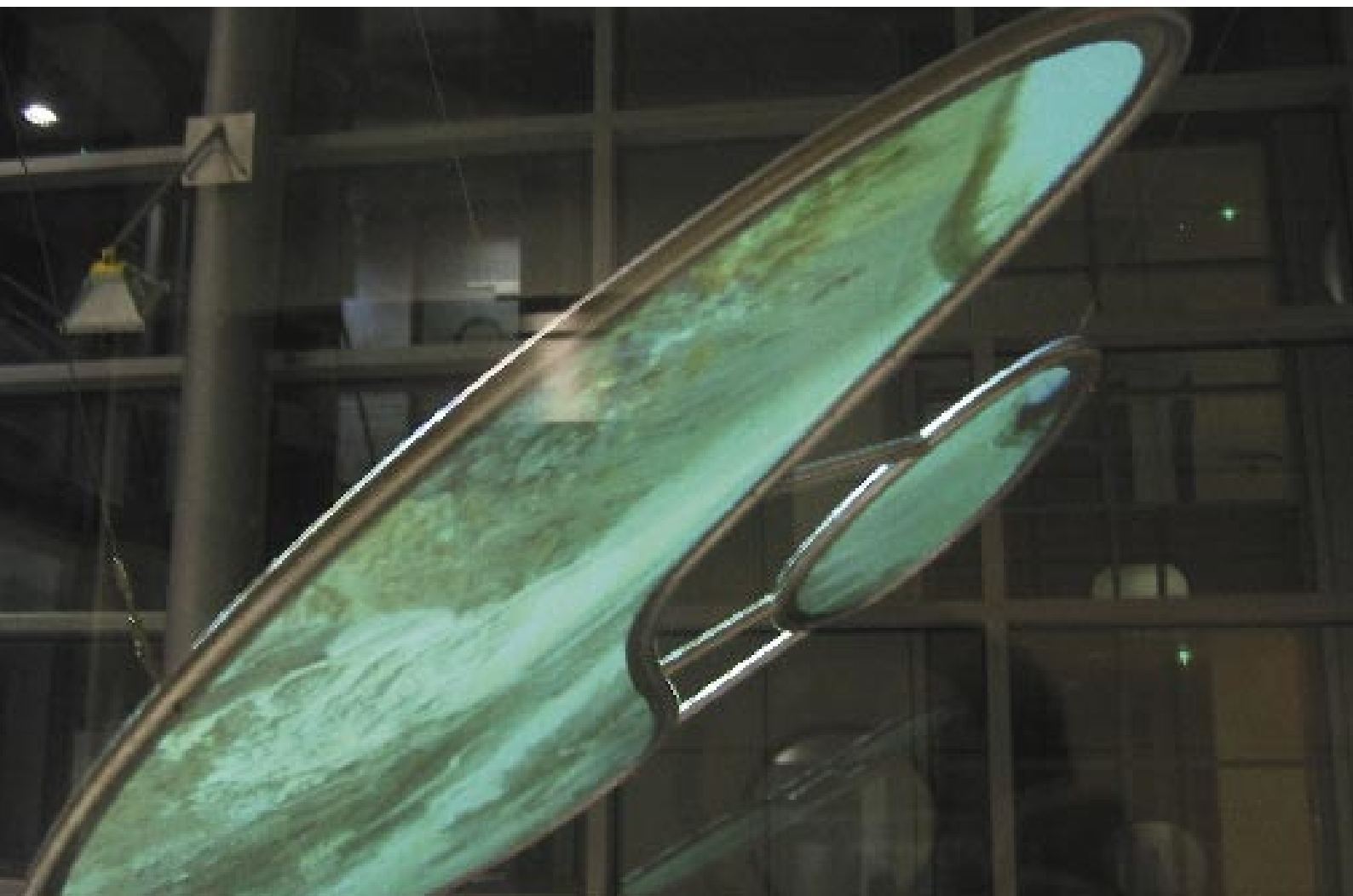


Contents

Table of Contents		page 2
About Lumin		page 3
Technical Display Overview/ Areas of Application		page 4
Rear Projection	Light Foil	page 5
	Light Screen	page 6
	Contrast Foil	page 7
	Contrast Screen	page 8
	tranScreen	page 9
	BigScreen	page 10
	BigScreen 3D	
Front Projection	Silver Screen Contrast Silver Screen Light	page 11
Special Projection	360° Screen	page 12
Projection System	Lumin InterWall	page 13
References		pages 14/15



Projection in Ultimate Perfection

Lumin Visual Technologies is Europe's most innovative manufacturer of high end projection screens. Due to our unique Polymer Technology we are able to produce projection displays for all applications imaginable - no matter if Point of Sales Displays, conference room applications or big screen projections. Lumin projection displays combine important features such as luminosity, contrast, viewing angle and resolution in a perfect way to guarantee a brilliant image reproduction for your projection. In addition we ensure fabrication and production "Made in Germany" as well as short lead times.

