

Specifications

Main unit

| | | | |
|--|---|---|--|
| Power supply | | AC 100V-240V, 50Hz/60Hz | |
| Power consumption ¹ | Maximum power consumption | 465 W (5.0A-2.0A) (475VA) (The power consumption is 445 W at 200-240V) | |
| | On-mode power consumption (Light power) | [Normal] | 415 W (100-240V), 395 W (200-240V) |
| | | [Eco] | 295 W (100-240V), 285 W (200-240V) |
| | | [QUIET] | 290 W (100-240V), 280 W (200-240V) |
| Standby mode power consumption | [Normal] | 15 W When [IN STANDBY MODE] in [AUDIO SETTING] is set to [OFF], [QUICK STARTUP] is set to [OFF], and <DC OUT> terminal is not in use. | |
| | [Eco] | 0.5 W | |
| BTU value | | Max 1,587 BTU | |
| LCD panel | Size | 19.3 mm [0.76 in] diagonal (16:10 aspect ratio) | |
| | Display system | Transparent LCD panel (x 3, R/G/B) | |
| | Number of pixels | 2,304,000 (1920 x 1200) | |
| Refresh rate | | 24-60 Hz Refresh rate varies depending on scanning frequency. | |
| Light source | | Laser Diode | |
| Light output ^{1,7} | Light Power | [Normal] | 8,200 lm |
| | | [Eco] | 5,700 lm * When [Picture Mode] is set to [Dynamic] |
| | | [QUIET] | 5,700 lm |
| Time until light output declines to 50% ² | Light Power | [Normal] | 20,000 hours |
| | | [Eco] | 24,000 hours |
| | | [QUIET] | 20,000 hours |
| Resolution | | 1920 x 1200 pixels | |
| Contrast ratio ¹ | | 3,000,000:1 (all white/all black) ([Picture Mode]: [Dynamic], [Dynamic Contrast]: [1/2], [Input signal]: [HDMI™]) | |
| Screen size | | 1.02-10.16 m [40-400 in], 16:10 aspect ratio 1.52-10.16 m [60-400 in] (with ET-ELW22), 2.54-10.16m [100-400 in] (with ET-ELU20) | |
| Center to corner zone ratio ¹ | | 85% | |
| Lens | | Powered zoom (throw ratio 1.61-2.76:1), powered focus F = 1.7-2.3, f = 26.8-45.5 mm (for supplied lens; optional lenses also available) | |
| Lens shift (from the origin point of the lens mounter) | | Vertical ±67%, Horizontal ±35% Vertical ±60%, Horizontal ±30% (with ET-ELW22) Vertical ±50%, Horizontal ±24% (with ET-ELU20) NOTE: Lens shift function cannot be operated when used with the ET-ELW21. | |
| Installation | | Ceiling/floor, front/rear, free 360-degree installation | |
| Compatible Signal | HDMI™ signal input | Moving image signal resolution: 480/60p, 576/50p to 4096 x 2160/60p Still image signal resolution: 640 x 480 to 1920 x 1200 (non-interlace) Dot clock frequency: 25 MHz to 594 MHz | |
| | DIGITAL LINK signal input | Moving image signal resolution: 480/60p, 576/50p to 4096 x 2160/60p Still image signal resolution: 640 x 480 to 1920 x 1200 (non-interlace) Dot clock frequency: 25 MHz to 297 MHz | |
| | RGB signal input | Resolution: 640 x 480 to 1920 x 1200 Dot clock frequency: 162 MHz or less PIAS (Panasonic Intelligent Auto Scanning) system | |
| | YCbCr/YPbPr signal input | Resolution: 480/60p, 576/50p to 1920 x 1080 Dot clock frequency: 148.5 MHz or less The HD/SYNC and VD terminals do not support 3 value SYNC. | |
| Terminals | HDMI™ IN | HDMI™-19pin x 3 Deep Color, compatible with HDCP2.3, 4K/60p ³ signal input, CEC supported | |
| | DIGITAL LINK/LAN | RJ-45 x 1 for network and DIGITAL LINK connection (video/network/serial control) (HDBaseT™ compliant), 100 Base-TX (Compatible with PLink™ [Class 2], Art-Net, Deep Color compatible, HDCP2.3 compatible, 4K/60p ³ signal input) | |
| | LAN | RJ-45 x 1 for network connection, 10Base-T, 100Base-TX (Compatible with PLink™ [Class 2], Art-Net) | |
| | COMPUTER IN | D-sub 15pin (female) x 1 RGB/YPbPr | |
| | MONITOR OUT | D-sub 15pin (female) x 1 RGB/YPbPr | |

| | | |
|------------------------------|-----------------------------------|--|
| Terminals | AUDIO IN | M3 stereo mini-jack x 1 0.5 V [rms], input Impedance 22 k ohms and more |
| | AUDIO OUT | M3 stereo mini-jack x 1 0 V [rms] to 2.0 V [rms] variable, output Impedance 2.2 k ohms and less |
| | SERIAL/MULTI SYNC IN | D-sub 9-pin (female) x 1 for external/link control (RS-232C compliant) |
| | MULTI SYNC OUT | D-sub 9-pin (male) x 1 for link control |
| | REMOTE 1 IN | M3 stereo mini-jack for link control (for wired remote control) |
| | REMOTE 2 IN | D-sub 9-pin (female) x 1 for external control (parallel) |
| | DC OUT | USB type-A x 1 Output (5V/2A) |
| Power cord length | | 2.0 m [6 ft 7 in] (3.0 m [9 ft 10 in] for India) |
| Cabinet materials | | Molded plastic |
| Dimensions | Width | 561 mm [22-3/32 in] |
| | Height | 224 mm [8-13/16 in] (with the feet at shortest position) |
| | Depth | 439 mm [17-9/32 in] (including standard zoom lens) |
| Weight [†] | | Approx. 18.6 kg (41.0 lbs) (including standard zoom lens) |
| Operating noise ¹ | [Normal] | 34 dB |
| | [Eco] | 34 dB |
| | [QUIET] | 26 dB |
| Laser Classification | Laser Class | USA and Canada: Class 3R (IEC60825-1:2007) Other counties or regions: Class 1 (IEC/EN 60825-1:2014) |
| | Risk Group | Risk Group 2 (IEC 62471-5:2015) Risk Group 3 (IEC 62471-5:2015) (with ET-ELT23) |
| Operating environment | Operating environment temperature | 0 °C (32 °F) to 45 °C (113 °F) ⁵ |
| | Operating environment humidity | 20% to 80% (no condensation) |

Remote control unit

| | | |
|---------------------|--------|--|
| Power supply | | 3V DC (AAA/R03/LR03 battery x 2) |
| Operation range | | Approx. 30 m (98 ft 5 in) (when operated directly in front of signal receptor) |
| Dimensions | Width | 48 mm [1-7/8 in] |
| | Height | 145 mm [5-23/32 in] |
| | Depth | 27 mm [1-1/16 in] |
| Weight [†] | | Approx. 102 g (3.60 ozs.) including batteries |

Supplied accessories

Wireless remote control unit (x 1)
 Power cord (3.0m x 1) (x 2 for Europe and Asia model)
 Batteries for remote control (R03/AAA type x 2)
 Lens Cover (x 1)

Other Applications

Multi Monitoring and Control Software (for Windows)
 Logo Transfer Software (for Windows)
 Smart Projector Control (for iOS/Android™)
 Geometry Manager Pro (for Windows)

Optional accessories

| | | |
|--|--|---|
| Lens | Fixed-focus lens | ET-ELW21 |
| | Zoom lens | ET-ELW22 |
| | | ET-ELU20 |
| | | ET-ELW20 |
| | | ET-ELS20 |
| | | *US/Canada/Latin America/Europe/Oceania only. ET-ELS20 is equivalent of supplied lens |
| | | ET-ELT22 |
| | ET-ELT23 | |
| Ceiling Mount Bracket | with 6-axis adjustment for high ceilings | ET-PKD130H |
| | for high ceilings | ET-PKD120H |
| | for low ceilings | ET-PKD120S |
| Attachment for ceiling mount bracket | | ET-PKE301B ⁶ |
| Replacement Filter Unit | | ET-RFM200 |
| Digital Interface Box | | ET-YFB100G *ET-YFB100G is not compatible with 4K signals. |
| DIGITAL LINK switcher | | ET-YFB200G *ET-YFB200G is not compatible with 4K signals. |
| Wireless Presentation System (PressIT) | | TY-WPS1 (Basic set) |

Weights and dimensions shown are approximate. Specifications subject to change without notice.

1 Measurement, measuring conditions, and method of notation all comply with ISO/IEC 21118: 2020 international standards. Value is average of all products when shipped.

2 Around this time, light output will have decreased by approximately 50 %. IEC62087: 2008 Broadcast contents, Dynamic Contrast [2], under conditions with 30 °C (86 °F), 700 m (2,297 ft) above sea level, and 0.15 mg/m³ of particulate matter. Panasonic recommends cleaning or checkup at point of purchase after about 20,000 hours. Light-source lifetime may be reduced depending on environmental conditions.

Replacement of parts other than the light source may be required in a shorter period. Estimated maintenance time varies depending on environment.

3 4K/60p input signal is converted to projector's resolution (1920 x 1200), YPbPr 4:2:0 format only for signals input via DIGITAL LINK.

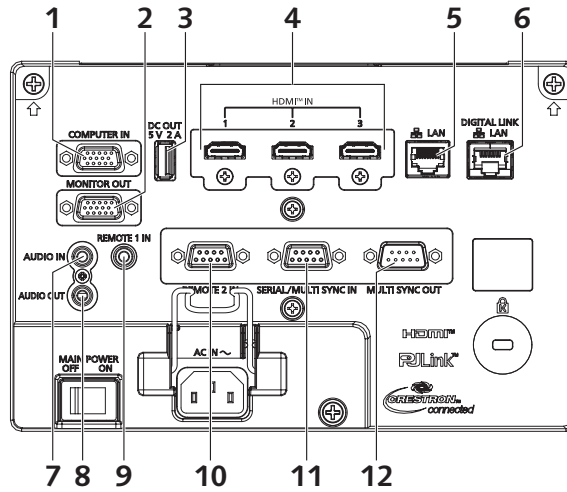
4 Average value. May differ depending on models.

5 Note that projector cannot be used at altitudes 2,700 m (8,858 ft) or higher above sea level. In the following operating environments, light output may be reduced to protect the projector; when the projector is used at altitudes below 700 m (2,297 ft) and ambient temperature is 36 °C (97 °F) or higher; when the projector is used at altitudes between 700 m (2,297 ft) and 1,400 m (4,593 ft) exclusive and ambient temperature is 34 °C (93 °F) or higher; when the projector is used at altitudes between 1,400 m (4,593 ft) and 2,100m (6,890 ft) exclusive and ambient temperature is 32 °C (90 °F) or higher; and when the projector is used at altitudes between 2,100 m (6,890 ft) and 2,700 m (8,858 ft) exclusive and ambient temperature is 30 °C (86 °F) or higher.

6 When the projector is mounted to the existing Ceiling Mount Bracket (in combination with the Model No.: ET-PKD120H (for High Ceilings) or - ET-PKD120S (for Low Ceilings), and the Model No.: ET-PKE300B (Projector Mount Bracket)), it is necessary to replace the drop-prevention - wire rope with the one corresponding to this projector. Consult your dealer. Drop-prevention set (service model no.: DPPW1004ZA/X1)

7 Value is for the supplied standard zoom lens. The value varies depending on the lens.

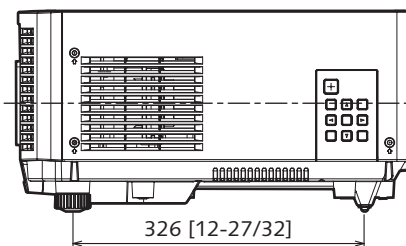
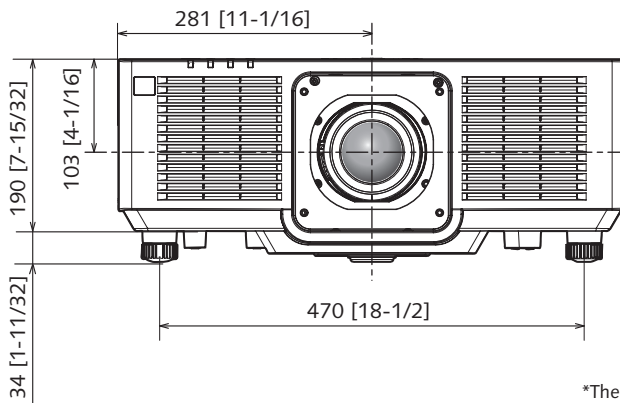
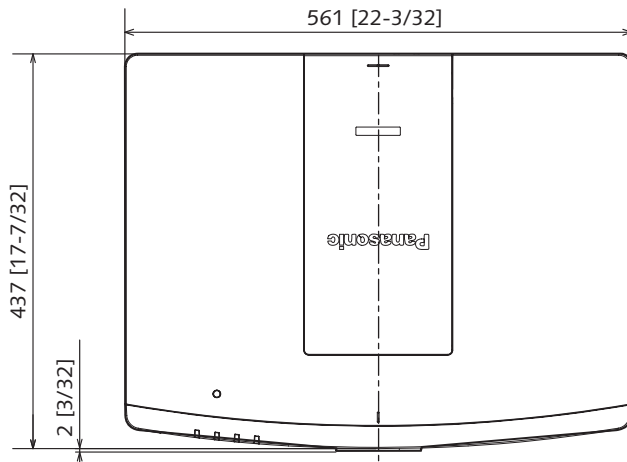
Terminals



| | | | |
|---|------------------|----|----------------------|
| 1 | COMPUTER IN | 7 | AUDIO IN |
| 2 | MONITOR OUT | 8 | AUDIO OUT |
| 3 | DC OUT | 9 | REMOTE 1 IN |
| 4 | HDMI™ IN 1/2/3 | 10 | REMOTE 2 IN |
| 5 | LAN | 11 | SERIAL/MULTI SYNC IN |
| 6 | DIGITAL LINK/LAN | 12 | MULTI SYNC OUT |

Dimensions

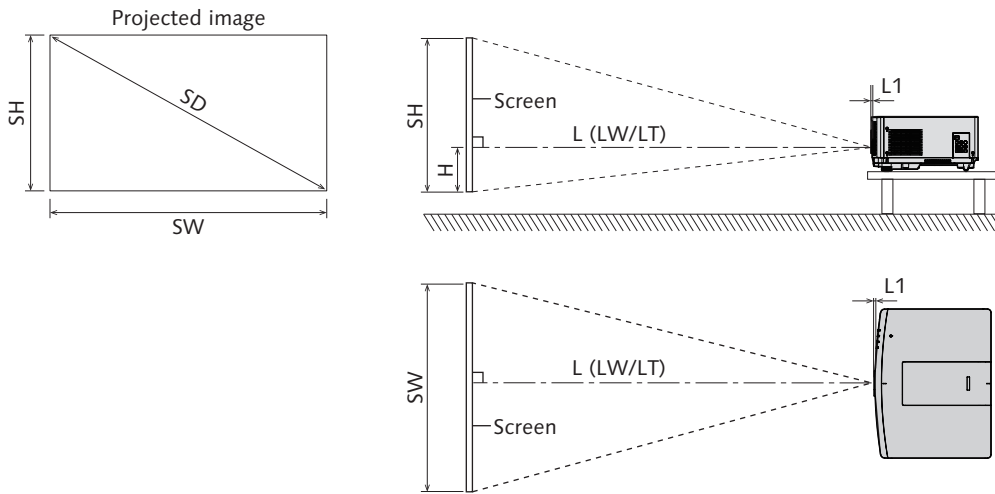
unit : mm [inch]
NOTE: This illustration is not drawn to scale.



