



SANlight Q-Series **Generation 2**



Horticultural LED-lighting

SANLIGHT Q-SERIES GENERATION 2 OVERVIEW



Technical Specifications

- 115 – 624 PPF*
- Broad spectrum, continuous light spectrum especially for fruit-forming plants
- Power consumption from 50 to 245 watts
- Power factor > 0.95
- Beam angle 90°
- Rectangular and homogeneous illumination of the cultivated area
- 3-year guarantee
- Modules can be exchanged at certificated SANlight sales partners
- 90% light output after 100,000 hours
- Daisy-chainable
- Ready-to-dim
- Passively cooled

* in the emission wavelength range

Typical Applications

- Illumination of plants indoors which require a lot of light in the vegetative phase
- Illumination of plants indoors which require a lot of light in the generative phase
- Cultivation of ornamental plants and crops
- Complete and environmentally friendly replacement of high pressure sodium lamps → ECO setup
- Yield maximisation compared to high pressure sodium lamps → EXPERT setup

HIGHLY
EFFICIENT
LED PLANT
ILLUMINATION
SYSTEM FOR
INDOOR
APPLICATIONS





Broadband, continuous light spectrum especially for fruit-forming plants.



SANLIGHT Q-Series Gen2

Flexible – Performance-Oriented – Future-Proof

The 2nd generation of the Q-series was developed to live-up to our reputation as the technological market leader and to extend that lead. For you as a user, this means maximum flexibility with the best system efficiency and usability.

The light module, which forms the basis of the Q-series, features the latest 2mm² LED chip technology, which facilitates the generation of a broadband optimal light spectrum with an efficiency of 2.7µmol/J. The secondary optics, trimmed to minimise loss, direct almost every photon (more than 95%) directly to your cultivation area. The optimised heat sink not only ensures minimal temperatures on the LED chip (<70°C), but also ensures secure mechanical connection to the supply rail.

We give you the options – you decide.

The Q-series models are designed so that the right solution is available for any mounting situation. For classic cultivation areas we offer an ECO solution or an EXPERT setup. That means you choose between maximum energy savings and cost efficiency, or maximum yield. Options such as power boost or dimmer allow you to expand your system's range of performance or adapt it to new conditions. Every light in the Q-series is prepared for this, READY-TO-DIM and READY-TO-BOOST. Of course, the lights can be daisy-chained to each other. Several lights can be powered by a single power source.

Each Q-series light can be kept state of the art cost effectively and while conserving resources simply by

replacing the light modules. They are upgradable.

In addition, we also offer the Q-series as a PQ-series. This means even better protection against environmental influences and other options. Visit our webpage www.sanlight.com



