Fixed-Focus Lens                    ET-**DLE035**

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: | 2.0 |
| Focal distance (f): | 5.3 mm |
| Throw ratio | WUXGA   0.380:1   for PT-RZ120/RZ970/RZ870/RZ770/RZ660/DZ870/DZ780 (16:10 aspect ratio) |
| | WXGA     0.399:1   for PT-RW930/RW730/RW620/DW830/DW750 (16:10 aspect ratio) |
| | XGA        0.394:1   for PT-RX110/DX100/DX820 (4:3 aspect ratio) |
| Dimensions (W × H × D): | 132 × 102 × 311 mm (5-3/16 × 4-1/32 × 12-1/4 inches) |
| Weight: | Approx 1.3 kg (3.1 lbs) |
| Applicable projector: | [Group A] |

[Group A]
PT-DZ870K/DZ870LK/DZ870W/DZ870LW/DW830K/DW830LK/DW830W/DW830LW/
    DX100K/DX100LK/DX100W/DX100LW

[Group B]
PT-RZ120B/RZ120W/RZ120LB/RZ120LW/RZ970B/RZ970W/RZ970LB/RZ970LW/
    RW930B/RW930W/RW930LB/RW930LW/RX110B/RX110W/RX110LB/RX110LW/
    RZ870W/RZ870B/RZ870LW/RZ870LB/RZ770B/RZ770W/RZ770LB/RZ770LW/
    RW730B/RW730W/RW730LB/RW730LW/RZ660B/RZ660W/RZ660LB/RZ660LW/
    RW620B/RW620W/RW620LB/RW620LW/

[Group C]
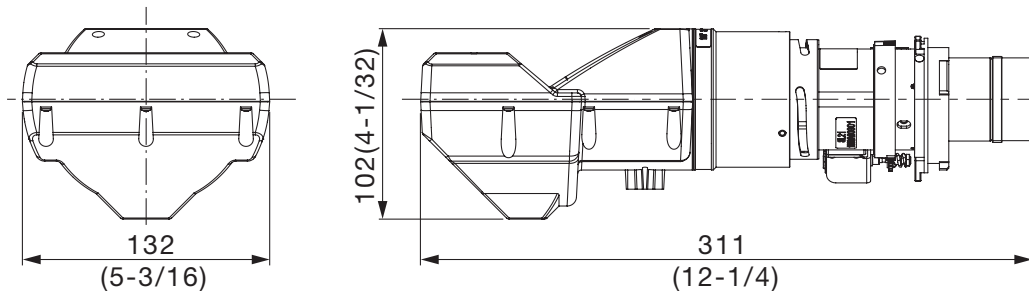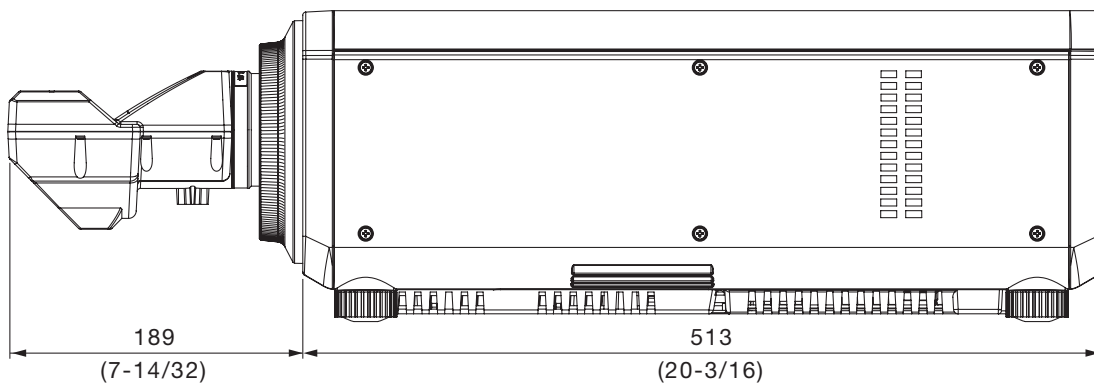PT-DZ780/DZ780L/DW750/DW750L/DX820/DX820L

