Panasonic

P R E L I M I N A R Y

PT-**LB360** Series

LCD Projectors

PT-**LW330**
PT-**LW280**
PT-**LB360**
PT-**LB330**
PT-**LB300**
PT-**LB280**

Outstanding Performance in a Compact Body

That's all you need...

Triple Treat: Performance, Easy C

The PT-LB360 Series projectors are bright, compact and easy to use—ideal for education an
They also have a wide range of functions powered by a long-lasting lamp.

Excellent Performance in a Compact Body

High Brightness and High Contrast in a Lightweight Body
A brightness level ranging from 2,800 lm[1] to 3,600 lm[1] and contrast ratio of 5,000:1 have been achieved in a compact lightweight body. Clear and bright images enhance the learning and working experience.

A Maximum 8,000-Hour Lamp Replacement Cycle[2]
It enables to operate for up to 8,000 hours without needing to be replaced. This also helps reduce maintenance and operating costs.

A Long-Life Filter with a Maximum 5,000-Hour[3] Replacement Cycle
A long-life air filter has a replacement cycle of 5,000 hours. This reduces maintenance hassles for long periods of use, and helps to lower maintenance costs.

Quiet 29-dB[4] Design Helps to Hold Viewers' Attention
The noise level is as low as 29 dB. This helps your audience to keep their attention on the discussion or on the screen images during quiet scenes.

Daylight View Lite
The Daylight View Lite function supports easy and comfortable viewing during presentations and lectures in a bright room. Using the remote controller, you can easily turn on/off the brightness and color level.

Ease of Installation

### Corner Keystone Correction[5] Enables Angled Projection
All you need to do is designate four points as the corners of the projected image, and this function easily carries out horizontal and vertical keystone correction.

1.2x Zoom Lens Allows Flexible Installation
The 1.2x zoom lens lets the projector support a wide range of projection distances.

Curved Screen Correction[5]
Barrel and pincushion distortions are easily corrected when projecting onto a curved screen.
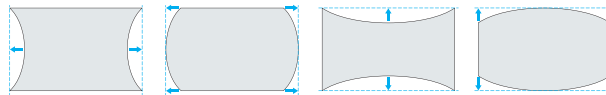
Multiple Unit Monitoring Capability
Multi Projector Monitoring and Control Software is available for monitoring and controlling multiple Panasonic projectors from a single PC.

Projection distance

PT-LW330/LW280
(16:10 aspect ratio; throw ratio 1.46–1.75:1)

Diagonal image size	Projection distance (L) min. (wide)	max. (tele)	Height from the edge of screen to center of lens (H)
30" [0.76]	3.0 [0.9]	3.7 [1.1]	0.030 [0.009]
40" [1.02]	4.1 [1.2]	4.9 [1.5]	0.039 [0.012]
50" [1.27]	5.1 [1.6]	6.2 [1.9]	0.049 [0.015]
60" [1.52]	6.2 [1.9]	7.4 [2.3]	0.059 [0.018]
70" [1.78]	7.2 [2.2]	8.7 [2.6]	0.069 [0.021]
80" [2.03]	8.2 [2.5]	9.9 [3.0]	0.079 [0.024]
90" [2.29]	9.3 [2.8]	11.2 [3.4]	0.089 [0.027]
100" [2.54]	10.3 [3.1]	12.4 [3.8]	0.098 [0.030]
120" [3.05]	12.4 [3.8]	14.9 [4.5]	0.118 [0.036]
150" [3.81]	15.5 [4.7]	18.6 [5.7]	0.144 [0.044]
200" [5.08]	20.7 [6.3]	24.9 [7.6]	0.194 [0.059]
250" [6.35]	25.9 [7.9]	31.1 [9.5]	0.243 [0.074]
300" [7.62]	31.1 [9.5]	37.4 [11.4]	0.292 [0.089]

PT-LB360/LB330
(4:3 aspect ratio; throw ratio 1.46–1.75:1)

