

Panasonic

ET-D75LE90

Ultra Short Throw Lens



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The photo shows a simulated projection image.

The Lens with the World's Shortest Throw* for 3-Chip DLP™ Projectors



* For detachable lenses for 3-chip DLP™ projectors as of November 2014.



Unique Technology, Only from Panasonic, Enhances Professional Projection Creativity

By mounting the newly developed ET-D75LE90 ultra short throw lens onto Panasonic's 3-chip DLP™ projector,* you can shorten the projection distance by approximately 60% compared with our ET-D75LE50 short throw lens. This huge savings in space lets you effectively use the high brightness and superb picture quality of the 3-chip DLP™ projector in places that were not previously possible.

For example, by mounting the ET-D75LE90 lens onto Panasonic's bright, 20,000-lm-class PT-DZ21K projector, you can project a large, 200-inch diagonal image from a distance** of only about 1.6 m. Screen sizes of up to 600 inches diagonal are supported.

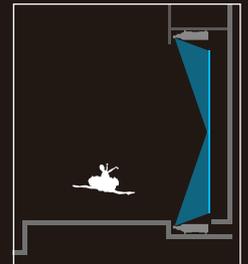
By simply mounting the ET-D75LE90 lens, a remarkably wide variety of spatial applications become possible with easy, short-throw projection.

* See the specifications in this brochure for applicable projectors.
 ** The distance from the tip of the lens to the screen.

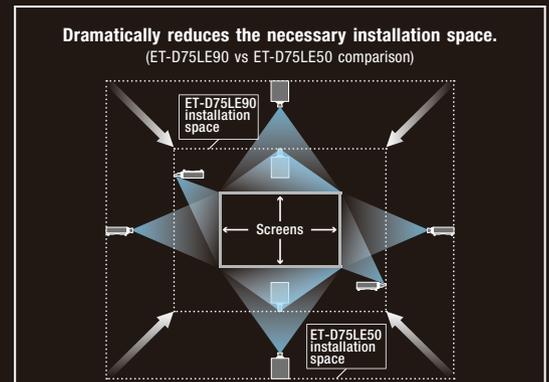
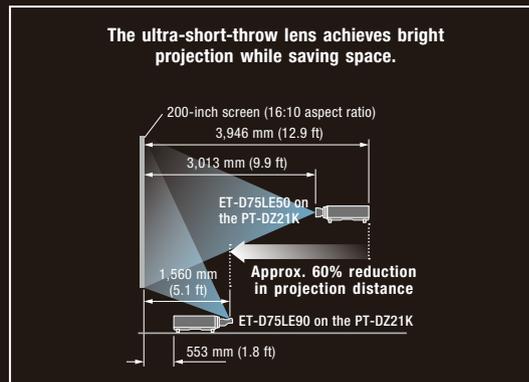


Staging

Large-screen projection from the ceiling or the floor becomes possible for stages that didn't have the necessary projection distance. A 3-chip DLP™ projector and the ET-D75LE90 lens is an ideal combination for art performance staging, in which high picture quality is demanded.



This is an example of multi-screen front projection.



NOTE: Provide an unobstructed space of 500 mm (1 foot 8 inches) or more between the rear panel of the projector and a wall or other obstruction. If installing it in an enclosed space, add a separate air conditioning or ventilation system. If ventilation is insufficient, exhaust heat may accumulate and trip the projector's protective circuit.



