

Panasonic

ideas for life

PT-DZ12000E
3-chip DLP™ Projector

High-Resolution WUXGA Images and 12,000-Lumen
Brightness for Clear, Big-Screen Images





A 3-Chip DLP™ Projector with WUXGA Resolution Goes Beyond Full-HD Expectations and Superb 12,000 Lumens of Brightness



High brightness:

12,000 lumens

High resolution:

WUXGA

1,920 x 1,200 pixels

In response to the increasing trend toward large-screen image viewing, the PT-DZ12000E features native WUXGA resolution to completely cover full-HD specifications. It is further equipped with a Detail Clarity Processor based on Panasonic's imaging technology. Together with its superb brightness of 12,000 lumens, it ensures sharp, lifelike, large-screen images. This system projector also promises solid reliability, thanks to the combination of the DLP™ system, which is resistant to image degradation over time, and a 4-lamp optical system.

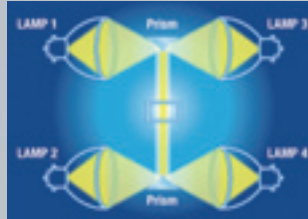




Incredible Brightness & High Picture Quality

New AC Lamp and Multi-Lamp System

Panasonic's innovative 4-lamp optical system uses newly developed 300-watt AC lamps to deliver remarkable 12,000-lumen brightness. The 4-lamp system means superb reliability too – the projector keeps working even if one lamp goes out. A full 24 hours of continuous operation is possible in Lamp Relay mode.



Lamp replacement cycle and brightness guidelines

Lamp mode	Light output (lumens)	Lamp replacement cycle (hours)
Four lamps	12,000	2,000
Three lamps	9,000	2,600
Two lamps	6,000	4,000
One lamp	3,000	8,000

* The values above are maximum values when all 4 lamps are replaced simultaneously, and when they are used in cycles of being turned on for 3.5 hours and off for 0.5 hour. When the lamps are turned on and off more frequently, the lamp replacement cycle is shortened. (It is recommended that the mechanical shutter be used to turn images off for a short period.)

Detail Clarity Processor

Exclusive to Panasonic, this new image-processing circuit analyzes the video signal frequency range for each scene by extracting data on the distribution of high, mid, and low-frequency components, and brings out fine details accordingly. The resulting images have a more natural, three dimensional appearance with crisp, clear detail.



Conventional sharpness control: Sharpness is applied uniformly, which can cause a halo or ring effect.

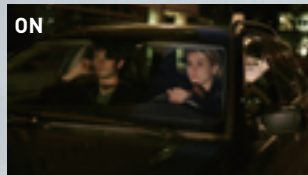


Detail Clarity Processor: Signal frequency is extracted realtime and necessary sharpness is applied at varying degrees for natural, life-like images.

* Images are simulated.

Dynamic Iris

Panasonic's Dynamic Iris uses a scene-linking aperture mechanism to achieve a remarkable 5,000:1 contrast without lowering the 12,000-lumen brightness. It helps reproduce deeper, richer blacks and gives images more detailed textures.



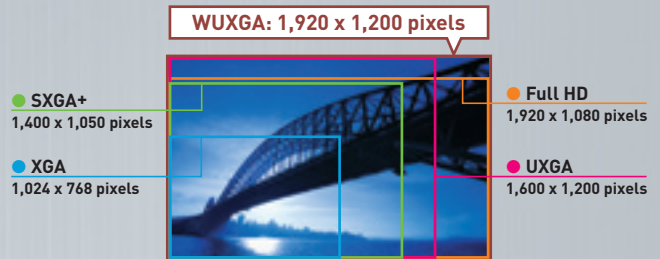
* Images are simulated.

Full 10-Bit Processing

Use of a full 10-bit picture processing system helps achieve smooth tonal expression. Complexions and other flesh tones look natural and true-to-life, with accurate gradation.

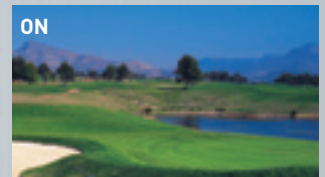
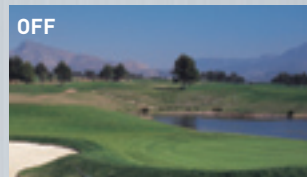
High-Resolution WUXGA Images

In response to the increasing popularity of wide-screen image viewing, the PT-DZ12000E features native WUXGA resolution to cover full-HD specifications. This brings you lifelike projection of intricate, highly detailed images.



