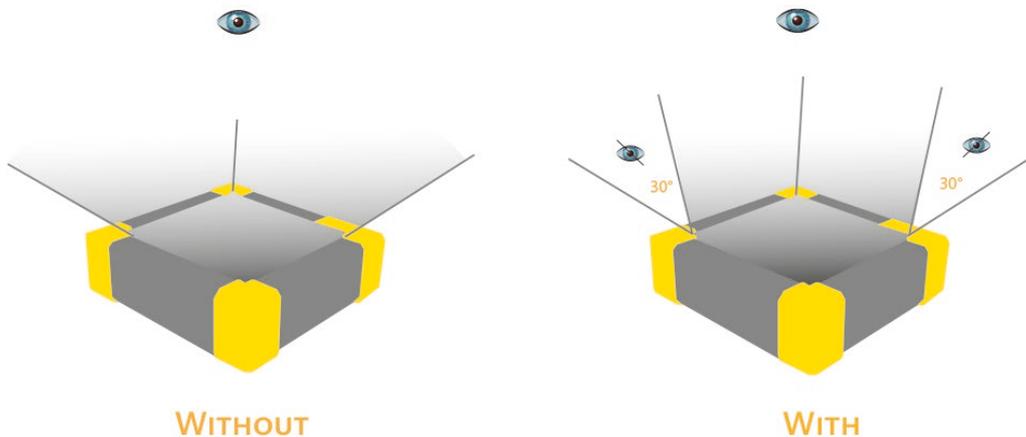
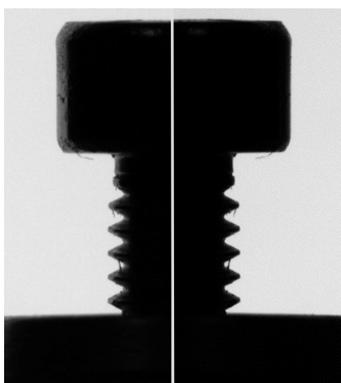


Collimation film

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-SBL | | EFFI-BL-IP69K |
| Dimensions | ≤ 600x600 | >600x600 | All |
| Availability | Standard | Not available | Not available |

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

EFFI-BL

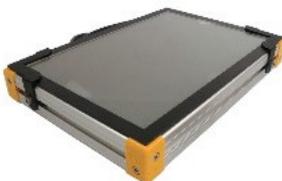
First solution: Built-in (corresponds to a specific product reference)



The collimation film(s) is directly integrated 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 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> | |
| 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 | |

Second solution: Accessory kit

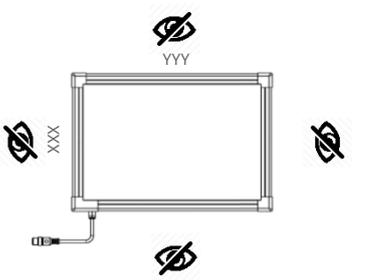
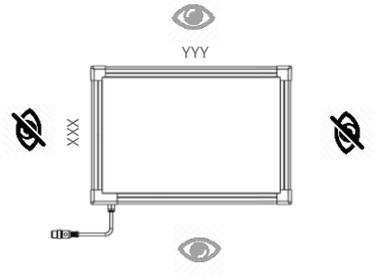
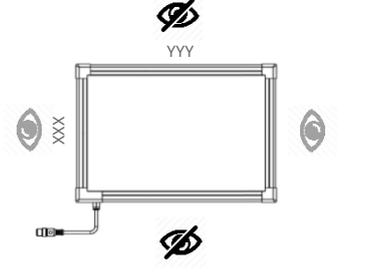


Collimation films must be added on top of the product with a transparent window and the whole setup is fastened with brackets.

The 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.

| Orientation & References: Kit accessory | | | | |
|--|---|--|---|---|
| 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 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> |
| References | 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. |

EFFI-SBL

| 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 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> | |

First solution: Built-in / Full-IP

The EFFI-SBL is manufactured with the collimation films directly inside the product. The accessory cannot be removed, and the light is fully IP67 protected.

Collimated product's thickness: 19mm

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



Second solution: Accessory kit

The collimation films can be added on top of the product with a protective window and the whole setup 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 of the accessory to order additionally:

EFFO-SBL-1XLCF-XXX-YYY-KIT or EFFO-SBL-2XLCF-XXX-YYY-KIT

