

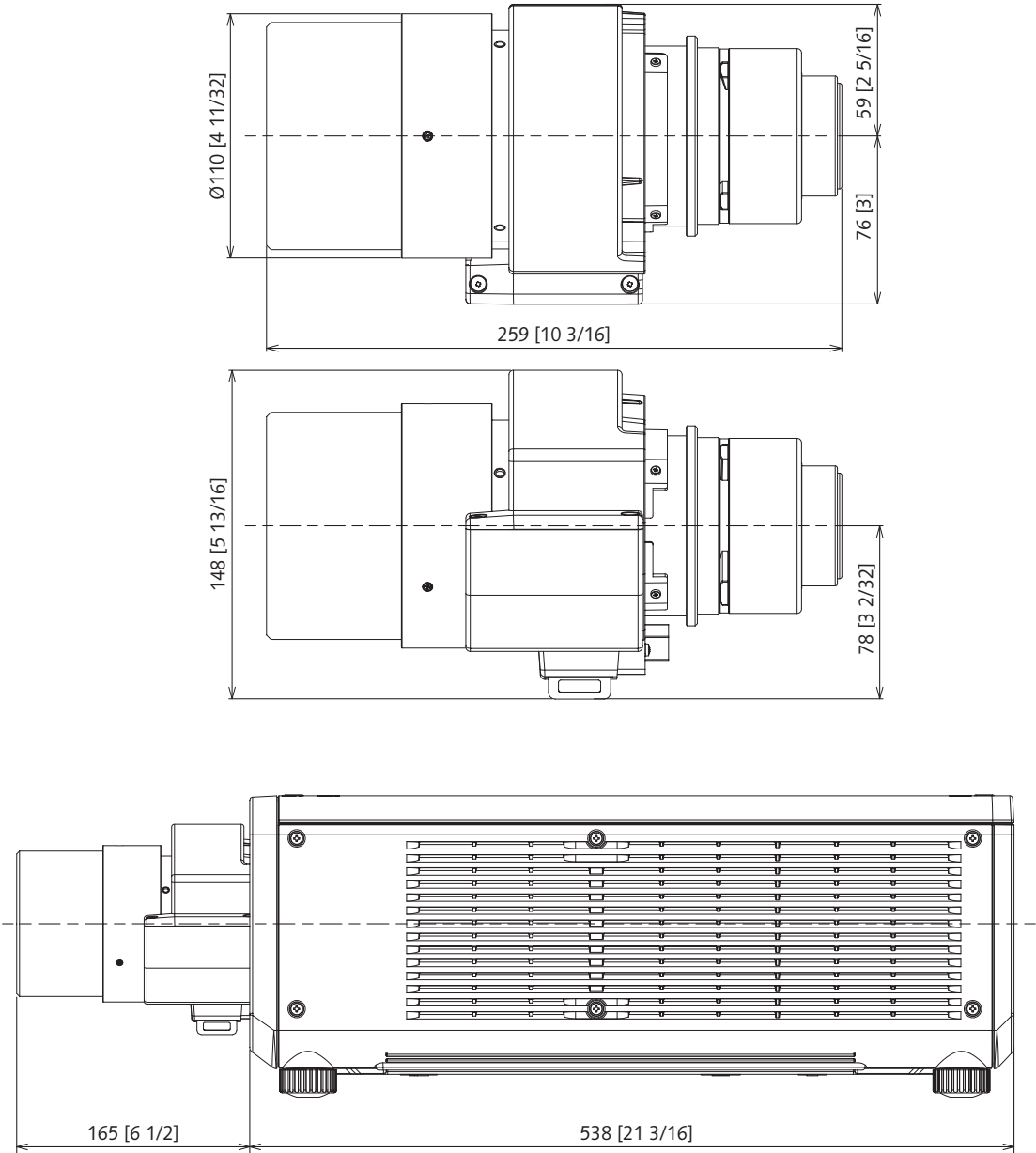
This zoom lens is designed for use with Panasonic's applicable projectors.
**Please use the lens only on the specified Panasonic projector.*

Specifications (Specifications subject to change without notice.)

