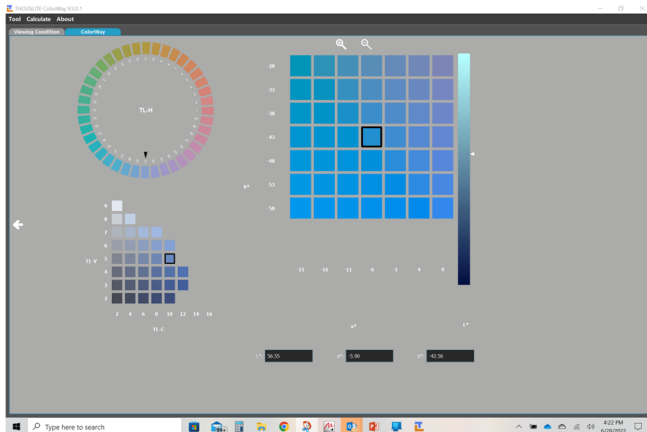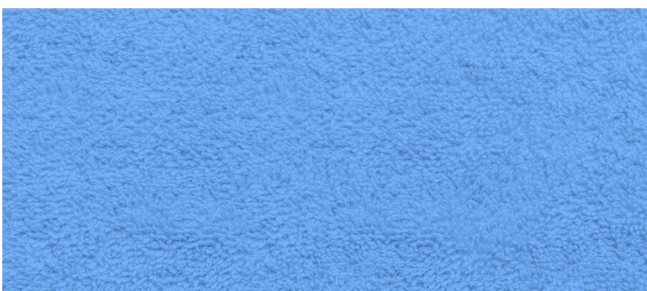# COLOR IN A BOX

LEDSimulator™ features **ColorWay™** color design Software, **LEDPanels™**, and a **LEDView™** cabinet

*Explore color space in a new way to find your **perfect colors***

*Project newly-discovered colors onto real fabrics to see the impact of surface texture on **Total Appearance***

LEDSIMULATOR

- **Explore millions of colors in the widest available gamut**

- **Match found objects to create digital specs**

- **Adjust color specifications based on the impact of surface texture**

- **Visualize color on any base cloth**

- **Input LCH, L*a*b*, and XYZ**

- **Import spectral data**

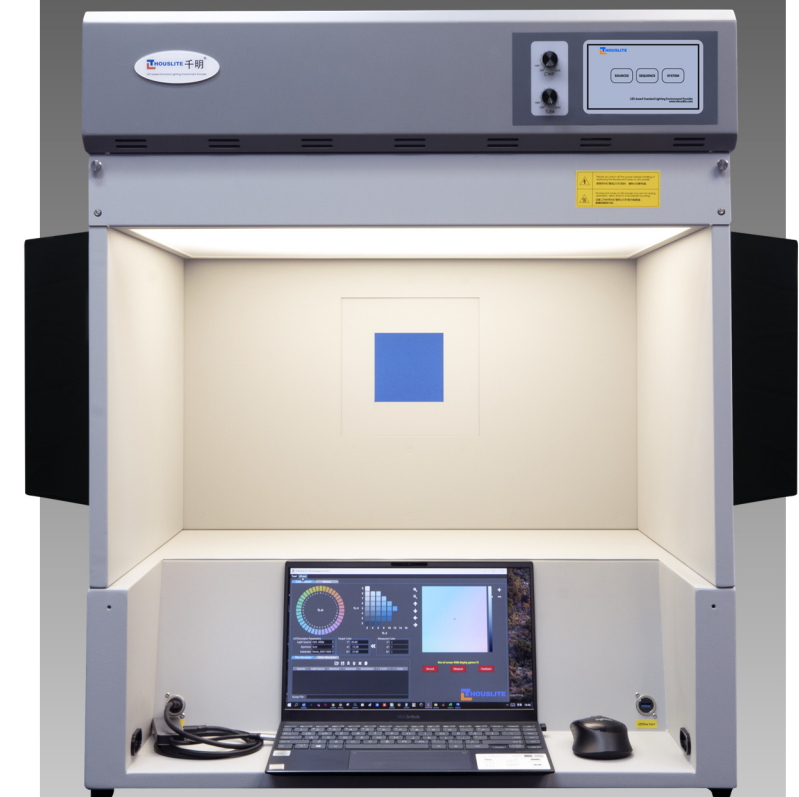**THOUSLITE Thousand Lights Lighting (Changzhou) Limited**

Room 410, Building 3, No. 18 Huashan Road, Xinbei District, Changzhou City, Jiangsu Province, China, 213022
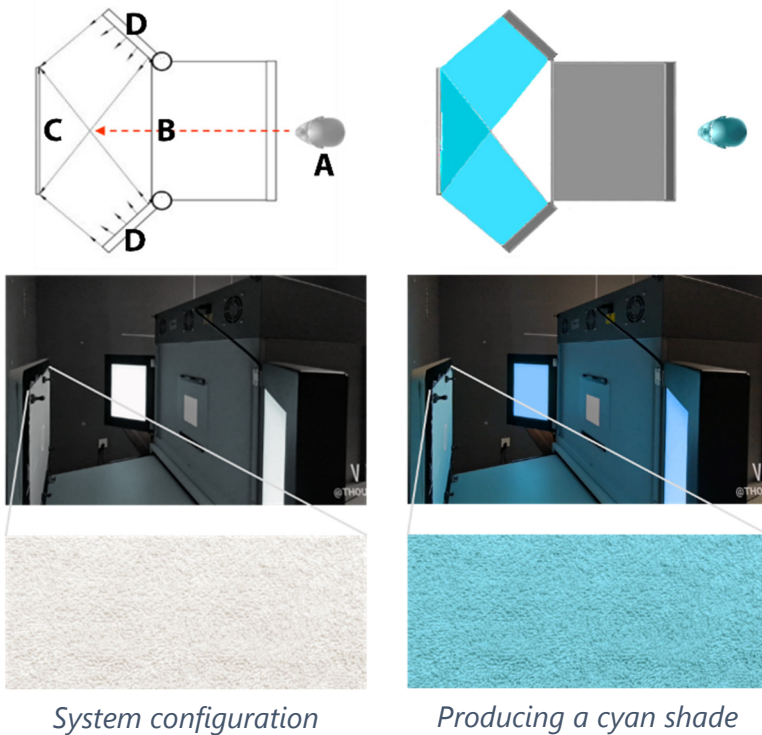
+86 0519-85289860
sales@thouslite.com

