

EOS system

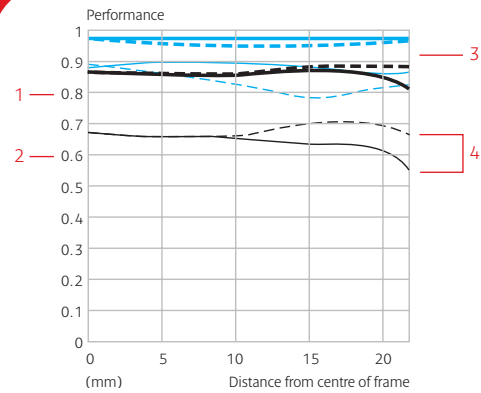
Change your lens, change your story

you can



Canon

How to read MTF charts



Spatial frequency	Maximum aperture		f/8	
	S	M	S	M
10 lines/mm	—	- - -	—	- - -
30 lines/mm	—	- - -	—	- - -

The more the S and M curves are in line, the more natural the blurred image becomes

- 1 Contrast lines (thick lines) above 0.8 indicate superior contrast
- 2 Resolution lines (thin lines) above 0.6 indicate good sharpness
- 3 Lenses that demonstrate good edge performance have almost horizontal lines
- 4 The closer the Sagittal and Meridional lines are together, the more natural the blurred parts of an image appear

An MTF (Modulation Transfer Function) chart indicates the resolution and contrast of a lens from the centre to the corner of an image both at the lens' maximum aperture and at f/8. The graph is calculated from the lens' ability to reproduce sets of extremely fine lines both parallel to the image diagonal (Sagittal) and perpendicular to the image diagonal (Meridional). One set of lines is spaced with 10 lines per millimetre (lpmm) and is used to indicate contrast. A second set, at 30 lines per millimetre, indicates resolution (sharpness).

A Canon MTF chart is made up of 8 graph lines in two colours. The 4 black lines represent the lens' performance at maximum aperture while the 4 blue lines indicate performance at f/8. Thick lines show contrast (10 lpmm) and thin lines resolution (30 lpmm). The lines representing sagittal detail are shown as solid lines. The lines representing meridional detail are shown dashed. For zoom lenses, charts are provided for both the minimum and maximum focal lengths.

The perfect lens would show both solid and dashed lines running horizontally across the top of the chart - in other words, showing 100% accuracy throughout the frame. In practice no such lens exists, so you will see some amount of variance with even the very best lenses on the market.

Making sense of lens names

Each EF lens is identified by a series of codes which provide important information about its characteristics.

100mm

The focal length of the lens. A range of values indicates the maximum and minimum focal lengths of a zoom lens.

f/2.8

The maximum aperture of the lens, expressed as an F-stop. The smaller the F-stop, the wider the maximum aperture. A range of values indicates the aperture at either end of the zoom range.

L

Indicates a professional L-series lens - the ultimate in image quality, durability and performance.

IS

Indicates that the lens uses an Image Stabilizer to correct for unwanted camera shake. IS allows shooting at up to five stops slower than would otherwise be possible. Dependant on the lens.

USM

Refers to Ultra Sonic Motor. Found in many Canon lenses, the USM drives fast, silent and accurate auto-focusing.

EF 100mm f/2.8L Macro IS USM



Other lens codes

DO Uses Diffractive Optical elements

EF-S Designed for cameras with an EF-S lens mount

MP-E or Macro Designed for Macro photography

II or III Lens version Lenses are sometimes replaced with improved models

Key to icons

The symbols below are a quick reference guide to help you choose your lens based on the types of photography you do.



Good for General Use



Good for Close Up



Good for Portraits



Good for Sports



Good for Indoor Sports



Good for Wildlife



Good for Landscapes



Good for Products



Good for Architecture



Good for Interiors



Good for Travel



Good for Weddings



Good for Reportage



Glossary



Tip



Information


EOS system

Change your lens, change your story

you can

CANON EF LENS

Canon



'Village leader in traditional dress'
by Canon Ambassador Brent Stirton.
Camera: EOS 5D Mark II
Lens: EF 24mm f/1.4L USM
Exposure: 1/200sec f/10 ISO speed: 50

Welcome

Canon has been pushing the development of ground-breaking imaging technology forward for more than 70 years. From the production of the first ever high-quality cameras for the wider market, to the ongoing introduction of innovative medical imaging equipment and comprehensive professional printing technologies, the reliable and superior performance of Canon equipment has helped to make the company one of the world's Best Global Brands ever since the first survey results were published in 2001.*

Our photographers are amateurs, semi-professional and professionals alike. They all have unique requirements for their cameras and lenses but have one thing in common: a passion for the power of image, and the stories that those images enable us to tell.

* From the annual BusinessWeek Best Global Brands survey, ranked by Interbrand.
© Brent Stirton/Reportage by Getty Images.
Canon Ambassador.

Canon photography

Launched in 2008, Canon Europe's Ambassadors Programme includes top professional photographers who are all passionate about the power of image. The Canon Ambassadors are committed and expert Canon users who are universally recognised for their high standards and are highly respected by fellow professionals. Below are some of those Ambassadors, alongside some semi-pro and amateur Canon photographers, who will be sharing their thoughts on some of our technologies throughout this brochure.

Brutus Östling
Canon Ambassador
Wildlife



Paolo Pellegrin
Canon Ambassador
Documentary/Fashion



Brent Stirton
Canon Ambassador
Photojournalism/
Environmental Portraiture



Jeff Ascough
Canon Ambassador
Wedding



Jonathan and Angela Scott
Canon Ambassadors
Wildlife/Travel



Fergus Kennedy, semi-pro, EOS 7D

UK national Fergus Kennedy is an award-winning wildlife photographer and marine biologist who developed a passion for the natural world at an early age. His work takes him around the world and his photographs have been published in a wide variety of magazines, newspapers and books.

Richard Samaranch Betts, semi-pro, EOS 500D

Richard has been using Canon cameras ever since he borrowed (repeatedly) a Canonflex from a friend as a teenager. After working as a TV cameraman for six years, it was only natural for Richard to be interested in images and photography. Inspired by unforgettable journeys and people he has met, he took up photography to document his travels. He uses photography to communicate feelings, situations, poetry, stories – and to capture moments of beauty.

Nadine Kaegli, amateur, EOS 450D

Nadine is continually inspired by both her home city of Zurich, Switzerland, and by the other places she travels to. She developed her passion for photography because it opened up the possibility of capturing special moments in her life in a creative way, so that she could share them with her family and friends.

How to use this brochure



MTF charts

Modular Transfer Function charts accompany all of our lenses, to give you a deeper insight into how the lens performs. For more information, take a look at the inside front cover of this brochure.

Lens diagrams

Lens diagrams provide an illustration of the optics within a lens with special elements made from fluorite or ultra-low dispersion glass (UD) marked in different colours.

Product name

The exact model name and number for the featured product.

Accessories

Our accessories are designed to enhance performance and your experience.

Ideal for

A quick look at what the lens is most commonly used for.

The EF Lens **08-12**
Choosing a lens **13-15**

EF-S

The smaller, lighter option with an extensive wide-angle choice **16-27**

EF Fixed Focal Length

The ideal option for the highest image quality in sharpness and contrast **28-55**

EF Zoom

These lenses give you the freedom to switch perspectives in seconds **56-75**

Macro

Make the most of the tiniest detail that even the human eye cannot capture unaided **76-85**

Tilt and Shift

Shift your perspective and plane of focus for accurate capture or creative effect **86-93**

EOS System Accessories

Expand your photography with a variety of accessories from remote controls to Speedlite flashes **94-113**

Specifications

A detailed summary of product specifications including accessory compatibility tables **114-123**

Glossary

A quick reference guide to some commonly-used technical terms **124-127**

Choose Canon

© Jonathan & Angela Scott. Canon Ambassadors.

As established imaging experts, we're proud to support the photography industry by sharing our experience and we celebrate its achievements in both professional and amateur image capture. The events and initiatives described opposite are just some of the activities that we are involved in, as a world leader in imaging technology.

Camera: EOS-1Ds Mark III
Lens: EF 70-200mm f/4L IS USM
Exposure: 1/100sec f/4.0 ISO speed: 200

Promoting the power of image

Highlighting the close relationship between the image-conscious world of fashion and photography, Canon has been an official sponsor of the Paris, Milan and London Fashion Weeks since 2006. Every year our Professional Services team offers a highly popular on-site loan, repair and maintenance service throughout the course of each Fashion Week.

Celebrating photographic excellence

The prestigious World Press Photo award celebrates the very best photography that documents major world events from the previous year. World Press Photo culminates during a weekend in Amsterdam, where the winners of each category present their work.

Supporting professionals

The Canon Professional Services (CPS) is an accessible, responsive, informative and customisable programme that offers extensive after-sales support and information for professional photographers and videographers. It's free to qualifying Canon photographers and videographers.

Sharing knowledge and expertise

If you have a question about anything to do with your digital Canon equipment, visit our infobank at www.canon-europe.com/cpn

The EF lens

The original EOS camera system was introduced to the world in 1987. At its heart was the EF lens mount, connecting lenses to the camera body in a fully electronic way for the first time.

Apart from the physical connection between lens and camera body, all communication between these two key components is electronic, allowing for highly accurate, real-time data transfer. And because each lens has a unique performance characteristic, Canon became the first to build the motor that drives the focus inside each lens, rather than using a motor inside the camera body.

Even with continued development and evolution of focus systems, Image Stabilizer technologies, lens element materials science, weather sealing and design, the original EF mount design remains unchanged. All EF lenses are compatible with every EOS camera ever produced, including the new digital EOS cameras.

In 2011, Canon celebrated the cumulative production milestone of 60 million interchangeable EF lenses – 24 years since the launch of Canon's EOS camera system and the EF lens mount.

Today, there are more than 60 EF lenses available, with focal lengths ranging from 8mm to 800mm and a range of specialist macro, tilt and shift and fisheye models. Professional photographers are catered for with the L-series EF lenses. With special optical elements, build quality and weather sealing, the L-series represents the pinnacle of Canon's lens design.

Matching advances in camera technology, EF lenses continue to evolve, including the introduction of leading technologies such as Diffraction Optics and Subwavelength Structure Coating to suppress and prevent the effect of reflections off digital camera sensors. The EF-S lens mount has been developed to take advantage of the compact APS-C sensor size of cameras such as the EOS 600D and EOS 7D, paving the way for a new range of compact, lightweight and high-quality lenses.



1946
Serenar 50mm f/3.5
Canon's first ever lens. Serenar means 'clear,' symbolising the clarity that the development team was aiming for.



1961
50mm f/1.95 lens
When this lens went on sale, it boasted the largest aperture of any photographic camera lens in the world. This legendary lens has gained a reputation as being brighter than the human eye, and further strengthened Canon's international standing.



1973
TS35mm f/2.8 SSC
This was the first 35mm camera lens with tilt and shift functionality, and was ideal for architectural and commercial photography, which until then had been monopolised by large-format view cameras.



1989
EF 50mm f/1.0L USM
This standard lens featured the largest aperture of any 35mm SLR camera lens when first launched. The floating mechanism helped maintain high picture quality even at close focusing distances, while the electronic manual focus function allowed full-time manual focusing with a very light touch even in autofocus mode.



1999
EF 300mm f/2.8L IS USM
This lens has achieved such a high reputation that it has come to be known as the symbol of Canon's professional lenses. Its innovative performance has produced numerous classic photographs in the fields of sports, journalism, and advertising.



2001
EF 400mm f/4 DO IS USM
The ultra telephoto EF 400mm f/4 DO (multi-layered Diffractive Optical elements). IS USM lens turned the old 'big and heavy' image of telephoto lenses on its head, achieving a significantly lighter and more compact design than conventional models.



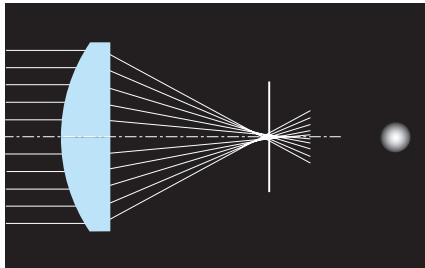
2008
EF 24mm f/1.4L II USM
This is the first EF lens to employ the bio-mimetic Subwavelength Structure Coating (SWC) technology. SWC effectively minimises lens flare and ghosting caused by light hitting lens surfaces at large angles that is difficult to prevent using conventional coatings.



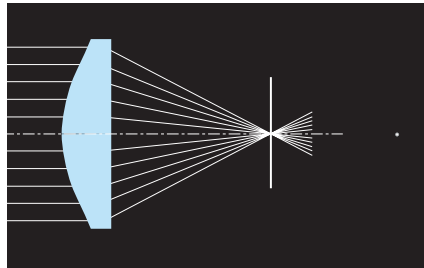
2009
EF 100mm f/2.8L Macro IS USM
This lens is part of Canon's prestigious L-series, and the first to feature an Image Stabilizer with angle and shift detection that is highly effective at close focusing distances.

The EF advantage

What sets the EF lens range apart? Innovation. Canon has been pursuing the perfect lens for more than six decades. This pursuit has generated a raft of pioneering technologies, the very best of which are found in today's line-up.



Spherical aberration of spherical lens



Convergence of parallel light rays by an Aspherical lens

Aspherical lenses

Canon was the first company to introduce **aspherical** elements for SLR lenses to counteract the problem of **spherical aberration**. These special elements play an integral part in delivering the corner-to-corner sharpness and clarity of top performers in the EF range.

Diffraction optics

Canon is the first and only company in the world to incorporate a Diffraction Optical (DO) element into an interchangeable SLR lens. This approach produces outstanding image quality, but these lenses are significantly lighter and smaller than similar conventional lenses.

Fluorite and UD lens elements

Fluorite crystal and Ultra-low Dispersion (**UD**) **glass** elements combat **chromatic aberration** or 'fringing'. By virtue of their special diffraction properties, these materials keep colours accurate and contrast high.

Lens coatings

Light reflected off lens elements and the image sensor can cause ghosting (secondary images) and **flare** to appear in images. Canon's Super Spectra coating absorbs light rather than reflecting it. The new Subwavelength structure coating (**SWC**) goes one step further, effectively eliminating the cause of problematic reflections to ensure crisp, undistorted images.



Fluorite and UD lens elements keep colours accurate



Inside an ultrasonic motor

Ultrasonic Motor

The Ultrasonic Motor (**USM**) was introduced with the Canon EF 300mm f/2.8L USM lens in 1987. Silent and accurate, USM technology powers the rapid auto focusing performance of almost every current EF lens.

Image Stabilizer

Pioneered by Canon in 1995, **Image Stabilizer** technology uses gyro sensors to detect and compensate for unwanted camera shake. Today's IS systems allow photographers to shoot up to 5 stops slower with no increase in blur. Since the image is stabilised within the lens instead of the camera, the IS system can be optimised for each model. What's more, the auto focus system has a steady image to work with and the photographer gets a steady image through the viewfinder.

Canon's Subwavelength Structure (SWC)

Canon's Subwavelength Structure (SWC) anti-reflective coating is what is known as a biomimetic technology – mimicking a phenomenon found in nature. Working at the nanoscale, the SWC coating is inspired by features found within the eyes of moths.

Fluorine coating

In 2010 Canon introduced a new coating for lenses elements. Using Fluorine with its tight molecule bond, this new coating provides a tough anti static surface that prevents dust and water from clinging to any exposed lens elements ensuring easier cleaning.

Fixed or Zoom?

Zoom lenses offer several focal lengths within a single lens. Non-zoom or 'prime' lenses provide a single, fixed focal length. Each has its advantages.

Zoom lenses

The big benefit of a zoom lens is convenience. You can shoot wide or at longer **focal lengths** without having to change your lens mid-shoot. This is a factor to consider if you regularly shoot in time-sensitive situations. Having several focal lengths in one package also reduces the amount of equipment you'll need to carry.

Fixed lenses

Fixed lenses generally offer a wider maximum aperture. You can shoot in lower light, or use faster shutter speeds when photographing action. If you like to shoot portraits, the shallow **depth-of-field** offered by fixed focal length lenses should be considered. Because they generally use fewer pieces of glass, fixed lenses are often sharper than their zoom counterparts at equivalent focal lengths. A fixed focal length lens is also a great learning tool when you are starting out because it forces you to think carefully about each composition, rather than simply zooming in on the subject.

i Recent developments in lens technology are making zoom lenses more portable than ever before. The EF 70-300mm f/4.5-5.6 DO IS USM, for example, packs a wide zoom range into a unit that is less than 10cm long.

i Super telephoto lenses are only available as prime lenses. The maximum focal length found in an EF zoom is 400mm, while prime lenses are available up to 800mm.

Choosing a lens

The following pages provide a general guide to suitable lenses for different situations. Ultimately, the right lens is the one that matches your creative vision.



Sports and Wildlife

For sports and wildlife photography, two factors are paramount: reach and speed. Whether you're shooting lions on the Serengeti or weekend football players in the park, you need a lens that gets up close yet allows you to keep your distance. Generally speaking, you should be looking at telephoto lenses between the 100mm-300mm focal length range. By speed, we mean lenses that focus quickly and transmit enough light to allow for very fast shutter speeds. A telephoto lens with a large maximum **aperture** will give you this capability.

THE PROFESSIONAL'S CHOICE: EF 300mm f/2.8L IS II USM
GREAT BUDGET OPTION: EF 75-300mm f4-5.6 III USM



Portrait

The best portraits are those that approximate our human interpretation of faces. In terms of focal length, that means anything between 50mm and 100mm. A wide-angle lens will accentuate extremities such as noses and ears. Telephoto lenses will flatten the face into something two-dimensional and uninspiring. Beyond focal length, a key consideration is maximum aperture. Wider apertures allow you to achieve finer **depth-of-field**. Distracting background detail is blurred and the focal point of your photograph – the subject's face – remains in sharp focus.

THE PROFESSIONAL'S CHOICE: EF 85mm f/1.2L II USM
GREAT BUDGET OPTION: EF 50mm f/1.8 II


***** The effects of camera movement are more noticeable at higher focal lengths. Most telephoto lenses feature Image Stabilizer (IS) technology to compensate for this. If you are shooting handheld without IS, follow the reciprocal rule: you need a shutter speed no slower than 1/focal length. So a focal length of 125mm would require a minimum shutter speed of 1/125.

***** When choosing a portrait lens, look for a circular aperture. The shape of the aperture appears in out of focus highlights, and a circular aperture leads to more pleasing background blur.

Choosing a lens



Landscapes

A wide-angle lens will allow you to get more of the scene into your photo while also giving a greater sense of depth and distance. Aim for a focal length between 17mm and 24mm, taking into account the **crop factor**  for your camera. Most landscape photography requires a large depth-of-field to get as much of the scene as possible into focus. This means that typically, you do not require a large maximum aperture. What you do require is high quality optics to capture tiny details in your scene.


THE PROFESSIONAL'S CHOICE: EF 24mm f/1.4L II USM
GREAT BUDGET OPTION: EF-S 15-85mm f/3.5-5.6 IS USM



Macro

Macro lenses allow you to capture tiny objects at life-size. The main factor to consider when choosing a macro lens is the focal length. Shorter focal lengths (50mm–60mm) provide a wider field of view, which means you will typically be capturing more background detail in the image. Since you need to get right up close to your subject at these focal lengths, your working distance will be shorter. Medium or telephoto (90mm–180mm) macro lenses limit your field of view so that the subject can take up the entire frame. You can shoot from a greater distance – useful when photographing skittish insects (see page 78–79 for an in-depth tutorial).

THE PROFESSIONAL'S CHOICE: EF 100mm f/2.8L Macro IS USM
GREAT BUDGET OPTION: EF-S 60mm f/2.8 Macro USM

 One way to increase magnification when shooting macro subjects is to add an extension tube between the camera and the lens. Extension tubes don't have any glass in them – their purpose is to move the lens further away from the image sensor, thereby increasing magnification and


allowing for a closer working distance. The trade-off is that you lose the ability to focus to infinity.



Architecture and Interiors

Perspective distortion is a common problem when photographing buildings. The lines of a building tend to converge when photographed, resulting in a slightly skewed final image. A Tilt and Shift lens is a good solution. This is a specialist lens that allows you to shift the lens axis away from the centre of the frame. The vertical edges remain parallel, achieving the same effect as specialist view cameras. Another benefit is that the field of view is much wider than would be possible using a normal lens of the same focal length. (See page 88–89 for an in-depth tutorial on using Tilt and Shift lenses).

THE PROFESSIONAL'S CHOICE: TS-E 17mm f/4L
GREAT BUDGET OPTION: EF-S 10–22mm f/3.5–4.5 USM

 Ultra wide-angle lenses (such as the EF 14mm f/2.8L II USM) are unsuitable for interior photography since images at these focal lengths often show barrel distortion at the edges of the frame, with straight lines appearing curved. You can, however, correct much of this distortion through the lens aberration correction feature in Digital Photo Professional software.

Focal length comparison

The images below show the same scene taken from the same location with different focal lengths to show the effects that can be achieved with different lenses.



8mm



14mm



15mm



20mm



24mm



28mm



35mm



50mm



85mm



100mm



135mm



200mm



300mm



400mm



600mm



800mm

EF-S Lenses

EF-S lenses are specifically designed for EOS models with a compact sensor – delivering lenses that are lightweight, versatile and supremely portable.

With the EF-S range, Canon's engineers took advantage of the APS-C sensor size to produce lenses that are not only lighter and smaller, but also offer photographers far greater wide-angle choice. Lenses such as the EF-S 55-250mm f/4-5.6 IS take the range much further. Owners of EF-S mount cameras now have access to a complete offering of lightweight lenses extending from 16mm to 400mm (35mm equivalent).

**CANON SEMI-PRO
RICHARD SAMARANCH BETTS**

"I came back to Ferrera because I always wanted to document what was going on here. I lived here many years ago, and it was an amazing experience to live in this countryside in these mountains with the people here and I wanted to capture that. In this area there are no shepherds left except for Ramon. We first met when I was 20 and he was 19. The benefit of a high ISO sensitivity rating means I can shoot freely in low light, I don't have to use flash and can capture my subject in its setting where the light is low but also beautiful."

Camera: EOS 500D
Lens: EF-S 18-55mm f/3.5-5.6 IS
Exposure: 1/100sec f/6.3 ISO speed: 100



EF-S 60mm f/2.8 Macro USM

Enter the macro world

The EF-S 60mm f/2.8 Macro USM is the first true Macro lens in the EF-S series. A dynamic, compact, fast-focusing lens, it provides dramatic detail that goes beyond the human eye.

With its ability to focus life-size images onto the image sensor, the EF-S 60mm f/2.8 Macro USM offers true macro performance in the EF-S lens series. Having an effective focal length of approximately 96mm in 35mm format, it produces breathtaking close-up results. A minimum focusing distance of just 20cm gets you super close to your subject, filling the frame with the subject in the highest detail you require.

IDEAL FOR



FEATURES

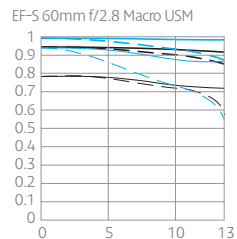
- Approx. 96mm focal length (35mm format)
- Compact and lightweight
- High corner-to-corner resolution, contrast and image quality
- Fast auto focus with near-silent USM
- Full-time manual focus override
- Super Spectra coatings
- Large aperture

ACCESSORIES

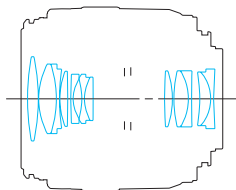
- Lens Hood ET-67B
- Soft Case LP1016
- 52mm Circular Polarizer PL-C B
- 52mm Close-Up Lens 500D
- 52mm Close-Up Lens 250D
- Macro Ring Lite MR-14EX
- Macro Twin Lite MT-24EX



MTF CHART



LENS DIAGRAM



EF-S 10-22mm f/3.5-4.5 USM

A new perspective

An ultra wide-angle zoom lens with dynamic expressive capability for all EF-S mount EOS cameras; exceptionally small and lightweight for maximum mobility.

