

# **M Series Lens Throw Ratios Technical Reference Information**

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## **INTRODUCTION**

The table on the following pages detail the information required to calculate the Lens Throw Ratios for the M Series projector.

**M SERIES HD LENS INFORMATION**

Lens Name	Ratio	Throw Distance (TD) Formula		Vertical Offset	Horizontal Offset	Min/Max Screen Width	
		Standard (Inches)	Metric (cm)			Standard (Inches)	Metric (cm)
CHRISTIE ILS LENS 0.73:1 SX+ / 0.67:1 HD 0.95" 3-CHIP DLP® <b>(118-100110-01)</b>	<b>0.67:1 Fixed</b>	TD = 0.67 x W + 7.01"	TD = 0.67 x W + 17.80 cm	+/- 35% V	+/- 12% H	54" to 577"	137.16 to 1405.58 cm
CHRISTIE ILS LENS 1.2:1 SX+ / 1.1:1 HD 0.95" 3-CHIP DLP® <b>(118-100117-01)</b>	<b>1.1:1 Fixed</b>	TD = 1.1 x W + 8.03"	TD = 1.1 x W + 20.40 cm	+/- 120% V	+/- 54% H	100" to 530"	254 to 1346.20 cm
CHRISTIE ILS LENS 1.25-1.6:1 SX+ / 1.16-1.49:1 HD 0.95" 3-CHIP DLP® <b>(118-100111-01)</b>	<b>1.16-1.49:1 Zoom</b>	TD = 1.16 x W + 7.95"	TD = 1.16 x W + 20.19 cm	+/- 102% V	+/- 40% H	95" to 502"	241.30 to 1275.08 cm
		TD = 1.49 x W + 8.07"	TD = 1.49 x W + 20.50 cm	+/- 102% V	+/- 40% H	74" to 391"	187.96 to 993.14 cm
CHRISTIE ILS LENS 1.5-2.0:1 SX+ / 1.4-1.8:1 HD 0.95" 3-CHIP DLP® <b>(118-100112-01)</b>	<b>1.4-1.8:1 Zoom</b>	TD = 1.4 x W + 4.37"	TD = 1.4 x W + 11.10 cm	+/- 120% V	+/- 54% H	109" to 672"	276.86 to 1706.88 cm
		TD = 1.8 x W + 4.53"	TD = 1.8 x W + 11.51 cm	+/- 120% V	+/- 54% H	85" to 522"	215.90 to 1325.88 cm
CHRISTIE ILS LENS 2.0-2.8:1 SX+ / 1.8-2.6:1 HD 0.95" 3-CHIP DLP® <b>(118-100113-01)</b>	<b>1.8-2.6:1 Zoom</b>	TD = 1.8 x W + 4.61"	TD = 1.8 x W + 11.71 cm	+/- 120% V	+/- 54% H	85" to 522"	215.90 to 1325.88 cm
		TD = 2.6 x W + 3.43"	TD = 2.6 x W + 8.71 cm	+/- 120% V	+/- 54% H	59" to 362"	149.86 to 919.48 cm
CHRISTIE ILS LENS 2.8-4.5:1 SX+ / 2.6-4.1:1 HD 0.95" 3-CHIP DLP® <b>(118-100114-01)</b>	<b>2.6-4.1:1 Zoom</b>	TD = 2.6 x W + 16.18"	TD = 2.6 x W + 41.10 cm	+/- 120% V	+/- 54% H	132" to 675"	335.28 to 1714.50 cm
		TD = 4.1 x W + 15.67"	TD = 4.1 x W + 39.80 cm	+/- 120% V	+/- 54% H	84" to 428"	213.36 to 1087.12 cm
CHRISTIE ILS LENS 4.5-7.5:1 SX+ / 4.1-6.9:1 HD 0.95" 3-CHIP DLP® <b>(118-100115-01)</b>	<b>4.1-6.9:1 Zoom</b>	TD = 4.1 x W + 17.28"	TD = 4.1 x W + 43.89 cm	+/- 120% V	+/- 54% H	111" to 764"	281.94 to 1940.56 cm
		TD = 6.9 x W + 17.13"	TD = 6.9 x W + 43.51 cm	+/- 120% V	+/- 54% H	66" to 454"	167.64 to 1153.16 cm
CHRISTIE ILS LENS 7.5-11.2:1 SX+ / 6.9-10.4:1 HD 0.95" 3-CHIP DLP® <b>(118-100116-01)</b>	<b>6.9-10.4:1 Zoom</b>	TD = 6.9 x W + 24.09"	TD = 6.9 x W + 61.19 cm	+/- 120% V	+/- 54% H	65" to 453"	165.10 to 1150.62 cm
		TD = 10.4 x W + 23.66"	TD = 10.4 x W + 60.09 cm	+/- 120% V	+/- 54% H	43" to 301"	109.22 to 764.54 cm

