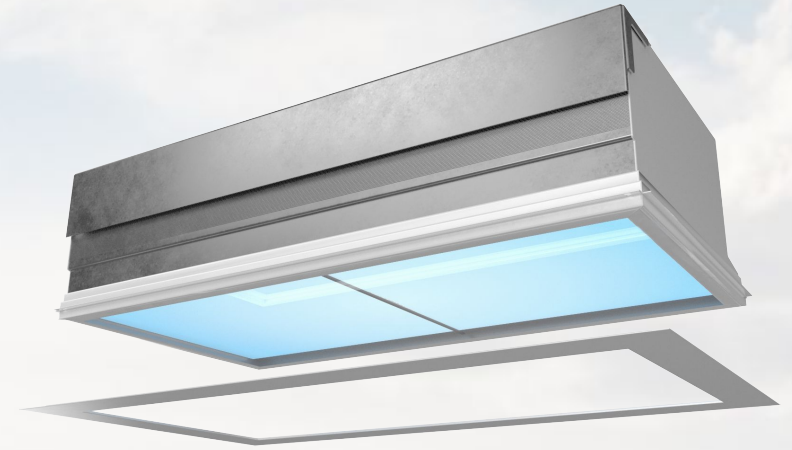


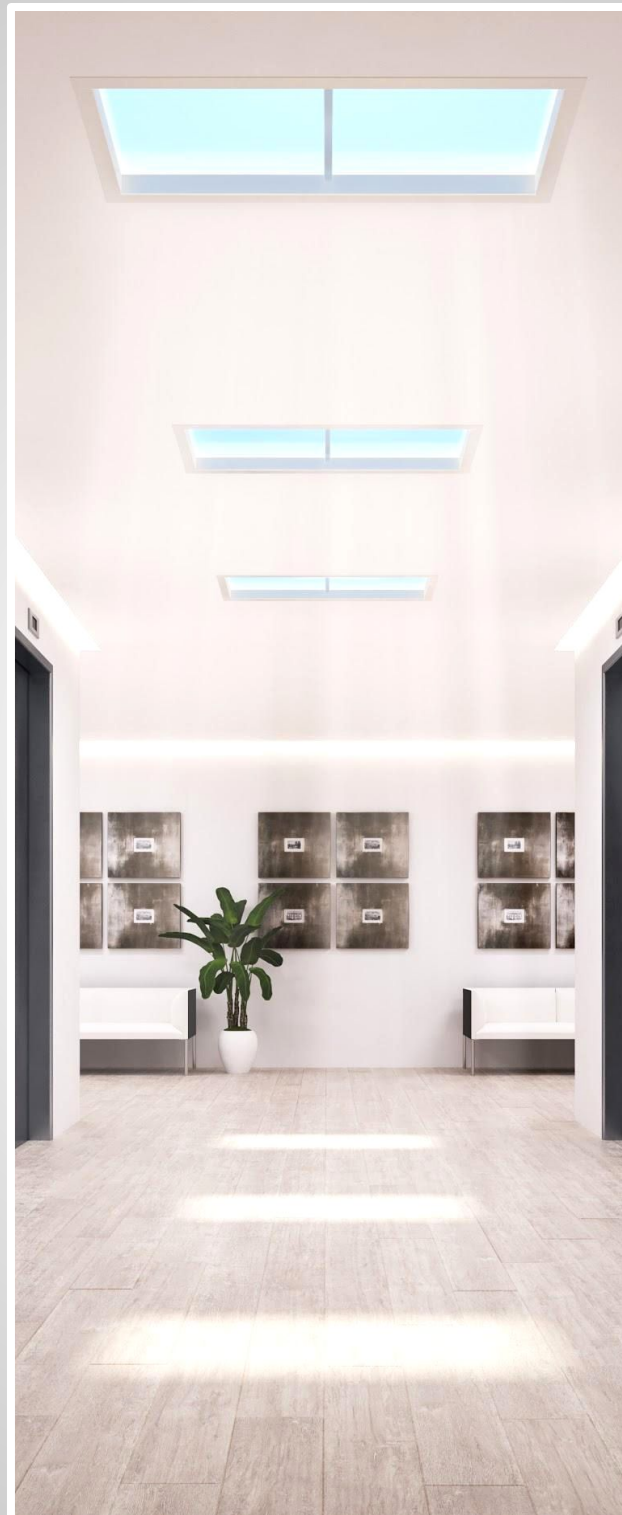
VIRTUAL SUN MODEL A7



Innerscene Virtual Sun optically recreates the appearance of a natural sun and sky in any environment day or night. Vivid beams of light are cast into the room from an ultra-bright, three dimensional, virtual sun which appears to move in parallel with the viewer.

From sunrise to sunset, our virtual skylight changes colors and intensities throughout the day to replicate the effects natural light has on our circadian rhythm.

