

Long-lasting
LED GROWLIGHTS
for Horticulture and Floriculture

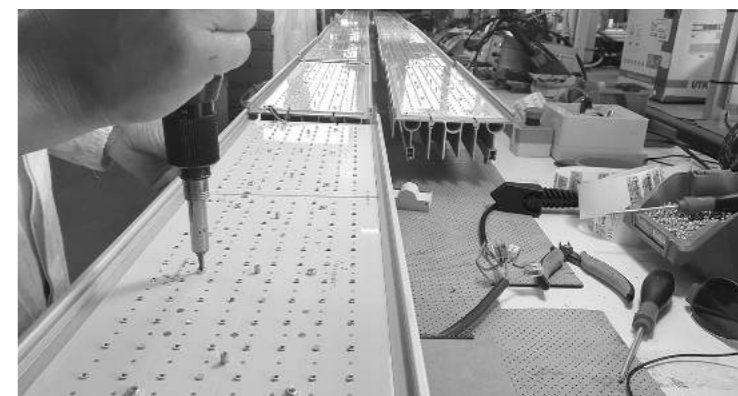


ambralight



Certified Partner of OSRAM Semiconductors and certified according to UNI EN ISO 9001:2015 standards.

We start with the grower's requirements and the needs of the plants. We offer custom spectra installed in our LED lamps and lighting solutions designed for homogeneity of light: better micropropagation, growth and photosynthesis of plants.



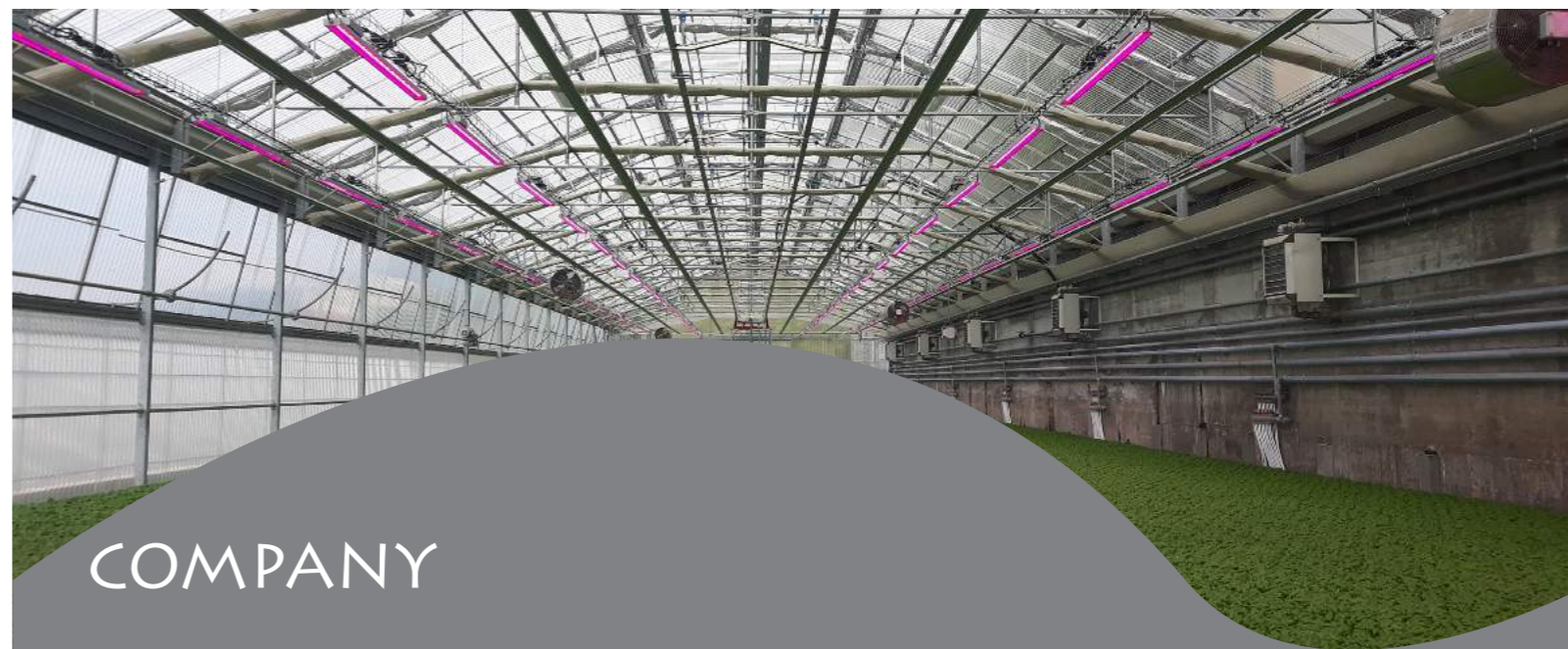
Light is essential for plants and has a major influence on their growth and well-being. Although the most powerful and economic source of light is the sun, natural sunlight is not always and not everywhere available. Sometimes it needs to be integrated or replaced by artificial light that mimicks it.

