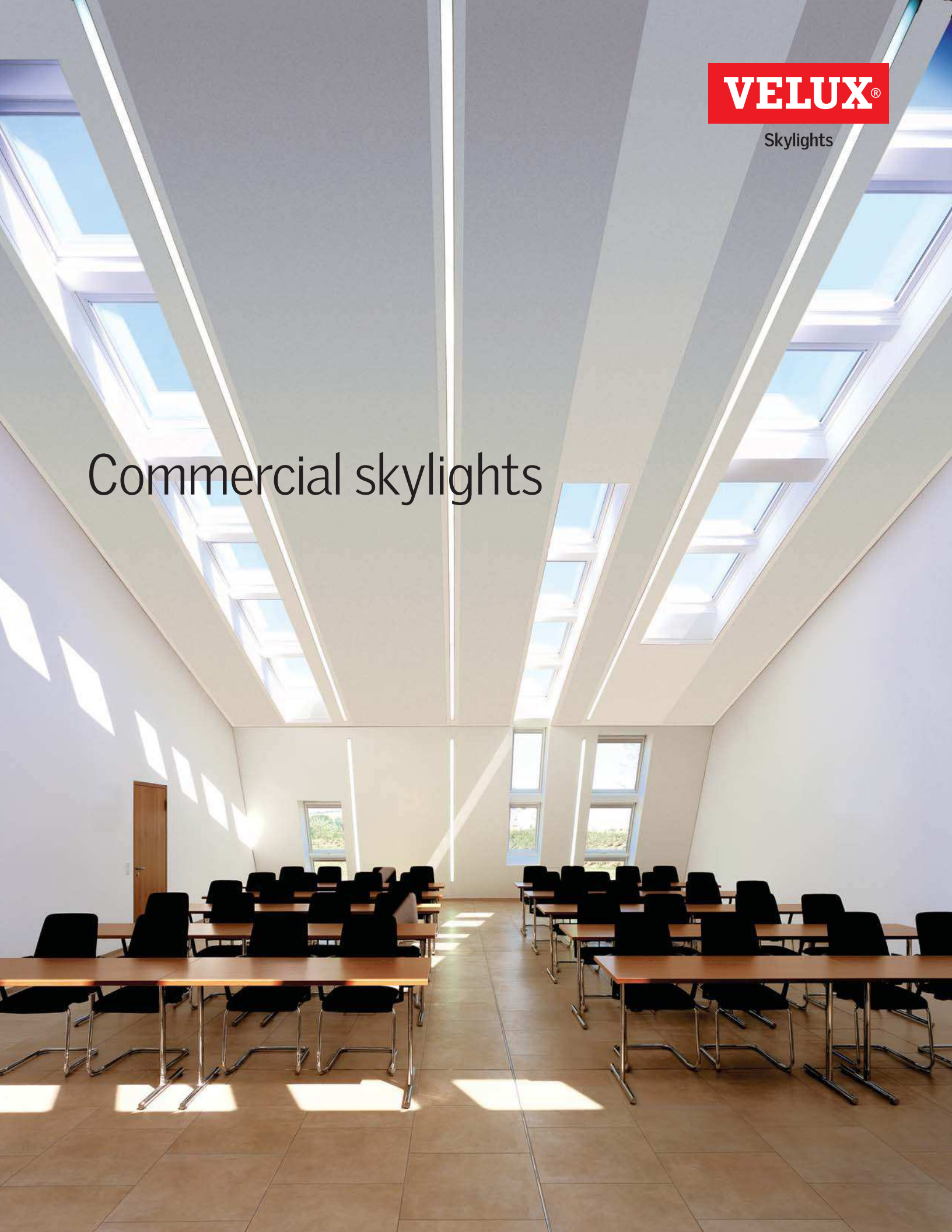


VELUX®

Skylights

Commercial skylights



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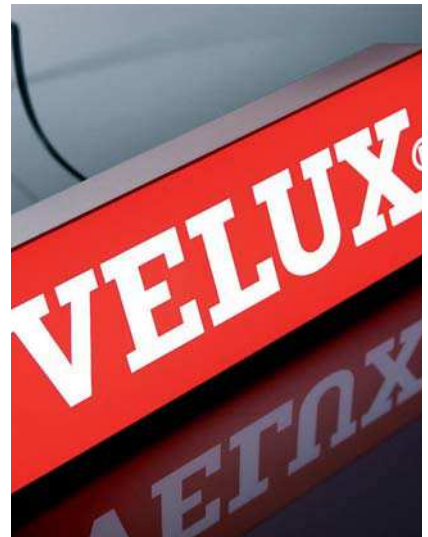
Why VELUX

After more than 70 years, VELUX continues to be a leader in the roof window and skylight industry.

VELUX is the preferred brand for American contractors according to every national survey of building industry professionals.

VELUX holds more than 300 patents in roof window and skylight design.

- One stop supplier for all of your commercial skylight needs
- VELUX extrudes only high quality acrylic that does not become yellow or brittle over time
- 10 year warranty on acrylic color
- Efficient post-sale product support
- Architectural drawings and test data available on request
- Fast custom quoting process
- Short lead time for custom products
- Local sales and marketing support
- Lighting and energy savings analysis available



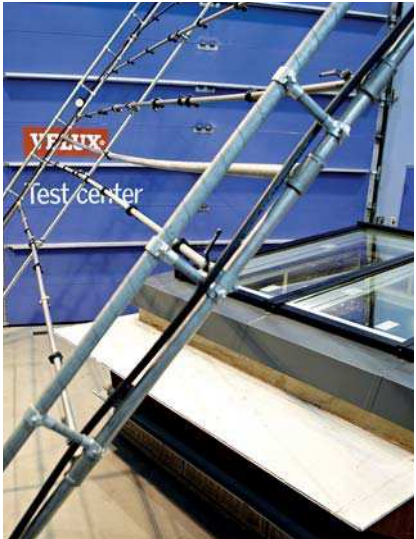
Leadership

Technological developments have revolutionized the window and skylight industry. Since 1941, VELUX has lead the skylight industry throughout the world and is now the world's largest manufacturer of skylights.

Today, with offices in more than 40 countries, we manufacture and sell energy efficient, durable skylights on all five continents from the United States to China and from Norway to Australia!

Leakproof

VELUX has been engineering and manufacturing skylights to withstand the harshest of elements. Each product is subjected to rigorous air, water, and pressure testing before ever being brought to market. Each skylight is then combined with a custom tailored flashing system. That's why VELUX is the world leader and the preferred skylight brand worldwide.



Energy savings and daylight harvesting

Artificial lighting is one of the largest sources of energy consumption in commercial and industrial applications. On average, artificial lighting accounts for 40% of the building's total energy. Utilizing high visible light transmittance VELUX acrylic skylights has been shown to significantly reduce these energy costs through the benefits of daylighting.

Typically, proper design of a skylit building results in a skylight-to-floor ratio (SFR) of between 4% - 6%. With proper design, the cost of skylights is typically paid back in less than two years. This is because high visible light transmitting skylights from VELUX allow artificial lighting to be turned off on average of 70% - 80% of the time.

VELUX can help you determine the correct number of skylights to achieve maximum energy savings or obtain a desired lighting level.

Being environmentally responsible

High quality skylights are an important part of building today's green buildings. The effect that natural light has on you physically, emotionally and psychologically is well documented. The benefits of natural light can have a profound impact on you personally, while the stewardship of VELUX will positively affect our environment for future generations.

Talk to your contractor and architect about including these healthy, energy saving options in your next building project.

Manufacturing sensitivity

As a worldwide steward of the environment, VELUX understands the importance of a green friendly manufacturing policy. As a result, all areas of our process, including product design, raw materials, production methods and the use of technologically advanced equipment meet our highest environmental review standards.

