



CLARITY LED SERIES

Rear-Projection Video Wall Displays



CLARITY LED SERIES

Optimized Color. Built to Last.

The Clarity™ LED Series is a complete line of high resolution LED-illuminated rear-projection video wall displays that deliver Clarity NaturalColor™ optimized color performance, exact image control, long life and minimal maintenance. With no consumable parts and a 60,000 hour life, the Clarity LED Series illumination system eliminates the ongoing costs associated with lamp changes. The Clarity LED Series incorporates preset application-specific color spaces that provide customers the best visual performance possible for their particular application and content.

Available in a range of sizes and resolutions, the Clarity LED Series employs solid-state LED technology and proprietary Set it and Forget it™ (SiFi) automatic color and brightness balancing in order to further minimize required maintenance over the life of the video wall. Designed, built and tested as a complete system, Clarity LED Series displays are ideal for mission-critical operations that need to get the most out of their shared visual information.

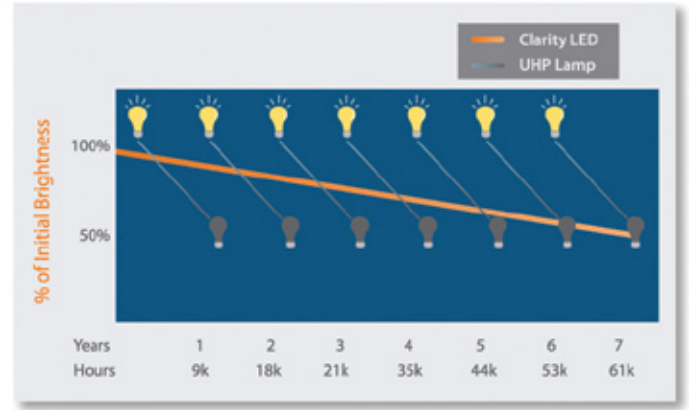


THE LED DIFFERENCE

The Clarity LED Series features benefits made possible only by using the latest in LED and DLP® technology. LED illumination provides inherent advantages over traditional UHP lamp systems, making it particularly appealing for 24/7 control room video wall applications and those looking for the best visual experience.

The Clarity LED Series illumination system is maintenance-free, incorporating no consumable parts such as lamps or color wheels and has a rated life of 60,000 hours. This provides both the 24/7 reliability and reduced cost-of-ownership that benefits any video wall application. With Planar's solid state LED illumination, customers eliminate the need for automatic lamp changer systems, resulting in a simpler overall system with fewer moving parts.

The Clarity LED Series supports a much broader color gamut and delivers color saturation levels never before seen on high resolution video walls. LED-generated colors are more stable over time and by intelligently controlling them, the LED illumination system eliminates color break-up that is sometimes experienced with lamp and color wheel-based systems.



Reduced Cost of Ownership with LED

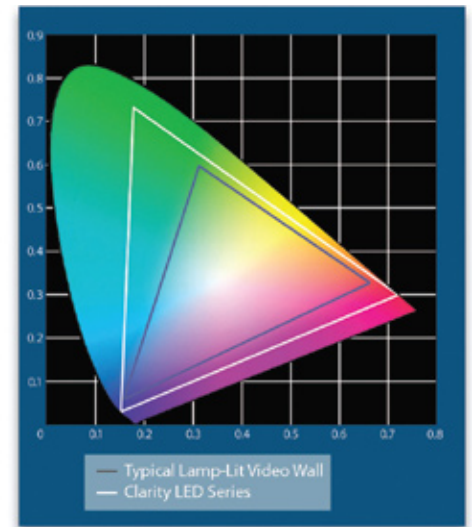
- No accumulated lamp replacement costs
- No lamp-based service calls
- Reduced cost of balancing divergent brightness levels

The Clarity LED Series requires no warm-up period so full brightness is achieved immediately upon powering up the video wall. For environments where the video wall is turned on and off, no waiting time is required.

LED illumination is better for the environment. The Clarity LED illumination system contains no mercury, no lead and has no consumable parts to throw away.

HARNESSING THE POWER OF LED COLOR

The Clarity LED Series produces a wide color gamut well beyond that of traditional lamp-based systems and exceeding the NTSC gamut. A challenge with LED technology is applying wide gamut to content in a way that produces rich and saturated colors while still producing accurate and realistic images. Planar's Clarity NaturalColor technology utilizes a proprietary color space that intelligently maps a broader color palette to content, producing saturated and life-like colors.



