

## High Brightness LED Line Lights by EFFILUX



*EFFI-Line is the range of linescan illuminator for web inspection and optical sorting applications developed by EFFILUX. The high illumination level on the line, associated with an uniform lighting make EFFI-Line the perfect product for high speed applications with linear cameras.*

*EFFI-Line is an extremely durable LED light source that offers a service life of up to 60,000 hours. It is available in different colors from UV to near infrared.*

### BENEFITS

#### Powerful lighting

- Quality control Improvement
- Possible decrease of the Integration time
- More defects detected

#### Uniform lighting

- Defects easily classified

#### Working distances

- Adjustable

#### High performance

- Less heat dissipation needed
- Less energy consumption

#### Useable in extreme conditions

- IP 68 Available
- IR Protection for hot mill

#### Adjustable length

- From 100 mm to 4200 mm in Standard
- More in specific

#### Available in any LED

wavelength from UV to IR

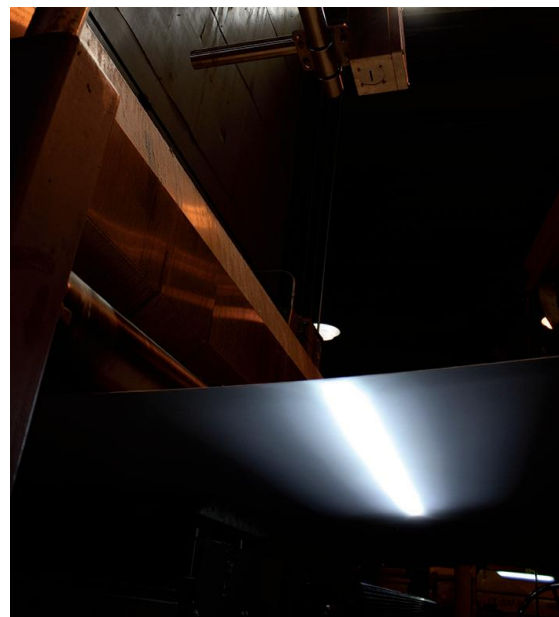
#### Control by 100 mm segments

- Adaptive intensity profile

#### Applications:

##### Web inspection for

- Steel
- Paper
- Foil
- Plastic film
- Road surfaces
- Fabric
- Semiconductors
- Glass
- Metal sheets
- Every Flat panel displays
- Optical sorting



## Effi-Line range

### EFFI-Line 5-15

- Working distance from 50 to 150 mm
- 200 000 lux at 150 mm
- 500 000 lux at 50 mm

### EFFI-Line 20-60

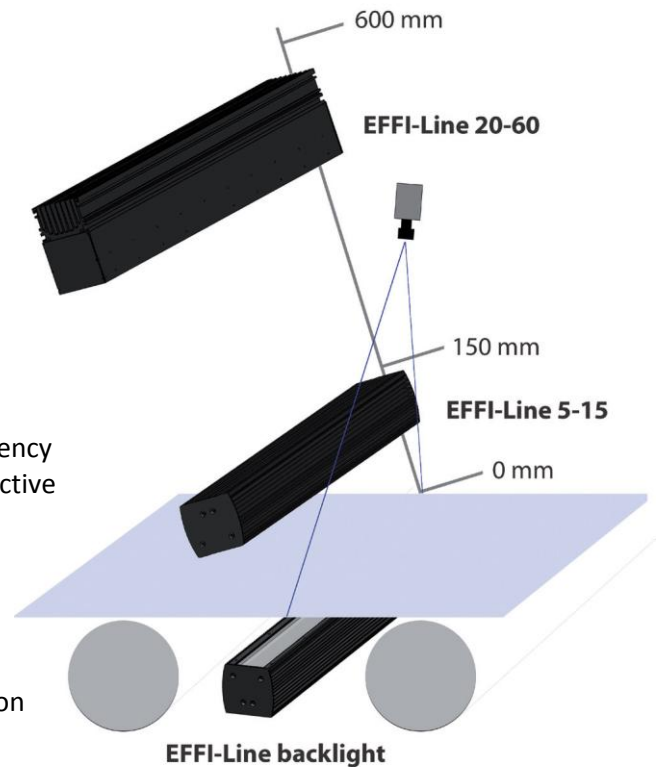
- Working distance from 200 to 600 mm
- 200 000 lux at 150 mm
- 100 000 lux at 600 mm

### EFFI-Line Backlight

- Highly focalized line for applications by transparency
- Perfect powerful linear led lighting for very reflective surfaces.