Environmental Certification: ISO 14001

This is an environmental management model written to provide organizations with the elements of an effective environmental management system. As a result, VELUX maintains and supports each of the following:

- Environmental policy
- Planning and implementation
- Environmental goals
- Management review and corrective action
- Continual environmental improvement

LEED NC statement information

Just as our name VELUX suggests, Ve for Ventilation and Lux for Light, VELUX skylights by natural composition are great for sustainable design and can be a great source of LEED credit points towards the certification of a commercial project. To ensure you achieve your goals, VELUX can help you produce daylight designs that are compliant with LEED requirements and that contribute to saving energy. Upon request we will provide a skylight layout, energy savings estimates, and daylight simulations.





(2) CAP dome skylights with clear over clear acrylic

How commercial skylights improve spaces

Offices, manufacturing and distribution centers

Natural light can boost energy up to 24 percent, according to scientific experts. This has been shown to decrease absenteeism and increase productivity. The National Commission on Sleep Disorders Research estimates that, in the United States alone, businesses lose more than \$150 billion a year in productivity as a result of employee fatigue due to lack of daylight.

Lockheed Martin reports that after daylighting its facility in Sunnyvale, California, the company achieved 15% higher worker productivity. Additionally, the company won a \$1.5 billion defense contract based on increased productivity, profits which paid for the entire building. As an added bonus, the company saved \$300,000 to \$400,000 a year on energy bills due to natural light from skylights.

Retail

Skylights in retail have been found to be positively and significantly correlated to higher sales. A HMG study showed non-skylit stores would increase sales by 40% by incorporating skylights. The link between high consumer activity and skylighting occurred despite the fact that many of the customers interviewed stated that they were unaware of the presence of skylights. The customers responded that they frequent the skylit stores because of positive environmental feelings, such as the stores feel cleaner, more spacious, more open or brighter. No seasonal variation was detected. Researchers concluded this suggested a long-term customer loyalty effect and not a short-term impetus on sales.

Employees working in naturally lit buildings have been shown to have increased morale resulting in better customer service, increased productivity and decreased absenteeism.

Schools

Skylights in schools have been found to be positively and significantly correlated to better student performance in a study conducted by the Pacific Gas & Electric Company, 21,000 students were tested and they found that those in classrooms with the most daylight progressed 20% faster on math tests and 26% faster on reading tests in one year than those with the least amount of daylight.

According to the Commission Public Interest Energy Research Program, daylight illumination levels were significant and positive in predicting better performance on a test of mental function and attention. The Backwards Numbers test is widely accepted in psychological research as a valid test of mental function

and attention spans. An increase in daylight illumination levels from one to 20 foot candles resulted in a 13% improvement in the ability to instantly recall strings of numbers.

According to a report by the National Center for Education Statistics, 72% of the cost of energy in education buildings goes towards electricity, with 56% going toward lighting. In total America's K-12 schools will spend \$6 billion on annual energy costs. Properly applying skylights into educational buildings can provide energy savings over time while improving student performance.

