

BARCO REALITY

**Ultra-High Resolution
LCD Projectors**



BARCO

The REAL World of Super Graphics

Nothing surpasses the powerful reality of BARCO's latest generation of super-high resolution light-valve projection systems. The BARCOREALITY 8200 and 9200 projector series offer a unique combination of ultra-high brightness and super-high resolution. Both projectors are equipped with super-XGA (1280x1024) LCD panels and are compatible with sources having resolutions up to 2000 x 1280 pixels. Featuring an innovative high efficiency optical system, with an 1,800 Watt metal-halide lamp, the BARCOREALITY 9200 offers an incredible light output of 6,000 lumens full white.

BARCOREALITY SERIES

The BARCOREALITY 8200, with a 700 Watt metal-halide lamp, produces a light output of 2,600 lumens full white. Both units deliver crystal clear graphics images and razor sharp characters on screens up to 15 m (50 ft) wide.

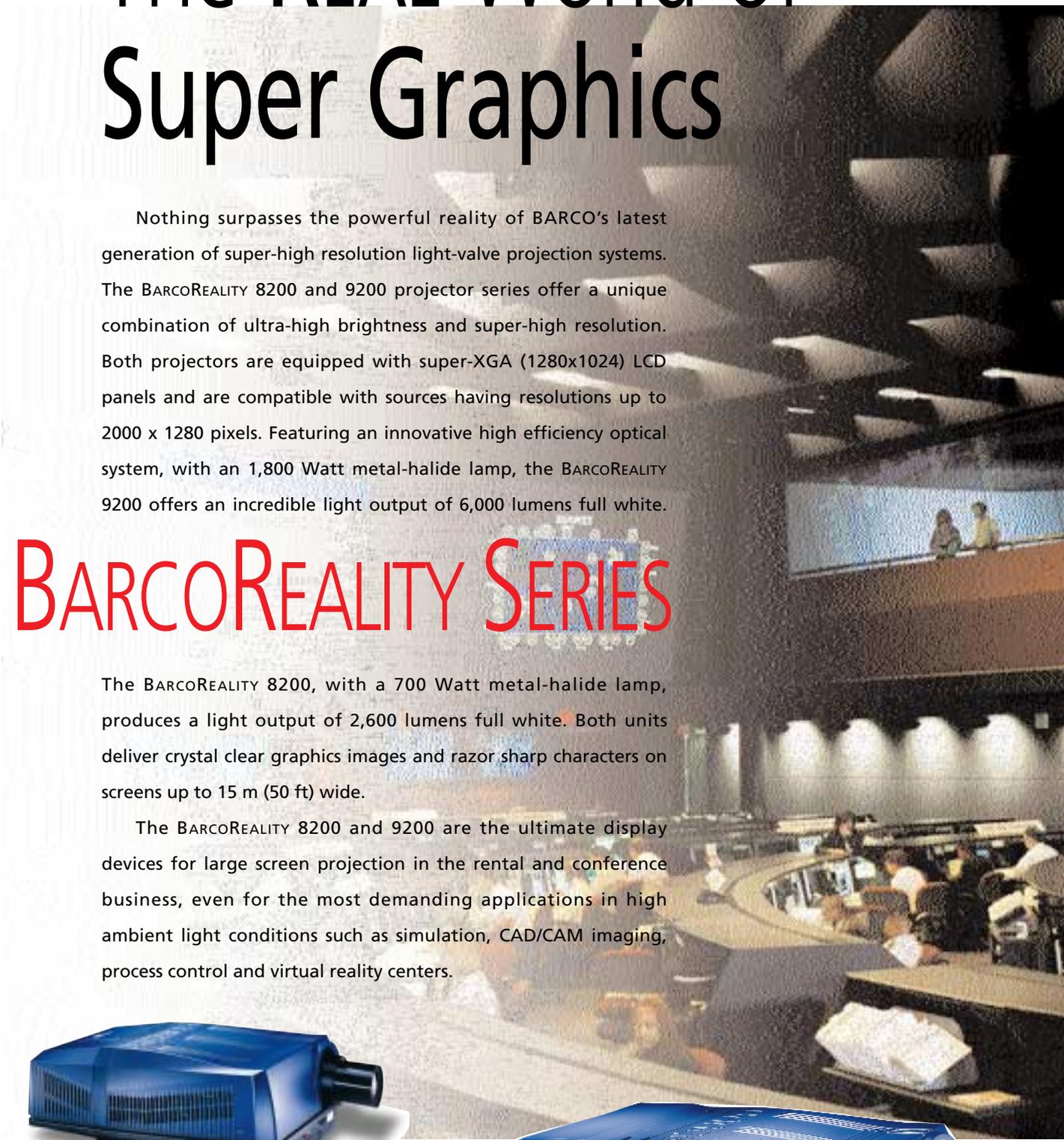
The BARCOREALITY 8200 and 9200 are the ultimate display devices for large screen projection in the rental and conference business, even for the most demanding applications in high ambient light conditions such as simulation, CAD/CAM imaging, process control and virtual reality centers.