The PT-DZ21K with the ET-D75LE90 mounted

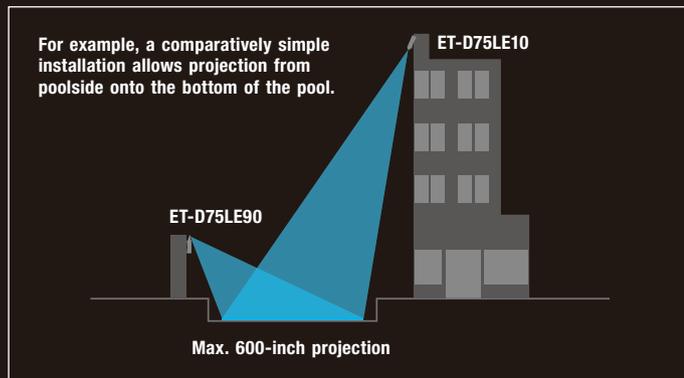


The PT-DZ13K with the ET-D75LE90 mounted

The Ultra-Short-Throw Lens Offers Installation Flexibility

Large Floor Projection

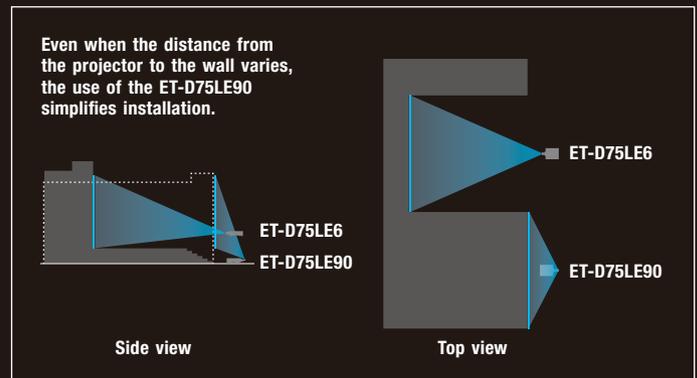
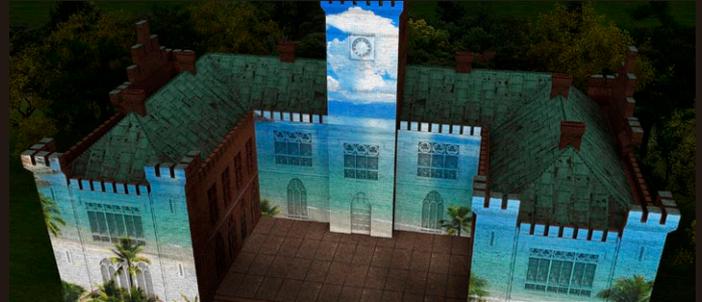
In order to provide a sufficient projection distance to project large images onto the floor, it was previously necessary to carry out extensive installation work, such as mounting the projector on an adjacent building or onto an upper floor. The ET-D75LE90 makes it possible to project an effectively large floor image from a location near the projection plane, so the installation is greatly simplified.



NOTE: There are restrictions to use outdoors or in highly humid areas. Please consult your dealer with regard to installation.

Projection Mapping

When projecting onto structures that bring the projector quite close to the projection wall, a short-throw lens alone may not provide sufficient projection distance. Combining a projector mounted with the ET-D75LE90 lens with a projector mounted with an existing optional lens adds considerable flexibility to the installation.



The ET-D75LE90 Enables a Wide Variety of Applications in Well-Lit Spaces

Amusement

Advanced image content can also be displayed in facilities where there previously wasn't enough space to install a projector, greatly increasing the power of the attraction. Also, combining this with projection from under the floor onto the floor surface, or projection onto the ceiling virtually wraps visitors in the image.



This is an example of front projection from above onto the wall and from side onto the ceiling, and rear projection from below onto the floor surface.

NOTE: Screen compatibility must be considered for rear projection. Consult your dealer when selecting the screen. The installation shown here is provided only to show a sample image. Ask your dealer for details regarding actual installation.

Digital Signage for Subway* Stations

Projection onto a large screen becomes possible even in places where there wasn't previously enough space for front projection. And 20,000-lm-class 3-chip DLP™ projectors can be used, so it is possible to install the system in areas with bright illumination.



This is an example of landscape front projection.

* Depending on the installation conditions, this signage can also be used in stations other than subway stations.

Specifications

| | | |
|------------------------|--|--|
| Applicable projectors: | Group A Group B | PT-DZ21K/DS20K/DW17K/DZ16K PT-DZ13K/DS12K/DW11K/DZ10K |
| Type: | Detachable fixed-focus lens (ultra short throw lens) | |
| Throw ratio: | WXGA/Full-HD | Approx. 0.36:1 |
| | SXGA+ | Approx. 0.39:1 |
| | WXGA | Approx. 0.40:1 |
| F value (focal ratio): | 2.5 | |
| Focal length (f): | 7.5 mm | |

Lens shift: Capable (Adjustment range is limited. Lens shift is possible with models other than the PT-DS20K/DS12K.)

