



微信公众账号



FACEBOOK

安徽长庚光学科技有限公司

[www.laowalens.com](http://www.laowalens.com)

服务热线:400-066-1316

Email: [sales@laowalens.com](mailto:sales@laowalens.com)

电话Tel: (+86) 551-69107990

地址: 合肥市庐阳区天水路与太和路交口庐阳中科大校友创新园5号楼

Add: Building 5, USTC Alumni Innovation Park, Crossing of Tianshui  
and Taihe Road, Luyang District, Hefei City, Anhui Province, China

LAOWA FFII 12-24mm F5.6 C-Dreamer

使用手册

Instruction Manual

**LAOWA 老蛙**

本公司保留更改产品设计与规格的权利, 届时恕不另行通知;  
本公司保留对此《使用说明》的最终解释权。  
Please note we reserve the right to change our product's  
design and specifications at any time without notice and  
to the final interpretation of the *Instruction Manual*.



## Preface

Thank you sincerely for purchasing our LAOWA FFII 12-24mm F5.6 C-Dreamer ultra-wide-angle zoom lens. It is a mirrorless full-frame lens system providing an ultra-wide angle of view that covers from 121.9° to 84°, which expands the visual field scope during photographing and enables more discovery and imagination of users.



*Read this operation manual carefully to familiarize yourself with its contents and ensure that you can operate the product properly. Keep the Instruction Manual in a safe place where it can easily be referenced whenever required. If you are still unable to solve the problem by reading the manual, please contact our after-sales service for further technical support.*

## Main features

- 1. The lens provides a wider visual field scope for photographing from 121.9° to 84°, enabling you to discover and image more.
- 2. For easier use, the front 77mm-thread filter is adopted for the lens, which eliminates the inconvenience in using square filter holders and realizes easy, convenient photographing.
- 3. The lens has a weight of 497g and a small volume. Using it with a mirrorless camera, you can experience easy photographing and enjoy your relaxing travel.
- 4. In addition to the ultimately small volume of the ultra-wide-angle zoom lens, 2 aspherical lenses and 3 extra-low dispersion (ED) lenses are adopted, which minimizes dispersion and distortion, enhances image edge quality and thus ensures the good image quality.

## Precautions

### ■ △ Safety Precautions

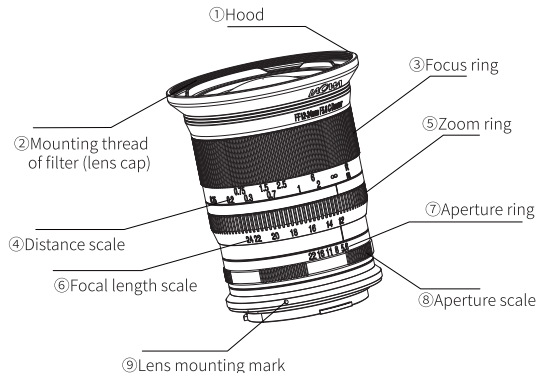
- Do not disassembly, modify or refit the lens by yourself. When the product is damaged due to external causes, any exposed part or broken edge must not be touched.
- Do not place the lens in direct sunlight, in closed cars or at other high-temperature places; otherwise, excessively high temperature will cause the expansion/shrinkage deformation of lens elements and other parts.
- When the lens is not in use, please mount the front lens cap, or place the lens at the place under no sunlight. The light rays reflected by the convex lens may be concentrated on nearby objects, and thus cause a fire.
- For backlight photographing, keep the sun well out of the viewing frame; otherwise, sunlight focused into the camera will cause a fire, or scorch eyes.
- When the built-in flash is used for photographing, the lens itself will keep out light and cause vignetting. Therefore, external flashes are recommended.
- It is the 35mm full-frame lens system, and has a mirrorless camera mount originally. When it is attached to an APS-C camera, the viewing angle of the lens will be cut partially.

## Precautions

### ■ Long-term maintenance and precautions

- Do not touch the lens surface. Use special lens cloth, or blow air, to remove the dust from the lens surface. When the lens is not in use, mount the lens cap.
- When lens cleaning paper or lens cloth is used for cleaning, the dirt and fingerprints on the lens shall be wiped off in a spiral pattern, starting from the center of the lens and moving to the rim.
- When the lens is transferred suddenly from cold environment to warm environment, water fog will be caused on both the external and internal elements of the lens. For this reason, protective measures against moisture shall be taken during the transferring.

## Nomenclature



## Instructions

### ■ Lens mounting

Take off the rear lens cap. Align the mounting mark (㊟) on the lens mount with the corresponding mark on the camera mount ring; then, insert the lens to the mount ring, rotate the lens clockwise, and stop rotating until a click is heard (meaning the lens is locked). Please do not apply excess force for mounting; otherwise, the mount may be damaged.

After lens mounting, please try to rotate the lens to ensure it is fixed on the camera.

### ■ Lens detaching

Power off the camera; then, press and hold the lens release button, rotate the lens reversely and counterclockwise, and draw out the lens from the mount ring.

