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## Philadelphia Streetlight Crime Study

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To: johnmm@upenn.edu

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Dear John MacDonald, Professor of Criminology, University of Maryland,

The Soft Lights Foundation was notified of your recent study on crime and the switch to LED streetlights. (<https://download.ssrn.com/2025/3/10/5150459.pdf>). The study conclusions contradict well-known research showing that artificial lighting does not reduce crimes. The Soft Lights Foundation is therefore very interested in this new study, and I would like to provide my thoughts about some of the information presented in the paper.

1. The paper states, "The results indicate that the average increase in LED lighting among the 720 hexagons in the city led to a 5% decrease in overall crime, a 4% decrease in violent crime, a 7% decrease in property crimes, and a 17% decrease in gun crimes." and "The observed 17% reduction in outdoor daytime property crimes...". These percentages indicate to me that crime is down overall in Philadelphia, and that the switch to LED streetlights had nothing to do with the reduction in crime rates at night.
2. The study only lasted from August, 2023 to May, 2024. Thus, the time frame is not even a full set of seasons and the study does not appear to have lasted long enough to make any conclusions.
3. The study does not track the increase in cancer rates during this same time frame. Blue-rich LED light at night is now labeled by researchers as carcinogenic. I would say that, if LED streetlights reduced crime but increased cancer rates, that the study should state this information.
4. The photo in the study paper shows that the switch to high-glare, blue-rich LED streetlights creates shadows and a dystopian environment, possibly causing individuals to avoid going out at night. The possible reduction in crime should be contrasted with quality of life factors.

Figure 1. Contrast Between Streets with HPS Bulbs (Left) LED Lighting (Right)



5. The report claims that LED streetlights are energy-efficient, but this is not a factual statement. An energy efficiency claim must be made against a baseline product. In this case, the baseline product can be identified as HPS streetlights. Blue-rich LED streetlights emit a low-quality light that triggers seizures, migraines, and thoughts of suicide, and greatly

increases the risk of mood disorders, cancer, heart disease, and early mortality. For a new product to be designated as "energy efficient", the new product must be the same quality as the previous product, in this case HPS. Since HPS has a color temperature of around 2000K and the LED streetlights in the study are around 3000K, the light quality was lowered, and thus no energy efficiency claim can be made.

6. The photo below shows high-glare, blue-rich lights in Kenosha, Wisconsin in 2020. Based on evidence such as this, I am unable to draw the connection between blue-rich LED streetlights and crime reduction that is asserted in the Philadelphia study.



Sincerely,

Mark Baker  
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