| | Vertical shift | Horizontal shift |
|-------------------------|--|-----------------------|
| PT-DZ21K/DZ13K/DZ10K: | up: 5%; down: 0% | left: 6%; right: 6% |
| PT-DZ16K: | up: 13%; down: 0% | left: 12%; right: 14% |
| PT-DW17K/DW11K: | up: 18%; down: 0% | left: 13%; right: 27% |
| Dimensions (W × H × D): | 154 × 154 × 448.5 mm (6-1/16 × 6-1/16 × 17-21/32 inches) | |
| Weight: | Approx 6.5 kg (14.3 lbs) | |

Projection Distance

PT-DZ21K/DZ13K/DZ10K (16:10 aspect ratio)

unit: meters (feet)

| Diagonal image size | L1 Throw ratio 0.36:1 | L2 | L3 | L4 | | A | | | |
|---------------------|-----------------------------|-------------|-------------|--------------|-------------|-----------|-----------|-------------|-----------|
| | | | | DZ21K | DZ13K/DZ10K | DZ21K | | DZ13K/DZ10K | |
| | | | | Min | Max | Min | Max | Min | Max |
| 3.05 [120"] | 0.94 (3.1) | 0.97 (3.2) | 0.67 (2.2) | -0.06 (-0.2) | 0.13 (0.4) | 0.26-0.34 | (0.8-1.1) | 0.27-0.36 | (0.9-1.2) |
| 3.81 [150"] | 1.18 (3.9) | 1.20 (4.0) | 0.90 (2.9) | 0.17 (0.6) | 0.36 (1.2) | 0.35-0.46 | (1.1-1.5) | 0.36-0.47 | (1.1-1.5) |
| 5.08 [200"] | 1.56 (5.1) | 1.59 (5.2) | 1.28 (4.2) | 0.55 (1.8) | 0.74 (2.4) | 0.50-0.65 | (1.6-2.1) | 0.52-0.66 | (1.6-2.2) |
| 6.35 [250"] | 1.95 (6.4) | 1.97 (6.5) | 1.67 (5.5) | 0.94 (3.1) | 1.13 (3.7) | 0.66-0.84 | (2.2-2.8) | 0.67-0.85 | (2.2-2.8) |
| 7.62 [300"] | 2.33 (7.6) | 2.36 (7.7) | 2.05 (6.7) | 1.32 (4.3) | 1.51 (5.0) | 0.81-1.03 | (2.7-3.4) | 0.83-1.04 | (2.7-3.4) |
| 8.89 [350"] | 2.72 (8.9) | 2.74 (9.0) | 2.44 (8.0) | 1.71 (5.6) | 1.90 (6.2) | 0.97-1.22 | (3.2-4.0) | 0.98-1.23 | (3.2-4.0) |
| 10.16 [400"] | 3.10 (10.2) | 3.13 (10.3) | 2.82 (9.3) | 2.09 (6.9) | 2.28 (7.5) | 1.12-1.41 | (3.7-4.6) | 1.13-1.42 | (3.7-4.7) |
| 12.70 [500"] | 3.87 (12.7) | 3.90 (12.8) | 3.59 (11.8) | 2.86 (9.4) | 3.05 (10.0) | 1.43-1.79 | (4.7-5.9) | 1.44-1.81 | (4.7-5.9) |
| 15.24 [600"] | 4.64 (15.2) | 4.67 (15.3) | 4.36 (14.3) | 3.63 (11.9) | 3.82 (12.5) | 1.74-2.17 | (5.7-7.1) | 1.75-2.19 | (5.7-7.2) |