Quality – the Key to Success

Here at Lumin, quality is the top priority. That's why all parts of our company, from production to customer service, work according to modern quality management criteria. This quality management guarantees not only the leadership in projection screen technology, but also a maximum of flexibility and an optimal service for all our customers. Lumin projection displays are always leading in their market segment - no matter if used in fixed installations, in projection systems or at events and conventions. Our partners benefit directly from our quality orientated management - and so does the end customer.

Flexible and Customer Orientated

Our projection, transparent projections, big screen projections and 3D projections- with our large number of products we meet customer expectations flexible and individual to your complete satisfaction. Our displays can be customized according to your project. Our Sales representatives support you professionally from the first ideas to the final realization of your projection installation.

Areas of Application

	Light Foil	Light Screen	Contrast Foil	Contrast Screen	tranScreen	BigScreen	BigScreen 3D	Silver Screen	360° Screen
Conference Rooms		o		o		o		o	
Conventions	o	o	o	o	o	o	o	o	o
Events	o	o	o	o	o	o	o	o	o
Point of Sales	o	o	o	o	o	o	o	o	o
Information Displays	o	o	o	o	o	o	o	o	o
Shop Window	o	o	o	o	o				o
Design/ Interior Decoration	o	o	o	o	o	o	o	o	o
Big Screen Projection		o		o		o	o	o	
Outdoors		o		o		o	o		
3D Projection							o		
Home Cinema			o	o				o	

Technical Display Overview

	Display	Features	Max. Size (mm)	Available Substrates
Rear Projection	Light Foil (LLF)	Foil, 1 mm thin opal white non transparent	1500 x 4200 mm	—
	Light Screen (LLS)	Light Foil applied onto optical clear substrates	1500 x 3050 mm	Acrylic Glass (Standard), anti-reflective Acrylic Glass, Glass, Security Glass, anti-reflective Glass (additional charges)
	Contrast Foil (LCF)	Foil, 1 mm thin neutral grey non transparent	1500 x 4200 mm	—
	Contrast Screen (LCS)	Contrast Foil applied onto optical clear substrates	1500 x 3050 mm	Acrylic Glass (Standard), anti-reflective Acrylic Glass, Glass, Security Glass, anti-reflective Glass (additional charges)
	tranScreen (LTS)	Transparent Rear Projection Foil applied onto optical clear substrates	1200 x 3050 mm	Acrylic Glass (Standard), anti-reflective Acrylic Glass, Glass, Security Glass, anti-reflective Glass (additional charges)
	BigScreen (LBIG)	Optical coated Acrylic Glass, non transparent	2740 x 7000 mm	Acrylic Glass
	BigScreen 3D (LBIG3D)	Optical coated Acrylic Glass, non transparent, passive 3D	3000 x 8000 mm	Acrylic Glass
Front Projection	Silver Screen Contrast (LFPC) Silver Screen Light (LFPL)	Front Projection Display	2000 x 3000 mm	Aluminium Panel white
Special Projection	360° Screen (LFRP)	Image displayed on both sides of the Screen	1500 x 3050 mm	Acrylic Glass

References

[Excerpts]



Foreign Ministry, Berlin

TAG Heur, London

Cartier, Geneva

Adidas, Europe-wide

SAP, Zurich

Audi, Ingolstadt

IBM, Heathrow

Aventis, Strassburg

Kenneth Cole, London

ZDF, Mainz

Sparkasse Banc, German-wide

Mc Kinsey, Airport Munich

Siemens, Munich

For more references, please visit www.lumin.de



Light Foil

Rear Projection [article code LLF]

Brightness and Flexibility

The Light Foil combines a unique picture quality with the advantages of a flexible, thin (1mm) and resistant foil.

