### **Philips CoralCare FAQ**

NOTE: always make sure you followed all steps of the instruction manual and checked the cable connections carefully.

#### What is the input power of the CoralCare Gen2 fixture?

The CoralCare fixture requires a 220-240V (European mains) or 120V (US mains) AC input voltage and will consume about 170 W. The LEDs are driven by two high-efficiency LED current sources (89% efficiency).

**In what environment can I install the CoralCare fixture?** The CoralCare fixture should be installed in an area with a maximum ambient temperature of 35°C/95°F to ensure the lifetime of 25,000 hours at 100% light output. Any reduction in the light output or ambient temperature will help to prolong the lifetime. The fixture can be installed in an enclosed (or partly enclosed) canopy as long as there is some air circulation and the ambient temperature does not exceed 35°C/95°F.

#### Are there currently any accessories available for the CoralCare fixture?

A professional suspension kit is supplied with the CoralCare fixture.

Additional ceiling mounting rings are not included (because these vary according to the type of ceiling material).

#### How is the CoralCare fixture cooled?

The CoralCare fixture is passively cooled (no active or moving parts), and no further cooling is required.

#### Is the CoralCare fixture protected against overheating?

The fixture is protected against overheating and will shut down if the safety threshold is reached. This will happen if the ambient temperature exceeds ~50°C/122°F

## What kind of maintenance is required to ensure the long lifetime (25,000+ hours) of the CoralCare fixture?

Only limited maintenance is required. We recommend salt and dust spots are removed from the fixture every 2 weeks. This can be done with a wet cloth (thanks to the IP65 rating).

#### Is there any servicing available for the CoralCare fixture?

The CoralCare fixture is designed not to need servicing. There are no exchangeable parts or additional accessories available. If you have a complaint, please contact: for Europe: +800 7445 4775 for US: your retailer or support@coralvue.com

#### Are any additional 3rd party parts (cables, etc.) required to install the CoralCare system?

The following 3rd party parts are required to enable the CoralCare fixture to function:

- Ceiling mounting rings to attach the suspension kit
- Power outlet (socket) with earth leakage protection
- Optional: 1-10V interface cable if the 1-10V interface from a 3rd party computer is used.

#### Why does the CoralCare fixture make a ticking noise when it is cooling down or heating up?

The CoralCare fixture uses light-guide technology to deliver a unique light distribution. The light guide (positioned on top of the Metal-Core LED PCB) is fixed on the heatsink together with the PCB. Due to the difference in thermal expansion coefficients, the optics expand more than the PCB. The ticking noise is produced when the optics expand and glide under the mounting screws. The optics are designed to cope with this expansion, and performance will not be affected.

#### How is the CoralCare system controlled, and with what interface?

The CoralCare controller is programmed via app or via a standard PC USB port.

The PC driver for the controller is installed automatically when the software package is installed.

The software application is compatible with Windows and Mac OS.

The CoralCare controller is also compatible with 3<sup>rd</sup> party interfaces such as Profilux and Apex (proven by user tests).

#### Where should I position the CoralCare controller?

The CoralCare controller has IP65 rating. Therefor it could be placed in a damp location as it perfectly meets the demanding requirements of a marine aquarium environment.

## When I use my PC to program the fixtures, is a permanent connection between the controller and the PC required?

A permanent connection to the PC is not required. It is only needed for testing the light settings in live mode and when you program the light settings into the controller. After that, the controller can run stand-alone (with USB power supply included).

#### Is a permanent connection between the controller and fixtures required during programming?

No, the controller can be programmed without any fixtures attached.

However, it is helpful to connect the fixture so that the light settings can be checked on the spot.

#### What happens if there is a power failure?

During a power cut the lamps and controller will shut down.

The light schedule for the controller will be saved in the internal memory and will not be affected by the power failure. The controller clock (time) will continue to run during a power cut because it has an internal backup battery. The backup battery lasts up to 48 hours.

If the power is restored within this period, the entire system will resume normal function (light settings will be rebooted within 5 seconds).

