Do LEDs cause blindness?

Carolyn Mathas - August 06, 2013

According to a study led by Dr. Celia Sánchez-Ramos, of Complutense University in Madrid, light from LEDs comes from the short wave, high-energy blue and violet end of the visible light spectrum. She indicated that prolonged and continuous exposure to LED light might be sufficient to damage the retina. In a recent interview, she indicated that the problem would worsen as people live longer and children use electronic devices at a young age, particularly for schoolwork.

Her study, published in the journal Photochemistry and Photobiology in 2012 found that LED radiation caused significant damage to human retinal pigment epithelial cells in vitro. She states that humans are exposed to artificial light for the majority of the approximately 6000 hours annually their eyes are open.

LEDs have also been blamed for bleaching the paint on such masterpieces as Van Gogh and Cézanne in art galleries. The professor of the University College of Optics at the Complutense says LED lights are made up of rainbow longitude waves, but it’s the blue part that causes the problem.

Offering up some possible aid, she indicates that using good sunglasses with UV filter rays, and a healthy and varied diet rich in Vitamin A – which comes from spinach and peppers – will protect the eyes. It seems to me that most LED lighting is indoors where people seldom use sunglasses.

As far as the food goes, she indicates that Vitamin A has a high concentration of visual pigments, known as maculars, which are responsible for absorbing the harmful elements of light such as short-wave blue and violet rays. However, human being’s ability to store these pigments reduces with age.

The MAPFRE Foundation, the charitable arm of the Spanish insurance company MAPFRE, financed the professor’s investigation into eye damage caused by LEDs.

So, what do you think? Is there really something here? I think I’m moving my desk outside and only working daylight hours. How about you?

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