### EFFI-Line Custom

- EFFILUX designs specific EFFI-Line
- Custom working distance up to 2000 mm
- Specific heat dissipation or mechanical integration
- Specific power or wavelength



## Product nomenclature



XX-XX	XX	XXXX	XXX	X	X
<b>EFFI-Line range</b>	<b>Lens position:</b> L1 : WD of 50 mm L2 : WD of 100 mm L3 : WD of 150 mm L4 : WD of 150 mm * L5 : Ultra focalisation at 5 mm (1 million lux in cool white)**	<b>Mechanical Length:</b> From 100 mm to 4200 mm	<b>Wavelength:</b> CW : Cool White (6500 K) NW : Neutral White (4500 K) WW : Warm White (3000 K) Other : (nm)	<b>Power Version:</b> L : Low power S : Standard P : Power H : High power	<b>Cooling:</b> N : Natural convection F : Fan cooling

\* This configuration is used with short mechanical length to improve longitudinal uniformity.

\*\* This configuration is used for transparency applications.

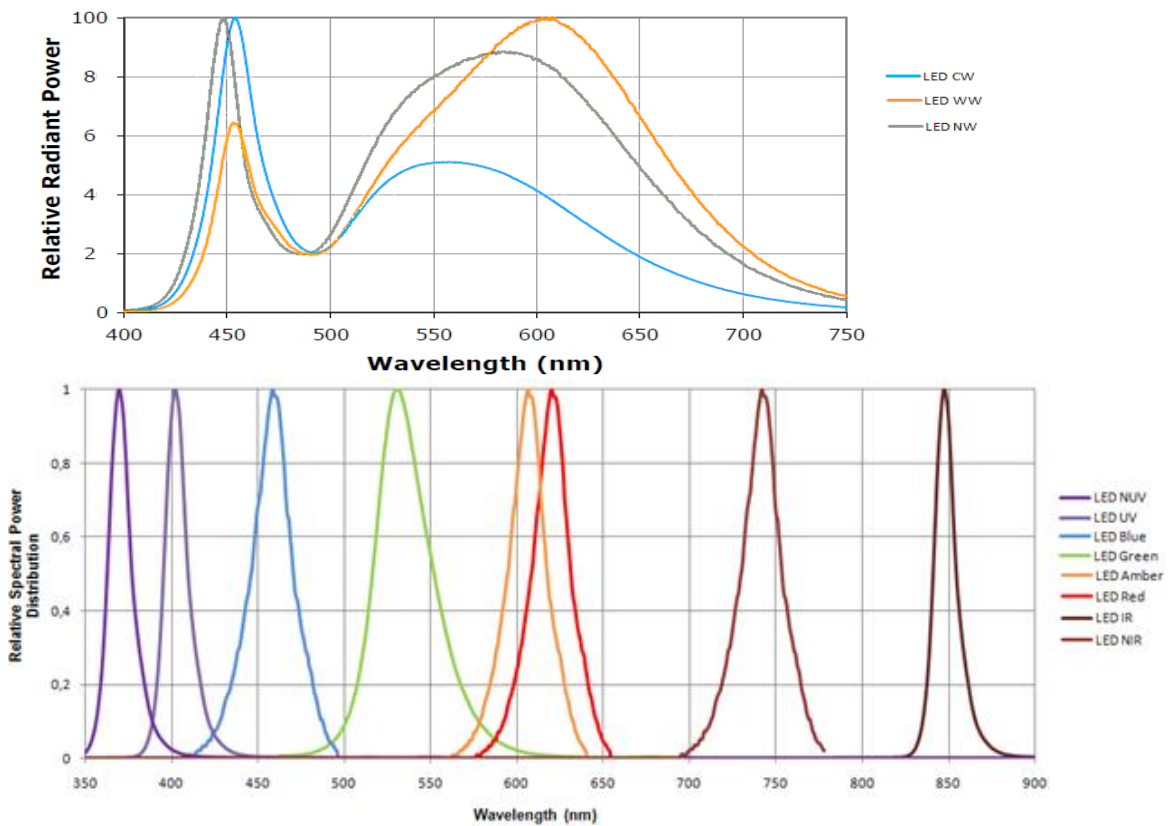
WD: Working Distance

### Lens position:

The Light focalization is obtained by an optical combination of lenses. Six different versions are available.