For indoor usage



For top lighting



For vegetative and generative phase



For all cultivation areas

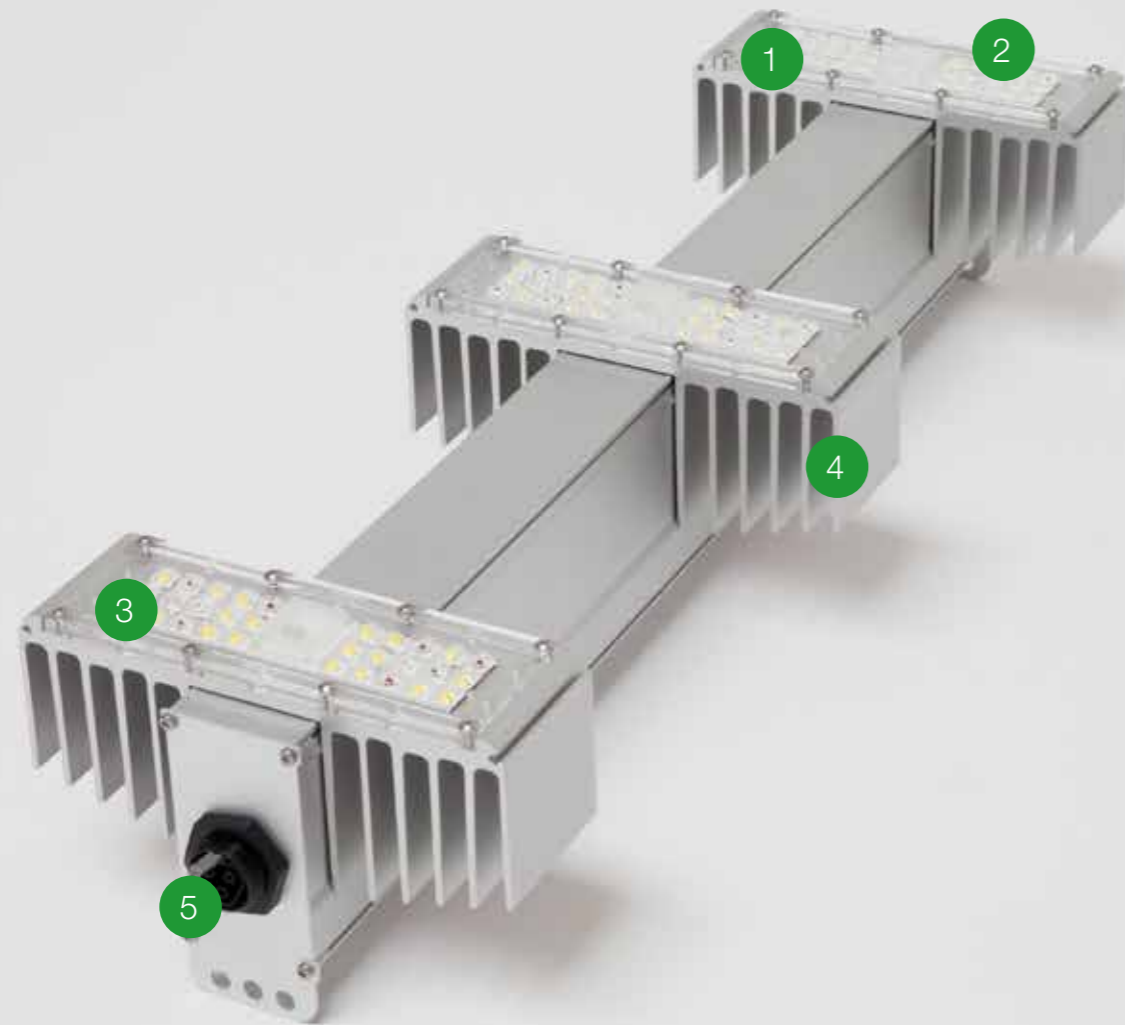
Efficacy
2.7 µmol/J

Consumption
50 - 245 W

PPF (400-760nm)
115 - 624 µmol/s

Beam-angle
90°

LM 90
90% of light output after 100.000 hours



KEY FEATURES

- 1 PMMA secondary optics – The best protection**

Contamination on the LEDs reduces the light output of your light more than the chip ageing. The light output of lights whose LEDs are not protected by a cover noticeably declines after just a few months of use, and they cannot be cleaned, or only cleaned with great difficulty. The LEDs in the SANlight Q-series are protected from contamination by secondary optics. The material can be easily cleaned with a damp cloth. Light output is maintained.
- 2 90° light control - No photon is wasted**

Every LED available on the market is defined by its emission characteristics. If an LED chip is described as having e.g. a 120° beam angle, this means that 50% of the light output is emitted at this angle. The remaining 50% light output goes partially unused, or never reaches your plants. With the secondary optics developed by us, more than 95% of the LED chip photons are captured and directed to the plant.
- 3 Maximum light output - 2mm² LED chip technology**

By using this high-power technology in all SANlight Q-series models, the efficiency of the conversion of electrical energy into light is redefined. For example, one Q-series module achieves an efficiency of 2.7 $\mu\text{mol/J}$ for a broadband white light spectrum. In addition, the LEDs used are significantly less sensitive to environmental influences, such as sulphur and moisture, than LEDs of mid-power technology. Lifetimes > 100,000hrs are no problem for a SANlight.
- 4 Passive cooling**

