OPMI LUMERA® 700

OPMI LUMERA 700 is a surgical microscope intended for the illumination and magnification of the surgical area and for the support of visualization in surgical procedures for both the anterior segment of the eye (e.g. cataract, cornea, glaucoma) and, when used in combination with the RESIGHT® non-contact fundus viewing system, the posterior segment of the eye (retina, vitreous).

** SPECIFICATIONS **

OPTICS:

- **Magnification:**
  Main Microscope: 3.5x - 21x, Motorized zoom system with apochromatic optics, 1:6 zoom ratio, magnification factor γ = 0.4x - 2.4x.
  Assistant Microscope (optional): 3.5x - 21x, Motorized zoom system with apochromatic optics, 1:6 zoom ratio, magnification factor γ = 0.4x - 2.4x.
- **Focusing:** Motorized, focusing range 70 mm (30 mm downward/40 mm upward)
- **Objective lens:** focal length, f = 200 mm or f = 175 mm
- **Tubes / eyepieces**: 180° tiltable binocular tube, f = 170 mm, 10x widefield eyepieces

MECHANICALS:

- **Microscope tilt mechanism:** With self-locking control gear, manually adjustable via rotary knob, Tilt angle ± 90°/-20°
- **X-Y coupling Adjustment range:** max. 61 mm x 61 mm, Automatic centering at the press of a button
- **Electromagnetic clutches**

ELECTRICAL:

- **Rated voltage:** 115 V~ (100-125 V~ ± 10%), 230 V~ (220-240 V~ ± 10%)
- **Current consumption:** 115 V~ max. 10 A, 230 V~ max. 8 A
- **Rated frequency**: 50-60 Hz
- **Illumination:**
  Halogen: 2 halogen reflector lamps 12 V 100 W in quick-change module for light guide, with blue barrier filter and KK 40 filter, Fully automatic lamp change.
  Superlux Xenon: Xenon short-arc reflector lamp, Color temperature: approx. 5000 K, Rated power: 180 W, Blue barrier filter (retina protection filter), HaMode filter or fluorescence excitation filter, Backup lamp in lamp housing, manually selectable.

DIMENSIONS:

Floorstand:

Suspension arm: Length: 850 mm, Lateral tilt angle: 320°, Travel: +360 mm / -360 mm

Carrier arm: Length: 450 mm, Lateral tilt angle: 320°

Stand height: 1880 mm

Base (dimensions): 805 x 805 mm

Maximum permissible load on the suspension arm when the surgical microscope (without tube, eyepieces,objective lens) and the XY coupling are mounted: 9 kg.

Total weight: Approx. 235 kg

Ceiling Mount:

- **Suspension arm**: Length: 973 mm, Lateral tilt angle: 2 x 153°, Travel: +340 mm / -340 mm
- **Lift arm:** Length: 1170 mm, Lateral tilt angle: 2 x 172°, Travel: +345 mm / -345 mm
- **Maximum permissible load on the suspension arm when the surgical microscope (without tube, eyepieces, objective lens) and the XY coupling are mounted:** 9 kg.
- **Total weight:** approx. 208 kg

** DISTINGUISHING CHARACTERISTICS**

- **ZEISS apochromatic optics** eliminates spherical and chromatic aberrations, providing unparalleled optical clarity, depth of field and color accuracy.
- **SCI™ (Stereo Coaxial Illumination):** Patented ZEISS technology splits the illumination such that it is parallel to the sightline of each eye, resulting in a brilliant, high-contrast and homogenous red reflex for optimal anterior segment visualization.
- **Superlux® Eye 180 W Xenon light source** with HaMode and Retinal Protection Filters. Xenon illumination offers ophthalmic surgeons a whiter, higher contrast, and more natural image of the surgical field than standard halogen illumination commonplace in ophthalmic surgery.
- **DeepView** allows the surgeon to choose between optimized depth perception at all magnification levels or maximum light transmission.
- **Invertertube™ E compatible:** Unique binoculars that incorporate a built-in, motorized optical inverter, dramatically lowering the stack height and increasing positioning flexibility for a more ergonomic operating posture.
- **RESIGHT™ compatible:** A proprietary non-contact fundus viewing system with sterilizable 60D and 128D aspheric lenses enables the surgeon to switch between the two lenses during a procedure based on preference of magnification, field-of-view and depth-of-field. A built-in Varioskop lens enables focusing of the viewing system without changing the distance between the system and the eye, removing the possibility that the system could contact the patient.
- **Automated transitioning between microscope setup profiles:** When equipped with the Invertertube E and RESIGHT 700, activation of the RESIGHT automatically results in activation of the inverters and any affiliated user profile settings (light intensity, starting zoom and focus values, etc.) to automatically transition the microscope between a setup optimal for anterior segment viewing and one for posterior segment.
- **CALLISTO eye® compatible:** CALLISTO eye receives biometry and keratometry information from the ZEISS IOLMaster® biometer and uses it to project overlays into the eyepieces of the OPMI LUMERA® family of surgical microscopes in a heads-up-display-like fashion, increasing the accuracy and precision of incision placement, the tearing of the capsulorhexis as well as the centration and alignment of IOLs during a cataract surgical procedure.
- **Integrated HD video camera w/ optional HD video recording on USB:** The OPMI LUMERA 700 offers true integrated video that is fully internalized into the system (no exposed wiring) and controllable from the central user interface, handgrips or wireless foot control panel – not from

a separate camera control unit – offering seamless transition between video capture and other microscope functions.