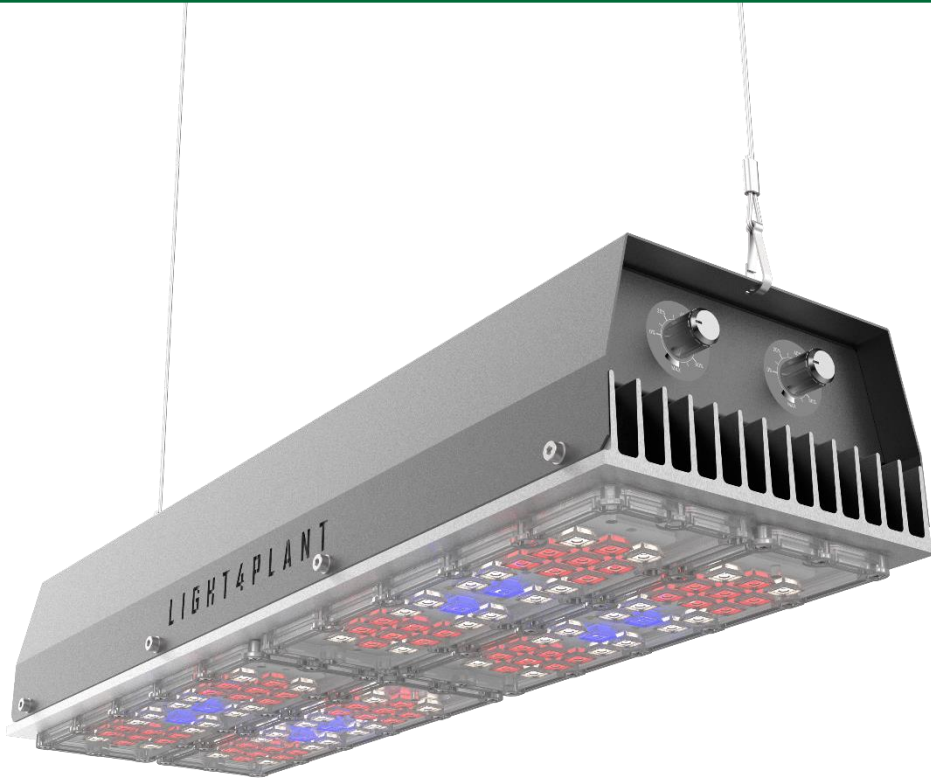




INSTALLATION AND MAINTENANCE MANUAL FOR LIGHT FITTING

HEDERA 200



supplementary
lighting for
greenhouse crops



illumination of crops
without access to
light



photoperiod lighting to
extend the natural length of
the day

Content:

- Product information and technical data
- Mounting and electrical connection
- Conditions for safety use
- Maintenance and service

Before installation, please read the user manual carefully.

1. PRODUCT INFORMATION AND TECHNICAL DATA

High performance LED luminaire designed by Polish manufacturer for growing plants. The product is perfect for commercial indoor and greenhouse applications. Dedicated LED modules designed and manufactured in Poland ensure the highest level of efficiency, durability and reliability. Luminaire made in I class protection.

TECHNICAL DATA

Type	Power at 230 VAC 50Hz	Voltage	IP	Power factor	Ambient temp.
HEDERA-200-A	189 W	100-305 VAC 142-431 VDC	54	≥0,95	-25 do +40°C
HEDERA-200-B	198 W				
HEDERA-200-C	224 W				

