



Fluorescent Lighting

Use the information in this chart to determine which fluorescent lighting system is best for you. Color temperature (represented in degrees Kelvin) indicates how visually cool (blue) or warm (red) the light source is. Fluorescents with higher temps are referred to as "daylight" or "grow" types and are preferred for promoting vegetative growth. Tubes and bulbs with lower temps are called "warm" or "bloom" types and are better suited for bloom induction and maturation.

For an at-a-glance determination of each system's output, just reference the shaded lumen bar to the left of each system. A low lumen output is good for seedlings, cuttings and plants with low-light requirements, while a high lumen output is the better choice for completing a plant's growth cycle.

Ask your customer service representative for additional details on energy efficiency, reduced heat output, sustained lumen productivity and other features of fluorescent lighting systems.

PLEASE REMEMBER:

Don't discard lamps, tubes or bulbs in your normal trash.

RECYCLE
them for **FREE**
at **Worm's Way!**

Pioneer VIII jr. Pioneer VIII

LUMENS	Tube Type T5	Tube Type T5
	Color Temperature Grow - 6,500 K	Color Temperature Grow - 6,500 K Bloom - 2,900 K
	Lumen Output Grow - 14,400	Lumen Output Grow - 36,800 Bloom - 38,400
	Wattage 192w	Wattage 432w
	Dimensions 23 ³ / ₁₆ " x 25 ¹ / ₂ " x 2 ¹ / ₄ "	Dimensions 47" x 25 ¹ / ₂ " x 2 ¹ / ₄ "

Pioneer IV jr. Pioneer VI

LUMENS	Tube Type T5	Tube Type T5
	Color Temperature Grow - 6,500 K	Color Temperature Grow - 6,500 K Bloom - 2,900 K
	Lumen Output Grow - 7,200	Lumen Output Grow - 27,600 Bloom - 28,800
	Wattage 96w	Wattage 324w
	Dimensions 23 ³ / ₁₆ " x 15" x 2 ¹ / ₄ "	Dimensions 47" x 20" x 2 ¹ / ₄ "

Pioneer II jr. Pioneer IV

LUMENS	Tube Type T5	Tube Type T5
	Color Temperature Grow - 6,500 K	Color Temperature Grow - 6,500 K Bloom - 2,900 K
	Lumen Output Grow - 3,600	Lumen Output Grow - 18,400 Bloom - 19,200
	Wattage 48w	Wattage 216w
	Dimensions 23 ³ / ₁₆ " x 9 ¹ / ₂ " x 2 ¹ / ₄ "	Dimensions 47" x 15" x 2 ¹ / ₄ "

Lumen output and color temperature based on the Sunleaves VitaLUME



Comparisons



Satellite IV

Tube Type
TT105

Color Temperature

Grow - 5,000 K
Bloom - 3,000 K

Lumen Output

Grow - 44,000
Bloom - 44,000

Wattage
420w

Dimensions
47" x 13" x 3"

Saturn IV

Tube Type
T8

Color Temperature
Grow - 6,500 K

Lumen Output
Grow - 11,200

Wattage
128w

Dimensions
50" x 10 1/2" x 3"

Comet 300

Bulb Type
Non-Ballasted
Compact Fluorescent

Color Temperature
Grow - 6,400 K

Lumen Output
Grow - 18,000

Wattage
300w

Dimensions
26 1/8" x 11 7/8" x 8"

SUNRISE

Tube Type
TT96

Color Temperature
Grow - 6,500 K

Lumen Output
Grow - 7,200

Wattage
96w

Dimensions
36" x 3 1/2" x 2 1/2"

Saturn II

Tube Type
T8

Color Temperature
Grow - 6,500 K

Lumen Output
Grow - 5,600

Wattage
64w

Dimensions
48 1/2" x 6" x 3"

Comet 200

Bulb Type
Non-Ballasted
Compact Fluorescent

Color Temperature
Grow - 6,400 K

Lumen Output
Grow - 13,000

Wattage
200w

Dimensions
23" x 11 7/8" x 7 5/8"

Nova

Tube Type
TT55

Color Temperature
Grow - 6,500 K

Lumen Output
Grow - 8,000

Wattage
110w

Dimensions
23 1/2" x 9 1/4" x 4"

