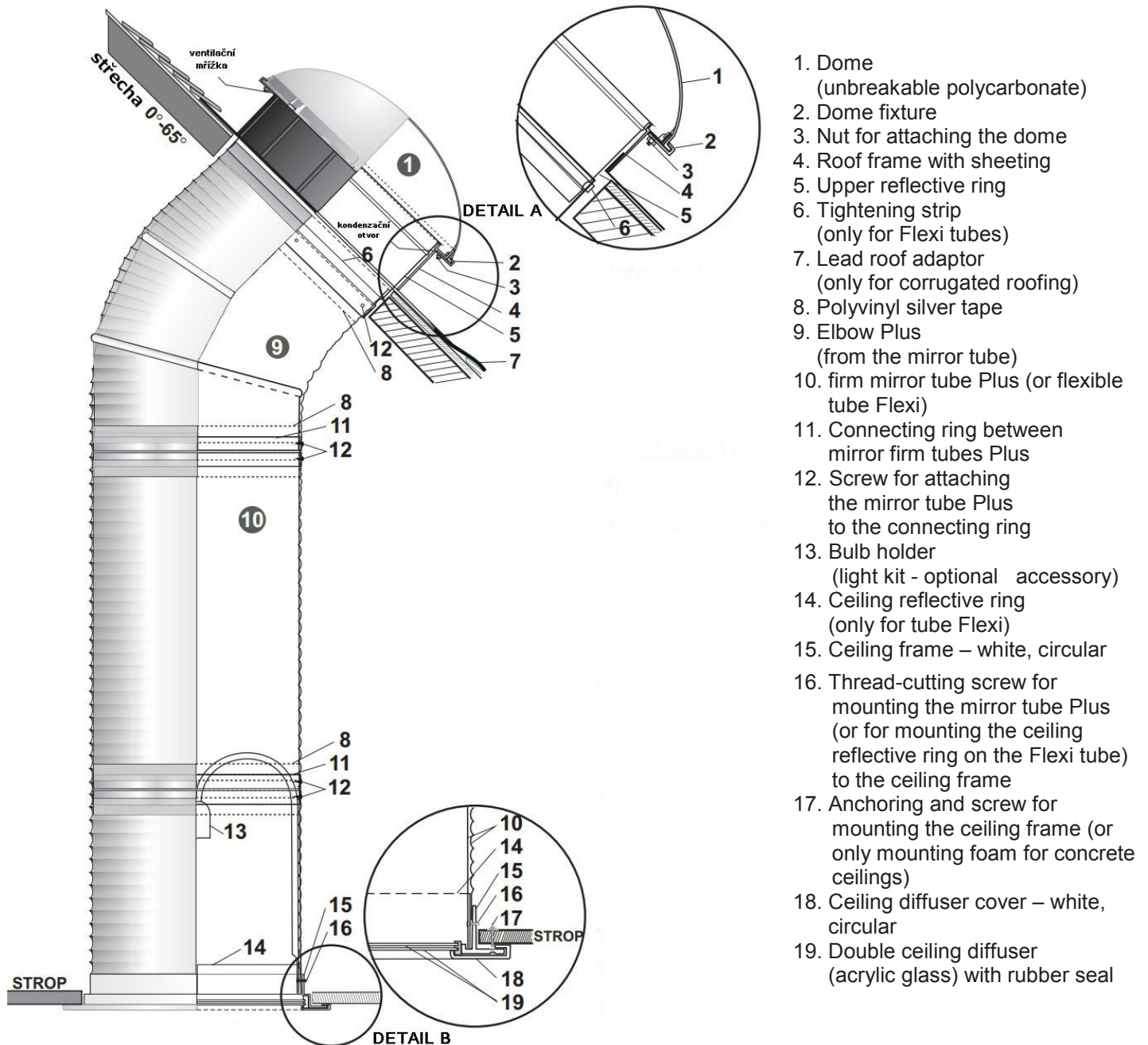


INSTALLATION INSTRUCTIONS (for a sloping roof)