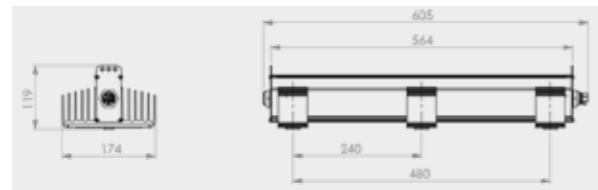
The large-dimensioned aluminium heat sink keeps the LED chip temperature in the cool range even at high ambient temperatures. This improves the efficiency and reliability of the system, even in the case of heavy soiling and harsh environments.
- 5 Expandable**

All Q-series models have an interface that allows the connection of different systems for dimming and controlling the light. In addition, a certificated SANlight partner can boost the light output from the light by 10% via this interface.

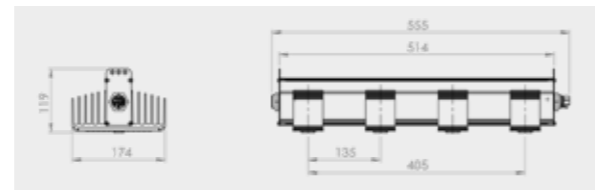
TECHNICAL OVERVIEW

Model	Typ. power consumption	Power factor	Input voltage range	PPF*	Weight	Protection class
Q3WL	120 W	> 0.95	90 – 305 VAC	312	4.24 kg	IP40
Q4W	165 W	> 0.95	90 – 305 VAC	416	4.61 kg	IP40
Q4WL	165 W	> 0.95	90 – 305 VAC	416	5.11 kg	IP40
Q5W	205 W	> 0.95	90 – 305 VAC	520	5.5 kg	IP40
Q6W	245 W	> 0.95	90 – 305 VAC	624	6.15 kg	IP40

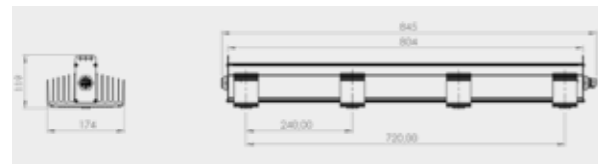
* in the emission wavelength range from 400 – 780 nm



