

Throw Distance Calculator

Switch between Simple Mode and Advanced Mode.

Simple Mode

Throw Distance Calculator

Version 2.36

English Japanese

Simple

Advance

Help

Print

Model type

All

Model name

PT-RD50K

\$1,000 lm(Center) / 50,000 lm / Native 4K

Lenses

ET-D3QW300

Aspect ratio

17.9(Native 4K)

Projected image size

meter inch feet

Diagonal

Height

Width

Projection distance (L)

meter inch feet

Minimum

Maximum

Calculate

Reset

Calculation result

The calculation result will appear here.

L

Projected image

Projector

Shift range

VS1

VS2

HS1

L: projection distance

VS1 = 0.59 × height of projected image

VS2 = 0.40 × height of projected image

HS1 = 0.14 × width of projected image

NOTE:

The calculated values may vary depending on usage and ambient conditions.

Calculator accuracy: ±5%(for all values except projector output and screen luminance).

The scale of projector is not accurate.

The calculation result is from the lens center of projector.

Lens layout varies dependent on projector.

Advanced Mode

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Lenses

ET-D3QW300

Aspect ratio

17.9(Native 4K)

Unit

m

ft

inch

depth

width

height

Room dimensions in m

10.000

10.000

4.000

Installation place

Desktop

Lock horizontal position

Lock vertical position

Lock screen size

Lock projection distance

Simulation type

Flat

Screen size

Diagonal

Width

Height

100

inch

2.245

m

1.188

m

Distance to screen

2.420

m

Screen gain

1.00

Ambient light

200

lux

Reset

Size of screen

100 inch ~ 100 inch

Width

2.245 m ~ 2.245 m

Height

1.188 m ~ 1.188 m

Distance to screen(Min~Max)

2.42 m ~ 3.77 m

Screen illuminance(Center)

19117 lux

Screen luminance(Center)

6085 cd/m²

Screen contrast(Center)

96:1

Side View

2.42 m

7.58 m

2 m(h)

2 m(h)

10 m(W)

2.42 m(Min)

3.77 m(Max)

Position

0

Front View

3.878 m

2.245 m

3.878 m

1.406 m

1.188 m

1.406 m

5 m

10 m(W)

5 m

4 m(h)

3D View

3D View

Top View

NOTE:

The calculated values may vary depending on usage and ambient conditions.

Calculator accuracy: ±5%(for all values except projector output and screen luminance).

The scale of projector is not accurate.

The calculation result is from the lens center of projector.

Lens layout varies dependent on projector.

Features common to both Simple and Advanced Modes



1	Language	Switch between Japanese and English.
2	Mode	Switch between Simple Mode and Advanced Mode.
3	Help button	Display this help file.
4	Print button	Call up browser's printing function.
5	Model type	Select projector category.
6	Model name	Select projector model number for selected category. Display image and information on selected projector.
7	Model information	Press button to display information on selected projector.
8	Lens search	Press this button to display lens search screen. Compatible optional lens can be searched using projection distance and screen size.
9	Lenses	For projectors compatible with optional lenses, optional lens model number can be selected. Display image of selected optional lens.
10	Lens information	Press this button to display information on the selected lens model number.
11	Aspect	Set aspect to display.

Projector Information (both modes)

Projector Information 7-8

7-7 [To see products Line-up](#)

Model name
PT-RQ32K 7-1

3-Chip DLP Projectors

Resolution 4,096,000 (2560 x 1600) x 3, total of 12,288,000 pixels 7-2
49,152,000 (12,288,000 x 4) pixels When Quad Pixel Drive set to ON

Brightness 27,000 lm(Center) / 26,000 lm (High Mode) 7-3

Contrast ratio 20,000:1 (Full On/Full off, in Dynamic Contrast 3 mode) 7-4

Dimensions 700 x 418 x 1,250 mm (27-9/16 x 16-15/32 x 49-7/32 in) 7-5
(W×H×D)

When the lens protrudes to the maximum.

