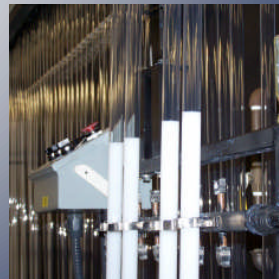
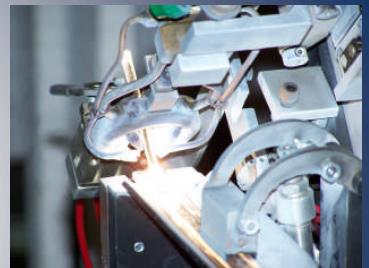
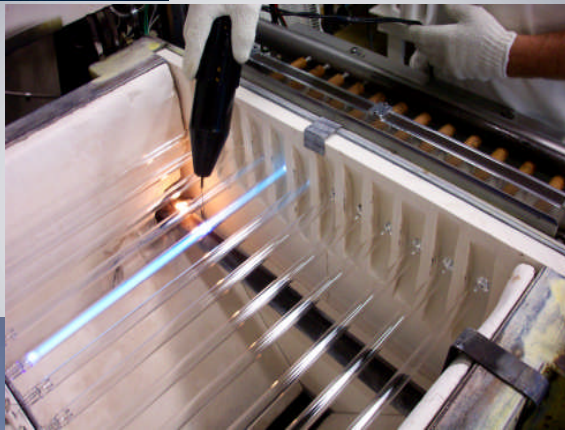
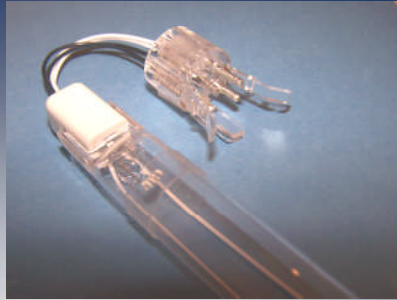
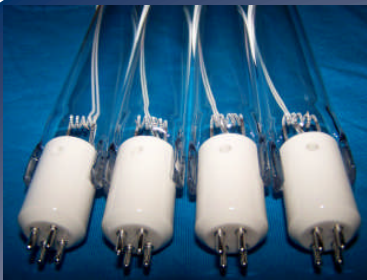




First Light Technologies, Inc.

The OEM's First Choice for Ultraviolet Lamp Technology



First Light Technologies, Inc. is a leading manufacturer of low pressure UVC lamp in both the 185 and 254nm wavelengths. First Light Technologies' products are used in the disinfection of municipal wastewater, industrial process water and primary drinking water. First Light's lamps are also used extensively in the disinfection of air and HVAC systems. Additional applications include food and beverage processing and ink curing applications. First Light's full line of germicidal lamps is designed to provide the highest level of performance for each of our partner's applications.



First Light Technologies' manufacturing process allows us to provide our customers with lamps customized to fit their specific application. Details such as lamp diameter, length, base configuration and operating currents can be tailored to fit the OEM needs.

Instant-Start Lamps

| Lamp Type | Base Face Base to Base* | Arc Length | Lamp Diameter | Lamp Wattage | Lamp Current mA | Lamp Voltage V @ 50 or 60Hz | UV Output UVC Watts | UV Output @ 1m (μ Watts/cm ²) | Rated Life Hours |
|-------------|----------------------------|---------------|------------------|-----------------|--------------------|--------------------------------------|------------------------|--|---------------------|
| G10T5L/C | 357mm | 281mm | 15mm | 17 | 425mA | 51 | 5.7 | 56 | 9000 |
| G36T5L/C | 843mm | 767mm | 15mm | 42 | 425mA | 100 | 14.4 | 150 | 9000 |
| G36T5L/HO/C | 843mm | 767mm | 15mm | 75 | 800mA | 95 | 25.0 | 240 | 9000 |
| G64T5L/C | 1554mm | 1478mm | 15mm | 75 | 450mA | 175 | 30.0 | 260 | 9000 |
| G64T5L/HO/C | 1554mm | 1478mm | 15mm | 145 | 800mA | 180 | 48.0 | 385 | 9000 |

Note * UV output is measured at 253.7nm at 100 hours under laboratory conditions.

Output may vary under actual operating conditions.

* - Base face measurement is from base to base, not including pins.

