

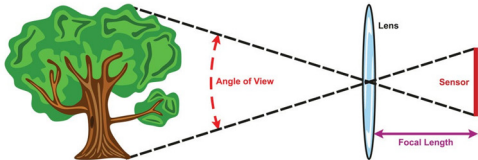
What Is Focal Length?

# **And Why It Matters in Photography**



# What Is Focal Length?

Focal Length and Angle of View



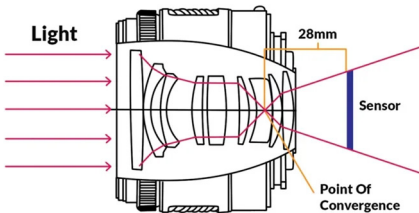
The greater the focal length, the closer the image and the less the angle of view  
The less the focal length, the farther the image and the greater the angle of view

Focal length is a fundamental photography concept with camera lenses.

It is the distance from the center of a lens to the camera sensor. It is measured in millimeters (mm)

A Canon zoom lens with a 16-35mm focal length.





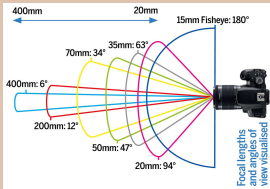
A lens has many different pieces of glass elements that interact to direct light into a camera. And there is a point where light crosses (converges) on its way to the sensor. This is the point of sharpest focus.

Look at the diagram showing the side view of a lens. Light comes into the front of the lens. It passes through many layers of glass with different shapes and curves. And these elements focus light to make a clearer image.

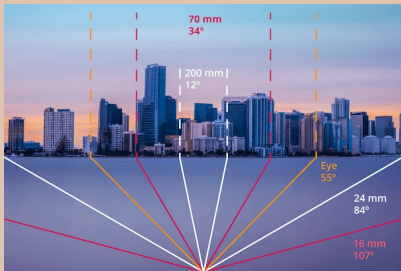
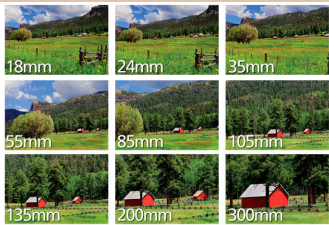
In our example, the point of sharpest focus (point of convergence) is 28mm from the camera sensor. So, this lens has a focal distance of 28mm.

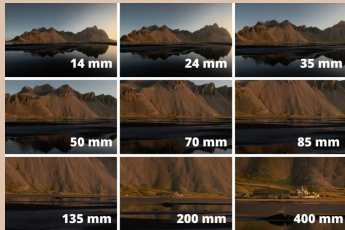
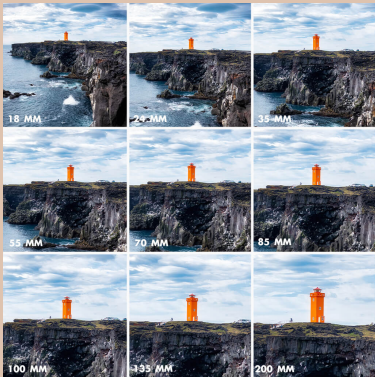
# **How Does Focal Length Affect Photos?**

1. Angle of View
  2. Magnification
  3. Perspective Compression
-



# Angle of View





# Magnification



24mm



70mm



135mm



300mm



20mm



35mm



70mm



200mm



400mm

# Perspective Compression

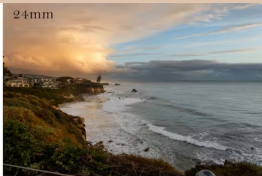


# Best Focal Length: Portraits



Between 50 and 135mm

# Best Focal Length: Landscape



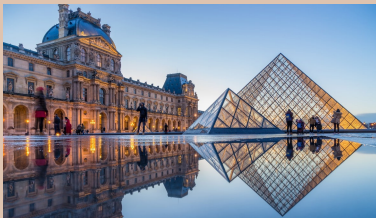
Between  
16 and 35mm

# Best Focal Length: Street & Travel



Between 16 and 70mm

# Best Focal Length: Architecture



Between 12 and 24mm  
OR  
Fisheye

# Best Focal Length: Sports & Wildlife



Telephoto:  
Between 100 and 800mm