

Zoom Lens

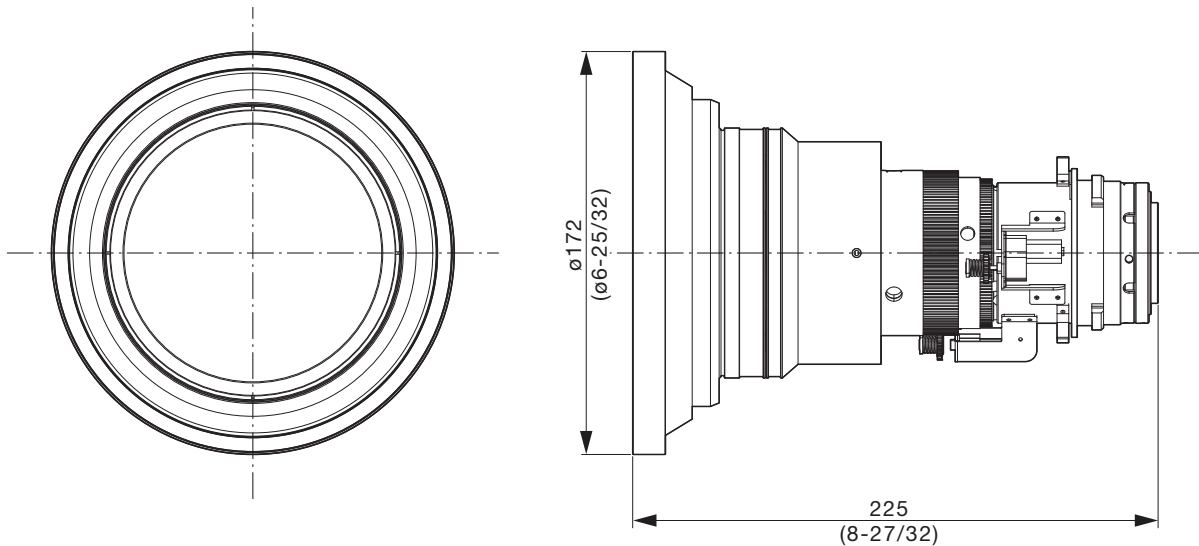
This zoom lens is designed for use with Panasonic’s applicable projectors. The lens makes it possible to vary the projection distance by changing the focal distance.

**NOTE:** The lens cannot be used by itself. It must be mounted onto the specified Panasonic DLP™ projector.

**Specifications**

F value:	1.85–2.34
Focal distance (f):	9.16–12.1 mm (3/8 - 15/32 inches)
Throw ratio	WUXGA 0.600-0.801:1 (16:10 aspect ratio)
	WXGA 0.631-0.843:1 (16:10 aspect ratio)
	XGA 0.620-0.829:1 (4:3 aspect ratio)
Dimensions (W × H × D):	172 × 172 × 225 mm (6-25/32 × 6-25/32 × 8-27/32 inches)
Weight:	Approx. 1.3 kg (2.9 lbs)
Applicable projector:	Group A PT-DZ870/DZ870L/DW830/DW830L/DX100/DX100L
	Group B PT-RCQ10/RCQ10L/RCQ80/RCQ80L/RZ990/RZ990L/RZ890/RZ890L/ RZ790/RZ790L/RZ690/RZ690L/RZ120/RZ120L/RZ970/RZ970L/ RW930/RW930L/RX110/RX110L/RZ870/RZ870L/RZ770/RZ770L/ RW730/RW730L/RZ660/RZ660L/RW620/RW620L
	Group C PT-DZ780/DZ780L/DW750/DW750L/DX820/DX820L
	Group D PT-RQ7/RQ6/RZ7/RZ6 *For Group D projectors see the individual spec les of the projectors.

**Dimensions**

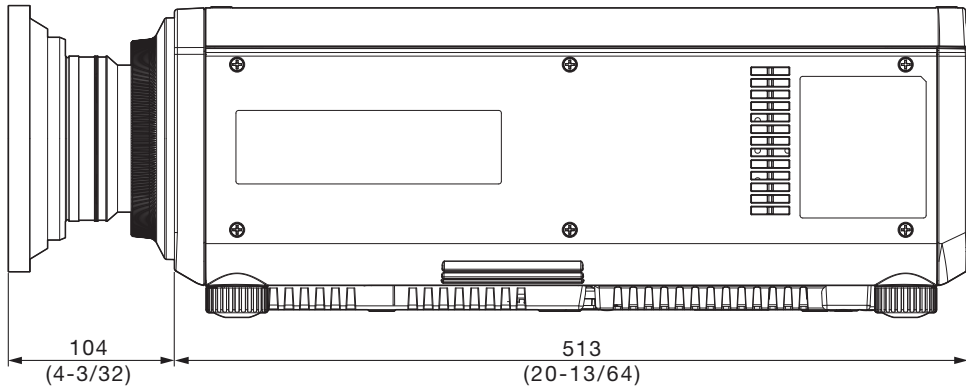


unit : mm (inch)

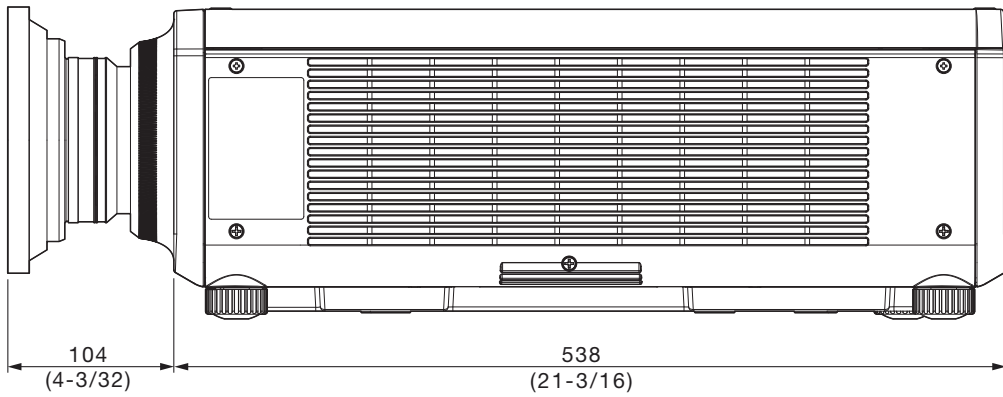
**NOTE:** This illustration is not drawn to scale.

Illustration shows the lens attached to an applicable projector.