It's 10 inch profile allows it to be easily installed into most recessed ceilings and walls. Large skylights of unlimited length and width can be created by tiling arrays of units. Innerscene can interface with most building lighting control systems and dimmers, including 0-10V, DALI, DMX, ethernet, and mobile phone apps.





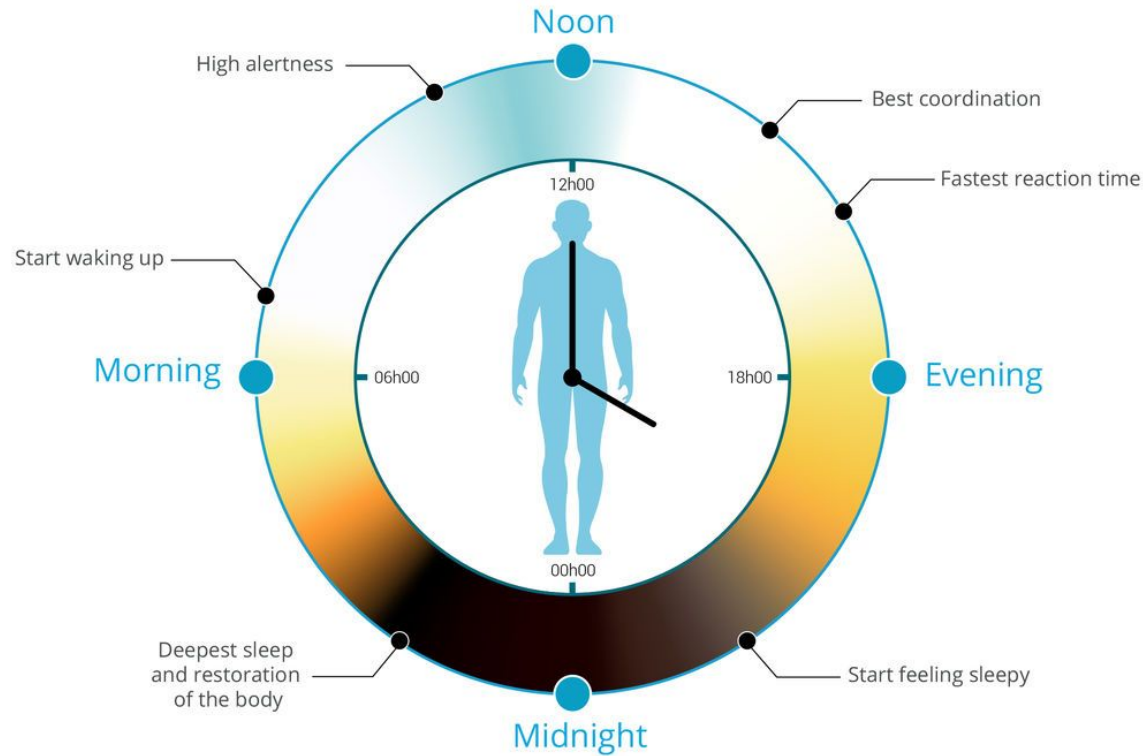
*Photo taken at night



Building Centre Installation, London UK



By regulating its CCT, Virtual Sun helps the body maintain a natural circadian rhythm, the internal process that regulates the sleep-wake cycle and repeats every 24 hours



