

**Waldmann** **W**  
ENGINEER OF LIGHT.



**SEEING BETTER. LED LIGHTING  
FOR INDUSTRIAL BUILDINGS.**





## TAUREO

### A CHANGE THAT PAYS OFF.

When it comes to refurbishing lighting systems in production halls, logistics buildings, and warehouses, the TAUREO LED continuous-row system is exactly the right choice.

Thanks to efficient LED technology, it enables considerable energy savings – which translates to cost savings – so the investment in the new system pays for itself in just a short period of time. Moreover, simple installation also saves time during installation. And, with modular fittings, TAUREO can be used

quite flexibly. Different lenses, light colors, and lumen packages are the foundation of the custom lighting system for various applications in industry and trade. And if the lighting condition requirements should change over time, TAUREO simply adjusts to the situation. This makes the TAUREO continuous-row system a particularly sustainable solution.



The savings and improvement potential by switching from T26/58 watt fluorescent lamps to the TAUREO solution in the example project.



# TAUREO

## FLEXIBLE LIGHTING WITH SYSTEMATIC CHARACTERISTICS.

Exchanging an old lighting system for a modern system offers ecological, economical and ergonomic advantages. The TAUREO continuous-row system is simple to install and is equipped for every need from that point on.

### Always Flexible

With different lenses, TAUREO not only fulfills different requirements for a new installation; it is also prepared for changes, for example, in a new factory layout. The room lighting can be adjusted for new requirements at any time without the need for specialized personnel. The easy snap-on incorporation of modules every 600 mm makes the system particularly flexible, making the following true for TAUREO: installed once – always versatile.

### Particularly Economical

From an economic perspective, energy costs are a prime argument for refurbishing a lighting system – because TAUREO reduces them considerably. To do this, the system uses the newest LED technology with a high lighting efficiency of 118 lm/W. If daylight and presence sensor technology is also used, up to 75 percent energy savings can be achieved in comparison to conventional lighting, saving the associated costs. This leads to a short payback period and also reduces CO<sub>2</sub> emissions.

### Installation and Maintenance Friendly

Ballasts and light modules can be integrated and removed at any time without tools. This plug and play principle saves up to 50 percent assembly time.

The durable LEDs and closed, patented lenses keep maintenance costs very low, even in areas that are dirty or prone to dust. TAUREO is equipped with unique thermal management with overheating protection so that the long service life of the LEDs and ballasts can be maintained even in high ambient temperatures of more than 50 °C.

### High Quality Throughout

The TAUREO continuous-row system convinces with high lighting quality that enables low-contrast and homogeneous illumination of production halls, logistics buildings, and warehouses. Thanks to appropriate lighting, TAUREO fulfills high requirements for visual ergonomics, thus promoting well-being and health at industrial work stations. In addition, the TAUREO continuous-row system is built using only high-quality components and materials that also support a long LED life of up to 60 000 hours and more.



### TAUREO at a glance:

- Up to 50 % energy savings (75 % incl. light management system)
- Maintenance-free LED technology
- 4 000 lm luminous flux, even at an ambient temperature of 40 °C
- Intelligent overheating protection at temperatures > 40 °C
- Maximum flexibility
- Precise light control
- Different radiation characteristics
- Optional continuous dimming as well as daylight and presence sensor technology
- Time- and cost-saving operation
- 1 + 4-year system guarantee
- 20-year spare part warranty

# AN EASY CHANGE FROM FLUORESCENT LAMPS TO TAUREO.

In this production hall, tool components are produced, measured, and assembled in a 1 260 square meter area. The room is eight meters high, daylight enters the hall from the one-sided display window. Before its refurbishing, the hall was illuminated with T26 fluorescent lamps. The lighting solution with TAUREO clearly demonstrates the potential of an innovative lighting concept.

## Calculation example

Energy costs:	15 cents/kWh (Price of electricity stable without increase)
Working hours:	Three eight-hour shifts
Working days per year:	250
Floor area:	1 260 m <sup>2</sup>
Room height:	8.00 m
Mounting height:	7.00 m
Maintenance factor:	0.80



Savings and optimizations in an example project during a change from a lighting solution with T8/58 watt fluorescent lamps to TAUREO without a lighting management system. In addition to savings potential, TAUREO also considerably optimizes the following factors in comparison to existing systems:

**Flexibility:** Plug & Light. Easy adjustment of the lighting for different requirements, visual tasks, or presence is possible thanks to the modularity of the TAUREO continuous-row system.

