

April 26, 2022

BY EMAIL

Geoffrey Beckwith, Executive Director
Massachusetts Municipal Association
gbeckwith@mma.org

Re: Toxic and Discriminatory LED Lights

The Massachusetts Municipal Association website has numerous false claims about LED streetlights. LED streetlights are not energy efficient, as MMA claims, but rather a low-quality light well suited for fiber optic communications, but poorly suited for the purpose of illumination. Lighting manufacturers such as Acuity Brands and Signify claim that LED light is the same quality as light from High-Pressure Sodium, but we know this to be false because LED streetlights may impair depth perception, often increase glare, and typically have subsensory flicker. The result of using low-quality LED light includes epileptic seizures, migraines, anxiety, eye pain, and exclusion from public life.

Ms. Elaine Dennehy's powerful testimony in February 2022 to the Irish Parliament details the impacts of LED light on people's lives. https://www.oireachtas.ie/en/debates/debate/joint_committee_on_disability_matters/2022-02-03/2/

The LightAware Charity's 2021 report describes the harms caused by LED lights and has numerous additional personal stories of the negative impacts of LED light. <https://lightaware.org/wp-content/uploads/2021/02/LightAware-LED-Street-lighting-report.pdf>

The lighting manufacturer Cree Lighting released a whitepaper in April 2022 admitting for the first time that the entire lighting industry has used incorrect metrics for LED lighting. <http://www.softlights.org/wp-content/uploads/2022/04/Cree-Lighting-White-Paper.pdf> This means that the claims of energy efficiency have been wrong, the claims of LED safety have been wrong, and photometric layouts have been wrong. In other words, nearly everything you have been told about LEDs is wrong and the industry now admits it. The industry has finally realized that they were incorrectly ignoring the non-uniform spatial energy of surface source LED light.

There is no known safe level of LED light.

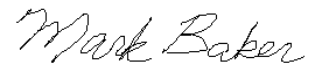
Incandescent light bulbs have a luminous efficacy of approximately 10 lumens per watt. High-Pressure Sodium lights are approximately 120 lumens per watt. Low-Pressure Sodium lights are around 200 lumens per watt. Amber LED streetlights are approximately 100 lumens per watt, but with non-uniform spatial shape which creates a discriminatory barrier for those who are LED-reactive. Given the comparable luminous efficacy between the point source HPS and LPS and the surface source LED, we see no reason to switch to the low-quality, discriminatory LED light.

To protect the natural night resource from light pollution, install full shields. To reduce energy usage, switch from 100-watt HPS to 50-watt HPS with no reduction in safety. To reduce energy usage further, switch from HPS to LPS.

The Soft Lights Foundation and others are currently involved in multiple legal actions involving LED lighting. These actions include cases with human rights commissions, state Attorney General investigations, and preparation for class action lawsuits.

Now that the Soft Lights Foundation has made the MMA aware of the negative impacts of LED light, the MMA has an obligation to let its members know that LED light is a low-quality light, that LED streetlights are not energy efficient as claimed, and that the federal Americans with Disabilities Act is still in effect.

Sincerely,



Mark Baker
President

Soft Lights Foundation
mbaker@softlights.org

