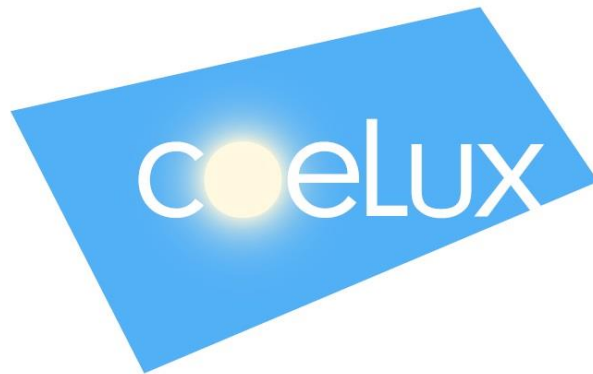


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Experience the Sky

Lighting unit

CoeLux[®] 45 SQUARE



User manual

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1 INTRODUCTION



NOTE:

Thank you for choosing a CoeLux product.

While thanking you for the preference you have shown us, we inform you that it is necessary to read carefully all instructions and warnings before using the unit. Preserve present guide for any future eventuality.

This manual must always be used and maintained in good conditions.

The manual is an integral part of the supplied unit and must therefore always accompany it, from delivery to demolition.

The illustrations and drawings should only be considered as general references and are not necessarily precise.

This manual consists of a total of 13 pages + annexes.

1.1 CONVENTIONAL SYMBOLS USED IN THE MANUAL



CAUTION !

This symbol means that the operator must pay great attention in order to avoid wounds and damages to the personnel, breaks or fire to the unit.



WARNING:

This symbol means that the operator must pay attention in order to avoid inconveniences to the personnel and / or possible damages to or bad running of the unit.



NOTE:

This symbol means specific technical indications or it emphasises important information.



This symbol shows the connection to parts or annexes of the manual, or the need to consult other different documents.

If necessary, other auxiliary symbols can be employed.

1.2 ABBREVIATIONS

Sec. = section

Chap. = chapter

Par. = paragraph

Fig. = figure

Tab. = table

2 CHARACTERISTICS

2.1 DESCRIPTION OF THE PRODUCT

CoeLux® 45 SQUARE is a recessed lighting unit: partially hidden by the false wall and the false ceiling, it artificially simulates natural light of sky and sun, even in a fully closed space. CoeLux® 45 SQUARE must be installed on the wall.

CoeLux® 45 SQUARE includes a LED light source, glass optical components, a CoeLux® plastic panel, all housed in a single metallic structure in the false wall, plus a mirror recessed in the false ceiling.



WARNING:

CoeLux® 45 SQUARE installation and use is limited to indoor environments that comply with essential requirements reported in the table below. It is forbidden any uneven use of the product, respect to restriction report in this guide, which may cause hazards to health and safety of people, animals and goods, and product malfunctioning. CoeLux s.r.l. is not liable for any injury to people, animals or goods derived from an incorrect installation and/or improper use of the product (or different from directives reported in the present guide).


For particularly severe environmental conditions (daily temperature range excide 15°C and maximum relative humidity higher than 60%) support machines for active air treatment are needed: please contact us for the scope.

2.2 TECHNICAL DATA AND CHARACTERISTICS

| Features | Measure unit | Value |
|--|----------------------|----------------------|
| MECHANICAL | | |
| Dark-box encumbrance on the wall | mm | 1675 x 691 x 2375 |
| | in | 65.9 x 27.2 x 93.5 |
| Overall dimensions | mm | 1685 x 1541 x 2375 |
| | in | 66.3 x 60.7 x 93.5 |
| Percived skylight dimensions | mm | 980 x 980 |
| | in | 36.8 x 36.8 |
| Weight | Kg (lb) | 300 (660) |
| ELECTRICAL (Projector) | | |
| Voltage (frequency) of supply | V (Hz) | 100 – 240 (50/60) |
| Connection | - | Phase + Neutral + PE |
| Maximum (typical) power consumption | W | 300 (270) |
| Insulation class | <i>IEC standards</i> | Class I |
| Marking | | CE, UL, FCC |
| ENVIRONMENTAL (equipment intended for internal use) | | |
| Minimum / maximum operating temperature | °C | 10 / 40 |
| Maximum operating relative humidity | % | 95 (not-condensing) |

Tab. 1 Data and features of the product

CoeLux® 45 SQUARE appears as a steel external case.

It may also be mounted on normally inflammable surfaces 



For all lighting data, please see the product technical sheet. Contact CoeLux S.r.l. to receive them or to receive further information and clarifications.