System Daylight View

Screen visibility is lower when a projector is used during daylight hours or in a room with lights on. Panasonic's System Daylight View circuit compensates for these brighter environments, so that images are crisp, clear and easy to see no matter what the conditions are.



* Images are simulated.

3D Colour Management System

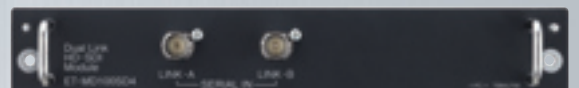
Some people like to view large-screen images from relatively close up to get the maximum viewing impact. But at close range, the colours perceived by the human eye tend to differ slightly from the original colours. The 3D Colour Management System solves this problem by enabling fine adjustment of colours so they appear faithful to the originals when projected onto a large screen.



* Images are simulated.

Dual Link HD-SDI Signal Support (Optional)

Just add an ET-MD100SD4 expansion board and the projector supports Dual Link HD-SDI signals. HD-SDI signals use two cables to achieve twice the colour resolution of the conventional single link system.



ET-MD100SD4

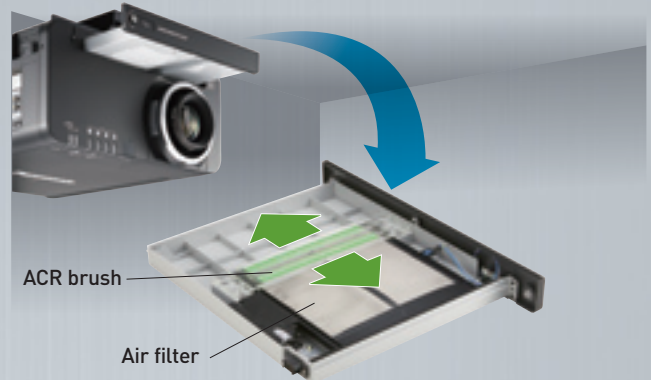


A Host of Functions to Assure Stable, Long-Time Operation

High Reliability & Stability

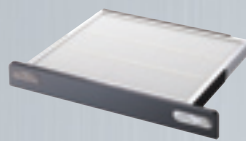
Auto Cleaning Robot

Panasonic's Auto Cleaning Robot automatically cleans the air filter to help keep the projector running smoothly. When the projector is switched on,*1 the robot uses a brush to clear away any dust adhering to the filter, helping to prevent clogs that can impair operation or cause malfunctions. The projector can be used for around 2,000 hours before the filter needs to be cleaned, making it a good choice for installation in tight spaces or for ceiling-mounted applications. Also, the Micro-Cut Air Filter traps particles as small as 10 microns.*2 This greatly reduces the amount of dust entering the projector, helping maintain high brightness and stable operation.



Smoke Cut Filter

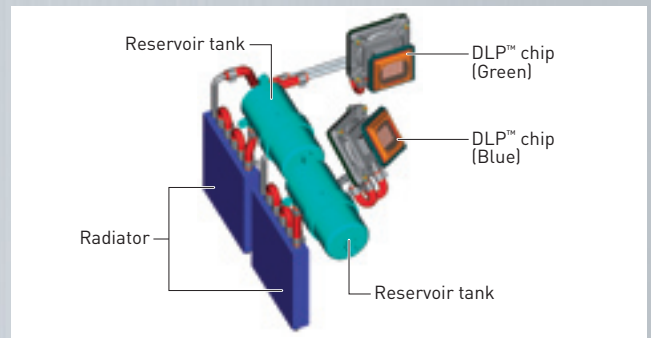
The optional ET-SFD100 Smoke Cut Filter can be mounted in place of the Auto Cleaning Robot's tray. This optional smoke filter must be used when using the projector at events where smoke or fog is dispersed.



*1 Cleaning time can be set by a timer from 00:00 to 23:50 in 10-minute intervals, or controlled manually. The cleaning process is done only once per 24 hours. When the set time is reached, the cleaning process will begin if the projector is on or in cooling mode.
*2 Such as lint particles and pollen.

