Because it matters

LU960ST2

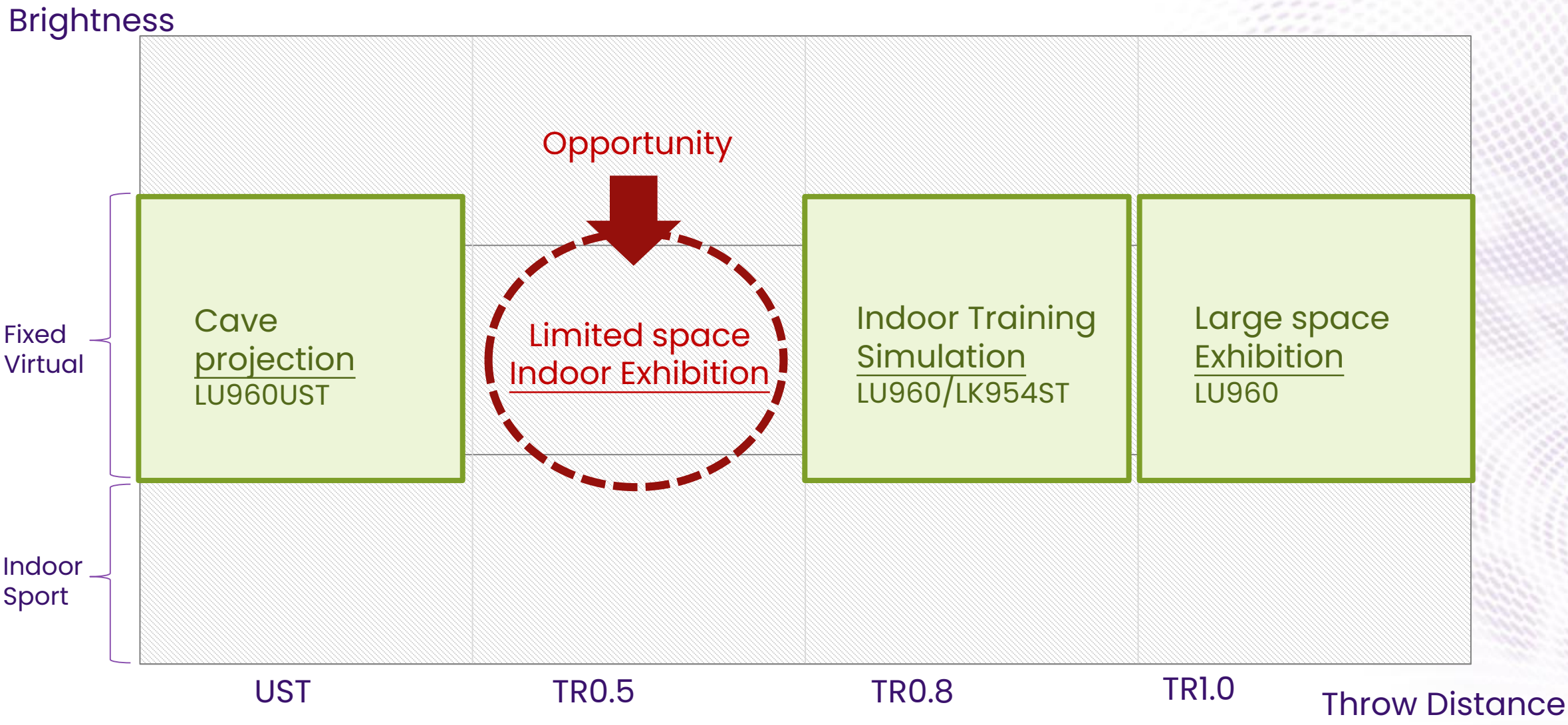
Product brief

Partie Yeh
DJ10
BenQ PMSG

Outline

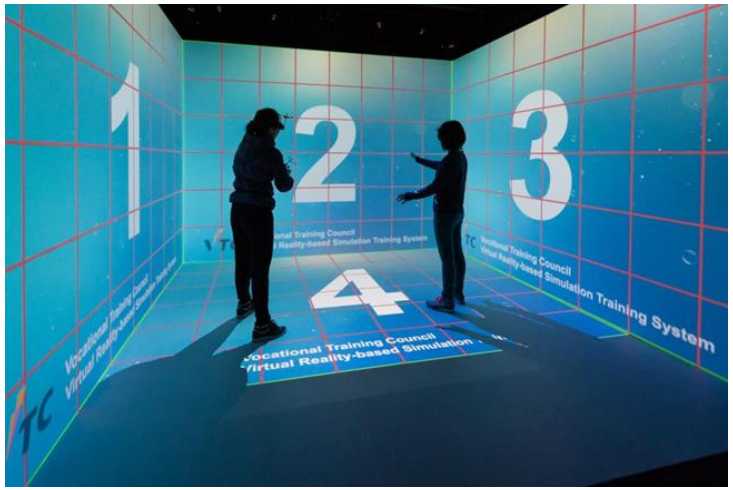
- STP
- Product Position
- Feature highlight
- Competition map

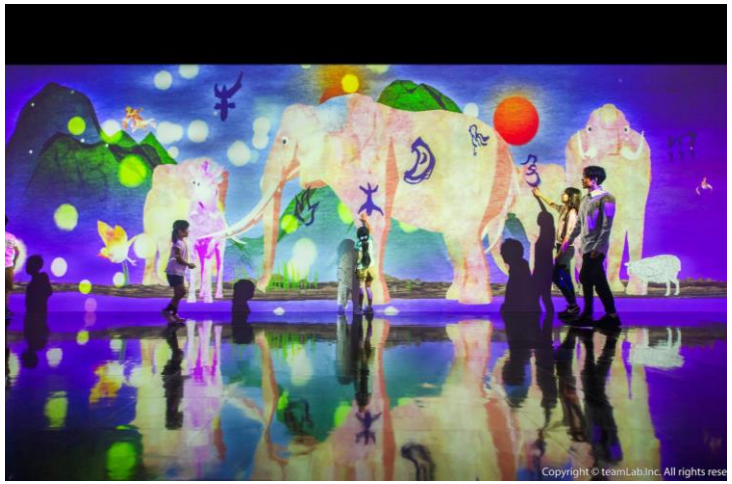
Segmentation- Target Market

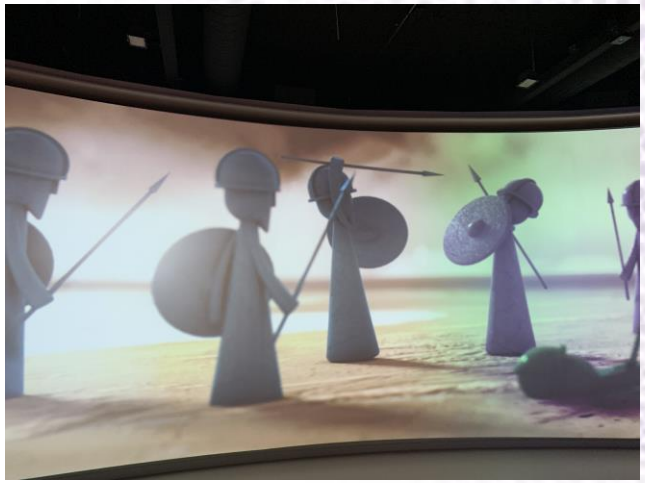


Benefit Sought

What SI need to create a immersive indoor exhibition.







LARGER IMAGE WITHIN A SHORT DISTANCE

High visual brightness
180”-220” @ 2.5m (TR 0.5)
HD resolution

BLENDING FACILITATOR

Large scale blending

CROSS UNIT CONTROL AND MAINTENANCE

Multiunit control
Long lasting color uniformity

New Product Proposal

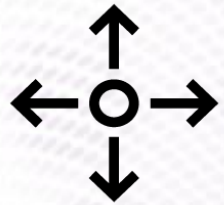
LU960ST2

Design for fixed virtual installation in a constrain space.

