ARTIFICIAL SKY

Bring The Outdoors In

COMMERCIAL DAYLIGHTING

The #1 Office Perk? Natural Light

In a research poll of 1,614 North American employees, Future Workplace found that access to natural light and views of the outdoors are the #1 attribute of the workplace environment.

Artificial Sky: Delivering Sunlight to Commercial Buildings

In today's architectural landscape, windowless environments are increasingly common, particularly in commercial offices, healthcare facilities, hospitality spaces, and schools. While these spaces prioritize security, efficiency, security, efficiency, and budget, they often overlook the profound impact of natural light on human health and well-being. This is where Artificial Sky, with its revolutionary biodynamic lighting, offers a solution, bringing the life-enhancing benefits of sunlight and nature views indoors.

Artificial Sky: The Solution for Natural Light Deprivation

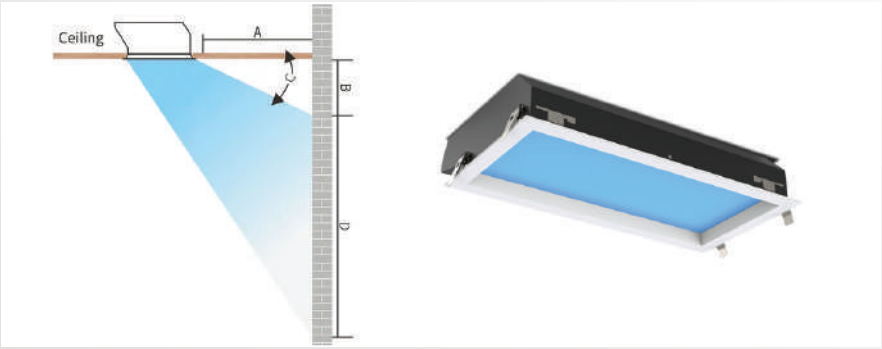
Basements Artificial Sky lighting systems provide a groundbreaking solution by realistically mimicking natural sunlight. Unlike traditional LED panels, Artificial Sky recreates the experience of a clear blue sky and a bright, distant sun, offering a vital connection to the outdoors.

Types of Artificial Sky Daylighting Systems

Experience the brilliance of daylight with Artificial Sky, available in three captivating styles designed to transform any space.

1. Artificial Skylights
2. Virtual Sky
3. LED Skylights

Artificial Skylights (W, V, P, L & S Series) –
(projects sunlight on walls and floor) using the latest nanotech films, optics, and lighting technology, Artificial Sky has recreated, what our atmosphere has been doing for billions of years, scattering light particles from the sun to create the beautiful blue sky we see here on Earth. Artificial Sky products range from acoustic sky ceiling tiles, LED skylights, virtual sky ceilings, artificial skylights, virtual windows, video walls, and more.

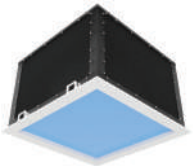


W-Series (Wall Washing)

Uniquely designed human-centric lighting fixture that projects sunlight at a 30-degree beam angle onto a nearby wall. The system uses advanced long-range optical film developed by NASA to simulate a sky view to the "edge of space" known as the Karman Line. Artificial Sky also uses nanotechnology to recreate the Rayleigh Scattering effect for the most realistic sky view imaginable.

L-Series (Linear Type)

The L-Series is a linear wall-washing type lighting system that uses Rayleigh Scattering and projects sunlight at a 30-degree beam angle onto a nearby wall.

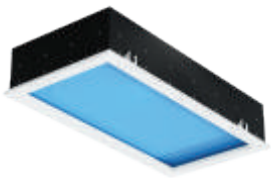


S-Series (Sunlight Simulator)

The S-Series brings sunlight indoors, featuring a Sun orb that moves with you via motion parallax and a 60-degree beam for optimal task illumination, all powered by Rayleigh Scattering.