PT-DS20K/DS12K (4:3 aspect ratio)

unit: meters (feet)

| Diagonal image size | L1 Throw ratio 0.39:1 | L2 | L3 | L4 | | A | | | |
|---------------------|-----------------------------|-------------|-------------|--------------|-------------|-------|-------|-------|-------|
| | | | | DS20K | DS12K | DS20K | | DS12K | |
| | | | | Min | Max | Min | Max | Min | Max |
| 3.05 [120"] | 0.96 (3.2) | 0.99 (3.3) | 0.69 (2.3) | -0.04 (-0.1) | 0.15 (0.5) | 0.26 | (0.9) | 0.28 | (0.9) |
| 3.81 [150"] | 1.20 (3.9) | 1.23 (4.0) | 0.92 (3.0) | 0.19 (0.6) | 0.38 (1.3) | 0.36 | (1.2) | 0.37 | (1.2) |
| 5.08 [200"] | 1.59 (5.2) | 1.62 (5.3) | 1.32 (4.3) | 0.59 (1.9) | 0.78 (2.5) | 0.51 | (1.7) | 0.53 | (1.7) |
| 6.35 [250"] | 1.99 (6.5) | 2.02 (6.6) | 1.71 (5.6) | 0.98 (3.2) | 1.17 (3.8) | 0.67 | (2.2) | 0.69 | (2.2) |
| 7.62 [300"] | 2.38 (7.8) | 2.41 (7.9) | 2.10 (6.9) | 1.37 (4.5) | 1.56 (5.1) | 0.83 | (2.7) | 0.84 | (2.8) |
| 8.89 [350"] | 2.77 (9.1) | 2.80 (9.2) | 2.50 (8.2) | 1.77 (5.8) | 1.96 (6.4) | 0.99 | (3.2) | 1.00 | (3.3) |
| 10.16 [400"] | 3.17 (10.4) | 3.20 (10.5) | 2.89 (9.5) | 2.16 (7.1) | 2.35 (7.7) | 1.14 | (3.7) | 1.16 | (3.8) |
| 12.70 [500"] | 3.95 (13.0) | 3.98 (13.1) | 3.68 (12.1) | 2.95 (9.7) | 3.14 (10.3) | 1.46 | (4.8) | 1.47 | (4.8) |
| 15.24 [600"] | 4.74 (15.5) | 4.77 (15.6) | 4.46 (14.6) | 3.73 (12.2) | 3.92 (12.9) | 1.77 | (5.8) | 1.78 | (5.9) |

PT-DW17K/DW11K (16:9 aspect ratio)

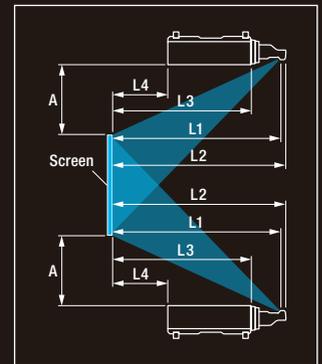
unit: meters (feet)

| Diagonal image size | L1 Throw ratio 0.40:1 | L2 | L3 | L4 | | A | | | |
|---------------------|-----------------------------|-------------|-------------|-------------|-------------|-----------|------------|-----------|------------|
| | | | | DW17K | DW11K | DW17K | | DW11K | |
| | | | | Min | Max | Min | Max | Min | Max |
| 3.05 [120"] | 1.07 (3.5) | 1.10 (3.6) | 0.80 (2.6) | 0.07 (0.2) | 0.26 (0.8) | 0.31-0.58 | (1.0-1.9) | 0.32-0.60 | (1.1-2.0) |
| 3.81 [150"] | 1.34 (4.4) | 1.37 (4.5) | 1.06 (3.5) | 0.33 (1.1) | 0.52 (1.7) | 0.41-0.76 | (1.4-2.5) | 0.43-0.77 | (1.4-2.5) |
| 5.08 [200"] | 1.78 (5.8) | 1.81 (5.9) | 1.50 (4.9) | 0.77 (2.5) | 0.96 (3.1) | 0.59-1.05 | (1.9-3.4) | 0.60-1.06 | (2.0-3.5) |
| 6.35 [250"] | 2.22 (7.3) | 2.24 (7.4) | 1.94 (6.4) | 1.21 (4.0) | 1.40 (4.6) | 0.76-1.34 | (2.5-4.4) | 0.78-1.35 | (2.6-4.4) |
| 7.62 [300"] | 2.66 (8.7) | 2.68 (8.8) | 2.38 (7.8) | 1.65 (5.4) | 1.84 (6.0) | 0.94-1.63 | (3.1-5.3) | 0.95-1.64 | (3.1-5.4) |
| 8.89 [350"] | 3.09 (10.2) | 3.12 (10.2) | 2.82 (9.2) | 2.09 (6.8) | 2.28 (7.5) | 1.12-1.92 | (3.7-6.3) | 1.13-1.93 | (3.7-6.3) |
| 10.16 [400"] | 3.53 (11.6) | 3.56 (11.7) | 3.26 (10.7) | 2.53 (8.3) | 2.72 (8.9) | 1.29-2.21 | (4.2-7.2) | 1.31-2.22 | (4.3-7.3) |
| 12.70 [500"] | 4.41 (14.5) | 4.44 (14.6) | 4.13 (13.6) | 3.40 (11.2) | 3.59 (11.8) | 1.64-2.79 | (5.4-9.1) | 1.66-2.80 | (5.4-9.2) |
| 15.24 [600"] | 5.29 (17.4) | 5.32 (17.4) | 5.01 (16.4) | 4.28 (14.0) | 4.47 (14.7) | 1.99-3.37 | (6.5-11.0) | 2.01-3.38 | (6.6-11.1) |