F-number	1.94 - 2.36
Focal distance (f)	114.3 mm - 194.2 mm [4 1/2 in - 7 41/64 in]
Throw ratio	6.50 - 11.10:1 (16:10 aspect ratio) 6.50 - 11.10:1 (16:9 aspect ratio) 7.26 - 12.45:1 (4:3 aspect ratio) 6.48 - 11.11:1 (21:9 aspect ratio)
Dimensions	Width 135 mm [5 5/16 in]
	Height 148 mm [5 13/16 in]
	Depth 259 mm [10 13/64 in]
Weight	Approx. 2.65 kg (Approx. 5.84 lbs)
Applicable projector	PT-REQ15/PT-REQ12/PT-REQ10/PT-REQ80/PT-REZ15/PT-REZ12/PT-REZ10/PT-REZ80

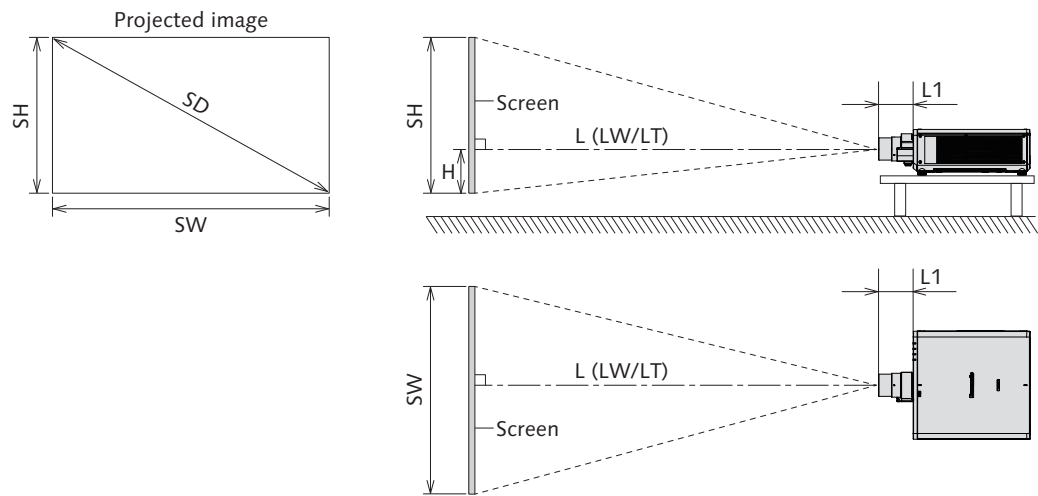
Dimensions

unit : mm [inch]
This illustration is not drawn to scale.



Dimensional relationship diagram

The dimensional relationship between the screen and the projector is shown below.



Note

- This illustration is prepared on the assumption that the projected image size and position have been aligned to fit full in the screen.
- This illustration is not drawn to scale.
- The values are approximate.

SH	Projected image height
SW	Projected image width
SD	Projected image size
H	Distance from the lens center to the bottom edge of the projected image
L	Projection distance (distance from the front end of the projection lens to the screen)
	LW Minimum projection distance when the Zoom Lens is used
	LT Maximum projection distance when the Zoom Lens is used
L1	Lens protrusion dimension (distance from the front surface of the projector to the front end of the projection lens)

Unit : m

Projector model	Dimension for L1 (approximate value)
PT-REQ15/PT-REQ12/PT-REQ10/PT-REQ80	0.165
PT-REZ15/PT-REZ12/PT-REZ10/PT-REZ80	

Projection distance

A $\pm 5\%$ error in listed projection distances may occur.

When [GEOMETRY] is used, distance is corrected to become smaller than the specified image size.