*The above dimensions are obtained when the standard zoom lens is attached.
*Actual dimensions may differ depending on the product.

Projected image and throw distance

Install the projector referring to the projected image size and projection distance. Image size and image position can be adjusted in accordance with the screen size and screen position.



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.

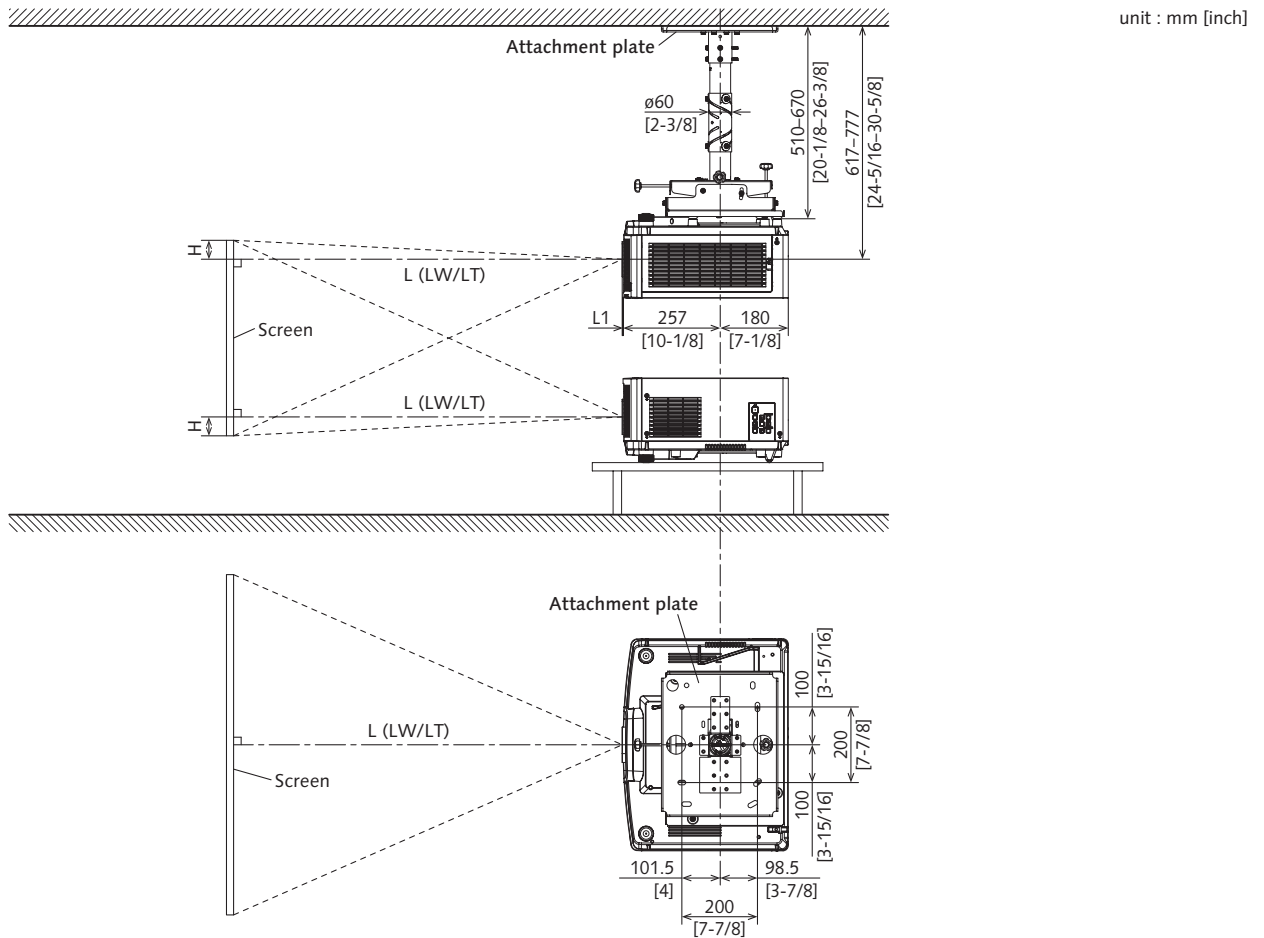
| | | |
|----|----|---|
| L | | Projection distance (distance from the front end of the projection lens to the screen) |
| | LW | Minimum projection distance when the Zoom Lens is used |
| | LT | Maximum projection distance when the Zoom Lens is used |
| L1 | | Lens protrusion dimension (distance from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

unit : m

| Projection lens Model No. | Dimension for L1 (approximate value) |
|-------------------------------|--------------------------------------|
| Standard zoom lens / ET-ELS20 | 0.002 |
| ET-ELW22 | 0.037 |
| ET-ELU20 | 0.275 |
| ET-ELW20 | 0.022 |
| ET-ELT22 | 0.023 |
| ET-ELT23 | 0.019 |
| ET-ELW21 | -0.008 |

Standard setting position

Illustrations show the projector installed using optional ceiling mount bracket ET-PKD130H, optional bracket assembly ET-PKE301B.



unit : mm [inch]

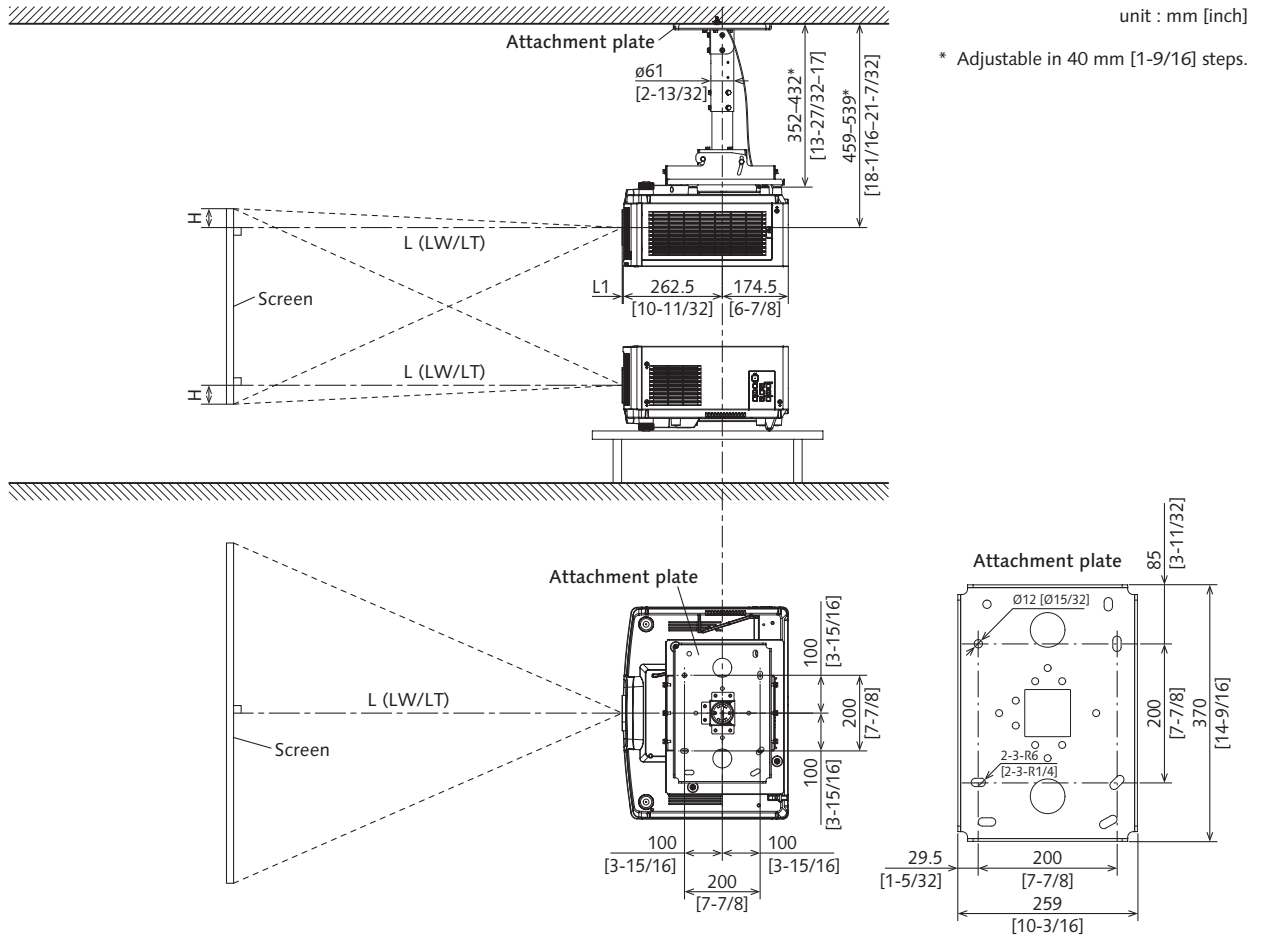
Caution

- All construction work should be done by a qualified technician.
- When mounting to the ceiling, use the special mounting bracket. Furthermore, in order to prevent it from falling down from the ceiling, use the supplied wire on the mounting bracket.

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.

Illustrations show the projector installed using optional ceiling mount bracket ET-PKD120H, optional bracket assembly ET-PKE301B.



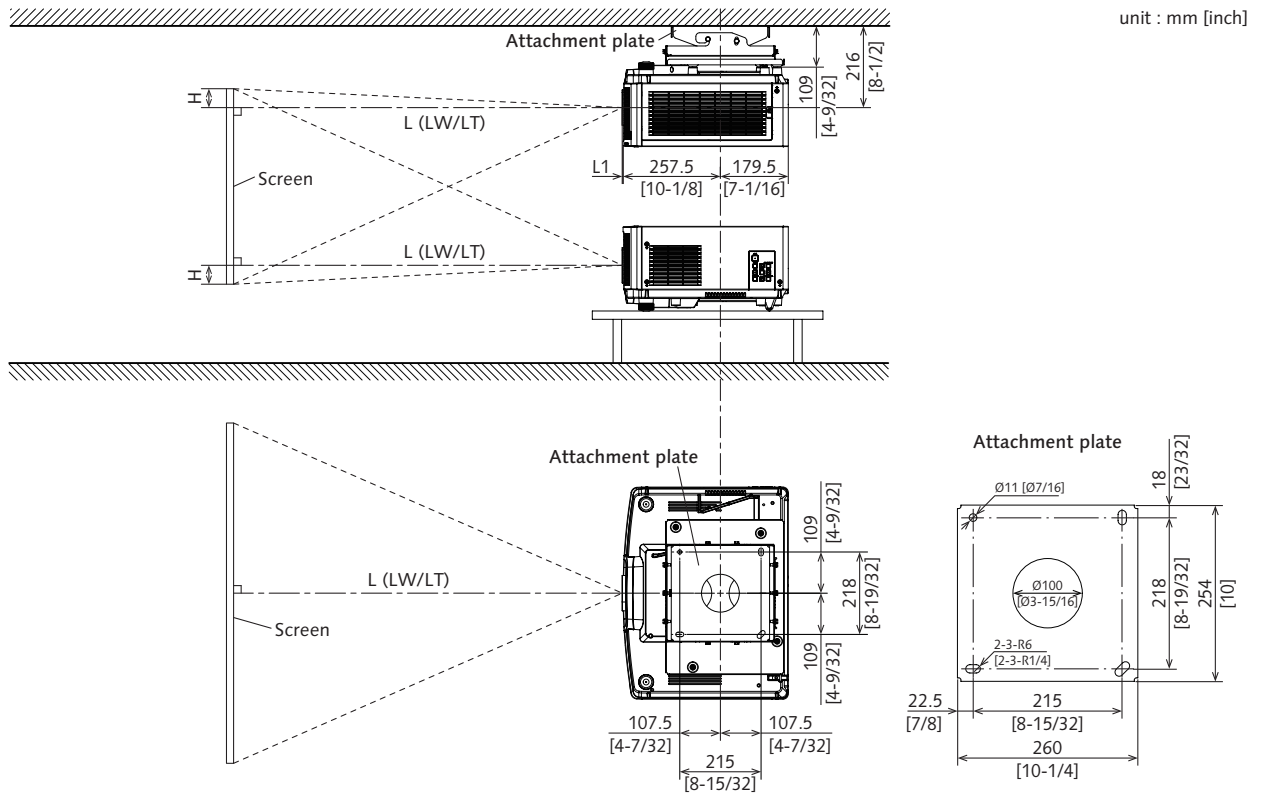
Caution

- All construction work should be done by a qualified technician.
- When mounting to the ceiling, use the special mounting bracket. Furthermore, in order to prevent it from falling down from the ceiling, use the supplied wire on the mounting bracket.

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.

Illustrations show the projector installed using optional ceiling mount bracket ET-PKD120S, optional bracket assembly ET-PKE301B.



Caution

- All construction work should be done by a qualified technician.
- When mounting to the ceiling, use the special mounting bracket. Furthermore, in order to prevent it from falling down from the ceiling, use the supplied wire on the mounting bracket.

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.

Projection distance of each projection lens

A ±5 % error in listed projection distances may occur. When [SCREEN ADJUSTMENT] is used, distance is corrected to become smaller than the specified image size.

