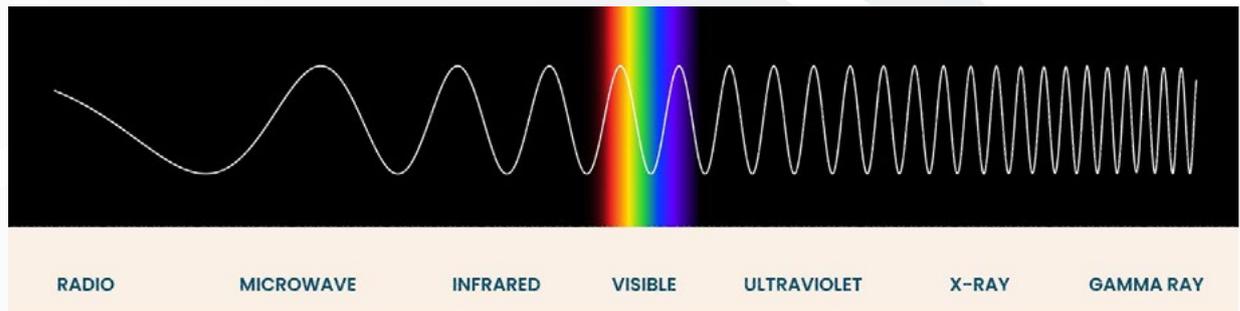


# UV – The next step in LED technology



To understand about ultraviolet (UV) light, it helps to have an appreciation of the electromagnetic (EM) spectrum. The EM spectrum is the range of all types of EM radiation. Radiation is energy that travels and influences our lives on a daily basis. From the visible light that comes from a lamp in your house to the radio waves that come from a radio station. Where radiation appears on the EM spectrum is determined by its wavelength.

UV radiation is generated by the Sun and falls into three general categories; UV-A, UV-B and UV-C. About 95% of the UV light which reaches the earth is UV-A with the other 5% being UV-B. UV-C, which has the shortest wavelength, is almost entirely blocked by the earth's atmosphere. Thankfully, as it is the most harmful!

The first ultraviolet light-emitting diodes (UV-LEDs) were developed at the turn of the century. As the technology has improved the applications for UV-LEDs has expanded rapidly to include replacing conventional UV lamps; fluorescence light sources for lighting and displays; high-resolution light sources for microscopes and exposure machines; light

sources for chemical excitation as used for resin curing, medicine, and biotechnology; excitation light sources for spectroscopy as used for banknote identification, DNA chips, and environmental monitoring and sanitary light sources for disinfection and sterilisation.

There are also applications in the poultry industry.

Unlike humans, poultry can see UV light and by providing UV light in the spectrum of poultry lighting systems, there is the potential to promote more natural behaviour, increase activity levels, reduce stress and even improve feathering.

It is believed that birds use UV light to identify each other using markers that are only visible under UV light. Enabling birds to behave more naturally appears to significantly reduce undesirable behaviours, such as pecking, and contribute to an overall healthier, happier flock.

Gallina LED now offers UV as an option on all our lighting systems so please get in touch today to find out more.

LED: Improve Performance, Improve Welfare, Save Energy!