** - Lamps are also available in both Pure Quartz (VH) or Synthetic Quartz (VHS)

Preheat-Start Lamps

| Lamp Type | Base Face Base to Base* | Arc Length | Lamp Diameter | Lamp Wattage | Lamp Current mA | Lamp Voltage V @ 50 or 60Hz | UV Output UVC Watts | UV Output @ 1m (μ Watts/cm ²) | Rated Life Hours |
|--------------|----------------------------|---------------|------------------|-----------------|--------------------|--------------------------------------|------------------------|--|---------------------|
| GPH212T5L | 212mm | 136mm | 15mm | 12 | 425mA | 28 | 2.8 | 27 | 9000 |
| GPH212T5L/HO | 212mm | 136mm | 15mm | 18 | 800mA | 23 | 5.0 | 50 | 9000 |
| GPH287T5L | 287mm | 211mm | 15mm | 17 | 425mA | 40 | 4.0 | 40 | 9000 |
| GPH287T5L/HO | 287mm | 211mm | 15mm | 27 | 800mA | 34 | 7.5 | 75 | 9000 |
| GPH357T5L | 357mm | 281mm | 15mm | 17 | 425mA | 51 | 5.7 | 56 | 9000 |
| GPH357T5L/HO | 357mm | 281mm | 15mm | 32 | 800mA | 40 | 10.0 | 95 | 9000 |
| GPH436T5L | 436mm | 360mm | 15mm | 26 | 425mA | 62 | 7.3 | 72 | 9000 |
| GPH436T5L/HO | 436mm | 360mm | 15mm | 42 | 800mA | 53 | 13.5 | 125 | 9000 |
| GPH793T5L | 793mm | 717mm | 15mm | 48 | 425mA | 113 | 13.5 | 125 | 9000 |
| GPH793T5L/HO | 793mm | 717mm | 15mm | 72 | 800mA | 90 | 24 | 210 | 9000 |

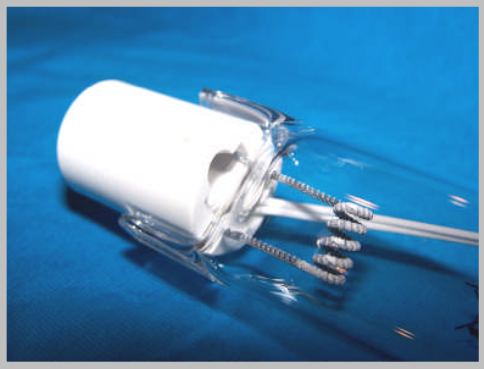
Note * UV output is measured at 253.7nm at 100 hours under laboratory conditions.

Output may vary under actual operating conditions.

* - Base face measurement is from base to base, not including pins.

** - Lamps are also available in both Pure Quartz (VH) or Synthetic Quartz (VHS)

Amalgam Lamps - First Light Technologies, Inc. offers amalgam lamps that deliver up to 3 times the UVC output of standard low pressure UVC lamps. First Light Technologies' Amalgam series of lamps are designed to operate efficiently at higher operating temperatures than standard and (HO) lamps. These benefits allow equipment manufacture to realize greater efficiency and lower equipment cost. First Light's amalgam series is a cost effective alternative to medium pressure lamps. In house manufacturing capabilities allow First Light to provide the OEM with a lamp that fits their equipment needs.



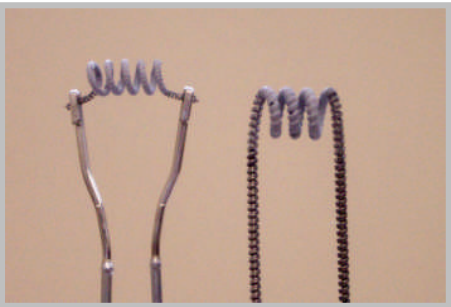
Key Features include:

- ✧ Increased UV dosage without increasing size
- ✧ Greater efficiency; fewer lamps = lower equipment costs
- ✧ Greater stability of UVC output over varying temperatures

Amalgam Lamps

| Lamp Type | Spec | Base Face to Base* | Base Arc Length | Lamp Diameter | Lamp Wattage | UVC Watts | UV Output @ 1m (μWatts/cm ²) | Lamp Current | Lamp Voltage | Lamp Life(hrs) |
|----------------|------|--------------------|-----------------|---------------|--------------|-----------|--|--------------|--------------|----------------|
| GIA843T5L | 2133 | 843mm | 770 | 15mm | 120 | 35 | 320 | 1.5a | 80v | 12000 |
| GIA1554T5L | 2360 | 1554mm | 1483 | 15mm | 200 | 65 | 500 | 1.5a | 135v | 12000 |
| GIA843T6L | 2524 | 843mm | 660 | 19mm | 150 | 43 | 400 | 2.0a | 75v | 12000 |
| GIA1554T6L | 2915 | 1554mm | 1483 | 19mm | 240 | 85 | 650 | 2.0a | 120v | 12000 |
| GIA1554T6L/320 | 2898 | 1554mm | 1483 | 19mm | 320 | 105 | 750 | 2.2a | 150v | 12000 |
| GIA1554T9LCA | 2994 | 1554mm | 1470 | 28mm | 350 | 125 | 950 | 3.5a | 100v | 12000 |

HO Lamps - First Light Technologies, Inc. offers High Output (HO) in all lamp configurations; these lamps will deliver up to two thirds more UV output than standard lamps. First Light's HO lamps are offered with the standard HO filament or can be equipped with our long life electrode.



