Starting the lesson

Until now you've been organizing your clips, building sequences, and applying special effects. All of these skills come together when working with color correction.

Consider the way your eyes register color and light, the way cameras record it, and the way your computer screen, a television screen, a video projector, or a cinema screen displays it. There are a great many factors when considering the final look of your production.

Premiere Pro has multiple color correction tools and makes it easy to create your own presets. In this lesson, you'll begin by learning some fundamental color correction skills and then meet some of the most popular color correction special effects, before using them to deal with some common color correction challenges.

1 Open Lesson 14.prproj in the Lesson 14 folder.

2 Save the project as Lesson 14 Working.prproj.

3 Choose Color in the Workspaces panel, or choose Window > Workspaces > Color, to switch to the Color workspace.

4 Choose Window > Workspaces > Reset To Saved Layout to reset the workspace to its default layout.

   This changes the workspace to the preset that was created to make it easier to work with color correction effects and, in particular, the Lumetri Color panel and Lumetri Scopes panel.

The subject of color science requires ongoing learning and development, but you can get by with a basic understanding of key concepts.

About 8-bit video

Eight-bit video works on a scale from 0 to 255. That means each pixel has red, green, and blue (RGB) values somewhere on that scale, which combine to produce a particular color. You can think of 0 as 0% and 255 as 100%. A pixel that has a red value of 127 is equivalent to having a red value of 50%.

However, we're talking about RGB images, and broadcast video uses a similar but different range, with a color system called YUV.

If you compare the YUV scale with RGB scale, when the waveform scope is set to show 8 Bit, you'll find that 8-bit YUV pixel values range from 16 to 235, while RGB values range from 0 to 255.

TVs usually use YUV color, not RGB. However, your computer screen is RGB. If you are producing video for broadcast television, this can create issues because you are looking at your video footage on a different kind of screen than the kind it will

ultimately be viewed on. There is only one sure way of overcoming the uncertainty this creates: Connect a TV or broadcast monitor to your editing system and view your footage on that screen.

The difference is a little like comparing a photograph you view on-screen with a printed version. The printer and your computer screen use different color systems, and it's an imperfect translation from one to the other.

Sometimes you will view footage with visible detail on an RGB screen like your computer display that disappears when viewed on a TV screen. You'll need to make adjustments to the color to bring those details into the TV screen range.

Some TVs give you the option to display color as RGB, using a range of names such as Game Mode or Photo Color Space. If your screen is set up this way, you may see the full 0 to 255 RGB range.

Following a color-oriented workflow

Now that you've switched to a new workspace, it's a good time to switch to a different kind of thinking. With your clips in place, it's time to look at them less in terms of the action and more in terms of whether they fit together and have the right look.

There are two main phases to working with color.

• Make sure clips in each scene have matching colors, brightness, and contrast so they look like they were shot at the same time, in the same place, and with the same camera.

• Give everything a "look," in other words, a particular tonality or color tint.
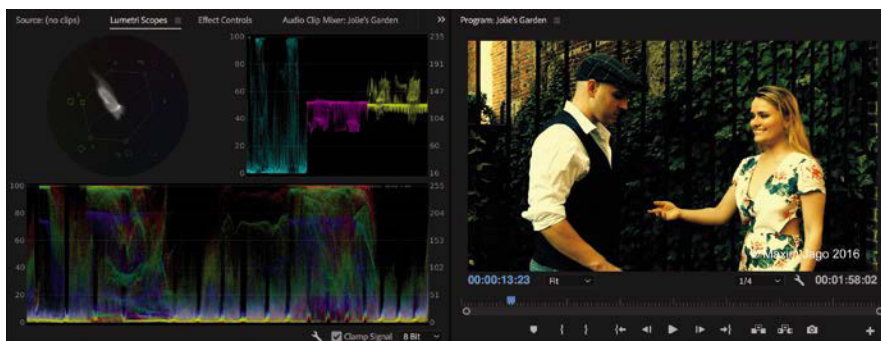
You'll use the same tools to achieve both of these goals, but it's common to approach them in this order, separately. If two clips from the same scene don't have matching colors, it creates a jarring continuity problem.

Color correction and color grading

You've probably heard of both color correction and color grading. There is often confusion about the difference. In fact, both types of color work use the same tools, but there's a difference of approach.

Color correction is usually aimed at standardizing the shots to make sure they fit together and to improve the appearance in general to give brighter highlights and stronger shadows or to correct a color bias captured in-camera. This is more craft than art.

Color grading is aimed at achieving a look that conveys the atmosphere of the story more completely. This is more art than craft.

There is, of course, a debate about where one ends and the other begins.

Working with the Color workspace

The Color workspace displays the Lumetri Color panel, which has a number of sections offering color adjustment controls, and places the Lumetri Scopes panel behind the Source Monitor. The Lumetri Scopes are a set of image analysis tools.

The remaining screen area is devoted to the Program Monitor, Timeline, and Project panels. The Timeline shrinks to accommodate the Lumetri Color panel.

Remember, you can open and close any panel at any time, but this workspace focuses on finishing work, rather than organizing or editing your project.
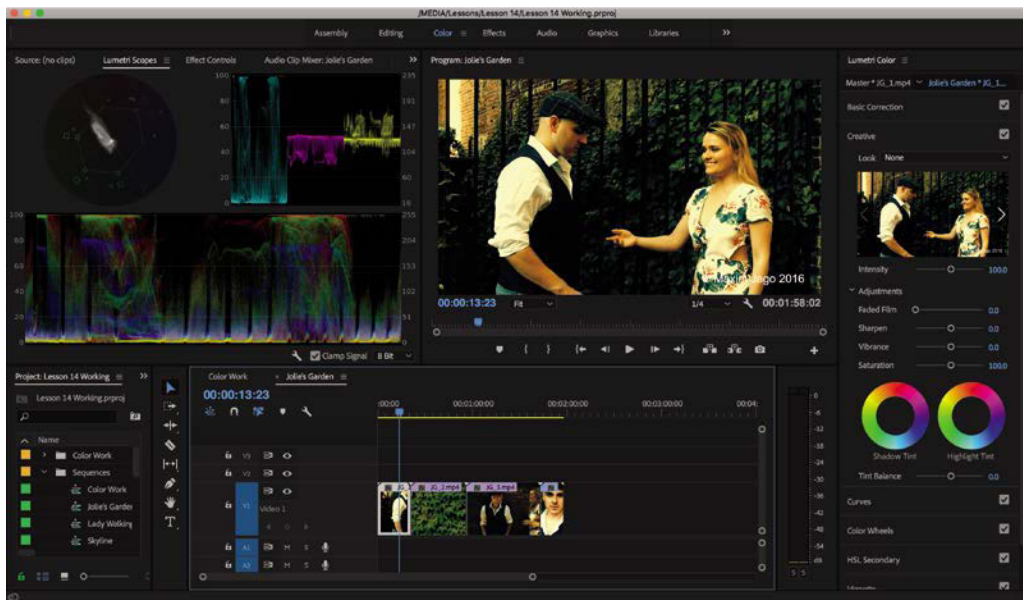
While the Lumetri Color panel is displayed, clips on the Timeline are selected automatically as the playhead moves over them. Only clips on tracks that have the track selection button enabled will be selected.

