

LFV3 / LFV-PF Series

Operation Guide for Optional Products

Thank you for purchasing a CCS product. To ensure proper use of the product, please read this instruction guide before use and keep it for your future reference.

- These optional products are designed for use with the LFV3 or LFV-PF Series. Do not install these optional products on lights from any other series. Conform applicable models and use the LED Light Unit correctly.
- Periodically inspect optional products such as Polarizing and Diffusion Plates as all of these are consumable. Replace any products that show discoloration or deformation during inspection. CCS recommends maintaining extra optional products on-hand in order to be prepared for replacement.

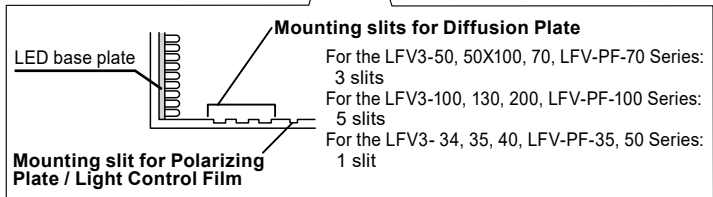
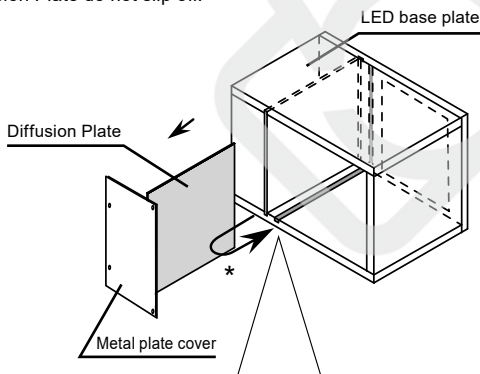
MANDATORY ACTIONS Make sure that the Light Unit is not connected to the Control Unit before you install the optional product.

1 Mounting Slits for Optional Products

Insert the optional product into one of the slits inside the Light Unit. There are two kinds of slits. They have different widths.

- Mounting slit for Diffusion Plate
- Mounting slit for Polarizing Plate / Light Control Film

To use the slits, remove the metal plate cover. Make sure that the LED base plate and Diffusion Plate do not slip off.



* You can move the Diffusion Plate to any of the mounting slits for Diffusion Plate. The Diffusion Plate, however, cannot be moved for the LFV3-CP, LFV3-34, 35, 40, and for the LFV-PF-35, 50 Series. The uniformity and luminance of the light depend on the distance between the slit and the LED base plate.

Slit	Close to the LED base plate	Away from the LED base plate
Uniformity	Low	High
Luminance	High	Low

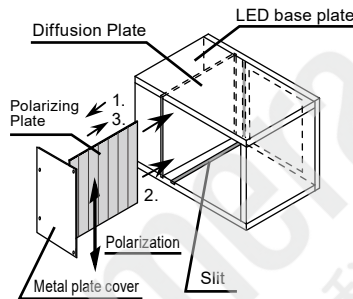
The Diffusion Plate has a front side and a back side. Install it with the glossy, smooth side facing the LED base plate.

2 Polarizing Plate

The Polarizing Plate is attached to the Light Unit. In combination with the Polarizing Filter on the camera, it prevents glare from the light.

Model name	Applicable Light Unit
PL-LFV3-35	LFV3-35, LFV-PF-35 Series
PL-LFV3-50	LFV3-50, LFV-PF-50 Series
PL-LFV3-50X100	LFV3-50X100 Series
PL-LFV3-70	LFV3-70, LFV-PF-70 Series
PL-LFV3-100	LFV3-100, LFV-PF-100 Series
PL-LFV3-130	LFV3-130 Series
PL-LFV3-200	LFV3-200 Series

Installing the Polarizing Plate



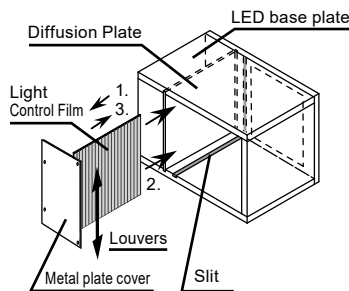
- 1. Remove the metal plate cover.**
Make sure that the LED base plate and Diffusion Plate do not slip off.
- 2. Insert the Polarizing Plate into the mounting slit for Polarizing Plate / Light Control Film.**
Do not insert the Polarizing Plate into one of the mounting slits for the Diffusion Plate.
- 3. Attach the metal plate cover.**

3 Light Control Film

The Light Control Film restricts the diffusion of light. It is attached to the light to improve the parallelism of light. It can often be used to effectively capture images of the features of an inspection object.

