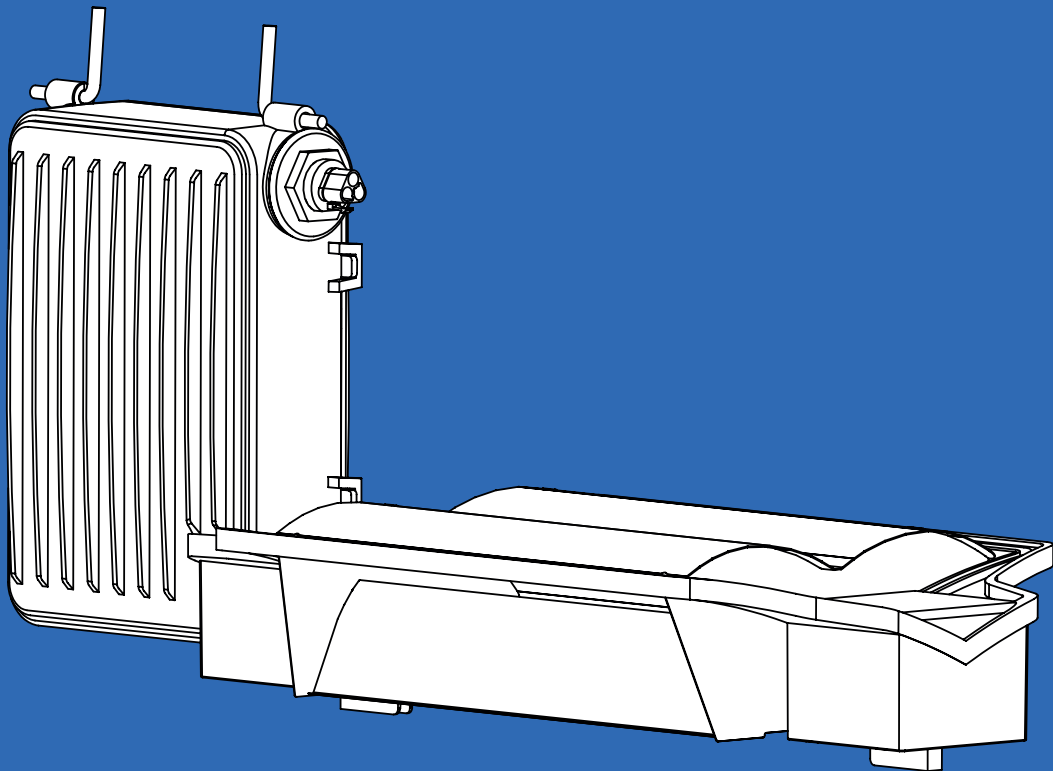




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# Safety and installation instructions IHL50-60



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# Safety and installation instructions IHL50-60

## In general

Please read the documentation supplied with this product first, so that you are familiar with the safety signs and directions before using the product.

This product is designed and tested in accordance with international standards. The equipment should be used for the designated application only.



*Warning: danger of electrical shock!*

The product is used with use of the 3 phase mains. Even if the equipment is switched off, a dangerous electrical voltage can occur at the input and/or output terminals. Always switch the AC power off and disconnect the equipment before performing maintenance.

The product contains no internal user serviceable parts. Do not remove the lid and do not put the product into operation unless the product is closed. All maintenance should be performed by qualified personnel.

## Installation

Read the installation instructions before commencing installation activities.

This product is a safety class I device (supplied with a ground terminal for safety purposes). The AC input terminals must be provided with uninterruptable grounding purpose. If it can be assumed that the grounding protection is damaged, the product should be taken out of operation and prevented from accidentally being put into operation again. Contact qualified maintenance personnel.

Check before switching the device on whether the mains conforms to the configuration of the product as described in the manual.

Ensure that the equipment is used under the correct operation conditions. The equipment is meant for use in greenhouses and climate rooms, it may be used in damp environments. Never operate it in wet environments or outdoors.

Ensure that there are no chemical, plastic, curtains or textiles, etc. in the immediate vicinity of the equipment.

## Transport, storage and disposal

No liability can be accepted for damage in transit if the equipment is not transported in its original packaging.

Store the product in a dry environment; the storage temperature should range from -20°C and 85°C with a relative humidity < 95% (non-condensing).

The product should not be discarded as unsorted municipal waste, but must be collected separately for the purpose of treatment, recovery and environmentally sound disposal.