Tubular light tunnel ALLUX 250, 350, 550 (versions **ALLUX Flexi** or **ALLUX Plus**)



INITIAL COMMENTS

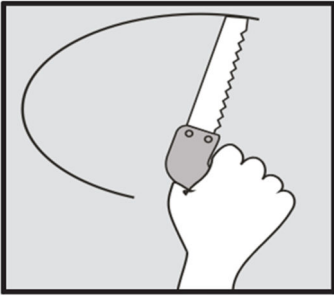
In order to achieve the optimum use of the characteristics of the **ALLUX** light tunnels and maximum efficiency, the following principles must be observed during the installation:

- Place the dome preferably on the southern part of the roof most exposed to the sun, pay particular attention to ensuring that you omit shaded areas
- Lead the light tunnel tube in the shortest and simplest way possible (the shorter and straighter the tube, the greater the amount of light)
- Mount the tube so that it is naturally tight (applies only to the flexible Flexi tube)
- During installation, remove film from elements protected by film - from all parts !!
(Unremoved film in an installed light tunnel may cause permanent damage to light guiding elements)

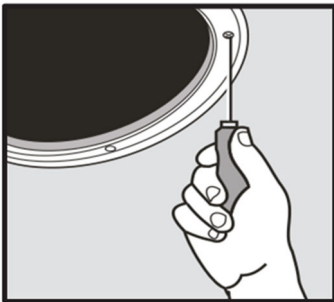
- Install according to the installation instructions

In the case of non-standard installation, which is not specified in these installation instructions, contact ALLUX – STAV s.r.o., phone: +420 281 865 636 email: info@allux.cz website: <http://www.svetlovod.cz/en/>

1. BOTTOM PART OF THE ALLUX LIGHT TUNNEL



A. Select a spot for installation of the light tunnel on the ceiling; in the case of beamed ceiling, it must be an opening between the beams. The diameter of the opening – see Table 1



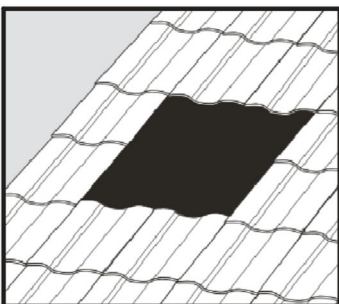
B. Cut an opening in the indicated location. When cutting the opening in a concrete ceiling, it is required to consult a building designer.

C. Use the included clips and screws (17) to attach the ceiling frame (15) in the cut-out opening.

Table 1:

Type of the light tunnel (diameter in mm)	Circular opening in the ceiling	Circular opening in the ceiling	Circular opening in the ceiling
	(plasterboard ceiling)	(cassette ceiling)	(concrete ceiling)
ALLUX 250	diameter 260 mm	diameter 260 mm	diameter 300 mm
ALLUX 350	diameter 385 mm	diameter 385 mm	diameter 400 mm
ALLUX 550	diameter 585 mm	diameter 585 mm	diameter 600 mm

2. TOP PART OF THE ALLUX LIGHT TUNNEL



A. Determine an area between the rafters on the inside of the roof to install the roof frame with sheeting (4).

B. Cut out the opening with the required diameter in the roof - see Table 2.

In the case of a roof covered with tiles, it is necessary to disassemble part of the roofing.

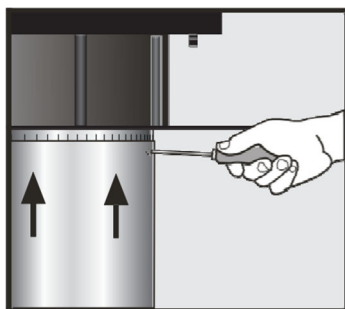
ATTENTION!