Screen aspect ratio 16:10

Unit: meters

| Lens type | | | | Zoom Lens | | | | | | | | | | | | Fixed-focus Lens |
|---------------------------|--------|-------------|------------|-----------------------------|---------------|-----------|---------------|-----------|-------------|-----------|-------------|-----------|-------------|-----------|-----------|------------------|
| Projection lens Model No. | | | | Standard zoom lens/ET-ELS20 | ET-ELW22 | | ET-ELU20 | | ET-ELW20 | | ET-ELT22 | | ET-ELT23 | | ET-ELW21 | |
| Throw ratio ¹ | | | | 1.61-2.76:1 | 0.786-0.983:1 | | 0.330-0.353:1 | | 1.21-1.66:1 | | 2.72-4.48:1 | | 4.44-7.12:1 | | 0.764:1 | |
| Projected image size | | | | Projection distance (L) | | | | | | | | | | | | |
| Diagonal (SD) | | Height (SH) | Width (SW) | Min. (LW) | Max. (LT) | Min. (LW) | Max. (LT) | Min. (LW) | Max. (LT) | Min. (LW) | Max. (LT) | Min. (LW) | Max. (LT) | Min. (LW) | Max. (LT) | Fixed |
| m | inches | | | | | | | | | | | | | | | |
| 1.016 | 40 | 0.538 | 0.862 | 1.36 | 2.35 | - | - | - | - | 1.02 | 1.41 | 2.29 | 3.81 | 3.72 | 6.03 | 0.63 |
| 1.270 | 50 | 0.673 | 1.077 | 1.71 | 2.95 | - | - | - | - | 1.29 | 1.77 | 2.89 | 4.79 | 4.70 | 7.59 | 0.80 |
| 1.524 | 60 | 0.808 | 1.292 | 2.06 | 3.55 | 1.00 | 1.26 | - | - | 1.55 | 2.14 | 3.49 | 5.77 | 5.68 | 9.15 | 0.97 |
| 1.778 | 70 | 0.942 | 1.508 | 2.42 | 4.15 | 1.18 | 1.48 | - | - | 1.82 | 2.50 | 4.09 | 6.75 | 6.66 | 10.71 | 1.14 |
| 2.032 | 80 | 1.077 | 1.723 | 2.77 | 4.76 | 1.35 | 1.69 | - | - | 2.09 | 2.87 | 4.69 | 7.73 | 7.64 | 12.27 | 1.32 |
| 2.286 | 90 | 1.212 | 1.939 | 3.12 | 5.36 | 1.53 | 1.91 | - | - | 2.36 | 3.23 | 5.30 | 8.71 | 8.63 | 13.83 | 1.49 |
| 2.540 | 100 | 1.346 | 2.154 | 3.48 | 5.96 | 1.71 | 2.13 | 0.70 | 0.75 | 2.63 | 3.60 | 5.90 | 9.69 | 9.61 | 15.39 | 1.66 |
| 3.048 | 120 | 1.615 | 2.585 | 4.18 | 7.16 | 2.06 | 2.56 | 0.84 | 0.91 | 3.16 | 4.33 | 7.10 | 11.65 | 11.57 | 18.51 | 2.00 |
| 3.810 | 150 | 2.019 | 3.231 | 5.24 | 8.96 | 2.58 | 3.22 | 1.06 | 1.14 | 3.97 | 5.42 | 8.90 | 14.59 | 14.52 | 23.19 | 2.52 |
| 5.080 | 200 | 2.692 | 4.308 | 7.01 | 11.96 | 3.46 | 4.30 | 1.43 | 1.53 | 5.31 | 7.25 | 11.91 | 19.49 | 19.43 | 30.99 | 3.38 |
| 6.350 | 250 | 3.365 | 5.385 | 8.77 | 14.96 | 4.34 | 5.39 | 1.79 | 1.93 | 6.65 | 9.07 | 14.91 | 24.39 | 24.34 | 38.79 | 4.24 |
| 7.620 | 300 | 4.039 | 6.462 | 10.54 | 17.97 | 5.21 | 6.48 | 2.16 | 2.32 | 7.99 | 10.90 | 17.92 | 29.29 | 29.25 | 46.59 | 5.10 |
| 8.890 | 350 | 4.712 | 7.539 | 12.30 | 20.97 | 6.09 | 7.56 | 2.52 | 2.71 | 9.33 | 12.73 | 20.92 | 34.19 | 34.16 | 54.39 | 5.95 |
| 10.160 | 400 | 5.385 | 8.616 | 14.07 | 23.97 | 6.97 | 8.65 | 2.88 | 3.10 | 10.67 | 14.55 | 23.93 | 39.09 | 39.07 | 62.19 | 6.81 |

| Lens type | | | | Standard zoom lens/ET-ELS20 ET-ELW20 ET-ELT22 ET-ELT23 | ET-ELW22 | ET-ELU20 | ET-ELW21 (Fixed) |
|---------------------------|--------|-------------|------------|---|--------------|-------------|------------------|
| Projection lens Model No. | | | | | | | |
| Throw ratio ¹ | | | | | | | |
| Projected image size | | | | Height position (H) ² | | | |
| Diagonal (SD) | | Height (SH) | Width (SW) | | | | |
| m | inches | | | | | | |
| 1.016 | 40 | 0.538 | 0.862 | -0.09 - 0.63 | - | - | 0.27 |
| 1.270 | 50 | 0.673 | 1.077 | -0.11 - 0.79 | - | - | 0.34 |
| 1.524 | 60 | 0.808 | 1.292 | -0.14 - 0.95 | -0.08 - 0.89 | - | 0.40 |
| 1.778 | 70 | 0.942 | 1.508 | -0.16 - 1.10 | -0.09 - 1.04 | - | 0.47 |
| 2.032 | 80 | 1.077 | 1.723 | -0.18 - 1.26 | -0.11 - 1.18 | - | 0.54 |
| 2.286 | 90 | 1.212 | 1.939 | -0.21 - 1.42 | -0.12 - 1.33 | - | 0.61 |
| 2.540 | 100 | 1.346 | 2.154 | -0.23 - 1.58 | -0.13 - 1.48 | 0.00 - 1.35 | 0.67 |
| 3.048 | 120 | 1.615 | 2.585 | -0.27 - 1.89 | -0.16 - 1.78 | 0.00 - 1.62 | 0.81 |
| 3.810 | 150 | 2.019 | 3.231 | -0.34 - 2.36 | -0.20 - 2.22 | 0.00 - 2.02 | 1.01 |
| 5.080 | 200 | 2.692 | 4.308 | -0.46 - 3.15 | -0.27 - 2.96 | 0.00 - 2.69 | 1.35 |
| 6.350 | 250 | 3.365 | 5.385 | -0.57 - 3.94 | -0.34 - 3.70 | 0.00 - 3.37 | 1.68 |
| 7.620 | 300 | 4.039 | 6.462 | -0.69 - 4.73 | -0.40 - 4.44 | 0.00 - 4.04 | 2.02 |
| 8.890 | 350 | 4.712 | 7.539 | -0.80 - 5.51 | -0.47 - 5.18 | 0.00 - 4.71 | 2.36 |
| 10.160 | 400 | 5.385 | 8.616 | -0.92 - 6.30 | -0.54 - 5.92 | 0.00 - 5.38 | 2.69 |

1 The throw ratio is based on the value during projection of 2.03 m [80 in] projected image size. However, the throw ratio for ET-ELU20 is based on the value during projection of 3.81 m [150 in] projected image size.

2 When the Fixed-focus Lens (Model No.: ET-ELW21) is attached, the lens shift is not possible, therefore the height position (H) becomes SH/2.

Screen aspect ratio 16:10

Unit: feet

| Lens type | | | Zoom Lens | | | | | | | | | | | | | Fixed-focus Lens |
|---------------------------|--------|-------------|-----------------------------|-----------|---------------|-----------|---------------|-----------|-------------|-----------|-------------|-----------|-------------|-----------|-----------|------------------|
| Projection lens Model No. | | | Standard zoom lens/ET-ELS20 | | ET-ELW22 | | ET-ELU20 | | ET-ELW20 | | ET-ELT22 | | ET-ELT23 | | ET-ELW21 | |
| Throw ratio ¹ | | | 1.61-2.76:1 | | 0.786-0.983:1 | | 0.330-0.353:1 | | 1.21-1.66:1 | | 2.72-4.48:1 | | 4.44-7.12:1 | | 0.764:1 | |
| Projected image size | | | Projection distance (L) | | | | | | | | | | | | | |
| Diagonal (SD) | | Height (SH) | Width (SW) | Min. (LW) | Max. (LT) | Min. (LW) | Max. (LT) | Min. (LW) | Max. (LT) | Min. (LW) | Max. (LT) | Min. (LW) | Max. (LT) | Min. (LW) | Max. (LT) | Fixed |
| m | inches | | | | | | | | | | | | | | | |
| 1.016 | 40 | 1.77 | 2.83 | 4.46 | 7.71 | - | - | - | - | 3.35 | 4.63 | 7.51 | 12.50 | 12.20 | 19.78 | 2.07 |
| 1.270 | 50 | 2.21 | 3.53 | 5.61 | 9.68 | - | - | - | - | 4.23 | 5.81 | 9.48 | 15.72 | 15.42 | 24.90 | 2.62 |
| 1.524 | 60 | 2.65 | 4.24 | 6.76 | 11.65 | 3.28 | 4.13 | - | - | 5.09 | 7.02 | 11.45 | 18.93 | 18.63 | 30.02 | 3.18 |
| 1.778 | 70 | 3.09 | 4.95 | 7.94 | 13.62 | 3.87 | 4.86 | - | - | 5.97 | 8.20 | 13.42 | 22.15 | 21.85 | 35.14 | 3.74 |
| 2.032 | 80 | 3.53 | 5.65 | 9.09 | 15.62 | 4.43 | 5.54 | - | - | 6.86 | 9.42 | 15.39 | 25.36 | 25.07 | 40.26 | 4.33 |
| 2.286 | 90 | 3.98 | 6.36 | 10.24 | 17.59 | 5.02 | 6.27 | - | - | 7.74 | 10.60 | 17.39 | 28.58 | 28.31 | 45.37 | 4.89 |
| 2.540 | 100 | 4.42 | 7.07 | 11.42 | 19.55 | 5.61 | 6.99 | 2.30 | 2.46 | 8.63 | 11.81 | 19.36 | 31.79 | 31.53 | 50.49 | 5.45 |
| 3.048 | 120 | 5.30 | 8.48 | 13.71 | 23.49 | 6.76 | 8.40 | 2.76 | 2.99 | 10.37 | 14.21 | 23.29 | 38.22 | 37.96 | 60.73 | 6.56 |
| 3.810 | 150 | 6.62 | 10.60 | 17.19 | 29.40 | 8.46 | 10.56 | 3.48 | 3.74 | 13.02 | 17.78 | 29.20 | 47.87 | 47.64 | 76.08 | 8.27 |
| 5.080 | 200 | 8.83 | 14.13 | 23.00 | 39.24 | 11.35 | 14.11 | 4.69 | 5.02 | 17.42 | 23.79 | 39.07 | 63.94 | 63.75 | 101.67 | 11.09 |
| 6.350 | 250 | 11.04 | 17.67 | 28.77 | 49.08 | 14.24 | 17.68 | 5.87 | 6.33 | 21.82 | 29.76 | 48.92 | 80.02 | 79.85 | 127.26 | 13.91 |
| 7.620 | 300 | 13.25 | 21.20 | 34.58 | 58.96 | 17.09 | 21.26 | 7.09 | 7.61 | 26.21 | 35.76 | 58.79 | 96.09 | 95.96 | 152.85 | 16.73 |
| 8.890 | 350 | 15.46 | 24.73 | 40.35 | 68.80 | 19.98 | 24.80 | 8.27 | 8.89 | 30.61 | 41.76 | 68.63 | 112.17 | 112.07 | 178.44 | 19.52 |
| 10.160 | 400 | 17.67 | 28.27 | 46.16 | 78.64 | 22.87 | 28.38 | 9.45 | 10.17 | 35.01 | 47.74 | 78.51 | 128.25 | 128.18 | 204.03 | 22.34 |

| Lens type | | | Standard zoom lens/ET-ELS20 | | ET-ELW22 | ET-ELU20 | ET-ELW21 (Fixed) | |
|---------------------------|--------|-------------|----------------------------------|---------------|----------|---------------|------------------|------|
| Projection lens Model No. | | | ET-ELW20 ET-ELT22 ET-ELT23 | | | | | |
| Throw ratio ¹ | | | | | | | | |
| Projected image size | | | Height position (H) ² | | | | | |
| Diagonal (SD) | | Height (SH) | Width (SW) | | | | | |
| m | inches | | | | | | | |
| 1.016 | 40 | 1.77 | 2.83 | -0.30 - 2.07 | | - | - | 0.89 |
| 1.270 | 50 | 2.21 | 3.53 | -0.36 - 2.59 | | - | - | 1.12 |
| 1.524 | 60 | 2.65 | 4.24 | -0.46 - 3.12 | | -0.26 - 2.92 | - | 1.31 |
| 1.778 | 70 | 3.09 | 4.95 | -0.52 - 3.61 | | -0.30 - 3.41 | - | 1.54 |
| 2.032 | 80 | 3.53 | 5.65 | -0.59 - 4.13 | | -0.36 - 3.87 | - | 1.77 |
| 2.286 | 90 | 3.98 | 6.36 | -0.69 - 4.66 | | -0.39 - 4.36 | - | 2.00 |
| 2.540 | 100 | 4.42 | 7.07 | -0.75 - 5.18 | | -0.43 - 4.86 | 0.00 - 4.43 | 2.20 |
| 3.048 | 120 | 5.30 | 8.48 | -0.89 - 6.20 | | -0.52 - 5.84 | 0.00 - 5.32 | 2.66 |
| 3.810 | 150 | 6.62 | 10.60 | -1.12 - 7.74 | | -0.66 - 7.28 | 0.00 - 6.63 | 3.31 |
| 5.080 | 200 | 8.83 | 14.13 | -1.51 - 10.33 | | -0.89 - 9.71 | 0.00 - 8.83 | 4.43 |
| 6.350 | 250 | 11.04 | 17.67 | -1.87 - 12.93 | | -1.12 - 12.14 | 0.00 - 11.06 | 5.51 |
| 7.620 | 300 | 13.25 | 21.20 | -2.26 - 15.52 | | -1.31 - 14.57 | 0.00 - 13.26 | 6.63 |
| 8.890 | 350 | 15.46 | 24.73 | -2.62 - 18.08 | | -1.54 - 16.99 | 0.00 - 15.45 | 7.74 |
| 10.160 | 400 | 17.67 | 28.27 | -3.02 - 20.67 | | -1.77 - 19.42 | 0.00 - 17.65 | 8.83 |

1 The throw ratio is based on the value during projection of 2.03 m [80 in] projected image size. However, the throw ratio for ET-ELU20 is based on the value during projection of 3.81 m [150 in] projected image size.

2 When the Fixed-focus Lens (Model No.: ET-ELW21) is attached, the lens shift is not possible, therefore the height position (H) becomes SH/2.

