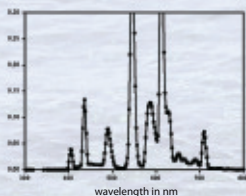


Dear Mr. Blessin,

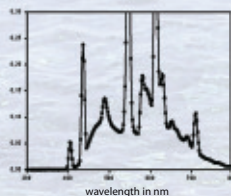
In order to carry out experimental tests into global warming, a complex light control unit illuminating containers of sea water with artificial light has been installed at the Leibniz Institute of Marine Sciences. In tests carried out on several illuminants from various manufacturers using a multispectral sensor (LICOR LC-1800; wavelength range 300-850nm) we found that these did not provide a constant light spectrum. Sunlight, however, has a constant light spectrum.

#### ARTIFICIAL LIGHT SPECTRUMS

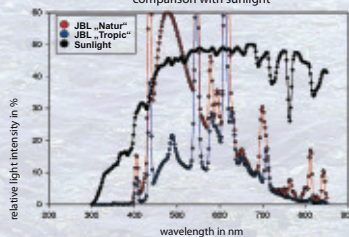
T5-80W daylight tubes



JBL "Tropic" T5 - 80W luminant



Relative spectral light distribution of artificial light in comparison with sunlight



Nature has adapted to this extensive spectrum.

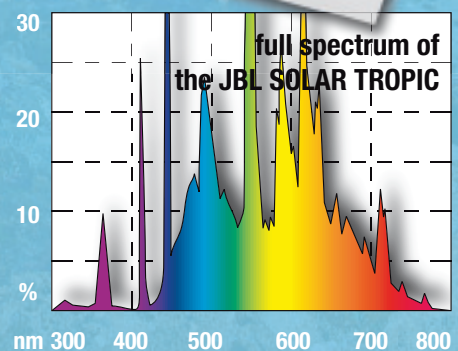
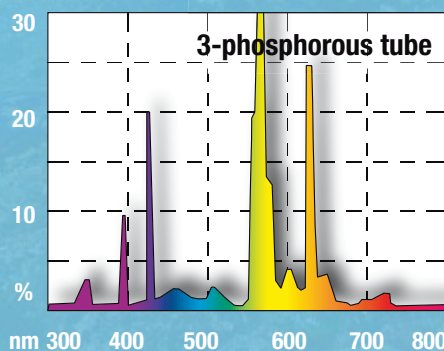
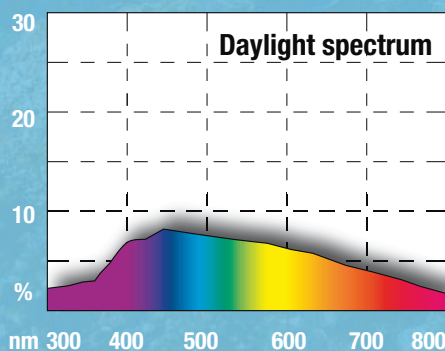
The JBL T5 "Natur" and "Tropic" luminants show a light range which is similar to that of sunlight.

As we wish to use models to simulate the future warming of the climate and examine the effect on the living communities in the sea, these lights from JBL are highly suitable to simulate natural daylight.

Yours sincerely  
Prof. Dr. Ulrich Sommer



## Modelled on nature. The full spectrum of daylight.



Natural daylight has a balanced system which serves as a model and reference point for aquarium lighting.

However, regular fluorescent tubes only deliver a limited spectrum, giving a very „patchy“ picture compared to nature.

Full-spectrum tubes achieve a far more balanced reproduction of natural lighting, providing a lighting environment in your aquarium which closely mimics nature. In order that aquarium lighting meets these high standards set by nature, JBL selects full-spectrum. Why should you settle for less?

Vorsprung  
durch Forschung  
Ahead through research  
L'avancée par la recherche

