

# Grow a beautiful coral reef

CoralCare, our innovative LED fixture, is based on extensive user testing and in-house application knowledge. With Philips CoralCare you enjoy the same light quality you'd expect from traditional aquarium lighting, but with all the additional benefits from LED. CoralCare is designed to achieve an optimal balance between coral growth and natural reef appearance. All in a robust and efficient fixture that is passively cooled and easy to control. With a validated recipe and optimized optics, reefers can take the next step for their aquarium.



### Wide spectral range

Proper lighting is one of the key aspects when maintaining a marine aquarium with corals and reef fish. The corals need the correct spectral content and light intensity to grow efficiently, but reefers also demand a good color rendering so they can enjoy the brilliantly vivid colors of the corals. The Philips CoralCare spectral distribution is designed to achieve an optimal balance between these two criteria.

To increase the flexibility for the user we split the light formula over two controllable channels.

By controlling both channels, you are able to set a wide range of color points (from warm-white to saturated blue). By smartly grouping and controlling the LED channels, you never have to worry about setting wrong spectral content what could harm your corals.

The light formula also uses shortwavelength blue LEDs for better color rendering in daylight settings, and particularly in evening settings when it maximizes coral fluorescence.

## The perfect light balance

CoralCare creates the perfect light balance thanks to the unique light distribution and color mixing solution. This allows you to create an evenly distributed light dosage for the corals and prevents shimmer effects outside the aquarium as well as colored shadows.

Advantages CoralCare optical system:

- Drastically reduces caustic effect outside of the aquarium (>63° beam angle)
- Any light with an angle of >63° is captured in the light guide, then scattered into a broad diffuse emitting surface.
- No optical loss of light under angles <63° between source and target
- Significantly improves the color mixing of the LED source

The chosen architecture results in an optimal balance between efficiency, uniform light distribution in the aquarium, color homogeneity and the right level of light dynamics.



Caustics caused by sunlight projected or the ocean floor



#### **Specifications**

> 190W > Dimmable

> 220-240V > IP65 > 50-60 Hz > 10 kg

#### Based on user experience tests with aquaria depths up to 90cm:

- Surface coverage (normal)100 x 80cm
- Surface coverage (extreme)80 x 60cm

### **Easy** to control

A controller is required to control and dim up to four CoralCare fixtures.

With the controller you are able to define a custom 24 hour light schedule that can also be shared with other reefers. The controller is sold separately and includes a USB cable, universal power adapter and regional plug adapters. The controller is also compatible with most third party aquarium computers.



#### **Low** maintenance

CoralCare is based on a design-award-winning Philips fixture for general lighting applications. We've redesigned the fixture to meet the demanding conditions and environments of marine aquaria:

- Highly durable, professional-grade materials
- Coated metal housing validated in salt spray environments
- Low risk of corrosion with correct maintenance
- Large thermal cooling surface (10kg of metal) for full passive cooling with a longer lifetime than noisy fans
- IP65-rated glass cover makes the fixture water resistant and is easily cleaned with a wet cloth
- Validated lifetime meets L80B10 (ambient temperature of 35°C and lifetime of 25K hours). After this time, 90% of fixtures will still offer more than 80% of their original lumen output. T5 lighting reaches this point in just 6 to 9 months
- No light sources will need replacing for the entire lifetime of the luminaire

#### **Easy** to install

CoralCare is a single box system and includes a hanging kit for easy installation. This can be attached to the fixture using four adjustable hooks that simply click into place. You can adjust the height of the fixture by using the cable brakes.

The fixture features two, highly reliable Philips Xitanium iXt AC/DC LED drivers. Two dedicated 3-meter cables (a mains cable and a communication cable) are attached directly to the fixture.

### **Low** energy consumption

It's also more efficient at converting input power (about 190W) to optical power with a figure of 31.9% versus 24% using T5 lighting with the same color point as a reference. Thanks to the use of highly efficient LEDs, CoralCare saves up to 30% more energy than traditional T5 marine aquarium lighting, without any loss of light quality.

Finally, together with independent marine biologist Tim Wijgerde, we have proven that with CoralCare you can achieve coral growth and appearance that is the same as, if not better than, traditional solutions.

#### **Benefits**

#### The unique features of CoralCare are:

- > Wide spectral range optimized for coral growth and natural reef appearance
- Perfect light balance unique homogeneous light distribution and color mixing solution
- Low energy consumption thanks to highly efficient LEDs
- > Easy to control by intelligently combining various LEDs with different wavelengths, we have simplified the set-up of the lighting controller. Simply select the desired color point and intensity, without having to worry about the optimal light quality for coral growth and beautification
- > Low maintenance long-life robust design and materials
- > Easy to install includes integrated driver, hanging kit and computer interface

It's more than light, because it's more than an aquarium



