

# Why the blue light laser pen doesn't have all the answers

Most optical lens manufacturers today offer lenses and/or lens treatments that will filter blue light. The problem is, there is some confusion about which blue light filtering lenses to offer.

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## A closer look at indoor blue light lens solutions

To help patients understand the blue light filtering properties behind certain lenses or treatments, an ECP will cast a blue LED flashlight or blue laser through the product.

While this tool helps validate that the product is somewhat effective at filtering harmful indoor blue light — it does not validate the correct portion of blue light protection. You need more info.

## 3 steps to establishing a blue light threshold

1

Determine what portion of the electromagnetic spectrum comprises blue light and what portion of the blue light spectrum has been shown to cause retinal insult:

- Blue light is 380nm to 500nm
- Blue light shown to cause retinal insult is 420nm to 460nm
  - » Blue light below 420nm is associated with scatter and haze
  - » Blue light above 460nm is associated with circadian rhythm

2

Determine what range of light is being emitted from the flash light or laser:

- Many blue light LED flashlights are 395nm
- Many blue light laser pens are 405nm

**Note:** both types of demo lights emit light most associated with scatter and haze, not retinal insult.

3

Look closer at each light in this context, and find a 'range' that is emitted.

- Each manufacturer has a +/- range that should be accounted for.

**What this means:** the lights not only emit light in a range outside of what we are claiming to protect against, we also cannot guarantee that the light is emitting the actual light ray stated on the instrument.

**When a blue LED flashlight or laser pen is cast through a product, we are only demonstrating how well that product filters light that causes scatter and haze.**

## Now what?

If you are looking to provide protection against retinal insult, ask how much light is filtered between 420nm and 460nm — the flashlight/laser demonstration will not provide this. You must understand what each product will protect against and what your patient's visual needs are.

**For more details on blue light please read our white paper ["What We Know — And Don't Know — About Blue Light."](#) And for more information about our blue light filtering lens product contact your local Territory Sales Manager.**