BARCOREALITY
8200



BARCOREALITY
9200



BARCO REALITY: The

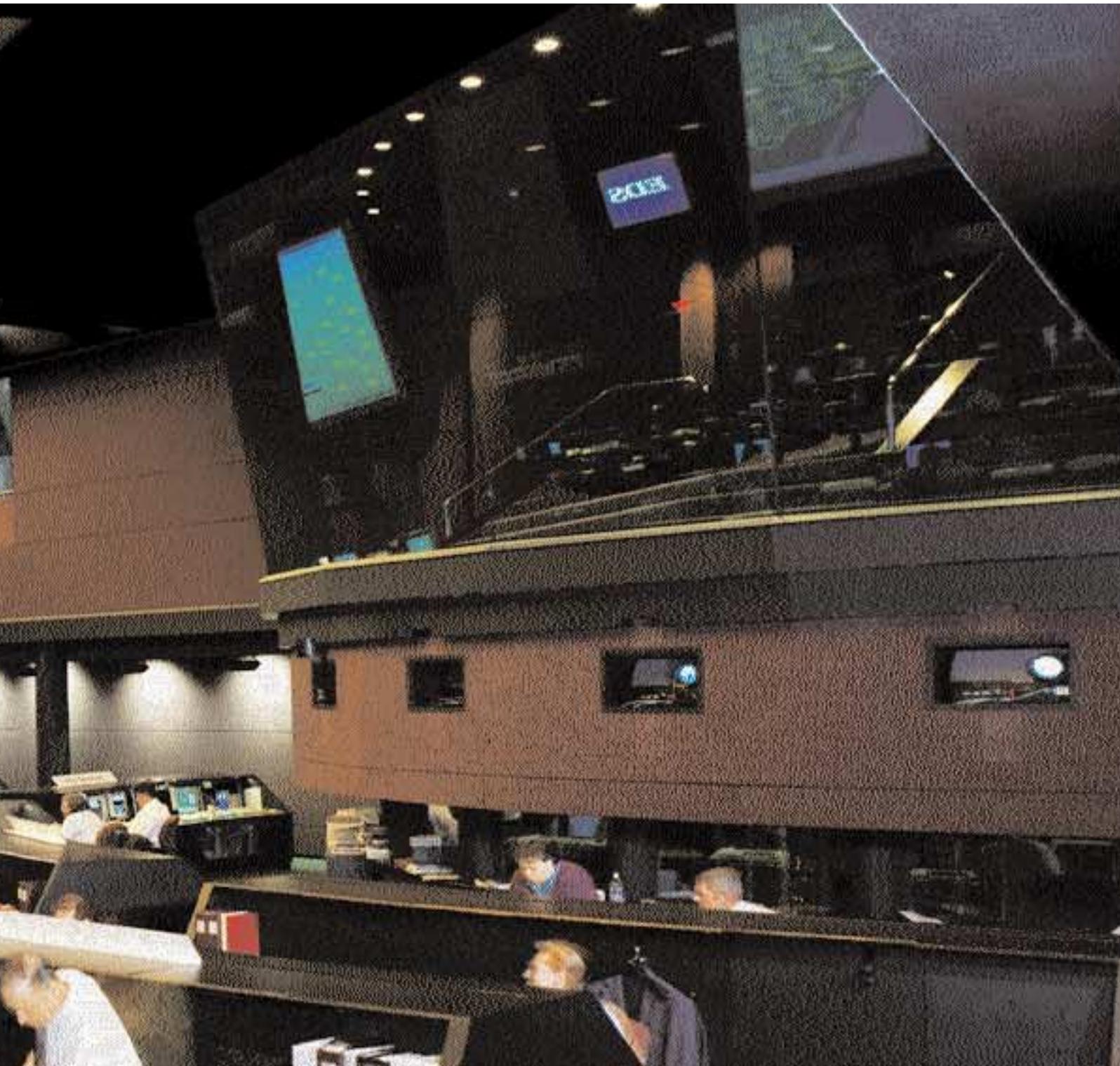


EDS selected BARCO LCD projection systems for its Information Management Center.

Ultimate Solution for



Super-High Resolution



Large Screen Projection

Ultra-high brightness light source

The BARCOREALITY 9200 utilizes a powerful 1,800 Watt metal-halide lamp to produce a dazzling 6,000 lumens light output.

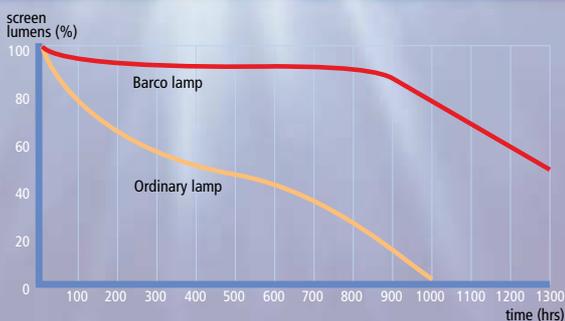
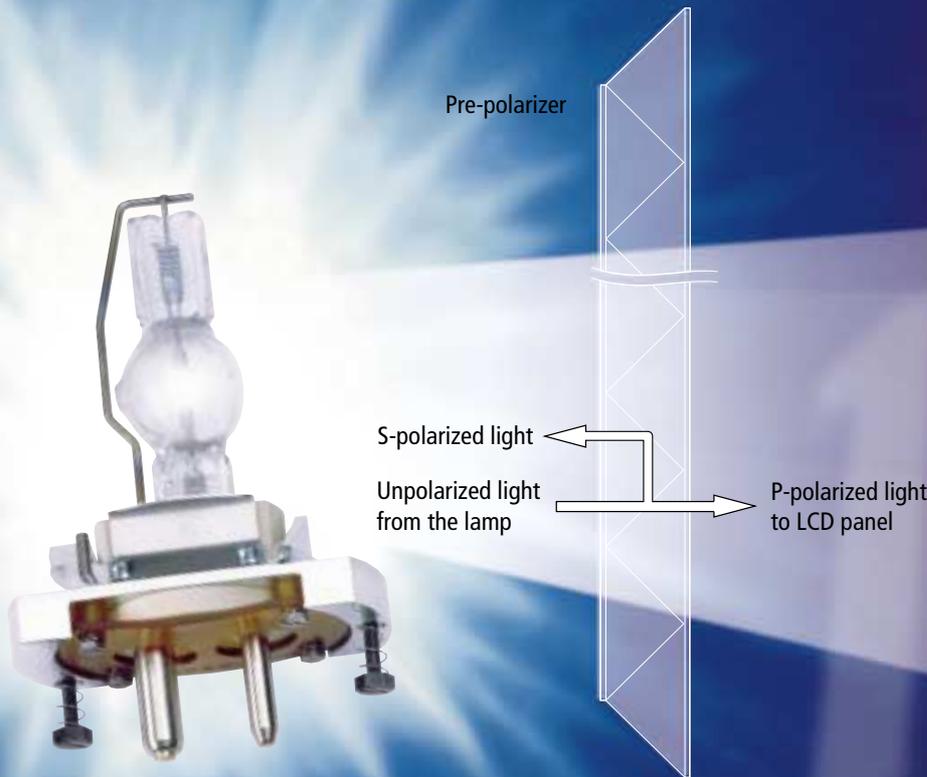
The BARCOREALITY 8200 employs a 700 Watt metal-halide lamp, which provides light output of 2,200 ANSI lumens.

Proprietary, state-of-the-art pre-polarizer

In the BARCOREALITY 9200, a proprietary, state-of-the-art pre-polarizer guarantees a highly efficient polarization of the light and eliminates excessive thermal dissipation on the LCD panels.