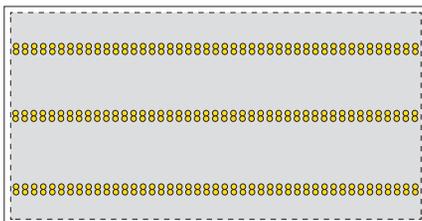
**Productivity:** Good light that can be optimally adjusted to needs increases the productivity of companies because it significantly influences the productivity of employees.

**Robustness:** With durable LEDs, closed lenses, and unique overheating protection, TAUREO is particularly reliable, even when operated for long periods, at high ambient temperatures, and in areas prone to dirt.

### Stock:

Product with 2 x 58 watt, low-loss ballast  
 Consumption: 122 watts  
 Number of luminaires: 135 units  
 Number of light points: 270 units

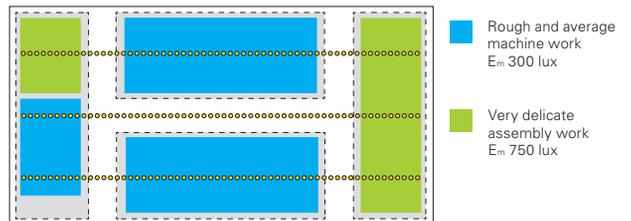
Consumption area: 13.07 W/m<sup>2</sup>  
 kWh per year: 98820 kWh  
 Energy costs per year: €14823  
 CO<sub>2</sub> in kg per year: 59292 kg



### TAUREO:

Product with 1 x 28 watt, EB  
 Consumption: 28 watts  
 Number of luminaires: 180 units  
 Number of light points: 180 units

Consumption area: 4.00 W/m<sup>2</sup>  
 kWh per year: 30240 kWh  
 Energy costs per year: €4536  
 CO<sub>2</sub> in kg per year: 18144 kg



TAUREO illuminates industry halls precisely according to zone with the appropriate light in accordance with DIN EN-12 464-1. And if work station areas change, TAUREO simply changes too – without interfering with the installation.

# TWIN-C

## THE RIGHT LIGHT IN THE RIGHT PLACE.

The Waldmann TWIN-C lighting philosophy represents intelligent lighting concepts (Concepts) with the appropriate luminaire components (Components). A task luminaire developed on this basis takes the visual task and environment into account. We support you from the very start with personal consultation on site so that you can also benefit from an optimum lighting solution.

### Analysis and Concept

To do this, your Waldmann lighting consultant documents your individual planning data and requirements in the beginning. For example, wide-angle lighting may be required in production areas, whereas narrow-angle or double asymmetrical lighting may be needed in warehouse areas. Incident daylight is also taken into account during this evaluation process or whether presence detection may be practical so that unused areas are not unnecessarily illuminated.

After an analysis with regard to productivity, safety, health, and energy savings, our light planning uses this data to develop an appropriate lighting solution for you.

### Components and Solution

Wherever it is practical, TAUREO completely illuminates production halls, logistics buildings and warehouses with evenly distributed illuminance. Different lighting situations according to zone are possible. In production halls however, the demands on lighting are often very different. For example, in loading areas an illuminance of 150 lux is sufficient, whereas at assembly work stations, up to 1000 lux are required, depending on how delicate the task is. Uniformly high illumination with 1000 lux senselessly wastes unnecessary resources in this case.

On the other hand, a combination of general and individual luminaires ensures appropriate lighting in each area. Waldmann offers all components from one source to achieve this. While TAUREO takes care of basic lighting, task luminaires like TANE0, TAMETO, or TEVISIO provide the exact light that is required directly at the work station – depending on the visual task and individual preferences.

The result: It is not only particularly ergonomic to combine room and work station lighting solutions – it also reduces energy consumption by at least an additional 25 percent.



## PLUG & LIGHT

### STAY FLEXIBLE WITH TAUREO.

Appropriate lighting increases productivity and safety at work stations, promotes health, and reduces energy consumption. TAUREO is designed with modular characteristics for flexible use to ensure that these criteria remain fulfilled, even long after it is newly installed. This way, the lighting can be adjusted for new requirements again and again in just a few simple steps.



All images obtained with friendly support from Walter AG in Tübingen.

For additional information, please visit our website at

**[www.waldmann.com/industrial-buildings](http://www.waldmann.com/industrial-buildings)**

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