

# Summary of LED Streetlights

## Radiation Types

This table below compares streetlights by the category of spatial radiation type: Incoherent, Partially Coherent, or Fully Coherent.

Streetlight Comparison by Radiation Type			
Radiation Type	Incoherent	Partially Coherent	Fully Coherent
Example	High-Pressure Sodium	Light Emitting Diode	Laser
Dispersion	Inverse Square Law	Directed Lambertian	Collimated
Metric Name	Luminous Intensity	Luminance	Radiance
Metric Units	Candela	Candela / m <sup>2</sup>	Watts / m <sup>2</sup> / steradian
Hazard Level	Low	High	High
Regulations / Standards	Standards	None	Regulations
Discriminatory	Low Possibility	Yes	Yes

Energy-efficiency comparisons cannot be made between columns because of the change in radiation types. Laser streetlights are theoretical and are listed for instructional purposes only.

## Videos

**July, 2023** – [How a Simple Concept Enabled a \\$50 Billion LED Streetlight Scam that Changed our World](#) – This 19 minute video describes some of the false claims of LED street lighting.

**May, 2023** – [The LED's Challenge to High Pressure Sodium \(Response / Debunking / Topic Expansion\)](#) – This hour-long video debunks many myths about blue rich LED streetlighting.

## Documents

**September 4, 2023** – [Brief History of LED Laws](#) – This document summarizes the history of how Congress passed laws that led to the widespread adoption of LEDs.

**March, 2023** – [A Multi-Field Analysis of Street Lighting in Grand Rapids, Michigan](#) – A detailed analysis showing why LED streetlights with blue wavelength light are unsafe and why Low Pressure Sodium is most energy efficient and safest type of street lighting.

**September 18, 2022** – [2022 Report on LEDs](#) – The Soft Lights Foundation report on LEDs with a line-by-line analysis of the 2018 SCHEER Report.

## Reports of Harm

**May 16, 2022** – [Testimony to New York State Public Service Commission](#) – Written testimony to the New York State Public Service Commission describing how LED radiation triggers seizures for MarieAnn Cherry.

**February 3, 2022** – [Presentation to Irish Joint Committee on Disability Matters](#) – Oral testimony to the Irish Parliament detailing how LED radiation is incapacitating for Eliane Dennehy.

**January 4, 2021** – [I Have Not Been Able to Go for an Evening Walk](#) - Description of how LED radiation causes debilitating migraines.

**April 29, 2019** – [I Developed a Sunburn-rash to my Face](#) – Description of the impacts of LED radiation on a person with Lupus.

## FDA Regulation

The Food and Drug Administration regulates electromagnetic radiation from electronic products, including LED streetlights, as required by 21 U.S.C. 360hh-360ss, and 21 C.F.R. 1000-1040. The FDA has not published any performance standards for LED streetlights to ensure the comfort, health, and safety of the public. There are no known cases of manufacturers petitioning the FDA to publish performance standards for LED streetlights. The Soft Lights

Foundation submitted a citizen petition to the FDA to regulate LED radiation on June 13, 2022.<sup>1</sup> The FDA has not acted on this citizen petition.

21 C.F.R. 1003.2(b) states, *“For the purpose of this part, an electronic product shall be considered to have a defect which relates to the safety of use by reason of the emission of electronic product radiation if, without regard to the design specifications of the product, emits electronic product radiation unnecessary to the accomplishment of its primary purpose which creates a risk of injury, including genetic injury to any person.”* – The primary purpose of a streetlight is to provide safe, uniform illumination without harm to the public or the environment. Since LED streetlights emit a visible radiation type that is a recognized hazard and which does not provide safe, uniform illumination, LED streetlights are a defective product.

## Discrimination

LED streetlights create discriminatory barriers where no barrier existed with HPS streetlights. The use of LED streetlights denies citizens equal access to city streets and sidewalks, in violation of 42 U.S.C. Chapter 126.<sup>2</sup>

## Public Notice

Government agencies have not notified the public that the switch from HPS streetlights to LED streetlights means switching radiation types. Government agencies have not notified the public that the FDA has not vetted LED streetlights for safety and has not published the required performance standards for LED radiation. Government agencies have not provided reasonable accommodation for those who are neurologically intolerant of the visible radiation emitted by LED streetlights.

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<sup>1</sup> <https://www.regulations.gov/document/FDA-2022-P-1151-0001>

<sup>2</sup> <https://uscode.house.gov/view.xhtml?path=/prelim@title42/chapter126&edition=prelim>