7-6

- 182 mm (7-5/32) with the ET-D3LEW60
- 182 mm (7-5/32) with the ET-D75LE6
- 180 mm (7-3/32) with the ET-D3LEW10
- 95 mm (3-3/4) with the ET-D75LE10
- 91 mm (3-19/32) with the ET-D3LES20

7-1	Projector model number
7-2	Resolution
7-3	Brightness
7-4	Contrast ratio
7-5	Dimensions
7-6	At maximum lens extension
7-7	Button links to Panasonic projector website
7-8	Button to close projector information window

Lens Search (both modes)

Lens search Models: PT-RQ32K
8-7

1. Please enter a value and click a search button.
2. Please choose a lens from a search list.

☒ m
 ☐ ft
 ☐ inch

Distance to screen m

Screen size inch

Search list

ET-D3LEW10
ET-D75LE10

Throw ratio indicator

ET-D75LE95
ET-D3LEW50
ET-D75LE50
ET-D3LEW60
ET-D75LE6
ET-D3LEW10
ET-D75LE10
ET-D3LES20
ET-D75LE20
ET-D3LET30
ET-D75LE30
ET-D75LE40
ET-D3LET40
ET-D3LET80
ET-D75LE8

8-1	Unit	<p>Convert units of length (meters, feet and inches).</p> <p>The initial unit is the unit selected in the Advanced mode.</p> <p>Selected unit will be automatically reflected in the Advanced mode unit.</p>
8-2	Projection distance input field	You can input the projection distance.
8-3	Screen size input field	You can input the screen size. The diagonal unit is fixed in inches.
8-4	Lens search button	Press the button to search lens from input values of projection distance and screen size.
8-5	Search results list or select lens	<p>Displays the search results of lens.</p> <p>When you select the lens from the search results, it will work as follows.</p> <ul style="list-style-type: none"> •Close the lens search window automatically. •Selected lens will be automatically reflected in the lens model number. •The Values in the screen size input field will be automatically reflected in both Simple mode and Advanced mode.

8-6	Throw ratio indicator	Displays throw ratio indicator when the projector compatible with optional lenses is selected. Outline the throw ratio of each optional lens. When you press the lens search button, displays the throw ratio calculated from throw distance and screen size as a red line.
8-7	Button to close lens search window	Press the button to close lens search window.

Lens Information (both modes)



10-1	Lens model number
10-2	Lens type
10-3	Throw ratio
10-4	f value
10-5	F value
10-6	Button to close lens information window

Advanced Mode




The screenshot shows the 'Advanced Mode' interface for projector simulation. It includes the following elements:

- Unit:** Radio buttons for m, ft, and inch. (Highlighted with red box 12)
- Room dimensions in m:** Input fields for depth (10.000), width (10.000), and height (4.000). (Highlighted with red box 13)
- Installation place:** A dropdown menu currently set to 'Desktop'. (Highlighted with red box 14)
- Lock options:** Four checkboxes: 'Lock horizontal position', 'Lock vertical position', 'Lock screen size', and 'Lock projection distance'. (Highlighted with red box 15)
- Simulation type:** A dropdown menu currently set to 'Flat'. (Highlighted with red box 16)
- Screen size:** A section with input fields for Diagonal (114 inch), Width (2.456 m), and Height (1.535 m). (Highlighted with red box 17)
- Distance to screen:** An input field set to 2.420 m. (Highlighted with red box 18)
- Screen gain:** An input field set to 1.00. (Highlighted with red box 19)
- Ambient light:** An input field set to 200 lux. (Highlighted with red box 20)
- Reset button:** A button at the bottom right. (Highlighted with red box 21)

