

Creating Lens Calibration Files in the Field

Overview

Shooting images with wide angle lenses and exploiting large format camera movements often results in lens fall-off and color cast effects.



The way to correct cast effects is to **take a diffused calibration shot** prior to, or immediately following, the actual scene capture. After the shoot, you can correct the cast effect using a diffuse lens calibration shot that you take with each camera and lens setup during scene capture. You can then correct the raw images using the Leaf® Capture software.

When is lens calibration needed?

Each change of lens and significant camera or lens shift, tilt, and swing adjustment may require a separate diffuse calibration shot.

Photographing your subject

1. Before a shoot, prepare the Leaf diffuser or any white diffusing sheet that will fully cover the lenses to be used.
2. Set up and shoot your image(s).



3. Place the white diffuser in front of the lens so that it covers the entire surface, and take a shot.



Note: To achieve good results, do not move the camera or lens position, or change the aperture before taking the diffuse calibration shot.

4. On the imaging module, display the diffused calibration image in **Shoot** view.
5. Tap **histog** to open the histogram.



Your overall exposure should be between -0.87 and +0.4. The exposure meter **+0.00** shows the overall exposure in f-stops.

If the calibration image is over or underexposed, adjust your shutter speed. Do not adjust the aperture setting.

Note: It is recommended that you rename the calibration shot to include the lens and exposure information in the file name.

Creating the calibration shot in low light

In some conditions, you may not be able to create an optimally exposed calibration file as described above because the required exposure time is greater than the maximum. This could happen when you are shooting using indoor lighting, under a low sun, and so on.

In these cases take the calibration shot at the maximum permitted exposure, even if it will be underexposed.

Note: It is important that the illumination of the calibration shot be as close as possible in color temperature to that of the scene. Therefore don't use additional lighting when taking the calibration shot.

Correcting your shots in Leaf Capture

The following procedure describes how to correct your shots using the Leaf Capture software.

Apply the custom lens calibration to your images by processing to create new raw files. Process two or more images together, setting one file as the lens calibration file. You can select either the first or last selected image in the group, or choose an independent file.

1. Open the Leaf Capture software to the **Process** panel.
2. In the **Format** list, select **Leaf Mos**.
3. Click **Settings**.

The Leaf Mos Settings dialog box opens.

4. To save the mos file with lossless compression, select **Save Compressed**.
5. Select **Lens Calibration Adjustment**.
6. Select which image should be used as the lens calibration file:
 - Click **Use First Calibration File** to select the first file selected in the group
 - Click **Use Last Calibration File** to select the last file selected in the group
 - Click **Select Calibration File** and choose an independent file

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7. In the **% Falloff Correction** box, adjust the fall off by typing the desired correction percentage.



8. Click **OK**.
9. Select and process the desired images.

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