Because of its high light conductivity of more than 90%, this state of the art rear projection foil, enables you to install projections in awkward ambient light conditions- even daylight screenings are possible. Its high flexibility and easy operation provide additional advantages:

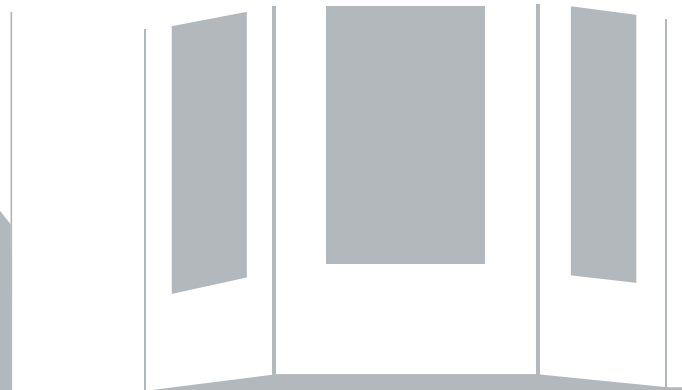
The projector does not have to be installed in a certain projection angle or distance, which eases the setup. The Light Foils surface is homogenous, non-structured and anti-reflective, to guarantee the depiction of high-resolution contents in an incomparable quality.

Main areas of application are all kinds of projections behind glass, especially in shop windows and at the Point of Sales and Point of Information.

Technology	Optical Polymer Foil
Material thickness	1 mm
Maximum available Size	1500 mm x 4200 mm
Image reproduction	homogenous, sharp, bright
Surface	matt, non-structured, anti-reflective

Light Foil Advantages

- **light conductivity of more than 90%**
 - » enormous brightness and wide viewing angle
- **high light amplification and ideal light dispersion**
 - » insensitive to surrounding and ambient light; day light projections possible
- **Polymer Foil only 1mm thin**
 - » flexible setup options



LightScreen

Rear Projection [article code LLS]

Brightness and Stability

The Light Screen combines all optical advantages of the Light Foil with the stability of a rigid rear projection screen. It can be used in all sorts of visual applications - such as conference rooms, trade fairs, Point of Sales or even big screen projections. The Light Screen delivers a superb image quality in any environment.

Lumin developed a process to apply the Light Foil to an optical clear substrate without any loss of image quality. This procedure creates not only a rear projection screen that operates optically and mechanically on the highest level, but it also guarantees maximum flexibility.

Light Screen Advantages

- **light conductivity of more than 90%**
 - » enormous brightness and wide viewing angle
- **high light amplification and ideal light dispersion**
 - » insensitive to surrounding and ambient light; day light projections possible
- **different substrates and material thickness possible**
 - » flexible in usage

The Light Screens are available in every size or shape as well as in different screen thickness or on different substrates. Even circular displays and projection screens in individual, customized shapes or product outlines are possible.

The standard substrate is high quality acrylic glass. But it is also possible to apply the Light Foil to glass, security glass or anti-reflective glass.

Besides its flexible mechanical characteristics, the Light Screen also creates an excellent picture quality, especially in bright ambient light conditions.

Material	Optical Polymer Foil
Standard material thickness	5 and 7mm
Standard substrate	Acrylic Glass
Maximum available size	1500 mm x 3050 mm
Surface	matt, non-structured, anti-reflective
Image reproduction	homogenous, sharp, bright



Contrast Foil

Rear Projection [article code LCF]

Optimal Video Performance

The Contrast Foil can be used in particular for a brilliant reproduction of moving images, films, advertising trailers or HD-contents.

In terms of material, flexibility and handling, the Contrast Foil is identical to the Light Foil, however, with special contrast-particles embedded into the material structure it creates a much higher contrast.

This high contrast is an enormous advantage, especially for Video,- DVD,- or HDTV projections. The Lumin Contrast-Technology generates luminous and vivid pictures and also reproduces a natural black.

The foils material structure guarantees an easy setup and a simple handling: The foil can be applied to nearly every transparent surface - just like a poster.

Unlimited projection angels and a completely non-structured, anti-reflective and homogenous surface, provide the best picture quality and an optimal reproduction of the chosen contents.

The Contrast Foils main areas of application are all kinds of projections behind glass and video installations at the Point of Sale, the Point of Information, trade fairs or conventions.