12	Unit	Convert units of length (meters, feet and inches).
13	Room dimensions	Set the depth, width and height of the room.
14	Installation place	Set floor placement or ceiling placement. Portrait can be selected depending on selected projector model number.
15	Lock	Fix projector position, screen size, and fixed projection distance.
16	Simulation type	<p>Depending on the projector you have selected, you can select top / bottom oblique projection onto a flat screen, left / right oblique projection, projection to a vertical curve screen, or projection to a horizontal curve screen.</p> <p>When you select diagonal projection, the angle setting text box will be displayed.</p> <p>When you select projection onto a curved screen, the following two types of text boxes are displayed:</p> <ol style="list-style-type: none"> 1. The text box to set the length of the curve depth 2. The text box to set the radius length of the circle forming the curve <p>When you input a compatible value in either text box 1 or 2, the other value will be automatically calculated.</p> <p>For any simulation-type input, the text box will turn red if the value is outside the specifications of the projector.</p>
17	Screen size	You can set the screen size. However, it cannot be set if a box for fixed screen size or fixed projection distance is checked. If the simulation type is other than flat, it is equivalent to the value when projecting at right angles to the flat screen.
18	Distance to screen	You can set the projection distance. However, it cannot be set if a box for fixed screen size or fixed projection distance is checked.

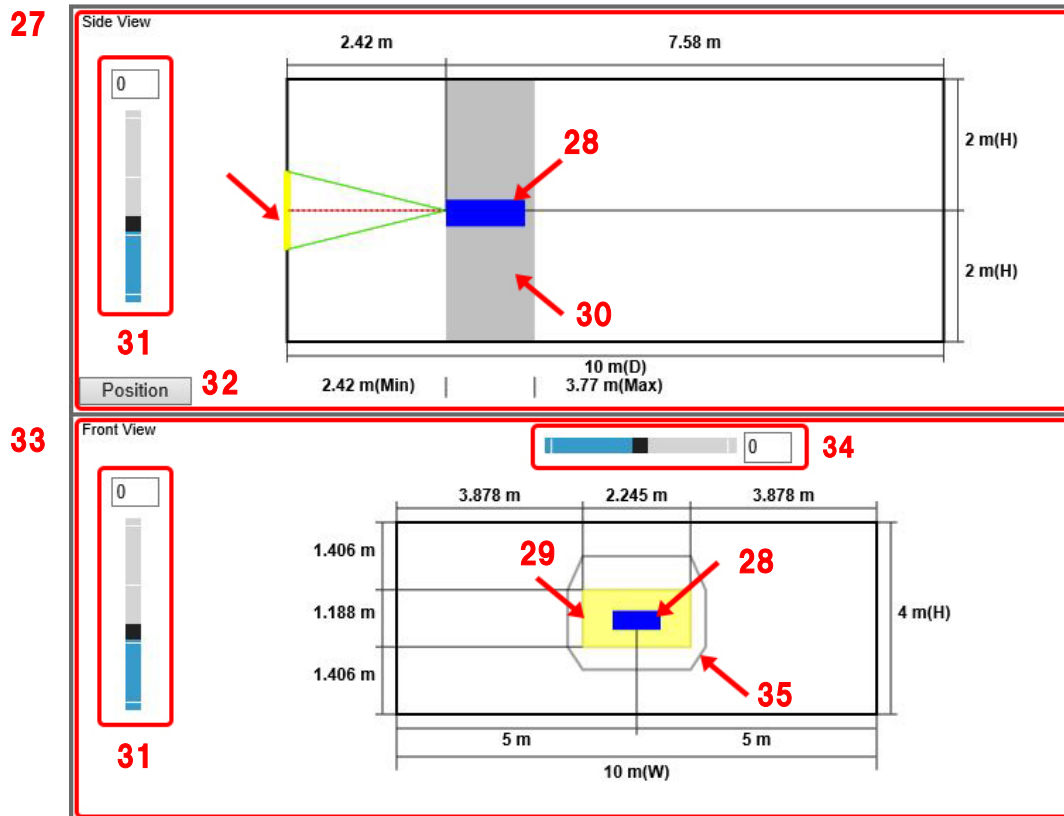
19	Screen gain	<p>You can set the reflection characteristics screen gain.</p> <p>When you set it, it will be reflected in calculation of screen brightness (center).</p>
20	Ambient light	<p>You can set ambient light in the center of the screen. The unit is lux.</p> <p>When you set it, it will be reflected in calculation of screen contrast (center).</p>
21	Reset Button	<p>When you press the button, the Aspect, Lock, Simulation type, Screen size, Distance to screen, Screen gain, Ambient light, Projector position, Lens shift are the initial values.</p>

