Not Just Projection, a Holistic Solution

This case-study portfolio demonstrates how Panasonic SOLID SHINE Laser projectors work as part of end-to-end visual systems in real-life situations, from major outdoor events to roles at universities, museums, and monitoring facilities. Whatever application you have in mind, Panasonic has laser projectors in a comprehensive lineup purpose-built to suit your needs. Our products are shaped by the voices of professional end-users as well as content creators and professional installers. Know-how extends beyond next-generation projector design to expert on-site customer support, ensuring that SOLID SHINE Laser projectors harmonize with existing infrastructure; work flawlessly 24/7 without maintenance; and lower Total Cost of Ownership (TCO). So why choose SOLID SHINE? The answer is here in the pages of this catalog.
Strengthening Relationships in Every Field

**Events / Rental Staging**
- Olympic Games Rio 2016
- i Light Marina Bay
- Elbphilharmonie Inauguration Spectacular

**Museum / Exhibition**
- National Museum of Singapore
- Orbi Osaka
- Petersen Automotive Museum

**Education**
- Hiroshima City University
- Queensland University of Technology
- Australian Maritime College

**Monitoring**
- Kumamoto Prefectural Police Department
- Niigata Prefectural Police Department
- Integrated Security Operating Center
Event / Rental Staging

Olympic Games
Rio 2016

Brazil

Panasonic’s unparalleled know-how in supply, setup, and operation of projection systems contributed to spectacular events.

Why Choose Panasonic?

- Extremely compact and lightweight bodies with dedicated mounting-frame systems
- Free 360-degree installation flexibility with support for Portrait Mode
- 3-Chip DLP™ high-resolution imaging for accurate detail reproduction without visible pixels
- Single-cable DIGITAL LINK connection, advanced multi-screen mapping, and built-in Geometric Adjustment system

Equipment installed

- 3-Chip DLP™ Projector
  - PT-RZ31K
- 3-Chip DLP™ Projector
  - PT-RQ13K
- 3-Chip DLP™ Projector
  - PT-RZ12K
- 1-Chip DLP™ Projector
  - PT-RZ970
- 1-Chip DLP™ Projector
  - PT-RZ670
- 1-Chip DLP™ Projector
  - PT-RZ370

More Information

Related video: panasonic.net/cns/projector/casestudies/rio2016/#video
Website: https://panasonic.net/cns/projector/casestudies/rio2016/index.html

PT-R231K was deployed at key moments throughout the Opening Ceremony, vividly demonstrating 30,000 lumens of imaging power, while SOLID SHINE supported logistical operations and theater presentations at other venues.
**Why Choose Panasonic?**

- High brightness and class-leading picture quality deliver immersive and vibrant super-large-screen images at major events
- Portrait Mode and Geometry Manager Pro software enables projection on a wide array of screen shapes and surfaces

**Equipment installed**

3-Chip DLP™ Projector
PT-RZ31K

More Information

Related video: https://www.youtube.com/watch?v=bn0GeT7_-8M
Website: http://news.panasonic.com/global/topics/2017/46283.html

A variety of lenses were used, including the ET-D75LE6 Short Throw Lens, to enable easy projector installation at different throw distances.

Panasonic simulation software helped precisely align content projected from PT-RZ31Ks onto Singapore’s iconic Merlion statue.

Photo courtesy of i Light Marina Bay.
A combined brightness of 800,000 lumens created immense high-resolution images totaling 17400 x 2160 pixels.

Reduced installation complexity and expedited setup is one of Panasonic’s main strengths as a supplier at events with tight logistical deadlines.

Why Choose Panasonic?

- Ultra-high-brightness of PT-RZ31K units delivered efficient laser technology capable of up to 20,000 hours maintenance-free operation
- Abundant connections and wide interface compatibility enable centralized projection network setup and control via connected PC/server
- Extensive onboard edge blending and color matching functions to create seamless images of virtually limitless scale
- Fractional size and weight of competitive 30,000-lumens-class lamp projectors

Equipment installed

3-Chip DLP™ Projector
PT-RZ31K

More Information
Website: https://panasonic.net/cns/projector/casestudies/events006/
Why Choose Panasonic?