In the case of roofs covered with:

- a) Tiles – we also install a lead roof adaptor and foam bottom wedges (optional accessories)
- b) Corrugated sheet metal – we will use an alu-bitumen tape (optional accessories) or perform additional sheeting

Table 2:

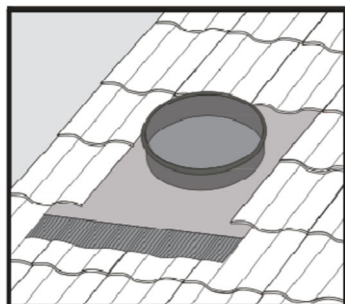
Type of the light tunnel (diameter in mm)	Square opening in the roof
ALLUX 250	diameter 300 mm
ALLUX 350	diameter 400 mm
ALLUX 550	diameter 600 mm



C. Mount the light tunnel tube to the top ring (5) of the roof frame:

- **For firm tubes Plus:** attach the prepared module of the firm tube using screws, wrap the connection using the included polyvinyl silver tape (8);

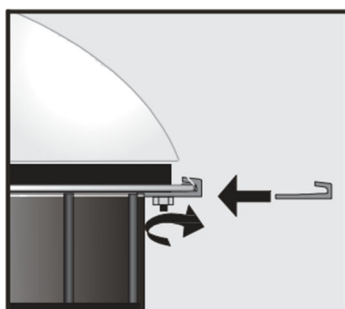
- **For flexible tubes Flexi:** measure the length of the tube that connects the roof part with the bottom roof part, set the tube on top of the upper ring (5), wrap the connection with the polyvinyl silver tape (8) and tighten using the tightening strip (6), finish the second part of the tube with the bottom ring - for more information see section 3.2.



D. Insert the roof frame together with the light tunnel tube into the opening in the roof and mount so that the condensation openings are located at the highest point.

See Annex 1 of the Installation Instructions

The roof steamproof film must tightly encircle the tube!

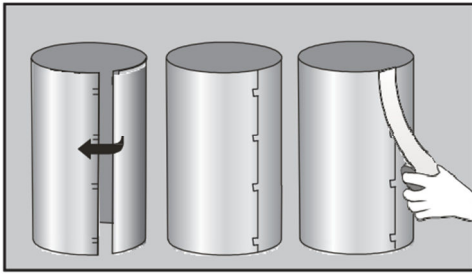


E. Fit the dome (1) onto the roof frame (4) so that the mounting openings cover the protruding screws. Insert the dome fixtures (2) and GENTLY screw them on using the included nuts (3).

ATTENTION! Do not clean the dome using agents containing alcohol, petrol, nitro.

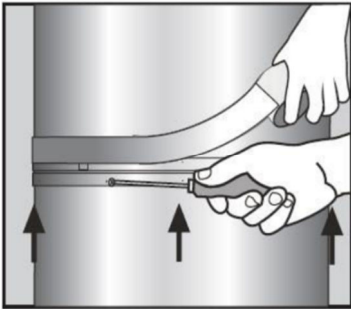
During the installation of the roof part and the dome, it is necessary to remove the protective film from the reflective ring (5) which is located inside the roof frame of the light tunnel. After removing the film, make sure not to make the inside (reflective) side of the reflective ring dirty.

3.1.a) FIRM MIRROR TUBE (tube PLUS)



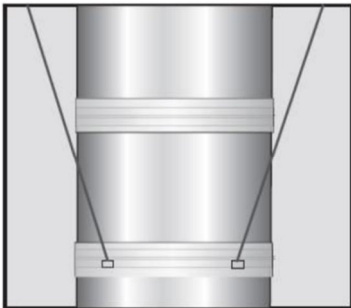
A. Remove the protective film from the light tube. During the installation, keep the inside (reflective) part clean. Connect the light tube (module 61 cm) by inserting edges into the slits.