Ultra-high resolution LCD panels

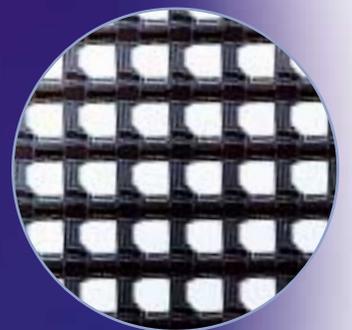
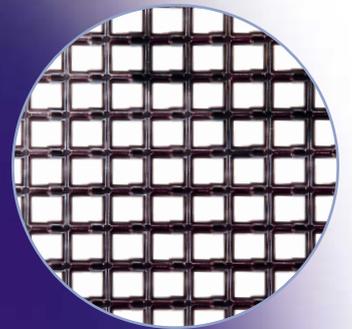
At the heart of the BARCOREALITY are three proprietary, active matrix LCD panels (5.8" diagonal), each with a resolution of 1280 x 1024 pixels, resulting in an overall resolution of nearly 4 million pixels.



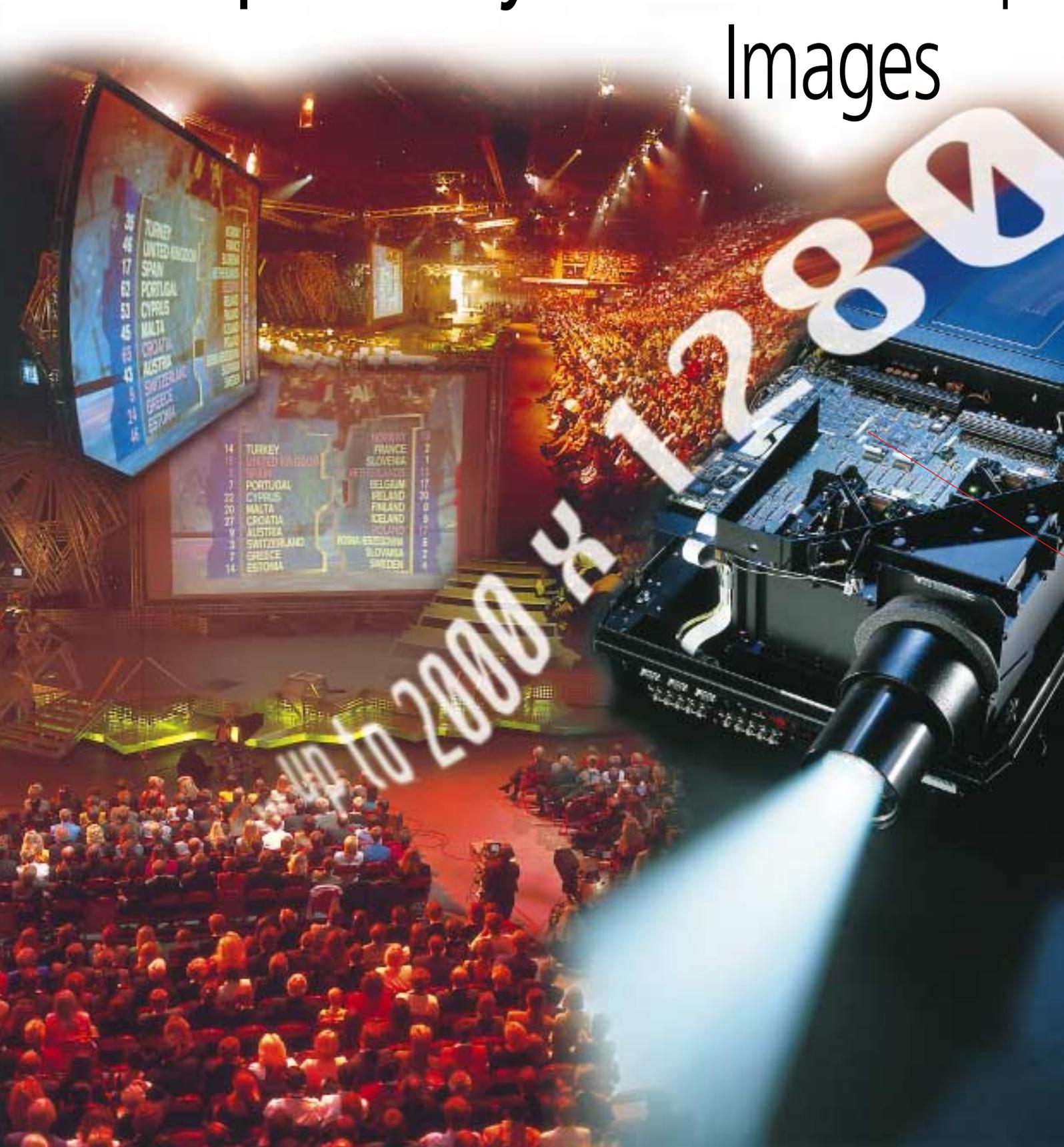
BARCOREALITY projectors are equipped with proprietary ultra-high brightness metal-halide lamps, which offer extremely high light output over their full lifetime.

Ultra-High Brightness Super Graphics LCD Technology

The BARCOREALITY Series utilizes proprietary LCD panels (top picture) which deliver exceptionally high resolution images of 1280 x 1024 pixels. These LCD panels also provide higher light output thanks to their high aperture ratio compared to conventional LCD panels (bottom picture).



