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**S P E C F I L E**

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**Product Number :** PT-**DZ780W/DZ780LW**  
PT-**DZ780B/DZ780LB**

**Product Name :** DLP™ Projectors

**Specifications**

**Main unit**

Power supply		100–240 V AC, 9.0–4.0 A, 50/60 Hz
Power consumption		790 W (810 VA) (0.3 W with STANDBY MODE set to ECO*1, 3 W with STANDBY MODE set to NORMAL) max. 2,696 BTU (without light output: 2,601 BTU)
DLP™ chip	Panel size	17.0 mm (0.67 in) diagonal (16:10 aspect ratio)
	Display method	DLP™ chip × 1, DLP™ system
	Pixels	2,304,000 (1,920 × 1,200) × 1, total of 2,304,000 pixels
Lens	PT-DZ780W/DZ780B	Powered zoom/focus lenses (1.7–2.4:1), F 1.7–1.9, f 25.6–35.7 mm
	PT-DZ780LW/DZ780LB	Optional powered zoom/focus lenses and fixed-focus lens
Lamp		310 W UHM lamps (× 2)
Screen size		1.27–15.24 m (50–600 inches) *1.27 – 5.08 m (50 – 200 inches) with the ET-DLE055 (16:10 aspect ratio) *2.54 – 8.89 m (100 – 350 inches) with the ET-DLE030 (16:10 aspect ratio)
Brightness*2		7,000 lumens (dual lamp, LAMP MODE: NORMAL)
Center-to-corner uniformity*2		90%
Contrast*2		3,000:1 (full on/full off, in dynamic iris 3 mode)
Resolution		1,920 × 1,200 pixels
Scanning frequency	SDI	3G-SDI signal (RGB 4:4:4 12-bit/10-bit): SMPTE ST 424M compliant: 1125(1080)/60i, 1125(1080)/50i, 1125(1080)/25p, 1125(1080)/24p, 1125(1080)/24sF, 1125(1080)/30p 3G-SDI signal (YPbPr 4:2:2 10-bit): SMPTE ST 424M compliant: 1125(1080)/60p, 1125(1080)/50p HD-SDI signal (YPbPr 4:2:2 10-bit): SMPTE ST 292M compliant: 750(720)/60p, 750(720)/50p, 1125(1035)/60i, 1125(1080)/60i, 1125(1080)/50i, 1125(1080)/25p, 1125(1080)/24p, 1125(1080)/24sF, 1125(1080)/30p SD-SDI signal (YCbCr 4:2:2 10-bit): SMPTE ST 259M compliant: 525i(480i), 625i(576i)
	HDMI/DVI-D	fH: 15–100 kHz, fV: 24–120 Hz, dot clock: 25–162 MHz
	RGB	fH: 15–100 kHz, fV: 24–120 Hz, dot clock: 20–162 MHz
	YPbPr (YCbCr)	525i (480i): fH 15.75 kHz; fV 60 Hz, 625i (576i): fH 15.63 kHz; fV 50 Hz, 525p (480p): fH 31.50 kHz; fV 60 Hz, 625p (576p): fH 31.25 kHz; fV 50 Hz, 750 (720)/60p: fH 45.00 kHz; fV 60 Hz, 750 (720)/50p: fH 37.50 kHz; fV 50 Hz, 1125 (1035)/60i: fH 33.75 kHz; fV 60 Hz, 1125 (1080)/60i: fH 33.75 kHz; fV 60 Hz, 1125 (1080)/50i: fH 28.13 kHz; fV 50 Hz, 1125 (1080)/25p: fH 28.13 kHz; fV 25 Hz, 1125 (1080)/24p: fH 27.00 kHz; fV 24 Hz, 1125 (1080)/24sF: fH 27.00 kHz; fV 48 Hz, 1125 (1080)/30p: fH 33.75 kHz; fV 30 Hz, 1125 (1080)/60p: fH 67.50 kHz; fV 60 Hz, 1125 (1080)/50p: fH 56.25 kHz; fV 50 Hz
	Video/S-Video	fH: 15.75 kHz, fV: 60 Hz [NTSC/NTSC4.43/PAL-M/PAL60] fH: 15.63 kHz, fV: 50 Hz [PAL/PAL-N/SECAM]
Optical axis shift		Vertical: -16% – +50% (powered), horizontal: -10% – +30% (powered) (-10% – +28% with the ET-DLE085/DLE105)

**NOTE:** Optical axis shift function cannot be operated when used with the ET-DLE055.  
If using the ET-DLE030, the optical axis is fixed.

Keystone correction range		<p>Vertical <math>\pm 40^\circ</math>, horizontal: <math>\pm 15^\circ</math>                  (Vertical: <math>\pm 22^\circ</math> with the ET-DLE055/DLE085/DLE105),                  (Vertical: <math>\pm 5^\circ</math> with the ET-DLE030)</p> <p>When using the optical Upgrade Kit                  Vertical <math>\pm 45^\circ</math>, horizontal: <math>\pm 40^\circ</math>                  (Vertical: <math>\pm 22^\circ</math> with the ET-DLE055/DLE085/DLE105),                  (Vertical: <math>\pm 40^\circ</math> with the Standard zoom lens/ET-DLE150/DLE250)                  (Vertical: <math>\pm 15^\circ</math> with the ET-DLE030)</p> <p>[VERTICAL KEYSTONE] and [HORIZONTAL KEYSTONE] cannot be corrected if the total exceeds <math>55^\circ</math> when used at the same time.                  Curved correction (Geometric adjustment)                  4 corner correction</p>
Installation		Ceiling/floor, front/rear
Terminals	SDI IN	BNC $\times 1$ , 3G-SDI signal: SMPTE ST 424 compliant HD-SDI signal: SMPTE ST 292 compliant SD-SDI signal: SMPTE ST 259 compliant
	HDMI IN	HDMI 19-pin $\times 1$ , Deep Color, compatible with HDCP,
	DVI-D IN	DVI-D 24-pin $\times 1$ , DVI 1.0 compliant, HDCP compatible,
	RGB 1 IN	BNC $\times 5$
	R, G, B	R: 0.7 Vp-p, 75 ohms, G: 0.7 Vp-p (G: 1.0 Vp-p for sync on G), 75 ohms, B: 0.7 Vp-p, 75 ohms HD, VD/SYNC: TTL, high impedance, positive/negative automatic <b>NOTE: SYNC/HD and VD terminals do not accept tri-level sync signals.</b>
	Y, PB, PR (Y, CB, CR)	Y: 1.0 Vp-p (including sync signal), PB/PR (CB/CR): 0.7 Vp-p, 75 ohms
	S-Video signal	Y: 1.0 Vp-p, C: 0.286 Vp-p, 75 ohms
	Video signal	1.0 Vp-p, 75 ohms
	RGB 2 IN	D-sub HD 15-pin (female) $\times 1$
	R, G, B	R: 0.7 Vp-p, 75 ohms, G: 0.7 Vp-p (G: 1.0 Vp-p for sync on G), 75 ohms, B: 0.7 Vp-p, 75 ohms HD, VD/SYNC: TTL, high impedance, positive/negative automatic <b>NOTE: SYNC/HD and VD terminals do not accept tri-level sync signals.</b>
	Y, PB, PR (Y, CB, CR)	Y: 1.0 Vp-p (including sync signal), PB/PR (CB/CR): 0.7 Vp-p, 75 ohms
	SERIAL IN	D-sub 9-pin (female) $\times 1$ for external control (RS-232C compliant)
	SERIAL OUT	D-sub 9-pin (male) $\times 1$ for link control (RS-232C compliant)
	REMOTE 1 IN	M3 jack $\times 1$ for wired remote control
	REMOTE 1 OUT	M3 jack $\times 1$ for link control
	REMOTE 2 IN	D-sub 9-pin (female) $\times 1$ for external control (parallel)
	LAN/DIGITAL LINK	RJ-45 $\times 1$ for network and DIGITAL LINK (video/network/serial control) connection, 100Base-TX, compatible with Art-Net, compliant with PLink™ (class 1), Deep Color, compatible with HDCP,
	USB	DC OUT (5V/0.9A)

Power cord length	3.0 m (9 ft 10 in)
Cabinet materials	Molded plastic (PT-DZ780W/DZ780LW : White) (PT-DZ780B/DZ780LB : Black)
Dimensions (W × H × D)	498 × 175* <sup>3</sup> × 521 mm (19-19/32 × 6-7/8* <sup>3</sup> × 20-1/2 inches) (with supplied lens) 498 × 175* <sup>3</sup> × 508 mm (19-19/32 × 6-7/8* <sup>3</sup> × 20 inches) (without lens, with lens cover) 498 × 175* <sup>3</sup> × 498 mm (19-19/32 × 6-7/8* <sup>3</sup> × 19-19/32 inches) (without lens and lens cover)
Weight* <sup>4</sup>	Approx. 17.8 kg (39.2 lbs) (with supplied lens) Approx. 17.0 kg (37.5 lbs) (without lens)
Operation noise* <sup>2</sup>	30 dB (dual lamp operation, LAMP MODE: NORMAL), 28 dB (dual lamp operation, LAMP MODE: ECO)
Operating temperature	0–45 °C (32–113 °F)* <sup>5</sup>
Operating humidity	10%–80% (no condensation)
<b>Remote control unit</b>	
Power supply	3 V DC (AAA type battery × 2)
Operation range	Approx. 30 m (98 ft 5 in) when operated from directly in front of the signal receptor
Dimensions (W × H × D)	48 × 145 × 27 mm (1-28/32 × 5-23/32 × 1-1/16 inches)
Weight	Approx. 102 g (3.6 oz) (including batteries)
<b>Supplied accessories</b>	
	Power cord (× 1) Wireless/wired remote control unit (× 1) Batteries for remote control (AAA type × 2) Operating Instructions (× 1) Software CD-ROM (Logo Transfer Software, Multi Projector Monitoring & Control Software) (× 1) Lens Mount cover (× 1) Lens cover (× 1) Clasp for lamp unit (× 2)
<b>Optional accessories</b>	
Digital interface box	ET-YFB100G
Digital LINK Switcher	ET-YFB200G
Zoom lens (0.8–1.0:1)	ET-DLE085
Zoom lens (1.0–1.3:1)	ET-DLE105
Zoom lens (1.3–1.9:1)	ET-DLE150
Zoom lens (2.3–3.6:1)	ET-DLE250
Zoom lens (3.6–5.4:1)	ET-DLE350
Zoom lens (5.4–8.6:1)	ET-DLE450
Fixed-focus lens (0.4:1)	ET-DLE030
Fixed-focus lens (0.8:1)	ET-DLE055
Ceiling mount bracket	ET-PKD120H (for high ceilings) ET-PKD120S (for low ceilings)
High-ceiling mount bracket (6-axis adjustment mechanism)	ET-PKD130H
Attachment for ceiling mount bracket	ET-PKD130B
Upgrade kit	ET-UK20
Auto Screen Adjustment Upgrade Kit	ET-CUK10
Early Warning Software	ET-SWA100
Replacement lamp unit	ET-LAD70 ET-LAD70W (Twin Pack)

Weights and dimensions shown are approximate. Specifications and appearance are subject to change without notice.