Technology	Optical Polymer Foil with Lumin Contrast-Technology
Material thickness	1 mm
Maximum available size	1500 mm x 4200 mm
Image reproduction	homogenous, sharp, high contrast
Surface	matt, non-structured, anti-reflective

Contrast Foil Advantages

- **Lumin Contrast-Technology: Special contrast-particles are embedded into the Polymer structure**
 - » natural and vivid reproduction of colors, high contrast
- **Polymer Foil only 1mm thin**
 - » flexible set up options
- **Ideal optical light dispersion**
 - » wide horizontal and vertical viewing angle



Contrast Screen

Rear Projection [article code LCS]

State of the Art Rear Projection

The Contrast Screen is Lumins state of the art rear projection solution for costumers with the highest demands in picture quality. It features rich colours, extra contrast and maximum resolution.

The integration of contrast particles into the material structure provides a high black value, to display the projected images in natural and vivid colours; the Contrast Screen shows pictures in a quality never seen before.

Since the Contrast Technology is also based on the Lumin Polymer Technology, the projection results, even of white

images, remain bright and clear despite the dark surface.

Just like the Light Screen, the Contrast Screen offers a maximum of flexibility: We can manufacture the Contrast screen in any size, format and shape needed for your project.

Main areas of application are whenever you like to show moving images. Furthermore, this high class projection screen, is ideal for the professional use in control rooms or rear projection systems.

Contrast Screen Advantages

- **Lumin Contrast-Technology: Special contrast-particles are embedded into the Polymer structure**

» natural and vivid reproduction of colors, high contrast

- **Ideal optical light dispersion**

» wide horizontal and vertical viewing angle

- **screen surface is micro-structured**

» no reflections and minimization of disturbing ambient light influence

Technology

Optical Polymer Foil

Standard material thickness

5 and 7 mm

Maximum available size

1500 x 3050 mm

Standard substrate

Acrylic Glass

Image reproduction

homogenous, sharp, high contrast

Surface

matt, non-structured, anti-reflective



transScreen

Rear Projection [article code LTS]

The Transparent Alternative

The Lumin transScreen is a transparent rear projection screen, that allows the spectator to take a look at what is happening behind the screen, if there is no image projected onto the screen. With its light conductivity of about 86%, this see-through rear projection screen is especially suitable for projections in shop windows - in particular if the viewer should be able to see what is happening inside the sales area.

Despite its high transparency, the projected images appear bright, vivid and insensitive to ambient light. The colors of the images are not distorted or modified, as with other holographic screens, even at awkward viewing angles; in spite of the

transparent appearance, the projected images are not in any way structured or optically distorted.

The transScreen is available with a maximum picture diagonal of 80" and it can be delivered in different thicknesses (2-15mm) as well as on different substrates (Standard: Acrylic Glass; additional charge: regular glass).

