



THE COMPLETE BUYER'S GUIDE

WINTERGARDENS & GLASS CANOPIES

Design well. Specify correctly. Buy with confidence.

SOLARLUX | INDEPENDENT UK BUYER GUIDANCE

Start with the way you want to live

Define the purpose before the product

A glazed structure can be a sheltered place for morning coffee, an outdoor dining area, a garden room, or a genuinely heated extension to the house. Those uses sound similar in a photograph but demand very different specifications. Write down how often the space will be occupied, whether it must feel comfortable on a cold January evening, and whether the existing external doors will remain in place. The answer determines whether a thermally insulated wintergarden or a non-insulated canopy/glass house is the more appropriate starting point.

The essential distinction

Solarlux explicitly distinguishes a wintergarden - a thermally insulated glazed extension - from a glass canopy or glass house, which is non-insulated. A canopy may have side glazing, lighting and radiant heaters; those additions do not make it equivalent to a heated internal room. Conversely, a wintergarden should be treated as part of a complete building-envelope design, not merely a roof with expensive doors. The distinction affects comfort, energy strategy, interfaces with the house, and regulatory review. [1]

Map the real activities

Sketch the furniture at its actual dimensions. A dining table needs chair-pullback and circulation space; a sofa arrangement needs room to pass without opening a door; a kitchen or hot-tub concept brings ventilation, moisture and services questions. Decide whether you want a fully open connection to the garden or protection from prevailing winds. A glass roof can look generous from outside yet feel constrained if roof beams, posts, blinds or drainage routes have not been allowed for.

A useful brief

Record the approximate width and projection, preferred roof form, orientation, desired opening width, privacy requirements, use in each season and whether the project is attached or freestanding. Add a budget range including building works rather than just glazing. Treat any product selection at this stage as provisional until survey, structural checks and a coordinated design have been completed.

BUYER TAKEAWAY Ask yourself: Is this primarily an external sheltered terrace, or an internal room that must perform like the rest of the house?

Choose the correct structure

An open glass canopy

A canopy is primarily a glazed roof supported by an engineered frame. It protects against rain falling from above but cannot stop wind-driven rain entering through open sides. It can suit an outdoor dining terrace, a sheltered entrance to the garden or a seating area where occupants accept changing outdoor temperatures. Solarlux offers attached and freestanding options; the exact arrangement must be confirmed for the chosen system. [2]

A glazed glass house

Adding vertical slide-and-turn, sliding, folding or fixed panels to a canopy can provide considerably more weather protection. Opening systems can allow the enclosure to be stacked back in summer. But the enclosure remains non-insulated unless an entirely different thermally insulated system has been specified. On a cold or damp day, occupants may still need appropriate clothing or local radiant heat. Be wary of any quotation that describes a non-insulated glass house as a fully heated habitable extension without explaining the consequences. [1][2]

A thermally insulated wintergarden

A wintergarden is the option to investigate when the goal is an internal-style room for regular year-round occupation. It brings together insulated roof construction, thermally appropriate vertical glazing, ventilation, shading, weather seals and a carefully designed junction with the existing building. Solarlux describes wintergardens as glazed extensions that can incorporate insulated folding or sliding doors. The final design still requires a project-specific assessment of thermal performance and summer comfort. [3]

Do not buy by appearance alone

Two schemes can have almost identical slim frames and transparent elevations but behave differently in winter. Ask for the precise roof-system name, glazing build-up, thermal-bridge strategy, and opening-system specification. A generic label such as "glass room" is not a technical specification. Confirm which parts of the enclosure are intended to be weather-tight, thermally insulated and accessible for maintenance.

BUYER TAKEAWAY Buyer test: Ask the supplier to state in writing whether the proposed structure is insulated or non-insulated.

Understand the Solarlux system families

Wintergarden systems

The Solarlux UK systems overview lists SDL Akzent plus, SDL Avalis, SDL Akzent Vision, SDL Avantgarde and SDL Nobiles under insulated wintergarden roof systems. Their appearance, materials and roof forms differ, so they should not be treated as interchangeable. For example, the SDL Akzent plus product page identifies a thermally insulated roof system with pitches from 5 to 45 degrees, while SDL Avantgarde combines timber internally with weather-protective aluminium externally. [4][5][6]

A contemporary flat-roof approach

SDL Avalis is presented as a thermally insulated, cubically designed wintergarden roof system, with concealed drainage and a minimum fall described by Solarlux as 2% over the pitch insulation. Its published material discusses integration with bi-folding and cero sliding systems. That percentage is not a universal minimum for all glazed roofs and must not be transferred to another system. [7]