Liquid Cooling System

This advanced system uses a pump to circulate a cooling liquid behind the DLP™ chips to absorb heat. This Panasonic's technology is made possible by the reflective nature of the DLP™ system, which enables an airtight chip structure that minimizes image-quality loss due to dust adherence. In addition, it allows operation within a wide ambient temperature range of 0°C [32°F] to 45°C [113°F]*3 and reduces operating noise to 43 dB.*4



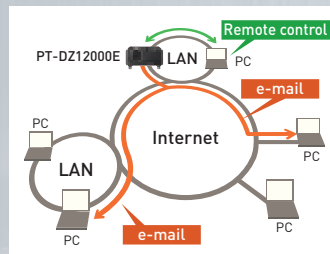
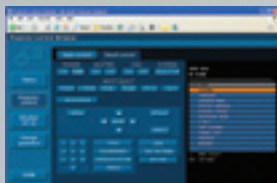
*3 The operating temperature range is 0°C (32°F) to 40°C (104°F) when used in High-Altitude mode (1,400 m [4,593 feet] to 2,700 m [8,858 feet]). Also, if the ambient temperature exceeds 40°C (104°F) [35°C [95°F] in High-Altitude mode) when using all four lamps, the light output may be reduced approximately 30% to protect the projector.

*4 Average value at time products are shipped from the factory, in accordance with JIS X 6911:2003 data projector specifications. Measurement methods and conditions are based on Article 2 of JIS X 6911:2003 data projector specifications.

Network Function

Web Browser Control

The PT-DZ12000E can be easily operated remotely over a LAN network, because it is all done using the computer's familiar web browser. Furthermore, the projector sends an e-mail message to notify the operator when an error has occurred, or a lamp needs to be replaced.



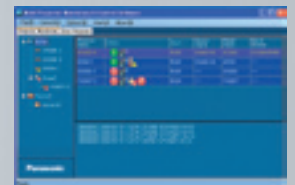
PJLink™ Compatibility

The LAN terminals support PJLink™ class 1 connection. Control with the same specifications is also possible when used in a multi-projector system with projectors of another brand.



Multi Projector Monitoring & Control Software

Panasonic's original "Multi Projector Monitoring & Control"* freeware allows the user to control and monitor multiple projectors at the same time via LAN. When a problem occurs, an alarm message is sent to the monitoring/controlling PC.



* Available in June 2008. Please consult a sales representative if necessary.

Lamp LED Indicator and Self-Diagnosis Function

The projector body is equipped with a temperature alarm LED and a burnt-lamp alarm LED (for lamps 1 to 4). In the PT-DZ12000E, the LEDs are visible from both front and top, so you can see it easily even if the unit is hung from the ceiling. Information on the error is also given in the on-screen display. A self-diagnosis function is also provided. Error codes displayed on the 3-digit, 7-segment LED on the side of the projector tell the operator what the problem is.



Small Size, Great Convenience

Despite its 12,000-lumen power, the projector is compact, weighs only 35 kg (77.1 lbs) and runs on ordinary household power. This makes it easy to add to existing facilities and suitable for use at concerts, performances, and other events.



Adapts to a Variety of Environments

Excellent System Functions

Geometric Adjustment

This function enables adjustment of images for projection onto spherical, cylindrical and other specially shaped screens. You can make the adjustment easily using just the remote control, with no external equipment needed. Used together with the multi-screen support system, the Geometric Adjustment expands your application possibilities, letting you create a wide range of image effects at concerts, performances and other special events.

Image showing various Geometric Adjustments



Lens Shift

The optical axis can be adjusted both vertically and horizontally by a remote control, giving you greater setup ease and flexibility.

A Wide Selection of Lenses

Choose from a wide lineup of lenses for your system, including short-throw, long-throw zoom and fixed-throw lenses for rear projection use. The additional lenses make it easy to adapt your projector to the installation site. The lens cover opens completely for easier mounting.



Flexible Mounting Angle

Flexible mounting allows a 360° vertical rotation range*. Dramatic showroom displays can be achieved by projecting directly downward or upward.

* A special fixture must be attached to the lamp unit when the projector is placed at an angle within ±45° (downward) of the vertical.

* The horizontal range is ±15°.



