

"The most common misconception is that more light means less crime, but that is not supported by the data," says Lt. Ryan Darr, who oversees criminal investigations at the Flagstaff, Arizona, Police Department. "Lighting can illuminate a potential target just as easily as it allows a legitimate user to see a potential threat or criminal."

More than two decades ago, Flagstaff was recognized as the world's first certified International Dark Sky City for its pioneering work to balance preservation of the night sky with concerns about public safety and economic security. The city police partner with experts such as Christian B. Luginbuhl, the president of the Flagstaff Dark Skies Coalition, to improve safety while mitigating light pollution.

Luginbuhl says there's no consensus among scientific studies examining light and crime.

"Sometimes lighting may decrease crime; sometimes it may increase it," says Luginbuhl. "The U.S. Department of Justice has concluded that the benefits of lighting are uncertain, even though many feel quite [unjustifiably] certain of the benefits."

HOW MIGHT LIGHTING MAKE A PROPERTY LESS SAFE?

Lighting intensity, placement and complementary security measures are more important than your quantity of light. Common lighting mistakes include:

BRIGHT LIGHTS: These constrict our pupils, preventing us from seeing what's in the shadows. "If you stick a light on the side of a building that shines in your user's eyes, it may actually make it more difficult to see if there is dange there," says Darr.

LIGHTING WITHOUT

SURVEILLANCE: This lets potential intruders see without turning on their flashlights, which might otherwise draw attention. "In fact, good lighting without surveillance may actually encourage criminal activity in some cases," says Darr.

■ EXCESSIVE AND MISDIRECTED **LIGHTING:** If it shines sideways or upward, it actually decreases visibility and creates a false sense of security. That may make people behave more carelessly.

"It's usually smarter to think about other more obvious ways to protect yourself or your property against crime," says Luginbuhl. These include locking your doors and walking at night with a companion.

And here's one more cost-free way: "Fostering community relationships where people watch out for each other, rather than close their windows and shades against the night," he says.

BY KARUNA EBERL

MOST EFFECTIVE WAYS TO **USE LIGHTING TO DETER CRIME**

Excessive lighting is detrimental, but well-planned lighting is vital to home security. Our experts offer these suggestions:

■ USE MOTION-ACTIVATED

LIGHTS: These can effectively spook any would-be intruder. "They can also be a helpful tool when bringing in groceries from the car at night or taking out the trash," says Shane Roberts, product marketing manager at Vivint, a home security company.

- POSITION PRIMARY LIGHTS OUT OF REACH: "Then no one can tamper with them," says Officer Mitch Trujillo of the Boulder Police Department in Colorado.
- CHOOSE INTERACTION: Lighting can interact well with security cameras and devices.
- PUT FLOODLIGHTS ON A MOTION SENSOR: These also light up dark corners around your

house. "Be sure to install them so they don't illuminate higher than the eaves of your house and are in areas that won't keep you or your neighbors up, like entryways, porches, garages and the sides of your home," says Mallory Micetich, a home care expert at Angi.

INCREASE EFFECTIVENESS WITH AUTOMATION: Program lights to come on at various times of day or night to create the illusion someone is home. Apps such as Vivint's Spotlight

Pro offer remote control of your lights and their orientation. You can shine spotlights and strobes on people lingering too long.

■ USE LOW-POWERED LANDSCAPE LIGHTING:

This helps illuminate grounds otherwise cast in shadow.

- SHINE LIGHTS DOWN: Target the areas you and your guests normally use. "Never point lights up into the sky," says Darr.
- DON'T SHINE LIGHTS **SIDEWAYS:** The increased glare will make it harder to see in the harsh shadows created.
- PLACE LIGHTS AT THE MAIN POINTS OF ENTRY: Think about front and back porches, windows, pathways, garages and driveways, according to Roberts.

LESSEN LIGHT POLLUTION:

Choose warm-spectrum colors with lighting pointed downward and shielded on the top and sides. Install lights only where necessary and set them at the lowest brightness.

"We also do not suggest lighting areas you don't want people to use at night," says Darr.

"If you have a pathway that goes through an open space or forested area and it is isolated and dangerous to travel at night, putting up lights just provides people with a feeling that they should walk that way and might put them at even more danger. If only the criminal is watching an area, providing lights only assists them in choosing a target."

PROBLEMS WITH EXCESSIVE LIGHTING

Our country uses lots of extra lighting, and 99% of it serves no clear purpose, according to a recent report from the Department of Energy. Besides safety concerns, too much lighting creates a host of other problems, such as:

- EXPENSE: All those watthours add up. Plus, installing an outdoor lighting setup can cost \$2,000 to \$4,500, according to Micetich.
- WASTED ENERGY: Consuming excess electricity produces unnecessary carbon pollution.
- NEIGHBORHOOD DISCOURSE: If your lights shine in your neighbor's yard, it can aggravate them while creating a hazardous situation on their property. "It can be nice to check in with your neighbors to make sure your outdoor lighting setup isn't impacting them," says Trujillo.

■ LIGHT POLLUTION:

Excessive light blocks out the night sky. "Not only astronomers and scientists enjoy looking at the stars and planets," says Darr.

- HUMAN HEALTH: Nighttime lights interrupt our sleep cycle. We're only beginning to learn the range of consequences, but one is an increased risk of cancer.
- ECOSYSTEM HEALTH: Light harms animals, because more than half of species are nocturnal. It also harms migrating birds and even trees.
- HAPPINESS AND CREATIVITY: Dark, starlit nights give us a feeling of universal connection. They inspire us to create art like Vincent van Gogh's painting The Starry Night. Excessive lighting robs us of those nights.

OTHER VITAL STEPS TO DETER CRIME

"Lighting is a powerful tool," says Darr, "but by itself it does not prevent crime."

Lighting works best in conjunction with other tactics, such as surveillance, locking doors and windows, installing a home security system, and consulting local home security experts and landscape lighting designers. Some police departments, especially those trained with the Crime Prevention Through Environmental Design program, can help.

Finally, Darr recommends knowing your neighbors. "Places that encourage their residents to watch out for each other's property and also have security or surveillance cameras see a much lower chance of being victimized by crime," he says.

