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Dok-ID: 110-00030\_V1.1\_en  
CO#003-01701

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## 1. Description

High-quality LEDs combined with the patented reflector technology 2.0 create the precondition for the ideal illumination of the surgical field. The LED technology consists exclusively of visible light without infrared components, which makes complex filtering unnecessary. The perfect arrangement of LED reflectors results facilitates the maximum efficiency of the light emitting surface while providing very high illumination for deep cavities.

The single-color lights with their natural white LEDs offer a top light performance at 4,500 Kelvin and achieve a high color rendering index Ra of 98. The R9 level is quite high with 99 too.

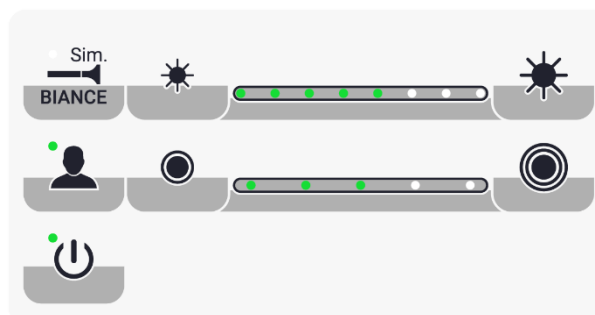
The new SIMEON HighLine operating lights are made of high-end materials such as aluminum and safety glass. The housing made of aluminum favors a well-established heat management. This offers two important advantages. First, it avoids heat accumulation by direct heat sink function which leads to an extremely long lifetime of the LEDs. Second, the optimized heat management and the very low power consumption creates a perfect hygienic environment under laminar flow ceiling condition.

The Sim.LED 8000 lights have a hygiene-optimized design, which is supported by the seamlessly closed construction and the use of ESG safety glass. In addition, the ESG safety glass offers the advantage of a consistently high illumination over the entire service life of the LED light.

The new SIMEON HighLine operating lights convince with the innovative antibacterial coating Anti.BAC®. Anti.BAC® reduces germs by 99.99% and is completely free of physiologically harmful nano-silver or free silver ions. Anti.BAC powder is used at the light head and cardanic arms, suspension system, ceiling tube, mobile stand, monitor brackets, etc.

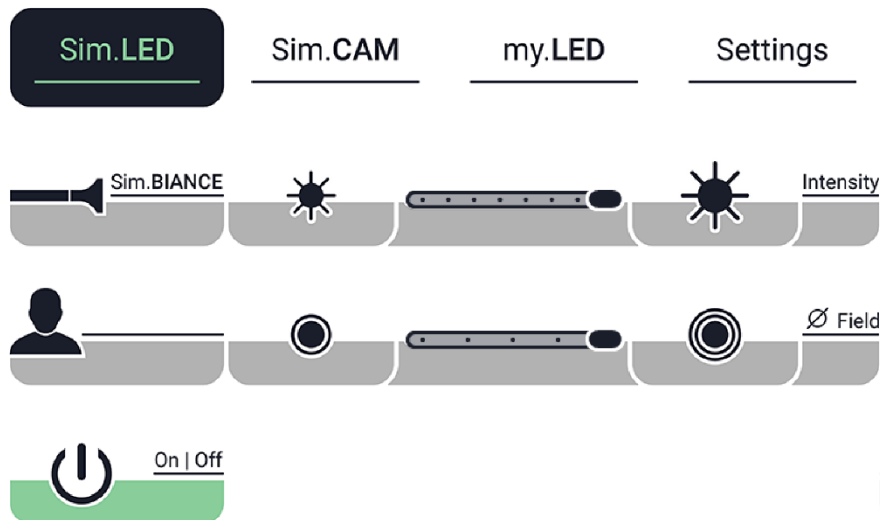
All operating functions are intuitively controllable via cardanic control panel:

- On/Off button with LED
- **my.LED** button (storage function)
- **Sim.BIANCE** button (background illumination for endoscopic procedures)
- Illumination intensity plus/minus (8 steps)
- Illuminated field size plus/minus (5 steps)



SC version cardanic control

The same adjustments for lights, camera, my.LED and service features are available via Touch cardanic control and Touch Wall Control. Here, the settings can be adjusted via buttons or the sliding function.



Further the **my.GRIP** function offers a sterile control of two operating functions in parallel and directly on the sterile handle with up to 12 freely selectable combinations. The my.GRIP function is available for SC and MC lights.