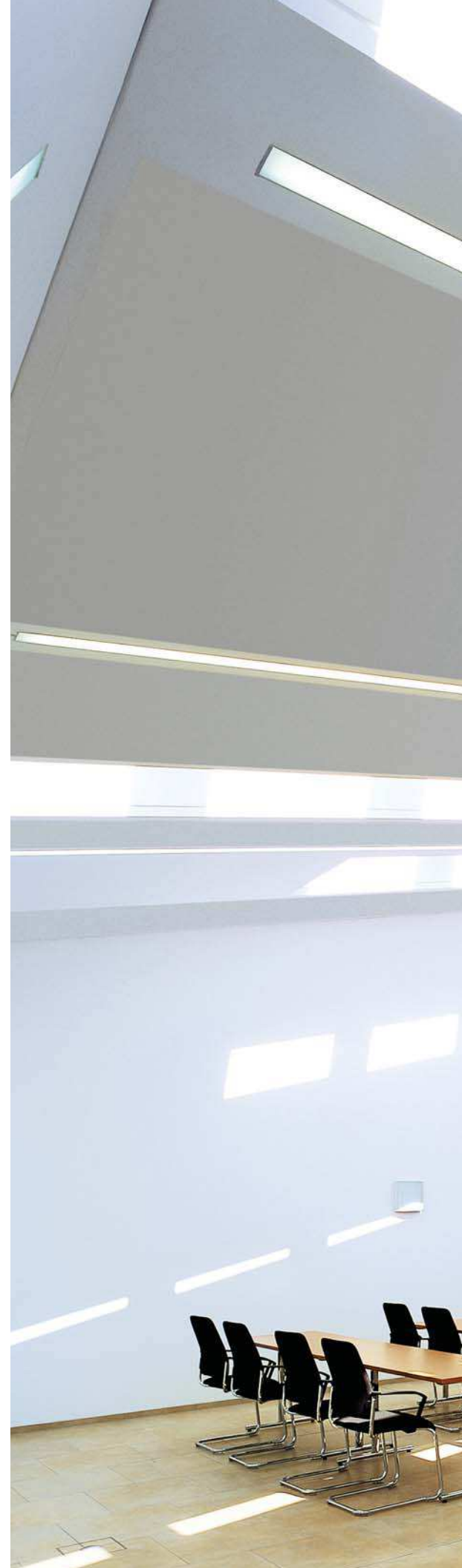
Hospitals, healthcare facilities and retirement communities

Natural light has been shown to expedite healing and improve overall personal health. According to a recent research study conducted by the Center for Health Design in Concord, California, better lighting and access to natural light can shorten hospital stays.

The lack of daylight can significantly disrupt the body's internal clock. In some cases lack of daylight along with other factors can lead to Seasonal Affective Disorder (SAD),

characterized by recurrent, annual clinical depression, accompanied by oversleeping, overeating, decreased work productivity and social withdrawal.

The average 60 year old requires 2-3 times the amount of light when compared to a 20 year old. The good news, natural light boosts visual acuity, especially among the aging. Improved lighting has been shown to decrease injuries related to falls.





Improved spaces

(8) CM dome skylight with clear over white acrylic



Fall protection and screens



Fall Protection

Fall protection was established by OSHA to provide a safe and healthful working environment for men and women, and to limit falls from employees or tools from heights of 6' or greater. OSHA regulation 29 CFR 1910.23 requires that skylights or skylight screens be capable of withstanding a load of 200 pounds applied perpendicular at any one area of the screen or skylight.

VELUX offers high quality acrylic and polycarbonate glazing options that have been tested to the OSHA fall protection guidelines.*

*Contact VELUX Customer service for sizing and additional information on this option.



Screens

For applications where screens are specified, VELUX offers a unique screen system that provides fall protection without damaging your skylight. Other applications require the screen to be fastened into the skylight frame increasing the risk of leaks. VELUX utilizes a special retaining bar that locks to the unit at the corners thus keeping the screen from damaging the integrity of the skylight.



CM dome



CM hip ridge



CM pyramid



Custom curb mounted commercial skylights (CM)

Our model CM curb mounted commercial skylight is welded using a 6063 extruded aluminum retaining angle and an extruded aluminum inner frame providing a leak-proof design. It installs directly on site built or prefabricated curbs. It ideal for all commercial and industrial applications.

The VELUX CM curb mounted commercial skylight provides the highest levels of visible light transmittance which has been shown to significantly reduce energy costs through the benefits of daylighting. The payback from installing the CM curb mounted commercial skylight in commercial and industrial applications is typically less than two years.