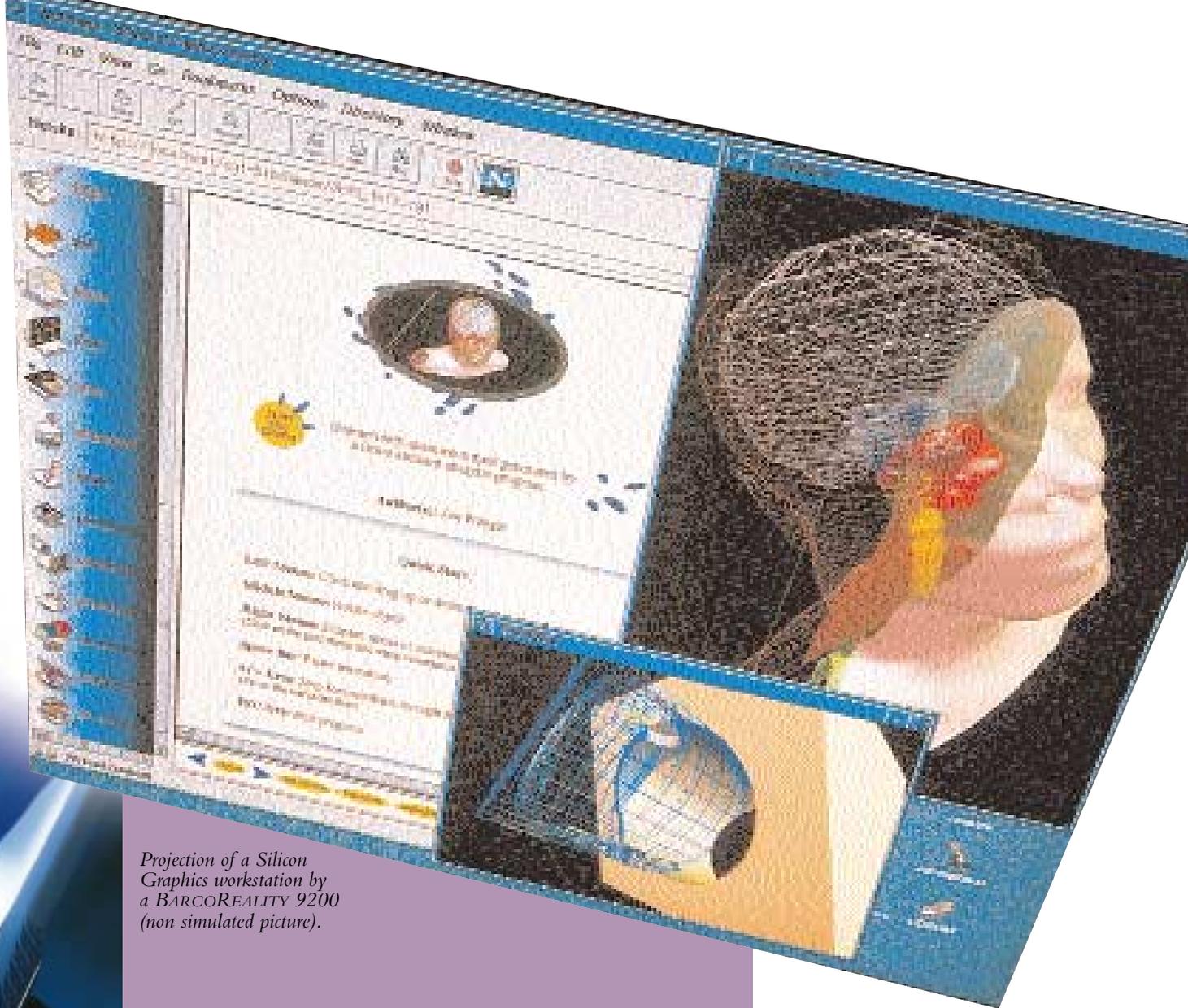
Ultra-High Resolution Compatibility for Razor Sharp Images



up to 2000 x 1200

35	TURKEY	FRANCE	2
46	UNITED KINGDOM	SLOVENIA	1
17	SPAIN	NETHERLANDS	17
62	PORTUGAL	BELGIUM	17
53	CYPRUS	IRELAND	20
45	MALTA	FINLAND	0
65	CROATIA	ICELAND	0
43	AUSTRIA	POLAND	17
6	SWITZERLAND	HUNGARY	2
14	GREECE	ROMANIA	2
14	ESTONIA	SLOVAKIA	4
		SWEDEN	4

14	TURKEY	FRANCE	2
18	UNITED KINGDOM	SLOVENIA	1
7	PORTUGAL	NETHERLANDS	17
22	CYPRUS	BELGIUM	17
20	MALTA	IRELAND	20
27	CROATIA	FINLAND	0
9	AUSTRIA	ICELAND	0
3	SWITZERLAND	POLAND	17
7	GREECE	HUNGARY	2
14	ESTONIA	ROMANIA	2
		SLOVAKIA	4
		SWEDEN	4



Projection of a Silicon Graphics workstation by a BARCOREALITY 9200 (non simulated picture).

Detail of image projected by a conventional projection system.

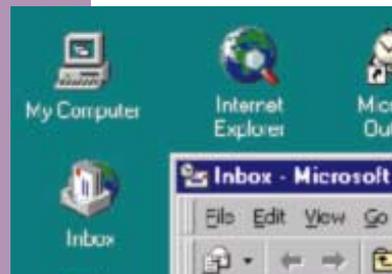
BARCO's patented Pixel Map Processor board.

Patented Pixel Map Processor

This innovative circuit digitally converts all incoming signals to the full resolution of the LCD panels.

Every pixel is calculated by state-of-the-art digital signal processing techniques. The result is optimal picture quality, crisp graphics with smooth and exceptionally readable characters.

The Pixel Map Processor provides full compatibility with a wide range of computer data and graphics standards including CGA, EGA, VGA, S-VGA (800x600), XGA (1024x768), S-XGA (1280x1024), 1600 x 1200 as well as electronic workstations with resolutions up to 2000 pixels horizontal and 1280 pixels vertical.



Detail of image projected after digital conversion by BARCO's patented Pixel Map Processor.



True Color Reproduction for Broadcast Color Quality

Accurate Gamma Correction

BARCO is the expert in true color reproduction. Its broadcast and CALIBRATOR line monitors are the established color reference standard in TV studios and in printing industries worldwide.

Now BARCO has applied this same expertise to its range of LCD projectors. BARCO's True Color Reproduction (TCR) technology for the 8200 and 9200 series projectors, redefines the benchmarks for color depth and accuracy for all video and graphics projection display applications.

Thanks to a user-definable gamma correction feature, BARCO's large screen LCD projectors perfectly display the high quality video sources. This enables BARCO to perfectly reproduce non-linear video recording systems (Gamma 2.2) as well as non-video standard computer image sources.

The result is perfectly balanced color reproduction without any loss of picture details or greyscale compression.