Adjustment of Function 1 my.GRIP: Is clicking to the left or clicking to the right with the sterile handle. → feature of function 1 is brightness, field adjustment and color temperature.

Adjustment of Function 2 my.GRIP: Is click and hold to the left or click and hold to the right with the sterile handle. → feature of function 2 is brightness, field adjustment, color temperature and Sim.BIANCE (endo mode).

Presetting of function 1 is field adjustment and standard for function 2 is brightness adjustment.

An excellent and intuitive usability concept completes the service of the Sim.LED 8000.

## 2. Technical data

<b>Photometrical data:</b>		<b>Sim.LED 8000 SC</b>
Central illumination $E_c$ (1m)	[lx]	160.000
Electrical dimming capability from/to	[lx]	48.000-160.000
Endo mode dimming range	[lx]	3.000-48.000
Dimming range in total	[%]	2-100
Light field diameter $d_{10}$ at a distance of 1m	[mm]	170-320
Illumination in different light field sizes	[lx]	160.000
Light field ratio $d_{50}$ at a distance of 1m	[mm]	98-178
Light field ratio $d_{50}/d_{10}$ at a distance of 1m		0,58
Electrical field adjustment	[mm]	yes
Color temperature	[K]	4.500
Color rendering index	$Ra_{(1-8)}$	98
Red rendering index	$R_9$	99
Total irradiance	[W/m <sup>2</sup> ]	570
Luminosity factor of radiation	[lm/W]	295
Depth of illumination without additional focusing (L1+L2) at 20%	[mm]	2.308
Depth of illumination without additional focusing (L1+L2) at 60%	[mm]	979
Working area from/to	[mm]	760-1.739
Laminar flow index (measurement for intensity of turbulence)	[%]	33
Laminar flow index (measurement of particles)	[class]	4,1
Temperature increase at surgeon's head	[°C]	< 1
Temperature increase at operation area	[°C]	< 10
LED – light source	[pieces]	30 x 3 = 90
Sim.BIANCE ambient light for MIS	[lx]	3.000-48.000
Residual illumination with 1 shadow-caster	[%]	92
Residual illumination with 2 shadow-caster	[%]	75
Residual illumination with 1 tube	[%]	100
Residual illumination with 1 tube and 1 shadow-caster	[%]	92
Residual Illumination With 1 tube and 2 shadow-caster	[%]	75

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<b>Electrical data:</b>		<b>Sim.LED 8000 SC</b>
Power supply incl. mounting plate (LxWxH)	[mm]	322x145x90
Power supply – primary voltage AC	[V]	100-240
Input voltage at light head DC	[V]	20-33
Typical input voltage DC	[V]	28
Maximum current consumption	[A]	5,4
Typical current consumption	[A]	3,6
Power consumption with 24 V	[W]	100
Life time of light source	[h]	> 60.000
Classification according MDD		I
Protection class according IEC 60601		I
Suspension protection class	IP	IP 30
Light housing protection class	IP	IP 54
Certificate		CE
<b>Mechanical data:</b>		<b>Sim.LED 8000 SC</b>
Minimum room height with full cardanic suspension (power supply at the ceiling tube, pass line height 2,25 m)	[mm]	2.730
Operating range	[mm]	1.757
Adjustment of the spring arm	[mm]	1.339
Approx. weight of a standard ceiling tube	[kg]	10,5
Approx. weight of the suspension	[kg]	9,5
Approx. weight of the spring arm SA 2075	[kg]	9,0
Approx. weight of the power supply	[kg]	2,2
Approx. weight of the light head	[kg]	18
Total weight	[kg]	49,1
Vertical force	[N]	ca. 530
Moment of torque	[Nm]	ca. 350
Ceiling cover dimensions	[mm]	Ø620x180 (90)
Height of the light head without sterile handle	[mm]	ca. 74
Light head dimensions	[mm]	710x680
<b>Mobile stand with battery:</b>		<b>Sim.LED 8000 SC</b>
Single Battery runtime at maximum intensity	[h]	2,2

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**Technical Data Sheet**  
OR Light Sim.LED 8000 SC

Double Battery runtime at maximum intensity	[h]	4,4
Battery charging time	[h]	2,5
Estimated amount of charging cycles		1000
Optional power supply:		
Primary Voltage AC	[V]	100-240
Power frequency	[Hz]	47-63
Current Consumption	[A]	2,5-1,2

### 3. Technical drawing