The lamps are chemical hazardous waste and contain mercury. Therefore the lamps must be delivered to the designated authorities.

## Warranty

This manual does not contain warranty conditions, which can be found in a separate document.



# Safety and installation instructions IHL50-60

## Product Description

The IHL50 and IHL60 are horticultural luminaires designed for use in greenhouses and climate rooms. Product is designed based upon a double ended high frequency high pressure sodium lamp with dedicated electrical ballast.

IHL 50 and IHL60 is available in 750W and 1000W configuration.

Product number	Product name	Ballast type	Lamp type	Reflector type
EA-HL000100	Indupar HPS 400/1000 EU	400V/1000W EU Philips	Philips GPXTR 1000W	IHL50
EA-HL000101	Indupar HPS 400/1000 EU	400V/1000W EU Philips	Philips GPXTR 1000W	IHL60
EA-HL000102	Indupar HPS 400/1000 NA	400V/1000W NA Philips	Philips GPXTR 1000W	IHL50
EA-HL000103	Indupar HPS 400/1000 NA	400V/1000W NA Philips	Philips GPXTR 1000W	IHL60
EA-HL000104	Indupar HPS 400/750 EU	400V/750W EU Philips	Philips GPPlus 750W	IHL50
EA-HL000105	Indupar HPS 400/750 EU	400V/750W EU Philips	Philips GPPlus 750W	IHL60
EA-HL000106	Indupar HPS 400/750 NA	400V/750W NA Philips	Philips GPPlus 750W	IHL50
EA-HL000107	Indupar HPS 400/750 NA	400V/750W NA Philips	Philips GPPlus 750W	IHL60
EA-HL000108	Indupar HPS 347/1000 CAN	347V/1000W CAN Philips	Philips GPXTR 1000W	IHL50
EA-HL000109	Indupar HPS 347/1000 CAN	347V/1000W CAN Philips	Philips GPXTR 1000W	IHL60
EA-HL000110	Indupar HPS 400/1000 EU	400V/1000W EU - NA Aruna	Aruna 1000 DE	IHL50
EA-HL000111	Indupar HPS 400/1000 NA	400V/1000W EU - NA Aruna	Aruna 1000 DE	IHL50
EA-HL000112	Indupar HPS 400/1000 EU	400V/1000W EU - NA Aruna	Aruna 1000 DE	IHL60
EA-HL000113	Indupar HPS 400/1000 NA	400V/1000W EU - NA Aruna	Aruna 1000 DE	IHL60
EA-HL000114	Indupar HPS 347/1000 CAN	347V/1000W CAN Aruna	Aruna 1000 DE	IHL50
EA-HL000115	Indupar HPS 347/1000 CAN	347V/1000W CAN Aruna	Aruna 1000 DE	IHL60
EA-HL000116	Indupar HPS 277/1000 NA	277V/1000W NA Aruna	Aruna 1000 DE	IHL50
EA-HL000117	Indupar HPS 277/1000 NA	277V/1000W NA Aruna	Aruna 1000 DE	IHL60
EA-HL000118	Indupar HPS 347/1000 NA	400/347V/1000W EU - NA Golden Scorpion	Aruna 1000 DE	IHL50
EA-HL000119	Indupar HPS 347/1000 NA	400/347V/1000W EU - NA Golden Scorpion	Aruna 1000 DE	IHL60
EA-HL000120	Indupar HPS 400/1000 EU	400/347V/1000W EU - NA Golden Scorpion	Aruna 1000 DE	IHL50
EA-HL000121	Indupar HPS 400/1000 NA	400/347V/1000W EU - NA Golden Scorpion	Aruna 1000 DE	IHL50
EA-HL000122	Indupar HPS 400/1000 EU	400/347V/1000W EU - NA Golden Scorpion	Aruna 1000 DE	IHL60
EA-HL000123	Indupar HPS 400/1000 NA	400/347V/1000W EU - NA Golden Scorpion	Aruna 1000 DE	IHL60
EA-HL000124	Indupar HPS 277/1000 NA	277/347V/1000W NA Golden Scorpion	Aruna 1000 DE	IHL50
EA-HL000125	Indupar HPS 347/1000 NA	277/347V/1000W NA Golden Scorpion	Aruna 1000 DE	IHL50
EA-HL000126	Indupar HPS 277/1000 NA	277/347V/1000W NA Golden Scorpion	Aruna 1000 DE	IHL60
EA-HL000127	Indupar HPS 347/1000 NA	277/347V/1000W NA Golden Scorpion	Aruna 1000 DE	IHL60
EA-HL000128	Indupar HPS 400/1000 EU	400V/1000W EU - NA Lumlux	Aruna 1000 DE	IHL50
EA-HL000129	Indupar HPS 400/1000 NA	400V/1000W EU - NA Lumlux	Aruna 1000 DE	IHL50
EA-HL000130	Indupar HPS 400/1000 EU	400V/1000W EU - NA Lumlux	Aruna 1000 DE	IHL60
EA-HL000131	Indupar HPS 400/1000 NA	400V/1000W EU - NA Lumlux	Aruna 1000 DE	IHL60
EA-HL000132	Indupar HPS 277/1000 NA	277/347V/1000W NA Lumlux	Aruna 1000 DE	IHL50
EA-HL000133	Indupar HPS 347/1000 NA	277/347V/1000W NA Lumlux	Aruna 1000 DE	IHL50
EA-HL000134	Indupar HPS 277/1000 NA	277/347V/1000W NA Lumlux	Aruna 1000 DE	IHL60
EA-HL000135	Indupar HPS 347/1000 NA	277/347V/1000W NA Lumlux	Aruna 1000 DE	IHL60