B. Tape the area of connection of the tube using the attached polyvinyl silver tape (8).



C. In order to reach the desired length of the light tube (connecting the upper ring (5) with the roof frame (15)), connect the appropriate number of modules (61 cm) using the connecting rings (11) and by trimming the last (bottom) module to the desired length.

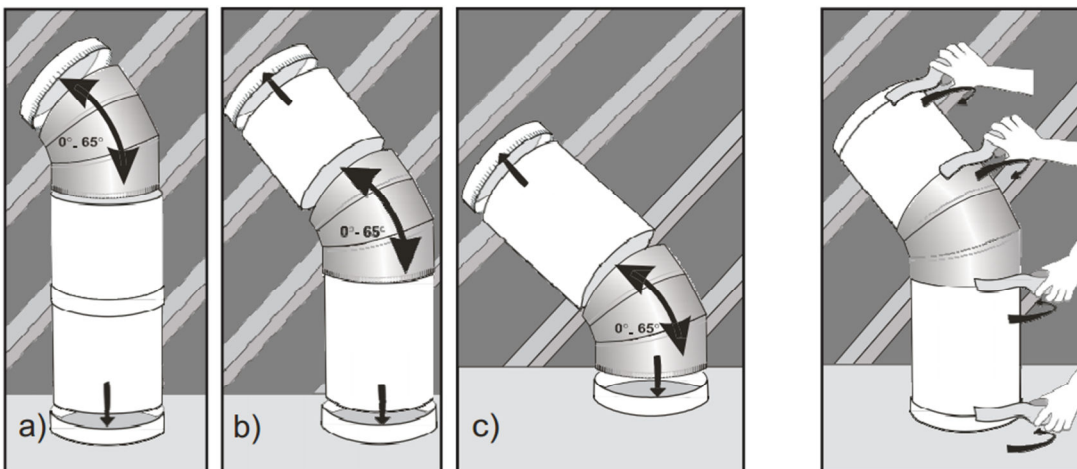
The connection consists in inserting the light tube into the connecting ring and screwing it on. Then, seal the connection using the polyvinyl silver tape.



D. If you are using multiple modules of the tube, we recommend to make the connected tubes more sturdy by suspending them on cords attached to the roof structure (cords are not included).

Attach (screw) the cord on the tube in the connecting ring (11).

3.1.b) Installation (connection methods) of the light tube Plus and the elbow Plus



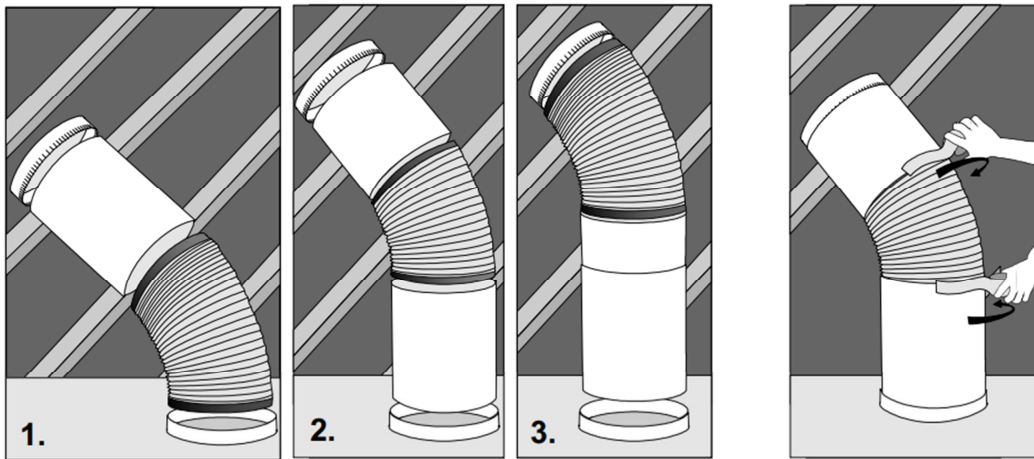
A. Depending on the location of the openings in the roof and the ceiling, determine the combination of light guiding parts (tube and elbow):

- a) elbow-tube;
- b) tube-elbow-tube;
- c) tube-elbow.

