



Promote growth in horticulture

OEM

Lamps &
Electronics





PHILIPS

ADVANCE

by  **Signify**

bodine

Why choose Signify?

Signify offers the most complete stock offering in the industry. We provide conventional and LED lamps, ballasts, drivers, retrofit kits, and indoor and outdoor stock luminaires. Save time and improve efficiencies by consolidating your stock purchases with Signify.

As the global leader in lighting for more than 125 years, Signify has the know-how and most comprehensive portfolio to meet any application. Signify achieved 100% Carbon Neutrality in 2020. We are #1 in conventional lamps, LED and connected lighting. With over 17,750 patents, Signify invests 4.8% of total sales in R&D which is two times our nearest competitor!

Signify OEM North America

With our trusted product brands which include Advance, Bodine, and Philips; We continue to lead the industry by provide our partners with the highest level of service and quality lighting components available. Our commitment to sharing our expertise and knowledge with the connected world will continue to push our smart lighting technologies and allow you to provide the most advance features customers are looking for.

For more information visit:

<https://www.signify.com/en-ca/portfolio/oem>

125+

Years in business as a global leader in lighting

100%

Carbon neutral in 2020

#1

Connected lighting, conventional lamps, & LED lamps

\$7.3B

Sales (~75%) in professional lighting & connected solutions

100+

University partnerships

64M+

Connected light points

17K+

Patents

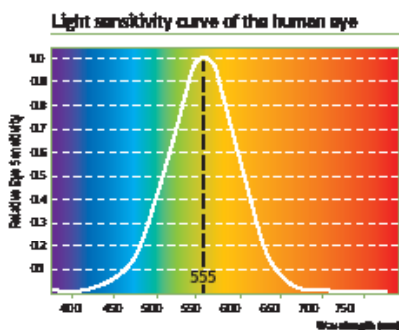
4.8%

Total sales invested in R&D
~2X our nearest competitor

Choose lamps designed to help your plants grow

Philips HID and HPS horticulture lamps are specially developed for maximum growth light and are among the most efficient light sources available in the industry.

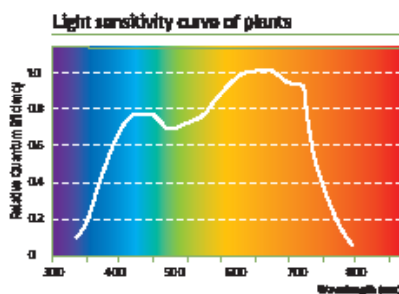
Most lighting products are developed for human application. For these purposes, the intensity of visible light is expressed in lux. Lux is a photometric unit and is based on the average sensitivity of the human eye. The sensitivity is maximized at green/yellow (555nm) and declines towards longer (red) and shorter (blue) wavelengths



Growth light

Plants have a completely different sensitivity for colours of light than the human eye. The energy content of light particles (photons) is different depending on wavelength (colour of light). Plants are most efficient using the red part of the light and less efficient using the green and blue part. For one Watt (W) of energy, almost twice as many red photons can be produced compared to blue.

For horticulture, natural daylight (global radiation) is in most cases measured in terms of energy (J or W) with a solar meter. The value of global radiation is important for climate and humidity control in the greenhouse. **With the use of Philips HID and HPS horticulture lamps, supplement natural daylight in greenhouses with growth lights.**



Photosynthetic Photon Flux

Research has demonstrated that the rate of photosynthesis is determined by the number of photons between 400–700 nm. This growth light is called Photosynthetic Photon Flux (PPF) and is the only reliable measure suitable for photosynthesis. The higher the PPF value per Watt, the more efficient for plant growth. **Philips lamps for horticultural use specify the PPF value in micromols per second ($\mu\text{mol/s}$).**

Products

There are several ways in which artificial light can be used to improve and accelerate growth and extend the growing season of commercial crops.

Supplemental light source

To supplement natural daylight and raise growth light levels to enhance photosynthesis and thereby improve growth and quality of plants in greenhouses.

Photo periodic lighting

Control the light period by extending the natural day length with artificial light.

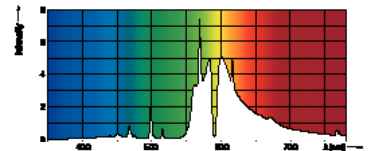
Cultivation without daylight

Totally replace daylight with artificial light for ultimate climate control.

Philips HID and HPS horticulture lamp families

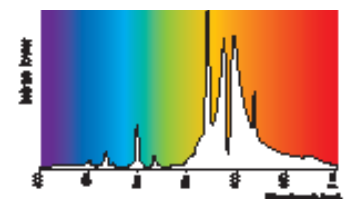
HID Double-Ended

- MASTER GreenPower Xtra / HPS AGRO Plus / MASTER GreenPower Plus
- Power rating: 600 / 1000W
- Photosynthetic Photon Flux (PPF): 1500–2150 $\mu\text{mol/s}$
- Luminous efficacy up to 155 lm/W



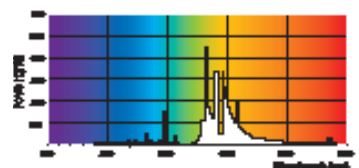
Metal Halide Two-Pin

- GreenPower CDM-TP / CDM T12 ELITE
- Power rating: 300W
- Photosynthetic Photon Flux (PPF): 599 $\mu\text{mol/s}$
- Luminous efficacy up to 109 lm/W



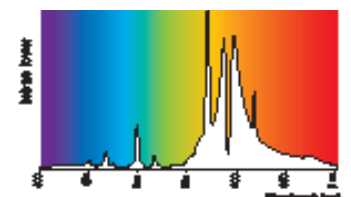
HID Single-Ended

- MASTER GreenPower / MASTER GreenPower Plus / MASTER GreenPower CG
- Power rating: 600W
- Photosynthetic Photon Flux (PPF): 1100–1200 $\mu\text{mol/s}$
- Luminous efficacy up to 144 lm/W




