Dark Sky Ordinances: How to Separate the Truth from the Lies

The Independence Institute was founded in 1985 and according to their mission "is established upon the eternal truths of the Declaration of Independence". They claim that their purpose is to influence public policy that will enhance personal and economic freedom. However, after a short analysis of their article *Dark Sky Ordinances: How to Separate the Light from the Darkness* it will be clear that what the Independence Institute really strives to accomplish is the giving the right to personal and economic freedom to those whom want to take it—no matter how many personal rights of others' they step on and steal from. The make numerous claims concerning the facts and statements made by the International Dark Sky Association; however, through their erroneous claims they try and diminish the efforts of IDA claiming the IDA is nothing more than crying stargazers aiming to darken the world "for the children". Once we weed out the enormous amount persuasive adjectives the II weaves throughout their "paper", we are able to take their statements piece by piece and see how deceptive and misleading they really are.

First, II attempts to prove that light pollution is indeed not a form of pollution like "dioxin pollution" because light is not dangerous and is not a pollutant. II claims that the term "light pollution" is "dead wrong" because light is what "star-gazers" want to see. II claims that man-made light allows people to continue socializing and living after dark and therefore allows more human freedom. While, this is true it does not address outside light. Humans use indoor light after dark in order to socialize and work without adding to the night sky. II also attempts to declassify the term "light pollution" through reasoning of "…man is part of nature, and therefore so is the light created by man". By their reasoning nuclear waste would be natural and should be left to roam the plains undisturbed; even further, by their reasoning flushing human waste is a destroying nature and it too should be left undisturbed.

II makes a dangerous claim when attempting to debunk scientific research proving that man-made light causes disruptions in the circadian rhythm and leads to breast cancer. II states that scientists have noted that "most man-made light does not reproduce the full spectrum of solar light". While this is an interesting fact, it does not in any way counter the numbers of experiments that have proven the damages caused by dim light exposure throughout the night. None of the *real* research done claims that the night light exposure that leads to these health problems is full-spectrum light—simply dim light will do the trick.

II goes on further to make a mockery out of astronomy by turning the SCIENCE of astronomy into a child's game: "if you learn at least a little astronomy, then you will have an easier time finding your way when you are lost, because you can find the North Star". II compares a child or adult watching TV to watching the night sky and consistently refers to astronomers as "star-gazers" which may be one of the more insulting things to call a scientist. Seeing as astronomers as scientists and not merely "gazing" at the sky.

Next II attempts to give a quick history of telescopes. They quickly note that all research that can be done has been done by "professional" scientists. This is just an outright uneducated lie that any intelligent person would disagree with! The numerous studies conducting research on globular clusters or galactic cannibalism are still ongoing as well as many other studies that may serve a significant foundation for scientific studies in the future. If you want to live in a shed and

pretend that your neighbor doesn't exist fine. However, the choice of ignorance should not be forced on the population as a whole.

II goes on further to state that universities that have telescopes and are in rural areas made that decision to trade-off dark skies from populated areas. II even personally names the University of Denver claiming that it somehow made a conscious choice to build an observatory in the middle of a city and because of this DU cannot complain about light pollution. The article demotes any serious tone of the Chamberlin Observatory and attributes it solely for "public star-gazing". Just to further show how uneducated and misleading these authors and their organization are let us really look into this argument. The University of Denver was founded in 1864. If you want to see want Denver looked like in 1864 take a look below:



(http://www.tomchristopher.com/home/Beat%20Generation/Drinking%20in%20Denver%20with %20Jack%20and%20Neal/images/image001.jpg)

During 1864 do you think the University of Denver could have strayed far? No! Denver was a small town. It had just been named the capital six years prior! The University of Denver had no control of what light POLLUTION would have grown about it and thus claiming that DU purposefully built an observatory in the middle of a huge city is just false and purposefully so.

If then attempts to bond with those uneducated in astronomy by stating that they wish everyone would be "at least a casual astronomer". The go on to promote "star parties" and through doing such present astronomy as no more significant than getting a group of friends together and going to the matinee. In their faux Part IV they present the Las Vegas Strip as an example of where not the view stars. Everyone knows how bright Las Vegas is; but what they neglect to mention is that even though no one would sit on the strip and try to see the stars EIGHT national parks are being affected due to the light from Las Vegas, according to the National Park Service—A GOVERNMENTAL DEPARTMENT (http://www.nps.gov/grba/naturescience/lightscape.htm).

II claims that they support "star gazing"; however, they do not believe that "we have the right to injure other people who do not feel the same way". (Now, they themselves are "star-gazers). This statement, in context, means that if I want to have a party in my backyard with twenty loud speakers and sub-woofers I can because my neighbors' desire for a quiet evening should not intrude on my desire to be overly loud and ridiculous hours of the night. This means that it doesn't matter if my neighbor is trying to sleep and my music is keeping him awake because even though I *could* go inside, it is my right to party outside no matter whose rights I trample. II makes NO sense in any of these claims! A nuisance is a nuisance. If my right to enjoyment infringes on someone else's right of enjoyment I have to quit—THAT'S THE LAW! But please to any II fans reading this, take II statement as law. Try to out and shine floodlights on your neighbor's window at 2 A.M. and see what happens because the law does not read the fluff II prints and you will be calling II to post bail.

