

This fixed-focus lens is designed for use with Panasonic's applicable projectors.
 This lens is an ultra-short focal length lens which uses a mirror.

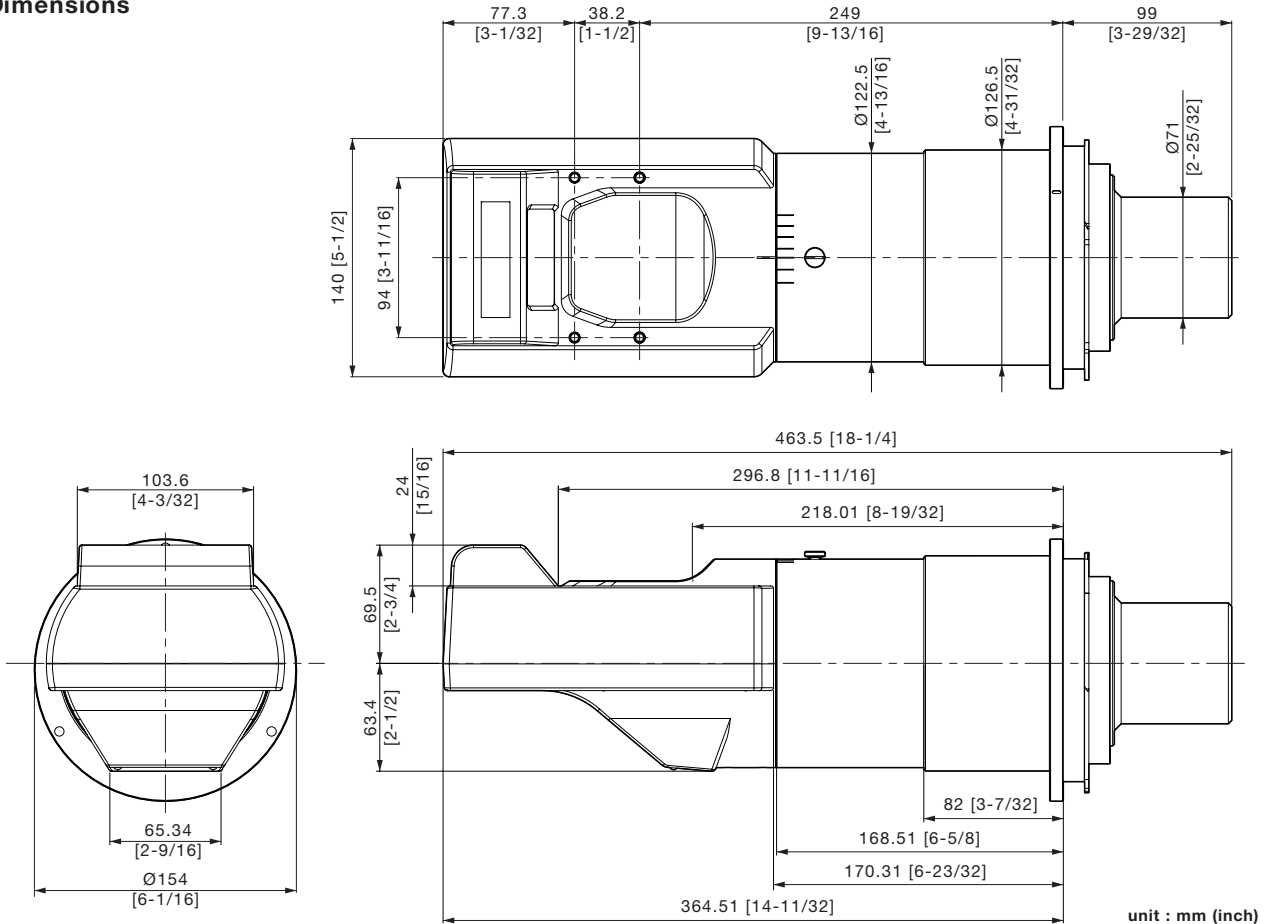
NOTE: The lens cannot be used by itself. It must be mounted onto the specified Panasonic DLP™ projector.

Specifications

F value:	2.5		
Focal length (f):	7.5 mm (9/32")		
Lens shift:		Vertical shift	Horizontal shift
	PT-RQ13K	up:10% down:5%	left: 21%; right: 21%
	PT-RZ31K/RZ12K/DZ21K/DZ21K2/DZ13K/DZ10K	up: 5% down: 7%	left: 12%; right: 12%
	PT-DZ16K/DZ16K2	up:13% down: 8%	left: 19%; right: 19%
	PT-RS30K/RS11K/DS20K/DS20K2/DS12K	up: 7% down: 7%	left: 8%; right: 8%
	PT-DW17K/DW17K2/DW11K	up:18% down: 0%	left: 13%; right: 27%
Dimensions :	463.5mm × ø154 mm (18-1/4 × ø6-1/16 inches)		
Weight:	Approx 5.7 kg* (12.6 lbs*)		
Applicable projector:	[Group A]		
	PT-DZ21K/DZ21K2/DS20K/DS20K2/DW17K/DW17K2/DZ16K/DZ16K2		
	[Group B]		
	PT-DZ13K/DS12K/DW11K/DZ10K/DZ8700/DZ110K/DS8500/DS1100K/DW8300/DW90K		
	[Group C]		
	PT-RQ13K/RZ12K/RS11K		
	[Group D]		
	PT-PT-RZ31K/RS30K		

* Average value. May differ depending on models.

Dimensions



unit : mm (inch)

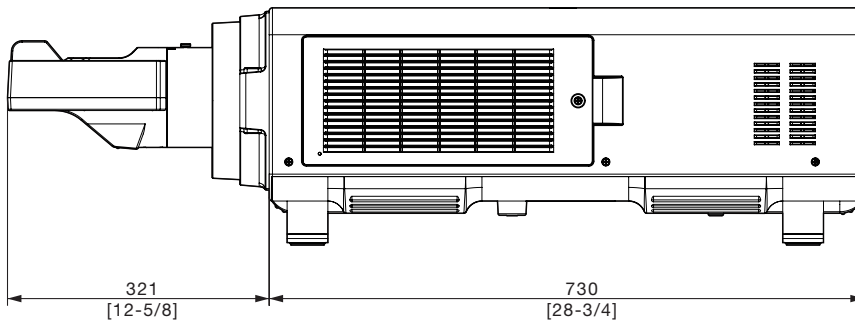
As of September 2016

NOTE: This illustration is not drawn to scale.

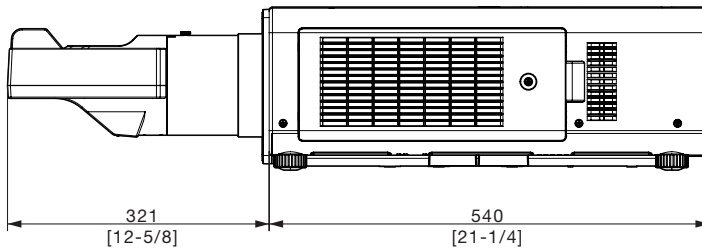
DLP is a trademark of Texas Instruments. Weights and dimensions shown are approximate. Specifications subject to change without notice.

