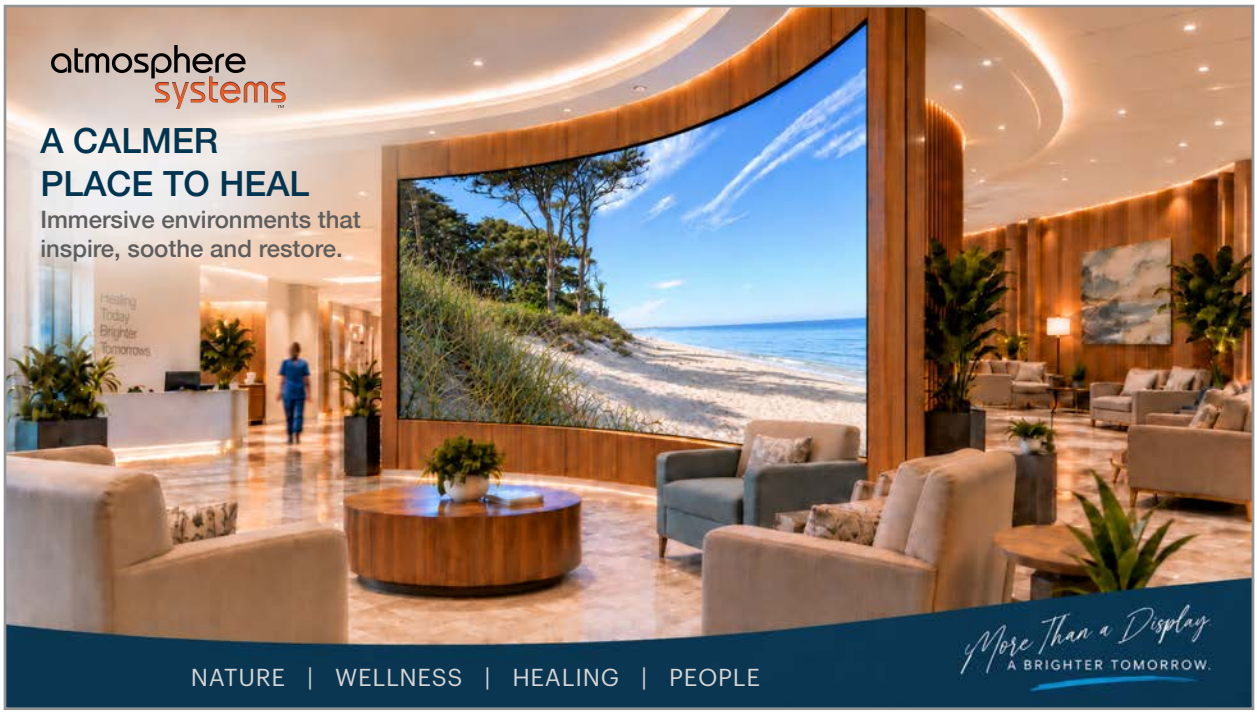
Creating CalmerSpaces™

Immersive Nature Through Video Walls

A design guide for healthcare, wellness, and restorative spaces.

Powered by atmosphere365 immersive films



The above image is a rendering that illustrates how a healthcare facility could incorporate an atmosphere system.

atmosphere systems™
www.atmosphereSystems.com
Eau Claire, WI

MIRAGEVISION
Outdoor TVs, Displays & Video Walls
www.miragevisiontv.com
Las Vegas, NV

atmosphere365 Immersive Nature

Exceptional imagery. A gentler pace. Designed for well-being.

The content is at the heart of every atmosphere experience. Delivered through atmosphere365, atmosphere's immersive nature films combine extraordinary landscapes, advanced filming technology, and deliberately paced movement to create inviting opportunities for relaxation and decompression.

From quiet shorelines to expansive mountain landscapes, these films bring the beauty of the natural world into spaces where people come to pause, recover, and recharge.



Scene from an atmosphere365 film.



Conceptual rendering — not to scale.

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Crafted to Capture Nature's Detail

Produced by atmosphere media GmbH, the films draw on specialized high-resolution production techniques. These include a Super High Vision multi-camera array developed in cooperation with LANG AG, using three RED Dragon cameras to capture imagery at a combined resolution of 9,000 × 6,000 pixels. This detailed source imagery supports large, immersive presentations. The final film format and playback resolution are selected to suit each installation. The atmosphere immersive library also includes 4K nature films accompanied by authentic natural sounds.

Source: https://www.atmospheresystems.com/content

Together, detailed imagery, considered composition, and environmental sound create a premium viewing experience that invites people to spend time with the landscape.





VCU Massey Cancer Center in Richmond, VA



Slow Movement: Giving Nature Room to Breathe

A defining feature of atmosphere's healthcare collection is the producer's "Slow Movement" technique. The films are captured in 8K at high frame rates, allowing footage to be slowed in post-production while maintaining smooth motion and fine visual detail. This creates a gentle, unhurried presentation that gives viewers time to settle into the scene

This slower pacing encourages viewers to notice subtle changes in water, light, and movement. It supports the films' intended role in relaxation and decompression.

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Created with Health and Wellness in Mind

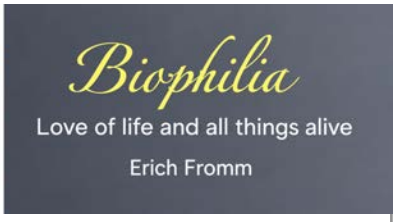
The atmosphere healthcare collection is specifically produced for calming environments. Its nature-based approach offers patients, families, and staff a welcoming visual focus in waiting areas, treatment settings, wellness rooms, and dedicated spaces for rest.

