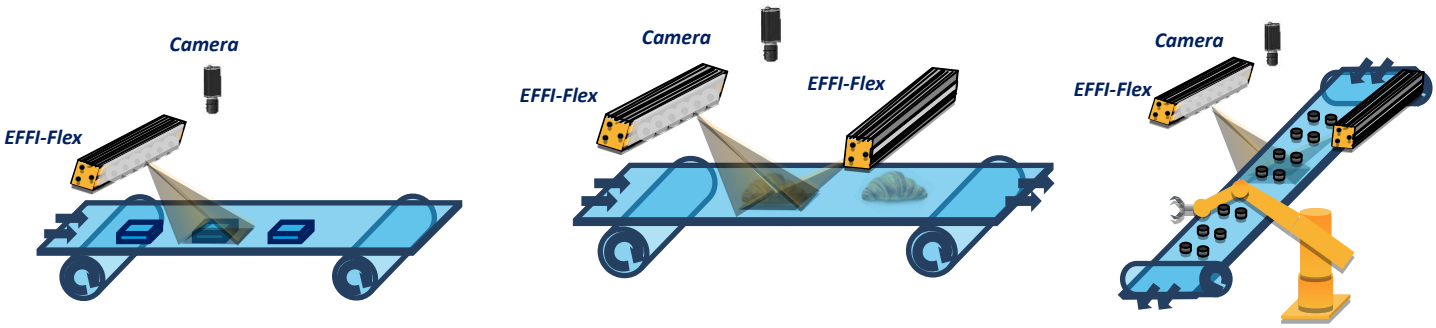
High power LED bars
EFFI-Flex

- **Intense** and **uniform** illuminated area
- **Standard** connections and fasteners
- **Flexible:**
  - **Adjustable** illumination **angles** (4 angles)
  - Different projection **windows** and **optical accessories**
- **Full range of colors**: from UV to IR, white
- **Long lifetime** and few maintenance

APPLICATIONS:



OVERVIEW OF THE CHARACTERISTICS

Electronics	*Power supply*	24V DC
	Illumination mode	Continuous or strobe modes
	Connectors	M12 4 pins
	Power consumption	Depends on the amount of LEDs
Optics	*Wavelength*	Various wavelengths (from UV to IR, white)
	Projection system	4 possible output angles
	Optical options	Different output windows, diffusor and polarizer
Mechanics	*Width and height*	51mm x 49mm
	Fastener	2 rails: one on the back and one on the side
	Material	Device body : Aluminum alloy ; Window: Acrylic
Environment	*Working temperature*	0°C to 50°C
	IP code	IP40 (option IP54)

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TECHNICAL CHARACTERISTICS

How to create the EFFI-Flex?

Wavelength (nm) — Lens position

EFFI-Flex_XX_XXX_X_X

Amount of LEDs — Window type

Available wavelengths:

- White: ***000***
- Green: ***525***
- Red: ***625***
- Far Infrared: ***850***

Other wavelengths are available upon request

Window type

1 – Diffusive
2 – Transparent
3 - Opalin
Not specified : diffusive window

Lens position

0 – No lens
1 – Lower position
2 – Middle position
3 – Higher position
Not specified : middle position

Available options

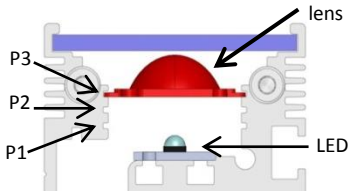
- Add '_1/2' to consider a LED every 40mm
- Add '_ELS350' to consider the linescan electronic configuration

Example: EFFI-Flex_15_000_3_3_1/2_ELS350

Available accessories

- Flex-Linescan_XX for linescan applications
- Flex-Polariser_XX to polarize the light output