Screen aspect ratio 16:9

Unit: meters

| Lens type | | | Zoom Lens | | | | | | | | | | | | | Fixed-focus Lens |
|---------------------------|--------|-------------|-----------------------------|-----------|---------------|-----------|---------------|-----------|-------------|-----------|-------------|-----------|-------------|-----------|-----------|------------------|
| Projection lens Model No. | | | Standard zoom lens/ET-ELS20 | | ET-ELW22 | | ET-ELU20 | | ET-ELW20 | | ET-ELT22 | | ET-ELT23 | | ET-ELW21 | |
| Throw ratio ¹ | | | 1.61-2.76:1 | | 0.787-0.984:1 | | 0.330-0.353:1 | | 1.21-1.66:1 | | 2.73-4.49:1 | | 4.44-7.12:1 | | 0.765:1 | |
| Projected image size | | | Projection distance (L) | | | | | | | | | | | | | |
| Diagonal (SD) | | Height (SH) | Width (SW) | Min. (LW) | Max. (LT) | Min. (LW) | Max. (LT) | Min. (LW) | Max. (LT) | Min. (LW) | Max. (LT) | Min. (LW) | Max. (LT) | Min. (LW) | Max. (LT) | Fixed |
| m | inches | | | | | | | | | | | | | | | |
| 1.016 | 40 | 0.498 | 0.886 | 1.40 | 2.42 | - | - | - | - | 1.05 | 1.45 | 2.36 | 3.92 | 3.83 | 6.20 | 0.65 |
| 1.270 | 50 | 0.623 | 1.107 | 1.76 | 3.04 | - | - | - | - | 1.32 | 1.82 | 2.97 | 4.92 | 4.83 | 7.81 | 0.83 |
| 1.524 | 60 | 0.747 | 1.328 | 2.12 | 3.65 | 1.03 | 1.30 | - | - | 1.60 | 2.20 | 3.59 | 5.93 | 5.84 | 9.41 | 1.00 |
| 1.778 | 70 | 0.872 | 1.550 | 2.49 | 4.27 | 1.21 | 1.52 | - | - | 1.87 | 2.57 | 4.21 | 6.94 | 6.85 | 11.01 | 1.18 |
| 2.032 | 80 | 0.996 | 1.771 | 2.85 | 4.89 | 1.39 | 1.74 | - | - | 2.15 | 2.95 | 4.83 | 7.95 | 7.86 | 12.62 | 1.35 |
| 2.286 | 90 | 1.121 | 1.992 | 3.21 | 5.51 | 1.57 | 1.97 | - | - | 2.43 | 3.32 | 5.45 | 8.95 | 8.87 | 14.22 | 1.53 |
| 2.540 | 100 | 1.245 | 2.214 | 3.57 | 6.12 | 1.75 | 2.19 | 0.72 | 0.77 | 2.70 | 3.70 | 6.06 | 9.96 | 9.88 | 15.82 | 1.71 |
| 3.048 | 120 | 1.494 | 2.657 | 4.30 | 7.36 | 2.11 | 2.64 | 0.87 | 0.93 | 3.25 | 4.45 | 7.30 | 11.97 | 11.90 | 19.03 | 2.06 |
| 3.810 | 150 | 1.868 | 3.321 | 5.39 | 9.21 | 2.66 | 3.31 | 1.09 | 1.17 | 4.08 | 5.58 | 9.15 | 15.00 | 14.93 | 23.84 | 2.59 |
| 5.080 | 200 | 2.491 | 4.428 | 7.20 | 12.29 | 3.56 | 4.42 | 1.47 | 1.58 | 5.46 | 7.45 | 12.24 | 20.03 | 19.98 | 31.86 | 3.47 |
| 6.350 | 250 | 3.113 | 5.535 | 9.02 | 15.38 | 4.46 | 5.54 | 1.84 | 1.98 | 6.83 | 9.33 | 15.33 | 25.07 | 25.02 | 39.87 | 4.36 |
| 7.620 | 300 | 3.736 | 6.641 | 10.83 | 18.47 | 5.36 | 6.66 | 2.22 | 2.38 | 8.21 | 11.20 | 18.42 | 30.10 | 30.07 | 47.89 | 5.24 |
| 8.890 | 350 | 4.358 | 7.748 | 12.65 | 21.55 | 6.26 | 7.77 | 2.59 | 2.79 | 9.59 | 13.08 | 21.51 | 35.14 | 35.12 | 55.91 | 6.12 |
| 10.160 | 400 | 4.981 | 8.855 | 14.46 | 24.64 | 7.16 | 8.89 | 2.97 | 3.19 | 10.97 | 14.96 | 24.60 | 40.18 | 40.17 | 63.92 | 7.00 |

| Lens type | | | Standard zoom lens/ET-ELS20 | | ET-ELW22 | ET-ELU20 | ET-ELW21 (Fixed) | |
|---------------------------|--------|-------------|----------------------------------|--------------|----------|--------------|------------------|------|
| Projection lens Model No. | | | ET-ELW20 ET-ELT22 ET-ELT23 | | | | | |
| Throw ratio ¹ | | | | | | | | |
| Projected image size | | | Height position (H) ² | | | | | |
| Diagonal (SD) | | Height (SH) | Width (SW) | | | | | |
| m | inches | | | | | | | |
| 1.016 | 40 | 0.498 | 0.886 | -0.12 - 0.62 | | - | - | 0.25 |
| 1.270 | 50 | 0.623 | 1.107 | -0.15 - 0.77 | | - | - | 0.31 |
| 1.524 | 60 | 0.747 | 1.328 | -0.18 - 0.93 | | -0.12 - 0.87 | - | 0.37 |
| 1.778 | 70 | 0.872 | 1.550 | -0.21 - 1.08 | | -0.15 - 1.02 | - | 0.44 |
| 2.032 | 80 | 0.996 | 1.771 | -0.24 - 1.24 | | -0.17 - 1.16 | - | 0.50 |
| 2.286 | 90 | 1.121 | 1.992 | -0.27 - 1.39 | | -0.19 - 1.31 | - | 0.56 |
| 2.540 | 100 | 1.245 | 2.214 | -0.30 - 1.55 | | -0.21 - 1.45 | -0.07 - 1.31 | 0.62 |
| 3.048 | 120 | 1.494 | 2.657 | -0.37 - 1.86 | | -0.25 - 1.74 | -0.08 - 1.58 | 0.75 |
| 3.810 | 150 | 1.868 | 3.321 | -0.46 - 2.32 | | -0.31 - 2.18 | -0.10 - 1.97 | 0.93 |
| 5.080 | 200 | 2.491 | 4.428 | -0.61 - 3.10 | | -0.42 - 2.91 | -0.14 - 2.63 | 1.25 |
| 6.350 | 250 | 3.113 | 5.535 | -0.76 - 3.87 | | -0.52 - 3.63 | -0.17 - 3.29 | 1.56 |
| 7.620 | 300 | 3.736 | 6.641 | -0.91 - 4.65 | | -0.62 - 4.36 | -0.21 - 3.94 | 1.87 |
| 8.890 | 350 | 4.358 | 7.748 | -1.07 - 5.42 | | -0.73 - 5.08 | -0.24 - 4.60 | 2.18 |
| 10.160 | 400 | 4.981 | 8.855 | -1.22 - 6.20 | | -0.83 - 5.81 | -0.28 - 5.26 | 2.49 |

1 The throw ratio is based on the value during projection of 2.03 m [80 in] projected image size. However, the throw ratio for ET-ELU20 is based on the value during projection of 3.81 m [150 in] projected image size.

2 When the Fixed-focus Lens (Model No.: ET-ELW21) is attached, the lens shift is not possible, therefore the height position (H) becomes SH/2.

Screen aspect ratio 16:9

Unit: feet

| Lens type | | | | Zoom Lens | | | | | | | | | | | | Fixed-focus Lens |
|---------------------------|--------|-------------|------------|-----------------------------|-----------|---------------|-----------|---------------|-----------|-------------|-----------|-------------|-----------|-------------|-----------|------------------|
| Projection lens Model No. | | | | Standard zoom lens/ET-ELS20 | | ET-ELW22 | | ET-ELU20 | | ET-ELW20 | | ET-ELT22 | | ET-ELT23 | | ET-ELW21 |
| Throw ratio ¹ | | | | 1.61-2.76:1 | | 0.787-0.984:1 | | 0.330-0.353:1 | | 1.21-1.66:1 | | 2.73-4.49:1 | | 4.44-7.12:1 | | 0.765:1 |
| Projected image size | | | | Projection distance (L) | | | | | | | | | | | | |
| Diagonal (SD) | | Height (SH) | Width (SW) | Min. (LW) | Max. (LT) | Min. (LW) | Max. (LT) | Min. (LW) | Max. (LT) | Min. (LW) | Max. (LT) | Min. (LW) | Max. (LT) | Min. (LW) | Max. (LT) | Fixed |
| m | inches | | | | | | | | | | | | | | | |
| 1.016 | 40 | 1.63 | 2.91 | 4.59 | 7.94 | - | - | - | - | 3.44 | 4.76 | 7.74 | 12.86 | 12.57 | 20.34 | 2.13 |
| 1.270 | 50 | 2.04 | 3.63 | 5.77 | 9.97 | - | - | - | - | 4.33 | 5.97 | 9.74 | 16.14 | 15.85 | 25.62 | 2.72 |
| 1.524 | 60 | 2.45 | 4.36 | 6.96 | 11.97 | 3.38 | 4.27 | - | - | 5.25 | 7.22 | 11.78 | 19.46 | 19.16 | 30.87 | 3.28 |
| 1.778 | 70 | 2.86 | 5.09 | 8.17 | 14.01 | 3.97 | 4.99 | - | - | 6.14 | 8.43 | 13.81 | 22.77 | 22.47 | 36.12 | 3.87 |
| 2.032 | 80 | 3.27 | 5.81 | 9.35 | 16.04 | 4.56 | 5.71 | - | - | 7.05 | 9.68 | 15.85 | 26.08 | 25.79 | 41.40 | 4.43 |
| 2.286 | 90 | 3.68 | 6.54 | 10.53 | 18.08 | 5.15 | 6.46 | - | - | 7.97 | 10.89 | 17.88 | 29.36 | 29.10 | 46.65 | 5.02 |
| 2.540 | 100 | 4.08 | 7.26 | 11.71 | 20.08 | 5.74 | 7.18 | 2.36 | 2.53 | 8.86 | 12.14 | 19.88 | 32.68 | 32.41 | 51.90 | 5.61 |
| 3.048 | 120 | 4.90 | 8.72 | 14.11 | 24.15 | 6.92 | 8.66 | 2.85 | 3.05 | 10.66 | 14.60 | 23.95 | 39.27 | 39.04 | 62.43 | 6.76 |
| 3.810 | 150 | 6.13 | 10.90 | 17.68 | 30.22 | 8.73 | 10.86 | 3.58 | 3.84 | 13.39 | 18.31 | 30.02 | 49.21 | 48.98 | 78.21 | 8.50 |
| 5.080 | 200 | 8.17 | 14.53 | 23.62 | 40.32 | 11.68 | 14.50 | 4.82 | 5.18 | 17.91 | 24.44 | 40.16 | 65.71 | 65.55 | 104.53 | 11.38 |
| 6.350 | 250 | 10.21 | 18.16 | 29.59 | 50.46 | 14.63 | 18.18 | 6.04 | 6.50 | 22.41 | 30.61 | 50.29 | 82.25 | 82.09 | 130.81 | 14.30 |
| 7.620 | 300 | 12.26 | 21.79 | 35.53 | 60.60 | 17.59 | 21.85 | 7.28 | 7.81 | 26.94 | 36.74 | 60.43 | 98.75 | 98.65 | 157.12 | 17.19 |
| 8.890 | 350 | 14.30 | 25.42 | 41.50 | 70.70 | 20.54 | 25.49 | 8.50 | 9.15 | 31.46 | 42.91 | 70.57 | 115.29 | 115.22 | 183.43 | 20.08 |
| 10.160 | 400 | 16.34 | 29.05 | 47.44 | 80.84 | 23.49 | 29.17 | 9.74 | 10.47 | 35.99 | 49.08 | 80.71 | 131.82 | 131.79 | 209.71 | 22.97 |

| Lens type | | | | Standard zoom lens/ET-ELS20 | | ET-ELW22 | ET-ELU20 | ET-ELW21 (Fixed) |
|---------------------------|--------|-------------|------------|----------------------------------|--|---------------|---------------|------------------|
| Projection lens Model No. | | | | ET-ELW20 ET-ELT22 ET-ELT23 | | | | |
| Throw ratio ¹ | | | | | | | | |
| Projected image size | | | | Height position (H) ² | | | | |
| Diagonal (SD) | | Height (SH) | Width (SW) | | | | | |
| m | inches | | | | | | | |
| 1.016 | 40 | 1.63 | 2.91 | -0.39 - 2.03 | | - | - | 0.82 |
| 1.270 | 50 | 2.04 | 3.63 | -0.49 - 2.53 | | - | - | 1.02 |
| 1.524 | 60 | 2.45 | 4.36 | -0.59 - 3.05 | | -0.39 - 2.85 | - | 1.21 |
| 1.778 | 70 | 2.86 | 5.09 | -0.69 - 3.54 | | -0.49 - 3.35 | - | 1.44 |
| 2.032 | 80 | 3.27 | 5.81 | -0.79 - 4.07 | | -0.56 - 3.81 | - | 1.64 |
| 2.286 | 90 | 3.68 | 6.54 | -0.89 - 4.56 | | -0.62 - 4.30 | - | 1.84 |
| 2.540 | 100 | 4.08 | 7.26 | -0.98 - 5.09 | | -0.69 - 4.76 | -0.23 - 4.30 | 2.03 |
| 3.048 | 120 | 4.90 | 8.72 | -1.21 - 6.10 | | -0.82 - 5.71 | -0.26 - 5.18 | 2.46 |
| 3.810 | 150 | 6.13 | 10.90 | -1.51 - 7.61 | | -1.02 - 7.15 | -0.33 - 6.46 | 3.05 |
| 5.080 | 200 | 8.17 | 14.53 | -2.00 - 10.17 | | -1.38 - 9.55 | -0.46 - 8.63 | 4.10 |
| 6.350 | 250 | 10.21 | 18.16 | -2.49 - 12.70 | | -1.71 - 11.91 | -0.56 - 10.79 | 5.12 |
| 7.620 | 300 | 12.26 | 21.79 | -2.99 - 15.26 | | -2.03 - 14.30 | -0.69 - 12.93 | 6.14 |
| 8.890 | 350 | 14.30 | 25.42 | -3.51 - 17.78 | | -2.39 - 16.67 | -0.79 - 15.09 | 7.15 |
| 10.160 | 400 | 16.34 | 29.05 | -4.00 - 20.34 | | -2.72 - 19.06 | -0.92 - 17.26 | 8.17 |

1 The throw ratio is based on the value during projection of 2.03 m [80 in] projected image size. However, the throw ratio for ET-ELU20 is based on the value during projection of 3.81 m [150 in] projected image size.

2 When the Fixed-focus Lens (Model No.: ET-ELW21) is attached, the lens shift is not possible, therefore the height position (H) becomes SH/2.

