

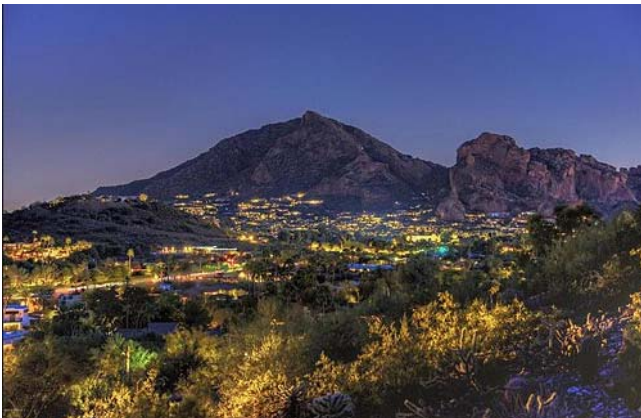
TOWN OF PARADISE VALLEY

Lighting



Town Council
April 13, 2017

How do we develop a Statement of Direction on Lighting for the Planning Commission?



Mayor and Council Goal

- Maintaining and improving the Paradise Valley quality of life

Quality of Life Initiatives

- Bicycle and Pedestrian Master Plan
- Design Criteria for Visually Significant Corridors
- Noise Ordinance – Construction noise and leaf blowers
- Hillside Code
- **Lighting Code**
- Wall Code
- Sign Code for private property
- Blight



Original Scope of Revisions

February 2016

- Focus on lumens vs wattage

Watts measure the amount of energy required to light products, whereas lumens measure the amount of light produced. The more lumens in a light bulb, the brighter the light.

- Future review of entire Code section



20 Years since last comprehensive update

- Outdated and does not reflect current standards
- “Housekeeping” needed:
 - addition of definitions, diagrams, and clarifications.
- Does not address current trends in lighting:
 - pole lights, string lights, carriage lights, and tree lights.



Current Scope

- Inclusion of lumen measurements
- Revisions to:
 - Security lighting standards
 - Entry door lighting
 - Driveway marker lighting
 - Timeframe for Holiday lights
- Addition of standards for:
 - Pole lighting
 - String and bulb lighting
 - Rope lighting
 - Tree lighting
 - Outdoor chandeliers
 - Kelvin measurements
 - Lux measurements

- **12 Public Meetings**
- **13 Months of Study**
- **Recommendation from PC sent to Council**
- **Council sent back to PC for further study**
 - **Explore not regulating types of luminaires and/or lumens; limit footcandles/lux at the property line.**
 - **Allow String & bulb lights**
- **PC not in full agreement with Council direction**
- **No Consensus / Philosophical differences**



Addition of numerous definitions

Addition of numerous diagrams

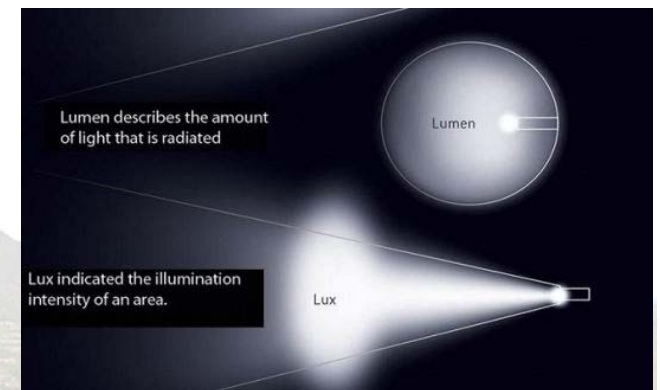
Direction

- Hillside Section of the Town Code:
 - “Require limited and efficient use of exterior lighting to maintain minimal night-time lighting levels and preservation of the dark sky”.
- Council Meeting 11/17/16
 - Discussion regarding enforceability of the ordinance, and the overarching goal to regulate light trespass from off property. Lighting referred back to Planning Commission
- Council Discussion early 2017
 - Provide Planning Commission a Statement of Direction before any additional study
- Council Retreat:
 - “Preserve low light level conditions while realizing lighting is necessary for safety, security, and enjoyment of outdoor living”.



Technical Revisions

- Wattage can be changed to lumens
- Kelvin measurements can be added
- Light measurements can be changed from foot-candles to Lux.



