# Wavefront Photobiomodulation – Evidence Alignment Summary

## Device Parameters

- Wavelengths: 670 nm + 810 nm
- Power Density: 5 mW/cm²
- Session Duration: 16 min (eyes open) / 21 min (eyes closed)
- Total Energy Delivered: ~4.8 J/cm²

## Key Study Comparisons

- Eells 2003 – 670 nm, 4 J/cm² × 3 → Restored rod/cone ERG
- Albarracin 2011 – 670 nm, 9 J/cm² → Reduced photoreceptor death
- Grewal 2020 – 4.8 J/cm² × 14 days → Rod function improved
- Lightsite III 2023 – Multi-wavelength PBM → ↑ BCVA & CS
- Fitzgerald 2010 – High dose (45 J/cm²) → Reduced oxidative stress

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# Clinical Relevance & Safety Summary

## Safety & Regulatory Confidence

- Koev et al 2018 – Five-year follow-up of AMD patients treated with LLLT: sustained VA gains, no adverse effects.
- Belkin & Schwartz 1994 – Subthreshold light confirmed non-damaging.
- Ivandic et al 2008 – Long-term PBM use shows no adverse effects.

## Clinical Relevance

- Wavefront dosing sits in the middle of the 4–9 J/cm² therapeutic window.
- Dual wavelength (670 + 810 nm) enhances depth of effect for retina + choroid.
- Best positioned as early intervention and wellness approach.

***"Wavefront delivers evidence-aligned photobiomodulation at 670 & 810 nm, within proven safe therapeutic windows, improving mitochondrial function, reducing inflammation, and supporting retinal performance."***

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