With its effective focal length range of approximately 16-35mm in 35mm format, the EF-S 10-22mm f/3.5-4.5 USM is a remarkable lens with outstanding image quality that will take your photography into new dimensions and areas of dramatic expression.



IDEAL FOR



FEATURES

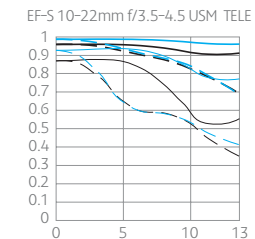
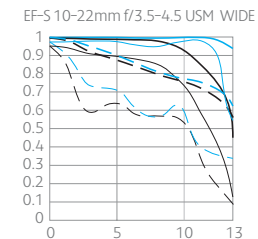
- Super wide angle zoom for all EF-S mount bodies
- Superb image quality
- Lightweight and compact
- Focusing distance of just 24cm
- Fast near-silent USM AF
- Super Spectra coatings
- Circular aperture
- Optional exclusive lens hood

ACCESSORIES

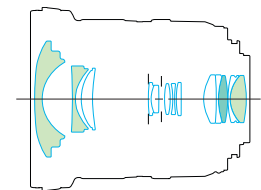
- Lens Hood EW-83E
- Soft Case LP1319
- 77mm Circular Polarizer PL-C B
- 77mm Close-Up Lens 500D



MTF CHARTS



LENS DIAGRAM





EF-S 15-85mm f/3.5-5.6 IS USM

The high performance, all-round standard zoom lens

Combining an extensive zoom range featuring wide angle and telephoto plus a 4-stop Image Stabilizer, the EF-S 15-85mm f/3.5-5.6 IS USM provides outstanding performance and flexibility.

IDEAL FOR



FEATURES

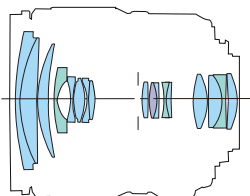
- High performance all-purpose 5.6x 24-136mm equivalent EF-S standard zoom
- Four-stop Image Stabilizer
- Automatic panning and tripod detection
- 0.35m close focusing
- UD and aspherical lenses
- Super Spectra coatings
- 7-blade aperture
- Optional lens hood

ACCESSORIES

- Lens Hood EW-78E
- Soft Case LP1116
- 72mm Circular Polarizer PL-C B
- 72mm Close-Up Lens 500D

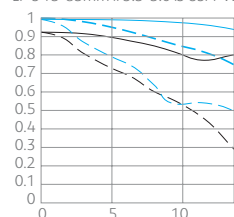


LENS DIAGRAM

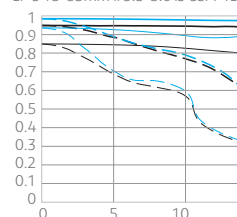


MTF CHARTS

EF-S 15-85mm f/3.5-5.6 IS USM WIDE



EF-S 15-85mm f/3.5-5.6 IS USM TELE



EF-S 17-55mm f/2.8 IS USM

Change your view. Not your aperture

With a constant f/2.8 aperture throughout the zoom range and a three-stop Image Stabilizer, the EF-S 17-55mm f/2.8 IS USM provides outstanding performance and framing flexibility in low light conditions.



IDEAL FOR

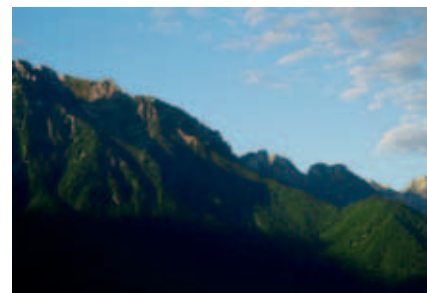


FEATURES

- Wide angle zoom for EF-S mount bodies f/2.8 aperture throughout zoom range
- Three-stop Image Stabilizer
- Fast, quiet auto focus
- Super Spectra coating
- Circular aperture for pleasing background blur
- Passes distance information to E-TTL II
- Optional lens hood

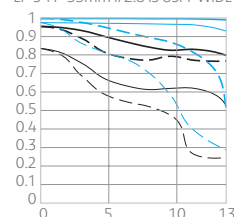
ACCESSORIES

- Lens Hood EW-83J
- Soft Case LP1219
- 77mm Circular Polarizer PL-C B
- 77mm Close-Up Lens 500D

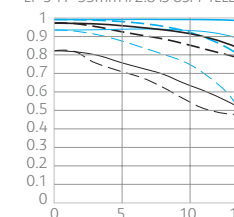


MTF CHARTS

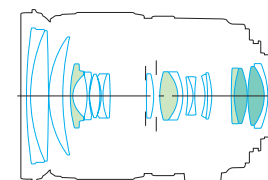
EF-S 17-55mm f/2.8 IS USM WIDE



EF-S 17-55mm f/2.8 IS USM TELE



LENS DIAGRAM





EF-S 17-85mm f/4-5.6 IS USM

One lens. Many possibilities

Real freedom of framing in a lightweight, compact and fast-focusing lens. The EF-S 17-85mm f/4-5.6 IS USM is an excellent all-purpose lens for EF-S mount EOS cameras.

The EF-S 17-85mm f/4-5.6 IS USM provides an effective focal length range of approximately 27-136mm in 35mm format. This provides plenty of framing options, making it the perfect all-rounder lens that allows you to express your creativity in a vast range of shooting situations.

IDEAL FOR



FEATURES

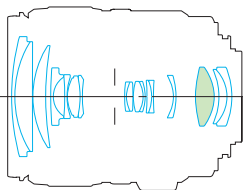
- Exceptional zoom range for all EF-S mount bodies
- Superb image quality
- Lightweight and compact
- Image Stabilizer – up to three stops compensation
- Fast near-silent USM AF
- Super Spectra coatings
- Circular aperture
- Optional lens hood

ACCESSORIES

- Lens Hood EW-73B
- Soft Case LP1116
- 67mm Circular Polarizer PL-C B

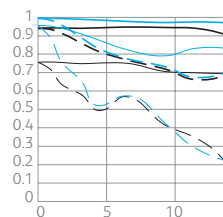


LENS DIAGRAM

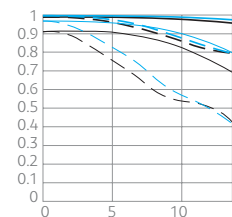


MTF CHARTS

EF-S 17-85mm f/4-5.6 IS USM WIDE



EF-S 17-85mm f/4-5.6 IS USM TELE



EF-S 18-55mm f/3.5-5.6 IS II

Versatile, compact zoom lens

Compact and affordable, the EF-S 18-55mm f/3.5-5.6 IS II is an ideal general-purpose standard zoom. Its four-stop Image Stabilizer provides great performance in low-light conditions.

The EF-S 18-55mm f/3.5-5.6 IS II is a high-quality, standard zoom lens that will appeal to photographers who prefer to travel light. With a focal length equivalent of 29-88mm in 35mm format, the lens' wide zoom range is suitable for most general photography. For close-up work, the working distance is just 0.25m (25cm) throughout the zoom range.

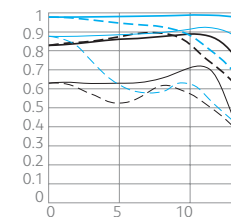


NADINE KAEGLI,
AMATEUR PHOTOGRAPHER

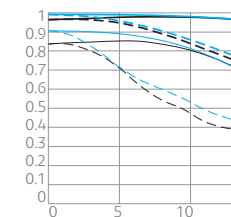
“For beginners, I think it's best to use some of the zoom lenses. The variety of focal lengths gives you more possibilities to get the perfect shot and it's much easier to play with distance, perspectives, aperture, etc”

MTF CHARTS

EF-S 18-55mm f/3.5-5.6 IS II WIDE



EF-S 18-55mm f/3.5-5.6 IS II TELE



IDEAL FOR



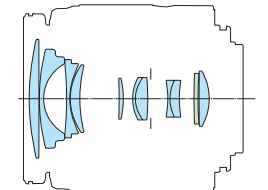
FEATURES

- Lightweight, compact design
- Wide-angle to short telephoto range
- Four-stop Image Stabilizer
- Aspherical lens elements for control over distortion
- 0.25m close-focusing distance
- Super Spectra coatings
- Circular aperture diaphragm
- High-speed AF

ACCESSORIES

- Lens Hood EW-60C
- Soft Case LP814
- 58mm Close-up Lens 500D
- 58mm Circular Polarizer PL-C B

LENS DIAGRAM





EF-S 18-135mm f/3.5-5.6 IS

The versatile, all-purpose powerful standard zoom lens

Offering a multi-purpose zoom range from wide angle to telephoto, and featuring Canon's four-stop Image Stabilizer, the EF-S 18-135mm f/3.5-5.6 IS provides complete versatility whatever your needs.

IDEAL FOR



FEATURES

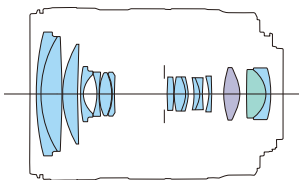
- High power, all-purpose 7.5x, 29-216mm equivalent, EF-S zoom
- Four-stop Image Stabilizer
- Automatic panning and tripod detection
- 0.45m close focusing
- UD and aspherical lenses
- Super Spectra coatings
- 6-blade circular aperture
- Optional lens hood

ACCESSORIES

- Lens Hood EW-73B
- Soft Case LP1116
- 67mm Circular Polarizer PLC-B

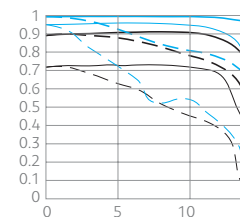


LENS DIAGRAM

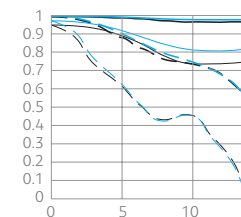


MTF CHARTS

EF-S 18-135mm f/3.5-5.6 IS WIDE



EF-S 18-135mm f/3.5-5.6 IS TELE



EF-S 18-200mm f/3.5-5.6 IS

Versatile, long-range zoom in compact form

Compact proportions with a powerful zoom range of 11x – make an ideal general-purpose zoom for photographers on the go. Great low-light performance is assured by a 4-stop Image Stabilizer.



IDEAL FOR

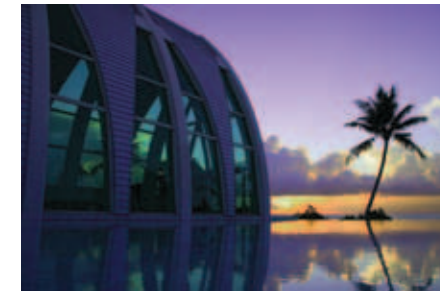


FEATURES

- 11x zoom lens – 18-200mm
- Four-stop Image Stabilizer
- Automatic panning and tripod detection
- Close focusing distance of 0.45m
- Aspherical and UD lens elements
- SuperSpectra lens coatings combat ghosting and flare
- Zoom lock maintains minimum size
- Circular aperture for pleasing background blur

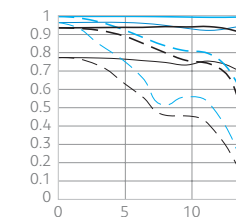
ACCESSORIES

- Lens Hood EW-78D
- Soft Case LP1116
- 72mm Circular Polarizer PL-C B
- 72mm Close-Up Lens 500D

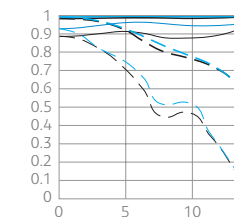


MTF CHARTS

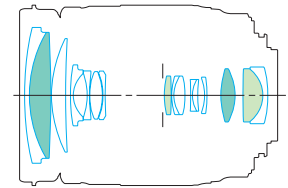
EF-S 18-200mm f/3.5-5.6 IS WIDE



EF-S 18-200mm f/3.5-5.6 IS TELE



LENS DIAGRAM





EF-S 55-250mm f/4-5.6 IS

The all-purpose telephoto zoom for EF-S mount EOS cameras

The compact and affordable EF-S 55-250mm f/4-5.6 IS offers powerful telephoto performance. Its four-stop Image Stabilizer with automatic panning detection effectively suppresses blur in low light.

The EF-S 55-250mm f/4-5.6 IS is a telephoto zoom lens combining powerful performance with high image quality. With a focal length equivalent of 88-400mm in 35mm format, it is ideal for photographers seeking an affordable, versatile lens for general-purpose telephoto photography.

IDEAL FOR



FEATURES

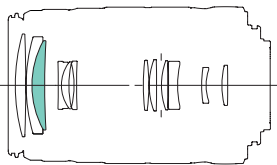
- Affordable telephoto zoom lens
- 88-400mm equivalent focal length
- Four-stop Image Stabilizer with automatic panning detection
- UD element
- Super Spectra coatings
- Circular diaphragm

ACCESSORIES

- Lens Hood EF-60
- Soft Case LP1019
- 58mm Circular Polarizer PL-C B
- 58mm Close-Up Lens 250D
- 58mm Close-Up Lens 500D

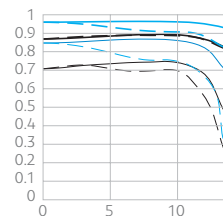


LENS DIAGRAM

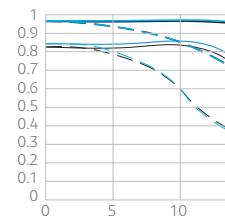


MTF CHARTS

EF-S 55-250mm f/4-5.6 IS WIDE



EF-S 55-250mm f/4-5.6 IS TELE



Camera: EOS 50D
 Lens: EF-S 10-22mm f/3.5-4.5 USM
 Exposure: 2.5sec f/5.6 ISO speed: 100

EF Fixed Focal Length Lenses

For many, Canon EF lenses alone are reason enough to choose the EOS system. When exacting image quality is paramount, EF fixed length – or ‘prime’ – lenses have no equal.

In terms of sharpness, contrast and aperture size, the very best performers in the EF lens range are fixed focal length – or prime – lenses. Among the standard prime lenses, the peerless EF 85mm f/1.2L II USM deserves its reputation as one of the finest portrait lenses on the market. Leading telephoto primes include the sports photographers’ favourite, the EF 300mm f/2.8L IS II USM. Owning a high quality prime lens need not blow your budget. The least expensive lens in the range, the EF 50mm f/1.8 II, delivers performance close to that of some L-series lenses.

Camera: EOS 5D Mark II
Lens: EF 35mm f/1.4L USM
Exposure: 1/100sec f/4.0 ISO speed: 800





EF 14mm f/2.8L II USM

An ultra wide-angle lens for professional photographers

A precision-designed ultra wide-angle lens. This 14mm f/2.8 optic uses ultra low dispersion (UD) and aspherical elements to boost image quality, while its rectilinear design corrects for distortion.

IDEAL FOR



FEATURES

- L-series construction with dust and moisture sealing
- Aspherical and UD lens elements
- Circular aperture
- Super Spectra coatings
- Rectilinear design

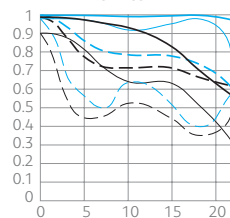
ACCESSORIES

- Soft Case LP1016

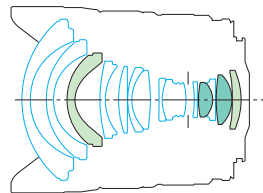


MTF CHART

EF 14mm f/2.8L II USM



LENS DIAGRAM



EF 20mm f/2.8 USM

A versatile lens that delivers superb wide-angle images in any scenario

With its wide angle of view and extended depth-of-field, the EF 20mm f/2.8 is a great choice for photographers shooting landscapes, architecture or reportage. A lens that can be used almost anywhere.

By offering a field of view of 94°, the EF 20mm f/2.8 USM is able to take in the complete field of human vision, and much more. A great lens for the landscape or documentary photographer. Distortion is highly corrected, for a natural perspective when shooting architecture and interiors.



IDEAL FOR



FEATURES

- Ultra wide angle lens with angle of view of 94°
- USM focus motor with full-time manual focus override
- 25cm closest focusing distance
- Super Spectra coatings

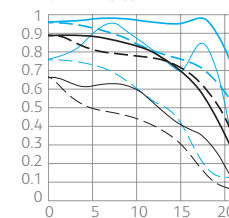
ACCESSORIES

- Lens Hood EW-75 II
- Soft Case LP1214
- 72mm Circular Polarizer PL-C B

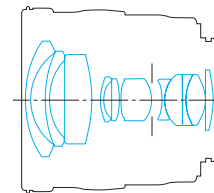


MTF CHART

EF 20mm f/2.8 USM



LENS DIAGRAM





EF 24mm f/1.4L II USM

A high quality, fast-aperture wide-angle prime lens

The ultimate in fast aperture wide-angle lenses. UD and aspherical elements eliminate distortion and aberrations for stunning results. A f/1.4 maximum aperture allows hand-held shooting in low light.

IDEAL FOR



FEATURES

- Wide 84° angle of view
- Fast f/1.4 aperture
- Aspherical and UD lens elements
- Subwavelength structure coating
- USM focus motor with full-time manual focus
- Floating internal focus mechanism
- Weather and dust seals
- Robust build quality

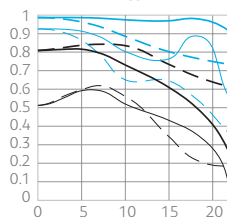
ACCESSORIES

- Lens Hood EW-83K
- Soft Case LP1319
- 77mm Circular Polarizer PL-C B

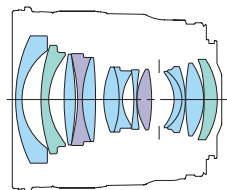


MTF CHART

EF 24mm f/1.4L II USM



LENS DIAGRAM



EF 24mm f/2.8

A compact, lightweight wide-angle prime lens offering great image quality

The EF 24mm f/2.8 offers a wide angle of view and excellent optical quality from a compact and lightweight package. The ideal prime lens for the landscape photographer on the move.

Weighing just 270g and measuring less than 70mm in length, this diminutive and highly popular lens deserves a place in any kit bag. On EOS cameras featuring APS-C sized sensors the lens gives an angle of view equivalent to 38mm on a full-frame camera, making it an ideal everyday optic for prime lens shooters.



IDEAL FOR



FEATURES

- Wide 84° angle of view with full-frame cameras
- AFD rear focusing system
- Compact and lightweight design
- Close focusing distance of 0.25m/0.8ft
- Super Spectra coatings reduce ghosting and flare

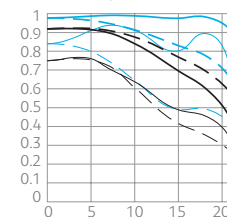
ACCESSORIES

- Lens Hood EW-60II
- Soft Case LP811
- 58mm Close-Up Lens 500D
- 58mm Circular Polarizer PL-C B
- 58mm Close-Up Lens 250D

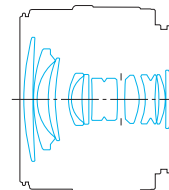


MTF CHART

EF 24mm f/2.8



LENS DIAGRAM





EF 28mm f/1.8 USM

A classic wide-angle focal length with a wide maximum aperture for low light shooting

IDEAL FOR



FEATURES

- Wide 75° angle of view on full-frame cameras
- Fast f/1.8 aperture
- USM focus motor with full-time manual focus override
- 25cm closest focusing distance
- Aspherical lens element
- 58mm filter size

ACCESSORIES

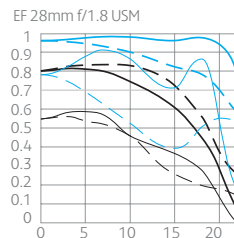
- Lens Hood EW-63II
- Soft Case LP814
- 58mm Close-Up Lens 500D
- 58mm Circular Polarizer PL-C B
- 58mm Close-Up Lens 250D



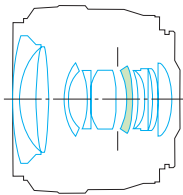
FERGUS KENNEDY,
SEMI-PRO PHOTOGRAPHER

“Using a lens with a wide maximum aperture (small f-number) can give you great separation between your subject and the background, drawing attention to the main subject and giving a really professional look to your photographs”

MTF CHART



LENS DIAGRAM



EF 28mm f/2.8

A compact, affordable wide-angle lens that's useful in a host of different situations

Thanks to its diminutive, lightweight design, the EF 28mm f/2.8 is an ideal all-purpose wide-angle lens for full frame cameras, and a fast, compact standard lens on DSLRs with APS-C sized sensors.

Weighing in at just 185g, this is a lens you can take wherever you go. On EOS DSLRs with APS-C sized sensors it makes a great standard lens, offering the same field of view as a 45mm lens on a full frame DSLR.



IDEAL FOR



FEATURES

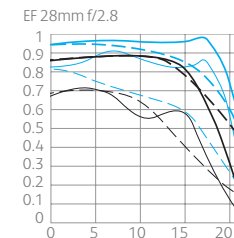
- Wide 75° angle of view
- AFD focusing system
- Compact and light weight
- 30cm close-focusing distance
- 52mm filter size
- Super Spectra coatings reduce ghosting and flare

ACCESSORIES

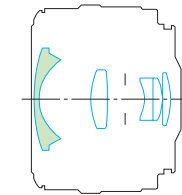
- Lens Hood EW-65 II
- Soft Case LP1011
- 52mm Circular Polarizer PL-C B
- 52mm Close-Up Lens 250D
- 52mm Close-Up Lens 500D



MTF CHART



LENS DIAGRAM





IDEAL FOR



FEATURES

- Wide 63° angle of view
- Fast f/1.4 aperture
- Aspherical lens elements
- USM focus motor with full-time manual focus
- Floating internal focus mechanism
- Moisture and dust seals
- Robust build quality

ACCESSORIES

- Lens Hood EW-78C
- Soft Case LP1214
- 72mm UV Protector filter
- 72mm Circular Polarizer PL-C B
- 72mm Close-Up Lens 500D

EF 35mm f/1.4L USM

A classic wide-angle standard lens with fast aperture and rapid ultrasonic focusing

Beloved by reportage photographers for its natural view of the world and fast maximum aperture, the EF 35mm f/1.4L USM delivers superb image quality and blisteringly fast AF performance.

The EF 35mm f/1.4L USM has a maximum aperture many stops faster than that found on a standard zoom lens, allowing a photographer to keep shooting hand-held when light levels begin to fall. An Ultrasonic Motor (USM) enables extremely fast focusing in near silence, and a floating lens element means consistent sharpness throughout the focusing range.

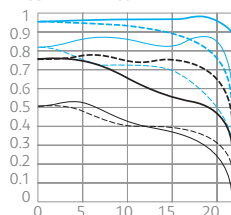


JEFF ASCOUGH,
WEDDING PHOTOGRAPHER

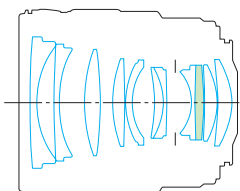
“My Canon EF 35mm f/1.4L USM lens. I would shoot all day on it if I could. It’s extremely sharp, has great colour rendition, and is very fast”

MTF CHART

EF 35mm f/1.4L USM



LENS DIAGRAM



EF 35mm f/2

An alternative standard prime lens for photographers who prefer a wider view of the world

On full-frame cameras, the compact EF 35mm f/2 offers a wide angle of view and a very natural perspective, making it a good alternative standard lens to a traditional 50mm optic.

