



Superior Visual Experience and Mission-Critical Reliability Tailored To Your Unique Indoor Environment

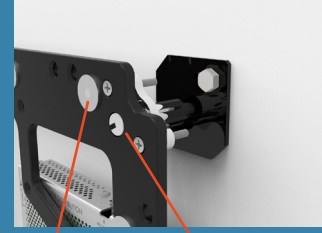
The Planar® DirectLight® LED Video Wall System is a family of seamless, ultra-fine pitch direct view LED video walls that provide a superior visual experience and 24x7 reliability tailored to your unique indoor environment. Planar DirectLight LED video walls incorporate design principles gained from Planar's decades of successful video wall installations and is ideal for the most demanding control room applications, providing a uniform and seamless canvas of nearly any size or shape.

The revolutionary Planar® EasyAlign™ Mounting System enables precision six-axis alignment and together with Planar® DirectLight™ Control Software delivers unmatched image quality even in low-light control rooms. At less than 4" mounted depth, Planar DirectLight is the thinnest direct view LED video wall available and mounts directly to the wall. Front serviceability eliminates the need for rear access, freeing valuable space and simplifying maintenance. Planar DirectLight's off-board distributed architecture delivers greater reliability, reduces installation time and complexity and enables ultra-quiet, fan-less operation at the video wall-vital for control rooms environments.



Revolutionary Planar EasyAlign Mounting System

Front Installation and Serviceability
Lowers Operating Costs



Magnet pads for LED Display Module attachment



Z-axis adjust points ensure a flat mounting surface

Finer grain Z-axis adjust points on Display Modules further optimizes flatness

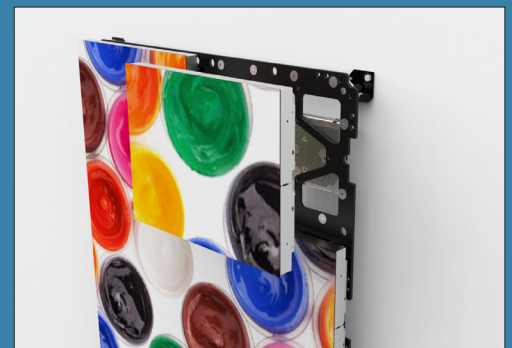
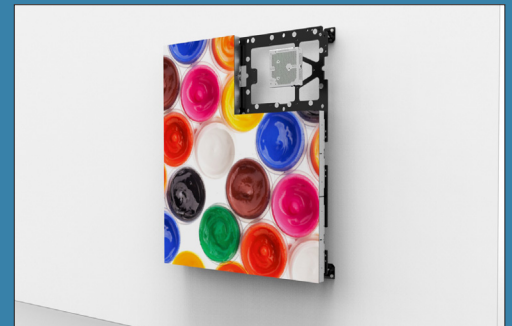
Truly Seamless, Ultra-Fine Pitch with Unmatched Image Quality

Superior Low Brightness Visual Performance

Available in 1.6 to 3.1 millimeter pitches, Planar DirectLight LED video walls deliver a crisp, high contrast image with its black resin LEDs and Planar® MicroGrid Shader™, enabling the deepest levels of black. Planar DirectLight is designed to maintain color adjustments and gray levels even at low levels of brightness.

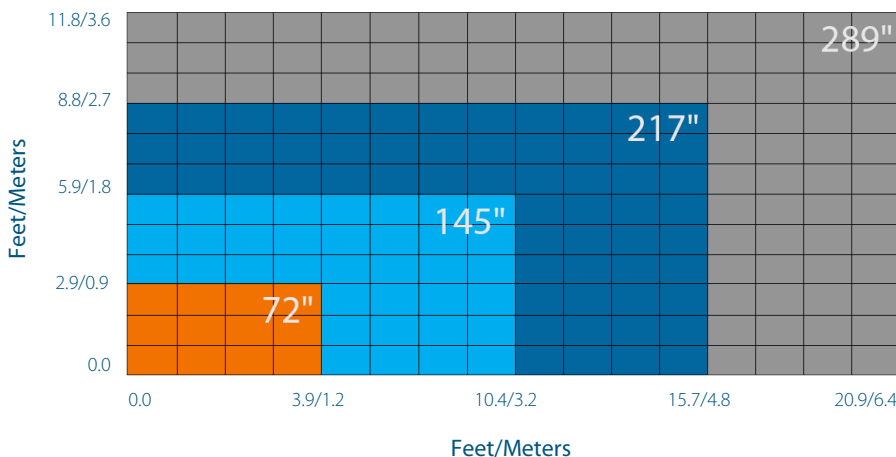
- Consistent design available in four resolutions: 1.6, 1.9, 2.5 and 3.1mm pitch
- Black resin LEDs and Planar MicroGrid Shader for deeper blacks, higher contrast
- DirectLight Control Software allows for flexible image adjustment and maintains color settings even at low brightness
- Excellent off-axis viewing with no color shift
- Saturated colors and deep blacks improve SCADA visibility
- Supports concave video walls with addition of mounting structure