- Custom color option - Neutral gray
- CM specification, drawings and test data available on request.
- Glazing Options - Clear over clear acrylic, clear over white acrylic, white over clear acrylic, bronze over clear acrylic, clear polycarbonate over clear acrylic, clear polycarbonate over white acrylic, and clear polycarbonate over clear prismatic acrylic.
- Advanced weep system which minimizes condensation.
- A full thermal break to maximize energy efficiency.
- Quality acrylic that does not yellow over time.
- Warranty covers 10 years on the acrylic color and 5 years on the skylight.

Curb mounted installation

The VELUX CM curb mounted commercial skylight installs directly on site built or prefabricated curbs. It is ideal for easy replacement of existing skylights with a quality VELUX product.

Custom commercial sizes	
<p>Skylights available to fit custom sizes available up to 102" wide x 150" in 1/4" increments long with a 15 day production time including transportation time.</p> <p>VELUX requires outside curb dimensions for CM's.</p>	



CAP dome



CAP hip ridge



CAP pyramid



Custom self-flashed commercial skylights (CAP)

Our model CAP self-flashed commercial skylight is built using a one-piece aluminum curb with three seamless vertical corners providing a leak-proof design. It is installed directly to the roof deck for the quickest installation available. It is ideal for all commercial and industrial applications.

The VELUX CAP self-flashed commercial skylight provides the highest levels of visible light transmittance which has been shown to significantly reduce energy costs through the benefits of daylighting. The payback from installing the CAP self-flashed commercial skylight in commercial and industrial applications is typically less than two years.

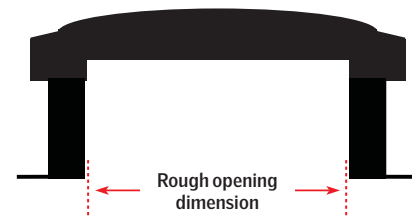
- Curb height options - The standard curb height for the CAP skylight is 9". Curb heights of 4", 6", 12", and 16" are also available.
- Custom color option - Neutral gray.
- CAP specification, drawings and test data available on request.
- Glazing Options - Clear over clear acrylic, clear over white acrylic, white over clear acrylic, bronze over clear acrylic, clear polycarbonate over clear acrylic, clear polycarbonate over white acrylic, and clear polycarbonate over clear prismatic acrylic.
- Constructed on a welded aluminum curb with 1" of polyisocyanurate insulation that is fire rated for safety.
- Advanced weep system which minimizes condensation.
- A full thermal break to maximize energy efficiency.
- Quality acrylic that does not yellow over time.
- Warranty covers 10 years on the acrylic color and 5 years on the skylight.

Product

Custom commercial sizes

Skylights available to fit custom sizes available up to 102" wide x 150" in 1/4" increments long with a 15 day production time including transportation time.

VELUX requires rough opening dimensions for CAP's.



Maintenance free curb mounted skylights (CMA)

The CMA maintenance free skylight is ideal in commercial and industrial applications where an aesthetically pleasing skylight is important. It comes standard with a neutral gray finished frame and a maintenance free PVC interior to provide a clean, finished look to any space. It also comes with a full thermal break for maximum energy efficiency and is available in standard and custom sizes.



- Quality construction.
- Acrylic glazings available in clear over clear, clear over white, white over clear, or bronze over clear.
- Custom sizes available up to 8.5' x 12.5'.
- No designated top, bottom or sides so you can install it in whatever direction you want.
- Polycarbonate glazing available.



CMA Size code										
		2525	2533	2549	3333	3725	3737	3749	4933	4949
Inside curb	(W" x H")	22½ x 22½	22½ x 30½	22½ x 46½	30½ x 30½	34½ x 22½	34½ x 34½	34½ x 46½	46½ x 30½	46½ x 46½
Outside curb	(W" x H")	25½ x 25½	25½ x 33½	25½ x 49½	33½ x 33½	37½ x 25½	37½ x 37½	37½ x 49½	49½ x 33½	49½ x 49½

Roof hatch skylights (CVA)

The CVA skylight is a durable venting skylight with egress capabilities providing full roof access. With its access hardware and maintenance free PVC liner, this skylight is especially well suited for flat roof access in commercial spaces and high density housing.



