



The Art of Avoiding Flare

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In fashion or product photography it is common to use a completely white, strongly lit background that creates a clean separation of the subject from the background. This in turn makes the image easier to use in a layout or work on in a computer.



Photo: Ashley Karyl

The background is normally overexposed by 1-1.5 stops in relation to the main subject. This applies to both conventional and digital photography and results in both cases in a picture with a featureless white background.

There is a risk though that stray-light will reach the surfaces inside the lens or camera body and then reflect onto the film causing flare. This will result in images lacking in colour saturation and high contrast.

In order to avoid these effects, I recommend the following measures:
Restrict the area of the white background so that it matches the film format. Surfaces outside of the chosen area should be made black. This method though can sometimes be awkward, time-consuming or even unrealistic in practice.

Do not overexpose the background more than 1.5 stops. This amount is perfectly adequate to ensure that the background is

completely white.

Use a professional lens shade set at the optimum position. A standard lens shade does not provide the same amount of stray-light protection.

Use cameras and lenses that produce the minimal possible amount of flare. Thanks to the use of new materials and new designs such as the CFi/CFE/CB lenses, Hasselblad cameras, lenses and extension tubes all minimise the occurrence of flare.

Proshade 6093T

When photographing against a strongly lit white background it is necessary to use a professional lens shade.

The optimum setting (= the maximum bellows extension that does not cause vignetting) for the professional lens shade guarantees the best possible picture quality and can sometimes make the difference between a top-class result or a merely acceptable result. The method of using an optimum setting is well known in large-format photography and can with a little practice be used for medium-format photography too. The Proshade 6093T is designed to be used with all Hasselblad lenses with focal lengths 38 mm to 500 mm.



The scales marking out the recommended extension for each respective lens are made to be used when the lens aperture is wide open and set at the infinity focus setting. This position guarantees that the lens shade produces no vignetting irrespective of the working aperture or focus setting. However, it does not provide the optimum stray-light protection for a stopped

down lens or photography in a studio environment. If, in addition, you use an extension tube, you increase dramatically the amount of vignette-free extension possible

Use a Rear Cover MultiControl



Hasselblad's Rear Cover MultiControl 51070 fits all the Hasselblad camera bodies. With the cover in position you can see the so-called exit pupil of the lens through the small holes in the cover. For standard cameras and lenses without tilt and shift capabilities, looking through just one hole is enough.

A vignette free lens has an exit pupil the exact shape of the lens aperture. At maximum aperture, all lenses vignette slightly but at $f/11$ to $f/16$ the majority of lenses are vignette free.

Corner illumination is dependent on the size of the exit pupil. When the extension becomes too great, you can see how the area of the exit pupil diminishes.

Photographing with the optimum amount of extension

The following is a description how to achieve the optimum amount of extension with a Proshade when using a Hasselblad 500-series camera.





1. Fit the Proshade, with the minimum amount of extension, onto the lens. Remove the film magazine but do not attach a Rear Cover MultiControl (RCMC) just yet.
2. Set the shutter on a CF/CFi lens at the F position and pre-release the camera to open both the lens shutter and the auxiliary shutter. C/CB lens shutters should be set at B and a B exposure made. Use a cable release to lock the released position.
3. Look at the lens exit pupil. Use the stop-down button and change the aperture noticing as you do so the changes in the size of the exit pupil.
4. Look now at an angle roughly in a line from the exit pupil to one corner of the camera back opening. This helps in finding the exit pupil again when the RCMC is attached, which can be troublesome with wide-angle lenses in particular.
5. Attach the RCMC and observe the exit pupil again.
6. Select the working aperture and stop down manually.
7. Set the approximate focusing distance.



Photo: Ashley Karyl

In diagrams A — D all exit pupils are viewed from the image corners.

8. Increase the Proshade extension while noting any change in the exit pupil. Increase until approximately 10%-20% cut off

	Diagram A Exit pupil for a wide-open lens
	Diagram B Exit pupil for a vignette-free stopped down lens
	Diagram C Exit pupil for a slightly vignetted lens (no visible effect on the image)
	Diagram D Exit pupil for a vignetted lens (clearly visible effect on the image)

occurs. 30% cut off might cause problems and 50% definitely will. See the diagrams for a fuller explanation.

9. If you can extend the Proshade to its maximum and still see no change in the exit pupil, you can add the Proshade mask 40312. You can also reduce the size of the square opening. This reduction can be quite substantial when long extension tubes and lenses with focal lengths from 120 mm — 250 mm are used. As long as you use the RCMC as above, there should be no unpleasant surprises! After a while you will find your own shortcuts without need for constant checking. You can create standard optimum settings according to regularly used lens/ accessory combinations.



Photo: Ashley Karyl

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