Dimensions

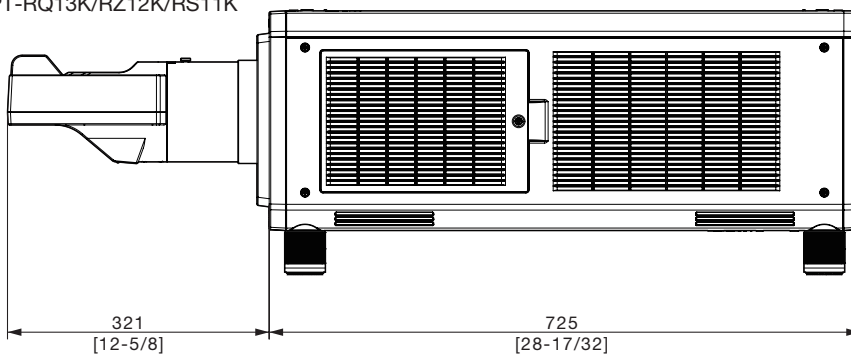
[Group A]
 PT-DZ21K/DZ21K2/DS20K/DS20K2/DW17K/DW17K2/DZ16K/DZ16K2



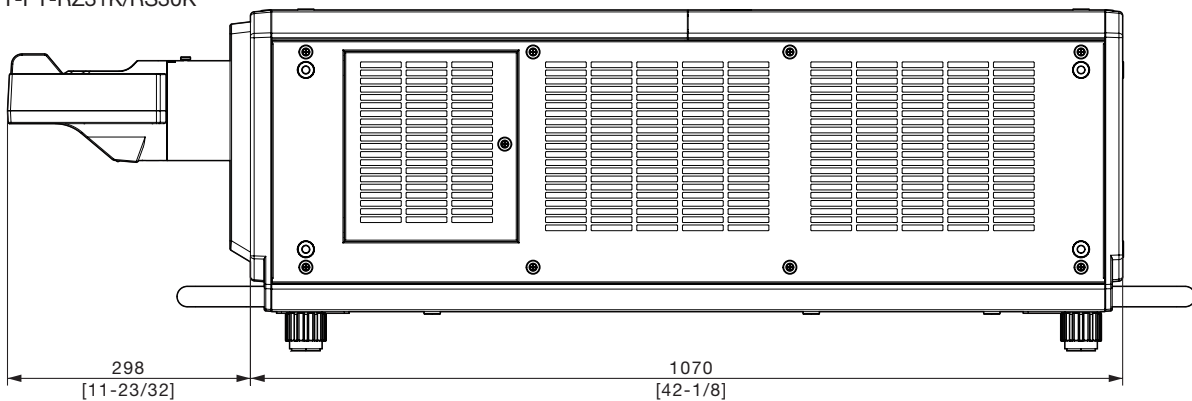
[Group B]
 PT-DZ13K/DS12K/DW11K/DZ10K/DZ8700/DZ110K/DS8500/DS1100K/DW8300/DW90K



[Group C]
 PT-RQ13K/RZ12K/RS11K



[Group D]
 PT-PT-RZ31K/RS30K



unit : mm (inch)

As of September 2016

NOTE: This illustration is not drawn to scale.

ET-D75LE95 Projection Distance Table

PT-RZ31K

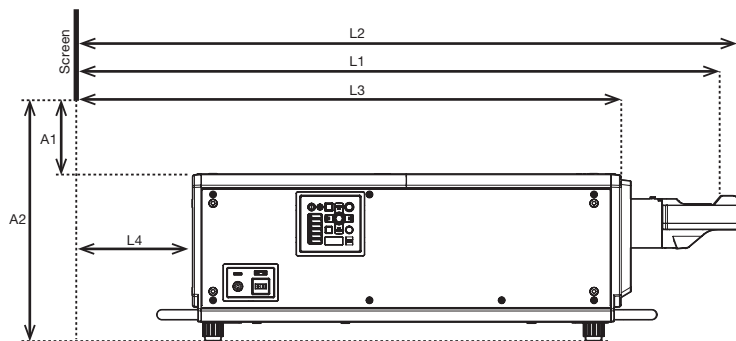
16 : 10 (WUXGA ; 1920 × 1200)

Unit : meters

Ultra-short focal length lens ET-D75LE95 Close-up system dimensions											
Throw ratio				0.36:1	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)	
Diagonal image size (Inches)	Diagonal image size (m)	Height (SH)	Width (SW)	Projection distance (From mirror reflective surface to screen) (L1)				Min	Max	Min	Max
120	3.05	1.62	2.58	0.94	0.97	0.68	-0.39	0.17	0.33	0.59	0.75
150	3.81	2.02	3.23	1.18	1.20	0.91	-0.16	0.24	0.44	0.66	0.86
200	5.08	2.69	4.31	1.56	1.59	1.30	0.23	0.37	0.63	0.79	1.05
250	6.35	3.37	5.38	1.95	1.97	1.68	0.61	0.49	0.83	0.91	1.24
300	7.62	4.04	6.46	2.33	2.36	2.07	1.00	0.62	1.02	1.03	1.43
350	8.89	4.71	7.54	2.72	2.74	2.45	1.38	0.74	1.21	1.16	1.62
400	10.16	5.38	8.62	3.10	3.13	2.84	1.77	0.86	1.40	1.28	1.82
500	12.70	6.73	10.77	3.87	3.90	3.61	2.54	1.11	1.78	1.53	2.20
600	15.24	8.08	12.92	4.64	4.67	4.38	3.31	1.36	2.16	1.78	2.58

Unit : feet

Ultra-short focal length lens ET-D75LE95 Close-up system dimensions											
Throw ratio				0.36:1	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)	
Diagonal image size (Inches)	Diagonal image size (m)	Height (SH)	Width (SW)	Projection distance (From mirror reflective surface to screen) (L1)				Min	Max	Min	Max
120	3.05	5.3	8.5	3.1	3.2	2.2	-1.3	0.6	1.1	1.9	2.5
150	3.81	6.6	10.6	3.9	4.0	3.0	-0.5	0.8	1.5	2.2	2.8
200	5.08	8.8	14.1	5.1	5.2	4.3	0.7	1.2	2.1	2.6	3.5
250	6.35	11.0	17.7	6.4	6.5	5.5	2.0	1.6	2.7	3.0	4.1
300	7.62	13.2	21.2	7.6	7.7	6.8	3.3	2.0	3.3	3.4	4.7
350	8.89	15.5	24.7	8.9	9.0	8.0	4.5	2.4	4.0	3.8	5.3
400	10.16	17.7	28.3	10.2	10.3	9.3	5.8	2.8	4.6	4.2	6.0
500	12.70	22.1	35.3	12.7	12.8	11.8	8.3	3.6	5.8	5.0	7.2
600	15.24	26.5	42.4	15.2	15.3	14.4	10.9	4.5	7.1	5.8	8.5