4K Libraries and Custom 8K and 12K Experiences

atmosphere Systems offers standard 4K content libraries, with custom 8K and 12K films available at an additional cost for specialized installations. These custom productions are separate from the standard libraries and are tailored to each project's display dimensions, resolution, and intended viewing experience.

For custom installations, content resolution, image proportions, display geometry, and playback hardware are carefully coordinated to create a cohesive immersive experience. Each commissioned production is matched to the installation's requirements, recognizing that not every film is available in every resolution.





Connecting with Nature Through Design

Biophilic design brings connections to nature into built environments. In an immersive room, nature imagery, sound, lighting, and natural colors and materials work together to create an inviting place to pause and unwind.

Individual responses vary. Research on spending time outdoors helps inform this approach, but it does not establish that viewing nature on a display produces the same physiological effects.

Whether presented on a large-format display, a flat video wall, or a gently curved architectural installation, the objective remains the same: **to bring exceptional nature imagery into spaces designed for relaxation, decompression, and well-being.**

Learn More

Explore atmosphere365 Content
https://www.atmospheresystems.com/content

Discover atmosphere for Healthcare
https://www.atmospheresystems.com/atmosphere-immersive

Explore System Design and Integration
https://www.atmospheresystems.com/integration

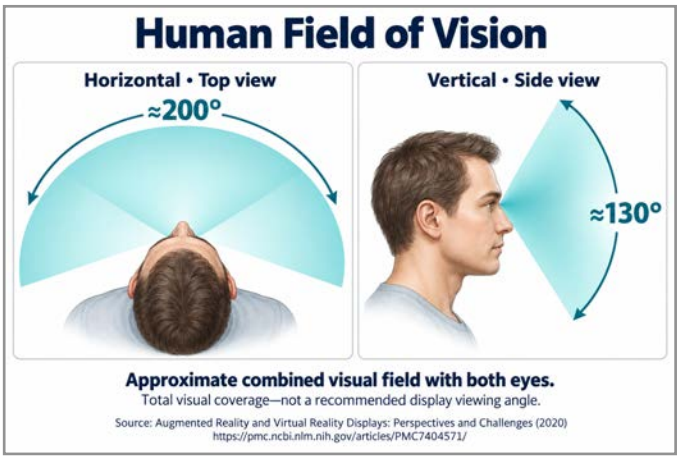
Discover atmosphere for Hospitality
https://www.atmospheresystems.com/atmosphere-hospitality

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Creating Calmer Spaces

How Human Vision Connects Us with Immersive Nature

Experiencing a natural landscape involves more than looking at individual objects. We see details directly in front of us while also taking in the broader surroundings. Immersive nature displays can engage both aspects of vision, bringing expansive views of forests, shorelines, and other natural environments into indoor spaces.



Conceptual illustration of central and peripheral vision. Not to scale.

Human vision combines detailed central vision with a much broader peripheral view. Central vision helps us examine features such as a leaf or a distant bird. Peripheral vision contributes to our awareness and recognition of the surrounding environment. Research demonstrates that information outside the center of our gaze plays an important role in recognizing a scene, even when its finer details are not clearly resolved.[1]

This helps explain why the size and placement of a nature display matter. An image that occupies a larger portion of our visual field has more opportunity to engage both central and peripheral vision. Under suitable conditions, this can strengthen *presence—the feeling of being within the scene being shown*. Screen dimensions, viewing distance, and seating position all influence that experience; curvature alone does not determine it.[2]



Nature, Immersion, and Restorative Experiences

Biophilic design brings connections to nature into built environments. A review of nature exposure in hospital settings found potential benefits for patients' psychological experience and satisfaction, although findings varied across settings and interventions.[5]

Research suggests that digital nature can offer opportunities for relaxation and a sense of restoration when access to outdoor environments is limited.[3] However, feeling restored does not necessarily mean that measurable physiological stress reduction has occurred, and findings vary across studies.[4] Individual responses differ, and these studies do not establish that curved displays provide greater health benefits than flat displays.

Nature imagery provides a visual connection to the outdoors, while colors, textures, lighting, and architectural forms extend that connection into the room. Research on curved interiors reports mixed findings, so curvature should be treated as a design choice rather than a guarantee of greater calm or comfort.[6][7]

These principles guide how atmosphere Systems combines atmosphere365 films, display placement, and room design to create inviting places to pause and connect with nature. In healthcare and wellness settings, the design priority is comfort, connection to the outdoors, and opportunities for quiet respite.