High Light

Superior Optical Design

- 5200ANSI Laser
- WUXGA TR 0.5
- HV Lens shift



Lens lock

- Lens lock ring to secure image reliability

Full Digital Connectivity

- HDMI 2.0
- Display port
- HDbaseT

LU960ST2 Feature

Best solution
for indoor fixed virtual installation
by shorter distance

Flexible Installation

- TR0.5 Lens Design
- Lens shift vertical±55% horizontal 23%
- 2D keystone and corner fit
- 360 degree and Portrait support.
- Wired remote RC/ID Remote setting
- Compact size

Image Performance

- 5200ANSI Laser lightsource
- Native WUXGA high resolution
- DLP accurate color and longlasting color
- >92% Rec709 coverage
- Fast mode for 16ms lower latency

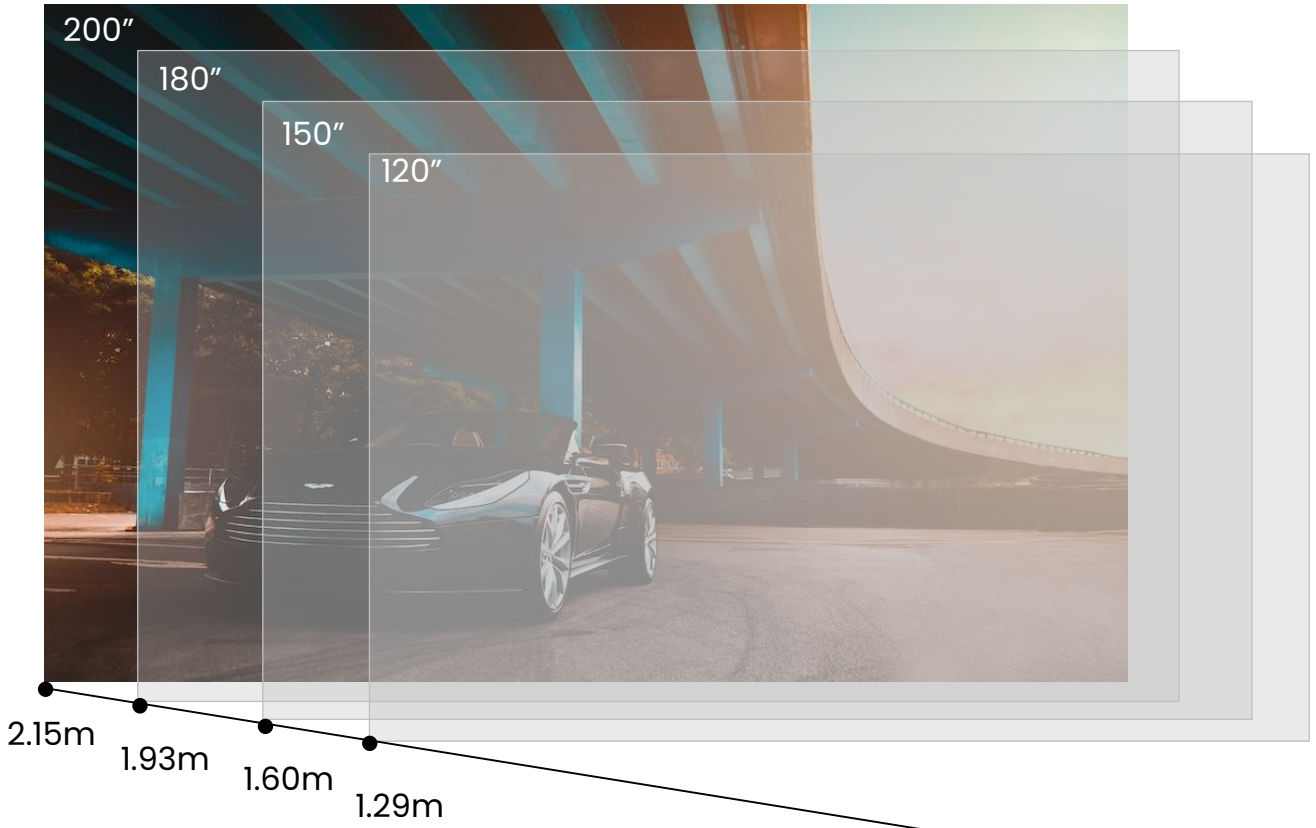
Management Friendly

- HDMI 2.0 and Displayport
- HDMI signal output
- HDbaseT Long distance display
- Lens lock ring to secure image reliability
- In-factory white balance calibration
- Simulator mode

Easy Maintain

- DMS Centralized LAN Control
- LAN to RS232
- FW upgrade via LAN
- Laser 20000hrs long life

