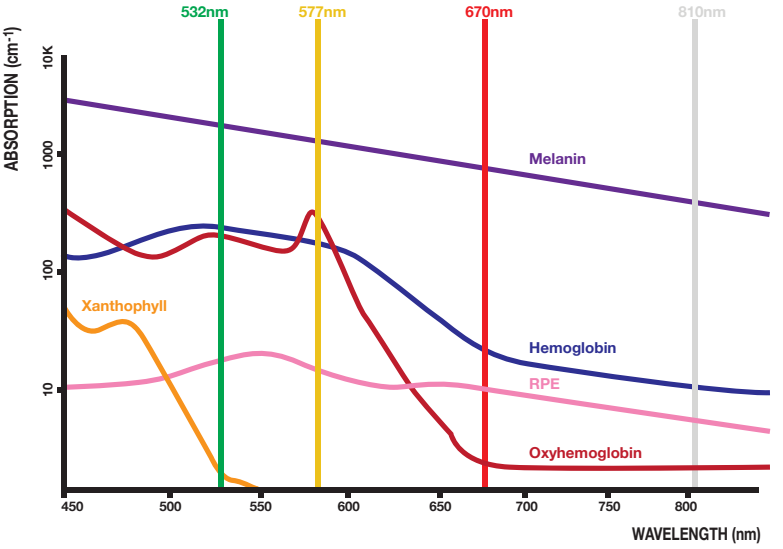
# Effectiveness of Different Wavelengths

The most effective wavelengths for laser treatments are those that present the most favorable tissue absorption properties, depending on the disease. LIGHTMED offers the widest portfolio of laser products for the ophthalmic market, with wavelength configurations ranging from single to multi-wavelength platforms. With proprietary innovations like PrismCore™ Multi-Wavelength Technology, physicians can access up to four wavelengths from a single system - or choose dedicated single-wavelength lasers to match their clinical needs.




## GREEN 532nm - The proven standard in photocoagulation

### Wavelength Benefits:

- Highly absorbed by melanin
- Well absorbed by hemoglobin

### Clinical Assets:

- Clinically proven to treat large variety of retinal disorders

### Main Clinical Applications:

*Retinal Photocoagulation*

- Panretinal Photocoagulation
- Diabetic Retinopathy
- Central/Branch Retinal Vein Occlusion
- Retinal Tears, Holes & Detachments
- Endophotocoagulation

*Glaucoma*

- Laser Trabeculoplasty
- SP-Mode® Laser Trabeculoplasty

## YELLOW 577nm - The new gold standard to treat the macula

### Wavelength Benefits:

- Highly absorbed by melanin
- Peak absorption in oxyhemoglobin
- Negligible absorption by xanthophyll pigments
- Low light scattering

### Clinical Assets:

- Useful for treating large variety of retinal disorders
- Suitable for treating macula
- Useful for treating abnormal vasculature
- Reduced treatment pain

### Main Clinical Applications:

*Retinal Photocoagulation*

- Panretinal Photocoagulation
- Diabetic Retinopathy
- Central/Branch Retinal Vein Occlusion
- Retinal Tears, Holes & Detachments
- Endophotocoagulation
- Diabetic Macular Edema *(focal photocoagulation)*

# Effectiveness of Different Wavelengths

*SP-Mode® Macular Laser Treatment*

- Diabetic Macular Edema
- Central Serous Chorioretinopathy

*Glaucoma*

- Laser Trabeculoplasty
- SP-Mode® Laser Trabeculoplasty

## RED 670nm - The ideal choice when opacities are present

### Wavelength Benefits:

- Well absorbed by melanin
- Minimally absorbed by hemoglobin
- Negligible absorption by xanthophyll pigments
- Good penetration through media hemorrhage and opacity
- Well penetrated through sclera

### Clinical Assets:

- Useful for treating retina through vitreous and retinal hemorrhages or media opacity
- Useful for the transscleral approach

### Main Clinical Applications:

*Retinal Photocoagulation*
*(Especially under conditions with medial opacities or hemorrhage)*

- Panretinal Photocoagulation
- Diabetic Retinopathy
- Central/Branch Retinal Vein Occlusion
- Retinal Tears, Holes & Detachments
- Endophotocoagulation

*SP-Mode® Macular Laser Treatment*

- Diabetic Macular Edema
- Central Serous Chorioretinopathy

## INFRARED 810nm – The versatile alternative for deep penetration

### Wavelength Benefits:

- Well absorbed by melanin
- Minimally absorbed by hemoglobin
- Negligible absorption by xanthophyll pigments
- Good penetration through media hemorrhage
- Deep choroidal reach
- Minimal absorption in the crystalline lens
- Well penetrated through sclera
- Absence of flash light

### Clinical Assets:

- Useful for treating retina or choroid through vitreous and retinal hemorrhages or media opacity
- Suitable for approaching the choroid
- Suitable for the treatment of retinopathy of prematurity (avoiding cataract formation)
- Useful for the transscleral approach
- Comfortable due to the absence of flash light

### Main Clinical Applications:

*Retinal Photocoagulation*
*(Especially under conditions with medial opacities or hemorrhage)*

- Panretinal Photocoagulation
- Diabetic Retinopathy
- Central/Branch Retinal Vein Occlusion
- Retinal Tears, Holes & Detachments
- Endophotocoagulation
- Retinopathy of Prematurity

*SP-Mode® Macular Laser Treatment*

- Diabetic Macular Edema
- Central Serous Chorioretinopathy

*Glaucoma*

- Transscleral Cyclophotocoagulation
- SP-Mode® Transscleral Cyclophotocoagulation
- SP-Mode® Laser Trabeculoplasty

*Transpupillary Thermotherapy*

- Choroidal Tumor