

Lightroom Workshop

Printing and framing - the Lightroom Conundrums

Scenario – You’ve taken a lovely photo, imported it into Lightroom. Decide the composition isn’t quite what you wanted. So you reach for the crop tool and jiggle the crop edges around until you’re happy – but.....

Did you take notice of the crop ratio when you selected the tool? Did you use a “standard” crop ratio or custom?

Whatever you did with the crop tool, did you think about the consequences for printing the image?

Sensor size, crop ratio and crop factor

Sensors have a physical size measured in millimetres which determines their “crop factor”; a size comparison with a full frame sensor having a crop factor of 1.

Sensors produce an image measured in pixels. This is not necessarily directly related to their physical size.

When we’re taking a photo we don’t need to know about these characteristics but there is a relationship we need to be aware of when we’re cropping in Lightroom and need to consider when we’re printing. A relationship between the length and the width of the image in pixels. This will determine the “crop ratio” which is of paramount importance if our image is to successfully fit on the print paper.

Crop Factor



Crop Ratio

Sensor / Film / Crop Size	Common Print Sizes	Ratio
Square cropped image	10 x 10 inches	1:1
10 x 8 crop	10 x 8 inches	1:1.25
10 x 8 paper		1:1.25
M4/3 sensor	30 x 40cm	1:1.333 (4:3)
5 x 7 crop	5 x 7 inches	1:1.4
A4 paper		1:1.414 (210 x 297mm)
A3 paper		1:1.414 (297 x 420mm)
Full frame sensor	15 x 10 inches	1:1.5 (3:2)
APS-C sensor	12 x 8 inches	1:1.5 (3:2)
16 x 9 film	16 x 9 inches	1:1.777
1 x 2 crop	20 x 40 inches	1:2
6 x 17 film	18 x 51cm	1:2.833
1 x 3 crop	10 x 30 inches	1:3

The Crop Ratio of the sensor image or cropped image has to match the ratio of the print paper otherwise unintended cropping of the print image will result.

10 x 8 inch paper – Full frame, APS-C (3:2) image

The ratios don't match – the best you can get without cropping is a 10 x 6.5 inch image



10 x 8 inch paper – Full frame, APS-C (3:2) image

You filled the paper, but now the image is cropped
– and probably not how you intended ?



12 x 8 inch paper, Full frame, APS-C (3:2) image

Great, you got just what you wanted, but now how are you going to mount it? You've got no "bleed area" to fix the print.



A3 paper, 15 x 10 inch image, Full frame, APS-C (3:2) image

Hopefully you made a compositional choice when you made the image originally or cropped it subsequently, why wouldn't you want that to be matched in your mounted print? This is probably more what you wanted ?

Bleed area



Our job is to match the image to the mount or the mount to the image

If you're using a pre-cut mount measure it precisely, they often have a variation in actual size. Make sure it's the expected width and height *and* that the ratio of the height and width matches the crop ratio of your image.

In the **Print** module set up your paper selection. This needs to be a sufficiently large size to contain your image print area size plus a bleed area for mounting.....

Note the dimensions of the mount. For a circa A3 print add 3-4mm to the width and height, for a circa A4 size print add about 2mm. These slightly larger dimensions are going to be your print image area size or Lightroom "Cell Size".

The extra few millimetres will give you a little wiggle room when you come to fix the print to the mount.

In the **Layout** tab adjust the **Cell Size**.

A3 paper – example 258 x 385mm (10 x 15inch print area + 4mm)

A4 paper – example 180 x 269mm (7 x 10.5inch print area + 2mm)

If the image doesn't completely fill the Cell Size area you've got a mismatch between the image size ratio and print area ratio – go back and recrop.

In the **Print Job** tab select **JPEG file**, set **sRGB** in **Colour management**, set **300ppi** in **File Resolution**. Select **Print to File**.

You should have now produced a JPG file ready to send to your favourite print shop. When it comes back it will fill your mount exactly (given a mm or two!) **and** give you a bleed area to attach the print to the mount – WYWIWYG What You Wanted Is What You Got!