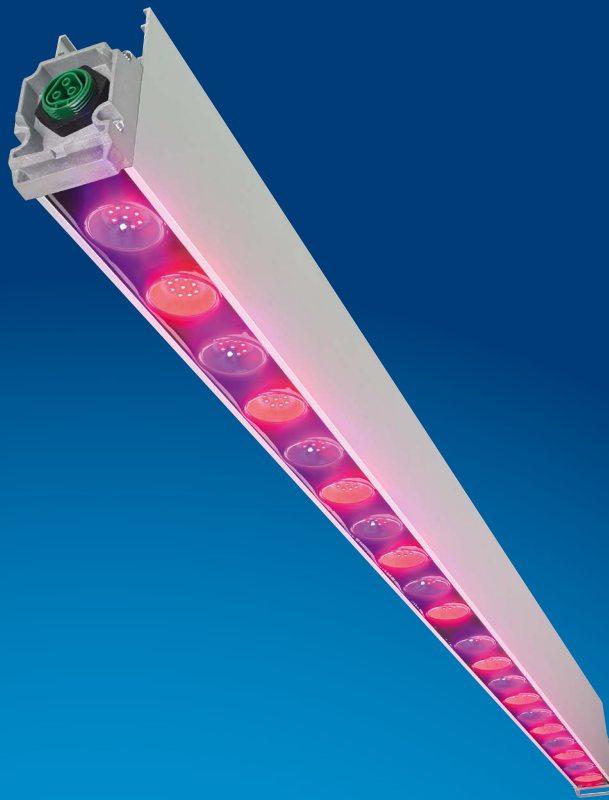


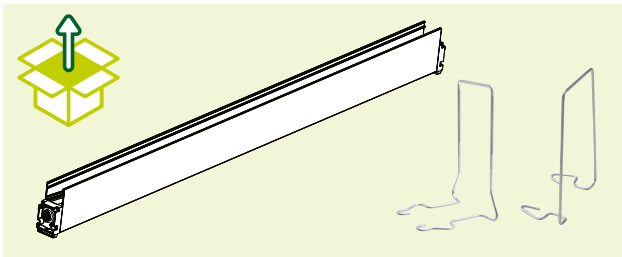
**PHILIPS**

Horticulture  
LED Solutions

GreenPower  
LED toplighting -  
high output



## Quick installation guide

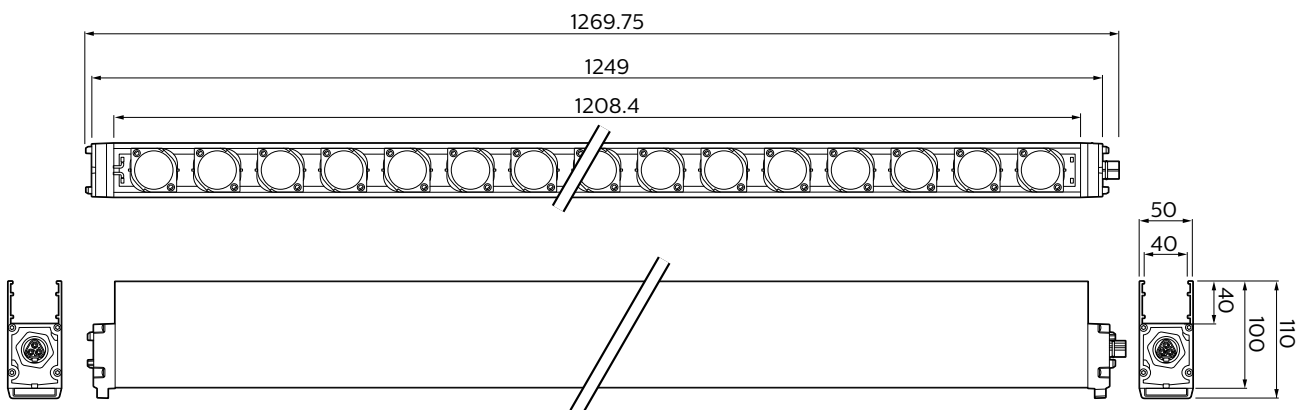


### **! WARNING**

Turn power off before installation. All work should be done according to appropriate electrical codes.

