

OPMI Lumera[®] *i*

**Brilliant Red Reflex.
Efficient Workflow.**



OPMI Lumera® i

The new OPMI Lumera *i* surgical microscope from Carl Zeiss ensures clarity – in two different ways. A revolutionary technology enables you to experience the red reflex with more contrast and stability than ever before. Thanks to the interface to the innovative CALLISTO eye™ OR management system, the entire OR workflow is at your fingertips.

- Precision** for optimum results
- Performance** for smooth treatment routines
- Patient Care** for satisfied patients
- Productivity** for efficient OR management



OPMI Lumera i is integrated into the innovative CALLISTO eye OR management system through a common interface. Easy planning, control and documentation of your procedures is available at the push of a button.



**Welcome to the future
of red reflex**



Let there be light

SCI™ (Stereo Coaxial Illumination)

in OPMI Lumera i: revolution for red

reflex. For reliable brilliance and

brightness. For outstanding contrast.

Precision

**All the details of
the patient's eye**



With SCI, OPMI Lumera *i* incorporates a revolutionary technology for the red reflex. Contours appear razor sharp. You see intricacies of the ocular anatomy that you have never seen before. You experience the details of the patient's eye more vividly and brilliantly. The different structures and fluidics can be easily recognized – even with dense cataracts.

A stable red reflex – without compromises

The targeted surgical area shines brightly and vividly as if you had just turned on a lamp, even with strongly pigmented, decentered and ametropic eyes when OPMI Lumera *i* is positioned over the patient's eye.

Even deeper insights – without adjustments

DeepView, the integrated depth of field management system allows you to optimize the microscope in seconds. At the push of a button, you switch between maximum transmission and maximum depth of field – whatever is required.

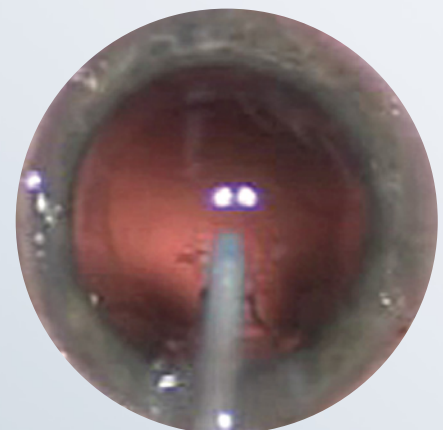
Light – without interruption

The system automatically detects a defective halogen bulb. The backup is immediately turned on, eliminating the time required for manual replacement.

*Unique contrast and outstanding brilliance thanks to SCI: comparison of red reflexes.
(Cincinnati Eye Institute, OH, USA)*



*OPMI Lumera *i**



Conventional microscope

Your ergonomics - Perfectly integrated

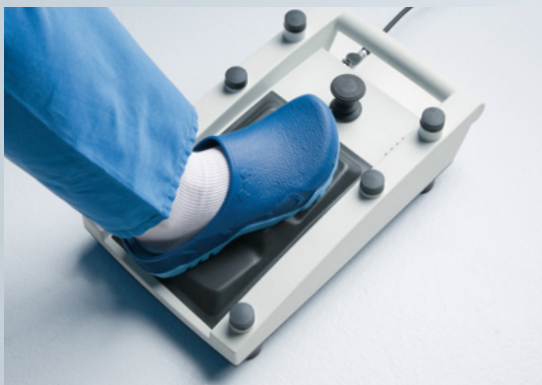
Integration is the epitome of OPMI Lumera *i*. The video camera control unit is incorporated into the stand as well as most of the microscope's cables. As part of an optimal workflow, the image of the surgical field can be directly transmitted to a monitor in the operating room or in another room, thus providing everyone with the same information and allowing live monitoring of the procedure.

Centrally controlled

OPMI Lumera *i* adjusts to your needs, not the other way around. The microscope's touchscreen controls both the microscope and video camera. The display is intuitively operated via on-screen menus and can be easily accessed during an operation, making things easier for the entire OR team.



Stereo co-observation tube



Freely configurable foot control panel



Simultaneous view

OPMI Lumera *i* can be equipped with a stereo co-observation tube. This enables a second person to see the surgical field at the same magnification level. This is particularly well suited for sterile assistants or for training.

React individually and hands-free

The ergonomically designed foot control panel enables you to precisely control OPMI Lumera *i* – intuitively and reliably. You can configure the buttons according to your personal requirements.

Easy sterile recognition

OPMI Lumera *i* addresses every detail. The colored, resterilizable asepsis caps are a perfect example. They enable you to immediately recognize whether operating elements are sterile or non-sterile.



ZEISS

Touch screen interface showing the following menu items:

- User
- Light
- Magnification
- Foot Control
- Video
- System Settings

Main menu
Dr. Bodo

Recognizing all details reliably

Patients trust in your surgical capabilities. OPMI Lumera *i* is the perfect technology to complement your personal desire to provide premium medical care.

For unparalleled accuracy

The SCI™ illumination technology in OPMI Lumera *i* establishes an entirely new benchmark regarding contrast and brilliance. You can recognize the slightest residual tissue in the capsular bag and can reliably and properly remove it. You can also see small but critical details during procedures on the retina.