# Optical Characteristics

## LED Typical Spectrum

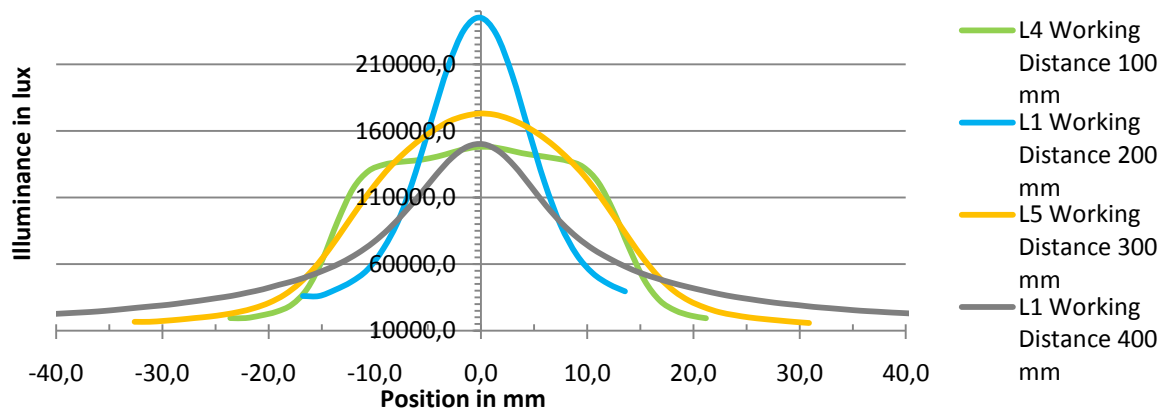


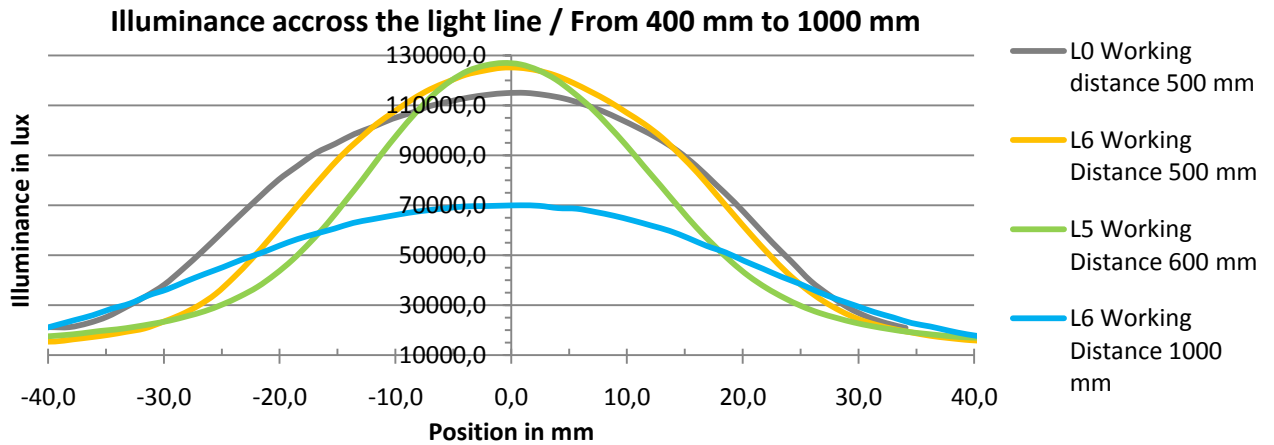
Other wavelength available on request.

## Uniformity of the light

6 different optical configurations are available. Here there are some graphics describing the optical characteristics of each configuration. The reference is an EFFI-Line with 400 mm of LEDs in cool white with power version. Measures are done at working distances corresponding to each configuration, on a plan perpendicular to the lighting device.

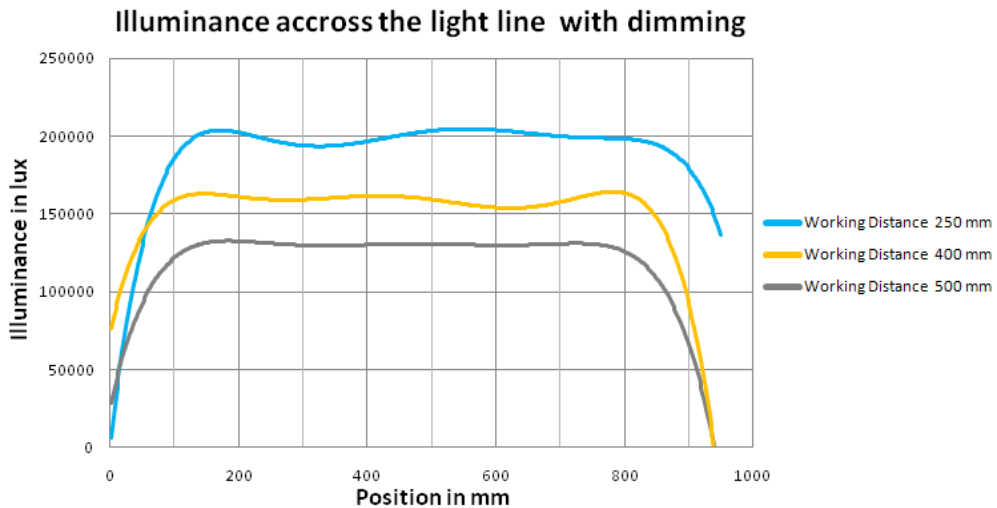
### Illuminance across the light line / From 100 mm to 400 mm



