

ASTRAL[®]

**SLT LASER
OCT VISUALIZATION SYSTEM**



LUMIBIRD[®]
MEDICAL

ASTRAL[®]

A NEW ERA IN SLT TREATMENT

Leveraging 40 years of laser expertise, Ellex, a brand of Lumibird Medical introduces **ASTRAL[®]**, an innovative SLT platform featuring:



OCT visualization system for accurate trabecular meshwork targeting



Lens-free transscleral delivery for a streamlined treatment experience



Comparable outcomes to traditional SLT in **under three seconds¹**



SLT FOR GLAUCOMA TREATMENT

SLT is now recommended (LiGHT trial) as a first-line treatment by AAO, EGS, APGS and WGA.



OF SLT PATIENTS
REACHED TARGET IOP
AND WERE DROP-FREE



VISUAL FIELD IN SLT
PATIENTS SHOWED LESS
DAMAGE THAN EYE DROP
USERS



MORE COST
EFFECTIVE
THAN DROPS



PATIENT COMPLIANCE:
SLT: 100% - DROPS: 20-50%

[LINK TO THE STUDY](#)



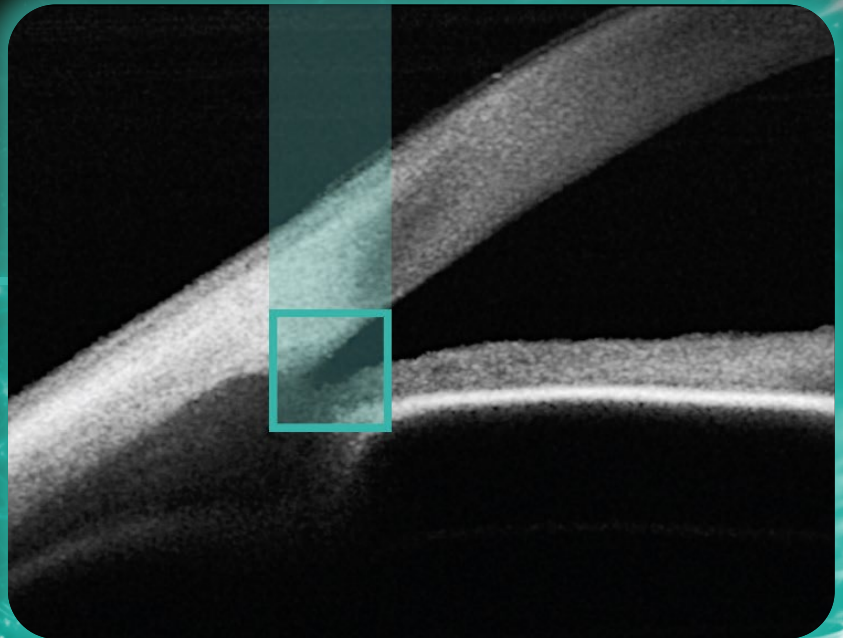
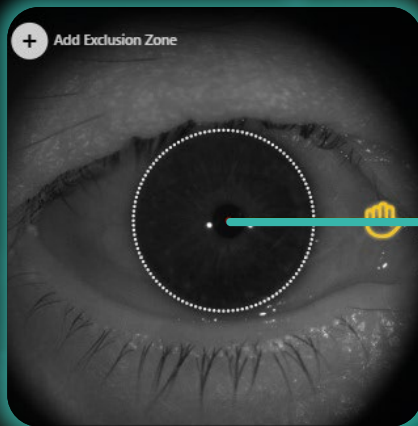
CONCLUSION: SLT is a safe treatment for OAG and OHT, providing better long-term disease control than initial drop therapy, with reduced need for incisional glaucoma and cataract surgery over 6 years².

See More. Know More. Treat Smarter.

CLINICAL CONFIDENCE FROM PRECISION TARGETING

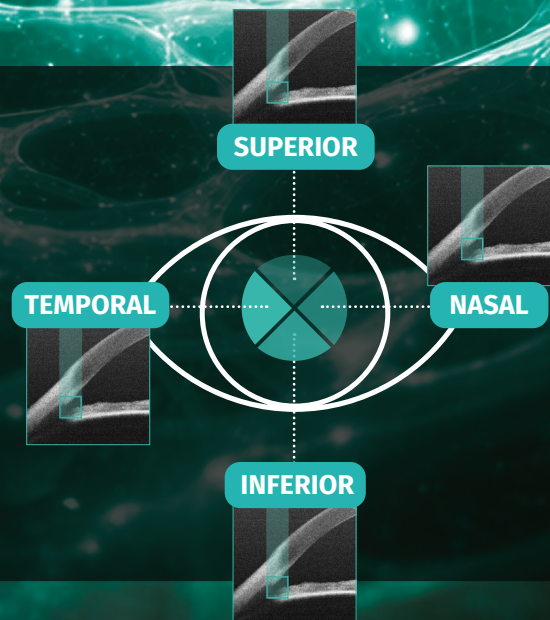
ASTRAL's integrated OCT generates 120 cross-sectional radial views of the eye's Anterior Chamber, delivering a comprehensive view of the iridocorneal angle. Simply navigate around the eye and ASTRAL Intelligence displays the corresponding OCT for each potential treatment location.