Universal Design

■ Easy Lamp Replacement

Removing a single screw is all it takes to open the rear cover. This makes it easy to replace a lamp while the projector is still in the mounting bracket – a big advantage in tight ceiling-mounted installations.



■ Remote Control with Blind Touch Operation

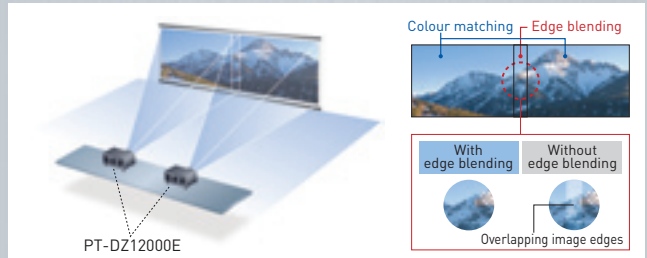
Contoured surfaces let you operate the control keys by touch. Connection terminals and controls are illuminated by LEDs, and the remote control is fully backlit for sure, easy operation in the dark. The wireless remote control has a range of 30 m (98.4 feet), so you can control the projector from a good distance.



■ 4 Direction Grip

Grooves on all four sides of the projector's bottom let you get a firm, comfortable grip on the unit so that it can be moved safely.

Built-in Multi-screen Support System



• Edge blending

The edges of adjacent screens can be blended and their luminance controlled. For example, the adjoining edges in a 2-screen system can be blended to create a smooth, seamless image.

• Colour matching

When several units are used together, this function corrects for slight variations in the colour reproduction range of individual projectors. The PC software assures easy, accurate control. Independent, 7-axis adjustment (red, green, blue, yellow, magenta, cyan, white) ensures high precision colours and minimizes colour variations.

• Multi-screen processor

The PT-DZ12000E can project large, multi-screen images without any additional equipment. Up to 100 units (10 x 10) can be edge-blended at a time.

* Image uniformity over the entire screen may be adversely affected by the type of screen used or the lamp mode selected. Also, due to differences in the manner in which the lamp brightness decreases with time, some fluctuation may appear in overall screen brightness. When this occurs, the unit must be readjusted, which is a service that is offered for a fee. For details, please contact the store where you purchased the product, or a sales representative.

Multiple Terminal Including DVI-D and LAN Slot

The PT-DZ12000E comes equipped with DVI-D and LAN (PJ-Link™) slots. It also features an array of terminals, including two RGB inputs and D-sub HD 15-pin, a 5-BNC connector, serial in/out, S-video input, two remote inputs, and one remote out. In addition to offering DVI-D control, the PT-DZ12000E is HDCP*-compliant and thus meets a broad range of projection needs.

* High-Bandwidth Digital Content Protection



Other Features

- Mechanical lens shutter
- Picture in picture (The picture in picture function cannot be used with some input signals and selected inputs.)
- Anti-theft features with chain opening
- ID assignment for up to 64 units
- Built-in test pattern
- Selectable 9-language on-screen menu (English, German, French, Spanish, Italian, Russian, Japanese, Chinese, Korean)

Optional accessories

Lens

Zoom lens
 ET-D75LE6 (0.9 - 1.1:1)
 ET-D75LE1 (1.4 - 1.8:1)
 ET-D75LE2 (1.8 - 2.8:1)
 ET-D75LE3 (2.8 - 4.6:1)
 ET-D75LE4 (4.6 - 7.4:1)
 ET-D75LE8 (7.3 - 13.8:1)

Fixed focus lens

ET-D75LE5 (0.7:1)



ET-D75LE1

Lamp

Replacement lamp unit
 ET-LAD12K
 ET-LAD12KF (four pack)



