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VPL-FHZ55
3LCD Laser Light Source Projector

rave
best of InfoComm

3LCD

BrightEra™
Long Lasting Optics

HDMI

The World's First
3LCD Laser Light Source Projector
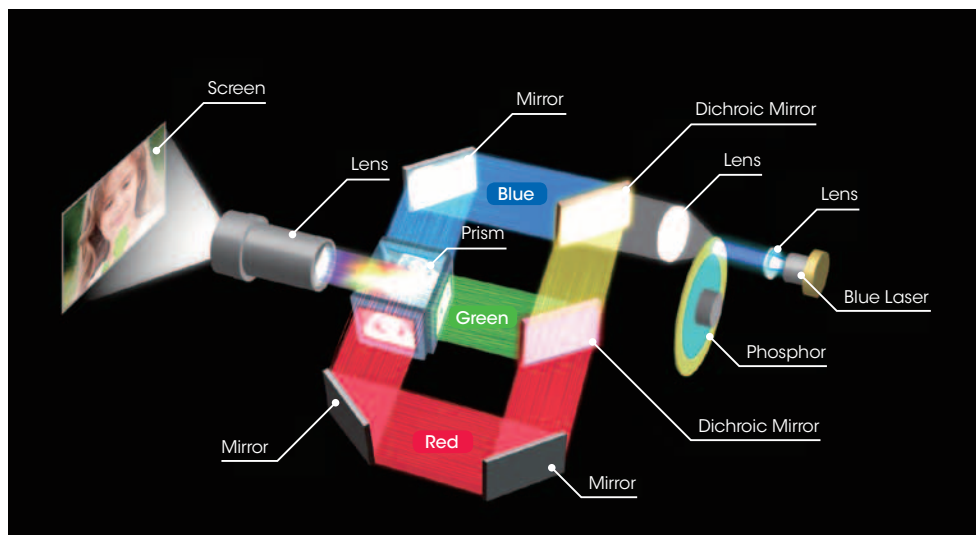

VPL-FHZ55 / B

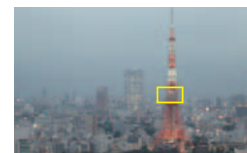VPL-FHZ55 / W

High Image Quality

Laser Light Source and 3LCD Optical System Create High Brightness and Vivid Color Image

Combining a laser light source with a 3LCD optical system, the ground-breaking VPL-FHZ55 projector generates a powerful 4,000 lumens of color light output at WUXGA resolution. The projector's light engine uses blue laser as its light source, which excites a phosphorous material that in turn creates white light. The white light is delivered to the 3LCD optical system, which generates constant, vibrant RGB color through a color splitting process. The resulting 4,000 lumen output produces brightness sufficient for a broad range of commercial applications.

High-resolution WUXGA Image

The VPL-FHZ55 delivers an amazing resolution of WUXGA (1920 x 1200), which exceeds Full-HD resolution (1920 x 1080). The VPL-FHZ55 allows projection in a wider display range. More information can be displayed on the screen, so the user can see the whole page without scrolling.
Extremely clear and detailed high-quality images are projected, even on a large screen, and native Full-HD images can be projected full screen. The ground-breaking VPL-FHZ55 is the ultimate tool for projecting images in a range of applications requiring exceptional detail.

WXGA picture quality

WUXGA picture quality

simulated image
Licensed by Tokyo Tower

The VPL-FHZ55 is an innovative 'lamp-free' 3LCD projector. Ideal for quality-critical installation applications, it delivers bright, detail-packed WUXGA images with a resolution that's higher than Full HD. So your audience only sees big, beautiful pictures… not pixels. The environmentally friendly, mercury-free laser light source is teamed with 3LCD BrightEra™ technology by Sony. You'll see the difference with superb image quality and class-leading 4,000 lumen brightness, plus exceptional contrast and consistent color stability.

This advanced, highly efficient laser light source typically offers 20,000 hours* of operation with no downtime or replacement – far higher than traditional projection lamps. Virtually zero maintenance requirements and a range of energy-saving features reduce total lifetime ownership costs compared with conventional UHP projectors.
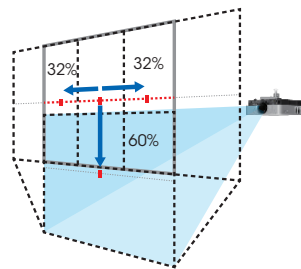
The VPL-FHZ55 fits smoothly into almost any environment, from academic institutions, corporate, medical and public sector organizations, to visitor attractions and retail spaces. Seamlessly blend images from multiple projectors to create super-sized displays. Install the projector at any angle – even on its side or upside down. With the VPL-FHZ55, there are no limits to your creative vision.