P-Series (Ultra-thin Type)

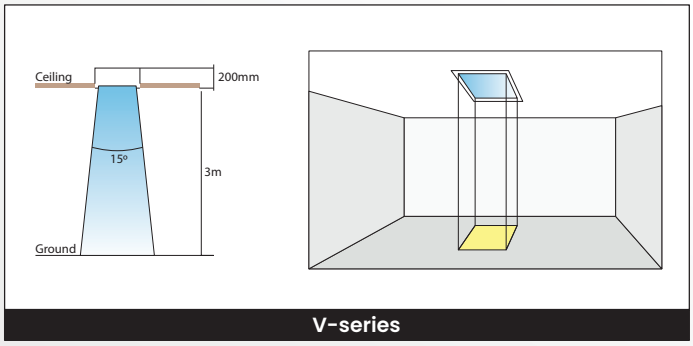
This ultra-thin lighting fixture delivers daylight via a wide 120-degree beam, offering flexible installation as a stand-alone unit or within its patented keel system, accommodating 2-40 fixtures across ceilings and walls.



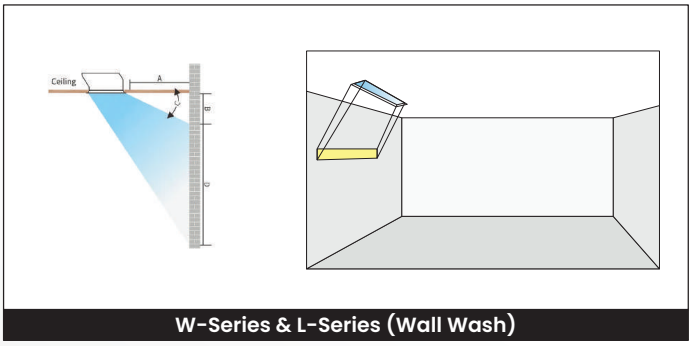
V-Series (Vertical Type)

The V-series delivers a concentrated 15-degree beam of sunlight downward, complemented by omnidirectional ambient light, achieving a lifelike atmospheric simulation for general task lighting.

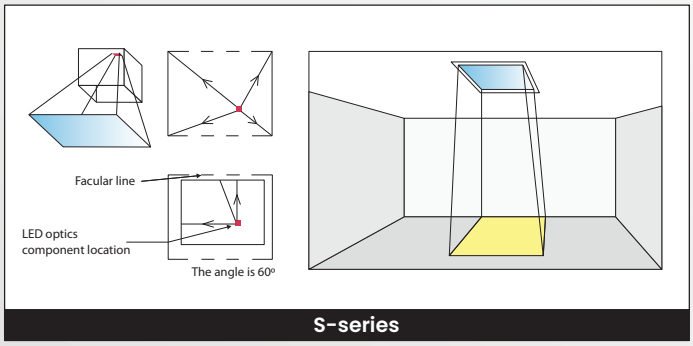
Light output and installation diagram



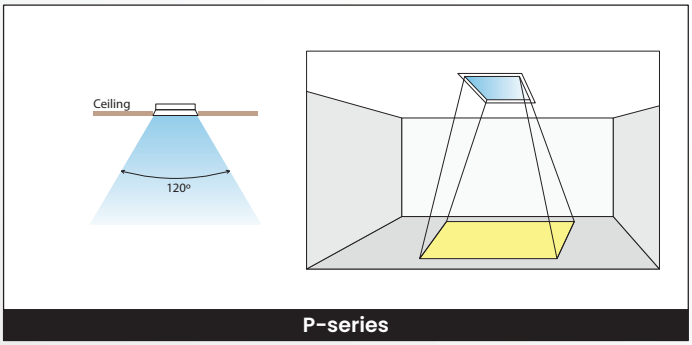
V-series



W-Series & L-Series (Wall Wash)