### Dimensions Philips GreenPower LED toplighting - high output (in mm)

Product	Dimensions (in mm)		
	Length	Width	Height
GreenPower LED toplighting - high output module	1269.75	50	110
GreenPower LED toplighting module mounting bracket (continuous line)	118	85	47.5
GreenPower LED toplighting module mounting bracket (non-continuous line)	102	55	35.7



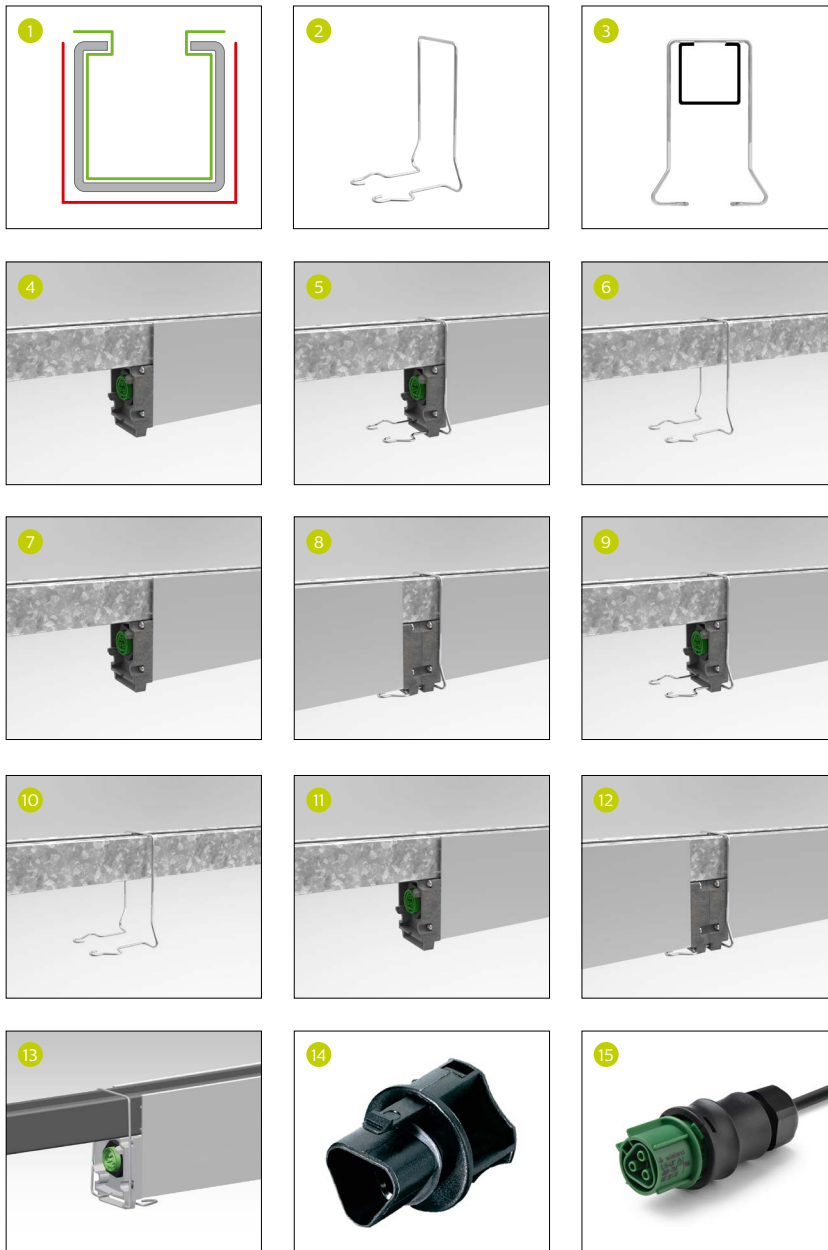
May 2017

## Mounting into the greenhouse

The module can be fixed to the greenhouse structure using the existing technology that is used for greenhouse installations. The GreenPower LED toplighting can be fitted very easily without the need for any tools and has been designed together with installers and growers to deliver optimum results.

The 40x40 mm C-profile is integrated into the module. This way less light will be blocked by the LED modules cabling and suspension structure. Thanks to the head-to-tail inter-connection and the stainless steel clips, it is virtually a plug-and-play module.