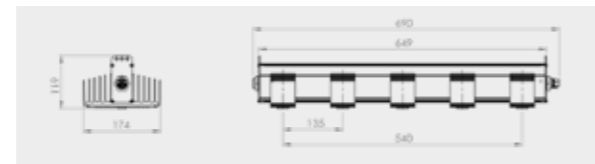
Technical drawing **Q3WL**



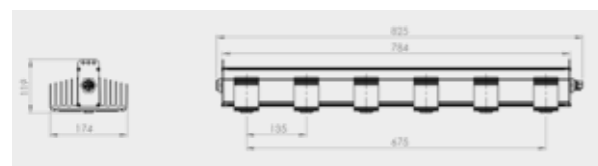
Technical drawing **Q4W**



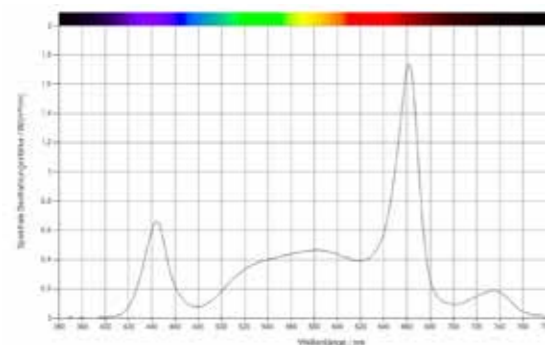
Technical drawing **Q4WL**



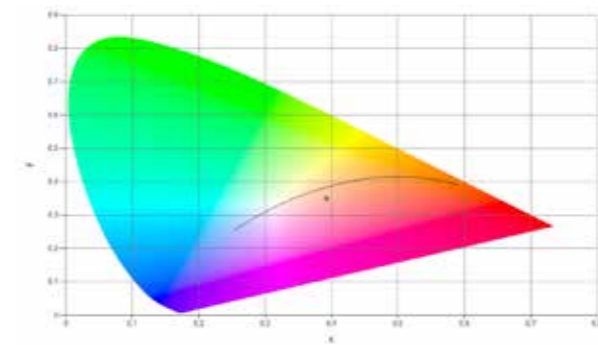
Technical drawing **Q5W**



Technical drawing **Q6W**



Spectral Power Distribution



Color space classification according to CIE1931





Prepared for the future...

Ready to dim

All Q-Series Gen2 models are ready-to-dimm. This means that you can equip the lights subsequently with a dimmer. This is simply plugged into the slot provided on the lamp.

M-Dim

The simplest dimmer variant is the M-Dim. You connect the dimmer module to your light and can then dim each individual light via a magnetic switch. In addition, you can activate a sunrise simulation. No communication via a network, simple to use, cost-effective and reliable.

Bluetooth dimmer

The Bluetooth dimmer is also simply plugged into the light. You connect to your illumination system through your smart device (mobile phone, tablet, etc.). All lights can be addressed together (cluster) or each light separately. Functions such as simple dimming, daytime-dependent dimming, etc. can be set via the app. Easy to use and inexpensive installation for large systems.

Ready to boost

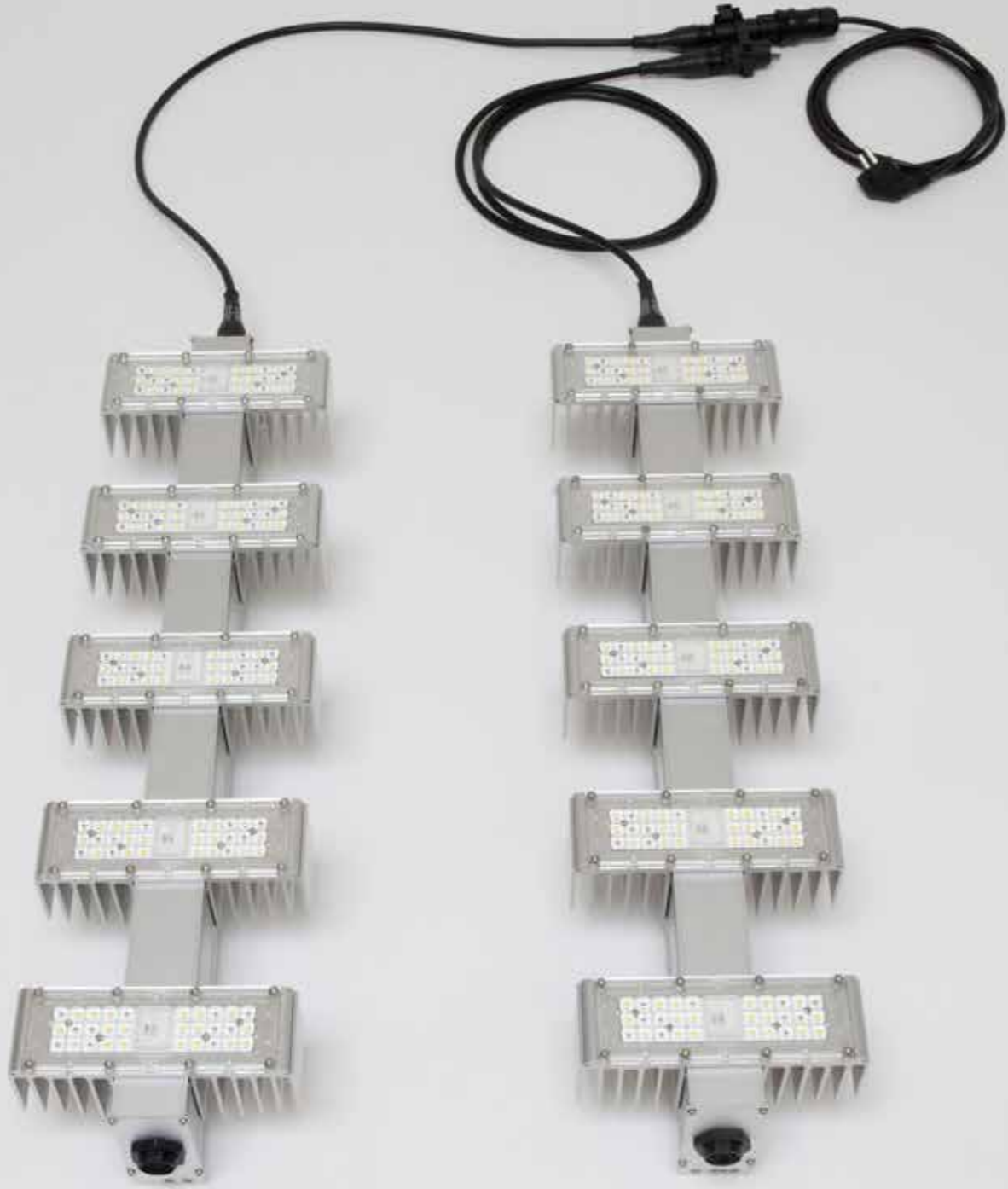
If you, as the owner of a model of the Q-Series Gen2, need more power, for example, because your growing conditions are changing (larger growing cabinet, etc.), a SANlight authorised dealer can boost the light. This means you get 10% more light output.