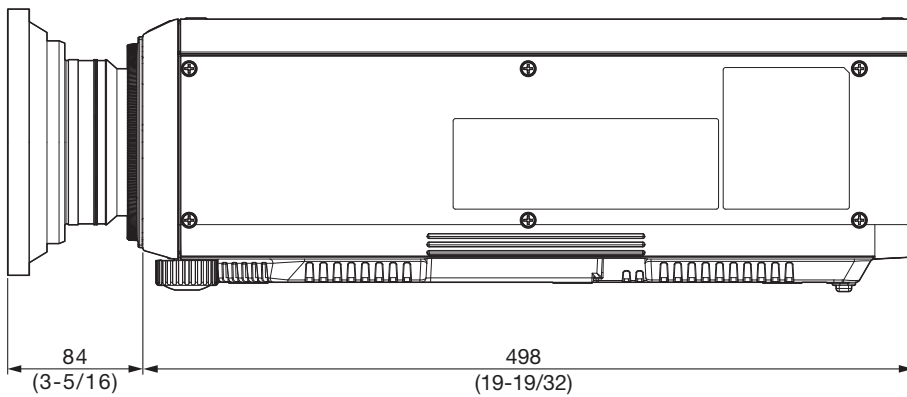
[Group A]



[Group B]



[Group C]

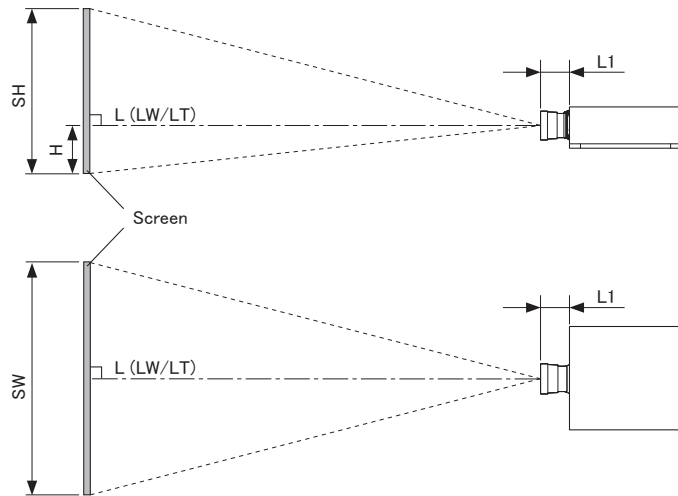
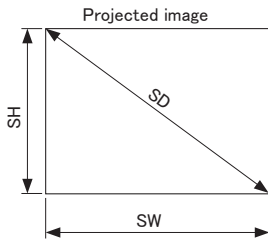


unit : mm (inch)  
NOTE: This illustration is not drawn to scale.

For information on the projection distance, refer to the specifications for the projector to which the lens will be mounted.  
DLP is a trademark of Texas Instruments. Weights and dimensions shown are approximate. Specifications subject to change without notice.

Zoom Lens

Dimensional relationship diagram



NOTE

- This diagram assumes that the size and position of the projected image will be adjusted so that the image fills the entire screen.
- This illustration is not drawn to scale.

L		Projection distance
	LW	Minimum distance
	LT	Maximum distance
L1		Lens protrusion dimension
SH		Image height
H		Distance from the lens center to the lower edge of the projected image
SW		Image width
SD		Projected image size

Projector model	Dimension for L1 (approximate value)
PT-RCQ10/RCQ80/RZ990/RZ890/RZ790/RZ690/RZ120/RZ970/RW930/RX110/RZ870/RZ770/RW730/RZ660/RW620/DZ870/DW830/DX100	0.104
PT-DZ780/DW750/DX820	0.084

unit: meters

Projection distance

PT-RCQ10/RCQ80/RZ990/RZ890/RZ790/RZ690/RZ120/RZ970/RZ870/RZ770/RZ660/DZ870/DZ780  
Aspect ratio 16:10

Projection size (Diagonal)	Projection size (Height)	Projection size (Width)	Projection distance [L]		PT-RCQ10/RCQ80/RZ990/RZ890/RZ790/RZ690/RZ120/RZ970/RZ870/RZ770/RZ660/DZ780		PT-DZ870	
			Min [LW]	Max [LT]	Height from the edge of screen to center of lens [H]		Height from the edge of screen to center of lens [H]	
1.270 m / 50"	0.673 (2.21)	1.077 (3.53)	0.63 (2.1)	0.84 (2.8)	0.067 ~ 0.444 (0.22 ~ 1.46)	0.067 ~ 0.337 (0.22 ~ 1.11)		
1.524 m / 60"	0.808 (2.65)	1.292 (4.24)	0.76 (2.5)	1.02 (3.3)	0.081 ~ 0.533 (0.27 ~ 1.75)	0.081 ~ 0.404 (0.27 ~ 1.33)		
1.778 m / 70"	0.942 (3.09)	1.508 (4.95)	0.90 (3.0)	1.20 (3.9)	0.094 ~ 0.622 (0.31 ~ 2.04)	0.094 ~ 0.471 (0.31 ~ 1.55)		
2.032 m / 80"	1.077 (3.53)	1.723 (5.65)	1.03 (3.4)	1.38 (4.5)	0.108 ~ 0.711 (0.35 ~ 2.33)	0.108 ~ 0.538 (0.35 ~ 1.77)		
2.286 m / 90"	1.212 (3.98)	1.939 (6.36)	1.17 (3.8)	1.56 (5.1)	0.121 ~ 0.800 (0.40 ~ 2.62)	0.121 ~ 0.606 (0.40 ~ 1.99)		
2.540 m / 100"	1.346 (4.42)	2.154 (7.07)	1.31 (4.3)	1.74 (5.7)	0.135 ~ 0.888 (0.44 ~ 2.91)	0.135 ~ 0.673 (0.44 ~ 2.21)		
3.048 m / 120"	1.615 (5.30)	2.585 (8.48)	1.58 (5.2)	2.10 (6.9)	0.162 ~ 1.066 (0.53 ~ 3.50)	0.162 ~ 0.808 (0.53 ~ 2.65)		
3.810 m / 150"	2.019 (6.62)	3.231 (10.60)	1.99 (6.5)	2.63 (8.6)	0.202 ~ 1.333 (0.66 ~ 4.37)	0.202 ~ 1.010 (0.66 ~ 3.31)		
5.080 m / 200"	2.692 (8.83)	4.308 (14.13)	2.67 (8.8)	3.53 (11.6)	0.269 ~ 1.777 (0.88 ~ 5.83)	0.269 ~ 1.346 (0.88 ~ 4.42)		
6.350 m / 250"	3.365 (11.04)	5.385 (17.67)	3.35 (11.0)	4.42 (14.5)	0.337 ~ 2.221 (1.11 ~ 7.29)	0.337 ~ 1.683 (1.11 ~ 5.52)		
7.620 m / 300"	4.039 (13.25)	6.462 (21.20)	4.03 (13.2)	5.32 (17.5)	0.404 ~ 2.665 (1.33 ~ 8.74)	0.404 ~ 2.019 (1.33 ~ 6.62)		
8.890 m / 350"	4.712 (15.46)	7.539 (24.73)	4.71 (15.5)	6.21 (20.4)	0.471 ~ 3.110 (1.55 ~ 10.20)	0.471 ~ 2.356 (1.55 ~ 7.73)		
10.160 m / 400"	5.385 (17.67)	8.616 (28.27)	5.39 (17.7)	7.11 (23.3)	0.538 ~ 3.554 (1.77 ~ 11.66)	0.538 ~ 2.692 (1.77 ~ 8.83)		
12.700 m / 500"	6.731 (22.08)	10.770 (35.33)	6.75 (22.1)	8.90 (29.2)	0.673 ~ 4.442 (2.21 ~ 14.57)	0.673 ~ 3.365 (2.21 ~ 11.04)		
15.240 m / 600"	8.077 (26.50)	12.923 (42.40)	8.11 (26.6)	10.69 (35.1)	0.808 ~ 5.331 (2.65 ~ 17.49)	0.808 ~ 4.039 (2.65 ~ 13.25)		