Morning
Cool light
High intensity



Afternoon
White light
High intensity



Evening
Warm light
Low intensity



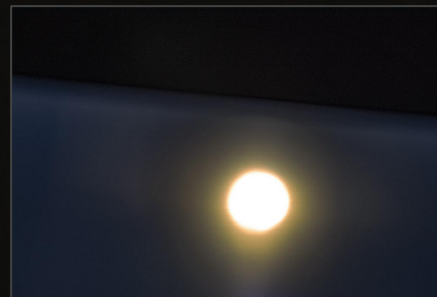
Night
Moonlight

Reduced blue light in the evening promotes better sleep





At night, moonbeams illuminate the floor and a distant moon can be seen in the sky



Natural light has both directional (sun) and diffuse (sky) lighting components

Illuminated by Virtual Sun
(directional sun and diffuse sky)



Illuminated by standard lighting
(diffuse only)

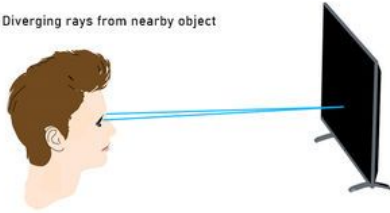


Virtual Sun combines hundreds of LEDs specifically to replicate the visible spectrum of natural light. This means it illuminates materials and objects just like natural sunlight allowing us to see vibrant colors correctly. Virtual sun has no ultraviolet or infrared light so it won't burn our skin/eyes, or bleach artwork or wood floors.

Focus at nearby objects



Diverging rays from nearby object



Examples : TV's - Projectors - Computers

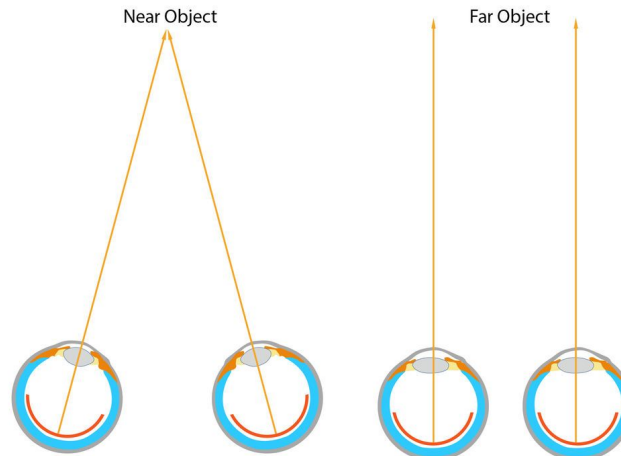
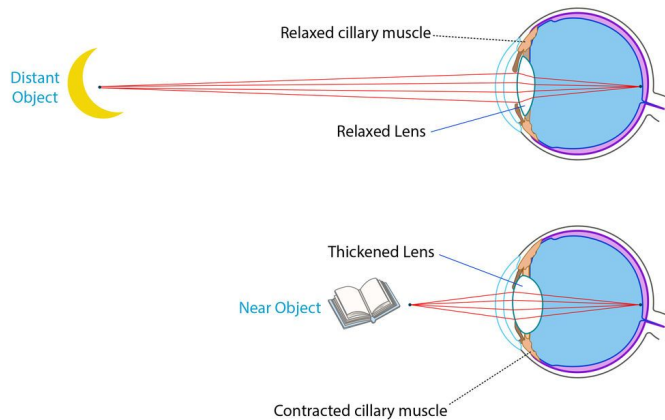
Focus at infinity



Parallel rays from distant object (at infinity)



Examples : Real Windows - Real Skylights - Virtual Sun by Innerscene



Innerscene pioneered and patented a new approach for displaying 3D images with **infinity focus** and used this technology to display a brilliant sky and sun that optically appears to be millions of miles away.

A user looks **through** Virtual Sun out into space. This is unlike looking at a TV or a traditional light fixture where the user focus on the closest surface of the device. When our eyes focus on distant objects the muscles in our eye relax which reduces eye strain and provides a feeling of being connected to the outdoors.

