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February 13, 2022

BY EMAIL

Howard Chan, City Manager Sacramento, California hchan@cityofsacramento.org

Re: Vision Zero and LEDs

Dear Howard Chan,

The goal of the Vision Zero program is to reduce traffic deaths and life-changing injuries to zero. This goal is impossible to reach while LED flashing lights and LED billboards are shining high intensity light directly into the eyes of the public. We have assembled a collection of <u>examples</u> on our website.

LED flashing lights on police cars, utility trucks, stop signs, and electronic billboards are dangerous distractions.



Figure 1 - Video: <u>https://youtu.be/k3FvFwsW-vs</u>



Figure 2 - Video: <u>https://youtu.be/dLv9bqMFaXY</u>



Figure 3 - LED Billboard

Figure 4 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.

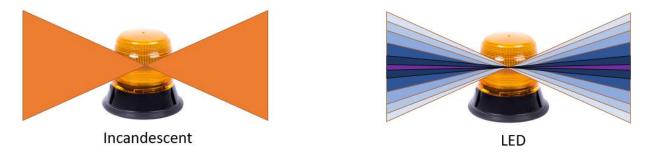
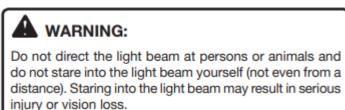


Figure 4 - Incandescent vs. LED Flashing Lights

As an example of how dangerous LED light beams are, the operator's manual for the Ryobi P705 Flashlight includes this warning:



LED flashing lights are a fundamentally flawed product because the designers have failed to address the issue of peak luminance in their designs. The intense LED light beam interferes with our ability to see, think, and concentrate, and causes eye injury. We are expecting multiple product defect lawsuits against everyone in the manufacture, sale, and operation of LED flashing light devices in the near future.

To be successful, the Sacramento Vision Zero Task Force must pass laws and regulations that prohibit the use of LED flashing lights and LED billboards.

Sincerely,

Mark Baker

Mark Baker President Soft Lights Foundation <u>mbaker@softlights.org</u>