#### What are the limitations of the controller backup battery?

The controller backup battery can maintain the power supply for up to 48 hours.

However, this is only possible if the battery is fully charged.

The battery is not fully charged when the product comes out of the box. The battery charges automatically when it is connected to the PC or power supply; it takes about 15 minutes to charge fully.

#### What if the power failure lasts for longer than the backup battery's capability?

The internal time of the controller will be lost. The controller will go into a default state and will not execute its daily schedule. Once the clock has been reset (using the PC or mobile application), the

controller will function again. The light schedule will not be lost because it will have been saved in the internal memory of the controller.

#### What is the ideal fixture installation height?

The fixture should be suspended at least 15 cm/5.91" above the surface of the water in the tank. The best optical light distribution is achieved (depending on tank size) at a height of between 15 cm/5.91" and 35 cm/13.78".

#### What is the weight of the CoralCare fixture?

The total weight of the fixture is approx. 7 kg.

#### What are the fixture dimensions?

The dimensions are 460 x 410 x 57 mm - 18,11 x 16,14 x 2,24 "/po (L x W x H)

#### What if I want to control each fixture independently?

The CoralCare controller can control up to 4 fixtures.

However, each fixture will execute the same daily schedule (as programmed in the controller by the PC). In order to control the light settings of each fixture individually (or multiple groups of fixtures), multiple controllers are required.

#### What is the lifetime of the CoralCare fixture?

The CoralCare fixture should be suspended in a ventilated area with a maximum ambient temperature of 35°C/95°F to ensure the lifetime of 25,000 hours at 100% light output. Any reduction in the light output or ambient temperature will help to prolong the lifetime. After 25,000 hours 90% of all fixtures still deliver more than 80% of their original light output.

#### Is there anything in the CoralCare system that could get damaged?

The CoralCare fixture is designed to be very robust and should have a long lifetime if it is handled correctly.

Potential problems include:

• If the paint becomes damaged (due to incorrect handling) the fixtures could start to show signs of corrosion in these areas.

• If the fixture is fitted in an ambient environment that is too hot, this could shorten the lifetime of the fixture.

#### Can the open communication cables of the CoralCare fixture represent a safety risk?

The communication cable that is attached to the fixture is protected against short circuit and reverse polarity. The communication bus is isolated and is a low-voltage bus.

#### Will the CoralCare fixture be available in different colors?

Yes, CoralCare is available in white and black.

#### Are CoralCare fixtures available in a range of types?

No, we currently only supply a 170-watt fixture with the following dimensions: 460 x 410 x 57 mm - 18,11 x 16,14 x 2,24 "/po (L x W x H)

#### Can I cut the mains (or communication) cables to extend or reduce the cable length?

Yes, the length of the mains and communication cables can be extended or reduced. Please leave at least 50 cm of cable between the fixture and the power plug. The warranty will be invalid if water enters the fixture because the cable has been cut. What is the benefit of having the CoralCare fixture above my aquarium? The Coralcare system will light your tank with high-quality lighting that is good for your corals. It will also enhance the color of the corals and fish so you can enjoy watching your reef. The solution has a long lifetime, which ensures the overall stability of the light conditions in your tank and it has passive cooling, meaning no noisy fans that easily break down.

Will replacing my current reef lighting with CoralCare harm my reefs or anything else in my aquarium? The CoralCare system can harm your corals if it is not installed/set up correctly. Due to the high efficiency of the fixture, it is important to keep the irradiance of the light to an acceptable level for the corals. If this level is exceeded, coral necrosis can occur. Be cautious when introducing the LED fixture above an existing tank or when introducing new corals. Make us of the acclimatization phase which is integrated in the controller. Start with low light intensities and allow the tank to adjust to the new light gradually.

#### What is the recommended surface coverage of a CoralCare fixture?

The recommended maximum spread (depending on the installation height):

- SPS reef: 80x60cm / 31.50x23.62"/po
- LPS reef: 90x70cm / 35.43x27.56"/po
- Mixed reef: 100x80cm / 39.37x31.50"/po

The fixture is suitable for tank heights of up to 1m / 39.37"/po

#### How long is the warranty for the CoralCare fixture?

The CoralCare system comes with a two-year warranty.