With Virtual Sun A7 all of the cues our brain and eyes use to determine depth are preserved allowing our brain to fully believe it is looking through a window instead of “a light”.

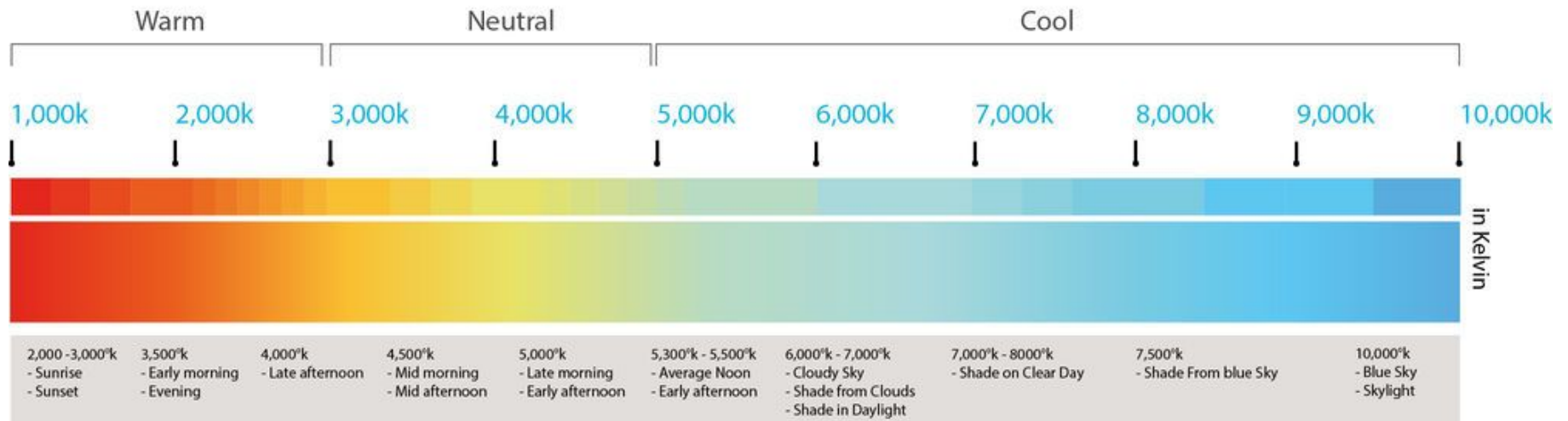
Because the sun is millions of miles away, it follows us in the sky no matter where we go



Virtual Sun also follows us in the sky as we walk around and cast sunbeams and natural shadows



Color Temperature



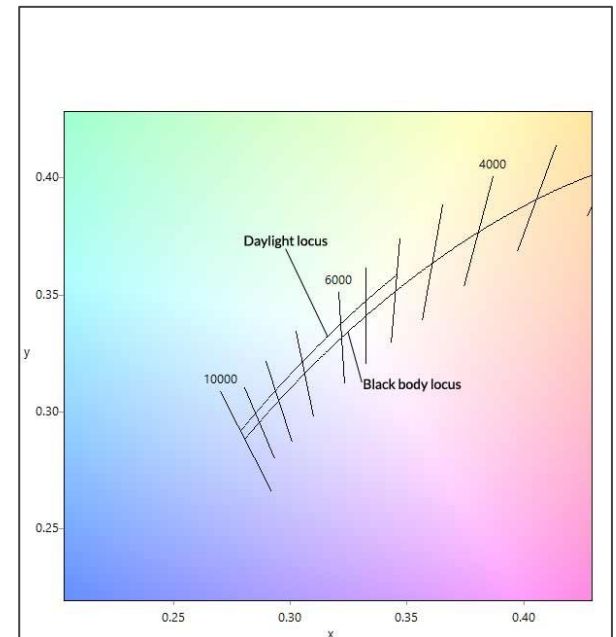
Natural colors found in the sky vary from 2500 Kelvin for a warm sunset/sunrise to over 20000 Kelvin for dark blue sky and follow the daylight locus curve.

