

GRO-LUX® Aquarium and Aquarium Wide Spectrum Fluorescent Lamps for aquariums



SYLVANIA's GRO-LUX Aquarium and GRO-LUX Aquarium Wide Spectrum fluorescent lamps provide the right balance of light wave lengths for fish activity as well as plant growth and maintenance in aquariums.

Light is essential for the successful maintenance of tropical fish. It is an important factor for normal activity and proper feeding. Plants are used in aquariums to help provide an environment similar to the natural habitat of the fish. They provide oxygen, absorb carbon dioxide, act as shelter and help inhibit the growth of algae. Light is essential to the plants for the processes of food production and growth. GRO-LUX Aquarium and GRO-LUX Aquarium Wide Spectrum lamps deliver the wavelengths of light needed for these processes.

Application Information

Applications

For additional information, please call 1-800-LIGHTBULB or visit www.sylvania.com.

Fixtures

Contact your local fixture agent for available fixtures.

Ballast Information

Contact your OSRAM SYLVANIA representative for a list of compatible ballasts for GRO-LUX lamps.

Application Notes

1. The F15T8, F20T12 & F30T8 lamps are preheat lamps and operate on the same ballasts and require the same starters as other preheat lamps of the same wattages. The lamps may also be operated on the appropriate trigger start ballasts.
2. The F40T12 lamps are rapid start lamps and operate on the same ballasts as other F40 rapid start lamps.

• Fluorescent lamps for aquariums

Provide essential energy for

- Normal activity of tropical fish
- Healthy plant growth
- Effective visual display of plants and fish

• Choice of Lamps

- GRO-LUX Aquarium
- GRO-LUX Aquarium Wide Spectrum
- Combination of GRO-LUX Aquarium and GRO-LUX Aquarium Wide Spectrum lamps where appropriate

Product Availability

Wattage	Ordering Description
15	F15T8/GRO/AQ/RP
15	F15T12/GRO/AQ/WS/RP
20	F20T12/GRO/AQ/RP
20	F20T12/GRO/AQ/WS/RP
30	F30T8/GRO/AQ/RP
40	F40T12/GRO/AQ/RP
40	F40T12/GRO/AQ/WS/RP

The wavelengths of light emitted by the GRO-LUX Aquarium and GRO-LUX Aquarium Wide Spectrum lamps also enhance the visual appearance of the fish and plants, providing for their effective visual display.

3. As a general rule, two watts of fluorescent light per gallon of water will ensure good penetration of light for fish-only tanks. Tanks with reasonable sized reef systems need about 4 watts of fluorescent light per gallon of water.
4. Utilizing the wattages given above, about twelve hours of light per 24-hour period should result in satisfactory plant growth and provide an adequate supply of light for the fish.
5. Observation over time will help to determine the most satisfactory wattage to use and the proper duration of light for various types of plants and species of fish.
6. For photosynthesis, if using incandescent lamps, you would need 2½ to 3 times the fluorescent wattage to provide PAR values equal to GRO-LUX Aquarium or GRO-LUX Aquarium Wide Spectrum lamps.
7. For equal light, if using incandescent lamps, you would need 1½ to 2 times the fluorescent wattage to provide light equal to the GRO-LUX Aquarium lamps, and 2 to 2½ times the fluorescent wattage to provide light equal to the GRO-LUX Aquarium Wide Spectrum lamps.

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Sample Specification

Lamp(s) shall be (GRO-LUX/Aquarium or GRO-LUX/ Aquarium/Wide Spectrum) lamp(s). Lamps shall provide the red and blue wavelengths of energy needed for photosynthesis, and chlorophyll synthesis in plants and in general, provide the light needed for plants to flourish and look their best. Lamps shall provide the proper light necessary for maintenance, life and normal activity of tropical fish as well as enhance their colors.

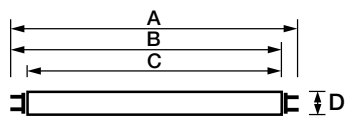
Ordering and Specification Information

Item Number	Ordering Abbreviation	Watts	Bulb	Base	Length	Avg. Rated Life (hrs.)	Initial Lumens	CCT	CRI
21657	F15T8/GRO/AQ/RP	15	T8	Medium Bi-Pin	18"	7500	325	N/A	N/A
22029	F20T12/GRO/AQ/RP	20	T12	Medium Bi-Pin	24"	9000	480	N/A	N/A
23160	F30T8/GRO/AQ/RP	30	T8	Medium Bi-Pin	36"	7500	800	N/A	N/A
24660	F40T12/GRO/AQ/RP	40	T12	Medium Bi-Pin	48"	20,000	1200	N/A	N/A
22013	F20T12/GRO/AQ/WS/RP	20	T12	Medium Bi-Pin	24"	9000	750	3400K	89
24671	F40T12/GRO/AQ/WS/RP	40	T12	Medium Bi-Pin	48"	20,000	1875	3400K	89

Ordering Guide

F	40	T12	/	GRO	/	AQ	/	WS	/	RP
Fluorescent	Wattage: 15, 20, 30 or 40 watts	Tubular glass 12/8" (1.5") diameter		GRO-LUX		Aquarium		Wide Spectrum		Retail Package

Dimensions



	(A) MOL (in)	(B)	(C)	(D) Bulb Diameter (in)
F15T8	17.91"	17.50"	17.22"	1.10"
F20T12	23.78"	23.50"	23.22"	1.59"
F30T8	35.78"	35.50"	35.22"	1.10"
F40T12	47.78"	47.50"	47.22"	1.59"

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Photo-Optic

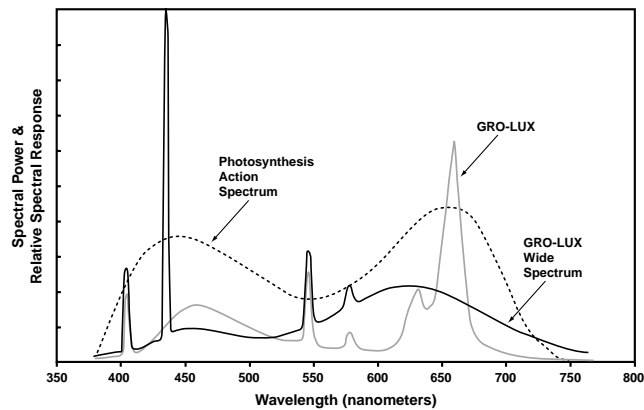
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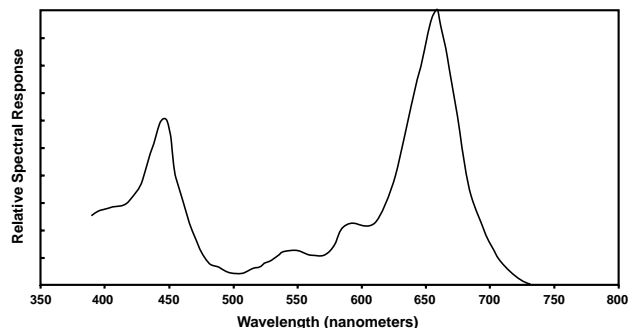
Phone: 1-800-654-0089
Fax: 1-847-726-6424

Technical Information

Photosynthesis and GRO-LUX Lamps



Action Spectrum for Chlorophyll Synthesis



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