

Long Exposure Case Study #2

CARNIVAL RIDES

by Kent DuFault

There are many different forms of long exposure photography. One that has been popularized in recent years creates an image with movement by combining the use of deeply tinted neutral density filters under bright lighting conditions.

The image below uses this setup. Without the use of a neutral density filter, the lighting conditions were too bright to slow the shutter speed down far enough that the spinning lights could be effectively blurred.

For a photograph like this, you would want a shutter speed of at least 1 second.

When selecting your long exposure subject, take notice as to the balance of light intensity between the carnival ride, (your subject) and the background.

In the image below, the balance is almost too even. This results in the merry-go-round not exhibiting as clear of a separation from the background as one would probably want.





Using an extended exposure technique on a carnival ride definitely brings interest to a shot. However, don't forget the other rules and tools of composition.

The image above falls short because it relies too heavily on technique, and not enough attention was paid to the composition of the shot.

Also, you will notice a 'hazy' effect in the blue areas surrounding the ride. This hazy effect is common in long exposure photography that

was severely underexposed. The photographer then used HDR post-production techniques in an attempt to revive the picture.

There is nothing wrong with this look if that is your intent.

Remember, the more accurate your exposure, the better your final result.

Metering a carnival ride photograph can be tricky.



How would you take an exposure meter reading for a photograph, such as this image above?

You would set your metering pattern to center-weighted or spot.

You have to select a shooting mode. For long exposure photography, manual mode really does work best.

You must determine the shutter speed that you want to start with. I would suggest one second.

You must also determine a starting point for the ISO. I would suggest ISO 400 up to ISO 800. You might wonder why I would recommend an ISO as low as 400 when the scene is so dark?

Remember, your subject is moving lights. They are quite bright. Our exposure needs to be determined based upon the carnival ride lights—not the overall scene.

Now take a meter reading. This will give you the aperture. Typically, you will want to increase (open up wider) the f/stop one setting from what the meter tells you. For example, if the meter shows you f/8. You would set your camera to f/5.6.

Shoot a test picture and review it.

- Did you capture good detail in the lighting of the carnival ride? If not, decrease exposure (see below).
- Are the lights bright enough? If not, increase the exposure.
- Look at the amount of blur in the movement of the ride. Are you satisfied with the effect? If yes, make exposure changes using the aperture or the ISO. If you're not happy with the amount of blur in the ride, change the shutter speed.



The best long exposure photographs occur when the photo displays a mix of blur and sharpness. This can be handled in several ways. You include an object with lights, that is in motion along with an object that is not in motion.

Or, another alternative is what was used in this image (see above). This technique occurs when you have a subject that moves, and then stops, and then moves, and stops repetitively.

For the image above, the photographer timed their exposure so that it began, or ended when the ride was stopped. That's why you can see the passenger cars and the numbers on them very clearly. Then while the long exposure was continuing, the carnival ride moved.

This type of shot can be tricky in determining the exposure setting. My recommendation is to begin by establishing a good exposure while the ride is stationary - while also keeping in mind that you want to utilize a longer shutter speed.

For example, to create the image above, you would...

- Set your camera up on a tripod and frame up your picture.
- Take a meter reading and some test shots while the ride is stopped.
- Let's say a good result occurs at ISO 800, 1/30th of a second, at f/2.8.
- You want a longer shutter speed. In this case, at least 4 seconds. Why 4 seconds? You want enough time to open the shutter and adequately expose the cars before (or after) the ride goes in motion.
- To get to 4 seconds, you have to make an adjustment of 7 stops. You're going to 'add' 7 stops of light by changing the shutter speed from 1/30th of a second to 4 seconds. Now, you must deduct 7 stops of light using ISO, aperture, or both. I would start with the ISO: 800 to 400 to 200 to 100 equals 3 stops of light removed. We will need to remove 4 more stops of light to get back to a correct exposure: f/2.8 to f/4 to f/5.6 to f/8 to f/11 equals 4 stops of light.



A considerable aspect of carnival ride long exposure photography is taking into account the movement. For this image here (see above), the photographer played the motion of two different rides against each other to create a fascinating

juxtaposition in the composition. This juxtaposition is not only displayed in the direction of the movement, and the colors involved, but also within the motion itself: one ride being chaotic and the other being smooth and orderly.



Unless you're looking for a complete abstract effect, the best time to create long exposure carnival ride pictures is at dusk before the sky goes completely dark.



This image is a perfectly executed long exposure carnival ride picture. It exudes energy.

Take notice of the following...

- The image was created at dusk so that the sky didn't turn completely black.
- Rides are moving in different directions to create the composition and visual tension.

- There are areas that have blurred motion and regions that are entirely in focus and sharp.
- The composition makes use of the 1/3 – 2/3 tool of composition as well as a focal point.
- The juxtaposition of the two rides in motion occurs near the crosshairs for the Rule of Thirds.

Your Challenge

At your first opportunity, attend a fair or carnival with rides in motion. Plan on spending at least one or two days of shooting. Your time of day for shooting will be late in the day. Scout your shots for angle and juxtaposition early, so when the lighting becomes good, your camera will be set and ready. Vary your length of exposure time. Try to compose interesting juxtapositions with several rides in one shot. Look for interesting angles. Remember, the sky will remain brighter for longer, when looking to the west.

Evaluation

Were you able to capture a variety of rides from different angles? Do you have sharp elements within your pictures, unless you made a conscious choice not to? Were you able to determine a good exposure and then translate it to a long exposure? Did you get some color in the sky? Did you also try to capture some complete abstract carnival ride photographs?