

UNISER

INDUSTRIES PVT. LTD.

LED LIGHTING | SOLAR POWER | SMART AUTOMATION

Let the indoor space feel the natural sunshine

Skylight



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Applicable to multiple scenes,show the charm of sunshine

All the way to the sun, green lighting

With the improvement of people's living standards, the demand for lamps and lanterns has changed from mere lighting to healthy lighting and green lighting. Sunshine is the source of life, which can regulate human health and improve mood. Before the invention of artificial lighting, people worked at sunrise and rested at sunset. Human beings rely on sunshine, just as sunshine represents warmth, brightness and hope. Therefore, new lighting needs and creating a light environment with natural attributes have become a new direction to explore green lighting.





Psychological feelings

Sunshine can positively affect people's mood. Through natural light, it can effectively relieve physical and mental anxiety and make people feel relaxed.



Visual Feelings

Sky lights are suitable for various space scenes, allowing sunlight to enter the room, improving the indoor environment, and achieving a comfortable and natural space atmosphere. Close to the sunlight spectrum, restore the natural light

Sunshine and health

Although we spend most of our time indoors, we are still “outdoor animals”.

—— Baker N, 2009



01

Sunshine is good for visual health

Human vision is formed in the sunlight environment. The sunlight has the richest spectrum and the highest color reduction, which is beneficial to human visual health.



02

Sunshine is good for physical health

As the sun rises and sets, the daily periodic changes of sunlight form the body's biological clock, which affects many physiological processes such as human sleep/awakening, multiple hormone secretion and metabolism.



03

Sunshine is good for mental health

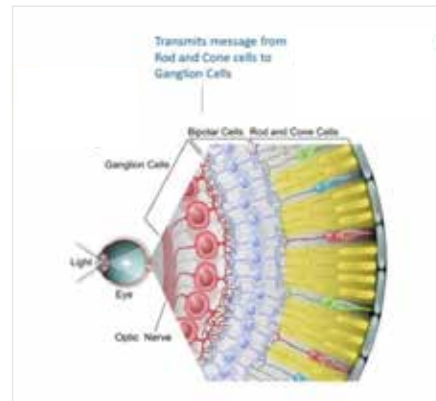
In the long evolutionary process, human beings have formed a potential dependence on nature. Sunshine not only gives people light and warmth, but also represents a positive and optimistic attitude towards life. While satisfying people's visual and physical health, it also brings happiness to people's hearts.

Sunshine is the most important factor to regulate the body's biological clock

Physiological rhythm

The 2017 Nobel Prize in Physiology or Medicine was awarded to Jeffrey Hall, Michael Rosbash and Michael W. Young, for their discovery of the molecular mechanism of circadian rhythms of organisms.

The revolution and rotation of the earth around the sun form the seasonal and diurnal changes on the earth. In order to adapt to this change, life on the earth has formed its own biological clock, which can help us predict and adapt to the laws of the day. Research shows that the biological clock has an important impact on people's physical and mental health, it affects many physiological processes such as sleep/wake cycle, blood pressure, blood glucose, metabolism, and controls 10% - 43% of gene expression.



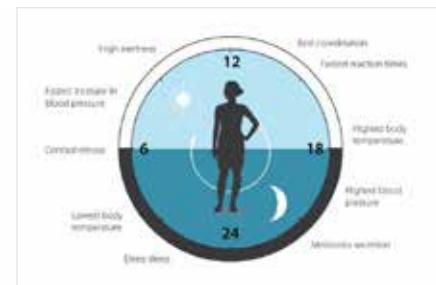
Retinal structure

Non visual photosensitive system

In 2002, Dr Hattar found a third type of photoreceptor, non visual photoreceptor cells (ipRGCs). The discovery of non visual photosensitive system has laid a theoretical foundation for modern light and health research.

Visual photoreceptors: rod cells and cone cells can sense the brightness and color signals of the target object, and then transmit them to the brain to form an image.

Non visual photoreceptor cells: retinal ganglion cells can perceive the overall light environment and transmit signals to the suprachiasmatic nucleus (SCN) to regulate the human biological clock.