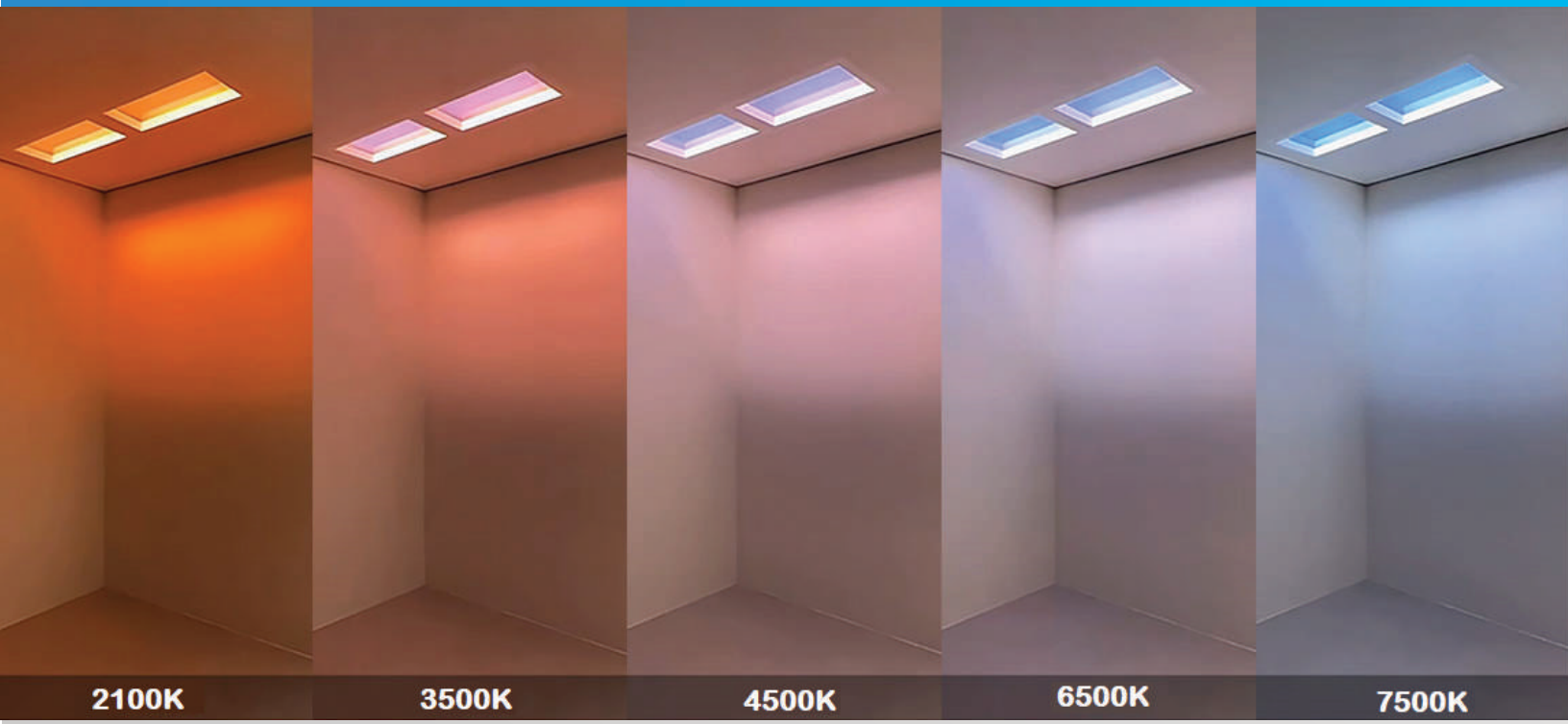
S-series



P-series

Artificial Skylights offer adjustable dimming and CCT, ranging from 2100K to 7500K, to synchronize with time of day or user preferences.

Artificial skylights enable control via BLEmesh 5.0, smart app, wireless wall controller, 0-10V, DALI, and Bluetooth, supporting both remote and hardwired operation.