**NOTES:** **1)** Calculated Throw Distance values are subject to a +/-5% lens tolerance. **2)** Calculated Vertical and Horizontal Offsets are subject to a +/-7% centering tolerance. **3)** Throw distance is measured from the middle of the front foot of the projector to the screen.

M SERIES SXGA + LENS INFORMATION							
Lens Name	Ratio	Throw Distance (TD) Formula		Vertical Offset	Horizontal Offset	Min/Max Screen Width	
		Standard (Inches)	Metric (cm)			Standard (Inches)	Metric (cm)
CHRISTIE ILS LENS 0.73:1 SX+ / 0.67:1 HD 0.95" 3-CHIP DLP® <b>(118-100110-01)</b>	<b>0.73:1 Fixed</b>	TD = 0.73 x Width + 7.09"	TD = 0.73 x Width + 18.01 cm	+/- 23% V	+/- 13% H	50" to 530"	127.00 to 1346.20 cm
CHRISTIE ILS LENS 1.2:1 SX+ / 1.1:1 HD 0.95" 3-CHIP DLP® <b>(118-100117-01)</b>	<b>1.2:1 Fixed</b>	TD = 1.2 x Width + 8.03"	TD = 1.2 x Width + 20.40 cm	+/- 100% V	+/- 50% H	92" to 485"	233.68 to 1231.90 cm
CHRISTIE ILS LENS 1.25-1.6:1 SX+ / 1.16-1.49:1 HD 0.95" 3-CHIP DLP® <b>(118-100111-01)</b>	<b>1.25-1.6:1 Zoom</b>	TD = 1.25 x Width + 7.99"	TD = 1.25 x Width + 20.29 cm	+/- 73% V	+/- 45% H	88" to 466"	223.52 to 1183.64 cm
		TD = 1.6 x Width + 8.07"	TD = 1.6 x Width + 20.50 cm	+/- 73% V	+/- 45% H	69" to 364"	175.26 to 924.56 cm
CHRISTIE ILS LENS 1.5-2.0:1 SX+ / 1.4-1.8:1 HD 0.95" 3-CHIP DLP® <b>(118-100112-01)</b>	<b>1.5-2.0:1 Zoom</b>	TD = 1.5 x Width + 4.33"	TD = 1.5 x Width + 11.00 cm	+/- 100% V	+/- 50% H	102" to 627"	259.08 to 1592.58 cm
		TD = 2.0 x Width + 4.49"	TD = 2.0 x Width + 11.40 cm	+/- 100% V	+/- 50% H	76" to 470"	193.04 to 1193.80 cm
CHRISTIE ILS LENS 2.0-2.8:1 SX+ / 1.8-2.6:1 HD 0.95" 3-CHIP DLP® <b>(118-100113-01)</b>	<b>2.0-2.8:1 Zoom</b>	TD = 2.0 x Width + 4.57"	TD = 2.0 x Width + 11.61 cm	+/- 100% V	+/- 50% H	76" to 470"	193.04 to 1193.80 cm
		TD = 2.8 x Width + 3.39"	TD = 2.8 x Width + 8.61 cm	+/- 100% V	+/- 50% H	55" to 336"	39.70 to 853.44 cm
CHRISTIE ILS LENS 2.8-4.5:1 SX+ / 2.6-4.1:1 HD 0.95" 3-CHIP DLP® <b>(118-100114-01)</b>	<b>2.8-4.5:1 Zoom</b>	TD = 2.8 x Width + 16.14"	TD = 2.8 x Width + 40.99 cm	+/- 100% V	+/- 50% H	122" to 627"	309.88 to 1592.58 cm
		TD = 4.5 x Width + 15.63"	TD = 4.5 x Width + 39.70 cm	+/- 100% V	+/- 50% H	76" to 390"	193.04 to 990.60 cm
CHRISTIE ILS LENS 4.5-7.5:1 SX+ / 4.1-6.9:1 HD 0.95" 3-CHIP DLP® <b>(118-100115-01)</b>	<b>4.5-7.5:1 Zoom</b>	TD = 4.5 x Width + 17.28"	TD = 4.5 x Width + 43.89 cm	+/- 100% V	+/- 50% H	101" to 696"	256.54 to 1767.84 cm
		TD = 7.5 x Width + 17.09"	TD = 7.5 x Width + 43.41 cm	+/- 100% V	+/- 50% H	61" to 418"	154.94 to 1061.72 cm
CHRISTIE ILS LENS 7.5-11.2:1 SX+ / 6.9-10.4:1 HD 0.95" 3-CHIP DLP® <b>(118-100116-01)</b>	<b>7.5-11.2:1 Zoom</b>	TD = 7.5 x Width + 24.06"	TD = 7.5 x Width + 61.11 cm	+/- 100% V	+/- 50% H	60" to 417"	152.40 to 1059.18 cm
		TD = 11.2 x Width + 23.66"	TD = 11.2 x Width + 60.10 cm	+/- 100% V	+/- 50% H	40" to 279"	101.60 to 708.66 cm