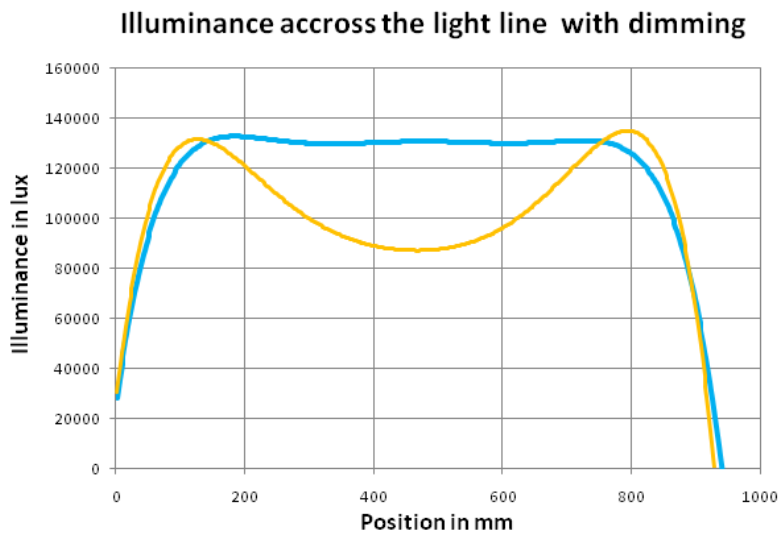


### Illuminance with Dimming Control

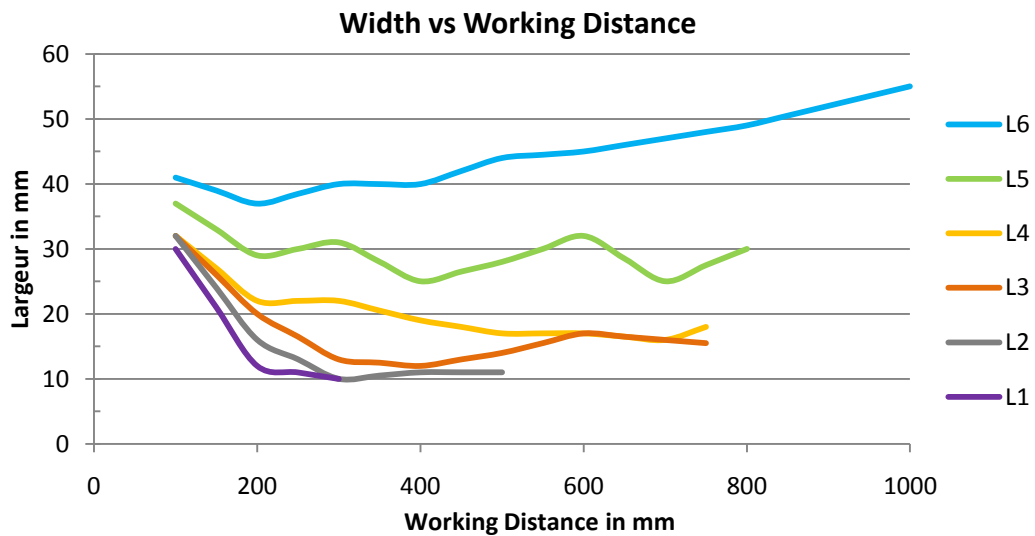
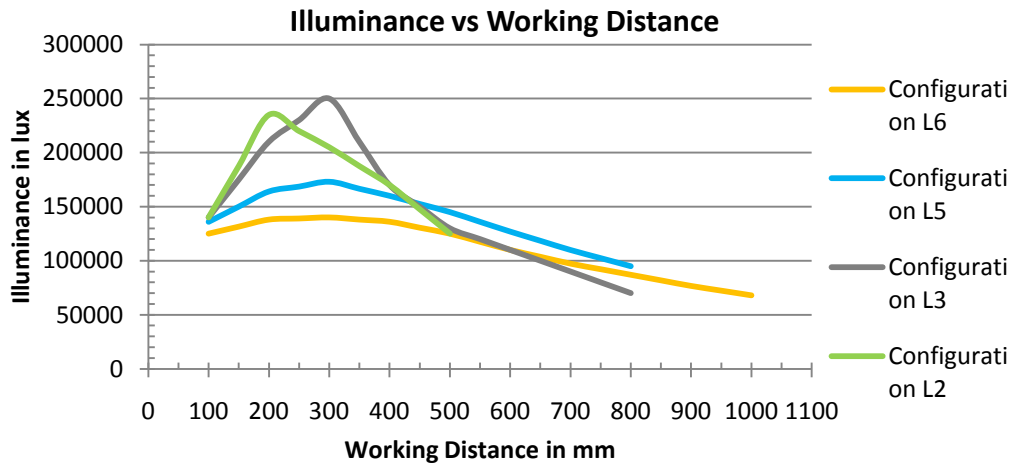
With control by dimming, a line can be realized quite uniform throughout the length.



