LAOWA MFT 50mm F2.8

CA-Dreamer Macro 2X

使用手册
Instruction Manual

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LAOWA 老蛙

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PREFACE

Thank you very much for purchasing LAOWA MFT 50mm F2.8 CA-Dreamer Macro 2X lens. This lens is designed for Micro Four Thirds Cameras. It features 2X magnification and APO design. This lens delivers a crystal sharpness image from 2:1 magnification to infinity. The wide magnification range allows macro photographers to capture subjects at small sizes, like mite and jewelry.

⚠ *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.*

FEATURES

- LAOWA MFT 50mm F2.8 CA-Dreamer Macro 2X lens delivers high-resolution images from 2:1 magnification to infinity, which is distinct from normal macro lenses. The lens features 2X magnification in macro photography and APO design. Under 2X magnification, there is almost no chromatic aberration can be found. The wide magnification range allows users to be creative.

- Compact design. This lens only has φ53.5mm*79mm and weighs 240g. The tiny size and lightweight match perfectly with the M4/3 cameras.

- The lens is equipped with auto aperture, the aperture can be set on the camera with the aperture value and lens model being recorded. It effectively enables photographers to get focus wide open when shooting macro. The focus magnification can be used when rotating the focus ring can focus magnification, which is helpful for macro shooting.

- The lens incorporates 14 elements in 10 groups, including 3 extra-low dispersion elements to deliver high-resolution images. Housing full mental, which ensures long-term usage.

PRECAUTIONS

⚠ Safety Precautions

- Do not disassemble, modify the lens by yourself. Do not touch the internal parts that become exposed as the result of external force.

- Do not leave the lens where it will be exposed to high temperatures, such as in direct sunlight and an enclosed vehicle. Excessive heat may deform the glass elements and other parts of the lens.

- Do not leave the lens under the sun. If sunlight is focused on a nearby object, it may cause a fire. Keep the lens cap attached when it' s not in use.

- Do not place the sun in the frame center when shooting with backlight. Doing so might cause a fire or harm your eyes.

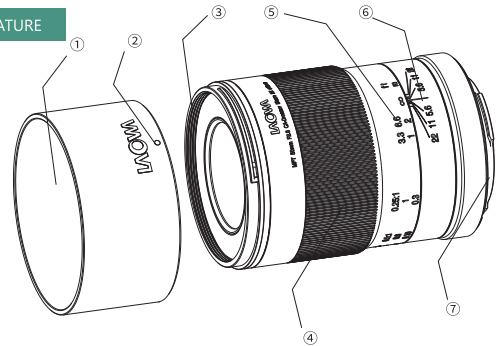
- The camera' s built-in flash will cause barrel shadow if used with this lens. For best results, please only use an external flash unit.

PRECAUTIONS

Maintenance Precautions

- Do not touch the lens contacts. Clean by a lens cloth or a blower. Always place the lens cap on the lens when storing.
- Try a circular motion from the center outward when using a lens tissue or a cleaning cloth to remove oil, fingerprints, and grime on the lens surface.
- If your lens is brought directly from a cold place to a warm place, condensation may appear on the lens. To avoid this, be sure to take some action to protect the lens.

NOMENCLATURE



①Lens hood
②Lens hood mounting index
③Filter (lens cap) mounting thread
④Focus ring
⑤Distance (magnification) scale
⑥Depth of field scale
⑦Lens mounting index

To attach the Lens

- Remove the rear lens cap. Align the mounting index⑦ on the lens bayonet with the mounting index on the camera, then insert the lens into the camera mount and rotate it in the direction for your lens version until it locks. Do not use excessive force during installation to avoid damage to the bayonet.

To remove the lens

- Turn the camera off. While pressing and holding the lens release button on the camera, rotate the lens in the reverse direction for attaching the lens until it stops, then detach the lens.

- After attaching the lens, please try to rotate the lens to make sure it mounted onto the camera properly.

Attaching/detaching lens hood

- Align the mounting index② on the lens hood and the lens. Turn the hood clockwise until it locks.
- For detaching lens hood, rotate it counterclockwise.
- It is recommended that you use a lens hood to reduce strong light and protect the front element.
- Lens hood may be unavailable when using certain filters.
- When storing, turn over the lens hood and place it onto the lens backward.
- When shooting with a flash, the lens hood may block light and cause vignetting. So when shooting with the camera′s built-in flash or with the external flash unit that is not high enough, please remove the hood before shooting. Selecting a dedicated macro ring flash is also a great option.

Focusing

- This is a fully manual lens. Rotate the focusing ring④ slowly to get focus.
- Turn the focus ring slowly and gently to prevent the focus mechanism from damage.
- The distance scale⑤ and depth of field scale⑥ are for instructional purposes. Actual focus and DOF may slightly differ from those scale indications.
- Turn on the focus peaking on the camera to help focusing. (Note that the function depends on camera models.)

Setting the Aperture

- Aperture is set through the camera. According to the shooting situation and desired depth of field, rotate the control dial⑦ on the camera body to the corresponding aperture.
- Since the lens has CPU data, the aperture value can be recorded.

