

ADVANTAGES

MULTI-LAYER

Robust design

The LED fixture is very robust and specially designed for horticultural use. Aluminium injection molded parts, **thick-walled anodized extruded** parts and powder coated corrosion protection ensures the housing will last as long as the LEDs.

Ingress Protection

The LED fixture is suitable for wet locations. The total fixture is waterproof and has an **IP67 rating**.

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.

Light uniformity

The specially designed PCB and reflector promote an extreme high light uniformity. The multi-layer fixture has wide beam optics in width, which makes it possible to use this multi-layer fixture on **large surfaces** or when there is **limited available light** between fixture and the crop.

High efficiency LEDs

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

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**.

Stable climate

Due to the active water-cooling, the heat from the LED fixtures is taken out of the growing area. They do not produce excessive heat, so there is no need to ventilate which improves growth, reduces cooling costs and contributes to a **stable growing 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**. Because of the design, the LED fixture is well protected. When used within its limits, Oreon fixtures have a warranty of **5 years**.

Adjustable spectrum

The LED fixture comes in 4 hardware versions, each with independent channels. Optionally, each channel can be dimmable and dynamically adjustable to provide maximum flexibility during the phases of growth and the possibility to customize the spectrum at any time. This leads to **higher yields** and **better control over crop quality**.

