

# **Brilliant Light – YLED-1F** For Diagnostic and Examination





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.

# **Brilliant Light for Diagnostic and Examination**

The YLED-1F complements the MAVIG portfolio with an easy-to-use examination light.

The **easy installation** can be carried out on the established, modular MAVIG Portegra2, as well as on the Acrobat Swing System and the hybrid central axis. This allows for the flexibility of a **ceiling-, wall-mounted** or **mobile use**, depending on customers needs.

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 **60,000 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.





# ACCORDING TO STATE OF THE ART TECHNOLOGY

# **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).

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### 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 60,000 hours, or six and a half years, MAVIG LEDs have an enormously long lifetime, and therefore help to protect the environment.

## Free of 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.

### Technical Data YLED-1F

# 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 lx (at 1 m distance)

# • Lifetime

≥ 60,000 hours

### Free of Hazardous Substances

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

### Robustness

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

### Medical Product

- Complies with (EU) 2017/745 MDR
- for Medical Devices
   DIN VDE 0100-710
- for rooms used for medical purposes • Approvals: CE / NRTL

### 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.

The YLED-1F covers a wide range of applications, from diagnoses to medical examination 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.

70,000 lx light intensity
 Integrated wide range power supply
 Efficient LED of the newest generation
 Lifetime of LEDs: at least 60,000 hours
 Highly economic
 Reduced power consumption
 Easy, time saving installation

# **Equipped with the Latest Technology**

With an excellent colour rendering index of  $R_a = 95$ , 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 pleasent for the users eyes.

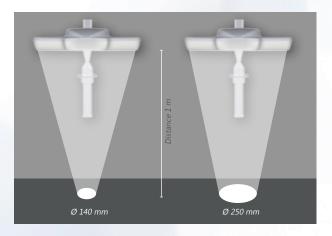
### Faceted Lenses

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.



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 examinations.





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



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

Lamp housing with integrated wide-range power supply

20RIECRA 2

Housing protection class IP44

Faceted lenses for uniform light distribution

Intuitive control panel



Sterilisable handle for convenient positioning and focusing

MANC











# DIMENSIONS AND TECHNICAL DATA

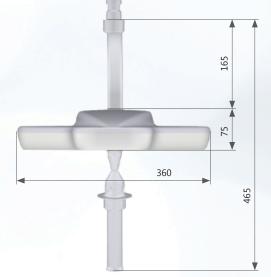
# **Technical Data / Specifications**



## YLED-1F

Diagnostic and examination 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 R <sub>a</sub> at 4100 Kelvin (CRI)	95
Focusable light field size (at 1 m distance)	140 - 250 mm
Electronic brightness control	50 % - 100 %
(incl. endo	scopy light function)
Sterilisable handle	$\checkmark$
Temperature increase in head area	0.5 K
Power consumption (total)	24 VA
Mains voltage and frequency 100 - 2	40 VAC at 50 - 60 Hz
Number of LED modules	17
Lifetime of LEDs	≥ 60,000 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
Medical Device - (EU) 2017/745 MDR	$\checkmark$
Use according to DIN VDE 0100-710	$\checkmark$
Approvals	CE / NRTL







# **VFRSATILITY**

# LIGHTS PORTFOLIO



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

LED examination and small surgery light,

with electronic brightness control and easy

LED120F

LED150F

focusing via the handle.

# **Versatility at MAVIG**

The YLED-1F can be connected to all MAVIG suspension systems. If another light source is needed, MAVIG offers a versatile spectrum from examination to operating theatre lights.





Regardless of whether it is ceiling or wall-mounted, the tried-and-tested MAVIG Portegra2 system is ideal for suspending lights (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.

## **LIGHTS AT THE VERSATILE HYBRID CENTRAL AXIS SYSTEM**

This MAVIG suspension system is equipped with extra long extension arms to give the system an extended and stable reach.





## **ECONOMICAL ALTERNATIVE** - ACROBAT<sup>®</sup> SWING SYSTEMS

Perfect ease of movement - the Acrobat Swing is a flexible pendant support system. Designed as an agile aid for diagnostic, surgical and therapeutic applications it can be used as a ceiling-mounted or freestanding unit.



Small single colour surgery light with faceted multiple lens system for minimum shadowing

## LED3 SC

LED2 SC

Single colour LED surgery light with faceted multiple lens system for minimum shadowing in the field of illumination.



#### LED6

Surgery light with LED technology, multi-colour function for adjusting the colour of the light, optional laser pointer (L) or camera preparation (KV) and shadow management (S).

in the field of illumination.





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