Innerscene Virtual Sun A7 can dynamically change from 3000K to over 15000K while following the daylight locus curve.

A7 mixes light from 5 different LED technologies to accurately match the natural colors of the sky and provide wide-spectrum light that achieves a high CRI making colors in the room look vibrant and natural.

Studies show that cooler CCTs result in higher levels of focus and productivity while warmer CCTs allow our bodies to transition to and from sleep states.

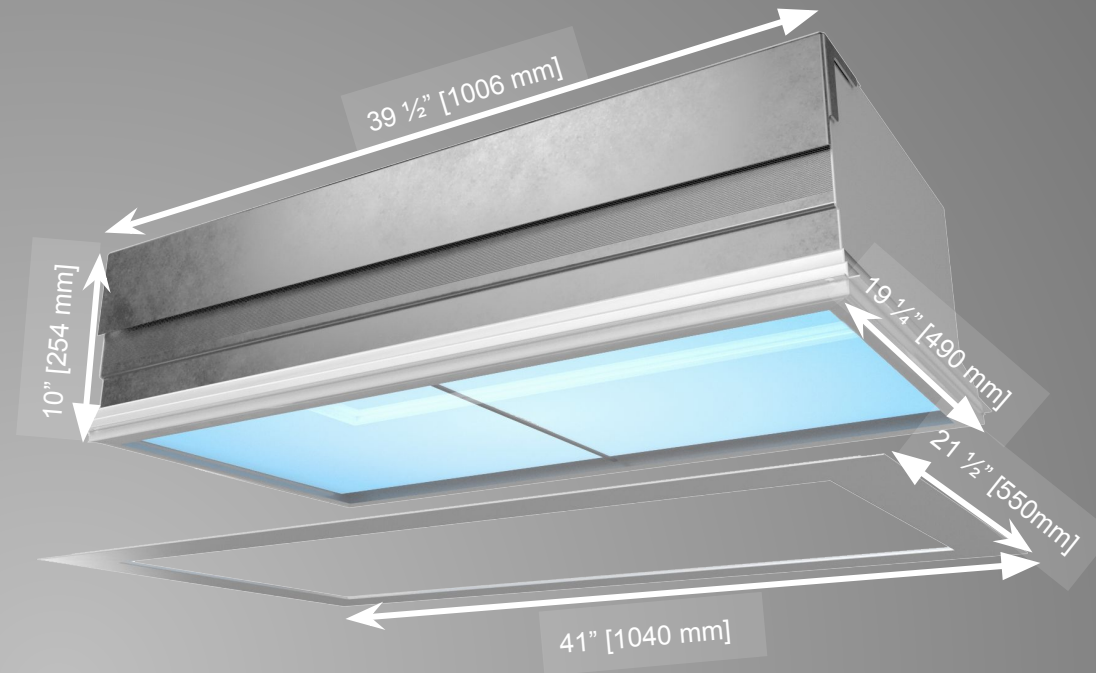
Daylight locus vs Black body locus



INNERSCENE VIRTUAL SUN MODEL A7

SPECIFICATIONS

SAFETY	UL, CE, IC Rated
POWER	205 W at maximum brightness
INPUT VOLTAGE	90 V - 277 V
SUN ILLUMINANCE	>1600 lux at 3ft
TOTAL LUMINOUS FLUX	6750 Lumens at full brightness
LUMINOUS INTENSITY	8000 cd
EFFICACY	27.23 lumens/W
MOON ILLUMINANCE	~0.3 Lux
SUN BEAM ANGLE	32 degrees from Zenith
SUN BEAM DIVERGENCE	3.2 degrees
CRI at 9000K	90+
CRI at 3000K	94
WEIGHT	83 lbs
CCT (Sky)	4500 K
CCT (Sun)	3,000 K - >15,000 K
DIMMING	10kHz Flicker free dimming 0.1 - 100% dimming range
MELANOPIC RATIO, 3000K	~0.45
MELANOPIC RATIO, 4500K	~0.8
MELANOPIC RATIO, 6500K	~1.1
EQUIVALENT MELANOPIC LUX (Sun at 6ft / 2 m)	~1600
WARRANTY	5 Years
LUMEN MAINTENANCE	>50,000 hours



