



The Storyboard

Industry perspectives, technical info and a diversity of viewpoints on the art, science and business of motion picture entertainment

Dynamic Range KODAK VISION 3

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Categories: [CJ Johnson](#) , [Film Capabilities](#)

Dynamic range refers to the ratio between the smallest and largest possible values of a quantity, such as light. The human visual system has a very high dynamic range. Although it takes time to adapt to different lighting conditions, we can see objects in a wide range of lighting situations, from very dim conditions up to bright sunlight.

In the realm of photography, "dynamic range" refers to the luminance range of a scene being photographed. With the advent of KODAK VISION3 Color Negative Films, our motion picture films can capture up to **13 stops** of scene content. These advances have been enabled through the use of our Proprietary Advanced Dye Layering Technology which delivers reduced grain in shadows which in turn yields higher signal-to-noise ratios when scanning low-light scenes. Our Extended Highlight Latitude Technology delivers greater flexibility when lighting extreme situations, and enables up to two stops more image information to be extracted from scene highlights.

KODAK VISION3 Film provides cinematographers with the ability to capture up to 13 stops of dynamic range in their images.

All of our KODAK VISION3 Films incorporate these advances. But, our VISION3 500 Speed Film takes versatility to the max. The high speed affords cinematographers a range of benefits. High speed products tend to see deeper into the shadows, they tend to enable smaller apertures for extended depth of fields and the faster speed allows for less lighting on set. These features combined with the extremely wide latitude provides for a very versatile capture medium. Errors in lighting can be accommodated due to the wide dynamic range capturing ability of the film stock. This results in savings in time and effort on set.

Through the use of digital dodging and burning the cinematographer can display all of the information captured on the VISION3 Films. These advanced digital tools are very powerful additions to the colorists' toolkit, now made even more robust by the wider dynamic range of the KODAK VISION3 Color Negative Films. Colorists can interrogate the highlights and pull out incredible levels of details. This wider latitude further differentiates film capture from the limited dynamic range of digital capture – and enhances the creative process for our customers.

Based upon our customers' expectations for the very highest quality images -- and for flexibility and ease of use -- Kodak motion picture film continues to deliver the best images possible for a new generation.

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