



9450 SW Gemini Drive PMB 44671 Beaverton, OR 97008 www.softlights.org

February 1, 2022

BY EMAIL

Jennifer McNelly American Society of Safety Professionals executive@assp.org

Re: LED Flashing Lights

Dear Jennifer McNelly,

LED flashing lights are entirely unregulated by the government and now all our lives are in danger. These LED flashing lights are being used on police cars, ambulances, utility trucks, tow trucks, fire engines, radio towers, stop signs, speed limit signs, garbage trucks, forklifts, fire alarms, bridges, and pedestrian crossings. Essentially, everywhere we need safety, companies and governments have installed high intensity LED flashing lights that flash directly into our eyes, thus reducing our ability to see, think, and concentrate at the exact moment when we need full operation of our senses.

The intense beams of light and the rapid on/off flashing triggers seizures, causes migraines, interferes with human nerve functioning, reduces vision, increases agitation, and endangers the lives of the public and first responders.

As an example of how dangerous LED radiation is, the operator's manual for the Ryobi P705 Flashlight includes the following: "WARNING: Do not direct the light beam at persons or animals and do not stare into the beam yourself (not even from a distance) Staring into the light beam may result in serious injury or vision loss." This warning is for a single static flashlight. Imagine how dangerous the situation is with multiple LED flashing lights operating in the same location.



WARNING:

Do not direct the light beam at persons or animals and do not stare into the light beam yourself (not even from a distance). Staring into the light beam may result in serious injury or vision loss.

The first video example below shows how incandescent hazard lights work. They give a slow, general, soft warning and let people know that the vehicle is in an unusual situation without detracting from the task of driving or walking.



https://youtu.be/DHJZTb7qXQo

The remaining videos show the misuse of technology, where flashing LED radiation devices do not carefully warn, but rather assault people, violating their civil rights, damaging their eyes, interfering with the functioning of their nerves, and reducing safety.



https://youtu.be/k3FvFwsW-vs



https://youtu.be/ma0hGwHivO4



https://youtu.be/bhEkxtKbtks



https://youtu.be/910_J5xhrTk



https://youtu.be/cJKgMtXJ-IE



https://youtu.be/S6-wZDtTMfA



https://youtu.be/0MLDA6too1Q



Figure 1 is a diagram showing why LED light beams are so intense and dangerous. The peak luminance of an LED can be hundreds of thousands or even hundreds of millions of nits, far exceeding human thresholds, and the non-uniform shape interferes with the human nervous system.

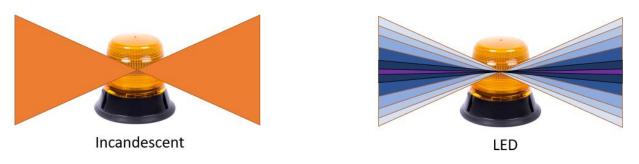


Figure 1 - Incandescent vs. LED Flashing Lights

The result of exposure to LED flashing lights is immediate sickness in the form of headaches, nausea, eye pain, loss of balance, migraines, panic response, altered vision, epileptic seizures, disorientation, and other neurological disturbances. Each of these symptoms is being verifiably reported by an increasing number of individuals and constitute medical evidence of LED-induced harm. LED flashing light exposure is causing catastrophic physical harm, subjecting at-risk individuals to illness and injury, and plunging formerly healthy, independent people into crisis levels of stress, hopelessness, psychological trauma, and persistent thoughts of suicide.

The research going at least as far back as 1955, continuously concludes that flashing lights provide no value, only harm. Why does society continue to use these devices that provide no benefit, but does cause injury?

December 27, 1955 – <u>Siren, Light Removal Makes Police Unhappy</u> - "Removal of the sirens and red lights has materially reduced accidents involving police cars rushing to other smashups or speeding to the scene of a crime."

August 5, 2001 - Rear Lighting Configurations for Winter Maintenance Vehicles This study concludes that flashing lights are less effective than static lights for safety.

October 2010 – A Ten-point Toolkit for Effective Warning Lights – This article on ambulance lights concludes that "fewer lights, flashing slower & less brightly are more effective."

June 1, 2016 - National Institutes of Health – Psychological Factors in Exceptional, Extreme and Torturous Environments This scientific research shows that strobing LED lights are instruments of torture.

June 5, 2016 - Why Running Lights and Sirens is Dangerous — Flashing Lights and Sirens may save a few minutes, but does not change the outcome of the event. There is no value to using them, but there is harm.

2018 – <u>Police Vehicle Warning Signals – An Innovative Approach to Officer Safety</u> – This article in Police Chief Magazine discusses the dangers of overly intense flashing lights.

2019 – <u>Situational Based Emergency Lights</u> – Photos showing the difference between high-glare and low-glare LED police lights, with article.

2019 – <u>Massachusetts State Police</u> – Compilation video showing high luminance strobe lights on MSP vehicles.

April 2, 2019 - <u>Impacts of Emergency Flashing Lights and Vehicle-Mounted Illumination on Driver Visibility and Glare</u> - This study concludes that strobing LED lights are dangerous.

June 11, 2019 - Stroboscopic light effects during electronic dance music festivals and photosensitive epilepsy: a cohort study and case report - The connection between strobe lights and seizures.

2021- <u>California Highway Patrol</u> – Video of CHP vehicle on roadway with high luminance LED flashing lights.

December 2021 – Effects of Emergency Vehicle Lighting Characteristics on Driver Perception and Behavior – This study funded by the Emergency Responder Safety Institute is severely flawed because it doesn't account for LED luminance, but despite its flaws, the conclusion is that flashing lights put lives in danger.

January 27, 2022 – <u>Dodge Charger Driver Dead</u> – Video of police vehicles with high-intensity LED flashing lights.

There are no government regulations for LED flashing lights, despite the research showing that these devices are dangerous and that fewer lights that flash slower and less brightly are safer. This lack of regulation is unacceptable. We would like to see the ASSP address this issue with policy makers and the Soft Lights Foundation offers to collaborate with ASSP.

Sincerely,

Mark Baker President

Soft Lights Foundation

Mark Baker

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