CONTROLS

DALI	1 Channel: Dim to Warm or 2 Channels : CCT & Intensity
DMX	1 Channel : Dim to Warm or 2 Channels : CCT & Intensity
0-10V	1 Channel : "Dim to Warm"
MOBILE APP	Connects via wireless ethernet or Bluetooth
ARRAY SUPPORT	When an array is installed, units link to each other via CAT5 cabling and only one dimmer signal is required per array
SCHEDULING	Built-in clock and GPS location allow automatic CCT/Brightness settings at different times of day or offset from sunrise/sunset with no external control system required

Model A7 replaces model A6 with numerous improvements, including requiring less ceiling depth, 72% the weight, and 131% the efficacy of the A6

PHOTOMETRICS

TEST RESULTS

Table 4. Test Environmental and Operating Conditions

Ambient Temperature (°C)	25.6
Voltage (V)	229.1
Current (mA)	924.00
Frequency (Hz)	50.0
Power (W)	206.5
Power Factor	0.97

Table 5. Beam Angle Results

Luminous Flux of Luminaire (lm)	Luminous Efficacy (lm/W)	Peak Beam Intensity (cd)	Beam Angle (Lamp orientation)	Beam Angle Result (°)
5624.2	27.23	21473.99	Horizontal	3.5
			Vertical	3.5

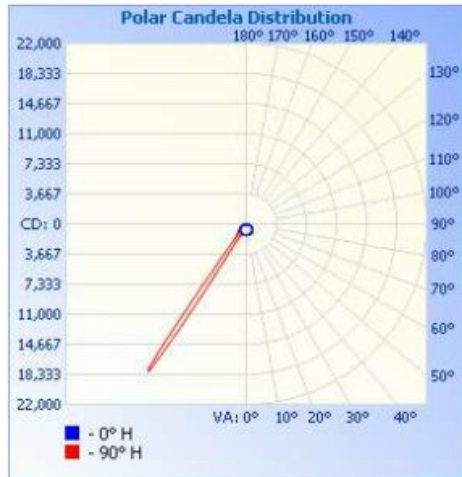


Figure 1. Polar Diagram

Continued on following page

This page is to be read in conjunction with the first page of this report

CONE DIAGRAM

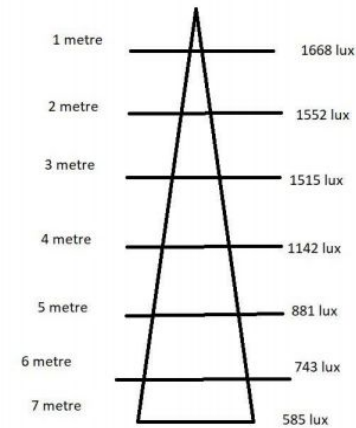


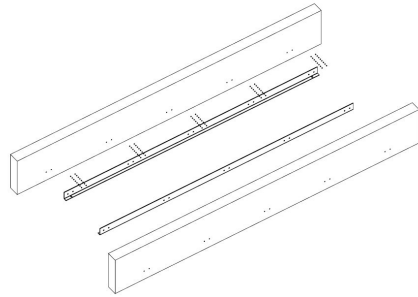
Figure 2. Cone diagram for mounting height up to 8 metres. Based on peak beam intensity @ 30 degrees.