With control by dimming, it is possible to make different types of illumination profile.



## Illuminance for working distance



## Electric characteristics

### Device Power Ratings

	Standard	Power	High Power
LEDs current alimentation	500 mA	700 mA	700 mA
Voltage alimentation	24 V DC	24 V DC	24 V DC
Power requirements	20 W / 100 mm of LEDs	30 W / 100 mm of LEDs	40 W / 100 mm of LEDs
Heat dissipation	Natural convection	Ventilation	Ventilation
Waterproofness	IP 40	IP 40	IP 40
Number of LEDs per meter	50	50	75

## Additional Options

### Dimming control

With the supplied software, you can control the light intensity of your lighting thanks to a computer. The connection between your computer and the lighting is done via USB.

### Thermal Management

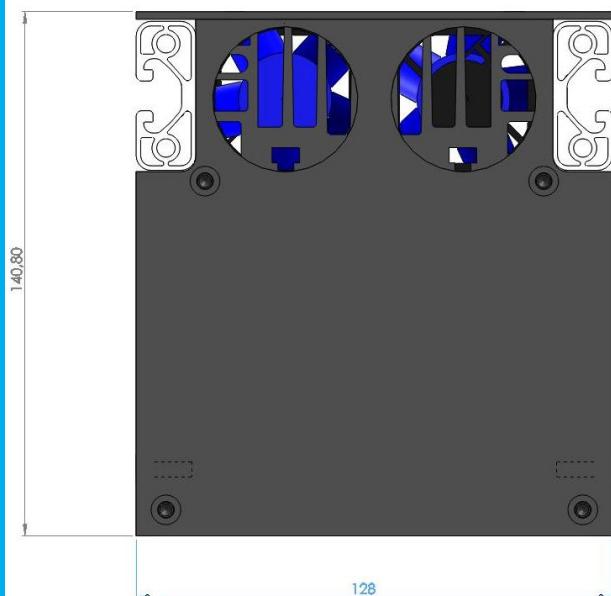
EFFILINE is controlled by thermal resistances; it regulates itself according to the temperature inside the device. When the heat level is too high, the LED intensity decreases to a suitable level of temperature. Once the level has decreased to a suitable temperature, LED intensity increases again.

## Mechanical characteristics (all dimensions are in millimeters)

The EFFI-Line 20-60 range has been mechanically conceived and optimized to improve:

- Heat dissipation :
  - Aluminum fins are disposed all over the profile:
  - Heat dissipation is insensitive to orientation.
  - Life time is improved.
- Watertight optional.
- Easy fixing
- Weight : Only 17 Kg per meter

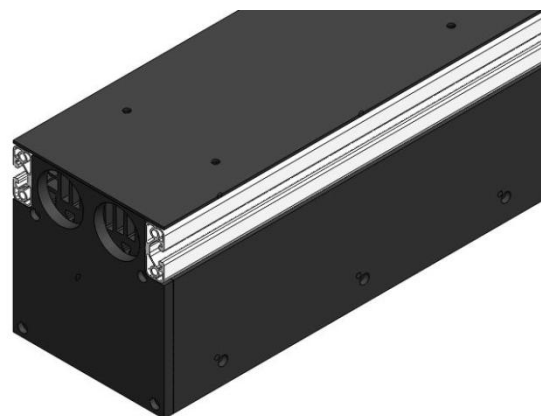
### Dimension



### Fixing

### Fixing

A slide rail is made in the profile to make the fixing easier



www.effilux.fr