Calculation of the projection distance

Aspect ratio 16:10

PT-RCQ10/RCQ80/RZ990/RZ890/RZ790/RZ690/RZ120/RZ970/RZ870/RZ770/RZ660/DZ870/DZ780	minimum	LW (m) = (diagonal screen size in inches) × 0.0136 – 0.0549
	maximum	LT (m) = (diagonal screen size in inches) × 0.0179 – 0.0518

## Zoom Lens

### Projection distance

PT-RCQ10/RCQ80/RZ990/RZ890/RZ790/RZ690/RZ120/RZ970/RZ870/RZ770/RZ660/DZ870/DZ780

Aspect ratio 16:9

unit: meters (feet)

Projection size (Diagonal)	Projection size (Height)	Projection size (Width)	Projection distance [L]		PT-RCQ10/RCQ80/RZ990/RZ890/RZ790/RZ690/ RZ120/RZ970/RZ870/RZ770/RZ660/DZ780 Height from the edge of screento center of lens		PT-DZ870 Height from the edge of screento center of lens	
			Min [LW]	Max [LT]	[H]		[H]	
					[SD]	[SH]	[SW]	[H]
1.270 m / 50"	0.623 (2.04)	1.107 (3.63)	0.64 (2.1)	0.87 (2.9)	0 ~ 0.457	(0 ~ 1.50)	0 ~ 0.346	(0 ~ 1.14)
1.524 m / 60"	0.747 (2.45)	1.328 (4.36)	0.78 (2.6)	1.05 (3.4)	0 ~ 0.548	(0 ~ 1.80)	0 ~ 0.415	(0 ~ 1.36)
1.778 m / 70"	0.872 (2.86)	1.550 (5.09)	0.92 (3.0)	1.24 (4.1)	0 ~ 0.639	(0 ~ 2.10)	0 ~ 0.484	(0 ~ 1.59)
2.032 m / 80"	0.996 (3.27)	1.771 (5.81)	1.06 (3.5)	1.42 (4.7)	0 ~ 0.731	(0 ~ 2.40)	0 ~ 0.553	(0 ~ 1.81)
2.286 m / 90"	1.121 (3.68)	1.992 (6.54)	1.20 (3.9)	1.60 (5.2)	0 ~ 0.822	(0 ~ 2.70)	0 ~ 0.623	(0 ~ 2.04)
2.540 m / 100"	1.245 (4.08)	2.214 (7.26)	1.34 (4.4)	1.79 (5.9)	0 ~ 0.913	(0 ~ 3.00)	0 ~ 0.692	(0 ~ 2.27)
3.048 m / 120"	1.494 (4.90)	2.657 (8.72)	1.62 (5.3)	2.16 (7.1)	0 ~ 1.096	(0 ~ 3.60)	0 ~ 0.830	(0 ~ 2.72)
3.810 m / 150"	1.868 (6.13)	3.321 (10.90)	2.04 (6.7)	2.71 (8.9)	0 ~ 1.370	(0 ~ 4.49)	0 ~ 1.038	(0 ~ 3.41)
5.080 m / 200"	2.491 (8.17)	4.428 (14.53)	2.74 (9.0)	3.63 (11.9)	0 ~ 1.826	(0 ~ 5.99)	0 ~ 1.384	(0 ~ 4.54)
6.350 m / 250"	3.113 (10.21)	5.535 (18.16)	3.44 (11.3)	4.55 (14.9)	0 ~ 2.283	(0 ~ 7.49)	0 ~ 1.730	(0 ~ 5.68)
7.620 m / 300"	3.736 (12.26)	6.641 (21.79)	4.14 (13.6)	5.47 (17.9)	0 ~ 2.740	(0 ~ 8.99)	0 ~ 2.075	(0 ~ 6.81)
8.890 m / 350"	4.358 (14.30)	7.748 (25.42)	4.84 (15.9)	6.39 (21.0)	0 ~ 3.196	(0 ~ 10.49)	0 ~ 2.421	(0 ~ 7.94)
10.160 m / 400"	4.981 (16.34)	8.855 (29.05)	5.54 (18.2)	7.31 (24.0)	0 ~ 3.653	(0 ~ 11.98)	0 ~ 2.767	(0 ~ 9.08)
12.700 m / 500"	6.226 (20.43)	11.069 (36.32)	6.93 (22.7)	9.15 (30.0)	0 ~ 4.566	(0 ~ 14.98)	0 ~ 3.459	(0 ~ 11.35)
15.240 m / 600"	7.472 (24.51)	13.283 (43.58)	8.33 (27.3)	10.99 (36.1)	0 ~ 5.479	(0 ~ 17.98)	0 ~ 4.151	(0 ~ 13.62)

### Calculation of the projection distance

Aspect ratio 16:9

unit: meters

PT-RCQ10/RCQ80/RZ990/RZ890/RZ790/ RZ690/RZ120/RZ970/RZ870/RZ770/ RZ660/DZ870/DZ780	minimum	LW (m) = (diagonal screen size in inches) × 0.0140 – 0.0549
	maximum	LT (m) = (diagonal screen size in inches) × 0.0184 – 0.0518

### Projection distance

PT-RCQ10/RCQ80/RZ990/RZ890/RZ790/RZ690/RZ120/RZ970/RZ870/RZ770/RZ660/DZ870/DZ780

Aspect ratio 4:3

unit: meters (feet)