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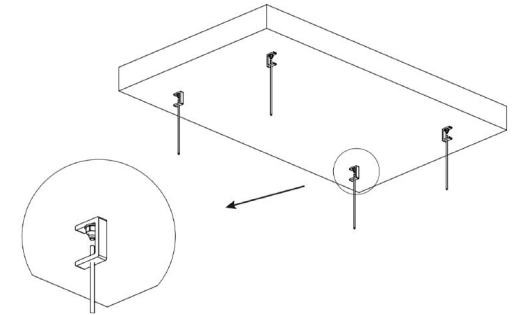
INSTALLATION : See installation manual for more details

Step 1 : Support structure is built

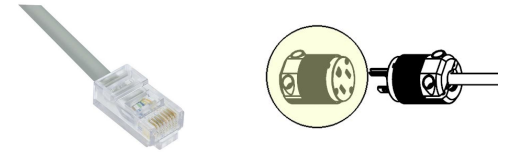
Option 1: run support framing along sides



Option 2: attach threaded bolts directly to ceiling



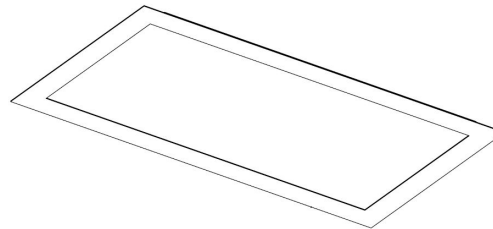
Step 2 : For each unit, electrician provides female NEMA 7-15 Plug, CAT5/6 Cable with RJ45 header, and optionally wire pair for DALI or 1-10V dimmer



Step 3: connect cables and lift units into place with material lift



Step 4: Trim is attached



Step 5: Control “Master” unit using Dimmer.

1-10V - “Warm to Dim”
Single channel

OR

DALI - Dali Type 6 or 8
Single or Dual Channel











InnerScene creates the experience of being outdoors even when in a hospital bed



Innerscene turns dark unusable spaces into amazing sunrooms



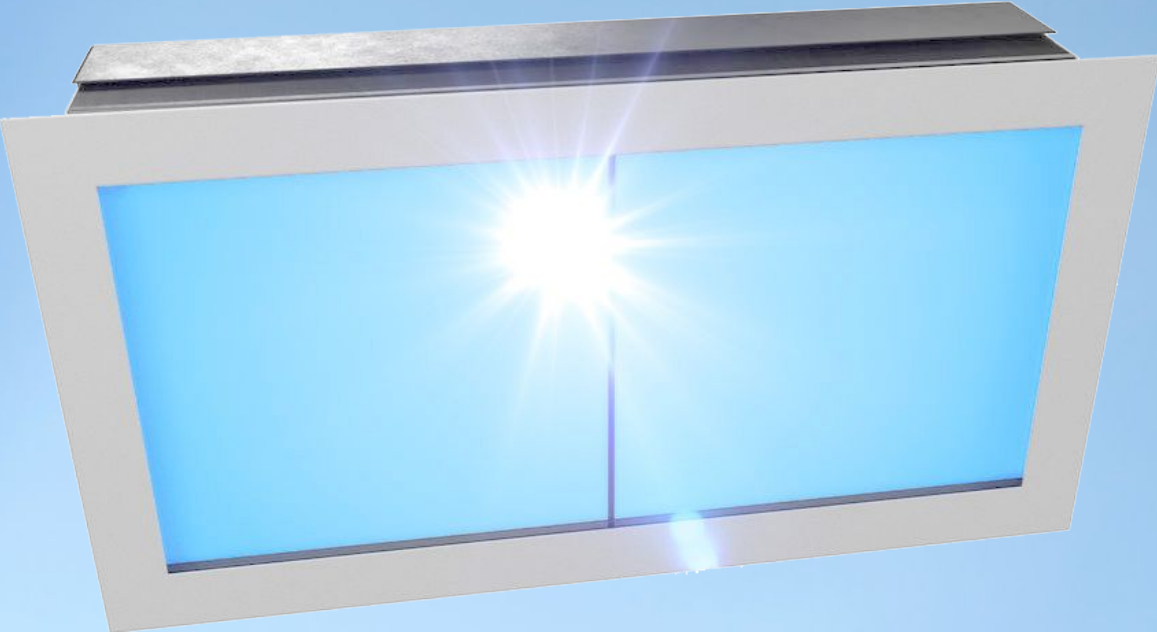
 SKYTEAM
LOUNGE



AWARDS AND MEMBERSHIPS



INNERSCENE VIRTUAL SUN A7



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