

HD/WU/DW/SXGA+ Lens Throw Ratios Technical Reference Information

INTRODUCTION

The tables on the following pages detail the information required to calculate the Lens Throw Ratios for the HD/WU/DW/SXGA+ projectors.

Christie 3-Chip DLP® HD/WU Lens Throw Distance Formulas

CT HD LENS	THROW DISTANCE FORMULA		VERTICAL/HORIZONTAL	MAX/MIN SCREEN WIDTH SIZES	
	STANDARD (INCHES)	METRIC (CM)	OFFSET	STANDARD (INCHES)	METRIC (CM)
0.67:1	TD = 0.7058 x W + 2.23"	TD = 0.7058 x W + 5.66cm	+47 / -47%V	58.2" - 175.0"	147.8 - 444.5cm
(104-110101-01)			+19 / -19%H		
1.2:1 (S.F.)	TD = 1.194 x W + 2.67"	TD = 1.194 x W + 6.78cm	+119 / -119%V	37.3" - 63.7"	94.7 - 161.8cm
(104-116101-01)			+42 / -42%H		
1.2:1 (L.F.)	TDmin = 1.145 x W + 3.76"	TDmin = 1.145 x W + 9.55cm	+119 / -119%V	99.9" - 512.5"	253.7 - 1301.8cm
(104-111101-01)			+42 / -42%H		
1.16-1.49:1 Zoom	TDmin = 1.16 x W + 5.36	TDmin = 1.16 x W + 13.616cm	+102% / -102% V	97.20" - 504.47"	246.8 - 1281.4cm
(104-137101-01)	TDmax = 1.49 x W + 5.46	TDmax = 1.49 x W + 13.868cm	+40% / -40% H	75.60" - 392.68"	192.0 - 997.4cm
1.4-1.8:1 Zoom	TDmin = 1.383 x W + 1.79"	TDmin = 1.383 x W + 4.16cm	+119 / -119%V	112.6" - 618.9"	286.0 - 1572.0cm
(104-112101-01)	TDmax = 1.884 x W + 1.44"	TDmax = 1.884 x W + 3.66cm	+42 / -42%H	82.8" - 500.7"	210.3 - 1271.8cm
1.8-2.6:1 Zoom	TDmin = 1.897 x W - 3.95"	TDmin = 1.897 x W - 10.03cm	+119 / -119%V	85.1" - 500.2"	216.2 - 1270.5cm
(104-113101-01)	TDmax = 2.597 x W - 3.64"	TDmax = 2.597 x W - 9.25cm	+42 / -42%H	62.0" - 365.2"	157.5 - 927.6cm
2.6-4.1:1 Zoom	TDmin = 2.459 x W + 11.33"	TDmin = 2.459 x W + 28.78cm	+119 / -119%V	141.1" - 715.9"	358.4 - 1818.4cm
(104-114101-01)	TDmax = 4.112 x W + 9.04"	TDmax = 4.112 x W + 22.96cm	+42 / -42%H	84.9" - 428.7"	215.6 - 1088.9cm
4.1-6.9:1 Zoom	TDmin = 4.081 x W + 10.64"	TDmin = 4.081 x W - 27.03cm	+119 / -119%V	113.2" - 769.2"	287.5 - 1953.8cm
(104-115101-01)	TDmax = 6.887 x W + 10.70"	TDmax = 6.887 x W + 27.18cm	+42 / -42%H	67.0" - 455.8"	170.2 - 1157.7cm
6.9-10.4:1 Zoom	TDmin = 6.78 x W + 16.40"	TDmin = 6.78 x W + 41.66cm	+119 / -119%V	67.0" - 462"	170.2 - 1173.5 cm
(104-130101-01)	TDmax = 10.14 x W + 19.30"	TDmax = 10.14 x W + 49.02cm	+42 / -42%H	45" - 309"	114.3 - 784.9 cm

Throw distance measured from the centre 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.

