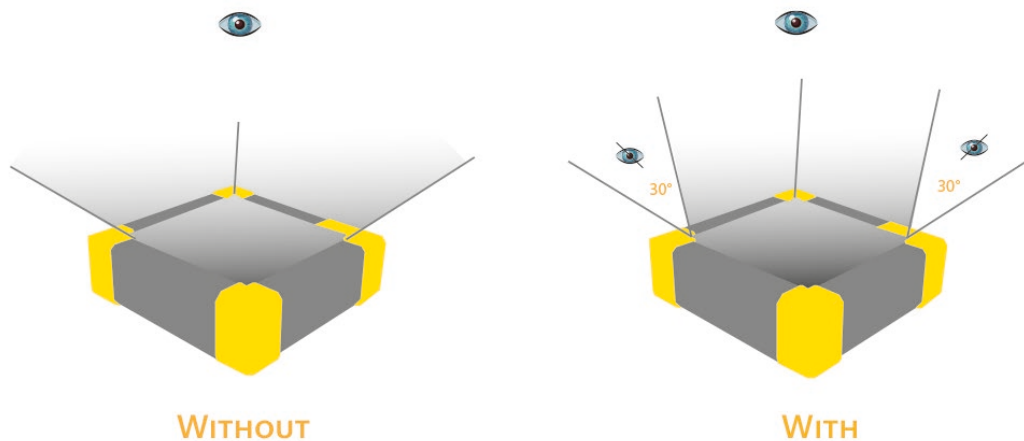
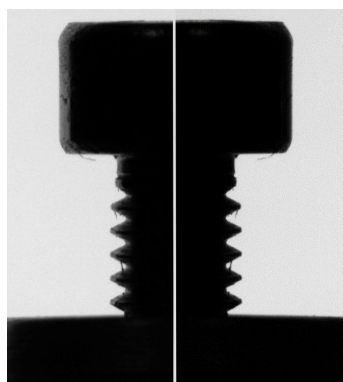


Collimation film

Principle: Collimation film can be used on **backlights** to reduce the angle of emission and get parallel light rays. This helps to provide high-contrast images needed for **precise edge detection** and **defect analysis**.



Applications: Collimated backlights allow to achieve a sharp and clear silhouette for **precise measurement inspection**, especially on rounded parts where regular backlights would blur the edges due to light rays from other directions.



Without VS With collimation film

A collimated light source can also be very effective for **detecting filling levels** or ensuring **correct positioning** through **glass or clear plastic parts**.

Product availability					
Product	EFFI-BL			EFFI-BL-IP69K	EFFI-SBL
Dimensions	<300x300	<500x500	>500x500	All	All
Availability	Standard	Standard	Not available	Not available	Semi-custom

For **not available** or **custom** options, please contact EFFILUX to get support.

**EFFI-BL**

**First solution: Add-On**



Collimation films must be added on top of the product with a transparent window and the whole setup is fastened with brackets.

The standard add-on kit includes:

- 1x (or 2) collimation films
- 1x protective transparent window
- 2x brackets up to 300-300 size, 4x for larger products
- 4x T-NUT M6 and 4xM6X10 screws

Collimated product's thickness (*EFFI-BL + collimation film kit*): 45mm

The accessory kit must be ordered separately from the light to be installed on top of it.

<b>Orientation &amp; References: Kit accessory</b>						
<b>Collimated Version</b>	2 Directions: 2 crossed collimation films		1 Direction: Only 1 collimation film			
			Standard orientation	Opposite orientation (90°)		
<b>Orientation</b>	<p>The angle limitation will be on the two directions</p>		<p>The angle limitation will be on the optical length.</p>		<p>The angle limitation will be on the optical width.</p>	
<b>References</b>	EFFO-BL-2XLCF-XXX-YYY-KIT XXX ≤ YYY		EFFO-BL-1XLCF-XXX-YYY-KIT XXX ≤ YYY		EFFO-BL-1XLCF-XXX-YYY-90°-KIT XXX ≤ YYY	

How to install the collimation kit on your EFFI-BL:

Put the collimation film(s) on top of the opaline window.	Put the protection window on top of the collimation film(s).	Position the brackets to fix the window.

**Second solution: Built-in** (corresponds to a specific product reference)



Collimation film(s) directly installed in the product, on top of the opaline window, during manufacturing.  
Collimated product's thickness (EFFI-BL + built-in collimation film): 43mm  
The complete product must be ordered, the polarizer cannot be installed by the customer afterwards.

Orientation & References: Built-in films				
Collimated Version	2 Directions: 2 crossed collimation films		1 Direction: Only 1 collimation film	
			Standard orientation	Opposite orientation (90°)
Orientation	<p>The angle limitation will be on the <b>two directions</b></p>		<p>The angle limitation will be on the <b>optical length</b>.</p>	<p>The angle limitation will be on the <b>optical width</b>.</p>
References	Add -2XLCF to the light part-number: EFFI-BL-XXX-YYY-ZZZ-2XLCF XXX ≤ YYY		Add -1XLCF to the light part-number: EFFI-BL-XXX-YYY-ZZZ-1XLCF XXX ≤ YYY	Add -1XLCF-90° to the light part-number: EFFI-BL-XXX-YYY-ZZZ-1XLCF-90° XXX ≤ YYY

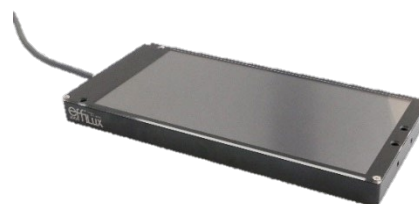
**EFFI-SBL (Custom)**

Orientation (is based on product length and width)				
Collimated Version	2 Directions: 2 crossed collimation films		1 Direction: Only 1 collimation film	
			Standard orientation	Opposite orientation (90°)
Orientation	<p>The angle limitation will be on the <b>two directions</b>.</p>	<p>The angle limitation will be on the <b>optical length</b>.</p>	<p>The angle limitation will be on the <b>optical width</b>.</p>	

The standard EFFI-SBL enclosure does not allow to add collimation films on top of it. A custom mechanics is necessary to have the films integrated. **Please contact EFFILUX.**

**First solution: Built-in / Not fully IP**

The collimation films are added on top of the product with a protective window and the whole setup is fastened with screws. The collimation films can be removed. The light is IP67 protected, but not the space between the diffuser and the protective window. Collimated product's thickness (EFFI-SBL + collimation films + window): 18,5mm.



Part-number: EFFI-SBL-XXX-YYY-ZZZ-1/2XLCF-C

**Second solution: Built-in / Full-IP**

The EFFI-SBL is manufactured with the collimation films and the window integrated and glued inside the product. The collimation films cannot be removed. The light is fully IP67 protected.



Collimated product's thickness : (EFFI-SBL + collimation films + window):

- 1 collimation axis: 19mm
- 2 collimation axis: 19,5mm.

Part-number: EFFI-SBL-XXX-YYY-ZZZ-1/2XLCF-IP-C