

Built for safety & durability

Added values TNAML® series

Efficiency: the TNAML® series have an extremely high light output, which can result in a reduction of luminaires in the installation. Depending on locations and application of the lighting fixtures it could mean a **reduction of 20-30% in luminaires (reduction not only on the luminaires, but also on the installation time, cabling, junction boxes, etc.)**. If not with reduction of luminaires, it could also mean that the wattages can be reduced, e.g. 2x36W (which is foreseen) can be replaced by TNAML® 2x18W.

Consistent high light output: the diffuser of the TNAML® lighting fixtures is made of hardened safety glass and is self-cleaning.

The light output of polycarbonate diffusers is decreasing quite rapidly (up to 50% in 5 years). Reason for this is that dirt will accumulate on the cover (due to static electricity), discoloration due to UV radiation and small hair cracks in the polycarbonate (where the dirt accumulates). Next to this advantage, TNAML® luminaires are equipped with a special internal reflector providing the high light output.

Ingress Protection (IP): dirt and moisture have a devastating effect on the performance of (electrical) components in lighting fixtures. As a result of 'breathing' the traditional fluorescent lighting fixtures will attract both, shortening the lifetime of the components.

The **sealed for life** TNAML® lighting fixture is after the junction box is sealed with the supplied resin, completely dust and waterproof, which means you will not be faced with (extra) maintenance expenditures as a result of breathing.

Warm start / cold start: the TNAML® lighting fixtures use the so-called warm start technology for igniting the lamps due to patented construction whereas the traditional explosion proof lighting fixtures **MUST use the cold start technology**. This warm start ensures a longer lifetime of the lamps because the emitting material is exposed to a significant lower startup current. **The cold start technology causes the lamps to have a 40-60% shorter lifetime** when compared to warm start. This is one the reasons that the **TNAML® series have a 84.000 hours lifetime**.

Excellent heat management: accumulation of heat inside the lighting fixtures is in many cases the cause for failures and extra maintenance (costs). In the TNAML® lighting fixtures the strategically placed ballast and the sophisticated cooling system ensure that this problem is now history. **Even at ambient temperatures of 50°C the lifetime of 100.000 hours of the ballast is ensured, where it normally can be reduced to 25.000 hours in traditional fluorescent lighting fixtures.**

Installation costs: by using the Unistrut® system big savings can be achieved when mounting the lighting fixtures. **Experience shows that contractors can install 3 to 4 times more TNAML® luminaires** in the same time when compared with the traditional lighting fixtures in equal conditions. The flexible mounting brackets also have a large contribution in this.

Savings on maintenance costs: usually the 'hidden' costs are very underestimated. Changing lamps (planned or ad hoc) have big cost impacts on the maintenance budget (e.g. labor costs, safety precautions and material). The same applies to replacing miscellaneous components.

10 year operational warranty: All TNAML® lighting fixtures have a 10 year operational warranty with a few exceptions.