Innovated Lens Design

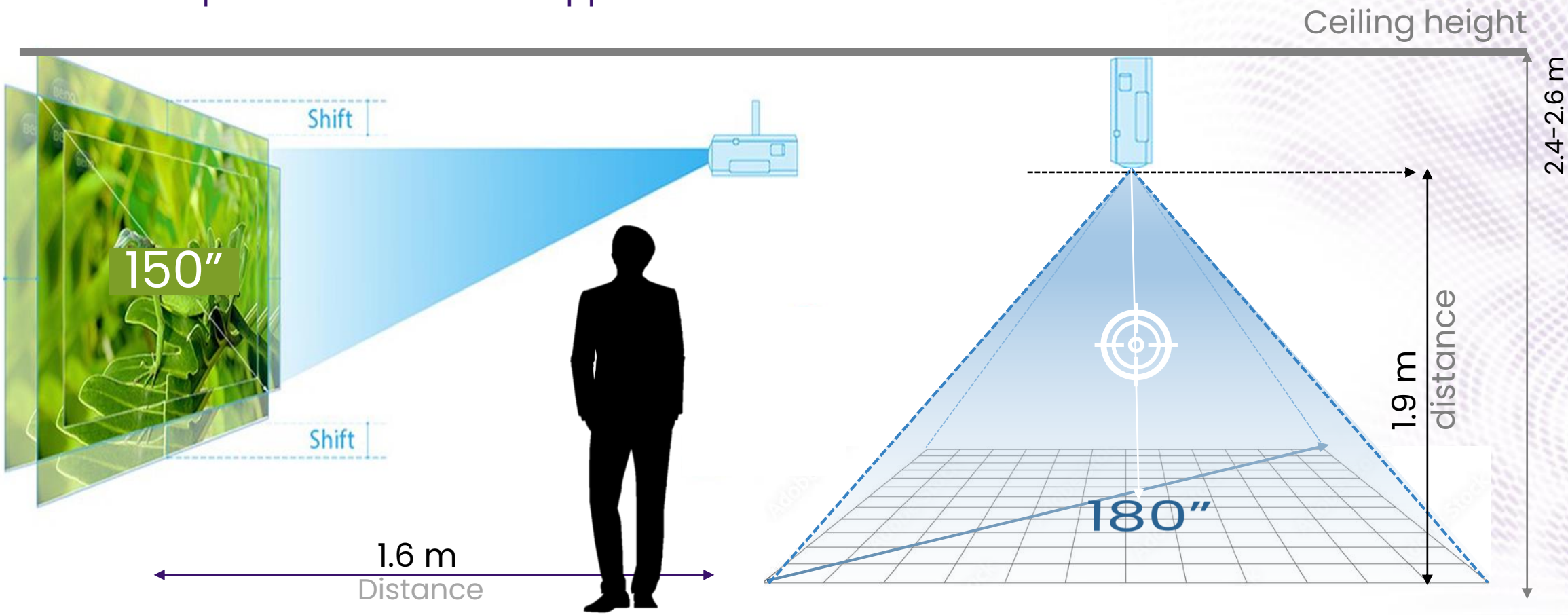


TR 0.5 Lens

To create up to 200″ sharp and clear screen within only 2 meter a way.

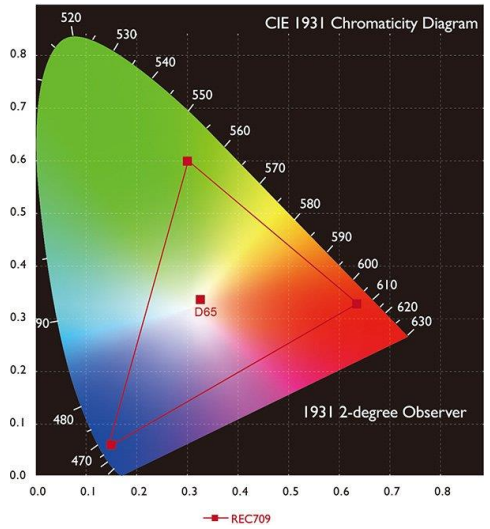
Best Lens to Plan in Limited Space

- More than 150” sized but less shadow, shorter distance.
- Adjustable HV offset(V±55%, H±23%), suitable for limited ceiling height.
- Easier to plan for front or floor application.