We are the specialists of LED lighting for plant professional growers and garden architects.

Passion, enthusiasm and dynamism have been our distinction since 2013, when we entered this market coming from a strong technical electronic background. Since then we established strong partnerships with Universities, Research Centers, landscape Architects and professional Growers.

APPLICATION FIELDS

Horticulture, nursery, in vitro, vertical farms, growth chambers, greenhouses, floriculture, micropropagation, meristem, rooting, plant growth, flowering, legal cannabis, microgreens, micro algae, artospira platensis, spirulina algae, aquaponics, hydroponics, aeroponics, plant grafting, germination, photoperiodism, indoor green, green walls, vertical gardens.



COMPANY



ELETTRA is our top selling product for professional horticulture, floriculture, nurseries and greenhouses. Assembled to withstand the harsh environment of modern production greenhouses and to sustain a long-term heavy-duty working cycle.

We designed ELETTRA combining our 13+ years of experience in growlights with a strict analysis of the lamp's body efficiency: more light, less heat with the same Watts.



Best materials => longer working life: Osram LEDs, internally designed anodized aluminum heat sink, high transparency plexiglass XT, immune to UV rays (not yellow during lifetime), sealing system in EPDM die-cut foam, stainless steel external screws. Tested also with infrared camera.

ELETTRA



Supply Voltage	100 ÷ 305 Vac 50/60 Hz	Universal range Voltage Supply
Power supply	or 200 ÷ 480 Vac 50/60 Hz	
	300 ÷ 330 W	
Photon flux PAR output	900 ÷ 1100 µmoles/s	
	Excellent flow of photons per second	
	PAR efficiency 3.00 ÷ 3.40 µmoles / J	
Working temperature	0 ÷ 45 °C	
Dimensions	690 x 180 x 130 mm	
Protection grade	IP65	High protection against water and dust
Weight	5,5 Kg	
Protections	Short circuit, over current, over voltage, over temperature	
Emitted light	Custom spectrum (designed on the client's specific needs)	Individual LEDs installed: 50+ light spectra available.
Dimmer	Optional	Analogic or digital, also regulated via APP
Expected decrease in light intensity	10% after 100.000 hours	



ELETTRA



AE100 is fully designed and developed by Ambra Elettronica, entirely assembled in Italy with the highest-quality materials. Designed to be highly energy efficient: the light is emitted inside the visible light spectrum in the photosynthetically active region, this lamp enhances and optimizes the growth of plants.



AE100 has been specifically developed to be resistant to moisture, temperature fluctuations and dust. Up to 100,000 working hours at 90% of light intensity (tested by OSRAM)

AE 100



Supply Voltage	100 ÷ 305 Vac 50/60 Hz or 200 ÷ 480 Vac 50/60 Hz	Universal range Voltage Supply
Power consumption	100 ÷ 130 W	
Power Factor	PF>0.96/230VAC	The lamp ensures no loss of energy
Photon flux PAR output	300 ÷ 360 µmoles/s	Excellent flow of photons per second
PAR efficiency	3.0 ÷ 3.4 µmoles / J	Number of photons per second per Watt consumed
Working temperature	0 ÷ 45°C	
Dimensions	1508 x 73 x 33 mm	
Protection grade	IP65	High protection against water and dust
Weight	4,5 Kg @ L=1.5 m	
Protections	short circuit , over current, over voltage, over temperature	
Emitted light	Custom spectrum based onthespecific requirements	Individual LEDs installed: 50+ light spectra available.
Dimmer	Optional	Analogic or digital, also regulated via APP
Retain of light power over time	after 100.000 hours only 10% loss	Tested by OSRAM



AE 100



Aquila is the perfect lamp for indoor agriculture: vertical farms, growth chambers on shelves, micropropagation, meristem, rooting, plant growth, microgreens, plant grafting, germination. We select the correct spectrum depending on the goal you want to achieve. Intensity can be regulated also through a Dimmer.