Screen aspect ratio 16:10

Unit: meters

Projector model				PT-REQ15/PT-REQ12/PT-REQ10/PT-REQ80 PT-REZ15/PT-REZ12/PT-REZ10/PT-REZ80		
Throw ratio				6.50 - 11.10:1		
Projected image size				Projection distance (L)		Height position (H)
Diagonal (SD)		Height (SH)	Width (SW)	Min. (LW)	Max. (LT)	
m	inches					
1.778	70	0.942	1.508	9.87	16.86	-0.09 - 1.04
2.032	80	1.077	1.723	11.24	19.22	-0.11 - 1.19
2.286	90	1.212	1.939	12.61	21.59	-0.12 - 1.33
2.540	100	1.346	2.154	13.98	23.96	-0.14 - 1.48
3.048	120	1.615	2.585	16.71	28.69	-0.16 - 1.78
3.810	150	2.019	3.231	20.82	35.79	-0.20 - 2.22
5.080	200	2.692	4.308	27.66	47.62	-0.27 - 2.96
6.350	250	3.365	5.385	34.50	59.46	-0.34 - 3.70
7.620	300	4.039	6.462	41.34	71.29	-0.40 - 4.44
8.890	350	4.712	7.539	48.18	83.12	-0.47 - 5.18
10.160	400	5.385	8.616	55.02	94.96	-0.54 - 5.92
12.700	500	6.731	10.770	68.71	118.62	-0.67 - 7.40
15.240	600	8.077	12.923	82.39	142.29	-0.81 - 8.89
17.780	700	9.423	15.077	96.07	165.96	-0.94 - 10.37
20.320	800	10.770	17.231	109.75	189.63	-1.08 - 11.85
22.860	900	12.116	19.385	123.44	213.29	-1.21 - 13.33
25.400	1000	13.462	21.539	137.12	236.96	-1.35 - 14.81

• The throw ratio is based on the value during projection with the projected image size of 2.54 m [100 in]

Screen aspect ratio 16:10

Unit: feet

Projector model				PT-REQ15/PT-REQ12/PT-REQ10/PT-REQ80 PT-REZ15/PT-REZ12/PT-REZ10/PT-REZ80		
Throw ratio				6.50 - 11.10:1		
Projected image size				Projection distance (L)		Height position (H)
Diagonal (SD)		Height (SH)	Width (SW)	Min. (LW)	Max. (LT)	
m	inches					
1.778	70	3.092	4.947	32.39	55.30	-0.31 - 3.40
2.032	80	3.533	5.653	36.88	63.07	-0.35 - 3.89
2.286	90	3.975	6.360	41.36	70.83	-0.40 - 4.37
2.540	100	4.417	7.067	45.85	78.60	-0.44 - 4.86
3.048	120	5.300	8.480	54.83	94.13	-0.53 - 5.83
3.810	150	6.625	10.60	68.30	117.4	-0.66 - 7.29
5.080	200	8.833	14.13	90.74	156.2	-0.88 - 9.72
6.350	250	11.042	17.67	113.2	195.1	-1.11 - 12.15
7.620	300	13.250	21.20	135.6	233.9	-1.33 - 14.57
8.890	350	15.458	24.73	158.1	272.7	-1.55 - 17.00
10.160	400	17.667	28.27	180.5	311.5	-1.77 - 19.43
12.700	500	22.083	35.33	225.4	389.2	-2.21 - 24.29
15.240	600	26.500	42.40	270.3	466.8	-2.65 - 29.15
17.780	700	30.917	49.47	315.2	544.5	-3.09 - 34.01
20.320	800	35.333	56.53	360.1	622.1	-3.53 - 38.87
22.860	900	39.750	63.60	405.0	699.8	-3.98 - 43.72
25.400	1000	44.167	70.67	449.9	777.4	-4.42 - 48.58

• The throw ratio is based on the value during projection with the projected image size of 2.54 m [100 in]