* Using the Auto Light Dimming feature enabled. Actual hours may vary depending on usage environment.

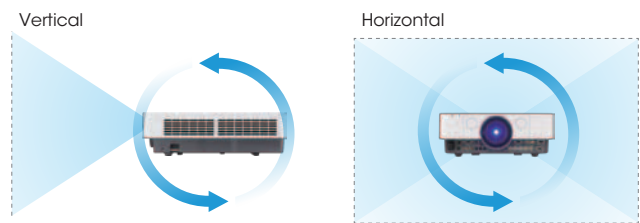## Installation Advantages

Lens Shift Function

The VPL-FHZ55 has a Lens Shift function. Using this function, the position of the projected image can be moved vertically by up to 60% and horizontally from -32% through to +32%. Images can be easily adjusted to the desired settings during installation.
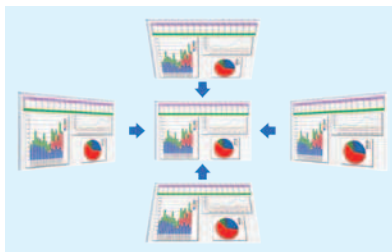
Vertical/Horizontal Keystone Distortion

With these projectors, keystone distortion of vertically up to +/- 30 degrees and horizontally up to +/- 30 degrees can be digitally corrected via the on-screen operation menu and/or the Remote Commander™ unit. This enables detailed images to be projected with their correct geometry, even when installation space is limited.

Vertical/Horizontal keystone correction

simulated images

Advanced Geometric Correction

Each corner and side can be grabbed and fit squarely to the desired position. This feature is useful when an offset projection is necessary.

Four corners correction

Four sides correction

simulated images

Tilt Angle Free

Enjoy supreme installation flexibility: position the projector freely at any angle, or its side, or even upside down.

Vertical

Horizontal

360 degrees tilt

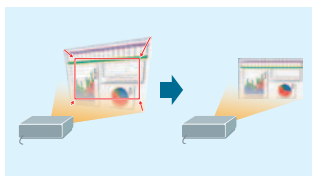### Edge Blending for Seamless Wide Projection

The built-in features enable the installation of multiple projectors to create one large seamless and uniform image.

* Finer adjustment can be achieved by using a software application provided separately by Sony. Please contact your account manager for details.

Overlapping image edge

Without edge blending

With edge blending

Good TCO & Energy Efficient

20,000 Hours Maintenance-free Operation

Thanks to its laser light source with control technology, long-life LCD panel, and advanced filter system, the VPL-FHZ55 offers up to 20,000 hours of operation without maintenance or replacement. Virtually zero maintenance requirements and a range of energy-saving features reduce total lifetime ownership costs compared with conventional UHP projectors.

* Using the Auto Light Dimming feature enabled. Actual hours may vary depending on usage environment.

Energy-efficient Functions

• Auto Dimming Mode

The VPL-FHZ55 is equipped with a light source dimming function. After 10 seconds of a static signal feed, the light source dims by approximately 15% which is barely noticeable. If the VPL-FHZ55 is left powered on while not in use, after a set period of time it will automatically detect no change of signal input and will dim the light source to as low as approximately 5% of original brightness to significantly reduce energy consumption.
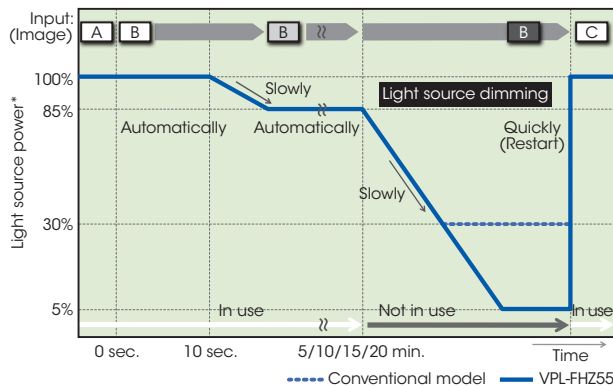

* Light source mode: High. The values are approximate.