- Chains hold the dome open for better access as well as to prevent dome form hitting the roof.
- Curb mounted installation.
- Acrylic glazings available in clear over clear, clear over white, white over clear, or bronze over clear.
- Includes insect screen



Size code					
		2549	3333	3725	4949
Inside curb	(W" x H")	22½ x 46½	30½ x 30½	34½ x 22½	46½ x 46½
Outside curb	(W" x H")	25½ x 49½	33½ x 33½	37½ x 25½	49½ x 49½

Fixed curb mounted skylights (FCM)

FCM glass curb mounted skylights are ideal for multi-family and light commercial applications. They can be installed completely flat and is available in standard and custom sizes.



- No designated top, bottom or sides to allow installation in any direction.
- Wide range of custom sizes available.
- Impact glass available for hurricane prone areas.
- White laminated glass available for applications where diffused lighting is required.



Size code		1430	1446	2222	2230	2234	2246	2270	3030	3046	3434	3446	4646
Inside curb	in.	14 1/2 x 30 1/2	14 1/2 x 46 1/2	22 1/2 x 22 1/2	22 1/2 x 30 1/2	22 1/2 x 34 1/2	22 1/2 x 46 1/2	22 1/2 x 70 1/2	30 1/2 x 30 1/2	30 1/2 x 46 1/2	34 1/2 x 34 1/2	34 1/2 x 46 1/2	46 1/2 x 46 1/2
Outside curb	in.	17 1/2 x 33 1/2	17 1/2 x 49 1/2	25 1/2 x 25 1/2	25 1/2 x 33 1/2	25 1/2 x 37 1/2	25 1/2 x 49 1/2	25 1/2 x 73 1/2	33 1/2 x 33 1/2	33 1/2 x 49 1/2	37 1/2 x 37 1/2	37 1/2 x 49 1/2	49 1/2 x 49 1/2
Max. skylight clearance	in.	18 5/8 x 34 5/8	18 5/8 x 50 5/8	26 5/8 x 26 5/8	26 5/8 x 34 5/8	26 5/8 x 38 5/8	26 5/8 x 50 5/8	26 5/8 x 74 5/8	34 5/8 x 34 5/8	34 5/8 x 50 5/8	38 5/8 x 38 5/8	38 5/8 x 50 5/8	50 5/8 x 50 5/8
Daylight area	in.	14 1/2 x 30 1/2	14 1/2 x 46 1/2	22 1/2 x 22 1/2	22 1/2 x 30 1/2	22 1/2 x 34 1/2	22 1/2 x 46 1/2	22 1/2 x 70 1/2	30 1/2 x 30 1/2	30 1/2 x 46 1/2	34 1/2 x 34 1/2	34 1/2 x 46 1/2	46 1/2 x 46 1/2

Blinds

Control the amount of light and heat that enters space utilizing electric or solar powered blinds from VELUX. The innovative new solar powered blinds can operate utilizing only the power of the sun, no wiring or electrician is required. All blinds operate with a touch of a button and is available for all curb mounted commercial skylights in the standard sizes below when combined with the accessory tray.



Accessory tray - Allows blinds on new or existing installations.



Solar blinds



Solar blinds

Size code		2222	2230	2234	2246	3030	3046	3434	4646
Inside curb	(W" x H")	22 1/2 x 22 1/2	22 1/2 x 30 1/2	22 1/2 x 34 1/2	22 1/2 x 46 1/2	30 1/2 x 30 1/2	30 1/2 x 46 1/2	34 1/2 x 34 1/2	46 1/2 x 46 1/2

Product



Where to install VELUX commercial SUN TUNNELS™

VELUX Commercial SUN TUNNEL™ skylights are designed for flat or low slope commercial roofing applications that are above spaces that will benefit from daylight, thereby reducing energy loads and improving occupant's performance and comfort.