PT-DZ16K (16:9 aspect ratio)

unit: meters (feet)

| Diagonal image size | L1 Throw ratio 0.36:1 | L2 | L3 | L4 | | A | | | |
|---------------------|-----------------------------|-------------|-------------|-------------|------------|------------|------------|--------------|-----------|
| | | | | Min | Max | Min | Max | Min | Max |
| | | | | 3.05 [120"] | 0.97 (3.2) | 1.00 (3.3) | 0.69 (2.3) | -0.04 (-0.1) | 0.27-0.44 |
| 3.81 [150"] | 1.21 (4.0) | 1.24 (4.1) | 0.93 (3.1) | 0.20 (0.7) | 0.36-0.58 | (1.2-1.9) | | | |
| 5.08 [200"] | 1.60 (5.3) | 1.63 (5.4) | 1.33 (4.3) | 0.60 (2.0) | 0.52-0.81 | (1.7-2.6) | | | |
| 6.35 [250"] | 2.00 (6.6) | 2.03 (6.7) | 1.72 (5.6) | 0.99 (3.3) | 0.68-1.04 | (2.2-3.4) | | | |
| 7.62 [300"] | 2.39 (7.9) | 2.42 (7.9) | 2.12 (6.9) | 1.39 (4.6) | 0.83-1.27 | (2.7-4.2) | | | |
| 8.89 [350"] | 2.79 (9.2) | 2.82 (9.2) | 2.51 (8.2) | 1.78 (5.8) | 0.99-1.50 | (3.3-4.9) | | | |
| 10.16 [400"] | 3.19 (10.5) | 3.21 (10.5) | 2.91 (9.5) | 2.18 (7.1) | 1.15-1.73 | (3.8-5.7) | | | |
| 12.70 [500"] | 3.98 (13.0) | 4.01 (13.1) | 3.70 (12.1) | 2.97 (9.7) | 1.47-2.19 | (4.8-7.2) | | | |
| 15.24 [600"] | 4.77 (15.6) | 4.80 (15.7) | 4.49 (14.7) | 3.76 (12.3) | 1.78-2.65 | (5.9-8.7) | | | |



- L1: Distance from the mirror surface to the screen.
- L2: Distance from the tip of lens to the screen.
- L3: Distance from the projector front to the screen.
- L4: Distance from the projector rear to the screen.
- A: Height from the edge of the screen to the top of the projector.

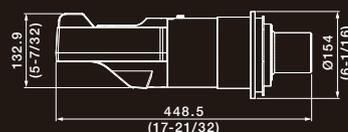
NOTE:

L4 is not the distance from the projector's rear panel to a wall, but the distance from the projector's rear panel to the screen. Provide an unobstructed space of 500 mm (1 foot 8 inches) or more between the rear panel of the projector and a wall or other obstruction. If installing it in an enclosed space, add a separate air conditioning or ventilation system. If ventilation is insufficient, exhaust heat may accumulate and trip the projector's protective circuit.

NOTE: Due to lens characteristics, some screen types may be subject to focusing problems or strong hot spots where large differences in brightness occur between the hot spots and surrounding areas. If this should occur, please ask a qualified technician or your dealer for solutions.

Dimensions

unit: mm (inches)



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All information included here is valid as of November 2014.

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