How to use the EFFI-Flex



Position	Projection angle (°)
P0	90
P1	45
P2	25
P3	10

Unscrew the M4 screws on the side of the device

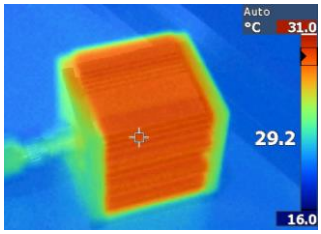
Slide the diffusing window

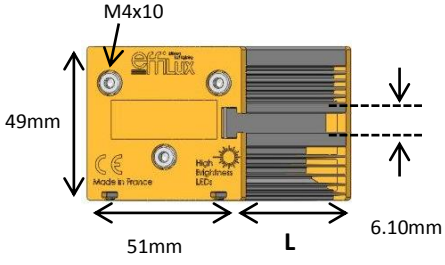
Slide the lens

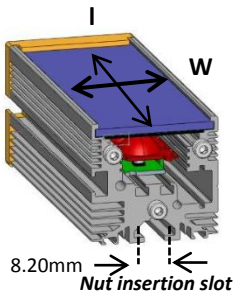
Mechanical considerations

Designation	Amount of LEDs	L (mm)	W x l (mm)	Amount of connectors
EFFI-Flex_1_XXX (spot)	1	55	45 x 35	1
EFFI-Flex_3_XXX	3	95	45 x 75	1
EFFI-Flex_5_XXX	5	135	45 x 115	1
EFFI-Flex_10_XXX	10	235	45 x 215	1
EFFI-Flex_15_XXX	15	335	45 x 315	1
EFFI-Flex_20_XXX	20	435	45 x 415	1
EFFI-Flex_25_XXX	25	535	45 x 515	1
EFFI-Flex_30_XXX	30	635	45 x 615	1
EFFI-Flex_40_XXX	40	835	45 x 815	1
EFFI-Flex_50_XXX	50	1035	45 x 1015	1
EFFI-Flex_60_XXX	60	1235	45 x 1215	1
EFFI-Flex_70_XXX	70	1435	45 x 1415	2
EFFI-Flex_80_XXX	80	1635	45 x 1615	2
EFFI-Flex_90_XXX	90	1835	45 x 1815	2

Designation	Amount of LEDs	L (mm)	W x l (mm)	Amount of connectors
EFFI-Flex_5_XXX_1/2	5	235	45 x 215	1
EFFI-Flex_10_XXX_1/2	10	435	45 x 415	1
EFFI-Flex_15_XXX_1/2	15	635	45 x 615	1
EFFI-Flex_20_XXX_1/2	20	835	45 x 815	1
EFFI-Flex_25_XXX_1/2	25	1035	45 x 1015	1
EFFI-Flex_30_XXX_1/2	30	1235	45 x 1215	1
EFFI-Flex_40_XXX_1/2	40	1635	45 x 1615	1
EFFI-Flex_50_XXX_1/2	50	2035	45 x 2015	1
EFFI-Flex_60_XXX_1/2	60	2435	45 x 2415	1
EFFI-Flex_70_XXX_1/2	70	2835	45 x 2815	2
EFFI-Flex_80_XXX_1/2	80	3235	45 x 3215	2
EFFI-Flex_90_XXX_1/2	90	3635	45 x 3615	2







Thanks to its design, the heat is efficiently dissipated from the LED.

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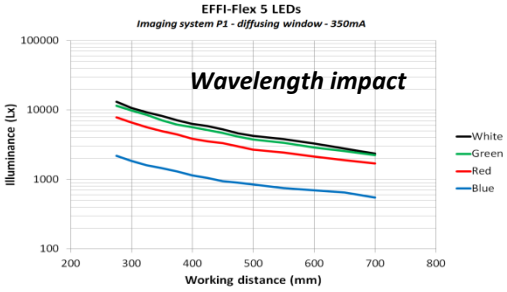
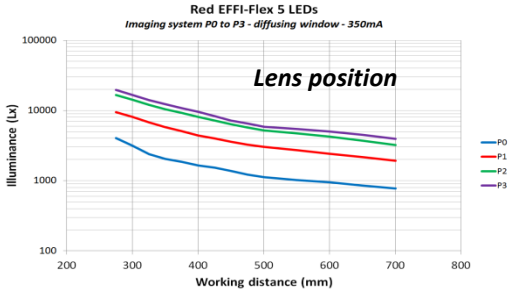
Optical characteristics

Characteristics of the projected pattern

	White 5 LEDs EFFI-Flex (diffusing window)		
	Illuminance (Lux)		Projection type
	500mm	1000mm	
P0	1500	600	Wide angle
P1	3000	950	Intermediate position
P2	4000	1100	Intermediate position
P3	10000	6300	Focused light configuration

Evolution of the illuminance with the working distance for different configurations



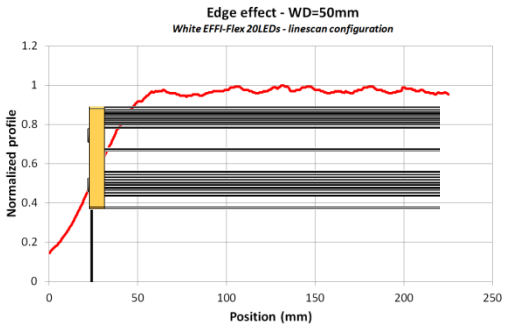


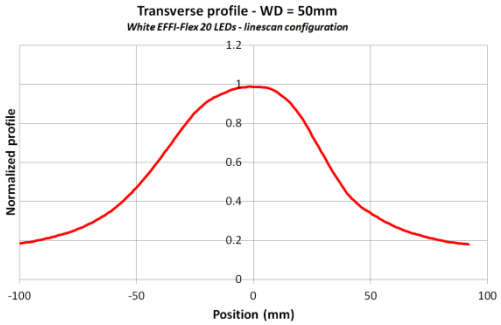
Complete details concerning the optical performances of the EFFI-Flex can be obtained upon request.