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Exploring Options

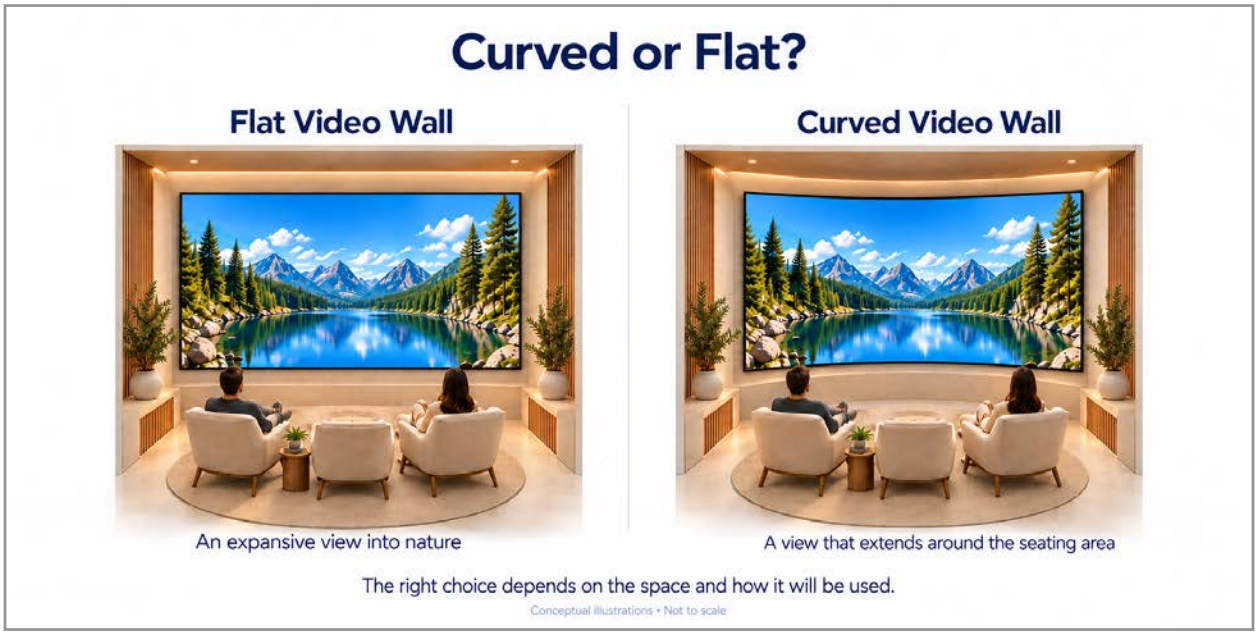
The following sections explore flat and curved video walls and large-format displays, examining how screen size, shape, viewing distance, and placement influence the experience of immersive nature content.

Curved or Flat?

The difference between a flat and curved display goes beyond viewing angle. Both can bring expansive nature scenes into a room, but each shapes the experience differently. A large flat display can create the impression of looking through a window into nature, while a thoughtfully designed curved display can extend that view around the seating area, creating a more enveloping experience.

With atmosphere365 films and thoughtful architectural integration, either format can create a compelling view into nature.

The right choice depends on the room's dimensions, seating layout, viewing distance, and intended use. In a healing or wellness environment, the goal is to create an inviting space that feels calmer, more natural, and more connected to the outdoors.



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Experiencing Nature on a Flat Video Wall

A large flat video wall can present an expansive view of a forest, shoreline, or mountain landscape. When its size and seating distance allow the image to occupy a substantial portion of the viewer's vision, it can provide a strong sense of immersion.

Flat does not necessarily mean less immersive. A large flat wall viewed from an appropriate distance may fill more of someone's vision than a smaller curved display. The important relationship is between the image's physical dimensions and the viewer's position.



Conceptual rendering — not to scale.

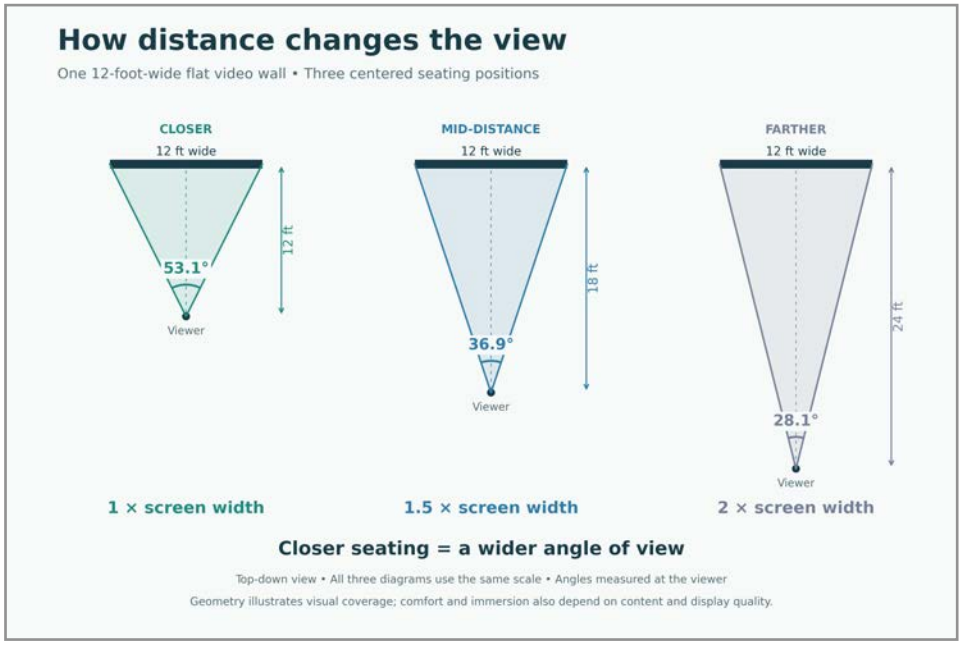
Flat Video Wall

- A flat display can resemble a picture window when its size, framing, and placement are coordinated with the room.
- Exposed framing and undersized imagery can make it feel more like a television.
- Viewing distance matters.

A useful starting point is a viewing distance of approximately 1 to 1.5 times the flat video wall's image width. That makes the image span roughly **37°–53° horizontally** from a centered seat.

Horizontal viewing angle describes how much of the viewer's vision the image occupies from left to right. It depends on both the image's width and the viewer's distance from the display.

These are geometric calculations, assuming the viewer is centered in front of the screen. Larger angles mean the image occupies more of the viewer's vision; they do not automatically guarantee greater comfort or a better experience.