ATTENTION! Determine the angle of incline of the roof before ordering. The elbow can be bent by 0 - 65 degrees.

- B. Prepare the light tube with a certain length by connecting the correct number of modules of the Plus tube using the connection ring (11).
- C. Connect the opening in the roof with the opening in the ceiling using the elbow and the light tube.
- D. Use the polyvinyl silver tape (8) to strengthen the connection: top ring (5), elbow (9), light tube (10).

3.1.c) Installation (connection methods) of the light tube Plus and the elbow Flexi



A. Depending on the location of the openings in the roof and the ceiling, determine the combination of light guiding parts (firm tube and Flexi elbow):

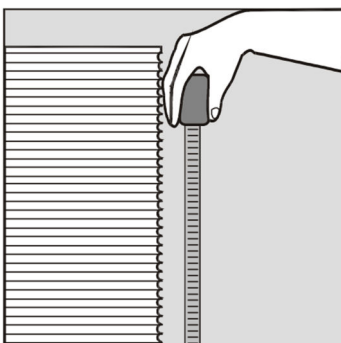
- 1) tube - Flexi elbow
- 2) tube - Flexi elbow - tube
- 3) Flexi elbow - tube

B. Pull the Flexi elbow over the firm Plus tube and firmly tighten using the polyvinyl silver tape (8).

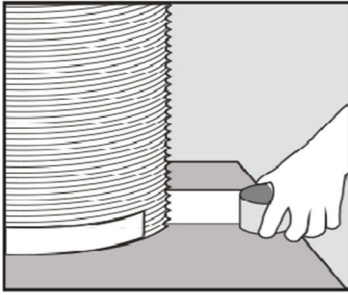
C. Using the flexible elbow and the firm Plus tube, connect the opening in the roof with the opening in the ceiling.

D. Use the polyvinyl silver tape (8) to strengthen the connection: top ring (5), flexible elbow and the light tube (10).

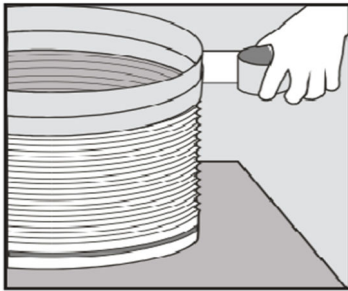
3.2. FLEXI LIGHT TUBE (flexible tube)



A. . Measure the distance between the roof opening and the bottom ring (14) taking into account the bend of the tube. Cut the Flexi light tube to the desired length. Cut through the tube with a knife, separate the steel wound wire using cutting pliers.

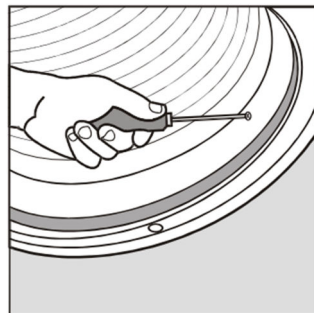
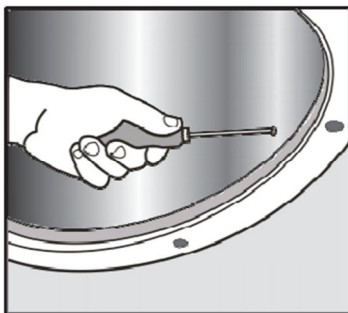


- B. Push one end of the Flexi light tube onto the upper ring (5) of the roof frame while two or three structural wrappings of the tube must be placed above the groove.
- C. Wrap the polyvinyl silver tape (8) three times around the connection point and the groove under the tightening strip (6).
- D. Put the tightening strip (6) on the groove and tighten firmly.