Glass canopy systems

The UK systems overview identifies SDL Acubis, SDL Atrium plus, SDL Aura and SDL Alerio in the non-insulated canopy/glass-house family. SDL Acubis has a very low-looking roof with a published 2-degree pitch; SDL Alerio has a mono-pitch form described as 5 to 20 degrees. SDL Atrium plus is associated with larger or more varied roof configurations. These figures describe particular systems, not permissions to ignore site drainage or structural design. [4][8][9][10]

How to shortlist

Start with the desired architectural language: flat-looking, mono-pitch, pitched or more complex. Then test the structure against the existing wall height, allowable projection, required headroom, roof drainage, access and opening panels. Ask for the current technical data sheet and a dimensioned drawing for the actual system proposed. Some detailed Solarlux technical downloads require a mySolarlux account, so do not assume every design limit can be verified from the public website. [7][8]

BUYER TAKEAWAY Practical rule: Select by intended use and project constraints first; refine sightlines and appearance second.

Survey, structure and foundations

What a competent survey should establish

A reliable quotation depends on more than a width and a depth. The survey should establish wall construction, existing lintels and openings, levels, drainage outlets, underground services, roof/eaves geometry, neighbouring boundaries, and safe access for delivery and lifting. Older properties may contain irregular masonry, concealed steelwork or poor substrate. Do not assume a structure can simply be bolted to an existing wall without confirming that wall can carry the imposed loads.

Loads need engineering

The structure must be designed for relevant actions including its own weight, glass weight, wind and snow loads, and any project-specific maintenance or imposed loads. The load path runs from glass to rafters, beams, posts, fixings and ultimately suitable foundations or supporting construction. A slim post may look effortless in a photograph, but its size, connections and foundation requirements are engineering decisions. Ask who is responsible for structural calculations, who checks the existing building, and whether calculations are included in the price.

Foundations and tolerances

Ground-bearing conditions vary. Foundation depth and form should follow ground investigation or suitable engineering assessment where required, not a blanket brochure detail. Allow for movement, waterproofing, floor build-ups and the exact level of the finished terrace. Sloping gardens and stepped thresholds can materially affect post lengths and drainage. Establish acceptable installation tolerances and who pays for corrective work if the supporting structure is out of tolerance.

Wall junctions and movement

The interface to the house is a frequent source of leaks and disputes. Details should show flashings, membranes, sealant joints, thermal continuity where relevant, cavity trays where needed, and allowances for movement. Any existing damp-proof course, cavity or roof drainage must be considered. Ask for a coordinated interface drawing before work starts; "the installer will seal it on site" is not an adequate substitute.

BUYER TAKEAWAY Ask for: survey drawings, structural responsibility matrix, proposed foundation approach and a signed-off wall-interface detail.

Glass specification and safety

Not all glass does the same job

Roof glazing has different safety and performance considerations from a vertical door. The designer should select an appropriate safety-glass build-up for its position, span, support conditions and breakage behaviour. Laminated glass can help retain fragments if broken; toughened glass has different fracture characteristics. The correct combination depends on the design and applicable standards. Avoid specifying a roof solely by quoting a thickness from another project.

Thermal and solar properties

For an insulated wintergarden, request the proposed insulated glass-unit construction and relevant performance values. U-values describe heat transfer, while solar factor or g-value indicates the proportion of solar energy transmitted. Visible-light transmission is a separate characteristic. A very clear roof may deliver excellent daylight yet also create glare or overheating. A lower solar factor may help in exposed orientations but can reduce beneficial winter solar gains. The correct balance is project-specific.

Overhead and vertical glazing

Ask whether overhead glazing includes solar-control coatings, low-emissivity coatings, gas fill, warm-edge spacers and appropriate safety interlayers. For a canopy, the roof is not necessarily an insulating envelope, but safety, appearance, solar gain and cleaning still matter. For vertical panels, ask about safety glazing in critical locations, security requirements where applicable, opening clearances and the way doors drain at the threshold.

What the quotation should disclose

A good specification identifies each glass type by location, nominal make-up, coatings where specified, safety treatment, insulating-unit configuration if applicable, and any performance targets. It should explain whether values apply to centre-of-glass, the glazing unit or the entire installed element. Do not accept an unsupported claim that a system is "triple glazed" as proof that the complete extension will meet a particular thermal target.

BUYER TAKEAWAY Ask for a glazing schedule, not just the phrase "high-performance safety glass".