Human circadian rhythms

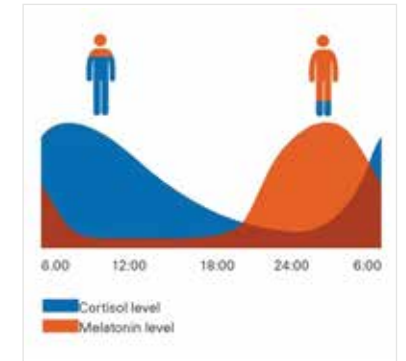
Phototherapy

Generally speaking, phototherapy is a method to prevent and cure diseases by using visible and invisible light in sunlight and artificial light sources.

In 1984, Rosenthal et al. found that by means of illumination, it may alleviate the symptoms of seasonal depression, and has carried out preliminary research and summary.

Since then, the prelude of phototherapy in modern sense has been opened, and many scholars have devoted themselves to the research of phototherapy.

Research shows that light can significantly improve sleep disorder, seasonal depression, non seasonal depression, bipolar depression, perinatal depression, Alzheimer's disease, mild cognitive impairment and many other diseases.



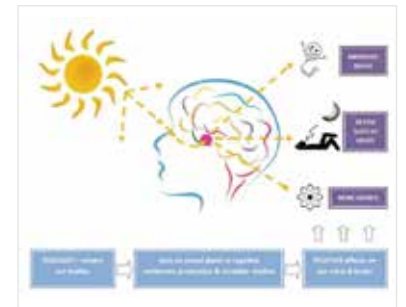
Human hormone secretion cycle

Sunshine regulates the biological clock

Natural light regulates the body's biological clock and the secretion of various hormones.

The light is bright in the daytime. The non visual photoreceptor cells in the human eye transmit the information about the bright light environment to the pineal gland under the brain. The pineal gland inhibits the secretion of melatonin according to the bright light environment information and increases the secretion of cortisol, so it is energetic and sleepy during the day;

The light environment at night is gradually dark. The non visual photoreceptor cells in the human eye transmit the dark information of the overall light environment to the pineal gland. According to the dark light environment information, the pineal gland increases the secretion of melatonin and decreases the secretion of cortisol. Therefore, the energy decreases at night and the sleepiness increases.