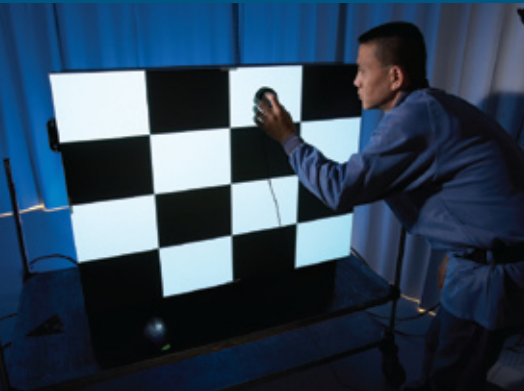
By utilizing advanced color management techniques and our extensive experience with different video wall applications, Planar created Clarity Display Profiles. These preset and customizable color spaces have been optimized for a range of specific video wall applications, harnessing the power of LED illumination and producing a better visual experience for leading video wall applications, including:

- Control Room
- Security
- On-Camera
- Low Ambient Light
- Simulation
- Eco
- Studio Monitor



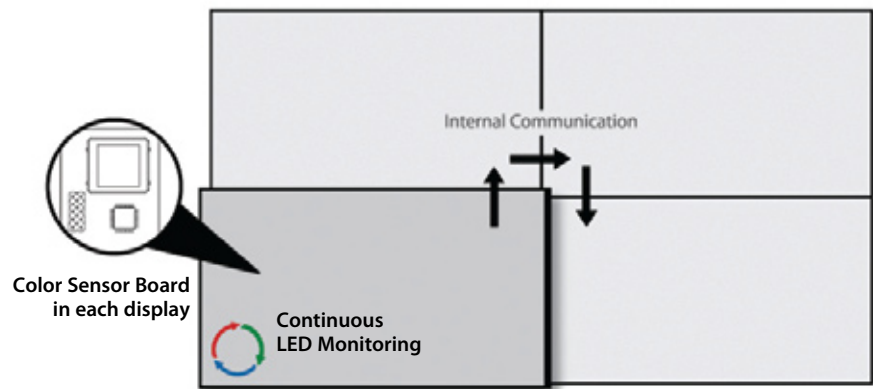
QUALITY BY DESIGN

The Clarity LED Series is designed as a system rather than a kit, ensuring smooth installation and optimum performance. Each Clarity LED Series display can be configured with either Open electronics or Integrated with Planar's Indisys™ image processing built-in. Each display is precisely calibrated at the factory and the entire video wall system, down to the Indisys image processing component level, undergoes a factory preflight designed to maximize installation success for complete video walls.



MAINTAINING THE PERFECT WALL

A continuous internal monitoring and feedback loop in the Clarity LED Series engine ensures LEDs are driven consistently across the video wall. In addition, Planar's Set it and Forget it (SiFi) Auto Color and Brightness (ACB) control communicates across all displays in the wall to maintain color and brightness uniformity and comes standard on each Clarity LED Series display. SiFi ACB is unique in its ability to measure the output of the full light path and to maintain site-specific adjustments that optimize viewing for a particular room.



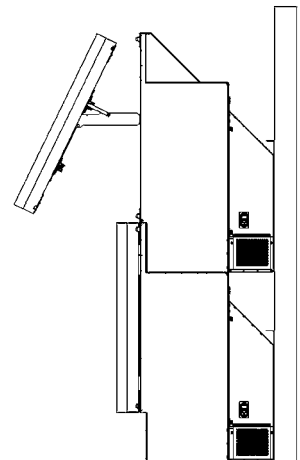
SiFi Automatic Color and Brightness Balancing

- Continuous internal monitoring and feedback loop ensures LEDs are driven consistently
- Built-in color sensor outside projection lens measures primary, secondary and white brightness and color
- SiFi algorithm calculates optimal video wall balance
- Precise color and brightness levels are automatically set for each display

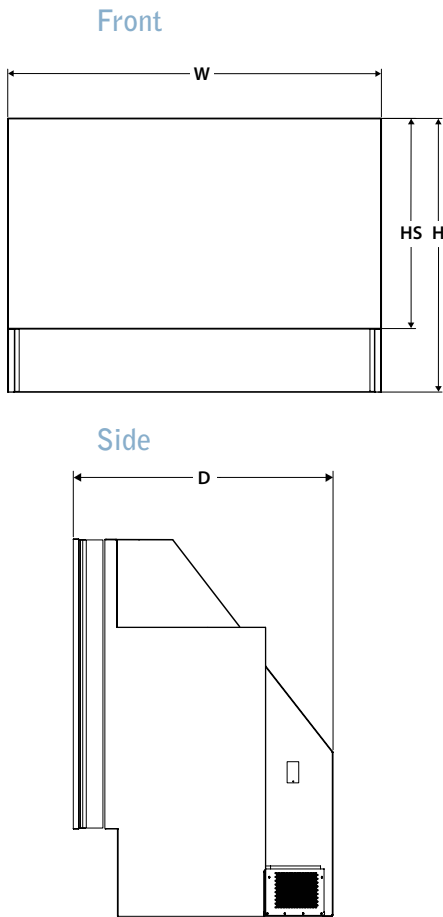
Paired with Planar's zero mullion PrecisionView™ screen, factory-calibrated optics path and precise 6-axis motorized alignment, the Clarity LED Series light engine delivers an image aligned to within a single-pixel level of sensitivity. The positive pressure cabinet for each unit keeps dust out while allowing for full front and rear service access to minimize space requirements.