A minimum focusing distance of just 25cm enables photographers to get closer to their subjects while retaining a more natural, wide-angle perspective. The lens' fast aperture means depth-of-field can be restricted for blurred backgrounds and photographers can shoot hand-held even when light levels fall.



IDEAL FOR

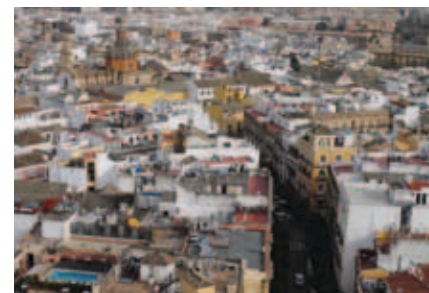


FEATURES

- Wide 63° angle of view
- AFD focusing system
- Compact and light weight
- 25cm close focusing distance
- 52mm filter size
- Super Spectra coatings reduce ghosting and flare

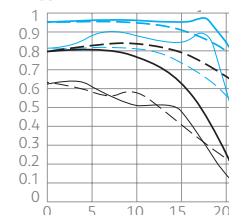
ACCESSORIES

- Lens Hood EW-65 II
- Soft Case LP1011
- 52mm Circular Polarizer PL-C B

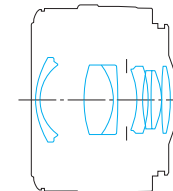


MTF CHART

EF 35mm f/2



LENS DIAGRAM





EF 50mm f/1.2L USM

A 50mm prime lens with a very large maximum aperture for fine depth-of-field control

With its incredible f/1.2 maximum aperture, the super fast EF 50mm f/1.2L USM is a consummate low-light performer. A lens that allows fine creative control over focusing and depth-of-field.

A large maximum aperture of f/1.2 gives outstanding speed when shooting in low light. The lens also provides fine control over focusing, allowing extremely shallow depth-of-field for creative effects.

IDEAL FOR

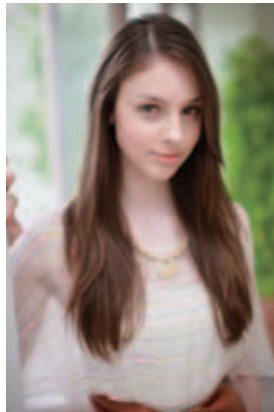


FEATURES

- Large f/1.2 aperture
- USM autofocus
- Super Spectra coatings
- Circular aperture for excellent background bokeh
- Provides distance information for the E-TTL II flash system
- Soft case and lens hood

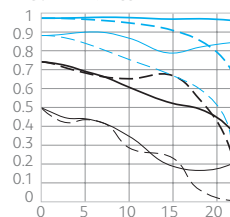
ACCESSORIES

- Lens Hood ES-78
- Soft Case LP1214
- 72mm Circular Polarizer PL-C B

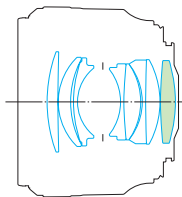


MTF CHART

EF 50mm f/1.2L USM



LENS DIAGRAM



PAOLO PELLEGRIN,
REPORTAGE PHOTOGRAPHER

"I love the Canon digital system as a whole and especially the luminosity of the EF 50mm f/1.2L USM"

EF 50mm f/1.4 USM

The ultimate mixture of versatility and image quality

With its fast maximum aperture and rapid focusing system, the compact, high performance EF 50mm f/1.4 USM standard lens can be relied on for superb performance in any field of photography.

Gaussian optics, combined with two high-refraction lens elements allow photographers working in all fields to capture crisp, clean images, even wide open at f/1.4. The lens is ideal for photographing landscapes and travel scenes as well as portraits and reportage.



IDEAL FOR

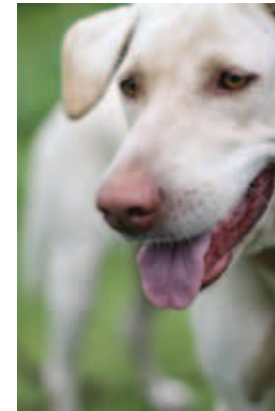


FEATURES

- Fast f/1.4 aperture
- Standard 46° angle of view
- USM focus motor with full-time manual focus override
- 45cm closest focusing distance
- Aspherical lens element
- 58mm filter size

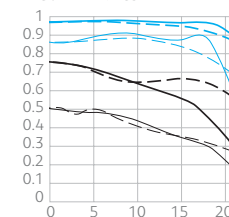
ACCESSORIES

- Lens Hood EW-71 II
- Soft Case LP1014
- 58mm Circular Polarizer PL-C B

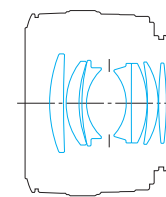


MTF CHART

EF 50mm f/1.4 USM



LENS DIAGRAM





EF 50mm f/1.8 II

An affordable, high quality standard lens with a fast maximum aperture

IDEAL FOR



FEATURES

- Standard 46° angle of view
- Fast f/1.8 aperture
- 45cm closest focusing distance
- 52mm filter size
- Super Spectra coatings reduce ghosting and flare

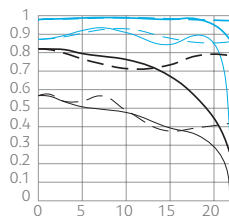
ACCESSORIES

- Lens Hood ES-62 + supplied 62 adapter
- Soft Case LP1014
- 52mm Circular Polarizer PL-C B

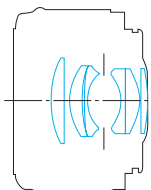


MTF CHART

EF 50mm f/1.8 II



LENS DIAGRAM



EF 85mm f/1.2L II USM

An extreme portrait lens with a very fast maximum aperture and swift focusing

A professional short-telephoto lens, precision-made for low-light shooting and those situations where extremely shallow depth-of-field is required. Perfect for creative portraiture.

The L-series is Canon's flagship professional lens range, representing the best in precision designed EF optics. L-series lenses combine superior performance with superlative handling, and are resistant to dust and moisture.



IDEAL FOR



FEATURES

- Extreme f/1.2 maximum aperture
- Fast, quiet autofocus
- Super Spectra coatings
- Circular aperture for smooth background bokeh
- Integration with E-TTL II flash system
- Soft case and lens hood

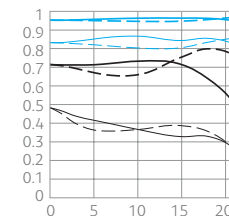
ACCESSORIES

- Lens Hood ES-79 II
- Soft Case LP1219
- 72mm Circular Polarizer PL-C B
- 72mm Close-Up Lens 500D

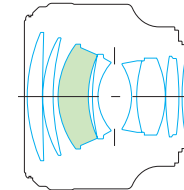


MTF CHART

EF 85mm f/1.2L II USM



LENS DIAGRAM





EF 85mm f/1.8 USM

A very popular short telephoto lens with portrait photographers

A short telephoto focal length, combined with a large maximum aperture and fast autofocus speed, make the EF 85mm f/1.8 USM an ideal optic for any photographer shooting portraiture.

IDEAL FOR



FEATURES

- Fast f/1.8 aperture
- Short/medium telephoto lens
- USM focus motor with full-time manual focus
- 85cm closest focusing distance
- 58mm filter size
- Super Spectra coatings reduce ghosting and flare

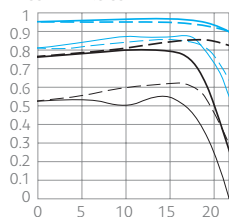
ACCESSORIES

- Lens Hood ET-65 III
- Soft Case LP1014
- 58mm Circular Polarizer PL-C B
- 58mm Close-Up Lens 500D

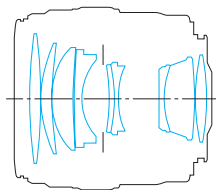


MTF CHART

EF 85mm f/1.8 USM



LENS DIAGRAM



EF 100mm f/2 USM

A specialist lens that will help your portraits stand out from the crowd

The EF 100mm f/2 USM is a short telephoto lens with a wide aperture, making it ideal for portraits. The lens compresses facial features and ensures the subject stands out against a blurred backdrop.

IDEAL FOR

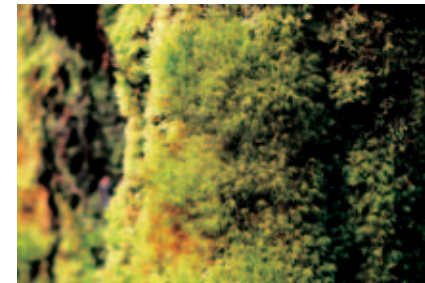


FEATURES

- Medium telephoto lens
- Fast f/2 aperture
- USM focus motor with full-time manual focus
- 90cm closest focusing distance
- 58mm filter size
- Super Spectra coatings reduce ghosting and flare

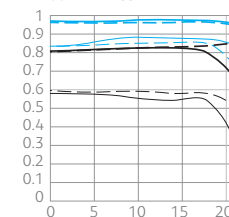
ACCESSORIES

- Lens Hood ET-65 III
- Soft Case LP1014
- 58mm Circular Polarizer PL-C B
- 58mm Close-Up Lens 500D

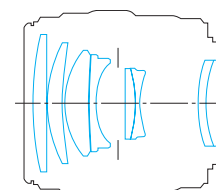


MTF CHART

EF 100mm f/2 USM



LENS DIAGRAM





EF 135mm f/2L USM

A wide aperture, fast-focusing professional telephoto lens

The EF 135mm f/2L USM is a fast, lightweight, high-quality telephoto lens. It is the ideal tool for capturing indoor sports in low-light conditions and for shooting portrait photography.

IDEAL FOR



FEATURES

- Large f/2 aperture
- Fast, quiet autofocus
- Super Spectra coatings
- L-series construction and optics
- Circular aperture for soft bokeh
- Integration with E-TTL II flash system
- Soft case and lens hood

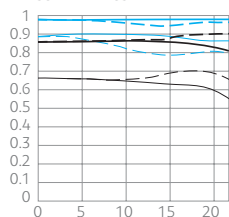
ACCESSORIES

- Lens Hood ET-78 II
- Soft Case LP1219
- 72mm Circular Polarizer PL-C B
- 72mm Close-Up Lens 500D
- Extender EF 1.4x III
- Extender EF 2x III

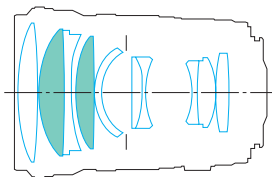


MTF CHART

EF 135mm f/2L USM



LENS DIAGRAM



EF 135mm f/2.8 (Softfocus)

A unique portrait lens with built in Softfocus control

The EF 135mm f/2.8 is a unique lens. Its Softfocus control allows sharpness to be adjusted, making it ideal for portraiture, where a soft glow can improve skin tones for a flattering result.

The EF 135mm f/2.8 features Canon's Softfocus function. With this, the photographer can choose between two soft focus settings as well as using the lens normally for razor-sharp results.



IDEAL FOR



FEATURES

- Softfocus control
- Telephoto lens
- f/2.8 aperture
- AFD autofocus system
- 1.3m closest focusing distance
- 52mm filter size
- Super Spectra coatings reduce ghosting and flare

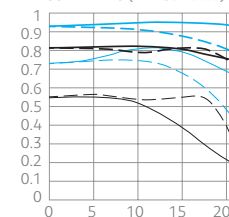
ACCESSORIES

- Lens Hood ET-65 III
- Soft Case LP1016
- 52mm Circular Polarizer PL-C B
- 52mm Close-Up Lens 500D

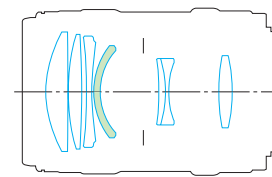


MTF CHART

EF 135mm f/2.8 (with Softfocus)



LENS DIAGRAM





EF 200mm f/2L IS USM

Large-aperture medium telephoto lens for professionals

The EF 200mm f/2L IS USM is a high-performance medium telephoto lens for professional photographers. Its large f/2 aperture ensures optimum results indoors and in low-light situations.

The L-series is Canon's flagship professional lens range, representing the best in precision-designed EF optics. L-series lenses combine superior performance with superlative handling, and are resistant to dust and moisture.

IDEAL FOR



FEATURES

- L-series construction
- Large f/2 aperture
- Five-stop Image Stabilizer with tripod detection
- Super Spectra lens coatings
- Fluorite and UD lens elements
- Ring USM autofocus with full-time manual focus

ACCESSORIES

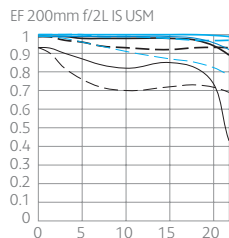
- 52mm Drop-in Circular Polarizing Filter PL-C 52
- Extender EF 1.4x III
- Extender EF 2x III



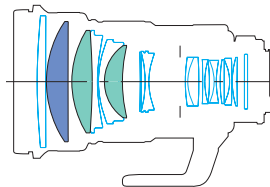
JONATHAN & ANGELA SCOTT,
WILDLIFE PHOTOGRAPHERS

"I'm loving the new EF 200mm f/2L IS USM – for low light wildlife photography first thing in the morning and late evening when the light is gorgeous, but there is not much of it – this is the lens"

MTF CHART



LENS DIAGRAM



EF 200mm f/2.8L II USM

A high-quality fast-aperture telephoto lens for professional photographers

The EF 200mm f/2.8L II USM is a part of Canon's professional L-series lens range. It features ring-type USM focusing and two UD elements for excellent sharpness and imaging performance.

Two UD (ultra-low dispersion) glass elements, combined with rear focusing technology, enable the EF 200mm f/2.8L II USM to deliver extremely sharp images. Background blur appears smooth and natural.



IDEAL FOR



FEATURES

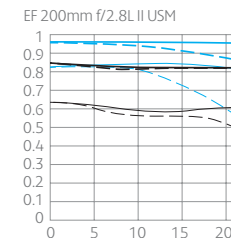
- L-series construction and optics
- Two UD lens elements
- Fast, quiet USM autofocus
- Super Spectra coatings
- Circular aperture for excellent background bokeh
- Passes distance information to camera for E-TTL II flash system
- Soft case and lens hood

ACCESSORIES

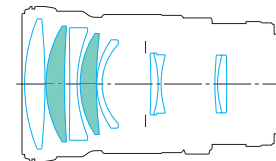
- 72mm Circular Polarizer PL-C B
- Extender EF 1.4x III
- Extender EF 2x III
- Tripod Mount Ring A II(B)



MTF CHART



LENS DIAGRAM





EF 300mm f/2.8L IS II USM

Light weight L-series super-telephoto lens, for all types of action photography

High-performance L-series super-telephoto lens, with 4 stop Image Stabilizer with 3 modes ideal for all types of action photography. The EF 300mm f/2.8L IS II USM delivers outstanding image quality in a robust lightweight construction.

With a large aperture of f/2.8, the EF 300mm f/2.8L IS II USM is a high performance super-telephoto lens delivering exceptional image quality in a durable and lightweight design.

IDEAL FOR

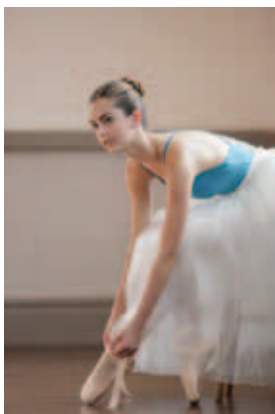


FEATURES

- High performance super-telephoto lens
- Part of Canon's acclaimed L series
- Durable, rugged and lightweight
- 4 stop Image Stabilizer
- Enhanced image quality with SWC coating
- 3 IS modes
- Quiet and fast autofocus

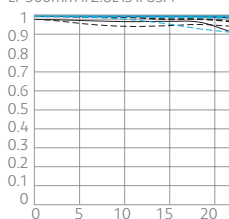
ACCESSORIES

- 52mm Drop-in Circular Polarizing Filter PL-C52 (W/II)
- Extender EF 1.4x III
- Extender EF 2x III

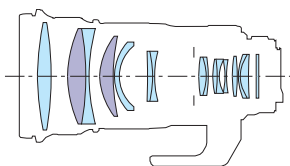


MTF CHART

EF 300mm f/2.8L IS II USM



LENS DIAGRAM



EF 300mm f/4L IS USM

A portable, lightweight telephoto lens for photographers on the move

The EF 300mm f/4L IS USM offers portability and image quality. The lens features UD lens elements to improve optical performance and Image Stabilisation technology to reduce blur from camera movement.

The EF 300mm f/4L IS USM is a compact telephoto lens featuring an Image Stabilizer that compensates for camera shake, allowing shutter speeds two stops slower than normal to be used without blur. Stabilisation can be turned off in one direction to allow for panning.



IDEAL FOR

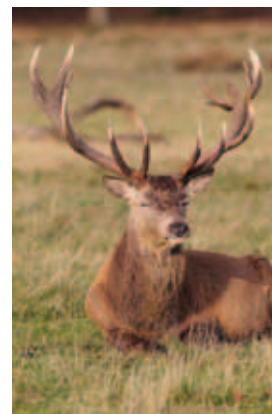


FEATURES

- L-series construction and optics
- Two UD lens elements
- Fast, quiet USM autofocus
- Super Spectra coatings
- Circular aperture for excellent background bokeh
- 77mm filter size

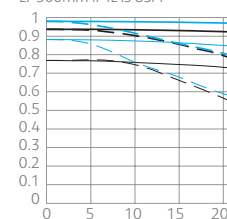
ACCESSORIES

- 77mm Circular Polarizer PL-C B
- Extender EF 1.4x III
- Extender EF 2x III

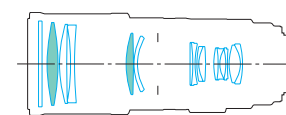


MTF CHART

EF 300mm f/4L IS USM



LENS DIAGRAM





EF 400mm f/2.8L IS II USM

High performance, L-series super-telephoto lens, for sports and wildlife photography

Ultra-high-performance L-series super-telephoto lens, featuring a 4 stop Image Stabilizer with 3 modes. The EF 400mm f/2.8L IS II USM delivers outstanding image quality in a robust design ideal for sports and wildlife photography.

With a large aperture of f/2.8, the EF 400mm f/2.8L IS II USM is an ultra-high-performance super-telephoto lens delivering exceptional image quality in a durable design using magnesium alloy and titanium to reduce weight.

IDEAL FOR



FEATURES

- Ultra-high-performance super-telephoto lens
- Part of Canon's acclaimed L series
- 4 stop Image Stabilizer
- 3 IS modes
- Durable, rugged design
- Enhanced image quality
- Quiet and fast autofocus

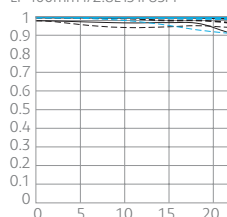
ACCESSORIES

- 52mm Drop-in Circular Polarizing Filter PL-C52 (WII)
- Extender EF 1.4x III
- Extender EF 2x III

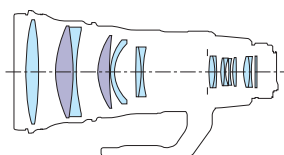


MTF CHART

EF 400mm f/2.8L IS II USM



LENS DIAGRAM



EF 400mm f/4 DO IS USM

A diminutive super-telephoto that combines high optical performance with portability

A pioneering super-telephoto lens that uses multi-layer Diffractive Optical (DO) technology. The result is a combination of high performance with small, lightweight physical design.

A unique approach to lens design. The EF 400mm f/4 DO IS USM incorporates a multi-layer Diffractive Optical (DO) element, meaning it is smaller and lighter than lenses of conventional equivalent design. The DO element – developed by Canon – is a milestone in optical design, combining the properties of fluorite and aspherical elements in one.



IDEAL FOR



FEATURES

- One DO (Diffractive Optic) lens element
- One Fluorite lens element
- Fast, quiet autofocus
- Super Spectra coatings
- 52mm Rear drop-in filter holder
- Hard case and lens hood

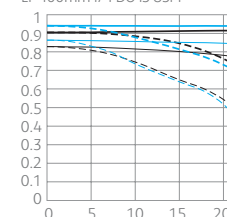
ACCESSORIES

- 52mm Drop-in Circular Polarizing Filter PL-C 52
- Extender EF 1.4x III
- Extender EF 2x III

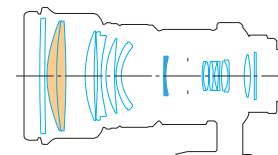


MTF CHART

EF 400mm f/4 DO IS USM



LENS DIAGRAM





EF 400mm f/5.6L USM

A portable super-telephoto lens boasting excellent optical performance

The EF 400mm f/5.6L USM super-telephoto lens delivers exemplary optical performance and fast autofocus from a portable, lightweight design. A popular combination with wildlife photographers.

This high-performance lens was designed with portability and ease of handling in mind. The EF 400mm f/5.6L USM features a UD (ultra-low dispersive) element and one super-UD element, whose characteristics are similar to fluorite. This combination results in sharp pictures from corner to corner. The lens also has a built-in hood and a detachable tripod mount.

IDEAL FOR

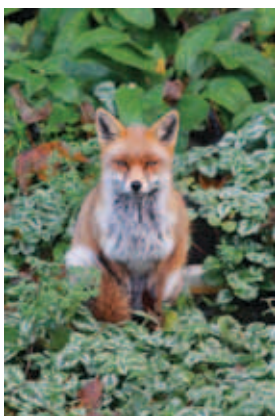


FEATURES

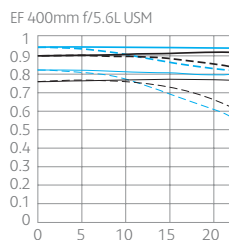
- L-series construction and optics
- Large focal length compact size
- One UD and one super UD lens element
- Fast, quiet USM autofocus
- Super Spectra coatings
- 77mm filter size
- Built in lens hood

ACCESSORIES

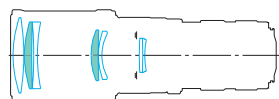
- 77mm Close-Up Lens 500D
- 77mm Circular Polarizer PL-C B
- Extender EF 1.4x III
- Extender EF 2x III



MTF CHART



LENS DIAGRAM



EF 500mm f/4L IS II USM

Professional image quality meets high magnification

The EF 500mm f/4L IS II USM is a high-magnification, super-telephoto lens featuring integrated Image Stabilizer technology. The perfect solution for wildlife, nature and sports photographers working in the field.

The EF 500mm f/4L IS II USM features a lightweight magnesium alloy and titanium construction, which reduces weight without compromising on strength and build quality.



IDEAL FOR



FEATURES

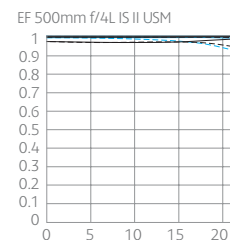
- High-performance 500mm lens
- Fluorite and UD lens elements
- Fast f/4 max aperture
- Ring-type USM for fast AF
- 4-stop Image Stabilizer
- Protective fluorine coating on front and rear elements
- 3.7m min focus
- 9 blade aperture
- Power focus for video
- Dust and moisture resistant

ACCESSORIES

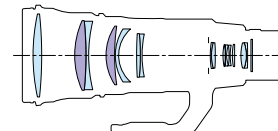
- 52mm Drop-in Circular Polarizing Filter PL-C52 (WII)
- Extender EF 1.4x III
- Extender EF 2x III



MTF CHART



LENS DIAGRAM





EF 600mm f/4L IS II USM

Get close to the action

The EF 600mm f/4L IS II USM is a high-magnification, super-telephoto lens featuring integrated Image Stabilizer technology and a fast f/4 maximum aperture. Perfect for wildlife, nature and sports photographers working in the field.