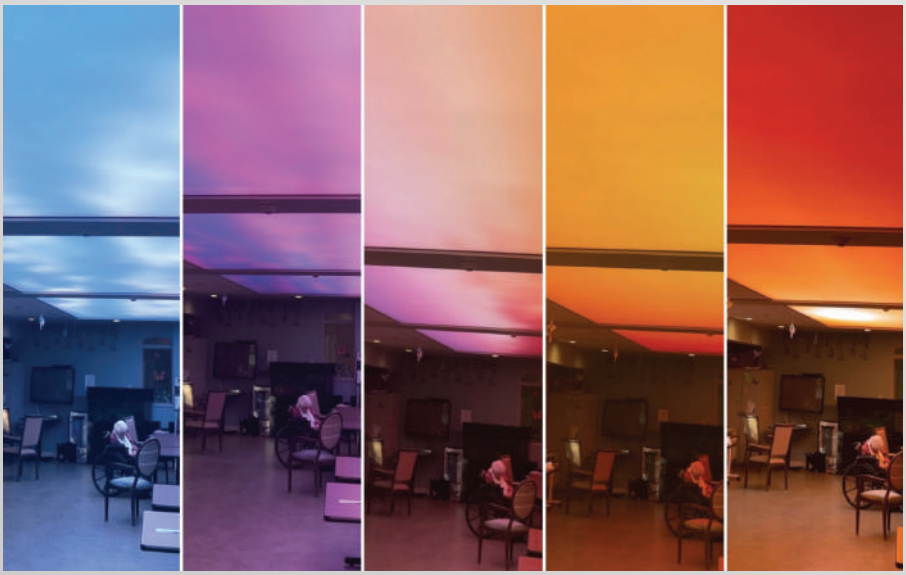
Virtual Sky — (MOVING CLOUDS—Yes, the clouds move!) Using advanced algorithms and color matrices, we can mimic an actual moving sky indoors. Virtual Sky is preprogrammed with 7 different scenes that can change via a wall-mounted master control panel and handheld remote controller. It includes 4 different moving sky scenes with passing clouds, a sunrise/sunset, a night twinkling star scene, and white dimmable daylighting. Virtual Sky comes completely seamless in any shape or size, needs less than 4" of ceiling clearance, and can be recessed, flush-mount, or hanging installation.

Virtual Sky, Combat the Effects of Alzheimer's, Dementia, and Sundowner's Syndrome for Assisted, Long-Term and Memory Care

An increasing amount of evidence shows that bright, full-spectrum lighting manufactured by Artificial Sky, on the magnitude of 5,000 LUX to 10,000 LUX, can reset the circadian rhythm in people suffering from Alzheimer's. Daily exposure to this type of light helps dementia patients with sleep disorders sleep longer and spend more time in deep sleep. As an added benefit, cognitive deterioration slowed with regular exposure to bright light, and symptoms of depression decreased.

In spaces designed for the elderly, Artificial Sky also helps to reduce social isolation by creating an environment residents enjoy communicably. Spaces with good, natural light help reduce falls, increase socialization, and stimulate positive physical and mental health.

Only Altificial Sky offers a true non-pharma solution to combat the effects of Alzheimer's, dementia, and sundowner's syndrome using their innovative Virtual Sky product.



LED Skylights —This is a static (non-moving) backlit image with a 6500K LED system. It looks like a real skylight and is dimmable. It must come in individual tile sizes of 2'x2' or 2'x4' and is engineered for use in standard ceiling grids for commercial installation. For example, this layout was over 18,000 sq ft. There are no size limitations. Any layout is possible.

The Detrimental Effects of Windowless Environments

Prolonged exposure to artificial light in windowless spaces disrupts our circadian rhythms, the 24-hour internal clock that governs sleep, hormone production, and mood. This disruption can lead to:

- ***Sleep Disorders:*** Lack of natural light inhibits melatonin production, leading to insomnia and poor sleep quality.
- ***Mood Disorders:*** Reduced serotonin levels contribute to depression, anxiety, and Seasonal Affective Disorder (SAD).
- ***Decreased Productivity:*** Cognitive function, focus, and alertness suffer without the stimulating effects of natural light.
- ***Health Issues:*** Long-term artificial light exposure is linked to vitamin D deficiency, eye strain, and other health problems such as obeslty, type 2 diabetes, poor mental health, attention and behavior problems, and poor cognitive development.