This feature is important because adjustments made with the Lumetri Color panel are always applied to the selected clip. You can apply an adjustment and move the playhead along the Timeline to select the next clip and work on it.

You can enable or disable automatic clip selection by choosing Sequence > Selection Follows Playhead.

Getting an overview of the Lumetri Color panel

There is an effect available in the Effects panel called Lumetri Color, which provides all the controls and options available in the Lumetri Color panel. Like any other effect, its controls are displayed in the Effect Controls panel.

When you make adjustments using the Lumetri Color panel, a Lumetri Color effect is applied if there isn't one added to the clip already, and the settings are updated.

This means the Lumetri Color panel is actually a kind of control panel for the Lumetri Color effect settings in the Effect Controls panel. Like any other effect, you can create presets, copy and paste Lumetri Color effects from one clip to another, and change the settings in the Effect Controls panel.

The Lumetri Color panel is divided into six sections. You can browse color adjustment controls selectively or work from the top downward.

● **Note:** You can expand or collapse a section in the Lumetri Color panel by clicking its heading.

Each section provides a group of controls with different approaches to color adjustment. Let's take a look at each section.

Basic Correction

This section provides you with simple controls to apply quick fixes to your clips.

You can apply a preset adjustment to your media in the form of an Input LUT file, which makes standard adjustments to media that might other-wise look quite flat.

If you're familiar with Adobe Lightroom, you'll recognize the list of simple controls in the Basic section. You can work your way down the list making adjustments to improve the look of your footage, or you can click the Auto button to let Premiere Pro work out some settings for you.
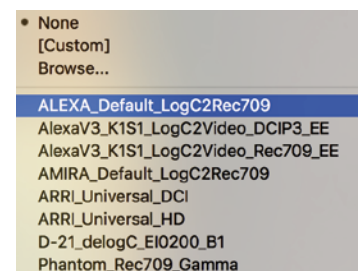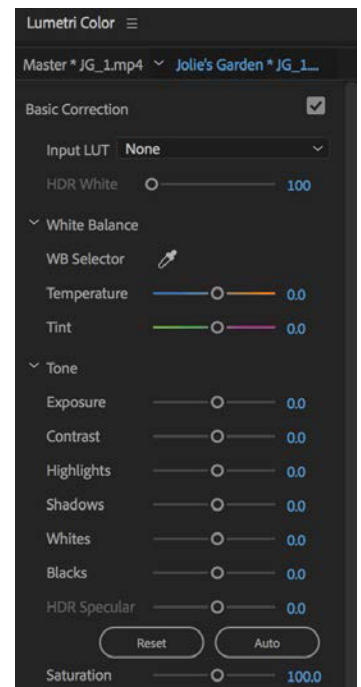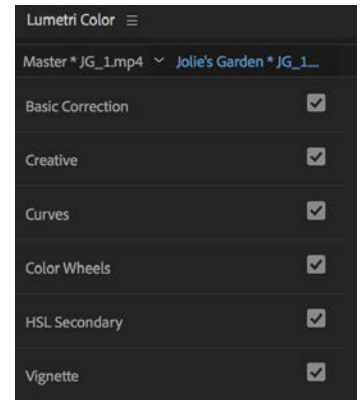
Creative

As the name suggests, the Creative section allows you to go a little further into developing a look for your media.

A number of creative looks are included, with a preview based on your current clip.
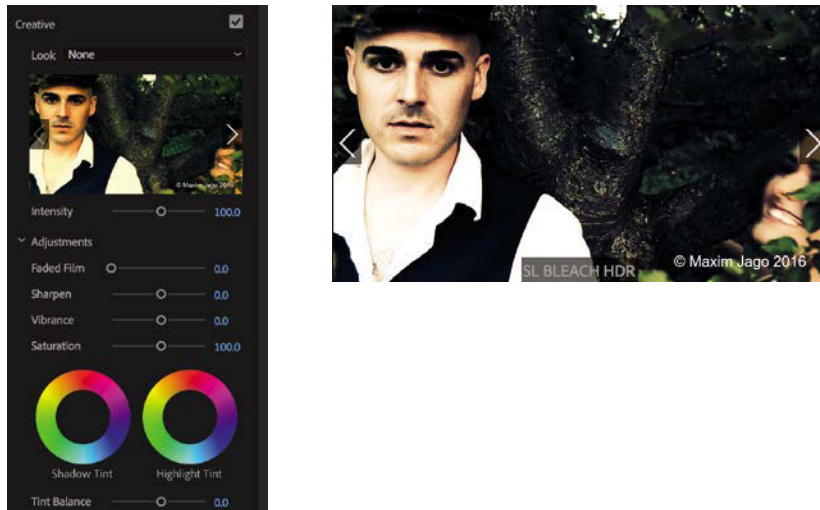
You can make subtle adjustments to the color intensity, and there are color wheels configured to adjust the color for the shadow (darker) pixels or highlight (lighter) pixels in the image.

Curves

Curves allow quick but precise adjustments to visuals and make it easier to achieve more natural-looking results with just a few clicks.

These are some of the more advanced controls, providing nuanced adjustments to the luminance, red, green, and blue pixels.

In addition to a traditional RGB curve control, the Curves section includes a special Hue Saturation Curves control.

