



Plants Grow with Light and Love.

OSRAM PLANTASTAR® provides optimal lighting for the growth of your plants and your revenue.

SEE THE WORLD IN A NEW LIGHT







A Passion for Plants.

Plants support life on earth.
OSRAM supports the plants.

3.1 billion years ago, for the first time ever, blue algae performed photosynthesis, the most evolutionary biochemical process in the world. Photosynthesis is not only responsible for the emergence of life, but also for its continued existence.

Today, millions of species of plants transform light energy into chemical energy and provide us with food, medicine, energy, and construction materials. They protect our environment and preserve the balance between our habitat and the ecosystem.

To do this, they need light. And we are happy to give it to them – with OSRAM PLANTASTAR®.

WHY PLANTS NEED OSRAM



A Passion for Nature.

Nature has been our role model
for over 100 years.



Inspired by nature, OSRAM uses innovations and new technologies to develop unique lighting solutions. Not to replace natural light, but to complement it.

OSRAM PLANTASTAR® high-performance lamps provide plants all over the world with enough light to grow to their full potential, so they can bear fruit and perform the process of photosynthesis, which is essential for life. In short, with OSRAM PLANTASTAR®, the sun shines as long as you want it to.

THE OSRAM PLANTASTAR® FAMILY OF PLANT LIGHTS



Source: Hortilux Schröder b.v.



A Passion for Detail.

The powerful family of plant lights: OSRAM PLANTASTAR®.

The secret of having green fingers lies in being aware of the needs of each individual plant; from the smallest blade of grass to the largest shrub. OSRAM PLANTASTAR® high-pressure sodium lamps are plant lights for the most demanding conditions. The OSRAM PLANTASTAR® family consists of classic and specialist lamps that prove their worth through high performance: OSRAM PLANTASTAR® 400 W, PLANTASTAR® 600 W, PLANTASTAR® 250 W inter, and PLANTASTAR® 600 W/400 V.

Whether for commercial horticulture, cultivating plants for research, or breeding grass for playing surfaces, OSRAM PLANTASTAR® is the ideal source of light for the rapid, healthy, and year-round growth of your plants and your revenue.

The two established classics OSRAM PLANTASTAR® 400 W and OSRAM PLANTASTAR® 600 W prove their worth with optimal illuminating power and longer life, and are ideal for mid-sized to large greenhouses. A specialized solution for very particular requirements, the OSRAM PLANTASTAR® 250 W inter shines as the ideal illumination for tall plants. Designed to be hung between two rows of plants, it ensures that they have adequate light from all sides, while at the same time providing for regular growth. On the other hand, the new OSRAM PLANTASTAR® 600 W/400 V is our most powerful plant light, and provides for the highest possible growth of plants and earnings.

A Passion for Reliability.



OSRAM PLANTASTAR® 400–600 W/230 V – durable classics.

- For assimilation lighting over large areas in commercial horticulture
- Especially durable and robust thanks to a ceramic discharge tube with **AIS** (Advanced Ignition System) and **ASR** (Advanced Shock Resistance), the latest technology in elastic mounting
- Ideal for use in a damp environment thanks to a premium, corrosion-resistant ceramic base (E40) with nickel-plated thread
- Dimmable up to 50 % of the nominal wattage
- Increased plant growth thanks to optimal filling, with adjusted spectrum
- With increased light and photon flux compared to standard NAV lamps
- Photon flux > 90 % after 12,000 hours of operation
- Photon production ~1.8 µmol/s/W
- Lamps should be replaced after 12,000 hours for optimal and continuous growth
- Operation on magnetic ballasts

Lamp	Photon flux (µmol/s)	Recommend length of use (hours)
PLANTASTAR® 400 W/230 V	725	12,000
PLANTASTAR® 600 W/230 V	1,100	12,000



A Passion for Proximity.



OSRAM PLANTASTAR® 250W inter – the plant light with depth effect.

- Designed to be hung between tall-growing plants as a complement to assimilation light over a large area, specifically to provide optimal photon exposure to the lower areas of the plant
- Especially durable and robust thanks to a ceramic discharge tube with **AIS** (Advanced Ignition System) and **ASR** (Advanced Shock Resistance), the latest technology in elastic mounting
- Ideal for use in a damp environment thanks to a premium, corrosion-resistant ceramic base (E40) with nickel-plated thread
- Dimmable up to 50 % of the nominal wattage
- Increased plant growth thanks to optimal filling, with adjusted spectrum
- Photon flux > 90 % after 12,000 hours of operation
- Photon production ~1.7 $\mu\text{mol/s/W}$
- Lamps should be replaced after 12,000 hours for optimal and continuous growth
- Operation on magnetic ballasts

Lamp	Photon flux ($\mu\text{mol/s}$)	Recommend length of use (hours)
PLANTASTAR® 250 W inter	420	12,000



A Passion for Intensity.

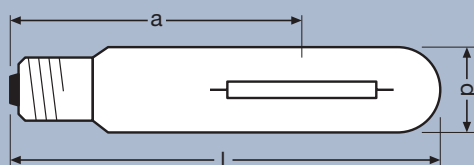


OSRAM PLANTASTAR® 600W/400V – our most powerful plant light.