First Light's long life filament is a single piece construction, High Output filament. This filament provides added benefits over conventional filament types. This filament can be operated from 600 to 1200mA. Single piece construction offers greater durability and helps reduce the occurrence premature burnout. The use of this filament offers greater UV output than those using conventional filaments.

High Output Lamps

| Lamp Type | Spec | Base Face to Base* | Arc Length (mm) | Lamp Diameter | Lamp Wattage | UV Output UVC Watts | UV Output @ 1m (μWatts/cm ²) | Lamp Current Amps | Lamp Voltage | Lamp Life(hrs) |
|--------------------|------|--------------------|-----------------|---------------|--------------|---------------------|--|-------------------|--------------|----------------|
| GPH843T5LCA/M12 | 2758 | 843mm | 723mm | 15mm | 80 | 29 | 265 | .8a | 100v | 12000 |
| GPH1554T5LCA/M12 | 2590 | 1554mm | 1434mm | 15mm | 145 | 50 | 425 | .8a | 180v | 12000 |
| GPH1554T5VHCA/2S07 | 2468 | 1554mm | 1434mm | 15mm | 145 | 50 | 425 | .8a | 180v | 12000 |

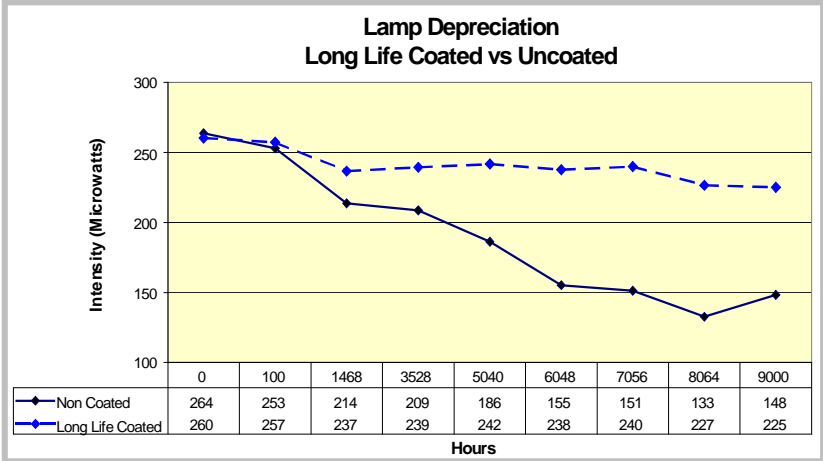
First Light Technologies, Inc. works closely with the OEM to customize a high output lamp solution that is configured to meet the OEM's specific application. Engineering support includes proper ballast selection and sourcing.



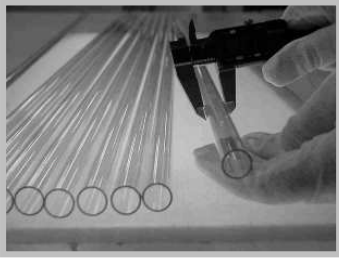
Internal Coated Lamps - First Light offers its full range of germicidal lamps available with an internal coating. Our coating process yields lamps that are more resistant to solarization. The coating helps provide a barrier between the mercury in the lamp and the quartz body of the lamp.

This provides our customers with the following benefits.

- ✧ More constant performance over the life of the lamp
- ✧ Greater end-of-life UVC output
- ✧ Reduced mercury content available
- ✧ Lower equipment costs by reduced lamp quantities (Higher dosage at end of life)



Quartz Sleeve Fabrication - First Light's germicidal lamps and quartz sleeves are manufactured using 99.9% pure fused quartz. This material allows for maximum UV transmission. Quartz sleeves are available in a wide variety of lengths and diameters. First Light's capabilities include cutting, doming, bending, polishing, splicing, and flaring. Other operations are available upon request.



Proprietary Ceramic Base - First Light Technologies, Inc. offers a complete selection of standard plastic and ceramic bases to meet your specifications. In addition to standard bases, First Light specializes in creating custom ceramic base designs supporting your proprietary equipment. In-house capability and capacity allow First Light to significantly reduce the lead-time from concept to production.

- ✧ Minimal Design to Production Time
- ✧ Custom Glaze / Color
- ✧ Enables special pin configurations
- ✧ Effective Product Differentiation



Custom Ceramic Onlay - First Light Technologies, Inc. can provide lamp bases customized with your logo, product number, country of origin and/or reorder information. The single or multi color onlay is bonded to the ceramic base with an intense heat process that fuses the pigment to the ceramic base. This process provides durable and clear labeling making an exceptional quality product presentation.



Lamp Etch - First Light Technologies, Inc., as a standard, etches each lamp with a manufacturing date code and caution. As a value-added service, First Light Technologies, Inc. will provide our customers with a custom etch for any lamp First Light Technologies manufactures. Etches can provide important information that can allow you to easily and effectively capture repeat business such as logo, part number, patent number, phone number, etc.



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