Why DLP Technology

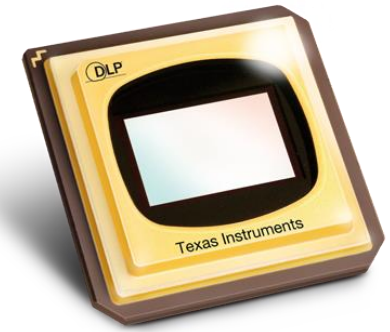
- **Rec709 Accurate Color**



Rec709 compliance means exactly the way they were meant to be seen.

With sRGB mode ensures that images will be portray with biggest accurate color range.

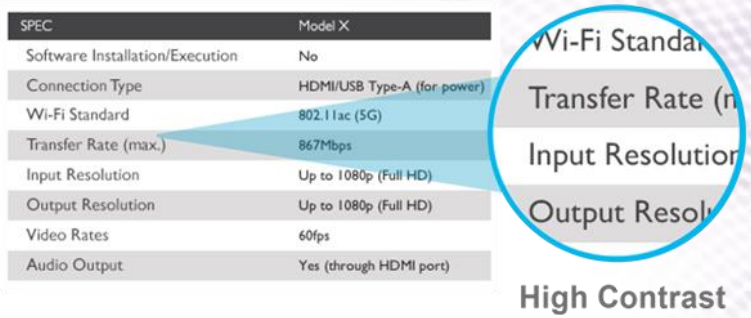
- **Sturdy DLP Chips**



The DLP chip is rated to last over 100,000 hours without degradation.

Due to the incredible high precision of the micro-mirror design, the DLP chip experiences little to no aging or heat damage, ensuring fresh, crisp images for the duration

