

What to Look for in Dawn Simulators: A Buying Guide

The winter blues, or seasonal affective disorder (SAD), occurs in some people when dawn keeps getting later, and our circadian rhythms fail to compensate. [Studies](#) show this problem can be treated naturally, without prescriptions drugs, using light therapy.

But how do you find a dawn simulator, or related light product that works? These products are not regulated or rated by the government, and the worst models just don't work. Further, CET does not rate merchandise, although it may reviews an apparatus that merits attention, or collaborate with forward-looking industrial designers in research and development. (For a scientific explanation of how different products perform, and why, see "[Advertising of Untested, Deficient Sleep Aids: Puhleeze!](#)" by Columbia University professor Michael Terman.)

Here are the key factors you need to consider before buying a light unit.

How much light do you need? The best studies demonstrate that the optimum light level for a daylight simulator light therapy unit is 10,000 lux. Lux tells us how much light gets to the eye: the higher the number, the more light reaches the eye.



Dawn simulators, which mimic a natural sunrise, and are used to awaken during darker hours, use incremental amounts of light, far lower than 10,000 lux. You'll want to be able to adjust the light level and timing to meet your needs.

Is the color temperature correct? True daylight has a specific spectral, or color, distribution. Throughout the day, although color changes, all the colors of the spectrum remain in relatively

constant proportions. Your typical household incandescent bulb has a color temperature of around 3000 Kelvins, and is a warmer, more yellow light. Daylight simulators can range from 4000-6500K – or sometimes so high that they cannot even be measured in Kelvins – and the light is much more bright and crisp, due to a higher proportion of blue in the white. But be aware that too bright a light can become a distraction or annoyance, and may not be safe for many hours of use, day by day.

For dawn simulation, the light might extend all the way from starlight to sunrise, falling far short of full daytime intensities such as 10,000 lux. (A tested example spans one thousandth of a lux to 300 lux, spanning five orders of magnitude!) While early models allowed you to output the power to your choice of room light, or operate self-contained halogen or incandescent bulbs, the latest technology has moved to LEDs: power-savers that optimize the dawn signal. In an elaboration of this treatment method, the same controller can deliver a dusk signal, programmed to begin shortly before you expect to be able to fall asleep.

What distance should you place the light? You may find that most therapy lights offer 10,000 lux illumination, but they don't specify at what distance you actually receive that amount. Some light sources provide 10,000 lux only at 6 inches, a fact that a manufacturer may not reveal. Who wants a light that close to their face? Ideally, you'll have the option of placing the light slightly farther away, at least 12 inches or so, allowing you to work and read comfortably.

If you're using a dawn simulator, you'll want to place the light where it gently welcomes you into the morning. It can take about a week to figure out the best location for you, close to the bed or at a distance.

A good dawn simulator will also allow you to adjust the course of changing light level, and you'll want to test out different configurations. At CET, we provide specific guidelines for the therapeutic use of dawn simulators for depression and sleep disorders, written by our experts.

Other basic product facts you should know:

- Is the product UL approved?
- Does it filter out UV rays?
- Has the product been independently tested?
- What is the guarantee and warranty coverage?
- How expensive will it be? What do replacement bulbs, accessories, and electric usage cost?

The good news is that problems with mood and sleep are, in large part, caused by environmental factors *that we can control*. Light therapy is a proven, natural treatment that *works!*

For more information, visit our website, cet.org, or check out our [online store](#).