# Safety and installation instructions IHL50-60



## Safety and warnings

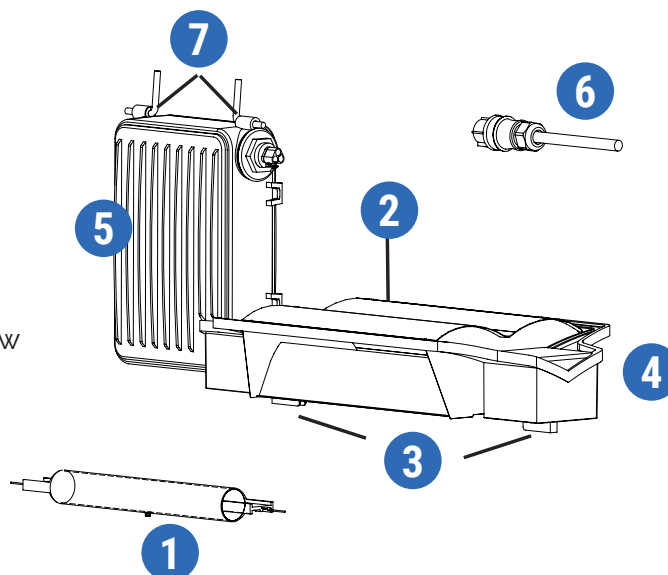
Please read the documentation supplied with this product first, so that you are familiar with the safety signs and directions before using the product!

- Install and use the product according to the local rules and regulations.
- Always switch the AC power off and disconnect the equipment before performing maintenance.
- Do not use the product when lamp or power cord is damaged. Replace damaged parts with identical types.
- Never use the product without a lamp or reflector
- Using different lamps can damage the product and will void warranty.
- Only replace the lamp with an identical type.
- Allow a cool down period of at least 30 minutes before touching the lamp or reflector
- A lamp breaking is extremely unlikely to have any impact on your health. If a lamp breaks, ventilate the room for 30 minutes and remove the parts, preferably with gloves. Put them in a sealed plastic bag and take to your local waste facilities for recycling. Do not use a vacuum cleaner.
- Modifying the product can lead to unwanted EMC effects, which might not comply with the legal requirements.
- Do not use vaporizers or water misters. Sulphur and calcium deposits on the reflector
- The installation and use of the product is the responsibility of the end user. Incorrect use or installation can lead to failure and damage to the product. Damage to product and electronic circuitry as a result of incorrect installation and use revokes the warranty.

## Contents

1. Lamp\*
2. Reflector
3. Lamp socket (2x)
4. Bracket
5. Gear box for electronic ballast
6. Wieland RST20i3 female with cable
7. Mounting points