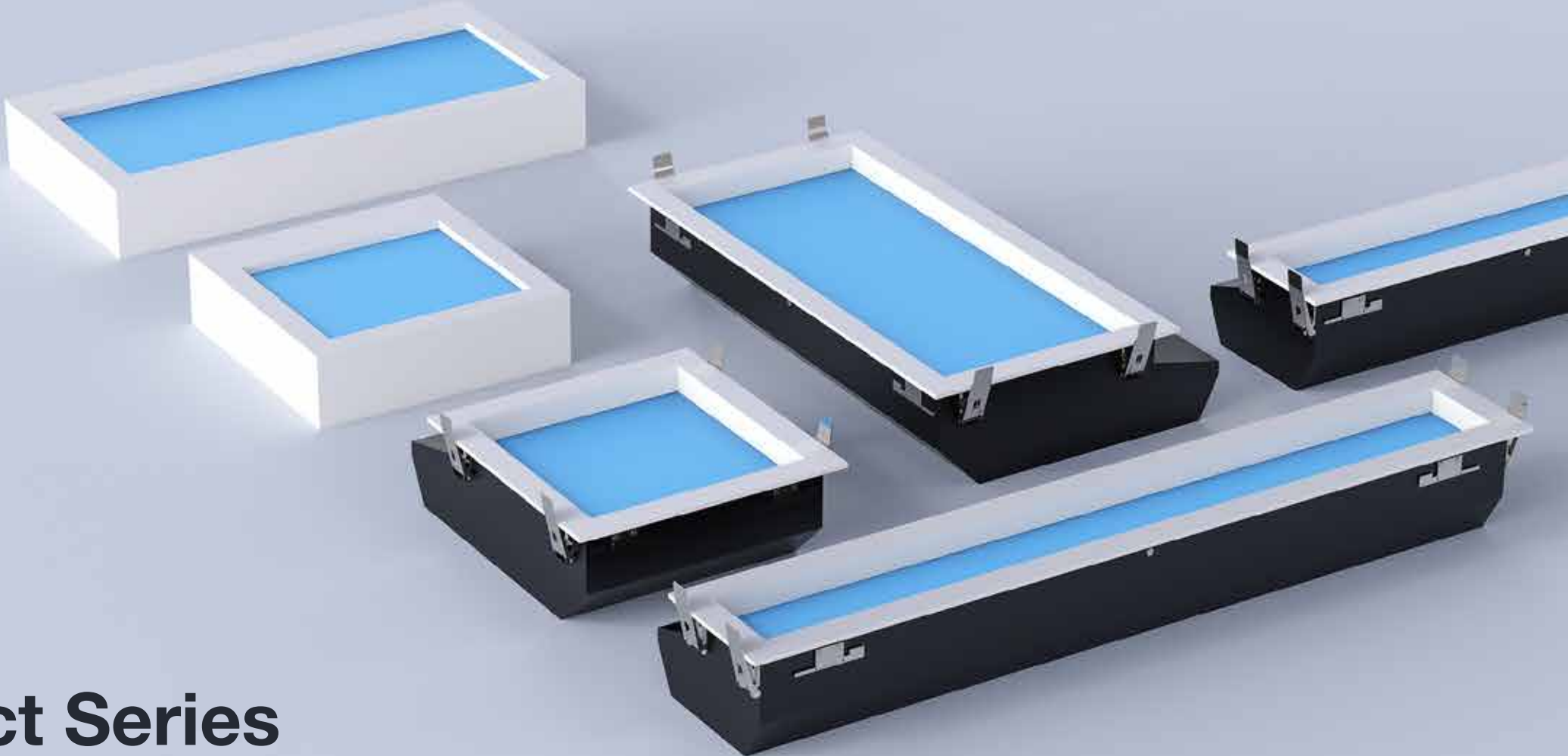
Product Features

Simulate sunlight

Skylight - sunlight simulation system uses the latest LED spectrum technology, precision low light level optical technology and intelligent control technology to simulate sunlight from many aspects, such as micro sunlight spectrum, macro sunlight lighting scene, dynamic sunlight color change, etc. Bring people real sunshine experience.

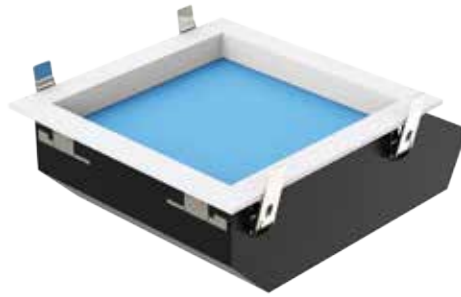
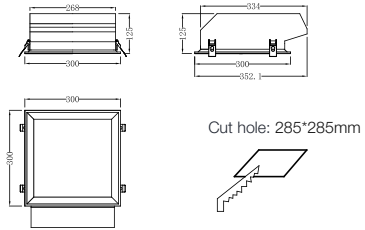
- Dynamic Sky
- Natural light and shadow, reappearing clear spots of the sun
- Simulated sunlight spectrum, $Ra \geq 80$
- Intelligent system: simulating natural light color change





Product Series

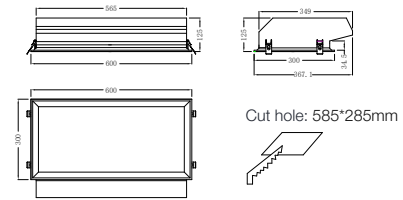
Skylight / PK2001



Specification

Items	Typical
Products size	300*300*125mm
Cut hole	285*285mm
LED	SMD 3535
Power	30W
Voltage	100-240V 50/60Hz
Dimming method	2200-7500k
CCT	CCT ON/OFF
Ra	≥80
Control	MI BLE /Tuya ZigBee
Operation temperature	-20~40°C
Waterproof	IP44

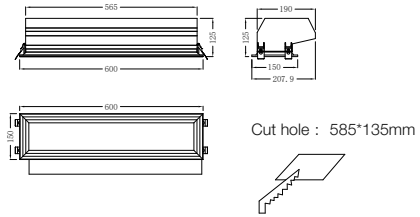
Skylight / PK2001



Specification

Items	Typical
Products size	300*600*125mm
Cut hole	585*285mm
LED	SMD 3535
Power	60W
Voltage	100-240V 50/60Hz
Dimming method	2200-7500k
CCT	CCT ON/OFF
Ra	≥80
Control	MI BLE /Tuya ZigBee
Operation temperature	-20~40°C
Waterproof	IP44