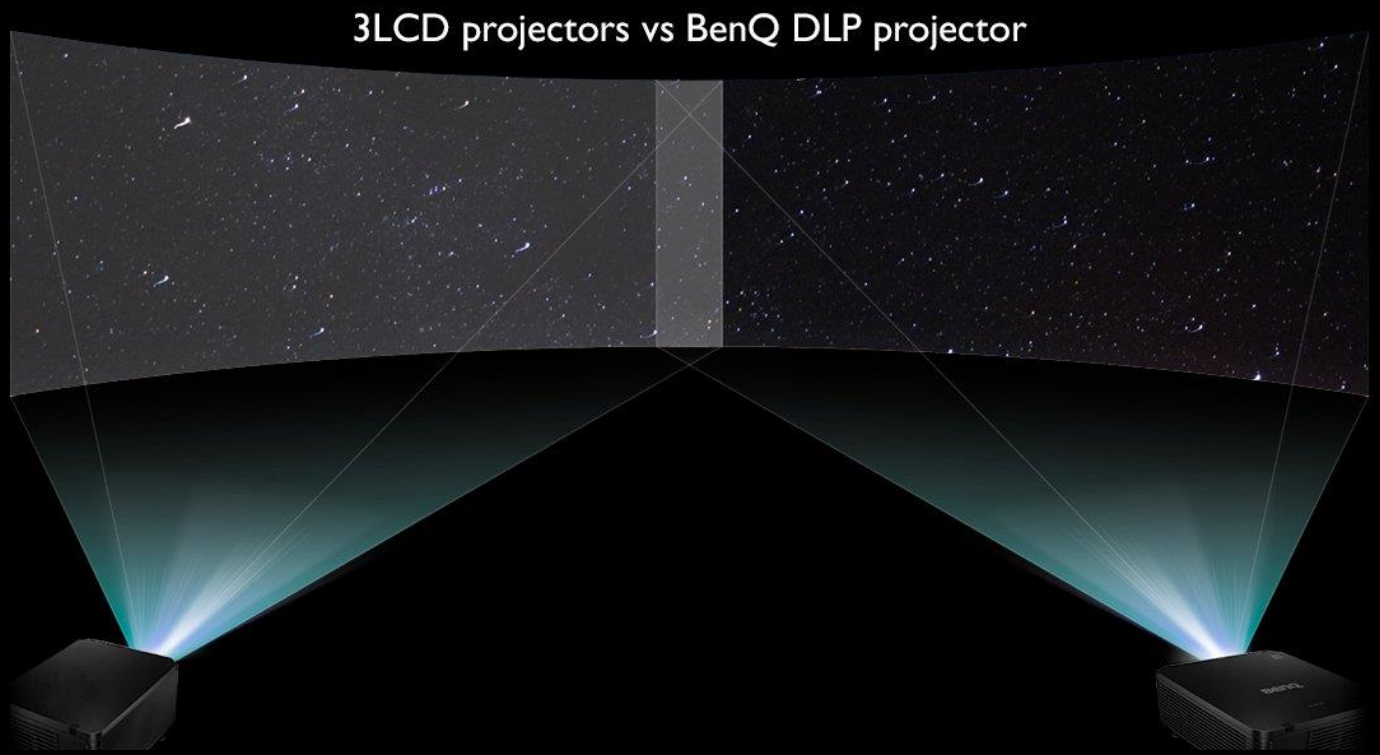
- **Sharp and readable**



BenQ DLP Projectors pump more light into each individual pixel, which means small-size text and fine details are more defined and clear than the competition

Reference article: What's BenQ DLP Projection Technology?

Superior Contrast in Dark Scene.



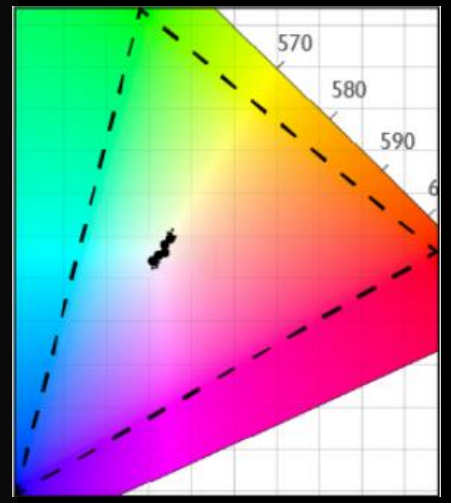
The DLP technology performs much better contrast level in dark scene compare to 3LCD or LCOST projector which contain too much brightness on the screen from internal light panel.

This is important for training simulation application because of the dark scene need to be real to life for pilot who can read accurate image and react correctly.

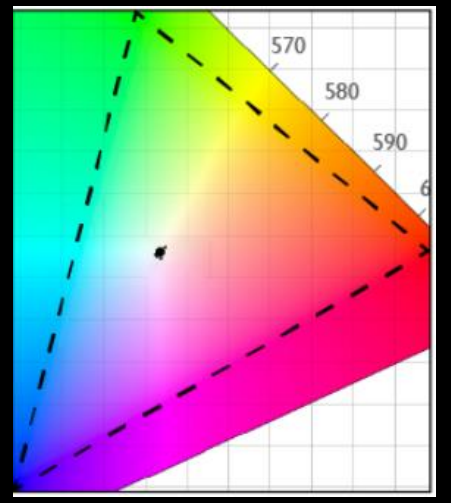
Out of Box White Balance Calibration

Reference article:
How White Balance Calibration Helps Your Flight Simulator

Colour gamut diagrams before and after white balance calibration



Pre-calibrate Projector
Delta E >3

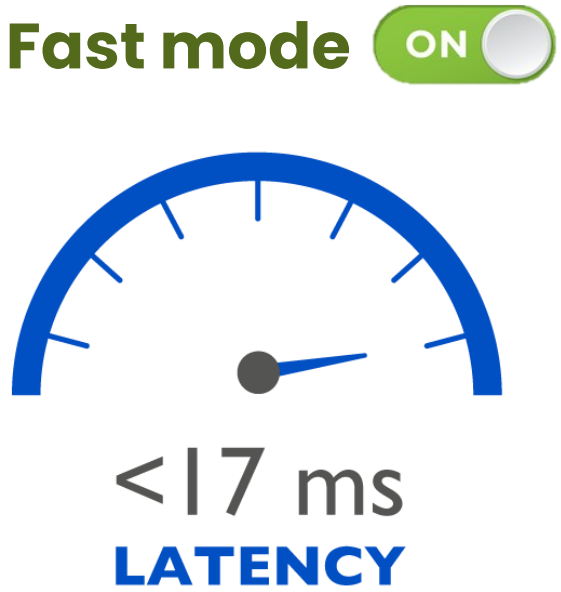


Pre-calibrate Projector
Delta E <2

When discussing colour difference, Delta E is well-known to calculate. A more sensible solution would be to have the projectors pre-calibrated to a consistent colour level prior to shipment.