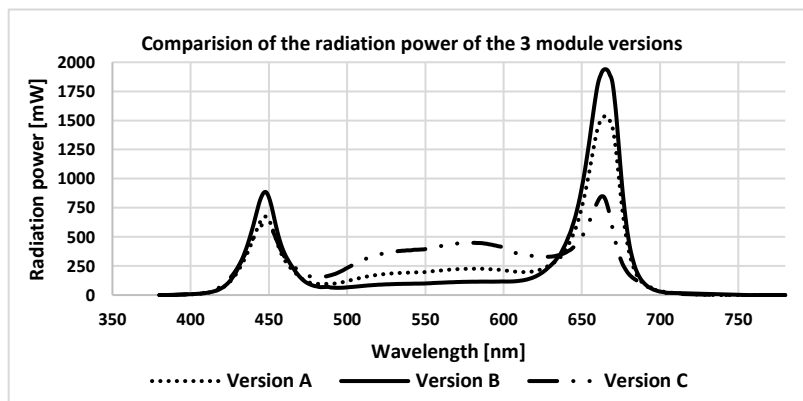
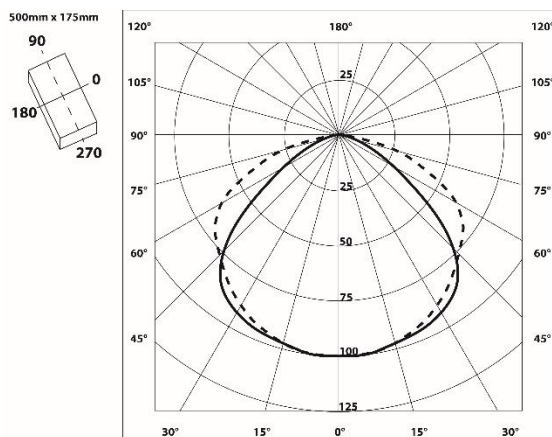
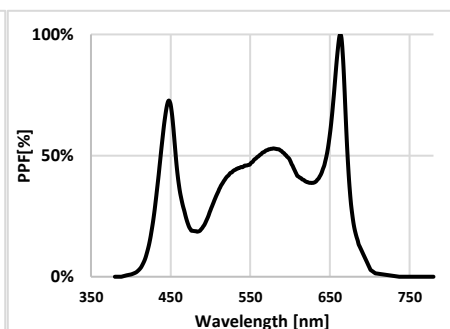
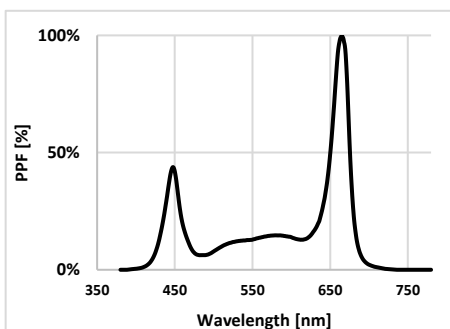
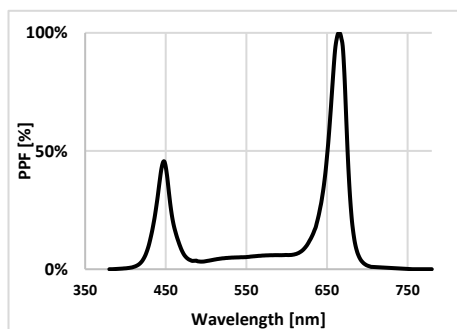
PHOTOMETRICAL DATA

Type	PPF	Efficiency	Diodes	Lifetime L70B10
HEDERA-200-A	450 μmol/s	2,4 μmol/J	72x 660nm; 16x 450nm; 24x5000K	>70000 h
HEDERA-200-B	435 μmol/s	2,2 μmol/J	56x 660nm; 8x 450nm; 48x5000K	
HEDERA-200-C	420 μmol/s	1,9 μmol/J	16x 660nm; 96x5000K	

Version A

Version B

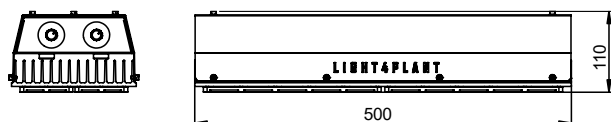
Version C



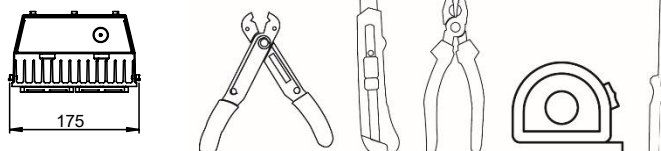
CONSTRUCTION

Power supply casing is made of powder-coated galvanized steel sheet. Modules placed on an aluminum heat sink. Optics made of polycarbonate.

