



# THE DUTCH POWERHOUSE

# MONARCH 3-CHANNEL



THE FLEXIBLE TOPLIGHT FOR GREENHOUSES

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## THE NEXT STEP IN DYNAMIC LIGHTING

The new Oreon Monarch 3-Channel LED toplight enables the next step in dynamic lighting. The 3-Channel combines high output and efficiency of the existing Monarch with spectral flexibility. In addition to a dimmable, customer-specific spectrum, it is now also possible to adjust the composition of the chosen spectrum during cultivation. This provides the right spectrum, the right intensity at the right time of day.

#### **Dynamic lighting**

With the Monarch it was already possible to fluctuate the intensity throughout the day. This allows growers to use the power of the sun, but to avoid hours when electricity prices are high.

With dynamic lighting Oreon responds to the need for different colours of light during the day or throughout the seasons. Whether it's adding far-red or increasing white light intensity, anything is possible.



White channel active serving employees



Red channel active serving growth

### **Power and flexibility**

The Monarch 3-Channel has a maximum input of 1260W. This power is variably distributed to 1, 2 or 3 channels. The main channel can convert a maximum of 1260W into light, the other two channels each have a maximum output of 140W. The spectrum of all channels can be determined by growers and each channel can be dimmed individually.

Thanks to water cooling, high efficiency is maintained and significant savings can be made on energy costs. The high output means fewer lamps in the greenhouse and through water cooling, up to 30% of the energy (heat) can be reused.

### **Oreon Led Control Center**

The 3-Channel is controllable via the Oreon LED Control Center ( $OLCC^{\mathbb{M}}$ ) and operates based on the industry-developed Horti Lighting Protocol (HLP). This combination controls lighting with unparalleled precision. A proven Bluetooth® SIG MESH network dynamically controls all lights in the greenhouse with infinite grouping options. This allows response to fluctuating lighting needs and energy rates. The  $OLCC^{\mathbb{M}}$  also provides information on each individual lamp, such as temperature, voltage and power consumption.

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