

# Crimson and Mirage HD lens throw ratios

The following table details the information required to calculate the lens throw ratios for the Crimson and Mirage HD projectors.

Lens	Throw distance formula		Vertical and horizontal offset (%)	Optimal screen widths	
	Imperial (in)	Metric (cm)		Imperial (in)	Metric (cm)
0.37:1 HD (118-131106-XX)	TD = 0.381 x W + 8.80	TD = 0.381 x W + 22.4	+101.9% /-135% V	23.3 to 498.1	59.2 to 1265.3
			+47.1% /-80% H		
0.73:1 SX+/0.67:1 HD fixed (118-100110-XX)	TD = 0.703 x W + 5.05	TD = 0.703 x W + 12.8	+/- 35% V	54.4 to 172.1	138.3 to 437.1
			+/- 12% H		
0.80-1.16:1 HD (118-130105-XX)	TD = 0.863 x W + 7.01	TD = 0.863 x W + 17.8	+ 114% /- 110% V	37.4 to 499.2	95.0 to 1268.0
			+ 38% /- 32%		
1.2:1 SX+/1.1:1 HD fixed (118-100117-XX)	TD = 1.138 x W + 6.06	TD = 1.138 x W + 15.4	+/- 120% V	98.4 to 513.4	250.0 to 1304.0
			+/- 42% H		
1.25-1.6:1 SX+/1.16-1.49:1 HD zoom (118-100111-XX)	TD = 1.159 x W + 6.03	TD = 1.159 x W + 15.3	+/- 102% V	96.7 to 504.5	245.7 to 1281.4
			+/- 40% H		

Lens	Throw distance formula		Vertical and horizontal offset (%)	Optimal screen widths	
	Imperial (in)	Metric (cm)		Imperial (in)	Metric (cm)
1.5-2.0:1 SX+/1.4-1.8:1 HD zoom (118-100112-XX)	TD = 1.392 x W + 2.43	TD = 1.392 x W + 6.20	+/- 120% V	182.1 to 1412.7	462.6 to 3588.2
	TD = 1.884 x W + 2.58	TD = 1.884 x W + 6.60	+/- 42% H	134.4 to 1043.3	341.5 to 2650.0
2.0-2.8:1 SX+/1.8-2.6:1 HD zoom (118-100113-XX)	TD = 1.876 x W + 2.67	TD = 1.876 x W + 6.80	+/- 120% V	135.0 to 1047.7	342.8 to 2661.1
	TD = 2.579 x W + 1.48	TD = 2.579 x W + 3.80	+/- 42% H	98.7 to 762.8	250.6 to 1937.6
2.8-4.5:1 SX+/2.6-4.1:1 HD zoom (118-100114-XX)	TD = 2.517 x W + 14.27	TD = 2.517 x W + 36.20	+/- 120% V	96.0 to 776.5	243.9 to 1972.4
	TD = 4.119 x W + 13.75	TD = 4.119 x W + 34.90	+/- 42% H	58.8 to 474.6	149.3 to 1205.5
4.5-7.3:1SX/4.1-6.9:1 HD zoom (118-100115-XX)	TD = 4.083 x W + 15.35	TD = 4.083 x W + 39.00	+/- 120% V	58.9 to 478.3	149.6 to 1214.9
	TD = 6.867 x W + 15.18	TD = 6.867 x W + 38.60	+/- 42% H	35.1 to 282.4	89.0 to 722.5
7.5-11.2:1 SX+/6.9-10.4:1 HD zoom (118-100116-XX)	TD = 6.739 x W + 22.12	TD = 6.739 x W + 56.20	+/- 120% V	55.1 to 288.8	140.0 to 733.6
	TD = 10.111 x W + 21.70	TD = 10.111 x W + 55.10	+/- 42% H	36.8 to 192.5	93.5 to 489.1

- 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.