\*1 When the STANDBY MODE is set to ECO, network functions such as power on over the LAN network will not operate, and the serial output terminal cannot be used. Also, only certain commands can be received for external control using the serial terminal.

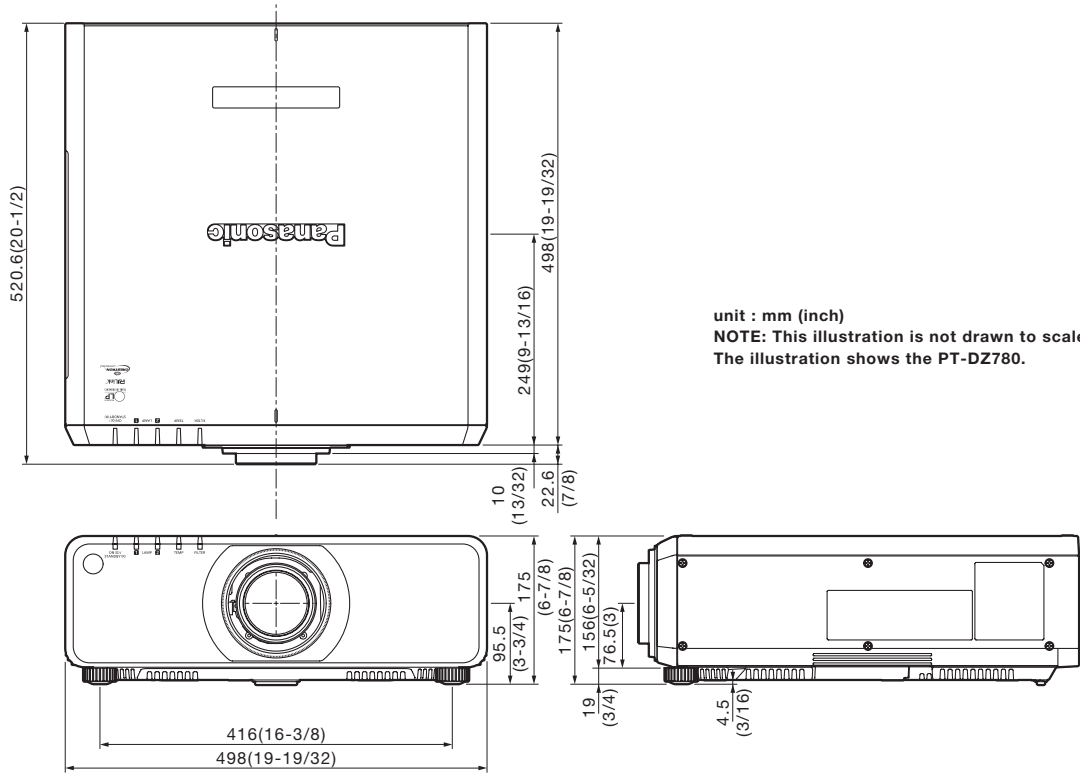
\*2 Measurement, measuring conditions, and method of notation all comply with ISO 21118 international standards.

\*3 With legs at shortest position.

\*4 Average value. May differ depending on models.

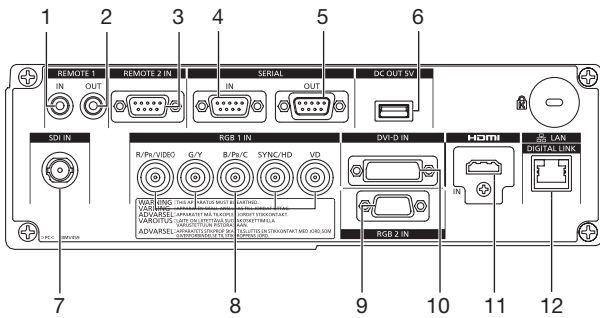
\*5 The operating temperature range is 0 °C to 40 °C (32 °F to 104 °F) when the fan control is set to High Altitude mode (for altitudes from 1,400 m to 2,700 m (4,593 ft to 8,858 ft) above sea level). Also, if the ambient temperature exceeds 40 °C (104 °F) (35 °C (95 °F) in High Altitude mode) when the projector is being used with Lamp Select set to Dual and Lamp Power set to High, the light output may be reduced approximately 20% to protect the projector.

Dimensions



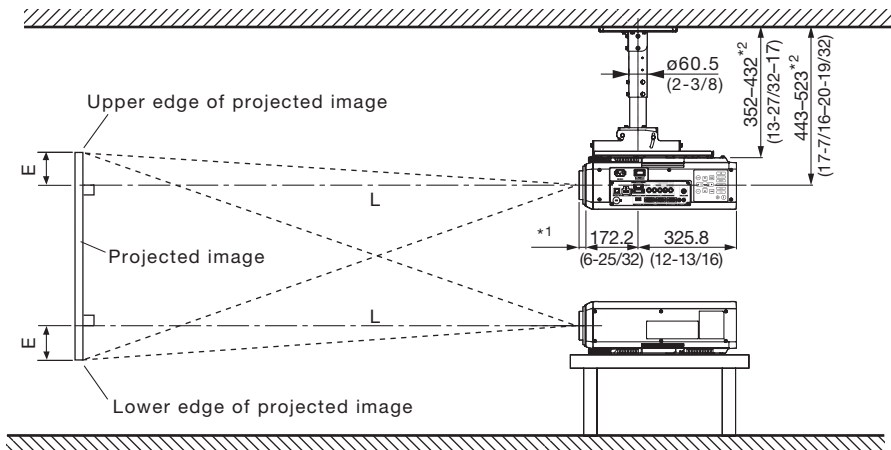
unit : mm (inch)  
 NOTE: This illustration is not drawn to scale.  
 The illustration shows the PT-DZ780.

Terminals



- 1 Remote 1 input
- 2 Remote 1 output
- 3 Remote 2 input
- 4 Serial input
- 5 Serial output
- 6 Dc out 5v
- 7 SDI input
- 8 RGB 1 input
- 9 RGB 2 Input
- 10 DVI-D input
- 11 HDMI input
- 12 LAN/DIGITAL LINK connector

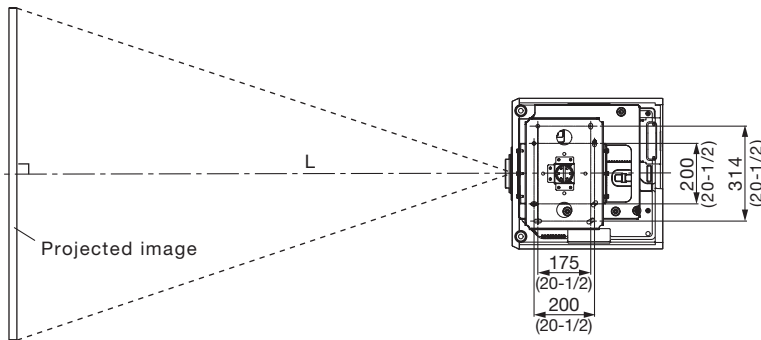
Standard setting-up position (If using other than the ET-DLE030)



\*1 When the lens protrudes to the maximum.  
 64 mm (2-17/32 in) with the ET-DLE085  
 68 mm (2-11/16 in) with the ET-DLE105  
 24 mm (15/16 in) with the ET-DLE150  
 23 mm (29/32 in)  
 with the supplied lens/ET-DLE170  
 25 mm (31/32 in) with the ET-DLE250  
 31 mm (1-7/32 in) with the ET-DLE350  
 75 mm (2-15/16 in) with the ET-DLE450  
 7 mm (9/32 in) with the ET-DLE055

\*2 Adjustable in 40 mm (1-9/16 in) steps.

unit : mm (inch)



**NOTE:**  
 Illustrations show the projector installed using optional ceiling mount bracket ET-PKD120H, optional bracket assembly ET-PKD130B and an optional lens.  
 This illustration is not drawn to scale.

**Caution:**

- All construction work should be done by a qualified technician.
- When mounting to the ceiling, use the special mounting bracket. Furthermore, in order to prevent it from falling down from the ceiling, use the supplied wire on the mounting bracket.