This gives precise control over color saturation based on hue range, without introducing a color bias.
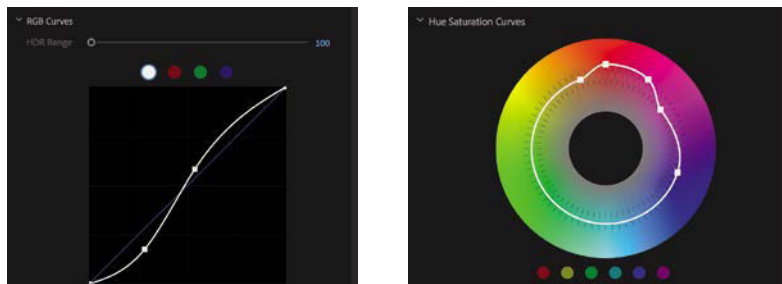
Color Wheels

This section provides precise control over the shadow, midtone, and high-light pixels in the image. Simply drag the control puck from the center of a wheel toward the edge to apply an adjustment.

Each color wheel also has a luminance control slider, which allows you to make simple adjustments to the brightness and, by appropriate adjust-ment, the contrast of your footage.

HSL Secondary

The HSL Secondary setting is a color adjustment made to specific areas of an image, selected using Hue, Saturation, and Luminance ranges.

This is the section of the Lumetri Color panel you would use to make a blue sky even bluer, or make a field of grass a deeper green, without affect-ing other areas of the picture.

Vignette

It's surprising how much difference a simple vignette effect can make to a picture.

A vignette was originally caused by camera lenses darkening the edge of frame, but modern lenses rarely have this issue.
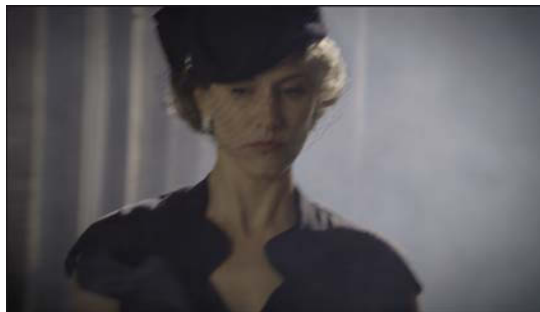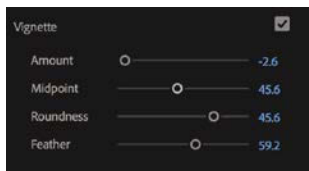
Instead, a vignette is commonly used to bring attention to the center of an image, and it can be highly effective, even when the adjustment is subtle.

The Lumetri Color panel in action

When you make adjustments using the Lumetri Color panel, they are added col-lectively as a regular Premiere Pro effect applied to the selected clip. You can enable and disable the effect in the Effect Controls panel, or you can create an effect pre-set. The controls are repeated in the Effect Controls panel too.
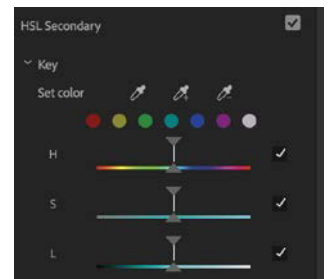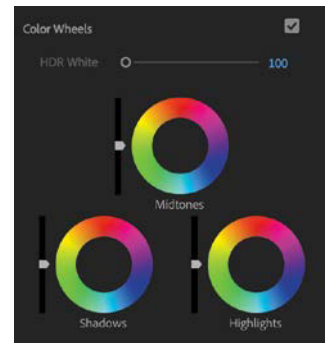
Let's try some prebuilt looks.

1   Open the sequence Jolie's Garden in the Sequences bin.

This is a simple sequence with a series of clips that have a good range of color and contrast.

2   Position the Timeline playhead over the first clip in the sequence. The clip should highlight automatically.

3   Click the Creative section heading in the Lumetri Color panel to reveal its controls.

4   Browse through several prebuilt looks by clicking the arrow on the right side of the preview display. When you see a look you like, click the preview image to apply it.

5   Try adjusting the Intensity slider to vary the amount of adjustment.

This is a good time to experiment with the other controls in the Lumetri Color panel. Some controls will make sense immediately, while others will take time to master. Use the clips in this sequence as a testing ground to learn about the Lumetri Color panel through experimentation; just drag all the controls from one extreme to the other to see the result. You'll learn about many of these controls in detail later in this lesson.

Understanding Lumetri Scopes essentials

You might have wondered why the Premiere Pro interface is so gray. There's a good reason: Vision is highly subjective. In fact, it's also highly relative.

If you see two colors next to each other, the way you see one is changed by the presence of the other. To prevent the Premiere Pro interface from influencing the way you perceive colors in your sequence, Adobe has made the interface almost entirely gray. If you've ever seen a professional color-grading suite, where artists provide the finishing touches to films and television programs, you've probably

noticed that most of the room is gray. Colorists sometimes have a large gray piece of card, or a section of a wall, that they can look at for a few moments to "reset" their vision before checking a shot.

The combination of your subjective vision and the variation that can occur in the way computer monitors and television monitors display color and brightness creates a need for an objective measurement.

Video scopes provide just that. And they're used throughout the media industry; learn them once, and you'll be able to use them everywhere.

1 Open the sequence Lady Walking.

2 Position the Timeline playhead so that it's over the clip in the sequence.

3 The Lumetri Scopes panel should be sharing the frame with the Source Monitor. Click to select the panel and make it active, or select it in the Window menu.

4 Click the Lumetri Scopes panel Settings menu 🔧 and choose Presets > Premiere 4 Scope YUV (float, no clamp).
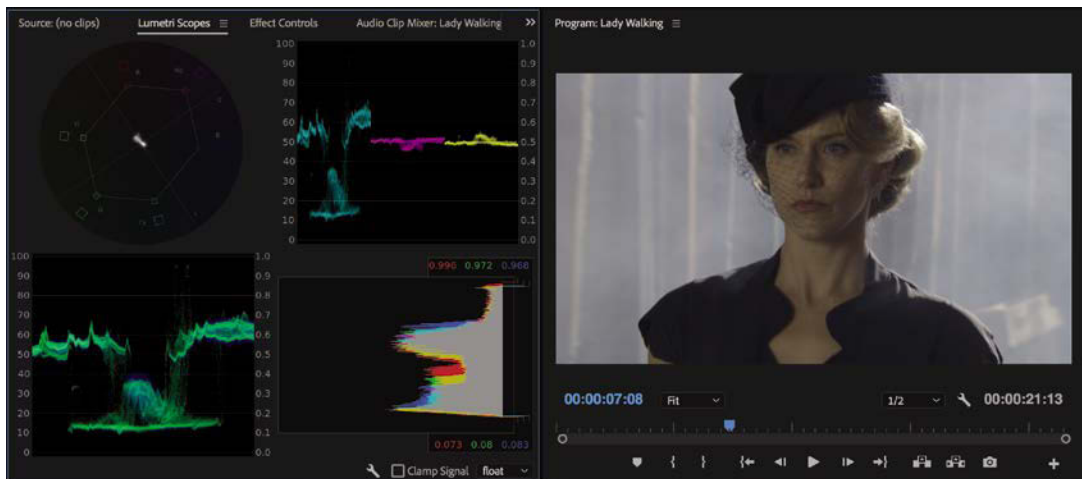
You should see the lady walking in the street in your Program Monitor, along with the synchronized display in the Lumetri Scopes panel.