Advanced Mode

Size of screen	22	96 inch ~ 114 inch
Width		2.064 m ~ 2.456 m
Height		1.29 m ~ 1.535 m
Distance to screen(Min~Max)	23	2.42 m ~ 2.893 m
 Screen illuminance(Center)	24	7160 lux
 Screen luminance(Center)	25	2279 cd/m ²
 Screen contrast(Center)	26	37:1

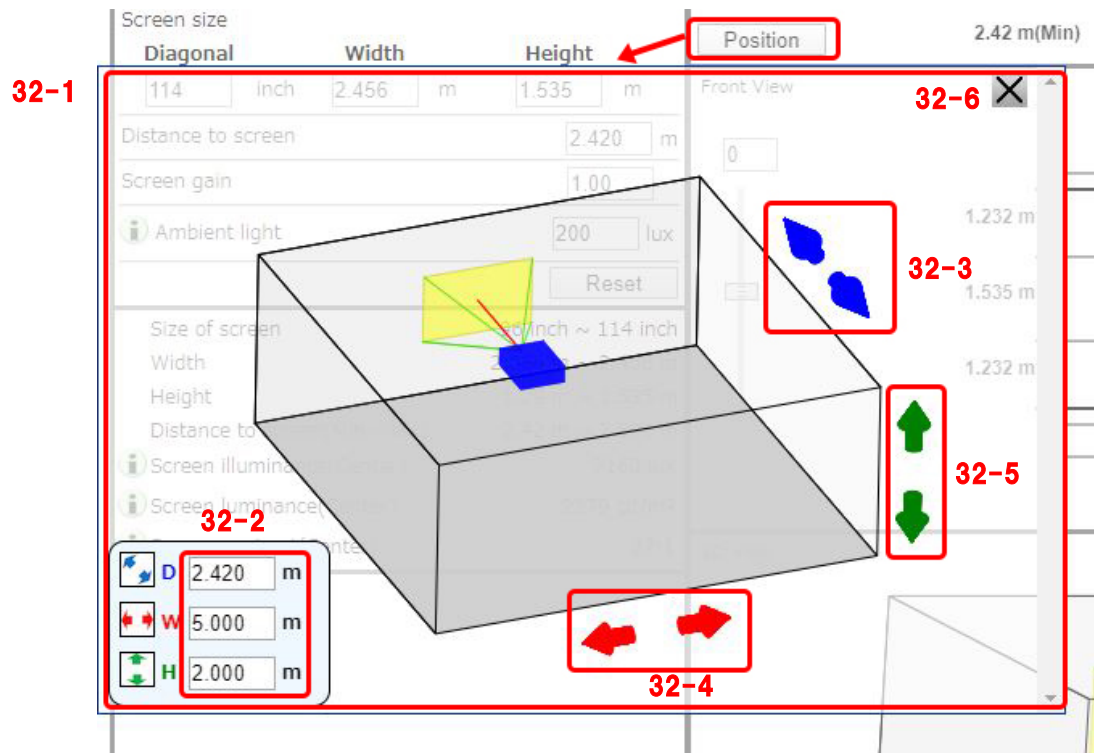
22	Report: Screen size	Displays screen sizes that can be projected, based on the setting position of the projector. If the simulation type is other than flat, it is equivalent to the value when projecting at right angles to a flat screen.
23	Report: Distance to screen	Displayable projection distance based on screen size is displayed. If the simulation type is other than flat, it is equivalent to the value when projecting at right angles to a flat screen.
24	Report: Screen illuminance (Center)	Displays the illuminance at the center of the screen. The unit is lux. Calculate the illuminance value based on the brightness of the projector specs and the projection distance. Actual screen illuminance varies depending on usage conditions and environment. When the center of screen is on the ceiling, floor or left and right walls in the simulation results, the value will be displayed in red.
25	Report: Screen luminance (Center)	Displays the luminance value at the center of the screen. The unit is cd/m ² . Calculate the luminance value based on the brightness of the projector specs, the projection distance and the input screen gain. Actual screen luminance varies depending on usage conditions and environment. When the center of screen is on the ceiling, floor or left and right walls in the simulation results, the value will be displayed in red.
26	Report: Screen contrast (Center)	Displays the contrast on the screen at the center of the screen. When you mouse over the “i” icon, a reference image of screen contrast is displayed. The image is for reference only, and may differ from the actual contrast. Calculate the contrast based on the brightness and contrast ratio of the projector specs, the projection distance, and the input ambient light. Actual screen contrast varies depending on usage conditions and environment. When the center of screen is on the ceiling, floor or left and right walls in the simulation results, the value will be displayed in red. If the value of screen contrast is lower than 10, the value will be displayed to two decimal places.

