

A By-the-Numbers Guide to Modern Skylight Installation

A skylight is often an emotional purchase, driven by a desire for light and openness. But a successful installation is a project of pure data and building science. The difference between a skylight you love and a skylight you regret comes down to a few key performance indicators. At DISCOUNTED ROOFING LLC, we believe that understanding these numbers is the key to a successful project. Before you cut a hole in your roof, you should know these five critical data points.

The first data point is the U-factor. This is the measure of a window's insulating properties. It rates how well the skylight *prevents* heat from escaping your home. The U-factor scale is typically 0.20 to 1.20. The *lower* the U-factor, the better the skylight is at insulating. In a climate with cold winters, a low U-factor is essential to prevent heat loss and keep your energy bills down. A cheap, single-pane plastic bubble will have a very high U-factor, whereas a high-performance, double-pane, gas-filled skylight will have a much lower, more desirable rating.

The second, related number is the Solar Heat Gain Coefficient (SHGC). This measures how much of the sun's heat is *blocked* by the skylight. The scale is 0 to 1. The *lower* the SHGC, the less heat it allows into your home. This is crucial for comfort and energy bills. If you are placing a skylight on a south-facing or west-facing roof, a low SHGC (e.g., 0.25) is critical to prevent your room from overheating in the summer. Conversely, if you have a north-facing skylight, a slightly higher SHGC might be fine, as it won't receive direct sun.

The third crucial piece of data is the Visible Transmittance (VT). This measures the good stuff: how much *visible light* gets through. The scale is also 0 to 1. The *higher* the VT, the more light you get. The challenge for manufacturers is to create a

product that has a high VT (lots of light) but a low SHGC (not a lot of heat). This is where modern Low-E (low-emissivity) coatings come in. They are engineered to let visible light pass through while reflecting unwanted solar heat and damaging UV rays.

Fourth, you must consider the slope of your roof. This number, often expressed as a ratio like 4:12 or 6:12, determines *what kind* of skylight you can install and *how* it must be installed. Most skylights are designed for a "pitched" roof, typically with a slope of 3:12 or greater. If you have a flat or low-slope roof, you cannot use a standard skylight. You must use a "curb-mounted" model, which is a unit designed to be installed on a raised frame (the curb) to create the necessary angle for water to drain properly.

Finally, the most important data point is the installer's certification level. This is not a number you'll find on the skylight, but it's the one that ensures all the other numbers matter. The leading cause of skylight failure is improper installation, specifically of the flashing kit. A roofer who is factory-certified by the skylight manufacturer has been trained to install that specific system according to precise specifications. For a **SKYLIGHT INSTALLATION Philadelphia** residents should know that a certified installer is often the only way to get the manufacturer's best "no-leak" warranty.

A skylight is a technical component, a hole in your roof that must be perfectly insulated, sealed, and integrated. By focusing on the data—U-factor, SHGC, VT, roof slope, and installer certification—you move from hoping for a good result to ensuring one.

To talk to a certified team that understands the science of a perfect skylight installation, contact DISCOUNTED ROOFING LLC.