Screen aspect ratio 16:9

Unit: meters

Projector model				PT-REQ15/PT-REQ12/PT-REQ10/PT-REQ80 PT-REZ15/PT-REZ12/PT-REZ10/PT-REZ80		
Throw ratio				6.50 - 11.10:1		
Projected image size				Projection distance (L)		Height position (H)
Diagonal (SD)		Height (SH)	Width (SW)	Min. (LW)	Max. (LT)	
m	inches					
1.778	70	0.872	1.550	10.14	17.32	-0.15 - 1.02
2.032	80	0.996	1.771	11.54	19.75	-0.17 - 1.16
2.286	90	1.121	1.992	12.95	22.18	-0.19 - 1.31
2.540	100	1.245	2.214	14.36	24.61	-0.21 - 1.45
3.048	120	1.494	2.657	17.17	29.48	-0.25 - 1.74
3.810	150	1.868	3.321	21.39	36.78	-0.31 - 2.18
5.080	200	2.491	4.428	28.42	48.94	-0.42 - 2.91
6.350	250	3.113	5.535	35.45	61.10	-0.52 - 3.63
7.620	300	3.736	6.641	42.48	73.26	-0.62 - 4.36
8.890	350	4.358	7.748	49.51	85.43	-0.73 - 5.09
10.160	400	4.981	8.855	56.54	97.59	-0.83 - 5.81
12.700	500	6.226	11.069	70.61	121.91	-1.04 - 7.26
15.240	600	7.472	13.283	84.67	146.24	-1.25 - 8.72
17.780	700	8.717	15.497	98.73	170.56	-1.45 - 10.17
20.320	800	9.962	17.710	112.80	194.89	-1.66 - 11.62
22.860	900	11.207	19.924	126.86	219.21	-1.87 - 13.08
25.400	1000	12.453	22.138	140.92	243.54	-2.08 - 14.53

- The throw ratio is based on the value during projection with the projected image size of 2.54 m [100 in]

Screen aspect ratio 16:9

Unit: feet

Projector model				PT-REQ15/PT-REQ12/PT-REQ10/PT-REQ80 PT-REZ15/PT-REZ12/PT-REZ10/PT-REZ80		
Throw ratio				6.50 - 11.10:1		
Projected image size				Projection distance (L)		Height position (H)
Diagonal (SD)		Height (SH)	Width (SW)	Min. (LW)	Max. (LT)	
m	inches					
1.778	70	2.860	5.084	33.26	56.82	-0.48 - 3.34
2.032	80	3.268	5.811	37.87	64.80	-0.54 - 3.81
2.286	90	3.677	6.537	42.49	72.78	-0.61 - 4.29
2.540	100	4.086	7.263	47.10	80.76	-0.68 - 4.77
3.048	120	4.903	8.716	56.33	96.72	-0.82 - 5.72
3.810	150	6.128	10.89	70.17	120.7	-1.02 - 7.15
5.080	200	8.171	14.53	93.24	160.6	-1.36 - 9.53
6.350	250	10.214	18.16	116.3	200.5	-1.70 - 11.92
7.620	300	12.257	21.79	139.4	240.4	-2.04 - 14.30
8.890	350	14.299	25.42	162.4	280.3	-2.38 - 16.68
10.160	400	16.342	29.05	185.5	320.2	-2.72 - 19.06
12.700	500	20.428	36.32	231.7	400.0	-3.41 - 23.83
15.240	600	24.513	43.58	277.8	479.8	-4.08 - 28.60
17.780	700	28.599	50.84	323.9	559.6	-4.77 - 33.37
20.320	800	32.684	58.11	370.1	639.4	-5.45 - 38.13
22.860	900	36.770	65.37	416.2	719.2	-6.13 - 42.90
25.400	1000	40.855	72.63	462.3	799.0	-6.81 - 47.66

- The throw ratio is based on the value during projection with the projected image size of 2.54 m [100 in]