- No lamp or filter replacement for up to 20,000 hours delivers outstanding economy in fixed permanent applications
- Free 360-degree installation flexibility broadens the scope of projection possibilities
- Edge blending and multi-screen calibration enable large-scale image mapping from any angle, including interior domes and curved walls
- High brightness, outstanding picture quality, and excellent reliability under continuous operation
- Strong on-site technical support for the projector layout design

Equipment installed

1-Chip DLP™ Projector
PT-RZ670

More Information

Related video: https://www.youtube.com/watch?v=LHBryQ02a0g
Website: https://panasonic.net/cns/projector/casestudies/museum004/

With the dedicated app, visitors can photograph animals to create a picture book.

A section of the seamless 144-meter-long corridor projection.

SOLID SHINE Laser projectors can be concealed from obvious view.

Edge-blended multi-screen mapped projection inside the museum dome.

"Story of the Forest"
by teamLab.

Museum / Exhibition
National Museum of Singapore
Singapore
Why Choose Panasonic?

- Panasonic 4K+ resolution capability ensures bright, vibrant, and pixel-free large-scale image projection
- SOLID SHINE projectors maintain excellent image quality and high brightness for a longer period with linear (not exponential) degradation
- Supports ET-DLE030/ET-D75LE90 Ultra Short-Throw lenses for large-screen projection from a short distance, perfect for non-conventional spaces
- Panasonic offers a full range of projectors and professional displays to work closely with clients to exceed objectives under budget

Equipment installed

- 3-Chip DLP™ Projector PT-RQ13K
- 3-Chip DLP™ Projector PT-RZ12K
- 1-Chip DLP™ Projector PT-RZ670
- 1-Chip DLP™ Projector PT-RZ475
- 1-Chip DLP™ Projector PT-RZ370

More Information

Website: https://panasonic.net/cns/projector/casestudies/069.html

The largest of its kind in Japan, Theater 23.4 features a giant screen measuring 40 meters by 8 meters displaying larger-than-life images at film-like 4K+ resolution.
Why Choose Panasonic?

- Panasonic supports an extensive range of role-focused projectors and professional displays to assure best-in-class cost to performance in any application
- Multi-Screen Support System assures indiscernible edge-blends for beautiful wide-aspect images
- Single-cable DIGITAL LINK connectivity provides simple yet high-quality digital transmission of video and control signals to reduce installation costs
- Filterless and lampless design eliminates routine maintenance common to lamp projectors of similar brightness output

Equipment installed

1-Chip DLP® Projector
PT-RZ670

More Information

Related video: https://www.youtube.com/watch?v=C8UKlmplpMk
Website: https://panasonic.net/cns/projector/casestudies/062.html

Compact and quiet, the PT-RZ670 Series delivers dynamic and arresting visuals without distraction.
In the Large Lecture Hall, Panasonic 3-Chip DLP™ PT-RZ12KJ delivers requisite detail for clear and comfortable visibility, allowing students to take notes without effort.

Why Choose Panasonic?

- With high 20,000:1 contrast and brightness, there’s no need to dim the lights, as projected images remain clearly legible.
- Quick Start/Quick Off function prevents malfunctions caused by turning the projector on or off from the main switch, and reduces energy consumption during periods of non-operation.
- Emulation modes and wide support for HDBaseT™-compliant control over LAN, RS-232C, and Crestron Connected™ allow easy integration with peripherals of differing brands.
- Setup, installation, and control can be customized with DIGITAL LINK Switcher and DIGITAL LINK Interface Box.