Saturn 2x2

Tube Type
T8

Color Temperature
Grow - 6,500 K

Lumen Output
Grow - 2,200

Wattage
34w

Dimensions
25 1/2" x 6 3/4" x 3"

Comet

Bulb Type
Ballasted
Compact Fluorescent

Color Temperature
125w Grow - 6,400 K
125w Bloom - 2,700 K
200w Grow - 6,400 K

Lumen Output
125w Grow - 10,500
125w Bloom - 9,000
200w Grow - 13,000

Wattage
up to 200w
Dimensions
21" x 14 1/2" x 9 1/2"

tube/bulb recommended for each system



**Hydro
for
Hunger**

Pioneer



47" x 15" x 2 1/4"

47" x 20" x 2 1/4"

47" x 25 1/2" x 2 1/4"

Leading the Way

Give plants high-intensity, low-heat lighting with an efficient Sunleaves Pioneer T5 Fluorescent Fixture. All Pioneer models are equipped with a built-in, 120-volt outlet to conveniently link multiple systems together. Units come with or without Sunleaves VitaLUME high-output T5s and include hanging hardware and a five-year warranty. A portion of the proceeds from the sale of every full-sized Pioneer with tubes will benefit the Hydro for Hunger initiative that battles world hunger.

Four-foot, 54-watt VitaLUME and VitaLUME PLUS T5 Tubes fit any full-sized Pioneer unit. Each VitaLUME T5 Bloom Tube has a color temperature of 2,900 Kelvins, while each VitaLUME PLUS T5 Grow Tube has a color temperature of 6,500 Kelvins. VitaLUME and VitaLUME PLUS Tubes are covered by a one-year manufacturer's warranty.

Stock#	Item	Price Each
SPG104	Sunleaves Pioneer IV Grow, 4 Tube	\$209.95
SPG106	Sunleaves Pioneer VI Grow, 6 Tube	289.95
SPG108	Sunleaves Pioneer VIII Grow, 8 Tube	354.95
Save! Buy 3 or more for \$349.95 each.		
SPB104	Sunleaves Pioneer IV Bloom, 4 Tube	\$209.95
SPB106	Sunleaves Pioneer VI Bloom, 6 Tube	289.95
SPB108	Sunleaves Pioneer VIII Bloom, 8 Tube	354.95
Save! Buy 3 or more for \$349.95 each.		
SP104	Sunleaves Pioneer IV, Tubes Not Included	\$179.95
SP106	Sunleaves Pioneer VI, Tubes Not Included	244.95
SP108	Sunleaves Pioneer VIII, Tubes Not Included	299.95
Stock#	Item	Price Each
SVTB105M	Sunleaves 4' VitaLUME T5 Bloom Tubes, 4 pk	\$48.00
SVPG105M	Sunleaves 4' VitaLUME PLUS T5 Grow Tubes, 4 pk	52.00
SVTB125M	Sunleaves 4' VitaLUME T5 Bloom Tubes, 25 pk	\$187.50
SVPG125M	Sunleaves 4' VitaLUME PLUS T5 Grow Tubes, 25 pk	\$187.50

All in the Family

Space-saving Pioneer Jr. T5 Fluorescent Fixtures have all the same features as their full-sized predecessors including hanging hardware, 120-volt daisy-chain outlet and five-year warranty. These self-contained units can hang vertically or horizontally and are available in two- and four-tube configurations. Both Pioneer Jr. models come with two-foot Sunleaves VitaLUME PLUS T5s.

Two-foot, 24-watt VitaLUME PLUS T5 Tubes are high-output replacements for the fluorescents found in Pioneer Jr. fixtures. Comparable to metal halides with less heat and energy consumption, each tube has a color temperature of 6,500 kelvins to promote abundant vegetative growth. A one-year warranty is included.

Pioneer jr.



23 3/16" x 9 1/2" x 2 1/4"

23 3/16" x 15" x 2 1/4"

Stock#	Item	Price Each
SPJ102	Sunleaves Pioneer II Jr., 2 Tube	\$119.95
SPJ104	Sunleaves Pioneer IV Jr., 4 Tube	154.95
SPJ108	Sunleaves Pioneer VIII Jr., 8 Tube New!	309.95
Save! Buy 3 or more for \$304.95 each.		

