

## Preferred Reef Aquarium Lighting

### Is there a consensus in the hobby regarding reef aquarium lighting?

*By Jeremy Gosnell*

Q. I am deciding on a lighting fixture for my 72-gallon bowfront reef aquarium. I have narrowed the lighting types I am interested in down to a T-5 high output and a power compact florescent. I was wondering what lighting type you most prefer or recommend. Thanks in advance!

David Mills  
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A. Well David, if you want to start a flame war on any internet message board about reef aquarium keeping just post this same question. For whatever reason, aquarists of all ages and experience levels get very aggressive when questioned about what lighting option works best and which one they recommend. Today in reef aquarium keeping there are several lighting options that are commonly used and while you are likely somewhat familiar with them I will give a short overview of each one, and what animals are typically considered acceptable to keep under the different lighting types.

The most powerful and expensive by far are metal halide lights. These are as close as we have come to replicating the sun's power and their intensely focused beam re-creates the light waves and ripples formed by sunlight on natural coral reefs. Most metal halide lights light users keep small polyp stony (SPS) corals, Tridacna clams and other animals with light-intensive demands. Normal output florescent lighting is hardly ever used in reef aquariums today and when it is typically only a few large polyp stony (LPS) corals can be kept under it, as only a few species will tolerate the low light levels. Very high output (VHO) florescent lighting is still commonly used and many older reef keepers still believe that it is the best lighting source. With very high output options many species of large polyp stony corals can be kept as well some anemones and Tridacna clams.

Power compact fluorescents are slowly gaining popularity. These bulbs have a wider spectrum and higher output than common fluorescents and open the aquarist up to all sorts of options when looking at what corals can be kept. There is of course the T-5 high output option. These florescent fixtures pack much more punch than standard florescent bulbs, produce a truer spectrum and higher Kelvin rating, and also use much less electricity than either metal halide lights or power compact lighting. If you thought those were the only advantages to the T-5 option, David, you will be surprised to learn that replacement bulbs for most T-5 fixtures are much cheaper than metal halide light bulbs or power compact bulbs.

I am assuming that after reading my revelations about T-5 lighting you have a good guess what light source I am going to recommend. I personally feel that right now the T-5 represents the most affordable and realistic option for the average reef aquarium keeper. Power compact lights produce a lot of heat, use a lot of electricity and need to be replaced once a year (in my opinion once every six months is better). T-5 lights generate less heat and only need replacing once every 18 months (though I would recommend replacing them at least once every 12 months). To put the icing on the cake, most T-5 light fixtures are cheaper than their power compact or metal halide lights counterparts and still provide the same LED lighting options as many of the higher end fixtures.

I did notice that you mentioned you had a bowfront aquarium. Bowfront aquariums pose an interesting challenge in the lighting department. Because most standard lighting fixtures are made with straight-sided aquariums in mind, they sometimes fail to light the bowed area of the aquarium properly. In this scenario you might want to consider the implementation of two lighting sources.

Using the T-5 fixture as described would work well but you should also look at some of the "clip-on" style metal halide lamps now available, as they might prove beneficial to you. These lamps are cheaper than full-fledged metal halide lighting systems but still pack the same wattage and spectrum. If you opt to mix a standard T-5 fixture with one or two "clip-on" metal halide lamps you would also be able to venture from keeping only LPS corals into perhaps keeping small polyp stony and Tridacna clams as well.