The EF 600mm f/4L IS II USM features a lightweight magnesium alloy and titanium construction, which reduces weight without compromising on strength and build quality.

IDEAL FOR



FEATURES

- High-performance 600mm lens
- Fluorite and UD elements
- Fast f/4 max aperture
- Ring-type USM for fast AF
- 4-stop Image Stabilizer
- Protective fluorine coating on front and rear elements
- 4.5m min focus
- 9 blade aperture
- Power focus for video
- Dust and moisture resistant

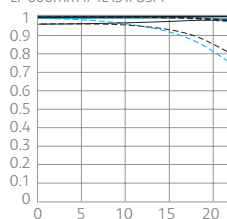
ACCESSORIES

- 52mm Drop-in Circular Polarizing Filter PL-C52 (WII)
- Extender EF 1.4x III
- Extender EF 2x III

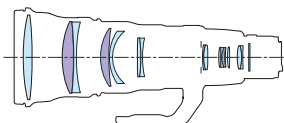


MTF CHART

EF 600mm f/4L IS II USM



LENS DIAGRAM



EF 800mm f/5.6L IS USM

A super-telephoto lens, boasting very high magnification and excellent image quality

The EF 800mm f/5.6L IS USM super-telephoto provides huge magnification, making it suited to wildlife and sports photography, as well as specialist applications, such as surveillance.

The L-series is Canon's flagship professional lens range, representing the best in precision-designed EF optics. L-series lenses combine superior performance with superlative handling, and are resistant to dust and moisture.



IDEAL FOR



BRUTUS ÖSTLING,
WILDLIFE PHOTOGRAPHER

“Now I have the EF 800mm f/5.6L IS USM and I guess this will be my new favourite lens. The lens is super sharp, I have used it with a double converter (1600mm) and the Image Stabilizer is so good on this one so I could handhold the lens”

FEATURES

- L-series construction
- Four-stop Image Stabilizer with tripod detection
- Fluorite, UD and super-UD lens elements
- 4.5kg magnesium alloy build
- Super Spectra lens coatings
- USM autofocus with full-time manual focus

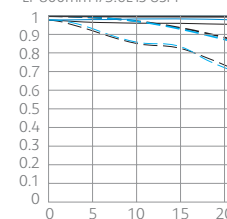
ACCESSORIES

- 52mm Drop-in Circular Polarizing Filter PL-C 52
- Extender EF 1.4x III
- Extender EF 2x III

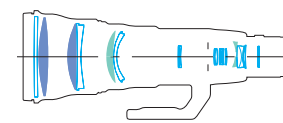


MTF CHART

EF 800mm f/5.6L IS USM



LENS DIAGRAM



EF Zoom Lenses

The convenience of multiple focal lengths in one unit.

EF zoom lenses give you the flexibility and freedom to switch perspectives in a heartbeat. With recent advancements in optical technology, this versatility does not have to mean a compromise in quality. The introduction of lenses such as the EF 70-300mm f/4.5-5.6 DO IS USM – measuring less than 10cm in length – takes the convenience factor of zoom lenses to a whole new level, while markedly improving performance.

Camera: EOS 1D Mark IV
Lens: EF 70-200 f/2.8L IS USM
Exposure: 1/320sec f/4.5 ISO speed: 100

© Jonathan & Angela Scott. Canon Ambassadors.



EF 8-15mm f/4L Fisheye USM

A zoom lens that offers a unique perspective

A versatile fisheye zoom lens offering a choice of full frame or circular image. The EF 8-15mm f/4L Fisheye USM is part of Canon's high performance L series lenses and delivers fantastic image quality, even with such a wide angle view.

IDEAL FOR



FEATURES

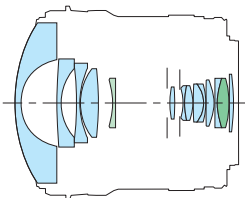
- Circular or full frame Fisheye zoom lens
- Part of Canon's acclaimed L-series
- Durable and rugged design
- Quiet and fast autofocus
- Full-time manual focusing
- Easier lens cleaning

ACCESSORIES

- Lens hood EW-77
- Softcase LP1219

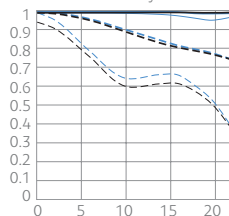


LENS DIAGRAM

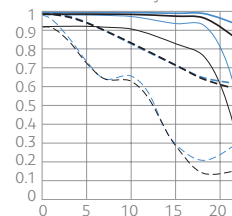


MTF CHARTS

EF 8-15mm f/4L Fisheye USM WIDE



EF 8-15mm f/4L Fisheye USM TELE



EF 16-35mm f/2.8L II USM

The professional's ultra wide-angle zoom lens

A fast, ultra wide-angle zoom lens offering excellent optical performance throughout the zoom range. A constant f/2.8 maximum aperture make this an ideal lens for low-light photography.



IDEAL FOR



FEATURES

- L-series construction and optics
- Constant f/2.8 maximum aperture
- Fast, quiet autofocus
- Aspherical and UD lens elements
- Super Spectra coatings
- Circular aperture for excellent bokeh
- Passes distance information to E-TTL II flash metering

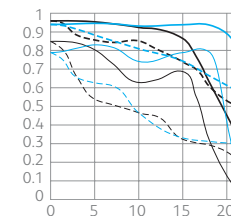
ACCESSORIES

- Lens Hood EW-88
- Soft Case LP1319
- 82mm Circular Polarizer PL-C B

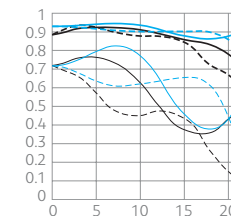


MTF CHARTS

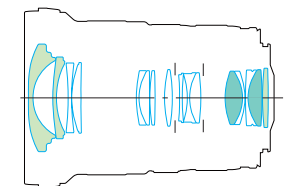
EF 16-35mm f/2.8L II USM WIDE



EF 16-35mm f/2.8L II USM TELE



LENS DIAGRAM





EF 17-40mm f/4L USM

A high-quality, wide-angle zoom for a variety of subjects

The EF 17-40mm f/4L USM is an ultra wide-angle zoom lens that offers excellent image quality and a constant maximum aperture. Its compact, lightweight body makes it an ideal travelling companion.

IDEAL FOR



FEATURES

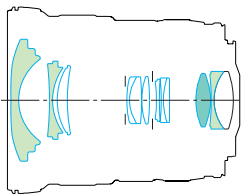
- Superb optical performance throughout the zoom range
- Fast autofocus speed
- Highly resistant to dust and moisture
- 28cm minimum focusing distance at all focal lengths

ACCESSORIES

- Lens Hood EW-83E
- Soft Case LP1319
- 77mm Close-Up Lens 500D
- 77mm Circular Polarizer PL-C B

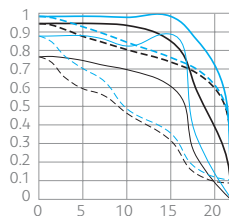


LENS DIAGRAM

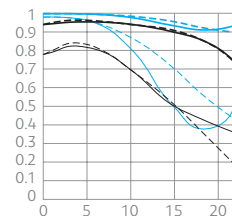


MTF CHARTS

EF 17-40mm f/4L USM WIDE



EF 17-40mm f/4L USM TELE



EF 24-70mm f/2.8L USM

The professional photographer's standard zoom lens

The EF 24-70mm f/2.8L USM is high-performance standard zoom lens with a wide focal-length range. It is designed to meet the needs of professional photographers using digital EOS cameras.

The EF 24-70mm f/2.8L USM lens is a high-performance standard zoom lens with a fast maximum aperture that stays constant throughout the zoom range. It is resistance to dust and moisture and focuses down to just 0.38m.



IDEAL FOR



FEATURES

- High-speed AF
- Optimised lens coatings
- Highly resistant to dust and water droplets
- Minimum focusing distance of 0.38m at all focal lengths
- Front of lens does not rotate during focusing
- Manual focus possible in AF mode
- Lead-free glass

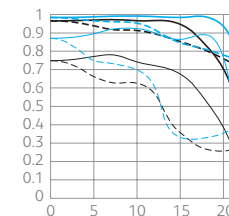
ACCESSORIES

- Lens Hood EW-83F
- Soft Case LP1219
- 77mm Close-Up Lens 500D
- 77mm Circular Polarizer PL-C B

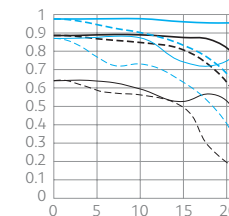


MTF CHARTS

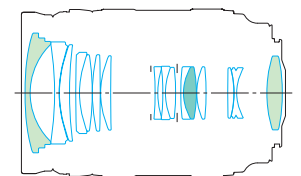
EF 24-70mm f/2.8L USM WIDE



EF 24-70mm f/2.8L USM TELE



LENS DIAGRAM





EF 24-105mm f/4L IS USM

The professional photographer's lightweight standard zoom

Offering a greater focal-length range and a more compact construction than other standard zooms, the EF 24-105mm f/4L IS USM is the ideal lens for the professional travel photographer.

IDEAL FOR



FEATURES

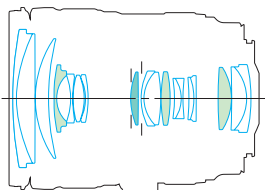
- L-series optics
- Lightweight 4.3x zoom
- Constant maximum f/4 aperture throughout zoom range
- Three-stop Image Stabilizer
- Super UD and aspheric lens elements
- Fast autofocus
- Super Spectra coatings
- Circular aperture provides pleasing background blur
- Soft case and lens hood

ACCESSORIES

- Lens Hood EW-83H
- Soft Case LP1219
- 77mm Close-Up Lens 500D
- 77mm Circular Polarizer PL-C B

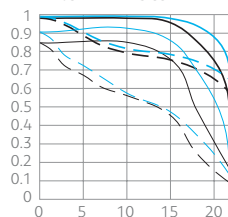


LENS DIAGRAM

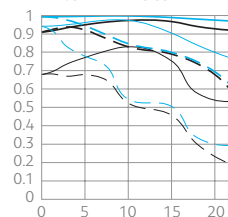


MTF CHARTS

EF 24-105mm f/4L IS USM WIDE



EF 24-105mm f/4L IS USM TELE



EF 28-135mm f/3.5-5.6 IS USM

The ideal everyday standard zoom lens

The EF 28-135mm f/3.5-5.6 IS USM offers a 5x zoom range, from wide angle to telephoto. The lens also features image stabilisation and is compact and lightweight, making it suitable for everyday use.

A three-stop image stabiliser enables hand-held shooting in low light conditions, even at the telephoto end of the zoom scale. Handy for taking pictures when the use of a flash or tripod is not allowed.



IDEAL FOR



FEATURES

- Three-stop Image Stabilizer
- Fast, quiet autofocus
- Super Spectra coating
- Circular aperture for pleasing background blur
- Passes distance information to E-TTL II
- Optional lens hood

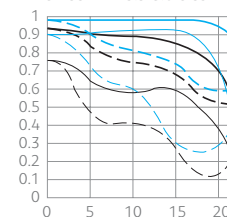
ACCESSORIES

- Lens Hood EW-78B II
- Soft Case LP1116
- 72mm UV Protector Filter
- 72mm Circular Polarizer PL-C B

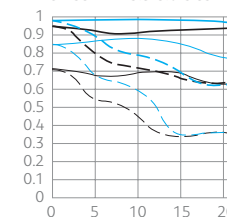


MTF CHARTS

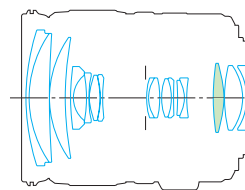
EF 28-135mm f/3.5-5.6 IS USM WIDE



EF 28-135mm f/3.5-5.6 IS USM TELE



LENS DIAGRAM





EF 28-300mm f/3.5-5.6L IS USM

The professional photographer's superzoom

From wide to telephoto with just one lens. The flexibility of an 11x zoom range, combined with the quality of Canon's L-series glass, make this lens the ultimate tool for photographers on the move.

With a zoom range covering everything from wide-angle to super-telephoto, the EF 28-300mm f/3.5-5.6L IS USM is designed for professional photographers looking to limit lens changes and reduce overall kit weight. Perfect for photojournalists and those shooting on the move.

IDEAL FOR



FEATURES

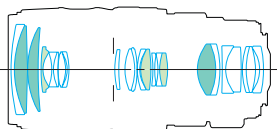
- 11x zoom
- L-series quality
- Image Stabilizer
- Minimum focusing distance 0.7m
- Full-time manual focus
- Dust-proof, splash-proof construction
- Circular aperture diaphragm
- E-TTL II distance metering
- Lens coatings optimised for digital cameras

ACCESSORIES

- Lens Hood EW-83G
- Lens Case LZ1324
- 77mm Circular Polarizer PL-C B
- 77mm Close-Up Lens 500D

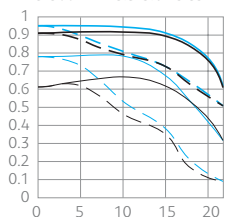


LENS DIAGRAM

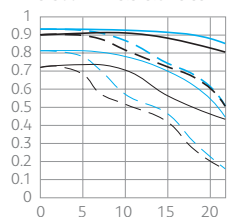


MTF CHARTS

EF 28-300mm f/3.5-5.6L IS USM WIDE



EF 28-300mm f/3.5-5.6L IS USM TELE



EF 70-200mm f/2.8L IS II USM

An essential telezoom lens for sports, wildlife or portraits

The EF 70-200mm f/2.8L IS II USM is a workhorse telephoto zoom lens designed for professional use. It has a rugged durable design, a four-stop Image Stabilizer and specialised lens elements.

The L-series is Canon's flagship professional lens range, representing the best in precision-designed EF optics. L-series lenses combine superior performance with superlative handling, and are resistant to dust and moisture.



IDEAL FOR

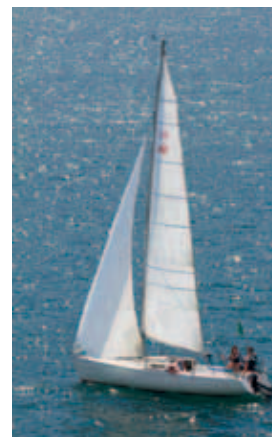


FEATURES

- High-performance, L-series telephoto zoom lens
- Constant maximum aperture of f/2.8
- Four-stop Image Stabilizer
- Fluorite and UD lens elements
- Improved durability
- 1.2m minimum focussing
- Water and dust resistant
- Ring type USM AF motor

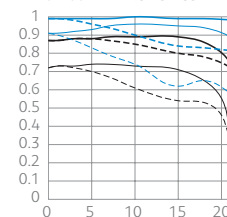
ACCESSORIES

- Lens Hood ET-87
- Lens Case LZ1326
- 77mm Close-Up Lens 500D
- 77mm Circular Polarizer PL-C B

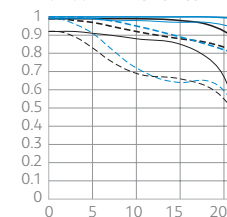


MTF CHARTS

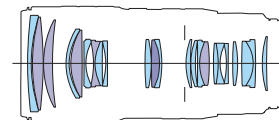
EF 70-200mm f/2.8L IS II USM WIDE



EF 70-200mm f/2.8L IS II USM TELE



LENS DIAGRAM





EF 70-200mm f/2.8L USM

The professional photographer's telezoom lens

The EF 70-200mm f/2.8L USM is a professionally quality, fast-aperture telephoto zoom lens popular with wildlife and sports photographers, as well as those shooting weddings and portraiture.

One of the finest telephoto zoom lenses in the EF line, optically comparable to a prime lens. Four UD-glass elements to correct chromatic aberrations and multiple zoom groups allow internal focusing, resulting in high image quality throughout the zoom range.

IDEAL FOR



FEATURES

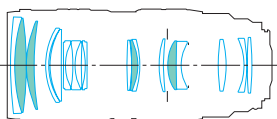
- High performance, L-series telephoto zoom lens
- Constant f/2.8 maximum aperture
- Four UD lens elements
- 1.5m minimum focusing
- Water and dust resistant
- Eight-bladed aperture
- Ring-type USM AF motor

ACCESSORIES

- Lens Hood ET-83 II
- Lens Case LZ1324
- 77mm Close-Up Lens 500D
- 77mm Circular Polarizer PL-C B
- Extender EF 1.4x III
- Extender EF 2x III

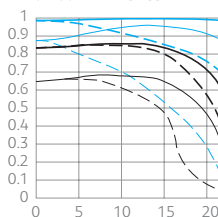


LENS DIAGRAM

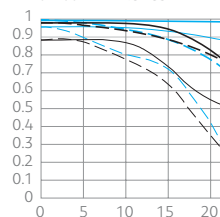


MTF CHARTS

EF 70-200mm f/2.8L USM WIDE



EF 70-200mm f/2.8L USM TELE



EF 70-200mm f/4L IS USM

The professional's lightweight IS telephoto zoom

Compact, manoeuvrable and lightweight. The EF 70-200mm f/4L IS USM is a telezoom featuring the very finest in L-series optical technology to deliver outstanding optical performance and operability.

The EF 70-200mm f/4L IS USM features a four-stop Image Stabilizer (IS), making this an ideal lens for handheld work. Shutter speeds up to four stops slower than would otherwise be possible can be used with no perceptible increase in image blur. When panning horizontally, the IS system can be set to correct only for unwanted vertical shake.



IDEAL FOR



FEATURES

- L-series optics
- Light and compact
- Four-stop Image Stabilizer
- Constant f/4 maximum aperture
- Fluorite and UD lens elements
- Super Spectra coatings
- Circular aperture for pleasing background blur

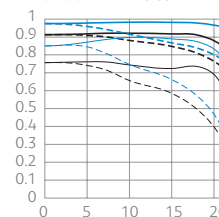
ACCESSORIES

- Lens Hood ET-74
- Soft Case LP1224
- 67mm Circular Polarizer PL-C B
- Extender EF 1.4x III
- Extender EF 2x III
- Tripod Mount Ring A II(W)

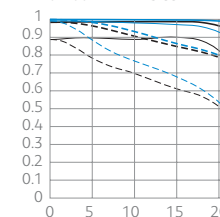


MTF CHARTS

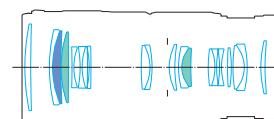
EF 70-200mm f/4L IS USM WIDE



EF 70-200mm f/4L IS USM TELE



LENS DIAGRAM





EF 70-200mm f/4L USM

A lightweight, compact telezoom delivering professional performance and accomplished handling

A high-performance telephoto zoom lens. The EF 70-200mm f/4L USM delivers excellent image quality in a variety of situations. Its compact, lightweight design make it an excellent travel companion.

The L-series is Canon's flagship professional lens range, representing the best in precision-designed EF optics. L-series lenses combine superior performance with superlative handling, and are resistant to dust and moisture.

IDEAL FOR



FEATURES

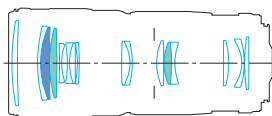
- L-series optics
- Light and compact
- Constant f/4 maximum aperture
- Fluorite and UD lens elements
- Fast autofocus
- Super Spectra coatings
- Circular aperture for pleasing background blur

ACCESSORIES

- Lens Hood ET-74
- Soft Case LP1224
- 67mm Circular Polarizer PL-C B
- Extender EF 1.4x III
- Extender EF 2x III

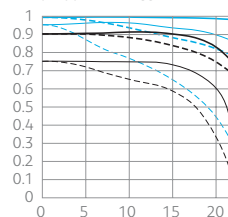


LENS DIAGRAM

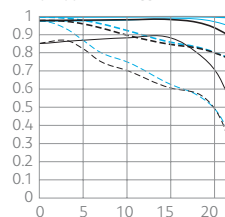


MTF CHARTS

EF 70-200mm f/4L USM WIDE



EF 70-200mm f/4L USM TELE



EF 70-300mm f/4-5.6L IS USM

Versatile telephoto lens setting new standards in zoom and performance

The EF 70-300mm f/4-5.6L IS USM is part of Canon's prestigious L series offering performance excellence with a versatile zoom range and superb image quality in a robust and compact design.

With a focal length range of 70-300mm, the EF 70-300mm f/4-5.6L IS USM is a compact and versatile telephoto zoom lens delivering exceptional image quality. Ideal for wildlife and sports photographers, as well as photo journalism and portraiture.



IDEAL FOR



FEATURES

- High performance telephoto zoom lens
- Part of Canon's acclaimed L series
- 4 stop Image Stabilizer
- Two UD elements
- Highly resistant to dust and water
- 8 blade circular aperture
- Quiet & fast autofocus
- Compatible with a tripod collar

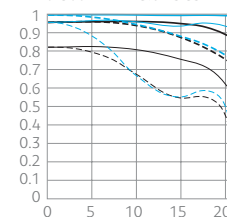
ACCESSORIES

- Lens hood ET-73B
- Softcase LP1424
- 67mm Circular Polarizer PL-C B
- Ring type tripod mount C (WII)

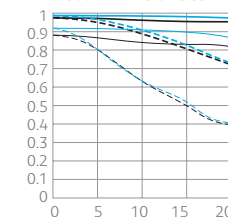


MTF CHARTS

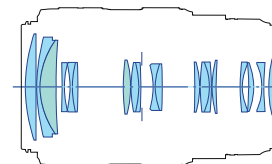
EF 70-300mm f/4-5.6L IS USM WIDE



EF 70-300mm f/4-5.6L IS USM TELE



LENS DIAGRAM





EF 70-300mm f/4-5.6 IS USM

An affordable telephoto zoom with Image Stabilizer

Advanced three-stop Image Stabilizer (IS) technology makes the EF 70-300mm f/4-5.6 IS USM an ideal telephoto zoom for shooting in dim light and at slow shutter speeds without incurring camera shake.

The powerful, yet reasonably priced, EF 70-300mm f/4-5.6 IS USM will appeal to nature and sports photographers looking to achieve sharper images when shooting handheld. When fitted to an EOS camera containing an APS-C sized sensor, the lens gives an angle of view roughly equivalent to a 112-480mm lens on a full-frame DSLR.

IDEAL FOR



FEATURES

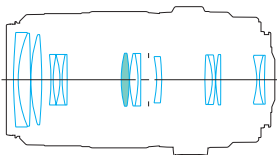
- Powerful magnification, yet affordable
- Three-stop Image Stabilizer
- UD lens element and Super Spectra coatings
- Circular aperture provides pleasing background blur
- Fast, quiet autofocus

ACCESSORIES

- Lens Hood ET-65B
- Soft Case LP1222
- 58mm Circular Polarizer PL-C B

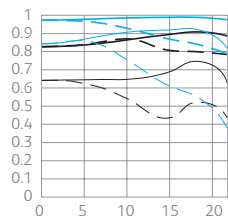


LENS DIAGRAM

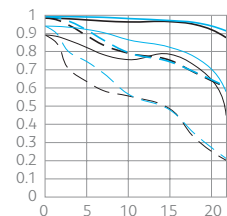


MTF CHARTS

EF 70-300mm f/4-5.6 IS USM WIDE



EF 70-300mm f/4-5.6 IS USM TELE



EF 70-300mm f/4.5-5.6 DO IS USM

A unique approach to telephoto zoom design

A unique design amongst telephoto zoom lenses. The EF 70-300mm f/4.5-5.6 DO IS USM incorporates a Diffractive Optical (DO) element that delivers compact size, low weight and superb image quality.

