

HS Series 4K7-HS/4K10-HS lens throw ratios

The following table details the information required to calculate the lens throw ratios for the HS Series 4K7-HS/4K10-HS projectors.

Lens	Throw distance formula		Vertical and horizontal offset (%)	Diagonal screen sizes	
	Imperial (in)	Metric (cm)		Imperial (in)	Metric (cm)
0.38:1 fixed (900-300413-XX)	TD = $0.553 \times W - 2.91$	TD = $0.553 \times W - 7.4$	+/-140% V	200 to 600	508 to 1524
			+/- 60% H		
0.85-1.02 :1 short throw zoom (140-135100-XX)	TDmin = $0.87 \times W + 3.19$	TDmin = $0.87 \times W + 8.11$	+/-140% V	50 to 500	127 to 1270
	TDmax = $1.035 \times W + 4.15$	TDmax = $1.035 \times W + 10.54$	+/- 59% H		
1.20-1.73:1 zoom (140-136101-XX)	TDmin = $1.221 \times W + 2.29$	TDmin = $1.221 \times W + 5.84$	+/-140% V	50 to 500	127 to 1270
	TDmax = $1.774 \times W + 2.32$	TDmax = $1.774 \times W + 5.90$	+/- 60% H		
1.7-2.12:1 zoom (140-109101-XX)	TDmin = $1.753 \times W + 1.70$	TDmin = $1.753 \times W + 4.32$	+/-140% V	50 to 500	127 to 1270
	TDmax = $2.186 \times W + 2.16$	TDmax = $2.186 \times W + 5.49$	+/- 60% H		
2.12-2.83:1 zoom (140-110103-XX)	TDmin = $2.153 \times W + 3.74$	TDmin = $2.153 \times W + 9.49$	+/-140% V	50 to 500	127 to 1270
	TDmax = $2.862 \times W + 3.76$	TDmax = $2.862 \times W + 9.55$	+/- 60% H		
2.83-5.66:1 zoom (140-111104-XX)	TDmin = $2.750 \times W + 14.59$	TDmin = $2.750 \times W + 37.06$	+/-140% V	50 to 500	127 to 1270
	TDmax = $5.566 \times W + 11.48$	TDmax = $5.566 \times W + 29.16$	+/- 60% H		

Lens	Throw distance formula		Vertical and horizontal offset (%)	Diagonal screen sizes	
	Imperial (in)	Metric (cm)		Imperial (in)	Metric (cm)
5.66-10.18:1 zoom (140-116109-XX)	TDmin = 5.586 x W + 14.74	TDmin = 5.586 x W + 37.45	+/-140% V	50 to 500	127 to 1270
	TDmax = 10.095 x W + 12.80	TDmax = 10.095 x W + 32.50	+ /- 60% H		

- Throw distance measured from the center of the front foot of the projector.
- All lenses are made of glass.
- Calculated throw distance (TD) values are subject to a +/- 5% tolerance for individual lens variation.
- Calculated offset values are subject to a +/- 7% centering tolerance.
- The 0.38:1 ultra short throw zoom lens has a 35% brightness loss.