Screen aspect ratio 4:3

Unit: meters

Projector model				PT-REQ15/PT-REQ12/PT-REQ10/PT-REQ80 PT-REZ15/PT-REZ12/PT-REZ10/PT-REZ80		
Throw ratio				7.26 - 12.45:1		
Projected image size				Projection distance (L)		Height position (H)
Diagonal (SD)		Height (SH)	Width (SW)	Min. (LW)	Max. (LT)	
m	inches					
1.778	70	1.067	1.422	10.41	17.79	-0.11 - 1.17
2.032	80	1.219	1.626	11.86	20.29	-0.12 - 1.34
2.286	90	1.372	1.829	13.30	22.79	-0.14 - 1.51
2.540	100	1.524	2.032	14.75	25.29	-0.15 - 1.68
3.048	120	1.829	2.438	17.64	30.29	-0.18 - 2.01
3.810	150	2.286	3.048	21.97	37.79	-0.23 - 2.52
5.080	200	3.048	4.064	29.20	50.29	-0.31 - 3.35
6.350	250	3.810	5.080	36.43	62.79	-0.38 - 4.19
7.620	300	4.572	6.096	43.66	75.29	-0.46 - 5.03
8.890	350	5.334	7.112	50.88	87.79	-0.53 - 5.87
10.160	400	6.096	8.128	58.11	100.29	-0.61 - 6.71
12.700	500	7.620	10.160	72.56	125.30	-0.76 - 8.38
15.240	600	9.144	12.192	87.02	150.30	-0.91 - 10.06
17.780	700	10.668	14.224	101.47	175.30	-1.07 - 11.74
20.320	800	12.192	16.256	115.92	200.30	-1.22 - 13.41
22.860	900	13.716	18.288	130.38	225.30	-1.37 - 15.09
25.400	1000	15.240	20.320	144.83	250.30	-1.52 - 16.76

- The throw ratio is based on the value during projection with the projected image size of 2.54 m [100 in]

Screen aspect ratio 4:3

Unit: feet

Projector model				PT-REQ15/PT-REQ12/PT-REQ10/PT-REQ80 PT-REZ15/PT-REZ12/PT-REZ10/PT-REZ80		
Throw ratio				7.26 - 12.45:1		
Projected image size				Projection distance (L)		Height position (H)
Diagonal (SD)		Height (SH)	Width (SW)	Min. (LW)	Max. (LT)	
m	inches					
1.778	70	3.500	4.667	34.16	58.37	-0.35 - 3.85
2.032	80	4.000	5.333	38.90	66.57	-0.40 - 4.40
2.286	90	4.500	6.000	43.64	74.77	-0.45 - 4.95
2.540	100	5.000	6.667	48.39	82.98	-0.50 - 5.50
3.048	120	6.000	8.000	57.87	99.38	-0.60 - 6.60
3.810	150	7.500	10.00	72.10	124.0	-0.75 - 8.25
5.080	200	10.000	13.33	95.81	165.0	-1.00 - 11.00
6.350	250	12.500	16.67	119.5	206.0	-1.25 - 13.75
7.620	300	15.000	20.00	143.2	247.0	-1.50 - 16.50
8.890	350	17.500	23.33	166.9	288.0	-1.75 - 19.25
10.160	400	20.000	26.67	190.6	329.1	-2.00 - 22.00
12.700	500	25.000	33.33	238.1	411.1	-2.50 - 27.50
15.240	600	30.000	40.00	285.5	493.1	-3.00 - 33.00
17.780	700	35.000	46.67	332.9	575.1	-3.50 - 38.50
20.320	800	40.000	53.33	380.3	657.2	-4.00 - 44.00
22.860	900	45.000	60.00	427.8	739.2	-4.50 - 49.50
25.400	1000	50.000	66.67	475.2	821.2	-5.00 - 55.00

- The throw ratio is based on the value during projection with the projected image size of 2.54 m [100 in]

