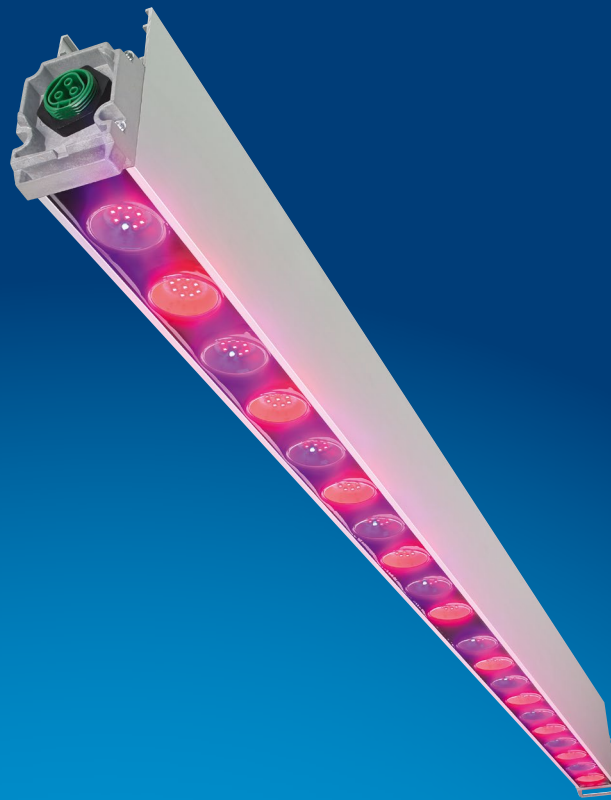


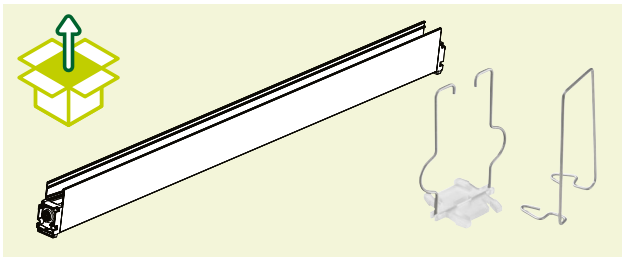
PHILIPS

Horticulture LED Solutions

GreenPower
LED toplighting -
high output



Quick installation guide

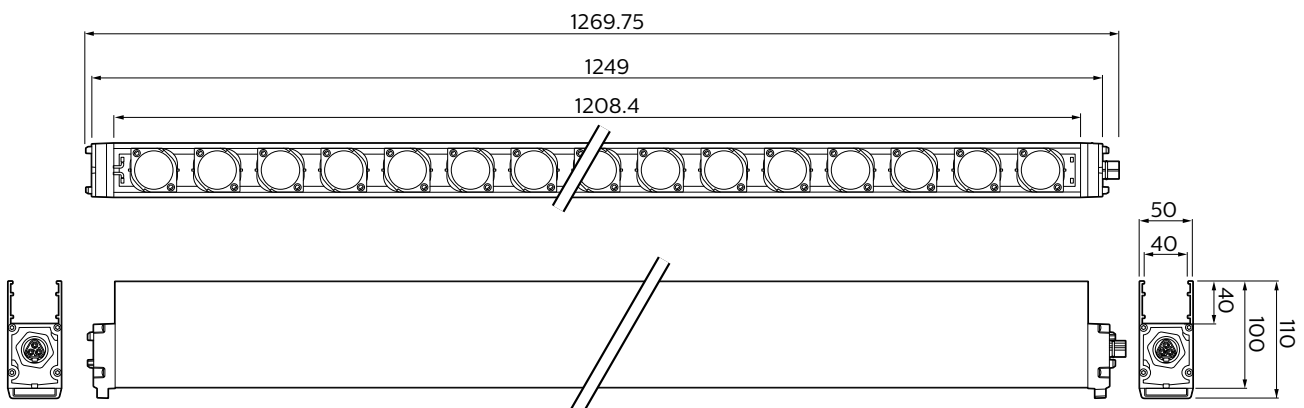