Projection distance for 16:10 aspect ratio screen (If using other than the ET-DLE030)

**Unit: meters**

Screen size (diagonal)		Distance to screen (L)														Height from the edge of screen to center of lens (H)		
		Zoom																Fixed-focus
		ET-DLE085 Zoom lens		ET-DLE105 Zoom lens		ET-DLE150 Zoom lens		<i>Supplied lens ET-DLE170 Zoom lens</i>		ET-DLE250 Zoom lens		ET-DLE350 Zoom lens		ET-DLE450 Zoom lens				
[m]	[in]	min.	max.	min.	max.	min.	max.	<i>min.</i>	<i>max.</i>	min.	max.	min.	max.	min.	max.			
1.27/	50	0.82	1.04	1.03	1.41	1.38	2.01	<b>1.82</b>	<b>2.57</b>	2.42	3.87	3.80	5.81	5.66	9.12	0.83	0.00 – 0.44	0.34
1.52/	60	1.00	1.25	1.25	1.70	1.66	2.43	<b>2.20</b>	<b>3.10</b>	2.92	4.65	4.59	7.00	6.85	11.01	1.00	0.00 – 0.53	0.40
1.78/	70	1.17	1.47	1.47	1.99	1.95	2.84	<b>2.58</b>	<b>3.63</b>	3.42	5.44	5.38	8.19	8.04	12.89	1.18	0.00 – 0.62	0.47
2.03/	80	1.35	1.68	1.68	2.28	2.23	3.25	<b>2.95</b>	<b>4.16</b>	3.92	6.23	6.16	9.38	9.23	14.78	1.35	0.00 – 0.71	0.54
2.29/	90	1.52	1.90	1.90	2.57	2.52	3.66	<b>3.33</b>	<b>4.69</b>	4.42	7.02	6.95	10.57	10.43	16.66	1.53	0.00 – 0.80	0.61
2.54/	100	1.70	2.11	2.12	2.86	2.81	4.08	<b>3.71</b>	<b>5.21</b>	4.92	7.81	7.74	11.76	11.62	18.55	1.70	0.00 – 0.89	0.67
3.05/	120	2.05	2.55	2.55	3.44	3.38	4.90	<b>4.47</b>	<b>6.27</b>	5.91	9.39	9.31	14.14	14.00	22.31	2.05	0.00 – 1.07	0.81
3.81/	150	2.57	3.19	3.20	4.32	4.24	6.14	<b>5.60</b>	<b>7.86</b>	7.41	11.75	11.68	17.71	17.58	27.97	2.58	0.00 – 1.33	1.01
5.08/	200	3.44	4.27	4.29	5.77	5.67	8.20	<b>7.50</b>	<b>10.50</b>	9.91	15.70	15.61	23.66	23.54	37.39	3.45	0.00 – 1.78	1.35
6.35/	250	4.31	5.35	5.37	7.23	7.10	10.26	<b>9.39</b>	<b>13.14</b>	12.41	19.64	19.55	29.61	29.50	46.81	–	0.00 – 2.22	–
7.62/	300	5.18	6.43	6.46	8.68	8.53	12.33	<b>11.28</b>	<b>15.79</b>	14.91	23.59	23.49	35.56	35.46	56.24	–	0.00 – 2.67	–
8.89/	350	6.06	7.51	7.54	10.14	9.96	14.39	<b>13.18</b>	<b>18.43</b>	17.40	27.53	27.42	41.51	41.42	65.66	–	0.00 – 3.11	–
10.16/	400	6.93	8.59	8.63	11.59	11.39	16.45	<b>15.07</b>	<b>21.07</b>	19.90	31.48	31.36	47.46	47.38	75.08	–	0.00 – 3.55	–
12.70/	500	8.67	10.75	10.80	14.50	14.25	20.58	<b>18.86</b>	<b>26.36</b>	24.90	39.37	39.23	59.36	59.30	93.93	–	0.00 – 4.44	–
15.24/	600	10.42	12.91	12.97	17.41	17.11	24.70	<b>22.64</b>	<b>31.65</b>	29.89	47.25	47.11	71.25	71.22	112.77	–	0.00 – 5.33	–

**Unit: feet**

Screen size (diagonal)		Distance to screen (L)														Height from the edge of screen to center of lens (H)		
		Zoom																Fixed-focus
		ET-DLE085 Zoom lens		ET-DLE105 Zoom lens		ET-DLE150 Zoom lens		<i>Supplied lens ET-DLE170 Zoom lens</i>		ET-DLE250 Zoom lens		ET-DLE350 Zoom lens		ET-DLE450 Zoom lens				
[m]	[in]	min.	max.	min.	max.	min.	max.	<i>min.</i>	<i>max.</i>	min.	max.	min.	max.	min.	max.			
1.27/	50	2.7	3.4	3.4	4.6	4.5	6.6	<b>6.0</b>	<b>8.4</b>	7.9	12.7	12.5	19.1	18.6	29.9	2.7	0.0 – 1.5	1.1
1.52/	60	3.3	4.1	4.1	5.6	5.5	8.0	<b>7.2</b>	<b>10.2</b>	9.6	15.3	15.1	23.0	22.5	36.1	3.3	0.0 – 1.7	1.3
1.78/	70	3.9	4.8	4.8	6.5	6.4	9.3	<b>8.5</b>	<b>11.9</b>	11.2	17.9	17.6	26.9	26.4	42.3	3.9	0.0 – 2.0	1.5
2.03/	80	4.4	5.5	5.5	7.5	7.3	10.7	<b>9.7</b>	<b>13.6</b>	12.8	20.4	20.2	30.8	30.3	48.5	4.4	0.0 – 2.3	1.8
2.29/	90	5.0	6.2	6.2	8.4	8.3	12.0	<b>10.9</b>	<b>15.4</b>	14.5	23.0	22.8	34.7	34.2	54.7	5.0	0.0 – 2.6	2.0
2.54/	100	5.6	6.9	7.0	9.4	9.2	13.4	<b>12.2</b>	<b>17.1</b>	16.1	25.6	25.4	38.6	38.1	60.8	5.6	0.0 – 2.9	2.2
3.05/	120	6.7	8.4	8.4	11.3	11.1	16.1	<b>14.7</b>	<b>20.6</b>	19.4	30.8	30.6	46.4	45.9	73.2	6.7	0.0 – 3.5	2.6
3.81/	150	8.4	10.5	10.5	14.2	13.9	20.1	<b>18.4</b>	<b>25.8</b>	24.3	38.6	38.3	58.1	57.7	91.8	8.5	0.0 – 4.4	3.3
5.08/	200	11.3	14.0	14.1	18.9	18.6	26.9	<b>24.6</b>	<b>34.5</b>	32.5	51.5	51.2	77.6	77.2	122.7	11.3	0.0 – 5.8	4.4
6.35/	250	14.1	17.6	17.6	23.7	23.3	33.7	<b>30.8</b>	<b>43.1</b>	40.7	64.4	64.1	97.1	96.8	153.6	–	0.0 – 7.3	–
7.62/	300	17.0	21.1	21.2	28.5	28.0	40.4	<b>37.0</b>	<b>51.8</b>	48.9	77.4	77.1	116.7	116.3	184.5	–	0.0 – 8.7	–
8.89/	350	19.9	24.6	24.7	33.3	32.7	47.2	<b>43.2</b>	<b>60.5</b>	57.1	90.3	90.0	136.2	135.9	215.4	–	0.0 – 10.2	–
10.16/	400	22.7	28.2	28.3	38.0	37.4	54.0	<b>49.4</b>	<b>69.1</b>	65.3	103.3	102.9	155.7	155.4	246.3	–	0.0 – 11.7	–
12.70/	500	28.5	35.3	35.4	47.6	46.7	67.5	<b>61.9</b>	<b>86.5</b>	81.7	129.2	128.7	194.7	194.6	308.2	–	0.0 – 14.6	–
15.24/	600	34.2	42.3	42.6	57.1	56.1	81.1	<b>74.3</b>	<b>103.8</b>	98.1	155.0	154.6	233.8	233.7	370.0	–	0.0 – 17.5	–

- The value for L (distance to screen) varies slightly within ±5% depending on the zoom lens characteristics.
- The zoom lens characteristics may cause slight image distortion.
- When vertical keystone correction is used, the image is corrected in the direction that reduces its projected size.
- The brightness varies depending on the zoom setting.

Note: When the ET-DLE055 is mounted, the optical lens shift function cannot be used.

Projection distance for 16:9 aspect ratio screen (If using other than the ET-DLE030)

Unit: meters

Screen size (diagonal)		Distance to screen (L)														Height from the edge of screen to center of lens (H)		
		Zoom																
		ET-DLE085 Zoom lens		ET-DLE105 Zoom lens		ET-DLE150 Zoom lens		Supplied lens ET-DLE170 Zoom lens		ET-DLE250 Zoom lens		ET-DLE350 Zoom lens		ET-DLE450 Zoom lens		ET-DLE055 Fixed-focus lens	Zoom lenses	Fixed- focus lens
[m]	[in]	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.			
1.27/ 50	0.85	1.07	1.06	1.45	1.42	2.07	<b>1.87</b>	<b>2.64</b>	2.49	3.97	3.91	5.98	5.82	9.39	0.85	-0.06	-0.46	0.31
1.52/ 60	1.03	1.29	1.29	1.75	1.71	2.49	<b>2.26</b>	<b>3.19</b>	3.00	4.79	4.72	7.20	7.05	11.32	1.03	-0.07	-0.55	0.37
1.78/ 70	1.21	1.51	1.51	2.05	2.00	2.92	<b>2.65</b>	<b>3.73</b>	3.51	5.60	5.53	8.43	8.27	13.26	1.21	-0.09	-0.64	0.44
2.03/ 80	1.39	1.73	1.73	2.35	2.30	3.34	<b>3.04</b>	<b>4.27</b>	4.03	6.41	6.34	9.65	9.50	15.20	1.39	-0.10	-0.73	0.50
2.29/ 90	1.57	1.95	1.96	2.64	2.59	3.77	<b>3.43</b>	<b>4.82</b>	4.54	7.22	7.15	10.87	10.72	17.13	1.57	-0.11	-0.82	0.56
2.54/ 100	1.75	2.17	2.18	2.94	2.89	4.19	<b>3.82</b>	<b>5.36</b>	5.05	8.03	7.96	12.09	11.95	19.07	1.75	-0.12	-0.91	0.62
3.05/ 120	2.10	2.62	2.63	3.54	3.47	5.04	<b>4.60</b>	<b>6.45</b>	6.08	9.65	9.58	14.54	14.40	22.94	2.11	-0.15	-1.10	0.75
3.81/ 150	2.64	3.28	3.29	4.44	4.36	6.31	<b>5.76</b>	<b>8.08</b>	7.62	12.08	12.00	18.21	18.08	28.75	2.65	-0.19	-1.37	0.93
5.08/ 200	3.54	4.39	4.41	5.93	5.82	8.43	<b>7.71</b>	<b>10.80</b>	10.19	16.14	16.05	24.32	24.20	38.44	3.55	-0.25	-1.83	1.25
6.35/ 250	4.43	5.50	5.52	7.43	7.29	10.55	<b>9.65</b>	<b>13.51</b>	12.75	20.19	20.10	30.44	30.33	48.12	-	-0.31	-2.28	-
7.62/ 300	5.33	6.61	6.64	8.93	8.76	12.67	<b>11.60</b>	<b>16.23</b>	15.32	24.25	24.14	36.55	36.45	57.81	-	-0.37	-2.74	-
8.89/ 350	6.23	7.72	7.76	10.42	10.23	14.79	<b>13.55</b>	<b>18.95</b>	17.89	28.30	28.19	42.67	42.58	67.49	-	-0.44	-3.20	-
10.16/ 400	7.12	8.83	8.87	11.92	11.70	16.91	<b>15.49</b>	<b>21.66</b>	20.46	32.35	32.24	48.78	48.71	77.18	-	-0.50	-3.65	-
12.70/ 500	8.91	11.05	11.10	14.91	14.64	21.15	<b>19.38</b>	<b>27.10</b>	25.59	40.46	40.33	61.01	60.96	96.55	-	-0.62	-4.57	-
15.24/ 600	10.71	13.27	13.33	17.90	17.58	25.39	<b>23.27</b>	<b>32.53</b>	30.72	48.57	48.42	73.24	73.21	115.91	-	-0.75	-5.48	-