Working with the Lumetri Scopes panel

The Lumetri Scopes panel displays an array of industry-standard meters to get an objective view of your media.
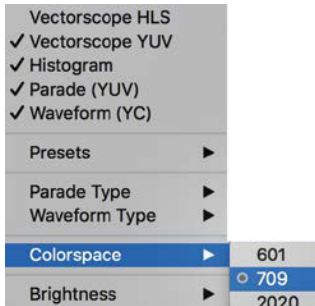
The full complement of displays can be a little overwhelming at first, plus you'll have smaller graphs. You can turn individual items off and on by opening the Settings menu and choosing items on the list.

You can also specify whether you are working to an ITU Rec. 2020 (UHD), ITU Rec. 709 (HD), or ITU Rec. 601 (SD) color space. If you're producing content for broadcast television, you will almost certainly be working to one of these standards. If not or if you're not sure, you will probably be happy with Rec. 709. Check with your ingest department for confirmation.

You can choose the color space in the Settings menu.

You can also choose to display 8 Bit, the default float (which is 32-bit floating-point color), or even HDR. HDR refers to High Dynamic Range, which has a much higher range between the darkest and brightest parts of the picture. Though HDR is beyond the scope of these lessons, it's an important new technology and one that will be increasingly relevant as new cameras and displays support it.

Let's simplify the view.

Use the Lumetri Scopes settings menu to click each of the selected items to deselect them and remove them from the display.
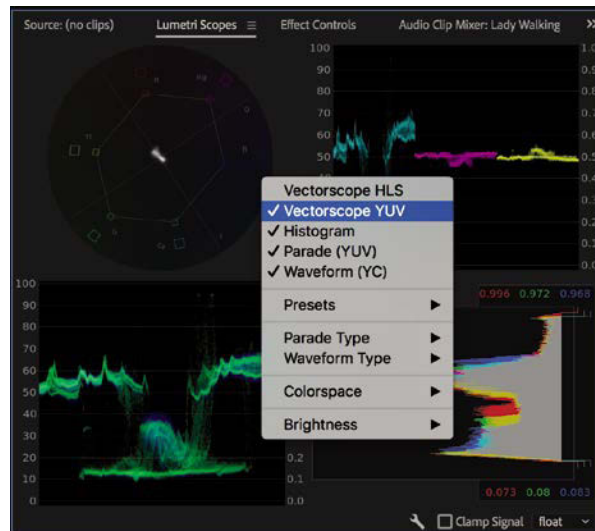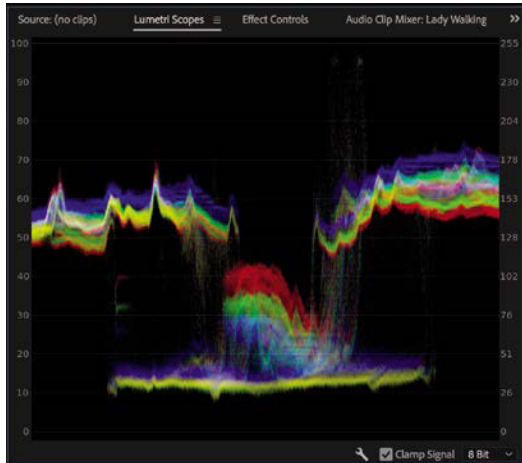

Right-click in the panel and choose Presets > Waveform RGB.

Let's take a look at two of the main components in the Lumetri Scopes panel.

Waveform

If you're new to waveforms, they can look a little strange, but they're actually simple. They show you the brightness and color saturation of your images.

Every pixel in the current frame is displayed in the waveform. The brighter the pixel, the higher it appears. The pixels have their correct horizontal position (that is, a pixel halfway across the screen will be displayed halfway across the waveform), but the vertical position is not based on the image at all.

Instead, the vertical position indicates brightness or color intensity; the brightness and color intensity waveforms are displayed together in this version of the Waveform, using different colors.

- 0, at the bottom of the scale, represents no luminance at all and/or no color intensity.

- 100, at the top of the scale, represents a pixel that is fully bright. On the RGB scale, this value would be 255 (you can see this scale on the right side of the waveform display).

This all might sound rather technical, but in practice it's straightforward. There's a visible baseline that represents "no brightness" and a top level that represents "fully bright." The numbers on the edge of the graph might change depending on your settings, but the use is essentially always the same.

You can view the waveform in several ways. To access each type, open the Lumetri Scopes Settings menu, and choose Waveform Type, followed by one of these options:

- **RGB:** Shows the Red, Green, and Blue pixels in their own colors.

- **Luma:** Shows the IRE value of pixels, from 0 to 100, against a scale of −20 to 120. This allows for precise analysis of bright spots and contrast ratio.

- **YC:** Shows the image luminance (brightness) in green and the chrominance (color intensity) in blue.
- **YC no Chroma:** Shows the luminance with no chrominance.

Let's test this display a little.

1 Continue using the Lady Walking sequence. Set the Timeline playhead to 00:00:07:00 so you can see the lady against the smoky background.

2 Set the waveform display to YC No Chroma. This is a brightness-only waveform, with no color information, that shows a full range, with no limits set for broadcast television. This would be suitable for online videos.
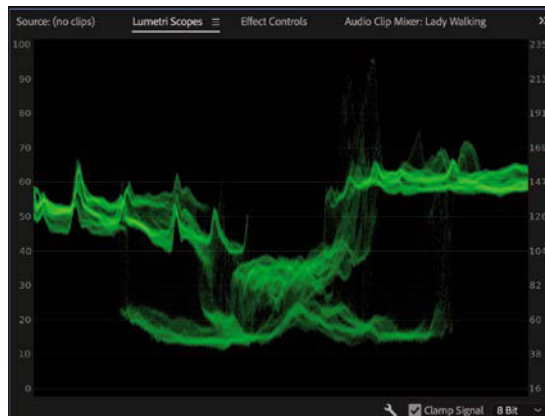
The smoky parts of the image have little contrast and are displayed as a relatively flat line in the waveform display. The lady's head and shoulders are darker than the smoky background. They're around the middle of the image, and they are clearly visible in the middle area of the waveform display.