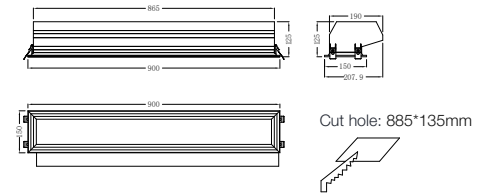
Skylight/ PK2003



Specification

Items	Typical
Products size	150*600*125mm
Cut hole	585*135mm
LED	SMD 3535
Power	50W
Voltage	100-240V 50/60Hz
Dimming method	2200-7500k
CCT	CCT ON/OFF
Ra	≥80
Control	MI BLE /Tuya ZigBee
Operation temperature	-20~40°C
Waterproof	IP44

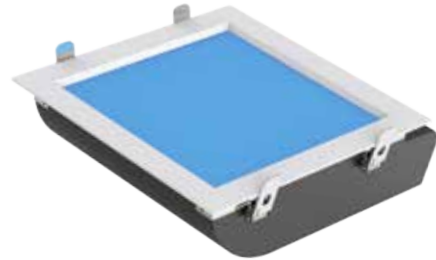
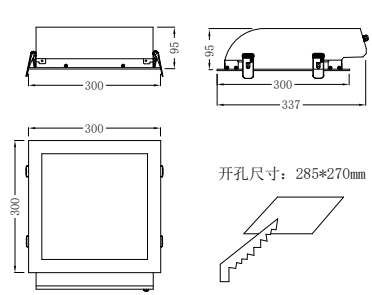
Skylight/ PK2004



Specification

Items	Typical
Products size	150*900*125mm
Cut hole	885*135mm
LED	SMD 3535
Power	70W
Voltage&Hz	100-240V 50/60Hz
Dimming method	2200-7500k
CCT	CCT ON/OFF
Ra	≥80
Control	MI BLE /Tuya ZigBee
Operation temperature	-20~40°C
Waterproof	IP44

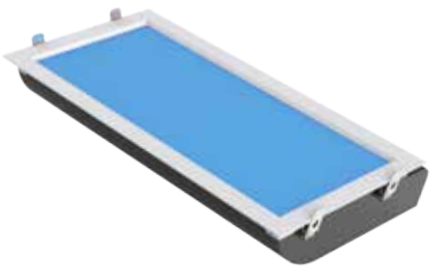
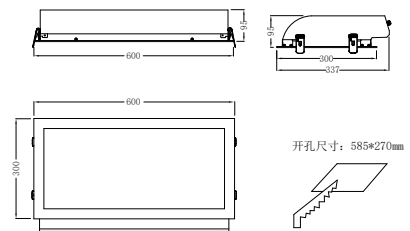
Skylight/ PK2005



Specification

Items	Typical
Products size	300*300*95mm
Cut hole	285*270mm
LED	SMD 3030
Power	30W
Voltage	100-240V 50/60Hz
Dimming method	2200-7500k
CCT	CCT ON/OFF
Ra	≥80
Control	MI BLE /Tuya ZigBee
Operation temperature	-20~40°C
Waterproof	IP44

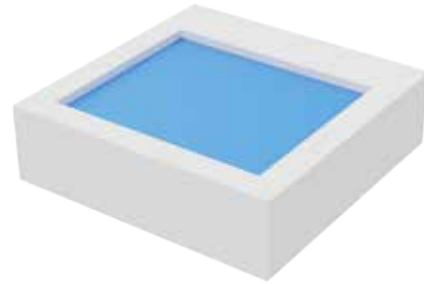
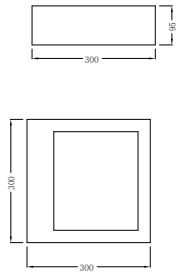
Skylight/ PK2006



Specification

Items	Typical
Products size	300*600*95mm
Cut hole	585*270mm
LED	SMD 3030
Power	50W
Voltage	100-240V 50/60Hz
Dimming method	2200-7500k
CCT	CCT ON/OFF
Ra	≥80
Control	MI BLE /Tuya ZigBee
Operation temperature	-20~40°C
Waterproof	IP44

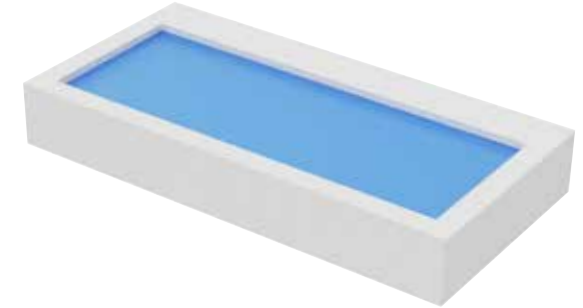
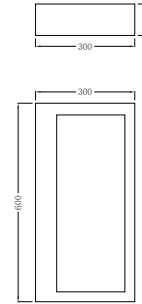
Skylight/ PK3001