- For assimilation lighting over large areas in commercial horticulture
- A 4.5 % increase in photon flux compared to the 230V version
- Low installation costs thanks to 400V technology. Smaller cable cross-sections compared with 230V systems are more cost effective and allow for the use of lighter support structures due to the reduction in weight
- Especially durable and robust thanks to a ceramic discharge tube with **AIS** (Advanced Ignition System) and **ASR** (Advanced Shock Resistance), the latest technology in elastic mounting
- Ideal for use in a damp environment thanks to a premium, corrosion-resistant ceramic base (E40) with nickel-plated thread
- Increased plant growth thanks to optimal filling, with adjusted spectrum
- Photon flux > 92 % after 10,000 hours of operation
- Photon production ~1.9 µmol/s/W
- Lamps should be replaced after 10,000 hours for optimal and continuous growth
- Operation on magnetic ballasts

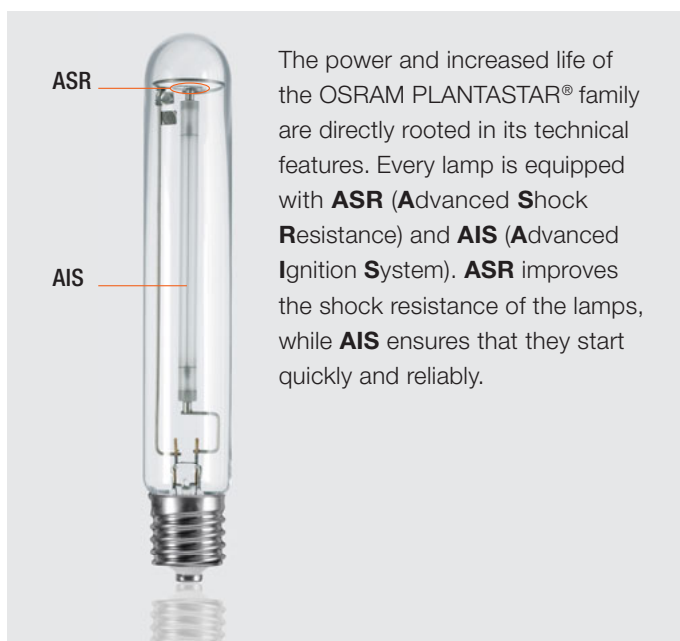
Lamp	Photon flux (µmol/s)	Recommend length of use (hours)
PLANTASTAR® 600 W/400 V	1,150	10,000



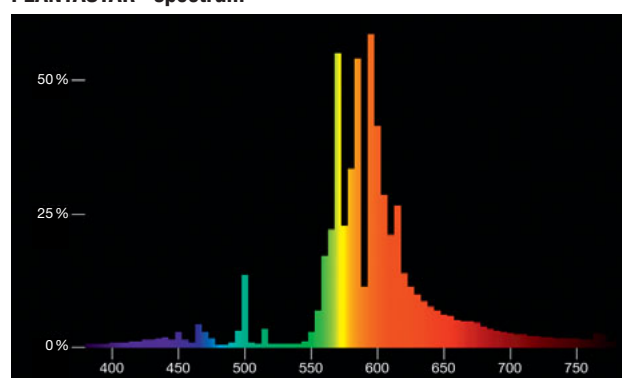


OSRAM PLANTASTAR®

Product reference	PLANTASTAR® 250 W inter	PLANTASTAR® 400 W	PLANTASTAR® 600 W	PLANTASTAR® 600 W/ 400 V
Wattage	250 W	400 W	600 W	612 W
System wattage	285 W	450 W	654 W	660 W
Operating voltage	230 V	230 V	230 V	400 V
Lamp voltage	100 V	102 V	112 V	200 V
Ignition voltage min./max.	4/5 kVs	4/5 kVs	4/5 kVs	4/5 kVs
Lamp current	3.0 A	4.4 A	6.2 A	3.6 A
Line current, compensated, at cos φ 0.9	1.5 A	2.4 A	3.4 A	2.0 A
Luminous flux	33,200 lm	56,500 lm	90,000 lm	87,000 lm
Photon flux	420 $\mu\text{mol/s}$	725 $\mu\text{mol/s}$	1,100 $\mu\text{mol/s}$	1,150 $\mu\text{mol/s}$
Electrode gap	65 mm	82 mm	120 mm	135 mm
Light center length a	158 mm	175 mm	175 mm	175 mm
Diameter d	46 mm	46 mm	46 mm	46 mm
Length l max.	257 mm	285 mm	285 mm	285 mm
Base	E40	E40	E40	E40
Burning position	beliebig	beliebig	beliebig	beliebig
Max. perm. outer bulb temperature	400 °C	400 °C	450 °C	450 °C
Max. perm. base edge temperature	250 °C	250 °C	250 °C	250 °C
P.f. corr. capacitor at 50 Hz cos φ 0.9	32 μF	45 μF	65 μF	18 μF
Recommended period of use (failure rate < 5%, photon flux > 90%)	12,000 h	12,000 h	12,000 h	10,000 h
Order reference	PLANTASTAR inter 250 W	PLANTASTAR 400 W	PLANTASTAR 600 W	PLANTASTAR 600 W 400 V
Product number (EAN)	4008321 240620	4050300 620084	4050300 620107	4008321 284303
Standard pack	12	12	12	12
AIS/ASR	yes	yes	yes	yes



PLANTASTAR® spectrum



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