

## Making Dome Projection a Reality That's Larger than Life

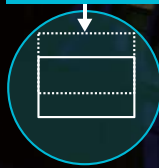
### 01 Wide effective image circle supports high brightness and ultra-high-resolution projection

The ET-D3LEF70 supports WQXGA (4K\*) ultra-high-resolution image projection at up to 30,000 lm brightness. Installation flexibility is supported by wide lens-shift [vertical: up to  $\pm 37\%$ , horizontal: up to  $\pm 17\%$ ]\*1.

\*1 Vertical at WUXGA: up to  $\pm 27\%$ , vertical with SXGA+: up to  $\pm 25\%$ .

Effective image circle (WQXGA)

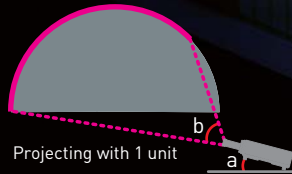
V37% Lens Shift



Projected Angle

	a[°]	b[°]
WQXGA	10	76.6
WUXGA	19	82.2
SXGA+	22.8	91.1

Vertical lens shift (max.)  
a: Projector installation angle  
b: Display angle of view (vertical)



Projecting with 1 unit

### 02 Flexible installation for dome projection

A wide 91.6-degree\*2 viewing angle achieves maximum screen coverage with a single projector, where multiple projectors were previously required to cover the same area. The ET-D3LEF70 is adapted for dome-theater applications in planetariums, video domes at exhibitions, or theme-park attractions. Transport your audience into a lifelike environment to inspire an unparalleled sense of "being there." When deployed in AR (Augmented Reality) and VR (Virtual Reality) applications, participants don't need goggles as the lens produces dynamic picture realism across the entire screen circumference.

\*2 Diagonal when shifting the lens to maximum value.

Conventional Lens



6  
Units

Fisheye Lens



1  
Unit



2  
Units

Note: When projecting with 1 unit, part of image may not be projected.

### 03 Accurate Image Plane Correction for focus consistency

The focus balance between the center and the periphery of the screen is adjustable, no matter how big or small the screen. Even at short throw distances, the lens corrects for optimal focusing of the outer areas of the image, and displays extraordinarily clear and vivid resolution across the whole screen.

Graphics are simulated.

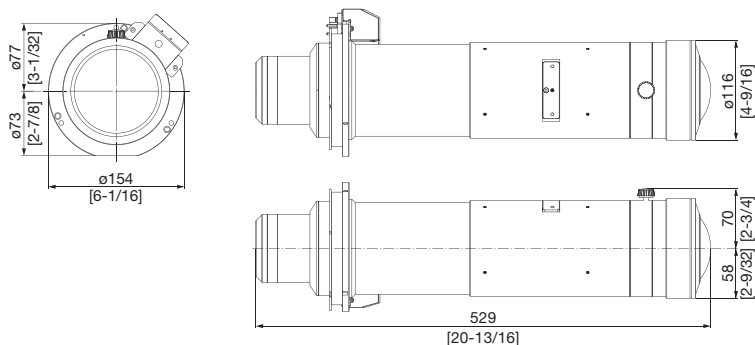


■ Specifications

Model	ET-D3LEF70
Applicable model	0.9" 3-Chip DLP™ model
Lens shift	Vertical ± 37 %, H17 % for WQXGA (4K+) models
Focus adjustment function	✓
Optical masking	✓
Focal length (f) [mm]	9 mm [0.35"]
Maximum half-angle	91.6° (Maximum lens shift diagonal)
F value	2.5
Auto Lens Identification function	Compatible models: PT-RQ32K / PT-RZ31K / PT-RS30K / PT-RZ21K / PT-RS20K
Supported projection distance [m]	2.0 m [78.7"]-∞
Dimensions [W x D x H]	529 x 150 x 154 mm [20-13/16" x 5-29/32" x 6-1/16"]
Weight	Approx. 7.1 kg* [15.7 lbs.*]

\* Average value. May differ depending on the actual unit.

■ Dimensions

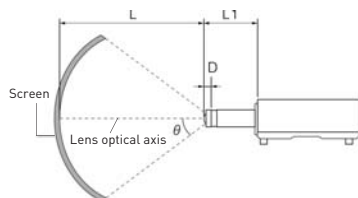


Note: This illustration is not drawn to an accurate scale.

Unit: mm (inches)

■ Projection relationship

θ: Projection angle of view  
 L: Projection distance (lens-tip to screen)  
 L1: Projector to screen lens front end  
 D: Exit pupil position



Projected angle θ [°]	Exit pupil position D [m*]
10	0.0232
20	0.0229
30	0.0224
40	0.0216
50	0.0206
60	0.0191
70	0.0173
80	0.0150
91.6 (Maximum)	0.0116

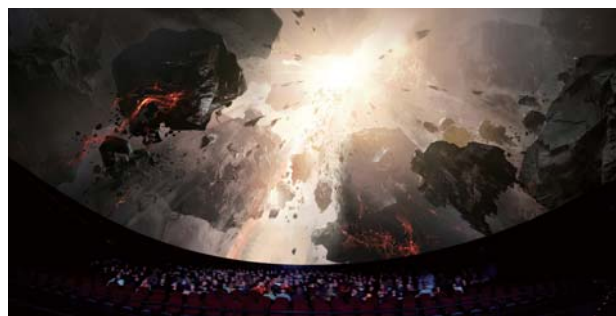
\*There may be slight discrepancies in the exit pupil position.

Supported projection distance [m]	2.0 m [78.7"]-∞
Model	L1 [m]
PT-RQ32K / PT-RZ31K / PT-RS30K	0.355
PT-RZ21K / PT-RS20K / PT-RQ13K / PT-RZ12K / PT-RS11K / PT-DZ21K2 / PT-DS20K2 / PT-DW17K2 / PT-DZ16K2 / PT-DZ13K / PT-DS12K / PT-DW11K / PT-DZ10K	0.385

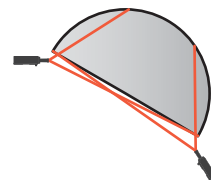
Exit pupil position [D] formula	D = -10 <sup>-8</sup> x θ <sup>3</sup> - 3 x 10 <sup>-7</sup> x θ <sup>2</sup> - 1.73 x 10 <sup>-5</sup> x θ + 0.02342
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Roles and Applications

Planetariums, Dome Theaters, and Theme Parks



Unlock the potential of your space. Combine the ET-D3LEF70, a Panasonic 4K+ projector, and quality video content to see attendance figures soar. This lens makes the creation of new theme-park attractions possible with full-dome coverage and excellent flexibility.



Events and Exhibitions



Make your client's exhibit the talk of the trade show, exposition, or event with a portable video dome. Image Plane Correction is supported at short projection distances, while wide lens-shift enables highly flexible and easy installation.



Simulators



From driver education, pilot training, to ship maneuvering, the ET-D3LEF70 brings true-to-life environments alive in your simulation suite.



Graphics are simulated. Actual image appearance may differ depending on installation environment.



For more information about Panasonic projectors, please visit:  
 Projector Global Website – [panasonic.net/cns/projector](http://panasonic.net/cns/projector)  
 Facebook – [www.facebook.com/panasonicprojector](https://www.facebook.com/panasonicprojector)  
 YouTube – [www.youtube.com/user/PanasonicProjector](https://www.youtube.com/user/PanasonicProjector)

All information included here is valid as of June 2018.