Equipment installed

3-Chip DLP™ Projector
PT-RZ12K

1-Chip DLP™ Projector
PT-RW630

1-Chip DLP™ Projector
PT-RZ570

More Information

Related video: https://www.youtube.com/watch?v=dX7BNYPprt8
Website: https://panasonic.net/cns/projector/casestudies/education003/

PT-RZ12KJ concealed in a projection booth opposite the stage.

High brightness and color uniformity across a wide 250-inch screen enables projection without dimming the interior lights.

Very high brightness assures excellent image visibility even in rooms exposed to natural sunlight.
Why Choose Panasonic?

- High 12,000 lm of brightness laser projector provides the immersive and detailed images required to enhance presentations and engage students
- Up to 20,000 hours maintenance-free operation and long-lasting reliability support prolonged, stable operation
- 3-Chip DLP™ imaging at 4K+ resolution without visible pixels
- Mount in any orientation without affecting projection longevity

Equipment installed

3-Chip DLP™ Projector
PT-RQ13K

3-Chip DLP™ Projector
PT-RZ12K

1-Chip DLP™ Projector
PT-RZ670

More Information

Related video: https://www.youtube.com/watch?v=fOultQCuh-A
Website: https://panasonic.net/cns/projector/casestudies/education002/

“The Cube” space is flanked by a massive 14 x 9 m screen surface displaying images in 8K resolution served by a fleet of four PT-RQ13K projectors, augmented elsewhere by PT-RZ670 Series units and Panasonic interactive multi-touch panels.
Panasonic helped Australian Maritime Academy create the world’s most advanced and sophisticated simulation suite with 4K+ for maximum realism.

A total of five PT-RQ13K projectors were installed for seamless panoramic display.

Why Choose Panasonic?

- Among the smallest and lightest laser light-source 3-Chip DLP™ projectors with 4K+ resolution in the world
- High 10,000 lm of brightness and precise 20,000:1 contrast performance
- Geometry Manager Pro Software (ET-UK20) and Auto Screen Adjustment Upgrade Kit (ET-CUK10) interface with projectors to correct images on large convex screens
- HDBaseT™-based DIGITAL LINK connection supports single-cable transmission of 4K video signals for distances of up to 50 m (164 ft)

Equipment installed

3-Chip DLP™ Projector
PT-RQ13K

More Information

Related video: https://youtu.be/PO0mosIw_B0
Website: https://panasonic.net/cns/projector/casestudies/education001/
Real-time traffic conditions are displayed for the entire Kumamoto region, easily legible at a glance and from a distance.

Huge screen surface area is enabled with five sets of four PT-RZ670 projectors displaying 72-inch images at 16:10 aspect.

Why Choose Panasonic?

- Engineered to withstand 24-hour operation 365 days a year with efficient and extended maintenance schedule
- High brightness and pin-sharp high-resolution performance to enable clear image display in brightly lit rooms
- Networked multi-screen system produces 6.2 m x 4.2 m screen at WUXGA with undetectable edge-blends

Equipment installed

1-Chip DLP™ Projector
PT-RZ670

More Information
Website: https://panasonic.net/cns/projector/casestudies/others002/

Monitoring
Kumamoto Prefectural Police Department
(Traffic Control Center)
Japan
Monitoring

Niigata Prefectural Police Department
(Traffic Control Center)
Japan

Panasonic can provide consulting services and oversee installation of end-to-end visual systems in any venue to assure budget and performance objectives are met.

Short-throw lenses allowed existing rear-projection infrastructure to be preserved, reducing total cost of the renewal.

In dim conditions, brightness may be lowered to extend projector life to 87,000 hours of continuous maintenance-free projection.

SOLID SHINE Laser delivers requisite brightness even in bright environments.

Why Choose Panasonic?