Ideal applications for commercial SUN TUNNEL™ skylights includes schools, retail spaces, and warehouses that require a cost effective daylight solution. The round, highly reflective light shaft requires less assembly time compared to previous commercial SUN TUNNEL skylights.

VELUX SUN TUNNEL skylights provide a cost effective method for transferring daylight through the roof. Cost savings can be achieved with open ceiling applications.

VELUX SunCurve



This highly transmissive light capturing VELUX SunCurve comes standard on every 22" commercial SUN TUNNEL™ skylight.

- Designed to capture sunrays that would normally pass through the dome, and instead directs them down the tunnel.

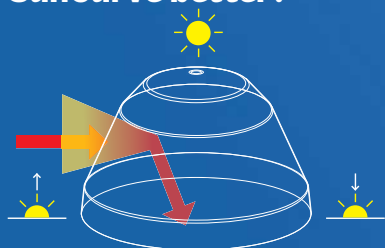


22" kit includes outer dome and VELUX SunCurve



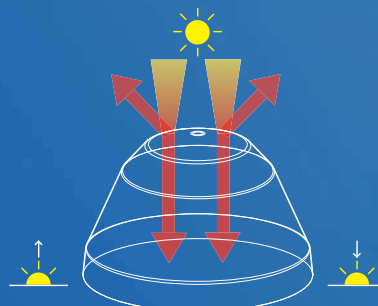
Product

What makes the VELUX SunCurve better?



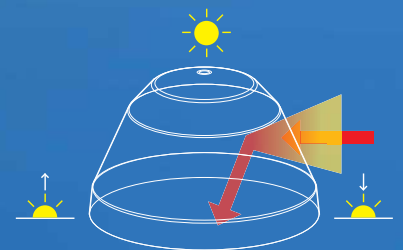
Morning light

Captures low-angle sunlight and curves it down the tunnel.



Mid-Day light

Manage the intense, direct mid-day sun so that the space below is bright and comfortable without glare.



Afternoon light

Captures low-angle sunlight and curves it down the tunnel.

VELUX commercial SUN TUNNELS™



Maximum security kit (ZTQ)
Crossing steel bars and security screws
for both the dome and curb flashing.
Available for 14" and 22"



Diffusion enhancer (ZTZ 209)
Increase the diffusion capabilities of your
VELUX SUN TUNNEL.

24" rigid tunnel sections (ZTR)
Tunnel sections manufactured with the
Flexi Loc™ tunnel connector system that
reduces tunnel installation time in half
and delivers the highest quality daylight
into the spaces below.

Highly reflective silver tunnel

All VELUX SUN TUNNEL skylights feature a highly reflective silver layer that is electrostatically applied.

- Creates an ultra smooth highly, reflective surface
- Greater than 98% total reflectivity (99.9% on silver layer)

20-year
rigid tunnel
reflective
warranty

Universal 45° elbows (ZTE 0000)

A durable and easy to operate elbow that can be used at the top, bottom, or middle of your installation.



Rotating coupler (ZTZ 211)

Multiple elbows can be joined together with rotating couplers to form a 90 degree bend or any configuration needed to maneuver around in tight spaces.



Turret Extender (ZTA)
Flashing extender to raise the edge of the dome for increased protection and better performance in flat roof applications.



Exterior fire band (ZZZ 192)
Fire band provides dome edge protection needed for installation on roof assemblies with fire classifications of A, B or C.



Insulating pane - thermal break (ZTC)
Insulating pane and thermal break that is designed to go in line with the buildings insulation in commercial applications.



Daylight controller (ZTP)
Allows the user to control the amount of daylight that enters a room and is perfect for rooms that require room darkening. Requires power supply (ZZZ 233).

