dnp Cross Prism Screen™

50" - 80"

The dnp Cross Prism Screen sets new standards for the image quality of multi-screen installations. It offers unsurpassed contrast, excellent viewing angles and allows design of near-seamless display walls with bright, speckle-free images.

dnp optical rear projection screens

The dnp Cross Prism Screen solves two quality issues in design of modern control room displays: seam size and image speckle from single lens projectors.

Made from an acrylic styrene copolymer material the dnp Cross Prism Screen is highly resistant to unstable projection environments. While acrylic based screens expand/retract with room humidity, the Cross Prism Screen retains its dimensions. This allows design of cubes and display walls with almost invisible seams.

Moreover, the Cross Prism Screen incorporates technology that eliminates "speckle" – the small bright spots in the image which are a well-known problem with single lens engines. The result is a smooth and clean image – even at close view.

The advanced lens design includes a Fresnel lens and two crossed prism lenticular structures with contrast enhancing dnp Black Stripe technology. As a result, the screen is extremely tolerant to ambient light. The front surface of the screen features a non glare, hard coat surface that protects the screen and avoids specular reflections from light sources such as windows and room lightning.

- Unsurpassed contrast
- Centre-to-corner brightness uniformity
- Wide viewing angles
- No speckle
- Low humidity expansion/absorption
- Non glare easy clean surface
- Multiple options for focal length
- Compatible with all standard projectors

Application suitability	
Auditorium/sports arena	★ ★
Conference room	★ ★ ★ ★
Control room	★ ★ ★ ★ ★ ★
TV studio	★ ★ ★ ★
Advertising – in-store	★ ★ ★
Advertising – window display	★ ★
Home entertainment – bright living room	★ ★ ★
Home entertainment – darkened home theatre	★

dnp denmark as
Skruegangen 2
DK-2690 Karlslunde
Denmark

Phone +45 4616 5100
Fax +45 4616 5200
www.dnp-screens.com
dnp@dnp.dk

visual experience

dnp Cross Prism Screen™ Specifications

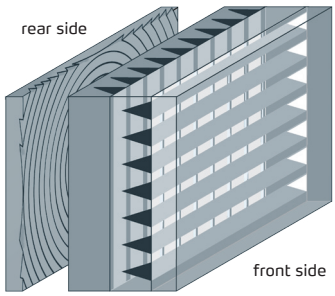
Product details

Cross Prism Screen Type Screen size		XPS 772 50"	XPS 826 50"	XPS 850 50"	XPS 1100 70"	XPS 1200 70"	XPS 1600 70"	XPS 1360 80"	XPS 1450 80"
Part no.		5 084 2 100 10	5 092 2 100 10	5 100 2 100 10	5 110 2 100 10	5 120 2 100 10			
Dimensions									
Width	mm	1040 +/-1	1040 +/-1	1040 +/-1	1404 +/-1	1404 +/-1	1404 +/-1	1625 +/-1	1625 +/-1
Height	mm	790 +/-1	790 +/-1	790 +/-1	1054 +/-1	1054 +/-1	1054 +/-1	1219 +/-1	1219 +/-1
Thickness	mm	6.0 +/-0.3	6.0 +/-0.3	6.0 +/-0.3	6.0 +/-0.3	6.0 +/-0.3	6.0 +/-0.3	6.6 +/-0.3	6.6 +/-0.3
Weight	kg	5.7 +/-0.3	5.7 +/-0.3	5.7 +/-0.3	10.3 +/-0.3	10.3 +/-0.3	10.3 +/-0.3	15.0 +/-0.3	15.0 +/-0.3
Width	inch	40.9 +/-0.04	40.9 +/-0.04	40.9 +/-0.04	55.3 +/-0.04	55.3 +/-0.04	55.3 +/-0.04	64.0 +/-0.04	64.0 +/-0.04
Height	inch	31.1 +/-0.04	31.1 +/-0.04	31.1 +/-0.04	41.5 +/-0.04	41.5 +/-0.04	41.5 +/-0.04	48.0 +/-0.04	48.0 +/-0.04
Thickness	inch	0.22 +/-0.01	0.22 +/-0.01	0.22 +/-0.01	0.22 +/-0.01	0.22 +/-0.01	0.22 +/-0.01	0.26 +/-0.01	0.26 +/-0.01
Weight	lbs	12.5	12.5	12.5	22.7	22.7	22.7	33.0	33.0
Image area									
Width	mm	1016	1016	1016	1400	1400	1400	1600	1600
Height	mm	762	762	762	1050	1050	1050	1200	1200
Width	inch	40	40	40	55.1	55.1	55.1	63	63
Height	inch	30	30	30	41.3	41.3	41.3	47.2	47.2
Optical specifications									
Focal length	mm	772	826	850	1100	1200	1600	1360	1450
Focal length	inch	30.4	32.5	33.5	43.3	47.2	63	53.5	57.1

Other focal lengths and screen sizes are available on request
Subject to change without notice. Check specification at time of ordering.