Consistent Color Temperature and Perfect Whites

A wider range of color temperature settings allows the projector to be precisely calibrated to match with the broadcast, video, film or computer display standard. Through additional user-definable white balance settings, BARCO's TCR technology guarantees a perfect white point under every condition and for any application:

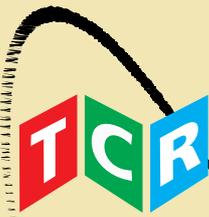
- **Projector White** for maximum light output
- **Video White**
(standard 6,500° K for US and Europe)
- **Broadcast Studio White**
(standard 3,200° K)
- **Film White** (standard 5,400° K)
- **Computer Display White**
(9,300° K, custom balance for fine adjustment and exact matching of multiple projector displays)



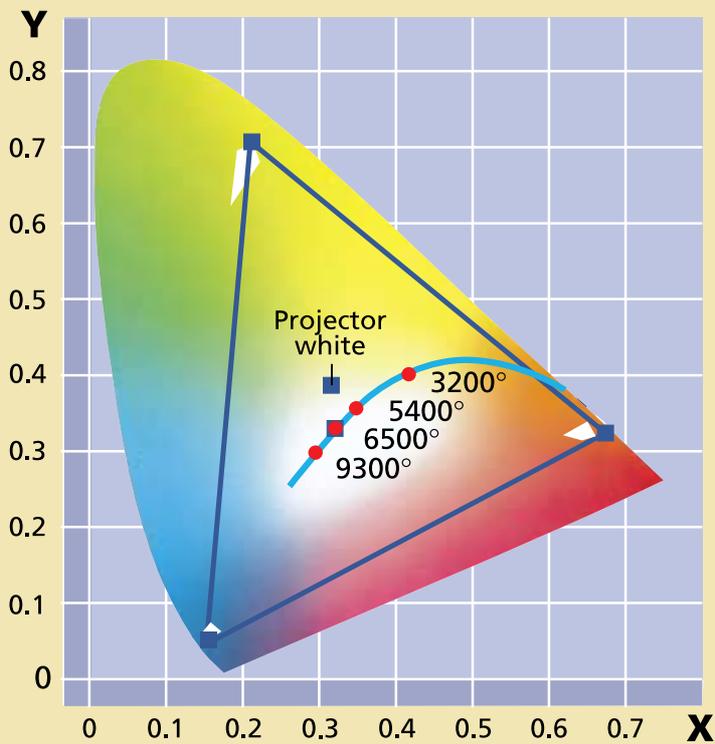
Conventional system mid-level tones can be compressed, blacks are crushed, whites are overdriven.



With built-in TCR picture details remain intact throughout the entire greyscale range.



True Color Reproduction



Perfectly Matched Primary Color Coordinates

Errors in primary colors result in an inaccurate color display. BARCO's TCR is perfectly matched to the international broadcast standards defined by the EBU and SMPTE.

This ensures breathtaking large screen images with a perfectly balanced color reproduction.

Perfect Greyscale Tracking

Unlike other projectors, BARCO's REALITY series projectors with TCR offer perfect color tracking over the entire greyscale range, independent of the preferred white point.

This results in consistent color reproduction of bright and dark scenes, in every corner of the screen.



Conventional systems

Color shades in the grey vary from purplish dark greys to greenish whites.



With built-in TCR

Greyscale reproduction is uniform and free from color shading.

TCR^{Plus} Brings Your Video to

The highest quality display of PAL, SECAM or NTSC video images is obtained through high bandwidth composite video decoding, with improved color and luminance transients.

BARCO's TCR^{Plus} provides advanced video processing tools to optimize the quality of conventional video sources.

Motion Adaptive Noise Reduction

BARCO's TCR^{Plus} incorporates an advanced Digital Noise Reduction system that reduces video noise without introducing motion artifacts. The Digital Noise Reduction can be user-adjusted to eliminate noise and pixel jitter on all video, HDTV and computer data sources.

Sharper Picture Display

Improved composite video processing circuits deliver sharper pictures thanks to a new "edge" enhancement circuit. An improved fine tuning control is also built-in for superior picture control.



Enhanced Video De-Interlacing Ensures **Stable Images**

The sharpness and stability of both still and moving images is guaranteed by the intelligent adaptive processing by TCR^{Plus}, which totally eliminates interlace jitter.

Life



Dynamic Color Depth

BARCO's TCR^{Plus} technology uses advanced, real-time picture analysis, to grade and precisely control the color contrast of each image pixel.

The amount of saturation and contrast is adjustable to obtain superior picture performance with any video source, even for the most demanding viewer.

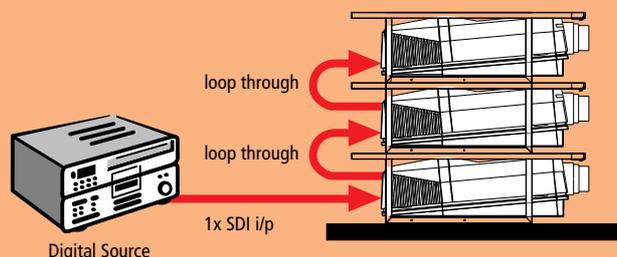
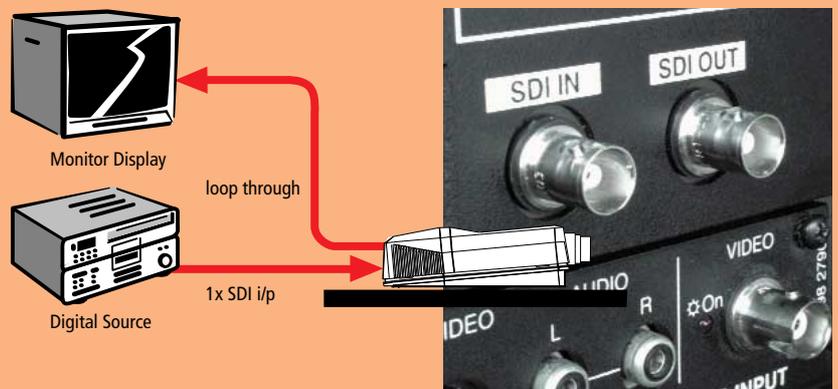
Optional Serial Digital Input

For full compatibility with digital Betacam, or other digital video sources, BARCOREALITY projectors offer a Serial Digital Input (SDI) facility.

This avoids the need for analog video processing anywhere in the video production chain and guarantees the ultimate image quality.

An active loop-through is provided for monitoring or for double and triple stacking applications.

BARCO's SDI input provides the benefits of loss free transmission of digital video over long distances.