**NOTES:** 1) Calculated Throw Distance values are subject to a +/-5% lens tolerance. 2) Calculated Vertical and Horizontal Offsets are subject to a +/-7% centering tolerance. 3) Throw distance is measured from the middle of the front foot of the projector to the screen.

**M SERIES WUXGA LENS INFORMATION**

Lens Name	Ratio	Throw Distance (TD) Formula		Vertical Offset	Horizontal Offset	Min/Max Screen Width	
		Standard (Inches)	Metric (cm)			Standard (Inches)	Metric (cm)
CHRISTIE ILS LENS 0.73:1 SX+ / 0.67:1 HD 0.95" 3-CHIP DLP® <b>(118-100110-01)</b>	<b>0.67:1 Fixed</b>	TD = 0.67 x W + 7.01"	TD = 0.67 x W + 17.80 cm	+/- 22% V	+/- 6% H	54" to 577"	137.16 to 1405.58 cm
CHRISTIE ILS LENS 1.2:1 SX+ / 1.1:1 HD 0.95" 3-CHIP DLP® <b>(118-100117-01)</b>	<b>1.1:1 Fixed</b>	TD = 1.1 x W + 8.03"	TD = 1.1 x W + 20.40 cm	+/- 112% V	+/- 54% H	100" to 530"	254 to 1346.20 cm
CHRISTIE ILS LENS 1.25-1.6:1 SX+ / 1.16-1.49:1 HD 0.95" 3-CHIP DLP® <b>(118-100111-01)</b>	<b>1.16-1.49:1 Zoom</b>	TD = 1.16 x W + 7.95"	TD = 1.16 x W + 20.19 cm	+/- 82% V	+/- 38% H	95" to 502"	241.30 to 1275.08 cm
		TD = 1.49 x W + 8.07"	TD = 1.49 x W + 20.50 cm	+/- 82% V	+/- 38% H	74" to 391"	187.96 to 993.14 cm
CHRISTIE ILS LENS 1.5-2.0:1 SX+ / 1.4-1.8:1 HD 0.95" 3-CHIP DLP® <b>(118-100112-01)</b>	<b>1.4-1.8:1 Zoom</b>	TD = 1.4 x W + 4.37"	TD = 1.4 x W + 11.10 cm	+/- 112% V	+/- 54% H	109" to 672"	276.86 to 1706.88 cm
		TD = 1.8 x W + 4.53"	TD = 1.8 x W + 11.51 cm	+/- 112% V	+/- 54% H	85" to 522"	215.90 to 1325.88 cm