- 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

$$L1 \text{ (m)} = 0.0077 \times \text{Diagonal image size (inches)} + 0.02$$

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

PT-RZ31K	Min. A1 (m) = 0.000184 × SH - 0.128 Max. A1 (m) = 0.000283 × SH - 0.128
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As of September 2016

ET-D75LE95 Projection Distance Table

PT-RQ13K

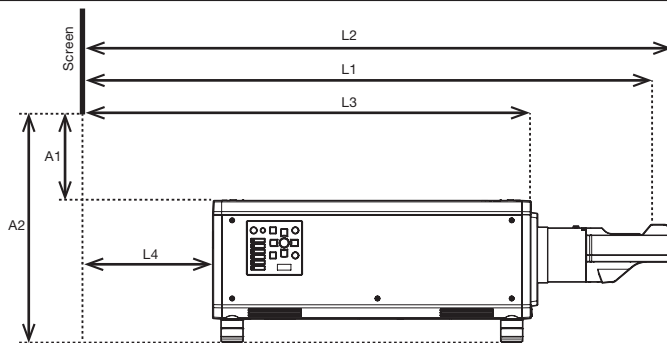
16 : 10 (WQXGA ; 2560 × 1600)

Unit : meters

Ultra-short focal length lens ET-D75LE95 Close-up system dimensions											
Throw ratio				0.39:1	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)	
Diagonal image size (Inches)	Diagonal image size (m)	Height (SH)	Width (SW)	Projection distance (From mirror reflective surface to screen) (L1)				Min	Max	Min	Max
120	3.05	1.62	2.58	1.01	1.04	0.72	-0.01	0.19	0.42	0.52	0.74
150	3.81	2.02	3.23	1.26	1.29	0.97	0.24	0.27	0.56	0.60	0.88
200	5.08	2.69	4.31	1.67	1.70	1.38	0.65	0.41	0.79	0.73	1.11
250	6.35	3.37	5.38	2.08	2.11	1.79	1.07	0.54	1.01	0.86	1.34
300	7.62	4.04	6.46	2.50	2.52	2.20	1.48	0.67	1.24	1.00	1.57
350	8.89	4.71	7.54	2.91	2.94	2.62	1.89	0.81	1.47	1.13	1.79
400	10.16	5.38	8.62	3.32	3.35	3.03	2.30	0.94	1.70	1.26	2.02
500	12.70	6.73	10.77	4.15	4.17	3.85	3.13	1.21	2.15	1.53	2.48
600	15.24	8.08	12.92	4.97	5.00	4.68	3.95	1.47	2.61	1.80	2.93

Unit : feet

Ultra-short focal length lens ET-D75LE95 Close-up system dimensions											
Throw ratio				0.36:1	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)	
Diagonal image size (Inches)	Diagonal image size (m)	Height (SH)	Width (SW)	Projection distance (From mirror reflective surface to screen) (L1)				Min	Max	Min	Max
120	3.05	5.3	8.5	3.3	3.4	2.4	-0.0	0.6	1.4	1.7	2.4
150	3.81	6.6	10.6	4.1	4.2	3.2	0.8	0.9	1.8	2.0	2.9
200	5.08	8.8	14.1	5.5	5.6	4.5	2.1	1.3	2.6	2.4	3.6
250	6.35	11.0	17.7	6.8	6.9	5.9	3.5	1.8	3.3	2.8	4.4
300	7.62	13.2	21.2	8.2	8.3	7.2	4.8	2.2	4.1	3.3	5.1
350	8.89	15.5	24.7	9.5	9.6	8.6	6.2	2.6	4.8	3.7	5.9
400	10.16	17.7	28.3	10.9	11.0	9.9	7.6	3.1	5.6	4.1	6.6
500	12.70	22.1	35.3	13.6	13.7	12.6	10.3	4.0	7.1	5.0	8.1
600	15.24	26.5	42.4	16.3	16.4	15.3	13.0	4.8	8.6	5.9	9.6



- 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

$$L1 \text{ (m)} = 0.0083 \times \text{Diagonal image size (inches)} + 0.02$$

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

RQ13K	Min. A1 (m) = 0.000198 × SH - 0.128 Max. A1 (m) = 0.000339 × SH - 0.128
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As of September 2016

ET-D75LE95 Projection Distance Table

DZ21K/DZ21K2

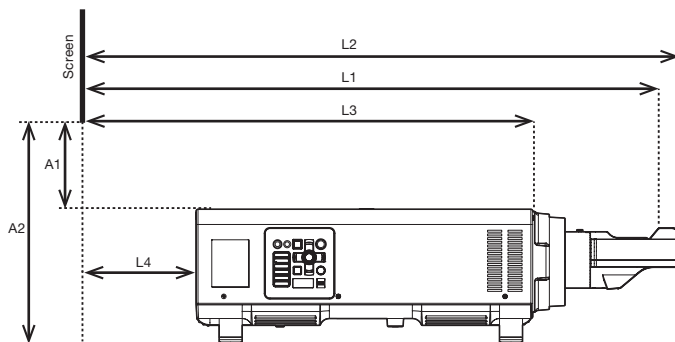
16 : 10 (WUXGA ; 1920 × 1200)

Unit : meters

Ultra-short focal length lens ET-D75LE95 Close-up system dimensions											
Throw ratio				0.36:1	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)	
Diagonal image size (Inches)	Diagonal image size (m)	Height (SH)	Width (SW)	Projection distance (From mirror reflective surface to screen) (L1)				Min	Max	Min	Max
120	3.05	1.62	2.59	0.94	0.97	0.65	-0.08	0.14	0.34	0.43	0.63
150	3.81	2.02	3.23	1.18	1.20	0.88	0.15	0.20	0.46	0.49	0.75
200	5.08	2.69	4.31	1.56	1.59	1.27	0.54	0.30	0.65	0.59	0.94
250	6.35	3.37	5.39	1.95	1.97	1.65	0.92	0.40	0.84	0.70	1.13
300	7.62	4.04	6.46	2.33	2.36	2.04	1.31	0.51	1.03	0.80	1.32
350	8.89	4.71	7.54	2.72	2.74	2.42	1.69	0.61	1.22	0.90	1.51
400	10.16	5.39	8.62	3.10	3.13	2.81	2.08	0.72	1.41	1.01	1.70
500	12.70	6.73	10.77	3.87	3.90	3.58	2.85	0.92	1.79	1.21	2.08
600	15.24	8.08	12.92	4.64	4.67	4.35	3.62	1.13	2.17	1.42	2.46