- Ultra Short-Throw projectors enable projection from short distances for use in areas with limited space
- Extremely stable operation and no maintenance for about 87,000 hours provides a dramatic reduction in TCO
- Panasonic can supply not only projectors, but also an entire multi-visual system service for efficient one-stop renewal
- SOLID SHINE Series projectors maintain consistently high image quality brightness for very long periods

Equipment installed

1-Chip DLP™ Projector
PT-RZ475

More Information
Website: https://panasonic.net/cns/projector/casestudies/others001/
Why Choose Panasonic?

- Supports ET-DLE030 Ultra Short-Throw Lens to prevent shadowing and allow concealed installation in confined areas
- Geometry Manager Pro easily adapts wide-aspect images for projection to curved screen surfaces
- Lamp and filter-free design assures virtually no maintenance for up to 20,000 hours
- Lightweight, compact, and easily connected to suit modern interior designs

Equipment installed

1-Chip DLP™ Projector
PT-RZ670

Split-screen and window-in-window projection capabilities allow for presentation of diverse information sources simultaneously.

Clean, clear, crisp visibility at a distance means less stress and more comfort for employees.

Split-screen and window-in-window projection capabilities allow for presentation of diverse information sources simultaneously.

Monitoring
Integrated Security Operating Center
Japan
Panasonic DLP™ System SOLID SHINE Projector Lineup

### 3-CHIP DLP™ PROJECTOR

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>PT-RZ13K</td>
<td>10,000 lm</td>
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<tr>
<td>PT-RZ23K</td>
<td>12,000 lm</td>
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<tr>
<td>PT-RZ31K</td>
<td>12,000 lm</td>
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### 1-CHIP DLP™ PROJECTOR

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
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<tbody>
<tr>
<td>PT-RZ970 Series</td>
<td>10,000 lm (Center) / 9,400 lm</td>
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<tr>
<td>PT-RZ770 Series</td>
<td>7,200 lm (Center) / 7,000 lm</td>
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<tr>
<td>PT-RZ660 Series</td>
<td>6,200 lm (Center) / 6,000 lm</td>
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</tbody>
</table>

Available in White
- PT-RZ970 Series
- PT-RZ770 Series
- PT-RZ660 Series
## Panasonic DLP™ System SOLID SHINE Projector Lineup

### 1-CHIP DLP™ PROJECTOR

#### PT-RZ570 Series

<table>
<thead>
<tr>
<th>Model</th>
<th>Lumens (Center)</th>
<th>Lumens (Floor)</th>
<th>Resolution</th>
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<tbody>
<tr>
<td>PT-RZ570W</td>
<td>5,400 lm</td>
<td>5,200 lm</td>
<td>WXGA</td>
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<tr>
<td>PT-RZ570B</td>
<td>5,400 lm</td>
<td>5,200 lm</td>
<td>WXGA</td>
</tr>
<tr>
<td>PT-RZ575B</td>
<td>5,200 lm</td>
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#### PT-RZ470 Series

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<tr>
<th>Model</th>
<th>Lumens</th>
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<tbody>
<tr>
<td>PT-RZ470</td>
<td>3,500 lm</td>
<td>Full HD</td>
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<tr>
<td>PT-RW430</td>
<td>3,500 lm</td>
<td>WXGA</td>
</tr>
<tr>
<td>PT-RZ475</td>
<td>3,000 lm</td>
<td>WXGA</td>
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#### PT-RZ370 Series

<table>
<thead>
<tr>
<th>Model</th>
<th>Lumens</th>
<th>Resolution</th>
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</thead>
<tbody>
<tr>
<td>PT-RZ370</td>
<td>3,500 lm</td>
<td>WXGA</td>
</tr>
<tr>
<td>PT-RW330</td>
<td>3,500 lm</td>
<td>WXGA</td>
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</table>