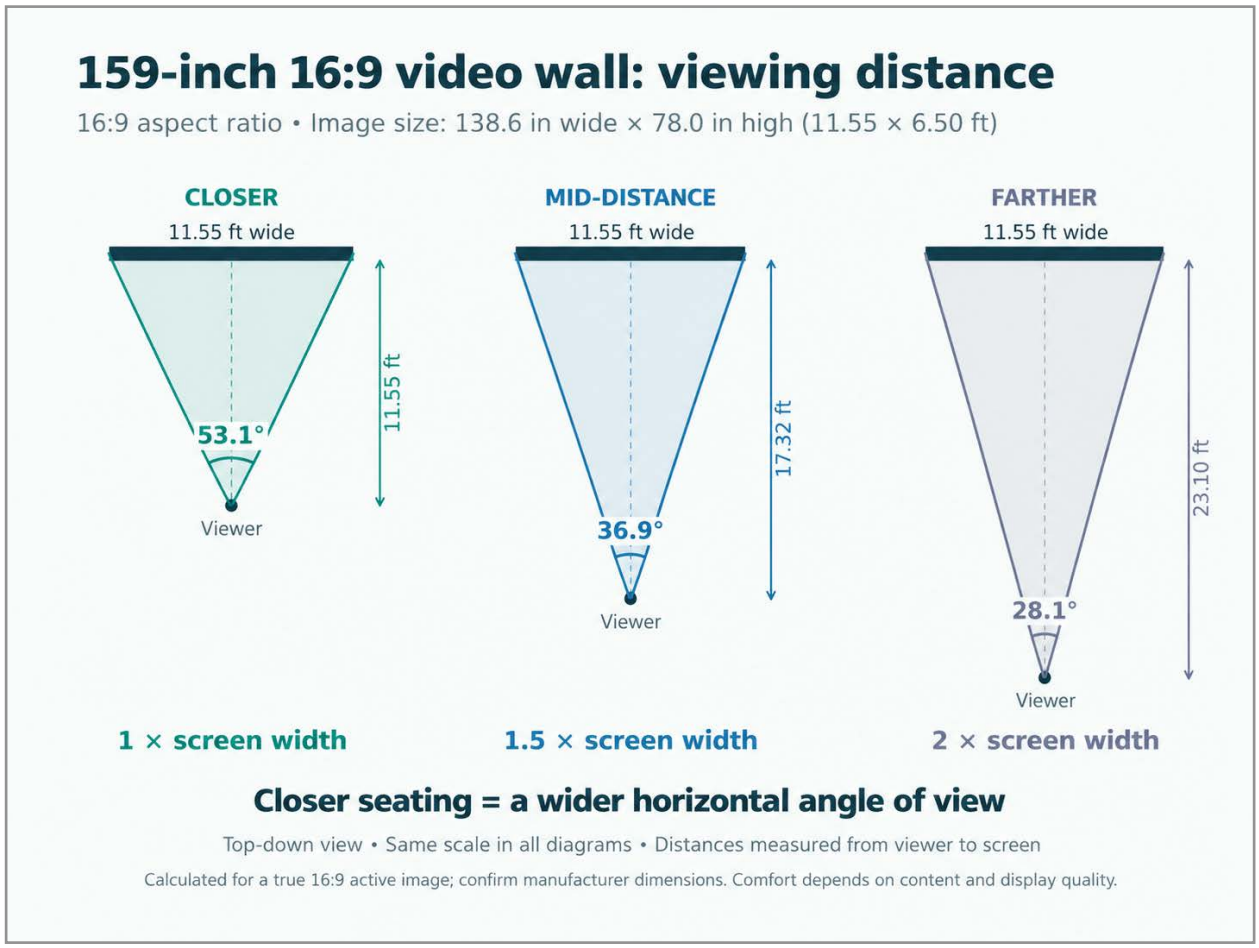


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For planning an atmosphere Systems installation, with a **16:9 aspect ratio** (UHD - 3,840 x 2,160 content), a reasonable approach would be:

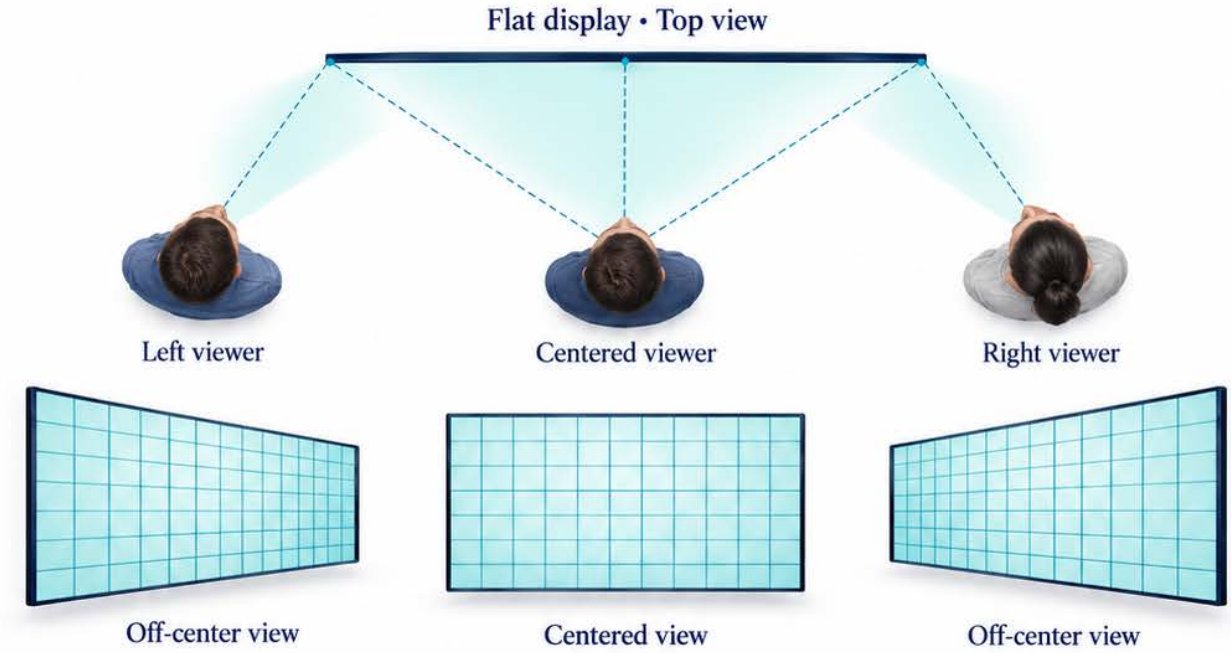
- **Main seating:** Start around **1–1.5 times the image width.**
- **Closer seating:** Smaller pixel pitch is recommended.
- **Multiple seats:** Evaluate side seats as well as the center, since the viewing geometry changes with seating position.