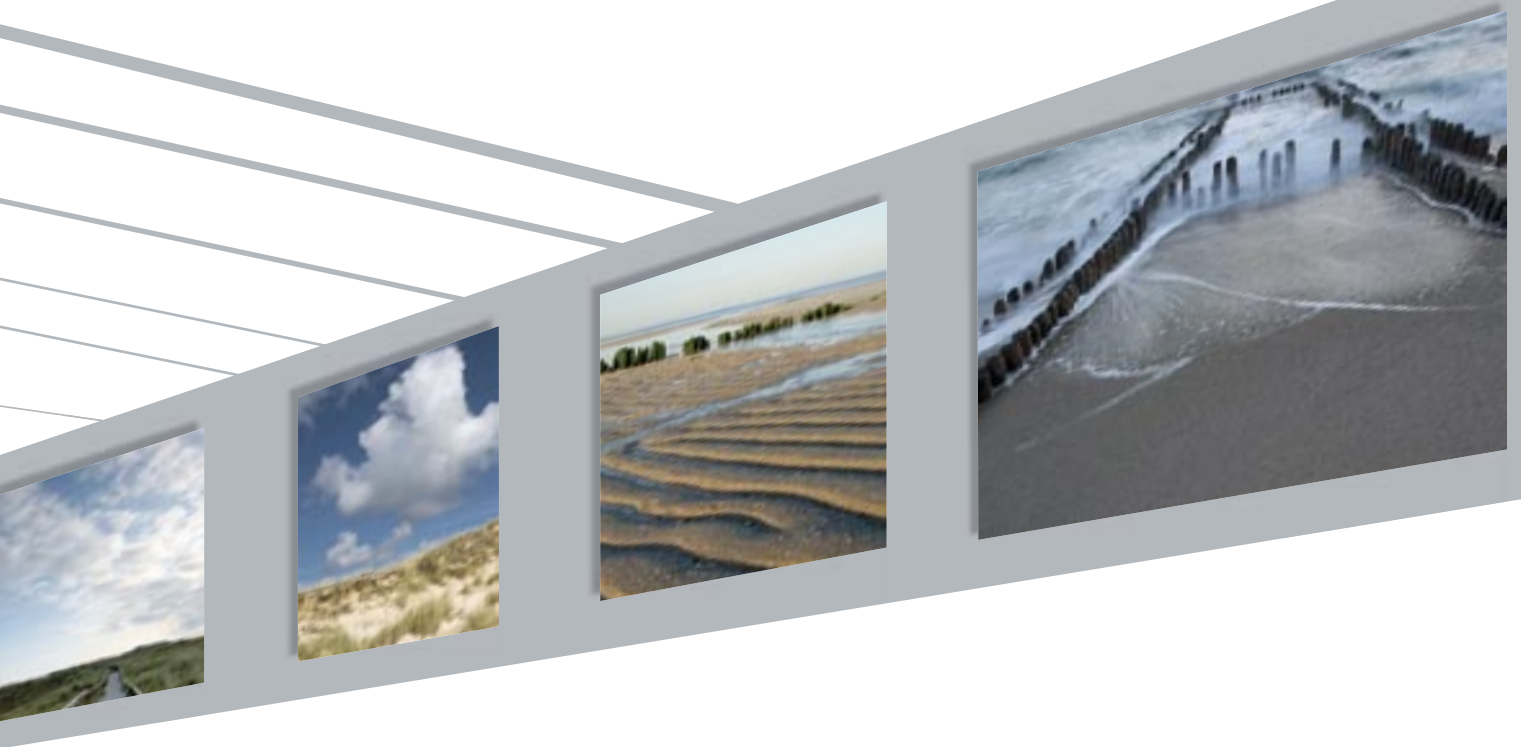
The different substrate options and the variable projection angle between 0° and 35° guarantee a maximum of flexibility and a customer friendly handling.

Technology	Optical Matrix Polymer Foil , Lumin Transmission-Technology
Standard material thickness	5 and 6 mm
Standard substrates	Acrylic Glass
Maximum available size	1200mm x 3050 mm
Surface	matt, homogenous, non-structured, anti-reflective
Image reproduction	homogenous, sharp, colorfast

transScreen Advantages

- **high light conductivity of 86%**
» transparency, see-through effect
- **no requested projection angels**
» fast and easy set up
- **colorfast even at wide viewing angles**
» no negative color shift effect





BigScreen and BigScreen 3D

Rear Projection [article code LBIG / LBIG3D]

Where Size Matters

Both Lumin BigScreen displays are the Lumin products for all projection applications that require a sizes out of the ordinary. The Big Screen displays are obtainable in two different models: As BigScreen for regular projection applications and as BigScreen 3D for special stereo projections.

The BigScreen is available in a maximum size of 7000 x 2740mm, the BigScreen 3D can even be manufactured in a maximum size of 8000 x 3000 mm.

Lucious colours and optimal visual characteristics are features brought to perfection with both Big Screen solutions.

The BigScreen features a variable gain factor of 1.0 and 2.3 to create bright and vivid images. The integration of contrast particles into the screen-structure provides a higher contrast. The BigScreen 3D is available with a Gain of 1.5 and has ideal polarisation characteristics.

The screens are based on high quality Acrylic Glass as substrate and depending on the size the thickness can vary between 9 and 13mm.

Because of the even light dispersion and extraordinary viewing angles, the BigScreens also qualify for projections with wide angle lenses.

Technology	Coated Acrylic, Diffusion Technology
Standard Material Thickness	9-13 mm (BigScreen) 13 mm (BigScreen 3D)
Image reproduction	homogenous, sharp
Maximum available size	2740 x 7000 mm (BigScreen) 3000 x 8000 mm (BigScreen 3D)
Surface	matt, non-structured, anti-reflective

BigScreen and BigScreen 3D Advantages

- **picture diagonals of up to 200" possible**
» Ideal for big screen projections
- **Hardscreen on Acrylic basis**
» optimal stability, no waves as on cloth screens
- **Production on customer request**
» Gain and optical qualities can be adjusted according to your project

Silver Screen Contrast and Silver Screen Light

Front Projection [article code LFPC / article code LFPL]

High End Front Projection

The Silver Screen is Lumins state of the art front projection solution, suitable for professional applications as well as home cinema systems. In terms of picture quality and material characteristics the Silver Screen remains unique in its field.