Macro Shooting

- The max magnification is 2:1 and the minimal focus distance is 13.5cm. The minimal distance from the subject to the first element of the lens is about 8cm.

Focusing Tips

Method 1 Magnification Priority
1.Set the magnification first, and then turn the focus ring to the desired magnification mark on the lens.
2.Check the frame by viewfinder or [Live View] on the camera and try to get focus by moving the camera back and forth until obtaining the proper focal length.
3.Rotate the focus ring to achieve precise focus.

Method 2 Framing Priority
Set the frame first. Turn the focus ring while you are checking the image through viewfinder or [Live View] on the camera, and then follow steps 2, 3 as the method 1 above.

- *For high magnification close-ups, because of the extremely short working distance, please be careful not to touch the subject.*
- *Magnification refers to the proportional relationship between the size of an image recorded on a sensor or film and the actual size of the subject.*

	无限远		0.25倍		0.5倍	
FNo.	back	front	back	front	back	front
2.8	INF	54888.6	292.1	290.13	191.1	190.51
4	INF	39824.86	292.21	290.03	191.19	190.42
5.6	INF	28193.04	292.66	289.59	191.35	190.26
8	INF	19968.1	293.31	288.96	191.58	190.04
11	INF	14152.19	294.24	288.09	191.91	189.73
16	INF	10039.72	295.57	286.86	192.37	189.3

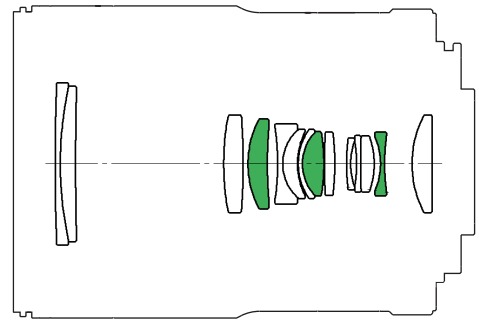
	0.75倍		1倍		1.25倍	
FNo.	back	front	back	front	back	front
2.8	159.9	159.6	146.12	145.92	139.27	139.13
4	159.92	159.58	146.15	145.88	139.29	139.11
5.6	159.99	159.51	146.21	145.83	139.32	139.08
8	160.09	159.41	146.29	145.75	139.38	139.03
11	160.24	159.27	146.41	145.64	139.45	138.96
16	160.44	159.08	146.57	145.48	139.55	138.86

	1.5倍		1.75倍		2倍	
FNo.	back	front	back	front	back	front
2.8	135.89	135.79	134.49	134.4	134.27	134.2
4	135.9	135.78	134.49	134.4	134.28	134.18
5.6	135.93	135.75	134.51	134.38	134.31	134.16
8	135.96	135.72	134.53	134.36	134.34	134.13
11	136.01	135.67	134.57	134.32	134.38	134.09
16	136.08	135.6	134.63	134.27	134.53	133.95

SPECIFICATIONS

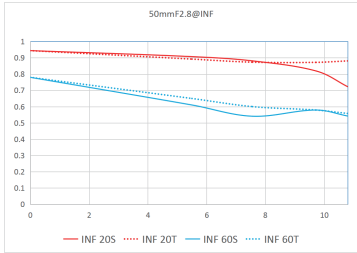
MFT 50mm F2.8 CA-Dreamer Macro 2X	
Lens No.	MFT 50mm F2.8 CA-Dreamer Macro 2X
Format	M43
Focal Distance	50mm
Max. Aperture	F2.8
Angle of View	24°
Lens Construction	14 elements/ 10 groups (ED glass x3)
Aperture Blades	7 (auto aperture)
Min. Aperture	F22
Min. Shooting Distance	13.5cm
Max. Magnification	2x
Focusing	MF
Filter Thread	Φ49mm
Dimensions	Φ53.5mm*79mm
Weight	240g
Mounts	M43

LENS CONSTRUCTION



● Extra-low Dispersion Glass

MTF


50mmF2.8@INF
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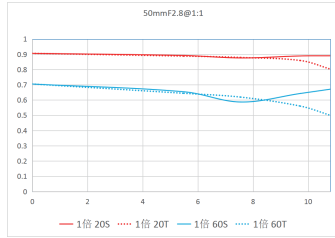
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
2
4
6
8
10
INF 20S
INF 20T
INF 60S
INF 60T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1
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0.8
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0.6
0.5
0.4
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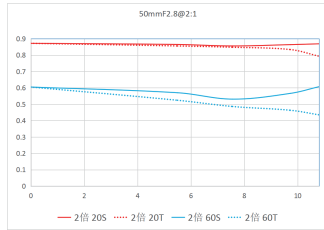
10
1倍 20S
1倍 20T
1倍 60S
1倍 60T


50mmF2.8@2:1
0.9
0.8
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0.5
0.4
0.3
0.2
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0
2
4
6
8
10
2倍 20S
2倍 20T
2倍 60S
2倍 60T

New Idea . New Fun.