Unit: feet

Screen size (diagonal)		Distance to screen (L)														Height from the edge of screen to center of lens (H)		
		Zoom																
		ET-DLE085 Zoom lens		ET-DLE105 Zoom lens		ET-DLE150 Zoom lens		Supplied lens ET-DLE170 Zoom lens		ET-DLE250 Zoom lens		ET-DLE350 Zoom lens		ET-DLE450 Zoom lens		ET-DLE055 Fixed-focus lens	Zoom lenses	Fixed- focus lens
[m]	[in]	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.			
1.27/ 50	2.8	3.5	3.5	4.8	4.6	6.8	<b>6.1</b>	<b>8.7</b>	8.2	13.0	12.8	19.6	19.1	30.8	2.8	-0.2	-1.5	1.0
1.52/ 60	3.4	4.2	4.2	5.7	5.6	8.2	<b>7.4</b>	<b>10.5</b>	9.8	15.7	15.5	23.6	23.1	37.1	3.4	-0.2	-1.8	1.2
1.78/ 70	4.0	5.0	5.0	6.7	6.6	9.6	<b>8.7</b>	<b>12.2</b>	11.5	18.4	18.1	27.6	27.1	43.5	4.0	-0.3	-2.1	1.4
2.03/ 80	4.5	5.7	5.7	7.7	7.5	11.0	<b>10.0</b>	<b>14.0</b>	13.2	21.0	20.8	31.7	31.2	49.9	4.6	-0.3	-2.4	1.6
2.29/ 90	5.1	6.4	6.4	8.7	8.5	12.4	<b>11.2</b>	<b>15.8</b>	14.9	23.7	23.5	35.7	35.2	56.2	5.2	-0.4	-2.7	1.8
2.54/ 100	5.7	7.1	7.2	9.6	9.5	13.7	<b>12.5</b>	<b>17.6</b>	16.6	26.3	26.1	39.7	39.2	62.6	5.7	-0.4	-3.0	2.0
3.05/ 120	6.9	8.6	8.6	11.6	11.4	16.5	<b>15.1</b>	<b>21.2</b>	19.9	31.7	31.4	47.7	47.2	75.3	6.9	-0.5	-3.6	2.5
3.81/ 150	8.7	10.8	10.8	14.6	14.3	20.7	<b>18.9</b>	<b>26.5</b>	25.0	39.6	39.4	59.7	59.3	94.3	8.7	-0.6	-4.5	3.1
5.08/ 200	11.6	14.4	14.5	19.5	19.1	27.7	<b>25.3</b>	<b>35.4</b>	33.4	52.9	52.7	79.8	79.4	126.1	11.7	-0.8	-6.0	4.1
6.35/ 250	14.5	18.1	18.1	24.4	23.9	34.6	<b>31.7</b>	<b>44.3</b>	41.8	66.2	65.9	99.9	99.5	157.9	-	-1.0	-7.5	-
7.62/ 300	17.5	21.7	21.8	29.3	28.8	41.6	<b>38.1</b>	<b>53.2</b>	50.3	79.5	79.2	119.9	119.6	189.7	-	-1.2	-9.0	-
8.89/ 350	20.4	25.3	25.5	34.2	33.6	48.5	<b>44.4</b>	<b>62.2</b>	58.7	92.8	92.5	140.0	139.7	221.4	-	-1.4	-10.5	-
10.16/ 400	23.4	29.0	29.1	39.1	38.4	55.5	<b>50.8</b>	<b>71.1</b>	67.1	106.1	105.8	160.0	159.8	253.2	-	-1.6	-12.0	-
12.70/ 500	29.2	36.2	36.4	48.9	48.0	69.4	<b>63.6</b>	<b>88.9</b>	84.0	132.8	132.3	200.2	200.0	316.8	-	-2.0	-15.0	-
15.24/ 600	35.1	43.5	43.7	58.7	57.7	83.3	<b>76.4</b>	<b>106.7</b>	100.8	159.4	158.9	240.3	240.2	380.3	-	-2.5	-18.0	-

- The value for L (distance to screen) varies slightly within ±5% depending on the zoom lens characteristics.
- The zoom lens characteristics may cause slight image distortion.
- When vertical keystone correction is used, the image is corrected in the direction that reduces its projected size.
- The brightness varies depending on the zoom setting.

Note: When the ET-DLE055 is mounted, the optical lens shift function cannot be used.



**Projection distance for 4:3 aspect ratio screen (If using other than the ET-DLE030)**

**Unit: meters**

Screen size (diagonal)	Distance to screen (L)														Height from the edge of screen to center of lens (H)			
	Zoom														Fixed-focus	Zoom lenses	Fixed- focus lens	
	ET-DLE085 Zoom lens		ET-DLE105 Zoom lens		ET-DLE150 Zoom lens		<i>Supplied lens ET-DLE170 Zoom lens</i>		ET-DLE250 Zoom lens		ET-DLE350 Zoom lens		ET-DLE450 Zoom lens		ET-DLE055 Fixed-focus lens			
[m]	[in]	min.	max.	min.	max.	min.	max.	<i>min.</i>	<i>max.</i>	min.	max.	min.	max.	min.	max.			
1.27/ 50	0.94	1.18	1.18	1.60	1.56	2.29	<b>2.07</b>	<b>2.92</b>	2.75	4.39	4.32	6.60	6.45	10.37	0.94	0.00 – 0.50	0.38	
1.52/ 60	1.14	1.42	1.42	1.93	1.89	2.75	<b>2.50</b>	<b>3.52</b>	3.31	5.28	5.21	7.95	7.80	12.50	1.14	0.00 – 0.60	0.46	
1.78/ 70	1.33	1.67	1.67	2.26	2.21	3.22	<b>2.93</b>	<b>4.12</b>	3.88	6.17	6.10	9.29	9.14	14.63	1.34	0.00 – 0.70	0.53	
2.03/ 80	1.53	1.91	1.91	2.59	2.54	3.69	<b>3.35</b>	<b>4.72</b>	4.44	7.07	7.00	10.64	10.49	16.77	1.54	0.00 – 0.80	0.61	
2.29/ 90	1.73	2.16	2.16	2.92	2.86	4.15	<b>3.78</b>	<b>5.31</b>	5.01	7.96	7.89	11.99	11.84	18.90	1.74	0.00 – 0.91	0.69	
2.54/ 100	1.93	2.40	2.41	3.25	3.18	4.62	<b>4.21</b>	<b>5.91</b>	5.57	8.85	8.78	13.34	13.19	21.03	1.93	0.00 – 1.01	0.76	
3.05/ 120	2.32	2.89	2.90	3.91	3.83	5.55	<b>5.07</b>	<b>7.11</b>	6.71	10.64	10.56	16.03	15.89	25.30	2.33	0.00 – 1.21	0.91	
3.81/ 150	2.91	3.62	3.63	4.89	4.80	6.96	<b>6.35</b>	<b>8.91</b>	8.40	13.32	13.24	20.07	19.94	31.70	2.93	0.00 – 1.51	1.14	
5.08/ 200	3.90	4.84	4.86	6.54	6.42	9.29	<b>8.50</b>	<b>11.90</b>	11.23	17.78	17.69	26.80	26.69	42.37	3.92	0.00 – 2.01	1.52	
6.35/ 250	4.89	6.07	6.09	8.19	8.04	11.63	<b>10.64</b>	<b>14.89</b>	14.06	22.25	22.15	33.54	33.44	53.04	–	0.00 – 2.51	–	
7.62/ 300	5.88	7.29	7.32	9.84	9.66	13.96	<b>12.78</b>	<b>17.88</b>	16.88	26.71	26.61	40.27	40.18	63.70	–	0.00 – 3.02	–	
8.89/ 350	6.86	8.51	8.55	11.48	11.28	16.30	<b>14.93</b>	<b>20.88</b>	19.71	31.18	31.06	47.01	46.93	74.37	–	0.00 – 3.52	–	
10.16/ 400	7.85	9.73	9.78	13.13	12.90	18.63	<b>17.07</b>	<b>23.87</b>	22.54	35.64	35.52	53.74	53.68	85.04	–	0.00 – 4.02	–	
12.70/ 500	9.82	12.17	12.23	16.42	16.13	23.30	<b>21.36</b>	<b>29.85</b>	28.19	44.58	44.43	67.21	67.17	106.37	–	0.00 – 5.03	–	
15.24/ 600	11.80	14.62	14.69	19.72	19.37	27.97	<b>25.64</b>	<b>35.84</b>	33.85	53.51	53.35	80.68	80.67	127.70	–	0.00 – 6.04	–	

