# **Panasonic**

PT-LB360 Series

LCD Projectors

PT-LW330 PT-LW280 PT-LB360 PT-LB330 PT-LB300 PT-LB300







## Triple Treat: Performance, Easy C

The PT-LB360 Series projectors are bright, compact and easy to use—ideal for education at 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  $\rm Im^{*1}$  to 3,700  $\rm Im^{*1}$  and contrast ratio of 10,000:1 have been achieved in a compact lightweight body. Clear and bright images enhance the learning and working experience.

### A Maximum 8,000-Hour\*2 Lamp Replacement Cycle\*3

It enables to operate for up to 8,000 hours\*2 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 28-dB\*2 Design Helps to Hold Viewers' Attention

The noise level is as low as 28 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 can be activated from the remote control for easy and comfortable viewing during presentations and lectures in a bright room





### **Ease of Installation**

### Corner Keystone Correction\*4 Enables Angled Projection

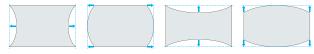
All you need to do is designate four points as the corners of the projected image, and this function easily carries out horizontal and vertical keystone correction.

### 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\*4

Barrel and pincushion distortions are easily corrected when projecting onto a curved screen.



### Multiple Unit Monitoring Capability\*5

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

Multi Projector Monitoring and Control Software is available for monitoring and controlling multiple Panasonic projectors from a single PC.

