

F-stop and Aperture

The **F-Stop** setting determines how much light is allowed to enter a camera through the lens to reach the imaging sensor. F-stop is normally a setting of the lens that is attached to the camera, and is controlled mechanically, by opening or closing the lens **aperture**.

Different lenses have different apertures and so can handle different f-stop ranges.

The **Canon EF 24-105mm f/4L IS II USM lens** that is normally kept on the SCiL DSLR cameras has an **adjustable f-stop range** from **f/4** (wide open) to **f/22** (nearly closed). It will retain the f-stop you set through its entire zoom range from 24mm to 105mm.

When the camera is set to **video mode**, you can **set the f-stop** on the Canon EOS 5D Mk IV using the **large dial** around the "set" button located at the lower right of the camera body.



Lower f-stop numbers (like f/4) indicate that the **aperture is more open, allowing in more light.**

Higher f-stop numbers (like f/22) indicate that the **aperture is more closed, allowing in less light.**

F-stop settings influence the depth of field.

f/1.2 - f/2.8 - lets in a **lot of light**, with a correspondingly **shallow depth of field**.

f/4 - f/8 - useful in many scenarios, with a somewhat **wider depth of field**.

f/11 - f/32 - best for **bright settings**, with a **wide depth of field**.

In the chart below, see how different **f-stop settings change the amount of light reaching the sensor and the depth of field**:



f/2.8

f/4

f/5.6

f/8

f/11

f/16

f/22

Aperture Size

Larger/Wider Aperture ← → Smaller/Narrower Aperture

Amount Of Light Reaching The Sensor

More ← → Less

Depth Of Field

Shallow ← → Deep

How Blurry The Background Is

Very Blurry ← → Not Blurry At All



Revision #3

Created 31 January 2025 17:26:33 by Nate

Updated 31 January 2025 19:38:37 by Nate