Luc Vogels 25-7-2016

My name is Luc Vogels and I work as an Electronic engineer in the pre-development department of Philips Lighting.
I am responsible for the concept and development of the CoralCare product.
I am also a fanatic aquatic hobbyist and bought my first freshwater tank in 2005.
In 2007 I switched from freshwater to my first marine water (nano) tank. In 2013 I switched to my present tank; a mixed-reef of approximately 1100 Liters.

In the below overview you can find some pictures and details of this tank:

Technical details

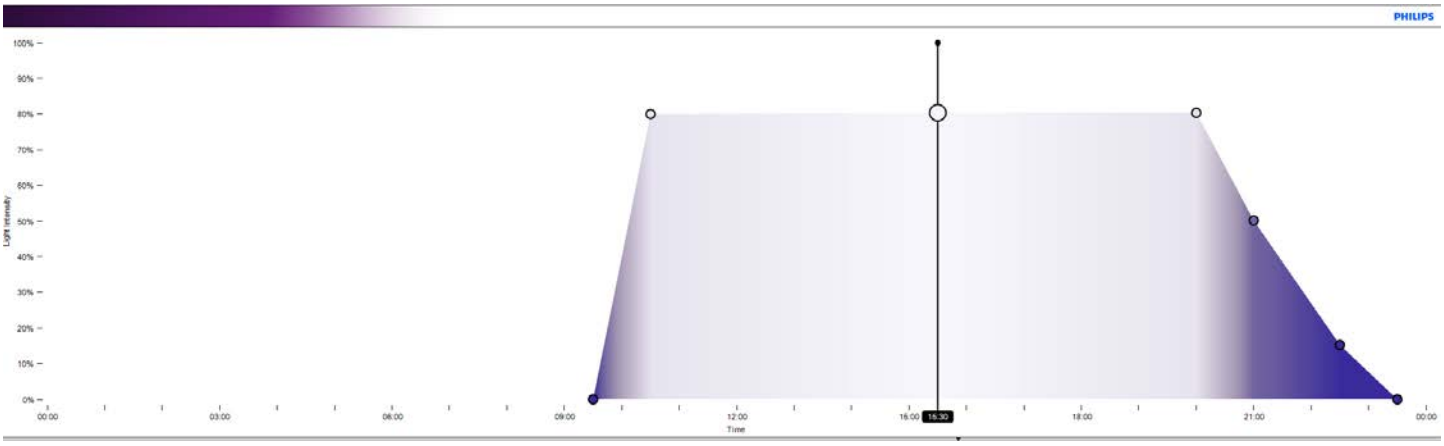
- Display tank: 200x70x80
- Filtration tank: 120x60x30
- Frag Tank: 100x60x30
- Flow pumps: 4x Tunze 6105
- Return pump: Jecod DCT 12,000L
- Skimmer : BBK 250 Super marine
- Calcium reactor: DIY
- Lighting : 4 Philips CoralCare prototypes

My inspiration to start the CoralCare project was caused by the struggles I had with the conventional lighting technology. The quality of light was very good, but the T5 lighting produced a lot of heat, the bulb replacement was inconvenient and the control very limited. On the other hand, I was not fully convinced that the LED solutions on the market could bring an equal light quality compared to the conventional T5 tubes. Based on these points I pitched an idea to our Philips management what now in 2016 evolved to the CoralCare product.

After finalizing our first concept studies and lab experiments I switched from conventional T5 lighting (16x54Watt) to the first Philips LED prototypes in April 2014. These prototypes were slightly different from the current CoralCare fixture in size and power output, but they did have the same spectral content. If you look closely at image 25-4-2014, you can still identify two lighting distribution techniques between the left and right side of the reef. In December 2014 I replaced the prototypes on the left side to match the light distribution on the right side to create a consistent light distribution throughout the reef.

I am very satisfied with the progress and growth results of my reef.
The Corals grow healthy, have a natural shape and show vivid colors.

I programmed the following light schedule in the CoralCare controller:



During the day, the color point changes to mimic a natural sunrise/sunset behavior.

I am very pleased with the natural appearance and color rendering during the daytime settings, and enjoy the fluorescent effect of the corals during the saturated bluish evening setting.
In the below overview you can find some pictures of my aquarium. Note that I trim the corals on regular basis to prevent territorial competition between the corals.