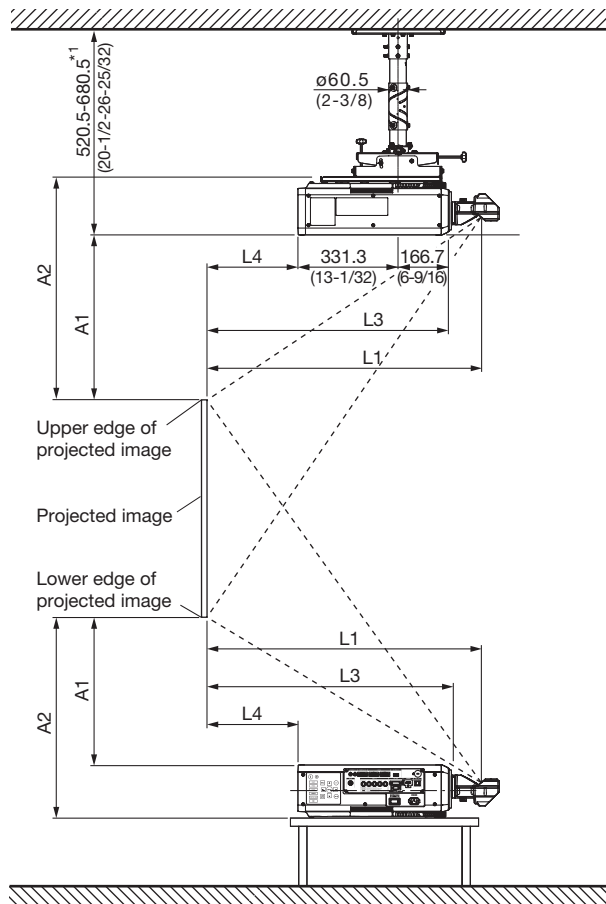
**Unit: feet**

Screen size (diagonal)	Distance to screen (L)														Height from the edge of screen to center of lens (H)			
	Zoom														Fixed-focus	Zoom lenses	Fixed- focus lens	
	ET-DLE085 Zoom lens		ET-DLE105 Zoom lens		ET-DLE150 Zoom lens		<i>Supplied lens ET-DLE170 Zoom lens</i>		ET-DLE250 Zoom lens		ET-DLE350 Zoom lens		ET-DLE450 Zoom lens		ET-DLE055 Fixed-focus lens			
[m]	[in]	min.	max.	min.	max.	min.	max.	<i>min.</i>	<i>max.</i>	min.	max.	min.	max.	min.	max.			
1.27/ 50	3.1	3.9	3.9	5.2	5.1	7.5	<b>6.8</b>	<b>9.6</b>	9.0	14.4	14.2	21.7	21.1	34.0	3.1	0.0 – 1.7	1.3	
1.52/ 60	3.7	4.7	4.7	6.3	6.2	9.0	<b>8.2</b>	<b>11.5</b>	10.9	17.3	17.1	26.1	25.6	41.0	3.7	0.0 – 2.0	1.5	
1.78/ 70	4.4	5.5	5.5	7.4	7.3	10.6	<b>9.6</b>	<b>13.5</b>	12.7	20.3	20.0	30.5	30.0	48.0	4.4	0.0 – 2.3	1.8	
2.03/ 80	5.0	6.3	6.3	8.5	8.3	12.1	<b>11.0</b>	<b>15.5</b>	14.6	23.2	23.0	34.9	34.4	55.0	5.0	0.0 – 2.6	2.0	
2.29/ 90	5.7	7.1	7.1	9.6	9.4	13.6	<b>12.4</b>	<b>17.4</b>	16.4	26.1	25.9	39.3	38.9	62.0	5.7	0.0 – 3.0	2.3	
2.54/ 100	6.3	7.9	7.9	10.7	10.4	15.2	<b>13.8</b>	<b>19.4</b>	18.3	29.0	28.8	43.8	43.3	69.0	6.3	0.0 – 3.3	2.5	
3.05/ 120	7.6	9.5	9.5	12.8	12.6	18.2	<b>16.6</b>	<b>23.3</b>	22.0	34.9	34.7	52.6	52.1	83.0	7.6	0.0 – 4.0	3.0	
3.81/ 150	9.6	11.9	11.9	16.0	15.8	22.8	<b>20.8</b>	<b>29.2</b>	27.6	43.7	43.4	65.8	65.4	104.0	9.6	0.0 – 5.0	3.8	
5.08/ 200	12.8	15.9	15.9	21.5	21.1	30.5	<b>27.9</b>	<b>39.0</b>	36.8	58.3	58.0	87.9	87.6	139.0	12.8	0.0 – 6.6	5.0	
6.35/ 250	16.0	19.9	20.0	26.9	26.4	38.1	<b>34.9</b>	<b>48.9</b>	46.1	73.0	72.7	110.0	109.7	174.0	–	0.0 – 8.3	–	
7.62/ 300	19.3	23.9	24.0	32.3	31.7	45.8	<b>41.9</b>	<b>58.7</b>	55.4	87.6	87.3	132.1	131.8	209.0	–	0.0 – 9.9	–	
8.89/ 350	22.5	27.9	28.1	37.7	37.0	53.5	<b>49.0</b>	<b>68.5</b>	64.7	102.3	101.9	154.2	154.0	244.0	–	0.0 – 11.6	–	
10.16/ 400	25.8	31.9	32.1	43.1	42.3	61.1	<b>56.0</b>	<b>78.3</b>	73.9	116.9	116.5	176.3	176.1	279.0	–	0.0 – 13.2	–	
12.70/ 500	32.2	39.9	40.1	53.9	52.9	76.5	<b>70.1</b>	<b>97.9</b>	92.5	146.2	145.8	220.5	220.4	349.0	–	0.0 – 16.5	–	
15.24/ 600	38.7	48.0	48.2	64.7	63.6	91.8	<b>84.1</b>	<b>117.6</b>	111.1	175.5	175.0	264.7	264.7	419.0	–	0.0 – 19.8	–	

- The value for L (distance to screen) varies slightly within ±5% depending on the zoom lens characteristics.
- The zoom lens characteristics may cause slight image distortion.
- When vertical keystone correction is used, the image is corrected in the direction that reduces its projected size.
- The brightness varies depending on the zoom setting.

Note: When the ET-DLE055 is mounted, the optical lens shift function cannot be used.

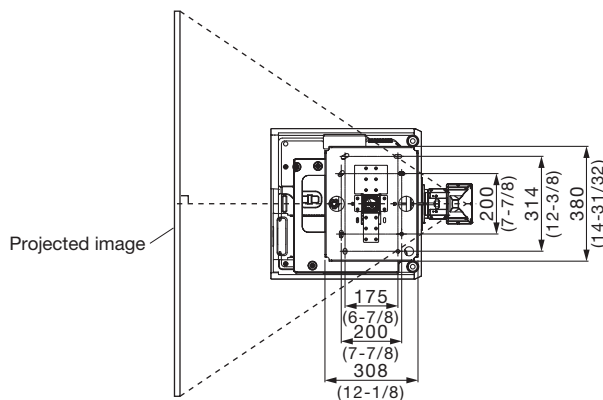
Standard setting-up position (If using the ET-DLE030)



NOTE:

Illustrations show the projector installed using optional ceiling mount bracket (6-axis adjustment mechanism) ET-PKD130H, optional bracket assembly ET-PKD130B and an optional lens.

\*1 Continuous height adjustment possible



NOTE:

Illustrations show the projector installed using optional ceiling mount bracket (6-axis adjustment mechanism) ET-PKD130H, optional bracket assembly ET-PKD130B and an optional lens.

This illustration is not drawn to scale.

unit : mm (inch)

**Caution:**

- All construction work should be done by a qualified technician.
- When mounting to the ceiling, use the special mounting bracket. Furthermore, in order to prevent it from falling down from the ceiling, use the supplied wire on the mounting bracket.

Projection distance for 16:10 aspect ratio screen (If using the ET-DLE030)

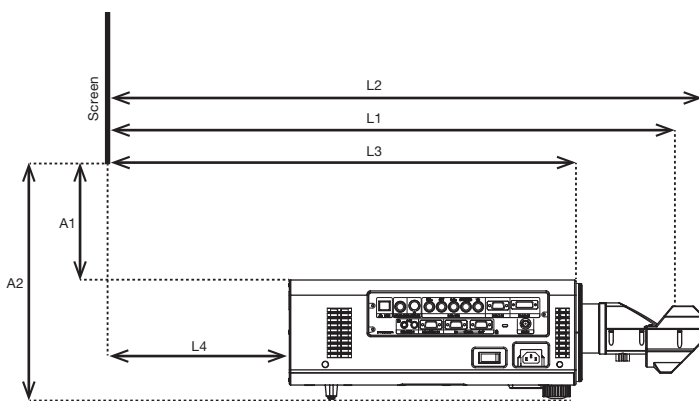
Unit : meters

Ultra-short focal length lens ET-DLE030 Close-up system dimensions									
Throw ratio				0.38:1	(0.39:1)				
Diagonal image size (Inches)	Diagonal image size (m)	Height (SH)	Width (SW)	Projection distance (From mirror reflective surface to screen) (L1)	From tip of lens to screen (L2)	From front of set to screen (L3)	From rear of set to screen (L4)	From top of set to bottom edge of screen (A1)	From bottom of set to bottom edge of screen (A2)
100	2.54	1.35	2.15	0.82	0.84	0.67	0.17	0.43	0.61
120	3.05	1.62	2.58	0.98	1.00	0.84	0.34	0.54	0.71
150	3.81	2.02	3.23	1.23	1.25	1.08	0.58	0.69	0.86
200	5.08	2.69	4.31	1.63	1.66	1.49	0.99	0.94	1.11
250	6.35	3.37	5.38	2.04	2.06	1.89	1.40	1.19	1.36
300	7.62	4.04	6.46	2.45	2.47	2.30	1.80	1.44	1.61
350	8.89	4.71	7.54	2.85	2.88	2.71	2.21	1.69	1.87

