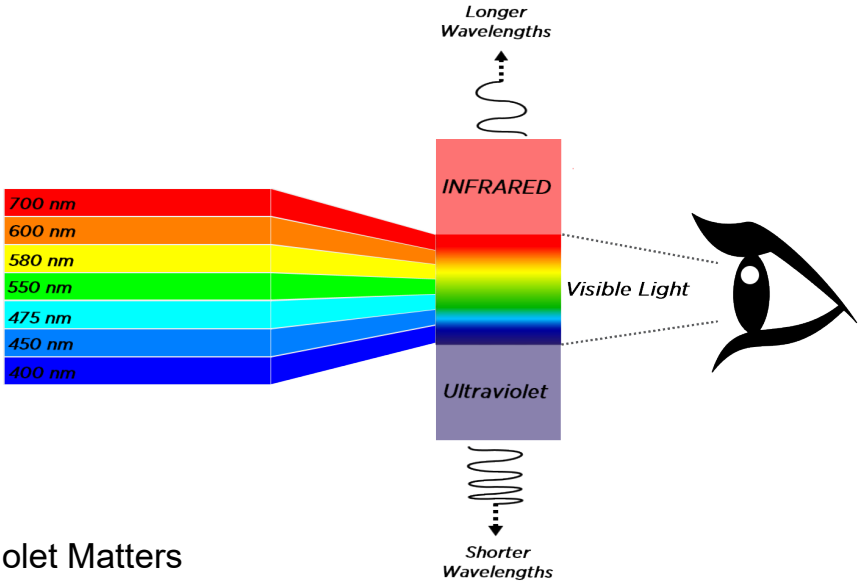
Pure Ultraviolet with Solaris Mozart UV

The Visible Light Spectrum

The nature of light is complicated. Before we can talk about invisible UV light, it is important to understand the basic visible parts of the light spectrum. Without delving too much into the quantum theory of light, we can broadly identify light as a part of the electromagnetic spectrum. The EM spectrum has been developed throughout scientific history to quantify the range of electromagnetic radiation we experience in our daily lives. This covers natural phenomena like radio waves, x-rays, infrared, ultraviolet, and of course, visible light.

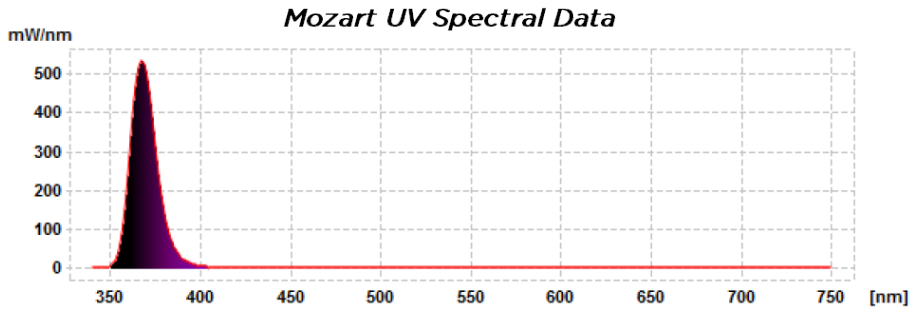
All living beings have developed senses to detect various types of EM radiation, and humans are no exception. Our eyes as a sensory organ have evolved over millennia to perceive a narrow spectrum of EM radiation, which we call visible light. Visible light includes all colors of the rainbow and are measured in wavelengths so small that we use nanometers (1 billionth of a meter) to describe them. A typical human eye can see roughly 380 – 750 nm. Those wavelengths shorter than 400 nm are defined as Ultraviolet.



Why Invisible Ultraviolet Matters

Ultraviolet light has a unique effect on phosphorescent materials that make the material's phosphors substances excite and glow. These materials are used in various scenic and atmospheric lighting designs to help give selective visibility to objects and provide an ambience in situations that require an eerie effect.

It is sometimes very important in these situations that ultraviolet light emitters are "pure" and do not contain elements of the visible light spectrum, otherwise the desired effect will be lost. We took these considerations to heart when designing our Solaris Mozart UV fixture, to make all ultraviolet light emissions centered on 365 nm with no visible light produced.



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