Screen profile (horizontal section)

The ultra fine pitch Fresnel lens focuses the projected image and distributes it through a 4-layer lenticular lens. This element enhances the image for optimum viewing by distributing light vertically and horizontally. The black stripes on the crossed prism structures effectively absorb ambient light. Finally the image is transported through a carrier layer that is protected by scratch-proof, non glare surface.



> dnp denmark as
Skruegangen 2
DK-2690 Karlslunde
Denmark

> Phone +45 4616 5100
Fax +45 4616 5200
www.dnp-screens.com
dnp@dnp.dk

visual experience

dnp Cross Prism Screen™

General information

General specifications

Optical specifications

Peak gain		1.9 +/- 10%
Lenticular pitch		0.065

Operating environment

Temperature	°C °F	5-35 41-95
Humidity (non-condensing)	%RH	30-70

Humidity/temperature expansion coefficient

Coefficient of thermal expansion (10^{-6} m/m/°C)

Fresnel element	67
Front side element	57

See graph for details on humidity expansion

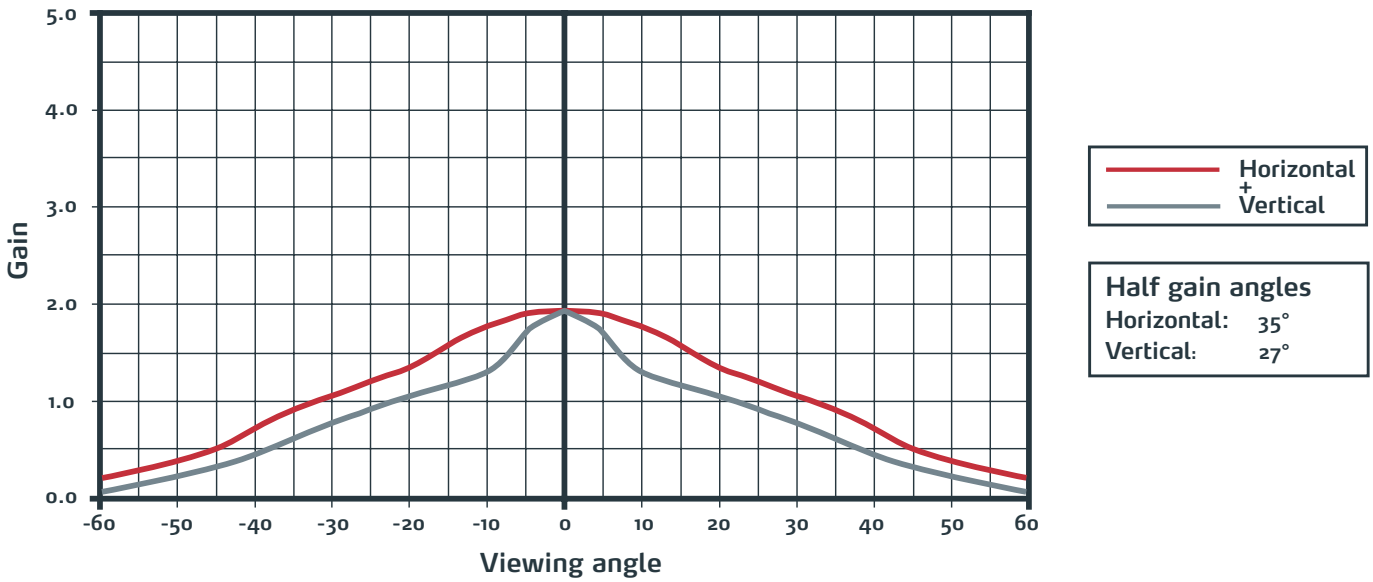
Included in the package

Gloves, quality certificate

Certificates

RoHS 2002/95/EC

Gain chart



> dnp denmark as
Skruegangen 2
DK-2690 Karlslunde
Denmark

> Phone +45 4616 5100
Fax +45 4616 5200
www.dnp-screens.com
dnp@dnp.dk

visual experience