LED lighting at Tungsram means a high degree of reliability due to high quality components and professional engineering.

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We are More than just Lighting

Premium European Quality since 1896
Powered by a lighting industry track record spanning more than 120 years, Tungsram has consciously developed new solutions in its core area lighting technology since its foundation in 1896. We compete on the world market as a premium European brand, which designs, develops and manufactures products for the needs of today and tomorrow.

Wide product portfolio
Tungsram's lighting product portfolio covers all areas of indoor and outdoor lighting, from private homes to schools, public and office buildings, gas stations, sports arenas, highways and car parks.

In-house Lighting Design Team
Whether it is new installation or relamping project, we are ready to design and develop detailed lighting schemes to support our partners. Our team is working on various lighting projects covering greenhouses and other indoor farming locations, outdoor projects (street lighting) but also including retail shops, hotels, sports lighting, flood lighting, industrial and commercial interiors.

LED lighting by Tungsram means high degree of reliability due to high-quality components and professional engineering.

- Why to choose Tungsram LED lighting?
- Unwavering commitment to Quality
  Our quality management systems, supplier and manufacturing quality controls, coupled with the most stringent international certifications are proof of Tungsram's uncompromising commitment to quality. Laboratory services for unique and accredited measurements in photometric, electrical, mechanical and materials science.
- Rapid prototype and serial production capabilities, as well as internal measurement capabilities, what accelerate and integrate development steps, providing a complete, controlled, scalable and ready-to-manufacture solution for you.
The world of work is constantly changing. Not only are traditional roles and responsibilities transformed, but also the way we work and where we work. Working from home, cafés or co-working spaces, meeting online with colleagues from different time zones are just a few of the things that might impact our daily routine.

Office spaces are also transformed. Technology allows us to work and collaborate with colleagues wherever this is most comfortable and convenient in the office area. While conducting the daily routines in the office, our health and mental wellbeing must be preserved.

Selecting the optimal lighting sources could be a gamechanger in this field, thus facilitating vital business activities.
Designing the ideal office lighting is not simply a technical challenge but one of economy and empathy. Expert planning is required to meet the diverse requirements of ergonomically and photometrically excellent lighting. Good lighting is also needed to meet health and safety criteria: it should provide support for visual processes and protect employees from accidents and health hazards.

Tungsram lighting systems provide great flexibility in a quick and easy way. From traditional technologies to state-of-the-art LED products, we incorporate energy optimization and system intelligence into our portfolio. Fixtures can be expanded, modified and changed to meet the particular needs of the environment.

Finding exactly the right balance between natural and artificial lighting might be challenging. A lack of natural lighting can negatively impact on mood and performance at the workplace.

While poorly lit office spaces can reduce performance, thoughtfully designed lighting solutions add aesthetic value as well as boost productivity, prevent stress and fatigue and provide more human-centric illumination.

At Tungsram, we know from experience that life lived under good lighting is healthier, more effective and simply better.
Understand how your office works

As your colleagues likely spend most of their day in the office, the environment must be illuminated as effectively and ergonomically as possible. This doesn't just mean bright. It means smart. To improve, it is crucial to understand how your office works and how it could work better.

Although the required lighting is standardized and centrally controlled, there is a huge difference in the amount and quality of light necessary for various types of work in the different hallways, meeting rooms and public spaces.

Colleagues commute in corridors and hallways. To make this smooth and comfortable, shadows should be eliminated. Bright lights in meeting rooms can inspire but also intimidate. A comfortable hue determines the atmosphere of a meeting. Workstations must ensure focus without glare. A combination of indirect lights and desk lighting assists colleagues in their work.
DESIGN YOUR IDEAL OFFICE LIGHTING WITH TUNGSRAM

Office Lighting by areas
Workstation lighting

We believe in the importance of lighting, especially in connection with the workstations of your office. With efficient light sources and lighting management systems placed in the workspace where most time is spent, you can improve the effectiveness and morale of colleagues.

Relevant products:

- Edgelit Panel Premium
- Tudolio
- Torofi

Conference room lighting

Providing the right circumstances for conferences and meetings can be a defining factor in their eventual outcome. By utilizing a combination of our products, plain and unfriendly conference rooms can be revitalized at a fraction of the investment cost of a complete refurbishment.