Stock#	Item	Price Each
SVT100M	Sunleaves 2' VitaLUME PLUS T5 Tubes, 4 pk	\$36.00

The Quality Will Fluor You!

SunBlaster Single T5 Fluorescent Fixtures are excellent options for supplemental lighting. The four-foot, 54-watt fluorescent tube emits 5,100 lumens, the three-foot, 39-watt tube emits 3,700 lumens and the two-foot, 24-watt tube emits 2,280 lumens. All tubes produce light with a color temperature of 6,400 Kelvins. Each 7/8" wide Single T5 Fixture includes a six-foot power cord, "daisy-chain" cable to link multiple units, built-in electronic ballast, SunBlaster tube, and mounting hardware for horizontal or vertical positioning. Replacement tubes available separately.



For a comparable light output and a lower energy bill, replace a 100-watt and 50-watt incandescent bulb with one, 2' SunBlaster T5. You'll save up to 84%!
(Based on \$0.10/kwh, 8 hours a day, 365 days a year)

STF102	SunBlaster T5 Fluorescent Fixture 2', 24W	\$29.95
STF103	SunBlaster T5 Fluorescent Fixture 3', 39W	31.95
STF104	SunBlaster T5 Fluorescent Fixture 4', 54W	33.95
STFT102	SunBlaster T5 Fluorescent Tube, 2'	
	Mail Order	11.95
	In Store	9.95
STFT103	SunBlaster T5 Fluorescent Tube, 3'	
	Mail Order	12.95
	In Store	10.95
STFT104	SunBlaster T5 Fluorescent Tube, 4'	
	Mail Order	13.95
	In Store	11.95

VitaLUME

Comet



Fluorescent Lighting



VCFBD110



VCFBD120



21" x 14 1/2" x 9 1/2"

First in the Series

Plants flourish when raised under a non-ballasted Sunleaves Comet Compact Fluorescent Fixture. The Comet accepts internally-ballasted compact fluorescent bulbs, up to 200 watts: choose a 125- or 200-watt Sunleaves VitaLUME with a 6,400-degree daylight spectrum for green growth or a "warm" 125-watt with a 2,700-degree color temperature to promote blooming. You get a five-year manufacturer's warranty on the Comet and one-year coverage on the VitaLUME bulbs. A protective Sunleaves Comet Lens is available separately.

SCFF190	Sunleaves Comet Fluorescent Fixture.....	\$79.95
SCL190	Sunleaves Comet Lens	14.95
VCFBD110	Sunleaves VitaLUME Compact Fluorescent, 125W ballasted.....	54.95
VCFBD120	Sunleaves VitaLUME Compact Fluorescent, 200W ballasted	134.95
VCFBW110	Sunleaves VitaLUME Compact Fluorescent Warm, 125W ballasted	54.95



- Enjoy a Lush Garden Any Time of Year - Indoors!
- Includes a VitaLUME 300w Non-Ballasted Compact Fluorescent Bulb (with One-Year Warranty)
- Easy to Use and Install
- Optional Lens Available



SCT300



- Enjoy a Lush Garden Any Time of Year - Indoors!
- Includes a VitaLUME 200w Non-Ballasted Compact Fluorescent Bulb (with 1-Year Warranty on Bulb)
- Easy to Use and Install
- Optional Lens Available



SCT200



26 1/8" x 11 7/8" x 8"



23" x 11 7/8" x 7 5/8"

For Earthly Comet Tales

Fit for tight spaces and most vegetative growing applications, the 200- and 300-series Comets are the latest additions to the Sunleaves line of compact fluorescent lighting systems. Each ballasted Comet 200 is outfitted with a 200-watt Sunleaves VitaLUME bulb; Comet 300s come standard with a 300-watt VitaLUME. Both fixtures have a highly-reflective mirrored interior and built-in ventilation to maintain cool operation. Plants love the full-spectrum light provided by the 6,400-degree Kelvin daylight fluorescents, which are guaranteed for a one-year period. The Comet 200 is covered by a five-year warranty, while the Comet 300 has a three-year warranty. A shatter-resistant safety lens is available separately for each unit.