Screen aspect ratio 4:3

Unit: meters

| Lens type | | | | Zoom Lens | | | | | | | | | | | | Fixed-focus Lens |
|---------------------------|--------|-------------|------------|-----------------------------|-----------|--------------|-----------|---------------|-----------|-------------|-----------|-------------|-----------|-------------|-----------|------------------|
| Projection lens Model No. | | | | Standard zoom lens/ET-ELS20 | | ET-ELW22 | | ET-ELU20 | | ET-ELW20 | | ET-ELT22 | | ET-ELT23 | | ET-ELW21 |
| Throw ratio ¹ | | | | 1.93-3.32:1 | | 0.947-1.18:1 | | 0.397-0.425:1 | | 1.46-2.00:1 | | 3.28-5.39:1 | | 5.34-8.56:1 | | 0.922:1 |
| Projected image size | | | | Projection distance (L) | | | | | | | | | | | | |
| Diagonal (SD) | | Height (SH) | Width (SW) | Min. (LW) | Max. (LT) | Min. (LW) | Max. (LT) | Min. (LW) | Max. (LT) | Min. (LW) | Max. (LT) | Min. (LW) | Max. (LT) | Min. (LW) | Max. (LT) | Fixed |
| m | inches | | | | | | | | | | | | | | | |
| 1.016 | 40 | 0.610 | 0.813 | 1.54 | 2.67 | - | - | - | - | 1.16 | 1.60 | 2.61 | 4.33 | 4.24 | 6.85 | 0.72 |
| 1.270 | 50 | 0.762 | 1.016 | 1.94 | 3.35 | - | - | - | - | 1.46 | 2.01 | 3.29 | 5.43 | 5.35 | 8.62 | 0.91 |
| 1.524 | 60 | 0.914 | 1.219 | 2.34 | 4.03 | 1.14 | 1.43 | - | - | 1.77 | 2.43 | 3.97 | 6.54 | 6.46 | 10.39 | 1.11 |
| 1.778 | 70 | 1.067 | 1.422 | 2.74 | 4.71 | 1.34 | 1.68 | - | - | 2.07 | 2.84 | 4.65 | 7.65 | 7.57 | 12.15 | 1.30 |
| 2.032 | 80 | 1.219 | 1.626 | 3.14 | 5.39 | 1.54 | 1.92 | - | - | 2.37 | 3.25 | 5.33 | 8.76 | 8.68 | 13.92 | 1.50 |
| 2.286 | 90 | 1.372 | 1.829 | 3.54 | 6.07 | 1.74 | 2.17 | - | - | 2.68 | 3.67 | 6.01 | 9.87 | 9.79 | 15.68 | 1.69 |
| 2.540 | 100 | 1.524 | 2.032 | 3.94 | 6.75 | 1.94 | 2.42 | 0.80 | 0.85 | 2.98 | 4.08 | 6.69 | 10.98 | 10.91 | 17.45 | 1.89 |
| 3.048 | 120 | 1.829 | 2.438 | 4.74 | 8.11 | 2.33 | 2.91 | 0.96 | 1.03 | 3.59 | 4.91 | 8.05 | 13.20 | 13.13 | 20.98 | 2.28 |
| 3.810 | 150 | 2.286 | 3.048 | 5.94 | 10.15 | 2.93 | 3.65 | 1.21 | 1.30 | 4.50 | 6.15 | 10.09 | 16.53 | 16.47 | 26.28 | 2.86 |
| 5.080 | 200 | 3.048 | 4.064 | 7.94 | 13.55 | 3.92 | 4.88 | 1.62 | 1.74 | 6.02 | 8.21 | 13.49 | 22.08 | 22.03 | 35.11 | 3.83 |
| 6.350 | 250 | 3.810 | 5.080 | 9.94 | 16.95 | 4.91 | 6.11 | 2.03 | 2.19 | 7.53 | 10.28 | 16.90 | 27.62 | 27.58 | 43.94 | 4.80 |
| 7.620 | 300 | 4.572 | 6.096 | 11.94 | 20.34 | 5.91 | 7.34 | 2.44 | 2.63 | 9.05 | 12.35 | 20.30 | 33.17 | 33.14 | 52.77 | 5.78 |
| 8.890 | 350 | 5.334 | 7.112 | 13.93 | 23.74 | 6.90 | 8.57 | 2.86 | 3.07 | 10.57 | 14.41 | 23.70 | 38.72 | 38.70 | 61.60 | 6.75 |
| 10.160 | 400 | 6.096 | 8.128 | 15.93 | 27.14 | 7.89 | 9.80 | 3.27 | 3.52 | 12.09 | 16.48 | 27.10 | 44.27 | 44.26 | 70.43 | 7.72 |

| Lens type | | | | Standard zoom lens/ET-ELS20 | | ET-ELW22 | ET-ELU20 | ET-ELW21 (Fixed) |
|---------------------------|--------|-------------|------------|----------------------------------|--|--------------|-------------|------------------|
| Projection lens Model No. | | | | ET-ELW20 ET-ELT22 ET-ELT23 | | | | |
| Throw ratio ¹ | | | | | | | | |
| Projected image size | | | | Height position (H) ² | | | | |
| Diagonal (SD) | | Height (SH) | Width (SW) | | | | | |
| m | inches | | | | | | | |
| 1.016 | 40 | 0.610 | 0.813 | -0.10 - 0.71 | | - | - | 0.30 |
| 1.270 | 50 | 0.762 | 1.016 | -0.13 - 0.89 | | - | - | 0.38 |
| 1.524 | 60 | 0.914 | 1.219 | -0.16 - 1.07 | | -0.09 - 1.01 | - | 0.46 |
| 1.778 | 70 | 1.067 | 1.422 | -0.18 - 1.25 | | -0.11 - 1.17 | - | 0.53 |
| 2.032 | 80 | 1.219 | 1.626 | -0.21 - 1.43 | | -0.12 - 1.34 | - | 0.61 |
| 2.286 | 90 | 1.372 | 1.829 | -0.23 - 1.60 | | -0.14 - 1.51 | - | 0.69 |
| 2.540 | 100 | 1.524 | 2.032 | -0.26 - 1.78 | | -0.15 - 1.68 | 0.00 - 1.52 | 0.76 |
| 3.048 | 120 | 1.829 | 2.438 | -0.31 - 2.14 | | -0.18 - 2.01 | 0.00 - 1.83 | 0.91 |
| 3.810 | 150 | 2.286 | 3.048 | -0.39 - 2.67 | | -0.23 - 2.51 | 0.00 - 2.29 | 1.14 |
| 5.080 | 200 | 3.048 | 4.064 | -0.52 - 3.57 | | -0.30 - 3.35 | 0.00 - 3.05 | 1.52 |
| 6.350 | 250 | 3.810 | 5.080 | -0.65 - 4.46 | | -0.38 - 4.19 | 0.00 - 3.81 | 1.91 |
| 7.620 | 300 | 4.572 | 6.096 | -0.78 - 5.35 | | -0.46 - 5.03 | 0.00 - 4.57 | 2.29 |
| 8.890 | 350 | 5.334 | 7.112 | -0.91 - 6.24 | | -0.53 - 5.87 | 0.00 - 5.33 | 2.67 |
| 10.160 | 400 | 6.096 | 8.128 | -1.04 - 7.13 | | -0.61 - 6.71 | 0.00 - 6.10 | 3.05 |

1 The throw ratio is based on the value during projection of 2.03 m [80 in] projected image size. However, the throw ratio for ET-ELU20 is based on the value during projection of 3.81 m [150 in] projected image size.

2 When the Fixed-focus Lens (Model No.: ET-ELW21) is attached, the lens shift is not possible, therefore the height position (H) becomes SH/2.

Screen aspect ratio 4:3

Unit: feet

| Lens type | | | Zoom Lens | | | | | | | | | | | | | Fixed-focus Lens |
|---------------------------|--------|-------------|-----------------------------|-----------|--------------|-----------|-----------------|-----------|-------------|-----------|-------------|-----------|-------------|-----------|-----------|------------------|
| Projection lens Model No. | | | Standard zoom lens/ET-ELS20 | | ET-ELW22 | | ET-ELU20 | | ET-ELW20 | | ET-ELT22 | | ET-ELT23 | | ET-ELW21 | |
| Throw ratio ¹ | | | 1.93-3.32:1 | | 0.947-1.18:1 | | 0.397 - 0.425:1 | | 1.46-2.00:1 | | 3.28-5.39:1 | | 5.34-8.56:1 | | 0.922:1 | |
| Projected image size | | | Projection distance (L) | | | | | | | | | | | | | |
| Diagonal (SD) | | Height (SH) | Width (SW) | Min. (LW) | Max. (LT) | Min. (LW) | Max. (LT) | Min. (LW) | Max. (LT) | Min. (LW) | Max. (LT) | Min. (LW) | Max. (LT) | Min. (LW) | Max. (LT) | Fixed |
| m | inches | | | | | | | | | | | | | | | |
| 1.016 | 40 | 2.00 | 2.67 | 5.05 | 8.76 | - | - | - | - | 3.81 | 5.25 | 8.56 | 14.21 | 13.91 | 22.47 | 2.36 |
| 1.270 | 50 | 2.50 | 3.33 | 6.36 | 10.99 | - | - | - | - | 4.79 | 6.59 | 10.79 | 17.81 | 17.55 | 28.28 | 2.99 |
| 1.524 | 60 | 3.00 | 4.00 | 7.68 | 13.22 | 3.74 | 4.69 | - | - | 5.81 | 7.97 | 13.02 | 21.46 | 21.19 | 34.09 | 3.64 |
| 1.778 | 70 | 3.50 | 4.67 | 8.99 | 15.45 | 4.40 | 5.51 | - | - | 6.79 | 9.32 | 15.26 | 25.10 | 24.84 | 39.86 | 4.27 |
| 2.032 | 80 | 4.00 | 5.33 | 10.30 | 17.68 | 5.05 | 6.30 | - | - | 7.78 | 10.66 | 17.49 | 28.74 | 28.48 | 45.67 | 4.92 |
| 2.286 | 90 | 4.50 | 6.00 | 11.61 | 19.91 | 5.71 | 7.12 | - | - | 8.79 | 12.04 | 19.72 | 32.38 | 32.12 | 51.44 | 5.54 |
| 2.540 | 100 | 5.00 | 6.67 | 12.93 | 22.15 | 6.36 | 7.94 | 2.63 | 2.79 | 9.78 | 13.39 | 21.95 | 36.02 | 35.79 | 57.25 | 6.20 |
| 3.048 | 120 | 6.00 | 8.00 | 15.55 | 26.61 | 7.64 | 9.55 | 3.15 | 3.38 | 11.78 | 16.11 | 26.41 | 43.31 | 43.08 | 68.83 | 7.48 |
| 3.810 | 150 | 7.50 | 10.00 | 19.49 | 33.30 | 9.61 | 11.97 | 3.97 | 4.27 | 14.76 | 20.18 | 33.10 | 54.23 | 54.03 | 86.22 | 9.38 |
| 5.080 | 200 | 10.00 | 13.33 | 26.05 | 44.45 | 12.86 | 16.01 | 5.32 | 5.71 | 19.75 | 26.94 | 44.26 | 72.44 | 72.28 | 115.19 | 12.57 |
| 6.350 | 250 | 12.50 | 16.67 | 32.61 | 55.61 | 16.11 | 20.05 | 6.66 | 7.19 | 24.70 | 33.73 | 55.45 | 90.62 | 90.48 | 144.16 | 15.75 |
| 7.620 | 300 | 15.00 | 20.00 | 39.17 | 66.73 | 19.39 | 24.08 | 8.01 | 8.63 | 29.69 | 40.52 | 66.60 | 108.82 | 108.73 | 173.13 | 18.96 |
| 8.890 | 350 | 17.50 | 23.33 | 45.70 | 77.89 | 22.64 | 28.12 | 9.38 | 10.07 | 34.68 | 47.28 | 77.75 | 127.03 | 126.97 | 202.10 | 22.15 |
| 10.160 | 400 | 20.00 | 26.67 | 52.26 | 89.04 | 25.89 | 32.15 | 10.73 | 11.55 | 39.66 | 54.07 | 88.91 | 145.24 | 145.21 | 231.07 | 25.33 |

| Lens type | | | Standard zoom lens/ET-ELS20 | | ET-ELW22 | ET-ELU20 | ET-ELW21 (Fixed) | |
|---------------------------|--------|-------------|----------------------------------|---------------|----------|----------|------------------|-------|
| Projection lens Model No. | | | ET-ELW20 ET-ELT22 ET-ELT23 | | | | | |
| Throw ratio ¹ | | | | | | | | |
| Projected image size | | | Height position (H) ² | | | | | |
| Diagonal (SD) | | Height (SH) | Width (SW) | | | | | |
| m | inches | | | | | | | |
| 1.016 | 40 | 2.00 | 2.67 | -0.33 - 2.33 | | | | 0.98 |
| 1.270 | 50 | 2.50 | 3.33 | -0.43 - 2.92 | | | | 1.25 |
| 1.524 | 60 | 3.00 | 4.00 | -0.52 - 3.51 | | | | 1.51 |
| 1.778 | 70 | 3.50 | 4.67 | -0.59 - 4.10 | | | | 1.74 |
| 2.032 | 80 | 4.00 | 5.33 | -0.69 - 4.69 | | | | 2.00 |
| 2.286 | 90 | 4.50 | 6.00 | -0.75 - 5.25 | | | | 2.26 |
| 2.540 | 100 | 5.00 | 6.67 | -0.85 - 5.84 | | | | 2.49 |
| 3.048 | 120 | 6.00 | 8.00 | -1.02 - 7.02 | | | | 2.99 |
| 3.810 | 150 | 7.50 | 10.00 | -1.28 - 8.76 | | | | 3.74 |
| 5.080 | 200 | 10.00 | 13.33 | -1.71 - 11.71 | | | | 4.99 |
| 6.350 | 250 | 12.50 | 16.67 | -2.13 - 14.63 | | | | 6.27 |
| 7.620 | 300 | 15.00 | 20.00 | -2.56 - 17.55 | | | | 7.51 |
| 8.890 | 350 | 17.50 | 23.33 | -2.99 - 20.47 | | | | 8.76 |
| 10.160 | 400 | 20.00 | 26.67 | -3.41 - 23.39 | | | | 10.01 |

1 The throw ratio is based on the value during projection of 2.03 m [80 in] projected image size. However, the throw ratio for ET-ELU20 is based on the value during projection of 3.81 m [150 in] projected image size.

2 When the Fixed-focus Lens (Model No.: ET-ELW21) is attached, the lens shift is not possible, therefore the height position (H) becomes SH/2.