Unit : feet

Ultra-short focal length lens ET-D75LE95 Close-up system dimensions											
Throw ratio				0.36:1	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)	
Diagonal image size (Inches)	Diagonal image size (m)	Height (SH)	Width (SW)	Projection distance (From mirror reflective surface to screen) (L1)				Min	Max	Min	Max
120	3.05	5.3	8.5	3.1	3.2	2.1	-0.3	0.4	1.1	1.4	2.1
150	3.81	6.6	10.6	3.9	4.0	2.9	0.5	0.6	1.5	1.6	2.5
200	5.08	8.8	14.1	5.1	5.2	4.2	1.8	1.0	2.1	1.9	3.1
250	6.35	11.0	17.7	6.4	6.5	5.4	3.0	1.3	2.8	2.3	3.7
300	7.62	13.3	21.2	7.6	7.7	6.7	4.3	1.7	3.4	2.6	4.3
350	8.89	15.5	24.7	8.9	9.0	7.9	5.6	2.0	4.0	3.0	5.0
400	10.16	17.7	28.3	10.2	10.3	9.2	6.8	2.3	4.6	3.3	5.6
500	12.70	22.1	35.3	12.7	12.8	11.7	9.3	3.0	5.9	4.0	6.8
600	15.24	26.5	42.4	15.2	15.3	14.3	11.9	3.7	7.1	4.7	8.1



- 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

$$L1 \text{ (m)} = 0.0077 \times \text{Diagonal image size (inches)} + 0.02$$

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

DZ21K/DZ21K2

$$\begin{aligned} \text{Min. } A1 \text{ (m)} &= 0.000154 \times SH - 0.114 \\ \text{Max. } A1 \text{ (m)} &= 0.000283 \times SH - 0.114 \end{aligned}$$

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ET-D75LE95 Projection Distance Table

RZ12K

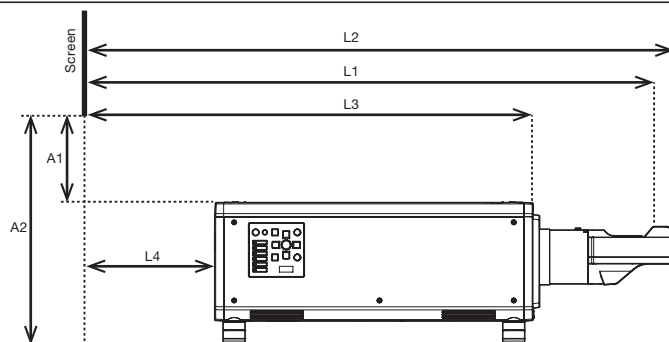
16 : 10 (WUXGA ; 1920 × 1200)

Unit : meters

Ultra-short focal length lens ET-D75LE95 Close-up system dimensions											
Throw ratio				0.36:1	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)	
Diagonal image size (Inches)	Diagonal image size (m)	Height (SH)	Width (SW)	Projection distance (From mirror reflective surface to screen) (L1)				Min	Max	Min	Max
120	3.05	1.62	2.58	0.94	0.97	0.65	-0.07	0.17	0.33	0.49	0.65
150	3.81	2.02	3.23	1.18	1.20	0.88	0.16	0.24	0.44	0.57	0.77
200	5.08	2.69	4.31	1.56	1.59	1.27	0.54	0.37	0.63	0.69	0.96
250	6.35	3.37	5.38	1.95	1.97	1.65	0.93	0.49	0.82	0.82	1.15
300	7.62	4.04	6.46	2.33	2.36	2.04	1.31	0.62	1.01	0.94	1.34
350	8.89	4.71	7.54	2.72	2.74	2.42	1.70	0.74	1.21	1.06	1.53
400	10.16	5.38	8.62	3.10	3.13	2.81	2.08	0.86	1.40	1.19	1.72
500	12.70	6.73	10.77	3.87	3.90	3.58	2.85	1.11	1.78	1.43	2.10
600	15.24	8.08	12.92	4.64	4.67	4.35	3.62	1.36	2.16	1.68	2.48

Unit : feet

Ultra-short focal length lens ET-D75LE95 Close-up system dimensions											
Throw ratio				0.36:1	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)	
Diagonal image size (Inches)	Diagonal image size (m)	Height (SH)	Width (SW)	Projection distance (From mirror reflective surface to screen) (L1)				Min	Max	Min	Max
120	3.05	5.3	8.5	3.1	3.2	2.1	-0.2	0.6	1.1	1.6	2.1
150	3.81	6.6	10.6	3.9	3.9	2.9	0.5	0.8	1.5	1.9	2.5
200	5.08	8.8	14.1	5.1	5.2	4.2	1.8	1.2	2.1	2.3	3.1
250	6.35	11.0	17.7	6.4	6.5	5.4	3.0	1.6	2.7	2.7	3.8
300	7.62	13.2	21.2	7.6	7.7	6.7	4.3	2.0	3.3	3.1	4.4
350	8.89	15.5	24.7	8.9	9.0	7.9	5.6	2.4	4.0	3.5	5.0
400	10.16	17.7	28.3	10.2	10.3	9.2	6.8	2.8	4.6	3.9	5.6
500	12.70	22.1	35.3	12.7	12.8	11.7	9.4	3.6	5.8	4.7	6.9
600	15.24	26.5	42.4	15.2	15.3	14.3	11.9	4.5	7.1	5.5	8.1



- 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

$$L1 \text{ (m)} = 0.0077 \times \text{Diagonal image size (inches)} + 0.02$$

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

RZ12K	Min. A1 (m) = 0.000184 × SH - 0.128 Max. A1 (m) = 0.000283 × SH - 0.128
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ET-D75LE95 Projection Distance Table

DZ13K/DZ10K

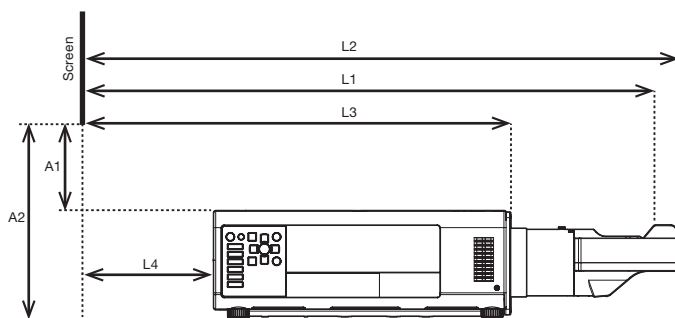
16 : 10 (WUXGA ; 1920 × 1200)

Unit : meters

Ultra-short focal length lens ET-D75LE95 Close-up system dimensions												
Throw ratio				0.36:1		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)	
Diagonal image size (Inches)	Diagonal image size (m)	Height (SH)	Width (SW)	Projection distance (From mirror reflective surface to screen) (L1)	Min				Max	Min	Max	
120	3.05	1.62	2.59	0.94	0.97	0.65	0.11	0.15	0.36	0.35	0.56	
150	3.81	2.02	3.23	1.18	1.20	0.88	0.34	0.21	0.47	0.41	0.67	
200	5.08	2.69	4.31	1.56	1.59	1.27	0.73	0.32	0.66	0.52	0.86	
250	6.35	3.37	5.39	1.95	1.97	1.65	1.11	0.42	0.85	0.62	1.05	
300	7.62	4.04	6.46	2.33	2.36	2.04	1.50	0.52	1.04	0.72	1.24	
350	8.89	4.71	7.54	2.72	2.74	2.42	1.88	0.63	1.23	0.83	1.43	
400	10.16	5.39	8.62	3.10	3.13	2.81	2.27	0.73	1.42	0.93	1.62	
500	12.70	6.73	10.77	3.87	3.90	3.58	3.04	0.94	1.81	1.14	2.01	
600	15.24	8.08	12.92	4.64	4.67	4.35	3.81	1.14	2.19	1.34	2.39	

