

EN



YLED

Brilliant Light – YLED-1F
For Diagnostic and Minor Surgery

MAVIG

Brilliant Light for Diagnostic and Minor Surgery

For decades, MAVIG has set standards in the field of radiation protection and medical suspension systems. This also goes for our long-standing partner company Dr. Mach and their core competence in lighting technology for medical applications.

Both companies are family-owned, producing in Germany with a high level of vertical manufacture, demanding highest quality standards combined with product functionality.

The YLED-1F complements the MAVIG portfolio of the established Portegra2 modular ceiling suspension system with an easy-to-use examination light.

The latest generation of luminaires with LED technology (light-emitting diode) makes it easier for users to work concentrated for long periods without fatigue. The YLED-1F is designed to reveal the slightest difference in colour and tissue structure of the wound field. This is achieved without perceivable warming of the housing or the wound area.

In addition, the YLED-1F impresses with its practical "plug and play" installation, an integrated wide-range power supply, a lifetime of at least 50,000 hours for the LED module, and low energy consumption. These features increase economic efficiency in comparison to existing lighting solutions.

The advantages of established lighting technologies such as halogen and gas discharge lamps have been retained: natural colour reproduction, precise illumination of the wound area, and easy positioning of the lamp.

The logo for MAVIG, featuring the letters 'M', 'A', 'V', 'I', and 'G' in a bold, sans-serif font. The letter 'A' is highlighted in orange, while the other letters are in a dark grey color.

Advantages of the YLED-1F

The YLED-1F combines state-of-the-art LED technology with a high degree of functionality and therefore offers a wide range of possible applications.



Integrated Power Supply

By using an integrated power supply, the YLED-1F can be connected directly to the local power supply (100-240 VAC)



High Energy Efficiency

LEDs use electricity considerably more efficiently than conventional light sources. They consume only about 10% of the energy used by lamps of comparable power and reduce the maximum power consumption of the YLED-1F below 24 VA



Less Heat

LEDs generate considerably less heat than incandescent lamps. Furthermore, they generate very little UV and infra-red light. Lights with LED light sources therefore remain cool and only minimally heat the illuminated area, such as that around the patient's wound.



Quickly Ready to Use

LEDs switch on without delay and generate their full lighting output immediately.



Long Life

With a continuous illumination time of at least 50,000 hours, or five and a half years, MAVIG LEDs have an enormously long lifetime, and therefore help to protect the environment.



Hazardous Substances

In contrast to energy saving lamps, LEDs do not contain mercury.



Robustness and Protection

LEDs are resistant to physical impact. This makes them suitable for environments that require robust mechanical features. The YLED-1F fulfills the fire protection class V0 and the protection class IP44.



Excellent Durability

LEDs typically do not show any sudden failure. Instead, the light intensity of an LED decreases only very slowly.

YLED-1F Technical Data

Special Feature

- Integrated wide-range power supply (100-240 VAC, 50 - 60 Hz)

Energy Efficiency

- Power consumption ≤ 24 VA

Temperature Increase

- In the head area ≤ 0,5 K

High Comfort - Full Illumination

- Central light intensity 70,000 Lux (at 1 m distance)

LED Module

- Lifetime ≥ 50,000 hours

Hazardous Substances

- RoHS compliant according to EU Directive 2011/65/EU

Robustness

- Protection level IP44 (protects against splash water)
- Fire protection class V0

Medical Product

- Complies with Directive 93/42/EEC for Medical Devices
- DIN VDE 0100-710 for rooms used for medical purposes

Freedom of Design

- Optimised housing design for 17 LED modules



MEDICAL LIGHTING TECHNOLOGY



YLED-1F

The compact YLED-1F contains 17 powerful LED modules. All modules provide a combined light intensity of 70,000 Lux. In addition, a wide range power supply is integrated into the housing. This integrated power supply enables you to save space and time by means of simple installation.

Regardless of whether it is ceiling or wall-mounted, the tried-and-tested MAVIG Portegra2 system is ideal for suspending the YLED-1F (and other medical devices). Thanks to its great flexibility as a modular system with many safety features, it can be optimally adapted to a wide range of applications.

The YLED-1F therefore covers a wide range of applications, from examinations to minor surgical procedures. It is intuitively controlled by means of the side-mounted control panel and the sterilisable handle.