Screen aspect ratio 21:9

Unit: meters

| Lens type | | | Zoom Lens | | | | | | | | | | | | | Fixed-focus Lens |
|---------------------------|--------|-------------|-----------------------------|---------------|-----------|---------------|-----------|-------------|-----------|-------------|-----------|-------------|-----------|-----------|-----------|------------------|
| Projection lens Model No. | | | Standard zoom lens/ET-ELS20 | ET-ELW22 | | ET-ELU20 | | ET-ELW20 | | ET-ELT22 | | ET-ELT23 | | ET-ELW21 | | |
| Throw ratio ¹ | | | 1.61-2.76:1 | 0.788-0.985:1 | | 0.330-0.354:1 | | 1.22-1.67:1 | | 2.73-4.49:1 | | 4.45-7.13:1 | | 0.767:1 | | |
| Projected image size | | | Projection distance (L) | | | | | | | | | | | | | |
| Diagonal (SD) | | Height (SH) | Width (SW) | Min. (LW) | Max. (LT) | Min. (LW) | Max. (LT) | Min. (LW) | Max. (LT) | Min. (LW) | Max. (LT) | Min. (LW) | Max. (LT) | Min. (LW) | Max. (LT) | Fixed |
| m | inches | | | | | | | | | | | | | | | |
| 1.016 | 40 | 0.395 | 0.936 | 1.48 | 2.56 | - | - | - | - | 1.11 | 1.53 | 2.50 | 4.15 | 4.06 | 6.57 | 0.69 |
| 1.270 | 50 | 0.494 | 1.170 | 1.86 | 3.21 | - | - | - | - | 1.40 | 1.93 | 3.15 | 5.21 | 5.12 | 8.26 | 0.88 |
| 1.524 | 60 | 0.592 | 1.404 | 2.25 | 3.87 | 1.09 | 1.37 | - | - | 1.69 | 2.33 | 3.80 | 6.28 | 6.19 | 9.96 | 1.06 |
| 1.778 | 70 | 0.691 | 1.638 | 2.63 | 4.52 | 1.29 | 1.61 | - | - | 1.98 | 2.72 | 4.46 | 7.34 | 7.26 | 11.65 | 1.25 |
| 2.032 | 80 | 0.790 | 1.872 | 3.01 | 5.17 | 1.48 | 1.84 | - | - | 2.28 | 3.12 | 5.11 | 8.41 | 8.32 | 13.35 | 1.44 |
| 2.286 | 90 | 0.889 | 2.106 | 3.40 | 5.82 | 1.67 | 2.08 | - | - | 2.57 | 3.52 | 5.76 | 9.47 | 9.39 | 15.04 | 1.62 |
| 2.540 | 100 | 0.987 | 2.340 | 3.78 | 6.48 | 1.86 | 2.32 | 0.76 | 0.82 | 2.86 | 3.91 | 6.42 | 10.54 | 10.46 | 16.74 | 1.81 |
| 3.048 | 120 | 1.185 | 2.808 | 4.55 | 7.78 | 2.24 | 2.79 | 0.92 | 0.99 | 3.44 | 4.71 | 7.72 | 12.66 | 12.59 | 20.13 | 2.18 |
| 3.810 | 150 | 1.481 | 3.510 | 5.70 | 9.74 | 2.81 | 3.50 | 1.16 | 1.24 | 4.31 | 5.90 | 9.68 | 15.86 | 15.79 | 25.21 | 2.74 |
| 5.080 | 200 | 1.975 | 4.681 | 7.62 | 13.00 | 3.76 | 4.68 | 1.55 | 1.67 | 5.77 | 7.88 | 12.95 | 21.18 | 21.13 | 33.69 | 3.68 |
| 6.350 | 250 | 2.468 | 5.851 | 9.53 | 16.26 | 4.71 | 5.86 | 1.95 | 2.10 | 7.23 | 9.86 | 16.21 | 26.51 | 26.47 | 42.16 | 4.61 |
| 7.620 | 300 | 2.962 | 7.021 | 11.45 | 19.52 | 5.67 | 7.04 | 2.35 | 2.52 | 8.69 | 11.85 | 19.48 | 31.83 | 31.80 | 50.64 | 5.54 |
| 8.890 | 350 | 3.456 | 8.191 | 13.37 | 22.79 | 6.62 | 8.22 | 2.74 | 2.95 | 10.14 | 13.83 | 22.74 | 37.16 | 37.14 | 59.11 | 6.47 |
| 10.160 | 400 | 3.949 | 9.361 | 15.29 | 26.05 | 7.57 | 9.40 | 3.14 | 3.37 | 11.60 | 15.81 | 26.01 | 42.48 | 42.47 | 67.59 | 7.41 |

| Lens type | | | Standard zoom lens/ET-ELS20 | | ET-ELW22 | ET-ELU20 | ET-ELW21 (Fixed) | |
|---------------------------|--------|-------------|----------------------------------|--------------|----------|----------|------------------|------|
| Projection lens Model No. | | | ET-ELW20 ET-ELT22 ET-ELT23 | | | | | |
| Throw ratio ¹ | | | | | | | | |
| Projected image size | | | Height position (H) ² | | | | | |
| Diagonal (SD) | | Height (SH) | Width (SW) | | | | | |
| m | inches | | | | | | | |
| 1.016 | 40 | 0.395 | 0.936 | -0.19 - 0.59 | | | | 0.20 |
| 1.270 | 50 | 0.494 | 1.170 | -0.24 - 0.74 | | | | 0.25 |
| 1.524 | 60 | 0.592 | 1.404 | -0.29 - 0.88 | | | | 0.30 |
| 1.778 | 70 | 0.691 | 1.638 | -0.34 - 1.03 | | | | 0.35 |
| 2.032 | 80 | 0.790 | 1.872 | -0.39 - 1.18 | | | | 0.39 |
| 2.286 | 90 | 0.889 | 2.106 | -0.44 - 1.33 | | | | 0.44 |
| 2.540 | 100 | 0.987 | 2.340 | -0.49 - 1.47 | | | | 0.49 |
| 3.048 | 120 | 1.185 | 2.808 | -0.58 - 1.77 | | | | 0.59 |
| 3.810 | 150 | 1.481 | 3.510 | -0.73 - 2.21 | | | | 0.74 |
| 5.080 | 200 | 1.975 | 4.681 | -0.97 - 2.95 | | | | 0.99 |
| 6.350 | 250 | 2.468 | 5.851 | -1.22 - 3.68 | | | | 1.23 |
| 7.620 | 300 | 2.962 | 7.021 | -1.46 - 4.42 | | | | 1.48 |
| 8.890 | 350 | 3.456 | 8.191 | -1.70 - 5.16 | | | | 1.73 |
| 10.160 | 400 | 3.949 | 9.361 | -1.95 - 5.89 | | | | 1.97 |

1 The throw ratio is based on the value during projection of 2.03 m [80 in] projected image size. However, the throw ratio for ET-ELU20 is based on the value during projection of 3.81 m [150 in] projected image size.

2 When the Fixed-focus Lens (Model No.: ET-ELW21) is attached, the lens shift is not possible, therefore the height position (H) becomes SH/2.

Screen aspect ratio 21:9

Unit: feet

| Lens type | | | | Zoom Lens | | | | | | | | | | | | Fixed-focus Lens |
|---------------------------|--------|-------------|------------|-----------------------------|-----------|---------------|-----------|---------------|-----------|-------------|-----------|-------------|-----------|-------------|-----------|------------------|
| Projection lens Model No. | | | | Standard zoom lens/ET-ELS20 | | ET-ELW22 | | ET-ELU20 | | ET-ELW20 | | ET-ELT22 | | ET-ELT23 | | ET-ELW21 |
| Throw ratio ¹ | | | | 1.61-2.76:1 | | 0.788-0.985:1 | | 0.330-0.354:1 | | 1.22-1.67:1 | | 2.73-4.49:1 | | 4.45-7.13:1 | | 0.767:1 |
| Projected image size | | | | Projection distance (L) | | | | | | | | | | | | |
| Diagonal (SD) | | Height (SH) | Width (SW) | Min. (LW) | Max. (LT) | Min. (LW) | Max. (LT) | Min. (LW) | Max. (LT) | Min. (LW) | Max. (LT) | Min. (LW) | Max. (LT) | Min. (LW) | Max. (LT) | Fixed |
| m | inches | | | | | | | | | | | | | | | |
| 1.016 | 40 | 1.30 | 3.07 | 4.86 | 8.40 | - | - | - | - | 3.64 | 5.02 | 8.20 | 13.62 | 13.32 | 21.56 | 2.26 |
| 1.270 | 50 | 1.62 | 3.84 | 6.10 | 10.53 | - | - | - | - | 4.59 | 6.33 | 10.34 | 17.09 | 16.80 | 27.10 | 2.89 |
| 1.524 | 60 | 1.94 | 4.61 | 7.38 | 12.70 | 3.58 | 4.50 | - | - | 5.55 | 7.64 | 12.47 | 20.60 | 20.31 | 32.68 | 3.48 |
| 1.778 | 70 | 2.27 | 5.37 | 8.63 | 14.83 | 4.23 | 5.28 | - | - | 6.50 | 8.92 | 14.63 | 24.08 | 23.82 | 38.22 | 4.10 |
| 2.032 | 80 | 2.59 | 6.14 | 9.88 | 16.96 | 4.86 | 6.04 | - | - | 7.48 | 10.24 | 16.77 | 27.59 | 27.30 | 43.80 | 4.72 |
| 2.286 | 90 | 2.92 | 6.91 | 11.16 | 19.09 | 5.48 | 6.82 | - | - | 8.43 | 11.55 | 18.90 | 31.07 | 30.81 | 49.34 | 5.32 |
| 2.540 | 100 | 3.24 | 7.68 | 12.40 | 21.26 | 6.10 | 7.61 | 2.49 | 2.69 | 9.38 | 12.83 | 21.06 | 34.58 | 34.32 | 54.92 | 5.94 |
| 3.048 | 120 | 3.89 | 9.21 | 14.93 | 25.53 | 7.35 | 9.15 | 3.02 | 3.25 | 11.29 | 15.45 | 25.33 | 41.54 | 41.31 | 66.04 | 7.15 |
| 3.810 | 150 | 4.86 | 11.52 | 18.70 | 31.96 | 9.22 | 11.48 | 3.81 | 4.07 | 14.14 | 19.36 | 31.76 | 52.03 | 51.80 | 82.71 | 8.99 |
| 5.080 | 200 | 6.48 | 15.36 | 25.00 | 42.65 | 12.34 | 15.35 | 5.09 | 5.48 | 18.93 | 25.85 | 42.49 | 69.49 | 69.32 | 110.53 | 12.07 |
| 6.350 | 250 | 8.10 | 19.20 | 31.27 | 53.35 | 15.45 | 19.23 | 6.40 | 6.89 | 23.72 | 32.35 | 53.18 | 86.98 | 86.84 | 138.32 | 15.13 |
| 7.620 | 300 | 9.72 | 23.04 | 37.57 | 64.04 | 18.60 | 23.10 | 7.71 | 8.27 | 28.51 | 38.88 | 63.91 | 104.43 | 104.33 | 166.14 | 18.18 |
| 8.890 | 350 | 11.34 | 26.87 | 43.87 | 74.77 | 21.72 | 26.97 | 8.99 | 9.68 | 33.27 | 45.37 | 74.61 | 121.92 | 121.85 | 193.93 | 21.23 |
| 10.160 | 400 | 12.96 | 30.71 | 50.16 | 85.47 | 24.84 | 30.84 | 10.30 | 11.06 | 38.06 | 51.87 | 85.34 | 139.37 | 139.34 | 221.75 | 24.31 |

| Lens type | | | | Standard zoom lens/ET-ELS20 | | ET-ELW22 | ET-ELU20 | ET-ELW21 (Fixed) |
|---------------------------|--------|-------------|------------|----------------------------------|--|---------------|---------------|------------------|
| Projection lens Model No. | | | | ET-ELW20 ET-ELT22 ET-ELT23 | | | | |
| Throw ratio ¹ | | | | | | | | |
| Projected image size | | | | Height position (H) ² | | | | |
| Diagonal (SD) | | Height (SH) | Width (SW) | | | | | |
| m | inches | | | | | | | |
| 1.016 | 40 | 1.30 | 3.07 | -0.62 - 1.94 | | - | - | 0.66 |
| 1.270 | 50 | 1.62 | 3.84 | -0.79 - 2.43 | | - | - | 0.82 |
| 1.524 | 60 | 1.94 | 4.61 | -0.95 - 2.89 | | -0.76 - 2.69 | - | 0.98 |
| 1.778 | 70 | 2.27 | 5.37 | -1.12 - 3.38 | | -0.89 - 3.15 | - | 1.15 |
| 2.032 | 80 | 2.59 | 6.14 | -1.28 - 3.87 | | -1.02 - 3.61 | - | 1.28 |
| 2.286 | 90 | 2.92 | 6.91 | -1.44 - 4.36 | | -1.15 - 4.04 | - | 1.44 |
| 2.540 | 100 | 3.24 | 7.68 | -1.61 - 4.82 | | -1.25 - 4.50 | -0.79 - 4.00 | 1.61 |
| 3.048 | 120 | 3.89 | 9.21 | -1.90 - 5.81 | | -1.51 - 5.41 | -0.95 - 4.82 | 1.94 |
| 3.810 | 150 | 4.86 | 11.52 | -2.40 - 7.25 | | -1.90 - 6.76 | -1.18 - 6.04 | 2.43 |
| 5.080 | 200 | 6.48 | 15.36 | -3.18 - 9.68 | | -2.53 - 8.99 | -1.58 - 8.04 | 3.25 |
| 6.350 | 250 | 8.10 | 19.20 | -4.00 - 12.07 | | -3.15 - 11.25 | -1.94 - 10.04 | 4.04 |
| 7.620 | 300 | 9.72 | 23.04 | -4.79 - 14.50 | | -3.77 - 13.48 | -2.33 - 12.04 | 4.86 |
| 8.890 | 350 | 11.34 | 26.87 | -5.58 - 16.93 | | -4.40 - 15.75 | -2.72 - 14.08 | 5.68 |
| 10.160 | 400 | 12.96 | 30.71 | -6.40 - 19.32 | | -5.05 - 17.98 | -3.12 - 16.08 | 6.46 |

1 The throw ratio is based on the value during projection of 2.03 m [80 in] projected image size. However, the throw ratio for ET-ELU20 is based on the value during projection of 3.81 m [150 in] projected image size.

2 When the Fixed-focus Lens (Model No.: ET-ELW21) is attached, the lens shift is not possible, therefore the height position (H) becomes SH/2.

Formula for calculating the projection distance per projection lens

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 projection distance. All the units for the formula are m. (Value obtained by the following calculation formula contains a slight error.)