With its multi-layer Diffractive Optical (DO) element, image stabilisation (IS) and Ultra-Sonic Motor (USM) technologies, the EF 70-300mm f/4.5-5.6 DO IS USM is a celebration of precision lens design.



IDEAL FOR



FEATURES

- Three-layer Diffractive Optical (DO) element
- Just 9.99cm in length
- Image Stabilizer
- High speed AF with manual focus override
- Circular diaphragm for pleasing bokeh
- Zoom ring lock

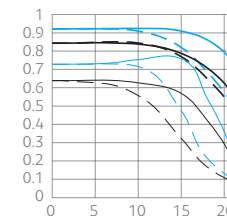
ACCESSORIES

- Lens Hood ET-65B
- Soft Case LP1116
- 58mm Close-Up Lens 500D
- 58mm Circular Polarizer PL-C B

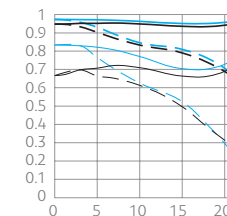


MTF CHARTS

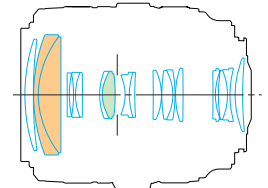
EF 70-300mm f/4.5-5.6 DO IS USM WIDE



EF 70-300mm f/4.5-5.6 DO IS USM TELE



LENS DIAGRAM





EF 75-300mm f/4-5.6 III USM

An affordable, compact telephoto zoom lens with USM focusing

One of the smallest and lightest telephoto zoom lenses in its class, the EF 75-300mm f/4-5.6 III USM is ideal for photographers who are working to a budget. Great for sports, nature and portraits.

The lightest 4x telephoto zoom lens in its class. Ideal for photographing sports, portraiture, wildlife etc. The lens' telephoto effect compresses perspective and restricts depth-of-field, effectively blurring backgrounds. At the 300mm focal length it is possible to fill the frame with a postcard from a distance of 1.5 metres.

IDEAL FOR



FEATURES

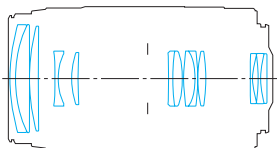
- Affordable telephoto zoom lens
- USM autofocus motor
- Super Spectra coatings
- Lightweight design
- 58mm filter size
- 1.5m closest focusing distance

ACCESSORIES

- Lens Hood ET-60
- Soft Case LP1019
- 58mm Close-Up Lens 500D
- 58mm Circular Polarizer PL-C B

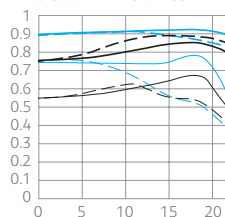


LENS DIAGRAM

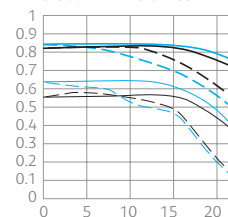


MTF CHARTS

EF 75-300mm f/4-5.6 III USM



EF 75-300mm f/4-5.6 III USM



EF 75-300mm f/4-5.6 III

An affordable, compact telephoto zoom lens

The EF 75-300mm f/4-5.6 III zoom lens covers many commonly used telephoto focal lengths and delivers great quality images. The lens is an affordable, compact partner for any EOS camera.

This 4x telephoto zoom lens is ideal for the budget-conscious photographer with an interest in shooting sports, wildlife or portraiture. In common with other telephoto lenses, the EF 75-300mm f/4-5.6 III compresses perspective and allows the photographer to restrict depth-of-field.



IDEAL FOR



FEATURES

- Affordable telephoto zoom lens
- DC autofocus motor
- Super Spectra coatings
- Lightweight design
- 58mm filter size
- 1.5m closest focusing distance

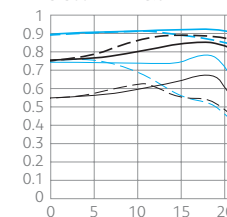
ACCESSORIES

- Lens Hood ET-60
- Soft Case LP1019
- 58mm Close-Up Lens 250D
- 58mm Circular Polarizer PL-C B

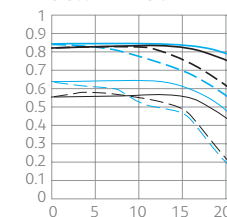


MTF CHARTS

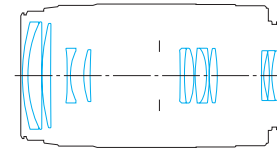
EF 75-300mm f/4-5.6 III WIDE



EF 75-300mm f/4-5.6 III TELE



LENS DIAGRAM





EF 100-400mm f/4.5-5.6L IS USM

A flexible approach towards wildlife and sports photography

The EF 100-400mm f/4.5-5.6L IS USM provides superlative handling and consistently high image quality. Its versatile zoom range makes it a popular choice with professional sports and nature photographers.

The EF 100-400mm f/4.5-5.6L IS USM is an L-series super telephoto zoom lens, equipped with an Image Stabilizer. Its fluorite and Super UD-glass elements largely eliminate distortions and aberrations. A floating optical system also ensures good picture quality at all focal lengths.

IDEAL FOR



FEATURES

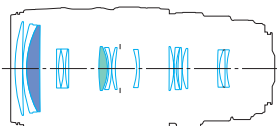
- Professional level telephoto zoom
- L-series quality
- Image Stabilizer
- Minimum focusing distance 1.8m
- Fluorite and Super UD lens elements
- Circular aperture diaphragm
- E-TTL II distance metering

ACCESSORIES

- 77mm Close-Up Lens 500D
- 77mm Circular Polarizer PL-C B
- Extender EF 1.4x III
- Extender EF 2x III

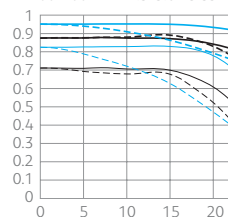


LENS DIAGRAM

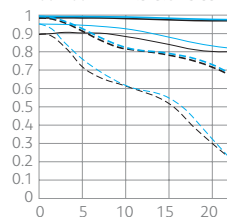


MTF CHARTS

EF 100-400mm f/4.5-5.6L IS USM WIDE



EF 100-400mm f/4.5-5.6L IS USM TELE



Camera: EOS 60D
 Lens: EF 70-200mm f/4L IS USM
 Exposure: 1.3sec f/8.0 ISO speed: 100



Macro Lenses

Bringing a miniature world into life-size view.

Macro photography allows you to explore a whole new world of hidden details. Canon's EF lens line-up has a number of options for true close-up and macro photography. With six macro lenses covering focal lengths from 50mm to 180mm, including one designed specifically for APS-C sensors, you can reveal intricate beauty that the unaided eye will miss.

Camera: EOS-1Ds Mark III
Lens: EF 100mm f/2.8L Macro IS USM
Exposure: 1/320sec f/2.8 ISO speed: 200

What is Macro photography?

There's a whole world beyond the one we see in our day-to-day lives – a world of miniature creatures, textures and details just waiting to be discovered. This miniature world can be a great source of photographic inspiration and can, if approached correctly, provide images that are unexpected, bizarre and enticing.

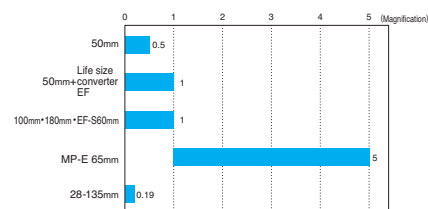
Using a true macro lens will help you to get closer to your subject than any standard zoom lens could. With macro lenses, the tiniest details are revealed – even those otherwise invisible to the human eye.

A macro lens enables magnification of life-size or greater on the film or digital sensor – in other words, if the subject is 20mm across in real life, it will be 20mm across on the digital sensor. The higher the magnification, the larger the subject will be when recorded.

Choosing a macro lens

Selecting which macro lens is right for you can be a tricky business. The crucial points to consider are focal length and magnification.

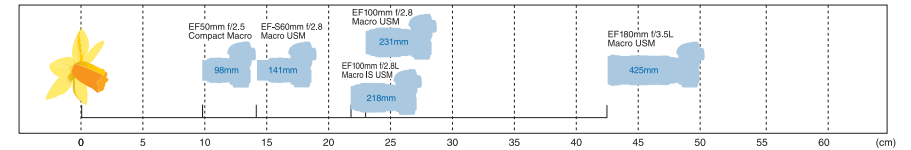
MAGNIFICATION GRAPH



Selecting your lens by focal length is best achieved by working out what subjects you want to photograph. If it's inanimate subjects like a still life composition, or wild flowers in a wood, then it doesn't necessarily matter if you get up close to them – they won't jump or fly away. However, for timid creatures like insects, butterflies or detail shots of reptiles, you're better off using a longer focal length lens to give you more working distance – the distance between the camera and your subject.

If magnification is more important than working distance, choose a lens that provides enough for your needs. The EF 50mm f/2.5 Compact Macro can be used with the EF life-size converter to achieve 1.0x magnification, rather than the 0.5x magnification it offers on its own. All other lenses in the Macro range are also capable of 1.0x magnification. The MP-E 65mm f/2.8 1–5x lens is a specialist lens designed to allow you to fully explore worlds beyond those we can see with the naked eye, with magnification of up to 5.0x.

WORKING DISTANCE AT AN IMAGE MAGNIFICATION OF 0.5X (DISTANCE FROM THE END OF THE LENS TO THE SUBJECT)



Using macro lenses

Using a macro lens well requires different skills to normal lenses. The two key things to be aware of are stability and depth-of-field. At high magnifications, any slight movement of the camera will translate into camera shake that can ruin your image. Where possible, use a tripod to help keep the camera stable. For the freedom of shooting hand-held, the EF 100mm f/2.8L Macro IS USM lens features a Hybrid IS system to counteract camera-shake both in normal shooting and in macro shooting, providing up to two-stops of image stabilisation at 1.0x magnification enabling slower shutter speeds to be used without camera shake occurring.

The closer you get to your subject (and the higher the magnification), the shallower the depth-of-field becomes. This is great if you want to blur the background, but for more depth, you will need to close the aperture down and, if the light levels are low, use a higher ISO setting, longer shutter speed, or flash.

Not just for macro

With the exception of the MP-E 65mm 1–5x Macro lens, all macro lenses can also be used for normal photography. For example, the EF-S 60mm f/2.8 Macro USM and EF 100mm f/2.8L Macro IS USM lenses are excellent for portrait photography, whilst the EF 50mm f/2.5 Compact Macro is an excellent standard lens and, due to a very flat field of view, is ideal for copying artwork and product photography.

HYBRID IS

The image below has been photographed using EF 100mm f/2.8L Macro IS USM lens with Hybrid IS, which enables sharp results without camera-shake blur even during handheld macro shooting.



HYBRID IS ON (COMPENSATION FOR ANGLE AND SHIFT CAMERA SHAKE)



IS ON (COMPENSATION ONLY FOR ANGLE CAMERA SHAKE)



IS OFF



EF 50mm f/2.5 Compact Macro

Standard lens with perfect macro capability

Light and compact, perfect as a general-purpose macro lens or as a flexible standard lens.

IDEAL FOR

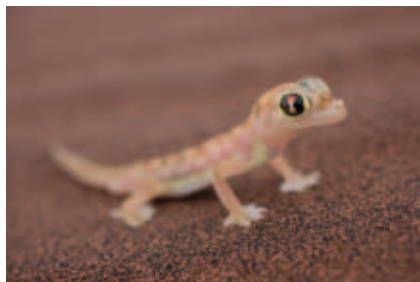


FEATURES

- Standard 46° angle of view
- 23cm closest focusing distance
- 1/2 life-size image reproduction
- AFD focusing system
- 52mm filter size
- Super Spectra coatings reduce ghosting and flare

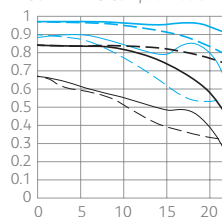
ACCESSORIES

- Soft Case LP814
- 52mm Close-Up Lens 500D
- 52mm Close-Up Lens 250D
- 52mm Circular Polarizer PL-C B
- Life-size Converter EF
- Macro Ring Lite MR-14EX
- Macro Twin Lite MT-24EX

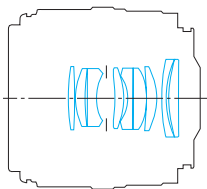


MTF CHART

EF 50mm f/2.5 Compact Macro



LENS DIAGRAM



EF-S 60mm f/2.8 Macro USM

Enter the macro world

The EF-S 60mm f/2.8 Macro USM is the first true Macro lens in the EF-S series. A dynamic, compact, fast-focusing lens, it provides dramatic detail that goes beyond the human eye.

With its ability to focus life-size images onto the image sensor, the EF-S 60mm f/2.8 Macro USM offers true macro performance in the EF-S lens series. Having an effective focal length of approximately 96mm in 35mm format, it produces breathtaking close-up results. A minimum focusing distance of just 20cm gets you super close to your subject, filling the frame with the subject in the highest detail you require.



IDEAL FOR



FEATURES

- Approx. 96mm focal length (35mm format)
- Compact and lightweight
- High corner-to-corner resolution, contrast and image quality
- Fast autofocus with near-silent USM
- Full-time manual focus override
- Super Spectra coatings
- Large aperture

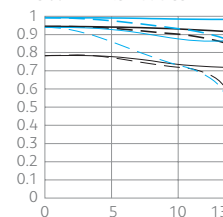
ACCESSORIES

- Lens Hood ET-67B
- Soft Case LP1016
- 52mm Close-Up Lens 500D
- 52mm Close-Up Lens 250D
- Macro Ring Lite MR-14EX
- Macro Twin Lite MT-24EX

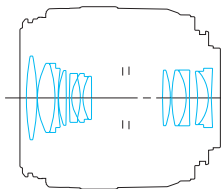


MTF CHART

EF-S 60mm f/2.8 Macro USM



LENS DIAGRAM





EF 100mm f/2.8 Macro USM

A perfect portrait lens of the highest quality with additional macro capability

The EF 100mm f/2.8 Macro USM lens is equally at home for portraits as it is for macro photography up to life-size (1.0x).

The EF 100mm f/2.8 Macro USM is a medium telephoto lens with a macro feature providing a 1.0x magnification. With eight aperture blades, creative background blur is possible to help make the subject stand out. The lens features a focusing limiter switch which limits the focus range to improve AF speed.

IDEAL FOR



FEATURES

- Canon high performance macro
- Life-size image reproduction (1:1)
- UD lens element
- Focus distance limiter
- 8 blade circular aperture for beautiful creative blur effects
- 58mm filter size
- Ring type USM AF motor
- Optional tripod collar

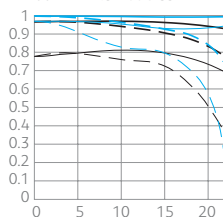
ACCESSORIES

- Lens Hood ET-67
- Soft Case LP1219
- 58mm Circular Polarizer PL-C B
- Tripod Mount Ring B (B)
- Macro Ring Lite MR-14EX
- Macro Twin Lite MT-24EX

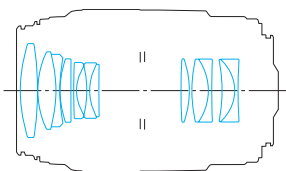


MTF CHART

EF 100mm f/2.8 Macro USM



LENS DIAGRAM



EF 100mm f/2.8L Macro IS USM

Macro lens with Image Stabilizer sets new standards for performance and features

The EF 100mm f/2.8L IS USM, part of Canon's prestigious L-series, and first featuring an Image Stabilizer with angle and shift detection which is highly effective at close focusing distances.

The lens embodies Canon's highest standards of L-series optics, build quality, reliability and performance. A robust construction includes dust and moisture resistant seals to help protect against harsh weather conditions.



IDEAL FOR



FEATURES

- Canon L-series high performance macro
- Four-stop Hybrid IS
- Life-size image reproduction (1:1)
- UD lens element
- Water and dust resistant
- Three position distance limiter
- Nine blade circular aperture for beautiful creative blur
- Ring type USM AF motor
- Optional tripod collar

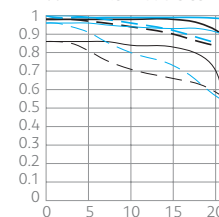
ACCESSORIES

- Lens Hood ET-73
- Soft Case LP1219
- 67mm Circular Polarizer PL-C B
- Tripod Mount Ring D (B)
- Macrolite adapter 67
- Macro Ring Lite MR-14EX
- Macro Twin Lite MT-24EX

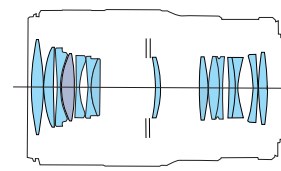


MTF CHART

EF 100mm f/2.8L Macro IS USM



LENS DIAGRAM





EF 180mm f/3.5L Macro USM

High performance macro telephoto with excellent versatility

With its telephoto specification, life-size close-ups can be taken from further away without risk of disturbing the subject. Ideal for wildlife.

The EF 180mm f/3.5L Macro USM is a telephoto macro lens which offers a maximum magnification of 1.0x. Life-size close-ups can be taken from further away, and at less risk of disturbing the subject (ideal for insects and other wildlife). The internal floating focusing system minimizes fluctuations in aberrations caused by changes in focusing distance. This ensures the lens is razor sharp from 1.0x to infinity.

IDEAL FOR



FEATURES

- Canon L-series high performance macro
- Telephoto focal length
- Life-size image reproduction (1:1)
- 3 UD lens elements
- 2 position distance limiter
- Ring type USM AF motor
- Supplied tripod collar

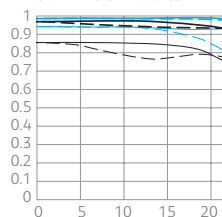
ACCESSORIES

- Lens Hood ET-78 II
- Lens Case LZ1324
- 72mm Close-Up Lens 500D
- 72mm Circular Polarizer PL-C B
- 72mm UV Protector Filter
- Extender EF 1.4x III
- Extender EF 2x III
- Macro Ring Lite MR-14EX
- Macro Twin Lite MT-24EX
- Macro Lite Adapter 72C

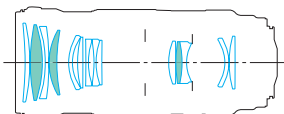


MTF CHART

EF 180mm f/3.5L Macro USM



LENS DIAGRAM



MP-E 65mm f/2.8 1-5x Macro Photo

A macro lens capable of going further

This unique macro lens is designed to achieve a high magnification greater than life-size (1.0x) without the need for additional accessories.

The MP-E65mm f/2.8 1-5x is ideal for very small subjects, capable of capturing subjects at up to 5x life-size. The lens design contains UD-glass elements to suppress chromatic aberrations which often become apparent at high magnifications. For flash photography, Macro Ring Lite MR-14EX or Macro Twin Lite MT-24EX can be attached.



IDEAL FOR

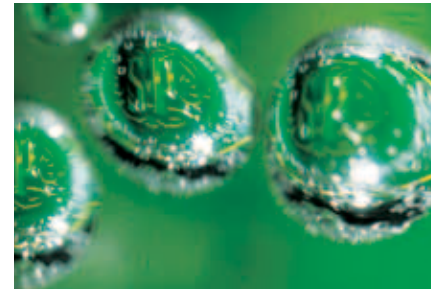


FEATURES

- 65mm focal length (35mm format)
- Manual focus and built in tripod collar
- 24cm closest focusing distance, up to 5x life-size
- UD lens element
- 58mm filter size

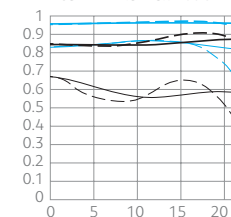
ACCESSORIES

- Soft Case LP1216
- 58mm Circular Polarizer PL-C B
- Macro Ring Lite MR-14EX
- Macro Twin Lite MT-24EX

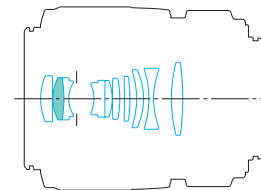


MTF CHART

MP-E 65mm f/2.8 1-5x Macro Photo



LENS DIAGRAM



Camera: EOS-1Ds Mark III
Lens: TS-E 24mm f/3.5L II
Exposure: 1/20sec f/11 ISO speed: 100

Tilt and Shift Lenses

Take control of perspective.

Canon TS-E lenses are capable of tilt and shift movements, which bring many of the advantages of technical view cameras to the EOS system. Tilt movements alter the angle of the plane of focus between the lens and image sensor, making broad depth-of-field possible even at large apertures. Shift movements slide the lens' optical axis along the image sensor plane, enabling you to correct or alter perspective at almost any angle.



Understanding Tilt and Shift

Tilt and shift lenses are specialist lenses designed to allow you to control both the perspective and depth-of-field in an image. They are ideal for architecture, landscape and product or food photography – the TS-E 45mm f/2.8 and TS-E 90mm f/2.8 lenses can also be used for creative portraits.



PHOTOGRAPHED USING TILT

A tulip field that stretches as far as the eye can see. A TS-E45mm f/2.8 lens' tilt mechanism is used to achieve an effect that allows focusing all the way to the back of the image.

Tilt

Lens tilt is most commonly used for product photography and landscapes.

With an ordinary lens, all the elements are aligned so the light passes through in a straight line to the sensor. Tilt changes this so that the front of the lens is angled up or down altering the path of the light and changing the optical characteristics of the lens. By aligning the tilt with the plane of the subject, you can achieve a large depth-of-field, even at wide apertures and fast shutter speeds.



PHOTOGRAPHED USING REVERSE TILT

Reverse tilt greatly reduces the range in which focusing is possible. This allows you to explore an extensive range of colour tones.

For greater control, the angle of the lens tilt may be shifted from up and down, to side-to-side (otherwise known as 'swing'). Again it works in the same way as tilt – a larger or smaller depth-of-field can be achieved by angling the front lens elements with or against the plane of the subject.

While tilt is most commonly used to achieve greater depth-of-field, reverse tilt, where the front of the lens element is angled back away from the plane of focus, will give much shorter depth-of-field and can be used to make subjects look like miniature models.



PHOTOGRAPHED USING SHIFT

Shift was used to adjust the image to keep perspective on the building perpendicular all the way to the top.



PHOTOGRAPHED WITHOUT USING SHIFT

Photograph of the same building as above taken without using shift. The intrinsic wide-angle perspective causes the image of the building to lean in at the top.

Shift

Shift is most often used to keep the perspective of an image looking normal, for example, stopping buildings looking as if they are about to fall over backwards due to converging verticals.

This makes it ideal for architectural photography where it is essential to have the upright features properly vertical.

Shift is different to tilt in that, instead of changing the angle of the front elements, they can slide up or down. To do this, TS-E lenses project a much larger than usual image circle so more image is projected back to the sensor – the shift function simply means you look at a part of the image at the top or bottom of this image circle.

Like tilt, the shift function can be rotated so that it works in an up and down or side-to-side fashion, depending on your objectives.