#### Space Player

#### PT-JX200 Series

<table>
<thead>
<tr>
<th>Model</th>
<th>Mount Type</th>
<th>Lumens</th>
<th>Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT-JX200HBU</td>
<td>Track</td>
<td>2,000 lm</td>
<td>XGA</td>
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<tr>
<td>PT-JX200HWU</td>
<td>Direct</td>
<td>2,000 lm</td>
<td>XGA</td>
</tr>
<tr>
<td>PT-JX200GBE</td>
<td>Direct</td>
<td>2,000 lm</td>
<td>XGA</td>
</tr>
<tr>
<td>PT-JX200GWD</td>
<td>Direct</td>
<td>2,000 lm</td>
<td>XGA</td>
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#### PT-JW130 Series

<table>
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<tr>
<th>Model</th>
<th>Mount Type</th>
<th>Lumens</th>
<th>Resolution</th>
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<tbody>
<tr>
<td>PT-JW130HBU</td>
<td>Track</td>
<td>1,000 lm</td>
<td>WXGA</td>
</tr>
<tr>
<td>PT-JW130HWD</td>
<td>Direct</td>
<td>1,000 lm</td>
<td>WXGA</td>
</tr>
<tr>
<td>PT-JW130FBU</td>
<td>Track</td>
<td>1,000 lm</td>
<td>WXGA</td>
</tr>
<tr>
<td>PT-JW130FWD</td>
<td>Direct</td>
<td>1,000 lm</td>
<td>WXGA</td>
</tr>
</tbody>
</table>

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1,000 lm

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1,000 lm

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1,000 lm
Unique Panasonic Technology Equals Superior Quality

HOW WE LEAD THE CLASS

Stunning Pictures from Panasonic’s SOLID SHINE DLP™ System

3-Chip DLP™
Three Independent DLP™ Chips for Accurate Color Reproduction
Panasonic 3-Chip DLP™ SOLID SHINE Laser projectors feature independent DLP™ modules for red, green, and blue, and a Color Filter Prism for accurate Rec. 709-compliant color performance. The blue laser light, meanwhile, ensures greater precision while an expanded color gamut improves white balance accuracy for natural and lifelike image reproduction.

1-Chip DLP™ with Quartet Color Harmonizer
Excellent Image Quality with Quartet Color Harmonizer
Quartet Color Harmonizer delivers better image quality than lamp-based systems with the efficiency benefit of laser. The design improves white balance for natural color expression and enhances brightness by maximizing available light through four discrete color channels. Panasonic’s LED/Laser hybrid source, meanwhile, combines technologies to extend life and improve color accuracy.

WHERE REFERENCE IMAGING MEETS PEAK EFFICIENCY

Panasonic SOLID SHINE DLP™ based solutions outperform in three areas: image quality, economy and reliability, and installation flexibility. Extremely high brightness, pixel-free detail resolution, and precise color reproduction result in wholly immersive pictures in single or multi-projector configurations. Robustly engineered for year-round 24/7 operation with virtually no maintenance, and extending image and brightness quality further, SOLID SHINE Laser is shaped by professional end-user experience, and therefore fully equipped to deliver class-leading performance in any application.
1-Chip DLP

Color Accuracy
Available light-source power is maximized through each color channel. The viewer is presented with a picture that closely resembles what is seen in real life.

Selectable Operational Modes
In environments where very high brightness is not necessary, such as surveillance, control, and simulation rooms, constant operation modes extend light source replacement to up to 87,600 hours*6 in Long Life 3 Mode—about 10 years*6 of 24/7 projection—with consistent brightness and color.

Innovation Balances High Performance and Low TCO

Eco Filter Delivers Up to 20,000-hour*2 Replacement Cycle
Select Panasonic 3-Chip DLP™ SOLID SHINE Laser projectors feature an Eco Filter incorporating an electrostatic Micro Cut Filter that collects minute dust particles with an ion effect. It joins a dust-resistant cabinet to enable long-term use even in punishing conditions. A long maintenance cycle of up to 20,000 hours*3 reduces hassle, and the washable filter*1 can be reused to reduce cost and waste. Select 1-Chip DLP™ SOLID SHINE Laser projectors, meanwhile, employ a filterless design.