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

Zoom lens

Unit: m

| Projection lens Model No. | Throw ratio | Aspect ratio | Projection distance (L) formula | |
|---------------------------------|-----------------|--------------|---------------------------------|----------------------------|
| | | | Min. (LW) | Max. (LT) |
| Standard zoom lens/ ET-ELS20 | 1.61 - 2.76:1 | 16:10 | = 1.389961 x SD - 0.054882 | = 2.363976 x SD - 0.048228 |
| | 1.61 - 2.76:1 | 16:9 | = 1.428602 x SD - 0.054882 | = 2.429695 x SD - 0.048228 |
| | 1.93 - 3.32:1 | 4:3 | = 1.573583 x SD - 0.054882 | = 2.676260 x SD - 0.048228 |
| | 1.61 - 2.76:1 | 21:9 | = 1.510215 x SD - 0.054882 | = 2.568499 x SD - 0.048228 |
| ET-ELW22 | 0.786 - 0.983:1 | 16:10 | = 0.690394 x SD - 0.048460 | = 0.855787 x SD - 0.045477 |
| | 0.787 - 0.984:1 | 16:9 | = 0.709587 x SD - 0.048460 | = 0.879578 x SD - 0.045477 |
| | 0.947 - 1.18:1 | 4:3 | = 0.781595 x SD - 0.048460 | = 0.968837 x SD - 0.045477 |
| | 0.788 - 0.985:1 | 21:9 | = 0.750124 x SD - 0.048460 | = 0.929827 x SD - 0.045477 |
| ET-ELU20 | 0.330 - 0.353:1 | 16:10 | = 0.286831 x SD - 0.029388 | = 0.308835 x SD - 0.034616 |
| | 0.330 - 0.353:1 | 16:9 | = 0.294806 x SD - 0.029388 | = 0.317421 x SD - 0.034616 |
| | 0.397 - 0.425:1 | 4:3 | = 0.324715 x SD - 0.029388 | = 0.349625 x SD - 0.034616 |
| | 0.330 - 0.354:1 | 21:9 | = 0.311646 x SD - 0.029388 | = 0.335554 x SD - 0.034616 |
| ET-ELW20 | 1.21 - 1.66:1 | 16:10 | = 1.055748 x SD - 0.055497 | = 1.437441 x SD - 0.053400 |
| | 1.21 - 1.66:1 | 16:9 | = 1.085098 x SD - 0.055497 | = 1.477402 x SD - 0.053400 |
| | 1.46 - 2.00:1 | 4:3 | = 1.195197 x SD - 0.055497 | = 1.627323 x SD - 0.053400 |
| | 1.22 - 1.67:1 | 21:9 | = 1.147088 x SD - 0.055497 | = 1.561803 x SD - 0.053400 |
| ET-ELT22 | 2.72 - 4.48:1 | 16:10 | = 2.366220 x SD - 0.114022 | = 3.858307 x SD - 0.112874 |
| | 2.73 - 4.49:1 | 16:9 | = 2.432001 x SD - 0.114022 | = 3.965568 x SD - 0.112874 |
| | 3.28 - 5.39:1 | 4:3 | = 2.678780 x SD - 0.114022 | = 4.367992 x SD - 0.112874 |
| | 2.73 - 4.49:1 | 21:9 | = 2.570938 x SD - 0.114022 | = 4.192114 x SD - 0.112874 |
| ET-ELT23 | 4.44 - 7.12:1 | 16:10 | = 3.866693 x SD - 0.212284 | = 6.141575 x SD - 0.210772 |
| | 4.44 - 7.12:1 | 16:9 | = 3.974187 x SD - 0.212284 | = 6.312311 x SD - 0.210772 |
| | 5.34 - 8.56:1 | 4:3 | = 4.377480 x SD - 0.212284 | = 6.952874 x SD - 0.210772 |
| | 4.45 - 7.13:1 | 21:9 | = 4.201226 x SD - 0.212284 | = 6.672922 x SD - 0.210772 |

Fixed-focus Lens (Model No.: ET-ELW21)

Unit: m

| Projection lens Model No. | Throw ratio | Aspect ratio | Projection distance (L) formula |
|---------------------------|-------------|--------------|---------------------------------|
| ET-ELW21 | 0.764:1 | 16:10 | = 0.676299 x SD - 0.057678 |
| | 0.765:1 | 16:9 | = 0.695100 x SD - 0.057678 |
| | 0.922:1 | 4:3 | = 0.765630 x SD - 0.057678 |
| | 0.767:1 | 21:9 | = 0.734810 x SD - 0.057678 |

Adjustment range by the lens position shift (optical shift)

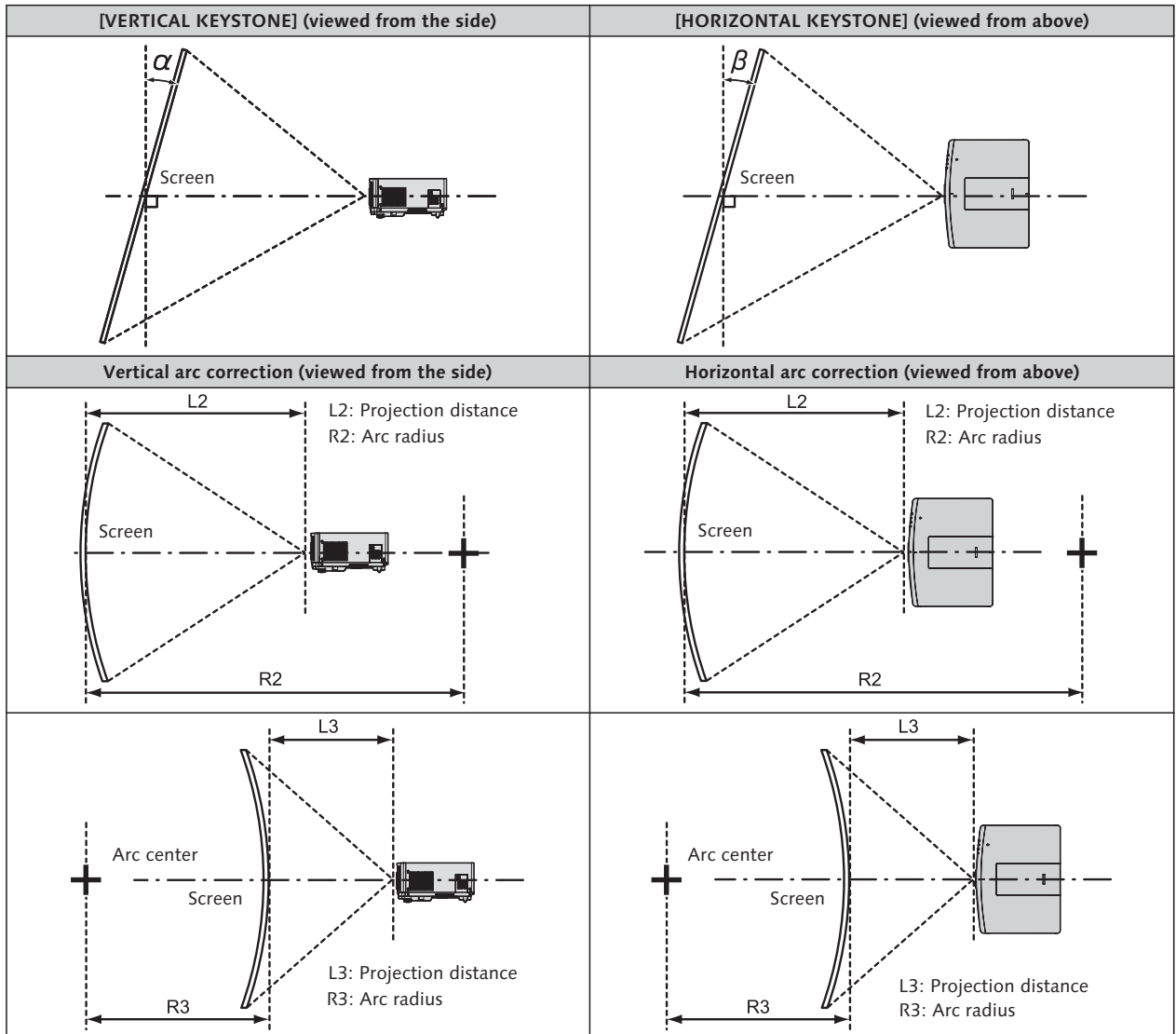
Based on the standard projection position using the optical axis shift function, the projection position can be adjusted in the range shown in the following figure.

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

*Use the projection lens in the standard projection position without adjusting the lens shift when the optional fixed focus lens (ET-ELW21) is attached.

| Projection lens Model No. | When Standard zoom lens/ET-ELS20, ET-ELW20, ET-ELT22, ET-ELT23 is mounted. | When ET-ELW22 is mounted. |
|---------------------------|--|--|
| Lens shift range | <p>Projected image width H</p> <p>0.35 H</p> <p>0.35 H</p> <p>0.67 V</p> <p>0.67 V</p> <p>Projected image height V</p> <p>Standard projection position</p> | <p>Projected image width H</p> <p>0.30 H</p> <p>0.30 H</p> <p>0.60 V</p> <p>0.60 V</p> <p>Projected image height V</p> <p>Standard projection position</p> |
| Lens shift range | <p>Projected image width H</p> <p>0.24 H</p> <p>0.24 H</p> <p>0.50 V</p> <p>0.50 V</p> <p>Projected image height V</p> <p>Standard projection position</p> | |

[GEOMETRY] projection range



| Projection lens Model No. | 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 |
| Standard zoom lens/ET-ELS20 | ±25 | ±30 | ±20 | ±15 | 0.9 | 1.8 | 0.5 | 1.0 |
| ET-ELW22 | ±22 | ±15 | ±8 | ±8 | 1.7 | 4.3 | 1.0 | 2.6 |
| ET-ELU20 | ±5 | 0 | - | - | - | - | - | - |
| ET-ELW20 | ±25 | ±30 | ±20 | ±15 | 1.2 | 3.1 | 0.7 | 1.8 |
| ET-ELT22 | ±25 | ±30 | ±20 | ±15 | 0.6 | 1.1 | 0.3 | 0.6 |
| ET-ELT23 | ±25 | ±30 | ±20 | ±15 | 0.4 | 0.7 | 0.2 | 0.4 |
| ET-ELW21 | ±22 | ±15 | ±8 | ±8 | 1.7 | 4.3 | 1.0 | 2.6 |

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

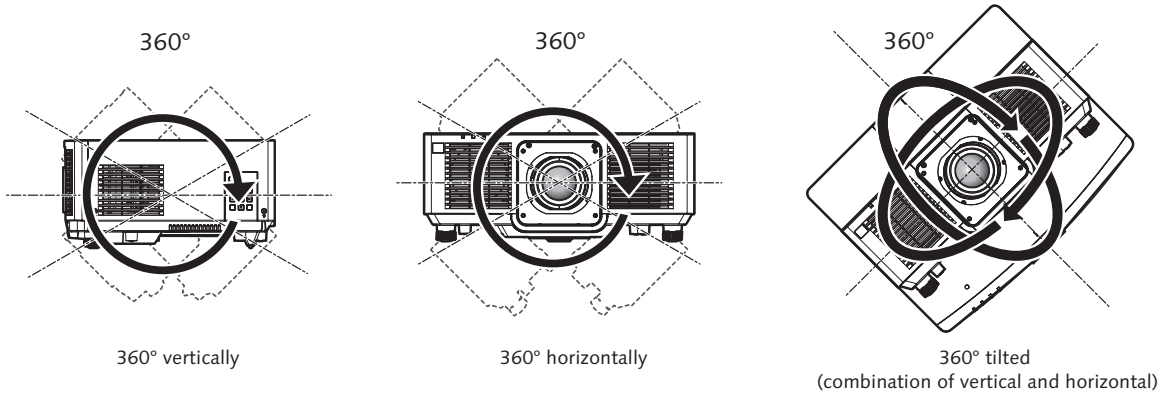
Note

- 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.

Installable angle

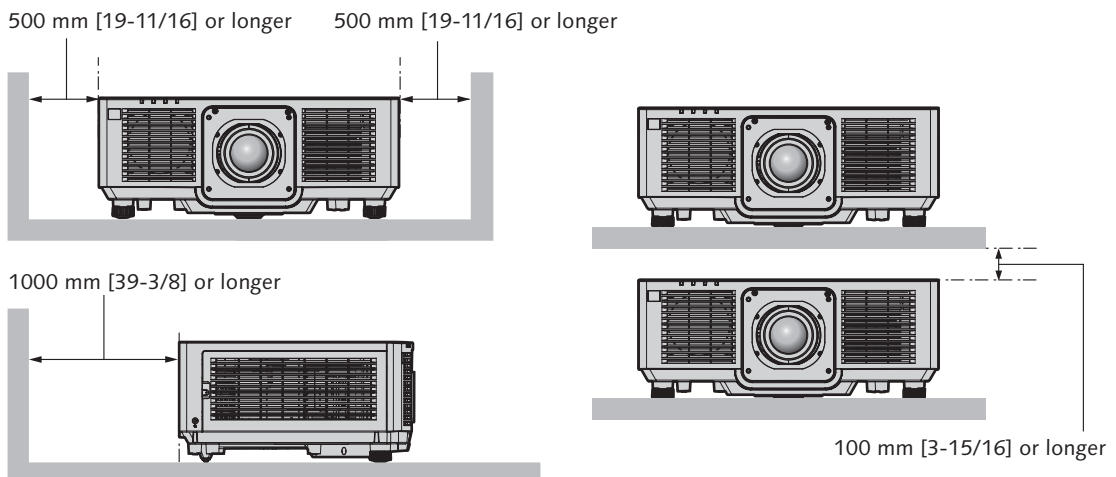
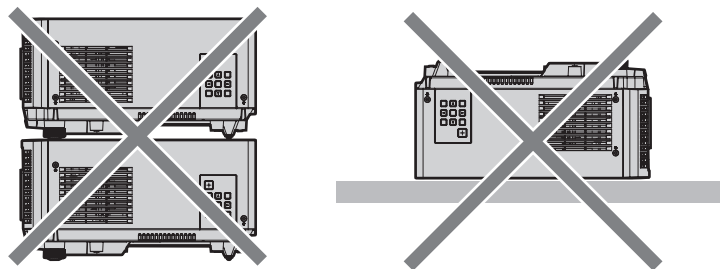
Install the projector at an angle within the range shown below.

FULL 360-degree projection



Notes on projector placement and operation

1. Never place objects on top of the projector while it is operating.
2. Make sure there is the unobstructed space as shown below or more around the projector's exhaust openings. In addition to this space, also ensure that there is a sufficient work space for removing and installing filter and other parts.
3. Make sure that nothing blocks the projector's air intake and exhaust openings. Also, install the projector so that cool or hot air from other air conditioning equipment does not flow directly toward the projector's air intake or exhaust openings.
4. Do not install the projector in an enclosed space. If it is necessary to install it in an enclosed space, add a separate ventilation system. If ventilation is insufficient, hot air will accumulate at the intake opening. This may cause the projector's protective circuit to interrupt projector operation.



List of compatible signals

The following table specifies the video signals compatible with the projector.

This projector supports the signal with ✓ in the compatible signal column.

- The content of the compatible signal column is as follows.