Unit : feet

Ultra-short focal length lens ET-DLE030 Close-up system dimensions									
Throw ratio				0.38:1	(0.39:1)				
Diagonal image size (Inches)	Diagonal image size (m)	Height (SH)	Width (SW)	Projection distance (From mirror reflective surface to screen) (L1)	From tip of lens to screen (L2)	From front of set to screen (L3)	From rear of set to screen (L4)	From top of set to bottom edge of screen (A1)	From bottom of set to bottom edge of screen (A2)
100	2.54	4.4	7.1	2.7	2.8	2.2	0.6	1.4	2.0
120	3.05	5.3	8.5	3.2	3.3	2.7	1.1	1.8	2.3
150	3.81	6.6	10.6	4.0	4.1	3.5	1.9	2.3	2.8
200	5.08	8.8	14.1	5.4	5.4	4.9	3.2	3.1	3.6
250	6.35	11.0	17.7	6.7	6.8	6.2	4.6	3.9	4.5
300	7.62	13.2	21.2	8.0	8.1	7.5	5.9	4.7	5.3
350	8.89	15.5	24.7	9.4	9.4	8.9	7.2	5.5	6.1

- \* The value for L1 may contain an error of within ±5%.
- \* When using vertical keystone correction, the images will be corrected so that they will tend to be smaller than the specified screen size.
- \* This measurement is not the distance between the rear of the projector and the wall, but is instead the distance between the rear of the projector and the screen surface. Leave at least 500 mm of space between the rear of the projector and the wall and any other objects in order to provide adequate ventilation space. If setting up the projector in a closed room, be sure to provide separate air conditioning and ventilation equipment. If there is insufficient ventilation in the room, radiated heat may build up and cause the protection circuit of the projector to operate.



- L1: Projection distance (from screen to mirror reflective surface)
- L2: From screen to tip of lens
- L3: From screen to front of set
- L4: From screen to rear of set
- A1: From bottom edge of screen to top of set
- A2: From bottom edge of screen to bottom of set

Projection Distance Calculation Table

Screen aspect ratio 16:10

Projection distance calculation formula

$$L1 (m) = 0.3205 \times \text{Diagonal image size} + 0.0047$$

Calculation formula for distance from top of set to bottom edge of screen

$$A1 (m) = 0.1977 \times \text{Diagonal image size} - 0.0671$$

Projection distance for 16:9 aspect ratio screen (If using the ET-DLE030)

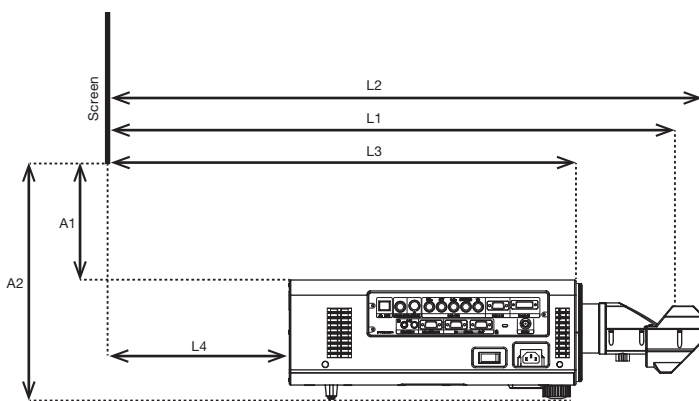
Unit : meters

Ultra-short focal length lens ET-DLE030 Close-up system dimensions									
Throw ratio				0.38:1	(0.39:1)				
Diagonal image size (Inches)	Diagonal image size (m)	Height (SH)	Width (SW)	Projection distance (From mirror reflective surface to screen) (L1)	From tip of lens to screen (L2)	From front of set to screen (L3)	From rear of set to screen (L4)	From top of set to bottom edge of screen (A1)	From bottom of set to bottom edge of screen (A2)
100	2.54	1.25	2.21	0.84	0.86	0.70	0.20	0.52	0.69
120	3.05	1.49	2.66	1.01	1.03	0.86	0.36	0.64	0.81
150	3.81	1.87	3.32	1.26	1.28	1.11	0.62	0.81	0.99
200	5.08	2.49	4.43	1.68	1.70	1.53	1.03	1.10	1.28
250	6.35	3.11	5.53	2.10	2.12	1.95	1.45	1.40	1.57
300	7.62	3.74	6.64	2.51	2.54	2.37	1.87	1.69	1.86
350	8.89	4.36	7.75	2.93	2.96	2.79	2.29	1.98	2.16

Unit : feet

Ultra-short focal length lens ET-DLE030 Close-up system dimensions									
Throw ratio				0.38:1	(0.39:1)				
Diagonal image size (Inches)	Diagonal image size (m)	Height (SH)	Width (SW)	Projection distance (From mirror reflective surface to screen) (L1)	From tip of lens to screen (L2)	From front of set to screen (L3)	From rear of set to screen (L4)	From top of set to bottom edge of screen (A1)	From bottom of set to bottom edge of screen (A2)
100	2.54	4.1	7.3	2.8	2.8	2.3	0.6	1.7	2.3
120	3.05	4.9	8.7	3.3	3.4	2.8	1.2	2.1	2.7
150	3.81	6.1	10.9	4.1	4.2	3.7	2.0	2.7	3.2
200	5.08	8.2	14.5	5.5	5.6	5.0	3.4	3.6	4.2
250	6.35	10.2	18.2	6.9	7.0	6.4	4.8	4.6	5.2
300	7.62	12.3	21.8	8.2	8.3	7.8	6.1	5.5	6.1
350	8.89	14.3	25.4	9.6	9.7	9.1	7.5	6.5	7.1

- \* The value for L1 may contain an error of within ±5%.
- \* When using vertical keystone correction, the images will be corrected so that they will tend to be smaller than the specified screen size.
- \* This measurement is not the distance between the rear of the projector and the wall, but is instead the distance between the rear of the projector and the screen surface. Leave at least 500 mm of space between the rear of the projector and the wall and any other objects in order to provide adequate ventilation space. If setting up the projector in a closed room, be sure to provide separate air conditioning and ventilation equipment. If there is insufficient ventilation in the room, radiated heat may build up and cause the protection circuit of the projector to operate.



- L1: Projection distance (from screen to mirror reflective surface)
- L2: From screen to tip of lens
- L3: From screen to front of set
- L4: From screen to rear of set
- A1: From bottom edge of screen to top of set
- A2: From bottom edge of screen to bottom of set

Projection Distance Calculation Table

Screen aspect ratio 16:9

Projection distance calculation formula

$$L1 (m) = 0.3294 \times \text{Diagonal image size} + 0.0047$$

Calculation formula for distance from top of set to bottom edge of screen

$$A1 (m) = 0.2304 \times \text{Diagonal image size} - 0.0671$$

Projection distance for 4:3 aspect ratio screen (If using the ET-DLE030)

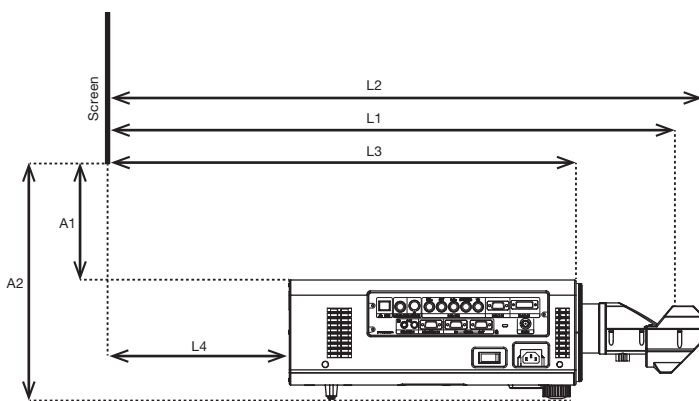
Unit : meters

Ultra-short focal length lens ET-DLE030 Close-up system dimensions									
Throw ratio				0.46:1	(0.47:1)				
Diagonal image size (Inches)	Diagonal image size (m)	Height (SH)	Width (SW)	Projection distance (From mirror reflective surface to screen) (L1)	From tip of lens to screen (L2)	From front of set to screen (L3)	From rear of set to screen (L4)	From top of set to bottom edge of screen (A1)	From bottom of set to bottom edge of screen (A2)
100	2.54	1.52	2.03	0.93	0.95	0.78	0.28	0.50	0.68
120	3.05	1.83	2.44	1.11	1.13	0.96	0.47	0.61	0.79
150	3.81	2.29	3.05	1.39	1.41	1.24	0.74	0.79	0.96
200	5.08	3.05	4.06	1.85	1.87	1.70	1.20	1.07	1.24
250	6.35	3.81	5.08	2.31	2.33	2.16	1.66	1.35	1.53
300	7.62	4.57	6.10	2.77	2.79	2.62	2.13	1.64	1.81
350	8.89	5.33	7.11	3.23	3.25	3.08	2.59	1.92	2.10

Unit : feet

Ultra-short focal length lens ET-DLE030 Close-up system dimensions									
Throw ratio				0.46:1	(0.47:1)				
Diagonal image size (Inches)	Diagonal image size (m)	Height (SH)	Width (SW)	Projection distance (From mirror reflective surface to screen) (L1)	From tip of lens to screen (L2)	From front of set to screen (L3)	From rear of set to screen (L4)	From top of set to bottom edge of screen (A1)	From bottom of set to bottom edge of screen (A2)
100	2.54	5.0	6.7	3.0	3.1	2.6	0.9	1.6	2.2
120	3.05	6.0	8.0	3.6	3.7	3.2	1.5	2.0	2.6
150	3.81	7.5	10.0	4.6	4.6	4.1	2.4	2.6	3.2
200	5.08	10.0	13.3	6.1	6.1	5.6	3.9	3.5	4.1
250	6.35	12.5	16.7	7.6	7.6	7.1	5.5	4.4	5.0
300	7.62	15.0	20.0	9.1	9.2	8.6	7.0	5.4	5.9
350	8.89	17.5	23.3	10.6	10.7	10.1	8.5	6.3	6.9

- \* The value for L1 may contain an error of within ±5%.
- \* When using vertical keystone correction, the images will be corrected so that they will tend to be smaller than the specified screen size.
- \* This measurement is not the distance between the rear of the projector and the wall, but is instead the distance between the rear of the projector and the screen surface. Leave at least 500 mm of space between the rear of the projector and the wall and any other objects in order to provide adequate ventilation space. If setting up the projector in a closed room, be sure to provide separate air conditioning and ventilation equipment. If there is insufficient ventilation in the room, radiated heat may build up and cause the protection circuit of the projector to operate.



