

## The Diffusion Comparison Tool

Review by Martin Hawkins

When London-based cinematographer Richard William Preisner, decided it would be useful to have a simple and accessible visual reference to help him choose the perfect lighting diffusion materials, he couldn't find exactly what he was looking for; and I know the feeling... Necessity being the mother of invention, he decided to make his own 'Diffusion Comparison Tool.'

Through his work in commercials and music videos, Will was already aware of the importance of diffusion lighting filters for creating flattering images and like most of us, found himself using the same diffusions over and over again – 216, 250, 251, etc. – usually because they were what was available on the truck or in the lighting store.

Will, however, wanted to fully understand and compare the effects of all of the available diffusion materials. So, he reached out to Rosco and began comparing each of their popular e-colour+ diffusion materials and exploring how each one could be integrated into his creative process. Knowing that other DoP's and LD's would benefit from what he was learning, he gathered his findings and posted them onto his website: [www.rwpreisner.com/diffusion](http://www.rwpreisner.com/diffusion)

The Diffusion Comparison Tool is a web application for comparing Rosco's diffusion material and it's an easy way to explore how each material works independently, then analyse how one material performs versus the others.

As you scroll down the page, you see a short video for every Rosco e-colour+ diffusion and bounce material. Each video allows the viewer to examine the effects of one particular diffusion by showing the same setup with, and without diffusion.

Every 30-second video begins with a *model test* and then followed by a *shadow test* using a still life of everyday objects. Each video uses the same setup – a 1K tungsten fresnel placed 10 feet away from the model or the still life. The diffusion frame is placed four feet away from the model or still life, in between the light and the subject.

The model tests begin with a head and shoulders shot – lit through the specific diffusion – followed by a closeup using the same setup. Then the video repeats to show what the setups look like without any diffusion. This allows the viewer to evaluate how the light falls on the model, with and without the diffusion featured in that video.

Following the model test, there is a shadow test. Using a similar setup, this section displays the still life with and without diffusion. This allows you to examine how that particular diffusion affects the shadows in a shot.



Each video also provides the viewer with valuable data in the upper-left corner, including the stop-loss of each diffusion and any perceived colour temperature shift.

I'm sure most people using this helpful tool will want to have this available on set while they're shooting and there are instructions on the website on how to save this information to your mobile device for quick and easy access.

For those that are truly in a hurry, there is a **Diffusion Comparison PDF** with still frames from all of the videos in one handy document. I personally found it really interesting what the different diffusion materials did to the light and subject and I hope you do too.

- The Diffusion Comparison Tool can be found at [www.rwpreisner.com/diffusion](http://www.rwpreisner.com/diffusion)
- To learn more about all of Rosco's filters and diffusions: [rosco.com/filters](http://rosco.com/filters)
- Will Preisner's cinematography and photography website: [rwpreisner.com](http://rwpreisner.com)