WARNING

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



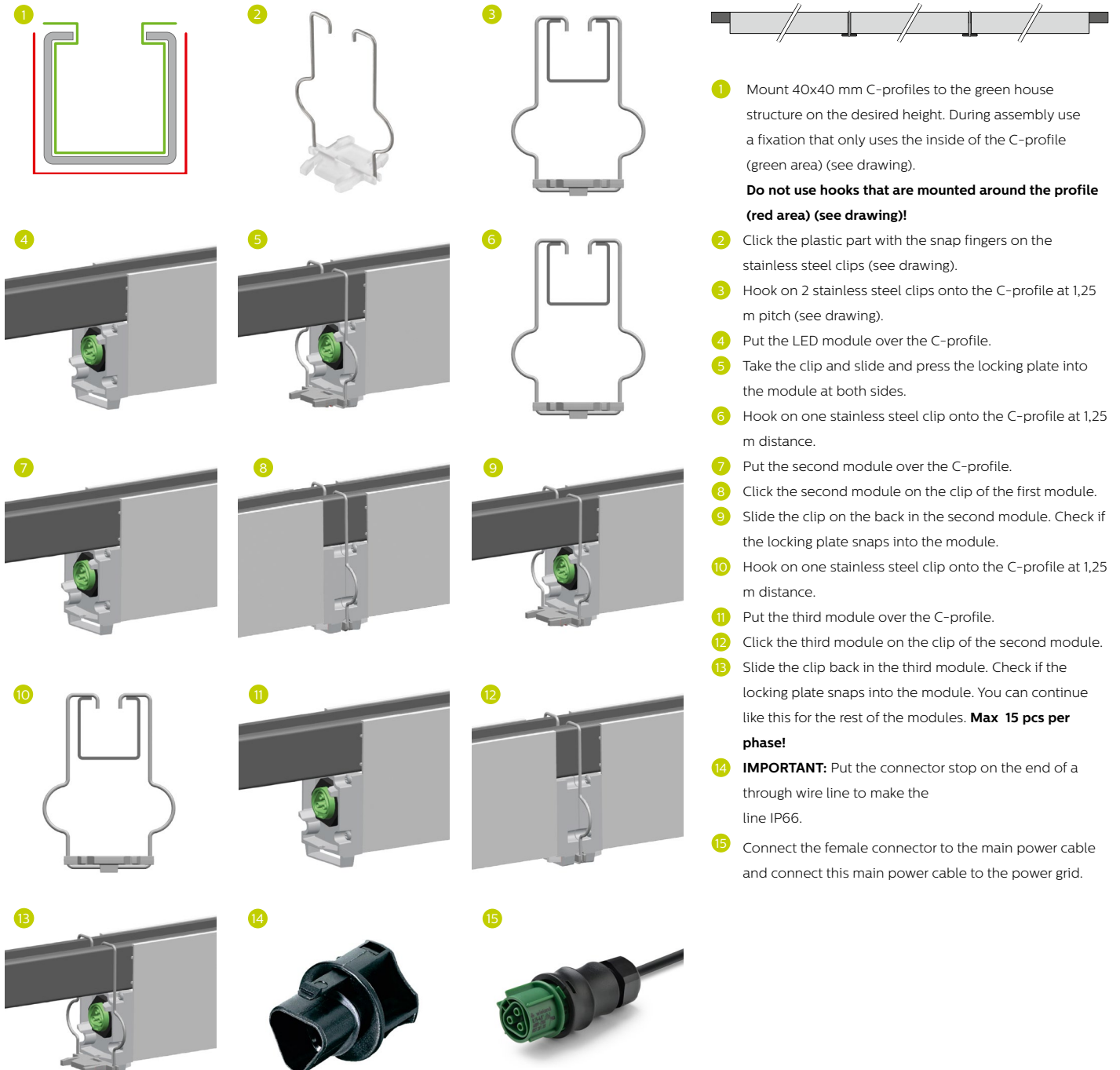
June 2015

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 - high output 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

