

# Roadie 4K Lens Throw Ratios

The following table details the information required to calculate the lens throw ratios (LTR) for the Roadie 4K35 and Roadie 4K45 projectors.

Lens	Throw distance formula		Vertical/horizontal Offset	Minimum screen width sizes	
	Standard (inches)	Metric (m)		Standard (inches)	Metric (m)
0.72:1 HB Fixed (113-104106-XX)	TD = 0.727 × W + 18.98	TD = 0.727 × W + 0.4827	0% V	55	1.4
			0% H		
0.9:1 Fixed (38-809071-61)	TD = 0.930 × W + 19.14	TD = 0.930 × W + 0.4861	+/- 29% V	150	3.8
			+/- 9% H		
1.13-1.31:1 HB Zoom (129-104106-XX)	TDmin = 1.130 × W + 17.48	TDmin = 1.130 × W + 0.4440	+/- 56%V	122	3.1
	TDmax = 1.325 × W + 16.65	TDmax = 1.325 × W + 0.4230	+/- 19% H		
1.31-1.63:1 HB Zoom (129-105107-XX)	TDmin = 1.311 × W + 15.22	TDmin = 1.311 × W + 0.3865	+/- 13% V	106	2.7
	TDmax = 1.637 × W + 14.61	TDmax = 1.637 × W + 0.3712	+/- 4% H		
1.63-2.17:1 HB Zoom (129-106108-XX)	TDmin = 1.628 × W + 15.03	TDmin = 1.628 × W + 0.3818	+/- 13% V	86.5	2.2
	TDmax = 2.182 × W + 13.93	TDmax = 2.182 × W + 0.3539	+/- 4% H		
2.03:1-2.71:1 HB Zoom (129-107109-XX)	TDmin = 2.028 × W + 11.75	TDmin = 2.028 × W + 0.2985	+/- 13% V	71	1.8
	TDmax = 2.756 × W + 9.54	TDmax = 2.756 × W + 0.2451	+/- 4% H		
2.71:1-3.89:1 HB Zoom (129-108100-XX)	TDmin = 2.764 × W + 8.96	TDmin = 2.764 × W + 0.2275	+/- 13% V	51	1.3
	TDmax = 3.936 × W + 9.54	TDmax = 3.936 × W + 0.2451	+/- 4% H		

Lens	Throw distance formula		Vertical/horizontal Offset	Minimum screen width sizes	
	Standard (inches)	Metric (m)		Standard (inches)	Metric (m)
3.89:1-5.43:1 HB Zoom (129-109101-XX)	TDmin = $3.957 \times W + 10.86$	TDmin = $3.957 \times W + 0.2759$	+/- 13% V	75	1.9
	TDmax = $5.571 \times W + 6.78$	TDmax = $5.571 \times W + 0.1722$	+/- 4% H		
5.0:1 -7.69:1 HB Zoom (129-110103-XX)	TDmin = $5.0561 \times W + 12.70$	TDmin = $5.0561 \times W + 0.3226$	+/- 56% V	59	1.5
	TDmax = $7.8819 \times W + 9.20$	TDmax = $7.8819 \times W + 0.2337$	+/- 19% H		

- Throw distance measured from the front foot of the projector.
- Calculated throw distance (TD) values are subject to a +/- 5% tolerance for individual lens variation.
- Calculated vertical and horizontal offset values are subject to a +/- 7% centering tolerance.