When the input signal is unchanged, the unit shifts into dimming mode

simulated image

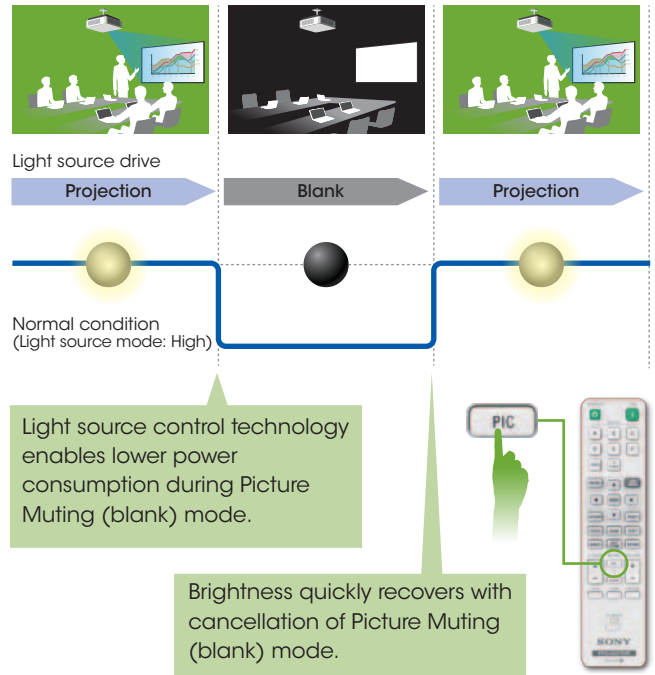### • Auto Light Source Control for Energy Saving

The brightness of the light source's output is automatically adjusted depending on the brightness of the projected image, to avoid unnecessary power consumption. When showing darker images that don't require high brightness, the light source output decreases.
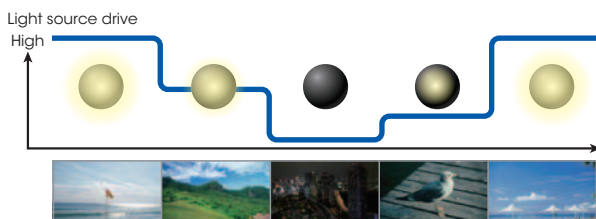
simulated images

• Blank (Picture Muting)

With the VPL-FHZ55 one can easily and quickly cut off and cut on the projected image with one touch of a button. With this function the screen can be totally blanked with no light on the screen. This enables the projector to save power and improve over all presentation experience.

Light source control technology enables lower power consumption during Picture Muting (blank) mode.

Brightness quickly recovers with cancellation of Picture Muting (blank) mode.

Low Power Consumption with No Input

The VPL-FHZ55 automatically detects no signal input and dims the light source to as low as approximately 0% of original brightness to significantly reduce energy consumption.
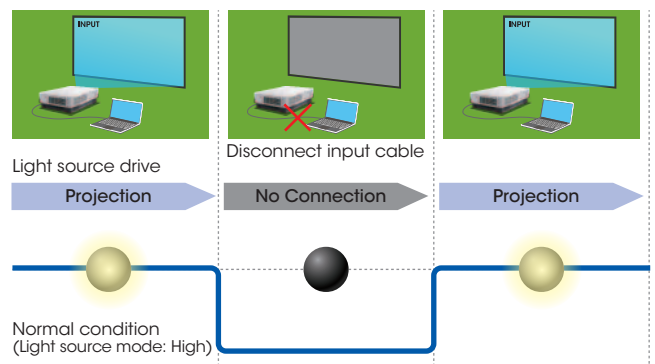
Hg (Mercury) Free

The VPL-FHZ55 laser light source projector is mercury free to provide a more environmentally friendly solution.

Operational Advantages

Instant ON/OFF for Smooth Presentation

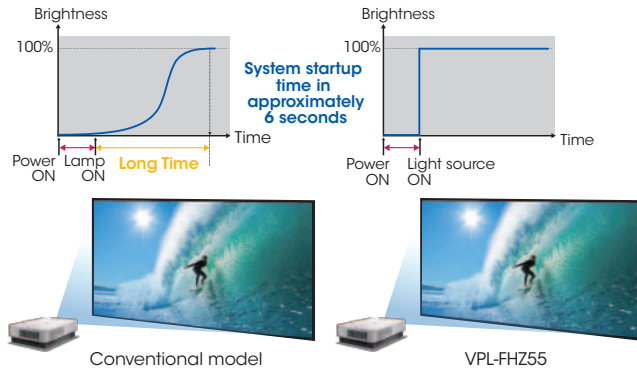The VPL-FHZ55 delivers instant on/off. Turn it on and you have immediate full brightness. Turn it off and you're done. You're not even limited in the number or duration of on/off cycles. It's the total convenience that today's users expect.