3 Expand the Basic Correction section of the Lumetri Color panel.

4 Experiment with the Exposure, Contrast, Highlights, Shadows, Whites, and Blacks controls. As you adjust the controls, watch the waveform display to see the result.

▶ **Tip:** You can double-click any part of a slider control in the Lumetri Color panel to reset it.

If you make an adjustment to the image and then wait a few seconds, your eyes will adjust to the new appearance, and it will seem normal. Make another adjustment, and a few seconds later the new appearance seems normal too. Which is correct?

Ultimately, the answer is based on perceived quality. If you like what you see, it's right. However, the waveform display will give you objective information about how dark or bright pixels are or how much color is in the shot, which is useful when attempting to meet standards.

You should be able to see the parts of the picture where the smoky background of the image is displayed, toward the left and right (with some ridges where there is a pattern in the background). You should also be able to see a darker section, in the middle, where the lady is. If you scrub through the sequence or play the sequence, you'll see the waveform display update live.

▶ **Tip:** It can sometimes seem as if the waveform display is showing an image. Remember, the vertical position of the pixels in your images is not used in a waveform display.

The waveform display is useful for showing how much contrast you have in your images and for checking whether you are working on video that has "legal" levels (that is, the minimum and maximum brightness or color saturation permitted by a broadcaster). Broadcasters adopt their own standards for legal levels, so you will need to find out for each case where your work will be broadcast.

You can see right away that you do not have great contrast in this shot. There are some strong shadows but few *highlights* in the upper part of the waveform display.
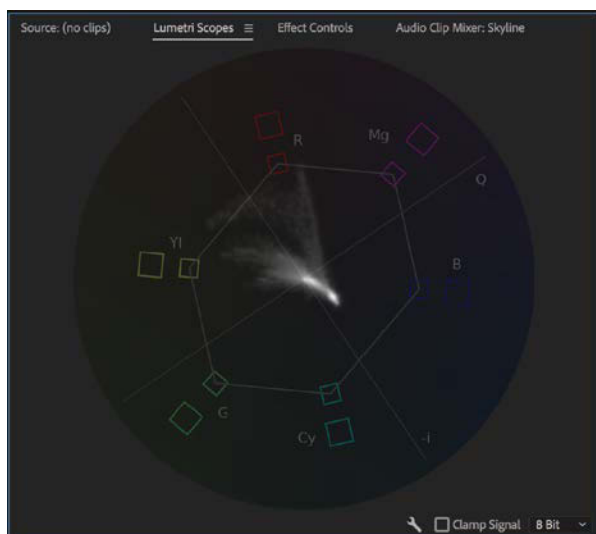
YUV Vectorscope

Whereas the Luma waveform shows luminance in terms of the vertical position of pixels displayed, with brighter pixels displayed at the top and darker pixels displayed at the bottom, the vectorscope shows only color.

1 Open the sequence Skyline.

Note: The HLS vectorscope is sometimes used by film-grading artists in preference to the YUV vectorscope. It has no guiding overlay and is a little harder to read if you are not already familiar with it.

2 Click the Lumetri Scopes Settings menu, and select Vectorscope YUV; then go to the Settings menu again, and choose Waveform (YC no Chroma) to disable it.

Pixels in the image are displayed in the vectorscope. If a pixel appears in the center of the circle, it has no color saturation. The closer to the edge of the circle, the more color a pixel has.

If you look closely at the vectorscope, you'll see a series of targets indicating primary colors.

• R = Red

• G = Green

• B = Blue

There are two boxes for each target. The smaller, inner box is at 75% saturation, the YUV color limit, while the larger, outer box is at 100% saturation, the RGB color limit. RGB color extends to a greater level of saturation than YUV. The thin line between the inner boxes shows the YUV color gamut (the range of YUV colors).

You'll also see a series of targets indicating secondary colors.

• YL = Yellow

• CY = Cyan

• MG = Magenta
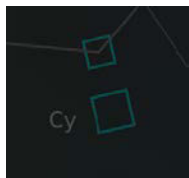
The closer a pixel is to one of these targets, the more of that color it has. While the waveform display indicates where a pixel is in the picture, thanks to the horizontal positioning, there is no position information in the vectorscope.

It's clear enough to see what's happening in this shot of Seattle. There's a lot of darker blue, and there are a few spots of red and yellow. The small amount of red is indicated by the streak of peaks reaching out toward the R marking in the vectorscope.

The vectorscope is helpful because it gives you objective information about the colors in your sequence. If there's a color cast, perhaps because the camera was not calibrated properly, it's often obvious in the vectorscope display. You can simply use one of the Lumetri Color panel controls to reduce the amount of the unwanted color or add more of the opposite color.

Some of the controls for color correction adjustments have the same color wheel design as the vectorscope, making it easy to see what you need to do.

Let's make an adjustment and observe the result in the vectorscope display.

1 Continue working with the Skyline sequence. Position the Timeline playhead at 00:00:01:00, where the colors are more vivid.

2 In the Lumetri Color panel, expand the Basic Correction section.

3 While watching the result in the vectorscope display, drag the Temperature slider from one extreme to the other.

Temperature ────────○────── 0.0

The pixels displayed in the vectorscope move between the orange and blue areas of the display.

4 Reset the Temperature slider by double-clicking the slider control.

5 In the Lumetri Color panel, drag the Tint slider from one extreme to the other.

The pixels displayed in the vectorscope move between the green and magenta areas of the display.

6 Reset the Tint slider by double-clicking the slider control.

By making adjustments while checking the vectorscope, you can get an objective indication of the change you're making.

Additive and subtractive color

Computer screens and televisions use additive color, which means the colors are created by generating light in different colors and combining them to produce a precise mix. You produce white by combining equal amounts of red, green, and blue.

When you draw with color on paper, it is usually white paper, which reflects a full spectrum of colors. You subtract from the white of the paper by adding pigment. The pigment prevents parts of the light from reflecting. This is called *subtractive color*.