BenQ's white balance pre-calibration technology which is able to achieve Delta E of about level 2 during factory production, to ensure best open-box experience for multiple blending.

Low Latency for Hyper-Responsive Simulation



Fast mode active
Turn on Fast most to optimize projector signal output latency down to < 17ms to improve total response in the whole integrated simulator system.

*Note:
When fast mode turn on, digital correction function such like keystone, corner fit and other scaling effect will be disable.

Simulator Mode

Specialized design for multiple blending

Picture mode

- Bright
- Presentation
- sRGB
- Simulator *
- Video

Batch setting with selective function to optimize experience for multiple projector blending application.

Below batch setup will be executed

- **Color table** same as sRGB
- **Dynamic Dimming** turn Off
- **Direct power on** turn On.
- **Standby Mode** turn to Normal standby.
- **Fast mode** turn On.
- **Disable digital correction** include Aspect ratio, keystone, corner fit, digital zoom/shrink and EDID switch to keep native resolution.

Friendly Mechanical Design

Big and notable HV lens shift knob with protected cover.

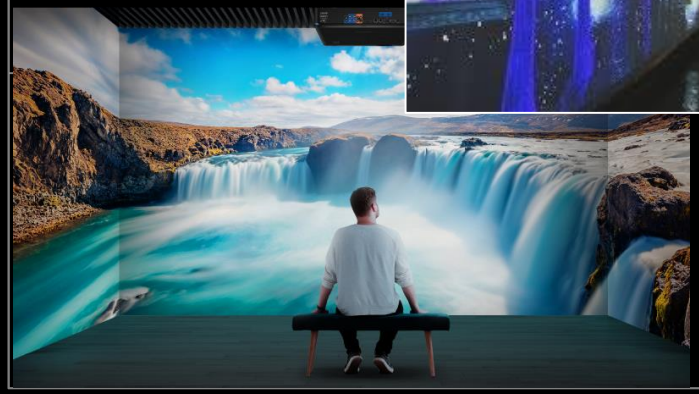
LU960 Line-up for Variety Application

LU960UST TR0.25

LU960ST2 TR0.5

LU960ST TR0.77~0.84

LU960 TR1.1~1.7



1m 2m 3m 4m

Projection Space
(>120”@Meter)

Competition Map(≥5K ANSI Exhibition)

Dealer Price

Acquire Market share
(Museum/Simulator)

Phase out market

Canon WUX500ST
4500-5000ANSI WUXGA
Lens TR0.56
Lamp

BenQ LU960ST2

- 5200ANSI
- WUXGA
- Lens TR0.5
- Laser

Price attack
in budgetary exhibition

EB-PU1000 Series
6000-8500 ANSI
Lens ELPLU03S (TR0.65 - 0.78)
Laser

Spec Overview(1/2)

Display	Brightness	5200ANSI Lumens
	Native Resolution	WUXGA(1920*1200)
	Lightsource	Laser
Optical	Throw ratio	TR0.5
	Zoom Rario	Fixed
	Projection offset	0%
	Lens shift range	V ±55%, H ±23%
	Keystone Adjustment	±30° HV Keystone, Corner fit
Picture	Rec 709 Coverage	92%
	Picture mode	Bright/Presentation/sRGB/Simulator/Video

Spec Overview(2/2)

IO Interface	Input	HDMI IN 2.0*2, Displayport 1.2*1 HDMI OUT 2.0*1 HDbaseT(CAT5e/CAT6: 100m/Up to 1080p@60Hz; 70m/4K2K@30Hz) VGA IN(15 PIN) AUDIO IN(3.5 Jack)
	Control	LAN(RJ45) RS232 12V Trigger Wired Remote 3D SYNC IN/Out USB MinB
	Output	HDMI OUT 2.0*1 VGA OUT*1 AUDIO OUT*1 USB A 1.5V Power
Environment	Typical Power Comsumption	450W @100Vac
	Dimensions (WxHxD) (mm)	479.6x402x182.8mm
	Net Weight (kg)	12kg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