#### What is the maximum heatsink temperature and is there a risk of burning your fingers?

At an ambient temperature of 35°C/95°F the fixture's heatsink temperature will be around 61°C/141°F. Always turn off the fixture before handling it (during installation or cleaning) to prevent any potential risk to users with sensitive skin.

#### How many CoralCare fixtures can I control with a single CoralCare controller?

One controller can control up to 4 fixtures.

#### Can I exchange my light settings with other reefers?

Yes, that is possible. Please check the instructional animation of the app (www.philips.com/coralcare) to see how that works.

#### Are there any predefined schedules that I can use?

Yes, we have defined 4 schedules:

- Shallow reef: mimics the natural behavior of sunlight at shallow water depth. Maximizes light output.
- Natural reef: mimics the natural behavior of sunlight at the average depth of the coral reef. Ideal for a mixed reef aquarium.
- Deep reef: mimics the natural behavior of sunlight at deep ocean depths. Ideal to highlight the fluorescence of (LPS) corals.
- Overcast reef: mimics the natural behavior of sunlight while simulating an overcast sky during noon.

When downloading one of these schedules, you can still modify time and intensity to your liking and share with fellow reefers.

#### How many LEDs are used in the CoralCare fixture?

The CoralCare fixture contains 68 high-power LEDs from the Lumileds brand.

#### What types and colors of LEDs are used in the CoralCare fixture?

The CoralCare fixture uses the following LEDs: 12x Luxeon C Blue 470nm 22x Luxeon C Royal Blue 450nm 4x Luxeon C PC-Amber 4x Luxeon C Cyan 490nm 6x Luxeon UV U1 415nm 20x Luxeon V2 6500k

The LED engine has a customized kitting and binning process to ensure color consistency and a wide spectral distribution.

#### Why does the CoralCare Gen2 only have 68 LED's?

The LED lighting market is developing rapidly and on a yearly basis the LED capabilities and performance increase.

For each new product introduction, the market is carefully analyzed, and a new LED engine is selected. The currently selected LED's (from Lumileds) have a higher efficiency compared to the previous generations.

This means that more of the energy going into the LED is converted into light instead of heat. Therefore, we can push more power into the LED without affecting lifetime or reliability of the product. This in combination with the color mixing and light distribution made us choose for 68 LED's.

#### How much energy will I save compared to conventional T5 lighting if I switch to CoralCare lighting?

Measurements and the results of field-test experiments have shown that the CoralCare system is 30% more efficient than conventional T5 lighting, with no reduction in the quality of light or in coral growth. This experiment and the corresponding results are published on our website.

## When I plug in the mains cable of the CoralCare fixture, both white and blue channel light up. Is this normal?

Yes, when plugging in the mains cable, it is normal that both channels slightly light up (10%). This is a check to see whether the fixtures are well functioning.

#### I enabled live mode via the app or PC interface, but the fixture is not reacting to what I set?

Check whether the correct luminaire type has been selected and if cables between lamp and controller are well connected.

#### My controller is not sending the light levels I defined in my schedule to the fixture?

Check if the schedule was saved and if the time is programmed correctly.

### **Retail specific information**

#### Where can I buy CoralCare as a retailer?

For Europe, the CoralCare products (fixture and controller) can be bought via the following online webshop: www.coralcareshop.com

You can easily register at <u>www.coralcareshop.com</u> to receive a login to enable you to buy the products online.

For US, please contact our US distributor CoralVue if you want to sell CoralCare in your shop: support@coralvue.com

#### Do I need to pay for shipping if I buy the CoralCare fixture online?

Shipping is free of charge in Europe. For US, please contact our distributor CoralVue: support@coralvue.com

Is VAT included? No

Can I receive support to promote the product on my website?

Yes, please send a mail to coralcare@signify.com and state your requirements.

# If you cannot find the answer to your question here, please contact: coralcare@signify.com

www.philips.com/coralcare