



**Museum of Science®**

July 3, 2024

The Honorable Ron Mariano  
Speaker of the House of Representatives  
Massachusetts House of Representatives  
24 Beacon Street, Room 356  
Boston, MA 02133

Dear Speaker Mariano,

I am writing to respectfully urge you to support the dark skies movement by including bill H.4502 in the House Omnibus Climate bill and ensure that it goes to the floor for a vote before the end of session on July 31, 2024. *An Act to improve outdoor lighting, conserve energy, and increase dark sky visibility*, commonly known as the Dark Skies bill, promotes energy efficient lighting practices in the Commonwealth of Massachusetts, allowing the state to conserve energy, undermine the harmful effects of light pollution on wildlife and human health, save money, and preserve our inspirational view of the night sky.

As you may know, the Museum of Science is one of the world's largest science centers and New England's most highly attended cultural institution, introducing millions of visitors a year to science, technology, engineering, and mathematics (STEM) via dynamic programs and hundreds of interactive exhibits and our digital content. The Museum exists to inspire a lifelong love of science in everyone. Through exhibits, curricula, programs, and events, both live and virtual, reaching audiences both locally and around the world, we make science and scientific thinking accessible, engaging, and relevant. Our vision is a world in which science belongs to each of us for the good of all of us. The Museum's Center for Space Sciences brings together academia, industry, government, and the public to create a vision for—and a commitment to—increasing public understanding of astronomy and space exploration.

Humanity's connection to the night sky goes back to the very dawn of our species, when the stars were the compass by which we navigated, the calendar by which we planted our crops and ordered our festivals, and the storybook we used to record our oldest tales and legends. Even in our modern-day society, human health outcomes can be scientifically linked to the natural cycle of bright day and dark night. And in an era when so many people are so deeply divided, the awe of the cosmos remains capable of uniting us.

But it is an experience being denied to increasing numbers of people. Seventy-five percent of Massachusetts residents cannot see the Milky Way from their homes. Skyglow from human-caused light pollution is increasing at roughly 10% per year worldwide. Light pollution is the human-made alteration of outdoor light levels from those occurring naturally. Research suggests that artificial light at night can negatively affect human health, increasing risks for obesity, depression, sleep disorders, diabetes, breast cancer and more. Humans evolved to the rhythms of

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the natural light/dark cycle of day and night. The proliferation of artificial light at night means most of us no longer experience truly dark nights.

Light pollution also has a negative impact on wildlife. Plants and animals depend on Earth's daily cycle of light and dark to govern life-sustaining behaviors such as reproduction, nourishment, sleep, and protection from predators. Scientific evidence suggests that artificial light at night has negative and deadly effects on many creatures, including amphibians, birds, mammals, insects, and plants. For instance, millions of birds die each year as a result of collisions with brightly lit buildings at night.

As our dark skies continue to vanish, the effects will be increasingly felt culturally, biologically, and environmentally. But it is a loss that can be reversed. This legislation would promote energy-efficient lighting practices throughout the Commonwealth by requiring municipal and state-funded projects to use fully shielded exterior lighting in new or replacement installations, and to install that lighting only where needed. The bill would require lighting with a correlated color temperature of no higher than 3000L, which researchers advocate for human circadian health and nocturnal habitats, and require MassDOT and Mass DPU to update their criteria for roadway lighting and conform to best practices.

**Massachusetts is the *only* state in the Northeast without existing legislation regulating light pollution and it is time for that to change.**

Thank you for your consideration of this request. If you have any questions or need any additional information, please do not hesitate to contact Lisa Urovitch, Interim Senior Director, Government and Foundations Relations, at (617) 589-4473 or [lurovitch@mos.org](mailto:lurovitch@mos.org), or Chelsea Aquino, Associate Director of Government Relations, at 617-589-3101 or [caquino@mos.org](mailto:caquino@mos.org).

Yours,

A handwritten signature in blue ink that reads "Tim Ritchie".

Tim Ritchie  
President