Relevant products:

- TU Linear Indirect
- Tudolio
- Recessed Spotlight
- Panel
- Multigimbal
Communication zone lighting

Designing the ideal workplace lighting not only establishes visual conditions but creates workplace satisfaction. Using lighting in a smart combination with the spaces, furniture and technology of your office, it becomes a major design element. Good lights create a great atmosphere for better communication.

Relevant products:

• Scoop Downlight
• Tungsram Batten Switch
• Recessed Spotlight
• Integrated Bulkhead
• Surface Mount Downlighter IP 54
• Emergency Kit

The primary role of lighting is to ensure maximum visibility and create stylish appearances within the office building. Utilizing the adjustability of our fixtures, a perfectly personalized lighting effect can be achieved, thus creating a unique experience for everyone.

Relevant products:

• Ceiling Lights
• Pendant
• Multigimbal Downlight
• Trackspot ADV
• Trackspot LUX
• COB Downlight IP54

Lobby, foyer and corridors
Garage and passage areas

At the end of a tiring day, it is important to provide support with perfectly designed lighting, hence safer movement can be achieved. Our portfolio consists of a wide set of impact and weather resistant solutions with extra-long lifetime.

Relevant products:
- Integrated Mariner Premium
- Tubular IP67/69K
- Fireproof Downlight (spotlight)
- Emergency Kit
- Floodlight
TUNGSRAM PRODUCTS
Edgelit Panel Premium

Besides providing perfect illumination for rooms and spaces, Tungsram LED luminaires boast a balance of attractive appearance and outstanding efficiency. When turned on, the panels give uniform light distribution and glare-free lighting, while the fixture is almost invisible when turned off. Tungsram LED panels are perfect replacements for old technology-based compact fluorescent lamps. Thanks to excellent performance (120lm/W), fewer panels can result in evenly lit areas. The low glare level (UGR <19) and the different colour temperatures (4000K and 6500K) provide extra comfort for office workers, increase their activity and reduce eye strain while working.

Along with the rise of Human-Focused Lighting, the different illumination needs of different office areas – workstations, meeting rooms, community spaces – are also getting greater attention, while a consistent look also needs to be ensured. We have created the Tungsram Tudolio product range to meet these needs; it gives designers and building constructors a great deal of freedom beyond the basic functions. Thanks to the modular units, it is easy to install and transport rapidly from our warehouses. Available in three colour temperatures: 3000K, 4000K and 5700K, which can be customized by a switch at installation. Extremely high colour rendering: CRI 92 and low glare: UGR <19. Available in three sizes: 100mm, 200mm, 300mm; and three mounting modes: recessed, surface mounted or suspended. With all this in mind, the result is a versatile and widely applicable lighting solution with aesthetic design.

Further advantages:
- No harmful infrared and ultraviolet light
- Extra-long lifetime - 50,000 hours
- Durable due to vibration and impact resistance

More advantages here:

Further advantages:
- Extended lifetime of 50,000 hours
- Equipped with specular reflector
- Available with static, 1-10V, DALI driver

More advantages here:
The unique interior design of various office spaces and commercial units poses a major challenge to lighting designers and interior architects. The simple and flexible mounting of our modern and aesthetic Torofi product range is completely customizable to deliver the right light to any corner of your office.

The fixtures in the Torofi family have the same superior features and the same look and feel, so a beautiful lighting design can be composed from the different elements. The suspended/surface mount version are available in extruded aluminium frame in black or white. Through seamless, continuous connection, all light forms an interior designer can only dream about, can be applied. Available with various installation modes: suspended, surface mount, track rail mount and recessed. Thanks to its high color rendering (CRI80+), it provides perfect viewing conditions and offers a pleasant atmosphere.

Further advantages:
- Seamless continuous design
- Available with static or DALI control
- Two sizes of the Suspended products: 1167mm and 2330mm and two sizes of the recessed types: 511mm and 1177mm long.
- Available in two CCT (3000K and 4000K)
- High efficiency up to 128lm/W
- Very long lifetime with 65,000 hours
- Available in both Direct/Indirect and Direct light distribution versions.

