CHRISTIE®

Griffyn Series lens throw ratios

The following table details the information required to calculate the lens throw ratios for the Griffyn Series projectors.

Lens	Throw distance formula		Vertical and horizontal offset (%)	Minimum diagonal screen sizes	
	Imperial (in)	Metric (m)		Imperial (in)	Metric (m)
0.38:1 HB fixed (144-136101-XX)	TD = 0.3864 x W - 5.68	TD = 0.3864 x W - 0.144	-60% / +85% V	55	1.4
			-35% / +15% H		
0.72:1 HB/UHC fixed (144-110103-XX) (163-116109-XX)	TD = 0.7449 x W + 9.45	TD = 0.7449 x W + 0.240	0% V	55	1.4
			0% H		
0.9:1 HB/UHC fixed (144-111014-XX) (163-117100-XX)	TD = 0.9354 x W + 9.53	TD = 0.9354 x W + 0.242	+/- 45% V	150	3.8
			+/- 15% H		
1.13-1.31:1 HB zoom (144-103105-XX - Discontinued)	TD = 1.130 x W + 7.84	TD = 1.130 x W + 0.199	+/- 60% V	122	3.1
	TD = 1.325 x W + 7.12	TD = 1.325 x W + 0.181	+/- 25% H		
1.13 - 1.66:1 HB/UHC zoom (144-129103-XX) (163-118101-XX)	TD = 1.129 x W + 9.28	TD = 1.129 x W + 0.236	+/- 45% V	395	10.03
	TD = 1.670 x W + 8.73	TD = 1.670 x W + 0.222	+/- 20% H		
1.31-1.63:1 HB zoom (144-104106-XX)	TD = 1.305 x W + 6.04	TD = 1.305 x W + 0.153	+/- 80% V	106	2.7
	TD = 1.644 x W + 4.60	TD = 1.644 x W + 0.117	+/- 30% H		

Lens	Throw distance formula		Vertical and horizontal offset (%)	Minimum diagonal screen sizes	
	Imperial (in)	Metric (m)		Imperial (in)	Metric (m)
1.45 - 2.17:1 HB/UHC zoom (144-130105-XX) (163-119102-XX)	TD = 1.449 x W + 6.52	TD = 1.449 x W + 0.166	+/- 55% V	302	7.7
	TD = 2.195 x W + 2.96	TD = 2.195 x W + 0.075	+/- 20% H		
1.63-2.17:1 HB zoom (144-105107-XX - Discontinued)	TD = 1.631 x W + 4.76	TD = 1.631 x W + 0.121	+/- 80% V	87	2.2
	TD = 2.195 x W + 2.95	TD = 2.195 x W + 0.075	+/- 30% H		
1.95 - 3.26:1 HB/UHC zoom* (144-131106-XX) (163-120103-XX)	TD = 1.951 x W + 2.07	TD = 1.951 x W + 0.053	+/- 45% V	201	5.1
	TD = 3.318 x W - 1.63	TD = 3.318 x W - 0.041	+/- 30% H		
1.99-2.71:1 HB zoom (144-106108-XX)	TD = 2.007 x W + 1.05	TD = 2.007 x W + 0.027	+/- 15% V	71	1.8
	TD = 2.728 x W - 1.44	TD = 2.728 x W - 0.036	+/- 5% H		
2.71-3.89:1 HB/UHC zoom* (144-107109-XX) (163-121105-XX)	TD = 2.734 x W + 1.02	TD = 2.734 x W + 0.026	+/- 45% V	51	1.3
	TD = 3.945 x W - 2.01	TD = 3.945 x W - 0.051	+/- 15% H		
3.89-5.43:1 HB/UHC zoom* (144-108100-XX) (163-122106-XX)	TD = 3.942 x W + 7.47	TD = 3.942 x W + 0.190	+/- 85% V	75	1.9
	TD = 5.553 x W + 3.84	TD = 5.553 x W + 0.098	+/- 25% H		
4.98-7.69:1 HB zoom* (144-109101-XX) Only applies to Griffyn 4K35-RGB and 4K50-RGB)	TD = 5.031 x W + 1.52	TD = 5.031 x W + 0.039	+/- 90% V	59	1.5
	TD = 7.860 x W -2.69	TD = 7.860 x W - 0.068	+/- 40% H		

* For Griffyn 4K35-RGB, the 4.98-7.69:1 zoom (P/N: 144-109101-XX) lens requires a 185 mm lens hood extension (P/N: 163-168106-XX).

* For Griffyn 4K50-RGB only these lenses require a lens hood extension to use with this product:

- The 1.95-3.26:1 zoom (P/N: 144-131106-XX/163-120103-XX) lens requires a 30 mm lens hood extension (P/N: 163-170109-XX).
- The 2.71-3.89:1 zoom (P/N: 144-107109-XX/163-121105-XX) and 3.89-5.43:1 zoom (P/N: 144-108100-XX/163-122106-XX) lenses require a 185 mm lens hood extension (P/N: 163-168106-XX).
- The 4.98-7.69:1 zoom (P/N: 144-109101-XX) lens requires a 410 mm lens hood extension (P/N: 163-167105-XX).

Note the following about the throw distances:

- Throw distances measured from the center of the front foot of the projector.
- The 0.38:1 lens throw distance measured from the center of the side feet 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.