- E. Put the other end of the light tube on the bottom ring (14) and attach it using the polyvinyl silver tape (8) which must be wrapped around the ring at least three times.

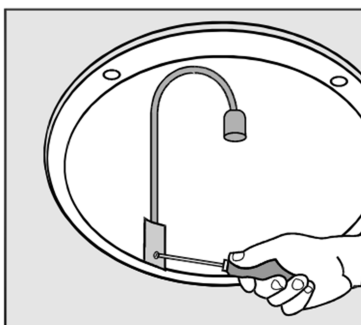
4. BOTTOM PART OF THE ALLUX LIGHT TUBE



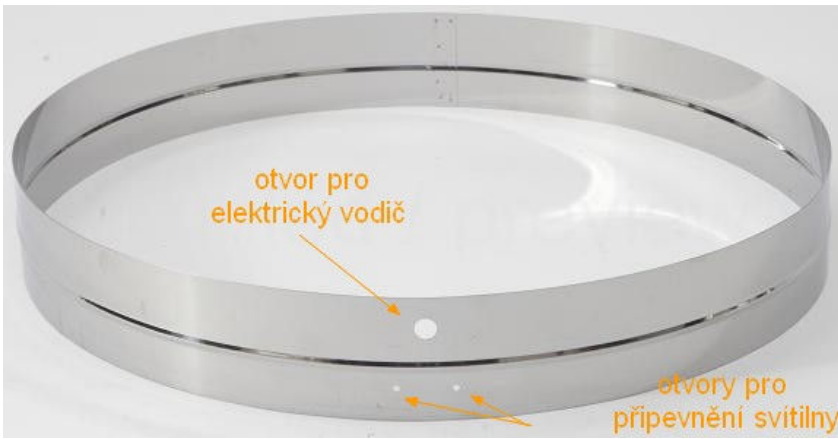
- A. Insert the bottom part of the Plus light tube (or the bottom ring (14) in the case of the flexible Flexi tube) into the ceiling ring (15) and attach it using screws.

Attention!! Remove the protective film from the inside of the bottom and upper rings

5. OPTIONAL ACCESSORIES - Light kit (bulb holder)



- A. Install the light kit (13) inside the light tube 5 cm from the edge of the ceiling frame. The light kit must be attached to the bottom reflective ring into preformed openings. Thread-cutting screws are necessary for the installation. In the case of a firm Plus tube, it is also necessary to use the bottom ring with preformed openings.



B. Connect the wire from the lighting unit holder to existing electrical wiring.

ATTENTION! !

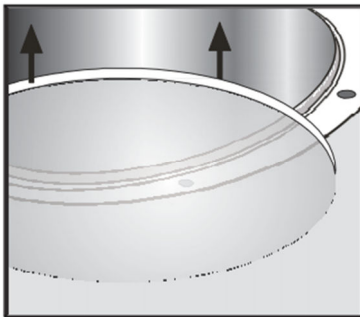
Such connection to the electrical wiring should be performed only by an authorised person. Only use energy efficient light bulbs (fluorescent lamps) or LEDs that emit less heat than incandescent light bulbs.

Light bulbs are not included.

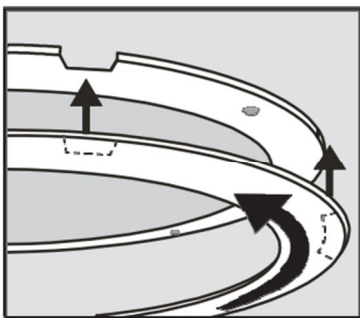
otvor pro elektrický vodič = opening for an electrical wire

otvory pro připevnění svítidel = openings for attaching the lighting unit

6. INSTALLATION OF A DIFFUSER OF THE ALLUX LIGHT TUNNEL

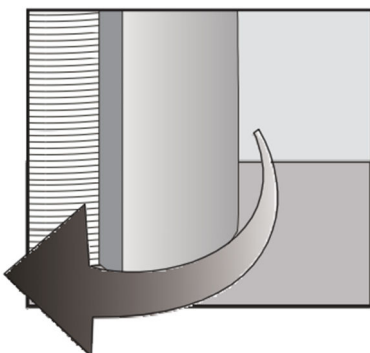


B. Place the set of diffusers in the seal (19) into the opening in the ceiling white circular frame.



C. Place the ceiling cover (18) on the roof frame (15) so that the tabs of the ceiling cover fit into the openings in the ceiling frame (15). Push and fasten by turning right or left (make sure that all tabs are fastened).