Unit : feet

Ultra-short focal length lens ET-D75LE95 Close-up system dimensions												
Throw ratio				0.36:1		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)	
Diagonal image size (Inches)	Diagonal image size (m)	Height (SH)	Width (SW)	Projection distance (From mirror reflective surface to screen) (L1)	Min				Max	Min	Max	
120	3.05	5.3	8.5	3.1	3.2	2.1	-0.2	0.5	1.2	1.1	1.8	
150	3.81	6.6	10.6	3.9	4.0	2.9	0.5	0.7	1.5	1.3	2.2	
200	5.08	8.8	14.1	5.1	5.2	4.2	1.8	1.0	2.2	1.7	2.8	
250	6.35	11.0	17.7	6.4	6.5	5.4	3.0	1.4	2.8	2.0	3.5	
300	7.62	13.3	21.2	7.6	7.7	6.7	4.3	1.7	3.4	2.4	4.1	
350	8.89	15.5	24.7	8.9	9.0	7.9	5.6	2.1	4.0	2.7	4.7	
400	10.16	17.7	28.3	10.2	10.3	9.2	6.8	2.4	4.7	3.0	5.3	
500	12.70	22.1	35.3	12.7	12.8	11.7	9.4	3.1	5.9	3.7	6.6	
600	15.24	26.5	42.4	15.2	15.3	14.3	11.9	3.8	7.2	4.4	7.8	



- 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

$$L1 \text{ (m)} = 0.0077 \times \text{Diagonal image size (inches)} + 0.02$$

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

DZ13K/DZ10K	Min. A1 (m) = 0.000154 × SH - 0.100 Max. A1 (m) = 0.000283 × SH - 0.100
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As of September 2016

ET-D75LE95 Projection Distance Table

DZ16K/DZ16K2

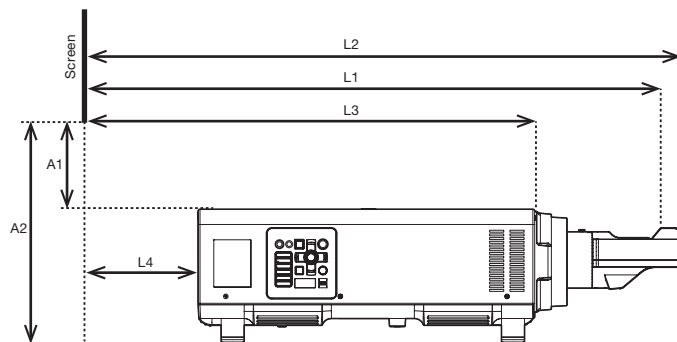
16 : 9 (WXGA ; 1920 × 1080)

Unit : meters

Throw ratio				Ultra-short focal length lens ET-D75LE95 Close-up system dimensions							
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)	
								Min	Max	Min	Max
120	3.05	1.49	2.66	0.97	1.00	0.68	-0.05	0.14	0.44	0.43	0.73
150	3.81	1.87	3.32	1.21	1.24	0.92	0.19	0.21	0.58	0.50	0.87
200	5.08	2.49	4.43	1.60	1.63	1.31	0.58	0.31	0.81	0.61	1.10
250	6.35	3.11	5.54	2.00	2.03	1.71	0.98	0.42	1.04	0.71	1.33
300	7.62	3.74	6.64	2.39	2.42	2.10	1.37	0.53	1.27	0.82	1.56
350	8.89	4.36	7.75	2.79	2.82	2.50	1.77	0.64	1.50	0.93	1.79
400	10.16	4.98	8.86	3.19	3.21	2.89	2.16	0.74	1.73	1.03	2.02
500	12.70	6.23	11.07	3.98	4.01	3.69	2.96	0.96	2.19	1.25	2.48
600	15.24	7.47	13.28	4.77	4.80	4.48	3.75	1.17	2.65	1.46	2.94

Unit : feet

Throw ratio				Ultra-short focal length lens ET-D75LE95 Close-up system dimensions							
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)	
								Min	Max	Min	Max
120	3.05	4.9	8.7	3.2	3.3	2.2	-0.2	0.5	1.4	1.4	2.4
150	3.81	6.1	10.9	4.0	4.1	3.0	0.6	0.7	1.9	1.6	2.8
200	5.08	8.2	14.5	5.3	5.4	4.3	1.9	1.0	2.6	2.0	3.6
250	6.35	10.2	18.2	6.6	6.7	5.6	3.2	1.4	3.4	2.3	4.4
300	7.62	12.3	21.8	7.9	7.9	6.9	4.5	1.7	4.2	2.7	5.1
350	8.89	14.3	25.4	9.2	9.2	8.2	5.8	2.1	4.9	3.0	5.9
400	10.16	16.3	29.1	10.5	10.5	9.5	7.1	2.4	5.7	3.4	6.6
500	12.70	20.4	36.3	13.0	13.1	12.1	9.7	3.1	7.2	4.1	8.1
600	15.24	24.5	43.6	15.6	15.7	14.7	12.3	3.8	8.7	4.8	9.7



- 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

$$L1 \text{ (m)} = 0.007914 \times \text{Diagonal image size (inches)} + 0.02$$

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

DZ16K/DZ16K2	Min. A1 (m) = 0.000172 × SH - 0.114 Max. A1 (m) = 0.000370 × SH - 0.114
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As of September 2016

ET-D75LE95 Projection Distance Table

DW17K/DW17K2

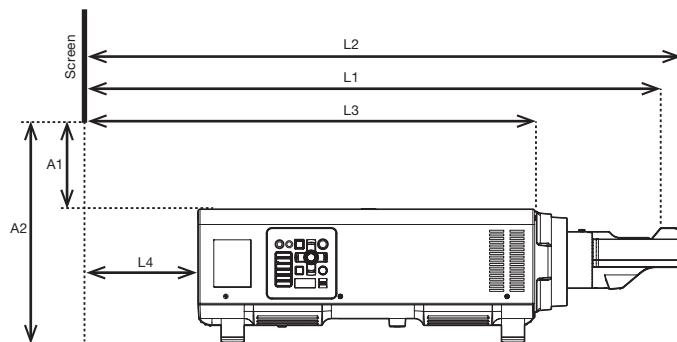
16 : 9 (WXGA ; 1366 × 768)