Upgradeable

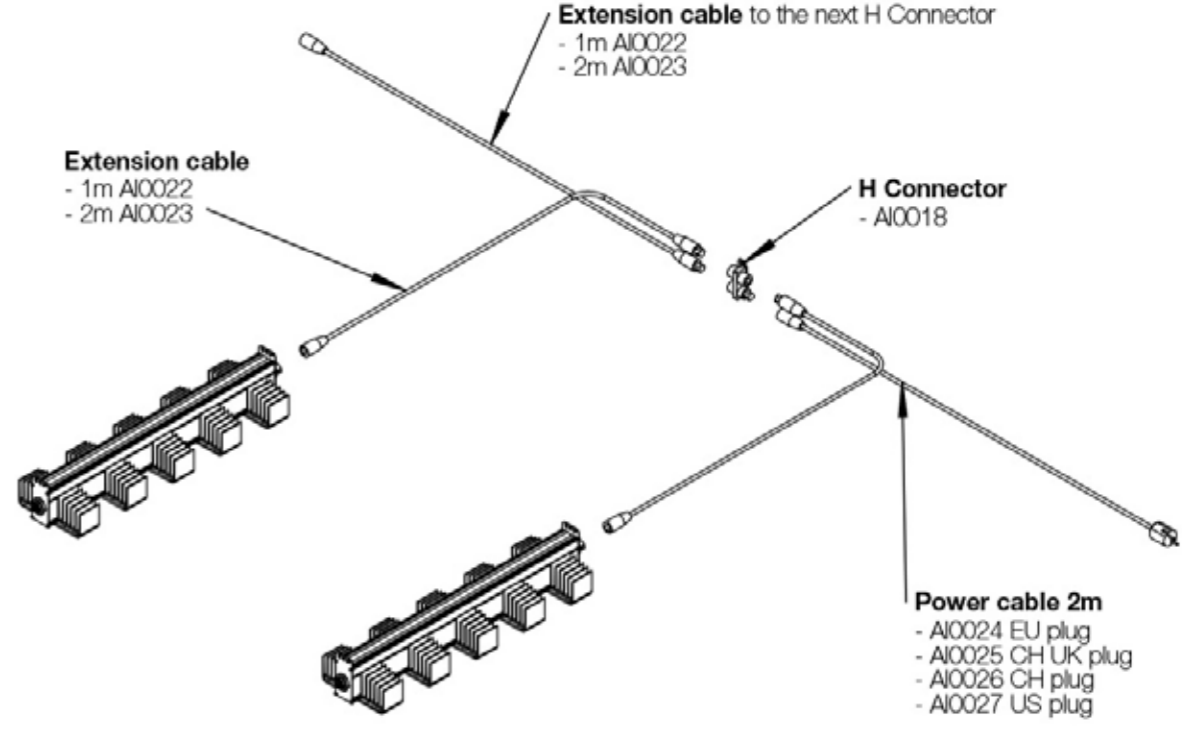
The lamp can be kept state of the art with the possibility of an upgrade. Your official SANlight dealer can easily replace the light modules with the latest generation of modules. This offers a cost-effective and not least resource-saving alternative to a new purchase.