While architectural photography is the most common use of the shift function, it can also be used in other areas – for example – using the shift function to photograph from offside a mirror but still have it appear that you are square on to it – all without getting your own reflection in the scene.



TS-E 17mm f/4L

An ultra wide-angle tilt and shift lens

Designed for architectural photography, the TS-E 17mm f/4L exhibits low distortion and excellent edge-to-edge sharpness, as well as independent rotation of the tilt and shift mechanisms.

IDEAL FOR

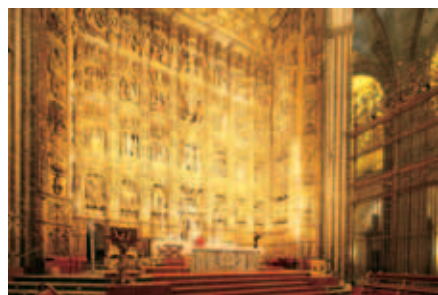


FEATURES

- Ultra wide 17mm tilt and shift lens
- Low distortion and high resolution
- $\pm 6.5^\circ$ tilt and ± 12 mm shift
- Independent tilt or shift rotation
- Aspherical and UD lens elements
- Subwavelength Structure and Super Spectra coatings
- Circular aperture

ACCESSORIES

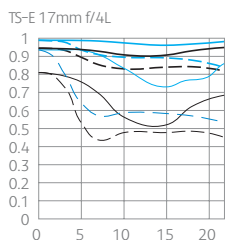
- Lens case LP1219



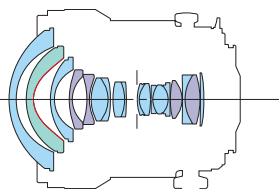
FERGUS KENNEDY,
SEMI-PRO PHOTOGRAPHER

“Rather than being a simple representation of the subject, with a bit of time and thought, the photographer can put a bit of their own world-view into the image – you can see the emotional connection with the subject”

MTF CHART



LENS DIAGRAM



TS-E 24mm f/3.5L II

The high performance, wide-angle lens with exceptional tilt and shift range

The TS-E 24mm f/3.5L II has been refined to deliver superb image quality right to the edges of the frame. Independent rotation of the tilt and shift mechanisms permits maximum creative freedom.

The TS-E 24mm f/3.5L II allows tilt and shift movements to be made independently of each other. This means perspective and depth-of-field can be controlled separately, vastly enhancing lens flexibility.

IDEAL FOR



FEATURES

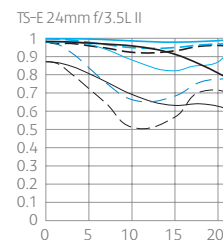
- 24mm tilt and shift lens
- Low distortion and high resolution
- $\pm 8.5^\circ$ tilt and ± 12 mm shift
- Independent tilt and shift movements
- Aspherical and UD lens elements
- Circular aperture

ACCESSORIES

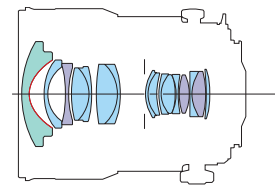
- 82mm Circular Polarizer PL-C B
- Lens Hood EW-88B
- Lens Case LP1319



MTF CHART



LENS DIAGRAM





TS-E 45mm f/2.8

A specialist tilt and shift lens offering a natural perspective

The TS-E 45mm f/2.8 is a tilt and shift lens offering an angle of view similar to that of a 50mm standard lens. Tilt and shift mechanisms provide complete control over depth-of-field and perspective.

IDEAL FOR



FEATURES

- 45mm tilt and shift lens
- Natural perspective with image control
- $\pm 8^\circ$ tilt and ± 11 mm shift
- Rear focusing system
- Non-rotating front element

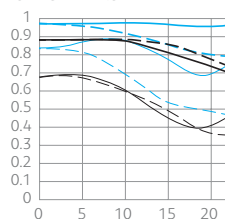
ACCESSORIES

- Lens Hood EW-79B II
- Lens Hood LP1216
- 72mm Close-Up Lens 500D
- 72mm UV Protector Filter
- 72mm Circular Polarizer PL-C B

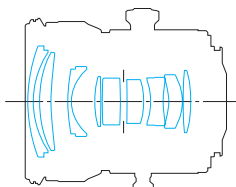


MTF CHART

TS-E 45mm f/2.8



LENS DIAGRAM



TS-E 90mm f/2.8

A short telephoto lens featuring perspective and depth-of-field control

The world's first 35mm-format telephoto lens with tilt and shift movements for perspective and depth-of-field control. Suitable for a variety of subjects, from product photography to architecture.

Featuring six elements in five groups, the Gaussian-type optical system achieves outstanding imaging performance and natural looking background blur. Focusing is possible down to 0.5m. The lens is suited to a variety of subjects, from still-life photography to portraits and landscape work. Using reverse tilt to manipulate depth-of-field allows the photographer to achieve unique images, unattainable with normal lenses.



IDEAL FOR



FEATURES

- 90mm tilt and shift lens
- Telephoto lens with image control
- $\pm 8^\circ$ tilt and ± 11 mm shift
- 58mm filter size
- Non-rotating front element

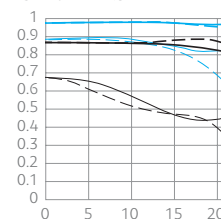
ACCESSORIES

- Lens Hood ES-65 II
- Lens Case LP1016
- 58mm Close-Up Lens 500D
- 58mm Circular Polarizer PL-C B

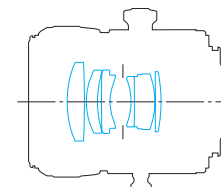


MTF CHART

TS-E 90mm f/2.8



LENS DIAGRAM



EOS system Accessories

Protect your investment and expand your creativity

The EOS system consists of more than cameras, lenses and flashguns. It also includes an extensive collection of complementary accessories designed to help you fully explore the possibilities offered by the Canon EOS system. Extension tubes, Wireless File Transmitters and Speedlites will all expand the performance scope of your EOS system, while hard cases, bags and filters will help to protect your cameras and lenses.

Lens accessories Including extenders, filters, lens cases and lens hoods **96-97**

Speedlite flash Learn how to enhance your images with flash, plus all the accessories you will need **98-105**

Wireless file transmitters Learn more about WiFi and how it can help you **106-109**

Power accessories Including battery grips, batteries and adapters **110**

Viewfinder accessories Including angle finders and focusing screens **111**

Remote controls Find out which remote control is the right one for your needs **112**

Bags and cases A comprehensive range for the photographer on the go **113**





Extender EF 1.4 x III

Ideal for press, sports and nature photography, this compact and affordable extender increases the focal length of Canon L-series telephoto or telephoto zoom lenses* by a factor of 1.4x, with higher AF accuracy and improved communication between camera and lens.

- Extends the master lens focal length by 1.4x
- Outstanding image quality
- Highly resistant to dust and water
- Improved communication between lens and camera
- Optimised lens coatings
- Compatible with L-Series telephoto and telephoto zoom lenses



Extender EF 2.0 x III

Ideal for press, sports and nature photography, this compact and affordable extender increases the focal length of Canon L-series telephoto or telephoto zoom lenses* by a factor of 2x, with higher AF accuracy and improved communication between camera and lens.

- Extends the master lens focal length by 2x
- Outstanding image quality
- Highly resistant to dust and water
- Improved communication between lens and camera
- Optimised lens coatings
- Compatible with L-Series telephoto and telephoto zoom lenses



Extension Tubes – EF 12 II & EF 25 II

The effect of using an extension tube is that the distance from the back of the lens to the image sensor is longer, allowing you to

focus up closer to the subject. Extension tubes are typically used for macro photography but can also be suitable for close-up portraits.

ⓘ Extenders and extension tubes are not compatible with all lenses. Check the specifications chart for compatibility with individual models.

Filters

Canon provides a variety of filters to give you more control over your image while shooting.

Protect filters help keep your lenses in pristine condition by eliminating the possibility of scratching the front lens element. ND filters allow you to reduce the light entering the lens and so achieve long shutter speeds for creative effects with moving subjects.

A Softmat filter can help create a soft, dreamlike effect that is especially flattering for portraits, while a circular polarising filter can be used to reduce glare on water or intensify blue skies in landscape photography.



ND4X-L



ND8X-L



SKYLIGHT



SOFTMAT NO.1



UV

Lens cases

Soft cases are available for all Canon EF lenses and provide some protection during transportation.

For the larger EF lenses, custom hard cases are available which offer more protection. A case is supplied with all L-series lenses.

Check the compatibility chart on pages 118-120 to find the appropriate case for your lens.



Lens hoods

Extremely helpful when telephoto shooting in bright sunlight, lens hoods block light rays from hitting the lens surface from the sides, which can reduce contrast and cause lens flare.

A lens hood is supplied with all L-series lenses. Check the compatibility chart on pages 118-120 to find the appropriate lens hood for your lens.



Understanding Speedlite flash

Many photographers are surprised that flash can be as useful in bright daylight as it is after dark. Used well, flash can turn a dull image into a more vibrant, attention-grabbing one.

Guide Number (GN)

The flash Guide Number tells you how powerful the flash is for a given ISO setting and coverage area. The 580EX II for example, has a guide number of 58. Guide Numbers for Canon Speedlites are measured in metres at ISO 100 at the maximum zoom setting of the flash.

Speedlite Flash units

Speedlite Flash units are not just for adding light to dimly lit scenes; they open up a whole range of creative potential. Using flash makes it possible to add detail or colour, providing greater depth and a greater emphasis on the main subject. Understanding the following flash functions will help to enhance your flash photography.



Bounce flash

When you fire light directly at a person or animal you risk red-eye, caused by light reflecting back off the retina at the back of the eyeball, as well as harsh, unflattering shadows. By tilting the Speedlite head so that light bounces off a wall or ceiling, the apparent size of the light source is enlarged relative to the subject, helping light to wrap around the subject and softening shadows.

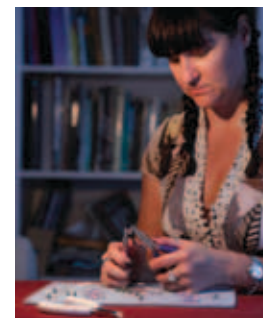
For more flattering results, particularly with portraits, use the tilting flash heads found on the 270EX II, 320EX, 430EX II and 580EX II. With the 580EX II and 430EX II, you can also make use of the built-in catchlight panel to direct a small amount of light towards the subject giving eyes a 'catchlight', or sparkle.

E-TTL II metering will ensure the right result, even though light has to bounce off a surface and travel further.

WITH BOUNCE FLASH



WITHOUT BOUNCE FLASH



To keep rechargeable batteries in tip-top health, try to fully discharge them before recharging. This will force them through a complete cycle and help to prolong their useful life.

Multiple flash control

The Speedlite system gives you the ability to control several Speedlites wirelessly in a multiple flash setup. Multiple flash control is achieved by the use of a master unit (built-in to some cameras, Speedlites or ST-E2), which then controls slave units via pulses of light. These slave units can be placed around your subject in up to three groups (A, B and C) to provide three different zones of light.

For even greater control of light, flash output for each group can be input manually, either on the camera or the master flash. Information is transmitted automatically to the slave Speedlites.

Fill-in flash

In many situations flash may be used to supplement ambient light and fill-in shadows, rather than as a primary light source. This is especially true when photographing people in bright sunlight where the sun can cast heavy shadows on faces.

Both Tv and Av mode perform balanced fill-in flash automatically. Flash exposure compensation can also be used to adjust the quantity of light released by the flash, changing the flash-to-ambient light balance.

Macro flash

When photographing macro subjects, it is quite common to find that there is insufficient natural light to achieve your desired result. Macro flash is the answer. The MR-14EX and MT-24EX are macro-specific flashes designed for lighting small subjects.



With either ring (MR-14EX) or twin flash heads (MT-24EX), you can achieve ratio control between each flash tube to provide either flat lighting, or more creative relief lighting, which will help to bring out texture and detail. Both flashes can also act as master units to trigger slave Speedlites and create more complex lighting setups – by adding a background light to provide depth to the image, for example.

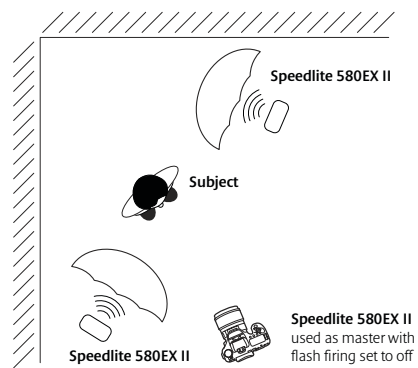
WITHOUT MULTIPLE FLASH CONTROL



WITH MULTIPLE FLASH CONTROL



MULTIPLE FLASH CONTROL SHOOTING SETUP



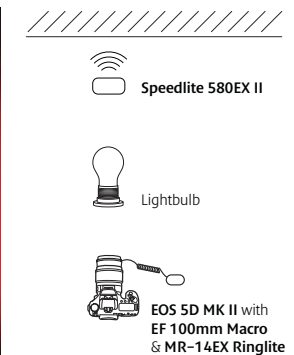
WITHOUT MULTIPLE MACRO FLASH



USING MULTIPLE MACRO FLASH



MULTIPLE MACRO FLASH SETUP





Speedlite 580EX II

Master your flash photography with this high-powered, portable Speedlite flashgun. A Guide Number of 58 and full E-TTL II flash metering ensures enough power and accurate flash exposures.

- E-TTL II Flash metering
- Guide Number of 58
- Functions as a wireless master or slave flash
- 24-105mm zoom head with 14mm diffuser
- Fast and silent recycling
- White balance communicated to camera
- Metal mounting foot
- 180 degree swivel and bounce head
- AF Assist beam



Speedlite 320EX

Featuring Wireless Slave technology, a bounce/swivel head and a constant LED light source for video work, the Canon Speedlite 320EX opens up new creative possibilities for EOS photographers.

- Guide Number 32 (m, ISO100)
- Compact lightweight design
- Bounce-and-swivel flash head, with 24mm and 50mm zoom settings
- Integrated LED video light
- Wireless slave for off-camera TTL flash
- Remote Release button
- Fast, silent recycling



Speedlite 430EX II

A powerful and versatile flash, the Speedlite 430EX II will expand your shooting options with a Guide Number of 43, wireless slave flash ability, nine custom functions and a 24-105mm zoom head.

- E-TTL II Flash metering
- Guide Number of 43
- Wireless slave flash ability
- 24-105mm zoom head with 14mm diffuser
- Fast and silent recycling
- Metal hot-shoe foot
- 180 degree swivel and bounce head
- AF Assist beam



Speedlite 270EX II

Explore the creative side of lighting with the Canon Speedlite 270EX II – a compact flashgun that is as easy to use off-camera as it is in your camera's hotshoe.

- Lightweight compact design
- Guide Number 27 (m, ISO100)
- Bounce flash head
- Wireless slave function for off-camera flash
- Trigger your EOS camera with Remote Release button
- Variable angle of coverage
- Fast, silent recycling



Speedlite transmitter ST-E2



Small, lightweight and portable, the ST-E2 is a dedicated infra-red transmitter to control two groups of remote wireless slave Speedlites. It also functions as a focus assist lamp in low light.

- E-TTL II flash control
- Ratio control over two groups of flashguns
- High-Speed sync
- Up to 10m range outdoors
- AF Assist beam

Speedlite bracket SB-E2

Shooting with a flash on-camera can produce very good results, however, for more flattering light it is best to position the flash off to one side of the camera.

The SB-E2 helps you do this by offering a mounting point to the left of the camera. With different levels of height adjustment you can modify the angle from which the flash is fired. This will help avoid hard, direct shadows and will also reduce the chance of seeing red-eye in portrait images. It is especially useful for wedding and event photographers, as it will improve your results, but is compact and therefore easily transported and used.



Macro ring lite MR-14EX



Improve your macro photography with this dedicated macro ring lite. E-TTL flash control and a Guide Number of 14 provide ample light and accurate exposures in all macro photography situations.

- E-TTL II Auto Flash metering
- Guide Number of 14
- Can act as a wireless master flash
- Two flash tubes that can be fired as one or independently with full ratio control
- Two focusing lights
- Modelling flash capability
- Mounts to the front of macro lenses

A Macro Lite adapter may be required to attach to a lens.
Macro Lite adapters are available in the following filter sizes 52, 58, 67 and 72.

Compact battery pack CP-E4

For those photographers making use of Speedlite flash in wedding or event photography, the CP-E4 will reduce the frequency that batteries need to be changed and will also increase the flash recycling speed, reducing the time you have to wait between shots.

It holds 8x AA batteries ensuring you can keep shooting longer.



Macro twin lite MT-24EX



Take control of your macro photography lighting with the MT-24EX Macro Twin Lite. Designed for macro specialists it provides creativity and versatility in both light direction and power.

- E-TTL II Flash metering
- Guide Number of 24
- Functions as a wireless master flash
- Two flash heads that can be fired together or independently
- Modelling flash capability
- Mounts to the front of macro lenses or each head can be independently placed

A Macro Lite adapter may be required to attach to a lens.
Macro Lite adapters are available in the following filter sizes 52, 58, 67 and 72.

Off-camera shoe cord OC-E3

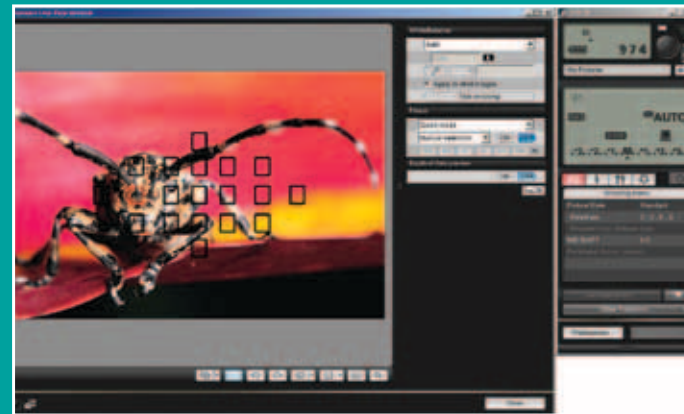
To improve your flash photography, the first step is to move the flash away from the hotshoe on the camera. The OC-E3 allows you to retain a connection to the camera while positioning the flash up to 60 cm away.

With the flash off-camera you can control where shadows fall and also minimise red-eye in portraits.



Understanding Wireless

Wireless File Transmitters (WFTs) provide a cable-free connection between EOS cameras and computers, allowing you to download images directly to your computer without cables and to trigger your camera remotely. They can also be used with a fast-wired Ethernet connection, as well as with USB devices such as external hard drives and GPS units. They are compatible with 802.11 a, 802.11 b and 802.11 g wireless protocols.



REMOTE LIVE VIEW IN EOS UTILITY MODE

In a studio environment WFT units speed up workflow and avoid the dangers of cable clutter. For news and sports photographers, they shorten the time from shooting to picture desk and on a fashion shoot, an art director can see images being produced in almost real-time – even from a different country.

Wireless network basics

There are two types of WiFi network that WFT units can use: Ad Hoc to connect a camera directly to a computer; or Infrastructure to connect to a larger network through an access point. Although Ad Hoc networks are easier to set up and simpler to implement, Infrastructure networks offer faster data transfer speeds and greater connection stability.

Ad Hoc networks are used when there are no access points to connect to – in remote locations, for example – while an Infrastructure network is the best choice for studio work and can be set up through an access point.

Once the WFT unit is connected to the wireless network, there are three ways of working with WiFi depending on what you wish to achieve: EOS Utility mode, FTP transfer and WFT server.

EOS Utility mode

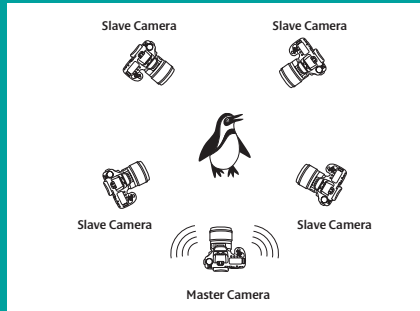
EOS Utility mode is, in effect, the same as having a USB connection to the camera, without the need for a cable. With EOS Utility software, this mode allows two-way communication between your camera and computer so you can download images directly to a computer, as well as control your camera, complete with Live View, wirelessly.

For product photography where awkward camera angles or positions are required, this is a very useful mode. With remote Live View you can change camera settings, check composition and adjust focus without having to touch the camera.

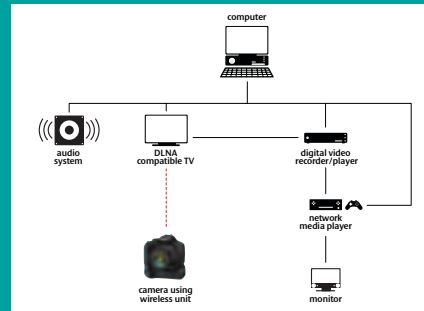
WFT server mode

WFT Server mode allows you to control your camera wirelessly from a web browser on a computer, smart phone, or other WiFi-enabled device. See what your camera sees and control settings and shooting functions through the web browser. You don't even need to be on the same continent to control the camera settings and view a Live View image.

LINKED SHOOTING



DLNA NETWORK WITH CAMERA CONNECTED USING WIFI



Linked shooting

If you need to capture images of a subject from several angles at once, then linked shooting is the solution. This allows one master camera fitted with a WFT unit to trigger up to 10 slave cameras also fitted with a WFT units, over a range of up to 100m. You can use this feature to capture pictures from up to 10 different angles - see the diagram above.

FTP transfer mode

FTP mode is the simplest operating mode of a WFT unit. It allows image transfer directly from your camera to a computer or server. Images can be automatically transferred as soon as they are captured, sent individually, or sent as a batch, sending only the ones you want to send.

Media server

Selected Canon WFT units are DLNA (Digital Living Network Alliance) compatible and can be connect to media players such as some games consoles as well as some televisions and digital photo frames. This allows JPEG images to be displayed on a TV directly from the camera, without first having to download the images to your computer.

WIRELESS FILE TRANSMITTER		COMPATIBLE CAMERAS	IEEE 802.11 STANDARDS			DLNA	FTP	WFT SERVER	EOS UTILITY	LINKED SHOOTING	CONNECTION TO GPS VIA		CONNECTION TO EXTERNAL DRIVE
			A	B	G						USB	BLUETOOTH	
WFT-E2 II	EOS-1D III, EOS-1Ds III	■	■	■	-	■	-	■	■	■	■	■	
	EOS-1D IV	■	■	■	-	■	■	■	■	■	■	■	
WFT-E4 II	EOS 5D II	■	■	■	-	■	■	■	■	■	■	■	
WFT-E5	EOS 7D	■	■	■	■	■	■	■	■	■	■	■	

WFT-E2 II

Avoid cable clutter, transmit images wirelessly and perform Live View shooting remotely. The WFT-E2 II adds WiFi functionality to the EOS-1D Mark IV, EOS 1D Mark III and EOS-1Ds Mark III.

- 802.11a/b/g compatible
- WiFi Protected Setup (WPS) compatible
- USB Host with GPS and External Hard Disk support
- PTP, HTTP and FTP protocols
- Up to 150m range
- Remote Live View
- Linked shooting



WFT-E4 II

Avoid cable clutter, transmit images wirelessly and perform Live View shooting remotely. The WFT-E4 II works with the EOS 5D Mark II to add WiFi capability and a vertical shooting grip.