CHRISTIE ILS LENS 2.0-2.8:1 SX+ / 1.8-2.6:1 HD 0.95" 3-CHIP DLP® <b>(118-100113-01)</b>	<b>1.8-2.6:1 Zoom</b>	TD = 1.8 x W + 4.61"	TD = 1.8 x W + 11.71 cm	+/- 112% V	+/- 54% H	85" to 522"	215.90 to 1325.88 cm
		TD = 2.6 x W + 3.43"	TD = 2.6 x W + 8.71 cm	+/- 112% V	+/- 54% H	59" to 362"	149.86 to 919.48 cm
CHRISTIE ILS LENS 2.8-4.5:1 SX+ / 2.6-4.1:1 HD 0.95" 3-CHIP DLP® <b>(118-100114-01)</b>	<b>2.6-4.1:1 Zoom</b>	TD = 2.6 x W + 16.18"	TD = 2.6 x W + 41.10 cm	+/- 112% V	+/- 54% H	132" to 675"	335.28 to 1714.50 cm
		TD = 4.1 x W + 15.67"	TD = 4.1 x W + 39.80 cm	+/- 112% V	+/- 54% H	84" to 428"	213.36 to 1087.12 cm
CHRISTIE ILS LENS 4.5-7.5:1 SX+ / 4.1-6.9:1 HD 0.95" 3-CHIP DLP® <b>(118-100115-01)</b>	<b>4.1-6.9:1 Zoom</b>	TD = 4.1 x W + 17.28"	TD = 4.1 x W + 43.89 cm	+/- 112% V	+/- 54% H	111" to 764"	281.94 to 1940.56 cm
		TD = 6.9 x W + 17.13"	TD = 6.9 x W + 43.51 cm	+/- 112% V	+/- 54% H	66" to 454"	167.64 to 1153.16 cm
CHRISTIE ILS LENS 7.5-11.2:1 SX+ / 6.9-10.4:1 HD 0.95" 3-CHIP DLP® <b>(118-100116-01)</b>	<b>6.9-10.4:1 Zoom</b>	TD = 6.9 x W + 24.09"	TD = 6.9 x W + 61.19 cm	+/- 112% V	+/- 54% H	65" to 453"	165.10 to 1150.62 cm
		TD = 10.4 x W + 23.66"	TD = 10.4 x W + 60.09 cm	+/- 112% V	+/- 54% H	43" to 301"	109.22 to 764.54 cm

**NOTES:** **1)** Calculated Throw Distance values are subject to a +/-5% lens tolerance. **2)** Calculated Vertical and Horizontal Offsets are subject to a +/-7% centering tolerance. **3)** Throw distance is measured from the middle of the front foot of the projector to the screen.

