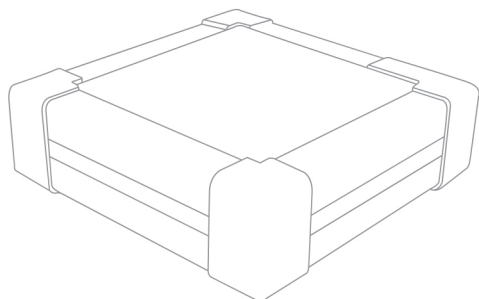


HOMOGENEOUS BACKLIGHT

ELF SERIES - COGNEX



The ELF Series offers large area **backlights** with high uniformity and is designed with **high powered LED**.

It offers a **homogeneity** of more than 90% on the emitting surface, making it ideal for applications where uniform and diffused illumination is key. This gives the user the ability to accurately see shapes of work pieces in their application.

The ELF Series is designed with an **integrated controller**, offering an analog intensity control to the user.

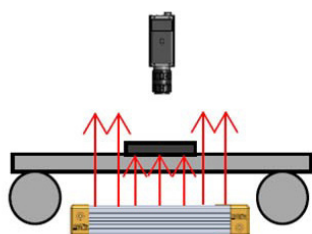
MAIN FEATURES

- Intense and homogeneous illumination
- Anti-reflection coating on the diffusive window
- Standard connections and fasteners
- Long life time and few maintenance



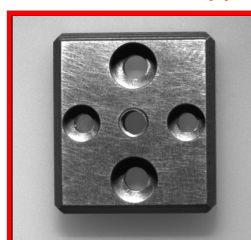
Connector	M12 - 4 contacts (1 or 2 depending on the size)
Power supply	24V DC
Illumination mode	Continuous with a DIM process [0-24V] - Analog voltage or Strobe mode
Cable length	500mm
Available wavelength	White, Blue, Red, IR (other wavelengths upon request)
Available sizes	From 200mmx200mm to 400mmx400mm (other sizes upon request)
Thickness	43.2mm
Fastener	Built-in M6 T-nut slot profile
Material	Device body: Aluminum alloy & ABS; Window: Acrylic
Working temperature	0° to 50° C
IP code	IP50

APPLICATIONS

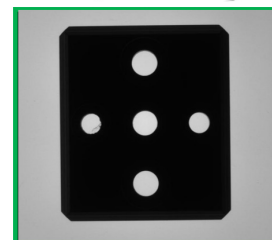


Inspection & Robotics

Direct illumination ❌

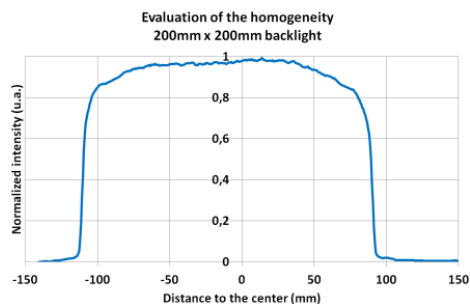


ELF backlight illumination ✅

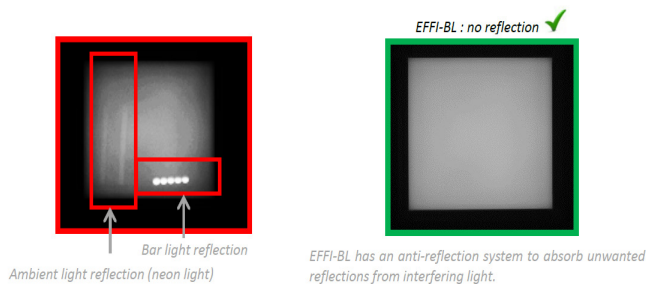


OPTICAL CONSIDERATIONS

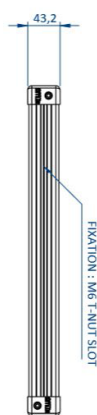
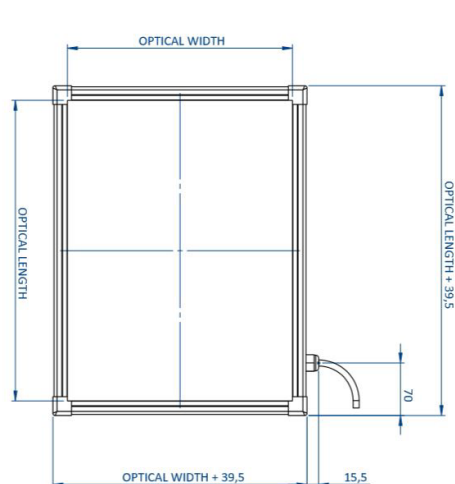
Homogeneity



Anti-reflection surface



DIMENSIONS (MM)



IMPORTANT NOTES:

Length M12 Cables (Cable gland → Connector) : 500mm

For the 400x400 size, the ELF is supplied with **2 M12 connectors**. Please refer to the specific drawing to see the layout.