The individual LEDs installed are produced by Osram Semiconductors, the global leader specialized in lighting technology for horticulture. Individual custom spectra are selected to cater to the needs of professional horticulture and floriculture growers.

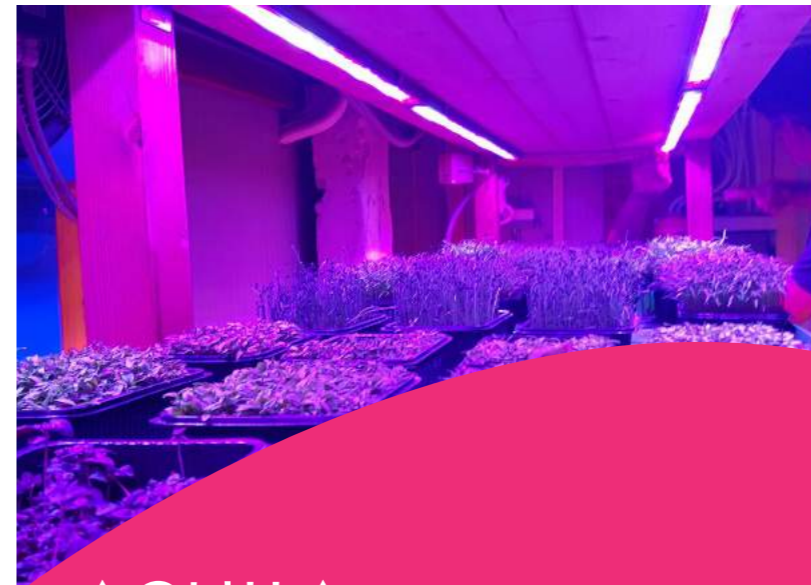


Very dark and humid rooms (cellars, spas, corridors, underground spaces) can be transformed in surprisingly pleasant green areas. Little maintenance required.

AQUILA



Supply Voltage	100 ÷ 305 Vac 50/60 Hz or 200 ÷ 480 Vac 50/60 Hz	Universal range Voltage Supply
Power consumption	20 ÷ 60 W	
Photon flux PAR output	80 ÷ 200 µmoles/s	Excellent flow of photons per second
PAR efficiency	3.0 ÷ 3.4 µmoles / J	Number of photons per second per Watt consumed
Working temperature	0 ÷ 45°C	
Dimensions	1000 ÷ 1500 x 32 x 32 mm	
Protection grade	IP65	High protection against water and dust
Weight	680 g @ L=1.2 m	
Protections	short circuit , over current, over voltage, over temperature	
Emitted light	Custom spectrum based on the specific requirements	Individual LEDs installed: 50+ light spectra available.
Dimmer	Optional	Analogic or digital, also regulated via APP



AQUILA



ALTAIR is an Italian energy efficient LED lamp designed to promote the growth of plants in very humid environments and in the presence of water. It can be used in closed rooms, indoor spaces and laboratories for micropropagation, sprout growth and grafting.

This lamp is solid and waterproof and is ideal for the replacement of the classic T8 fluorescent lamp, since the energy savings will be up to 60%.