More advantages here:
In order to achieve efficient and useful meetings or conference calls, a high degree of concentration and attention is a must. The Tungsram Linear Indirect G1 luminaire provides a high colour rendering index of 80+, which helps the eyes and mind to focus, while its low glare rate (UGR<19) further enhances concentration. Furthermore, Linear Indirect has incredibly high efficiency (up to 135lm/W), it requires low maintenance and provides long service life.

With the five different wattage options (from 22W to 50W), it can be used to illuminate a vast number of meeting room formats. With a lifetime of 75,000 hours and low maintenance requirements, Linear Indirect is a reliable and long-term solution for everyone.

First impressions matter, whether about a person or a company. Within a few seconds, people will have a general opinion based on their experience at first sight. This is where the LED Downlight IP54 comes into the picture with its low glare rate (UGR<19) and variable beam angle (24°, 36°, 55°), which ensures pleasant illumination in lobbies, receptions and even stairways.

Due to the extra-long 50,000-hour lifetime, high energy saving capacity (70% when compared with conventional CFL fixtures) and durable IP54 protection rating, it is a reasonable long-term investment for everyone. It is relatively simple to install and maintain, furthermore it is an affordable solution for retrofits or new installations.

Further advantages:
- Three different colour temperature options: 3500K, 3000K and 4000K
- Available in two different sizes – 1250 and 1650 mm
- Optional DALI or static driver

LED Downlight IP54

Further advantages:
- Operates perfectly between -20°C and +45°C
- Available in 3000K and 4000K options
- Three lumen versions: 2000lm, 2500lm, 3400lm

More advantages here:
Batten Switch

A natural light sensation coming from under-cabinets, shelves, stairwells, corridors and entrances lightens up the mood of any colleague. Our compact linear soft lighting solution, the Batten Switch, is designed to be that mood enhancer in the employee’s life. It has a long 30,000-hour lifetime, high energy efficiency of 100lm/W and the great colour rendering index (CRI80) results in maintaining that good mood.

The luminaire is fitted with an on/off switch for individual operation. The best choice for smooth linear lighting. We offer this range of eight luminaires in four wattage options. Batten Switch offers up to 50% energy-saving benefits especially with 4.5W and 5W when replacing 8W and 13W T5 tubes.

Further advantages:

- Multiple installation methods
- Easy to install, requires small space
- Operates perfectly between -20°C and +40°C

Multigimbal

Spending 8-9 hours on weekdays inside an office building has the potential to be monotonous and exhausting. Get ahead of these bothersome feelings and create a colourful and modern lighting experience in passages, lobbies and foyers with the Multigimbal. Utilizing its adjustable beam angle reflectors (15°/20°/36°), the three different sizes and its rotary, it provides a personalized and exciting lighting solution.

The 340° rotational angle allows you to tailor light to where you need it with the ability to create general lighting or accent lighting. The Multigimbal is quiet, it gives precise light distribution and is very environmentally friendly, with 70% energy savings compared to standard CMH. The long 50,000-hour lifetime, two colour temperatures (3000K and 4000K) and high efficiency (+93lm/W) represent a great long-term solution.

Further advantages:

- Single, twin and triple lamp versions available
- Aluminium housing
- No harmful ultraviolet or infrared light

More advantages here:
Pleasant and relaxing illumination is essential even in smaller, more quiet places in the office. Kitchens, lavatories and quiet rooms are where colleagues can rest and have a quick chat. The Surface Mount Downlighter IP54 is capable of creating these pleasant conditions due to its extra-low glare rate (UGR<16) and aesthetic design with black and white housing.

Surface Mount Downlighter perfectly adapts to office area purpose changes thanks to the three different wattage options (15W – 25W – 35W). Our fixture is available in three different sizes; 100mm, 120mm, 170mm, which opens the door for various application ideas. Furthermore, it is impact, dust and shock resistant, thus making it a gamechanger in its league.

Taking a quick, refreshing walk through the office area ought to make employees feel more relaxed and energized. However, flickering lights, dark and poorly-lit corridors could reverse this effect. The Scoop Downlight can provide the abovementioned relaxing walk thanks to its adjustable beam angles (20°/40°/50°), high colour rendering index (CRI 80) and great lumen output (2100-3500lm). This is an excellent solution for replacing standard HID versions and can save up to 50% energy as well.