Display diagonal	Approximate image width	Seating range at 1–1.5 × width
159 inches	11.5 feet	11.5–17.3 feet
181 inches	13.1 feet	13.1–19.7 feet



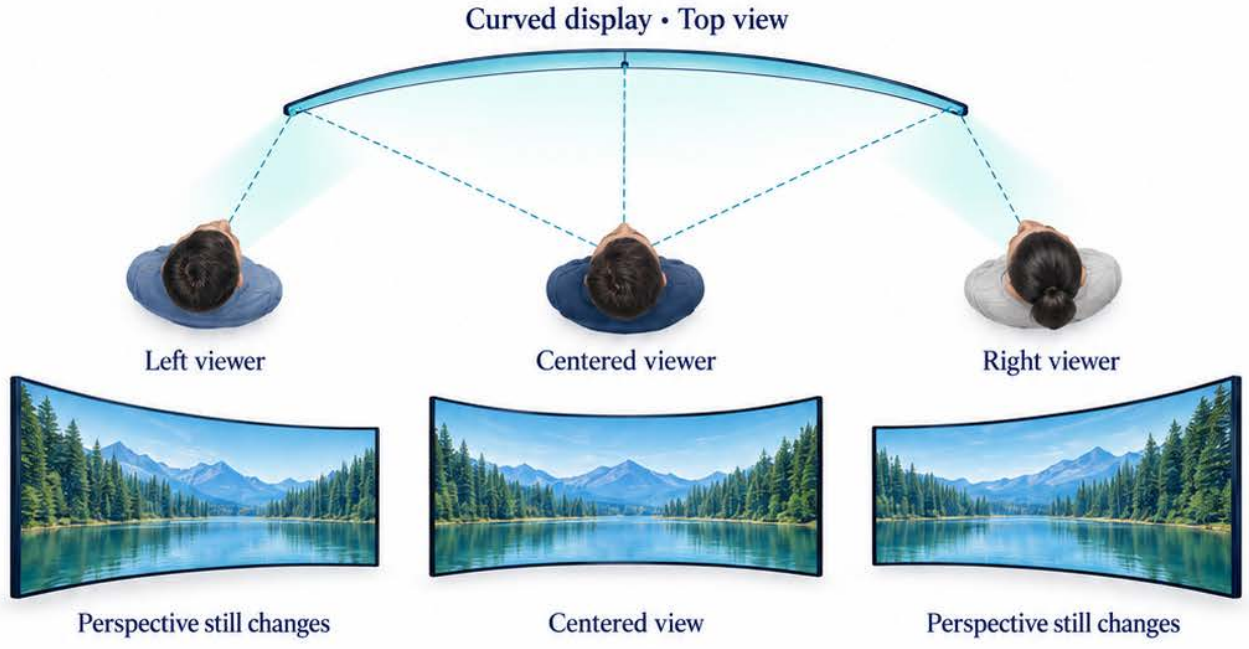
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Viewing position changes the perspective



From an off-center seat, the screen appears narrower and perspective changes.

A curved display brings the edges toward the viewer



The curve brings the edges toward you. Your viewing position still matters.

Conceptual illustrations; not to scale.

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Curved Video Walls: Bringing Nature Around the Viewer

A thoughtfully designed curved video wall can make a nature scene feel as though it extends around the viewing area. A shoreline, forest, or mountain landscape can become a broad visual presence within the room, inviting viewers to feel more connected with the environment being shown.



Healing Space at VCU Massey Cancer Center
Designed by **Matt Roman, AIA, of Hawkins Roman Architects PLLC**

A concave display brings its sides toward the viewer. When the curvature suits the viewing distance and seating position, it can reduce differences in distance and viewing angle between the center and sides of the screen. This geometry may help create a more enveloping experience. Depending on the display technology, reducing extreme viewing angles may also help maintain more consistent brightness and color across the image.

Designing the Curve Around the Space

Curved direct-view LED (DVLED) video walls can be designed for a range of room sizes, but the curve should be planned around the people using the space. Display width, curvature radius, viewing distance, and seating layout work together to determine how much of the scene surrounds each viewer and how comfortably it can be viewed.

For shared spaces, the design should consider the full seating area. A configuration that works well for someone seated in the center may produce a different experience for someone seated farther to the side.

DVLED video walls create images using individual LED pixels. Pixel pitch—the distance between the centers of adjacent pixels—affects how smooth and detailed the image appears at a given viewing distance. Closer seating generally requires a finer pixel pitch to make individual pixels less noticeable. Content resolution, display brightness, and room lighting should also be coordinated with the seating layout to support a comfortable viewing experience.

What the Research Supports

A laboratory study using simulated flat and curved television displays found that presence and engagement depended on the combination of screen curvature, viewing distance, and seating position. Curvature alone did not appreciably improve the viewing experience.[2]

These findings support planning the display's shape around the intended viewing positions. However, the study examined televisions, so its results do not establish the same benefits for large architectural DVLED video walls or demonstrate improved health outcomes.