Projection size (Diagonal)	Projection size (Height)	Projection size (Width)	Projection distance [L]		PT-RCQ10/RCQ80/RZ990/RZ890/RZ790/RZ690/ RZ120/RZ970/RZ870/RZ770/RZ660/DZ780 Height from the edge of screento center of lens		PT-DZ870 Height from the edge of screento center of lens	
			Min [LW]	Max [LT]	[H]		[H]	
					[SD]	[SH]	[SW]	[H]
1.270 m / 50"	0.762 (2.50)	1.016 (3.33)	0.71 (2.3)	0.96 (3.1)	0.076 ~ 0.503	(0.25 ~ 1.65)	0.076 ~ 0.381	(0.25 ~ 1.25)
1.524 m / 60"	0.914 (3.00)	1.219 (4.00)	0.87 (2.9)	1.16 (3.8)	0.091 ~ 0.604	(0.30 ~ 1.98)	0.091 ~ 0.457	(0.30 ~ 1.50)
1.778 m / 70"	1.067 (3.50)	1.422 (4.67)	1.02 (3.3)	1.37 (4.5)	0.107 ~ 0.704	(0.35 ~ 2.31)	0.107 ~ 0.533	(0.35 ~ 1.75)
2.032 m / 80"	1.219 (4.00)	1.626 (5.33)	1.18 (3.9)	1.57 (5.2)	0.122 ~ 0.805	(0.40 ~ 2.64)	0.122 ~ 0.610	(0.40 ~ 2.00)
2.286 m / 90"	1.372 (4.50)	1.829 (6.00)	1.33 (4.4)	1.77 (5.8)	0.137 ~ 0.905	(0.45 ~ 2.97)	0.137 ~ 0.686	(0.45 ~ 2.25)
2.540 m / 100"	1.524 (5.00)	2.032 (6.67)	1.48 (4.9)	1.97 (6.5)	0.152 ~ 1.006	(0.50 ~ 3.30)	0.152 ~ 0.762	(0.50 ~ 2.50)
3.048 m / 120"	1.829 (6.00)	2.438 (8.00)	1.79 (5.9)	2.38 (7.8)	0.183 ~ 1.207	(0.60 ~ 3.96)	0.183 ~ 0.914	(0.60 ~ 3.00)
3.810 m / 150"	2.286 (7.50)	3.048 (10.00)	2.25 (7.4)	2.99 (9.8)	0.229 ~ 1.509	(0.75 ~ 4.95)	0.229 ~ 1.143	(0.75 ~ 3.75)
5.080 m / 200"	3.048 (10.00)	4.064 (13.33)	3.02 (9.9)	4.00 (13.1)	0.305 ~ 2.012	(1.00 ~ 6.60)	0.305 ~ 1.524	(1.00 ~ 5.00)
6.350 m / 250"	3.810 (12.50)	5.080 (16.67)	3.79 (12.4)	5.01 (16.4)	0.381 ~ 2.515	(1.25 ~ 8.25)	0.381 ~ 1.905	(1.25 ~ 6.25)
7.620 m / 300"	4.572 (15.00)	6.096 (20.00)	4.56 (15.0)	6.03 (19.8)	0.457 ~ 3.018	(1.50 ~ 9.90)	0.457 ~ 2.286	(1.50 ~ 7.50)
8.890 m / 350"	5.334 (17.50)	7.112 (23.33)	5.33 (17.5)	7.04 (23.1)	0.533 ~ 3.520	(1.75 ~ 11.55)	0.533 ~ 2.667	(1.75 ~ 8.75)
10.160 m / 400"	6.096 (20.00)	8.128 (26.67)	6.10 (20.0)	8.05 (26.4)	0.610 ~ 4.023	(2.00 ~ 13.20)	0.610 ~ 3.048	(2.00 ~ 10.00)
12.700 m / 500"	7.620 (25.00)	10.160 (33.33)	7.64 (25.1)	10.08 (33.1)	0.762 ~ 5.029	(2.50 ~ 16.50)	0.762 ~ 3.810	(2.50 ~ 12.50)
15.240 m / 600"	9.144 (30.00)	12.192 (40.00)	9.18 (30.1)	12.11 (39.7)	0.914 ~ 6.035	(3.00 ~ 19.80)	0.914 ~ 4.572	(3.00 ~ 15.00)

### Calculation of the projection distance

Aspect ratio 4:3

unit: meters

PT-RCQ10/RCQ80/RZ990/RZ890/RZ790/ RZ690/RZ120/RZ970/RZ870/RZ770/ RZ660/DZ870/DZ780	minimum	LW (m) = (diagonal screen size in inches) × 0.0154 – 0.0549
	maximum	LT (m) = (diagonal screen size in inches) × 0.0203 – 0.0518

Zoom Lens

Projection distance

PT-RW930/RW730/RW620/DW830/DW750

Aspect ratio 16:10

unit: meters (feet)

Projection size (Diagonal) [SD]	Projection size (Height) [SH]	Projection size (Width) [SW]	Projection distance [L]		PT-RW930/RW730/RW620/DW750		PT-DW830	
			Min [LW]	Max [LT]	Height from the edge of screento center of lens [H]		Height from the edge of screento center of lens [H]	
1.270 m / 50"	0.673 (2.21)	1.077 (3.53)	0.66 (2.2)	0.89 (2.9)	0.007 ~ 0.444 (0.02 ~ 1.46)	0.007 ~ 0.337 (0.02 ~ 1.11)		
1.524 m / 60"	0.808 (2.65)	1.292 (4.24)	0.80 (2.6)	1.08 (3.5)	0.008 ~ 0.533 (0.03 ~ 1.75)	0.008 ~ 0.404 (0.03 ~ 1.33)		
1.778 m / 70"	0.942 (3.09)	1.508 (4.95)	0.94 (3.1)	1.26 (4.1)	0.009 ~ 0.622 (0.03 ~ 2.04)	0.009 ~ 0.471 (0.03 ~ 1.55)		
2.032 m / 80"	1.077 (3.53)	1.723 (5.65)	1.09 (3.6)	1.45 (4.8)	0.011 ~ 0.711 (0.04 ~ 2.33)	0.011 ~ 0.538 (0.04 ~ 1.77)		
2.286 m / 90"	1.212 (3.98)	1.939 (6.36)	1.23 (4.0)	1.64 (5.4)	0.012 ~ 0.800 (0.04 ~ 2.62)	0.012 ~ 0.606 (0.04 ~ 1.99)		
2.540 m / 100"	1.346 (4.42)	2.154 (7.07)	1.37 (4.5)	1.83 (6.0)	0.013 ~ 0.888 (0.04 ~ 2.91)	0.013 ~ 0.673 (0.04 ~ 2.21)		
3.048 m / 120"	1.615 (5.30)	2.585 (8.48)	1.66 (5.4)	2.20 (7.2)	0.016 ~ 1.066 (0.05 ~ 3.50)	0.016 ~ 0.808 (0.05 ~ 2.65)		
3.810 m / 150"	2.019 (6.62)	3.231 (10.60)	2.09 (6.9)	2.77 (9.1)	0.020 ~ 1.333 (0.07 ~ 4.37)	0.020 ~ 1.010 (0.07 ~ 3.31)		
5.080 m / 200"	2.692 (8.83)	4.308 (14.13)	2.80 (9.2)	3.71 (12.2)	0.027 ~ 1.777 (0.09 ~ 5.83)	0.027 ~ 1.346 (0.09 ~ 4.42)		
6.350 m / 250"	3.365 (11.04)	5.385 (17.67)	3.52 (11.5)	4.65 (15.3)	0.034 ~ 2.221 (0.11 ~ 7.29)	0.034 ~ 1.683 (0.11 ~ 5.52)		
7.620 m / 300"	4.039 (13.25)	6.462 (21.20)	4.23 (13.9)	5.59 (18.3)	0.040 ~ 2.665 (0.13 ~ 8.74)	0.040 ~ 2.019 (0.13 ~ 6.62)		
8.890 m / 350"	4.712 (15.46)	7.539 (24.73)	4.94 (16.2)	6.53 (21.4)	0.047 ~ 3.110 (0.15 ~ 10.20)	0.047 ~ 2.356 (0.15 ~ 7.73)		
10.160 m / 400"	5.385 (17.67)	8.616 (28.27)	5.66 (18.6)	7.47 (24.5)	0.054 ~ 3.554 (0.18 ~ 11.66)	0.054 ~ 2.692 (0.18 ~ 8.83)		
12.700 m / 500"	6.731 (22.08)	10.770 (35.33)	7.09 (23.3)	9.35 (30.7)	0.067 ~ 4.442 (0.22 ~ 14.57)	0.067 ~ 3.365 (0.22 ~ 11.04)		
15.240 m / 600"	8.077 (26.50)	12.923 (42.40)	8.51 (27.9)	11.23 (36.8)	0.081 ~ 5.331 (0.27 ~ 17.49)	0.081 ~ 4.039 (0.27 ~ 13.25)		