Conventional model

VPL-FHZ55

Constant Brightness Mode for Stable Projection

Constant brightness mode allows users to maintain brightness throughout the expected 20,000 hour life by driving the projector at reduced light output. This is useful for applications including digital signage, museums or even classrooms where you want to maintain a consistent visual experience for the audience.

Conventional model
Lamp changes

VPL-FHZ55
No lamp changes
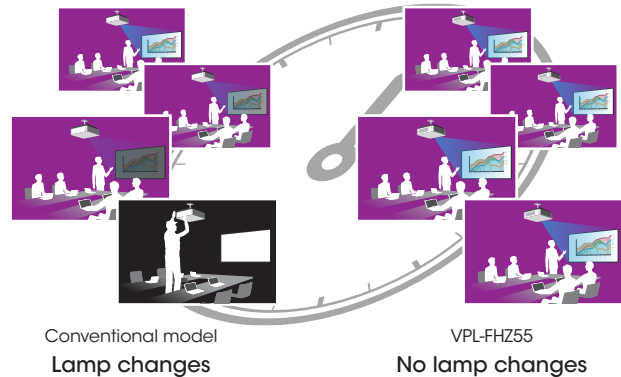
Other Features

Picture-by-Picture

With this feature, users can project two different images at the same time, greatly expanding creative possibilities and enabling exciting new applications.

DICOM GSDF Simulation*

Get a clear view of digital medical images for training and other non-diagnostic applications.

* Conforms to GSDF (Grayscale Standard Display Function) medical standards for DICOM (Digital Imaging and Communications in Medicine).
* This function is for training and reference only, and cannot be used for medical diagnosis.

Closed Captioning

Official teletext broadcasting, developed by the NCI, USA

Network and Control

Controls and monitors projector status
Compatible with various control systems

INSTALLATION DIAGRAM

Projection Distance

Unit: inches (m)

Projection image size		Projection distance L
Diagonal	Width x Height	Standard lens
80-inch (2.03 m)	68 x 42 (1.72 x 1.08)	95 – 150 (2.39 – 3.83)
100-inch (2.54 m)	85 x 53 (2.15 x 1.35)	119 – 189 (3.00 – 4.80)
120-inch (3.05 m)	102 x 64 (2.58 x 1.62)	143 – 227 (3.61 – 5.77)
150-inch (3.81 m)	127 x 79 (3.23 x 2.02)	179 – 284 (4.53 – 7.22)
200-inch (5.08 m)	170 × 106 (4.31 × 2.69)	238 – 379 (6.05 – 9.64)

Projection distance L

Front of the lens

Projected image
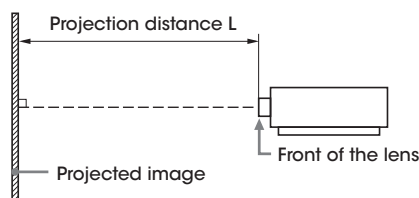
The distance L is from the front of the lens (center) to the front of the cabinet

Unit: inches (mm)

Lens	L'
Standard lens	15/32 (12.2)

Front of the cabinet

Front of the lens

L'
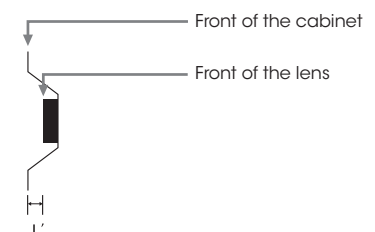
PRESET SIGNAL CHART

Computer Signal

Resolution	fH [kHz]/ fV [Hz]	Input connector	
		RGB[*1]	DVI-D[*2]/HDMI[*3]
640 x 350	31.5/70	●	—
	37.9/85	●	—
640 x 400	31.5/70	●	—
	37.9/85	●	—
640 x 480	31.5/60	●	●
	35.0/67	●	—
	37.9/73	●	—
	37.5/75	●	—
	43.3/85	●	—
800 x 600	35.2/56	●	—
	37.9/60	●	●
	48.1/72	●	—
	46.9/75	●	—
	53.7/85	●	—
832 x 624	49.7/75	●	—
1024 x 768	48.4/60	●	●
	56.5/70	●	—
	60.0/75	●	—
	68.7/85	●	—
1152 x 864	64.0/70	●	—
	67.5/75	●	—
	77.5/85	●	—
1152 x 900	61.8/66	●	—
1280 x 960	60.0/60	●	●
	75.0/75	●	—
1280 x 1024	64.0/60	●	●
	80.0/75	●	—
	91.1/85	●	—
1400 x 1050	65.3/60	●	●
1600 x 1200	75.0/60	●	●
1280 x 768	47.8/60	●	●
1280 x 720	45.0/60	●	●[*6]
1920 x 1080	67.5/60	—	●[*6]
1366 x 768	47.7/60	●	●
1440 x 900	55.9/60	●	●
1680 x 1050	65.3/60	●	●
1280 x 800	49.7/60	●	●
1920 x 1200	74.0/60	●[*5]	●[*5]
1600 x 900	60.0/60	●[*5]	●[*5]