## Continuous line installation

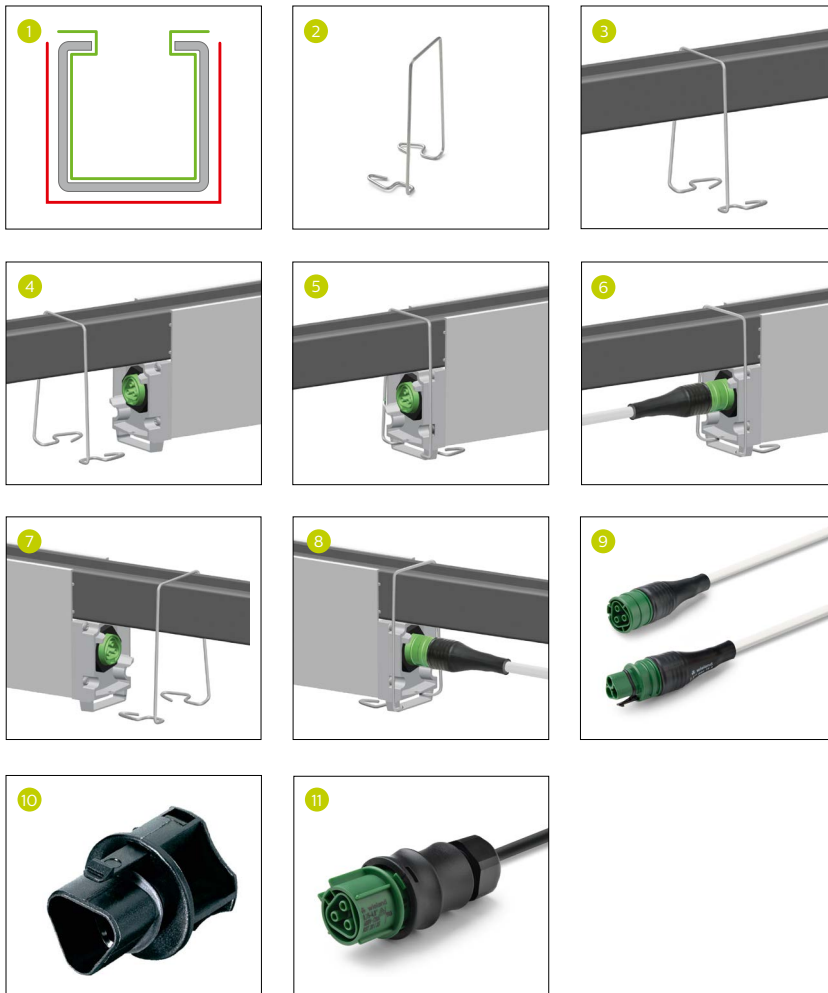


- 1 Mount 40x40 mm C-profiles to the greenhouse structure on the desired height. During assembly use a fixation that only uses the inside of the C-profile (green area) (see drawing). Mounting profile, LED module equipped, deflection: Make sure that the deflection of the mounting profile is max 10 mm. When the deflection is >10 mm a construction precaution must be taken to reduce the deflection to a minimum.  
**Do not use hooks that are mounted around the profile (red area) (see drawing)!**
- 2 Take the stainless steel mounting clip out of the package.
- 3 Hook on 2 stainless steel clips onto the C-profile at 1,25 m pitch (see drawing).
- 4 Put the LED module over the C-profile.
- 5 Take the clip and slide the clip into the slotted opening of the module and repeat that handling on the other side of the module.
- 6 Hook on one stainless steel clip onto the C-profile at 1,25 m distance.
- 7 Put the second module over the C-profile.
- 8 Click the second module on the clip of the first module.
- 9 Slide the clip on the back in the second module. Check if the locking plate snaps into the module.
- 10 Hook on one stainless steel clip onto the C-profile at 1,25 m distance.
- 11 Put the third module over the C-profile.
- 12 Click the third module on the clip of the second module.
- 13 Slide the clip back in the third module. Check if the clip snaps into the module. You can continue like this for the rest of the modules. **Max 15 pcs per phase!**
- 14 **IMPORTANT:** Put the end cap on the end of a through wire line to make the line IP66.
- 15 Connect the female connector to the main power cable and connect this main power cable to the power grid.

### Important note

The maximum amount of GreenPower LED toplighting modules is **15 pcs per phase on a 16 A C-type circuit breaker**. Not allowed to use >16 A circuit breakers and increasing the module amounts per phase due to internal wire dimensions and higher current!

## Non-continuous line installation



- 1 Mount 40x40 mm C-profiles to the green house structure on the desired height. During assembly use a fixation that only uses the inside of the C-profile (green area) (see drawing).

**Do not use hooks that are mounted around the profile (red area) (see drawing)!**

- 2 Take 1 stainless steel clip.
- 3 Hook on 1 stainless steel clip onto the C-profile at left side (see drawing).
- 4 Put the LED module over the C-profile.
- 5 Take the clip and slide and press the locking plate into the module at left side.
- 6 Take the connection cable and put the plug onto the appropriate socket.
- 7 Hook on 1 stainless steel clip onto the C-profile at the right side of the module (see drawing).
- 8 Take the connection cable and put the plug onto the appropriate socket.
- 9 An example of the connection cable with a female socket and a male socket.
- 10 **IMPORTANT:** Put the connector stop on EVERY last module (or module with no through-wiring), to make the line IP66.
- 11 Connect the female connector to the main power cable and connect this main power cable to the power grid.