- 802.11a/b/g compatible
- WiFi Protected Setup (WPS) compatible
- USB Host with GPS and External Hard Disk support
- PTP, HTTP and FTP protocols
- Up to 150m range
- Remote Live View
- Linked shooting
- Vertical shooting controls



WFT-E5

Avoid cable clutter, transmit images wirelessly and perform Live View shooting remotely. The WFT-E5 works with the EOS 7D to add WiFi capability, a vertical shooting grip and USB host functions.

- 802.11a/b/g compatible
- WiFi Protected Setup (WPS) compatible
- USB Host with GPS and External Hard Disk support
- PTP, HTTP and FTP protocols
- Up to 150m range
- Remote Live View
- Linked shooting
- DLNA compatible



Battery grips



Battery grips attach to the base of the camera and provide increased battery life by allowing the use of two batteries at once.

An AA battery magazine can also be fitted to allow powering of the camera from AA batteries in an emergency. Battery grips also provide shooting buttons for taking pictures in portrait format. This is more comfortable and stable and when shooting vertically.

Using a battery grip when shooting with long telephoto lenses will also make the camera-lens system balance better.

Batteries



Batteries provide the power for your digital camera. The batteries for all current EOS models make use of Lithium Ion technology.

This provides longer battery life and does not suffer from a memory effect. They also hold their charge well when not used for long periods of time.

Lithium Ion batteries offer one of the best energy to weight ratios of any battery technology currently available meaning the batteries can remain small and lightweight.



AC adapters



An AC adapter will allow you to power your EOS camera from a main power supply. If you are involved in studio photography, using mains power avoids the need to change batteries during the shoot. This is especially useful when shooting tethered to a computer.

AC adapters are also recommended for when you perform a manual sensor clean, as it will reduce the risk of the shutter and mirror closing during cleaning.

For mobile photographers, the Car Battery Charger allows you to recharge your battery from a 12 volts car socket. This removes the need for mains power and is useful for photographers working in remote locations.



Angle finder

The Angle Finder C attaches to the viewfinder of your EOS camera and allows you to look down into the viewfinder.

This is especially useful with low-level photography where it may not be possible to put your eye to the viewfinder.

The addition of a 2.5x magnification option makes critical manual focusing easier as you have an enlarged view of the centre of the frame.



ANGLE FINDER C

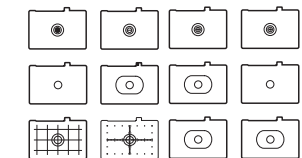
Focusing screens

Many EOS models feature interchangeable focusing screens. While the standard screen provided with the camera is ideal for most general purpose shooting there are other screens available for specialist uses.

When using an EF 85mm f/1.2L II USM lens for example, you may find the Precision Matte screens (Ec-S, Eg-S or Ef-S) provide a better view and aid in manual focusing.

For architectural photography, the Precision Matte with Grid screens (Ec-D, Eg-D and Ef-D) are useful as they allow you to check verticals.

The EOS-1 Series models feature a wider range of optional focusing screens allowing you to tailor the cameras to your requirements.



Remote controls



TIMER REMOTE CONTROLLER TC-80N3

The EOS system features three different types of remote control. The RC-6 is an infra-red control that works with cameras such as the EOS 550D, EOS 7D and EOS 5D Mark II. For more information on compatibility see the chart on page 123.

For cameras that don't feature an IR receiver such as the EOS 50D and EOS 1 series, the LC-5 is both a transmitter and receiver and will trigger cameras from a distance of up to 100m.

If you don't require wireless control, then the RS-60E3 and RS-80N3 offer 60cm and 80cm of cable respectively. For time-lapse photography or long bulb exposures, the TC-80N3 offers intervalometer options to open new photographic options to you.



WIRELESS REMOTE CONTROLLER RC-6

		INFRARED	SHUTTER RELEASE	BULB EXPOSURE/ CONTINUOUS SHOOTING	LOCK IN DE- PRESSED POSITION	SELF TIMER	INTERVAL TIMER	LONG EXPOSURE TIMER	EXPOSURE COUNT CONTROL
REMOTE CONTROLS	Remote Switch RS-80 N3	—	■	■	■	—	—	—	—
	Remote Switch RS-60 E3	—	■	■	■	—	—	—	—
	Timer Remote Controller TC-80N3	—	■	■	■	■ (1sec - 99hrs 59min 59sec)	■ (1sec-99hrs 59min 59sec Intervals)	■ (1sec - 99hrs 59min 59sec)	■ (1-99)
	Wireless Controller LC-5	■ (3 channels)	■	■ (continuous shooting only)	■	■	—	—	—
	Remote Controller RC-6	■	■	—	—	■ (2 sec only)	—	—	—

Bags and cases

Canon offers a comprehensive line of accessories for photographers on-the-go. Canon's camera cases are built to help protect EOS models and the bags can accommodate a number of different camera configurations. These are all built to the highest standards, and are a perfect accompaniment to the EOS system.



SEMI-HARD CASE EH-19L



2 7 - 10 PROFESSIONAL GADGET BAG 10E



2 5 - 8 PROFESSIONAL GADGET BAG 10EG



1-2 3 - 4 PROFESSIONAL GADGET BAG 100EG

COMPATIBILITY OF SOFT CASES WITH CAMERA AND LENS COMBINATIONS

	EH19-L	EH20-L		EH21-L
		EOS 450D, 500D, 550D, 600D, 1100D	EOS 5D II	EOS 7D
EF 15mm f/2.8 FE	■			
EF 20mm f/2.8 USM	■			■
EF 24mm f/1.4 L II USM				■
EF 24mm f/2.8	■			■
EF 28mm f/1.8 USM	■			■
EF 28mm f/2.8	■			■
EF 35mm f/1.4 L USM		■	■	■
EF 35mm f/2	■			■
EF 50mm f/1.2 L USM	■			■
EF 50mm f/1.4 USM	■			■
EF 50mm f/1.8 II	■			■
EF 50mm f/2.5 MACRO	■			■
MP-E 65mm f/2.8 1-5x				■
EF 85mm f/1.2 L II USM		■	■	■
EF 85mm f/1.8 USM	■			■
EF 100mm f/2 USM	■			■
EF 135mm f/2 L USM			■	■
EF 135mm 2.8 SF		■	■	■
EF 16-35mm F2.8 L II USM				■
EF 17-40mm f/4L USM		■	■	■
EF 24-105mm f/4L IS USM		■	■	■
EF 28-135mm f/3.5-5.6 IS USM		■	■	■
EF 70-300mm f/4.5-5.6 DO IS USM		■	■	■
EF-S 60mm f/2.8 MACRO USM	■			■
EF-S 10-22mm f/3.5-4.5 USM			■	■
EF-S 15-85mm f/3.5-5.6 IS USM			■	■
EF-S 17-55mm f/2.8 IS USM			■	■
EF-S 17-85mm f/4-5.6 IS USM			■	■
EF-S 18-55mm F3.5-5.6 IS	■			■
EF-S 18-135mm F3.5-5.6 IS			■	■
EF-S 18-200mm F3.5-5.6 IS			■	■
EF-S 55-250mm f/4-5.6 IS			■	■

LENSES

Specifications

	LENS	OPTICAL FEATURES/SPECIFICATIONS																
		Image size	APS-C apparent focal length (mm)	APS-H apparent focal length (mm)	Angle of view (horizontal, vertical, diagonal)	Lens construction (elements/groups)	No. of diaphragm blades	Min. Aperture	Closest focusing distance (m)	Max. Magnification (x)	Distance Information	Image Stabilizer	AF motor type	Dust/moisture resistant	Extender compatibility	Filter diameter (mm)	Max. diameter x length (mm)	Weight (g)
EF-S LENSES	EF-S 60mm f/2.8 Macro USM	-	96mm	-	20°40', 14°10', 26°30'	12/8	7	32	0.2	1	Provided	-	Ring USM ¹	-	NC	52	73 x 69.8	335
	EF-S 10-22mm f/3.5-4.5 USM	APSC-C	16-35	-	97° 10' - 56° 30', 74° 10' - 37° 50', 107° 30' - 63° 30'	13/10	6	22-27 (29) ²	0.24	0.17 (at 22mm)	Provided	-	Ring USM ¹	-	NC	77	83.5 x 89.8	385
	EF-S 15-85mm f/3.5-5.6 IS USM	APSC-C	24-136	-	74° 10' - 15° 25', 53° 30' - 10° 25', 84° 30' - 18° 25'	17/12	7	22-38 (36) ²	0.35	0.21 (at 85mm)	Provided	4-stops	Ring USM ¹	-	NC	72	81.6 x 87.5	575
	EF-S 17-55mm f/2.8 IS USM	APSC-C	27-88	-	68° 40' - 23° 20', 48° - 15° 40', 78° 30' - 27° 50'	19/12	7	22	0.35	0.17 (at 55mm)	Provided	3-stops	Ring USM ¹	-	NC	77	83.5 x 110.6	645
	EF-S 17-85mm f/4-5.6 IS USM	APSC-C	27-136	-	68° 40' - 15° 25', 48° - 10° 25', 78° 30' - 18° 25'	17/12	6	22-32	0.35	0.20 (at 85mm)	Provided	3-stops	USM ¹	-	NC	67	78.5 x 92	475
	EF-S 18-55 f/3.5-5.6 IS II	APSC-C	29-88	-	64° 30' - 23° 20', 45° 30' - 15° 40', 74° 20' - 27° 50'	11/9	6	22-38 (36) ²	0.25	0.34 (at 55mm)	Provided	4-stops	Micro Motor	-	NC	58	68.5 x 70	200
	EF-S 18-135mm f/3.5-5.6 IS	APSC-C	29-216	-	64° 30' - 9° 30', 45° 30' - 6° 20', 74° 20' - 11° 30'	16/12	6	22-38 (36) ²	0.45	0.21 (at 135mm)	Provided	4-stops	Micro Motor	-	NC	67mm	75.4 x 101	455
	EF-S 18-200mm f/3.5-5.6 IS	APSC-C	29-320	-	64° 30' - 6° 30', 45° 30' - 4° 20', 74° 20' - 7° 50'	16/12	6	22-38 (36) ²	0.45	0.24 (at 200mm)	Provided	4-stops	Micro Motor	-	NC	72mm	78.6 x 102	595
	EF-S 55-250mm f/4-5.6 IS	APSC-C	88-400	-	23° 20' - 5° 20', 15° 40' - 3° 30', 27° 50' - 6° 15'	12/10	7	22-32	1.1	0.31 (at 250mm)	Provided	4-stops	Micro Motor	-	NC	58	70 x 108	390
EF FIXED LENGTH LENSES	EF 14mm f/2.8 II USM	-	22	18	104°, 81°, 114°	14/11	6	22	0.2	0.15	Provided	-	Ring USM ¹	Yes	NC	Filter Holder	80 x 94	645
	EF 20mm f/2.8 USM	-	32	26	84°, 62°, 94°	11/9	5	22	0.25	0.14	Provided	-	Ring USM ¹	-	NC	72	77.5 x 70.6	405
	EF 24mm f/1.4L USM II	-	38	31	74°, 53°, 84°	13/10	8	22	0.25	0.17	Provided	-	Ring USM ¹	Yes	NC	77	83.5 x 86.9	650
	EF 24mm f/2.8	-	38	31	74°, 53°, 84°	10/10	6	22	0.25	0.16	-	-	AFD	-	NC	58	67.5 x 48.5	270
	EF 28mm f/1.8 USM	-	45	36	65°, 46°, 75°	10/9	7	22	0.25	0.18	Provided	-	Ring USM ¹	-	NC	58	73.6 x 55.6	310
	EF 28mm f/2.8	-	45	36	65°, 46°, 75°	5/5	5	22	0.3	0.13	-	-	AFD	-	NC	52	67.4 x 42.5	185
	EF 35mm f/1.4L USM	-	56	45	54°, 38°, 63°	11/9	8	22	0.3	0.18	Provided	-	Ring USM ¹	-	NC	72	79 x 86	580
	EF 35mm f/2	-	56	45	54°, 38°, 63°	7/5	5	22	0.25	0.23	-	-	AFD	-	NC	52	67.4 x 42.5	210
	EF 50mm f/1.2L USM	-	80	65	40°, 27°, 46°	8/6	8	16	0.45	0.15	Provided	-	Ring USM ¹	Yes	NC	72	85.8 x 65.5	590
	EF 50mm f/1.4 USM	-	80	65	40°, 27°, 46°	7/6	8	22	0.45	0.15	-	-	Ring USM ¹	-	NC	58	73.8 x 50.5	290
	EF 50mm f/1.8 II	-	80	65	40°, 27°, 46°	6/5	5	22	0.45	0.15	-	-	Micro Motor	-	NC	52	68.2 x 41	130
	EF 85mm f/1.2L II USM	-	136	111	24°, 16°, 28° 30'	8/7	8	16	0.95	0.11	Yes	-	Ring USM ¹	-	NC	72	91.5 x 84.0	1025
	EF 85mm f/1.8 USM	-	136	111	24°, 16°, 28° 30'	9/7	8	22	0.85	0.13	Yes	-	Ring USM ¹	-	NC	58	75 x 71.5	425
	EF 100mm f/2 USM	-	160	130	20°, 14°, 24°	8/6	8	22	0.9	0.14	Yes	-	Ring USM ¹	-	NC	58	75 x 73.5	460
	EF 135mm f/2L USM	-	216	175	15°, 10°, 18°	10/8	8	32	0.9	0.19	Yes	-	Ring USM ¹	-	Compatible	72	82.5 x 112	750
EF 135mm f/2.8 (Softfocus)	-	216	175	15°, 10°, 18°	7/6	6	32	1.3	0.12	-	-	AFD	-	NC	52	69.2 x 98.4	390	
EF 200mm f/2L IS USM	-	320	260	10°, 7°, 12°	17/12	8	32	1.9	0.12	-	-	5-stops	Ring USM ¹	Yes	Compatible	52 Drop In	128 x 208	2520

	LENS	OPTICAL FEATURES/SPECIFICATIONS																
		Image size	APS-C apparent focal length (mm)	APS-H apparent focal length (mm)	Angle of view (horizontal, vertical, diagonal)	Lens construction (elements/groups)	No. of diaphragm blades	Min. Aperture	Closest focusing distance (m)	Max. Magnification (x)	Distance Information	Image Stabilizer	AF motor type	Dust/moisture resistant	Extender compatibility	Filter diameter (mm)	Max. diameter x length (mm)	Weight (g)
EF FIXED LENGTH LENSES	EF 200mm f/2.8L II USM	-	320	260	10°, 7°, 12°	9/7	8	32	1.5	0.16	Provided	-	Ring USM ¹	-	Compatible	72	83.2 x 136.2	765
	EF 300mm f/2.8L IS II USM	-	480	390	6°50', 4°35', 8°15'	16/12	9	32	2.0	0.18	Provided	4-stops	Ring USM ¹	Yes	Compatible	52 Drop In	128 x 248	2400
	EF 300mm f/4L IS USM	-	480	390	6°50', 4°35', 8°15'	15/11	8	32	1.5	0.24	Provided	3-stops	Ring USM ¹	-	Compatible	77	90 x 221	1190
	EF 400mm f/2.8L IS II USM	-	640	520	5°10', 3°30', 6°10'	16/12	9	32	2.7	0.17	Provided	4-stops	Ring USM ¹	Yes	Compatible	52 Drop In	163 x 343	3850
	EF 400mm f/4 DO IS USM	-	640	520	5°10', 3°30', 6°10'	17/13	8	32	3.5	0.12	Provided	3-stops	Ring USM ¹	Yes	Compatible	52 Drop In	128 x 232.7	1940
	EF 400mm f/5.6L USM	-	640	520	5°10', 3°30', 6°10'	7/6	8	32	3.5	0.12	Provided	-	Ring USM ¹	-	Compatible	77	90 x 256.5	1250
	EF 500mm f/4L IS USM	-	800	650	4°, 2°45', 5°	16/12	9	32	3.7	0.15	Provided	4-stops	Ring USM ¹	Yes	Compatible	52 Drop In	146 x 383	3190
	EF 600mm f/4L IS USM	-	960	780	3°30', 2°20', 4°10'	16/12	9	32	4.5	0.15	Provided	4-stops	Ring USM ¹	Yes	Compatible	52 Drop In	168 x 448	3920
	EF 800mm f/5.6L IS USM	-	1280	1040	2°35', 1°40', 3°5'	18/14	8	32	6	0.14	Provided	4-stops	Ring USM ¹	Yes	Compatible	52 Drop In	163 x 461	4500g
	EF 8-15mm f/4L Fisheye USM	-	-	-	180°-142°, 180°-91°46', 180°-175°30'	14/11	7	22	0.15	0.39 (at 15mm)	Provided	-	Ring USM ¹	Yes	NC	Filter Holder	78.5 x 83	540
EF ZOOM	EF 16-35mm f/2.8L II USM	-	26-56	21-45	98° - 54°, 74° 10' - 38°, 108° 10' - 63°	16/12	7	22	0.28	0.22 (at 35mm)	Provided	-	Ring USM ¹	Yes	NC	82	88.5 x 111.6	640
	EF 17-40mm f/4L USM	-	27-64	22-52	83° - 49°, 70°30' - 34°, 104° - 57°30'	12/9	7	22	0.28	0.24 (at 40mm)	Provided	-	Ring USM ¹	Yes	NC	77	83.5 x 96.8	475
	EF 24-70mm f/2.8L USM	-	38-112	31-91	74° - 29°, 53° - 19°30', 84° - 34°	16/13	8	22	0.38 (Macro)	0.29 (at 70mm)	Provided	-	Ring USM ¹	Yes	NC	77	83.2 x 123.5	950
	EF 24-105mm f/4L IS USM	-	38-168	31-136	74° - 19° 20', 53° - 13°, 84° - 23° 20'	18/13	8	22	0.45	0.23 (at 105mm)	Provided	3-stops	Ring USM ¹	Yes	NC	77	83.5 x 107	670
	EF 28-135mm f/3.5-5.6 IS USM	-	42-216	36-176	65° - 15°, 46° - 10°, 75° - 18°	16/12	6	22-36	0.5 (Macro)	0.19 (at 135mm)	Provided	3-stops	Ring USM ¹	-	NC	72	78.4 x 96.8	540
	EF 28-300mm f/3.5-5.6L IS USM	-	45-480	36-390	65° - 6°50', 46° - 4°35', 75° - 8°15'	23/16	8	22-38 (40) ²	0.7	0.3 (at 300mm)	Provided	3-stops	Ring USM ¹	Yes	NC	77	92 x 184	1670
	EF 70-200mm f/2.8L IS USM	-	112-320	91-260	29° - 10°, 19° 30' - 7°, 34° - 12°	23/19	8	32	1.2	0.21 (at 200mm)	Provided	4-stops	Ring USM ¹	Yes	Compatible	77	88.8 x 199	1490
	EF 70-200mm f/2.8L USM	-	112-320	91-260	29° - 10°, 19° 30' - 7°, 34° - 12°	18/15	8	32	1.5	0.16 (at 200mm)	Provided	-	Ring USM ¹	-	Compatible	77	84.6 x 193.6	1310
	EF 70-200mm f/4L IS USM	-	112-320	91-260	29° - 10°, 19° 30' - 7°, 34° - 12°	20/15	8	32	1.2	0.21 (at 200mm)	Provided	4-stops	Ring USM ¹	Yes	Compatible	67	76 x 172	760
	EF 70-200mm f/4L USM	-	112-320	91-260	29° - 10°, 19° 30' - 7°, 34° - 12°	16/13	8	32	1.2	0.21 (at 200mm)	Provided	-	Ring USM ¹	-	Compatible	67	76 x 172	705
	EF 70-300mm f/4-5.6 IS USM	-	112-480	91-390	29° - 6° 50', 19° 30' - 4° 35', 34° - 8° 15'	15/10	8	32-45	1.5	0.26 (at 300mm)	Provided	3-stops	Micro USM ¹	-	NC	58	76.5 x 142.8	630
	EF 70-300mm f/4-5.6L IS USM	-	112-480	91-390	29° - 6° 50', 19° 30' - 4° 35', 34° - 8° 15'	19/14	8	32-45	1.2	0.21 (at 300mm)	Provided	4-stops	Ring USM ¹	Yes	NC	67	89 x 143	1050
	EF 70-300mm f/4.5-5.6 DO IS USM	-	112-480	91-390	29° - 6° 50', 19° 30' - 4° 35', 34° - 8° 15'	18/12	6	32-38 (40) ²	1.4	0.19 (at 300mm)	Provided	3-stops	Ring USM ¹	-	NC	58	82.4 x 99.9	720
	EF 75-300mm f/4-5.6 III USM	-	120-480	98-390	27° - 6°50', 18°11' - 4°35', 32°11' - 8°15'	13/9	7	32-45	1.5	0.25 (at 300mm)	-	-	Micro USM ¹	-	NC	58	71 x 122	480
	EF 75-300mm f/4-5.6 III	-	120-480	98-390	27° - 6°50', 18°11' - 4°35', 32°11' - 8°15'	13/9	7	32-45	1.5	0.25 (at 300mm)	-	-	Micro Motor	-	NC	58	71 x 122	480
	EF 100-400mm f/4.5-5.6L IS USM	-	160-640	130-520	20° - 5°10', 14° - 3°30', 24° - 6°10'	17/14	8	32-38 (40) ²	1.8	0.2 (at 400mm)	Provided	3-stops	Ring USM ¹	-	Compatible	77	92 x 189	1380

¹ Image Circle Ø67.2mm ² If using 1/3stop increments ³ Full time Manual focus ⁴ Lenses with dust/moisture resistance are fitted with a rubber ring on the lens mount which may cause slight abrasion of the camera mount. This in no way affects either the lens or camera performance ⁵ Not compatible at wide angles ⁶ AF possible with EOS-1 series only ⁷ 3-stops at 0.5 x magnification, 2-stops at 1.0 x magnification Specifications subject to change without notice

LENS	OPTICAL FEATURES/SPECIFICATIONS																
	Image size	AF5-C apparent focal length (mm)	AF5-H apparent focal length (mm)	Angle of view (horizontal, vertical, diagonal)	Lens construction (elements/groups)	No. of diaphragm blades	Min. Aperture	Closest focusing distance (m)	Max. Magnification (x)	Distance Information	Image Stabilizer	AF motor type	Dust/moisture resistant	Extender compatibility	Filter diameter (mm)	Max. diameter x length (mm)	Weight (g)
MACRO LENSES																	
EF 50mm f/2.5 Compact Macro	-	80	65	40°, 27°, 46°	9/8	6	32	0.23	0.5	-	-	AFD	-	NC	52	67.6x63	280
EF 100mm f/2.8 Macro USM	-	160	130	20°, 14°, 24°	12/8	8	32	0.31	1	Provided	-	Ring USM ¹	-	NC	58	78.6 x 118.6	580
EF 100mm f/2.8L Macro IS USM	-	160	130	20°, 14°, 24°	15/12	9	32	0.3	1	Provided	4-stops ¹²	Ring USM ¹	Yes	NC	67	77.7 x 123	625g
EF 180mm f/3.5L Macro USM	-	288	288	11°25', 7°40', 13°40'	14/12	8	32	0.48	1	Provided	-	Ring USM ¹	-	Compatible	72	82.5x 186.6	1090
MP-E 65mm f/2.8 1.5x Macro Photo	-	104	85	15°40', 10°35', 18°40'	10/8	6	16	0.24	5	Provided	-	-	-	NC	58	81x98	710
TILT & SHIFT LENSES																	
TS-E17mm f/4L	-	27	22	93°, 70°30', 104° (Without Tilt or Shift) ¹³	18/12	8	22	0.25	0.14	Provided	-	-	-	NC	Filter Holder	889 x 106.7	820
TS-E24mm f/3.5L II	-	38	31	74°, 53°, 84° (Without Tilt or Shift) ¹³	16/11	8	22	0.21	0.34	Provided	-	-	-	NC	82	88.5 x 106.9	780
TS-E45mm f/2.8	-	72	59	44°, 30°, 51° (Without Tilt or Shift) ¹³	10/9	8	22	0.4	0.16	-	-	-	-	NC	72	81x90	645
TS-E90mm f/2.8	-	144	117	22°57', 15°11', 27° (Without Tilt or Shift) ¹³	6/5	8	32	0.5	0.29	-	-	-	-	NC	58	73.6 x 88	565
ACCESSORIES																	
Extender EF 1.4x III	-	-	-	-,-,-	7/3	-	-	-	-	-	-	-	Yes	-	-	72.0 x 27.2	225
Extender EF2x III	-	-	-	-,-,-	9/5	-	-	-	-	-	-	-	Yes	-	-	72.0 x 52.7	325
Life-size Converter EF ³	-	-	-	-,-,-	4/3	-	-	0.24	1	-	-	-	-	NC	-	67.6 x 34.9	160