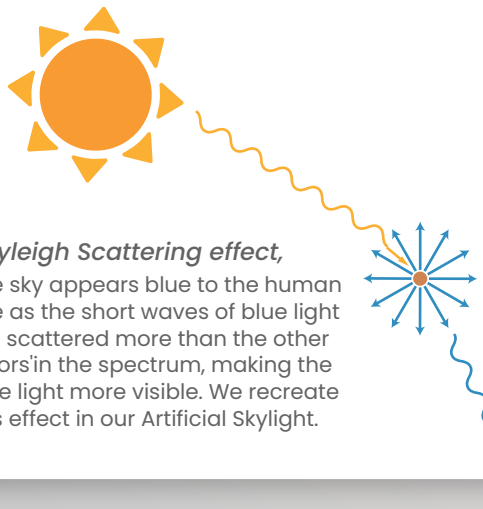
How Artificial Sky Recreates Natural Light

Artificial Sky's advanced technology replicates the *Rayleigh Scattering effect*, which causes the sky to appear blue. This is achieved through:

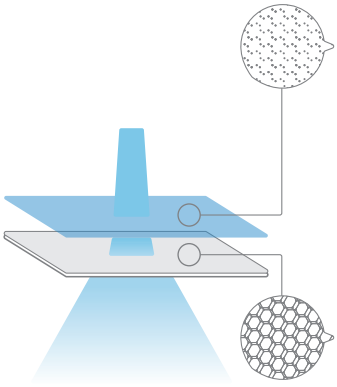
- ***Advanced LED Technology:*** Custom-engineered LEDs emit a spectrum closely matching natural sunlight.
- ***Long-Range Optics Films*:** These optical systems create the illusion of a distant sun, providing a sense of depth and realism.
- ***Nanotechnology:*** Nanoparticles within the system scatter light, mimicking the atmospheric conditions that produce the blue sky.

Artificial Sky systems also adjust their color temperature and intensity throughout the day, mirroring the natural progression of sunlight. This dynamic lighting supports healthy circadian rhythms, promoting better sleep, mood, and overall well-being.

ARTIFICIAL SKY TECHNOLOGY



Rayleigh Scattering effect,
The sky appears blue to the human eye as the short waves of blue light are scattered more than the other colors'in the spectrum, making the blue light more visible. We recreate this effect in our Artificial Skylight.



Optical Film
The long-range optical film was developed by NASA engineers and helps portray a sense of infinite space and a distant view for room occupants.

Nano-Level Acrylic
Acrylic based nano scattering plate has a better light transmittance and anti-oxidation ability than any other lighting products on the market.

The Economic Advantages of Artificial Sky in Large Organizations

For employers with 100 or more employees, investing in Artificial Sky daylighting offers significant economic advantages. Studies consistently show that natural light improves:

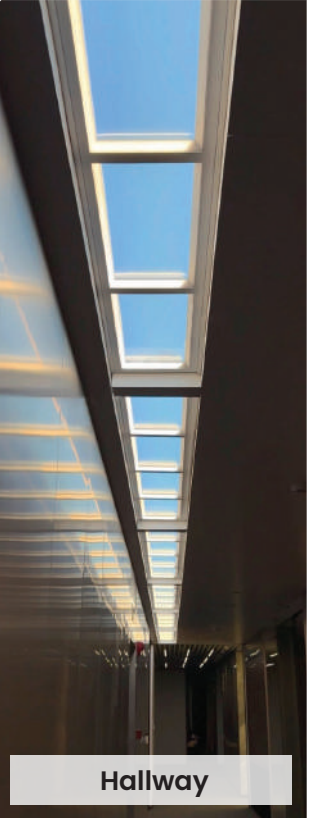
- ***Productivity:*** Research indicates a 3-40% potential increase in productivity in daylit environments. Even a conservative 10% increase can translate to substantial gains for a large workforce.
- ***Reduced Absenteeism:*** Improved health and well-being lead to fewer sick days, reducing costs associated with lost productivity.
- ***Enhanced Employee Morale:*** A positive work environment improves job satisfaction and reduces employee turnover, saving on recruitment and training costs.

While the initial investment in Artificial Sky may be higher than traditional lighting, the long-term return on investment is substantial. The combination of increased productivity, reduced absenteeism, and improved employee retention will result in significant cost savings and revenue growth, allowing the system to pay for itself over time.

Conclusion

Artificial Sky offers a transformative lighting solution for windowless environments, addressing the detrimental effects of artificial light and providing the numerous benefits of natural sunlight.