Diagonal image size	Projection distance (L) min. (wide)	max. (tele)	Height from the edge of screen to center of lens (H)
30" [0.76]	2.9 [0.9]	3.5 [1.1]	0.213 [0.065]
40" [1.02]	3.8 [1.2]	4.6 [1.4]	0.285 [0.087]
50" [1.27]	4.8 [1.5]	5.8 [1.8]	0.358 [0.109]
60" [1.52]	5.8 [1.8]	7.0 [2.1]	0.430 [0.131]
70" [1.78]	6.8 [2.1]	8.2 [2.5]	0.499 [0.152]
80" [2.03]	7.8 [2.4]	9.3 [2.8]	0.571 [0.174]
90" [2.29]	8.8 [2.7]	10.5 [3.2]	0.643 [0.196]
100" [2.54]	9.7 [3.0]	11.7 [3.6]	0.715 [0.218]
120" [3.05]	11.7 [3.6]	14.1 [4.3]	0.856 [0.261]
150" [3.81]	14.6 [4.5]	17.6 [5.4]	1.073 [0.327]
200" [5.08]	19.6 [6.0]	23.5 [7.2]	1.427 [0.435]
250" [6.35]	24.5 [7.5]	29.4 [9.0]	1.785 [0.544]
300" [7.62]	29.4 [9.0]	35.3 [10.8]	2.142 [0.653]

PT-LB300/LB280
(4:3 aspect ratio; throw ratio 1.48–1.78:1)

Diagonal image size	Projection distance (L) min. (wide)	max. (tele)	Height from the edge of screen to center of lens (H)
30" [0.76]	2.9 [0.9]	3.5 [1.1]	0.213 [0.065]
40" [1.02]	3.9 [1.2]	4.7 [1.4]	0.285 [0.087]
50" [1.27]	4.9 [1.5]	5.9 [1.8]	0.358 [0.109]
60" [1.52]	5.9 [1.8]	7.1 [2.2]	0.430 [0.131]
70" [1.78]	6.9 [2.1]	8.3 [2.5]	0.499 [0.152]
80" [2.03]	7.9 [2.4]	9.5 [2.9]	0.571 [0.174]
90" [2.29]	8.9 [2.7]	10.7 [3.3]	0.643 [0.196]
100" [2.54]	9.9 [3.0]	11.9 [3.6]	0.715 [0.218]
120" [3.05]	11.9 [3.6]	14.3 [4.3]	0.856 [0.261]
150" [3.81]	14.9 [4.5]	17.8 [5.4]	1.073 [0.327]
200" [5.08]	19.8 [6.0]	23.8 [7.3]	1.427 [0.435]
250" [6.35]	24.8 [7.6]	29.8 [9.1]	1.785 [0.544]
300" [7.62]	29.8 [9.1]	35.8 [10.9]	2.142 [0.653]

* Lens performance cannot be guaranteed for projection sizes larger than 12.9 m.

and corporate users.

Variety of Useful Features

Memory Viewer Function*6
In addition to JPEG/BMP image and text files, PDF files can be projected by simply inserting a USB memory device containing the data into the USB memory port. Now you can start your presentation without having to connect to a computer.

USB Display Function*6 for Easy Projection Using a USB Cable
USB Display outputs images and sounds from the computer without the need to install any software. Simply connect to the USB port with a single USB cable and start your presentation.

Equipped with an HDMI Input Terminal and Abundant Interfaces
Supports a wide range of system architectures for portable or ceiling-mounted use.
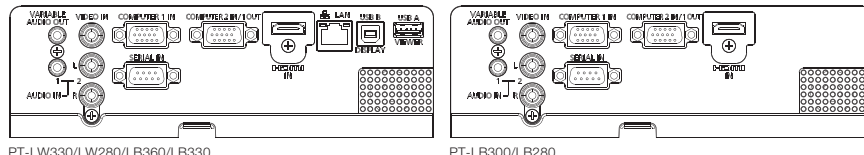
PT-LW330/LW280/LB360/LB330   PT-LB300/LB280

Other Useful Features
• Built-in 10 W*7 speaker   • PJLink™ compatibility PJLink
• Built-in closed caption decoder   • Direct power off   • Easy lamp and filter replacement
• Projector identification system for up to 6 projectors   • Blackboard modes
• Start up logo   • Equipped with a security bar for theft prevention

Eco-friendly	• Ecology conscious design • No halogenated flame retardants are used in the cabinet. • Lead-free glass is used for the lens. • Coating-free cabinet for easy recycling. • Switchable lamp mode

*1 2,800 lm for the PT-LW280 and PT-LB280, and 3,000 lm for the PT-LB300, and 3,300 lm for the PT-LW330 and PT-LB330, and 3,600 lm for the PT-LB360.
*2 When lamp power is set to Eco 2
*3 The usage environment affects the duration of the filter.
*4 Lamp mode: eco
*5 Only vertical keystone correction for the PT-LB300/LB280.
*6 Excluding the PT-LB300/LB280.
*7 2 W speaker for the PT-LB300/LB280.

unit: feet [meters]

Upper edge of projected image

H

L

Projected image

L

H

Lower edge of projected image
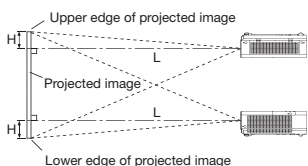
• The value for L (distance to screen) varies slightly depending on the zoom lens characteristics.
• At the shortest projection distance, the zoom lens characteristics may cause slight image distortion.