Calculation of the projection distance

Aspect ratio 16:10

unit: meters

PT-RW930/RW730/RW620/ DW830/DW750	minimum	LW (m) = (diagonal screen size in inches) × 0.0143 – 0.0549
	maximum	LT (m) = (diagonal screen size in inches) × 0.0188 – 0.0518

Projection distance

PT-RW930/RW730/RW620/DW830/DW750

Aspect ratio 16:9

unit: meters (feet)

Projection size (Diagonal) [SD]	Projection size (Height) [SH]	Projection size (Width) [SW]	Projection distance [L]		PT-RW930/RW730/RW620/DW750		PT-DW830	
			Min [LW]	Max [LT]	Height from the edge of screento center of lens [H]		Height from the edge of screento center of lens [H]	
1.270 m / 50"	0.623 (2.04)	1.107 (3.63)	0.68 (2.2)	0.91 (3.0)	-0.056 ~ 0.457 (-0.18 ~ 1.50)	-0.056 ~ 0.346 (-0.18 ~ 1.14)		
1.524 m / 60"	0.747 (2.45)	1.328 (4.36)	0.83 (2.7)	1.11 (3.6)	-0.067 ~ 0.548 (-0.22 ~ 1.80)	-0.067 ~ 0.415 (-0.22 ~ 1.36)		
1.778 m / 70"	0.872 (2.86)	1.550 (5.09)	0.97 (3.2)	1.30 (4.3)	-0.078 ~ 0.639 (-0.26 ~ 2.10)	-0.078 ~ 0.484 (-0.26 ~ 1.59)		
2.032 m / 80"	0.996 (3.27)	1.771 (5.81)	1.12 (3.7)	1.49 (4.9)	-0.090 ~ 0.731 (-0.30 ~ 2.40)	-0.090 ~ 0.553 (-0.30 ~ 1.81)		
2.286 m / 90"	1.121 (3.68)	1.992 (6.54)	1.27 (4.2)	1.69 (5.5)	-0.101 ~ 0.822 (-0.33 ~ 2.70)	-0.101 ~ 0.623 (-0.33 ~ 2.04)		
2.540 m / 100"	1.245 (4.08)	2.214 (7.26)	1.41 (4.6)	1.88 (6.2)	-0.112 ~ 0.913 (-0.37 ~ 3.00)	-0.112 ~ 0.692 (-0.37 ~ 2.27)		
3.048 m / 120"	1.494 (4.90)	2.657 (8.72)	1.71 (5.6)	2.27 (7.4)	-0.134 ~ 1.096 (-0.44 ~ 3.60)	-0.134 ~ 0.830 (-0.44 ~ 2.72)		
3.810 m / 150"	1.868 (6.13)	3.321 (10.90)	2.15 (7.1)	2.85 (9.4)	-0.168 ~ 1.370 (-0.55 ~ 4.49)	-0.168 ~ 1.038 (-0.55 ~ 3.41)		
5.080 m / 200"	2.491 (8.17)	4.428 (14.53)	2.88 (9.4)	3.81 (12.5)	-0.224 ~ 1.826 (-0.73 ~ 5.99)	-0.224 ~ 1.384 (-0.73 ~ 4.54)		
6.350 m / 250"	3.113 (10.21)	5.535 (18.16)	3.61 (11.8)	4.78 (15.7)	-0.280 ~ 2.283 (-0.92 ~ 7.49)	-0.280 ~ 1.730 (-0.92 ~ 5.68)		
7.620 m / 300"	3.736 (12.26)	6.641 (21.79)	4.35 (14.3)	5.74 (18.8)	-0.336 ~ 2.740 (-1.10 ~ 8.99)	-0.336 ~ 2.075 (-1.10 ~ 6.81)		
8.890 m / 350"	4.358 (14.30)	7.748 (25.42)	5.08 (16.7)	6.71 (22.0)	-0.392 ~ 3.196 (-1.29 ~ 10.49)	-0.392 ~ 2.421 (-1.29 ~ 7.94)		
10.160 m / 400"	4.981 (16.34)	8.855 (29.05)	5.82 (19.1)	7.68 (25.2)	-0.448 ~ 3.653 (-1.47 ~ 11.98)	-0.448 ~ 2.767 (-1.47 ~ 9.08)		
12.700 m / 500"	6.226 (20.43)	11.069 (36.32)	7.28 (23.9)	9.61 (31.5)	-0.560 ~ 4.566 (-1.84 ~ 14.98)	-0.560 ~ 3.459 (-1.84 ~ 11.35)		
15.240 m / 600"	7.472 (24.51)	13.283 (43.58)	8.75 (28.7)	11.54 (37.9)	-0.672 ~ 5.479 (-2.20 ~ 17.98)	-0.672 ~ 4.151 (-2.20 ~ 13.62)		

Calculation of the projection distance

Aspect ratio 16:9

unit: meters

PT-RW930/RW730/RW620/ DW830/DW750	minimum	LW (m) = (diagonal screen size in inches) × 0.0147 – 0.0549
	maximum	LT (m) = (diagonal screen size in inches) × 0.0193 – 0.0518

## Zoom Lens

### Projection distance

PT-RW930/RW730/RW620/DW830/DW750

Aspect ratio 4:3

unit: meters (feet)