The isolated driver solution available in non-dimmable version achieves great dimming compatibility with worldwide brand dimmers. The Scoop Downlight has a lifetime of 50,000 hours with an energy efficiency class of A+ and A++, therefore it is a great 21st century solution.

Further advantages:
- Optional 60° reflector available
- CRI 80
- Robust die-cast aluminium housing

More advantages here:
Track Spot ADV & LUX

The LED Track Spot ADV & LUX ranges, with their sleek appearance and superb colour rendering, CRI90+, give you the perfect first impression for receptions, foyers, hallways and workstation areas.

Thanks to its high efficiency of 105-110lm/W, energy savings of up to 50% compared to conventional lamps can be achieved. Unique, patented design and a wide variety of interchangeable lenses make shopping or exhibitions unforgettable experiences.

Create the ideal lobby, foyer and halls for your office area where a stylish appearance and pleasant illumination are needed. Our LED Pendant range offers a perfect combination of high efficiency (up to 120lm/W), comfortable lighting and aesthetic design. It is easy to install and perfectly integrates into areas where there are customers.

The Pendant provides a great solution for replacing conventional CFL fixtures while giving 70% energy savings in comparison. Its extended 50,000-hour lifetime, impact resistance (IK08) and aluminium housing provide a durable solution. Thanks to its low glare rate (UGR<19), colour uniformity and adjustable suspension cable, the Pendant provides pleasant illumination.

Further advantages:
• Available in two colour temperatures – 3000K and 4000K
• Static control and driver in-house solution
• Can be personalized by fitting to track system

More advantages here:

Further advantages:
• Single (130mm) or single/twin/triple (300mm) head version available
• Built-in static driver
• Affordable solution for retrofits or new installations

More advantages here:
Recessed Spotlight G1

In terms of lighting, small areas require as much attention as wide open-office areas. Furthermore, the aim is to use fewer fixtures while maintaining perfect and crystal-clear illumination. The Recessed Spotlight G1 was created for this purpose, thanks to its high efficiency (90lm/W), great lumen output (550lm) and different colour temperatures (3000K, 4000K, 6500K). It is an ideal replacement for halogen spotlights giving an 88% energy saving.

The Recessed Spotlight G1 is equipped with an integrated polycarbonate lens and adjustable die-cast aluminium housing which further enhances the desired light for the area. Thanks to its compact size it is suitable for 68-72mm cut-out sizes, so it requires very little space to install. Its adjustable beam angle (40°) further enhances the great lighting experience.

Further advantages:
- Tested for glow wire at 850°C
- Extended 30,000-hour lifetime
- Affordable solution for retrofits or new installations

More advantages here:

Integrated Bulkhead

Passages and smaller areas require the perfect solution despite the short time people stay there. We should aim to provide pleasant and relaxing moments as well, which can be done using the LED Integrated Bulkhead. Thanks to its three different colour temperatures (3000K, 4000K and 6500K), great lumen output (855-4000) and high protection rates (IP65, IK10), it is an ideal solution for damp environments, entrance halls, receptions, stairwells, corridors, circulation routes, rest areas.

The Integrated Bulkhead is available in three different sizes (250mm, 300mm and 330mm) with high efficiency (up to 106lm/W). Compared to luminaires that use 2D fluorescent lamps, the Integrated Bulkhead saves up to 60% energy.

Further advantages:
- Available with integrated motion and daylight sensor
- Fast, simple and easy installation options
- Available with 3-hour Integrated Emergency version

More advantages here:
Fireproof Downlight

Fireproof Downlight, which is a special fire-rated fixture, provides sufficient illumination for everyone even in emergency situations and ensures safety in your office area passages. Due to its extended lifetime (30,000 hours), dual switch colour temperature (3000K, 4000K) and high colour rendering index (CRI 80+), it is a great solution for corridors, stairways and garages.

It is an ideal replacement for halogen spotlights giving an 80% energy saving. Fireproof Downlight does not emit ultraviolet and infrared light, which makes it a more healthy fixture. It has a 36° beam angle which creates a wide and safe illumination zone for everyone.