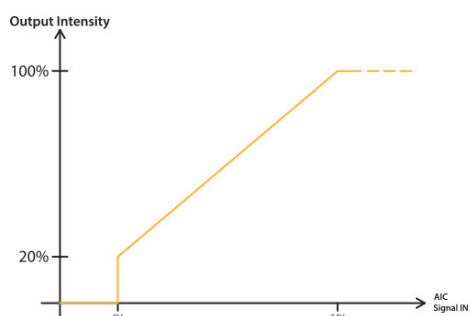
ELECTRONICAL SPECIFICATIONS

Connector pinout

The ELF Series requires 24V DC input power. Note the AIC pin **needs to be connected**.

Connector pinout	Number	Color Contact	Designation
 M12 male connector <i>NUMBER OF CONNECTOR DEPENDS ON THE SIZE OF THE ELF</i>	1	Brown	+24V DC
	2	White	N/A
	3	Blue	GND
	4	Black	AIC: Analog Intensity Control for Dimming control Consumption depending on the size (between 0.3mA to 10mA) Max 24V DC

Dimming control feature



IMPORTANT NOTE:

For the 400X400 size, the ELF is supplied with **2 M12 connectors**. In that case, the AIC contact is on the first connector, the one closer to the edge. (The AIC contact of the second connector is not assigned).

PRODUCT LINE UP

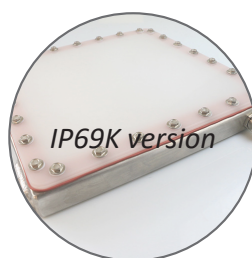
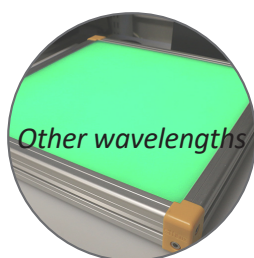
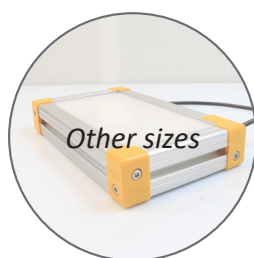
Series	Part Number	Color	Wavelength / Color temperature	Max Power Consumption	Connector	Weight	Optical Width	Optical Length
ELF	ELF-200X200SW	White	5500 K ± 500 K	30W	M12	1 900g	200mm	200mm
ELF	ELF-200X200BL	Blue	465nm					
ELF	ELF-200X200RD	Red	625nm					
ELF	ELF-200X200IR	Infrared	850nm					
ELF	ELF-300X300SW	White	5500 K ± 500 K	65W	M12	3 500g	300mm	300mm
ELF	ELF-300X300BL	Blue	465nm					
ELF	ELF-300X300RD	Red	625nm					
ELF	ELF-300X300IR	Infrared	850nm					
ELF	ELF-400X400SW-2C	White	5500 K ± 500 K	110W	2 x M12	5 000g	400mm	400mm
ELF	ELF-400X400BL-2C	Blue	465nm					
ELF	ELF-400X400RD-2C	Red	625nm					
ELF	ELF-400X400IR-2C	Infrared	850nm					

For cables refer to the ECB cables datasheet.

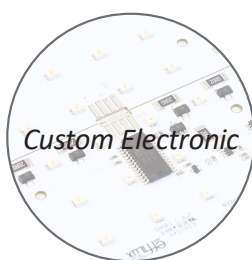
For fasteners refer to the BK-EL fasteners datasheet.

CUSTOM - ON REQUEST

OPTIONS AVAILABLE ON REQUEST



EXAMPLE OF CUSTOM



EU DIRECTIVE



In accordance with EU machinery directive, EMC directive, and low voltage directive, machines and electronic devices not marked with the CE logo are subject to distribution restrictions within the EU. All EL Series products will maintain the EU mandate compatibility of our customers' machinery and electronic devices.

RoHS DIRECTIVE

All products from the EL Series comply with the RoHS Directive.

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