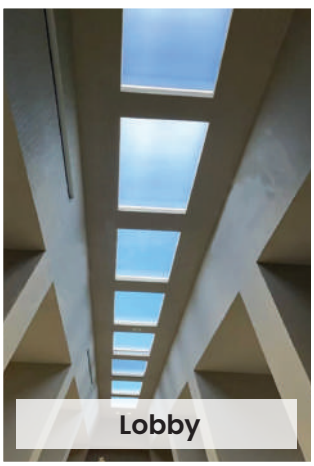
By realistically recreating the *Rayleigh Scattering effect* and mimicking the natural progression of daylight, Artificial Sky promotes health, well-being, and productivity, making it a valuable investment for any organization prioritizing the well-being of its employees.

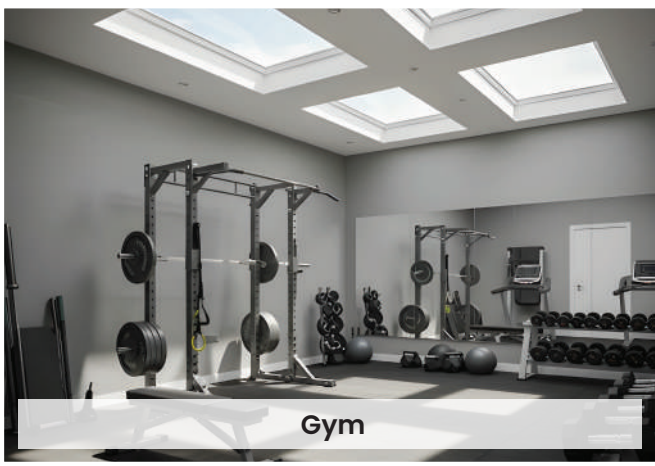

Hallway


Healthcare


Hotel

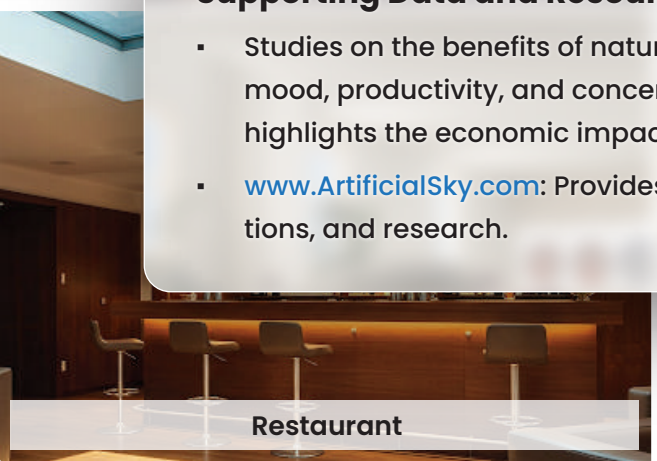

Hospital Wainting Area

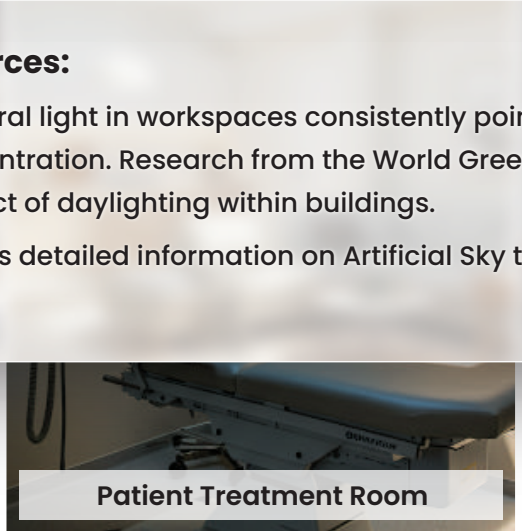

Lobby

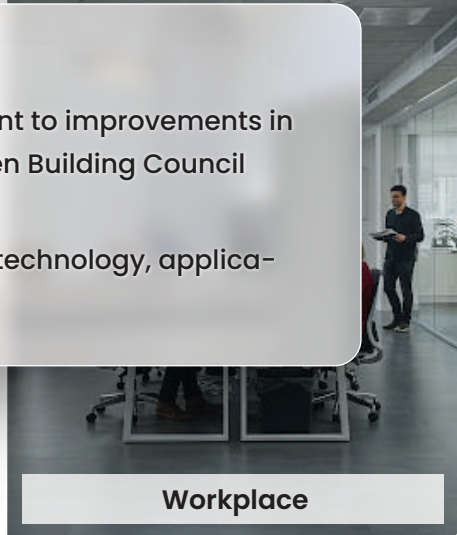

Gym

Supporting Data and Resources:

