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# eye-light®

Our leading dual-therapy platform
in a completely overhauled experience.

**Smarter. Scalable.**
**Designed around your clinical needs.**




## Today, eye-light®
## evolves even further.

**eye-light®** is Espansione Group's flagship light-based device for comprehensive ophthalmic care, combining **LM™ LLLT Photobiomodulation (PBM)** and **OPE™ IPL** technologies to deliver **non-invasive**, **evidence-based treatments** for both **anterior** and **posterior segment conditions**.

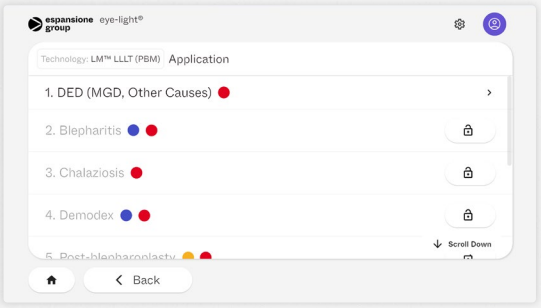
# Introducing a new modular software architecture.

⚠ Not all solutions and use cases available in all countries. Every piece of information shown ought to be considered as fact-based evidence deriving from publicly available literature, for the sole purpose of scientific exchange.

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# The all-new eye-light®. Built around your practice.

The latest evolution of eye-light® introduces a **modular**, **software-driven treatment architecture**, developed to adapt seamlessly to different clinical specialties, organizational models and stages of each practice' growth journey.

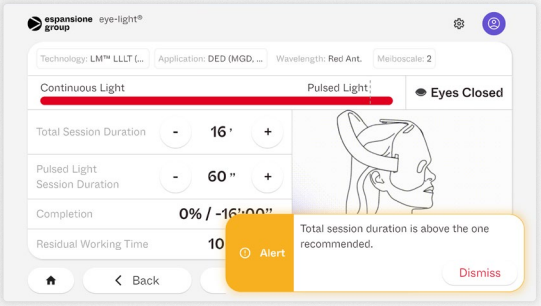



## Modular treatment protocols activation.

Treatments are no longer limited to fixed configurations.

↳ **Fully modular eye-light®** — Access **up to nine treatment protocols** for both anterior and posterior segment conditions.

↳ **Activate new protocols anytime** — As clinical needs evolve, unlock new protocols **without changing the device** and elevate your practice.




## Smarter guidance. Consistent treatments.

The new software introduces advanced operational intelligence, supporting clinicians and staff during every step of the treatment workflow.

↳ Real-time **system checks** to ensure correct device configuration.

↳ **Smart alerts** to prevent improper use.

↳ **On-screen guidance** to support correct treatment setup.

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# Next-Generation Hardware & Software.

↳ **Responsive & Intuitive** — A new, powerful CPU coupled with a state-of-the-art 7” touchscreen ensures fast, smooth system interaction.

↳ **Stable & Reliable** — The new **Linux-based OS** delivers seamless performance for a consistent user experience.



## Results

① **Increased operational consistency.**

Standardized workflows, real-time system checks and guided setup ensure each treatment is performed according to predefined parameters, regardless of operator or setting.

② **Reduced variability between operators.**

On-screen guidance, smart alerts and automated checks minimize subjective interpretation, reducing operator-dependent variability during treatment setup and delivery.

③ **Optimized treatment outcomes.**

Consistent execution, reduced variability and protocol-driven guidance contribute to more controlled treatment delivery, supporting outcome optimization over time.

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# LM™ LLLT and OPE™ IPL: a dual-technology ecosystem.

*Available only for Anterior Segment use.

**LM™ LLLT** is our **patented photobiomodulation (PBM)** technology using **three light wavelengths**, each tailored to specific cellular responses and clinical needs.

## LM™ LLLT RED

> Increasing ATP production
> Reducing inflammation through ROS modulation
> Protecting cells from hypoxia via regulation of IF-1α

## LM™ LLLT BLUE

> Reducing bacterial load
> Inducing bacterial cell death
> Promoting microbiome stabilization

## LM™ LLLT YELLOW

> Modulating vasodilatation in hypoxia condition via NO release
> Improving oxygenation
> Reducing oxidative stress

**OPE™ IPL*** is our **patented Intense Pulsed Light** technology, **software-controlled** to deliver calibrated thermal impulses for optimal safety and efficacy.