Projection distance unit: feet [meters]															
<b>PT-LW330</b> (16:10 aspect ratio; throw ratio 1.48–1.78:1)				<b>PT-LW280</b> (16:10 aspect ratio; throw ratio 1.47–1.77:1)			<b>PT-LB360/LB330</b> (4:3 aspect ratio; throw ratio 1.48–1.78:1)			<b>PT-LB300/LB280</b> (4:3 aspect ratio; throw ratio 1.47–1.77:1)					
Diagonal image size	-	distance (L) max. (tele)	Height from the edge of screen to center of lens (H)	Diagonal image size			Height from the edge of screen to center of lens (H)	Diagonal image size			Height from the edge of screen to center of lens (H)	Diagonai			Height from the edge of screen to center of lens (H)
30" [0.76]				30" [0.76]			0.089 [0.027]	30" [0.76]		3.5 [1.1]		30" [0.76]		3.5 [1.1]	
40" [1.02]	4.1 [1.3]		0.118 [0.036]	40" [1.02]		5.0 [1.5]	0.118 [0.036]	40" [1.02]		4.7 [1.4]	0.285 [0.087]	40" [1.02]		4.7 [1.4]	0.285 [0.087]
50" [1.27]	5.2 [1.6]	6.3 [1.9]	0.151 [0.046]	50" [1.27]	5.2 [1.6]		0.151 [0.046]	50" [1.27]	4.9 [1.5]	5.9 [1.8]	0.358 [0.109]	50" [1.27]	4.9 [1.5]	5.9 [1.8]	0.358 [0.109]
60" [1.52]	6.3 [1.9]	7.5 [2.3]	0.180 [0.055]	60" [1.52]	6.3 [1.9]	7.5 [2.3]	0.180 [0.055]	60" [1.52]	5.9 [1.8]	7.1 [2.2]	0.430 [0.131]	60" [1.52]	5.9 [1.8]	7.1 [2.2]	0.430 [0.131]
70" [1.78]	7.3 [2.2]	8.8 [2.7]	0.207 [0.063]	70" [1.78]	7.3 [2.2]	8.8 [2.7]	0.207 [0.063]	70" [1.78]	6.9 [2.1]	8.3 [2.5]	0.499 [0.152]	70" [1.78]	6.9 [2.1]	8.3 [2.5]	0.499 [0.152]
80" [2.03]	8.4 [2.6]	10.1 [3.1]	0.236 [0.072]	80" [2.03]	8.4 [2.5]	10.1 [3.1]	0.236 [0.072]	80" [2.03]	7.9 [2.4]	9.5 [2.9]	0.571 [0.174]	80" [2.03]	7.9 [2.4]	9.5 [2.9]	0.571 [0.174]
90" [2.29]	9.4 [2.9]	11.4 [3.5]	0.269 [0.082]	90" [2.29]	9.4 [2.9]	11.3 [3.4]	0.269 [0.082]	90" [2.29]	8.9 [2.7]	10.7 [3.3]	0.643 [0.196]	90" [2.29]	8.9 [2.7]	10.7 [3.3]	0.643 [0.196]
100" [2.54]	10.5 [3.2]	12.6 [3.8]	0.299 [0.091]	100" [2.54]	10.5 [3.2]	12.6 [3.8]	0.299 [0.091]	100" [2.54]	9.9 [3.0]	11.9 [3.6]	0.715 [0.218]	100" [2.54]	9.9 [3.0]	11.9 [3.6]	0.715 [0.218]
120" [3.05]	12.6 [3.8]	15.2 [4.6]	0.358 [0.109]	120" [3.05]	12.6 [3.8]	15.1 [4.6]	0.358 [0.109]	120" [3.05]	11.9 [3.6]	14.3 [4.4]	0.856 [0.261]	120" [3.05]	11.9 [3.6]	14.3 [4.3]	0.856 [0.261]
150" [3.81]	15.8 [4.8]	19.0 [5.8]	0.449 [0.137]	150" [3.81]	15.7 [4.8]	18.9 [5.8]	0.449 [0.137]	150" [3.81]	14.9 [4.5]	17.9 [5.5]	1.073 [0.327]	150" [3.81]	14.9 [4.5]	17.8 [5.4]	1.073 [0.327]
200" [5.08]	21.1 [6.4]	25.3 [7.7]	0.594 [0.181]	200" [5.08]	21.0 [6.4]	25.2 [7.7]	0.594 [0.181]	200" [5.08]	19.9 [6.1]	23.9 [7.3]	1.427 [0.435]	200" [5.08]	19.8 [6.0]	23.8 [7.3]	1.427 [0.435]
250" [6.35]	26.4 [8.0]	31.7 [9.7]	0.745 [0.227]	250" [6.35]	26.3 [8.0]	31.6 [9.6]	0.745 [0.227]	250" [6.35]	24.9 [7.6]	29.9 [9.1]	1.785 [0.544]	250" [6.35]	24.8 [7.6]	29.8 [9.1]	1.785 [0.544]
300" [7.62]	31.6 [9.6]	38.0 [11.6]	0.892 [0.272]	300" [7.62]	31.6 [9.6]	37.9 [11.6]	0.892 [0.272]	300" [7.62]	29.9 [9.1]	35.9 [10.9]	2.142 [0.653]	300" [7.62]	29.8 [9.1]	35.8 [10.9]	2.142 [0.653]

## Operation, Portable Convenience

nd 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

#### **Other Useful Features**

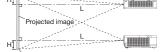
- Built-in 10 W<sup>\*7</sup> speaker
   PJLink<sup>™</sup> compatibility PJLink<sup>™</sup>
- Built-in closed caption decoder Direct power off Easy lamp and filter replacement
- Projector identification system for up to 6 projectors Blackboard modes
- Start up logo Equipped with a security bar for theft 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 Im for the PT-LW280 and PT-LB280, and 3,100 Im for the PT-LB300, and 3,300 Im for the PT-LW330 and PT-LB330, and 3,700 Im for
- the PT-LB360.

  \*2 When lamp control is set to Eco 2.
- \*3 The usage environment affects.
- \*4 Only vertical keystone correction for the PT-LB300/LB280.
  \*5 Not featured on the PT-LB300/LB280.
- \*6 Excluding the PT-LB300/LB280. \*7 2 W speaker for the PT-LB300/LB280.





