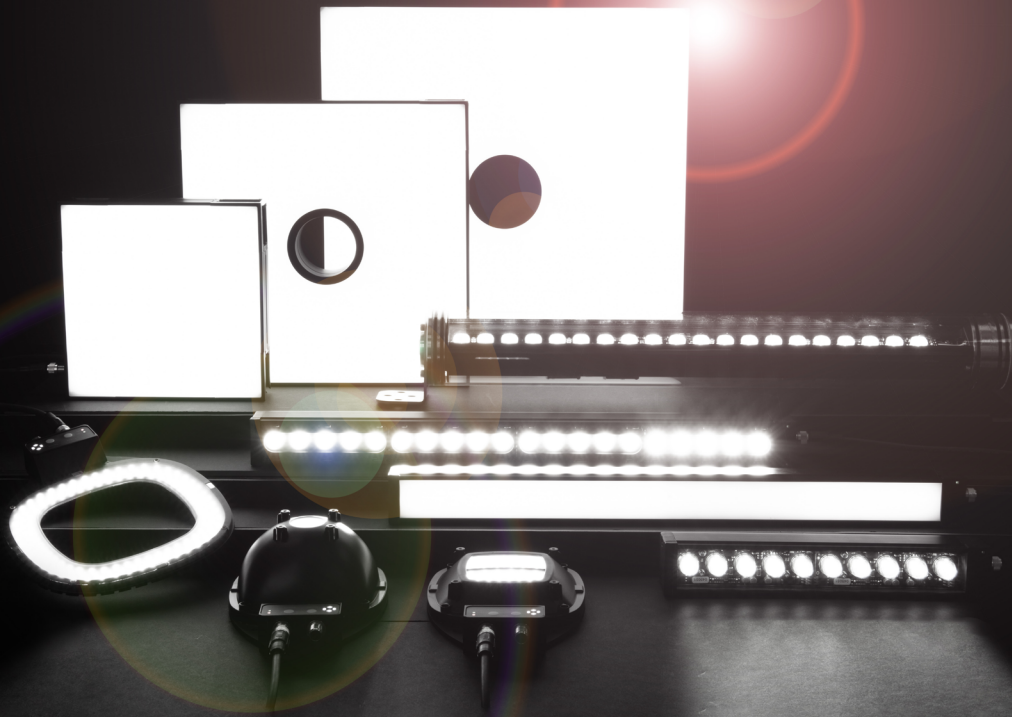




Lighting Up Machine Vision.  
**Illumination Technology**





## Bar Lights

wenglor LED bar lights consist of LEDs arranged linearly with outstanding brightness and homogeneity for a wide range of applications, such as creating a dark-field effect to illuminate shiny parts or creating a bright-field effect to light up an area.

| LBF                  | LBA                     | LBS                  | LBO                  |
|----------------------|-------------------------|----------------------|----------------------|
| Bar light Flash      | Bar light Standard      | Bar light Single     | Bar light OverDrive  |
| 125 mm to 2,500 mm   | 125 mm to 1,250 mm      | 125 mm to 500 mm     | 625 mm to 1,125 mm   |
| OverDrive: yes       | OverDrive: up to 500 mm | OverDrive: yes       | OverDrive: yes       |
| white, red, infrared | white, red, infrared    | white, red, infrared | white, red, infrared |
| IP65                 | IP65                    | IP65                 | IP65                 |

| LBL                  | LBD                  | LB9                  | LBT                  |
|----------------------|----------------------|----------------------|----------------------|
| Bar light Link       | Bar light diffuse    | Bar light IP69K      | Mini bar light       |
| 125 mm to 1,250 mm   | 125 mm to 1,250 mm   | 125 mm to 1,250 mm   | 64 mm                |
| OverDrive: no        | OverDrive: no        | OverDrive: no        | OverDrive: yes       |
| white, red, infrared | white, red, infrared | white, red, infrared | white, red, infrared |
| IP65                 | IP65                 | IP69K                | IP67                 |

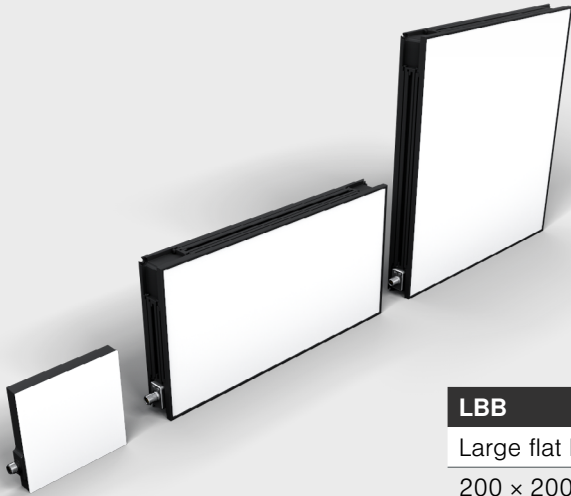
### Control Light Distribution Flexibly

ZBAG angle changers make it possible to specifically adjust the beam angle within a range of  $\pm 7^\circ$  to  $\pm 25^\circ$ , helping ensure uniform illumination of the visual field. Available for the LBT, LBA, LBS, LBL, LBO and LBF series as well as in polarized or non-polarized variants.



