# **Digital Print Guide**

#### For Sun Glow Products

This digital print guide is designed to help you determine which digital files and images to send us, as well as how to calculate the necessary DPI for your images.

Raster images are made up of tiny squares called pixels. When many pixels are combined, they form detailed images, like photographs. Each pixel has a specific color, and the quality of a raster image depends on its resolution: the higher the resolution, the clearer and more detailed the image will be.

Vector images are made using mathematical formulas to create lines, curves, and shapes. Because of this, they can be resized to any size without losing quality. This makes them perfect for things like logos and illustrations. Unlike raster images, which can look blurry when you make them bigger, vector images always stay sharp and clear, no matter how much you resize them.



#### Vector Images



### Vector Vs. Raster Uses

#### Vector Uses

- Logos and Branding
- Illustrations
- Print Design
- Fonts and Typography

#### **Raster Uses**

- Photographs
- Web Graphics
- Texture and Backgrounds
- Digital Paintings

### Vector Vs. Raster Filetypes

- Vector File Types (SVG, AI, EPS, PDF) are best for logos, illustrations, and graphics that need to scale without losing quality.
- **Raster File Types** (JPEG, PNG, GIF, TIFF, BMP) are suited for photographs and detailed images where color depth is important but can lose quality when resized.

#### Scaling

The resolution of a raster file is expressed in DPI (dots per inch) or PPI (pixels per inch).

When you zoom in on or enlarge a raster image, you can begin to see the individual pixels. DPI is a linear measurement that calculates the number of pixels based on the number of inches they cover. In contrast, vector images can be scaled up or down without losing quality, as their mathematical formula adapts to any size.



Sun Glow Window Coverings Products of Canada Ltd.

# **Calculating DPI for Raster**

#### To calculate DPI (dots per inch) for a raster image, follow these steps

- 1. Take the vertical pixel measurement of the image, which in this case is 2160 pixels.
- 2. Divide this value by the vertical dimension of the shade, which is 45 inches.

This calculation gives a DPI of 48. If the image were taller than it is wide, you would instead use the horizontal pixel measurements to determine the DPI.



2160 pixels /45 inches = 48 DPI

### Compare aspect ratios

The image is clearly wider and shorter than the shade in terms of aspect ratio. In order to cover the whole shade we will have to expand the image to cover the full height. This also means we will have to crop off part of the side(s) of the image.



## We have now calculated our DPI. What kind of DPI is required for a given project?

The answer depends on viewing distance. Higher DPI is always crisper, but it is not always possible to find an image that matches client needs at high DPI.



Handheld brochures are typically printed at **300 DPI** because they are viewed up close. For large format printing that requires fine details to look sharp at close range, a minimum of **150 DPI** is recommended.

Ultimately, the appropriate DPI can vary based on yourexpectations. We've had clients who were satisfied with shades printed at **50 DPI**. That's why we often suggest getting a 12" x 12" proof to ensure the print quality meets your needs.



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