Durable Laser Optical Engine for Dependable Operation
Selected models feature a Dual Drive Laser Optical Engine that features two discrete modules of laser diodes. A redundancy circuit ensures minimal reduction in brightness in color uniformity in the event of diode failure. Further, brightness is arrested in a linear rather than exponential decline over its 20,000-hour*4 maintenance-free service life.

Flexible Installation

360-degree Free Installation
Select SOLID SHINE Laser projectors can be mounted vertically or horizontally through 360 degrees. This enables projection from virtually any angle.

Quick Start, Quick Off
By virtue of laser design, no warm-up or cool-down is required when operating selected projectors. Images appear almost instantly from start-up, and the projector can be switched off from the mains.

Projection at Higher Altitudes
Select SOLID SHINE Laser projectors can be used with confidence at higher elevations than lamp-based products—up to 4,200 m*5 while maintaining 20,000:1*6 contrast even when bright and dark scenes frequently interchange, reducing power consumption.

Stable, Reliable Operation

Innovation Balances High Performance and Low TCO

Dust-Resistant for Less Maintenance
Select SOLID SHINE Laser series projectors have air-tight laser modules and a unique air intake system to extend life and maintain picture quality in dusty locations. SOLID SHINE Laser projectors exceed rigorous dustproofing requirements for operation in environments containing 0.150 mg of dust per cubic meter*3.

Guidelines for Dust Resistance
Particulate Matter per Cubic Meter in Different Environments

Clean Environment

<table>
<thead>
<tr>
<th>WHO Europe Guideline for Dust Resistance</th>
<th>Japanese Building Maintenance Association ADMEM*4</th>
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<td>0.030 mg/m³</td>
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Dust Filter Standard

Panasonic Dust Test Standard

Dynamic Contrast
Digital frame-by-frame scene-linking modulation ensures precise laser light output adjustment for 20,000:1*7 contrast even when bright and dark scenes frequently interchange, reducing power consumption.

Efficient Cooling System Assures Reliable Operation
Selected models employ a unique direct liquid cooling system for the laser light source that features a redesigned air intake and a solid aluminum heat sink to suppress temperature rises. This allows stable operation in ambient temperatures of up to 50 °C (122 °F) while reducing operating noise.

Guidelines for Dust Resistance
Particulate Matter per Cubic Meter in Different Environments


dust filter standard

Dynamic Mode - for Brighter Images

Standard / Graphic Mode - for Colorful Images

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*1 20,000 contrast ratio is featured on selected models only. See product-specific information for further details.
*2 Usage environment may affect filter maintenance cycle. *3 Please follow the procedures listed in the operating instructions when washing the filter with water. Replacement is recommended after filter has been washed and reused twice, or if filter is not sufficiently clean after washing. *4 Excluding PT-RZ570/RZ575/RZ370/RZ470GW100 Series. Designated labs are conducted to conform operational effectiveness under conditions with 0.15 mg/m³ particulate matter (based on tests by the American Society of Heating, Refrigerating, and Air-Conditioning Engineers [ASHRAE] and the Japanese Building Maintenance Association). Measurements are made using acceleration tests. *5 For PT-RZ570/RZ575/RZ370/RZ470GW100 Series. Operating temperature is -10 °C to 40 °C (14 °F to 104 °F) and altitude is up to 4,200 m as long as the operating environment, which is not compliant with ADMEM, is no longer than 24 hours per year and the operating environment is not compliant with ASHRAE. *6 87,600 hours = 10 years x 24 hours x 365 days = 87,600 hours.
*7 Replacement of parts other than the light source may be required in a shorter period. *8 At this time, brightness will have decreased to about 80% of its original level. Please refer to product-specific information on the Panasonic website. Panasonic recommends cleaning or checkup at point of purchase after 20,000 hours (approximately). 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. *9 Please visit the product specification pages for individual projector models for details on operating temperatures in various conditions.