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Curvature: Shaping the Viewing Experience

Curved LED video walls can be constructed using flat LED cabinets joined at slight angles to form a faceted curve, or flexible LED modules mounted to a curved structure to create a smoother surface. For the nature-viewing experience discussed here, the display curves inward toward the seating area, forming a concave wall.

The appropriate approach depends on the desired radius, display dimensions, viewing distance, budget, and architectural design. Faceted construction may offer a cost-effective option for a gentle curve. Flexible modules can accommodate tighter curves and help create a more continuous surface. The visibility of individual facets depends on the cabinet dimensions, angles between cabinets, and viewer position.

Matching the Content to the Curve

The display's shape and proportions should be considered alongside the content it will show. atmosphere365 offers immersive nature films in two standard playback resolutions: 3,840 × 2,160 (16:9 UHD) and 4,320 × 1,920 (panoramic widescreen). These resolutions allow the display design to be coordinated with the intended film library.

Wider panoramic or wraparound installations may require specially formatted content or image mapping to preserve natural proportions across the display. Planning the content and screen together helps avoid unwanted stretching, cropping, or distortion.



A Window into Nature

For this design, the goal is to create the impression of looking through a broad architectural window into nature. A gently curved video wall can suggest a bay window, helping the landscape feel integrated into the room.

For the approach illustrated here, use a gentle to moderate curve suited to the room and seating layout. The curve brings the sides of the image toward the viewing area while maintaining the room's open, familiar character.

Consideration	Flat Video Wall	Gently Curved Video Wall
Visual impression	Resembles a picture window, though exposed framing can make it look like a TV.	Brings the sides of the scene toward the viewer and can suggest a bay window.
Relationship to the room	Fits into a straight wall; recessing and minimal framing help it feel built in.	A gentle curve that follows the room's lines helps it feel part of the architecture.
Cost and installation	Generally less expensive and easier to install.	Cost and installation complexity depend on the curve and panel type.
Service and replacement	Confirm front-service access and panel-removal clearance with the selected system.	Confirm front-service access and panel-removal clearance with the selected system.
Main design consideration	Integrate it into the wall so it feels built in.	Match the curve to the room's size and seating layout so the image looks natural from the intended viewing positions.

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How Much Curvature?

For this application, we favor a gently to moderately curved DVLED video wall. The landscape should remain the focal point, with visitors noticing the scene first and the shape of the display second.

The appropriate degree of curvature depends on the display's width, viewing distance, and seating layout. A subtle curve may suit one space, while another may benefit from a more pronounced arc. The goal is to bring the sides of the image toward the viewing area enough to strengthen the visual connection without overwhelming the room.

Integrating the Room Architecture

The room's design can reinforce the gentle shape of the display. Complementary elements may include:

- Curved ceiling features that echo the wall's contour
- Rounded transitions between architectural surfaces
- Soft, indirect lighting positioned to minimize screen reflections
- Subtle wall textures and natural finishes
- Coordinated colors and materials that complement the nature imagery

These details should support the landscape without competing for attention. Not every surface needs to curve; a few carefully chosen elements can create a cohesive design.



A curved ceiling feature echoes the contour of the video wall.

159-inch curved video wall • Concept rendering for reference only.

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The examples below show a curved video wall with a fixed 60° horizontal arc. This describes the wall's curvature, not the viewer's viewing angle. The wall's shape stays the same, but the amount of the viewer's field of vision it occupies changes with seating distance: closer seats provide a wider viewing angle, while farther seats provide a narrower one.

CURVED VIDEO WALLS

Screen size, seating distance and viewing angle

ONE FIXED CURVE. THREE VIEWING DISTANCES.

The wall arc stays at 60°. The viewer's angle changes with distance.

SURFACE WIDTH
Measured along the curved screen surface.

STRAIGHT SPAN
Direct edge-to-edge distance (the chord).

SEATING DISTANCE
Viewer to the center of the screen surface.

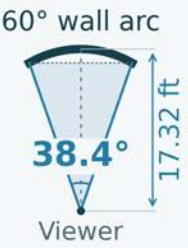
159-inch video wall

Surface width: 11.55 ft | Height: 6.50 ft | Straight span: 11.03 ft

Radius: 11.03 ft | Edges extend 1.48 ft toward the viewer



1 × surface width



1.5 × surface width



2 × surface width

181-inch video wall

Surface width: 13.15 ft | Height: 7.39 ft | Straight span: 12.55 ft

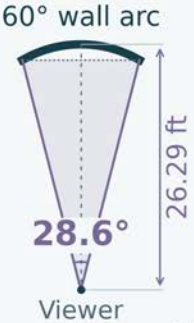
Radius: 12.55 ft | Edges extend 1.68 ft toward the viewer



1 × surface width



1.5 × surface width



2 × surface width

Wall arc: 60° | Viewer angles: 57.4°, 38.4° and 28.6°

Top-down views at a common scale. Diagonals use an unrolled 16:9 surface.
Illustrative geometry; confirm cabinet dimensions and viewing positions.

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Design Considerations

When budget, construction planning, and room design allow, consider a curved DVLED video wall with approximately **45° to 60° of total horizontal arc**, adjusted to the display's width, room dimensions, and intended viewing positions. This arc describes the wall's curvature; the viewer's viewing angle depends on the display's size and the viewer's position.