PrecisionView Front Access Screens

- Front access allows for full service with zero rear clearance
- Every Clarity LED Series display comes standard with front and rear service access
- Unique design allows for front access on curved walls



CLARITY LED SERIES SPECIFICATIONS



Imaging Technology	DLP®
Illumination System	Clarity LED RGB
Lifetime (typical)	60,000 Hrs
Screen Type	PrecisionView™
Border (typical)	0 mm
Screen Gap	< 0.7 mm
Color and Brightness Control	Automatic RGBCYMW Brightness and Color via SiFi™ for LED
Brightness Uniformity	> 96%
Contrast Ratio	1650:1
Colors	16.7 million
Color Gamut	118% NTSC, 164% EBU
Color Spaces	Native LED, Clarity NaturalColor™, Rec 709
Application-Specific Display Profiles	Control Room, Simulation, Security, Low Ambient Light, Studio Monitor, On-Camera, Eco
Image Alignment	Integrated 6-axis motorized alignment
Maximum Stacking	6 high
Temperature Range	10 - 35° C (20° +/- 3° C for optimal screen performance)
Humidity Range	20 to 80% RH non-condensing
Serviceability	Full Front and Rear Access
Safety Regulations	FCC Class A, EN55022/CISPR22, ICES-003, CNS 13438, EN55024, EN60950, RoHS
Integrated	Indisys™ Image Processing System
Capabilities	PIP 4, resize, pan, scale, zoom, snapshot
Inputs	2 x DVI-D connectors, 330 MHz Pixel frequency
Loop Through	Digital (2 x DVI-D connectors)
Control	IR remote, RS-232, Indisys Mgmt Suite via Ethernet TCP/IP
Open	Clarity Open Electronics with Big Picture™
Inputs	VGA to FHD (1920x1080 @ 60Hz)
Analog:	DSUB 15 pin connector x2 with loop through
Digital:	DVI-D with loop through
Video:	SDI, Composite, S-Video, Component-HD all w/loop through
Loop through	Analog and Digital
Control	IR remote, RS-232, RS-485 with loop through, WallNet

MODEL	c70HD-LED	c50RP-LED	c67RP-LED	c50RX-LED	c67RX-LED
Diagonal	70"	50"	67"	50"	67"
Resolution	Full HD 1920 x 1080	SXGA+ 1400 x 1050	SXGA+ 1400 x 1050	XGA 1024 x 768	XGA 1024 x 768
Engine Output (typical)	575 lumens	600 lumens	600 lumens	600 lumens	600 lumens
PrecisionView - 2 (PV2) Screen Brightness (optimal) - cd/m2 Viewing Angle (1/5 gain)	213 H = 51°; V = 47°	—	—	—	—
PrecisionView - 4 (PV4) Screen Brightness (optimal) - cd/m2 Viewing Angle (1/5 gain)	—	793 H = 52°; V = 19°	442 H = 52°; V = 19°	793 H = 52°; V = 19°	442 H = 52°; V = 19°
PrecisionView - 1 (PV1) Screen Brightness (optimal) - cd/m2 Viewing Angle (1/5 gain)	—	231 H = 55°; V = 45°	129 H = 55°; V = 45°	231 H = 55°; V = 45°	129 H = 55°; V = 45°
Dimensions					
Screen					
Width (W)	61" (1549.4 cm)	40" (101.6 cm)	53.5" (136 cm)	40" (101.6 cm)	53.5" (136 cm)
Height (HS)	34.3" (871.5 cm)	30" (76.2 cm)	40.2" (102 cm)	30" (76.2 cm)	40.2" (102 cm)
Cabinet					
Width (W)	61" (1549.4 cm)	40" (101.6 cm)	53.5" (136 cm)	40" (101.6 cm)	53.5" (136 cm)
Height (H)	44.6" (1134.6 cm)	37.8" (96 cm)	49.1" (124.8 cm)	37.8" (96 cm)	49.1" (124.8 cm)
Depth (D)	30.9" (78.6 cm)	27.1" (69 cm)	33.7" (85.7 cm)	27.1" (69 cm)	33.7" (85.7 cm)
Weight	175 lbs (79kg)	135 lbs (61 kg)	200 lbs (91 kg)	135 lbs (61 kg)	200 lbs (91 kg)
Power Consumption (typical/Eco) - Watts	350/275	335/270	335/270	335/270	335/270

To learn more about the Clarity LED Series by Planar Systems, call 503-748-1100 or visit www.planarcontrolroom.com