Specification

Items	Typical
Products size	300*300*95mm
Cut hole	
LED	SMD 3030
Power	30W
Voltage	100-240V 50/60Hz
Dimming method	2200-7500k
CCT	CCT ON/OFF
Ra	≥80
Control	MI BLE /Tuya ZigBee
Operation temperature	-20~40°C
Waterproof	IP44

Skylight/ PK3002

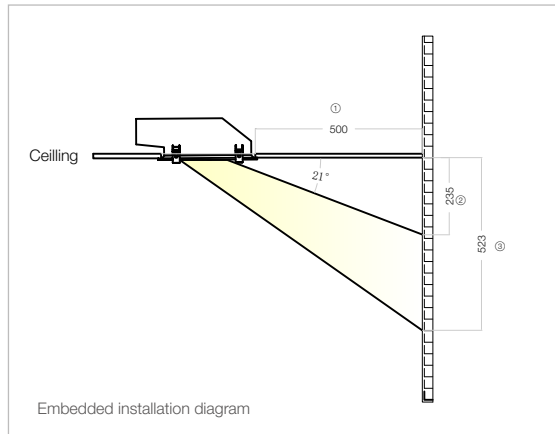


Specification

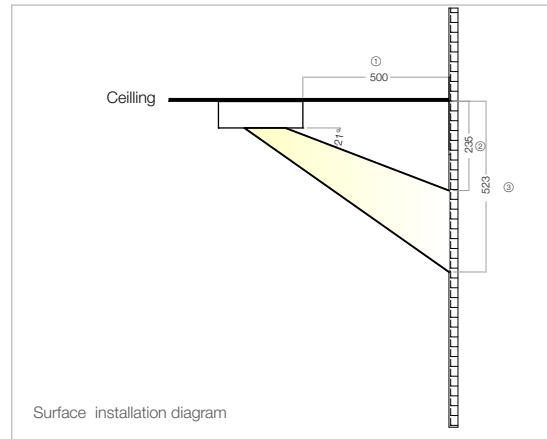
Items	Typical
Products size	300*600*95mm
Cut hole	
LED	SMD 3030
Power	50W
Voltage	100-240V 50/60Hz
Dimming method	2200-7500k
CCT	CCT ON/OFF
Ra	≥80
Control	MI BLE /Tuya ZigBee
Operation temperature	-20~40°C
Waterproof	IP44

Installation

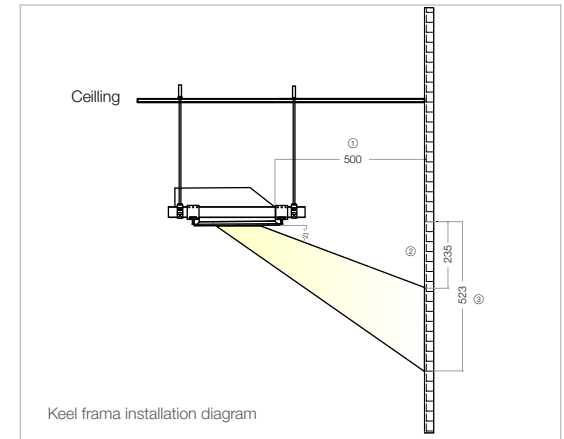
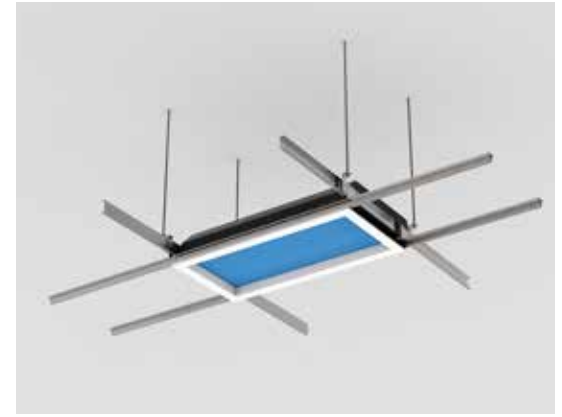
01 Embedded