Designed for utmost performance and to meet stringent requirements, the YLED-1F can be daily used by physicians or specialists, in hospitals or in outpatient surgery centres. It always keeps a "cool head", because the heat radiation from the YLED-1F is reduced to a minimum.

With the use of considerably more efficient LEDs from the latest generation and a lamp life of at least 50,000 hours, the costs for electricity and lamp replacements are greatly reduced.

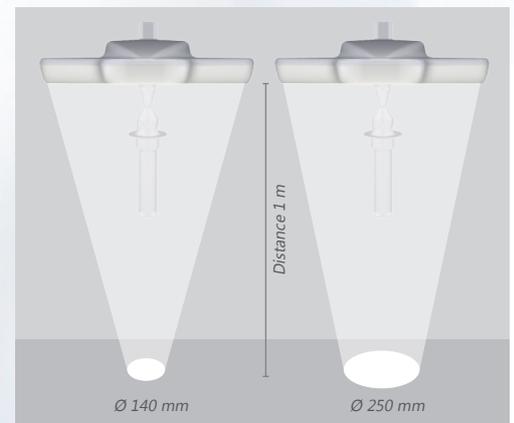
Equipped with the Latest Technology

With an excellent colour rendering index of $Ra \geq 95$, users can easily identify the most subtle nuances of colour and structures in the wound area. Therefore, the colour spectrum of the wound area appears more natural and with greater contrast. Moreover, the light itself is more pleasant for the users eyes.

Faceted lenses: Computer-optimised, they enable a very uniform light distribution and a minimum shadowing in the field of illumination. Separately arranged optics on each LED module enable the best possible overlap of the individual fields of illumination. This increases the contrast and the identification of details and achieves the best possible visual perception of the wound area.



Focusing: By rotating the sterilisable handle, the diameter of the field of illumination can be precisely adapted or focused to the particular size of the wound. This enables the user to freely select the required intensity of illumination precisely in various working levels. Therefore, the wound area is optimally illuminated even during complex procedures.



The result: Excellent illumination of local body areas and precise and effective support for the diagnosis and treatment of patients.

YLED

PORTEGRA 2

Free 360° rotation at the connection to the Portegra2 ceiling system

Lamp housing with integrated wide-range power supply

Housing protection class IP-44

Faceted lenses for uniform light distribution

Intuitive control panel



Sterilisable handle for convenient positioning and focusing

DIMENSIONS AND TECHNICAL DATA

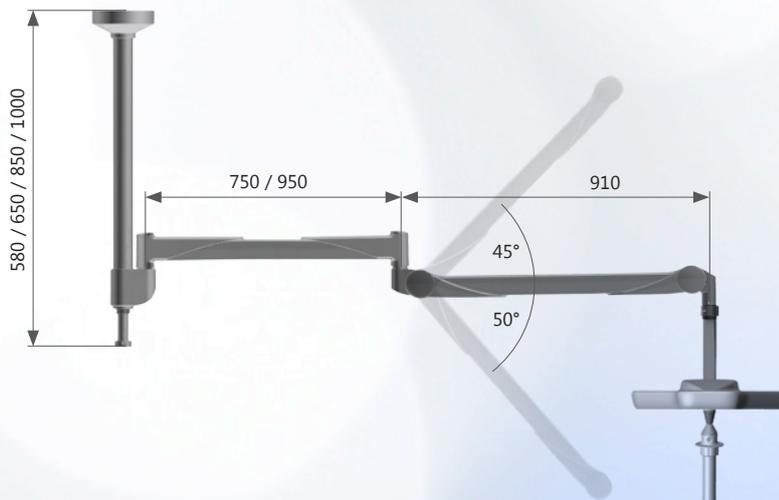
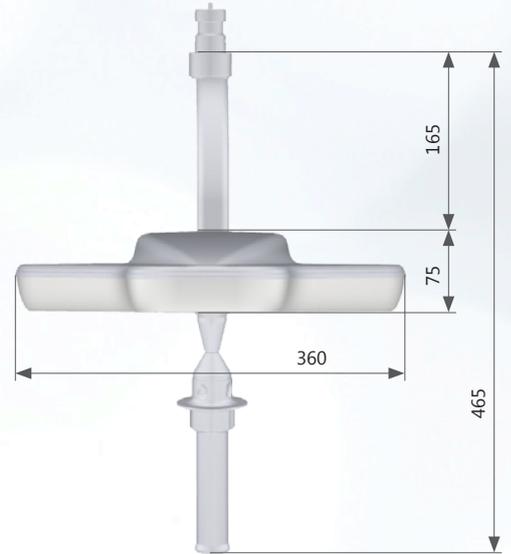
Technical Data and Specifications



YLED-1F

Examination and minor surgery light with integrated wide range power supply and faceted multiple lens system for minimum shadowing in the field of illumination.

