



LUMEN VALUES EXPLAINED

What does it mean when lighting companies talk about Theoretical and Effective Lumens. Below is an explanation that we hope will give you the information you require to make an informed decision.

Theoretical / Calculated / Raw Lumens

As with all things theoretical, is an explanation of a perfect world. In other words the maximum performance you could get out of the LED light projection if nothing else impacted it, such as optics, reflectors or heat. For example, a car manufacturer may say you can get 70 miles per gallons of fuel from their new model and this may be so, but only if you drive at 20mph, in an environment with no wind resistance and never change gear. In reality, outside factors will always impact the output therefore this rating should not be taken as the actual output you will receive.

Cold Lumens

The Cold Lumen rating is measured when the LED light is first switched on, it will continually decrease until the LED work light has reached its operating temperature. This rating is always lower than the Theoretical Lumen rating as it does take into account outside factors affecting the light output.

Effective / eLumen

Once the light has reached its operating temperature, we then measure the Lumen output in Effective Lumen or eLumen. This is the most reliable and honest rating and is taken once the light has been operating for two hours. It will show a decrease from the Cold Lumen value due to physical-related losses in optics, reflectors and heat. This is the light that you will be working with and as such, is the most reliable reading to consider when looking to purchase new LED work lights.

Things to consider...

So, what should you consider when looking at LED lighting? Checking the eLumen value is a priority, if these are not listed on the supplier's information, be aware that the light may not give the output stated. Also check the company's credentials; do the products carry an IP and an EMC rating? This will give you an indication of the quality of the goods and ensure you get a light which gives you the output you need and stands up to the harsh environment your vehicle operates in.

 eLumen  IP 69K  EMC Tested