02 Surface



03 Keel frame type



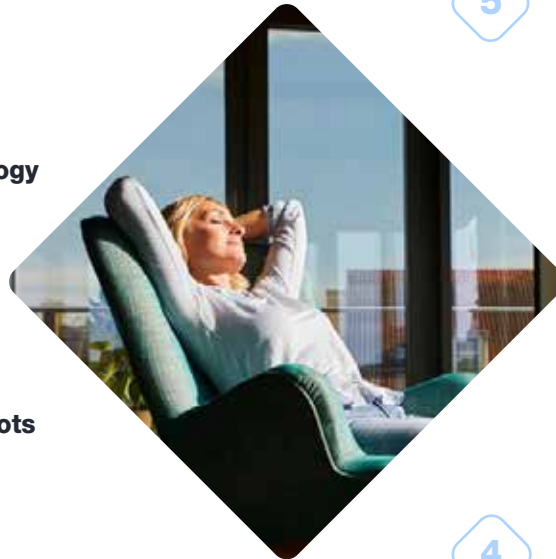
Remarks: ① Distance from the lamp to the wall ② Distance from the upper edge of the light projection to the ceiling ③ Light angle=21 °

Sky light advantages

Accompanied by exuberance, and in the order of "temporarily forget the noise, and express your feelings", use sky lights to reveal the warmth of light and dark colors in the space, and let your heart flow with the four seasons in a moderate rhythm

1

Reducing Rayleigh Scattering with Nanometer Technology



2

Advanced parallel optical system, Present clear sunlight spots

3

can simulate the real blue sky effect

5

Ultra deep dimming technology - simulating the color temperature change of sunlight in a day

4

Turn on and off the lights through the mobile phone APP Control the brightness of the lights to enjoy smart living

6

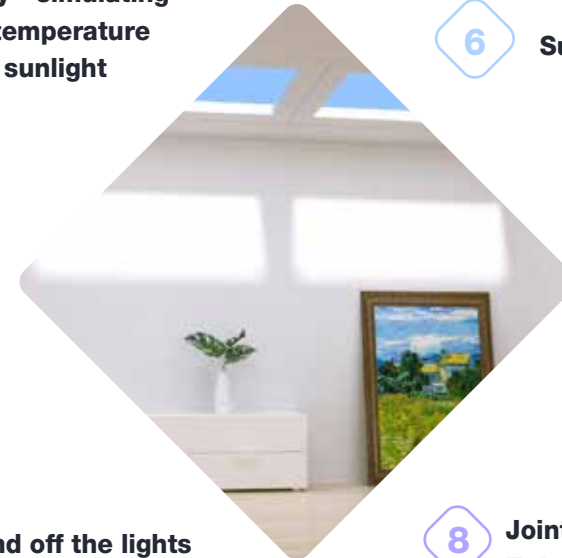
Support customization

7

Professional technical team service

8

Joint assembly of multiple sets Enjoy the big window



Application Case



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Residential space

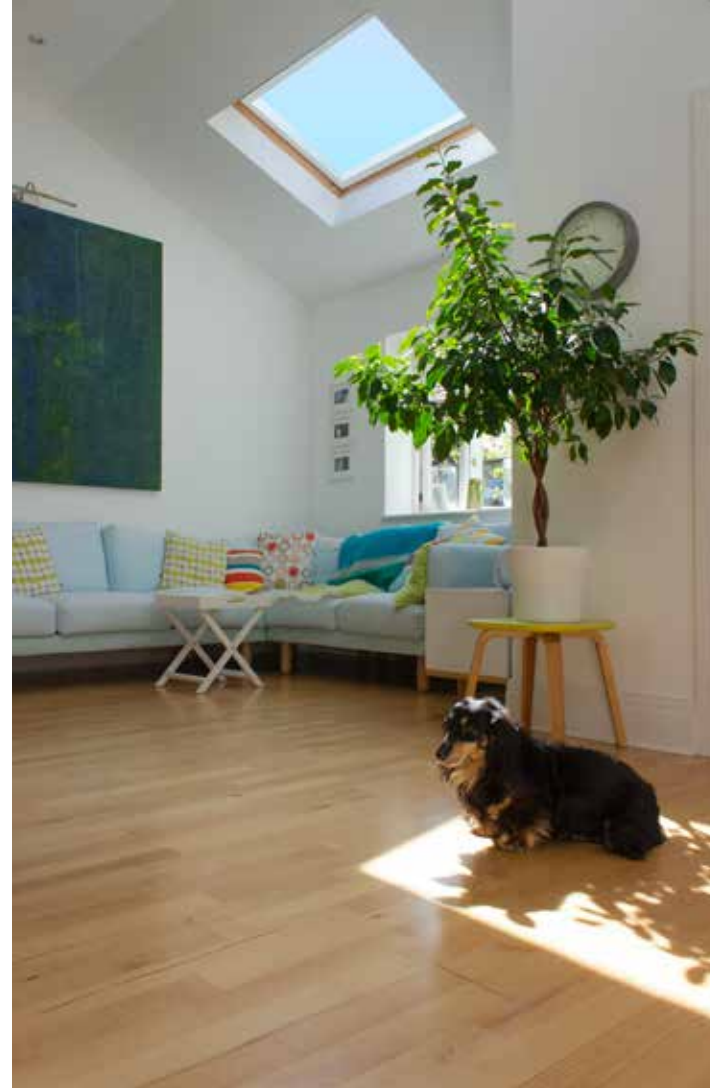
The use of sky lights in the home space can not only meet the lighting requirements, but also create an atmosphere, such as the kitchen, bathroom, study, porch, balcony, etc., to open a blue sky for your home.