### 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- <b>LW280</b>
WXGA
<b>2,800</b> lm

			J	
PT	-LB360	PT- <b>LB330</b>	PT- <b>LB300</b>	PT- <b>LB280</b>
	XGA	XGA	XGA	XGA
3	3,700 lm	<b>3,300</b> lm	3,100 lm	<b>2,800</b> lm

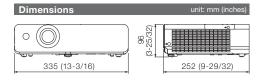


Model		PT-LW330	PT- <b>LW280</b>	PT- <b>LB360</b>	PT- <b>LB330</b>	PT- <b>LB300</b>	PT- <b>LB280</b>			
ower supply		AC100-240 V 50 Hz/60 Hz		1	1		10.00			
ower consumption		300 W (6 W when Standby m	de set to Normal, 0.5 W when Standby m	ode set to Eco*1)						
.CD panel	Display method	Transparent LCD panel (x 3, R/G/B)								
	Drive method	Active matrix method								
	Panel size	15.0 mm (0.59 inches) diago	nal (16:10 aspect ratio)	16 mm (0.63 inches) diag	onal (4:3 aspect ratio)					
	Pixels	1,024,000 (1,280 × 800) pix	els	786,432 (1,024 × 768) p	ixels					
Lens		Manual zoom (1.2 ×), Manual foo F=1.6-1.76, f=19.16-23.02 m Throw Ratio: 1.48-1.78:1		ens Manual zoom (1.2 ×), Ma F=1.6-1.76, f=19.16-2	nual focus lens 13.02 mm, Throw Ratio: 1.48–1.78:1		Manual zoom (1.2 ×), Manual focus lens F=2.1-2.25, f=19.11-22.94 mm, Throw Ratio: 1.47-1.77:1			
creen size		0.76-7.62 m (30-300 inches)	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 sig resolution will be converted to	1,280 × 800 pixels.)	1,024 × 768 pixels (Inpu	$1,024 \times 768$ pixels (Input signals that exceed this resolution will be converted to $1,024 \times 768$ pixels.)					
rightness* (Lamp p	power: Normal)	3,300 lm	2,800 lm	3,700 lm	3,300 lm	3,100 lm	2,800 lm			
amp		230 W × 1 lamp								
	Lamp replacement cycle	Normal: 5000 h/Eco1: 6000 h/Eco2: 8000 h*2								
enter-to-corner ur	niformity*	80 %								
Contrast*		10,000:1 (all white/all black) (RGB signal input, Color mode: Dynamic, Lamp control: Normal)								
canning	HDMI IN	fi:: 15-91 kHz, fv: 50-85 Hz, dot clock: 25 MHz-162 MHz								
requency	RGB	fis: 15–91 kHz, fis: 50–85 Hz, dot clock: 162 MHz or lower								
	YP <sub>B</sub> P <sub>R</sub> (YC <sub>B</sub> C <sub>R</sub> )	fix: 15.75 kHz, fix: 59.94 Hz [525i (480i)], fix: 15.63 kHz, fix: 50 Hz [625i (576i)], fix: 31.47 kHz, fix: 59.94 Hz [525p (480p)], fix: 31.25 kHz, fix: 50 Hz [625p (576p)], fix: 33.75 kHz, fix: 60 Hz [1125 (1080)/50i], fix: 28.13 kHz, fix: 50 Hz [1125 (1080)/50i], fix: 27.00 kHz, fix: 24 Hz [1125 (1080)/50i], fix: 27.00 kHz, fix: 48 Hz [1125 (1080)/50i], fix: 33.75 kHz, fix: 30 Hz [1125 (1080)/50i], fix: 55.25 kHz, fix: 60 Hz [1125 (1080)/50i], fix: 27.00 kHz, fix: 48 Hz [1125 (1080)/50i], fix: 33.75 kHz, fix: 30 Hz [1125 (1080)/50i], fix: 55.25 kHz, fix: 30 Hz [1125 (1080)/50i], fix: 33.75 kHz, fix: 30 Hz [1125								
	Video/S-Video	fi: 15.73 kHz, fv: 59.94 Hz [NTSC/NTSC4.43/PAL-M/PAL60], fi: 15.63 kHz, fv: 50 Hz [PAL/SECAM/PAL-N]								
eystone	Vertical	±30° (Auto, Manual)								
orrection range	Horizontal	±15° (Manual) —								
nstallation		Ceiling/floor, front/rear								
erminals	HDMI IN	HDMI 19P × 1 HDCP compatible, Deep Color compatible [480p], [576p], [720/60p], [720/50p], [1080/60j], [1080/50j], [1080/50j], [1080/50p], [1080/24p], [1080/25p], [1080/24sF], [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/YPa(Ca)/Scart RGB]								
	COMPUTER 2 IN/OUT	D-sub HD 15-pin (female) x 1 [RGB/Monitor output] (Input/output switching) [Monitor output]								
	VIDEO IN	Pin jack × 1								
	AUDIO IN 1	M3 (L,R) × 1								
	AUDIO IN 2	Pin jack × 2 (L,R)								
	AUDIO OUT	$M3$ (L,R) $\times$ 1 (variable)								
	LAN	RJ-45 (x 1) For network conn	<u> </u>							
	SERIAL IN	. ,	ternal control (RS-232C compatible)							
	USB-Type A	Memory Viewer, DC5 V MAX5	00 mA				_			
	USB-Type B	USB Display								
Built-in speaker		10 W mono 2 W mono								
peration noise*		Normal: 37 dB, Eco1: 33 dB, Eco2: 28 dB								
Cabinet materials		Molded plastic (PC)								
Dimensions (W $\times$ H $\times$ D)		335 mm × 96 mm (when legs at shortest position) × 252 mm								
Weight*		Approx. 2.8 kg (6.2 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)]  Operating environment humidity: 20-80 % (no condensation)  Operating environment humidity: 20-80 % (no condensation)								
Supplied accessories		Wireless remote control unit (x 1)								
Optional	Ceiling mount bracket	Projector mount bracket: ET-F	KL420B, Ceiling mount bracket (for high of	ceilings): ET-PKL100H, Ceiling	mount bracket (for low ceilings): ET-PKL	100S				
iccessories	Replacement lamp unit	ET-LAL500								
	Replacement filter unit	ET-RFL300								
	neplacement inter unit	E1-111 E300								

