

NEW LIGHT TECHNOLOGY

BUT IS IT COMPLIANT?

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WITH LED lighting coming down in price and being competitive with standard incandescent lights, we are seeing an increase in LEDs on trailers. The issue is: we need to remember the lights are different technologies. Therefore, even though the LED housing may look the same as the incandescent light housing, they may not function the same. The key issue we are finding that affects compliance is the improper use of the LED light installed at an angle.

An LED light can perform much brighter, though limited by being restricted to a concentrated direction or narrow-spectrum. Where an incandescent light provides a full spectrum of light in all directions, the LED cannot meet the same photometric from all directions. While optics are added to the lens to shape its pattern and assist with reflection, they cannot always achieve the desired spectrum of light.

So where is this taking us, specifically for compliance, where one incandescent light could be used to serve the function of two FMVSS 108 light requirements [dual function] on the trailer, the LED may not be able to meet the same function? See the inset graphic for an example of this application of a P2 light vs. a PC rated lamp. I've also provided an example of the two different lights to show how similar they are. Both of these Petersen lights

are standard 1-1/4" by 2-1/2" Clearance/Side Marker Lights, however the incandescent is a PC rated light whereas the LED is not. This means you cannot install the LED at an angle to serve as a dual function light. Both have their pros and cons, and it is not my intent to state whether one is better or not, only that they are different and cannot always be used in the same application. The lens coding will identify its proper application. If the light is installed at an angle, for use as a combination clearance and side lamp, the lens will be stamped with a "PC" rating. This "PC" marking can be found on the lens of the light. If they are not installed at an angle, the LED and incandescent can most likely be interchanged.

If you are unsure of the specific application when ordering LED lights, contact your trailer manufacturer and verify that the installation meets the FMVSS 108 requirements. In some cases you may have both LED and incandescent lights on your trailers, otherwise the manufacturer may have to add additional LED lights or use more expensive LED combination lights to meet the FMVSS 108 regulation.

Remember to look for the NATM Compliance Decal before you order your trailers!

-Clint Lancaster

TRADITIONAL CLEARANCE AND SIDEMARKER LIGHTS VS. PC-RATED LIGHTS

