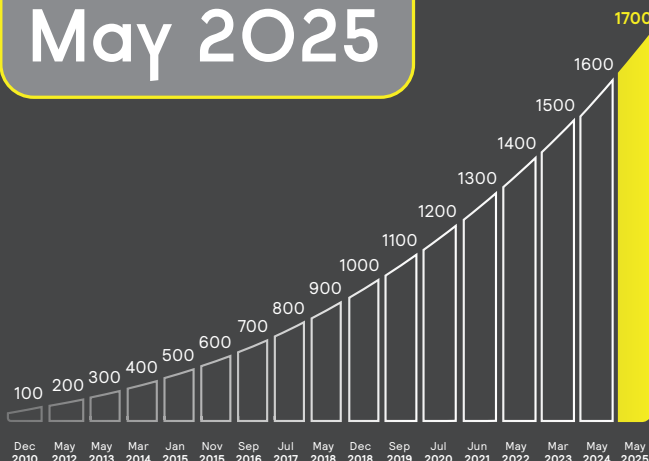


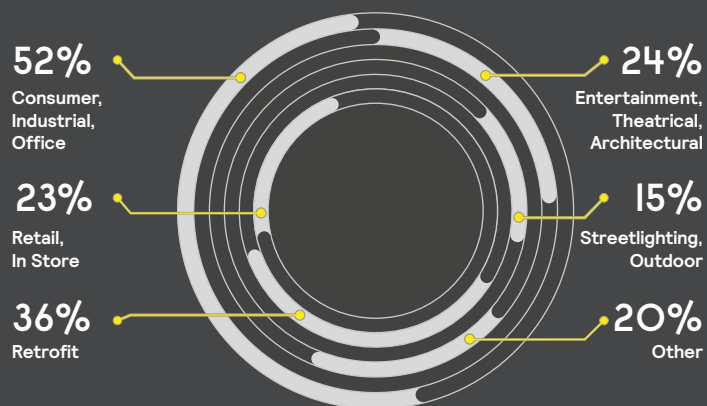
1700 licensees

May 2025

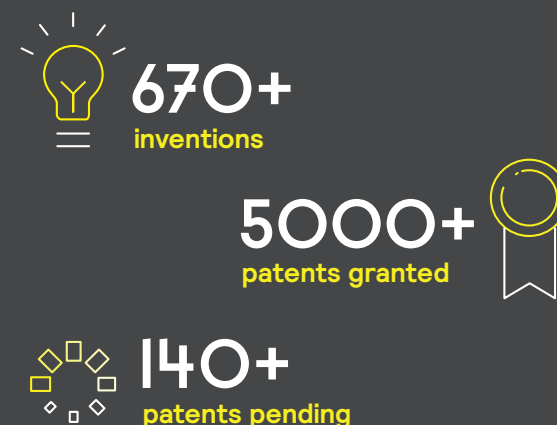
EnabLED Licensing Program for LED Luminaires and Retrofit Bulbs



Breakdown of licensee application areas*

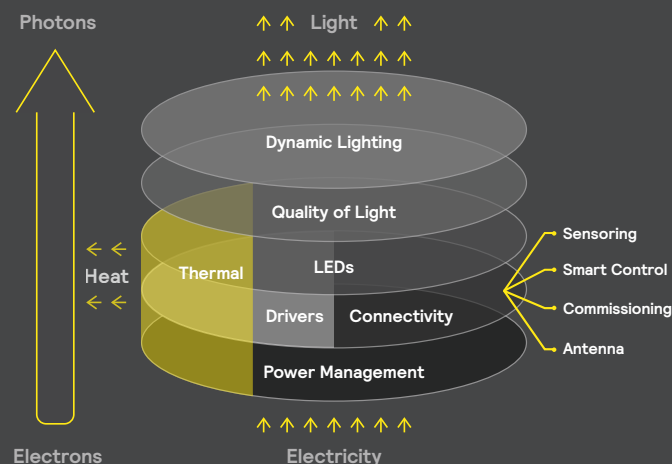


Number of patents



Example technologies and applications

- Efficient LED driver & light flicker reduction**
Highly efficient LED drivers and stable light output to satisfy flicker and stroboscopic SVM regulations
- Filament based LED products**
Create efficient products reminiscent of traditional, incandescent Edison-style filament bulbs
- Highly efficient & Application tuned spectra**
Provide efficient and purpose designed spectra for various lighting applications, such as high contrast retail white light and horticultural spectra
- Human centric lighting**
Provide efficient and controllable high-quality lighting and the tuning of Melatonin production for improved circadian rhythms and emotional needs
- CCT and Power Select**
Selection of color temperature and/or power for SKU reduction



- Connected LED lighting technologies**
RF wireless technologies for Bluetooth, WiFi and Zigbee and antenna innovations
- Connected LED lighting systems**
Designing, commissioning and 2-way control of networked LED lighting systems for next level energy efficiency
- User interfaces for LED lighting systems**
Provide intuitive static and dynamic lighting control for atmosphere creation, and color control, and SKU reduction
- Sensing**
Provide energy efficient lighting control systems using real time occupancy, self-learning, daylight, camera-based and temperature sensing
- Laser based illumination**
High radiance light sources using remote wavelength conversion, such as laser-based phosphor wheel illumination