## Dimensions



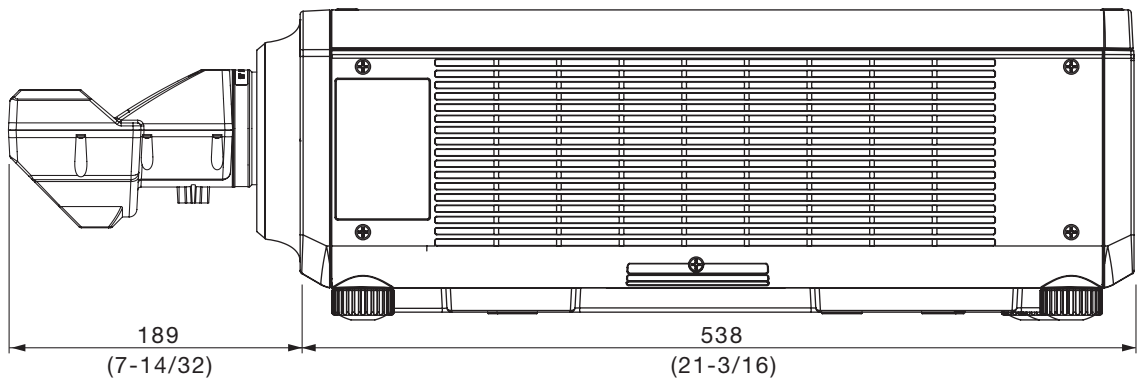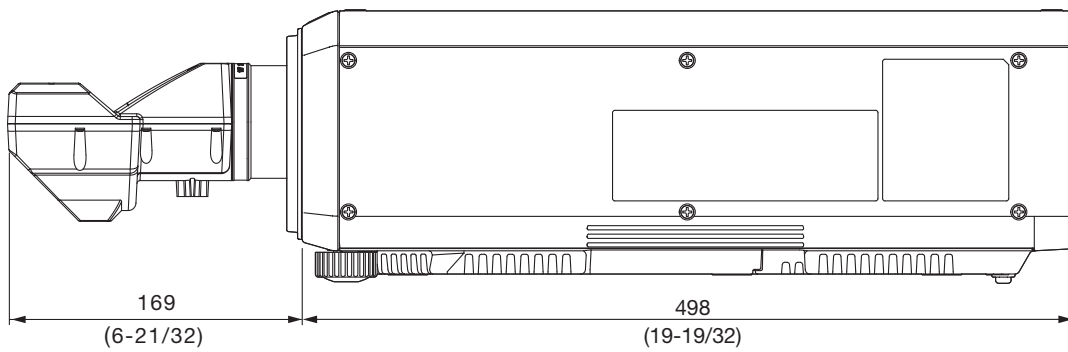Illustration shows the lens attached to an applicable projector.

[Group A]



unit : mm (inch)
NOTE: This illustration is not drawn to scale.

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Fixed-Focus Lens

# ET-**DLE035**

**[Group B]**

189
(7-14/32)

538
(21-3/16)

**[Group C]**

169
(6-21/32)

498
(19-19/32)

unit : mm (inch)
NOTE: This illustration is not drawn to scale.

For information on the projection distance, refer to the specifications for the projector to which the lens will be mounted.
DLP is a trademark of Texas Instruments. Weights and dimensions shown are approximate. Specifications subject to change without notice.

**As of September 2018**

**Panasonic**

DLE035G_SMF_01_26/09/2018

Fixed-Focus Lens

# ET-**DLE035**

## ET-DLE035 Projection Distance Table

### PT-RZ120/RZ970/RZ870/RZ770/RZ660/DZ870/DZ780

**16 : 10 (WUXGA ; 1920 × 1200)**

Unit : meters

| | | | | | | | Ultra-short focal length lens  ET-DLE035 Close-up system dimensions | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Throw ratio | | | | 0.380:1 | | | 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) | From tip of lens to screen (L2) | From front of set to screen (L3) | RZ120 RZ970 RZ870 RZ770 RZ660 | DZ870 | DZ780 | RZ120 RZ970 RZ870 RZ770 RZ660 DZ870 | DZ780 | RZ120 RZ970 RZ870 RZ770 RZ660 DZ870 | DZ780 |
| 100 | 2.54 | 1.35 | 2.15 | 0.82 | 0.84 | 0.65 | 0.11 | 0.14 | 0.17 | 0.43 | 0.43 | 0.63 | 0.60 |
| 120 | 3.05 | 1.62 | 2.59 | 0.98 | 1.00 | 0.82 | 0.28 | 0.30 | 0.34 | 0.53 | 0.54 | 0.73 | 0.71 |
| 150 | 3.81 | 2.02 | 3.23 | 1.23 | 1.25 | 1.06 | 0.52 | 0.55 | 0.58 | 0.68 | 0.69 | 0.88 | 0.86 |
| 200 | 5.08 | 2.69 | 4.31 | 1.63 | 1.66 | 1.47 | 0.93 | 0.95 | 0.99 | 0.93 | 0.94 | 1.13 | 1.11 |
| 250 | 6.35 | 3.37 | 5.39 | 2.04 | 2.06 | 1.87 | 1.34 | 1.36 | 1.40 | 1.18 | 1.19 | 1.38 | 1.36 |
| 300 | 7.62 | 4.04 | 6.46 | 2.45 | 2.47 | 2.28 | 1.74 | 1.77 | 1.80 | 1.43 | 1.44 | 1.63 | 1.61 |
| 350 | 8.89 | 4.71 | 7.54 | 2.85 | 2.88 | 2.69 | 2.15 | 2.18 | 2.21 | 1.69 | 1.69 | 1.89 | 1.87 |

