What is harmful blue light?

Blue light (also known as High Energy Visible Light) is at the far end of the visible spectrum, close to ultraviolet light, with a wavelength of between 380-460 nanometers. Harmful blue light is centered around 435nm.¹

Where is harmful blue light found?

Often associated exclusively with electronic devices and screens, harmful blue light is actually present both indoors and outdoors. The sun is the largest singular source of harmful blue light, scattering it through the atmosphere and emitting over 100 times the intensity of electronic devices and screens!

How do Transitions lenses help?

Delivering comfort of vision today and helping provide comprehensive protection for tomorrow, Transitions lenses block harmful UV and reduce exposure to harmful blue light indoors and outdoors so you can safely enjoy your vision today and in the future.

¹ Arnault et al., 2013, http://dx.doi.org/10.1371/journal.pone.0071398
Indoors, Transitions lenses filter harmful blue light emitted by artificial sources such as digital devices and LED lights.

Outdoors, they darken to help provide even more protection from harmful blue light, intense glare and UV rays from the sun.

Transitions® Signature® VII lenses block at least 20% of the harmful blue light indoors, which is up to 2 times more than standard clear lenses, and they block over 85% outdoors.

Transitions® XTRActive® lenses help provide more protection than Transitions Signature VII lenses – they provide more protection against blue light everywhere you need it by blocking at least 34% of the harmful blue light indoors and 88% to 95% of harmful blue light outdoors.

Transition® Vantage® lenses reduce exposure to harmful blue light, blocking at least 34% indoors, which is up to 3 times more than a standard clear lens, and over 85% outdoors.

Blocks at least 20% indoors – up to 2X more than a clear lens

Blocks over 85% outdoors

Blocks at least 34% indoors – up to 3X more than a clear lens

Blocks 88%-95% outdoors

Blocks at least 34% indoors – up to 3X more than a clear lens

Blocks over 85% outdoors

Transitions, the swirl, Transitions Signature, Vantage, and XTRActive are registered trademarks and Transitions adaptive lenses are trademarks of Transitions Optical, Inc., used under license by Transitions Optical Limited. ©2016 Transitions Optical Limited.

Photocromatic performance is influenced by temperature, UV exposure, and lens material.