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 (140-142108-XX)	TD = 0.553 x W - 2.91	TD = 0.553 x W - 7.4	+/-140% V + /- 60% H	200 to 600	508 to 1524
0.85-1.02 :1 short throw zoom (140-135100-XX)	TDmin = 0.87 x W + 3.19 TDmax = 1.035 x W + 4.15	TDmin = 0.87 x W + 8.11 TDmax = 1.035 x W + 10.54	+/-140% V + /- 59% H	50 to 500	127 to 1270
1.20-1.73:1 zoom (140-136101-XX)	TDmin = 1.221 x W + 2.29 TDmax = 1.774 x W + 2.32	TDmin = 1.221 x W + 5.84 TDmax = 1.774 x W + 5.90	+/-140% V + /- 60% H	50 to 500	127 to 1270
1.7-2.12:1 zoom (140-109101-XX)	TDmin = 1.753 x W + 1.70 TDmax = 2.186 x W + 2.16	TDmin = 1.753 x W + 4.32 TDmax = 2.186 x W + 5.49	+/-140% V + /- 60% H	50 to 500	127 to 1270
2.12-2.83:1 zoom (140-110103-XX)	TDmin = 2.153 x W + 3.74 TDmax = 2.862 x W + 3.76	TDmin = 2.153 x W + 9.49 TDmax = 2.862 x W + 9.55	+/-140% V + /- 60% H	50 to 500	127 to 1270
2.83-5.66:1 zoom (140-111104-XX)	TDmin = 2.750 x W +14.59 TDmax = 5.566 x W +11.48	TDmin = 2.750 x W +37.06 TDmax = 5.566 x W +29.16	+/-140% V + /- 60% H	50 to 500	127 to 1270

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.