Screen aspect ratio 21:9

Unit: meters

Projector model				PT-REQ15/PT-REQ12/PT-REQ10/PT-REQ80 PT-REZ15/PT-REZ12/PT-REZ10/PT-REZ80		
Throw ratio				6.48 - 11.11:1		
Projected image size				Projection distance (L)		Height position (H)
Diagonal (SD)		Height (SH)	Width (SW)	Min. (LW)	Max. (LT)	
m	inches					
1.778	70	0.700	1.634	10.70	18.29	-0.27 - 0.96
2.032	80	0.800	1.868	12.19	20.86	-0.31 - 1.10
2.286	90	0.900	2.101	13.67	23.43	-0.35 - 1.23
2.540	100	1.001	2.335	15.16	26.00	-0.38 - 1.37
3.048	120	1.201	2.802	18.13	31.15	-0.46 - 1.65
3.810	150	1.501	3.502	22.59	38.86	-0.58 - 2.06
5.080	200	2.001	4.669	30.03	51.72	-0.77 - 2.74
6.350	250	2.501	5.837	37.46	64.58	-0.96 - 3.43
7.620	300	3.002	7.004	44.89	77.43	-1.15 - 4.11
8.890	350	3.502	8.171	52.33	90.29	-1.34 - 4.80
10.160	400	4.002	9.339	59.76	103.15	-1.54 - 5.49
12.700	500	5.003	11.673	74.62	128.86	-1.92 - 6.86
15.240	600	6.003	14.008	89.49	154.58	-2.30 - 8.23
17.780	700	7.004	16.342	104.36	180.29	-2.69 - 9.60
20.320	800	8.004	18.677	119.22	206.01	-3.07 - 10.97
22.860	900	9.005	21.012	134.09	231.72	-3.46 - 12.34
25.400	1000	10.006	23.346	148.95	257.43	-3.84 - 13.71

- The throw ratio is based on the value during projection with the projected image size of 2.54 m [100 in]

Screen aspect ratio 21:9

Unit: feet

Projector model				PT-REQ15/PT-REQ12/PT-REQ10/PT-REQ80 PT-REZ15/PT-REZ12/PT-REZ10/PT-REZ80		
Throw ratio				6.48 - 11.11:1		
Projected image size				Projection distance (L)		Height position (H)
Diagonal (SD)		Height (SH)	Width (SW)	Min. (LW)	Max. (LT)	
m	inches					
1.778	70	2.298	5.362	35.11	60.01	-0.88 - 3.15
2.032	80	2.626	6.128	39.98	68.44	-1.01 - 3.60
2.286	90	2.954	6.894	44.86	76.88	-1.14 - 4.05
2.540	100	3.283	7.660	49.74	85.32	-1.26 - 4.50
3.048	120	3.939	9.191	59.49	102.2	-1.51 - 5.40
3.810	150	4.924	11.49	74.12	127.5	-1.89 - 6.75
5.080	200	6.565	15.32	98.51	169.7	-2.52 - 9.00
6.350	250	8.207	19.15	122.9	211.9	-3.15 - 11.25
7.620	300	9.848	22.98	147.3	254.0	-3.78 - 13.50
8.890	350	11.489	26.81	171.7	296.2	-4.41 - 15.74
10.160	400	13.131	30.64	196.1	338.4	-5.04 - 18.00
12.700	500	16.413	38.30	244.8	422.8	-6.30 - 22.49
15.240	600	19.696	45.96	293.6	507.1	-7.56 - 26.99
17.780	700	22.979	53.62	342.4	591.5	-8.82 - 31.49
20.320	800	26.261	61.28	391.2	675.9	-10.08 - 35.99
22.860	900	29.544	68.94	439.9	760.2	-11.34 - 40.49
25.400	1000	32.827	76.60	488.7	844.6	-12.60 - 44.99

- The throw ratio is based on the value during projection with the projected image size of 2.54 m [100 in]

Calculation of the projection distance

To use a projected image size not listed in this manual, check the projected image size SD (m) and use the respective formula to calculate the value.

The unit of all the formulae is m. (Values obtained by the following calculation formulae contain a slight error.)