Orientation, heat and year-round comfort

Start with the sun path

The direction a glazed space faces influences both enjoyment and comfort. Solarlux notes that north-facing wintergardens generally receive even indirect light but can need more winter heating; east-facing spaces enjoy morning sun; south-facing rooms need careful summer shading and ventilation; and west-facing rooms can receive intense afternoon and evening sun. Nearby buildings, trees and roof overhangs may alter these patterns substantially. [11]

Overheating is a design issue

A wintergarden is not automatically comfortable just because its roof and doors are insulated. Solar gain through a large glazed roof can raise indoor temperatures significantly. Evaluate external shading, glazing selection, operable roof vents, opening doors, background ventilation and, where appropriate, active cooling. Solarlux specifically discusses roof hatches, tilting or sliding windows, external awnings and automatic controls responding to environmental conditions. [12]

Glass canopies also get hot

A canopy can feel hot beneath the roof on a still sunny day, particularly if its sides are enclosed. Opening the vertical panels can help release heat, but the practicality of leaving them open depends on wind, security and rain. Integrated awnings and suitable ventilation should be considered early, because retrofitting them later may be more awkward or expensive. An infrared heater can improve local comfort in cooler weather; it does not turn an uninsulated glass house into an insulated room. [1][13]

Use a comfort brief

Ask the designer to describe how the space is expected to behave on a bright summer afternoon, a cold winter morning and a damp windy evening. For an insulated extension, discuss a credible overheating assessment and the intended heating/ventilation strategy with the building designer. For a canopy, describe the expected comfort honestly as sheltered outdoor living. Avoid claims that any one product will be "comfortable 365 days" without qualifications.

BUYER TAKEAWAY Essential question: What is the overheating strategy, and which components are included in the quotation?

Ventilation, condensation and moisture

Ventilation is not an optional accessory

Glazed rooms can trap warm air near the roof. Effective ventilation may require both lower-level incoming air and higher-level exhaust openings, combined with opening doors. Solarlux describes roof vents, roof hatches and automated opening systems for wintergardens, alongside ventilation and shading accessories for canopies. The appropriate layout depends on roof geometry, wind exposure, internal use and whether the room forms part of the dwelling. [12][13]

Condensation has multiple causes

Water on glass can result from high indoor humidity, cold surfaces, inadequate ventilation or thermal bridging. It should not automatically be dismissed as a glazing defect, nor should persistent condensation automatically be blamed on occupant behaviour. A heated wintergarden needs coordinated insulation, airtightness, moisture control and ventilation. A non-insulated glass house may experience condensation under some conditions because its surfaces can follow outdoor temperatures more closely.

Rainwater is a separate system

Rainwater must have a clear route from the glass to gutters, outlets and suitable discharge points. Ask whether drainage is exposed or concealed, where downpipes emerge, how outlets can be cleaned, and what happens in an extreme rainfall event or if an outlet blocks. Do not assume a concealed gutter is maintenance-free. A low-pitch roof is especially dependent on correct detailing, construction tolerances and drainage performance.

Special-use spaces

Hot tubs, indoor planting and cooking equipment can add substantial moisture or fumes. Such uses should be disclosed at concept stage so that ventilation, materials, electrical safety and local requirements can be evaluated. For outdoor kitchens, fire separation, appliance clearances and manufacturer instructions also matter. The ability to place a table beneath a canopy does not imply every cooking or heating appliance is suitable beneath it.

BUYER TAKEAWAY Before sign-off: Request a ventilation diagram and a roof-water drainage diagram.

Doors, access, shading and controls

Choose openings by how you use them

Sliding doors preserve clear circulation space but normally retain some fixed overlap. Bi-folding doors can open a wide elevation, though stacked leaves need room. Slide-and-turn systems can allow panels to park to one side. Ask for a plan showing the fully open and fully closed positions, panel stack, furniture clearance and usable passage width. A photograph of a completely open elevation may conceal a stack that would be awkward on your site.

Match openings to the enclosure

Solarlux identifies thermally insulated folding and sliding options for wintergardens, while its canopy/glass-house family offers non-insulated vertical glazing systems. Ensure the vertical glazing specification matches the intended insulated or non-insulated enclosure; mixing product categories without understanding the consequences can compromise the overall brief. [4]

Shading and lighting should be designed early

External awnings can intercept solar radiation before it reaches the glass, while internal blinds can help with glare and privacy. Wind exposure may affect whether an awning can remain deployed. Solarlux offers integrated lighting, shading and, for certain canopy arrangements, radiant heating and control options. These are selectable accessories rather than features to assume are included. [2][12][13]

Controls, power and maintenance

Decide whether roof vents, awnings and lighting will be manual, wired or motorised. If motorised, ask where power supplies, switches, sensors and controllers will be located, how they are accessed for servicing and how the system behaves during a power failure. Rain and wind sensors are useful but should not replace appropriate design or maintenance. Clarify commissioning and handover responsibilities, including programming and demonstration.