Model	YLED-1F
Central light intensity (at 1 m distance)	70,000 lx
Colour temperature	4100 ± 200 K
Colour rendering index at 4100 Kelvin (CRI)	R _a ≥ 95
Focusable light field size	140 - 250 mm
Electronic brightness control	50 % - 100 % (incl. endoscopy light function)
Sterilisable handle	✓
Temperature increase in head area	≤ 0.5 K
Power consumption (total)	≤ 24 VA
Mains voltage and frequency	100 - 240 VAC at 50 - 60 Hz
Number of LED modules	17
Lifetime of LEDs	≥ 50,000 h
Working area	70 - 140 cm
Height adjustment (on Portegra2 spring arm)	117 cm
Lamp dimensions	28 x 36 cm
Housing colour	RAL 9002
Weight YLED-1F	2.4 kg
Hazardous substances (EU Directive 2011/65/EU)	RoHS compliant
Housing - Protected against splashed water	IP44
Fire protection class	V0
Directive for Medical Devices 93/42/EEC	✓
Use according to DIN VDE 0100-710	✓
Approvals	CE / NRTL



EXAMINATION AND SURGERY LIGHTS

Further Examination and Surgery Lights in the MAVIG Portfolio Technical Data / Specifications



LED 120 F

Small examination light for diagnosis and minor surgery with LED technology, electronic brightness control, and focusing via the handle.



LED 2 MC/SC

Small surgery light, optionally with multi-colour (MC) for adjusting the colour of the light, or single colour (SC) as well as faceted multiple lens system for minimum shadowing in the field of illumination.

Model	LED 120 F	LED 2 MC	LED 2 SC
Central light intensity (at 1 m distance)	40,000 lx	100,000 lx	100,000 lx
Colour rendering index at 4500 Kelvin	$R_a = 95$	$R_a \leq 96$	$R_a = 95$
Focusable light field size	140 - 250 mm	140 - 280 mm	140 - 280 mm
Electronic brightness control	50% - 100%	50% - 100%	50% - 100%
Temperature increase in head area	-	5% (Endo) < 0.5 K	5% (Endo) < 0.5 K
Power consumption (total)	18 VA	70 VA	30 VA
Number of LEDs	12	84	21
Lifetime of LEDs	> 40,000 h	> 40,000 h	> 40,000 h
Working area	70 - 140 cm	60 - 150 cm	60 - 150 cm
Height adjustment	117 cm	117 cm	117 cm
Lamp diameter	29 cm	49 cm	49 cm



LED 3 MC/SC

Surgery light with LED technology optionally with multi-colour (MC) for adjusting the colour of the light, or single colour (SC) as well as faceted multiple lens system for minimum shadowing in the field of illumination.



LED 5 MC/SC

Powerful surgery light with LED technology optionally with multi-colour (MC) for adjusting the colour of the light, or single colour (SC) as well as faceted multiple lens system for minimum shadowing in the field of illumination.

Model	LED 3 MC	LED 3SC	LED 5 MC	LED 5 SC
Central light intensity (at 1 m distance)	130,000	130,000	160,000	160,000
Colour rendering index at 4500 Kelvin	$R_a \leq 96$	$R_a = 95$	$R_a \leq 96$	$R_a = 95$
Focusable light field size	170 - 280 mm	170 - 280 mm	200 - 320 mm	200 - 320 mm
Electronic brightness control	50% - 100%	50% - 100%	50% - 100%	50% - 100%
Temperature increase in head area	5% (Endo) 0.5 K	5% (Endo) 0.5 K	5% (Endo) 0.5 K	5% (Endo) 0.5 K
Power consumption (total)	120 VA	45 VA	160 VA	65 VA
Number of LEDs	112	28	160	40
Lifetime of LEDs	> > 40,000 h	> 40,000 h	> 40,000 h	> 40,000 h
Working area	60 - 150 cm			
Height adjustment	117 cm	117 cm	117 cm	117 cm
Lamp diameter	57 cm	57 cm	72 cm	72 cm



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