\* Philips GreenPower Plus 750W/1000W or Aruna 1000W

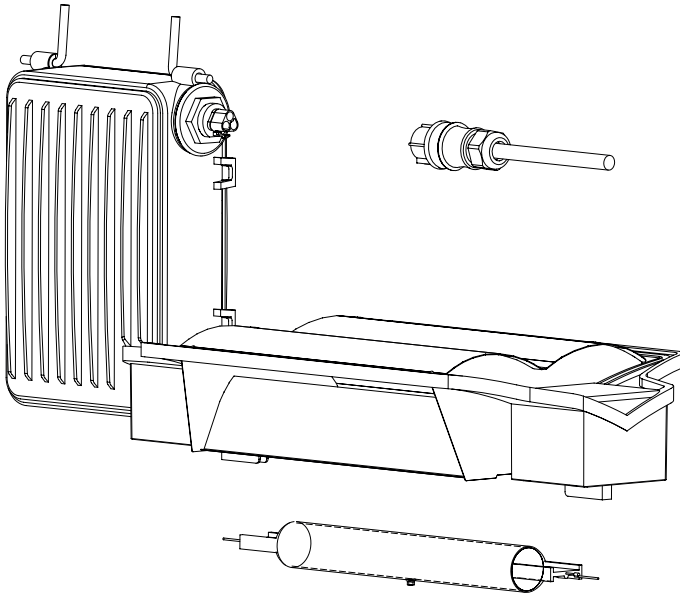




# Safety and installation instructions IHL50-60

## Controls, connections and indications

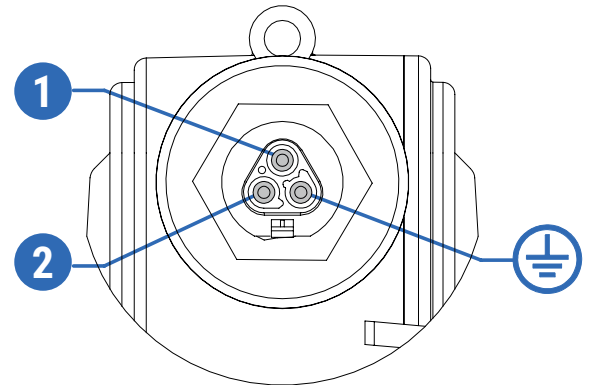
Bracket depending on crop and construction of greenhouse.



1 and 2: Phase connection



Earth connection



## Installation

- The electrical installation must match the required voltage and current requirements and comply with local regulations.
- External switching gear
- Installer of the product is responsible for a correct and safe installation.
- Do not disconnect the product from the mains when it is under load.
- Never use the luminaire without a lamp or reflector.
- Lamp and reflector become hot, let the fixture cool down for at least 30 minutes after switching off the mains.
- Prevent any coiling of the connection cables and keep the mains separated to avoid EMC interference.

## Before inspection, maintenance and repair

- Switch the AC power off and disconnect the equipment before performing maintenance.
- Do not disconnect the Wieland RST20i3 connector under load.
- Do not open or disassemble the product, it contains no serviceable parts inside.  
Opening the product can be dangerous and will void the warranty.
- Allow a cool down period of at least 30 minutes before touching the lamp or reflector.
- Do not use harsh abrasives, detergents or other aggressive substances to clean the product.
- Do not touch the inside of the reflector during installation or maintenance.
- Check on dust and accumulated pollution on a regular basis and clean if necessary.
- Contamination of the product can cause overheating and reduce the performance.
- Cleaning the reflector is possible with demineralized soap water.  
For the outside of the housing use a dry or damp cloth.