Unit : feet

| | | | | | | | Ultra-short focal length lens  ET-DLE035 Close-up system dimensions | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Throw ratio | | | | 0.380:1 | | | 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) | From tip of lens to screen (L2) | From front of set to screen (L3) | RZ120 RZ970 RZ870 RZ770 RZ660 | DZ870 | DZ780 | RZ120 RZ970 RZ870 RZ770 RZ660 DZ870 | DZ780 | RZ120 RZ970 RZ870 RZ770 RZ660 DZ870 | DZ780 |
| 100 | 2.54 | 4.4 | 7.1 | 2.7 | 2.8 | 2.1 | 0.4 | 0.5 | 0.6 | 1.4 | 1.4 | 2.1 | 2.0 |
| 120 | 3.05 | 5.3 | 8.5 | 3.2 | 3.3 | 2.7 | 0.9 | 1.0 | 1.1 | 1.7 | 1.8 | 2.4 | 2.3 |
| 150 | 3.81 | 6.6 | 10.6 | 4.0 | 4.1 | 3.5 | 1.7 | 1.8 | 1.9 | 2.2 | 2.3 | 2.9 | 2.8 |
| 200 | 5.08 | 8.8 | 14.1 | 5.4 | 5.4 | 4.8 | 3.0 | 3.1 | 3.2 | 3.1 | 3.1 | 3.7 | 3.6 |
| 250 | 6.35 | 11.0 | 17.7 | 6.7 | 6.8 | 6.1 | 4.4 | 4.5 | 4.6 | 3.9 | 3.9 | 4.5 | 4.5 |
| 300 | 7.62 | 13.3 | 21.2 | 8.0 | 8.1 | 7.5 | 5.7 | 5.8 | 6.0 | 4.7 | 4.7 | 5.4 | 5.3 |
| 350 | 8.89 | 15.5 | 24.7 | 9.4 | 9.4 | 8.8 | 7.1 | 7.1 | 7.3 | 5.5 | 5.5 | 6.2 | 6.1 |



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 (m) =0.3205 x Diagonal image size + 0.0047 |
|---|

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

| RZ120/RZ970/RZ870/RZ770/RZ660/DZ870 | A1 (m) =0.1977 x Diagonal image size - 0.0721 |
|---|---|
| DZ780 | A1 (m) =0.1977 x Diagonal image size - 0.0671 |

Fixed-Focus Lens

# ET-**DLE035**

**PT-RW930/RW730/RW620/DW830/DW750**

**16 : 10 (WXGA ; 1280 × 800)**

Unit : meters

| 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) RW930 RW730 RW620 | DW830 | DW750 | From top of set to bottom edge of screen (A1) RW930 RW730 RW620 DW830 DW750 | From bottom of set to bottom edge of screen (A2) RW930 RW730 RW620 DW830 | DW750 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Throw ratio 0.399:1 | | | | | | | | |
| 100 | 2.54 | 1.35 | 2.15 | 0.86 | 0.88 | 0.69 | 0.16 | 0.18 | 0.22 | 0.59 | 0.79 | 0.76 |
| 120 | 3.05 | 1.62 | 2.59 | 1.03 | 1.05 | 0.86 | 0.33 | 0.35 | 0.39 | 0.72 | 0.92 | 0.89 |
| 150 | 3.81 | 2.02 | 3.23 | 1.29 | 1.31 | 1.12 | 0.58 | 0.61 | 0.64 | 0.92 | 1.12 | 1.09 |
| 200 | 5.08 | 2.69 | 4.31 | 1.71 | 1.74 | 1.55 | 1.01 | 1.04 | 1.07 | 1.25 | 1.45 | 1.42 |
| 250 | 6.35 | 3.37 | 5.39 | 2.14 | 2.16 | 1.98 | 1.44 | 1.46 | 1.50 | 1.58 | 1.78 | 1.75 |
| 300 | 7.62 | 4.04 | 6.46 | 2.57 | 2.59 | 2.40 | 1.86 | 1.89 | 1.92 | 1.91 | 2.11 | 2.08 |
| 350 | 8.89 | 4.71 | 7.54 | 3.00 | 3.02 | 2.83 | 2.29 | 2.32 | 2.35 | 2.24 | 2.44 | 2.41 |