Daylight controller power supply & switch (ZZZ 233)
120/277 V AC to 24 V DC power supply and switch capable of providing variable operation for up to ten daylight controllers.



Flexi Loc™ quick assembly system

A tunnel connection system that reduces tunnel installation time in half. With our unique Flexi Loc™ system, screws are a thing of the past. Use this unique clip system to piece your elbows, tunnel sections and other rigid tunnel components together quicker.



Product

Diffuser options

Choose from a variety of ceiling options to meet all of your application needs.

Available in 14" and 22"



Diffuser materials



Frosted diffuser
Frosted diffusers offer a combination of performance and aesthetics.













Prismatic diffuser
The industry standard prismatic diffusers provide good light distribution with the look and feel to match existing architectural design.



Fresnel diffuser
Fresnel diffusers utilize a concentric honeycomb pattern of parabolic prisms that provides superior light diffusion.

Flashing types

Choose the right flashing type for your installation from the choices below:

<p>Flat roof application: Self flashed mount model TGC</p>  <ul style="list-style-type: none"> • Lower profile dome • Low profile pan flashing • Flexi Loc™ tunnel system • Upper collar 16" • Roof pitch 0° - 60° 	<p>Flat roof application: Curb mount flashing model TCC</p>  <ul style="list-style-type: none"> • Lower Profile dome • Low profile curb mount flashing • Flexi Loc™ tunnel system • Upper collar 16" • Roof pitch 0° - 60° 
<p>Pitched roof application: Model TMC</p>  <ul style="list-style-type: none"> • Lower profile dome • 20° Pitched pan flashing • Flexi Loc™ tunnel system • Upper collar 16" • Roof pitch 14° - 60° 	<p><i>VELUX SUN TUNNEL™ skylights are designed to fit all your installation needs.</i></p>
<p>Flat roof application: Self flashed mount model TGC</p>  <ul style="list-style-type: none"> • High profile SunCurve • Low profile pan flashing • Flexi Loc™ tunnel system • Upper collar 16" • Roof pitch 0° - 60° 	<p>Flat roof application: Curb mount flashing model TCC</p>  <ul style="list-style-type: none"> • High profile SunCurve • Low profile curb mount flashing • Flexi Loc™ tunnel system • Upper collar 16" • Roof pitch 0° - 60° 

Other commercial options

Commercial curb system

The VELUX commercial curb system provides a practical and affordable solution for large overhead glazing applications. The commercial curb system is built using a commercial curb that is pre-manufactured or site-built and pre-assembled by a VELUX approved vendor. The curb system can utilize acrylic, polycarbonate, or glass curb mounted skylights such as the CMA, CM, and FCM which attach directly to the curb for a quick and easy installation. There is no on-site glazing required.

The commercial curb system can be adapted to fit nearly every size space. The system can be painted, lined or insulated based on the needs of the building. Flat, single, or double slope options are available. Full light diffusing glazings as well as blinds are also available.



Framed-in concept

The framed-in concept involves a customized standard approach, using standard products in a custom configuration to achieve a structural glazing look – with standard skylight pricing. It is constructed as deck mounted skylights are installed on top of a framed-in structure that is built on-site.

There are no size limitations with this system, and using VELUX combi-flashing, skylights can be installed as close as 2½ inches apart from each other. Light controls, ventilation and electric systems are available. If privacy is needed, white laminated glass is also available.



Daylighting through sloped roofs

Toplighting through the sloped roof is ideal for achieving optimal light distribution throughout a space, for reducing or eliminating glare issues, and for maximizing glazing surface efficiency. Regardless of application or roofing material, VELUX has a product that will fulfill virtually any need.

From our model VSE electric venting skylight to our roof window line designed for within-reach applications to our full line of blinds and controls, VELUX has the most versatile and diversified line of products in the skylight industry. Please refer to the residential product catalog for details on these skylights and roof windows.



Residential product catalog XUS 20183

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Bringing light to life™

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