7. INSULATION OF THE TUBE



A. To ensure better thermal insulation, we recommend insulating the light tube and elbow using a mineral wool slab with a thickness of no more than 50 mm. To attach the mineral wool, just use the polyvinyl silver tape (wrapped around the tube).

If you use a thicker mineral wool, we recommend not to attach it to the tube, but instead to attach it from the inside as a "stack" (e.g. from OSB boards) built around the tube so that there is no load on the tube.



nepřehřát/nezapalovat = do not overheat / do not ignite

netlouci = do not use a hammer

nepoužívat agresivní chemikálie = do not use aggressive chemicals

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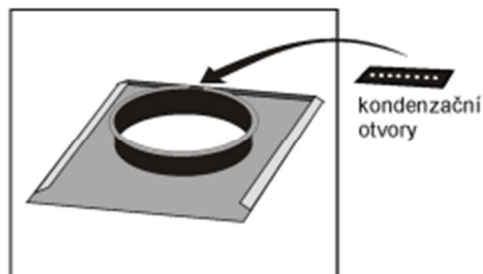
Annex 1 of the Installation Instructions

Modifications of the light tunnel roof frame when mounted into sloping roof with corrugated roofing

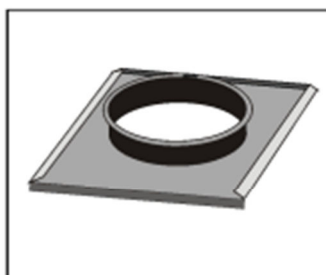
1. Bend the three edges (upper, left and right) of the sheetmetal element (sheeting)

Attention!

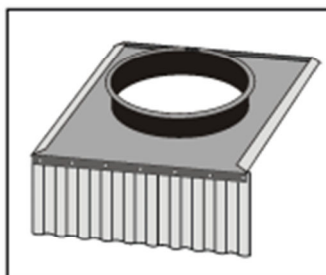
The condensation openings must be in the upper part of the roof frame.



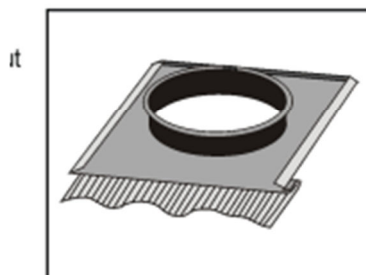
2. Bend the bottom edge down.



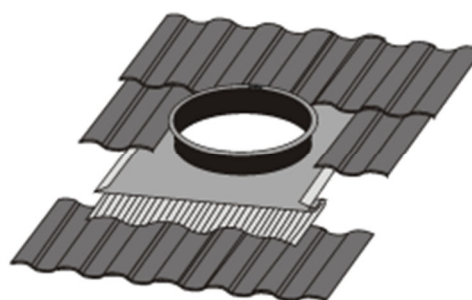
3. Attach the lead adaptor to the bottom edge.



4. Bend the edge with the attached lead adaptor to the bottom of the sheetmetal element.



5. Place the sheetmetal element (sheeting) with the lead adaptor on the tiles so that the top part is under the tiles and the bottom part (with the lead adaptor) is on the tiles. After removing the self-adhesive film from the lead adaptor, shape the adaptor on the tiles and attach firmly (this will prevent water penetration).



kondenzační otvory = condensation openings