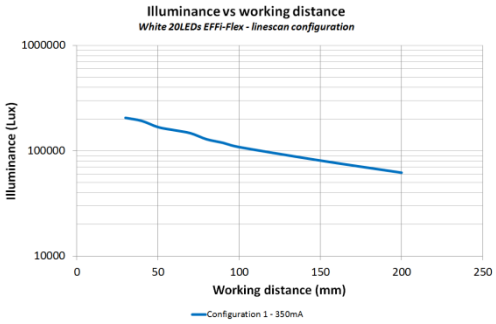
Overview of the performances with optical accessories

Linescan configuration

Specific details concerning the linescan configuration can be found in the dedicated datasheet.







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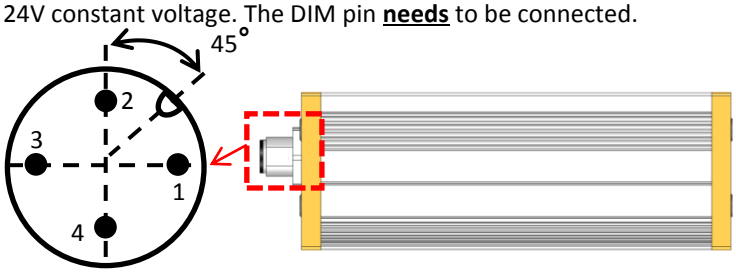
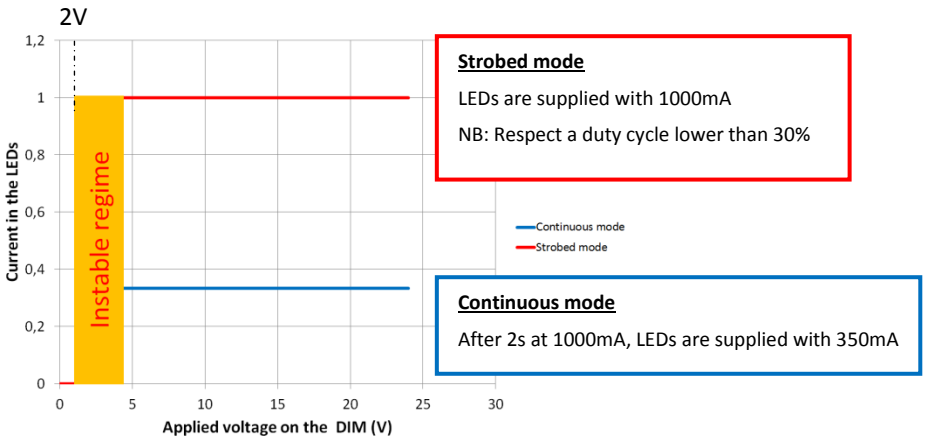
Electrical characteristics

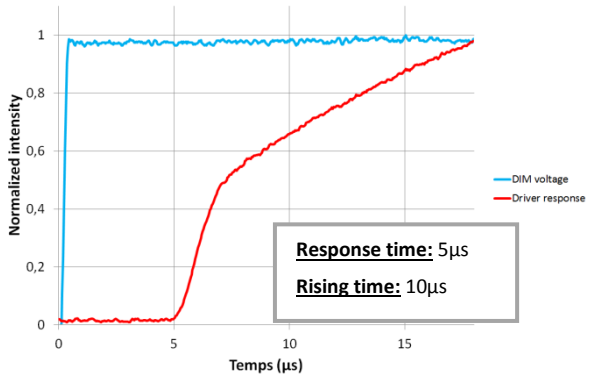
Standard configuration

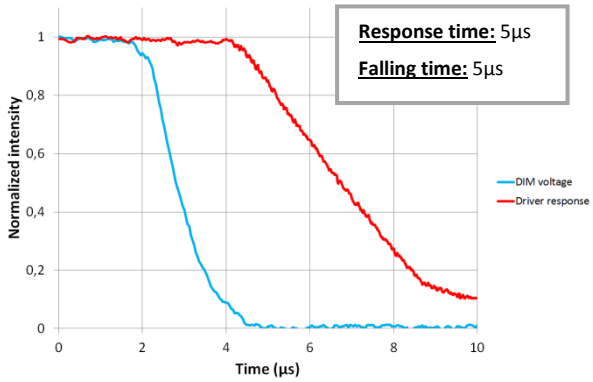
The EFFI-Flex is supplied with a 24V constant voltage. The DIM pin **needs** to be connected.