It is a non-CPU lens, and there are no available data information. Thus, please enable the function of “release shutter without lens” in the camera.

### ■ Attaching filter

The lens can be attached with the 77mm round filter. There are special requirements of both the size and thickness of the filter. Please purchase thinner filters if possible.

### ■ Zooming

The focal length of the lens can be changed by rotating the zoom ring (㊟) manually; the full-frame angles of view for the focal lengths of 12mm-24mm, about 121.9°-84° diagonal angles of view, can be covered.

## ■ Focusing

It is the manual focus lens. Rotate the focus ring (③) slowly until the image is in focus.

Do not rotate the focus ring with excess force or too quickly; otherwise, excess force may cause damage to the parts of the focus ring.

The distance scale (④) and depth-of-field scale on the lens are provided for instruction. The actual focal point and depth of field may be different from these marked scales.

For greatly accurate focusing, please use the maximum aperture when fix the camera well, and rotate the lens to obtain the required aperture after focusing.

For easier focusing, please enable the function of focus peaking in the camera (depending on the functions of the adopted camera).

## ■ Using aperture

Adjust the aperture on the lens, and rotate the aperture ring (⑧) to select the aperture corresponding to the photographing environment and the required depth of field.

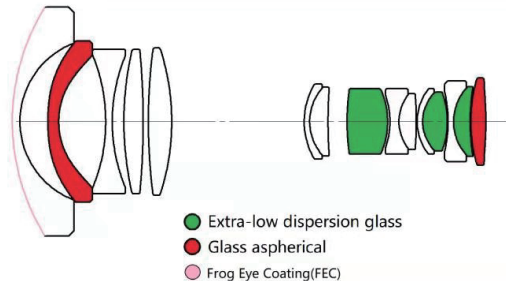
As no CPU data of this lens are available, its aperture parameters cannot be recorded temporarily.

Though the shutter-priority mode cannot be used smoothly due to manual aperture adjustment, the aperture-priority mode can be used (the metering accuracy depends on camera models).

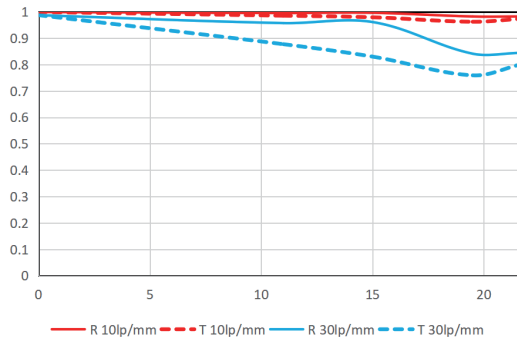
The Leica M mount is also available for the lens, the limiter is set at the 0.7m of the focus ring; when you turn the focus ring to the position of 0.7m, you can sense the segmentation. This design aims to help you determine whether rangefinder mechanism is interlocked during blind operation. (The rangefinder focus interlocking cannot be realized within 0.7m.)

## Specifications of product

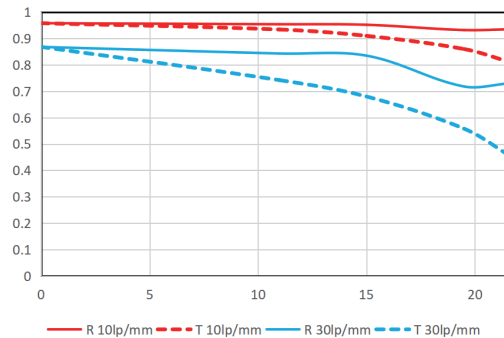
LAOWA FFII 12-24mm F5.6 C-Dreamer	
Frame	Full frame
Focal length	12-24mm
Aperture	F5.6-22
Angle of view	84° - 121.9°
Lens structure	15 elements in 11 groups (2 aspherical elements, 3 ED elements)
Diaphragm blades	5
Shortest shooting distance (object-image distance)	15cm
Maximum magnification	0.4
In-focus driving mode	Manual (MF)
Filter size	Φ77mm
Lens size	About φ69.4mm*84mm (Leica M mount)
Weight	About 497g (with no hood or front/rear caps)
Mount	M, E, R and Z



12mm (Geometric - optical mtf)

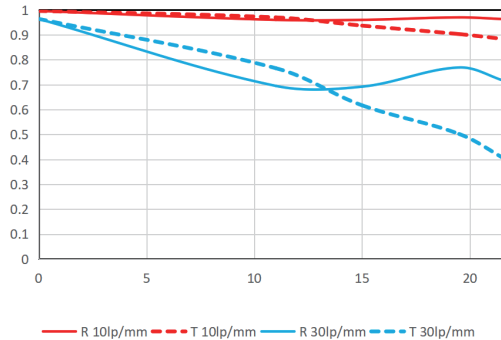


12mm (Wave - optical mtf)





24mm (Geometric - optical mtf)



24mm (Wave - optical mtf)