Further advantages:
• Three different colours of bezels
• Affordable solution for retrofits or new installations
• Reduced replacement and maintenance costs

More advantages here:

Emergency kit

At Tungsram, we make safety a top priority. Providing safe passage until everyone is out of the danger zone is mandatory. This emergency lighting unit is a conversion kit remote box for operating TUNGSRAM LED luminaires in emergency mode. The conversion kit is suitable for converting existing light fittings to emergency operation.

It supports a variety of LED fixtures offering standard, self-test and DALI self-test options. It provides 250-370lm output of main fixture with an operating time of 3 hours. The compact polycarbonate case contains electronics and battery for external installation outside the luminaire.

Further advantages:
• Lightweight
• Easy ceiling installation with strain relief fitting
• Switchover time mains – emergency <0.5s

More advantages here:
**Ceiling Light**

Offices with classic interior design require elegant and modest lighting solutions while providing refreshing and crystal-clear illumination. The Ceiling Light provides even more, due to its multi-mounting capabilities (ceiling and wall mounted), lightweight construction (0.62kg) and diverse colour temperature levels (3000K, 4000K, 6500K) for entrance halls, receptions, corridors and even rest areas. Our Ceiling Light is available in three different sizes with two finishes.

It has a high lumen output (870-1850lm) which provides pleasant illumination for people. Thanks to the two different cover colours (white and pattern), the Ceiling Light can be utilized in many different areas of application. It brings the perfect LED solution for everyone, even those on tight budgets.

**Further advantages:**
- Wide beam angle: 120°
- Fast, simple and easy installation options
- Extended 25,000-hour lifetime

**More advantages here:**

**LED Tubular IP67/69K**

Bright and uniform illumination in garages helps people feel more comfortable and confident while driving. The LED Tubular provides a highly effective solution thanks to its impressive efficiency (up to 150lm/W), high energy savings of up to 60% compared to conventional LFL luminaires and low energy consumption. Due to the different mounting options of the stainless-steel bracket for surface and suspension kit and anti-theft clip, it is a great low bay solution for multi-storey car parks and garages.

The LED Tubular has an extremely long lifetime of 100,000 hours and comes with IP67/IP69 rating, which means protection in humid or dusty environments. All together it is a durable and long-lasting solution.

**Further advantages:**
- 70mm diameter and 1200-1500mm length
- Easy installation, fast fit and maintenance-free
- Static and DALI control, motion sensor optional

**More advantages here:**
The LED Floodlight is a universal and compact lamp providing perfect illumination for paths near buildings, garages, entranceways and drives. With six lumen output levels from 2,000lm to 20,000lm and up to 130lm/W efficiency, it provides safe passage for everyone. Compared to traditional floodlights, the Tungsram LED Floodlight supplies immediate light without start-up or cooling down times. Thanks to its robust aluminium housing with safety glass cover, the Floodlight is ideal for outdoor use. It has a high protection rating of IP65 (20-50W) or IP66 (75-150W) and high impact resistance of IK07 (20-50W) or IK08 (75-150W), which guarantees a long lasting and durable solution.

Further advantages:
- Extended lifetime of 50,000 hours with superior lumen maintenance – L80B10
- Static built-in driver
- Wide beam angle: 100° (20-50W) or 120° (75-150W)

More advantages here:

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Garages, multi-storey car parks and passage areas require more sophisticated illumination due to the lack of natural light and windows. The Integrated Mariner Premium is compact with a high lumen output (up to 140lm/W) and it represents a completely integrable lighting solution for applications with high requirements for luminous intensity and resistance. Due to the quick connector solution, it allows for fast and simple single or continuous fixture installations.

Thanks to the two colour temperatures (4000K and 6500K), high lumen output (1800-6200lm) and IP65 protection, it permits safe movement for everyone. Products with microwave motion sensor are also available in the range. The sensor is integrated into the fixture and pre-set for a 5-minute holding time and 5-meter detection range.

