ADVANTAGES

TOP LIGHT

Compact LED fixture

To avoid shade in the greenhouse the LED fixture is as compact as possible. Even though it produces a high photon flux, it's smaller compared to a HPS lamp or other LED fixtures and natural daylight is optimally used. The custom designed lenses with a wide or narrow beam angle enables you to **mount the LED fixtures on the trusses**. No need to install C-profiles that also blocks sunlight.

Glass cover

Glass has by far proven to be the best solution to protect the LEDs. The LED fixture has special glass with **extremely high transmission**. An **antireflection coating** is applied to both sides of the glass to eliminate any light loss due to reflection and absorption. Glass is **very durable** and will hardly age compared to plastic. It is not sensitive to chemicals and can be rinsed with water.

Ingress Protection

The LED fixture is suitable for wet locations, and the LED module and all electronics have an **IP67 rating**.

High efficiency LEDs

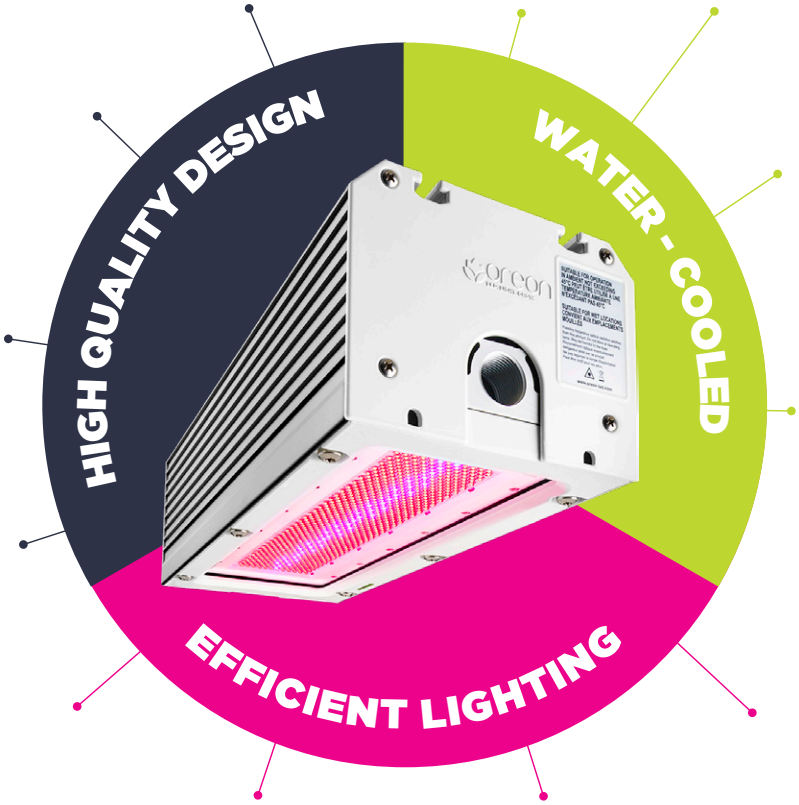
Oreon is continuously improving the LED package and lenses specifically for the customers needs. Thanks to the cooperation with world-class LED producers, we are able to always provide **the best LEDs with the highest efficiency**.

Robust design

The LED fixture is very robust and specially designed for use in greenhouses. Aluminium powder coated die cast parts, **thickwalled anodized extruded** parts are corrosion protected to ensure the housing will last as long as the LEDs.

Water-cooling

LEDs need to be cooled. Therefore heat management is very important. The water-cooling efficiently transports heat away from the LED junction. The warm water **can be re-used in several ways.**



Energy efficiency

The LED fixture is ~80% more efficient than traditional HPS lighting. This gives a grower the opportunity to either **save energy** or to significantly **increase the light output.**

Light uniformity

Specially designed optics promote light uniformity. Therefore the LED fixtures can be mounted under the trusses. Also a **hybrid** combination (HPS/LED) will result in a perfect distribution of light.

Stable climate

Due to the active water-cooling, the heat from the LED fixtures is taken out of the greenhouse. They do not produce excessive heat, so there is no need to ventilate during lighting. This **keeps the CO_2 inside**, which improves growth, reduces cooling costs and contributes to a **stable greenhouse climate.**

Easy to clean

The fixture can be cleaned with water. Because the LED fixtures are cooled with water **no cooling fans** are needed and dirt has no chance to accumulate.

Longer lifespan

A water cooled LED fixture keeps 90% of its light output in at least 95% of the fixtures after 50,000 hours: **L90 B05 – 50,000h.**

Warranty

Because of the design, water-cooling and Ingress Protection the LED fixture is very robust and well protected. When used within its limits, Oreon LED fixtures have a warranty of **5 years**.

Perfect spectrum

The LED fixture makes exactly the required (most effective) spectrum based on the customers need. This leads to **higher yields** and **better control over crop quality**. Based on our experience and extensive testing we can recommend an optimal light regime.

Oreon
Lorentzlaan 6
3401 MX IJsselstein
The Netherlands

T +31 30 760 0660
E info@oreon-led.com
W www.oreon-led.com