Digital TV Signal

Signal	fV [Hz]	Input connector	
		RGB/YPBPR[*4]	DVI-D[*2]/HDMI[*3]
480i	60	●	●
576i	50	●	●
480p	60	●	●
576p	50	●	●
1080i	60	●	●
1080i	50	●	●
720p	60	●	●[*6]
720p	50	●	●
1080p	60	—	●[*6]
1080p	50	—	●
1080p	24	—	●

Analog TV Signal

Signal	fV [Hz]	Input connector
		VIDEO/S VIDEO
NTSC	60	●
PAL/SECAM	50	●

*1: INPUT A, INPUT B
*2: INPUT C
*3: INPUT D
*4: INPUT A
*5: Available for VESA Reduced Blanking signals only.
*6: INPUT C is determined as a computer signal;
   INPUT D is determined as a digital TV signal.
• When a signal other than the signals listed in the table is input, the picture may not be displayed properly.
• An input signal meant for a screen resolution different from that of the panel will not be displayed in its original resolution. Text and lines may be uneven.
• Some actual value may differ slightly from the design values given in the table.

DIMENSIONS

Unit: inches (mm)
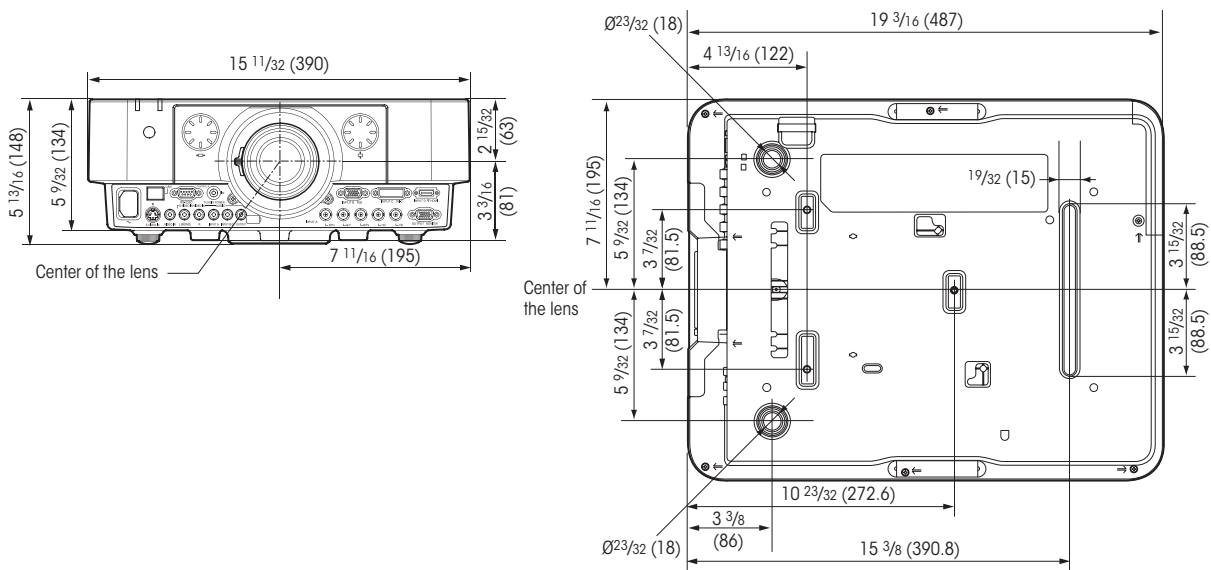
SPECIFICATIONS

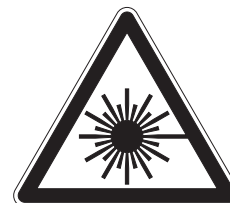|		VPL-FHZ55
Display system		3 LCD system
Display device	Size of effective display area	0.76" (19.3 mm) x 3, BrightEra, Aspect ratio: 16:10
	Number of pixels	6,912,000 (1920 x 1200 x 3) pixels
Projection lens	Zoom	Manual (Approx. 1.6 x)
	Focus	Manual
Light source		Laser diode
Screen size		40" to 600" (1.02 m to 15.24 m)
Light output		4000 lm
Contrast ratio (full white/full black)*[2]		8,000:1
Displayable scanning frequency*[1]	Horizontal	14 kHz to 93 kHz
	Vertical	47 Hz to 93 Hz
Display resolution	Computer signal input	Maximum display resolution: 1920 x 1200 dots Panel display resolution: 1920 x 1200 dots
	Video signal input	NTSC, PAL, SECAM, 480/60i, 576/50i, 480/60p, 576/50p, 720/60p, 720/50p, 1080/60i, 1080/50i, 1080/60p, 1080/50p, 1080/24p
Color system		NTSC3.58, PAL, SECAM, NTSC4.43, PAL-M, PAL-N, PAL60
Computer and video signal input/output	INPUT A	RGB / Y P_B P_R input connector: 5BNC (female) Audio input connector: Stereo mini jack
	INPUT B	RGB input connector: Mini D-sub 15-pin (female) Audio input connector: Stereo mini jack (shared with INPUT C)
	INPUT C	DVI-D input connector: DVI-D 24-pin (Single link), DVI 1.0-compliant, HDCP support Audio input connector: Stereo mini jack (shared with INPUT B)
	INPUT D*[1]	HDMI input connector: Digital RGB/Y P_B P_R Digital audio: PCM (32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz)