When seeing is believing, ASTRAL lets you ...



TARGET THE TRABECULAR MESHWORK

True anatomical targeting in
the stacked images from
the **four cardinal planes**.



SLT Laser - OCT Visualization System

EFFECTIVE, SAFE,
PRECISE, CONFLUENT SLT

OPTIMIZED WORKFLOW AND PATIENT EXPERIENCE

ASTRAL improves your clinic workflow by significantly reducing preparation and post-treatment time while enhancing the patient experience through its gentle, non-contact application.



ASTRAL's 270-degree articulated monitor lets clinicians sit comfortably beside the patient, providing reassurance and easy eyelid manipulation. The flexible design supports a natural posture, while the forward-angled headrest enhances patient fixation and stability for precise treatment.

ASTRAL® INTELLIGENT SOFTWARE

- Streamlines patient setup and treatment workflow.
- Align. Focus. Acquire. Assisting clinicians in targeting and treating the trabecular meshwork.
- Set configurable exclusion zones as required.

ASTRAL®



Patient Details



Treatment Setup



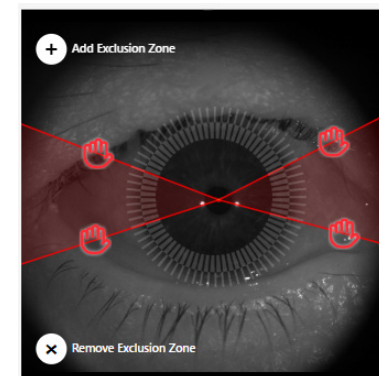
Patient Setup



Treatment



Report



15 sec

PATIENT PROCEDURE ENGAGEMENT TIME

Locate and focus ~7 seconds

Acquire OCT ~5 seconds

Treat < 3 seconds

PATIENTS RETURN TO DAILY ACTIVITIES
WITHIN MINUTES.

NO CONTACT GEL = NO SUSTAINED BLURRED VISION

**TREAT GLAUCOMA
IN MORE PATIENTS
PER HOUR WITH
LOWER COST PER
TREATMENT**

TECHNICAL SPECIFICATIONS

ASTRAL[®]

SLT LASER

Type	Q-Switched frequency doubled Nd:YAG
Wavelength	532 nm
Energy	Adjustable 1.1 - 1.9 mJ
Burst Mode	Single pulse only
Spot size	400 µm
Beam Divergence	≤0.031 radians
Maximum Repetition Rate	50 Hz
Pulse width/duration	3±20% ns
Nominal Ocular Hazard Distance (NOHD)	40.8 m
Cooling	air cooled

Maximum Permissible Exposure (MPE) at the cornea (J/m²) for NOHD calculations using an assumed exposure duration between 1 ns and 100 ns: 2x10⁻³

OCT MODULE

Line Sensor Type	InGaAs
Number of pixels	1024
Pixel height	250 µm
Pixel pitch	12 µm
Maximum line rate	40 kHz
Digital output format	16 bit GigE

COMMON FEATURES SPECIFICATIONS

Weight	38 kg
Dimensions (HxWxD)	530 x 680 x 850 mm
Operating conditions	+15 °C to +35 °C / 35% to 85% relative humidity non-condensing
Storage and transport conditions	-10 °C to +55 °C / 10% to 85% relative humidity non-condensing
Power Supply	100-240 VAC single phase, 50/60 Hz, 300 W, 4A 250V, 5 x 20 mm High Breaking Capacity
Screen	Color Touch Screen, Panel size 15.6", HD Panel resolution 1920x1080. Mounted on an articulated arm rotatable through 270 degrees around the platform.
Computer	PC Tablet WIN 11 IOT
Network connectivity	LAN connection, DICOM compatible
Standard Accessories	Safety glasses, laser safety sign, dust cover
Optional Accessories	Motorised Height Adjustable Table



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Bibliography

1- For publicly available study information and summary results, please refer to ClinicalTrials.gov.

Reference: ClinicalTrials.gov. Identifier: NCT06833060. Exploratory Clinical Study of a Laser-OCT Integrated System With Eye Tracking to Treat Glaucoma and OHT With Transscleral Selective Laser Trabeculoplasty Technology: A Pilot Study (TSLT-001-2023). Available at: <https://clinicaltrials.gov/study/NCT06833060>

2- Gazzard G, Konstantakopoulou E, Garway-Heath D, et al. LiGHT trial: 6-year results of primary selective laser trabeculoplasty versus eye drops for the treatment of glaucoma and ocular hypertension. Ophthalmology. 2022;16:S0161-6420(22)00732-1



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