Projection size (Diagonal) [SD]	Projection size (Height) [SH]	Projection size (Width) [SW]	Projection distance [L]		PT-RW930/RW730/RW620/DW750		PT-DW830	
			Min [LW]	Max [LT]	Height from the edge of screento center of lens [H]		Height from the edge of screento center of lens [H]	
1.270 m / 50"	0.762 (2.50)	1.016 (3.33)	0.75 (2.5)	1.01 (3.3)	0.008 ~ 0.503	(0.03 ~ 1.65)	0.008 ~ 0.381	(0.03 ~ 1.25)
1.524 m / 60"	0.914 (3.00)	1.219 (4.00)	0.91 (3.0)	1.22 (4.0)	0.009 ~ 0.604	(0.03 ~ 1.98)	0.009 ~ 0.457	(0.03 ~ 1.50)
1.778 m / 70"	1.067 (3.50)	1.422 (4.67)	1.08 (3.5)	1.44 (4.7)	0.011 ~ 0.704	(0.04 ~ 2.31)	0.011 ~ 0.533	(0.04 ~ 1.75)
2.032 m / 80"	1.219 (4.00)	1.626 (5.33)	1.24 (4.1)	1.65 (5.4)	0.012 ~ 0.805	(0.04 ~ 2.64)	0.012 ~ 0.610	(0.04 ~ 2.00)
2.286 m / 90"	1.372 (4.50)	1.829 (6.00)	1.40 (4.6)	1.86 (6.1)	0.014 ~ 0.905	(0.05 ~ 2.97)	0.014 ~ 0.686	(0.05 ~ 2.25)
2.540 m / 100"	1.524 (5.00)	2.032 (6.67)	1.56 (5.1)	2.07 (6.8)	0.015 ~ 1.006	(0.05 ~ 3.30)	0.015 ~ 0.762	(0.05 ~ 2.50)
3.048 m / 120"	1.829 (6.00)	2.438 (8.00)	1.88 (6.2)	2.50 (8.2)	0.018 ~ 1.207	(0.06 ~ 3.96)	0.018 ~ 0.914	(0.06 ~ 3.00)
3.810 m / 150"	2.286 (7.50)	3.048 (10.00)	2.37 (7.8)	3.14 (10.3)	0.023 ~ 1.509	(0.08 ~ 4.95)	0.023 ~ 1.143	(0.08 ~ 3.75)
5.080 m / 200"	3.048 (10.00)	4.064 (13.33)	3.18 (10.4)	4.20 (13.8)	0.030 ~ 2.012	(0.10 ~ 6.60)	0.030 ~ 1.524	(0.10 ~ 5.00)
6.350 m / 250"	3.810 (12.50)	5.080 (16.67)	3.98 (13.1)	5.26 (17.3)	0.038 ~ 2.515	(0.12 ~ 8.25)	0.038 ~ 1.905	(0.12 ~ 6.25)
7.620 m / 300"	4.572 (15.00)	6.096 (20.00)	4.79 (15.7)	6.33 (20.8)	0.046 ~ 3.018	(0.15 ~ 9.90)	0.046 ~ 2.286	(0.15 ~ 7.50)
8.890 m / 350"	5.334 (17.50)	7.112 (23.33)	5.60 (18.4)	7.39 (24.2)	0.053 ~ 3.520	(0.17 ~ 11.55)	0.053 ~ 2.667	(0.17 ~ 8.75)
10.160 m / 400"	6.096 (20.00)	8.128 (26.67)	6.41 (21.0)	8.45 (27.7)	0.061 ~ 4.023	(0.20 ~ 13.20)	0.061 ~ 3.048	(0.20 ~ 10.00)
12.700 m / 500"	7.620 (25.00)	10.160 (33.33)	8.02 (26.3)	10.58 (34.7)	0.076 ~ 5.029	(0.25 ~ 16.50)	0.076 ~ 3.810	(0.25 ~ 12.50)
15.240 m / 600"	9.144 (30.00)	12.192 (40.00)	9.64 (31.6)	12.70 (41.7)	0.091 ~ 6.035	(0.30 ~ 19.80)	0.091 ~ 4.572	(0.30 ~ 15.00)

### Calculation of the projection distance

Aspect ratio 4:3

unit: meters

PT-RW930/RW730/RW620/DW830/DW750	minimum	LW (m) = (diagonal screen size in inches) × 0.0162 – 0.0549
	maximum	LT (m) = (diagonal screen size in inches) × 0.0213 – 0.0518

### Projection distance

PT-RX110/DX100/DX820

Aspect ratio 4:3

unit: meters (feet)

Projection size (Diagonal) [SD]	Projection size (Height) [SH]	Projection size (Width) [SW]	Projection distance [L]		PT-RX110/DX820		PT-DX100	
			Min [LW]	Max [LT]	Height from the edge of screento center of lens [H]		Height from the edge of screento center of lens [H]	
1.270 m / 50"	0.762 (2.50)	1.016 (3.33)	0.61 (2.0)	0.82 (2.7)	0.152 ~ 0.480	(0.50 ~ 1.57)	0.152 ~ 0.381	(0.50 ~ 1.25)
1.524 m / 60"	0.914 (3.00)	1.219 (4.00)	0.74 (2.4)	1.00 (3.3)	0.183 ~ 0.576	(0.60 ~ 1.89)	0.183 ~ 0.457	(0.60 ~ 1.50)
1.778 m / 70"	1.067 (3.50)	1.422 (4.67)	0.88 (2.9)	1.17 (3.8)	0.213 ~ 0.672	(0.70 ~ 2.20)	0.213 ~ 0.533	(0.70 ~ 1.75)
2.032 m / 80"	1.219 (4.00)	1.626 (5.33)	1.01 (3.3)	1.35 (4.4)	0.244 ~ 0.768	(0.80 ~ 2.52)	0.244 ~ 0.610	(0.80 ~ 2.00)
2.286 m / 90"	1.372 (4.50)	1.829 (6.00)	1.14 (3.7)	1.52 (5.0)	0.274 ~ 0.864	(0.90 ~ 2.83)	0.274 ~ 0.686	(0.90 ~ 2.25)
2.540 m / 100"	1.524 (5.00)	2.032 (6.67)	1.27 (4.2)	1.70 (5.6)	0.305 ~ 0.960	(1.00 ~ 3.15)	0.305 ~ 0.762	(1.00 ~ 2.50)
3.048 m / 120"	1.829 (6.00)	2.438 (8.00)	1.54 (5.1)	2.05 (6.7)	0.366 ~ 1.152	(1.20 ~ 3.78)	0.366 ~ 0.914	(1.20 ~ 3.00)
3.810 m / 150"	2.286 (7.50)	3.048 (10.00)	1.94 (6.4)	2.57 (8.4)	0.457 ~ 1.440	(1.50 ~ 4.72)	0.457 ~ 1.143	(1.50 ~ 3.75)
5.080 m / 200"	3.048 (10.00)	4.064 (13.33)	2.60 (8.5)	3.45 (11.3)	0.610 ~ 1.920	(2.00 ~ 6.30)	0.610 ~ 1.524	(2.00 ~ 5.00)
6.350 m / 250"	3.810 (12.50)	5.080 (16.67)	3.27 (10.7)	4.32 (14.2)	0.762 ~ 2.400	(2.50 ~ 7.87)	0.762 ~ 1.905	(2.50 ~ 6.25)
7.620 m / 300"	4.572 (15.00)	6.096 (20.00)	3.93 (12.9)	5.20 (17.1)	0.914 ~ 2.880	(3.00 ~ 9.45)	0.914 ~ 2.286	(3.00 ~ 7.50)
8.890 m / 350"	5.334 (17.50)	7.112 (23.33)	4.60 (15.1)	6.07 (19.9)	1.067 ~ 3.360	(3.50 ~ 11.02)	1.067 ~ 2.667	(3.50 ~ 8.75)
10.160 m / 400"	6.096 (20.00)	8.128 (26.67)	5.26 (17.3)	6.95 (22.8)	1.219 ~ 3.840	(4.00 ~ 12.60)	1.219 ~ 3.048	(4.00 ~ 10.00)
12.700 m / 500"	7.620 (25.00)	10.160 (33.33)	6.59 (21.6)	8.70 (28.5)	1.524 ~ 4.801	(5.00 ~ 15.75)	1.524 ~ 3.810	(5.00 ~ 12.50)
15.240 m / 600"	9.144 (30.00)	12.192 (40.00)	7.92 (26.0)	10.45 (34.3)	1.829 ~ 5.761	(6.00 ~ 18.90)	1.829 ~ 4.572	(6.00 ~ 15.00)