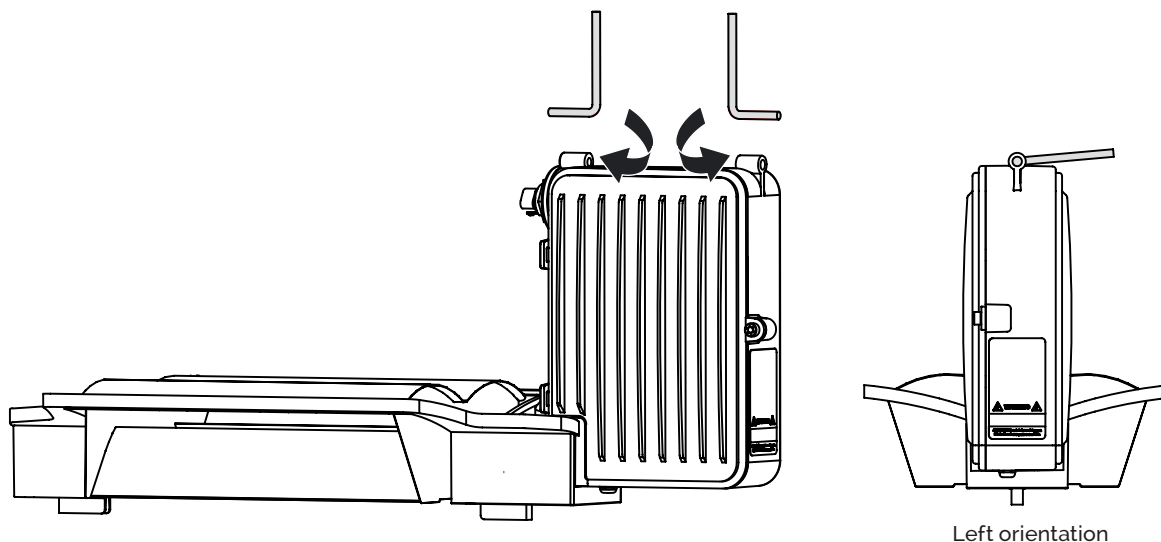


# Safety and installation instructions IHL50-60

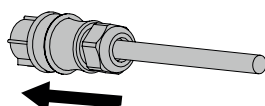
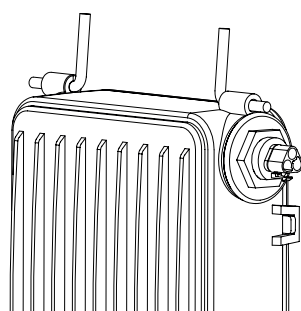
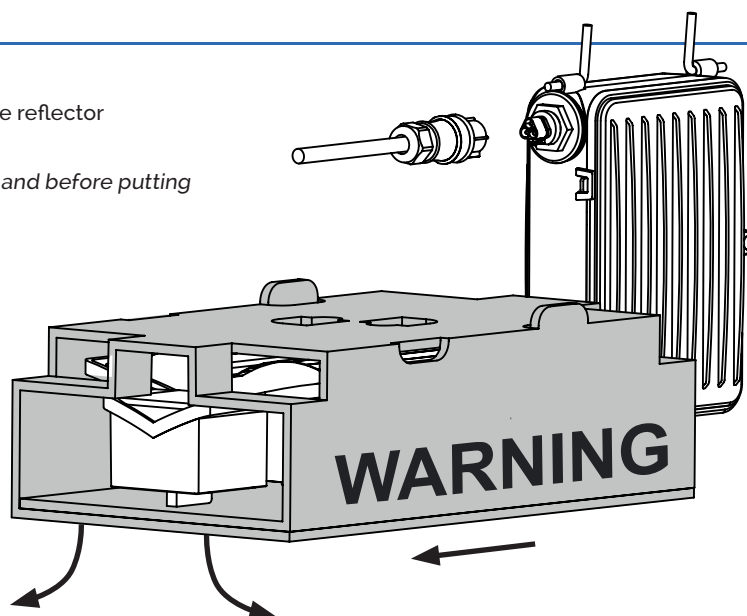
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## Installing the luminaire

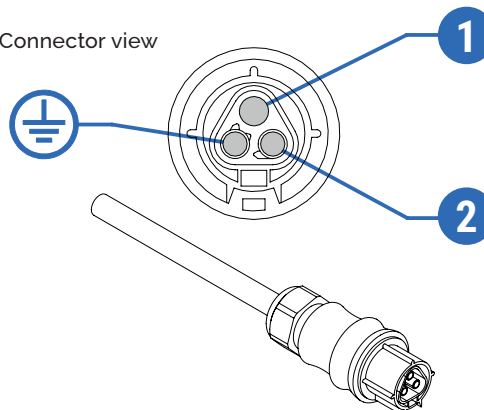
- Switch of the mains power.
- If not done already install the appropriate lamp before connecting the luminaire to the mains.
- Install the bracket according to the light scheme.



- Packaging can be used as cover to protect the reflector during initial installation.
- Remove sleeve before connecting the mains and before putting the installation in operation.



Connector view





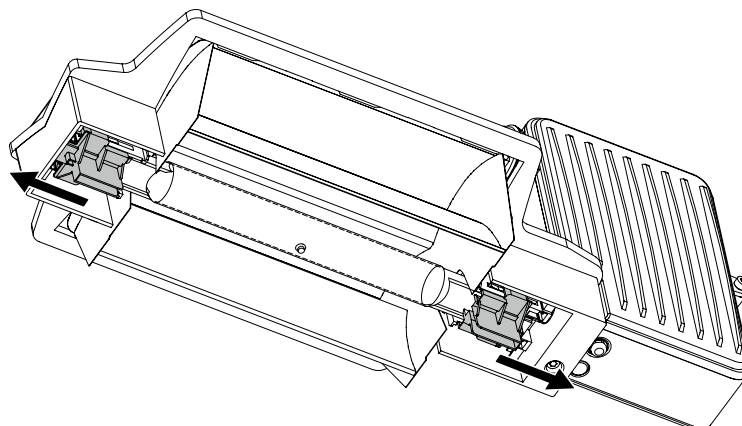
# Safety and installation instructions IHL50-60

