



Very intense and uniform Linear LED light illumination

Long lifetime and few maintenance

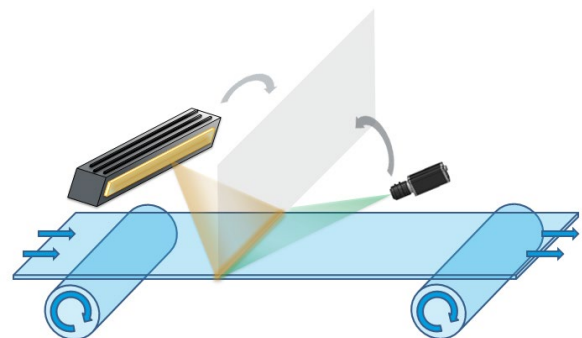
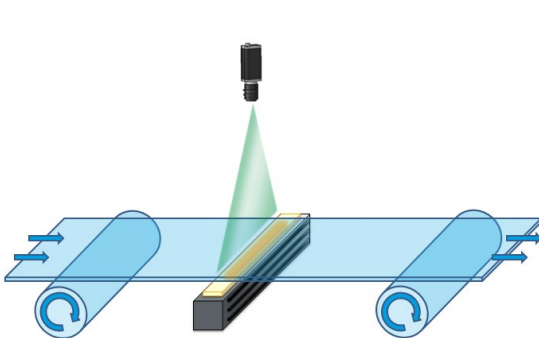
Standard connections and fasteners

Electronics	Connectors	M12 – 4 Pins
	Power supply	24V DC
	Illumination mode	Continuous or strobe mode
	Power consumption	Depends on the amount of LEDs (page 4)
	Electronic mode	Continuous
Optics	Wavelength	Single (from UV to IR, white) wavelengths
Mechanics	Weight	135g + 285g every 100mm
	Width x height x length	51mm x 49mm x length depends on the amount of LEDs
	Fastener	2 rails for M6 T-nut: one on the back and one on the side
	Material	Device body: Aluminum alloy & ABS; Window: PMMA
Environment	Working temperature	0°C to 50°C
	IP code	IP50 (option IP67 → Refer to EFFI-FLEX-CPT-BL and IP69K → Refer to EFFI-FLEX-IP69K-BL)

Applications



Web and linescan inspection for: Paper / Glass / Plastic film / Any semi-transparent materials



Part Number



Reference:

EFFI-FLEX-BL-**WWW**-**XXX**

WWW: Optical length

Minimum length : 100 mm – then, available in 100 mm increments

XXX: Color / Wavelength (nm)

● Blue 465

● Green 525

● Red 625

● IR 850

○ White 000
(T°= 5500 K ± 500 K)

Option cylindric Lens (to concentrate the Light)

If cylindric Lens, add **-CYL** in the part number. Possibility to buy only the accessory.

Part number: EFFI-FLEX-BL-**WW**-**XXX**-**CYL**

Option Polarizer (to eliminate glare caused by the lighting – Not available for IR)



Without polarizer



With polarizer

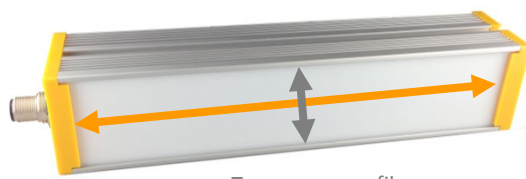
If polarizer, add **-POL** in the part number. Possibility to buy only the accessory.

Part number: EFFI-FLEX-BL-**WW**-**XXX**-**POL**

Optical considerations

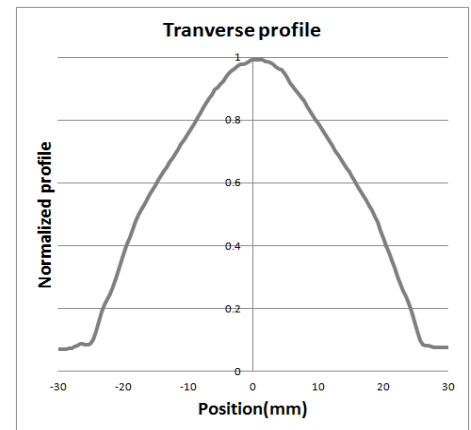
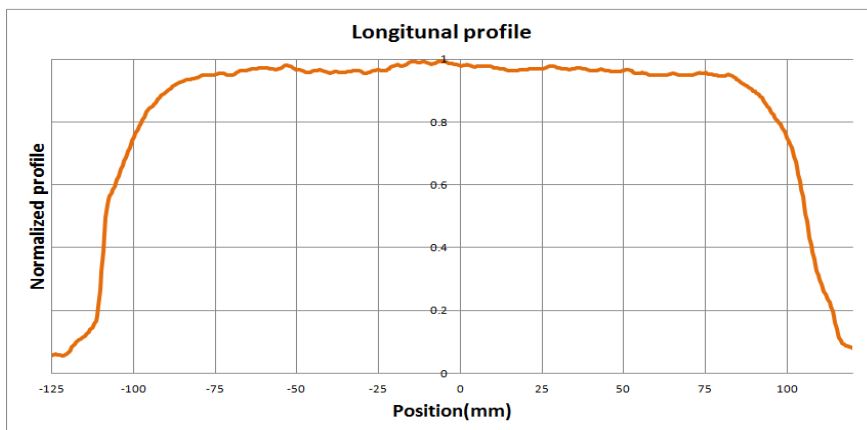