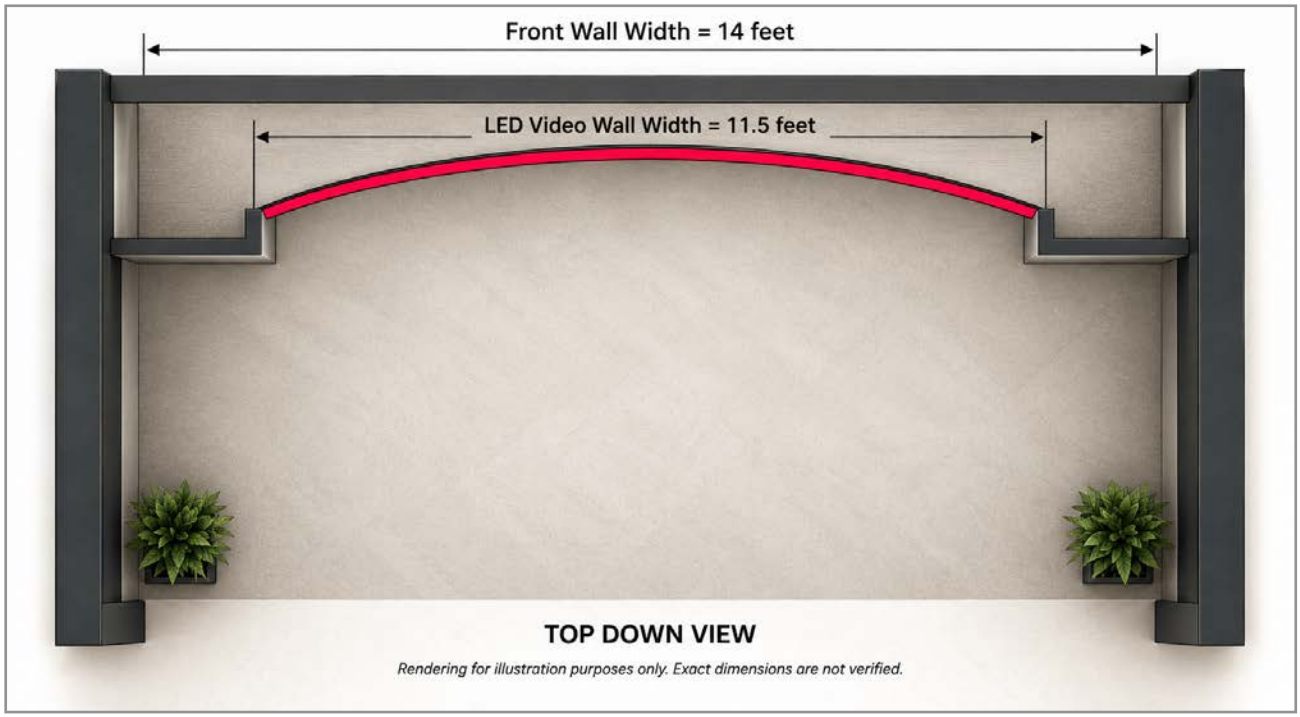
This range is a proposed architectural approach, not a scientifically established therapeutic range. The goal is to create an inviting view into nature that feels integrated into the room.

Integrating the Display into the Architecture

To strengthen the impression of looking through a window into nature, consider carrying the display's curve into the surrounding finished wall and recessing the LED surface. A recess of approximately **3 to 6 inches** may serve as a preliminary design starting point. The final depth should be coordinated with the selected display's mounting, ventilation, and service requirements, while keeping the full image visible from all intended seating positions.

A narrow, matte-black reveal around the perimeter can provide subtle separation between the display and the surrounding architecture without resembling a conventional television bezel.

The goal is to create the impression of a large architectural opening onto a natural landscape. With carefully selected content and coordinated lighting, sound, and finishes, the display's boundaries can become less noticeable, helping the scene feel as though it extends beyond the room.



Conceptual plan view — not to scale.

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Testimonials

Testimonial from Becky Massey – VCU Massey Cancer Center

As a cancer survivor, I know firsthand the importance of finding moments of peace and healing during treatment. That's why I am incredibly proud to have been a volunteer and team member in bringing the atmosphere Immersive Films experience to our fabulous Healing Space in the Adult Outpatient Pavilion on the VCU Health campus.

For more than three years, patients, their loved ones, and our caregivers have all expressed how transformative this experience has been. The immersive nature films provided by atmosphere Systems create an unparalleled sense of peace and relaxation, offering a moment of serenity amid the challenges of treatment and recovery.

Our oncology patients, along with additional patients being served in the 17-story tower, are finding tranquility in the room. Every time I step into the Healing Space, I feel transported to a place of calm, free from the anxiety and stress that often accompany a cancer journey. Caregivers have also shared how spending just a few moments in the Healing Space helps them reset and recharge, allowing them to provide even better care.

From the very beginning, Michael Ohren was on-site for the initial installation, ensuring everything was set up to provide the best experience possible. His dedication and ongoing support have been invaluable, ensuring that our Healing Space continues to deliver the tranquility and comfort our patients and caregivers need.

The feedback has been overwhelmingly positive, and we couldn't be more grateful for this incredible addition to our center. atmosphere Immersive Films have become an essential part of our commitment to holistic healing, and I highly recommend them to any healthcare facility looking to enhance the patient experience.

Becky Massey
Cancer Survivor & Volunteer
VCU Massey Cancer Center
Testimonial dated February 8, 2024

Testimonial from James R. Deming, M.D.

"**Awe**" is that unexplainable feeling that sweeps over you when you sense you are in the presence of beauty and majesty. There is no better word than "awe" to explain the experience of "atmosphere" videos.

Humans have been "awed" by nature since the beginning of time. Throughout literature, art, and music, our reverence for the natural world comes through. Especially in times of upheaval and uncertainty, nature seems constant.