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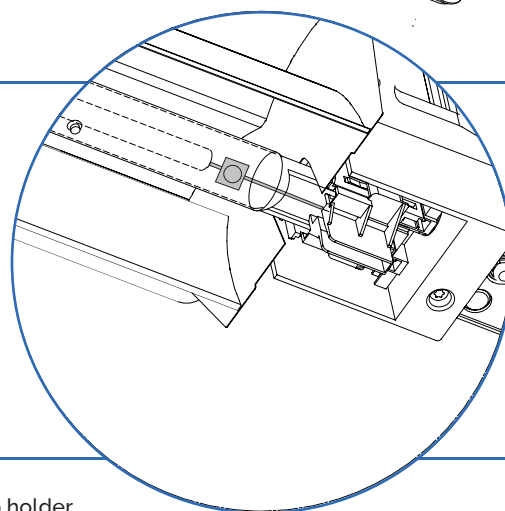
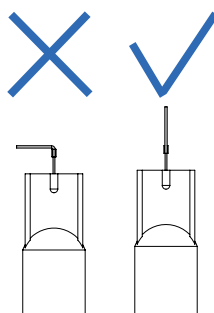
## Replacing the lamp

- Do not touch the lamp with bare hands as this will damage the lamp. Always use a clean fabric glove to handle the lamp.
- Only replace the lamp with an identical type.

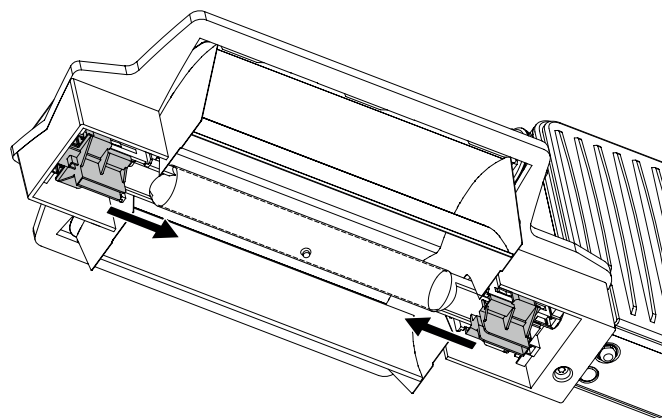
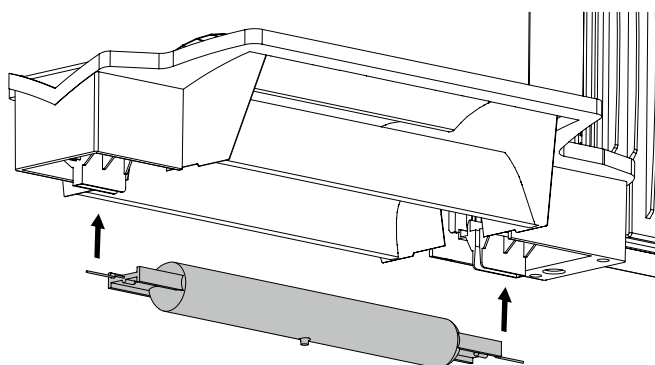
- Switch the AC power off.
- Hold the lamp to prevent from falling.
- Open the lamp holders by sliding them outwards.



- Carefully pull the lamp out of the lamp holders.
- Install the new lamp with the quartz tip downwards and the getter near the ballast.



- Lamp wires need to slide straight into the metal plates inside of the lamp holder.
- Close the lamp holders by sliding them inside.



- Switch on the AC power.



# Safety and installation instructions IHL50-60

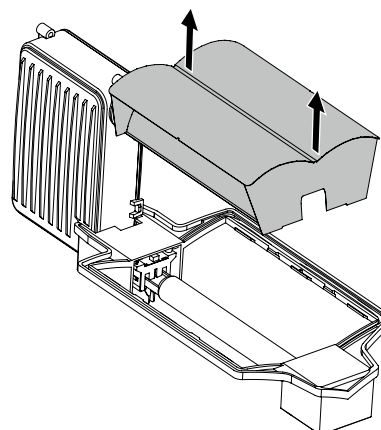
## Replacing the reflector

Contamination will decrease the reflector efficiency, Industria recommends to replace the reflector after 12.500 hrs together with the lamps or earlier, if needed.