Homogeneity



Longitudinal profile

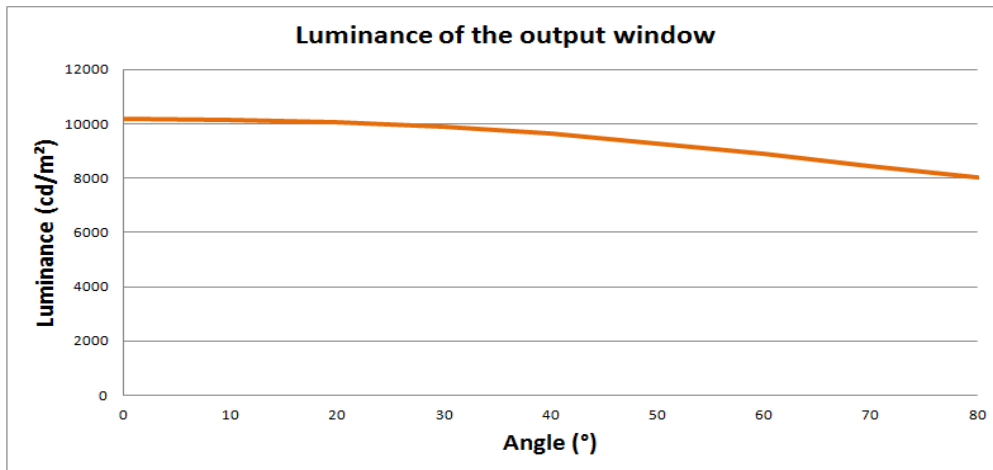
Transverse profile



Longitudinal profile : for length of 200mm

Optical power

(Luminance in the middle of the output window)

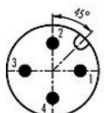
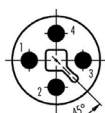


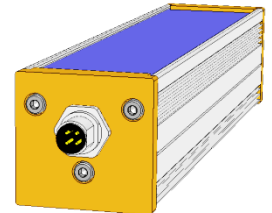
Electronical considerations



Contact arrangement

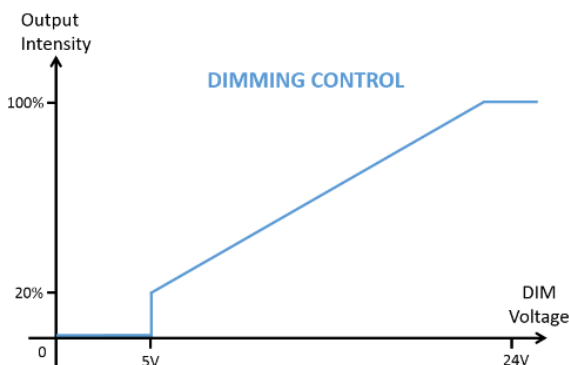
The EFFI-Flex-BL is supplied with a 24V constant voltage. The DIM contact needs to be connected.

Contact arrangement	Number	Color Contact	Designation
  M12 Male connector M12 Power connector Connector depends on electrical power consumption	1	Brown	+24V
	2	White	n.a.
	3	Blue	GND
	4	Black	DIM - max 24V Analog Voltage Consumption = 0,5mA every 500mm



Dimming control

Using the DIM pin, the light intensity can be linearly increased:



Power supply

The following formula gives the electrical power of your lighting:

$$\text{Power}_{\text{electrical}} = \frac{\text{Length}_{\text{in mm}}}{100} * 5 W \quad (\text{Example: EFFI-Flex-BL-500} \quad \text{Power}_{\text{electrical}} = \frac{\text{Length}_{\text{in mm}}}{100} * 5 W = \frac{500}{100} * 5 W = 25 \text{ Watts})$$

Designation	Electrical Power @24V (W)	Optical Length L op(mm)	Mechanical Length L (mm)	Type of connectors
EFFI-FLEX-BL-200-XXX	10	215	235	M12
EFFI-FLEX-BL-300-XXX	15	315	335	M12
EFFI-FLEX-BL-400-XXX	20	415	435	M12
EFFI-FLEX-BL-500-XXX	25	515	535	M12
EFFI-FLEX-BL-600-XXX	30	615	635	M12
EFFI-FLEX-BL-700-XXX	35	715	735	M12
EFFI-FLEX-BL-800-XXX	40	815	835	M12
EFFI-FLEX-BL-900-XXX	45	915	935	M12
EFFI-FLEX-BL-1000-XXX	50	1015	1035	M12
EFFI-FLEX-BL-1600-XXX	80	1615	1635	M12P
EFFI-FLEX-BL-1700-XXX	85	1715	1735	M12P
EFFI-FLEX-BL-2500-XXX	115	2515	2535	M12P
EFFI-FLEX-BL-3200-XXX	160	3215	3235	M12P
EFFI-FLEX-BL-4000-XXX	200	4015	4035	M12P

Mechanical considerations (Dimensions in mm)

