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ZONE LIGHTING applying zone lighting principle to law enforcement

TREND SPOTLIGHT: ZONE LIGHTORIG FOR LAW ENFORCEMENT

Zone lighting is essential for fire departments throughout the United States, thanks in part to requirements from the National Fire Protection Association (NFPA). A newer phenomenon applies some of the same principles to law enforcement vehicles. While not every principle of zone lighting can or should be carried over, a growing number of police departments are reaping the benefits of this newer approach.

On fire trucks, rules mandate what color and types of lights can be used

in the different zones. That's not the case with police vehicles, leaving the decisions up to individual departments. However, taking a zone approach to upfitting a law enforcement vehicle can create a very effective lighting package that can both keep officers safe and allow the motoring public to respond earlier and in a much safer manner.

Thanks to the nature of LEDs and their small size, you can place lights essentially anywhere on a vehicle. This is helpful because police departments might use a variety of vehicles, like the Chevy Tahoe, Ford F-150, and Dodge Charger. Sedans, SUVs, and trucks, each have a unique layout, which departments must consider when upfitting a vehicle.

For example, when an officer is loading or unloading gear on the side of the road, and he has a Dodge Charger, the lightbar is still completely visible to drivers as they approach from behind. That's not the case with the Chevy Tahoe, because the liftgate can obstruct the light bar when raised.

TOP ZONE MIDDLE ZONE LOWER ZONE

The vehicle is divided into separate zones, which intersect in the middle of the vehicle and extend to the corners. Those zones are then divided into top, middle and lower portions.

That lack of visibility could create potential danger for both the officer and the motorists approaching the vehicle. One workaround is to embed LED lights on the bottom edge of the tailgate as well as in the bumper. These could activate whenever the tailgate is open, providing emergency warning lighting that oncoming motorists can see from a distance.

For better visibility from the side, trucks and SUVs can have lighting options like running board lights on the bottom, lights mounted in the side windows at the middle level of the vehicle, and a light bar on top with multiple side flashing light heads. Pickups could also be outfitted with tailgate lights as well.

Current LED technology also allows police departments to have multi-color lights, which can change from red and blue to bright white with the touch of a button. An officer can use one set of colors when responding to a call, and another as they process a crime scene for example. When blocking traffic, the entire rear of the lightbar can be turned into amber directional lights as another example. All the directional lights at any level could also be turned white to give additional scene or ground lighting should conditions or situations call for it.

With today's LED technology, a vehicle should always be seen from any angle and should always have the right amount of lighting for any situation or environmental condition. A zoned lighting approach will help ensure this outcome making both the officer and the motoring public safer when emergency lighting is required.