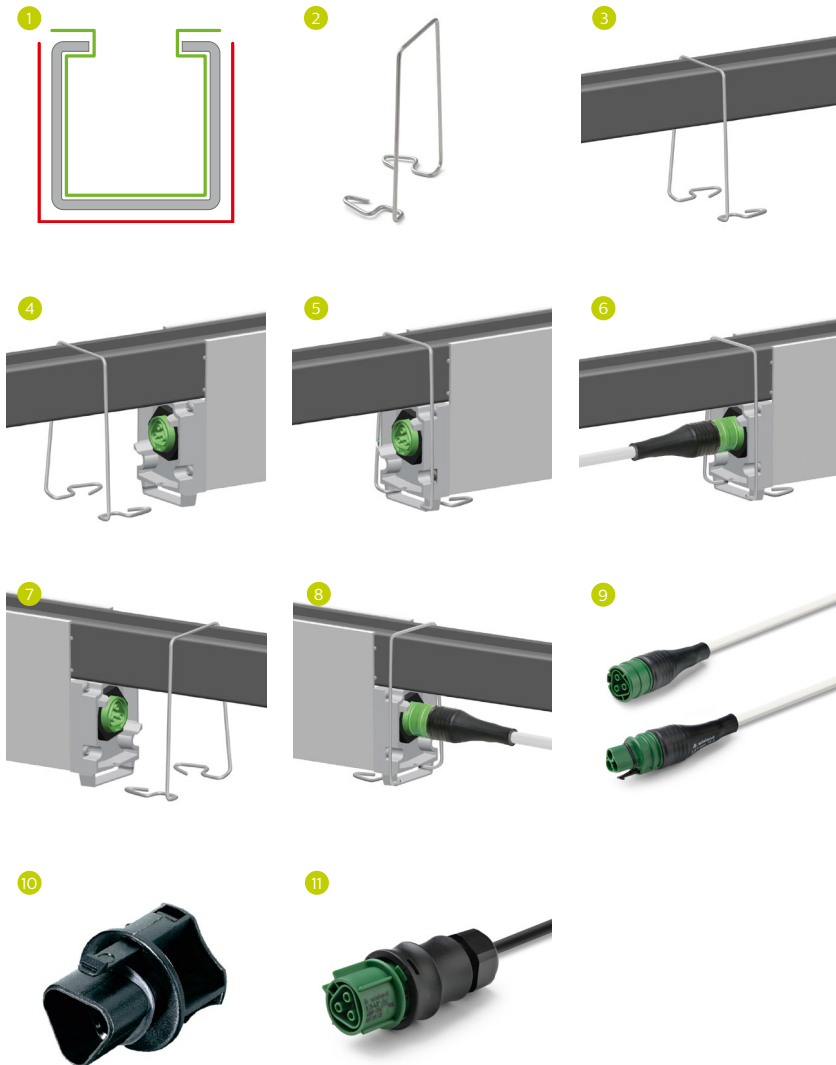


- 1 Mount 40x40 mm C-profiles to the green house structure on the desired height. During assembly use a fixation that only uses the inside of the C-profile (green area) (see drawing).
Do not use hooks that are mounted around the profile (red area) (see drawing)!
- 2 Click the plastic part with the snap fingers on the stainless steel clips (see drawing).
- 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 and press the locking plate into the module at both sides.
- 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 locking plate snaps into the module. You can continue like this for the rest of the modules. **Max 15 pcs per phase!**
- 14 **IMPORTANT:** Put the connector stop 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 - 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!

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.

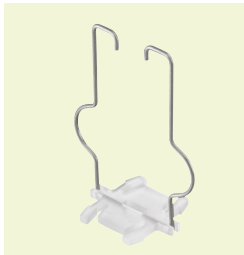
Important note:

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!

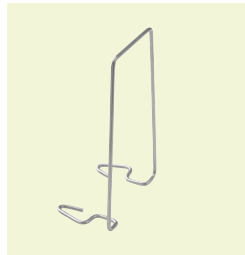
Risk group 2

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
Deep red/blue (DR/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
Deep red/white (DR/W)							
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
Deep red/white/far red (DR/W/FR)							
GreenPower LED toplighting mod. DR/W/FR_2 MB 400V	410	175	25,000	IP66	0.95	400	9290 009 89106
Accessories							
GreenPower LED toplighting mounting bracket (continuous line) ¹⁾							9290 009 15106
GreenPower LED toplighting mounting bracket (non-continuous line)							9290 009 15206
GreenPower LED toplighting jumper cable (1,0 mtr) ²⁾							9290 009 15306
GreenPower LED toplighting jumper cable (2,0 mtr) ²⁾							9290 009 16006
GreenPower LED toplighting male connector							9290 009 15406
GreenPower LED toplighting female connector							9290 009 15506
GreenPower LED toplighting end cap ³⁾							9290 009 15606

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

¹⁾ 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

²⁾ 3 x 1.5 mm² conductors, 2-sided 'male / female connector

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



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Data subject to change.

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