



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
- > 4K compatible

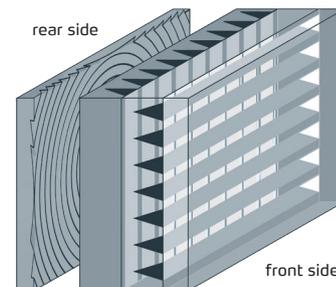
Product details

Cross Prism Screens Type		4:3 aspect ratio				16:9 aspect ratio		
Screen size		50"	60"	70"	80"	50"	60"	70"
Dimensions								
Width	mm	1040 +/-1	1245 +/-1	1438 +/-1	1625 +/-1	1140 +/-1	1360 +/-1	1590 +/-1
Height	mm	790 +/-1	940 +/-1	1138 +/-1	1219 +/-1	660 +/-1	780 +/-1	910 +/-1
Thickness	mm	5.9 +/-0.3	5.9 +/-0.3	5.9 +/-0.3	6.5 +/-0.3	5.9 +/-0.3	5.9 +/-0.3	6.5 +/-0.3
Weight	kg	5.7 +/-0.3	8.1 +/-0.3	11.4 +/-0.3	15.2 +/-0.3	5.2 +/-0.3	7.4 +/-0.3	11.1 +/-0.3
Width	inch	40.9 +/-0.04	49.0 +/-0.04	56.6 +/-0.04	64.0 +/-0.04	44.9 +/-0.04	53.5 +/-0.04	62.6 +/-0.04
Height	inch	31.1 +/-0.04	37.0 +/-0.04	44.8 +/-0.04	48.0 +/-0.04	26.0 +/-0.04	30.7 +/-0.04	35.8 +/-0.04
Thickness	inch	0.23 +/-0.01	0.23 +/-0.01	0.23 +/-0.01	0.26 +/-0.01	0.23 +/-0.01	0.23 +/-0.01	0.26 +/-0.01
Weight	lbs	12.6	18.0	25.1	33.5	11.6	16.3	24.5
Image area								
Width	mm	1016	1219.2	1400	1600	1107	1328	1550
Height	mm	762	914.4	1050	1200	623	747	872
Width	inch	40	48	55.1	63	43.6	52.3	61
Height	inch	30	36	41.3	47.2	24.5	29.4	34.3

A wide range of fresnel lens focal lengths are available to match the actual projection engine lens.
Other screens sizes are available upon request.

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.



General specifications

Optical specifications

Peak gain	1.9 +/- 10%
Lenticular pitch	0.065

Operating environment

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

Humidity/temperature expansion coefficient

Coefficient of thermal expansion (10 ⁻⁶ m/m/°C)	67
Fresnel element	57
Front side element	57

See [graph](#) for details on humidity expansion

Included in the package

Gloves, quality certificate

Certificates



Gain chart

