

# 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](http://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.

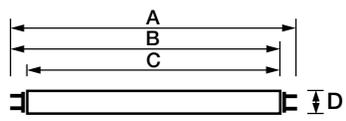
### Ordering and Specification Information

| 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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#### OEM & Special Markets

Phone: 1-800-762-7191  
Fax: 1-800-762-7192

#### Photo-Optic

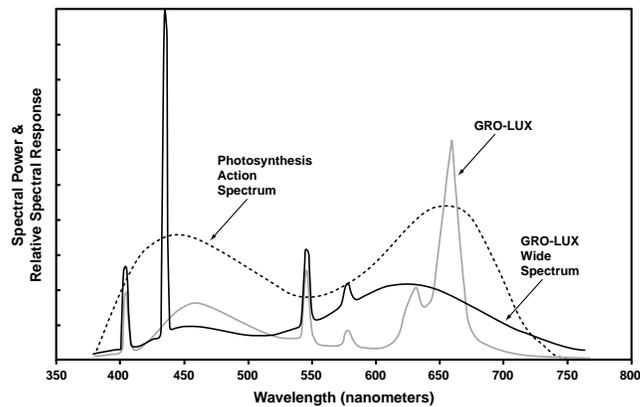
Phone: 1-888-677-2627  
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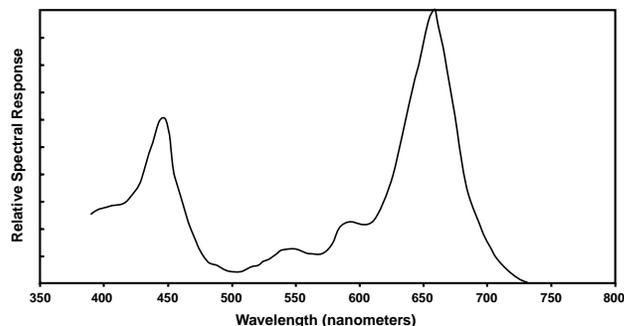
Phone: 1-800-654-0089  
Fax: 1-847-726-6424

### Technical Information

#### Photosynthesis and GRO-LUX Lamps



#### Action Spectrum for Chlorophyll Synthesis



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