



LED+LENS™, the technology behind the breakthrough



Impossible to miss: the new LED+LENS™ technology is prominent in ETAP's new general lighting range. This is a conscious choice, since thanks to a combination of high power LEDs and sophisticated lens technology we are able to develop high-performance, energy-efficient and comfortable solutions for the most diverse general lighting needs. And consequently achieve the long-anticipated breakthrough of LEDs in general lighting.

What is LED+LENS™?

So far ETAP has been using low power LEDs or LED modules combined with reflectors or diffusors in many luminaires. The new luminaire series, however, makes use of individual high power LEDs, each fitted with its own lens.

Why LED+LENS™?

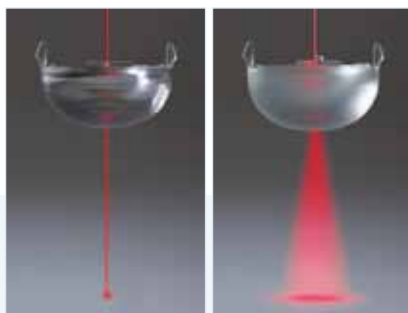
The secret lies in the combination of high-performance high power LEDs that provide sufficient luminous flux in order to efficiently illuminate large spaces and sophisticated lenses, optimising light distribution and adapted to the specific application. With this new technology we are able to develop LED luminaires for the most diverse environments such as offices, warehouses, industrial

workshops, schools and public buildings. We always associate energy-efficiency with high visual comfort.

Even more economical

LED+LENS™ luminaires have a very high luminous efficacy. We always select the highest performance LEDs, we limit light loss between LED and lens, we avoid multiple reflections and transmission loss in the lenses and pay a lot of attention to the choice of lens material and to the thermal design. We only combine our LED+LENS™ solutions with those drivers on the market that satisfy our stringent criteria in terms of reliability and efficiency.

With LED+LENS™ we furthermore maximise use of the LED light depending on the application, since we are able to perfectly aim and shield the light of the high power LEDs using a lens. Our engineers designed several different light distributions in order to achieve the desired effect depending on the application



> The patented surface texture of LED+LENS™ (right) softens the bright LED light.



EXCELLENT LIGHTING
SAVING ENERGY



Type-calculation:

Office measuring 10,8 x 11,4 m, with 20 U7 luminaires with wide-angle lenses, 1,39 W/m²/100 lux.

Corridor measuring 2,4 x 18 m, with 4 U7 luminaires with wide-angle lenses, 2,1 W/m²/100 lux.

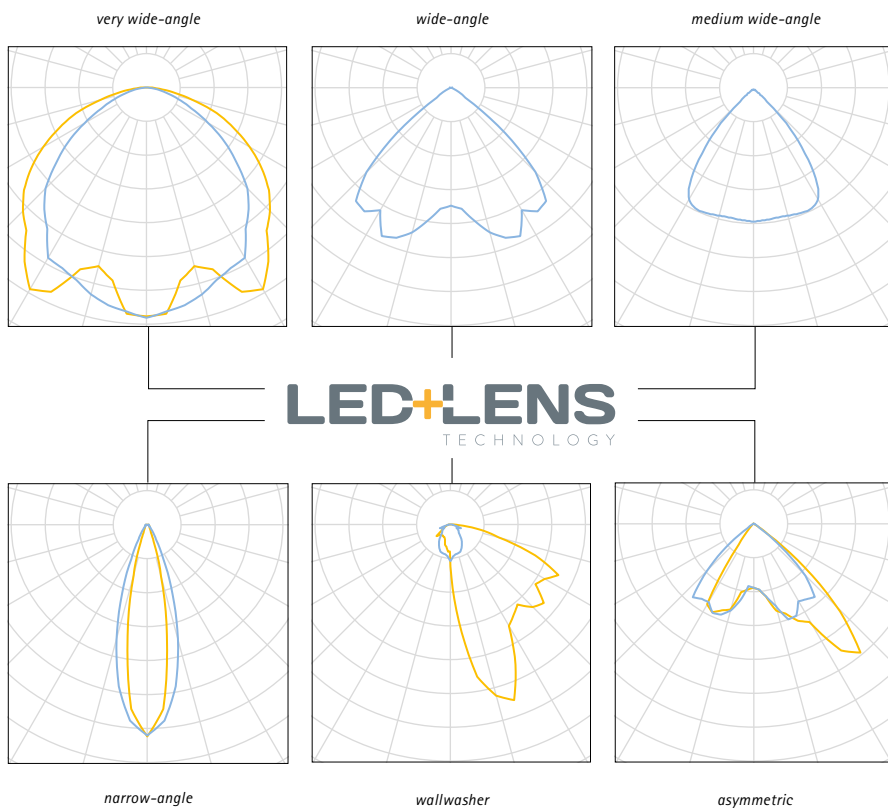


and conditions: narrow-angle, wide-angle, very wide-angle, asymmetric reflectors, etc. We only illuminate that which is necessary and no energy is lost to the undesirable scattering of light. And we keep both energy consumption and installed power as low as possible. Lastly, the LED+LENS™

technology can be perfectly teamed with our ELS integrated light control systems (daylight dependent control), MDS (motion detection) and EMD (multisensor), allowing for additional energy savings of 40% and more.

Optimal comfort

LED+LENS™ technology also provides high visual comfort. The lenses reduce the average luminances and are also provided with a special, patented surface texture that further shields and softens the bright LED light. The result: low UGR value (≤ 19 for office applications, ≤ 22 for others) and low average luminance ($L \leq 1000 \text{ cd/m}^2$ for $\geq 65^\circ$, in line with EN12464). And all this without significantly decreasing lighting efficiency. In addition, the lenses are discreetly countersunk in various applications in order to eliminate sharp contrasts on the luminaire surface. The countersunk lenses therefore not only result in the new luminaire series' typical, unique design, but also contribute to optimal comfort.



Long life expectancy

A 5-year warranty applies to the new series just as for our other products. Actual life expectancy (including driver) is much longer, up to 50,000 hours*, since all LEDs used are tested in our own test labs. We only select LEDs with low depreciation, critical to long effective lifespan. We also test the luminaires' thermal management in our labs, ensuring that the light source remains properly cooled, thus lasting longer.

* Please contact your ETAP consultant for more detailed and exact information about the depreciation of our LED luminaires.



LED+LENS™

- Individual high power LEDs, each fitted with its own lens
- Energy-saving and comfortable lighting with LED
- Different light distributions depending on the application
- Perfectly compatible with integrated light control systems

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