## OPE™ IPL

> Improves blood circulation
> Enhances anti-inflammatory cytokines secretion

# Applications



## Anterior Segment

The multi-wavelength, **dual light therapy** approach allows eye-light® to be leveraged in the management of a wide array of **ocular surface conditions** (e.g., DED/MGD, Chalazion, CLD, Sjögren's Syndrome, Blepharitis, Demodex, Rosacea) and in the elevation of **surgical outcomes** (e.g., cataract, refractive) via tear film stabilization.

## Posterior Segment

eye-light® with **LM™ LLLT** introduces a novel approach for **dry AMD** (AREDS 2–3), designed to address unmet clinical needs, slow progression and support vision preservation and patient quality of life.



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# Scientific Coverage

## Anterior Segment

tfos

**TFOS DEWS III Management and Therapy Report**

JONES, Lyndon J. et al.
American Journal of Ophthalmology, 2025.

“ **LM™ LLLT** is **recognized** by **TFOS DEWS III** as a management tool for DED and OSD that:

> Stimulates cellular metabolism through PBM

> Reduces inflammation and improves lipid secretion

> Enhances patient comfort and tear film quality

“ **Cataract surgery** often induces or worsens **dry eye**, compromising **visual quality** and **patient satisfaction.**

**Effect of Low-Level Light Therapy on Ocular Surface Parameters in Patients Undergoing Cataract Surgery: A Prospective Double-Masked Randomized Controlled Clinical Trial**

TIMOFTE-ZORILA , Mihaela M. et al.
Ophthalmology & Therapy, 2025.

| Parameter | Group | T0 | T1 | T3 | *p value** |
|---|---|---|---|---|---|
| OSDI | LLLT | 26.62 ± 15.42 | 15.53 ± 12.04 | 13.36 ± 11.69 | **< 0.001** |
| | Control | 20.80 ± 12.67 | 22.32 ± 14.86 | 25.50 ± 14.26 | **0.033** |
| | *p* value† | 0.055 | **0.02** | **< 0.001** | |
| BUT (s) | LLLT | 5.76 ± 3.99 | 6.69 ± 4.48 | 8.38 ± 4.53 | **0.002** |
| | Control | 7.14 ± 3.65 | 6.45 ± 4.15 | 7.14 ± 4.08 | 0.416 |
| | *p* value† | 0.092 | 0.799 | 0.179 | |
| Tear osmolarity (mOsm/l) | LLLT | 300.69 ± 14.19 | - | 296.11 ± 12.30 | **0.048** |
| | Control | 296.66 ± 15.64 | - | 306.20 ± 14.59 | **0.002** |
| | *p* value† | 0.206 | - | **< 0.001** | |

> Prophylactic LLLT significantly improved Ocular Surface Disease Index (OSDI) scores and tear-film stability in patients with cataracts.

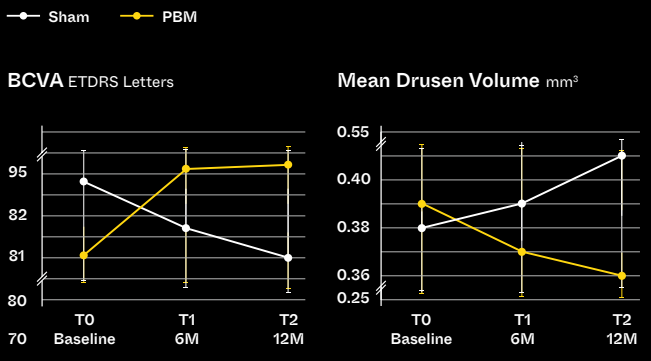
> LLLT was effective in preventing postoperative increases in tear osmolarity and ocular surface damage.

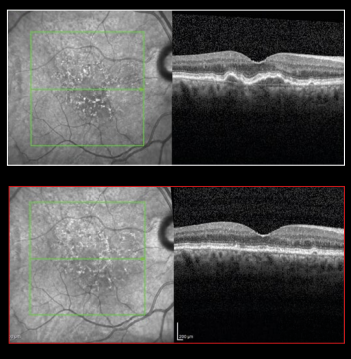
## Posterior Segment

We’re pioneering what’s next in retinal care through our large-scale, global, multi-centric research studies LightWave I & II.

**12-month outcomes of PBM in dAMD: a prospective multicenter randomized controlled clinical trial.** *(Submitted - Under Review)*

IOVINO, Claudio et al.



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**Find out more.**
espansionegroup.it/solutions/eye-light/

# Discover eye-light®

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bon

**Click here** to visit our **Scientific Community**
espansionegroup.it/scientific-community/

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