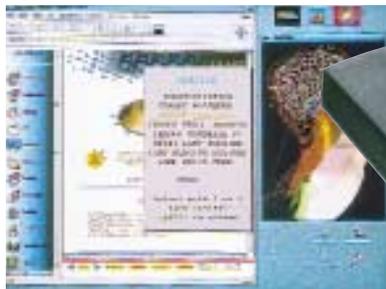
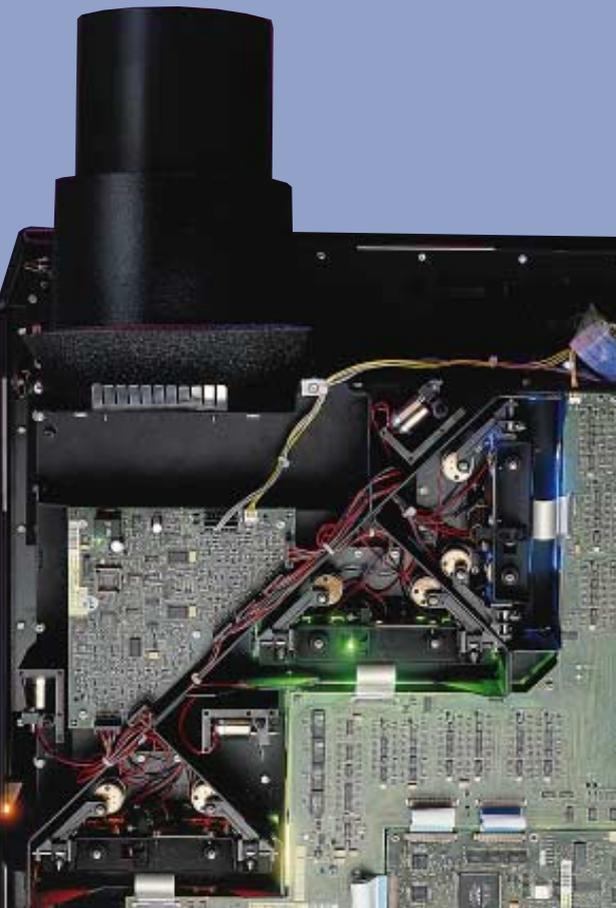


Ultimate Flexibility and User

Alignment of the LCD panels in LCD projectors is done in the factory itself. However, in order to guarantee the highest image quality for special applications such as rear screen, on-axis or dual projector configurations, the BARCOREALITY 8200 and 9200 are equipped with BARCO's MOCA⁽¹⁾ (Motorized Convergence Adjustment) system. MOCA allows convergence alignments to be easily adjusted through the remote control.



(1) Patent pending.



Logical menus and intuitive on-screen displays

Quick and Easy Set-up

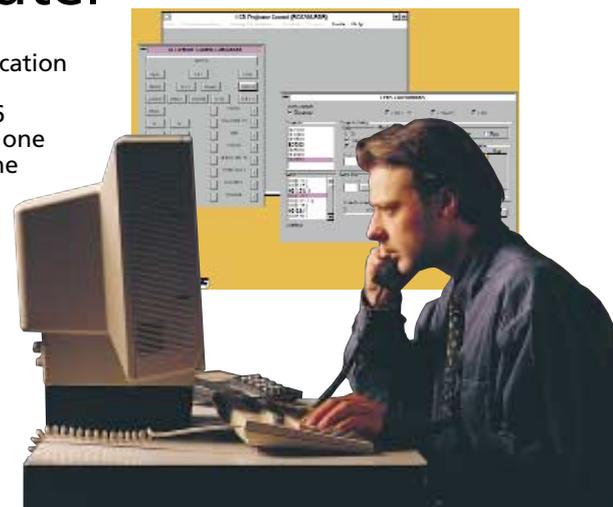
- Intuitive on-screen display: Installation and service screens, bar scale display of user settings, on-screen display of selected source
- Extensive geometry adjustments (image size, shift, keystone,...)
- Built-in freeze facility
- Internal test patterns (crosshatch, color bars, checkerboard,...)



Convenient backlit infrared remote control

Central Control from One Computer

BARCO's Windows Communication Software package makes it possible to control up to 256 BARCO LCD projectors from one central computer through the RS232 communication port. Geometry, convergence settings and display parameters can easily be adjusted and saved on disk. A 'Lenses' menu option provides projection distances and screen widths for all available lenses.



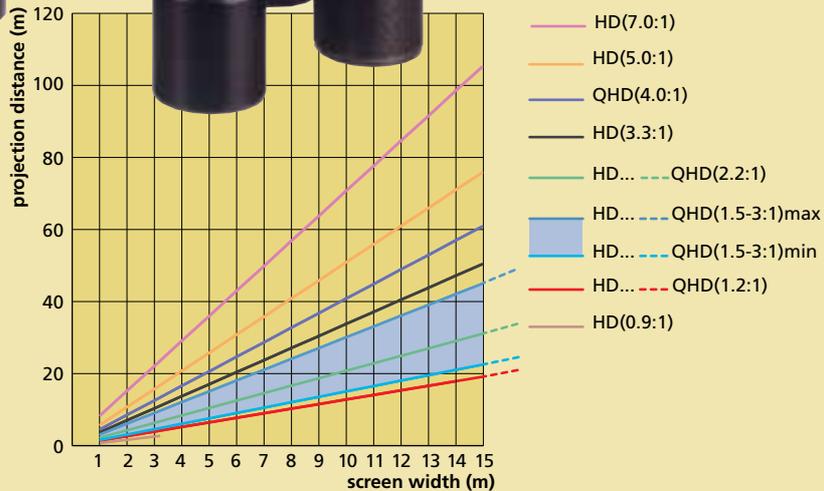
-Friendliness

Position the Projector Where You Want



A wide variety of available lenses

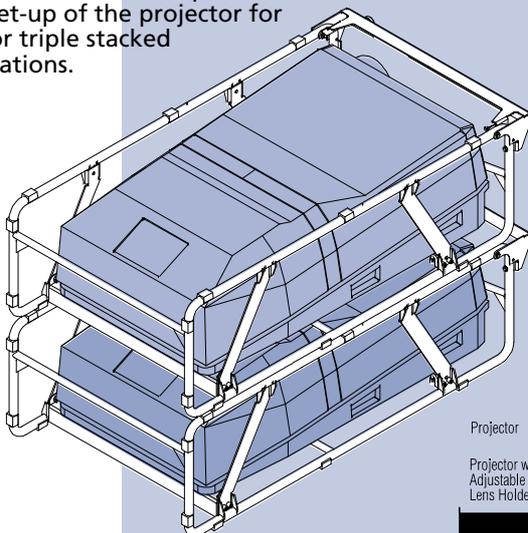
- Super high definition lenses with a throw distance of 1.2, 2.2, 3.3, 4.0, 5.0 or 7.0 times the screen width
- A variable focus lens for throw ratios between 1.5 and 3.0 times the screen width
- An anamorphic lens with a throw ratio of 3.5:1 (16:9 aspect ratio)
- Very short throw lens (0.9:1 ratio) for on-axis (rear screen) applications



Flexible Installation Configurations

BARCOREALITY projectors can be used in front or rear screen installations, and in table or ceiling mount configurations. In addition, the projectors can be integrated in a dual or triple stacked configuration on a single screen. User adjustable geometry corrections (keystone, image size, shift,...) provide perfect image geometry for non-standard applications.