Unit : meters

Throw ratio				Ultra-short focal length lens ET-D75LE95 Close-up system dimensions							
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)	
								Min	Max	Min	Max
120	3.05	1.49	2.66	1.07	1.10	0.78	0.05	0.17	0.58	0.46	0.87
150	3.81	1.87	3.32	1.34	1.37	1.05	0.32	0.24	0.76	0.53	1.05
200	5.08	2.49	4.43	1.78	1.81	1.48	0.75	0.36	1.05	0.65	1.34
250	6.35	3.11	5.54	2.22	2.24	1.92	1.19	0.48	1.34	0.77	1.63
300	7.62	3.74	6.64	2.66	2.68	2.36	1.63	0.60	1.63	0.89	1.92
350	8.89	4.36	7.75	3.09	3.12	2.80	2.07	0.71	1.92	1.01	2.21
400	10.16	4.98	8.86	3.53	3.56	3.24	2.51	0.83	2.21	1.12	2.50
500	12.70	6.23	11.07	4.41	4.44	4.12	3.39	1.07	2.79	1.36	3.08
600	15.24	7.47	13.28	5.29	5.32	5.00	4.27	1.31	3.37	1.60	3.66

Unit : feet

Throw ratio				Ultra-short focal length lens ET-D75LE95 Close-up system dimensions							
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)	
								Min	Max	Min	Max
120	3.05	4.9	8.7	3.5	3.6	2.6	0.2	0.6	1.9	1.5	2.9
150	3.81	6.1	10.9	4.4	4.5	3.4	1.0	0.8	2.5	1.7	3.4
200	5.08	8.2	14.5	5.8	5.9	4.9	2.5	1.2	3.4	2.1	4.4
250	6.35	10.2	18.2	7.3	7.4	6.3	3.9	1.6	4.4	2.5	5.3
300	7.62	12.3	21.8	8.7	8.8	7.8	5.4	2.0	5.3	2.9	6.3
350	8.89	14.3	25.4	10.2	10.2	9.2	6.8	2.3	6.3	3.3	7.2
400	10.16	16.3	29.1	11.6	11.7	10.6	8.2	2.7	7.2	3.7	8.2
500	12.70	20.4	36.3	14.5	14.6	13.5	11.1	3.5	9.1	4.5	10.1
600	15.24	24.5	43.6	17.4	17.4	16.4	14.0	4.3	11.0	5.2	12.0



- 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

$$L1 \text{ (m)} = 0.008783 \times \text{Diagonal image size (inches)} + 0.02$$

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

DW17K/DW17K2	Min. A1 (m) = 0.000190 × SH - 0.114 Max. A1 (m) = 0.000466 × SH - 0.114
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As of September 2016

ET-D75LE95 Projection Distance Table

DW11K

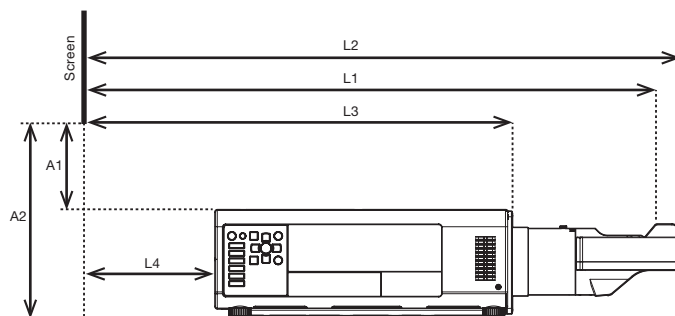
16 : 9 (WXGA ; 1366 × 768)

Unit : meters

Ultra-short focal length lens ET-D75LE95 Close-up system dimensions											
Throw ratio				0.40:1				From top of set to bottom edge of screen (A1)		From bottom of set to bottom edge of screen (A2)	
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)	Min	Max	Min	Max
120	3.05	1.49	2.66	1.07	1.10	0.78	0.24	0.18	0.60	0.38	0.80
150	3.81	1.87	3.32	1.34	1.37	1.05	0.51	0.26	0.77	0.46	0.97
200	5.08	2.49	4.43	1.78	1.81	1.48	0.94	0.37	1.06	0.57	1.26
250	6.35	3.11	5.54	2.22	2.24	1.92	1.38	0.49	1.35	0.69	1.55
300	7.62	3.74	6.64	2.66	2.68	2.36	1.82	0.61	1.64	0.81	1.84
350	8.89	4.36	7.75	3.09	3.12	2.80	2.26	0.73	1.93	0.93	2.13
400	10.16	4.98	8.86	3.53	3.56	3.24	2.70	0.85	2.22	1.05	2.42
500	12.70	6.23	11.07	4.41	4.44	4.12	3.58	1.08	2.80	1.28	3.00
600	15.24	7.47	13.28	5.29	5.32	5.00	4.46	1.32	3.38	1.52	3.58

Unit : feet

Ultra-short focal length lens ET-D75LE95 Close-up system dimensions											
Throw ratio				0.40:1				From top of set to bottom edge of screen (A1)		From bottom of set to bottom edge of screen (A2)	
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)	Min	Max	Min	Max
120	3.05	4.9	8.7	3.5	3.6	2.6	0.8	0.6	2.0	1.3	2.6
150	3.81	6.1	10.9	4.4	4.5	3.4	1.7	0.8	2.5	1.5	3.2
200	5.08	8.2	14.5	5.8	5.9	4.9	3.1	1.2	3.5	1.9	4.1
250	6.35	10.2	18.2	7.3	7.4	6.3	4.5	1.6	4.4	2.3	5.1
300	7.62	12.3	21.8	8.7	8.8	7.8	6.0	2.0	5.4	2.7	6.0
350	8.89	14.3	25.4	10.2	10.2	9.2	7.4	2.4	6.3	3.0	7.0
400	10.16	16.3	29.1	11.6	11.7	10.6	8.9	2.8	7.3	3.4	7.9
500	12.70	20.4	36.3	14.5	14.6	13.5	11.7	3.6	9.2	4.2	9.8
600	15.24	24.5	43.6	17.4	17.4	16.4	14.6	4.3	11.1	5.0	11.8



- 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

$$L1 \text{ (m)} = 0.008783 \times \text{Diagonal image size (inches)} + 0.02$$

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

DW11K	Min. A1 (m) = 0.000190 x SH - 0.100 Max. A1 (m) = 0.000466 x SH - 0.100
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As of September 2016

ET-D75LE95 Projection Distance Table

RS30K

4 : 3 (SXGA ; 1400 × 1050)

Unit : meters

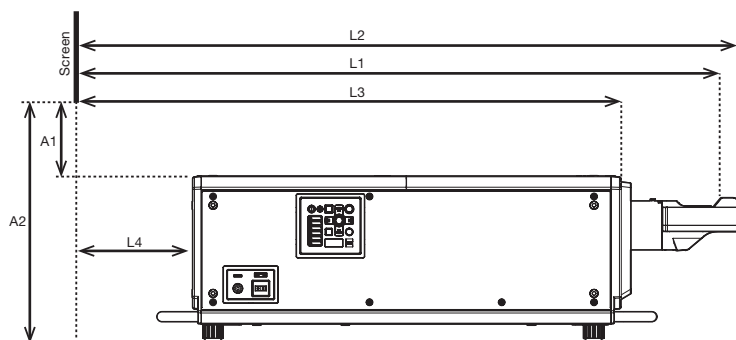
Ultra-short focal length lens ET-D75LE95
 Close-up system dimensions