First of all this front projection display is a so called Hardscreen, a stable projection screen opposed to cloth and fabric screens which are usually used for front projection.

This enormous advantage eases the installation - there are no unnecessary folds or waves on the display - no matter if you

want to install the Silver Screen framed on a wall or as a big screen projection in public areas.

The Silver Screen technology is available in two versions: As Silver Screen Contrast with extremely good reproduction of video images and DVD content for home cinema applications and as Silver Screen Light for installations in high ambient light conditions.

It is suitable for applications in all surroundings and areas, and furthermore the noble design attracts even if the Silver Screen is not in use.

Technology	Optical Polymer Foil combined with special reflective layer, applied to stable substrates
Maximum available size	2000 x 3000 mm
Standard substrate	Plastic Panel,
Standard material thickness	5 mm
Surface	matt, non-structure, anti-reflective
Image reproduction	sharp, homogenous

Silver Screen Advantages

- **Hardscreen**
 - » smooth surface, perfect optic
- **Silver Screen Contrast**
 - » ideal for Video, DVD and HDTV projections
- **Silver Screen Light**
 - » ideal for high ambient light conditions



360° Screen

Combined Front-/Rear Projection [article code LFRP]

New Perspectives

Because of Lumins one-of-a-kind Dispersion Technology, the 360° screen unites for the first time front and rear projection in one projection display. The 360° Screen shows the picture projected onto one side in identical quality on both sides of the screen.

This effect is created because the screen reflects 40% of the light projected (front pojection) lets the remaining 60% go through the screen (rear projection). This way the image will be visible from both sides of the screen - in perfect picture quality.

To create this unique effect, there is no special projector, lens or installation necessary. The 360 Screen is the ideal solution for shop displays, convention booths and visual advertising at the Point of Sales or Point of Information.

The homogenous and non-structured surface enables to display unaltered images in highest resolution. The slightly dark surface of the 360 Screen increases the contrast and provides an optimal colour depiction.

Technology	Optical Polymer Foil, Lumin Dispersion Technology
Standard material thickness	4 mm
Maximum available size	1500 mm x 3050 mm
Standard substrate	Acrylic Glass
Surface	matt, non-structured, anti-reflective
Image reproduction	homogenous, sharp, colorfast, picture appears on both sides

360 Screen Advantages

- **Optical Dispersion Technology**
 - » picture appears bright on both sides
- **projection on only one side of the screen necessary**
 - » requires only one projector
- **micro-structured surface**
 - » no reflection or unwanted light effects; minimization of disturbing ambient light influence



Lumin InterWall

Projection System [article code LIW]

Presentations in a New Light

The mobile Lumin InterWall rear projection system combines the optical advantages of a rear projection with the areal advantages of a front projection: Thanks to the mobile rack, the system can be easily used in different locations and for different applications.

The InterWall provides both an innovative and aesthetic conceptual design: The unobtrusive structural composition consists of a combination of aluminium and steel. The projection display is a Lumin Contrast Screen with a 67" diagonal.

PC or DVD devices can be stored on special storage boards in the rear of the system, where all hardware components are invisible from the front.

The projector is firmly integrated in the system. The projection is carried out through a special surfaced mirror which is mounted onto a motorized arm at the back of the rack. The arm can be deployed and retracted simply by pressing two buttons located at the front of the rack.

No matter if you want to use the InterWall as mobile presentation systems in conference rooms, in salerooms or at conventions - the system is always the ideal presentation solution and will convince because of its clever design and the brilliant picture quality - easy to handle and simply beautiful.

Measurements	open 137 x 195 x 150 cm closed 137 x 195 x 82 cm
Projection screen	Lumin Contrast Screen, diagonal 67"
Projector	LCD Projector, 2500 Ansi-Lumen, XGA
Rack	Aluminium, Steel, Polyamide
Mirror	motor-operated arm, Aluminium profile, anodised, with first surface mirror

Lumin InterWall Advantages

- **motor-operated mirror, mobile rack**
 - » space saving, easy transport
- **Lumin Contrast Screen**
 - » brilliant picture quality in every situation
- **firmly integrated projector**
 - » Plug and Play solution, easy handling



Lumin
Visual Technologies AG

Münchner Str. 15b
85604 Zorneding
Germany

T +49 (0) 8106 24 66 66
F +49 (0) 8106 24 66 67
M info@lumin.de

www.lumin.de