When calculating the value using image size designation (value in inches), multiply the value in inches by 0.0254 and substitute it into SD in the formula.

Screen aspect ratio 16:10

Unit: m

Projector model	Projection distance (L) formula	
	Min. (LW)	Max. (LT)
PT-REQ15/PT-REQ12/PT-REQ10/PT-REQ80	$=5.3867 \times SD + 0.2939$	$=9.3177 \times SD + 0.2899$
PT-REZ15/PT-REZ12/PT-REZ10/PT-REZ80		

Screen aspect ratio 16:9

Unit: m

Projector model	Projection distance (L) formula	
	Min. (LW)	Max. (LT)
PT-REQ15/PT-REQ12/PT-REQ10/PT-REQ80	$=5.5365 \times SD + 0.2939$	$=9.5767 \times SD + 0.2899$
PT-REZ15/PT-REZ12/PT-REZ10/PT-REZ80		

Screen aspect ratio 4:3

Unit: m

Projector model	Projection distance (L) formula	
	Min. (LW)	Max. (LT)
PT-REQ15/PT-REQ12/PT-REQ10/PT-REQ80	$=5.6905 \times SD + 0.2939$	$=9.8430 \times SD + 0.2899$
PT-REZ15/PT-REZ12/PT-REZ10/PT-REZ80		

Screen aspect ratio 21:9

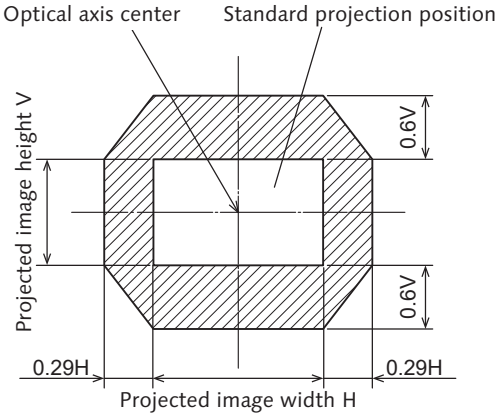
Unit: m

Projector model	Projection distance (L) formula	
	Min. (LW)	Max. (LT)
PT-REQ15/PT-REQ12/PT-REQ10/PT-REQ80	$= 5.8528 \times SD + 0.2939$	$=10.1238 \times SD + 0.2899$
PT-REZ15/PT-REZ12/PT-REZ10/PT-REZ80		