- Ultra-fine 6-axis adjustment for perfectly aligned video walls
- Mounts to wall, eliminating need for additional mounting frame



- Single person installation and removal of LED Display Modules
- Eliminates need for rear access, freeing valuable space
- Front service access to all components allows for effective in-place service
- Lockable LED Display Modules provide added safety and security

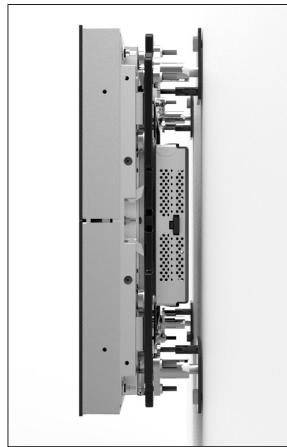
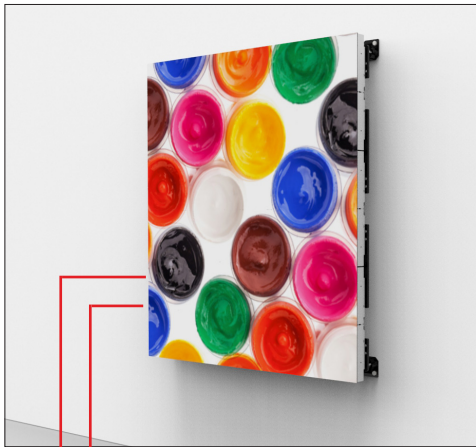
Four Pixel Pitch Choices — All Easily Optimized for 16:9



Super Slim Profile, Precision Alignment Adaptable to Nearly Any Size or Shape

Thinnest Direct View LED Video Wall

The Planar EasyAlign Mounting System enables less than 4" mounted depth, making it the thinnest direct view LED video wall in the industry. It is ideal for space-constrained installations and eliminates the need for rear access space. Its 6-axis of adjustment combined with Planar DirectLight Control Software allows for fine-tuned image calibration, delivering stunning, uniform images. With DirectLight video walls, you can scale your design to fit any size wall including concave configurations.

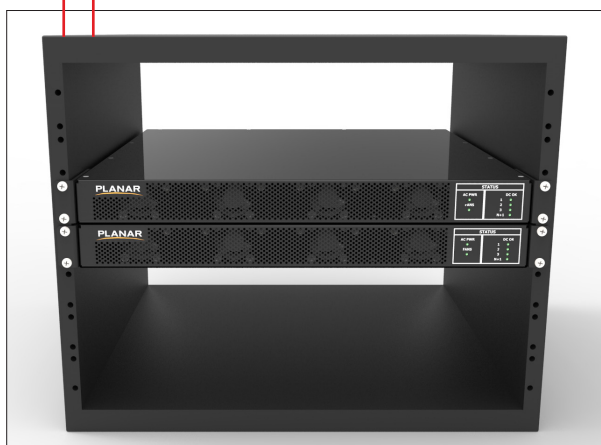


- Total mounted depth $\leq 4"$ including Planar EasyAlign Mounting System and LED Display Module
- Saves valuable control room real estate
- No AC power outlets behind LED video wall simplifies installation and service

High Reliability and Simplified Service

Proven Off-Board Distributed Architecture

Planar DirectLight's unique off-board distributed architecture delivers 24x7 reliability and improves serviceability by removing heat, complexity and potential points of failure from behind the video wall and conveniently co-locates them with other rack mounted equipment for improved accessibility. Planar DirectLight video walls offer a range of fault-tolerant configurations including n+1 power supplies and optional redundant video cabling. Planar DirectLight enables ultra-quiet, fan-less operation at the video wall as well as efficient cooling and improved maintenance access.