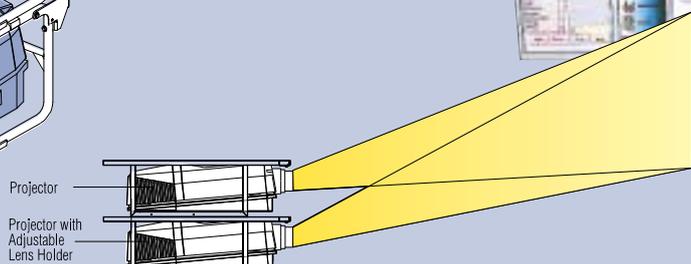
Optional multifunctional frame facilitates carrying the projector and protects it against impacts. It also allows quick and easy set-up of the projector for dual or triple stacked applications.



Optional built-in adjustable lensholder

allows the projected image to be shifted up or down without moving the projector from its normal position and without inducing geometric distortion. This feature is particularly useful for dual or triple configurations.

Keystone correction for perfect projection under non-standard angles.



Technical specifications

Mode	Lamp Power (W)	ANSI Lumens ⁽¹⁾	Full White ⁽¹⁾	Lifetime (hours) ⁽²⁾	Acoustic dbA ⁽³⁾
BARCOREALITY 9200					
Boost	1,800	5,000	6,000	1,000	68
Normal	1,500	4,000	5,000	1,000	64
Silent	1,200	3,000	4,000	1,000	60
BARCOREALITY 8200					
Normal	700	2,200	2,600	1,000	56

LCD panels

3 active matrix LCD panels (5.8" diagonal), with a resolution of 1280 x 1024 pixels, resulting in an overall resolution of nearly 4 million pixels.

Available lenses

- Fixed focal length lenses are available with a throw ratio of 1.2, 2.2, 3.3, 4.0, 5.0 and 7.0:1.
- Variable focus lens with a throwing distance between 1.5 and 3 times the screen width
- Anamorphic lens with a throw ratio of 3.5:1 (16:9 aspect ratio)
- Very short throw lens (0.9:1 ratio)

Lens type

Lens type	Order nr
QHD (1.2:1)	R9829760
QHD (2.2:1)	R9829770
QHD (4:1)	R9829080
QHD (1.5 - 3:1) (zoom)	R9829780
HD (1.2:1)	R9829200
HD (2.2:1)	R9829060
HD (3.3:1)	R9829075
HD (5:1)	R9829180
HD (7:1)	R9829090
HD (1.5 - 3:1) (zoom)	R9829150
WHD (3.5:1) (anamorphic)	R9829320
HD (0.9:1)	R9829550

Screen sizes

Min.: 1m x 0.75m (3.3' x 2.5')
Max.: 15m x 11.25m (50.0' x 37.5')

Contrast ratio

>250:1 (on 5x4 B/W checkerboard)
>500:1 (full white/full black)

Remote control

- Source switching
- User settings per source
- Installation and service adjustments

Inputs

Built-in input facilities:

- RGB analog input with standard sync (BNC connectors), composite or H/V sync
- Multifunctional 5-cable input for the connection of
 - RGB analog signals, sync on green or separate sync, standard sync or tri-level sync

- Component Video signals (Y, R-Y, B-Y, S)

- Standard Video signals

- S-VHS signals

- RS232 loop-through input (D9-connector) for PC based projector control.

- Communication input (D9-connector) for peripherals

- Optional SDI input (Serial Digital Input)

Furthermore, the projector has 2 modular input slots. Four types of input modules are available:

- Video / S-Video input:

Video on BNC, S-Video on 4-pin mini-DIN connector

- Component Video input

(Y, R-Y, B-Y, S) on 4 BNC connectors

- RGB analog input with standard sync (BNC connectors), sync on green or separate sync

- RGB analog input with tri-level sync (BNC connectors), sync on green or separate sync

Input modules

Input module	Order nr
Video/S-Video	R9827900
RGB analog (standard sync)	R9827910
RGB analog (tri-level sync)	R9827920
Component Video	R9827930
SDI input	R9829820

Compatibility

The BARCOREALITY 8200 & 9200 projectors are compatible with:

- All current video sources (PAL, SECAM, NTSC 3.58, NTSC 4.43) in Composite, S-VHS, RGB or Component forms
- All currently proposed HDTV, extended and improved television standards (ACTV, IDTV, EDTV, Eureka 95, Hi-Vision,...)
- All computer graphics formats from CGA, EGA, VGA (640x480), Mac, S-VGA (800x600), XGA (1024x768), S-XGA (1280x1024), up to electronic workstations with a resolution up to 2000 x 1280 pixels (pixel clock up to 200 MHz)

Special features

- Extensive geometry adjustments (image size, shift, keystone,...)
- Built-in freeze facility
- Internal test patterns (crosshatch, color bars, checkerboard,...)
- External auto-diagnostics with 2 x 7 segment LED display
- Intuitive on-screen display: installation and service screens, barscale display of user settings, on-screen display of selected source
- Adjustable leveling feet
- Color temperature adjustment (3200° K, 5400°K, 6500° K, 9300° K or custom)
- Optional light shutter blanks image when paused
- Optional multifunctional frame facilitates carrying the projector, protects it against impacts and allows quick and easy set-up of the projector for dual or triple stacked applications
- Optional built-in adjustable lens holder, ideal for dual or triple stacked configurations
- PC control possible with BARCO's Windows Communication Software

Safety regulations

The BARCOREALITY 8200 & 9200 comply with UL1950 and EN60950

Electromagnetic interference

The BARCOREALITY 8200 & 9200 comply with FCC Rules & Regulations, part 15 Class A and CE EN55022 Class A

Warm-up time

Less than 3 minutes to meet full specifications

AC power

BARCOREALITY 9200: power factor pre-regulated SMPS, 200-240 VAC/50-60 Hz

BARCOREALITY 8200: power factor pre-regulated SMPS, 90-250 VAC /50-60 Hz

Power consumption

BARCOREALITY 9200: Max. 2,300 Watts [230 VAC/10 A]
Dissipation: Max. 7,900 BTU/hr