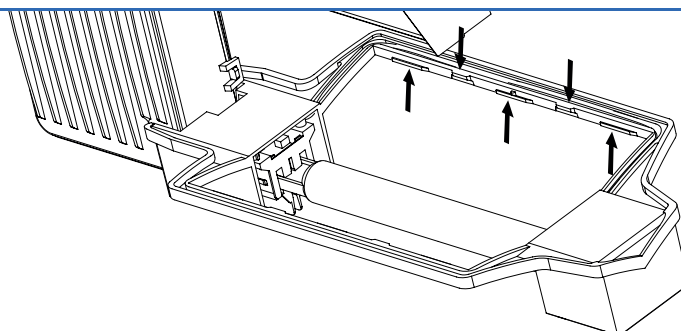


Do not touch the reflector with bare hands as this will reduce the efficiency. Always use a clean fabric glove to handle the reflector and do not touch the inside.

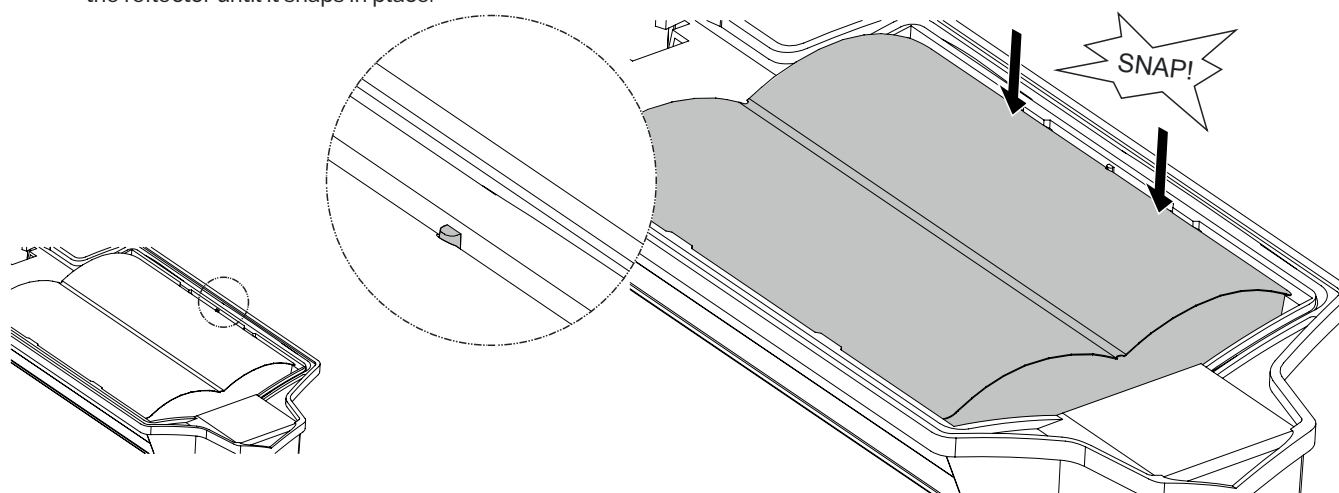
- Switch the AC power off.
- Pull the reflector gently upwards, away from the bracket.



- Place the new reflector with one side between the tabs.



- Ensure the centre mark is aligned.
- Gently push the other side of the reflector until it snaps in place.



- Switch on the AC power.





# Safety and installation instructions IHL50-60

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## Product information and specifications Philips Greenvision

Article number	Product name
EA-HL000100	Indupar HPS 400/1000 EU
EA-HL000101	Indupar HPS 400/1000 EU
EA-HL000102	Indupar HPS 400/1000 NA*
EA-HL000103	Indupar HPS 400/1000 NA*
EA-HL000104	Indupar HPS 400/750 EU
EA-HL000105	Indupar HPS 400/750 EU
EA-HL000106	Indupar HPS 400/750 NA*
EA-HL000107	Indupar HPS 400/750 NA*
EA-HL000108	Indupar HPS 347/1000 CAN*
EA-HL000109	Indupar HPS 347/1000 CAN*

Dimensions (L x W x H)	635 x 242 x 278mm
Product weight	ca. 3,8 kg
Certification	CE *cCSAus FCC
Insulation	Class 1
IP, Ingress Protection	IP54 gear tray, IP23 reflector
Power inlet	Wieland RST20i3 connector
Maximum ambient temperature	30 °C