Input signal board

SD-SDI input signal board
 ET-MD775D1



HD/SD-SDI input signal board
 ET-MD775D3



Dual link HD/HD-SDI input signal board
 ET-MD1005D4

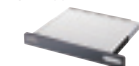


DVI-D input signal board
 ET-MD77DV



Smoke Cut Filter

ET-SFD100



Frame

ET-PFD100



Carrying handle

ET-HAD100



Ceiling mount bracket

High-ceiling mount bracket
 ET-PKD100H

Low-ceiling mount bracket
 ET-PKD100S



ET-PKD100S

ET-PKD100H

Specifications

Power supply	220-240 V AC 16-9A 50/60Hz
Power consumption	1,500 W (15 W in standby mode with fan stopped)
DLP™ chip	0.96" diagonal (16:10 aspect ratio)
Panel size	DLP™ chip x 3 (R, G, B), DLP™ projection system
Display method	2,304,000 (1,920 x 1,200) x 3, total of 6,912,000 pixels
Pixels	
Lens	Optional powered zoom/focus lenses
Lamp	300 W UHM lamp x 4 (four lamp system)
Screen size	70 - 600 inches, 16:10 aspect ratio (70-300 inches, 16:9 aspect ratio with the ET-D75LE5)
Brightness*	12,000 lumens (four-lamp operation mode)
Contrast ratio**	5,000:1 (full on/full off, in Dynamic iris 3 mode)
Resolution	1,920 x 1,200 pixels
RGB input scanning frequency	fr 15-100 kHz, fr 24-120 Hz Dot clock 20-162 MHz
Component signal	480i, 480p, 576i, 576p, 720/60p, 720/50p, 1035/60i, 1080/25p, 1080/24p, 1080/24sf, 1080/30p, 1080/60i, 1080/50i, 1080/50p, 1080/60p fr 15.75/15.63 kHz, fv 50/60Hz (NTSC, NTSC4.43, PAL, PAL60, PAL-N, PAL-M, SECAM)
Video signal	
Lens shift	Vertical: ±55% (±44% with the ET-D75LE6) (powered) Horizontal: ±20% (±15% with the ET-D75LE6) (powered)
Keystone correction range	Vertical: ±40° (±22° with the ET-D75LE5, ±28° with the ET-D75LE6), Using Geometric Adjustment, Vertical ±10°, Horizontal ±15°
Terminals	DVI-D IN DVI-D 24-pin x 1, DVI 1.0 compliant, compatible with HDCP single link 480p, 576p, 1080/60i, 1080/50i, 1080/24p, 1080/24sf, 1080/25p, 1080/30p, 1080/60p, 1080/50p, 720/60p, 720/50p VGA (640 x 480) - WUXGA** (1,920 x 1,200), compatible with non-interlaced signals only, Dot clock: 25-162 MHz RGB1/VP/Ps IN BNC x 5 RGB2 IN D-sub HD 15-pin x 1 VIDEO IN BNC x 1, 1.0 Vp-p VIDEO OUT BNC x 1, 1.0 Vp-p S-VIDEO IN Mini DIN 4-pin x 1 LAN RJ-45 (10 Base-T/100 Base-TX) x 1, compatible with P.LINK™ SERIAL IN D-sub 9-pin female x 2 (RS232C x 1, RS422 x 1) SERIAL OUT D-sub 9-pin male x 1 (RS422 x 1) REMOTE 1 IN M3 jack x1 for wired remote control REMOTE 1 OUT M3 jack x1 for link control REMOTE 2 IN D-sub 9-pin female x 1 for external control (serial)
Optional board slot	With ET-MD77SD1 installed* With ET-MD77SD3 installed* With ET-MD100SD4 installed

Optional board slot	With ET-MD77DV installed	Specifications are the same as those for the DVI-D IN terminal on the main unit.
Installation	Front/rear, ceiling/floor	
Power cord length	3.0 m (9.9')	
Dimensions (W x H x D)	578 x 320 x 643 mm (22-3/4" x 12-19/32" x 25-5/16") (without lens)	
Weight*	Approx. 35 kg (77.1 lbs) without lens	
Operating temperature	0-45 °C (32-113 °F)**	
Operating humidity	10-80% (no condensation)	
Supplied accessories	Power cord, Wireless/Wired remote control unit, Batteries for remote control (R6/LR6 type x 2), Eye bolt x 4, Wire rope	

* Measurement, measuring conditions, and method of notation all comply with ISO 21118 international standards.
 ** Only when using VESA CVT-RB/Reduced Blanking signals.
 *** The LAN terminal on each board, when mounted, cannot be used because the LAN terminal on the main unit has priority.
 **** Average value. May differ depending on models.
 ***** The operating temperature range is 0°C (32°F) to 40°C (104°F) when used in High-Altitude mode (1,400 m [4,593 feet] to 2,700 m [8,858 feet]). Also, if the ambient temperature exceeds 40°C (104°F) (35°C [95°F] in High-Altitude mode) when using all four lamps, the light output may be reduced approximately 30% to protect the projector.

