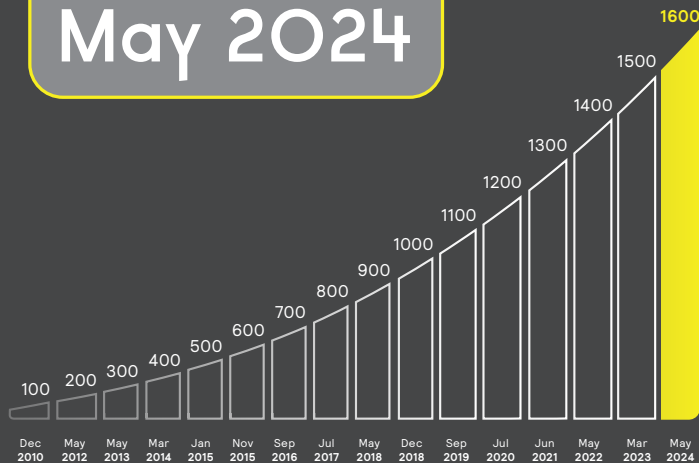


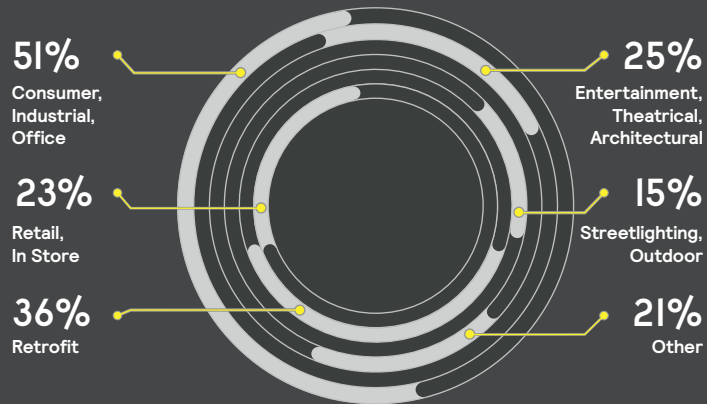
1600 licensees

May 2024

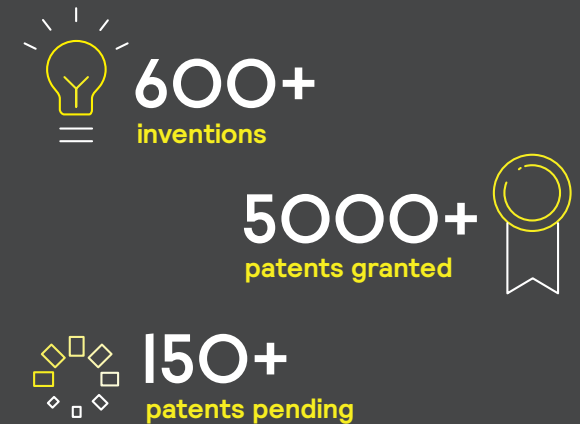
EnabLED Licensing Program for LED Luminaires and Retrofit Bulbs



Breakdown of application areas our licensees operate in*

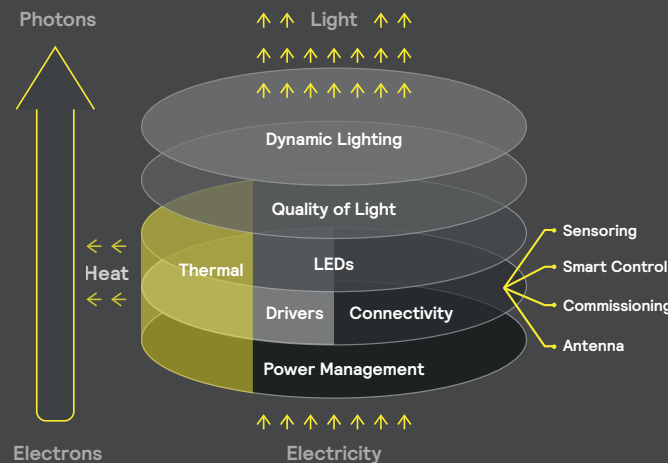


Number of patents



Example technologies

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



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