Ultra-short focal length lens    ET-DLE035
Close-up system dimensions

Unit : feet

| 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) RW930 RW730 RW620 | DW830 | DW750 | From top of set to bottom edge of screen (A1) RW930 RW730 RW620 DW830 DW750 | From bottom of set to bottom edge of screen (A2) RW930 RW730 RW620 DW830 | DW750 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Throw ratio 0.399:1 | | | | | | | | |
| 100 | 2.54 | 4.4 | 7.1 | 2.8 | 2.9 | 2.3 | 0.5 | 0.6 | 0.7 | 1.9 | 2.6 | 2.5 |
| 120 | 3.05 | 5.3 | 8.5 | 3.4 | 3.5 | 2.8 | 1.1 | 1.2 | 1.3 | 2.4 | 3.0 | 2.9 |
| 150 | 3.81 | 6.6 | 10.6 | 4.2 | 4.3 | 3.7 | 1.9 | 2.0 | 2.1 | 3.0 | 3.7 | 3.6 |
| 200 | 5.08 | 8.8 | 14.1 | 5.6 | 5.7 | 5.1 | 3.3 | 3.4 | 3.5 | 4.1 | 4.7 | 4.7 |
| 250 | 6.35 | 11.0 | 17.7 | 7.0 | 7.1 | 6.5 | 4.7 | 4.8 | 4.9 | 5.2 | 5.8 | 5.7 |
| 300 | 7.62 | 13.3 | 21.2 | 8.4 | 8.5 | 7.9 | 6.1 | 6.2 | 6.3 | 6.3 | 6.9 | 6.8 |
| 350 | 8.89 | 15.5 | 24.7 | 9.8 | 9.9 | 9.3 | 7.5 | 7.6 | 7.7 | 7.3 | 8.0 | 7.9 |
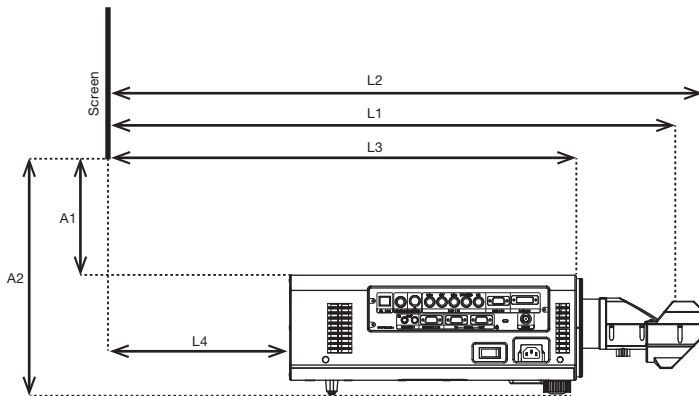
Ultra-short focal length lens    ET-DLE035
Close-up system dimensions



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) =0.3365 x Diagonal image size + 0.0047 |
|---|

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

| RW930/RW730/RW620/DW830 | A1 (m) =0.2597 x Diagonal image size - 0.0740 |
|---|---|
| DW750 | A1 (m) =0.2597 x Diagonal image size - 0.0690 |