¹ Image Circle Ø67.2mm ³ Full time Manual focus ⁹ When used with EF50mm f/2.5 Compact Macro ¹² 3-stops at 0.5 x magnification, 2-stops at 1.0 x magnification ¹³ Image circle Ø58.6 Specifications subject to change without notice

NAME	SPECIFICATIONS WITH EF 1.4x III					SPECIFICATIONS WITH EF 2x III				
	Focal Length	Maximum Aperture	Maximum Magnification	AF Possible	IS	Focal Length	Maximum Aperture	Maximum Magnification	AF Possible	IS
EF FIXED LENGTH										
EF 135mm f/2L USM	189	2.8-4.5	0.27	Yes	-	270	4-6.4	0.38	Yes	-
EF 200mm f/2L IS USM	280	2.8-4.5	0.18	Yes	Yes	400	4-6.4	0.24	Yes	Yes
EF 200mm f/2.8L II USM	280	4-4.5	0.22	Yes	-	400	5.6-6.4	0.32	Yes	-
EF 300mm f/2.8L IS II USM	420	4-4.5	0.25	Yes	Yes	600	5.6-6.4	0.36	Yes	Yes
EF 300mm f/4L IS USM	420	5.6-4.5	0.33	Yes	Yes	600	8-6.4	0.47	Yes ⁵	Yes [*]
EF 400mm f/2.8L IS II USM	560	4-2.5	0.25	Yes	Yes	800	5.6-6.4	0.35	Yes	Yes
EF 400mm f/4 DO IS USM	560	5.6-4.5	0.17	Yes	Yes	800	8-6.4	0.24	Yes ⁵	Yes [*]
EF 400mm f/5.6L USM	560	8-4.5	0.18	Yes ⁵	-	800	11-6.4	0.25	Not Possible	-
EF 500mm f/4L IS II USM	700	5.6-4.5	0.21	Yes	Yes	1000	8-6.4	0.31	Yes ⁵	Yes [*]
EF 600mm f/4L IS II USM	840	5.6-4.5	0.17	Yes	Yes	1200	8-6.4	0.24	Yes ⁵	Yes [*]
EF 800mm f/5.6L IS USM	1120	8-4.5	0.2	Yes ⁵	Yes	1600	11-6.4	0.28	Not Possible	Yes
MACRO										
EF 180mm f/3.5L Macro USM	252	4.5-4.5 (5-4.5) ²	1.4	Yes (0.8-infinity)	-	360	6.7-6.4 (7.1-6.4) ²	2	Not Possible	-
EF ZOOM										
EF 70-200mm f/2.8L IS II USM	98-280	4-4.5	0.30	Yes	Yes	140-400	5.6-6.4	0.44	Yes	Yes
EF 70-200mm f/2.8L USM	98-280	4-4.5	0.22	Yes	-	140-400	5.6-6.4	0.33	Yes	-
EF 70-200mm f/4L IS USM	98-280	5.6-4.5	0.31	Yes	Yes	140-400	8-6.4	0.45	Yes ⁵	Yes [*]
EF 70-200mm f/4L USM	98-280	5.6-4.5	0.31	Yes	-	140-400	8-6.4	0.45	Yes ⁵	-
EF 100-400mm f/4.5-5.6L IS USM	140-560	6.7-5.4 (6.3-5.7) ²	0.28	Yes ⁵	Yes [*]	200-800	9.5-7.6 (9-8.1) ²	0.41	Not Possible	Yes ⁵

² If using 1/3 stop increments ⁴ AF possible with EOS-1 series only ^{*} IS will not work with the following cameras EOS-1, EOS 5, EOS 100, EF-M, EOS 1000/F/n/Fn, EOS 700, EOS 10, EOS RT, EOS 600/630, EOS 850, EOS 750, EOS 620, EOS 650

NAME	Filter diameter (mm)	Lens Cap	Lens hood	Lens case/pouch	Magnification with Extension Tube EF12 II	Magnification with Extension Tube EF25 II	Extender Compatibility	Other Accessories
EF-S								
EF-S 60mm f/2.8 Macro USM	77	E-52U	EF-67B	LP1016	1.28-0.20	1.61-0.44	NC	-
EF-S 10-22mm f/3.5-4.5 USM	77	E-77U	EW-83E	LP1319	0.77-0.58 ¹	Not Recommended	NC	-
EF-S 15-85mm f/3.5-5.6 IS USM	72	E-72U	EW-78E	LP1116	0.44 - 0.15 ¹	Not Recommended	NC	-
EF-S 17-55mm f/2.8 IS USM	77	E-77U	EW-83I	LP1219	0.45-0.23 ¹	Not Recommended	NC	-
EF-S 17-85mm f/4-5.6 IS USM	67	E-67U	EW-73B	LP1116	0.43 - 0.14 ¹	0.72 - 0.33 ¹	NC	-
EF-S 18-55mm f/3.5-5.6 IS II	58	E-58	EW-60C	LP814	0.64-0.23 ¹	1.00-0.51 ¹	NC	-
EF-S 18-135mm f/3.5-5.6 IS	67	E-67	EW-73B	LP1116	0.38-0.09 ¹	0.59-0.21 ¹	NC	-
EF-S 18-200mm f/3.5-5.6 IS	72	E-72	EW-78D	LP1116	0.39-0.06 ¹	0.56-0.14 ¹	NC	-
EF-S 55-250mm f/4-5.6 IS	58	E-58	EF-60	LP1019	0.6-0.05	0.47-0.11	NC	-
EF FIXED LENGTH								
EF 14mm f/2.8 II USM	Filter Holder	Lens Cap 14	Built-in	LP1016 ²	NC	NC	NC	-
EF 20mm f/2.8 USM	72	E-72U	EW-75II	LP1214	0.72-0.60	NC	NC	-
EF 24mm f/1.4L USM II	77	E-77U	EW-83K ³	LP1319 ⁴	0.67-0.50	NC	NC	-
EF 28mm f/1.8 USM	58	E58-U	EW-63 II	LP814	0.61-0.43	1.13-0.96	NC	-
EF 24mm f/2.8	56	E-58	EW-60 II	LP811	0.64-0.50	1.22-1.11	NC	-
EF 28mm f/2.8	52	E-52	EW-65 II	LP1011	0.56-0.43	1.09-0.95	NC	-
EF 35mm f/1.4L USM	72	E-72U	EW-78C ³	LP1214 ⁴	0.54-0.36	0.97-0.79	NC	-
EF 35mm f/2	52	E-52	EW-65 II	LP1011	0.58-0.35	1.00-0.77	NC	-
EF 50mm f/1.2L USM	72	E-72U	ES-78 ³	LP1214 ⁴	0.39-0.24	0.67-0.53	NC	-
EF 50mm f/1.4 USM	58	E-58U	ES-71 II	LP1014	0.39-0.24	0.68-0.53	NC	-
EF 50mm f/1.8 II	52	E-52	ES-62 + ADP	LP1014	0.39-0.24	0.68-0.53	NC	-
EF 85mm f/1.2L II USM	72	E-72U	ES-79 II ³	LP1219 ⁴	0.25-0.15	0.42-0.33	NC	-
EF 85mm f/1.8 USM	58	E-58U	ET-65 III	LP1014	0.27-0.15	0.44-0.32	NC	-
EF 100mm f/2 USM	58	E-58U	ET-65 III	LP1014	0.27-0.13	0.42-0.28	NC	-
EF 135mm f/2L USM	72	E-72U	ET-78 II ³	LP1219 ⁴	0.29-0.09	0.41-0.20	Compatible	-
EF 135mm f/2.8 (Softfocus)	52	E-52	ET-65 III	LP1016	0.22-0.09	0.33-0.20	NC	-
EF 200mm f/2L IS USM	52 Drop in	E-145B	ET-120B ³	Lens case 200 ⁵	0.19-0.6	0.26-0.14	Compatible	Canon drop-in 52mm filters
EF 200mm f/2.8L II USM	72	E-72U	ET-83B II ³	LP1222 ⁴	0.23-0.06	0.32-0.14	Compatible	Ring type tripod mount A II (B)
EF 300mm f/2.8L IS II USM	52 Drop in	E-145C	ET-120 (WII) ³	Lens Case 300B ⁵	0.22-0.04	0.28-0.09	Compatible	Canon drop-in 52mm filters
EF 300mm f/4L IS USM	77	E-77U	Built in	LZ1128 ⁶	0.30-0.04	0.37-0.09	Compatible	-
EF 400mm f/2.8L IS II USM	52 Drop in	E-180D	ET-155 (WII) ³	Hard case 400C ⁵	0.21-0.03	0.26-0.07	Compatible	Canon drop-in 52mm filters

NAME	Filter diameter (mm)	Lens Cap	Lens hood	Lens case/pouch	Magnification with Extension Tube EF12 II	Magnification with Extension Tube EF25 II	Extender Compatibility	Other Accessories
EF FIXED LENGTH								
EF 400mm f/4 DO IS USM	52 Drop in	E-145	EF-120 ³	Lens Case 400B ⁵	0.16-0.03	0.20-0.07	Compatible	Canon drop-in 52mm filters
EF 400mm f/5.6L USM	77	E-77U	Built-in	LZ1132 ⁶	0.16-0.03	0.21-0.07	Compatible	-
EF 500mm f/4L IS II USM	52 Drop in	E-163B	ET-138 (WII) ³	Lens Case 500B ⁵	0.18-0.03	0.22-0.06	Compatible	Canon drop-in 52mm filters
EF 600mm f/4L IS II USM	52 Drop in	E-185B	ET-160 (WII) ³	Lens Case 600B ⁵	0.17-0.02	0.20-0.05	Compatible	Canon drop-in 52mm filters
EF 800mm f/5.6L IS USM	52 Drop in	E-180C	ET-155 ³	Lens case 800 ⁵	0.16-0.02	0.19-0.04	Compatible	Canon drop-in 52mm filters
EF ZOOM								
EF 8-15mm f/4L Fisheye USM	Filter Holder	Lens Cap 8-15	EW-77 (15mm only) ³	LP1219 ⁴	-	-	NC	-
EF 16-35mm f/2.8L II USM	82	E-82U	EW-88 ³	LP1319 ⁴	0.62-0.36 ¹	1.11-0.80 ¹	NC	-
EF 17-40mm f/4L USM	77	E-77U	EW-83E ³	LP1319 ⁴	0.83-0.32	1.02-0.70 ¹	NC	-
EF 24-70mm f/2.8L USM	77	E-77U	EW-83F ³	LP1219 ⁴	0.63-0.18	0.75-0.40 ¹	NC	-
EF 24-105mm f/4L IS USM	77	E-77U	EW-83H ³	LP1219 ⁴	0.40-0.12	0.61-0.27 ¹	NC	-
EF 28-135mm f/3.5-5.6 IS USM	72	E-72U	EW-78B II	LP1116	0.53-0.09	1.09-0.21	NC	-
EF 28-300mm f/3.5-5.6L IS USM	77	E-77U	EW-83G ³	LZ1234 ⁴	0.50-0.04	0.50-0.09 ¹	NC	-
EF 70-200mm f/2.8L IS II USM	77	E-77U	ET-87 ³	LZ1326 ⁴	0.28-0.06	0.36-0.14	Compatible	-
EF 70-200mm f/2.8L USM	77	E-77U	ET-83 II ³	LZ1324 ⁴	0.22-0.06	0.41-0.14	Compatible	-
EF 70-200mm f/4L IS USM	67	E-67U	ET-74 ³	LP1224 ⁴	0.23-0.06	0.42-0.14	Compatible	Ring type tripod mount A II (W)
EF 70-200mm f/4L USM	67	E-67U	ET-74 ³	LP1224 ⁴	0.29-0.06	0.39-0.13	Compatible	Ring type tripod mount A II (W)
EF 70-300mm f/4-5.6 IS USM	58	E-58U	ET-65B	LP1222	0.32-0.04	0.39-0.09	NC	-
EF 70-300mm f/4-5.6L IS USM	67	E-67U	ET-73B ³	LP1424 ⁴	0.29-0.04	0.38-0.09	NC	Ring type tripod mount C (WII)
EF 70-300mm f/4.5-5.6 DO IS USM	58	E-58U	ET-65B ³	LP1116 ⁶	0.26-0.04	0.46-0.09	NC	-
EF 75-300mm f/4-5.6 III USM	58	E-58	ET-60	LP1019	0.31-0.04	0.39-0.09	NC	-
EF 75-300mm f/4-5.6 III	58	E-58	ET-60	LP1019	0.31-0.04	0.39-0.09	NC	-
EF 100-400mm f/4.5-5.6L IS USM	77	E-77U	ET-83C ³	LZ1324 ⁴	0.25-0.03	0.35-0.07	Compatible	-

¹ Not compatible at wide angles ² MacroLite Adapter G7 ³ MacroLite Adapter 72C ⁴ Items supplied with product (subject to change)
⁵ A Macro Lite adapter may be required to attach to a lens. Macro Lite adapters are available in the following filter sizes 52, 58, 67 and 72.

NAME	Filter diameter (mm)	Lens Cap	Lens hood	Lens case/pouch	Magnification with Extension Tube EF12 II	Magnification with Extension Tube EF25 II	Extender Compatibility	Other Accessories
MACRO								
EF 50mm f/2.5 Compact Macro	52	E-52	-	LP814	0.74-0.24	1.04-0.54	NC	Macrolite adapter ²
Life-size Converter EF	-	R-F-3	-	LP811	-	-	NC	-
EF 100mm f/2.8 Macro USM	58	E-58U	EF-67	LP1219	1.19-0.12	1.39-0.26	NC	Ring type tripod mount B (B)
EF 100mm f/2.8L Macro IS USM	67	E-67U	EF-73	LP1219	1.17-0.12	1.37-0.27	NC	Ring type tripod mount D (B) ²
EF 180mm f/3.5L Macro USM	72	E-72U	EF-78 II	LZ1324	1.09-0.07	1.21-0.15	Compatible	Ring type tripod mount B (B) ²
MP-E 65mm f/2.8 1-5x Macro Photo	58	E-58	Exclusive	LP1216	-	-	NC	Ring type tripod mount B (B)
TILT AND SHIFT								
TS-E 17mm f/4L	Filter Holder	Lens cap 17	Not Available	LP1219	NC	NC	NC	-
TS-E 24mm f/3.5L II	82	E-82	EW-88B	LP1319	0.85-0.51	1.47-1.12	NC	-
TS-E 45mm f/2.8	72	E-72	EW-79B II	LP1216	0.44-0.27	-	NC	-
TS-E 90mm f/2.8	58	E-58	ES-65 III	LP1016	0.43-0.14	0.60-0.31	NC	-
EXTENDERS								
Extender EF 1.4x III	-	Extender Cap EII	-	LP811	-	-	-	-
Extender EF2x III	-	Extender Cap EII	-	LP811	-	-	-	-

² Macrolite Adapter 67 ⁴ Macrolite Adapter 72C ⁴ Macrolite Adapter 52 ⁴ Items supplied with product (subject to change)



Camera: EOS 40D
 Lens: EF-S 10-22mm f/3.5-4.5 USM
 Exposure: 1/25sec f/8.0 ISO speed: 100

A

ANGLE OF VIEW

The area of a scene that can be covered by the lens, measured in degrees. The angle of view is determined by the focal length of the lens. Smaller focal lengths give a wider angle of view.

APERTURE

The adjustable lens opening through which light passes to the image sensor or film. Aperture size is indicated by an F-stop – the higher the value, the smaller the lens opening.

ARC FORM DRIVE (AFD)

Used by some older EF lenses the AFD motor drives the lenses autofocus system. An arc form drive is basically a conventional small motor unit, but shaped to fit inside the curved barrel of a lens.

ASPHERICAL LENS

An element used to counteract the problem of spherical aberration. A special non-spherical surface converges central and peripheral light rays at a single focal point to help maintain uniform sharpness over the whole image area.

B

BOKEH

Refers to the way in which out-of-focus points of light are rendered in an image. Derived from the Japanese word 'boke', meaning 'fuzzy'. Blur that comprises of smooth, uniformly circular points of light is considered good bokeh.

C

CHROMATIC ABERRATION

An optical phenomenon caused by different wavelengths of light bending at different angles when passing through the lens, resulting in colour distortion.

CONTRAST

The range of difference between the light and dark areas of an image.

CROP FACTOR

The APS-C sensor on EOS models such as the 1000D, 500D, 550D, 50D and 7D is smaller than a standard 36x24 millimetre frame. The smaller sensor size has the effect of cropping the available image area of a standard EF lens, resulting in a 1.6x magnification of the lens' focal length. This extra reach is a welcome benefit for telephoto shooting but limits the potential of wide-angle lenses. EF-S lenses were specifically developed to give owners of these cameras more wide-angle options.

D

DEPTH-OF-FIELD

The zone of sharpness in front of and behind the subject on which the lens is focused. Determined by aperture size, focal length and focusing distance.

DIAPHRAGM

Another word for Aperture, an adjustable opening in the lens that allows the photographer to control the amount of light that hits the image sensor or film frame. A greater number of diaphragm blades makes the aperture more circular and creates more pleasing bokeh.

DISPERSION

The property of optical materials that causes light refraction to vary at different wavelengths, resulting in chromatic aberration.

DISTORTION

An optical aberration where straight lines in a scene are not rendered straight in the image. Barrel distortion is where lines bow outwards. Pincushion distortion is where lines bow inwards towards the centre of an image.

CONTROLS AND FEATURES OF AN EF LENS**CANON EF LENS MOUNT**

The electronic contacts (gold-plated) of an EF mounted lens

F

FLARE

Lens flare occurs when light from a bright source enters the lens at an angle and reflects off the internal elements in the lens. It is typically characterised by sunspots and areas of low contrast.

FLUORITE

A material which exhibits extremely low dispersion of light, dramatically reducing the problem of chromatic aberration. Canon pioneered the use of artificial crystal fluorite elements in photographic lenses.

FOCAL LENGTH

Distance between the image sensor (or film) and the optical centre of the lens when focused to infinity.

F-STOP

A number that represents the relative size of the lens opening, or aperture. The lower the f-stop, the wider the aperture.

FLUORINE COATING

A water repellent anti-static coating applied to the front and rear elements of a lens, ensuring easier cleaning.

G

GHOSTING

Secondary images caused by light reflecting off elements within the lens. Canon lens coatings effectively eliminate the problem of ghosting.

H

HYBRID IS

Hybrid IS technology compensates for the two different types of camera shake (angular and shift) which both can occur during macro and close-up photography.

The Hybrid IS system incorporates two sensors – one for angular velocity that detects the extent of angular camera shake as well as an acceleration sensor that determines the amount of shift-based camera shake. Hybrid IS provides a significant benefit over conventional Image Stabilizer technology during Macro photography.



I

IMAGE STABILIZER (IS)

A lens-based technology developed by Canon to detect and compensate for camera shake. Allowing photographers to shoot using shutter speeds up to five stops slower than would normally be possible, IS significantly increases the potential for lowlight and handheld shooting.

INTERNAL FOCUSING

A system whereby only the internal lens group shifts during focusing with no change in the physical length of the lens. An added benefit is that the front of the lens does not rotate, maintaining the effect of any attached filter.

L

L SERIES

The red ring around an L-series lens indicates the lens features the highest standard in optics and performance. Providing professional photographers with resolution and ruggedness they can rely on, day in day out. The lenses contain advanced technologies to ensure the Canon L-series lenses are the pinnacle of the lens range.

LENS DISTANCE INFORMATION

Data regarding the distance from the lens to the subject. This information is measured within the lens and passed back to the camera, where it is used by the E-TTL II flash algorithm when calculating the correct flash exposure for a scene. Most EF lenses are capable of providing lens distance information.

M

MICRO MOTOR

A tiny motor which replaced the use of AFD autofocus motors.

MICRO USM

A type of Ultrasonic Motor (USM) that is used in some EF lenses. Micro USM motors allow faster AF performance than the standard micro motor found in some EF lenses.

R

REAR FOCUSING

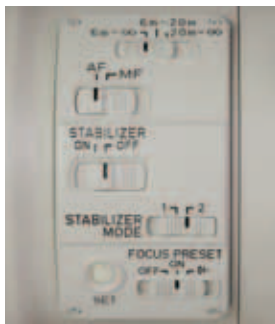
A method of internal focusing in which only the lens elements closest to the rear of the lens are moved. Allows for faster and smoother focusing.

RESOLUTION

A measure of a lens' ability to discern detail.

RING-TYPE USM

A type of Ultrasonic Motor (USM) found in most EF lenses. One of the key advantages of the ring-type USM is that it allows for full-time manual focus in AF mode. This means that focusing can be fine-tuned manually after autofocus has finished, without having to switch to manual focusing mode.

FOCUS MODE AND FOCUSING RANGE SWITCHES

S

SPHERICAL ABERRATION

An optical phenomenon whereby light rays entering at the edges of spherical lens elements converge at slightly different focal points to light rays entering from the centre. This produces soft, low contrast images that look as if covered with a thin veil. Aspherical lenses are used to counteract this problem.

SUBWAVELENGTH STRUCTURE COATING (SWC)

A new anti-reflective coating that mimics the surface of moths' eyes and effectively eliminates ghosting and flare. Subwavelength structure coating consists of tiny structures on the surface of the lens that are smaller than the wavelength of light and prevent reflections from occurring.

SUPER SPECTRA COATING

A multilayer anti-reflective coating developed by Canon to minimise ghosting and flare.

SUPER UD GLASS

Super UD is an improved version of Ultra-low Dispersion (UD) glass, exhibiting a lower dispersion of light. Used in many professional L-series lenses.

T

TELEPHOTO

A lens that brings distant subjects up close. Typically, any lens with a focal length above 50mm.

U

ULTRA-LOW DISPERSION (UD) GLASS

An optical material that exhibits low dispersion of light, developed by Canon to minimise chromatic aberration.

ULTRASONIC MOTOR (USM)

A lens-based technology which drives fast, accurate and virtually silent auto focus. Canon provides two types of USM – ring-type USM and micro USM.

V

VIGNETTING

A fall-off in brightness at the edges of an image causing the corners of an image to appear dark. Wide-angle lenses are more likely to suffer from vignetting.

W

WIDE-ANGLE

A lens that has a shorter focal length and wider field of view than a standard 50mm lens.

WORKING DISTANCE

The distance from the front of the lens to the subject, an important factor in macro photography. A longer focal length will give a greater working distance.



60
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