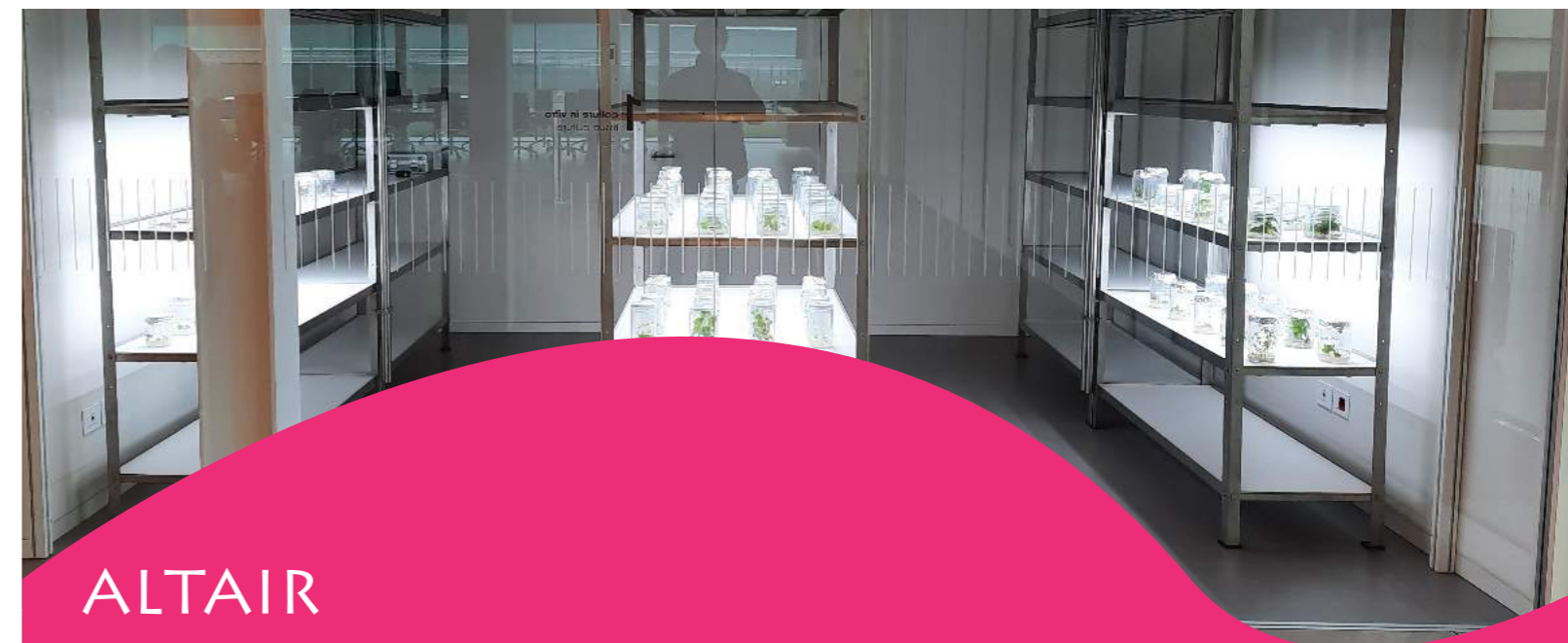


ALTAIR emits light evenly and with a wide output angle (150°).

ALTAIR



Supply Voltage	24 Vdc
Power supply	11 W/m
Power Factor	> 0,9
Lamp efficiency	150 lm / W
Emitted light	White 3000 ÷ 6500°K
Color rendering index Ra	>80
Light output angle	120°
Dimensions	Custom length x 18 x 8 mm
Weight	250 g/m
Temperature range	-20 ÷ +50 °C
Nominal life time	30.000 h
Energy efficiency class	A++
Power consumption	11 KWh / 1000 h
Protection grade	IP67



ALTAIR



Sirio is a Made in Italy LED lamp for professional use, designed to guarantee a healthy growth to decorative plants. In order to survive, plants need a spectrum of light different than the one required by humans. Our lamps are meant for plants well-being or survival in indoor difficult conditions, while emitting a pleasant balance of colors for the human eye also.



SIRIO



Our lamps guarantee plants and flower survival also in total absence of natural light or in very dark environments, where no kind of photosynthesis would be possible. Keep your indoor green healthy and beautiful in dark environments also. Even plants not suitable for indoor spaces are able to thrive and look healthy under the light of SIRIO.

Supply Voltage	200 ÷ 240 Vac 50/60 Hz
Power supply	24 W; Class II
Photon flux PAR output	72 µmoli/s
PAR efficiency	3.00 µmoli/J
Working temperature	0 ÷ 50°C
Dimensions and socket	160 x 80 x 160 mm; socket for track system with 3 lines
Protection grade	IP24
Weight	0.75 Kg
Protections	Short circuit, over temperature
Emitted light	Specific light for plant growth and excellent for human vision
Light orientation	Can be directed towards the plants
Light Intensity	Adjustable via DALI (to be requested)
Color of the lamp body	Black or White

