



**ZUMTOBEL**



## **FERAG AG**

Daylight-based lighting solution for a pleasant, bright lighting atmosphere in an industrial bay.



◀ **BEFORE** 72.76 kWh/m<sup>2</sup>a

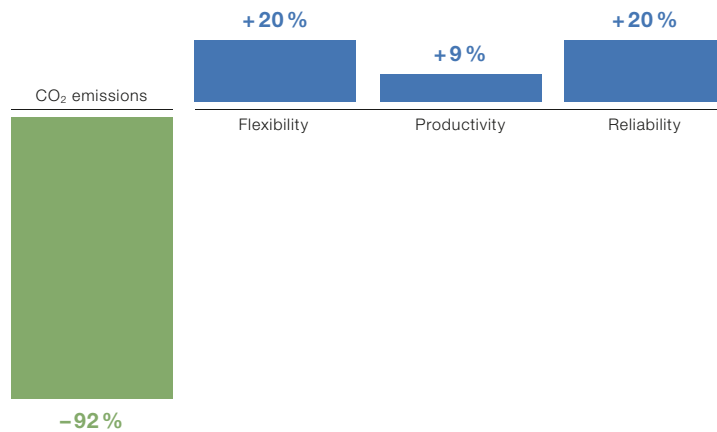
### **Sustainable renovation of lighting systems**

Conveyor and processing systems for the print media industry are manufactured, cabled and tested in Ferag AG's machine shop. The lighting in the machine shop was ancient until just a few months ago. Unsatisfactory illuminance levels and frequent failures of lamps and ballasts disrupted workflows and entailed considerable costs. The lighting in the machine shop has been extensively renovated with a TECTON continuous-row lighting system and a LUXMATE DIMLITE lighting control system – and the resulting difference is quite striking: even demanding visual tasks are easier to accomplish at 500 lx, and the power consumed by lighting has been cut by more than 90 percent.

[zumtobel.com/Industriallighting](https://zumtobel.com/Industriallighting)



**AFTER** 5.96 kWh/m<sup>2</sup>a



**Ferag AG, Hinwil | CH**

Lighting solution: TECTON 2/49 W T16 LDBX, DIMLITE multifunctional lighting management system

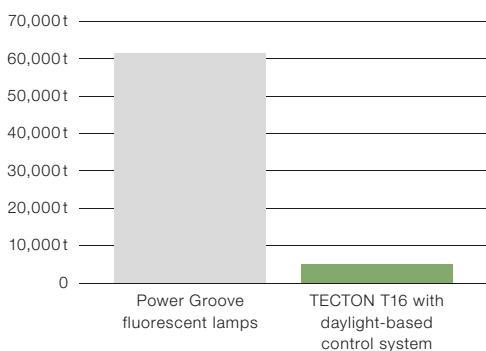
# 1. CO<sub>2</sub> efficiency and cost efficiency

# -92% CO<sub>2</sub>

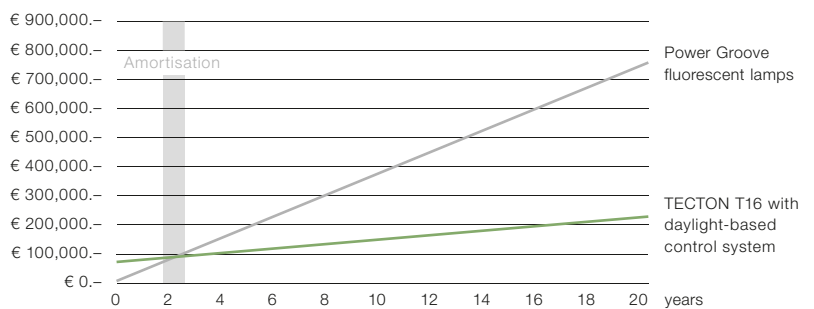
## Responsible use of energy

Investing in this new lighting solution with a dimmable TECTON T16 continuous-row system – combined and used with 2-channel lighting control units that are part of the DIMLITE multifunction lighting management system – will pay for itself in a very short time-scale: compared with the previous lighting that used Power Groove fluorescent lamps, this new lighting system will have paid for itself in 2.3 years. This refurbishment is set to save 56 out of 61 tonnes of CO<sub>2</sub> over the next 20 years. The new solution is therefore fully consistent with the fundamental principles of using resources carefully and making a commitment to sustainability that Ferag lives by.

