I would like to voice my support for SB425.

We have known for many years about the problem with artificial light at night causing health concerns. It is only recently in 2015 that the AMA finally issued a policy statement after reviewing the many studies over the last 20 plus years that linked night time exposure to artificial light, particularly blue light, to melatonin suppression. This has an effect on the immune system which can lead to a higher incidence of cancers.

The AMA recommends lower color temperature street lighting and I agree. The LED street lights that the utilities have already installed in may places are 4K and 5K and these really bother me when driving. Our eyes are more sensitive to the shorter wavelength of blue light and it scatters more and causes more glare. The ideal LED road fixtures would be amber like they are using in some areas of Canada. These are more in line with the color of the street lights we are used to in the last twenty years, Sodium, which ranges from 1800K to 2100K. These also are better at cutting through fog. Fog lamps on cars used to be amber or yellow. 2400-2700K would be a nice compromise.

The Full Cut-Off provisions of the current statutes should also be strictly enforced. The manufacturers approved installation instructions call for the lights be be installed level, not tilted as many streetlights are being installed. I've also seen LED streetlights that to not appear to be true Full Cut-Off since the light sources are at the very bottom of the fixture and produce light to the side.

The one problem I have with this bill as it is currently written is with the part that reads ' all other factors being equal'. I believe that this could negate the purpose of this bill since a utility may claim that a lower temperature fixture may not be quite as efficient as a higher color temperature fixture. Newer fixtures are very close in efficiency in the different color temperature models. The first LED fixtures on the market were slightly less efficient in the lower K models but this is not the case now. I could envision a utility saying that the lower K fixture might cost a dollar more than the 4000K model and thus not have to comply. We could also clarify 'Yellow Tinted' to mean 2700K. If we really care about our health and safety we should rewrite that section so it actually will make utilities use lower K fixtures. In speaking with a few utility reps over the last few years about a stretch of roadway that got new blindingly bright white LED lights, they often cite outdated data regarding safety. Over lighting makes you less safe because your eyes cannot adapt to the surroundings. Our wildlife and plants would be less disrupted by 2400K lights.

Thank you for the opportunity to voice my concerns.

Sincerely,

Michael Zarick