In my career as a physician, I have grown to firmly believe in the importance of all types of healing — physical, psychological, and spiritual. I have studied and spoken about the many studies that support nature's powerful healing effects, what the Japanese call, "Forest Bathing." I have published research on the beneficial effect of nature through virtual reality. I have seen many attempts to bring nature inside or to transport the viewer outside.

There is no product available more effective at immersing a viewer in nature than "atmosphere" videos. Captured with state-of-the-art equipment and presented in a relaxing manner, every scene is stunning — each worthy of "awe."

James R. Deming, M.D.
Retired
Mayo Clinic Health System
Fellow of the American Academy of Family Medicine
Added Qualifications in Hospice and Palliative Medicine

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Let’s Design Your Immersive Space

Creating a successful immersive room begins with understanding the people who will use it and the experience you want to provide. Whether you are planning a patient retreat, a staff decompression room, a wellness space, or a calming waiting area, atmosphere Systems can help bring your vision into focus.

We work with your team to coordinate the nature content, display technology, sound, lighting, and controls into a cohesive experience. From an existing room to a new construction project, we help develop a solution that fits your space, goals, and budget.

From Concept to a Complete Experience

Our planning and integration services can help you:

- Select a flat or curved video wall or a large-format display.
- Coordinate display size, curvature, resolution, and viewing distance with the seating layout.
- Choose atmosphere365 films and content formats suited to the room’s purpose.
- Plan sound and lighting that complement the nature experience.
- Incorporate straightforward controls for selecting scenes and managing daily operation.
- Coordinate equipment, installation requirements, and service access with your architects, designers, IT staff, and AV integrators.

We can support your project from initial consultation and system design through installation, commissioning, training, and ongoing support.

Architectural Expertise for Your Vision



The Healing Space: from construction to completed installation.

Early coordination with your architect helps align the room’s proportions, finishes, lighting, and display placement with the immersive technology.

If your project requires architectural design, we can introduce you to **Matt Roman, AIA, of Hawkins Roman Architects PLLC**, who designed the Healing Space at VCU Massey Cancer Center.

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Creating CalmerSpaces™

Start with a Conversation

Share your floor plan, room dimensions, photographs, or initial ideas. We'll help you explore the possibilities and identify the next steps toward creating your calmer space.

atmosphere systems

www.atmosphereSystems.com
Eau Claire, WI

Mike Ohren
Founder & CEO
mike@atmosphereSystems.com

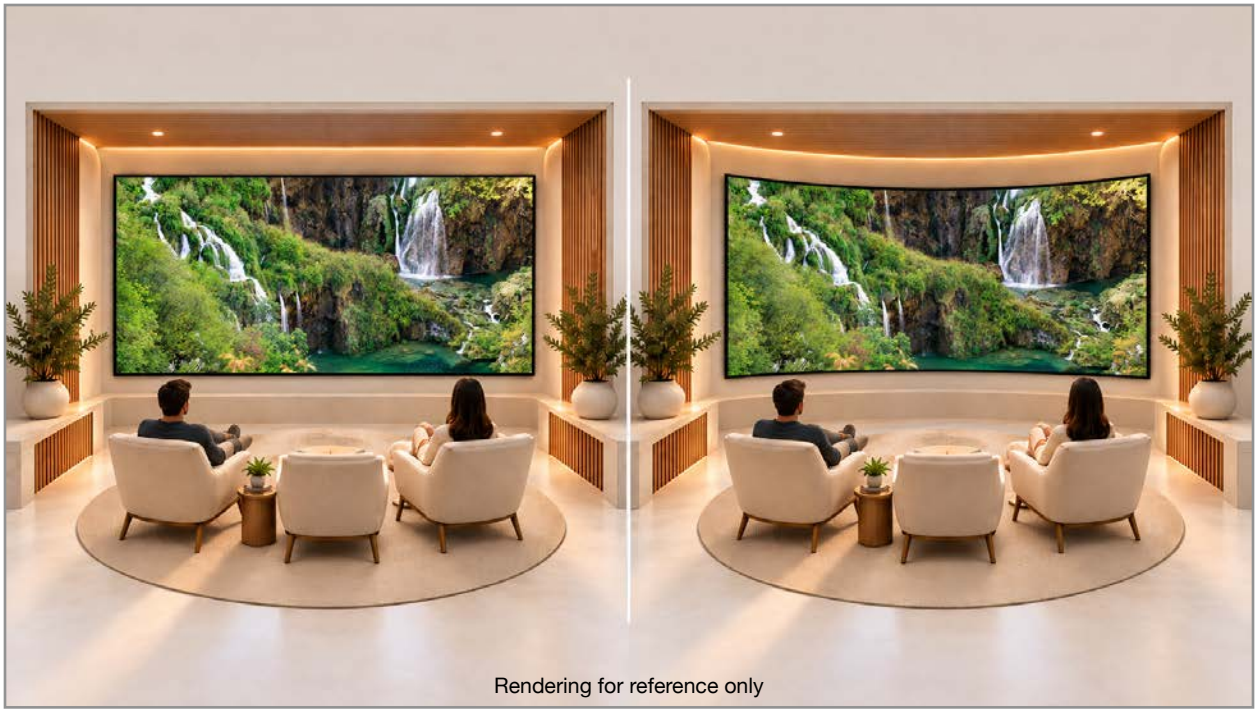
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More Information

Discover how atmosphere Systems can help transform your environment into a calmer, more immersive space through high-resolution nature films, advanced display technology, and thoughtful design.

Visit our website to learn more about our systems, content, and design capabilities. Explore our Resource Library for brochures, videos, educational materials, and examples of real-world installations.

Website: www.atmospheresystems.com

Resource Library: www.atmospheresystems.com/resource-library

Author:
Michael Ohren
Founder and CEO
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