Further advantages:
- Available in five lumen packages
- Energy savings of up to 70% (compared to luminaires that use fluorescent lamps)
- Wide beam angle of 125° provides uniform lighting

More advantages here:
Tungsram Smart Solutions for your Buildings and Offices

DYNAMIC LOCATION INTELLIGENCE BASED FACILITY AND ASSET MANAGEMENT
Tungsram can provide facility and asset management with dynamic map based visual representation and location-based optimization. We recommend the solution for customers who manage buildings and business venues in multiple locations. Tungsram has the ability to integrate all indoor and outdoor location-based data into a single platform. Managing the dispersed facilities and assets in time and space with our platform increases operational efficiency, transparency and reduces maintenance costs. Furthermore, all smart solutions offered by Tungsram can be built on this central platform. This enables a comprehensive analytics overview and management capability of the various supported business processes and functionalities.

SMART PARKING
Smart Parking is a convenient, user-friendly parking solution for parking slot reservation, navigation and monitoring parking lot utilization. Users can navigate their complete journey from their outdoor location to their parking space (both indoor and outdoor) using one application.

INDOOR NAVIGATION
The solution is an integrated indoor and outdoor positioning system with route tracking, navigation and location-based analytic capabilities in one mobile application. The client can create its own specialized “Google Maps” for outdoors and a digital building model for indoors.

ACCESS SYSTEM
A modern plastic card or mobile phone based access system enables an efficient central administration of access rights and entrance statistics. The access system can be easily scaled to include new areas and upgraded with cashless payment and entrance ticket handling functionalities.

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SMART BENCH
Tungsram offers 3 products, two smaller and one larger smart bench. The smart benches attract visitors with their innovative design, smart device charging, Wi-Fi hot-spot and digital display-based targeted information service. The benches secure their own energy with solar panels.

ASSET & PERSON TRACKING
The Bluetooth and GNSS based solution enables a seamless indoor and outdoor tracking of assets and people to optimize work quality, asset utilization and business venue set-up. Work orders can be assigned to staff based on their location and the availability of assets.

SAM - SPACE AND ASSET MANAGEMENT
The absolute essential tool for your agile working environment. A flexible management platform of HR, OP, or any department with direct relations of the office space. It provides the most accurate yet simple solution to your working environment. Control the size & variety of team areas, collaboration zones and create the most efficient format based on the floorplan layout.

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The possibility to integrate the most successful Hungarian facility management software system, ArchiFM, into our portfolio adds an immense value to Tungsram, since its lighting optimization capabilities can complement our lighting solutions in any facility. Next-generation property management for increased building value, cost savings on building operation and maintenance, higher work efficiency and heightened employee and visitor satisfaction.

**Asset Performance Management with ArchiFM**

- Recent & repeat repairs
- Warranty tracking and recovery
- Drivers & operators log
- Equipment status
- Life cycle costing and depreciation
- Maintenance and FM alerts
- Asset history
- Inspection & Servicing
- Labor certification
- Licenses and registration

**Smart City Asset & Maintenance Management**

**COMPLETION OF WORK**
- Technician receives work orders in the field
- Provides real-time status updates to dispatcher and the back-office

**PLANNING OF WORK**
- Forecast and schedule work
- Incorporate weather data
- Optimization of work via resource leveling, capacity planning, location and travel routes
- Plan and schedule appointments

**MAPPING OF WORK**
- Optimization of work route on an map along with turn-by-turn directions displayed on a mobile device
- Incorporate real-time traffic

**ASSIGNMENT OF WORK**
- Optimize resource assignment based on geolocation, craft, skill, weather
- Monitor work and adjust based on real-time field progress
ABOUT TUNGSRAM

Tungsram, an iconic name, returned to the global market in 2018 as a premium innovative European technology brand following the acquisition of GE Lighting’s general lighting business in Europe, the Middle East, Africa and Turkey as well as GE’s global automotive operation.

Tungsram is shaping the future of urban living providing technology-driven, smart, sustainable solutions for large metropolitan areas using lighting as a platform. From traditional technologies to state-of-the-art LED products, we incorporate energy optimization and system intelligence into our portfolio.

www.tungsram.com
We in Tungsram Operations Kft. are constantly developing and improving our products. For this reason, all product descriptions in this catalogue are intended as a general guide, and we may change specifications from time to time in the interest of product development, without prior notification or public announcement. All descriptions in this publication present only general particulars of the goods to which they refer and shall not form part of any contract. Data in this guide has been obtained in controlled experimental conditions. However, Tungsram cannot accept any liability arising from the reliance on such data to the extent permitted by law.

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