- L1: Projection distance (from screen to mirror reflective surface)
- L2: From screen to tip of lens
- L3: From screen to front of set
- L4: From screen to rear of set
- A1: From bottom edge of screen to top of set
- A2: From bottom edge of screen to bottom of set

Projection Distance Calculation Table

Screen aspect ratio 4:3

Projection distance calculation formula

$$L1 (m) = 0.3628 \times \text{Diagonal image size} + 0.0047$$

Calculation formula for distance from top of set to bottom edge of screen

$$A1 (m) = 0.2238 \times \text{Diagonal image size} - 0.0671$$

**Calculation of the projection distance**

For a screen size different from the above, use the equation below to calculate the projection distance.

**Aspect ratio 16:10**

ET-DLE085	minimum	$L (m) = (\text{diagonal screen size in inches}) \times 0.0174 - 0.0471$
	maximum	$L (m) = (\text{diagonal screen size in inches}) \times 0.0216 - 0.0442$
ET-DLE105	minimum	$L (m) = (\text{diagonal screen size in inches}) \times 0.0217 - 0.0511$
	maximum	$L (m) = (\text{diagonal screen size in inches}) \times 0.0291 - 0.0472$
ET-DLE150	minimum	$L (m) = (\text{diagonal screen size in inches}) \times 0.0286 - 0.0540$
	maximum	$L (m) = (\text{diagonal screen size in inches}) \times 0.0413 - 0.0498$
<i>Supplied lens/ ET-DLE170</i>	<i>minimum</i>	<i><math>L (m) = (\text{diagonal screen size in inches}) \times 0.0379 - 0.0746</math></i>
	<i>maximum</i>	<i><math>L (m) = (\text{diagonal screen size in inches}) \times 0.0529 - 0.0725</math></i>
ET-DLE250	minimum	$L (m) = (\text{diagonal screen size in inches}) \times 0.0500 - 0.0800$
	maximum	$L (m) = (\text{diagonal screen size in inches}) \times 0.0789 - 0.0792$
ET-DLE350	minimum	$L (m) = (\text{diagonal screen size in inches}) \times 0.0787 - 0.1351$
	maximum	$L (m) = (\text{diagonal screen size in inches}) \times 0.1190 - 0.1346$
ET-DLE450	minimum	$L (m) = (\text{diagonal screen size in inches}) \times 0.1192 - 0.3017$
	maximum	$L (m) = (\text{diagonal screen size in inches}) \times 0.1885 - 0.2991$
ET-DLE030	(fixed focus)	$L1 (m) = (\text{diagonal screen size in inches}) \times 0.0081 - 0.0047$ $L3 (m) = L1 - 0.146$ $L4 (m) = L1 - 0.644$
ET-DLE055	(fixed focus)	$L (m) = (\text{diagonal screen size in inches}) \times 0.0175 - 0.0476$

**Aspect ratio 16:9**

ET-DLE085	minimum	$L (m) = (\text{diagonal screen size in inches}) \times 0.0179 - 0.0471$
	maximum	$L (m) = (\text{diagonal screen size in inches}) \times 0.0222 - 0.0442$
ET-DLE105	minimum	$L (m) = (\text{diagonal screen size in inches}) \times 0.0223 - 0.0511$
	maximum	$L (m) = (\text{diagonal screen size in inches}) \times 0.0299 - 0.0472$
ET-DLE150	minimum	$L (m) = (\text{diagonal screen size in inches}) \times 0.0294 - 0.0540$
	maximum	$L (m) = (\text{diagonal screen size in inches}) \times 0.0424 - 0.0498$
<i>Supplied lens/ ET-DLE170</i>	<i>minimum</i>	<i><math>L (m) = (\text{diagonal screen size in inches}) \times 0.0389 - 0.0746</math></i>
	<i>maximum</i>	<i><math>L (m) = (\text{diagonal screen size in inches}) \times 0.0543 - 0.0725</math></i>
ET-DLE250	minimum	$L (m) = (\text{diagonal screen size in inches}) \times 0.0513 - 0.0800$
	maximum	$L (m) = (\text{diagonal screen size in inches}) \times 0.0811 - 0.0792$
ET-DLE350	minimum	$L (m) = (\text{diagonal screen size in inches}) \times 0.0809 - 0.1351$
	maximum	$L (m) = (\text{diagonal screen size in inches}) \times 0.1223 - 0.1346$
ET-DLE450	minimum	$L (m) = (\text{diagonal screen size in inches}) \times 0.1225 - 0.3017$
	maximum	$L (m) = (\text{diagonal screen size in inches}) \times 0.1937 - 0.2991$
ET-DLE030	(fixed focus)	$L1 (m) = (\text{diagonal screen size in inches}) \times 0.0084 - 0.0047$ $L3 (m) = L1 - 0.146$ $L4 (m) = L1 - 0.644$
ET-DLE055	(fixed focus)	$L (m) = (\text{diagonal screen size in inches}) \times 0.0180 - 0.0476$

**Aspect ratio 4:3**

ET-DLE085	minimum	$L (m) = (\text{diagonal screen size in inches}) \times 0.0197 - 0.0471$
	maximum	$L (m) = (\text{diagonal screen size in inches}) \times 0.0244 - 0.0442$
ET-DLE105	minimum	$L (m) = (\text{diagonal screen size in inches}) \times 0.0246 - 0.0511$
	maximum	$L (m) = (\text{diagonal screen size in inches}) \times 0.0329 - 0.0472$
ET-DLE150	minimum	$L (m) = (\text{diagonal screen size in inches}) \times 0.0324 - 0.0540$
	maximum	$L (m) = (\text{diagonal screen size in inches}) \times 0.0467 - 0.0498$
<i>Supplied lens/ ET-DLE170</i>	<i>minimum</i>	<i><math>L (m) = (\text{diagonal screen size in inches}) \times 0.0429 - 0.0746</math></i>
	<i>maximum</i>	<i><math>L (m) = (\text{diagonal screen size in inches}) \times 0.0599 - 0.0725</math></i>
ET-DLE250	minimum	$L (m) = (\text{diagonal screen size in inches}) \times 0.0565 - 0.0800$
	maximum	$L (m) = (\text{diagonal screen size in inches}) \times 0.0893 - 0.0792$
ET-DLE350	minimum	$L (m) = (\text{diagonal screen size in inches}) \times 0.0891 - 0.1351$
	maximum	$L (m) = (\text{diagonal screen size in inches}) \times 0.1347 - 0.1346$
ET-DLE450	minimum	$L (m) = (\text{diagonal screen size in inches}) \times 0.1349 - 0.3017$
	maximum	$L (m) = (\text{diagonal screen size in inches}) \times 0.2133 - 0.2991$
ET-DLE030	(fixed focus)	$L1 (m) = (\text{diagonal screen size in inches}) \times 0.0092 - 0.0047$ $L3 (m) = L1 - 0.146$ $L4 (m) = L1 - 0.644$
ET-DLE055	(fixed focus)	$L (m) = (\text{diagonal screen size in inches}) \times 0.0198 - 0.0476$

• Distances calculated with the above equations will include a slight error.

**Formula for calculating possible heights when using the ET-DLE030**

If using a screen size which has not been previously mentioned, use the following calculation formulas to obtain the possible setting-up height.

For screen aspect ratio of 16:10 Possible setting-up height A1 (mm) = Projection screen size (inches) x 5.0-67.1  
Possible setting-up height A2 (mm) = A1 + 175

For screen aspect ratio of 16:9 Possible setting-up height A1 (mm) = Projection screen size (inches) x 5.9-67.1  
Possible setting-up height A2 (mm) = A1 + 175

For screen aspect ratio of 4:3 Possible setting-up height A1 (mm) = Projection screen size (inches) x 5.7-67.1  
Possible setting-up height A2 (mm) = A1 + 175

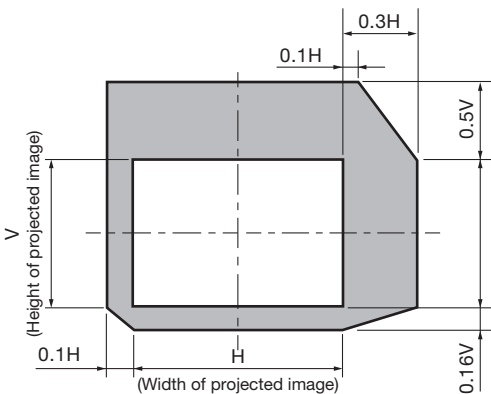
\* There may be a small margin of error in the values obtained from the above formulas.

**Shift range**

Optical axis shift function allows to shift the position of a projected image as shown below.

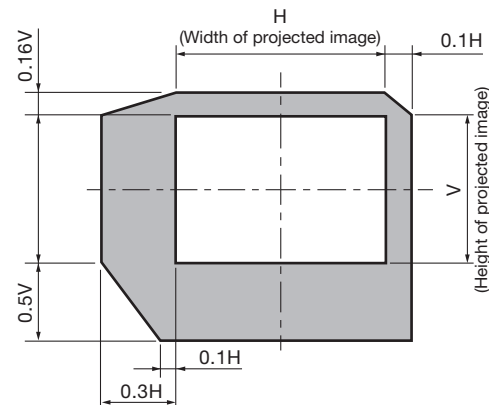
**• Floor mount**

(When the lens except the ET-DLE085 and ET-DLE105 is mounted.)