- Centrally located with other electronics up to 200 feet away from the LED video wall
- Easy-to-access location minimizes disruption at the LED video wall
- Removes heat and complexity from the LED video wall
- Rack-mounted power supply allows for efficient cooling and improved maintenance access
- Redundant power supply and video distribution options available to ensure uninterrupted operation
- Fiber optic and HDBaseT video extension provide convenient and reliable long distance connectivity
- Optional Fiber Optic video extension enhances security of sensitive video information
- Broad compatibility with leading control room processors including video processing and content management systems such as Planar's Clarity® Visual Control Station™ (VCS™) Video Wall Processor

PLANAR DIRECTLIGHT LED VIDEO WALL SYSTEM SPECIFICATIONS

Model	DL1.6	DL1.9	DL2.5	DL3.1
Pixel Pitch	1.67mm	1.92mm	2.50mm	3.13mm
Resolution (per LED Display Module)	240x180	208x156	160x120	128x96
Pixel Density (pixels)	33,445 per sq. foot/ 360,000 per sq. meter	25,121 per sq. foot/ 270,400 per sq. meter	14,864 per sq. foot/ 160,000 per sq. meter	9,513 per sq. foot/ 102,400 per sq. meter
LED Type	Commercial Grade 3-in-1 Black SMD			
LED Surround	Planar® MicroGrid Shader™, Black			
Brightness, Uncalibrated, Calibrated (nits)	≥1,200, ≥900, adjustable			
Brightness Uniformity	≥ 97%			
Viewing Angle, Horizontal	≥ +/-80° (≥90% brightness)			
Viewing Angle, Vertical	≥ +80°/-75° (≥80% brightness)			
Color Space	≥97% NTSC			
Color Uniformity	≥97%			
Power Consumption, Maximum (watts)	90 per sq. foot/967 per sq. meter			
Power Consumption, Typical (watts)*	19 per sq. foot/205 per sq. meter			
Runtime Duty Cycle	24x7			
Lifetime: Typical	100,000 hours to half brightness			
Acoustic noise	Fanless Operation			
Operating Temperature/ Humidity (degrees F/C, relative humidity)	14 to 104/-10 to +40, 10-80%			
LED Display Module Size (W x H x D)	15.7" x 11.8" x 2.63" / 400mm x 300mm x 66.8mm			
LED Display Module Diagonal	19.7"/500mm			
LED Display Module area	1.3 sq. feet/0.12 sq. meters			
Total Install Depth Including Planar EasyAlign Mounting System	3.5"/89mm minimum, 4"/102mm maximum			
Total Install Weight	15.8 lbs/7.1 kg (LED Display Module and Planar EasyAlign Mount)			
Warranty	3 year Advance Exchange with 24x7 customer support. Extendable to 5 years.			

*Typical video content and indoor brightness

MECHANICAL

Adjustable Mount	Planar® EasyAlign™ Mounting System included
Installation, Service	Front
LED Display Module Alignment Adjustment	6-axis Integrated
Regulation Compliance	NRTL, FCC Class A, CE Class A, WEEE, RCM, PSE, EN60950 and CISPER22/2010, RoHS
Americans with Disability Act (ADA) Compliance	Yes

POWER SUPPLY MODULE

Type	1U Rack Mount Controller; drives up to 11 LED Display Modules
Redundancy	n+1 Redundant Power Supplies (optional)
Line voltage	100-240 Volts AC, 50/60Hz auto switching
Power status	Diagnostic LEDs
Maximum distance from LED Display Module	HDBaseT 326 feet/100 meters, Multi- mode fiber 984 feet/300 meters

VIDEO INPUT

Video Input Type	HDMI v1.4 with HDCP Compliance	
Video Input Resolution Maximum	1920x1080 @ 50, 60 Hz	
Video Signal Extension Options	CAT6 (HDBaseT)	Fiber Optic
Video Signal Redundancy	Optional	
Video Extension Redundancy	Optional	
Display Control	Planar DirectLight Control Software included	
Control Input Type	RS232 or Ethernet	