Automatic light control

The system automatically turns off the light when OPMI Lumera *i* is placed in the standby position.

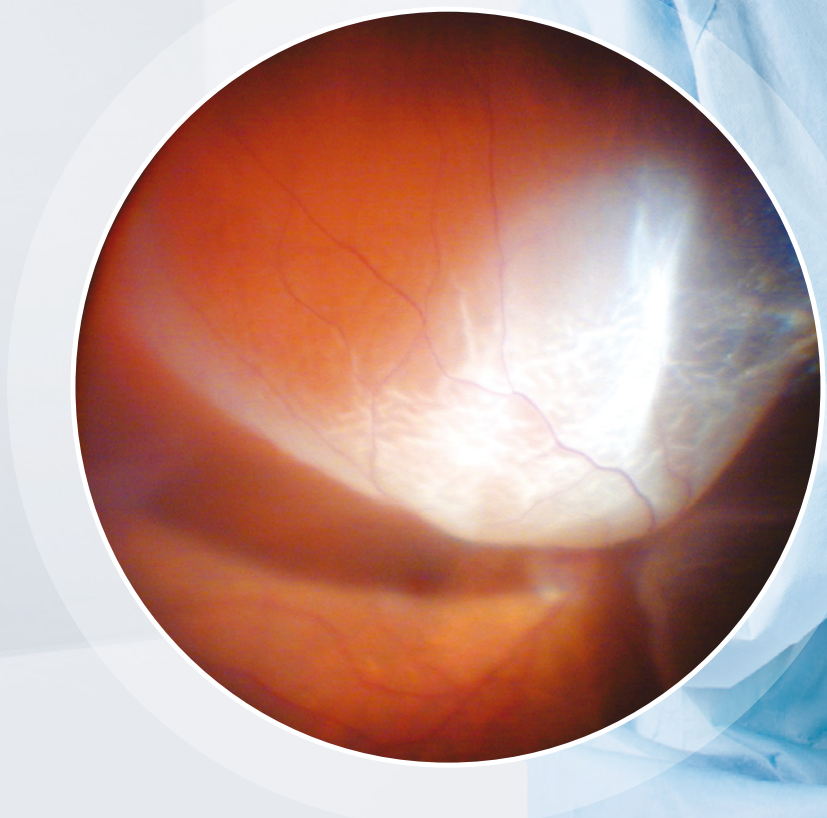
For minimal light exposure

Thanks to the optical concept of SCI illumination, very little light is required to generate the red reflex. This means less stress for the patient's eye. Furthermore, the surrounding field illumination can be separately regulated so that the red reflex shines as brightly as possible and is not affected by stray light. This creates greater clinical visualization capabilities, while maximizing the surgeon's comfort – particularly during long, complicated surgeries.

*Cataract surgery:
SCI™ enables you to recognize the
slightest tissue residue in detail.*



*Retinal surgery:
The high optical quality and light
intensity allow you to see the retina in
full detail.*



For an efficient workflow in the OR

OPMI Lumera *i* establishes new standards in an integrated OR workflow. An example of this is the interface to the CALLISTO eye OR management system that is specially tailored to the demands of ophthalmic surgery.

For optimum networking

The innovative CALLISTO eye OR management system networks your OR procedures into one seamless process. For example, the microscope and the integrated control unit of the video camera can be controlled from one central touchscreen when CALLISTO eye and OPMI Lumera *i* are connected.

For a fast change

With the optional Invertertube™, conversions are no longer required when switching between cataract and retina operations.

For freedom of movement – even when OR space is scarce

Combined with the compact suspension system, OPMI Lumera *i* is also ideal for smaller operating rooms such as those in ambulatory surgical centers.

For efficient, customized video documentation

The MediLive Trio Eye® video camera has been optimally matched to the particular type of ophthalmic surgery. Default microscope and video settings can be easily defined for surgery on the posterior or anterior chamber as well as surgeon-specific settings to reduce change-over times.





For a seamless data flow

CALLISTO eye delivers all relevant information to the OR. The OR plan can be displayed and modified on the touchscreen; the current surgical field can be projected as a live video feed and video documentation is automatically initiated and directly allocated to the patient. This creates truly efficient, patient-based documentation.

Experience the enthusiasm of your colleagues

The revolutionary SCI technology in OPMI Lumera *i* is the result of years of experience and ongoing development. This technological edge can best be seen in clinical practice. Here are a few statements from users testifying to the excellence of this technology.