Advanced Mode



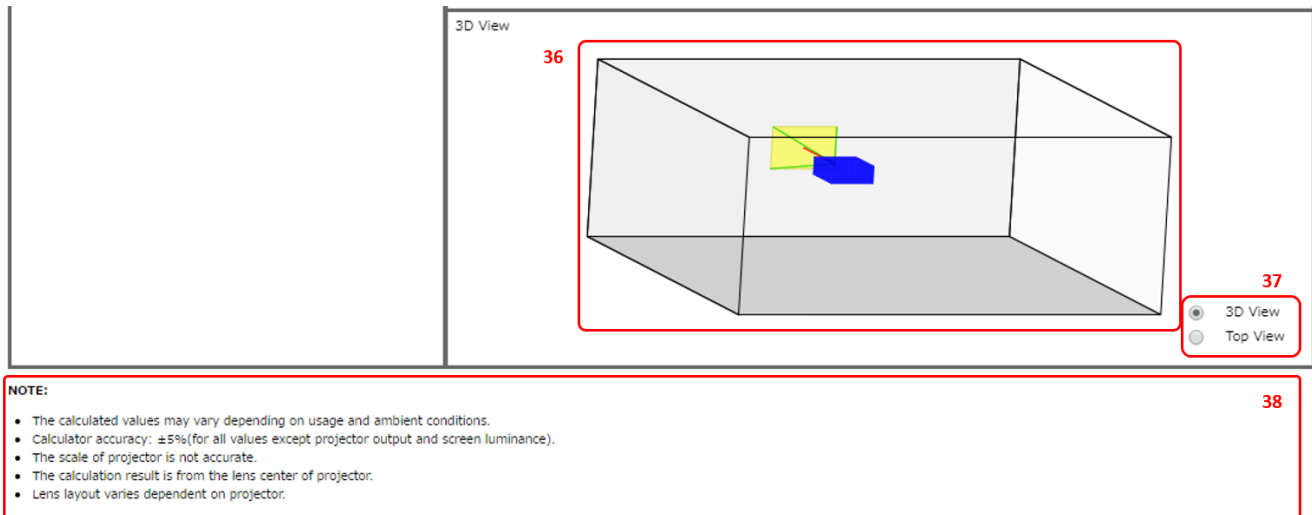
27	Side view	An image diagram showing the projector and the room directly from the side.
28	Projector	<p>This represents the projector. It is different from the actual shape and size. Depending on the browser type, you can move it with the mouse.</p> <p>For projectors released before March 11, 2020, the unit will be displayed at its actual size when any of the following lenses are selected:</p> <ul style="list-style-type: none"> •ET-D75LE90 •ET-D75LE95 •ET-DLE030 •ET-DLE035
29	Projection image	The range of the projection screen.
30	Lens zoom area	The range of the projection distance that makes the same screen size using lens zoom.
31	Vertical lens shift	<p>This is a lens shift setting in the vertical direction.</p> <p>If it is set outside the lens shift range, the text box will be displayed in red.</p>
32	Position button	<p>Opens the projector position adjustment window.</p> <p>In the projector position adjustment window, the following operations can be performed:</p> <ul style="list-style-type: none"> •Adjustment of projector position by inputting values •Adjustment of projector position by pressing arrows
33	Front view	Image view of the projector and the room seen from the back of the projector.
34	Horizontal lens shift	<p>Lens shift setting in the horizontal direction.</p> <p>If it is set outside the lens shift range, the text box will be displayed in red.</p>
35	Lens shift area	<p>Indicates the lens shift range.</p> <p>If it is set outside the lens shift range, the lens shift frame will be displayed in red.</p>