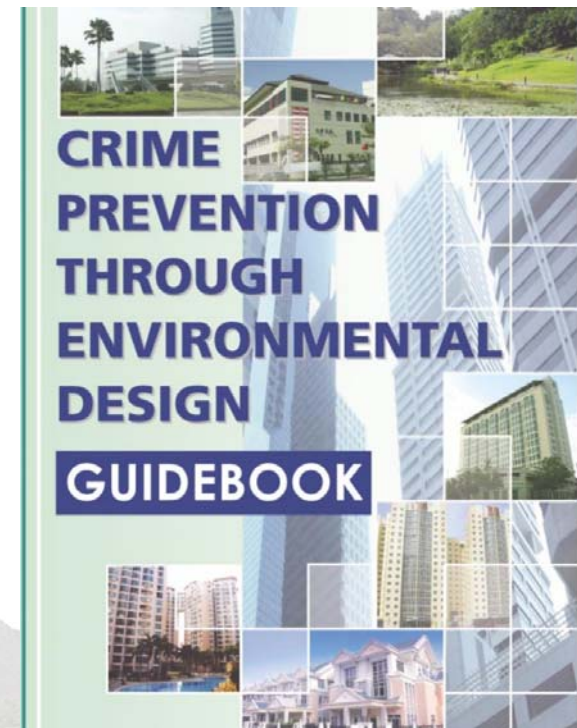
Philosophical Differences

- Whether lighting is measured at the source or the property line or both;
- If certain fixtures such as uplights or unshielded string lights should be permitted;
- How much lighting is necessary for security, safety, and enjoyment of outdoor living.



Crime Prevention Through Environmental Design

- **CPTED Principle #1
Natural Surveillance**
- "See and be seen" is the overall goal when it comes to CPTED and natural surveillance. A person is less likely to commit a crime if they think someone will see them do it. Lighting and landscape play an important role in Crime Prevention Through Environmental Design.



International Dark Skies Assoc.



- **Promote Safety**
“More light” is not necessarily “better”. If not designed and installed correctly, unsafe glare can result, reducing the effect of lighting which can contribute to accidents and hinder visibility. Lighting that is too bright interferes with the eye's ability to adapt to darker areas.
- **Save Money**
Adhering to professionally recommended light levels provides adequate illumination. Shielded fixtures with efficient light bulbs are more cost-effective because they use less energy by directing the light toward the ground. See this website for cost comparisons: <http://www.netacc.net/~poulsen/lightcost.html>
- **Conserve Natural Resources**
Inappropriate or excessive lighting wastes our limited natural resources and pollutes the air and water by unnecessarily burning our limited supply of fossil fuels.
- **Be Better Neighbors**
Excessive or misdirected lighting can intrude on the privacy of others when light or glare trespasses over property lines.
- **Retain Community's Character and Reduce Skyglow**
Our clear view of the dark starry night sky is a resource to be preserved and protected. Stray and excessive lighting contributes to "light pollution", clutter, and unnatural "sky glow".
- **Protect Ecology of Flora and Fauna**
Research studies indicate that artificial night lighting disrupts the migrating, feeding, and breeding habits of many wildlife species, as well as growth patterns of trees. See references in [The Ecological Consequences of Artificial Night Lighting](#).
- **Reduce Health Risks**
Light at night not only disrupts your sleep but also interferes with your circadian rhythms. Recent research indicates that intrusive lighting may reduce the production of melatonin, a beneficial hormone, and a resulting raise in the rates of breast and other cancers.



Current Town Code strives to preserve dark skies; but is much less restrictive than IDA



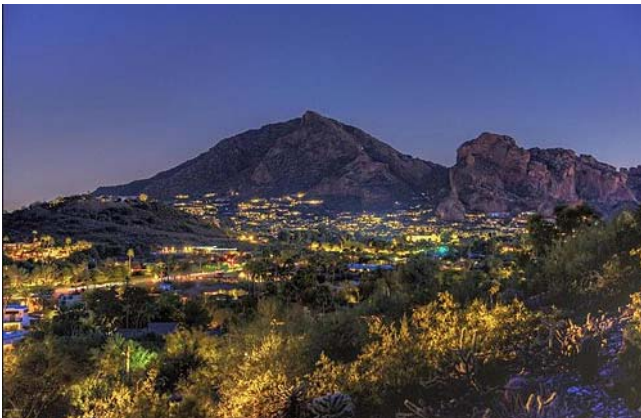
Options



- Focus on Technical Revisions
- Set a philosophical position on measuring from the perimeter or the source
- Research more about Dark Skies, CPTED, other Lighting Standards
- Hire a consultant to revise all lighting code sections



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Questions?
Ideas?