Throw ratio				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)	
								Min	Max	Min	Max
120	3.05	1.83	2.44	0.96	0.99	0.70	-0.37	0.18	0.25	0.60	0.67
150	3.81	2.29	3.05	1.20	1.23	0.94	-0.13	0.25	0.34	0.67	0.76
200	5.08	3.05	4.06	1.59	1.62	1.33	0.26	0.38	0.50	0.80	0.92
250	6.35	3.81	5.08	1.99	2.02	1.72	0.65	0.51	0.66	0.92	1.08
300	7.62	4.57	6.10	2.38	2.41	2.12	1.05	0.63	0.81	1.05	1.23
350	8.89	5.33	7.11	2.77	2.80	2.51	1.44	0.76	0.97	1.18	1.39
400	10.16	6.10	8.13	3.17	3.20	2.90	1.83	0.88	1.13	1.30	1.55
500	12.70	7.62	10.16	3.95	3.98	3.69	2.62	1.14	1.44	1.56	1.86
600	15.24	9.14	12.19	4.74	4.77	4.48	3.41	1.39	1.76	1.81	2.18

Unit : feet

Ultra-short focal length lens ET-D75LE95
 Close-up system dimensions

Throw ratio				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)	
								Min	Max	Min	Max
120	3.05	6.0	8.0	3.2	3.3	2.3	-1.2	0.6	0.8	2.0	2.2
150	3.81	7.5	10.0	3.9	4.0	3.1	-0.4	0.8	1.1	2.2	2.5
200	5.08	10.0	13.3	5.2	5.3	4.4	0.9	1.2	1.6	2.6	3.0
250	6.35	12.5	16.7	6.5	6.6	5.7	2.1	1.7	2.2	3.0	3.5
300	7.62	15.0	20.0	7.8	7.9	6.9	3.4	2.1	2.7	3.4	4.0
350	8.89	17.5	23.3	9.1	9.2	8.2	4.7	2.5	3.2	3.9	4.6
400	10.16	20.0	26.7	10.4	10.5	9.5	6.0	2.9	3.7	4.3	5.1
500	12.70	25.0	33.3	13.0	13.1	12.1	8.6	3.7	4.7	5.1	6.1
600	15.24	30.0	40.0	15.5	15.6	14.7	11.2	4.6	5.8	5.9	7.1



- 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

$$L1 (m) = 0.007865 \times \text{Diagonal image size (inches)} + 0.02$$

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

RS30K	Min. A1 (m) = 0.000166 × SH - 0.128 Max. A1 (m) = 0.000206 × SH - 0.128
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ET-D75LE90 Projection Distance Table

DS20K/DS20K2

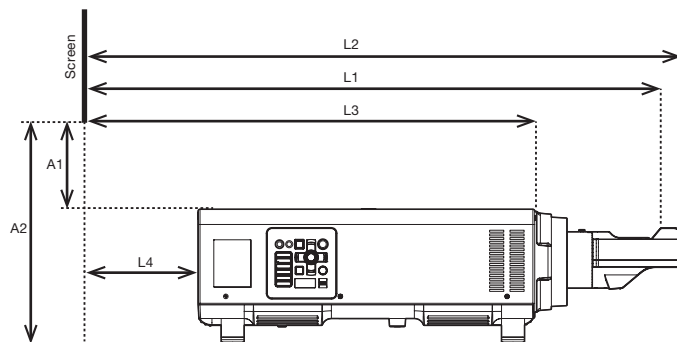
4 : 3 (SXGA ; 1400 × 1050)

Unit : meters

Ultra-short focal length lens ET-D75LE95 Close-up system dimensions												
Throw ratio				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)		
								Min	Max	Min	Max	
120	3.05	1.83	2.44	0.96	0.99	0.67	-0.06	0.14	0.26	0.43	0.55	
150	3.81	2.29	3.05	1.20	1.23	0.91	0.18	0.20	0.36	0.50	0.65	
200	5.08	3.05	4.06	1.59	1.62	1.30	0.57	0.31	0.51	0.60	0.81	
250	6.35	3.81	5.08	1.99	2.02	1.69	0.96	0.42	0.67	0.71	0.96	
300	7.62	4.57	6.10	2.38	2.41	2.09	1.36	0.52	0.83	0.81	1.12	
350	8.89	5.33	7.11	2.77	2.80	2.48	1.75	0.63	0.99	0.92	1.28	
400	10.16	6.10	8.13	3.17	3.20	2.87	2.14	0.73	1.14	1.02	1.43	
500	12.70	7.62	10.16	3.95	3.98	3.66	2.93	0.95	1.46	1.24	1.75	
600	15.24	9.14	12.19	4.74	4.77	4.45	3.72	1.16	1.77	1.45	2.06	

Unit : feet

Ultra-short focal length lens ET-D75LE95 Close-up system dimensions												
Throw ratio				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)		
								Min	Max	Min	Max	
120	3.05	6.0	8.0	3.2	3.3	2.2	-0.2	0.5	0.9	1.4	1.8	
150	3.81	7.5	10.0	3.9	4.0	3.0	0.6	0.7	1.2	1.6	2.1	
200	5.08	10.0	13.3	5.2	5.3	4.3	1.9	1.0	1.7	2.0	2.6	
250	6.35	12.5	16.7	6.5	6.6	5.6	3.2	1.4	2.2	2.3	3.2	
300	7.62	15.0	20.0	7.8	7.9	6.8	4.5	1.7	2.7	2.7	3.7	
350	8.89	17.5	23.3	9.1	9.2	8.1	5.7	2.1	3.2	3.0	4.2	
400	10.16	20.0	26.7	10.4	10.5	9.4	7.0	2.4	3.7	3.4	4.7	
500	12.70	25.0	33.3	13.0	13.1	12.0	9.6	3.1	4.8	4.1	5.7	
600	15.24	30.0	40.0	15.5	15.6	14.6	12.2	3.8	5.8	4.8	6.8	



- 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

$$L1 (m) = 0.007865 \times \text{Diagonal image size (inches)} + 0.02$$

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

DS20K/DS20K2	Min. A1 (m) = 0.000139 × SH - 0.114 Max. A1 (m) = 0.000206 × SH - 0.114
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As of September 2016

ET-D75LE90 Projection Distance Table

DS12K

4 : 3 (SXGA ; 1400 × 1050)

Unit : meters

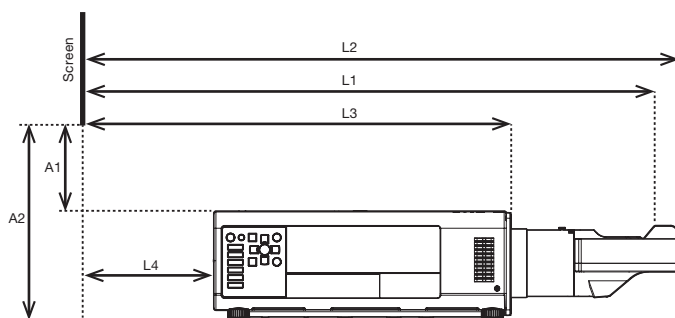
Ultra-short focal length lens ET-D75LE95
 Close-up system dimensions