### Important note:

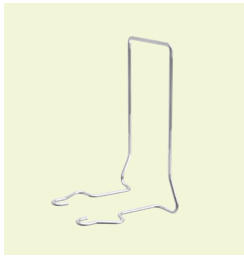
The maximum amount of GreenPower LED toplighting - high output modules is **15 pcs per phase on a 16 A C-type circuit breaker**. Not allowed to use >16 A circuit breakers and increasing the module amounts per phase due to internal wire dimensions and higher current!

### Risk group 2

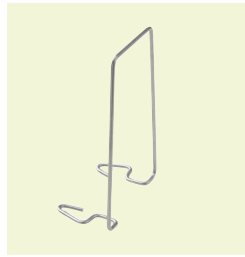
#### **Photo Biological Hazard (EN 62471)**

GreenPower LED toplighting - high output module DR/B is for retinal blue in the riskgroup 2 and for the rest in Risk group EXEMPT.

## Ordering data and specifications Philips GreenPower LED toplighting - high output (continuous line)



GreenPower LED toplighting mounting bracket for continuous line installation



GreenPower LED toplighting mounting bracket for non-continuous line installation



GreenPower LED toplighting connection cable for non-continuous line installation



GreenPower LED toplighting connector for connection to mains power cable



GreenPower LED toplighting connector stop

Philips GreenPower LED toplighting - high output module	Photon flux * / **	Power consumption (typical) **	Lifetime *	Ingress protection rating	Power factor	Input voltage	Order code
	µmol/s	W	hours		cos φ	VAC	12 NC
<b>Deep red/blue (DR/B)</b>							
GreenPower LED toplighting mod. DR/B LB 400V	520	190	25,000	IP66	0.95	400	9290 009 88506
GreenPower LED toplighting mod. DR/B MB 400V	520	195	25,000	IP66	0.95	400	9290 009 88606
GreenPower LED toplighting mod. DR/B HB 400V	520	200	25,000	IP66	0.95	400	9290 009 88706
<b>Deep red/white (DR/W)</b>							
GreenPower LED toplighting mod. DR/W LB 400V	520	195	25,000	IP66	0.95	400	9290 009 88806
GreenPower LED toplighting mod. DR/W MB 400V	520	200	25,000	IP66	0.95	400	9290 009 88906
GreenPower LED toplighting mod. DR/W Vision 400V	430	190	25,000	IP66	0.95	400	9290 009 89006
<b>Deep red/white/far red (DR/W/FR)</b>							
GreenPower LED toplighting mod. DR/W/FR_2 MB 400V	410	175	25,000	IP66	0.95	400	9290 009 89106
<b>Accessories</b>							
GreenPower LED toplighting mounting bracket (continuous line) <sup>1)</sup>							9290 015 07906
GreenPower LED toplighting mounting bracket (non-continuous line)							9290 009 15206
GreenPower LED toplighting jumper cable (1,0 mtr) <sup>2)</sup>							9290 009 15306
GreenPower LED toplighting jumper cable (2,0 mtr) <sup>2)</sup>							9290 009 16006
GreenPower LED toplighting male connector							9290 009 15406
GreenPower LED toplighting female connector							9290 009 15506
GreenPower LED toplighting end cap <sup>3)</sup>							9290 009 15606

\* Lifetime and maintenance values are given at an ambient temperature of 25 °C.

<sup>1)</sup> Stainless steel ø2.0 mm wire clip including 'locking plate' to fix the modules in an axial direction to prevent the modules working loose as a result of vibrations

<sup>2)</sup> 3 x 1.5 mm<sup>2</sup> conductors, 2-sided 'male' / female connector

<sup>3)</sup> To ensure IP66 rating for every single mounted or last module in a continuous line!



© Philips Lighting Holding B.V. 2017. All rights reserved. Philips reserves the right to make changes in specifications and/or to discontinue any product at any time without notice or obligation and will not be liable for any consequences resulting from the use of this publication.

Document order number: **3222 635 70067 - HO INT V1**  
05/2017  
Data subject to change.

For more information about Philips Horticulture LED Solutions visit: [www.philips.com/horti](http://www.philips.com/horti)

Write us an e-mail: [horti.info@philips.com](mailto:horti.info@philips.com)

Or tweet us: [@PhilipsHorti](https://twitter.com/PhilipsHorti)