

## **Lighting Measurements Explained:**

Color temperature is measured in Kelvin (K).

White light has three categories: warm, neutral, and cool.

Warm White (Below 3000K): Enhances reds and oranges; Adds yellow tint to whites and greens

2500K: Incandescent

1500K: Candle Light

Neutral White (3000K – 3500K): Enhances most colors equally; Does not emphasize yellow or blue.

Cool White (Above 3500K): Bluish white; Enhances blues; Dulls reds; Gives bluish tint to whites and greens

4000K: Cool Fluorescent

5500K: Clear Sky At Noon

7000K: Cloudy Sky

Light output is measured in lumens.

Light levels can be listed in lux or foot-candles (fc).

Lux measurements are approximately 10x the footcandle measurement.

A footcandle is 1 lumen/square foot; a lux is 1 lumen/square meter.

Incandescent light bulbs are measured in watts. A 60-watt bulb produces 800 lumens.

## **Lighting Guidelines:**

Recommended light levels for general ambient lighting: 0 - 50 footcandles, 500 lux, or 3,000-6,000 lumens.

Recommended light levels for task areas: 50 – 200 footcandles, 800 lux, or a minimum of 1,200 lumens.

For writers ages 25-55 use: 35-75 footcandles, 60 watts incandescent, or 5-10 watts LED.

For writers ages 50-75 use: 50-100 footcandles, 100 watts incandescent, or 5-10 watts LED.

For reading (handwriting, reproductions, poor copies): 50, 75, or 100 footcandles.

A 3:1 ratio of task lighting to general illumination provides a good contrast.

A task light for the desk area should not reflect in a computer screen. Place it to the right or left side of your main work space.

**Other lighting options to consider:**

Smart light bulbs like the Lenovo Smartbulb Gen2 (Color) link to Alexa or Google Home and can set a lighting schedule based on color temperature and time of day.

Full spectrum lighting simulates natural sunlight. Brands include BlueMax, Verilux, and OTT.

LED tape lights are easy to install and can be paired with a dimmer to adjust lighting needs for time of day.

**The color of the surrounding walls will impact the light quality in your writing space. Here are some color guidelines:**

Balanced Cool Colors: Purple, Light Purple, Turquoise

Neutral Color: Green

Warm Colors: Yellow, Orange \*Be aware of light sources creating too much reflection when using these colors.

Red absorbs a substantial amount of heat without reflecting it back. If you use red, any sunlight or lamplight will make that area feel hot.