### Calculation of the projection distance

Aspect ratio 4:3

unit: meters

PT-RX110/DX100/DX820	minimum	LW (m) = (diagonal screen size in inches) × 0.0133 – 0.0549
	maximum	LT (m) = (diagonal screen size in inches) × 0.0175 – 0.0518

Zoom Lens

Projection distance

PT-RX110/DX100/DX820

Aspect ratio 16:9

unit: meters (feet)

Projection size (Diagonal) [SD]	Projection size (Height) [SH]	Projection size (Width) [SW]	Projection distance [L]		PT-RX110/DX820 Height from the edge of screento center of lens [H]		PT-DX100 Height from the edge of screento center of lens [H]	
			Min [LW]	Max [LT]				
1.270 m / 50"	0.623 (2.04)	1.107 (3.63)	0.67 (2.2)	0.90 (3.0)	-0.031 ~ 0.523 (-0.10 ~ 1.72)	-0.031 ~ 0.415 (-0.10 ~ 1.36)		
1.524 m / 60"	0.747 (2.45)	1.328 (4.36)	0.81 (2.7)	1.09 (3.6)	-0.037 ~ 0.628 (-0.12 ~ 2.06)	-0.037 ~ 0.498 (-0.12 ~ 1.63)		
1.778 m / 70"	0.872 (2.86)	1.550 (5.09)	0.96 (3.1)	1.28 (4.2)	-0.044 ~ 0.732 (-0.14 ~ 2.40)	-0.044 ~ 0.581 (-0.14 ~ 1.91)		
2.032 m / 80"	0.996 (3.27)	1.771 (5.81)	1.10 (3.6)	1.47 (4.8)	-0.050 ~ 0.837 (-0.16 ~ 2.75)	-0.050 ~ 0.664 (-0.16 ~ 2.18)		
2.286 m / 90"	1.121 (3.68)	1.992 (6.54)	1.25 (4.1)	1.66 (5.4)	-0.056 ~ 0.941 (-0.18 ~ 3.09)	-0.056 ~ 0.747 (-0.18 ~ 2.45)		
2.540 m / 100"	1.245 (4.08)	2.214 (7.26)	1.39 (4.6)	1.85 (6.1)	-0.062 ~ 1.046 (-0.20 ~ 3.43)	-0.062 ~ 0.830 (-0.20 ~ 2.72)		
3.048 m / 120"	1.494 (4.90)	2.657 (8.72)	1.68 (5.5)	2.24 (7.3)	-0.075 ~ 1.255 (-0.25 ~ 4.12)	-0.075 ~ 0.996 (-0.25 ~ 3.27)		
3.810 m / 150"	1.868 (6.13)	3.321 (10.90)	2.12 (7.0)	2.81 (9.2)	-0.093 ~ 1.569 (-0.31 ~ 5.15)	-0.093 ~ 1.245 (-0.31 ~ 4.08)		
5.080 m / 200"	2.491 (8.17)	4.428 (14.53)	2.84 (9.3)	3.76 (12.3)	-0.125 ~ 2.092 (-0.41 ~ 6.86)	-0.125 ~ 1.660 (-0.41 ~ 5.45)		
6.350 m / 250"	3.113 (10.21)	5.535 (18.16)	3.57 (11.7)	4.71 (15.5)	-0.156 ~ 2.615 (-0.51 ~ 8.58)	-0.156 ~ 2.075 (-0.51 ~ 6.81)		
7.620 m / 300"	3.736 (12.26)	6.641 (21.79)	4.29 (14.1)	5.67 (18.6)	-0.187 ~ 3.138 (-0.61 ~ 10.30)	-0.187 ~ 2.491 (-0.61 ~ 8.17)		
8.890 m / 350"	4.358 (14.30)	7.748 (25.42)	5.01 (16.4)	6.62 (21.7)	-0.218 ~ 3.661 (-0.72 ~ 12.01)	-0.218 ~ 2.906 (-0.72 ~ 9.53)		
10.160 m / 400"	4.981 (16.34)	8.855 (29.05)	5.74 (18.8)	7.57 (24.8)	-0.249 ~ 4.184 (-0.82 ~ 13.73)	-0.249 ~ 3.321 (-0.82 ~ 10.90)		
12.700 m / 500"	6.226 (20.43)	11.069 (36.32)	7.19 (23.6)	9.48 (31.1)	-0.311 ~ 5.230 (-1.02 ~ 17.16)	-0.311 ~ 4.151 (-1.02 ~ 13.62)		
15.240 m / 600"	7.472 (24.51)	13.283 (43.58)	8.64 (28.3)	11.39 (37.4)	-0.374 ~ 6.276 (-1.23 ~ 20.59)	-0.374 ~ 4.981 (-1.23 ~ 16.34)		