CO<sub>2</sub> emissions over service life (20 years)



Payback period: 2.3 years (total cost)



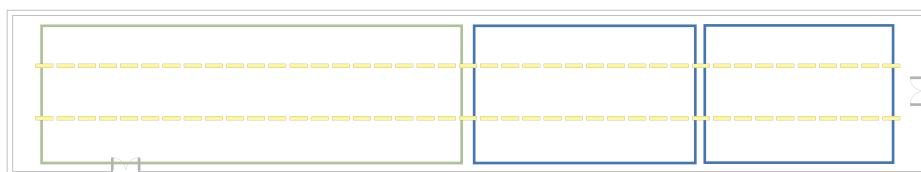
## 2. Flexibility

+20 %

### Flexibility thanks to plug&play system and control system

Trunking which accommodates the 11-pole current conducting section is the key component of the TECTON continuous-row system. One click is therefore enough to make both the mechanical and electrical connections of the modules. Twin-lamp T16 luminaires with efficient RW reflectors were chosen for Ferag's 8.8 m high machine shop, bearing in mind the visual tasks in question. If any changes are made to the layout of the installed machinery, the illuminance level can be adjusted at any time by the DIMLITE lighting control system, or luminaires can be repositioned and supplemented with other luminaires quickly and easily as required. The best thing about it is that this daylight-based lighting solution consists of just three components: dimmable luminaires, a light sensor and DIMLITE multifunction lighting control units – one in each of the three areas.

### Illuminance level adjusted according to visual task



□ CNC machines with displays

□ Assembly: A and B

### 3. Productivity

+9%

#### Working and feeling at ease

The various task areas in the machine shop and a desire to integrate daylight provided the starting point for lighting design work. There are CNC machines with displays in the front part of the shop and mechanical plant components and control devices are assembled elsewhere. The flexible TECTON continuous-row lighting system now provides precisely the right light for each of these activities: it delivers 500 lx for demanding visual tasks, the illuminance level is dimmed to 300 lx for assembly work – always depending on the amount of available daylight.

#### Better performance thanks to more light



CNC machines with displays 500 lx



Assembly 300 lx

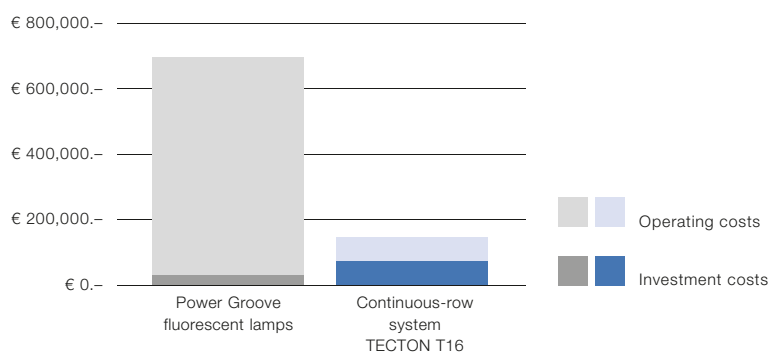
## 4. Reliability

+ 20 %

### Advanced lamp and control technology

This extra reliability is reflected above all in lower luminaire failure rates. The service life of the Power Groove lamps that were previously used was relatively short and the associated maintenance work involved was correspondingly onerous. The TECTON continuous-row system installed for Ferag uses T16 fluorescent lamps to produce light. Thanks to this, downtimes are significantly less frequent and expenditure on relamping is also lower. The reliability of luminaires and lighting control systems, including all LUXMATE modules, is backed up by Zumtobel's five-year guarantee.

Comparison of investment and operating costs





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## zumtobel.com



### Top quality – with a five-year guarantee.

As a globally leading luminaire manufacturer, Zumtobel provides a five year manufacturer's guarantee on all Zumtobel branded products subject to registration within 90 days from the invoice date and in accordance with the terms of guarantee at [zumtobel.com/guarantee](http://zumtobel.com/guarantee).

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