

Digital Camera Lenses compared to 35 mm film Camera lenses

The focal length of lenses varies between digital cameras and film cameras. While they, on examination, are labelled the same focal length, the focal length of digital lenses records images essentially 33% "narrower" than that which a film camera would record with a lens of the same focal length.

For example, a 20mm lens on a film camera would record a very wide angle image whereas on a digital camera that same 20mm lens would record a medium wide angle image equivalent to 30mm.

So if you need an ultra wide angle image on a digital camera, you would need to use a 12 mm digital lens. That would give you a film equivalent focal length of about 18mm .

The old "standard "50mm lens,(which is equivalent to what the human eye sees), used on film cameras, will give you 75 mm focal length if used on a digital camera therefore you would need to use a digital lens with a focal length of about 34mm to achieve the same effect as a "standard" 50mm lens on a film camera.

You need to make mental adjustments to focal lengths of plus 50% when shooting with a digital, camera compared to a film camera.

There is an up side to this if you are using a telephoto lens. If you are shooting with a 200 mm lens, the focal length on a digital camera will be effectively 300mm. This can be excellent for distance shooting.

Below is an approximate guide to 35mm equivalent focal lengths:

your digital lens is labelled :	35mm equivalent
12mm	19mm Ultra wide
18 mm	27mm medium wide
50 mm	75mm standard
100mm	150mm short telephoto
200mm	300 mm medium telephoto
300mm	450mm long telephoto
600 mm	900mm expensive very long telephoto
1000 mm	1500mm extremely long telephoto tattsлото winner lens

NB The focal length of a camera lens is the distance between the centre of the lens to the digital sensor, or film, when an image is absolutely in focus.

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