	S VIDEO IN	S video input connector: Mini DIN 4-pin Audio input connector: Pin jack (x2) (shared with VIDEO IN)
	VIDEO IN	Video input connector: Phono jack Audio input connector: Pin jack (x2) (shared with S VIDEO IN)
	OUTPUT	Monitor output connector: Mini D-sub 15-pin (female) Audio output connector: Stereo mini jack
Control signal input/output		RS-232C connector: D-sub 9-pin (female) LAN connector: RJ-45, 10BASE-T/100BASE-TX Control S input connector (DC power supply): Stereo mini jack, Plug in power DC 5 V
Operating temperature (Operating humidity)		32°F to 104°F / 0°C to 40°C (20% to 80%; no condensation)
Storage temperature (Storage humidity)		14°F to +140°F / -10°C to +60°C (20% to 80%)
Power requirements		AC 100 V to 240 V, 4.6 A to 1.9 A, 50/60 Hz
Power consumption	AC 100 V to 120 V	449 W
	AC 220 V to 240 V	426 W
Standby power requirements	AC 100 V to 120 V	8.5 W (Standby mode: Standard) 0.15 W (Standby mode: Low)
	AC 220 V to 240 V	9.5 W (Standby mode: Standard) 0.3 W (Standby mode: Low)
Heat dissipation	AC 100 V to 120 V	1528 BTU
	AC 220 V to 240 V	1450 BTU
Outside dimensions		W 15 11/32 x H 5 13/16 x D 19 11/16 in (W 390 x H 148 x D 500 mm) W 15 11/32 x H 5 9/32 x D 19 3/16 in (W 390 x H 134 x D 487 mm) (without protrusions)
Weight		25 lb / 11 kg
Supplied accessories		RM-PJ19 Remote Commander (1), Size AA (R6) batteries (2), AC Power Cord (1), Cable ties (2), Quick Reference Manual (1), Security Label (1), Operating Instructions (CD-ROM) (1)
Optional accessories		Projector Suspension Support PAM-600

*1 For details, refer to "PRESET SIGNAL CHART" on page 6.
*2 The value is average.
Design and specifications of the unit, including the optional accessories, are subject to change without notice.

This data projector is classified as a CLASS 2 LASER PRODUCT.
(Laser radiation IEC60825-1:2007)

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LASER RADIATION                                   IEC60825-1:2007
DO NOT STARE INTO BEAM
CLASS 2 LASER PRODUCT    WAVE LENGTH:440-455nm MAX OUTPUT ﹤64.7mW
LASERSTRÅLNING
TITTA INTE I STRÅLEN
LASERPRODUKT KLASS 2     VÅGLÄNGD:440-455nm   MAX UTEFFEKT ﹤64.7mW
レーザ放射                                           JIS C6802:2005
ビームをのぞき込まないこと
クラス 2 レーザ製品      波長：440-455nm  最大出力 ﹤64.7mW
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