

## ob to word test

There numerous possible configurations when it comes to cooling LEDs.

However, when implemented in plant factories, challenges such as transferring heat across multiple layers of growing racks and ensuring effective outdoor heat expulsion are ought to be overcome.

Based on the above discussion, this paper proposes a novel cooling solution aiming to:

- Design and implement an efficient heat conduction mechanism for LED aluminum substrates, rapidly removing the generated heat.
- Transfer this heat to a sustainable heat storage pool designed for directional discharge to the outdoor environment.

The ultimate objectives envisioned are:

- Achieving zero-energy cooling of LED chips during cooling operations;
- Recouping and reusing waste heat generated by LEDs without compromising their light output performance under heating conditions.

⊗ 1 Error in region