## Flat Lights

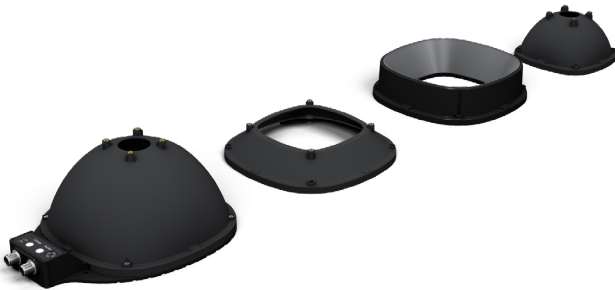
Flat lights are often used to create silhouettes around components and produce a strong black and white contrast. They can also be used as highly diffuse, direct LED lighting near sample parts, making them a powerful tool for illuminating reflective surfaces.



| LBB                            | ZVZF3 & ZVZF4              |
|--------------------------------|----------------------------|
| Large flat light               | Compact flat light         |
| 200 × 200 mm to 1,000 × 800 mm | 60 × 60 mm to 180 × 180 mm |
| white, red, infrared           | white, infrared            |
| IP40                           | IP67                       |

## Dome and Dome Lights

Dome lights are ideal for inspecting uneven surfaces. The highly diffused light of a dome attachment is also ideal for inspecting metals and shiny parts. wenglor dome lights have some innovative functions, such as hole aperture adapters to assist in the inspection of complex features.



| ZMRG                                      | LMDX                                       |
|---|--|
| Dome, darkfield and low angle accessories | Dome light                                 |
|   | Inner Ø: 80 mm, 130 mm                     |
|   | white-infrared, red-cyan, multi-UV + white |
|   | IP65                                       |

## Flat Dome Lights

Flat dome lights are mostly used as skylights or flat lights to illuminate large areas evenly. The housing is similar to an LED flat light, but with a camera hole in the middle. For ideal illumination of many types of surfaces, flat dome lights should be selected at twice the size of the visual field to be illuminated.

### LFD

Large flat dome light

200 × 200 mm to 1,000 × 800 mm

white, red, infrared

IP40

## Spot Lights

Spot lights are extremely compact, robust and powerful at the same time. Thanks to the integrated zoom lens, the light can be precisely focused or diffused. With the right accessories, they can also be used as coaxial or background illumination. They are ideal for point-precise illumination in industrial image processing, industrial automation, robotics, as well as for near and far-range identification applications.

### ZSLG

Coaxial and backlight attachments

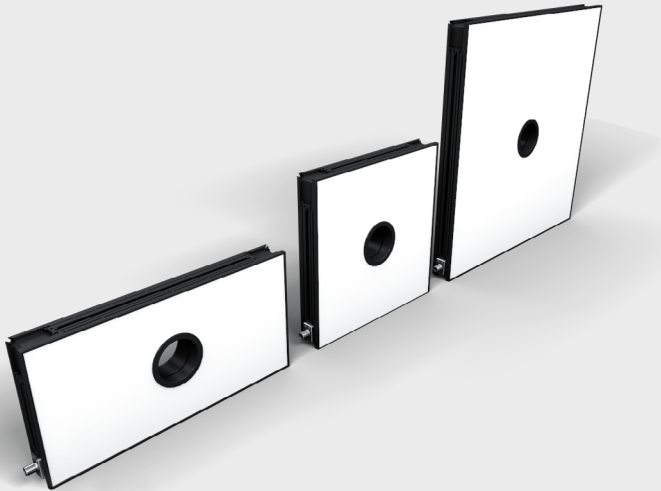
### LSL

Spot light

M30 thread

White, red, infrared

IP67





## Ring Lights

Ring lights are usually positioned around the optical axis of an image processing camera. wenglor offers a range of ring lights suitable for homogeneous illumination at both large and small working distances. Depending on the type of illumination, different attachments make it possible to create not only bright-field effects, but also darkfield effects or to change the beam angle of the illumination with the angle changers.

| LMLX                     | LMRX                     | ZMRG                     | LRL                   |
|--------------------------|--------------------------|--------------------------|-----------------------|
| Low angle light          | Modular ring light       | Dark field illumination  | Ring light            |
| Inner Ø: 80 mm, 130 mm   | Inner Ø: 80 mm, 130 mm   | Inner Ø: 80 mm, 130 mm   | Inner Ø: 37 mm, 76 mm |
| white-infrared, red-cyan | white-infrared, red-cyan | white-infrared, red-cyan | white, red, infrared  |
| IP65                     | IP65                     | IP65                     | IP67                  |

## Illumination Kit

The illumination kit enables testing of illumination products in various applications for developing machine image processing solutions quickly.

### The illumination kit contains

Bar lights and angle changers

Modular ring light with dome and low angle accessories

Flat dome light

Mounting accessories, power supply unit and cable



Further information on our portfolio is available on our website.





**wenglor**  
the innovative family



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