



New LUMIMAX Ring Lights of the LRHP series | Source: iim GmbH

ALL-ROUND UPGRADE: THE NEW LUMIMAX® LRHP HIGH PERFORMANCE RING LIGHT SERIES

Suhl, July 2025. Machine Vision Ring Lights are typically used in bright-field applications where a compact system layout is required. The geometry and light characteristics of the illumination are crucial for ensuring full and homogeneous coverage of the inspection area. These factors, in turn, depend heavily on several parameters: the distance to the inspection object, the relevant inspection area, or *area-of-interest* (AOI), and the mounting options on the lens and camera. LUMIMAX® has now updated its existing Ring Lights – with the new LRHP High Performance Series, both current and future challenges in image processing can be successfully met.

The four lighting sizes in the LRHP series offer solutions for a wide range of applications. LRHP45 and LRHP66 (the number indicates the free inner diameter) are designed to be particularly compact and can be mounted directly on the protective tubes of many camera models. For applications requiring larger working distances, extended inspection areas, or larger dimensioned vision systems, the LRHP100 or LRHP160 models are ideal. The LRHP160, for example, is particularly well-suited for positioning on laser heads.

Compact Design – Powerful Performance

All variants feature a compact yet performance-optimised design. Two rows of high-power LEDs are driven to peak performance by the integrated controller technology – in strobe mode, brightness levels of up to 4 million lux can be achieved. This is made possible

MAXIMUM PERFORMANCE IN A SMALL SPACE



- Dual-row, high-power LEDs deliver up to 4 million lux in strobe mode
- Optimised thermal management for long service life and high efficiency

HOMOGENEOUS ILLUMINATION – FLEXIBLE & CUSTOMISABLE



- Minimised hot spots through intelligent LED arrangement and ALD diffusers
- Customisable light characteristics for a wide range of surfaces – from matt to highly reflective

QUICK INTEGRATION & EASY HANDLING



- Quick lens change thanks to pre-mounted lens arrays, can be supplemented with polarisation filters or dome attachments
- Mechanically easy to integrate thanks to low weight, 3D cable outlet and compact design



The new LRHP series scores with optimum thermal management, versatile mounting options, space-saving designs and high industrial suitability | Source: iiM GmbH

by efficient power electronics combined with optimised thermal management. While the performance is impressive, size and weight are kept to a minimum, making mechanical integration easier. In addition, all series include a 3D cable outlet, allowing flexible routing of the power supply line. Proven LUMIMAX® High Power features such as the M16 connector, robust aluminum housing and IP64 protection rating remain unchanged.

Customisable Light Characteristics for Demanding Applications

The dual-row LED layout not only increases brightness compared to previous models but also minimizes the appearance of LED hotspots – especially when used with frosted ALD diffusers. Using front optics, the light field width can be tailored to the object size and working distance. These optics are pre-assembled in lens arrays for easy replacement. The light characteristics can also be adapted using polarizing filters or diffusers, depending on the surface properties of the inspected object. Dome attachments for LRHP45 and LRHP66 offer especially diffuse, homogeneous illumination of highly reflective or curved surfaces. The three-dimensional diffuser scatters light from all angles of the hemisphere onto the inspection object. Thanks to active backlighting with high-power LEDs, these lights are significantly brighter than conventional dome lights, while also being suitable for use in confined spaces. The LRHP ring lights are available in white, red, blue, green, and infrared, and support continuous, switched, or strobe operation. For more information on the new High Performance lighting series, visit ► lumimax.com. ■

About iiM GmbH and LUMIMAX®

iiM GmbH – part of Union Park's holding company Exaktera – is developer, manufacturer and distributor of high-quality, high-performance products for industrial image processing.

Based in Suhl, Germany, we develop and manufacture high-performance and highly functional LED illumination under the LUMIMAX® brand for Machine Vision applications in a very wide range of industrial sectors, including automotive, semiconductor, pharma, and the food and beverage industry.

A further department develops and markets special measuring technology and peripherals for the cable and wire industry to record geometric features, particularly on insulating covers and cable sheathing, in accordance with standards.

A team of over 80 engineers, technicians and skilled workers assists our customers as a partner when realising their challenges. Certified in accordance with Global Certificate ISO 9001:2015 by DEKRA, iiM GmbH guarantees quality at the highest level.

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