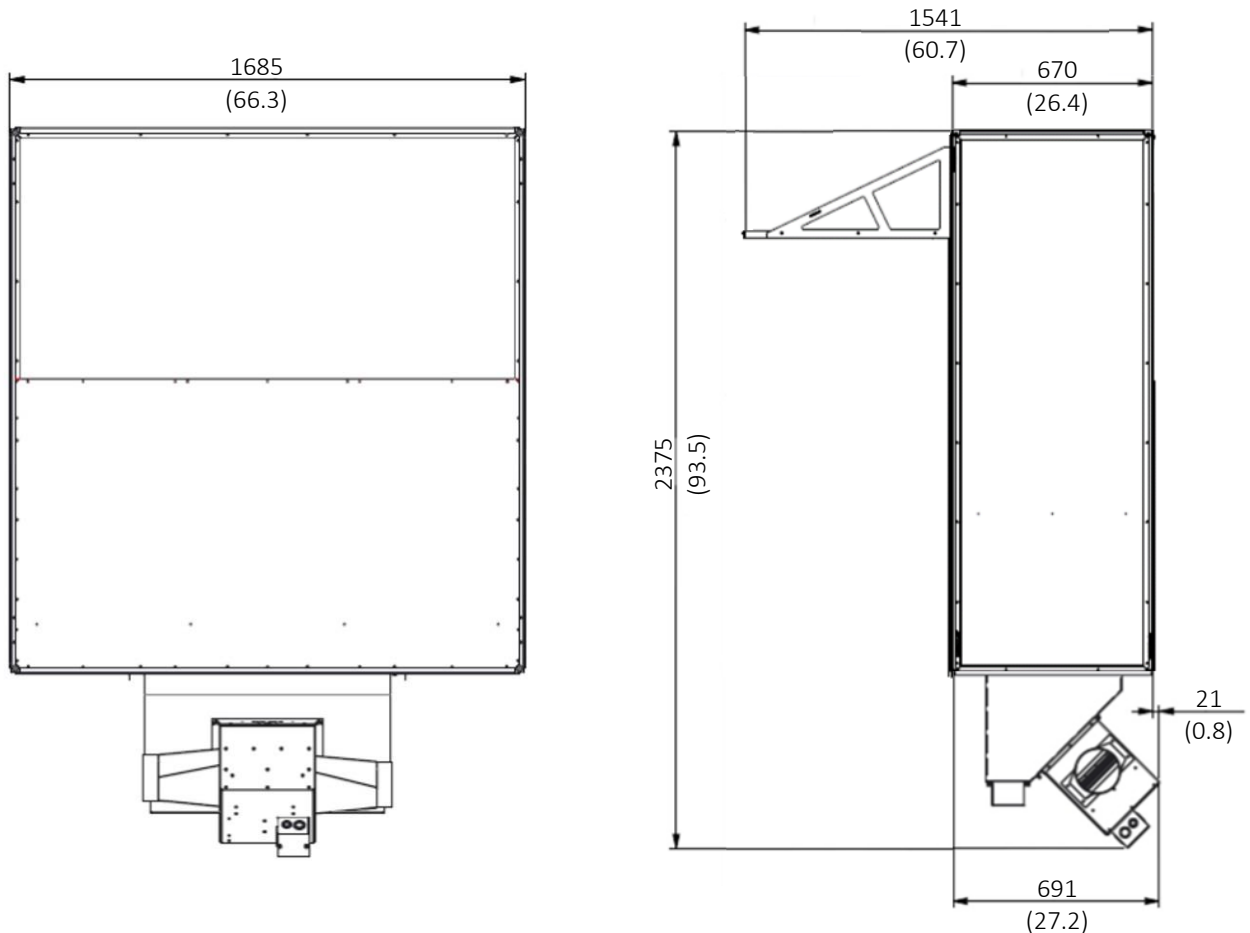


Fig. 1 Dimensions in mm (inch)

2.3 PRODUCT IDENTIFICATION

On the LED projector is located a label indicating the Serial Number and the Part Number; communicate these numbers to CoeLux S.r.l. for any request.