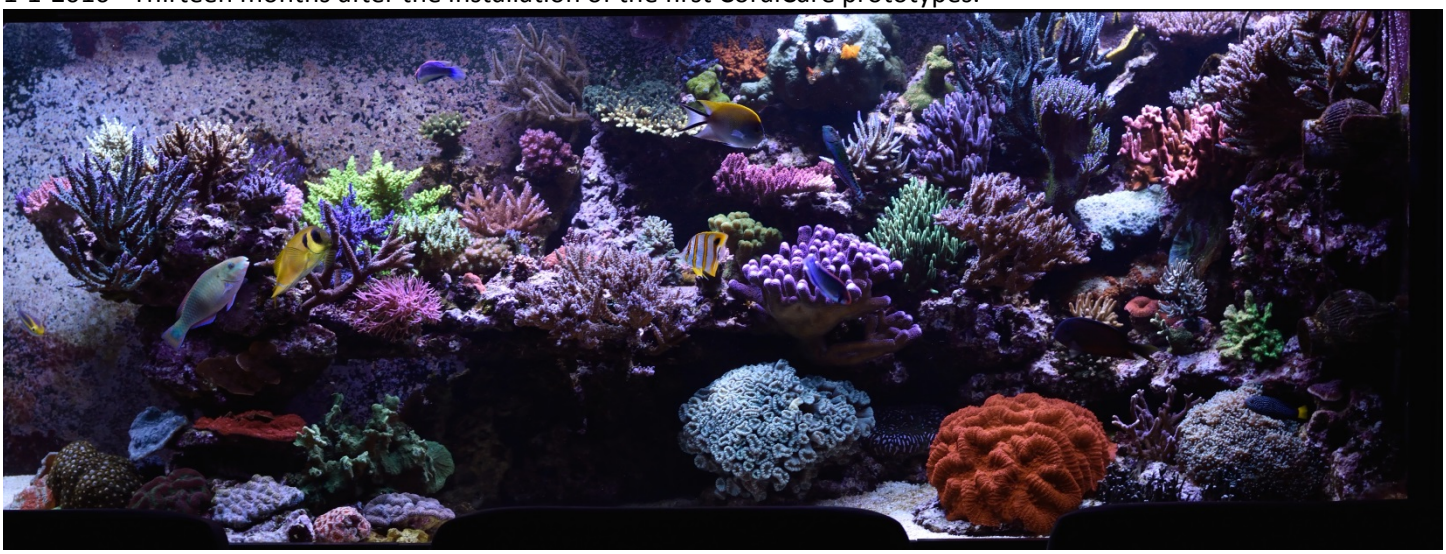
26-7-2016 –Nineteen months after the installation of the first CoralCare prototypes. Bluish evening settings of the light.

16-6-2016 –Eighteen months after the installation of the first CoralCare prototypes. Bluish evening settings of the light.

16-4-2016 –Sixteen months after the installation of the first CoralCare prototypes. Right side of the tank is already fading to the evening setting).

1-2-2016 - Fourteen months after the installation of the first CoralCare prototypes.

1-1-2016 - Thirteen months after the installation of the first CoralCare prototypes.

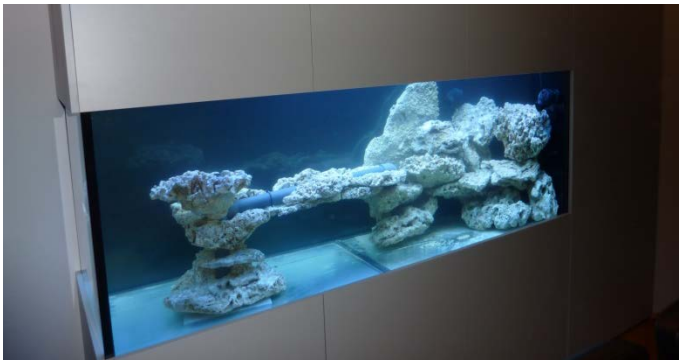


1-12-2015 – Twelve months after the installation of the first CoralCare prototypes.

5-7-2015 – Seven months after the installation of the first CoralCare prototypes.

25-4-2014 – Four months after the installation of the first CoralCare prototypes.

5-7-2013 – Start of the aquarium



30-8-2013 – Tank with 16x54Watt T5 lighting

Some additional shots of the aquarium (and inhabitants)