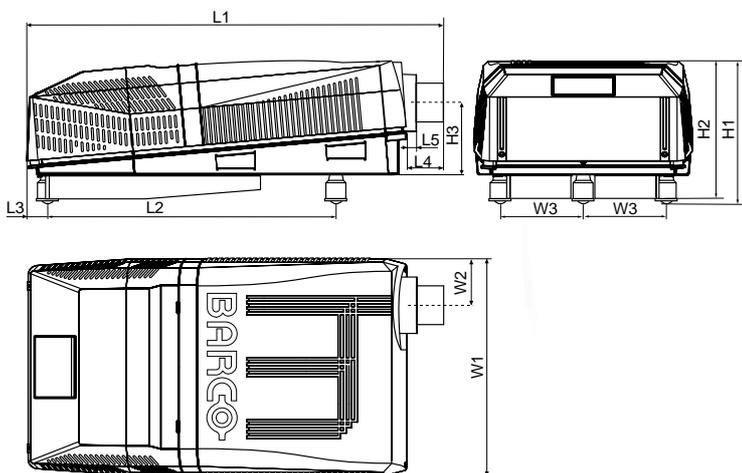
BARCOREALITY 8200: Max. 1,000 Watts [230 VAC/4.5 A]
Dissipation: Max. 3,500 BTU/hr

(1) Brightness uniformity: > 80% for the total screen

(2) 80% lumen maintenance

(3) Acoustic power measurements according to ISO 3745 and ANSI S12.35 at 25°C

Dimensions BARCOREALITY 9200



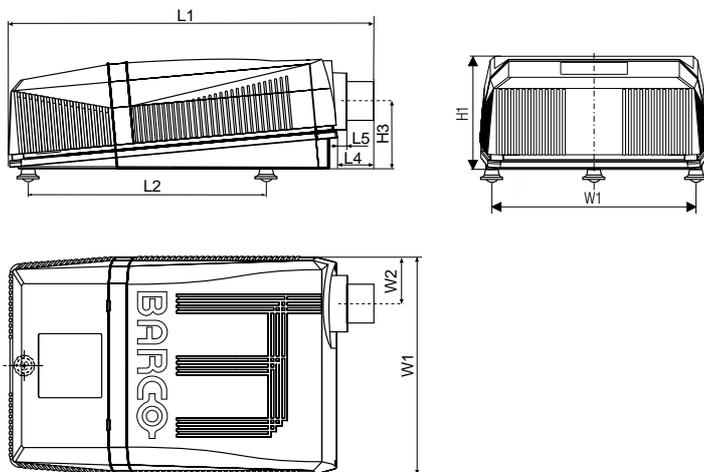
Dimensions mm inch

L1 ⁽⁵⁾	1,209-1,259	47.60-49.57
L2	702	27.64
L3	42	1.65
L4 ⁽⁵⁾	110-160	4.33-6.30
L5	27	1.06
W1	630	24.80
W2	135	5.31
W3	284	11.18
H1	422	16.61
H2	399	15.71
H3	209	8.23

Shipping dimensions

L	1,350	53.1
W	960	37.8
H	680	26.8

Dimensions BARCOREALITY 8200



Dimensions mm inch

L1 ⁽⁵⁾	1,061-1,111	41.77-43.74
L2	702	27.64
L3	42	1.65
L4 ⁽⁵⁾	110-160	4.33-6.30
L5	27	1.06
W1	630	24.80
W2	135	5.31
W3	284	11.18
H1	365	14.37
H2	323	12.72
H3	195	7.68

Shipping dimensions

L	1,350	53.1
W	960	37.8
H	590	23.2

(c) Benelux Press

Weight⁽⁴⁾

BARCOREALITY 9200:
 Net weight 94 kg (207 lbs.)
 Shipping weight 124 kg (273 lbs.)

BARCOREALITY 8200:
 Net weight 78 kg (172 lbs.)
 Shipping weight 108 kg (238 lbs.)

Accessories included

- Infrared Remote Control
- Owner's & Installation Manual
- Power cord with CEE (7)VII plug

Order information

BARCOREALITY 9200 ⁽⁴⁾	R9001390
BARCOREALITY 9200 ⁽⁴⁾ without MOCA	R9001391
BARCOREALITY 8200 ⁽⁴⁾	R9001430
BARCOREALITY 8200 ⁽⁴⁾ without MOCA	R9001431

RCVDS 05 source selector

230 V: R9827880
 120 V: R9827889

VS05 Video/HDTV source selector

R9827890

Remote IR receiver

R9827515

Ceiling mount 5/8/9000

• With pulley system R9829620

• Without pulley system R9829621

Light shutter

R9829270

Windows Communication

Software R9829670

BARCOREALITY 9200 only

• 1800 W metal-halide lamp R9829715

• Multifunctional frame R9829650

• Mirror for multifunctional frame
in vertical position R9829680

• Flight case for projector + frame R9829720

• Service tool kit R9829241

• Service tool kit R9829241

BARCOREALITY 8200 only

• 700 W metal-halide lamp R9829295

• Carrying handle R9829170

• Projection frame R9829210

• Flight case R9829121

• Service tool kit R9829240

• Service tool kit R9829240

(4) Without lenses or modular inputs. Lenses and modular inputs are sold separately.

(5) With QHD(4.0:1) lens. Dimensions for other lenses are available on a separate data sheet.

The information and data given are typical for the equipment described. However any individual item is subject to change without any notice.

Founded in 1934, BARCO is the acknowledged global leader in advanced large screen display products. BARCO has been a pioneer in the research and development of numerous display technologies. This experience now serves as the basis for the development of high-quality, state-of-the-art solutions for large projection systems used in the most diverse applications.

BARCO has created a dynamic team of design engineers who strive for continuous improvements in performance, quality and efficiency in order to create innovative projection system solutions. The creation of the BARCOREALITY 8200 and 9200, the ultimate combination of super-high brightness and super graphics LCD projection technology, confirms BARCO projection systems as a worldwide display standard for large screen events, educational purposes and business presentation centers.

A specialized distribution network and subsidiaries in over 95 countries worldwide allows BARCO to respond quickly and efficiently to local customer requirements.

Through its dedication to excellence and commitment to total customer satisfaction, BARCO Projection Systems is your ideal partner to fulfill your most demanding requirements for your high-resolution, large screen projection system.

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