BUYER TAKEAWAY Ask for a complete openings schedule and an accessory schedule marked "included", "optional" or "excluded".

Planning permission and building regulations

Two separate questions

Planning permission concerns whether the development is acceptable in planning terms; building regulations address applicable construction and performance requirements. Permission under one regime does not imply compliance with the other. In England, some house extensions can qualify as permitted development, but this depends on dimensions, location, the type of property, earlier extensions and restrictions. Flats and maisonettes do not enjoy the same householder permitted-development rights. Always confirm the position for the actual site. [14]

Do not assume a conservatory exemption

Planning Portal explains that conservatories can be exempt from certain building-regulations requirements only when relevant conditions are met, including ground-floor location, area below 30 square metres, separation from the house by external-quality doors/windows/walls, and appropriate treatment of heating, glazing and electrics. Opening up the existing external wall can create separately controlled work even if the conservatory itself would otherwise qualify for an exemption. These are conditions to assess, not a shortcut applicable to every wintergarden. [15]

Other permissions and constraints

Conservation areas, listed buildings, Article 4 directions, previous planning conditions and proximity to boundaries can alter what is possible. Work affecting a party wall, boundary or adjoining structure may engage separate legal obligations. A canopy attached to the house may also need planning review. Check drainage permissions, protected trees and any leasehold/freeholder consents. The applicable rules differ across the UK nations, so this guide uses England as the starting point rather than claiming a universal UK answer.

The correct sequence

Before ordering, obtain a dimensioned proposal and ask a qualified architect, planning consultant or local planning authority to assess the route to permission. Confirm who will prepare applications, structural calculations and building-control submissions. The contract should state who carries the approval risk, whether deposits are refundable if permission is refused, and what changes will be priced separately.

BUYER TAKEAWAY Important: This is general guidance for England, not a determination that your project is permitted development or exempt.

What a complete quotation must include

Compare like with like

Two proposals that look similar on the front page may have very different scopes. One may include structural calculations, foundations, roof glazing, drainage and controls; another may price only the aluminium and glass. Ask for a clear schedule of inclusions, exclusions, provisional sums and client responsibilities. A cheaper headline price is not a meaningful saving if essential work is missing.

The cost drivers

Project size, span, roof shape, glazing build-up, access, structural steelwork, foundation conditions, wall alterations, opening-system choice, shading, automation and finishes can all change the cost. There is no responsible universal price per square metre for a bespoke project without a defined specification and site conditions. Be particularly cautious of allowances for scaffolding, lifting, electrical work and drainage that have not been surveyed.

Programme and payment

Ask for a programme showing design freeze, approvals, technical survey, manufacture, site preparation, delivery, installation, glazing, commissioning and snagging. Confirm which stages depend on planning or building-control approval and which depend on other contractors. The payment schedule should align with defined milestones and state how variations are approved. Do not assume an advertised installation duration includes foundations, approvals or manufacture.

Guarantees and responsibilities

Obtain written details of product warranties, installation workmanship cover, exclusions, maintenance obligations and who handles a fault after completion. Ask whether the installer is responsible for water tightness at the building interface or only for the proprietary structure. Request evidence of appropriate insurance and competence for the work. A single accountable lead contractor can simplify interfaces, but the contractual responsibilities still need to be explicit.

BUYER TAKEAWAY Never sign until the drawings, glass schedule, structural scope, drainage, accessories and exclusions match your expectations.

Installation, handover and long-term care

Before installation

Confirm that survey dimensions are signed off and the site is ready. Check foundation levels, structural openings, finished floor heights, delivery routes and safe lifting access. Agree protection for existing paving, planting and internal finishes. If separate trades are involved, appoint someone to coordinate the sequence and inspect interfaces before they are concealed.

During the works

The frame must be installed to the system requirements, including fixing types, alignment, movement allowances, glazing supports and seals. Roof glazing should be handled and supported in accordance with the approved design. Water-management components must not be improvised because a gutter, flashing or outlet is awkward on site. Photograph critical concealed interfaces for the handover record. Changes to openings or structure should be reviewed by the responsible designer.

Commissioning and demonstration

Before acceptance, operate every door, vent, awning, light and control. Inspect thresholds and drainage outlets; confirm that opening panels clear furniture and finishes. Check the visual condition of glass and coatings under reasonable inspection conditions, and record defects in a snagging list. Request manuals, drawings, glass information, control instructions, keys, warranty documents and emergency/manual operating procedures where relevant.