SCT130	Sunleaves Comet 300.....	\$229.95
SCTL195	Sunleaves Comet 300 Lens	14.95
VCFB130	Sunleaves VitaLUME Compact Fluorescent, 300W (non-ballasted)	79.95
SCT120	Sunleaves Comet 200	199.95
SCTL190	Sunleaves Comet 200 Lens	14.95
VCFB120	Sunleaves VitaLUME Compact Fluorescent, 200W (non-ballasted)	69.95



Satellite IV



47" x 13" x 3"



Better Than Ever!

Doubling the lumen output of our popular Satellite II, the 420-watt, 44,000 lumen Sunleaves Satellite IV is your answer for expert garden lighting! A cool-operating alternative to traditional HID lighting, the Satellite IV cuts energy consumption by as much as 30 percent. These self-contained units have a low profile to maximize spacing efficiency and allow for vertical and horizontal hanging. Satellite IV Grow includes four fluorescent "grow" tubes and Satellite IV Bloom includes four "bloom" type tubes. What's more, the Satellite IV accommodates either type of tube so you can grow plants to maturity with one fixture simply by changing bulbs at the proper time in the growing cycle.

Stock#	Item	Price Each
SSG104	Sunleaves Satellite IV Grow, 4 Tube Save! Buy 3 or more for \$569.95 each.	\$579.95
SSB104	Sunleaves Satellite IV Bloom, 4 Tube Save! Buy 3 or more for \$569.95 each.	579.95

Stock#	Item	Price Each
SSBG105	Sunleaves Satellite VitaLUME TT105 Grow Tube.....	\$34.95
SSBB105	Sunleaves Satellite VitaLUME TT105 Bloom Tube	34.95

High-Output Fluorescents Have the Gift to Grow and Power to Flower

It used to be that horticultural fluorescents yielded little more than a seedling's true leaves. Certainly some can cultivate leafy greens and please a few houseplants, but they're just no match for today's high-output fluorescents that can force flowering and fruiting to raise plants to maturity. These new tubes produce almost twice as much light as standard types and often run cooler, last longer, and operate more efficiently than point-source high intensity discharge lamps. Here's how to make sense of the different types and determine which one is right for you.

Tube naming conventions will give you an indication of their size. With T5, T8 and T12 tubes for example, the numbers signify the diameter of the tube, represented in eighths of an inch. So a T5 has a diameter of 5/8"; T8s have a one-inch diameter (8/8") and so on. Keep in mind that a smaller diameter does not mean the tube is less powerful (T5s are producing some of the most impressive growing results of all tubes on the market). The "T" that precedes the number simply references the shape, in this case, a linear tube shape.

There are also TT96, TT105 and other similarly-named tube types. These have the same linear shape but are comprised of two tubes joined together at one end for increased output while maintaining a single connection point to the fixture. With these tubes, the numbers that follow indicate wattage rather than diameter. This means a dual TT96 tube is a 96-watt tube and a TT105 is a 105-watt tube. Regardless of whether it's a single or dual tube, two- and four-foot lengths are the norm.

Just like HID lamps, fluorescent tubes are powered by a ballast. Because most fixtures internalize this component and incorporate a reflective material besides, complete systems require a minimal amount of space and can mount in almost any position. If you need to cover an extended distance, consider a fixture with "daisy-chaining" capabilities so you can link multiple systems together.

It's worth mentioning that all fluorescent tubes are not compatible with all fixtures. There are exceptions to the rule (i.e. some four-foot T8 systems can also receive T12 tubes), but most fixtures have a ballast designed to power a specific type of tube. What's more, tube prongs and fixture receptacles will also vary. If you see a fixture you like, investigate the included or recommended tubes to make sure they'll meet your growing needs. You also want to verify that replacement tubes are accessible.

Lumen ratings have long been a standard point of reference for light source comparisons. Remember, if you light a candle, step one foot away and assess the amount of light in that one-square-foot section, the measurable light would equal one footcandle or one lumen. To thrive, greens need at least 2,500 lumens per square foot and flowering plants need 10,000 lumens per square foot. You can also look at wattage (50-75 watts per square foot is considered optimal) and even gauge a tube's efficiency by calculating lumens per watt (divide lumens by watts).