- Studies on the benefits of natural light in workspaces consistently point to improvements in mood, productivity, and concentration. Research from the World Green Building Council highlights the economic impact of daylighting within buildings.
- www.ArtificialSky.com: Provides detailed information on Artificial Sky technology, applications, and research.


Restaurant


Patient Treatment Room


Workplace

ARTIFICIAL SKY

Series	Picture	Model	Type	Control	Specification	Dimension (mm)	Installation Type	Cutout Size (mm)
W Series		W-1X1	Wall Wash	Brightness & CCT dimmable	AC100-277V, 2100-7800K, LED 25W, Ra93	L300*W300*H150	Integrated recessed & Recessed	L285*W285
		W-1X2			AC100-277V, 2100-7800K, LED 50W, Ra93	L600*W300*H150	Integrated recessed & Recessed	L585*W285
		W-1X4			AC100-277V, 2100-7800K, LED 100W, Ra93	L1200*W300*H150	Recessed	L1185*W285
		W-2X2			AC100-277V, 2100-7800K, LED 75W, Ra93	L600*W600*H295	Recessed	L585*W585
		W-2X4			AC100-277V, 2100-7800K, LED 150W, Ra93	L1200*W600*H295	Recessed	L1185*W585
V Series		V-2X2	Vertical	Brightness & CCT dimmable	AC100-277V, 2100-7500K, LED 150W, Ra93	L600*W600*H220	Recessed & suspended	L585*W585
		V-2X4			AC100-277V, 2100-7500K, LED 300W, Ra93	L1200*W600*H220		L1185*W585
		RD-V-2FT			AC100-277V, 2100-7500K, LED 150W, Ra93	Ø600*H219		Ø585
		RD-V-4FT			AC100-277V, 2100-7500K, LED 400W, Ra93	Ø1200*H220		Ø1185
L Series		L-0.5X4FT	Linear Wall Wash	Brightness & CCT dimmable	AC100-277V, 2100-7800K, LED 50W, Ra93	L1150*W140*H86	Recessed	L1135*W125
P Series		P-1X2	"Paper-Thin" Ultra-thin	Brightness & CCT dimmable	AC100-277V, 2100-7500K, 40W, Ra93	L582*W282*H36	/	/
		T Type Frame	Maximum customized size keel is 2.4*3m, create any size layout w/ P-series using keel from 2pcs to 40pcs (Example: 8ft x 10ft Maximum)				Recessed	/
P SKY Series		P-SKY	Surface Mounted Ultra-thin	Brightness & CCT dimmable	AC100-277V, 2100-7500K, 160W, Ra93	L1236*W636*H70	Surface Mounted	/
P WIN Series		P-WIN	Window Type	Brightness & CCT dimmable	AC100-277V, 2100-7500K, 160W, Ra93	L1332*W781*H66	Wall Mounted	/
S Series		Ø600mm	Sun	Brightness & CCT dimmable	AC220V, 2700-6500K, 120W, Ra95 (4M projection)	Ø600*H380	Suspended	Ø585
		RD-S-2FT		Brightness dimmable	AC100-277V, 6500K, 500W, Ra95 (30M projection)	Ø600*H380		Ø585
		RD-S-4FT			AC100-277V, 6500K, 600W, Ra95 (30M projection)	Ø1200*H680		Ø1185
		S-2X2			AC100-277V, 6500K, 500W, Ra95 (30M projection)	L600*W600*H600		L580*W580
		S-3X4			AC100-277V, 6500K, 600W, Ra95 (30M projection)	L1240*W940*H1100		L1220*W920