Maintenance is real

Low-maintenance aluminium does not mean no maintenance. Keep drainage channels and outlets clear, clean glass using appropriate methods, inspect accessible seals and fixings, and service moving components in accordance with the manufacturer/installer guidance. Exposure to salt, trees, pollution and severe weather can alter cleaning needs. Ask how roof glazing and high-level awnings can be reached safely: a design that cannot be cleaned or serviced economically may be the wrong design.

BUYER TAKEAWAY At handover: Collect as-built drawings, warranties, maintenance guidance, commissioning records and a named aftercare contact.

Decision checklist and next steps

Confirm the brief

Can you describe the intended use in one sentence? Have you agreed whether it is a sheltered external space or a thermally insulated extension? Have you decided on the acceptable level of weather protection, winter comfort, privacy, opening area and maintenance? Does the proposed furniture actually fit in the dimensioned plan?

Confirm the design

Is the exact Solarlux roof system identified? Are roof pitch, structural support, glass build-up, wall junctions, drainage and ventilation shown? Are summer overheating and solar control considered? Are the doors and awnings shown in their open positions? Has a competent designer checked loads, fixings and foundations?

Confirm the legal route

Has the site-specific planning position been assessed? Has someone identified the applicable building-regulations route, including whether an exemption genuinely applies? Are conservation, boundary, party-wall and drainage matters resolved where relevant? Is the responsibility for applications and approval costs clear?

Confirm the contract

Are the drawings and specification incorporated into the quotation? Are foundations, enabling works, electrics, drainage, access equipment and finishes included or explicitly excluded? Is the programme realistic? Are deposits, variations, warranties, insurance and aftercare documented? Does the proposed design still meet the original use case after all cost reductions?

BUYER TAKEAWAY The right result is not the most glass or the thinnest frame: it is a structure that suits the property, performs as expected and is properly delivered.

Research sources and important limitations

Product descriptions and the cited system-specific roof-pitch figures have been checked against public Solarlux manufacturer pages. The remainder is general professional buying guidance, not a project-specific engineering design, regulatory decision or guarantee of performance. Manufacturer details can change; request current project-specific technical documentation before ordering.

Official manufacturer and public guidance

- [1] Solarlux UK - Difference between glass canopy/house and wintergarden
<https://solarlux.com/en-gb/news-press/products/2020/difference-between-glass-canop.html>
- [2] Solarlux UK - Glass canopies
<https://solarlux.com/en-gb/products/glass-canopies.html>
- [3] Solarlux - Wintergardens
<https://solarlux.com/en/products/wintergardens.html>
- [4] Solarlux UK - Architectural glazing systems overview
<https://solarlux.com/en-gb/systems.html>
- [5] Solarlux UK - SDL Akzent plus
<https://solarlux.com/en-gb/systems/sdl-akzent-plus.html>
- [6] Solarlux UK - SDL Avantgarde
<https://solarlux.com/en-gb/systems/sdl-avantgarde.html>
- [7] Solarlux UK - SDL Avalis
<https://solarlux.com/en-gb/systems/sdl-avalis.html>
- [8] Solarlux UK - SDL Acubis
<https://solarlux.com/en-gb/systems/sdl-acubis.html>
- [9] Solarlux - SDL Alerio
<https://solarlux.com/en/systems/sdl-alerio.html>
- [10] Solarlux - SDL Atrium plus
<https://solarlux.com/en/systems/sdl-atrium-plus.html>
- [11] Solarlux UK - Wintergarden orientation
<https://solarlux.com/en-gb/products/wintergarden-glazed-extensions/wintergarden-orientation.html>
- [12] Solarlux UK - Wintergarden climate, ventilation and shading
<https://solarlux.com/en-gb/products/wintergarden-glazed-extensions/wintergarden-perfect-climate-i.html>
- [13] Solarlux UK - Shading for glass canopies
<https://solarlux.com/en-gb/products/glass-canopies-houses/shading-glass-canopy.html>
- [14] Planning Portal - Conservatories and planning permission (England)
<https://www.planningportal.co.uk/permission/common-projects/conservatories/>
- [15] Planning Portal - Conservatories and building regulations (England)
<https://www.planningportal.co.uk/permission/common-projects/conservatories/building-regulations/>

Editorial note. Cover photograph supplied by the client; project attribution and rights for public marketing should be confirmed. This guide does not claim to be an official Solarlux publication or to be endorsed by the manufacturer. UK regulatory discussion primarily refers to England and should be verified locally.