HPS Single-Ended

- Ceramalux Agro
- Power rating: 600 / 1000W
- Photosynthetic Photon Flux (PPF): 1850 $\mu\text{mol/s}$
- Luminous efficacy up to 146 lm/W



Philips Horticultural

Product selection guide

Image													
Product Name					MASTER GreenPower Xtra 1000W EL/5X6CT	HPS AGRO Plus 1000W DE EL 1CT/12	MASTER GreenPower Plus 750W EL UNP/50	GreenPower CDM-TP 315W/T12/U/O NA	CDM T12 ELITE 315W/942/U/O NA	Ceramalux Agro C1000S52/ AGROLITE XL	MASTER GreenPower Plus 600W EL Mogul	MASTER GreenPower 600W 480V E40 1SL/12	MASTER GreenPower CG T 600W Mogul 1SL/12
Product Type					HID Double Ended			Metal Halide (MH)		HID Single Ended			HPS
12NC					928152419216	928198405127	928198205116	928493400006	928493300031	928152219207	928161409227	928197709207	928601154704
General Specifications	Type	HID	HID	HID	MH	MH	HID	HID	HID	HID	HID	HID	HPS
	Bulb Shape	T40	T40	T40	T12	T12	T40	T46	T46	T46	T46	T46	E25
	Base	K12X30S (Double Ended)	K12X30S (Double Ended)	K12X30S (Double Ended)	PGZX18 (Two Pin)	PGZX18 (Two Pin)	E39 (Singled Ended)	E40 (Singled Ended)	E39 (Singled Ended)	E40 (Singled Ended)	E39 (Singled Ended)	E40 (Singled Ended)	E39 (Singled Ended)
	Operating Position	Horizontal	Horizontal	Horizontal	Universal	Universal	Universal	Universal	Universal	Universal	Universal	Universal	Universal
	Packs per outer box	30	12	50	12	12	12	12	12	12	12	12	6
	Life To 10% Failures (Nom)	10000 h	10000 h	10000 h	12000 h	12000 h	10000 h	12000 h	10000 h	12000 h	14000 h	14000 h	14000 h
Photosynthetic Photon Flux	PPF (μmol/s)	2150 μmol/s	2120 μmol/s	1500 μmol/s	599 μmol/s	599 μmol/s	1190 μmol/s	1200 μmol/s	1100 μmol/s	1850 μmol/s	1850 μmol/s	1850 μmol/s	1850 μmol/s
	Maintenance 4000 h	98%	98%	98%			97%	98%					
	Maintenance 8000 h	96%	96%	96%			94%	95%					
	Maintenance 10000 h	95%	95%	95%		93%	93%	94%	91%				
Operating & Electrical	Correlated Color Temperature (Nom) (K)	2000 K	2000 K	2000 K	3100 K	4200 K	2000 K	2040 K	2000 K	2100 K	2100 K	2100 K	2100 K
	Luminous Efficacy (rated) (Nom) (lm/W)	155 lm/W	155 lm/W	152 lm/W	104 lm/W	109 lm/W	144 lm/W	142 lm/W	142.4 lm/W	146 lm/W	146 lm/W	146 lm/W	146 lm/W
	Lamp supply voltage (V)	400 V	400 V	400 V			400 V	480 V	230 V				
	Power (Nom) (W)	1020.0 W	1000.0 W	750.0 W	315.9 W	315.9 W	600 W	645.0 W	618.0 W	1003 W	1003 W	1003 W	1003 W
	Voltage (Nom) (V)	220 V	230 V	195 V	98 V	100 V	229 V	208 V	130 V	250 V	250 V	250 V	250 V
Controls & Ratings	Dimmable	Yes	Yes	Yes			No	Yes	Yes				
	Compatible Drivers	1000W GreenVision Drivers	1000W GreenVision Drivers	Upon Request	IZTMH210315RLFM HZTMH210315RLFM	IZTMH210315RLFM HZTMH210315RLFM	Upon Request	Upon Request	Upon Request	Upon Request	Upon Request	Upon Request	Upon Request
	Warranty	5 year manufacturer's limited warranty. Visit www.signify.com/warranties for complete warranty information.											

LED Drivers

We offer a broadest line of LED modules and systems designed to meet your needs in the widest variety of lighting applications. Visit <https://www.signify.com/en-ca/brands/advance>

LED Modules

From programmable and connected drivers to feature-optimized drivers. Our driver technology is engineered to maximize the performance of efficient LED modules. Visit <https://www.signify.com/en-ca/brands/advance/led-modules>

Partner with us

Design-in services

Our dedicated team of talented lighting industry engineers are ready to support fixture manufacturers in the integration of Signify LED components. Learn about our commitment, our process, and our capabilities today.

Our commitment

Our Design-In Services team is committed to supporting you with in-house capabilities and years of lighting expertise that help you validate your concepts faster. We are devoted to providing you with a personalized experience in achieving your goals. We want to be an extension to your team.



Our Brands

Signify proudly markets the best lighting brands in the world. Learn more about the vast array of lighting solutions available from Signify. Visit www.signify.com/en-ca/brands

PHILIPS

Global lighting leader in LED and conventional lamps for every application.

lighting.philips.ca

ADVANCE by @signify

Offering a full range of reliable and robust ballasts, LED drivers and lighting components for the electrical wholesaler and OEM channels.

signify.com/advance

bodine

Innovative emergency lighting components / unit equipment designed for safety.

bodine.com

Contact Us

Start planning your next project with Signify OEM Canada, reach out to us at:

CanadaOEM@signify.com

