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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**

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design and specifications at any time without notice and  
to the final interpretation of the *Instruction Manual*.



## 前言

真诚地感谢您选购 LAOWA FFII 12-24mm F5.6 C-Dreamer超广角变焦镜头。此镜头是无反全画幅系统镜头,拥有121.9°至84°超广视场角,开拓了摄影的视野范围,给予使用者更多的发现与想象。



为了操作上的安全,使用本产品前请务必详细阅读使用手册与注意事项,并将手册放在需要时容易取得的地方。如遇到不能解决的问题请通过售后电话获取技术支持。

## 主要特色

- 1、该镜头覆盖121.9°至84°的视野范围,开拓了摄影视野,给你更多的发现与想象。
- 2、为了使用更加的便捷,镜头采用前置77mm口径滤镜,解决了使用方形支架带来的种种不便,使得拍摄过程变得轻便且没有负担。
- 3、该镜头控制在重量497g,体积小巧,搭配无反相机体验轻松的拍摄过程,让摄影不在成为旅行的负担。
- 4、超广角变焦镜头做到极致体积的同时,为了保证图像质量,采用了2枚非球面镜片与3枚异常分散镜片,最大限度降低了色散与畸变,同时提高边缘画质。

## 注意事项

### △ 安全注意事项

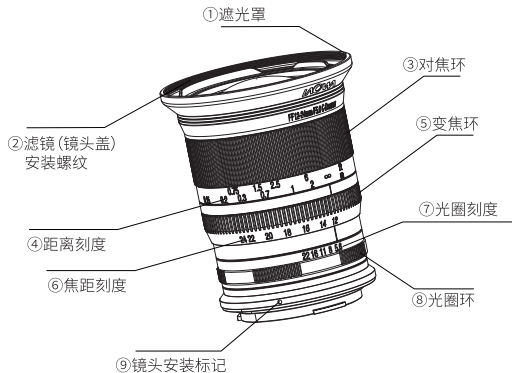
- 切勿自行拆解、修改或改装。当产品由于外力原因破损,切勿触碰外露部分或破损边缘处。
- 切勿放置于直射阳光下、封闭车辆中或其余高温处,否则过高的温度会使镜片和其他部件产生伸缩变形。
- 不使用镜头时,请将镜头前盖盖上或置于没有阳光照射处。凸透镜反射出的光线可能会聚集在附近物体上,导致发生火灾。
- 在逆光拍摄时,切勿将太阳置于画面中心,应该使太阳充分偏离画角,否则阳光会在相机内部聚集并导致火灾或灼伤眼睛。
- 在使用相机内置闪光灯拍摄时,由于镜头本身会遮挡光线而产生渐晕,因此建议您使用外设闪光灯拍摄。

## 注意事项

### 长期使用保养注意事项

- 避免触摸镜头表面,应用专用镜头布或气吹去除镜头表面的尘埃,不使用镜头时,应将镜头盖盖上。
- 使用镜头纸或镜头布清洁时,以螺旋的方式从中间向外擦拭镜头上的污垢以及指印。
- 镜头从寒冷的环境突然转移至温暖的环境时,镜头的外部以及内部镜片将会凝结水雾,所以在转移时应采取防潮保护措施。

## 各部件名称



## 使用说明

### 镜头安装

取下镜头后盖。将镜头卡口上的安装标记⑨对准相机座圈上的对应标记，随后将镜头插入机身座圈，顺时针方向旋转镜头，直至咔嚓声锁紧镜头。安装时请不要用力过猛，以免导致卡口损伤。

装上镜头后，请尝试旋转镜头确认是否已将其固定在相机上。

### 镜头拆卸

关机后按住相机上的镜头释放按钮，逆时针方向反向旋转镜头，随后将镜头从座圈中拔出。

由于此为非CPU镜头，无法提供数据信息，所以请在相机内开启“无镜头释放快门”功能。

### 滤镜安装

此镜头可以装配77mm圆形滤镜，滤镜的尺寸厚度有特殊要求，请购买尺寸较薄的滤镜。

### 对焦

- 此款镜头是全手动对焦镜头，合焦时，缓慢旋转对焦环③，直至合焦。不要过猛过快地旋转对焦环，避免用力过度损坏对焦环部件。镜头上的距离刻度④与景深刻度是出于指导目的。实际焦点与景深可能同刻度标记稍有不同。如需要非常精确的对焦，请在固定好相机位置的情况下使用最大光圈对焦，对焦完成后再旋至所需要的光圈值。为了对焦的方便性，请开启相机内的峰值对焦功能(视所使用相机功能而定)。

### 变焦

- 此款镜头可通过变焦环⑤手动旋转来达到变换焦段，可覆盖全画幅12mm-24mm视角，约121.9°-84°对角线视角。

## ■ 光圈使用

- 光圈在镜头上调节,根据拍摄环境和与所需要的景深,转动光圈环⑧ 来选择对应的光圈。  
由于此镜头无CPU数据,所以暂时无法记录光圈参数。  
由于光圈为手动调节,无法较好的使用快门优先模式,但可以使用光圈优先模式(测光准确度视相机型号而定)。