DIMENSIONAL DRAWING



NECESSARY TOOLS



2. MOUNTING AND ELECTRICAL CONNECTION

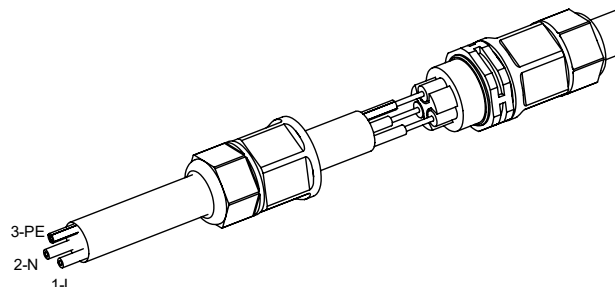
SAFETY RULES

- Carefully read all the information included in the manual before mounting the light fitting.
- General safety rules must be followed.
- Failure to comply with rules of the installation and use can lead to personal injury or property losses. Light4Plant company takes no responsibility in such cases.
- Failure to comply with rules included in manual results with void of the manufacturer warranty.

The luminaire is equipped with one mounting kit, intended for suspension.

ELECTRICAL CONNECTION

- insert the power cord into a cable joint,
- carefully strip the cable cores (8-10mm),
- screw the individual cores according to the diagram (1-L, 2-N, 3-PE)
- tightly clamp the power cord in the gland using two wrenches,
- check the effectiveness of grounding.



ADJUSTMENT OF THE SPECTRUM AND DIMMING THE LUMINAIRE

The luminaire in versions A and B is equipped with two potentiometers enabling the dimming of individual channels. The "R" potentiometer is for dimming red LEDs, while the "BW" potentiometer is for dimming blue and white LEDs.

The luminaire in version C is equipped with one potentiometer for dimming the entire luminaire.

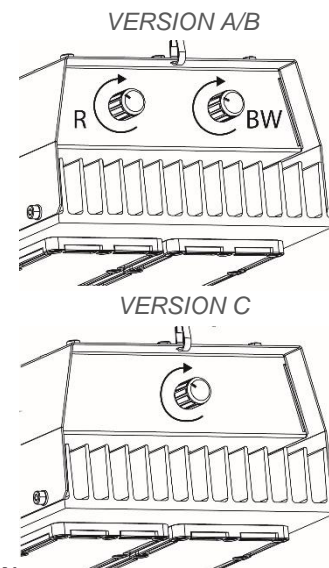
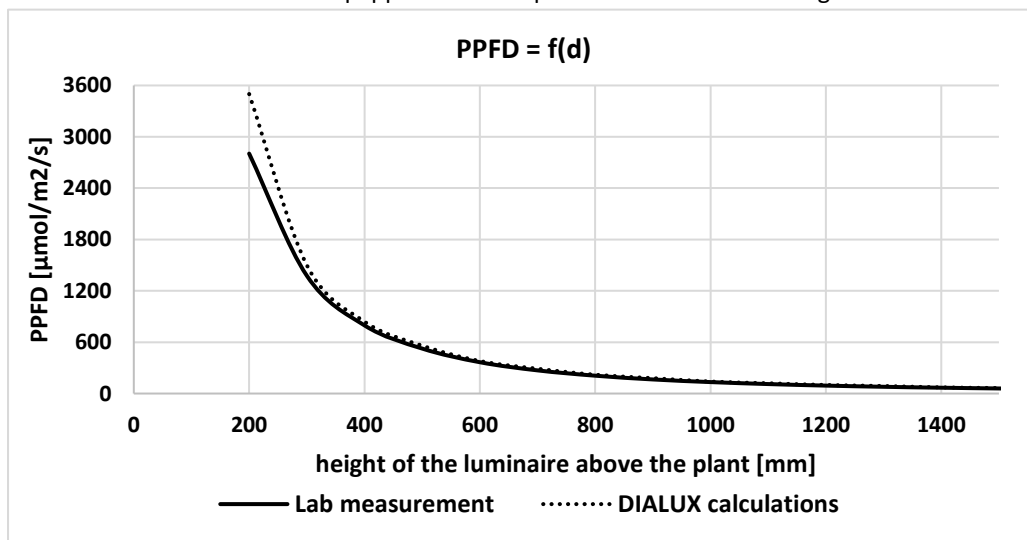


