

Confirming Film Development Time using an 0.30 Neutral Density Filter

The Purpose of the Article

The ultimate aim of all photographers is to make consistently good photographs. There are two essential requirements for a good photograph; first, good subject matter, and second, good technical quality.

We are concerned here only with technical quality.
John L. Davenport, Constant Quality Prints (Part 1),
U.S. Camera, 1940, vol. 3, no.12, pages 55-57, 60-61

John L. Davenport inspired the Zone System when he wrote the article *Constant Quality Prints* more than a hundred years after Joseph Nicéphore Niépce created the oldest surviving photographic image.

In the nearly hundred years since, countless black and white film photography textbooks have been inspired with the same goal; to help students make negatives with good technical quality. It's important to get a feel for exposure and development, so most good textbooks include steps to do film tests. Every author puts their own spin on testing. Most avoid requiring the purchase of specialized equipment but they make you shoot so much film, it might be cheaper to buy the equipment.

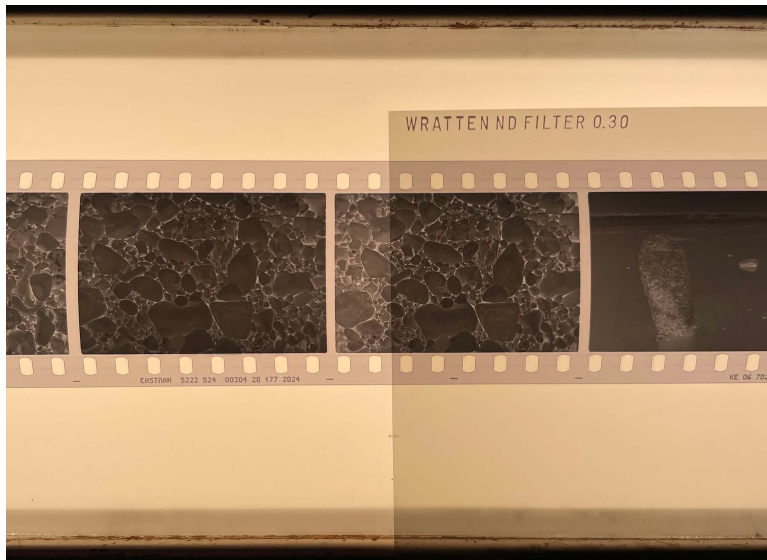
Proposed here is a test that is simply bracketing. Take two shots of the same scene, one normally exposed, and one with two stops greater exposure.

Prerequisites:

- 0.30 Neutral Density filter, for example Kodak Wratten ND 0.30 gelatin filter.

Steps:

- Take a picture with normal exposure.
- Take another of the same picture giving 2 stops greater exposure.
- Develop normally.
- When the film is dry, lay the film on a lightbox, window or computer screen.
- Lay the 0.30 neutral density filter over the negative that received normal exposure (lighter of the pair).
- Take a cellphone picture of the set and share.



Evaluation:

- If the result reveals both negatives look the same, the development has a good, approximately 50 percent gradient.
- If the overexposed negative looks darker than the normally-exposed negative plus the 0.30 ND filter, this may indicate overdevelopment.
- If the overexposed negative is lighter than the normally-exposed negative plus the 0.30 ND filter, this may indicate underdevelopment.

Bill Burk 06-JUL-2025