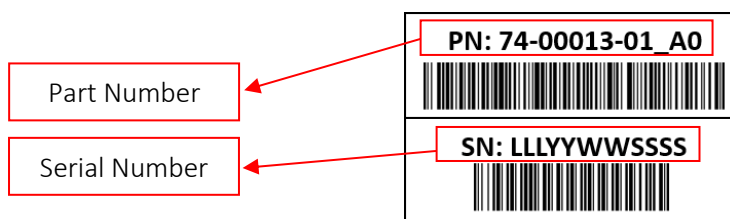
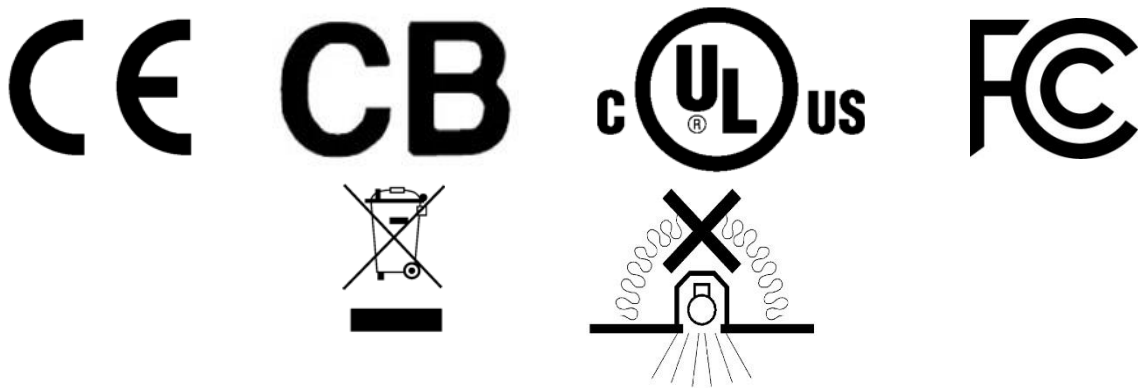


Fig. 2 Label with Part Number and Serial Number

2.4 STANDARDS

CoeLux® 45 SQUARE meets the essential requirements of 2014/35/UE, 2014/30/UE, 2011/65/UE, 2012/19/UE directives for which the relevant harmonised standards were applied.

Moreover, CoeLux® 45 SQUARE holds the UL certification for Canada and U.S.A. (File E476417) and FCC certification (in accordance with Cfr 47 part 15 – Subpart B- 15.107 e 15.109).



2.5 GENERAL SAFETY WARNINGS



CAUTION !

Read the entire user manual since it contains important information on correct installation and operation. Follow indications reported in the present guide to avoid fire and accidents during product installation and use.

The warranty is null and void in case of damages due to the inobservance of instructions and warnings reported in the present guide. CoeLux s.r.l. is not liable for any injury to people, animals or goods derived from inobservance of instruction and warnings reported in the present guide. Moreover CoeLux s.r.l. does not assume any responsibility derived from an incorrect installation and/or assembly (or different from directives reported in the present guide).



CAUTION !

Only personnel qualified by CoeLux s.r.l. can perform assembly, installation and inspection operations. Fixing operations of the product to the existing structure are demanded to qualified personnel (this qualification does not concerned CoeLux s.r.l.).




NOTE:

Some details concerning turning on the product or its operations in general may depend on choice made during assembly and/or installation.

- The product is not a toy and should be kept out of the reach of children! Install the product out of reach of children.
- Be careful not to leave packaging material unattended since it may be a hazardous toy for children.
- The product must be installed and used only in indoors and dry rooms, not exposed to humidity and damp.



WARNING:

- Do not install the unit in dirty (dusty) rooms where gas, vapours or dust are or may be found. Explosion risk! !
- Do not cover the system with thermal insulation materials:  In particular, the distance between each product surface and any insulating material present in the ceiling must exceed 76 mm (3 in) to maintain UL certification.
- The product may not be exposed to extreme temperatures, high vibrations or strong mechanical stress.
- The user is forbidden to make modifications to the electric equipment after product installation. It is forbidden to install any equipment to control light output.
- If safe operations are not deemed possible, the product may be put out of service and any incorrect handling should be prevented. Expert supervisor should be requested. The correct working of the system is no longer considered possible when:
 - the product is visibly damaged;
 - the product does not operate or operate incorrectly (blinking light, smoke or odour exhaust, audible crackling, product or surrounding surface decolouration);
 - the product was stored in unfavourable conditions;
 - the product is worn or has been damaged by transport.
- For further questions, please contact CoeLux S.r.l. (see the last page of this manual).

2.5.1 OPERATIONS TO BE AVOIDED

- Altering the unit or its parts, even partially, if not first expressly agreed (writing authorization) with the manufacturer; the manufacturer is not liable for any consequences derived from unauthorized changes of the product operated by customer and/or installer and/or other subjects. Moreover product alterations also null and void warranty and certifications;
- Opening the case before cutting off power.
- Performing improper or hazardous operations.
- Obstructing ventilation or heat dissipation slots.
- Using flammable liquids near the unit.
- Installation or repairs done by unqualified personnel.
- Walking over, hanging on or leaning on the system during all phases of product life.
- Turning on and off repeatedly the system into a period of time of 30 seconds.