Model name	Applicable Light Unit
LC-LFV3-35	LFV3-35, LFV-PF-35 Series
LC-LFV3-50	LFV3-50, LFV-PF-50 Series
LC-LFV3-50X100	LFV3-50X100 Series
LC-LFV3-70	LFV3-70, LFV-PF-70 Series
LC-LFV3-100	LFV3-100, LFV-PF-100 Series
LC-LFV3-130	LFV3-130 Series
LC-LFV3-200	LFV3-200 Series

Installing the Light Control Film



- 1. Remove the metal plate cover.**
Make sure that the LED base plate and Diffusion Plate do not slip off.
- 2. Insert the Light Control Film into the mounting slit for Polarizing Plate / Light Control Film.**
Do not insert the Light Control Film into one of the mounting slits for the Diffusion Plate.
- 3. Attach the metal plate cover.**

4 Diffusion Plate (Light-Color)

For Light Units with Red or White LEDs

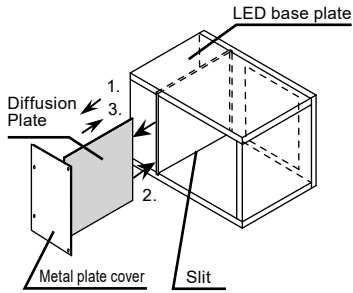
This is the same Diffusion Plate as the one installed at the factory. You can order it as a replacement, e.g., if the original Diffusion Plate is broken.

For Light Units with Blue LEDs

Use it to replace the default Diffusion Plate inside the Light Unit for improving the luminance. This Diffusion Plate, however, will reduce the uniformity.

Model name	Applicable Light Unit
DF-LFV3-35	LFV3-35, LFV-PF-35 Series
DF-LFV3-50	LFV3-50, LFV-PF-50 Series
DF-LFV3-50X100	LFV3-50X100 Series
DF-LFV3-70	LFV3-70, LFV-PF-70 Series
DF-LFV3-100	LFV3-100, LFV-PF-100 Series
DF-LFV3-130	LFV3-130 Series
DF-LFV3-200	LFV3-200 Series

Replacing the default Diffusion Plate



1. Remove the metal plate cover.

Make sure that the LED base plate and Diffusion Plate do not slip off.

2. Pull out the default Diffusion Plate from the Light Unit and then insert the optional Diffusion Plate into the slit.

Do not insert the Diffusion Plate into the mounting slit for the Polarizing Plate / Light Control Film.

3. Attach the metal plate cover.

- The Diffusion Plate does not have a front or back side. Both sides are matte.
- If there are several mounting slits for the Diffusion Plate, you can change the position of the Diffusion Plate. For details, refer to **1. Mounting Slits for Optional Products**.

5 Diffusion Plate (Dark-Color)

For Light Units with Red or White LEDs

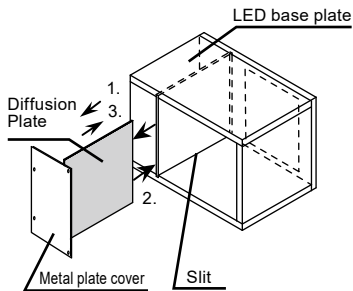
Use it to replace the default Diffusion Plate inside the Light Unit for improving the uniformity. This Diffusion Plate, however, will reduce the luminance.

For Light Units with Blue LEDs

This is the same Diffusion Plate as the one installed at the factory. You can order it as a replacement, e.g., if the original Diffusion Plate is broken.

Model name	Applicable Light Unit
DF-LFV3-35-UF	LFV3-35, LFV-PF-35 Series
DF-LFV3-50-UF	LFV3-50, LFV-PF-50 Series
DF-LFV3-50X100-UF	LFV3-50X100 Series
DF-LFV3-70-UF	LFV3-70, LFV-PF-70 Series
DF-LFV3-100-UF	LFV3-100, LFV-PF-100 Series
DF-LFV3-130-UF	LFV3-130 Series
DF-LFV3-200-UF	LFV3-200 Series

Replacing the default Diffusion Plate



1. Remove the metal plate cover.

Make sure that the LED base plate and Diffusion Plate do not slip off.

2. Pull out the default Diffusion Plate from the Light Unit and then insert the optional Diffusion Plate into the slit.

Do not insert the Diffusion Plate into the mounting slit for the Polarizing Plate / Light Control Film.

3. Attach the metal plate cover.

- The Diffusion Plate has a front side and a back side. Install it with the glossy, smooth side facing the LED base plate.
- If there are several mounting slits for the Diffusion Plate, you can change the position of the Diffusion Plate. For details, refer to **1. Mounting Slits for Optional Products**.

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