Adjust Projector Position (Advanced Mode)



32-1	<p>Projector position adjustment window</p> <p>Viewpoint of the displayed 3D view cannot be changed.</p>
32-2	<p>Projector position input field</p> <ul style="list-style-type: none"> •Text box for D: Projector and depth direction distance input field If the simulation type is other than flat, it is the distance in the depth direction from the corner of the front wall to the projector It cannot be set if a box for fixed projection distance is checked •Text box for W: Distance input field from left wall It cannot be set if a box for fixed horizontal position is checked •Text box for H: Distance input field from floor It cannot be set if a box for fixed vertical position is checked <p>Input value will be automatically reflected in the simulation. When you input a value beyond the limiting one, the latter will be automatically input in the text box and reflected in the simulation.</p>
32-3	<p>Projector and depth direction distance adjustment button</p> <p>The projector moves in the direction of the arrow you pressed. This button will not be displayed if a box for fixed projection distance is checked</p>
32-4	<p>Distance adjustment button from left wall</p> <p>The projector moves in the direction of the arrow you pressed. This button will not be displayed if a box for fixed horizontal position is checked</p>
32-5	<p>Distance adjustment button from floor</p> <p>The projector moves in the direction of the arrow you pressed. This button will not be displayed if a box for fixed vertical position is checked</p>
32-6	<p>Button to close the projector position adjustment window</p>

Advanced Mode



36	3D View	Image of the projector and the room looking diagonally or from directly above.
37	View point button	When you select the 3D view, the image viewed from the diagonal is displayed. When top view is selected, the image viewed from directly above is displayed.
38	Note	Displays notifications.

Simple Mode

Projected image size

39

	meter	inch	feet
Diagonal	1.78	70.00	5.83
Height	0.94	37.10	3.09
Width	1.51	59.36	4.95

Projection distance (L)

40

	meter	inch	feet
Minimum	2.05	80.52	6.71
Maximum	2.65	104.16	8.68

Calculate

Reset

4142

NOTE: 43

- The calculated values may vary depending on usage and ambient conditions.
- Calculator accuracy: ±5%(for all values except projector output and screen luminance).
- The scale of projector is not accurate.
- The calculation result is from the lens center of projector.
- Lens layout varies dependent on projector.

39	Projected image size	Input the size of the image (diagonal, height, width).
40	Projection distance	Input the projection distance.
41	Calculate button	Calculates based on the input values and displays result.
42	Reset button	Deletes all input values and resets the calculation result.
43	Note	Displays notifications.

Simple Mode

Calculation result

Projector: PT-RQ32K
Lens: ET-D3LEW60

[Projection size]
Aspect ratio: 16:10
Diagonal: 1.778 m / 70.00 in / 5.83 ft
Height: 0.942 m / 37.10 in / 3.09 ft
Width: 1.508 m / 59.36 in / 4.95 ft

[Projection distance]
L: 1.463-1.747 m / 57.61-68.80 in / 4.80-5.73 ft

[Optical shift range]
VS1: 0.528 m / 20.78 in / 1.73 ft
VS2: 0.226 m / 8.90 in / 0.74 ft
HS1: 0.286 m / 11.28 in / 0.94 ft

[Brightness]
Projector output(ANSI): 28,000 lm
Screen illuminance: 18,300 lx

* m: meter in: inch ft: feet

L : projection distance
VS1 = 0.56 × height of projected image
VS2 = 0.24 × height of projected image
HS1 = 0.19 × width of projected image

Select the calculation result

44	Display set value	Displays the model number of the selected projector and lens.
45	Display calculation result	Displays calculation result together with selected aspect ratio. Display contents are: projection size, projection distance, optical shift adjustment range, and brightness. Displayed units: meters, inches, and feet. The value of the projector's brightness is shown in lumens (ANSI).
46	Display dimensions of calculation result	Element values of projection distance and optical shift adjustment range, displayed in the calculation result, are displayed in the figure.
47	“Select the calculation result” button	Copies the calculation result to the clipboard so it can be pasted in other applications, etc.