Additive color uses primary colors; subtractive color uses secondary colors. In a sense, they're flip sides of the same color theory.
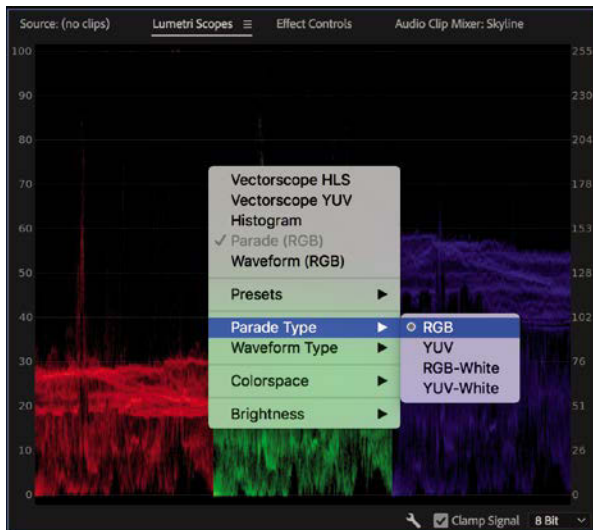
RGB parade

Click the Lumetri Scopes Settings menu, and choose Presets > Parade RGB.
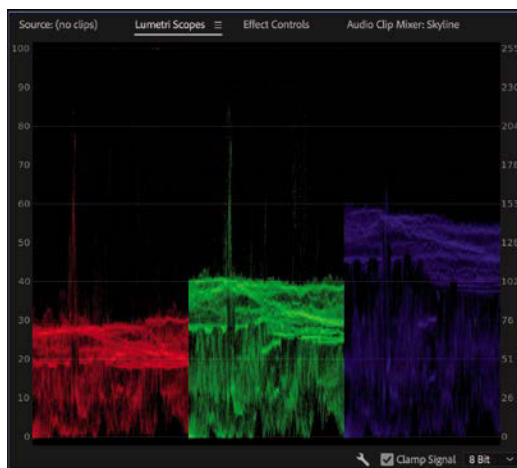
The RGB parade provides another form of waveform-style display. The difference is that the red, green, and blue levels are displayed separately. To fit all three colors in, each image is squeezed horizontally to one-third of the width of the display.

You can choose which kind of parade you see by clicking the Lumetri Scopes Settings menu or by right-clicking in the Lumetri Scopes panel and choosing Parade Type.

The three parts of the parade have similar patterns in them, particularly where there are white or gray pixels, because these parts will have equal amounts of red, green, and blue. The RGB parade is one of the most frequently used tools in color correction because it clearly shows the relationship between the primary color channels.

To see the impact color adjustments can have on the parade, go to the Basic Correction section of the Lumetri Color panel and try adjusting the White Balance Temperature and Tint controls. Be sure to reset them when you finish by double-clicking each control.

Exploring the color-oriented effects

As well as adjusting color using the Lumetri Color panel, there are a number of color-oriented effects worth familiarizing yourself with. You add, modify, and remove color correction effects in the same way that you manage the other effects in Premiere Pro. Just as with the other effects, you can use keyframes to modify color correction effect settings over time.

As you build familiarity with Premiere Pro, you may find yourself wondering which effect is best for a particular purpose; this is normal! There are often several ways of achieving the same outcome in Premiere Pro, and sometimes the choice comes down to which interface you prefer.

The following are a few effects you may want to try first.

Using coloring effects

Premiere Pro features several effects for adjusting existing colors. The following two are for creating a black-and-white image and applying a tint and for simply turning a color clip into a black-and-white one.

Tint

Use the eyedroppers or color pickers to reduce any image to just two colors. Whatever you map to black and white replaces any other colors in the image.

Black & White

Convert any image to simple black and white. This is useful when combined with other effects that can add color.

Black-and-white images can often withstand much stronger contrast. Consider combining effects for the best results.

Leave Color

You can use the advanced HSL Secondary section of the Lumetri Color panel to achieve a similar result, but this filter is sometimes faster.

Use the eyedropper or color pickers to select a color you want to keep. Adjust the Amount To Decolor setting to turn the saturation down on every other color.

Use the Tolerance and Edge Softness controls to produce a subtler effect.

Using the Video Limiter effect

In addition to creative effects, Premiere Pro's color correction repertoire includes effects used for professional video production.

When video is broadcast, there are specific limits that are permitted for maximum luminance, minimum luminance, and color saturation. Although it's possible to confine your video levels to the limits permitted using manual controls, it's easy to mix parts of your sequence that need adjustment.

The Video Limiter effect automatically limits the levels of clips to ensure they meet the standards you set.

You'll need to check the limits applied by your broadcaster before setting the Signal Min and Signal Max controls with this effect (the defaults are very generous). Then it's simply a question of choosing the Reduction Axis option. Do you want to just limit the luminance, the chrominance, or both, or do you want to set an overall "smart" limit?


The Reduction Method menu allows you to choose the parts of your video signal you would like to adjust. You'll usually choose Compress All.

▶ **Tip:** While it's common to apply the Video Limiter effect to individual clips, you might also choose to apply it to the whole sequence by using it on an adjustment layer, or by enabling it as an export setting (see Chapter 18, "Exporting Frames, Clips, and Sequences").
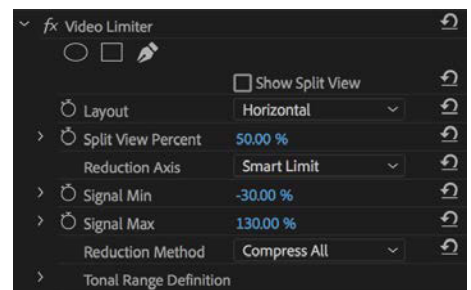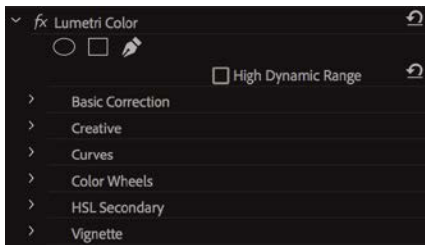
Using Lumetri Looks presets in the Effects panel

In addition to the manual controls available in the Lumetri Color panel, there are a number of Lumetri Look presets available in the Effects panel. These are a fantastic way to get started with advanced color adjustments, and as they are presets, you can modify the settings to achieve exactly the finish you want.
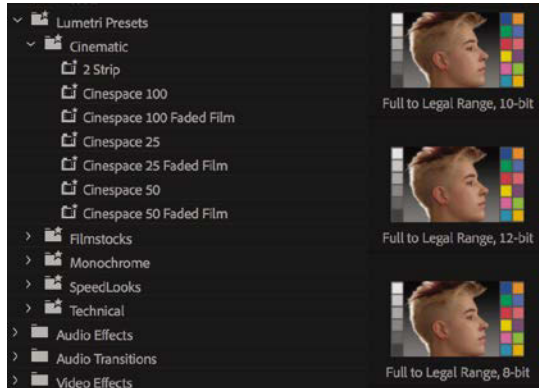

If you resize the Effects panel, you can reveal previews of each of the built-in Lumetri Look preset effects.