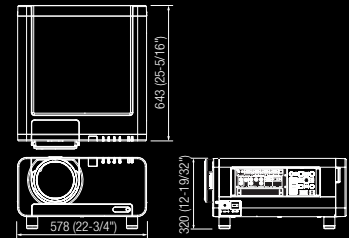
Ecological-conscious design

Panasonic works from every angle to minimize environmental impact in the product design, production and delivery processes, and in the performance of the product during its life cycle. The PT-DZ12000E reflects the following ecological considerations.

- Lead-free solder is used to mount components to the printed circuit boards.
- Lamp power switching further reduces power consumption.
- Auto Power Save activates standby mode when no signal is input.

Made in Japan
 PT-DZ12000E projector is carefully manufactured at the Panasonic factory in Japan under strict quality control. This is another very important advantage of Panasonic projectors.

Dimensions



unit: mm (inch)

Projection distance

Diagonal image size (aspect ratio: 16:10)	ET-D75LE6 0.9-1.1:1		ET-D75LE1 1.4-1.8:1		ET-D75LE2 1.8-2.8:1		ET-D75LE3 2.8-4.6:1		ET-D75LE4 4.6-7.4:1		ET-D75LE8 7.3-13.8:1		ET-D75LE5 0.7:1	
	min	max	min	max	min	max	min	max	min	max	min	max	fixed	
70"	1,353 4.4'	1,615 5.3'	2,013 6.6'	2,691 8.8'	2,723 8.9'	4,098 13.4'	4,108 13.5'	6,900 22.6'	6,906 22.7'	11,064 36.3'	11,064 36.3'	10,780 35.4'	20,561 67.5'	992 3.3'
100"	1,957 6.4'	2,339 7.7'	2,908 9.6'	3,887 12.6'	3,924 12.7'	5,899 19.4'	5,910 19.4'	9,909 32.5'	9,915 32.5'	15,848 51.1'	15,848 51.1'	15,585 50.9'	29,527 93.7'	1,453 4.8'
150"	2,984 9.7'	3,546 11.6'	4,401 14.4'	5,881 19.3'	5,926 19.4'	8,902 29.2'	8,913 29.2'	14,924 49.0'	14,930 49.0'	23,824 78.2'	23,824 78.2'	23,541 77.2'	44,471 145.9'	2,222 7.3'
200"	3,971 13.0'	4,752 15.6'	5,893 19.3'	7,875 25.8'	7,928 26.0'	11,905 39.1'	11,916 39.1'	19,939 65.4'	19,945 65.4'	31,799 104.9'	31,799 104.9'	31,517 104.9'	59,414 184.9'	2,991 9.8'
300"	5,985 19.6'	7,165 23.5'	8,877 29.1'	11,862 38.9'	11,932 39.1'	17,911 58.8'	17,922 58.8'	29,970 98.3'	29,976 98.3'	47,748 149.7'	47,748 149.7'	47,468 155.7'	89,301 283.0'	4,528 14.9'
400"	7,999 26.2'	9,578 31.4'	11,862 38.9'	15,850 52.3'	15,936 52.3'	23,917 78.5'	23,928 78.5'	40,000 131.2'	40,006 131.2'	63,693 208.9'	63,693 208.9'	63,420 208.1'	119,188 369.0'	—
600"	12,027 39.5'	14,404 47.3'	17,891 58.5'	23,829 78.1'	23,944 78.6'	35,929 117.9'	35,938 117.9'	60,051 197.1'	60,057 197.1'	95,599 313.6'	95,599 313.6'	95,328 312.8'	178,962 587.1'	—