PT-**LW330**	PT-**LW280**
WXGA	WXGA
3,300 lm	**2,800** lm

PT-**LB360**	PT-**LB330**	PT-**LB300**	PT-**LB280**
XGA	XGA	XGA	XGA
3,600 lm	**3,300** lm	**3,000** lm	**2,800** lm

Specifications

Model		PT-**LW330**	PT-**LW280**	PT-**LB360**	PT-**LB330**	PT-**LB300**	PT-**LB280**
Power supply		AC100–240 V 50 Hz/60 Hz					
LCD panel	Display method	Transparent LCD panel (× 3, R/G/B)					
	Drive method	Active matrix method					
	Panel size	15.0 mm (0.59 inches) diagonal (16:10 aspect ratio)		16 mm (0.63 inches) diagonal (4:3 aspect ratio)			
	Pixels	1,024,000 (1,280 × 800) pixels		786,432 (1,024 × 768) pixels			
Lens		Manual zoom (1.2 x), Manual focus lens, F=1.58–1.75, f=18.85–22.63 mm, Throw Ratio:1.46–1.75:1				Manual zoom (1.2 x), Manual focus lens, F=2.1–2.25, f=19.109–22.936 mm, Throw Ratio:1.48–1.78:1	
Screen size		0.76–7.62 m (30–300 inches) diagonally, 16:10 aspect ratio		0.76–7.62 m (30–300 inches) diagonally, 4:3 aspect ratio			
Resolution		1,280 × 800 pixels (Input signals that exceed this resolution will be converted to 1,280 × 800 pixels.)		1,024 × 768 pixels (Input signals that exceed this resolution will be converted to 1,024 × 768 pixels.)			
Brightness* (Lamp power: Normal)		3,300 lm	2,800 lm	3,600 lm	3,300 lm	3,000 lm	2,800 lm
Lamp		230 W x 1 lamp					
	Lamp replacement cycle (Lamp power: Normal/Eco1/Eco2)	4,000 h/5,000 h/8,000 h*[1]					
Center-to-corner uniformity*		80 %					
Contrast*		5,000:1 (all white/all black) (RGB signal input, Color mode: Dynamic, Lamp power: Normal)					
Scanning frequency	HDMI IN	f_H: 15–91 kHz, f_V: 50–85 Hz, dot clock: 25 MHz–162 MHz					
	RGB	f_H: 15–91 kHz, f_V: 50–85 Hz, dot clock: 162 MHz or lower					
	YPBPR (YCBCR)	f_H: 15.75 kHz, f_V: 60 Hz [525i (480i)], f_H: 45.00 kHz, f_V: 60 Hz [750p (720)/60p], f_H: 28.13 kHz, f_V: 25 Hz [1125 (1080)/25p], f_H: 67.50 kHz, f_V: 60 Hz [1125 (1080)/60p],	f_H: 15.63 kHz, f_V: 50 Hz [625i (576i)], f_H: 37.50 kHz, f_V: 50 Hz [750p (720)/50p], f_H: 27.00 kHz, f_V: 24 Hz [1125 (1080)/24p], f_H: 56.25 kHz, f_V: 50 Hz [1125 (1080)/50p]	f_H: 31.50 kHz, f_V: 60 Hz [525p (480p)], f_H: 33.75 kHz, f_V: 60 Hz [1125 (1080)/60i], f_H: 27.00 kHz, f_V: 48 Hz [1125 (1080)/24sF],	f_H: 31.25 kHz, f_V: 50 Hz [625p (576p)], f_H: 28.13 kHz, f_V: 50 Hz [1125 (1080)/50i], f_H: 33.75 kHz, f_V: 30 Hz [1125 (1080)/30p],		
	Video/S-Video	f_H: 15.75 kHz, f_V: 60 Hz [NTSC/NTSC4.43/PAL-M/PAL60], f_H: 15.63 kHz, f_V: 50 Hz [PAL/SECAM/PAL-N]					
Keystone correction range	Vertical	±30° (Auto, Manual)					
	Horizontal	±15° (Manual)				—	
Installation		Ceiling/floor, front/rear					
Terminals	HDMI IN	HDMI 19P (x 1) HDCP compatible, Deep Color compatible [480p], [576p], [720/60p], [720/50p], [1080/60i], [1080/50i], [1080/60p], [1080/50p], [1080/24p], [1080/25p], [1080/24sF], [1080/30p] VGA size (640 dots × 480 dots)–WUXGA (1,920 dots × 1,200 dots), VESA CVT-RB compatible, Audio signal: Linear PCM (sampling frequencies: 48 kHz, 44.1 kHz, 32 kHz)					
	COMPUTER 1 IN	D-sub HD 15-pin (female) × 1 [RGB/S-Video/YPB(CB)PR(CR)/Scart RGB]					
	COMPUTER 2 IN/OUT	D-sub HD 15-pin (female) × 1 [RGB/Monitor output] (Input/output switching)				[Monitor output]	
	VIDEO IN	Pin jack (x 1)					
	AUDIO IN	M3 x 2 (L-R x 1)					
	AUDIO OUT	M3 x 1 (L-R x 1) (variable)					
	LAN	RJ-45 (x 1) For network connections, 10Base-T/100Base-TX, PJLink™ (class 1) compatible				—	
	SERIAL IN	D-Sub 9P, female (x 1) For external control (RS-232C compatible)					
	USB-Type A	Memory Viewer				—	
	USB-Type B	USB Display				—	
Built-in speaker		10 W mono				2 W mono	
Operation noise*		TBD (Lamp power Normal), 29 dB (Lamp power Eco)					
Cabinet materials		Molded plastic (PC)					
Dimensions (W × H × D)		335 mm x 96 mm (when legs at shortest position) x 252 mm					
Weight*		Approx. 2.7 kg (6.0 lbs)					
Operating environment		Operating environment temperature: Normal use: 5 °C–40 °C (41 °F–104 °F) [at altitudes less than 1,400 m (4,500 ft)] 5 °C–35 °C (41 °F–95 °F) [at altitudes of 1,400–2,700 m (4,500–8,800 ft)] Operating environment humidity: 20–80 % (no condensation)					
Supplied accessories		• Wireless remote control unit (x 1) • Power cord (x 1) (x2 for Asia model only) • CD-ROM (x 1) ··· Instruction manual, Multi Projector Monitoring and Control Software • Instruction manual (Basic guide) • Batteries for remote control (R03/LR03/AAA type battery (x 2)) • RGB signal cable (x 1)					
Optional accessories	Ceiling mount bracket	Bracket assembly: ET-PKL420B, Ceiling mount bracket (for high ceilings): ET-PKL100H, Ceiling mount bracket (for low ceilings):ET-PKL100S, Attachment for bracket assembly: ET-PAD100					
	Replacement lamp unit	ET-LAL500					
	Replacement filter unit	ET-RFL300					
	Conversion cable	D-SUB/S-Video conversion cable: ET-ADSV					