Because lumens are truly a measure of the perceived power of light (or how we, as humans, see light), be sure to note other variables, like color temperature, that will help identify a tube's output. For an at-a-glance overview of the fluorescent systems we carry and more detailed information on color temperature ratings, please refer to the chart on pages 2 and 3.

Saturn



SST102
25 1/2" x 6 3/4" x 3"



SST104
48 1/2" x 6" x 3"



SST144
50" x 10 1/2" x 3"



Simulate Natural Light

Available as 24", 20-watt tubes and 48", 40-watt tubes, Verilux T12 Fluorescent Tubes fit standard two- and four-foot fixtures like Sunleaves Saturns. The 24" tubes are rated for 14,000 life hours and covered by a two-year warranty; 48" tubes are rated at 26,000 life hours and include a three-year warranty. All Verilux tubes have a color temperature of 6,280 Kelvins.

VTB110CS	24" Verilux 20W, 6 pk	\$92.95
VTB150CS	48" Verilux 40W, 6 pk	103.95
VTB160CS	48" Verilux 40W, 12 pk	199.95



36" x 3 1/2" x 2 1/2"

A Great Way to Brighten Every Day

Whether it's mounted underneath a kitchen cabinet or from the ceiling to fill a footprint gap between HID reflectors, you can hang the lightweight Sunleaves Sunrise anywhere you need high-output supplemental lighting. Each unit is equipped with a dual VitaLUME PLUS TT96 fluorescent tube that has a color temperature of 6,500 Kelvins. The plug-in transformer connects directly to your power source and accounts for the unit's minimal one-and-a-half-pound weight. Suspend the Sunrise horizontally or vertically and count on dependability with a two-year manufacturer's warranty (one-year on TT96 tube). Some assembly required. Replacement TT96 fluorescent tubes are available separately.

SSF5101	Sunleaves Sunrise	\$89.95
SVTT134M	Sunleaves 34" VitaLUME PLUS TT96 Tube, 6 pk	114.00

Plant Life Thriving in the Light of Saturn

When used in conjunction with T8 or T12 fluorescent tubes (sold separately), Sunleaves Saturns produce quiet, flicker-free light suitable for most propagation and foliar-enhancing applications. The Saturn 2 x 2 accommodates 2, two-foot Sunleaves VitaLUME T8 Tubes, while Saturns II and IV accommodate 2 and 4 four-foot tubes respectively. All Saturn fixtures feature hanging hardware, a built-in ballast and one-year manufacturer's warranty.

Sunleaves VitaLUME T8 Tubes are the perfect match for Saturn fixtures. Two-foot, 17-watt tubes each output 1,100 lumens, while four-foot, 34-watt tubes each output 2,800 lumens. Both tube types have low energy consumption and produce a color temperature of 6,500 Kelvins. One-year manufacturer's warranty is included.

Stock#	Item	Price Each
SST102	Sunleaves Saturn 2 x 2, 2 Tube	\$29.95
	Save! Buy 3 or more for 24.95 each.	
SST104	Sunleaves Saturn II, 2 Tube	29.95
	Save! Buy 3 or more for 24.95 each.	
SST144	Sunleaves Saturn IV, 4 Tube	69.95
	Save! Buy 3 or more for 64.95 each.	

Stock#	Item	Price Each
SVTT102M	Sunleaves 2' VitaLUME T8 Tubes, 6 pk	\$54.00
SVTT104M	Sunleaves 4' VitaLUME T8 Tubes, 6 pk	54.00



23 1/2" x 9 1/4" x 4"

Sunleaves InNOVation

The Sunleaves Nova is a dual-tube high-output fluorescent fixture that's great for plants of all shapes and sizes. Bright but not hot, the fixture can be placed close to plants to maximize light output. It includes two 21" VitaLUME PLUS TT55 high-output fluorescent tubes, and features a daylight-simulating 6,500K spectrum, 8,000 lumens, and 8,000-hour life rating. There's a five-year warranty on the fixture and one-year coverage on the included 55-watt tubes.

SN102	Sunleaves Nova	\$144.95
SVTT121M	Sunleaves 21" VitaLUME PLUS TT55 Tubes, 6 pk	84.00