Christie 3-Chip DLP® DW Lens Throw Distance Formulas					
CT HD LENS	THROW DISTANCE FORMULA		VERTICAL/HORIZONTAL	MAX/MIN SCREEN WIDTH SIZES	
	STANDARD (INCHES)	METRIC (CM)	OFFSET	STANDARD (INCHES)	METRIC (CM)
0.67:1	TD = 0.836 x W + 2.23"	TD = 0.836 x W + 5.66cm	+47 / -47%V	58.2" - 175.0"	147.8 - 444.5cm
(104-110101-01)			+19 / -19%H		
1.2:1 (S.F.)	TD = 1.414 x W + 2.67"	TD = 1.414 x W + 6.78cm	+119 / -119%V	37.3" - 63.7"	94.7 - 161.8cm
(104-116101-01)			+42 / -42%H		
1.2:1 (L.F.)	TDmin = 1.356 x W + 3.76"	TDmin = 1.356 x W + 9.55cm	+119 / -119%V	99.9" - 512.5"	253.7 - 1301.8cm
(104-111101-01)			+42 / -42%H		
1.16-1.49:1 Zoom	TDmin = 1.446 x W + 5.36	TDmin = 1.446 x W + 13.616cm	+119 / -119%V	77.98" - 404.74"	198.0 - 1028.0cm
(104-137101-01)	TDmax = 1.868 x W + 5.46	TDmax = 1.868 x W + 13.868cm	+42 / -42%H	60.30" - 313.19"	153.2 - 795.5cm
1.4-1.8:1 Zoom	TDmin = 1.637 x W + 1.79"	TDmin = 1.637 x W + 4.16cm	+119 / -119%V	112.6" - 618.9"	286.0 - 1572.0cm
(104112101-01)	TDmax = 2.231 x W + 1.44"	TDmax = 2.231 x W + 3.66cm	+42 / -42%H	82.8" - 500.7"	210.3 - 1271.8cm
1.8-2.6:1 Zoom	TDmin = 2.247 x W - 3.95"	TDmin = 2.247 x W - 10.03cm	+119 / -119%V	85.1" - 500.2"	216.2 - 1270.5cm
(38-809094-51)	TDmax = 3.076 x W - 3.64"	TDmax = 3.076 x W - 9.25cm	+42 / -42%H	62.0" - 365.2"	157.5 - 927.6cm
2.6-4.1:1 Zoom	TDmin = 2.912 x W + 11.33"	TDmin = 2.912 x W + 28.78cm	+119 / -119%V	141.1" - 715.9"	358.4 - 1818.4cm
(104-114101-01)	TDmax = 4.869 x W + 9.04"	TDmax = 4.869 x W + 22.96cm	+42 / -42%H	84.9" - 428.7"	215.6 - 1088.9cm
4.1-6.9:1 Zoom	TDmin = 4.833 x W + 10.64"	TDmin = 4.833 x W - 27.03cm	+119 / -119%V	113.2" - 769.2"	287.5 - 1953.8cm
(104-115101-01)	TDmax = 8.156 x W + 10.70"	TDmax = 8.156 x W + 27.18cm	+42 / -42%H	67.0" - 455.8"	170.2 - 1157.7cm
6.9-10.4:1 Zoom	TDmin = 8.01 x W + 84.68"	TDmin = 8.01 x W + 215.08cm	+119 / -119%V	67.0" - 462"	170.2 - 1173.5 cm
(104-130101-01)	TDmax = 12.01 x W + 85.07"	TDmax = 12.01 x W + 216.07cm	+42 / -42%H	45" - 309"	114.3 - 784.9 cm

Throw distance measured from the centre 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.

CHRISTIE 3-CHIP DLP® SXGA+ LENS THROW DISTANCE FORMULAS

CT HD LENS	THROW DISTANCE FORMULA		VERTICAL/HORIZONTAL	MAX/MIN SCREEN WIDTH SIZES	
	STANDARD (INCHES)	METRIC (CM)	OFFSET	STANDARD (INCHES)	METRIC (CM)
0.67:1	TD = 0.764 x W + 2.23"	TD = 0.764 x W + 5.66cm	+47 / -47%V	58.2" - 175.0"	147.8 - 444.5cm
(104-110101-01)			+19 / -19%H		
1.2:1 (S.F.)	TD = 1.293 x W + 2.67"	TD = 1.293 x W + 6.78cm	+100 / -100%V	37.3" - 63.7"	94.7 - 161.8cm
(104-116101-01)			+50 / -50%H		
1.2:1 (L.F.)	TDmin = 1.240 x W + 3.76"	TDmin = 1.240 x W + 9.55cm	+100 / -100%V	99.9" - 512.5"	253.7 - 1301.8cm
(104-111101-01)			+50 / -50%H		
1.25-1.6:1 Zoom	TDmin = 1.25 x W + 5.36	TDmin = 1.25 x W + 13.616cm	+73 / -73%V	112.6" - 618.9"	286.0 - 1572.0cm
(104-137101-01)	TDmax = 1.6 x W + 5.46	TDmax = 1.6 x W + 13.868cm	+45 / -45%H	82.8" - 500.7"	210.3 - 1271.8cm
1.4-1.8:1 Zoom	TDmin = 1.497 x W + 1.79"	TDmin = 1.497 x W + 4.16cm	+100 / -100%V	112.6" - 618.9"	286.0 - 1572.0cm
(104-112101-01)	TDmax = 2.040 x W + 1.44"	TDmax = 2.040 x W + 3.66cm	+50 / -50%H	82.8" - 500.7"	210.3 - 1271.8cm
1.8-2.6:1 Zoom	TDmin = 2.054 x W - 3.95"	TDmin = 2.054 x W - 10.03cm	+100 / -100%V	85.1" - 500.2"	216.2 - 1270.5cm
(104-113101-01)	TDmax = 2.812 x W - 3.64"	TDmax = 2.812 x W - 9.25cm	+50 / -50%H	62.0" - 365.2"	157.5 - 927.6cm
2.6-4.1:1 Zoom	TDmin = 2.662 x W + 11.33"	TDmin = 2.662 x W + 28.78cm	+100 / -100%V	141.1" - 715.9"	358.4 - 1818.4cm
(104-114101-01)	TDmax = 4.452 x W + 9.04"	TDmax = 4.452 x W + 22.96cm	+50 / -50%H	84.9" - 428.7"	215.6 - 1088.9cm
4.1-6.9:1 Zoom	TDmin = 4.419 x W + 10.64"	TDmin = 4.419 x W - 27.03cm	+100 / -100%V	113.2" - 769.2"	287.5 - 1953.8cm
(104-115101-01)	TDmax = 7.457 x W + 10.70"	TDmax = 7.457 x W + 27.18cm	+50 / -50%H	67.0" - 455.8"	170.2 - 1157.7cm
6.9-10.4:1 Zoom	TDmin = 7.34 x W + 16.40"	TDmin = 7.34 x W + 41.66cm	+100 / -100%V	67.0" - 462"	170.2 - 1173.5 cm
(104-130101-01)	TDmax = 10.98 x W + 19.30"	TDmax = 10.98 x W + 49.02cm	+50 / -50%H	45" - 309"	114.3 - 784.9 cm

Throw distance measured from the centre 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.