Diagonal image size (aspect ratio: 16:9)	ET-D75LE6 0.9-1.1:1		ET-D75LE1 1.4-1.8:1		ET-D75LE2 1.8-2.8:1		ET-D75LE3 2.8-4.6:1		ET-D75LE4 4.6-7.4:1		ET-D75LE8 7.3-13.8:1		ET-D75LE5 0.7:1	
	min	max	min	max	min	max	min	max	min	max	min	max	fixed	
70"	1,393 4.6'	1,682 5.4'	2,072 6.9'	2,788 9.2'	2,801 9.2'	4,215 13.8'	4,226 13.8'	7,094 23.3'	7,101 23.3'	11,374 37.3'	11,374 37.3'	11,091 36.4'	21,742 69.3'	1,022 3.3'
100"	2,014 6.7'	2,408 7.8'	2,992 9.9'	3,998 13.1'	4,035 13.3'	6,067 19.9'	6,077 19.9'	10,187 33.4'	10,193 33.4'	16,292 53.4'	16,292 53.4'	16,009 52.6'	30,358 99.5'	1,498 4.9'
150"	3,049 10.1'	3,646 12.0'	4,526 14.9'	6,047 19.9'	6,085 19.9'	9,153 30.0'	9,164 30.0'	15,341 50.3'	15,348 50.3'	24,488 75.4'	24,488 75.4'	24,207 74.4'	45,717 141.9'	2,286 7.3'
200"	4,084 13.5'	4,886 16.0'	6,060 19.9'	8,096 26.5'	8,150 26.8'	12,240 40.1'	12,250 40.1'	20,496 67.2'	20,502 67.2'	32,685 107.2'	32,685 107.2'	32,404 106.3'	61,076 200.3'	3,076 10.0'
300"	6,194 20.2'	7,366 24.1'	9,126 30.0'	12,194 40.3'	12,265 40.3'	18,413 60.5'	18,423 60.5'	30,805 101.1'	30,811 101.1'	49,078 159.9'	49,078 159.9'	48,799 159.9'	91,794 284.9'	4,656 15.2'
400"	8,224 27.0'	9,846 32.2'	12,196 40.1'	16,292 53.4'	16,380 53.8'	24,586 80.6'	24,596 80.7'	41,114 134.8'	41,120 134.9'	65,474 214.7'	65,474 214.7'	65,194 213.9'	122,512 401.8'	—
600"	12,364 40.6'	14,806 48.5'	18,332 60.2'	24,488 80.3'	24,610 80.8'	36,932 121.1'	36,942 121.2'	61,732 202.4'	61,738 202.6'	98,257 322.2'	98,257 322.2'	97,984 321.4'	183,948 603.3'	—

NOTES ON USE

- Do not install the projector in locations that are subject to excessive water, humidity, steam, or oily smoke. Doing so may result in fire, malfunction, or electric shock.
- The projector uses a high-voltage mercury lamp that contains high internal pressure. This lamp may break, emitting a large sound, or fail to illuminate, due to impact or extended use.
- The projector uses of high-wattage lamp that becomes very hot during operation. Please observe the following precautions.
 - Never place objects on top of the projector while it is operating.
 - Make sure there is an unobstructed space of 500 mm or more around the projector's exhaust openings.
 - Do not stack projector units directly on top of one another for the purpose of multiple (stacked) projection.
- When stacking projector units, be sure to provide the amount of space indicated between them. These space requirements also apply to installation where only one projector unit is operating at one time and the other unit is used as a backup.
- If the projector is placed in a box or enclosure, temperature of the air surrounding the projector must be between 0°C and 35°C. Also make sure the projector's intake and exhaust openings are not blocked. Take particular care to ensure that hot air from the exhaust openings is not sucked into the intake.
- If the projector is to be operated continuously 24 hours a day, use the multi-lamp optical system's alternating lamp operation (lamp changer) function. The projector can be operated continuously 24 hours a day in four-lamp operation mode, but it will automatically operate with three lamps for 8 hours of the 24 hours.
- The lamp replacement cycle duration becomes shorter if the projector is operated repeatedly for short periods.
 - The length of time that it takes for the lamp to break or fail to illuminate varies greatly depending on individual lamp characteristics and usage conditions.
 - The brightness of the lamp will gradually decrease with use.
- Because the ET-D75LE5 is a fixed short-throw lens, the lens shift function cannot be used with it.
- Due to natural characteristics of lamps, screen brightness may vary (flicker). This is not an indication of faulty lamp performance.



For more information about Panasonic projectors
<http://panasonic.net/avc/projector>



Factories of Systems Business Group have received ISO14001:2004 - the Environmental Management System certification. (Except for 3rd party's peripherals.)

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