Fixed-Focus Lens

# ET-**DLE035**

**PT-RX110/DX100/DX820**

**4 : 3 (XGA ; 1024 x 768)**

Unit : meters

| Throw ratio | | | | 0.394:1 | | | Ultra-short focal length lens    ET-DLE035 Close-up system dimensions | | | | | |
| | | | | | | | 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) | From tip of lens to screen (L2) | From front of set to screen (L3) | RX110 DX100 | DX820 | RX110 DX100 | DX820 | RX110 DX100 | DX820 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100 | 2.54 | 1.52 | 2.03 | 0.80 | 0.82 | 0.63 | 0.12 | 0.16 | 0.41 | 0.41 | 0.61 | 0.59 |
| 120 | 3.05 | 1.83 | 2.44 | 0.96 | 0.98 | 0.79 | 0.28 | 0.32 | 0.50 | 0.51 | 0.70 | 0.68 |
| 150 | 3.81 | 2.29 | 3.05 | 1.20 | 1.22 | 1.03 | 0.52 | 0.55 | 0.65 | 0.65 | 0.85 | 0.83 |
| 200 | 5.08 | 3.05 | 4.06 | 1.60 | 1.62 | 1.43 | 0.92 | 0.95 | 0.88 | 0.89 | 1.08 | 1.06 |
| 250 | 6.35 | 3.81 | 5.08 | 1.99 | 2.02 | 1.83 | 1.32 | 1.35 | 1.12 | 1.13 | 1.32 | 1.30 |
| 300 | 7.62 | 4.57 | 6.10 | 2.39 | 2.42 | 2.23 | 1.71 | 1.75 | 1.36 | 1.37 | 1.56 | 1.54 |
| 350 | 8.89 | 5.33 | 7.11 | 2.79 | 2.81 | 2.62 | 2.11 | 2.15 | 1.60 | 1.61 | 1.80 | 1.78 |

Unit : feet

| Throw ratio | | | | 0.394:1 | | | Ultra-short focal length lens    ET-DLE035 Close-up system dimensions | | | | | |
| | | | | | | | 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) | From tip of lens to screen (L2) | From front of set to screen (L3) | RX110 DX100 | DX820 | RX110 DX100 | DX820 | RX100 DX110 | DX820 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100 | 2.54 | 5.0 | 6.7 | 2.6 | 2.7 | 2.1 | 0.4 | 0.52 | 1.3 | 1.3 | 2.0 | 1.9 |
| 120 | 3.05 | 6.0 | 8.0 | 3.1 | 3.2 | 2.6 | 0.9 | 1.0 | 1.6 | 1.7 | 2.3 | 2.2 |
| 150 | 3.81 | 7.5 | 10.0 | 3.9 | 4.0 | 3.4 | 1.7 | 1.8 | 2.1 | 2.1 | 2.8 | 2.7 |
| 200 | 5.08 | 10.0 | 13.3 | 5.2 | 5.3 | 4.7 | 3.0 | 3.1 | 2.9 | 2.9 | 3.6 | 3.5 |
| 250 | 6.35 | 12.5 | 16.7 | 6.5 | 6.6 | 6.0 | 4.3 | 4.4 | 3.7 | 3.7 | 4.3 | 4.3 |
| 300 | 7.62 | 15.0 | 20.0 | 7.8 | 7.9 | 7.3 | 5.6 | 5.7 | 4.5 | 4.5 | 5.1 | 5.1 |
| 350 | 8.89 | 17.5 | 23.3 | 9.2 | 9.2 | 8.6 | 6.9 | 7.1 | 5.3 | 5.3 | 5.9 | 5.8 |
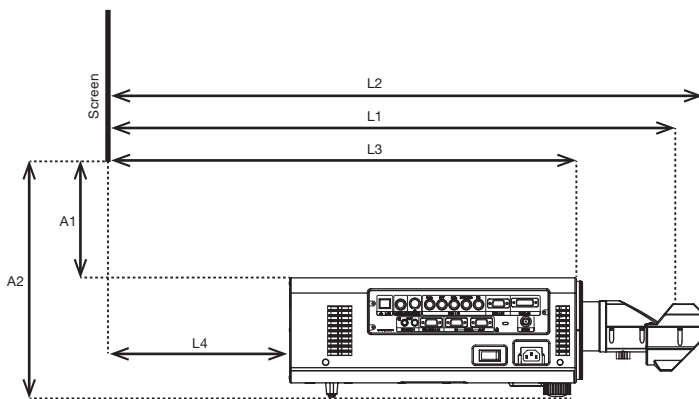


L1: Projection distance
    (from screen to mirror reflective surface)
L2: From screen to tip of lens
L3: From screen to front of set
L4: From screen to rear of set
A1: From bottom edge of screen to top of set
A2: From bottom edge of screen to bottom of set

**Projection Distance Calculation Table**

**Screen aspect ratio 4:3**

Projection distance calculation formula

| L1 (m) =0.3133 x Diagonal image size + 0.0047 |
|---|

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

| RX110/DX100 | A1 (m) =0.1881 x Diagonal image size - 0.0715 |
|---|---|
| DX82 | A1 (m) =0.1881 x Diagonal image size - 0.0665 |

DLE035G_SMF_01_26/09/2018

**Panasonic**