此镜头有徕卡M卡口,在对焦环0.7m位置设定了限位装置,在拧动对焦环的时候,0.7m处会有明显的段落感。此设计是为了在盲操过程中确认黄斑机构是否联动。(黄斑对焦在0.7m内无法实现联动)

规格表

LAOWA FFII 12-24mm F5.6 C-Dreamer	
画幅	全画幅
焦点距离	12-24mm
光圈范围	F5.6-22
视场角	84° - 121.9°
镜头结构	11组15枚 (2枚非球面镜片、3枚ED镜片)
光阑叶片	5片
最近摄影距离 (物像距离)	15cm
最大放大倍率	0.4倍
合焦驱动方式	手动 (MF)
滤镜尺寸	Φ77mm
镜头尺寸	约φ69.4mm*84mm (徕卡M口)
重量	约497g (不含遮光罩、前后盖)
卡口	M、E、R、Z



## 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.

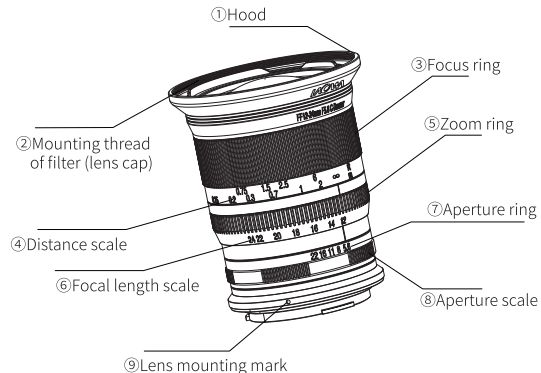


## Precautions

### ■ 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.

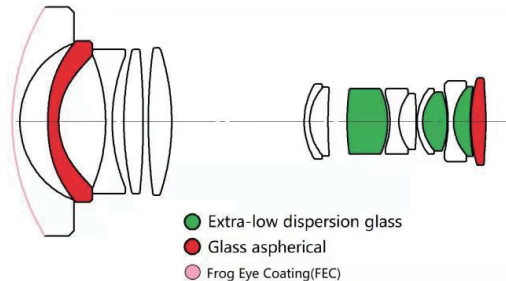
As no CPU data of this lens are available, its aperture parameters cannot be recorded temporarily.

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).

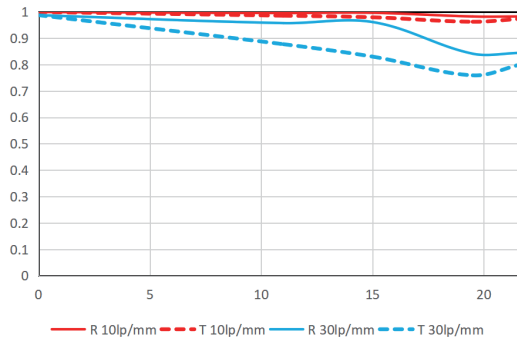
The Leica M mount is also available for the lens, the limiter is set at the 0.7m of the focus ring; when you turn the focus ring to the position of 0.7m, you can sense the segmentation. This design aims to help you determine whether rangefinder mechanism is interlocked during blind operation. (The rangefinder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

## Specifications of product

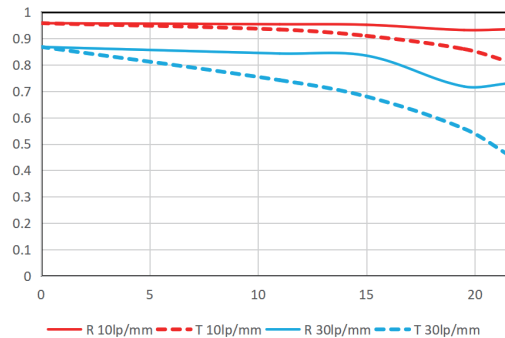
LAOWA FFII 12-24mm F5.6 C-Dreamer	
Frame	Full frame
Focal length	12-24mm
Aperture	F5.6-22
Angle of view	84° - 121.9°
Lens structure	15 elements in 11 groups (2 aspherical elements, 3 ED elements)
Diaphragm blades	5
Shortest shooting distance (object-image distance)	15cm
Maximum magnification	0.4
In-focus 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



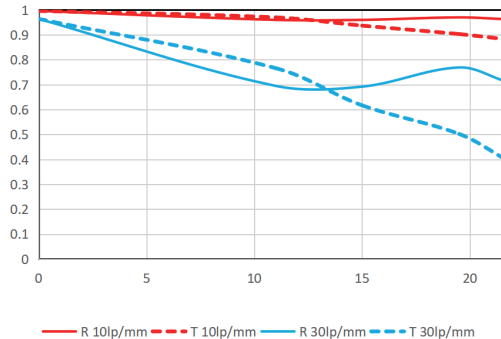
12mm (Geometric - optical mtf)



12mm (Wave - optical mtf)



24mm (Geometric - optical mtf)



24mm (Wave - optical mtf)