“ I would award the Lumera the title of top innovation of the year. ”

Dr. Robert B. Osher, Cincinnati, Ohio, USA

in “Cataract and Refractive Surgery Today”,

February 2008 issue, page 17

“ It’s also really good for seeing fluid interfaces, such as intracameral injections and the presence of residual viscoelastic in the eye. ”

David Chang, MD, San Francisco, California, USA

in “Eyeworld,” April 2008 issue

“ I firmly believe that the microscope’s superior optics will lead to safer surgery for both routine and challenging cataract cases ”

Roger Steinert, MD, University of California at Irvine in “Cataract and Refractive Surgery Today”, September 2008 issue, supplement



“ I was able to easily differentiate the different tissues in the posterior segment of the eye. ”

Prof. Y. Tano, Osaka, Japan

“ A unique red reflex ”

Prof. Dr. Thomas Neuhann, Munich, Germany

“ The enhanced red reflex and the improvement in contrast are most helpful for seeing microscopic details of the anterior and posterior capsule. ”

David Chang, MD, San Francisco, California, USA
in “Retinal Physician,” April 2008 issue

“ I was able to much better estimate the entire depth of the lens capsule. I have never seen an eye like this – it is simply amazing. ”

Dr. Warren Hill, Phoenix, Arizona, USA

“ The detail you see with this microscope is quite remarkable and unprecedented.

I feel the OPMI Lumera has added a whole new dimension to improve my surgery. ”

Dr. Richard B. Packard, Windsor, UK

Illustration: Ophthalmology Management,
February 2008 issue

Wide range of accessories for specific demands

Select the configuration that is tailored to the needs for your OR.

MediLive® Primo – for live visualization

The compact and economical 1-chip video camera is ideal for showing a video image on a monitor – enabling your staff or students to follow the operation.

MediLive Trio Eye – for all video requirements

The MediLive® Trio Eye® video camera can be adjusted to different lighting conditions at the push of a button. It provides a bright, high-contrast image on the monitor during procedures on the posterior segment of the eye where little light is used. In the anterior segment, the videos provide details of the sclera without blooming.

MediLive® MindStream – for comprehensive documentation

You can simultaneously record, edit and save videos and pictures to a hard drive, DVD or CD-ROM. MediLive MindStream also supports the DICOM standard.

CALLISTO eye – for a paper-free OR

A large touchscreen in the OR is used as a central workstation: Here, you can display and modify current OR plans, access patient data, record consumable usage and document a procedure for each patient. Connecting OPMI Lumera *i* provides additional benefits: the microscope and the integrated camera control unit of the video camera can be controlled via one central touchscreen. In addition, CALLISTO eye provides a platform for all your digital video recording needs.

Invertertube™ – For a fast change

Conversions between cataract and retina surgery are a thing of the past. The function of the inverter is already integrated into the binocular tube. An ergonomic design allows the surgeon to sit upright and work in comfort.

Stereo co-observation tube – for a second set of eyes

The second viewing tube connected via a beam splitter enables assistants or students to directly view the surgical field and technique of the surgeon.

FlexioStill adapter – for a quick connection

With this lightweight, easy-to-use adapter, a compact digital camera can quickly and easily become a part of the OPMI® Lumera *i* surgical microscope.



FlexioStill™ adapter



MediLive® Trio Eye™

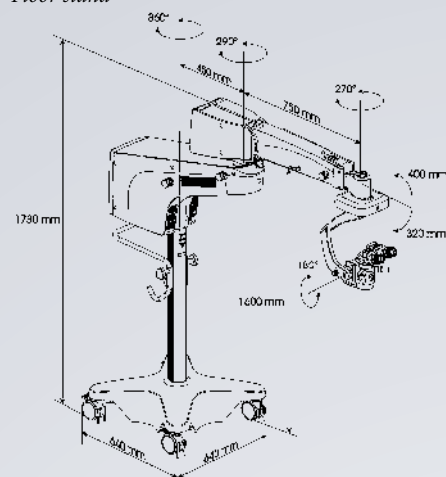


Invertertube™



Technical Data	
Surgical microscope	Apochromatic optics
	Motorized zoom system, 1:6 zoom ratio, magnification factors $\gamma = 0.4$ to 2.4
	Focusing range: 50 mm
	Binocular tube: 0-180° tiltable tube (optional Invertertube)
	Eyepieces: 10 x (12.5 optional)
	Objective lens $f = 200$ mm ($f = 175$ mm optional)
	DeepView: depth of field management system
Illumination	SCI: red reflex illumination and surrounding field illumination, both are adjustable, patent pending
	Integrated 408 nm UV barrier filter
	Blue blocking filter
	Retinal protection device
	Fiber optic illumination
	Optional: fluorescence filter
Light source	12 V, 100 W halogen illumination with fully automatic lamp change when necessary
X-Y coupling	61 mm x 61 mm adjustment range
	Free programmable button for starting positions of X-Y coupling, focus and zoom
Weight	8.5 kg (with 180° inclinable binocular tube, objective lens and eyepieces)
Suspension system	Floor stand
	Maximum load capacity: 14 kg (complete microscope equipment, including accessories)
Compliance	CE

Floor stand



Carl Zeiss Surgical GmbH

A Carl Zeiss Meditec Company
73446 Oberkochen
Germany

Fax: +49 (0) 73 64/20-48 23
Email: surgical@meditec.zeiss.com
www.meditec.zeiss.com/lumera

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Carl Zeiss Meditec
5160 Hacienda Drive
Dublin, CA 94568-7562

Toll Free: (800) 442-4020
Phone: (925) 557-4100
Fax: 925-557-4101
Email: i.info@meditec.zeiss.com
www.meditec.zeiss.com/lumera

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