M SERIES WXGA LENS INFORMATION							
Lens Name	Ratio	Throw Distance (TD) Formula		Vertical	Horizontal	Min/Max Screen Width	
		Standard (Inches)	Metric (cm)	Offset	Offset	Standard (Inches)	Metric (cm)
CHRISTIE ILS LENS 0.73:1 SX+ / 0.67:1 HD 0.95" 3-CHIP DLP® <b>(118-100110-01)</b>	<b>0.73:1 Fixed</b>	TD = 0.78 x Width + 7.07"	TD = 0.78 x Width + 18.00 cm	+/- 50% V	+/- 18% H	60" to 509"	152 to 1294 cm
CHRISTIE ILS LENS 1.2:1 SX+ / 1.1:1 HD 0.95" 3-CHIP DLP® <b>(118-100117-01)</b>	<b>1.2:1 Fixed</b>	TD = 1.26 x Width + 8.05"	TD = 1.26 x Width + 20.40 cm	+/- 150% V	+/- 76% H	97" to 471"	247 to 1197 cm
CHRISTIE ILS LENS 1.25-1.6:1 SX+ / 1.16-1.49:1 HD 0.95" 3-CHIP DLP® <b>(118-100111-01)</b>	<b>1.25-1.6:1 Zoom</b>	TD = 1.29 x Width + 7.99"	TD = 1.29 x Width + 20.30 cm	+/- 120% V	+/- 58% H	94" to 462"	239 to 1173 cm
		TD = 1.66 x Width + 8.09"	TD = 1.66 x Width + 20.50 cm	+/- 120% V	+/- 58% H	73" to 358"	186 to 909 cm
CHRISTIE ILS LENS 1.5-2.0:1 SX+ / 1.4-1.8:1 HD 0.95" 3-CHIP DLP® <b>(118-100112-01)</b>	<b>1.5-2.0:1 Zoom</b>	TD = 1.55 x Width + 4.34"	TD = 1.55 x Width + 11.00 cm	+/- 150% V	+/- 76% H	105" to 615"	268 to 1562 cm
		TD = 2.09 x Width + 4.48"	TD = 2.09 x Width + 11.40 cm	+/- 150% V	+/- 76% H	78" to 455"	198 to 1155 cm
CHRISTIE ILS LENS 2.0-2.8:1 SX+ / 1.8-2.6:1 HD 0.95" 3-CHIP DLP® <b>(118-100113-01)</b>	<b>2.0-2.8:1 Zoom</b>	TD = 2.08 x Width + 4.58"	TD = 2.08 x Width + 11.60 cm	+/- 150% V	+/- 76% H	77" to 455"	197 to 1157 cm
		TD = 2.86 x Width + 3.38"	TD = 2.86 x Width + 8.60 cm	+/- 150% V	+/- 76% H	57" to 332"	144 to 843 cm
CHRISTIE ILS LENS 2.8-4.5:1 SX+ / 2.6-4.1:1 HD 0.95" 3-CHIP DLP® <b>(118-100114-01)</b>	<b>2.8-4.5:1 Zoom</b>	TD = 2.79 x Width + 16.13"	TD = 2.79 x Width + 41.00 cm	+/- 150% V	+/- 76% H	125" to 631"	318 to 1603 cm
		TD = 4.57 x Width + 15.63"	TD = 4.57 x Width + 39.70 cm	+/- 150% V	+/- 76% H	77" to 386"	195 to 981 cm
CHRISTIE ILS LENS 4.5-7.5:1 SX+ / 4.1-6.9:1 HD 0.95" 3-CHIP DLP® <b>(118-100115-01)</b>	<b>4.5-7.5:1 Zoom</b>	TD = 4.53 x Width + 17.28"	TD = 4.53 x Width + 43.90 cm	+/- 150% V	+/- 76% H	102" to 693"	259 to 1760 cm
		TD = 7.62 x Width + 17.09"	TD = 7.62 x Width + 43.40 cm	+/- 150% V	+/- 76% H	61" to 412"	154 to 1047 cm
CHRISTIE ILS LENS 7.5-11.2:1 SX+ / 6.9-10.4:1 HD 0.95" 3-CHIP DLP® <b>(118-100116-01)</b>	<b>7.5-11.2:1 Zoom</b>	TD = 7.48 x Width + 24.04"	TD = 7.48 x Width + 61.10 cm	+/- 150% V	+/- 76% H	61" to 419"	156 to 1065 cm
		TD = 11.2 x Width + 23.67"	TD = 11.2 x Width + 60.10 cm	+/- 150% V	+/- 76% H	41" to 280"	104 to 710 cm

**NOTES:** 1) Calculated Throw Distance values are subject to a +/-5% lens tolerance. 2) Calculated Vertical and Horizontal Offsets are subject to a +/-7% centering tolerance. 3) Throw distance is measured from the middle of the front foot of the projector to the screen.