-V: Video signal

-C: Computer signal

| Signal Type | Signal name (SIGNAL FORMAT) | Resolution (Dots) | Scanning freq. | | Dot clock freq. (MHz) | Compatible signal | | |
|------------------|-----------------------------|-------------------|-------------------|-------------------|-----------------------|-------------------|----------------|----------------|
| | | | Horizontal (kHz) | Vertical (Hz) | | COMPUTER | HDMI™ | DIGITAL LINK |
| V | 480/60p | 720 x 480 | 31.5 | 59.9 | 27.0 | ✓ | ✓ | ✓ |
| | 576/50p | 720 x 576 | 31.3 | 50.0 | 27.0 | ✓ | ✓ | ✓ |
| | 720/60p | 1280 x 720 | 45.0 | 60.0 ² | 74.3 | ✓ | ✓ | ✓ |
| | 720/50p | 1280 x 720 | 37.5 | 50.0 | 74.3 | ✓ | ✓ | ✓ |
| | 1080/60i | 1920 x 1080i | 33.8 | 60.0 ² | 74.3 | ✓ | ✓ | ✓ |
| | 1080/50i | 1920 x 1080i | 28.1 | 50.0 | 74.3 | ✓ | ✓ | ✓ |
| | 1080/24p | 1920 x 1080 | 27.0 | 24.0 ² | 74.3 | ✓ | ✓ | ✓ |
| | 1080/24sF | 1920 x 1080i | 27.0 | 48.0 ² | 74.3 | ✓ | ✓ | ✓ |
| | 1080/25p | 1920 x 1080 | 28.1 | 25.0 | 74.3 | ✓ | ✓ | ✓ |
| | 1080/30p | 1920 x 1080 | 33.8 | 30.0 ² | 74.3 | ✓ | ✓ | ✓ |
| | 1080/60p | 1920 x 1080 | 67.5 | 60.0 ² | 148.5 | ✓ | ✓ | ✓ |
| | 1080/50p | 1920 x 1080 | 56.3 | 50.0 | 148.5 | ✓ | ✓ | ✓ |
| | 3840 x 2160/24p | 3840 x 2160 | 54.0 | 24.0 ² | 297.0 | – | ✓ | ✓ |
| | 3840 x 2160/25p | 3840 x 2160 | 56.3 | 25.0 | 297.0 | – | ✓ | ✓ |
| | 3840 x 2160/30p | 3840 x 2160 | 67.5 | 30.0 ² | 297.0 | – | ✓ | ✓ |
| | 3840 x 2160/60p | 3840 x 2160 | 135.0 | 60.0 ² | 297.0 | – | ✓ ³ | ✓ ³ |
| | | 3840 x 2160 | 135.0 | 60.0 ² | 594.0 | – | ✓ | – |
| | 3840 x 2160/50p | 3840 x 2160 | 112.5 | 50.0 | 297.0 | – | ✓ ³ | ✓ ³ |
| | | 3840 x 2160 | 112.5 | 50.0 | 594.0 | – | ✓ | – |
| | 4096 x 2160/24p | 4096 x 2160 | 54.0 | 24.0 ² | 297.0 | – | ✓ | ✓ |
| 4096 x 2160/25p | 4096 x 2160 | 56.3 | 25.0 | 297.0 | – | ✓ | ✓ | |
| 4096 x 2160/30p | 4096 x 2160 | 67.5 | 30.0 ² | 297.0 | – | ✓ | ✓ | |
| 4096 x 2160/60p | 4096 x 2160 | 135.0 | 60.0 ² | 297.0 | – | ✓ ³ | ✓ ³ | |
| | 4096 x 2160 | 135.0 | 60.0 ² | 594.0 | – | ✓ | – | |
| 4096 x 2160/50p | 4096 x 2160 | 112.5 | 50.0 | 297.0 | – | ✓ ³ | ✓ ³ | |
| | 4096 x 2160 | 112.5 | 50.0 | 594.0 | – | ✓ | – | |
| C | 640 x 480/60 | 640 x 480 | 31.5 | 59.9 | 25.2 | ✓ | ✓ | ✓ |
| | 1024 x 768/50 | 1024 x 768 | 39.6 | 50.0 | 51.9 | ✓ | ✓ | ✓ |
| | 1024 x 768/60 | 1024 x 768 | 48.4 | 60.0 | 65.0 | ✓ | ✓ | ✓ |
| | 1280 x 800/50 | 1280 x 800 | 41.3 | 50.0 | 68.0 | ✓ | ✓ | ✓ |
| | 1280 x 800/60 | 1280 x 800 | 49.7 | 59.8 | 83.5 | ✓ | ✓ | ✓ |
| | 1280 x 1024/50 | 1280 x 1024 | 52.4 | 50.0 | 88.0 | ✓ | ✓ | ✓ |
| | 1280 x 1024/60 | 1280 x 1024 | 64.0 | 60.0 | 108.0 | ✓ | ✓ | ✓ |
| | 1366 x 768/50 | 1366 x 768 | 39.6 | 49.9 | 69.0 | ✓ | ✓ | ✓ |
| | 1366 x 768/60 | 1366 x 768 | 47.7 | 59.8 | 85.5 | ✓ | ✓ | ✓ |
| | 1400 x 1050/50 | 1400 x 1050 | 54.1 | 50.0 | 99.9 | ✓ | ✓ | ✓ |
| | 1400 x 1050/60 | 1400 x 1050 | 65.2 | 60.0 | 122.6 | ✓ | ✓ | ✓ |
| | 1440 x 900/50 | 1440 x 900 | 46.3 | 49.9 | 86.8 | ✓ | ✓ | ✓ |
| | 1440 x 900/60 | 1440 x 900 | 55.9 | 59.9 | 106.5 | ✓ | ✓ | ✓ |
| | 1600 x 900/50 | 1600 x 900 | 46.4 | 49.9 | 96.5 | ✓ | ✓ | ✓ |
| | 1600 x 900/60 | 1600 x 900 | 55.9 | 60.0 | 119.0 | ✓ | ✓ | ✓ |
| | 1600 x 1200/50 | 1600 x 1200 | 61.8 | 49.9 | 131.5 | ✓ | ✓ | ✓ |
| | 1600 x 1200/60 | 1600 x 1200 | 75.0 | 60.0 | 162.0 | ✓ | ✓ | ✓ |
| | 1680 x 1050/50 | 1680 x 1050 | 54.1 | 50.0 | 119.5 | ✓ | ✓ | ✓ |
| | 1680 x 1050/60 | 1680 x 1050 | 65.3 | 60.0 | 146.3 | ✓ | ✓ | ✓ |
| | 1920 x 1200/50 | 1920 x 1200 | 61.8 | 49.9 | 158.3 | ✓ | ✓ | ✓ |
| 1920 x 1200/60RB | 1920 x 1200 ¹ | 74.0 | 60.0 | 154.0 | ✓ | ✓ | ✓ | |
| 1920 x 640/60 | 1920 x 640 | 39.4 | 59.8 | 82.0 | – | ✓ | ✓ | |
| 1920 x 720/60 | 1920 x 720 | 46.0 | 60.0 | 95.0 | – | ✓ | ✓ | |
| 1920 x 810/60 | 1920 x 810 | 51.7 | 60.0 | 107.0 | – | ✓ | ✓ | |

1 VESA CVT-RB (Reduced Blanking)-compliant

2 The signal with 1/1.001x vertical scanning frequency is also supported.

3 YPaPr: 4:2:0 format only

Note

- A signal with a different resolution is converted to the number of display dots. The number of display dots is as follows.
- 1920 x 1200
- The "i" at the end of the resolution indicates an interlaced signal.
- When interlaced signals are connected, flickering may occur on the projected image.
- When the DIGITAL LINK connection is made with the long-reach communication method, the signal that the projector can receive is up to 1080/60p (1920 x 1080 dots, dot clock frequency 148.5 MHz).
- Even if it is the signal listed in the list of compatible signals, it may not be displayed by the projector if the video signal is recorded in a special format.

List of Plug and play compatible signals

The following table specifies the video signals compatible with plug and play.

Signal with ✓ in the plug and play compatible signal column is the signal described in the EDID (extended display identification data) of the projector. For the signal without ✓ in the plug and play compatible signal column, the resolution may not be selected on the computer even if the projector is supporting it.

| Signal name (SIGNAL FORMAT) | Resolution (Dots) | Scanning freq. | | Dot clock freq. (MHz) | Plug and play compatible signal | | | | | | |
|--------------------------------|--------------------------|---------------------|-------------------|--------------------------|---------------------------------|----------------|--------|----|----------------|--------|----|
| | | Horizontal (kHz) | Vertical (Hz) | | COMPUTER | HDMI™ | | | DIGITAL LINK | | |
| | | | | | | 4K/60P | 4K/30P | 2K | 4K/60P | 4K/30P | 2K |
| 480/60p | 720 x 480 | 31.5 | 59.9 | 27.0 | – | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 576/50p | 720 x 576 | 31.3 | 50.0 | 27.0 | – | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 720/60p | 1280 x 720 | 45.0 | 60.0 ² | 74.3 | – | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 720/50p | 1280 x 720 | 37.5 | 50.0 | 74.3 | – | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 1080/60i | 1920 x 1080i | 33.8 | 60.0 ² | 74.3 | – | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 1080/50i | 1920 x 1080i | 28.1 | 50.0 | 74.3 | – | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 1080/24p | 1920 x 1080 | 27.0 | 24.0 ² | 74.3 | – | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 1080/24sF | 1920 x 1080i | 27.0 | 48.0 ² | 74.3 | – | – | – | – | – | – | – |
| 1080/25p | 1920 x 1080 | 28.1 | 25.0 | 74.3 | – | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 1080/30p | 1920 x 1080 | 33.8 | 30.0 ² | 74.3 | – | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 1080/60p | 1920 x 1080 | 67.5 | 60.0 ² | 148.5 | – | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 1080/50p | 1920 x 1080 | 56.3 | 50.0 | 148.5 | – | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 3840 x 2160/24p | 3840 x 2160 | 54.0 | 24.0 ² | 297.0 | – | ✓ | ✓ | – | ✓ | ✓ | – |
| 3840 x 2160/25p | 3840 x 2160 | 56.3 | 25.0 | 297.0 | – | ✓ | ✓ | – | ✓ | ✓ | – |
| 3840 x 2160/30p | 3840 x 2160 | 67.5 | 30.0 ² | 297.0 | – | ✓ | ✓ | – | ✓ | ✓ | – |
| 3840 x 2160/60p | 3840 x 2160 | 135.0 | 60.0 ² | 297.0 | – | ✓ ³ | – | – | ✓ ³ | – | – |
| | 3840 x 2160 | 135.0 | 60.0 ² | 594.0 | – | ✓ | – | – | – | – | – |
| 3840 x 2160/50p | 3840 x 2160 | 112.5 | 50.0 | 297.0 | – | ✓ ³ | – | – | ✓ ³ | – | – |
| | 3840 x 2160 | 112.5 | 50.0 | 594.0 | – | ✓ | – | – | – | – | – |
| 4096 x 2160/24p | 4096 x 2160 | 54.0 | 24.0 ² | 297.0 | – | ✓ | ✓ | – | ✓ | ✓ | – |
| 4096 x 2160/25p | 4096 x 2160 | 56.3 | 25.0 | 297.0 | – | ✓ | ✓ | – | ✓ | ✓ | – |
| 4096 x 2160/30p | 4096 x 2160 | 67.5 | 30.0 ² | 297.0 | – | ✓ | ✓ | – | ✓ | ✓ | – |
| 4096 x 2160/60p | 4096 x 2160 | 135.0 | 60.0 ² | 297.0 | – | ✓ ³ | – | – | ✓ ³ | – | – |
| | 4096 x 2160 | 135.0 | 60.0 ² | 594.0 | – | ✓ | – | – | – | – | – |
| 4096 x 2160/50p | 4096 x 2160 | 112.5 | 50.0 | 297.0 | – | ✓ ³ | – | – | ✓ ³ | – | – |
| | 4096 x 2160 | 112.5 | 50.0 | 594.0 | – | ✓ | – | – | – | – | – |
| 640 x 480/60 | 640 x 480 | 31.5 | 59.9 | 25.2 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 1024 x 768/50 | 1024 x 768 | 39.6 | 50.0 | 51.9 | – | – | – | – | – | – | – |
| 1024 x 768/60 | 1024 x 768 | 48.4 | 60.0 | 65.0 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 1280 x 800/50 | 1280 x 800 | 41.3 | 50.0 | 68.0 | – | – | – | – | – | – | – |
| 1280 x 800/60 | 1280 x 800 | 49.7 | 59.8 | 83.5 | – | – | – | – | – | – | – |
| 1280 x 1024/50 | 1280 x 1024 | 52.4 | 50.0 | 88.0 | – | – | – | – | – | – | – |
| 1280 x 1024/60 | 1280 x 1024 | 64.0 | 60.0 | 108.0 | – | – | – | – | – | – | – |
| 1366 x 768/50 | 1366 x 768 | 39.6 | 49.9 | 69.0 | – | – | – | – | – | – | – |
| 1366 x 768/60 | 1366 x 768 | 47.7 | 59.8 | 85.5 | – | – | – | – | – | – | – |
| 1400 x 1050/50 | 1400 x 1050 | 54.1 | 50.0 | 99.9 | – | – | – | – | – | – | – |
| 1400 x 1050/60 | 1400 x 1050 | 65.2 | 60.0 | 122.6 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 1440 x 900/50 | 1440 x 900 | 46.3 | 49.9 | 86.8 | – | – | – | – | – | – | – |
| 1440 x 900/60 | 1440 x 900 | 55.9 | 59.9 | 106.5 | – | – | – | – | – | – | – |
| 1600 x 900/50 | 1600 x 900 | 46.4 | 49.9 | 96.5 | – | – | – | – | – | – | – |
| 1600 x 900/60 | 1600 x 900 | 55.9 | 60.0 | 119.0 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 1600 x 1200/50 | 1600 x 1200 | 61.8 | 49.9 | 131.5 | – | – | – | – | – | – | – |
| 1600 x 1200/60 | 1600 x 1200 | 75.0 | 60.0 | 162.0 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 1680 x 1050/50 | 1680 x 1050 | 54.1 | 50.0 | 119.5 | – | – | – | – | – | – | – |
| 1680 x 1050/60 | 1680 x 1050 | 65.3 | 60.0 | 146.3 | – | – | – | – | – | – | – |
| 1920 x 1200/50 | 1920 x 1200 | 61.8 | 49.9 | 158.3 | – | – | – | – | – | – | – |
| 1920 x 1200/60RB | 1920 x 1200 ¹ | 74.0 | 60.0 | 154.0 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 1920 x 640/60 | 1920 x 640 | 39.4 | 59.8 | 82.0 | – | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 1920 x 720/60 | 1920 x 720 | 46.0 | 60.0 | 95.0 | – | – | – | – | – | – | – |
| 1920 x 810/60 | 1920 x 810 | 51.7 | 60.0 | 107.0 | – | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

1 VESA CVT-RB (Reduced Blanking)-compliant

2 The signal with 1/1.001x vertical scanning frequency is also supported.

3 YP_{Pr} 4:2:0 format only