## Technical specifications Philips Greenvision

	Philips Greenvision		
	400V / 750W	400V / 1000W	347V / 1000W
Main voltage, Vmains	400V	400V	347V / 1000W
Mains frequency, fmains	50-60Hz	50-60Hz	50-60Hz
Mains power, Pmains	780W	1031W	1040W
Mains Current, Imains	2,3A	2,61A	3,0A
Power factor	> 0,98	> 0,99	> 0,99
THD	8%	8%	7%
Inrush current	30A	30A	30A
Pulse duration	1,6ms	1,6 ms	1,6ms



## Product information and specifications Aruna

Article number	Product name
EA-HL000110	Indupar HPS 400/1000 EU
EA-HL000111	Indupar HPS 400/1000 NA*
EA-HL000112	Indupar HPS 400/1000 EU
EA-HL000113	Indupar HPS 400/1000 NA*
EA-HL000114	Indupar HPS 347/1000 CAN*
EA-HL000115	Indupar HPS 347/1000 CAN*
EA-HL000116	Indupar HPS 277/1000 NA*
EA-HL000117	Indupar HPS 277/1000 NA*

Dimensions (L x W x H)	635 x 242 x 278mm
Product weight	ca. 3,8 kg
Certification	CE *cCSAus FCC
Insulation	Class 1
IP, Ingress Protection	IP54 gear tray, IP23 reflector
Power inlet	Wieland RST20i3 connector
Maximum ambient temperature	30 °C

## Technical specifications Aruna

	Aruna		
	400V /1000W EU-NA	347V / 1000W CAN	277V / 1000W NA
Main voltage, Vmains	400V	400V	277V
Mains frequency, fmains	50-60Hz	50-60Hz	50-60Hz
Mains power, Pmains	1035W	1040W	1045W
Mains Current, Imains	2,6A	3,0A	3,8A
Power factor	> 0,99	> 0,99	> 0,99
THD	7,1%	5,5%	3,6%
Inrush current	4,8-5,5A	4,8-5,5A	4,8-5,5A
Pulse duration	30-60ms	30-60ms	30-60ms



## Product information and specifications Golden Scorpion and LumLux

Article number	Product name
EA-HL000118	Indupar HPS 347/1000 NA*
EA-HL000119	Indupar HPS 347/1000 NA*
EA-HL000120	Indupar HPS 400/1000 EU
EA-HL000121	Indupar HPS 400/1000 NA*
EA-HL000122	Indupar HPS 400/1000 EU
EA-HL000123	Indupar HPS 400/1000 NA*
EA-HL000124	Indupar HPS 277/1000 NA*
EA-HL000125	Indupar HPS 347/1000 NA*
EA-HL000126	Indupar HPS 277/1000 NA*
EA-HL000127	Indupar HPS 347/1000 NA*
EA-HL000128	Indupar HPS 400/1000 EU
EA-HL000129	Indupar HPS 400/1000 NA*
EA-HL000130	Indupar HPS 400/1000 EU
EA-HL000131	Indupar HPS 400/1000 NA*
EA-HL000132	Indupar HPS 277/1000 NA*
EA-HL000133	Indupar HPS 347/1000 NA*
EA-HL000134	Indupar HPS 277/1000 NA*
EA-HL000135	Indupar HPS 347/1000 NA*

Dimensions (L x W x H)	635 x 242 x 278mm
Product weight	ca. 3,8 kg
Certification	CE *cCSAus FCC
Insulation	Class 1
IP, Ingress Protection	IP54 gear tray, IP23 reflector
Power inlet	Wieland RST20i3 connector
Maximum ambient temperature	30 °C

## Technical specifications Golden Scorpion and LumLux

	Golden Scorpion		LumLux	
	347V / 400V EU/NA	277V / 347V NA	400V NA	277V / 347V NA
Main voltage, Vmains	347/400V	277/347V	400V	277/347V
Mains frequency, fmains	50-60Hz	50-60Hz	50-60Hz	50-60Hz
Mains power, Pmains	1042W	1042W	1040W	1040W
Mains Current, Imains	3,1/2,7A	3,6/3,1A	2,7A	3,8/3,1A
Power factor	> 0,98	> 0,98	> 0,98	> 0,98
THD	10%	10%	10%	10%
Inrush current	40A	40A	30A	30A
Pulse duration	1,6ms	1,6ms	0,8ms	0,8ms



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