Supplement indoor daylighting

According to the survey, more than 40% of the modern indoor space has insufficient lighting. The space with insufficient lighting is easy to form a dark and depressing atmosphere. Sunshine is the life of space. The use of sky lights to supplement indoor lighting can increase the brightness of space by 60%, restore the vitality of space, and revitalize the use of space.



Leisure space

It is used in reading rooms, cafes, board games and other trendy leisure areas, It can improve the space lighting environment, increase the environmental comfort, and leave users with a fresh feeling.



Public space

It is applicable to the entrance hall, lobby, waiting area and other comprehensive open areas, as well as large public spaces such as subway stations, gymnasiums and tunnels, to improve the natural lighting environment and increase environmental comfort.





Health Care Center

Applicable space: hospitals, convalescence centers, month centers, clinics and other health care institutions, add natural elements in the space to alleviate patients' anxiety.

The research shows that sunshine can speed up the rehabilitation of patients. A good environment is conducive to the rehabilitation treatment. The view outside the window and natural light introduced by the window are more conducive to creating a good environmental atmosphere, so as to improve the quality of rehabilitation treatment.

Educational space

Dr. Daystar's 1998 article "The benefits of natural lighting" pointed out that natural lighting can improve students' and teachers' concentration, improve test results, alleviate fatigue, and promote students' healthy growth.

The natural light can fully display the color, and the color rendering property is 100%, which is especially important for design and art. So it can be applied to any educational space



Villa basement

Nowadays, the underground space of villas is often used as living room, guest room, or leisure and entertainment space. Today, the value of underground space is more and more discovered. The installation of the sky lamp sunlight simulation system can simulate the sunlight indoors, bringing vitality to the closed underground space.



Office

Nowadays, many enterprises are willing to provide employees with a better working environment and improve their office experience. However, many of the current office buildings are large buildings, and lighting, as an important part of the environment, is difficult to solve. Sky lights can bring nature and sunshine to the office space and create a positive office atmosphere.



Create natural scenes

In modern interior decoration, green plants, wood, stones and other elements are often used to create indoor natural scenes, soften the atmosphere of the space and ease people's mood. But in modern intensive buildings, as the main natural element, sunlight is scarce.

Skylights use technology to simulate sunlight in all directions, bringing blue sky, white clouds and bright sunlight into the room. Combined with other natural elements, it brings a more natural and comfortable environment for people's life.





Tea space

With tea, there is a reason for being slow.
With light, there is a beautiful atmosphere.
The sky lamp pours sunlight in a linear polarized way to restore the scene illuminated by real sunlight
You can also feel the Zen of time indoors



Tunnel space

Applicable space: public areas, tunnels or other spaces with insufficient illumination, improve space illumination, improve traffic safety, and turn dark tunnels into a comfortable place



Hotel swimming pool

Swimming is a very relaxing sport, widely loved by people. Many hotels, even private residences, have indoor swimming pools. However, the lighting of many indoor swimming pools is not good, and the dark space makes people feel cold.

Sky light, which simulates the environment of sunlight indoors, makes the indoor swimming pool instantly have the experience of outdoor swimming pool.



Artistic space

It is suitable for art buildings, museums, etc.
It creates a natural and quiet space through
interweaving exhibits and light



SKYLIGHT

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