Throw ratio				0.39:1	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)	
Diagonal image size (Inches)	Diagonal image size (m)	Height (SH)	Width (SW)	Projection distance (From mirror reflective surface to screen) (L1)				Min	Max	Min	Max
120	3.05	1.83	2.44	0.96	0.99	0.67	0.13	0.15	0.28	0.35	0.48
150	3.81	2.29	3.05	1.20	1.23	0.91	0.37	0.22	0.37	0.42	0.57
200	5.08	3.05	4.06	1.59	1.62	1.30	0.76	0.32	0.53	0.52	0.73
250	6.35	3.81	5.08	1.99	2.02	1.69	1.15	0.43	0.68	0.63	0.88
300	7.62	4.57	6.10	2.38	2.41	2.09	1.55	0.54	0.84	0.74	1.04
350	8.89	5.33	7.11	2.77	2.80	2.48	1.94	0.64	1.00	0.84	1.20
400	10.16	6.10	8.13	3.17	3.20	2.87	2.33	0.75	1.16	0.95	1.36
500	12.70	7.62	10.16	3.95	3.98	3.66	3.12	0.96	1.47	1.16	1.67
600	15.24	9.14	12.19	4.74	4.77	4.45	3.91	1.17	1.78	1.37	1.98

Unit : feet

Ultra-short focal length lens ET-D75LE95
 Close-up system dimensions

Throw ratio				0.39:1	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)	
Diagonal image size (Inches)	Diagonal image size (m)	Height (SH)	Width (SW)	Projection distance (From mirror reflective surface to screen) (L1)				Min	Max	Min	Max
120	3.05	6.0	8.0	3.2	3.3	2.2	0.4	0.5	0.9	1.2	1.6
150	3.81	7.5	10.0	3.9	4.0	3.0	1.2	0.7	1.2	1.4	1.9
200	5.08	10.0	13.3	5.2	5.3	4.3	2.5	1.1	1.7	1.7	2.4
250	6.35	12.5	16.7	6.5	6.6	5.6	3.8	1.4	2.2	2.1	2.9
300	7.62	15.0	20.0	7.8	7.9	6.8	5.1	1.8	2.8	2.4	3.4
350	8.89	17.5	23.3	9.1	9.2	8.1	6.4	2.1	3.3	2.8	3.9
400	10.16	20.0	26.7	10.4	10.5	9.4	7.7	2.5	3.8	3.1	4.4
500	12.70	25.0	33.3	13.0	13.1	12.0	10.2	3.1	4.8	3.8	5.5
600	15.24	30.0	40.0	15.5	15.6	14.6	12.8	3.8	5.9	4.5	6.5



- 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

$$L1 (m) = 0.007865 \times \text{Diagonal image size (inches)} + 0.02$$

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

DS12K	$A1 (m) = 0.000206 \times SH - 0.100$
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As of September 2016

ET-D75LE90 Projection Distance Table

RS11K

4 : 3 (SXGA ; 1400 × 1050)

Unit : meters

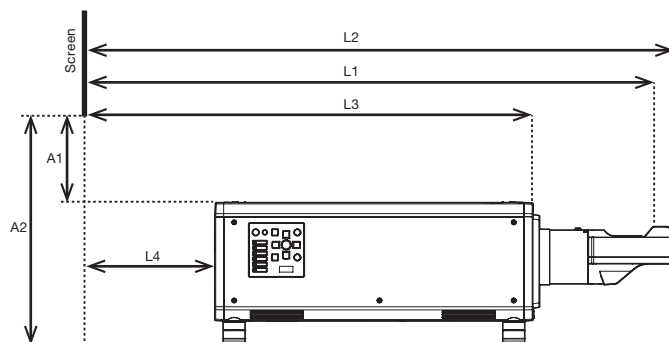
Ultra-short focal length lens ET-D75LE95
Close-up system dimensions

Throw ratio				0.39:1		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)	
Diagonal image size (Inches)	Diagonal image size (m)	Height (SH)	Width (SW)	Projection distance (From mirror reflective surface to screen) (L1)	Min				Max	Min	Max	
120	3.05	1.83	2.44	0.96	0.99	0.67	-0.05	0.18	0.25	0.50	0.57	
150	3.81	2.29	3.05	1.20	1.23	0.91	0.18	0.25	0.34	0.58	0.67	
200	5.08	3.05	4.06	1.59	1.62	1.30	0.58	0.38	0.50	0.70	0.82	
250	6.35	3.81	5.08	1.99	2.02	1.69	0.97	0.50	0.66	0.83	0.98	
300	7.62	4.57	6.10	2.38	2.41	2.09	1.36	0.63	0.81	0.95	1.14	
350	8.89	5.33	7.11	2.77	2.80	2.48	1.76	0.76	0.97	1.08	1.29	
400	10.16	6.10	8.13	3.17	3.20	2.87	2.15	0.88	1.13	1.21	1.45	
500	12.70	7.62	10.16	3.95	3.98	3.66	2.94	1.14	1.44	1.46	1.77	
600	15.24	9.14	12.19	4.74	4.77	4.45	3.72	1.39	1.76	1.71	2.08	

Unit : feet

Ultra-short focal length lens ET-D75LE95
Close-up system dimensions

Throw ratio				0.39:1		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)	
Diagonal image size (Inches)	Diagonal image size (m)	Height (SH)	Width (SW)	Projection distance (From mirror reflective surface to screen) (L1)	Min				Max	Min	Max	
120	3.05	6.0	8.0	3.2	3.3	2.2	-0.2	0.6	0.8	1.6	1.9	
150	3.81	7.5	10.0	3.9	4.0	3.0	0.6	0.8	1.1	1.9	2.2	
200	5.08	10.0	13.3	5.2	5.3	4.3	1.9	1.2	1.6	2.3	2.7	
250	6.35	12.5	16.7	6.5	6.6	5.6	3.2	1.7	2.2	2.7	3.2	
300	7.62	15.0	20.0	7.8	7.9	6.8	4.5	2.1	2.7	3.1	3.7	
350	8.89	17.5	23.3	9.1	9.2	8.1	5.8	2.5	3.2	3.5	4.2	
400	10.16	20.0	26.7	10.4	10.5	9.4	7.1	2.9	3.7	4.0	4.8	
500	12.70	25.0	33.3	13.0	13.1	12.0	9.6	3.7	4.7	4.8	5.8	
600	15.24	30.0	40.0	15.5	15.6	14.6	12.2	4.6	5.8	5.6	6.8	



- 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

$$L1 (m) = 0.007865 \times \text{Diagonal image size (inches)} + 0.02$$

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

RS11K	Min. A1 (m) = 0.000166 × SH - 0.128 Max. A1 (m) = 0.000206 × SH - 0.128
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As of September 2016