* Measurement, measuring conditions, and method of notation all comply with ISO 21118 international standards.
*1 The value for the recommended lamp replacement cycle is the maximum value, at which luminance will become 50 %.

Dimensions
unit: mm (inches)

335 (13-3/16)

96 (3-25/32)

252 (9-29/32)
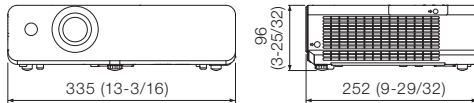
Caution

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.

NOTES ON USE

1. The projector uses a high-voltage mercury lamp under high internal pressure. This lamp may break, emitting a popping sound, or fail to illuminate, due to impact or extended use.
2. The high-wattage lamp becomes very hot during operation. Please observe the following precautions:
   • Never place objects on top of the projector while it is in operation.
   • Make sure there is an unobstructed space of 1000 mm(3 ft 3 in) or more around the projector's exhaust openings.
   • If stacking projector units, care must be taken to provide the recommended space between units. 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, the temperature of the air surrounding the projector must match the operating temperature listed in the specifications table during use. Also, make sure the projector's intake and exhaust openings are not blocked. Ensure there is sufficient ventilation to prevent hot air from the exhaust openings being recirculated into the intake opening.
3. The lamp replacement cycle duration becomes shorter if the projector is operated repeatedly for short periods.
   • The lamp replacement cycle varies greatly depending on individual lamp characteristics and usage conditions.
   • The brightness of the lamp will gradually decrease with use.
4. Due to natural characteristics of lamps, screen brightness may fluctuate. This is not an indication of faulty lamp performance.

Panasonic®