA –
the customized lighting performance

Innovative lighting system with a patented design

Light, design and function – all in one

Square light frame

Individually usable inside surface, free to adapt

Ideal for ceiling cut-outs



The EKA recessed Karree Architectural luminary is suitable for workplace lighting, for offices, conference rooms, as well as for show rooms, exhibition areas, event locations, trade shows. It offers a wide and perfect light distribution with all important features of a modern LED lighting system.

EKA's novel feature is its bright square frame with an inlay, which can be individually designed. This allows interior designers or booth builders or decorators to give unique accents to rooms. See the several options to perform the inlays:

- **Color insert**
Companies, product, fashion color
- **Inlay material**
Fabric-like motifs, mosses, wood veneers fitting with decoration and furnishings
- **Inlay logo**
Company and product logo in original color
- **Inlay function**
For ventilation, loudspeaker, ceiling fan
- **Inlay performance**
With hanger for posters, balls, decoration cubes, objects, plants



If you want to create the inlays yourself, we can supply the EKA LED basic model in 4 light colors, with prismatic or opal glass, ready for installation in anodized housing, optionally with or without a neutral white inlay panel.

Please remark also the practical advantage: in the case of closed ceilings, the EKA luminary always serves as an maintenance flap..





PSL Professional Sport Line
Ballproof luminaires for
tennis and sports halls

Glare-free
No shadowing
Ball impact safety according to DIN EN 18032-3: 1997, TÜV Süd certified
Service life L80/B10 > 65.000 h
Suitable for safety lighting according to EN 50172

Not all light is the same, particularly in tennis and sports halls. The essential requirements to ensure the best lighting conditions for the players and other parties include:

- Lighting intensity
- Uniformity of the lighting
- Glare-free during serving and in other playing positions
- without shadowing effects
- Daylight control, also for energy-saving reasons

The LED luminaires of the PSL ProfiSport Line series were specially developed to meet the high requirements of sports arenas. Resistance to ball impacts and freedom from glare allow their use for many sports. The flexible mounting styles make installation easier with various ceiling systems.

We have many references in tennis and sport halls all over Germany and are the official partner of the Bavarian Tennis Association (BTV) for LED lighting.





Enjoy the beautiful view and a 5 year warranty!

After our round trip through the various factories and workshops, office, and outdoor areas, parking garages and high-bay warehouses, schools and sport halls where our AS LED Lighting systems are installed, we now return to the foothills of the Bavarian Alps where the development and manufacturing of our high quality products takes place.

Once installed, they function trouble-free without maintenance, delighting our customers with their long life and positive amortization as well as their 5 year warranty.

Therefore, just lean back on this solid bench and enjoy the pleasant light free from worries about the AS LED lighting solutions in your production facilities and real estates.

We thank you for your attention and would be pleased when you involve us into your future lighting projects.



AS LED Lighting GmbH is a German manufacturer of LED lighting for business and industry, public buildings, education and health, sport and agriculture. Development and manufacturing take place exclusively in Germany. The LED modules used are also developed and manufactured in-house. Our products are environmentally friendly, with a modular design, and are fully recyclable. They are produced in Southern Germany to the highest quality standards, according to ISO 9001. With this, we guarantee our customers a unique level of quality, durability and economic efficiency. Our certified lighting designers plan the lighting projects according to all applicable regulations, creating regulatory-conform and tailor-made lighting plans complete with a cost-benefit analysis. We support you with constructive consulting from the offer phase to installation and beyond.

AS LED Lighting

- Extremely durable
- Efficient
- Economic

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