WARNING:

The replacement of the light engine is forbidden for the user.

3 STORAGE

Store unassembled unit in a closed room, protected from the weather, with the following environmental characteristics:

- Temperature between -20 °C and +50 °C.
- Relative humidity less than 30% at 40 °C and 90% at 20 °C and, in any case, non-condensing.
- Atmosphere with clean air, without acids, corrosive gases, salts, etc.

The unit must be carefully protected against dust and direct sunlight using an adequate protective cover and protected against potential accidental collisions.

4 OPERATIONS AND USE

CoeLux® 45 SQUARE is an innovative lighting device; it uses a LED source, an optical system and the CoeLux® panel to produce an artificial window, naturally lighting the room like a real sunlit window.

CoeLux® 45 SQUARE use is limited to turning on and off the device by the switch mounted during installation.

See the CoeLux S.r.l. technical sheet and information material supplied by CoeLux S.r.l. for best product results.



CAUTION !

It is forbidden to install any equipment to control light output (dimming, colour control, etc.). When looked at it directly, the LED light source may cause glaring feelings. In order not to be dazzled, do not look into the window while switching the system on. Pay great attention! If correctly installed, CoeLux® 45 SQUARE does not cause any hazards to the human eye and vision.



WARNING:

The LED light source is RG1 class as per EN 62471 regulations due to the emitted blue light, and hazard signals, as per IEC/TR 62471-2 regulations, are not required. To prevent annoying reactions (glare, *afterimage*, etc.) that are normal and temporary, we recommend not to stare at the light source for long periods of time, and not to allow people with limited abilities or mobility (children, the elderly, handicapped, bedridden patients) to be in this situation.

5 MAINTENANCE



CAUTION !

- Before beginning any routine or extraordinary work on the unit, cut off the unit from the electric power mains.
- To access the highest parts of the unit, use appropriate means to perform the work. Do not climb on unit's parts since delicate and not designed to support people.
- Never leave tools, equipment or other improper materials on or inside the unit.

The manufacturer is not liable for inobservance of the listed recommendations. Warranty is void and null if are not carried out ordinary and extraordinary maintenance operations in compliance with prescriptions reported in the present guide. Moreover, the warranty is void and null for using of non-original spare parts or maintenance operations performed by unauthorized person of CoeLux s.r.l.

5.1 GENERAL INSTRUCTIONS

CoeLux® 45 SQUARE is designed for continuous use for a long period of time and requires minimal supervision. In adequate operating conditions that follow environmental prescriptions of *table 1*, maintenance needs are minimal; ordinary maintenance by qualified personnel especially depend on the environmental conditions in the room where CoeLux® 45 SQUARE is installed. Always contact CoeLux S.r.l. or an authorized installer for service and repairs.

5.2 ORDINARY AND SCHEDULED MAINTENANCE

5.2.1 CLEANING

To minimize the need for cleaning, keep the room as clean as possible following standard procedures.

Vacuum dust in both the compartment where the product is housed (if accessible) and in the space where the light is projected. Routine cleaning is essential to maintain product performance. Limit temperature changes and rising humidity. Humidity condensation events, even after installation, null and void the warranty and facilitate the formation of dirt that cannot always be removed.

5.2.2 OTHER WORK

Clean every month the CoeLux® panel (if necessary) and replace Silica-gel every 12 months (asking to CoeLux S.r.l for a new kit).

If operating or specific installation conditions are especially severe, we recommend more frequent controls. If large amounts of dirt or dust are found, continuously or even within limited periods of time, perform more frequent controls and ask to CoeLux for a supervision. In the event of high humidity or temperature changes, check product performance. In the event of visible

water leaks, immediately cut off power, dry all accessible wet components and call for service by qualified personnel of CoeLux s.r.l.

5.2.3 SILICA-GEL REPLACEMENT

Through the false wall removable zone, access to the silica gel box.

- 1 Remove nuts [19] of the silica-gel box [20].
- 2 Remove the silica-gel box [20].