II claims that "very dark skies are not necessary to encourage beginning astronomers". They try to claim that the Dark Sky laws are "for the children" and then insult every other individual by stating "rather than for the dedicated hobbyist who is upset that he cannot see magnitude 11 stars in his telescope because of ambient urban light". (This is yet another attempt to discredit the far reaching affects that excessive night lighting is having on more that the "dedicated hobbyist"). II tries to corner IDA by stating that if they were admirable at all, to fight for the children, that it would be best to keep visible stars at a minimum, in order to not confuse beginners.

II tries to connect street lighting with a reduced crime rate of 20%. They begin by quoting an English Lord from 1885. II also tries to squeeze in that in 1885 the U.S. Supreme Court noted the importance of public street lighting for public safety in NEW ORLEANS GAS-LIGHT CO. v. LOUISIANA LIGHT & HEAT PRODUCING & MANUF'G CO. and others. While it was noted II left out a very significant clause:

"Under proper management the business contributes very materially to the public convenience, while, in the absence of efficient supervision, it may disturb the comfort and endanger the health and property of the community." (<u>http://caselaw.lp.findlaw.com/cgi-bin/getcase.pl?court=us&vol=115&invol=650</u>)

The full case can be read at: http://caselaw.lp.findlaw.com/cgi-

<u>bin/getcase.pl?court=us&vol=115&invol=650</u>. So please feel free to read the case in full context. Public street lighting was noted as important for public safety, such as lit highways. IDA is not working to darken highways—just to replace the head lamps to improve efficiency which has numerous benefits including financial. A quote from the exact case that the II says proves their point proves that night lighting has to be under EFFICIENT supervision; otherwise it may disturb the COMFORT and ENDANGER the HEALTH and PROPTERY of the COMMUNITY. Taking this one fact apart it is clear how misleading and purposefully false II is attempting to present a case against light pollution. Any additional studies cited to have found links between "improved lighting conditions" and crime are cited in II's paper as merely Id. Their next study,

Farrington and Welsh, found "Their results were mixed. Four studies found that improved street lighting was effective in reducing crime, while the other four found that it was not effective"(http://www.homeoffice.gov.uk/rds/pdfs2/hors251.pdf). Their findings can be found on page 7 at the preceding website. Therefore, once again their statements are proven to be taken out of context and purposefully presented as misleading through exemption. The remaining study although identified, unlike the first two, is unable to be found using their citations.

The remaining arguments of II are fluff and are based on evidence that we have gone through and proven erroneous above. II claims that the economical consequences of initiating lighting ordinances would be unfair and harmful to small business; but you're in for a surprise if you attempt to use their links to find their evidence. Their main supporting argument is that the cost of compliance would be \$50,000. Not only does their linker to their website say it does not exists, you can Google the author and title and it will only show up being referenced in II's article. Plain and simple, in 2003, the International Dark-Sky Association estimated that upward facing light that never hits the ground costs the United States "about 30 million barrels of oil and 8.2 million tons of coal" (Guynup 2003). This is a total of "about U.S. \$2 billion" (Guynup 2003). This wasted energy is very significant because it has long lasting impacts on our economy as well as our international independence. These statement can be found in 2003 National Geographic Today, Saron Guynup's "Light Pollution Taking Toll on Wildlife, Eco-Groups Say"; and it is not difficult to find information on how not wasting energy can save you money. All it takes is replacing a few light bulbs and lamp heads. If you are interested in how governments fair look for information on EPA's website or their partner's, ENERGY STAR. Kansas City and Alberta and Calgary Canada have switched over to efficient night lighting practices and have energy savings of 60-70%, 1.7 million dollars a year, which is paying for the city installations (The City of Calgary 2008).

Cities and business are fighting for more efficient night lighting practices for financial, biological, ecological, environmental and numerous other reasons. II does not even attempt to contribute any intelligent argument to the current ongoing discussion concerning "light pollution" or excessive night lighting. The Federal Government is also fighting to encourage energy conservatism and efficiency throughout the United States through the enactment of the Energy Policy Act.

Through all of these arguments it is more than clear that the statements made by II concerning light pollution are not fact, do not come close to representing fact and only mimic the rantings of a wasteful uneducated group of people concerned only with pursuing arguments that will enable them to trample others' rights at any cost.

The City of Calgary. *EnviroSmart Streetlight Retrofit*. April 22, 2008. http://content.calgary.ca/CCA/City+Hall/Business+Units/Roads/Streetlights/EnviroSmart+Street light+Retrofit/EnviroSmart+Streetlight+Retrofit.htm (accessed December 2, 2008).

Guynup, Sharon. "Light Pollution Taking Toll on Wildlife, Eco-Groups Say." *National Geographic Today*, 2003.