Standard Lens Specifications

N series lens options have been designed specifically for the P1 projector.

Lens Part Number, Description & Throw Ratio: -
Focus, zoom (where applicable) & Iris on all lens options is motorised. Stepper motors are used throughout to ensure high degree positional accuracy.

Projector Model	Lens Part Number	Lens Description	Lens Additional Description
P1	N1	Extra Wide Zoom Lens (N1)	0.80 - 1.25:1 @ WQXGA 0.74 - 1.16:1 @ WUXGA
	N2	Wide Zoom Lens (N2)	1.20 - 1.60:1 @ WQXGA 1.12 - 1.50:1 @ WUXGA

Lens Shift Parameters: -
Lens Shift values provided assume 50% is on axis, that 100% Lens Shift equals half of image height / width.

Resolution / Axis	N1	N2
WQXGA		
Vertical	± 68%	± 120.5%
Horizontal	± 57.5%	± 85%
WUXGA		
Vertical	± 56.5%	± 109%
Horizontal	± 52.5%	± 78.5%

Lens Optical Performance Characteristics: -

Parameter	N1	N2
Working F#	2.2 - 2.55	2.2 - 2.43
Iris **Iris F#**	Yes 2.2 - 8.0	Yes 2.2 - 8.0
Focal Length	15.85 - 24.70 mm	23.85 - 31.75 mm
Focus Range	Optical: 1.5 - 8.0 M Mechanical: 1.0 - 18.0 M	Optical: 1.5 - 15.0 M Mechanical: 1.0 - 20.0 M
MTF	Centre: 60% @ 66 lp/mm Corners: 50% @ 66 lp/mm	Centre: 60% @ 66 lp/mm Corners: 50% @ 66 lp/mm
Lateral Color	660-550 nm: <4.3µm, 660-440 nm: <4.3µm 550-440 nm: <3.0µm, 630-550 nm: <3.0µm 630-440 nm: <3.0µm	660-550 nm: <3.6µm, 660-440 nm: <3.6µm 550-440 nm: <3.0µm, 630-550 nm: <2.4µm 630-440 nm: <3.0µm
Optical Distortion	0.32%	0.54%
Theoretical Projection Point	50.4 mm (distance from last optical element back towards the DMD)	77.04 mm (distance from last optical element back towards the DMD)

Standard Lens Specifications

Lens Length & Weight: -

Parameter	N1	N2
Lens Length	218.04 mm	248.52 mm
Lens Weight	2.2 kg	2.9 kg

Additional Information: -
Lens options are future proofed. Each has been designed to resolve 5.4 micron pixel pitch resolution to ensure compatibility with the next generation 4K DLP Chip.

Lens options comprise all glass, aspherical, no doublet optical elements & include 'lens lock' technology. The 'lens lock' feature allows the end user to physically lock the lens to the projector body, lock the lens adjustment rings into position and lock the lens body to 3rd party supporting clamps for additional rigidity in extreme circumstances.

Scheimpflug adjustment is a standard feature.

Disclaimer

Specifications subject to change without prior notice. Always check www.norxe.com for the latest information.

Optical tolerances are typically +/- 5%.