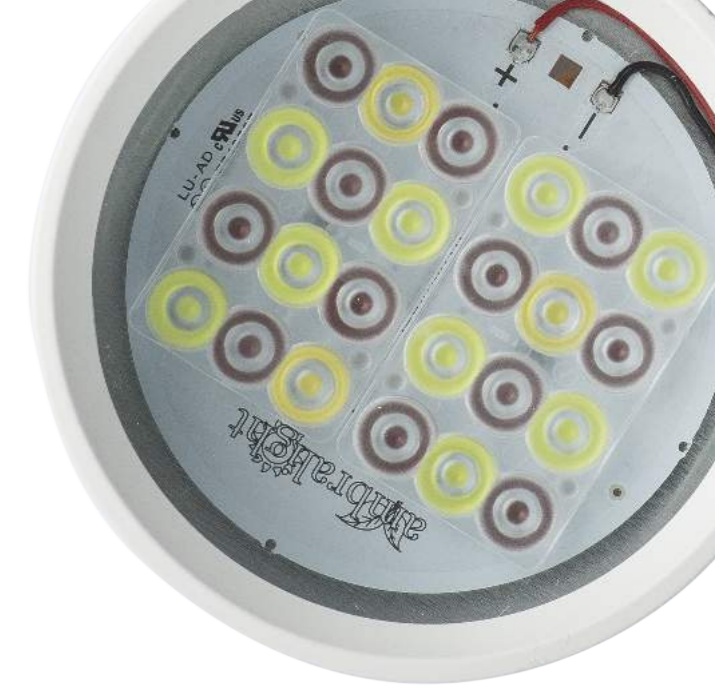
DALI REGULATION

Our lamp SIRIO for decoration plants can be controlled via a DALI controller. Light intensity can be regulated from 0 to 100%. One single control, different light patterns for different areas - or single lamps.



SIRIO

AE24 is an Italian made LED lamp for professional use, designed to be highly energy efficient as the light is emitted inside the visible light spectrum in the photosynthetic active region. This lamp promotes the growth of plants placed in environments where it's important to maintain a proper balance of colors so that does not change the human view. Very versatile, it can be mounted either in rows on a standard 3-lines rail or as a single lamp, on a circular fitting attached to the ceiling.



AE24



Supply Voltage	180 ÷ 295 Vac 50/60 Hz
Power supply	24 W; Class II
Photon flux PAR output	72 μmoli/s
PAR efficiency	3.00 μmoli/J
Working temperature	0 ÷ 50°C
Dimensions and socket	150 x 110 x 160 mm; socket for track system with 3 lines
Protection grade	IP24
Weight	1 Kg
Protections	Short circuit, over temperature
Emitted light	Specific light for plant growth and excellent for human vision
Light orientation	Can be directed towards the plants
Light Intensity	Adjustable via DALI (to be requested)
Color of the lamp body	Black or White

Vertical gardens, indoor gardens, offices, hotel halls, meeting rooms, canteens, restaurants, shopping malls, botanic gardens, growth additional lighting, flower departments in supermarkets, and any room you want to decorate with alive green.



AE24

FB Light is essential for plants and has a major influence on their growth and well-being. When natural sunlight is not available, it can be replaced by artificial light that mimics it.

The **FB** line of lamps represents a series of high-efficiency recessed ceiling lamps for professional use, aimed at decorative plants. They are designed and built to promote the plant growth in environments where it is important to maintain a fair balance between colors so that the spectrum perceived by women and men is comparable to sunlight. The emitted light can be directed towards the plants and regulated via DALI.