TABLE PPFD DEPENDING ON THE HEIGHT OF LUMINAIRE SUSPENSION

Area 0.8m x 0.8m

302	519	646	522	304	358	497	560	498	365	365	455	494	451	371	357	413	435	412	359	336	377	394	381	331
393	750	1017	751	396	449	629	742	630	447	441	543	599	541	437	411	482	511	481	409	379	432	454	437	380
436	857	1180	858	435	482	692	829	693	482	469	582	647	580	465	429	508	543	506	432	396	452	476	454	393
389	750	1018	744	396	445	624	743	633	451	436	544	598	542	439	413	488	516	486	410	378	440	461	431	382
313	523	649	527	307	368	499	563	498	363	369	455	490	455	372	352	413	432	410	352	332	382	394	376	334
Height 0.3m					Height 0.4m					Height 0.5m					Height 0.6m					Height 0.7m				

3. CONDITIONS OF SAFETY USE

- It is forbidden to use a damaged or malfunctioning luminaire. Installation checks must be carried out to detect any anomalies.
- Each luminaire is equipped with installation and maintenance manual, which should be kept until the end of the luminaire's life. Each luminaire has a label with technical data and a warning label saying "DO NOT OPEN WHEN ENERGIZED".
- Operating temperature range must be respected, exceeding the range will lead to faster wear or damage to the luminaire. It will also void the manufacturer's warranty.
- To power the luminaire, use a 3-core wire (with PE) with an outer diameter ranging from 4 to 7mm. Use power cords with a cross-section of 1 to 4mm².
- Maximum cross current I = 16A.
- Optics are made of polycarbonate, so they must not be exposed to chemicals that can damage them. Especially solvents like: ether, ethyl, acetone, chlorine and oil.
- The luminaire is equipped with a warning label with the following warnings:



Do not stare at the working light source



Risk of electric shock

4. MAINTENANCE AND SERVICE

- It is required to disconnect the power supply from the luminaire before carrying out any maintenance work.
- All replacement parts must be ordered from the luminaire manufacturer.
- Any repairs may only be performed by the manufacturer or an authorized service workshop.
- The light source used in this luminaire should be replaced only by the manufacturer, its service agent or a similarly qualified person.
- During transport light fittings shouldn't be exposed to precipitation or mechanical shock.
- Luminaires may be stored only in sheltered warehouses within temperature from + 5°C to + 35°C and humidity lower than 75%. No corrosion causing vapors or gases should be present.

INSPECTIONS: the luminaire should be inspected at least once a month without opening it. Check the condition of the power cables (insulation damage, cracks, burns, etc.). The cables must not be bent into sharp angles. The external parts should be inspected. There must be no cracks or traces of corrosion. Mounting bolts must be tight. The cleanliness of the external surfaces of the luminaire should be checked. The luminaire cannot be dirty with paint or grease. Do not allow dust and dirt to accumulate on the luminaire. Check the readability of the labels. Any identified irregularities should be removed immediately.

CLEANING: do not allow dust and dirt to accumulate on the luminaire. The luminaires should be cleaned with compressed air and a soft cloth or a soft brush. If necessary, use water and / or neutral detergent, but do not use chemicals that may damage any part of the luminaire.

EQUIPMENT DISPOSAL: User must obey relevant rules and regulations about disposal of wasted equipment valid in their country.

WARRANTY: It is forbidden to open the luminaire. Breaking the seal will void the warranty. It is not allowed to make changes to the luminaire structure on your own. Any unauthorized interventions may reduce the functionality or damage the device, and in special cases may pose a threat to life or health. At the same time, it releases the manufacturer from any warranty liability. Detailed information can be found in the document "General terms and conditions of the Light4Plant warranty available at www.light4plant.pl.