Pin number	*Cable color*	*Designation*
1	Brown	+24V
2	White	n.a.
3	Blue	GND
4	Black	DIM – *max 24V*



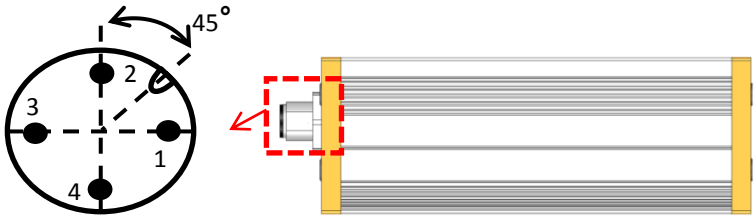






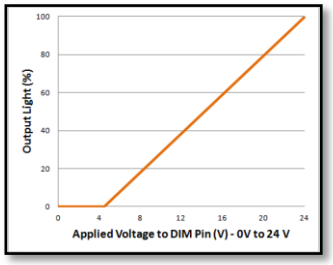
Linescan configuration (ELS350)

Pin number	*Cable color*	*Designation*
1	Brown	+24V
2	White	n.a.
3	Blue	GND
4	Black	DIM – *max 24V*



The EFFI-Flex, with a reference EFFI-Flex_XX_XXX_ELS350, is supplied with a 24V constant voltage source.
Using the DIM pin, the light intensity can be linearly decreased:

- 0V –OFF
- 24V – full ON



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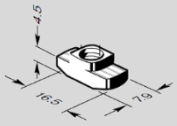
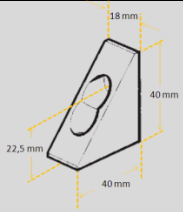
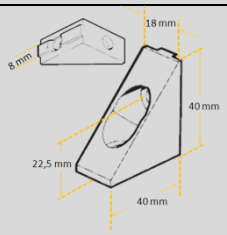
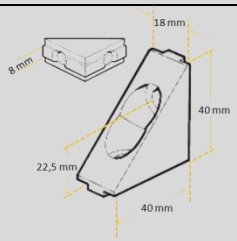
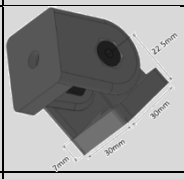
Accessories

	EFFILUX reference	Description
Mechanics	EFFV-Bolt_0011	 T-nut to insert in the slot – For M6 screw
	EFFM_1_0017	 Bracket to fasten the EFFI-BL (no ridge) *Delivered with 2 EFFV-Bolt_0011, 2 screws and 2 flat washers*
	EFFM_1_0019	 Bracket to fasten the EFFI-BL (1 ridge) *Delivered with 2 EFFV-Bolt_0011, 2 screws and 2 flat washers*
	EFFM_1_0021	 Bracket to fasten the EFFI-BL (2 ridges) *Delivered with 2 EFFV-Bolt_0011, 2 screws and 2 flat washers*
	EFFM_1_0002	 Fastener used to simplify the projector integration (orientation) *Delivered with EFFV-Bolt_0011 and 2 M6x14 screws*
Electronics	EFFC-Cable_M12_0002 Binder : *79 343 13 04*	M12 cable – 4 pins – 2m long
	EFFC-Cable_M12_0003 Binder : *79 3430 17 04*	M12 cable – 4 pins – 5m long
	EFFC-Cable_M12_0004 Binder : *79 3430 30 04*	M12 cable – 4 pins – 10m long
	EFFC-Cable_M12_0025 Phoenix : *1456938*	M12 cable – 4 pins – High Flex- 1500mm long
	EFFC-Cable_M12_0026 Phoenix : *1456941*	M12 cable – 4 pins – High Flex- 3000mm long
Optics	EFFO_0005	Optical sheet for linescan applications
	EFFO-Polariser_0003	Optical sheet to polarize the output light
	EFFO-Window1	Semi-diffuse output window
	EFFO-Window2	Transparent output window
	EFFO-Window3	Window for backlight applications