Daisy-chaining enables you to grow from small spaces of 0,36m² to 7m² with one AC-plug.



DAISY CHAINABLE



Extension cable



Power cable 2m



H Connector

WE HAVE THE SOLUTION, YOU HAVE THE CHOICE

For standardised cultivation areas we offer an ECO setup as well as an EXPERT setup. You decide what is most important to you...

ECO setup

In the design of these setups, we have taken care to achieve the same yield as with corresponding sodium vapour lamps while minimising power consumption. An average 600W sodium vapour lamp emits about 840 μ mol/s. An area of e.g. 1.44m² is thus exposed to 580 μ mol/m²/s.

A SANlight Q4WL Gen2 emits 416 μ mol/s. If 2 units are used on the same surface (1.44 m²), this system achieves an illumination density of 580 μ mol/m²/s.

The same yields with better quality can be expected and you save about 50% on energy costs.

In terms of handling, these systems are forgiving and easy, because the plants are not driven to their limits.

ECO setup at a glance

Minimum power consumption, with similar yield to a high pressure sodium lamp

Low acquisition costs

Forgiving

No dimmer needed

EXPERT setup

The focus here is clearly on maximising harvest. While with a 600W sodium vapour lamp 840 μ mol/s photons illuminate your plants, with 2 Q5W units, a photon flux of 1025 μ mol/s is generated. This means that the illumination density is 25% higher.

Nevertheless, even with the Expert setup, you can calculate an energy saving of about 35%. With appropriate gardening skills, the yields will be better both qualitatively and quantitatively.

The intense light drives the plants to their limits and requires proper handling by the gardener. We recommend using this system with dimming, and only applying the full performance of your system in the last few weeks.

EXPERT setup at a glance

Maximise your harvest in quality and quantity

Higher acquisition costs

Photosynthesis at the limit

Dimmer recommended

Product	Cultivation area			
	60x60 cm = 0.36 m ²	80x80 cm = 0.64 m ²	100x100 cm = 1 m ²	120x120 cm = 1.44 m ²
Q1W Gen 2	2	3		
Q3WL Gen 2			2	
Q4W Gen 2		1	2	2
Q4WL Gen 2			2	2
Q5W Gen 2		1		2
Q6W Gen 2			1	



MADE IN
AUSTRIA



SANlight stands for quality, reliability and maximum efficiency.

- RESEARCH
- MEASURING TECHNOLOGY
- PRODUCTION
- CONSULTING

BLUDENZ IN THE HEART OF THE ALPS

We are an innovative Austrian company, with headquarters in Bludenz, where we develop and manufacture high-quality LED horticultural solutions for commercial greenhouses as well as at home and for hobby purposes. Our capability to rapidly develop new market innovations enables us to continually provide innovative technology to our customers.



With our technical and theoretical background knowledge, and 7 years of experience we can assure you our products are the

best. Manufacturing process in Austria guarantees you the best quality and highest support for your grow.



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