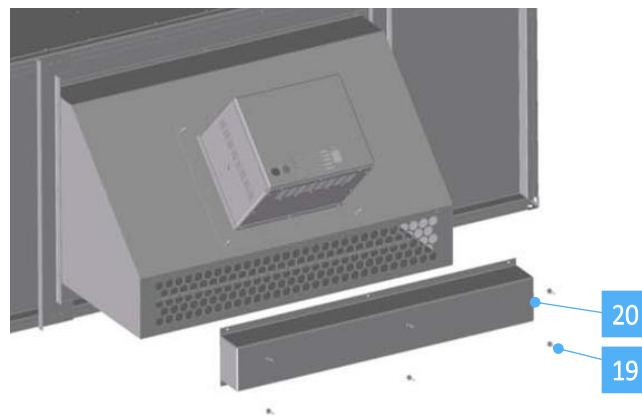


Fig. 3 *Silica-gel box removal*

- 3 Open the package containing the the six 0,5 kg bags of silica-gel and insert them in the box [20] without overlapping them. Than install the box on the main unit using the fastening nuts [19].

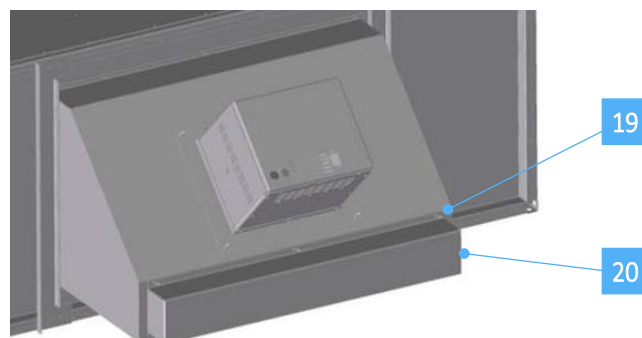


Fig. 4 *Silica-gel box re-assembly*

5.3 EXTRAORDINARY MAINTENANCE



WARNING:

Warranty is null and void in case of extraordinary maintenance performed without authorization of Coelux S.r.l. or authorised technician.

In the event of product contamination:

- cut off device power;
- be careful that wires and electrical parts do not come into contact with water or detergent;
- follow the initial cleaning instructions.

If necessary:

- Clean fans.
- Clean the Coelux[®] panel.
- Clean mirrors.
- Clean support machine filters (if present).
- Check hanging system.
- Remove internal dirt.
- Realign mirrors.
- Realign the structure.
- Repaint internal parts.
- Replace the LED projector.
- Replace the Coelux[®] panel.

Restart the product proceeding as with initial assembly.

5.4 TROUBLESHOOTING

| Symptom | Possible cause | Recommended action |
|-------------------------------------|-----------------------------------|---|
| The product does not emit light. | Mains supply fault. | Make sure the product is correctly powered. |
| | The room temperature is too high. | Let air circulate to cool down the light source. Do not obstruct the air circulation vents. |
| | For other cases. | Contact CoeLux S.r.l. for replacement. |
| The amount of light varies in time. | The room temperature is too high. | Make sure room temperature is within the admitted limits, otherwise contact CoeLux S.r.l. |

Tab. 2 Troubleshooting

5.5 REINSTALLATION AND REUSE

To assess the possibility and convenience of reinstalling and reusing the product, contact CoeLux S.r.l.

5.6 DEMOLITION AND DISPOSAL

CoeLux 45 SQUARE meets directive 2012/19/UE regarding management and disposal of electrical and electronic equipment waste.

When the product has exhausted its life cycle, will not have to be disposed as domestic urban waste. Municipalities organize properly collection centers for electrical and electronic waste from whom you can dispose the product for free at the end of its life. If you purchase a new equivalent product you may decide to return to the vendor the usage unit; the vendor will provide the free withdrawal and disposal. To avoid dispersion of hazardous materials in the environment (that may cause negative effect to the same environment and to human health), we recommend respecting scrupulously all usage and disposal regulations of the product. Moreover, respecting these regulations you promote sustainable reuse of materials.



Symbol of the crossed trash  indicates that CoeLux 45 SQUARE is recyclable and is subject to the different collection of electrical product waste.

Contact municipalities or local waste disposal service or distributor for information on treatment, recovery and recycling of this product.

All packaging is completely recyclable, and it is marked with recyclable symbol. Keep out of reach of children and animals packaging materials because potentially dangerous.

6 PUNTO di CONTATTO

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7 COPYRIGHT

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This manual corresponds to the technical conditions at print date. The company reserves the right to change the text, images and data as well as in terms of technology, equipment or updates of regulatory requirements. Please contact us for hints or corrections to improve guide utility.

Coelux® 45 SQUARE is also covered by patents: visit the site www.coelux.com for more information.

8 EDITIONS HISTORY

| Date | Edition | Note |
|------------|---------|---------------------------------------|
| 20/04/2015 | 01 | First issued of the document |
| 10/05/2016 | A0 | Approved by G. Giobbio and D. Magatti |
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