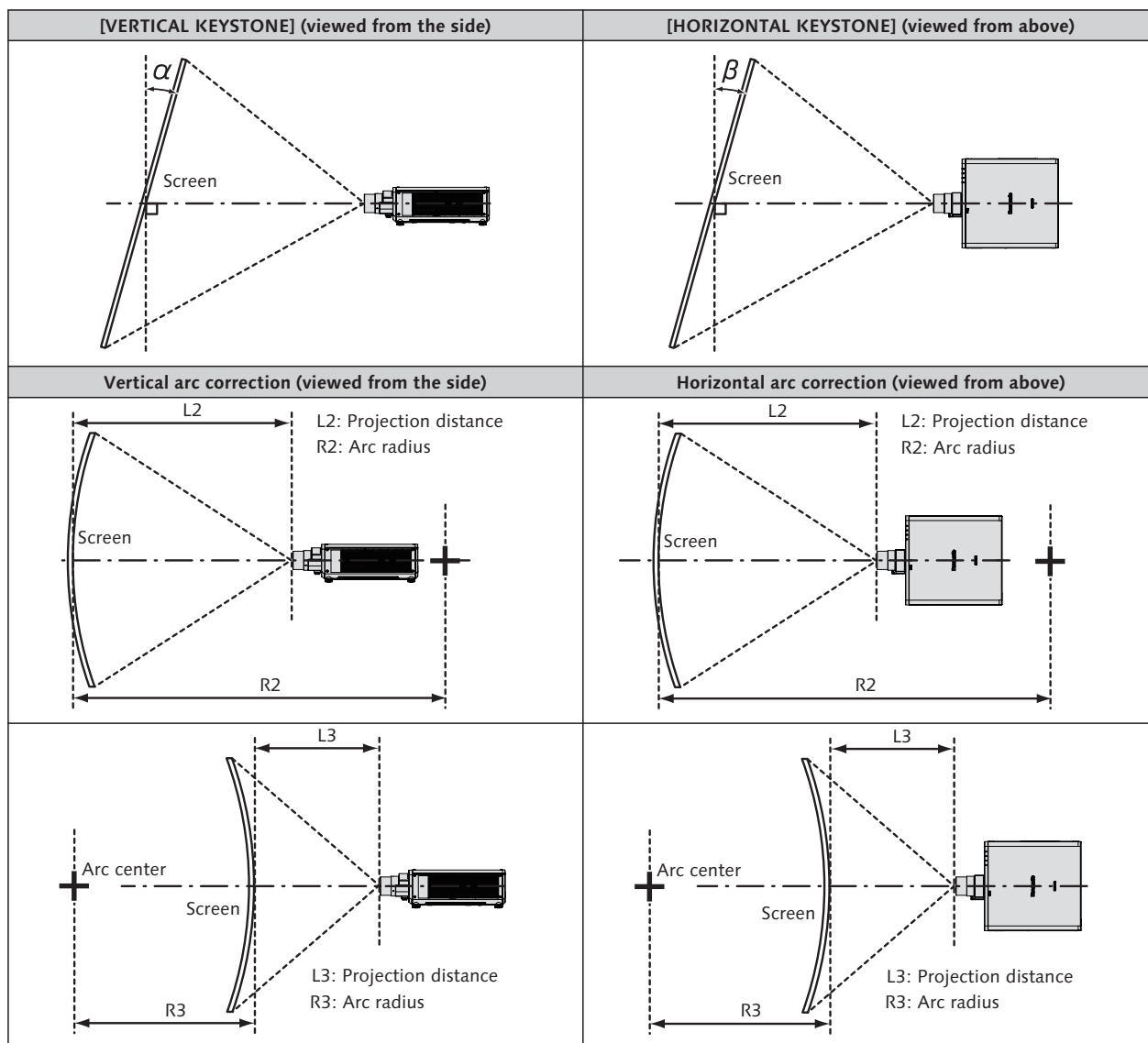
Adjustment range by the lens position shift (optical shift)

Based on the standard projection position using the optical axis shift function, the projection position can be adjusted in the range shown in the following figure.

Following figure shows the adjustment range when the projector is installed on the floor.

Projector model	PT-REQ15/PT-REQ12/PT-REQ10/PT-REQ80/PT-REZ15/PT-REZ12/PT-REZ10/PT-REZ80 is mounted.
Lens shift range	

[GEOMETRY] projection range



Projector model	Only [KEYSTONE] used ¹		[KEYSTONE] and [CURVED CORRECTION] used together				Only [CURVED CORRECTION] used	
	Vertical keystone correction angle α (°)	Horizontal keystone correction angle β (°)	Vertical keystone correction angle α (°)	Horizontal keystone correction angle β (°)	Min. value of R2/L2	Min. value of R3/L3	Min. value of R2/L2	Min. value of R3/L3
PT-REQ15 PT-REQ12 PT-REQ10 PT-REQ80	±45	±40	±20	±15	0.2	0.4	0.2	0.3
PT-REZ15 PT-REZ12 PT-REZ10 PT-REZ80								

¹ When [VERTICAL KEYSTONE] and [HORIZONTAL KEYSTONE] are used simultaneously, correction cannot be made exceeding total of 55°.

Note

- When [GEOMETRY] is used, the focus of the entire screen may be lost as correction increases.
- Make the curved screen a circular arc shape with one part of a perfect circle removed.
- Adjustment range of the [GEOMETRY] items may not match the listed projection range depending on the projection lens. Use this projector within the projection range, otherwise the correction may not work.