



Press Release

April 12 2021

Signify's new fish lights increase growth and improve the feed conversion ratio by harnessing the power of the sun

- Provide light distribution specifically designed to enhance fish growth of many different fish species, including tilapia
- Fit any pond size and can illuminate up to six hours after sunset

Eindhoven, the Netherlands – [Signify](#) (Euronext: LIGHT), the world leader in lighting, has launched new [Philips solar fish grow lights](#) that help to optimize farming for ponds, while harnessing the power of the sun. It provides spectral light specifically designed to suit many fish species, including tilapia. The grow lights enable fish farmers to increase fish productivity and efficiency. Research by the South China Agricultural University in a commercial size trial at a tilapia farm using 60 solar luminaires in a 7,000 m² pond confirmed a 10% increase in fish growth and a 10% reduction in feed conversion ratio (FCR), meaning that fish farmers need less feed per kilogram of fish.

Based on an earlier study in cooperation with the Ocean University of Shanghai¹, which showed similar results, South China Agricultural University started the trial in a live setting. This new trial, done at the tilapia farm in Taishan, Jiangmen, Guangdong in the south of China, proved the impact of the new solar fish lights, confirmed a 10% improved growth and found a positive effect on water quality. The commercial size trial lasted 117 days and resulted in an additional 1,770 kg of tilapia that was harvested compared to the reference ponds.

“It was very good to see that the results we obtained in the laboratory test in Shanghai could be repeated in an actual farming situation in the south of China. This is a breakthrough in tilapia farming efficiency improvements,” said Remco Lansbergen, General Manager Aquaculture at Signify.

The Philips solar fish light is easy to install and only one luminaire is needed per 100-150 m² of pond surface. The luminaires, equally spaced in the pond, are attached by rope to the center line or to each other to keep them in place. The best operation is achieved with clean solar panels and LED unit.

Light impact on fish is complex and there are multiple elements to consider: intensity and distribution, quality of light expressed in spectral composition, and photoperiod undergoing daily and seasonal cycles. Signify's Aquaculture lighting team is committed to push the boundaries of lighting applications supporting the needs of fish farmers and their hatchery and grow-out sites either on land or offshore. Fish lighting is developed in close collaboration with leading universities and

¹ Published in Aquaculture engineering; Effects of light intensity and photoperiod on juvenile Nile tilapia (*Oreochromis niloticus*) growth and stress response in recirculating aquaculture system (RAS); Liping Liu, Cristina Tanase, Kang Li, Kui Wang, Michiel van der Meer, Rainier Mols; June 2019



institutes and produced with the finest marine grade materials ensuring durability under the toughest conditions. Light has proven to be a powerful tool for enhancing fish production, while protecting its welfare.

Supporting food availability through aquaculture LEDs illustrates our commitment to supporting good health and wellbeing (SDG3) and is key to our commitment to doubling the percentage of our revenues for brighter lives, which benefit society, to 32%, as part of our [Brighter Lives, Better World 2025](#) program, which we [launched](#) in September 2020.

Find out more about Signify's Aquaculture lighting [here](#).

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For further information, please contact:

Global Marcom Manager Aquaculture at Signify

Daniela Damoiseaux

Tel: +31 6 31 65 29 69

E-mail: daniela.damoiseaux@signify.com

About Signify

[Signify](#) (Euronext: LIGHT) is the world leader in lighting for professionals and consumers and lighting for the Internet of Things. Our [Philips](#) products, [Interact](#) connected lighting systems and data-enabled services, deliver business value and transform life in homes, buildings and public spaces. With 2020 sales of EUR 6.5 billion, we have approximately 38,000 employees and are present in over 70 countries. We unlock the extraordinary potential of light for brighter lives and a better world. We [achieved](#) carbon neutrality in 2020, have [been](#) in the Dow Jones Sustainability World Index since our IPO for four consecutive years and were named [Industry Leader](#) in [2017](#), [2018](#) and [2019](#). News from Signify is located at the [Newsroom](#), [Twitter](#), [LinkedIn](#) and [Instagram](#). Information for investors can be found on the [Investor Relations](#) page.