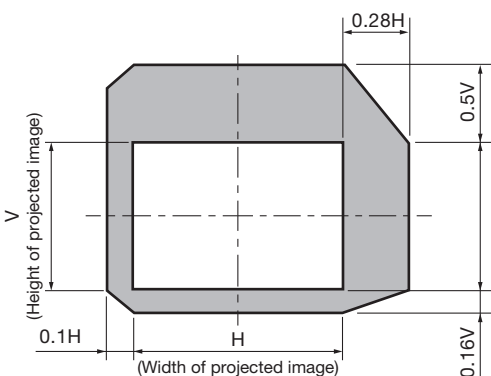
**• Ceiling mount**

(When the lens except the ET-DLE085 and ET-DLE105 is mounted.)



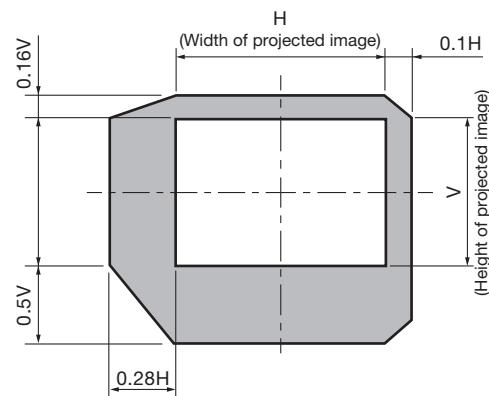
**• Floor mount**

(When the ET-DLE085 and ET-DLE105 is mounted.)



**• Ceiling mount**

(When the ET-DLE085 and ET-DLE105 is mounted.)



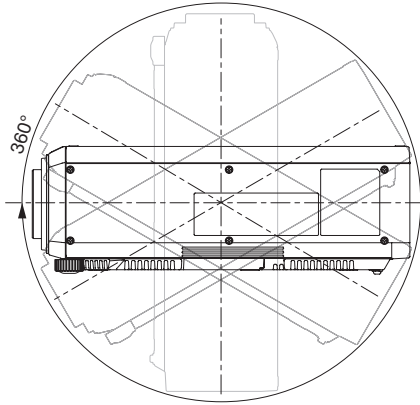
• The ET-DLE055 has a fixed short-focus lens. Therefore, the lens shift function provided in the main unit cannot be used.

**Installable angle**

Install the projector at an angle within the range shown below.

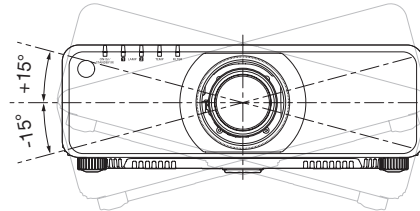
• **Vertical direction**

The projector may be installed at a vertical angle of 360°.



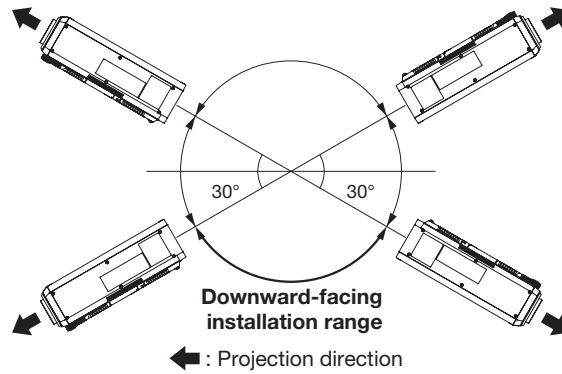
• **Horizontal direction**

The projector may be installed at a horizontal angle of ±15°.



• **Downward-facing installation**

When installing the projector in a downward facing position, be sure to attach the supplied clasp to the lamp unit. Using the projector without attach the clasp may shorten the life of the lamp.





**List of compatible signals**

The signals that can be input to this projector are shown in the table below. Horizontal scanning frequencies of 15 kHz to 100 kHz, vertical scanning frequencies of 24 Hz to 120 Hz, and a dot clock of 162 MHz maximum can be input.

**NOTE:** The native resolution of this projector is 1,920 × 1,200 pixels. If the display resolution of the input signal is different from the native resolution, image compression or expansion will be used to convert the input signal to a level within the native resolution.

Display mode	Display resolution (dots)	Scanning frequency		Dot clock frequency (MHz)	Format
		H (kHz)	V (kHz)		
NTSC/NTSC4.43/PAL-M/PAL60	720 × 480i	15.7	59.9	-	VIDEO/YC
PAL/PAL-N/SECAM	720 × 576i	15.6	50.0		
525i (480i)	720 × 480i	15.7	59.9	13.5	SDI/RGB1/RGB2
625i (576i)	720 × 576i	15.6	50.0		
525i (480i)	720(1440) × 480i*1	15.7	59.9	27.0	HDMI/DVI-D
625i (576i)	720(1440) × 576i*1	15.6	50.0		
525p (480p)	720 × 483	31.5	59.9	-	RGB1/RGB2/HDMI/DVI-D
625p (576p)	720 × 576	31.3	50.0		
750 (720)/60p	1280 × 720	45.0	60.0	-	-
750 (720)/50p		37.5	50.0		
1125 (1080)/60i*2	1920 × 1080i	33.8	60.0	74.3	SDI/RGB1/RGB2/HDMI/DVI-D
1125 (1080)/50i		28.1	50.0		
1125 (1080)/24p	1920 × 1080	27.0	24.0	-	-
1125 (1080)/24sF	1920 × 1080i	27.0	48.0		
1125 (1080)/25p	1920 × 1080	28.1	25.0	148.5	-
1125 (1080)/30p		33.8	30.0		
1125 (1080)/60p		67.5	60.0		
1125 (1080)/50p		56.3	50.0		
VESA400	640 × 400	31.5	70.1	25.2	-
		37.9	85.1	31.5	
VGA480	640 × 480	31.5	59.9	25.2	-
		35.0	66.7	30.2	
		37.9	72.8	31.5	
		37.5	75.0	31.5	
		43.3	85.0	36.0	
		35.2	56.3	36.0	
SVGA	800 × 600	37.9	60.3	40.0	-
		48.1	72.2	50.0	
		46.9	75.0	49.5	
		53.7	85.1	56.3	
MAC16	832 × 624	49.7	74.6	57.3	-
		39.6	50.0	51.9	
XGA	1024 × 768	48.4	60.0	65.0	RGB1/RGB2/HDMI/DVI-D
		56.5	70.1	75.0	
		60.0	75.0	78.8	
		65.5	81.6	86.0	
		68.7	85.0	94.5	
		81.4	100.0	113.3	
MXGA	1152 × 864	98.8	120.0	139.1	-
		53.7	60.0	81.6	
		64.0	70.0	94.2	
MAC21	1152 × 870	67.5	74.9	108.0	-
		77.1	85.0	119.7	
1280 × 720	1280 × 720	68.7	75.1	100.0	-
		37.1	49.8	60.5	
		44.8	59.9	74.5	
1280 × 768	1280 × 768	76.3	100.0	131.8	-
		92.6	120.0	161.6	
		39.6	49.9	65.3	
		47.8	59.9	79.5	
1280 × 768	1280 × 768*3	47.4	60.0	68.3	-
		60.3	74.9	102.3	
		68.6	84.8	117.5	

Display mode	Display resolution (dots)	Scanning frequency		Dot clock frequency (MHz)	Format
		H (kHz)	V (kHz)		
1280 × 800	1280 × 800	41.3	50.0	68.0	
		49.7	59.8	83.5	
	1280 × 800* <sup>3</sup>	49.3	59.9	71.0	
MSXGA	1280 × 800	62.8	74.9	106.5	
		71.6	84.9	122.5	
SXGA	1280 × 960	60.0	60.0	108.0	
		52.4	50.0	88.0	
		64.0	60.0	108.0	
		72.3	66.3	125.0	
		78.2	72.0	135.1	
1366×768	1366 × 768	80.0	75.0	135.0	
		91.1	85.0	157.5	
		47.7	59.8	85.5	
		39.6	49.9	69.0	
		54.1	50.0	99.9	
SXGA+	1400 × 1050	64.0	60.0	108.0	RGB1/RGB2/ HDMI/DVI-D
		65.2	60.0	122.6	
		65.3		121.8	
		78.8	72.0	149.3	
		82.2	75.0	155.9	
WXGA+	1440 × 900	55.9	59.9	106.5	
		46.3		86.8	
1600×900	1600 × 900	46.4	49.9	96.5	
		55.9	60.0	119.0	
UXGA	1600 × 1200	61.8	49.9	131.5	
		75.0	60.0	162.0	
WSXGA+	1680 × 1050	65.3	60.0	146.3	
		54.1	50.0	119.5	
		1920 × 1080	55.6	49.9	141.5
1920×1080	1920 × 1080* <sup>3</sup>	66.6	59.9	138.5	
		67.2	60.0	173.0	RGB1/RGB2
	1920 × 1200	61.8	49.9	158.3	RGB1/RGB2/ HDMI/DVI-D
WUXGA	1920 × 1200* <sup>3</sup>	74.0	60.0	154.0	HDMI/DVI-D
		1920 × 1200* <sup>4</sup>	74.6	59.9	193.3

\*1 Only compatible with dot clock frequency of 27 MHz (pixel repetition signal)  
 \*2 When 1125(1035)/60i signal input, it displays as 1125(1080)/60i signals.  
 \*3 Compliant with VESA CVT-RB (Coordinated Video Timing-Reduced Blanking).  
 \*4 Image resolution is reduced by the image processing circuit before projection.

NOTE: DIGITAL LINK and HDMI inputs share the same compatible signal.