You apply a Lumetri Look preset effect in the same way that you would apply any other effect available in the Effects panel.

Lumetri Look presets are actually Lumetri Color effects with settings already applied, including a Creative Look in some cases.

You can modify the settings in the Effect Controls panel or in the Lumetri Color panel. The controls are linked, so changing one will update the other.
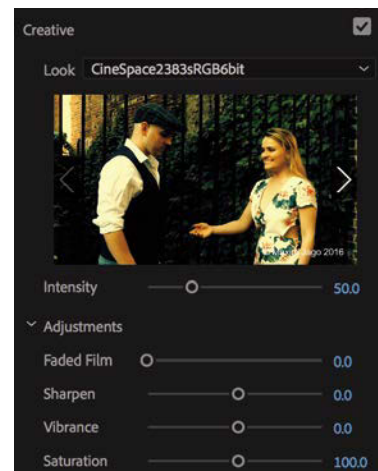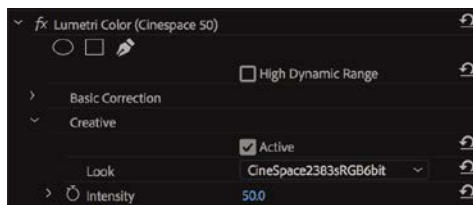
Fixing exposure problems

Let's look at some clips that have exposure issues and use some of the Lumetri Color panel controls to address them.

1   Make sure you are in the Color workspace, and reset it to the saved version if necessary.

2   Open the sequence Color Work.

3   In the Lumetri Scopes panel, right-click or open the Settings menu to choose Presets > Waveform RGB.

4   Again, in the Lumetri Scopes panel, right-click or open the Settings menu to choose Waveform Type > YC No Chroma. This changes the display to a waveform that uses the standard broadcast television range, which is a useful reference for most video projects.

5   Position the Timeline playhead over the first clip in the sequence. It's the shot of the lady walking. You're going to add some contrast.

The environment is smoky; 100 IRE (displayed on the left on the waveform) means fully exposed, and 0 IRE means not exposed at all. No part of the image comes close to these levels. Your eye quickly adjusts to the image, and it'll soon appear fine. Let's see whether you can bring it to life a little.

6   In the Lumetri Color panel, click the Basic Correction heading to display that section.

7   Use the Exposure and Contrast controls to make adjustments to the shot while checking the waveform display to make sure the image doesn't become too dark or too light.

You'll get the best perceived results if you have a frame from a later part of the clip on-screen. Around 00:00:07:09 there's a section of sharp focus.

Try an Exposure setting of **0.6** and a Contrast setting of **60**.

Basic Correction ☑

8 Your eye is likely to adjust quickly to the new image. Use the check box to toggle the Basic Correction adjustment off and on to compare the image before and after.

The subtle adjustment you made adds more depth to the image, giving it stronger highlights and shadows. As you toggle the effect off and on, you'll see the Waveform changing in the Lumetri Scopes panel. You still don't have bright highlights in the image, but that's fine because the natural colors are mainly midtones.

Fixing underexposed images

Now let's work with an underexposed image.

1 Switch to the Effects workspace.

2 Position the Timeline playhead over the second clip in the Color Work sequence. When you first look at this clip, it might look OK. The highlights don't look strong, but there's a reasonable amount of detail throughout the image. The face, especially, is sharp and detailed.

3 Open the Lumetri Scopes panel so you can view this clip in the waveform. At the bottom of the waveform there are quite a few dark pixels, with some touching the 0 line.

In this instance, it looks like the missing detail is in the right shoulder of the suit. The problem with such dark pixels is that increasing the brightness will simply change the strong shadows into gray, and no detail will emerge.

▶ **Tip:** Remember, you can open any panel by choosing it from the Window menu. The Lumetri Scopes panel isn't limited to the Color workspace.

4 In the Effects panel, locate the Brightness & Contrast effect. Apply the effect to the clip.

5 Position the panels so you can see the Lumetri Scopes panel, Effect Controls panel, and Program Monitor. You'll need to drag the Lumetri Scopes panel into a new frame, between the Effect Controls panel and the Program Monitor, to do this.
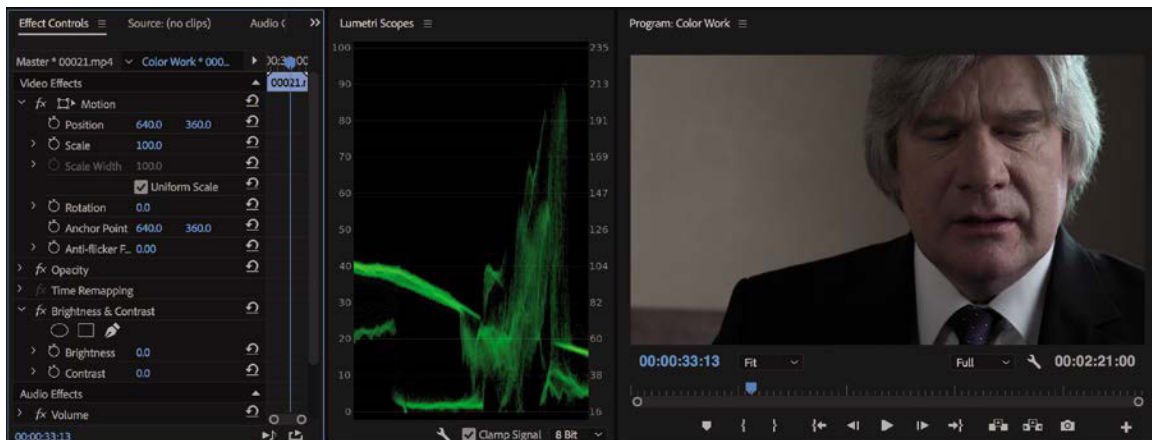
6 Use the Brightness control in the Effect Controls panel to increase the brightness. Rather than clicking the number and typing a new number, drag to the right so you can see the change happening incrementally.

