Frequently asked questions

Last updated: November 25, 2024

Why are LED luminaires more efficient than conventional floodlights?

Electricity for powering LEDs is directly converted to illumination and does not experience any loss for warming up a metal or gas that, ultimately, produces the illumination. A LED, as such, requires significantly less energy to produce illumination. LED luminaires are also less sensitive as they are made up of hundreds of individual LEDs. Even if one LED would fail, all other LEDs combined would still provide sufficient illumination.

What makes LED luminaires different from conventional floodlights?

LED floodlights strike instantly and do not require time to cool down. A LED floodlight can be switched on and off as often as one likes without affecting the durability and quality of the illumination. This flexible use can yield significant energy savings particularly when the luminaire is connected to a smart system that manages the illumination.

How is the energy consumption of a LED luminaire compared to conventional floodlights?

Generally speaking a LED luminaire illuminating a large area consumes 40% less energy than conventional floodlights. Additional savings can be achieved when the LED luminaire is connected to a smart lighting management control system. This enables to dim the light without the uniformity being affected. While this dimming will not be noticed by the user of the area, energy savings of up to 80% suddenly become feasible.

How does light produced by LED luminaires differ from light produced by conventional floodlights?

LEDs produce a light that is very white and creates a daylight impression. This provides more contrast and allows easier detection of movements and depth. LED luminaires also have a superior color retention compared to conventional floodlights.

Why does AAA-LUX have different LED luminaires for sports and industry?

Industrial areas and sports facilities each have different requirements. With regards to the number of illumination hours required annually, it can be said that sports fields typically require between 100 and 1.000 hours illumination. Large industrial areas are often illuminated for approximately 4.500 hours per year. Illumination intensity and uniformity for sports also differs from what is required for industrial areas hence our decision to develop different solutions for each industry.

Can AAA-LUX LED technology be connected to the existing infrastructure?

This is certainly possible. It is always advisable to investigate if the masts are still strong enough. In most cases, this shouldn't be a problem. The position of the mast will definitely not be a problem nor will be the cabling as AAA-LUX LED luminaires are controlled wirelessly. As the AAA-LUX LED luminaires don't require a peak-voltage, thinner cables can be used to provide energy to the luminaires.

Have mast heights an impact on the luminaires?

The height of the mast does not affect good quality LED illumination. The luminaires can be applied to different mast heights, ranging from 12 to 60 meters.

Do we have to purchase the same number of AAA-LUX LED luminaires to replace our conventional luminaires?

Illumination produced by AAA-LUX LED luminaires is of such intensity and uniformity that installers often require less AAA-LUX luminaires to sufficiently, if not better, illuminate the same area that is used to be illuminated by conventional floodlights.

What is the lifespan of LED floodlights?

The luminaires for industrial applications are designed for a lifetime of approx. 15 years. LEDs and other electrical components are applied well below the maximum specification points for voltage, current and temperature. Therefore, the lifetime of the components should be up to 60 000 hours at maximum luminaire power. For sports projects the LED luminaires are designed for a lifetime of more than 25 years.

Do LED luminaires produce as much light pollution as conventional floodlights do?

LED luminaires are easier to aim and provide less light-spill. LED luminaires can also be controlled flexibly, allowing facility managers to switch off lights or reduce the illumination intensity at times when no high-quality illumination is required. The unique AAA-LUX Lighting Control Management System (LCMS) even allows different illumination levels for different areas at different times, to ensure possible light pollution is reduced to a minimum.

How futureproof are AAA-LUX LED luminaires?

AAA-LUX luminaires and controls are designed with quality and flexibility in mind. The luminaires are connected wirelessly to a control box which translates the illumination preference of the end-user to the luminaire. The control box holds the intelligence of the entire system. Software updates can be sent directly to the control box and the control box, in return, will ensure that the performance of the entire system is updated.

Why do AAA-LUX LED luminaires have such a distinctive shape?

The high-tech components inside the luminaires generate a lot of heat. The components are very sensitive to temperature fluctuations hence it is essential that any excess heat is removed from the luminaire. As adding additional cooling capacity to the luminaire has a negative impact on the weight and windage of the luminaire, AAA-LUX decided to increase the cooling surface in order to stimulate natural extraction and removal of heat.

Which quality standards does AAA-LUX adhere to?

AAA-LUX is ISO 9001:2015 certified meaning that all our processes are clearly defined and executed to ensure the final output is of the highest quality. The quality of all our luminaires is validated and certified by DEKRA, the world's largest certification company. Light produced by all AAA-LUX LED luminaires meets the (international) industrial standards or quality requirements set by the (international) sports governing bodies. Apart from adhering to quality standards, AAA-LUX also closely works together with institutes like TNO (wind tunnel testing), Duroc (corrosion testing) and Kolas (LED life time).

How does AAA-LUX ensure the final quality of the product?

AAA-LUX only sources the highest grade components for its driver and luminaires. The assembly of the luminaire is done inside a cleanroom at our own assembly & production facility in the Netherlands. Computers monitor the various tests conducted during the assembling of the luminaires. This includes a LED light source test (cleanroom), communications test, safety test and a full luminaire test. The 8D procedure system has been adopted to increase quality of all processes, to go to the source of the problem and to solve it, preventing it from happening in the future. Doing this with every single issue, the quality of products and processes improve every day.

What kind of after-sales does AAA-LUX provide?

AAA-LUX has systems in place which enable AAA-LUX to act fast and professionally no matter where a AAA-LUX partner experiences technical difficulties. This is named AAA-Service. A special service ticket system is used to communicate with our partners to evaluate and solve a problem.