\* Measurement, measuring conditions, and method of notation all comply with ISO 21118 international standards.

1 When the Standby mode is set to Eco, network functions such as power on over the LAN network will not operate. Also, only certain commands can be received for external control using the serial terminal. \*2 The value for the recommended lamp replacement cycle is the maximum value, at which luminance will become 50 %. The usage environment affects the lamp replacement cycle. \*3 Not supplied with the PT-LB300/LB280.





### 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,

- 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.
   The high-wattage lamp becomes very hot during operation. Please observe the following precautions:
- The high-wattage ramp becomes very not curring operation. Please doserve the initiowing 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**

Weights and dimensions shown are approximate. Specifications and appearance are subject to change without notice. Product availability differs depending on region and country. This product may be subject to export control regulations. The projection distances and throw ratios given in this brochure are for use only as guidelines. For more detailed information, please consult the dealer from whom you are purchasing the product. The PJLink trademark is an application trademark in Japan, the United States, and other countries and regions or registered trademarks. HDMI, the HDMI logo and High-Definition Multimedia Interface is a trademark or registered trademark of HDMI Licensing LLC. All other trademarks are the property of their respective trademark owners. Projection images simulated. © 2014 Panasonic Corporation. All rights reserved.



For more information about Panasonic projectors, please visit:

Projector Global Web Site – panasonic.net/avc/projector Facebook – www.facebook.com/panasonicprojector YouTube – www.youtube.com/user/PanasonicProjector

### www.panasonic-center.at

All information included here is valid as of May 2014.