FB 2401



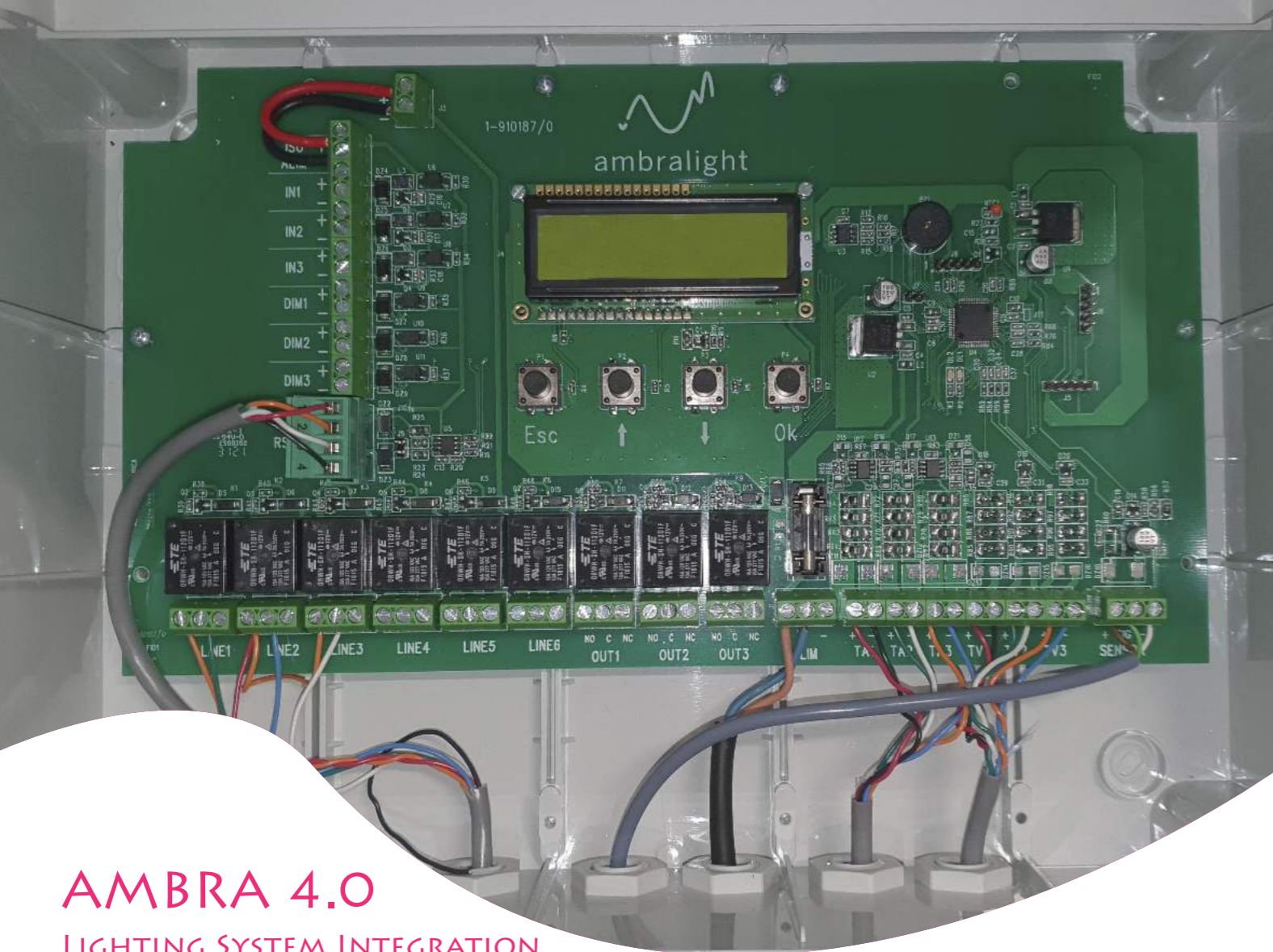
Main applications:

Vertical gardens, indoor gardens, supplemental lighting, botanic gardens, flowers and plants departments in supermarkets.

Supply Voltage	180 ÷ 295 Vac 50/60 Hz
Power supply	24 W; Class II
Photon flux PAR output	72 µmoli/s
PAR efficiency	3.00 µmoli/J
Working temperature	0 ÷ 50°C
Dimensions	1165 x 145 mm; diameter hole on ceiling 170 mm
Protection grade	IP24
Weight	1,5 Kg
Protections	Short circuit, over temperature
Emitted light	Specific light for plant growth and excellent for human vision
Light orientation	Can be directed towards the plants
Light Intensity	Adjustable via DALI (to be requested)
Color of the lamp body	FB2401 Black, FE2401 White



FB 2401



AMBRA 4.0

LIGHTING SYSTEM INTEGRATION

Ambra develops **INTEGRATED LIGHTING SYSTEMS** for greenhouses.

Elettra, AE100, Aquila can be controlled via our Ambralight 4.0 module: one single unified integrated lighting system.

Monitoring – Self-adapting – Integrated in the existing greenhouse infrastructure.
Parameters are acquired through sensors of light, and enforced autonomously by the system.
Improve the production processes efficiency according to your pre-defined set of strategies.

Data are exchanged with other digital sources and integrated in the existing management infrastructure.

TECHNICAL DATA OF THE AMBRA 4.0 PCB BOARD

Supply Voltage	100 ÷ 240 Vac 50/60 Hz
Power supply	Max 10 W
Ports OUTPUT	3 Line command outputs Clean contact max. 7A N.O/N.C (up to 6 on request) 1 Output for voltage-free contact alarm signals max. 7A N.O/N.C (up to 6 on request) 1 PWM output for dimming command (up to 3 on request)
Ports INPUT	1 Analog input for light sensor 3 opto-isolated dry contact inputs (configurable) 1 PWM output for dimming command (up to 3 on request) 3 Inputs for current measurement with CT 3 Inputs for voltage measurement with VT
Connection	RS485 connection for Wi-Fi module interface
Connectivity	Wi-Fi
Manual control	4 buttons: ESC, UP, DOWN, OK
PCB dimensions	316 x 236 x 128 mm
Wi-Fi dimensions	120 x 89x 58 mm
Protection Grade	IP 56
Weight	2 Kg





AMBRALIGHT

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