As you drag, notice that the whole waveform moves up. This is fine for bringing out the highlights in the image, but the shadows remain a flat line. You're simply changing the black shadows to gray. If you drag the Brightness control all the way to 100, you'll see just how flat the image still is.
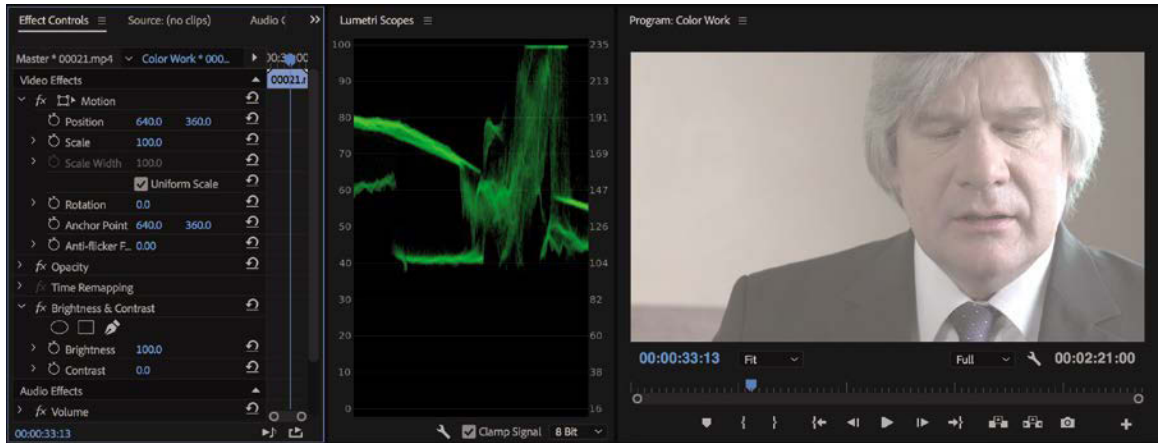
▶ **Tip:** The Brightness & Contrast effect offers a quick, easy fix, but it's easy to accidentally clip the black (dark) or white (bright) pixels, losing detail. The Lumetri Color panel Curves control keeps adjustments inside the 0 to 255 scale.

7 Remove the Brightness & Contrast effect.

8 Switch back to the Color workspace. Try to make an adjustment using the RGB Curves control in the Lumetri Color panel. Here's an example of an RGB Curves adjustment that would improve the image.

Experiment with the third clip in the sequence. This clip demonstrates that there are limits to what can be "fixed in post" (post-production)!
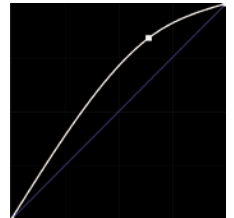

Fixing overexposed images

The next clip you'll work with is overexposed.

1 Move the Timeline playhead to the fourth clip in the sequence. Notice that a lot of the pixels are burned out. Just as with the flat shadows in the second clip in the sequence, there's no detail in burned-out highlights. This means that lowering the brightness will simply make the character's skin and hair gray; no detail will emerge.

▶ **Tip:** Remember, you can reset Lumetri Color controls by double-clicking them. You can also delete the Lumetri Color effect in the Effect Controls panel to begin again.

2 Notice that the shadows in this shot don't reach the bottom of the Waveform Monitor. The lack of properly dark shadows has a flattening effect on the image.
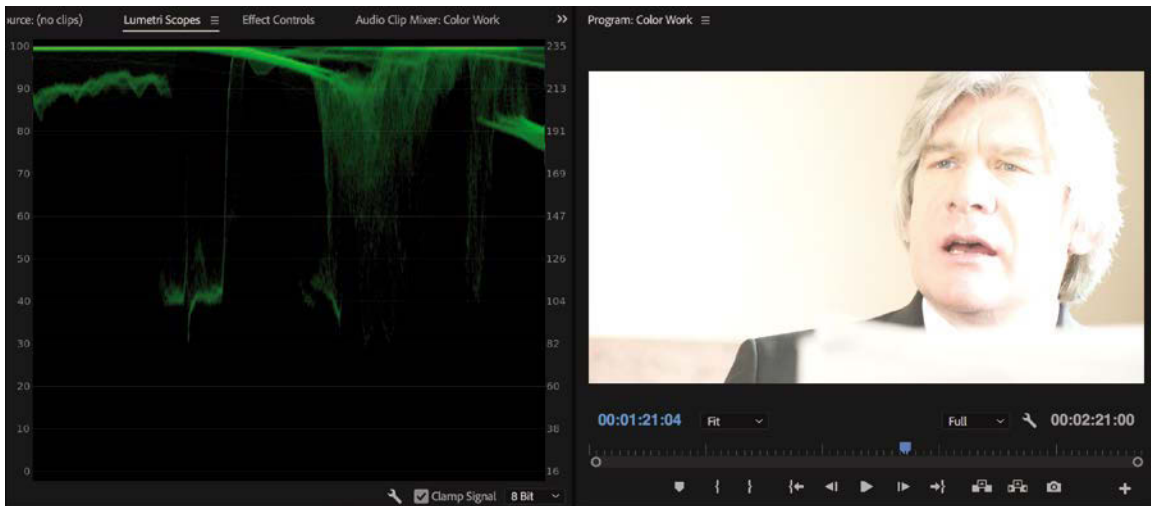
3 Try using the RGB Curves control in the Lumetri Color panel to improve the contrast range. This approach might produce acceptable results, although the clip definitely ends up looking processed.

When is color correction right?

Making adjustments to images is highly subjective. Though there are precise limits for image formats and broadcast technologies, whether an image should be light, dark, blue-tinted, or green is ultimately a subjective choice. The reference tools that Premiere Pro provides, such as the Lumetri Scopes panel, are a helpful guide, but only you can decide when the picture looks right.

If you're producing video for display on televisions, it's vital that you have a television screen connected to your Premiere Pro editing system to view your content. Television screens usually display color differently from computer monitors, and consumer screens sometimes have special color modes that change the appearance of video. For professional broadcast television, editors will usually have a carefully calibrated monitor that displays YUV color.

The same rule applies if you are producing content for digital cinema projection, Ultra High Definition TV, or High Dynamic Range TV. The only way to know exactly how the picture will look is to view it using the destination medium. This means if your ultimate destination is a computer screen, perhaps as web video or part of a software interface, you are already looking at the perfect test monitor.