Calculation of the projection distance

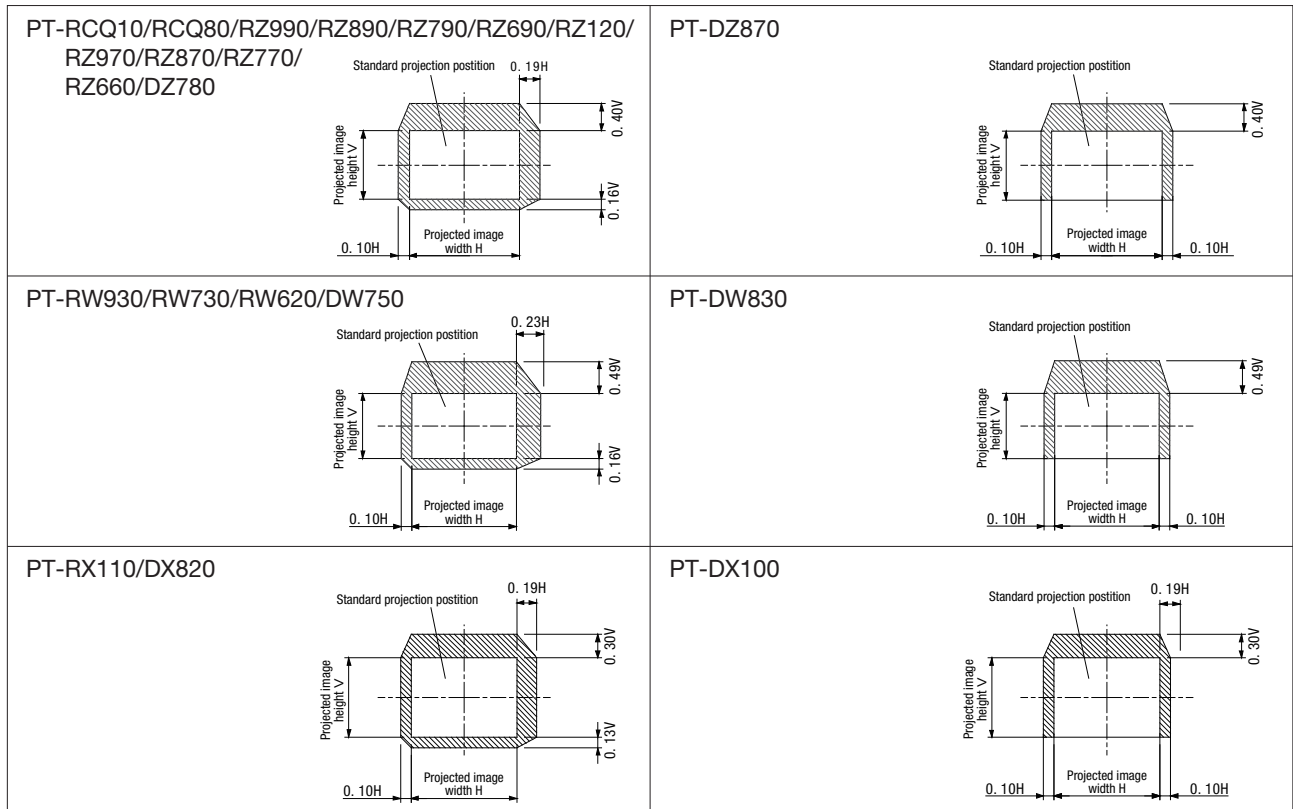
Aspect ratio 16:9

unit: meters

PT-RX110/DX100/DX820	minimum	$LW (m) = (\text{diagonal screen size in inches}) \times 0.0145 - 0.0549$
	maximum	$LT (m) = (\text{diagonal screen size in inches}) \times 0.0191 - 0.0518$

Shift range

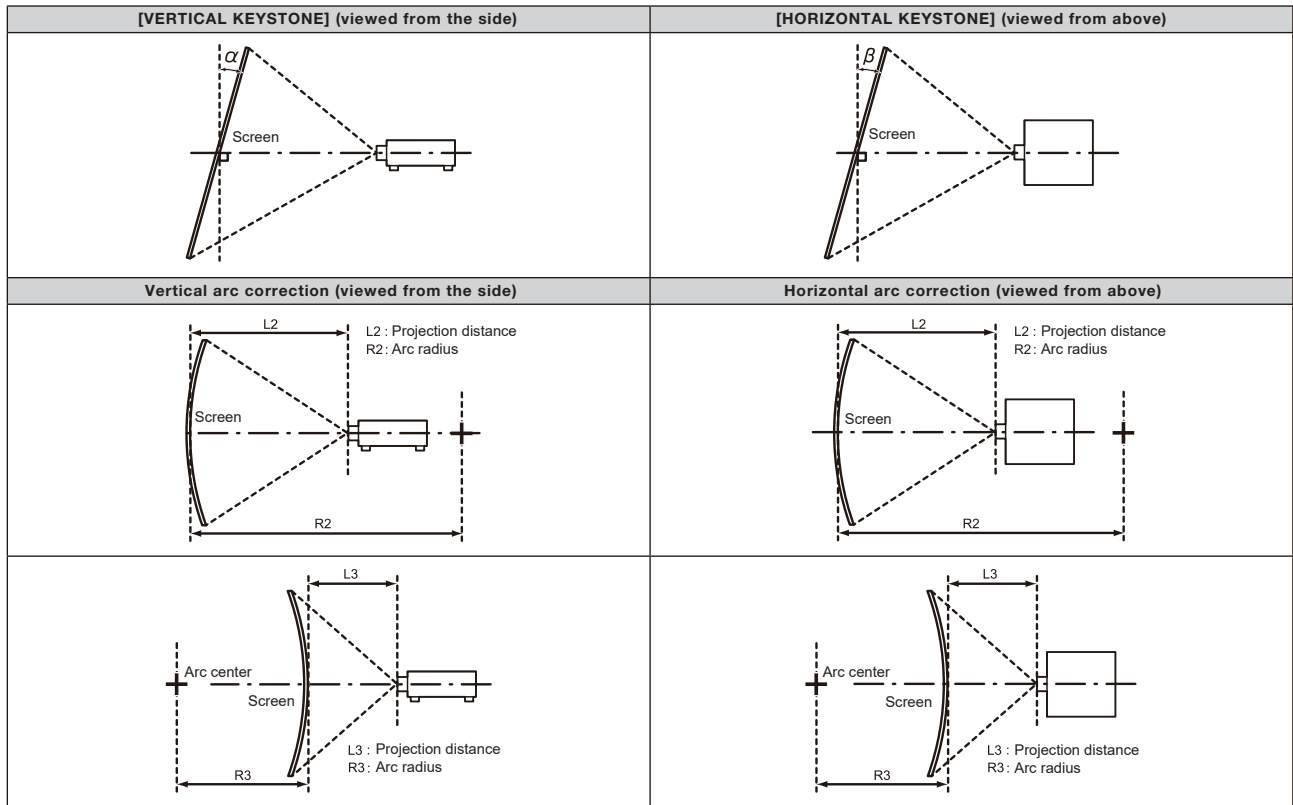
Optical axis shift function allows to shift the position of a projected image as shown below.





Zoom Lens

Keystone correction range



Standard status

Projection product Model No.	Only [KEYSTONE] used		[KEYSTONE] and [CURVED CORRECTION] used together				Only [CURVED CORRECTION] used	
	Vertical keystone correction angle $\alpha$ (°)	Horizontal keystone correction angle $\beta$ (°)	Vertical keystone correction angle $\alpha$ (°)	Horizontal keystone correction angle $\beta$ (°)	Min. value of R2/L2	Min. value of 3/L3	Min. value of R2/L2	Min. value of R3/L3
PT-RCQ10/RCQ80 RZ990/RZ890/RZ790 RZ690/RZ120/RZ970 RW930/RX110/RZ870 RZ770/RW730/RZ660 RW620/DZ870/DW830 DX100/DZ780/DW750 DX820	± 16	± 10	-	-	-	-	-	-

When using the optional upgrade kit (ET-UK20)

Projection product Model No.	Only [KEYSTONE] used		[KEYSTONE] and [CURVED CORRECTION] used together				Only [CURVED CORRECTION] used	
	Vertical keystone correction angle $\alpha$ (°)	Horizontal keystone correction angle $\beta$ (°)	Vertical keystone correction angle $\alpha$ (°)	Horizontal keystone correction angle $\beta$ (°)	Min. value of R2/L2	Min. value of 3/L3	Min. value of R2/L2	Min. value of R3/L3
PT-RCQ10/RCQ80 RZ990/RZ890/RZ790 RZ690/RZ120/RZ970 RW930/RX110/RZ870 RZ770/RW730/RZ660 RW620/DZ870/DW830 DX100/DZ780/DW750 DX820	± 16	± 10	-	-	-	-	-	-