

CONTEMPORARY HISTORY SHED NEW LIGHT

FORMER PARLIAMENT BUILDING „LANGER EUGEN“,
BONN, GERMANY

FACTS AT A GLANCE

GREAT IMPACT

Converting to LED technology for wall, corridor and office lighting provides CO₂ savings of approximately 167,000 kg calculated over one year.

SUSTAINABLY IMPROVED

New technology in a familiar context: The LED lamps are integrated into the existing luminaires while respecting the previous look as much as possible.

EU-COMPLIANT ILLUMINATED

By replacing e.g., T5 fluorescent lamps with modern LED tubes, the lighting of the "Langer Eugen" is perfectly adapted also with regard to the EU-wide fluorescent lamp ban.

ENERGY EFFICIENTLY USED

Modern LED tubes and downlights enable savings in electricity consumption of more than 352,000 kWh per year.

SUBSTITUTE T8 + T5



DOWNLIGHT UGR<19



CLIMATE-FRIENDLY, EFFICIENT, EU-COMPLIANT – LEDVANCE LED SOLUTIONS

Sustainably reconciling the past and the future: With this in mind, LEDVANCE is modernizing the wall, corridor and office lighting of the “Langer Eugen” in Bonn with state-of-the-art LED technology – with significant savings in CO₂ and electricity consumption.

THE CHALLENGE

Known as “Langer Eugen”, the high-rise building on the banks of the Rhine in Bonn is an important monument in the history of the German parliament and still characterizes the cityscape of Bonn today as the headquarters of international organizations. As part of a comprehensive modernization of the building, the lighting on the walls, in the corridors and in the offices is also to be converted to LED technology while retaining the existing optics and luminaires, saving CO₂ and significantly reducing the need for spare parts and maintenance work.

THE SOLUTION

The Gegenbauer Group commissioned LEDVANCE to modernize the wall, corridor and office lighting in the “Langer Eugen,” which is owned by the Institute for Federal Real Estate (BlmA). The existing wall lighting was converted to LED technology by LEDVANCE using SubstiTube T8 LED tubes in combination with prefabricated Plug&Play cable harnesses. In the corridor areas low glare LED downlights were installed (UGR<19) and reduced to a luminous flux of 14W to <7W on customer

request. In addition, the luminaires in the offices were equipped with SubstiTube T5 LED tubes connected directly to 230V via the LEDVANCE Conversion Kit and subsequently TÜV-certified again.

THE BENEFITS

The modernized luminaires impress with a significantly improved light quality that complies with all EU directives and can be used with different luminous intensities and colors (3,000 to 6,500 K) as required. Due to the significantly longer nominal service life of the LED tubes, which are used in different ways depending on requirements, and the LED downlights, maintenance costs are also reduced – the ROI is 1.3 years (including installation costs). The absence of an ECG also speeds up troubleshooting. The measures are also effective in terms of savings in electricity consumption and CO₂. Calculated over the year, this results in electricity savings of more than 352,000 kWh and a reduction in CO₂ emissions of almost 167,000 kg. The safety of the lighting during the conversion and in operation has also been confirmed by TÜV.

SUMMARY

On behalf of the Gegenbauer Group, LEDVANCE is making the lighting for walls, corridors and offices in the former

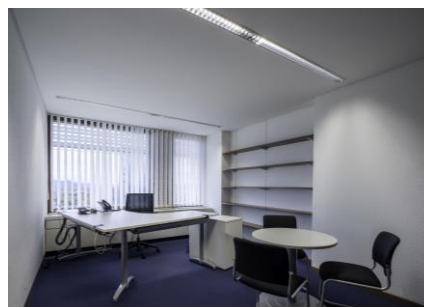
„In the course of modernizing the lighting in the wall, corridor and office areas, the team around the strategic purchasing of Mr. Ilker Mutluer and LEDVANCE integrated innovative LED technology perfectly into the existing luminaire structure, thus combining improved lighting quality with an enormously high saving of CO₂. So all in all, a convincing solution all around.“

Sascha Klein
Team Leader Facility Management
RGM Facility Management GmbH

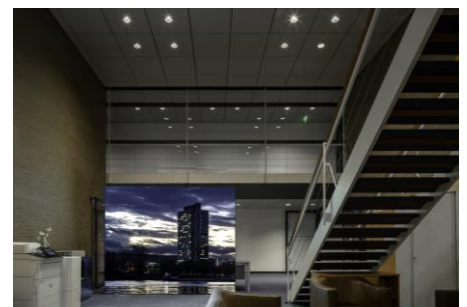
Bonn “Langer Eugen” high-rise building for members of parliament future-proof and EU-compliant. By integrating SubstiTube LED tubes and LED downlights into the existing luminaire stock, not only the light quality and the maintenance effort are optimized. Through a CO₂ reduction of – depending on the area 49 to 61% – LEDVANCE also sets a strong example for sustainable lighting solutions in this prominent environment.



Wall lighting with prefabricated harness



Office lighting



Corridor lighting