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BY EMAIL

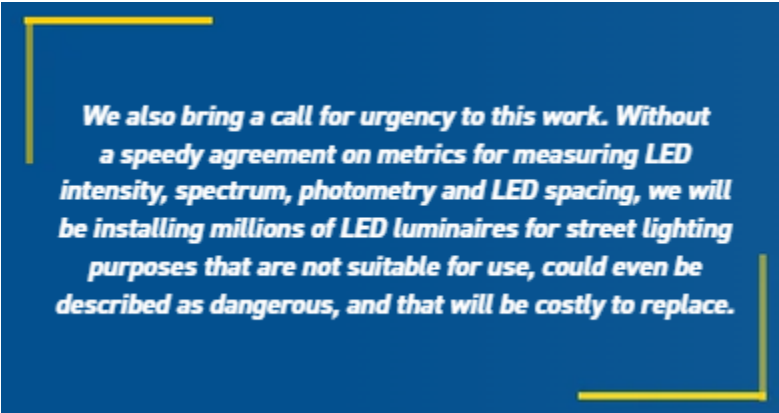
Environmental Health and City Council
Dorset, United Kingdom
envhealth@dorsetcouncil.gov.uk

Re: LED Streetlights Are Dangerous

Dear Environmental Health and City Council,

The Soft Lights Foundation advocates for the protection of the natural night resource and for the protection of citizens from the harms of Light Emitting Diode visible radiation. We are writing to you now to alert the town of Dorset to the fundamental safety and legal issues of LED street lights.

In December 2021, Cree Lighting published a white paper that alerts government officials to the fact that, *“None of the existing metrics [for LED street lighting] takes into account the non-uniform emitting surface of a LED luminaire.”*¹ Cree went on to say that LED streetlights are dangerous. Thus, the installation and operation of LED streetlights poses a liability for Dorset.



We also bring a call for urgency to this work. Without a speedy agreement on metrics for measuring LED intensity, spectrum, photometry and LED spacing, we will be installing millions of LED luminaires for street lighting purposes that are not suitable for use, could even be described as dangerous, and that will be costly to replace.

In March 2022, the US Department of Energy signed a Memorandum of Understanding with the Illuminating Engineering Society to develop *“needed metrics and standards for solid-state lighting (SSL) technology.”*² It is of course astonishing that billions of LED products have been sold without the needed metrics being in place. Standards such as IES RP-8-18 and BS 5489 cannot be applied to LED street

¹ <https://online.flippingbook.com/view/702884488/>

² <https://www.energy.gov/eere/ssl/us-department-energy-and-illuminating-engineering-society-partner-advance-industry>

lights, and thus cannot be used by Dorset to ensure safe, uniform illumination patterns for LED street lights. There are no known standards for LED street lights, and the difficulty of creating such standards lies in the fact that LEDs emit a directed energy beam of spatially non-uniform visible radiation that simply is not safe for use as a street light.

LEDs emit an unnatural type of visible radiation with spatial, spectral, and temporal properties that are known to be hazardous to human health.^{3,4} To date, no UK authority has vetted LED streetlights and the necessary comfort, health, and safety standards have not been published. Thus, Dorset has no regulatory authority to install or operate LED streetlights, which creates a significant liability and economic risk for Dorset due to the known hazards of LED visible radiation.

LED street lights are discriminatory, because the directed energy visible radiation that is emitted triggers life-threatening photosensitive seizures, multi-day migraines, anxiety, vomiting, and many other adverse neurological reactions.⁵ The Irish Parliament Joint Committee on Disability Rights is currently debating whether to create “lifeline routes” so that individuals who cannot neurologically tolerate the visible radiation emitted by LED products have a way to get to work and shop without being subjected to LED visible radiation.⁶ When a product is so hazardous that government officials are attempting to create lifeline routes, it should be clear that the product itself must not be used.

In addition to the major legal obstacles discussed above, recent research proves that the switch to LED lighting has drastically increased light pollution due to the directed energy nature of the LED light source, and due to the use of high energy blue wavelength light.⁷ Due to the rollout of LEDs, light pollution is now increasing at a rate of 10% per year, up from the previous 2% per year. Artificial light at night is a major contributor to risk of human diseases such as prostate cancer, breast cancer, mood disorders, and premature births.⁸

LED street lights were likely marketed to the town of Dorset as being energy efficient.⁹ This is a false marketing claim, as LED street lights do not emit the same type of safe, uniform light emitted by High Pressure Sodium. A product may only be claimed to be energy efficient if it provides the same quality of service as the baseline comparison product. In this case, LED street lights produce a low-quality, hazardous visible radiation that is not the same quality as the light from HPS street lights.

To avoid additional expense, reduce energy costs, and avoid potential liability, we urge Dorset to turn off or eliminate LED streetlights until the appropriate government agency publishes comfort, health, and safety regulations for LED products. We also urge Dorset to invite public health officials to present to the council on the adverse health impacts of artificial light. LED street lights are hazardous,

³ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9420367/>

⁴ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7830240/>

⁵ <http://www.softlights.org/stories/>

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https://data.oireachtas.ie/ie/oireachtas/committee/dail/33/joint_committee_on_disability_matters/reports/2023/2023-02-23_report-on-aligning-disability-services-with-the-united-nations-convention-on-the-rights-of-persons-with-disabilities_en.pdf

⁷ <https://www.science.org/doi/10.1126/science.abq7781>

⁸ <http://www.softlights.org/human-health/>

⁹ <http://www.publiclightingauthority.org/>

dangerous, unregulated, and create unacceptable discriminatory barriers to access to government and business services.

Sincerely,

/s/ Mark Baker

President

Soft Lights Foundation

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