THOUSLITE
Thousand Lights Lighting (Changzhou) Limited
SPECTRAL TUNABLE LED TECHNOLOGY

LEDSimulator

**Create & Experience Total Appearance**

COLOR—FROM DESIGN THROUGH PRODUCTION

The System

The LEDSimulator system features the LEDView cabinet and ColorWay color design software. LEDView incorporates precision spectral tunable high-quality lighting in a standard viewing environment for surface color visual assessment. ColorWay software drives the system, allowing a designer to create and adjust the color shown through the window in the back of the LEDView cabinet.

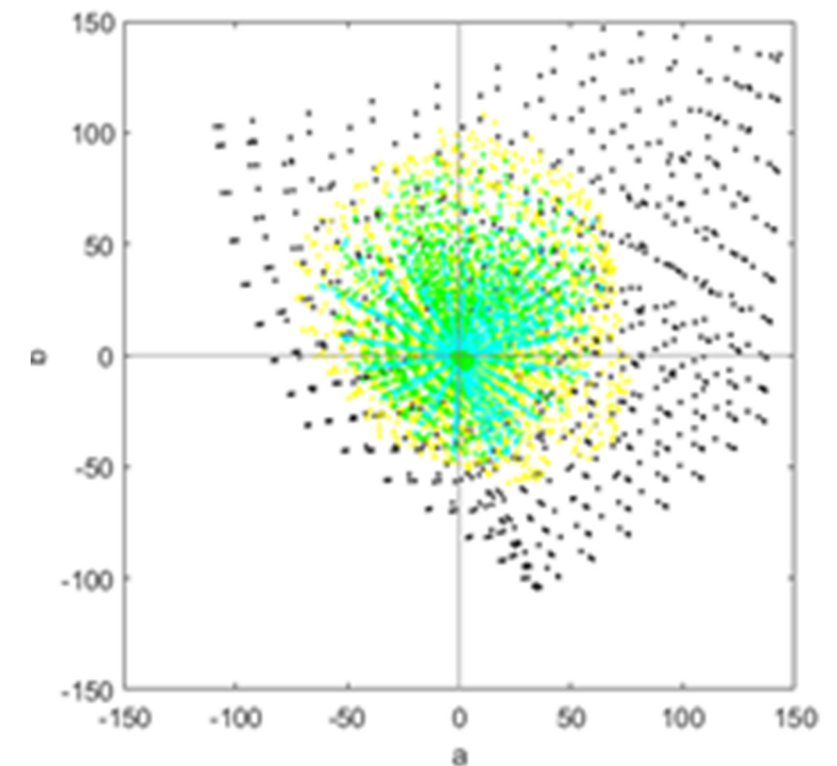*System configuration*

Producing a cyan shade
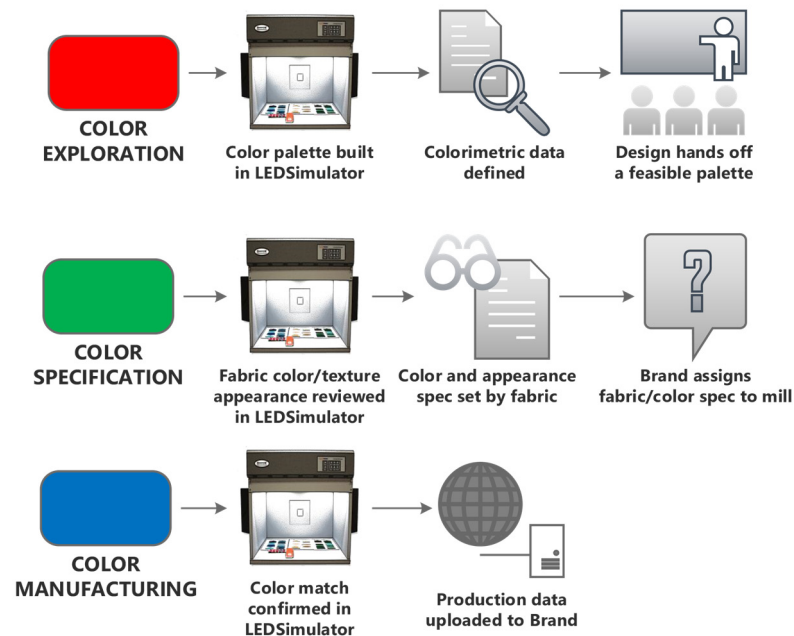
How It Works

Top: The designer (A) looks through a window in the back of the LEDView cabinet (B) to view a textured fabric sample (C) illuminated by two LED-Panels at a 45°: 0° geometry (D).

Middle: In the back of the system, light illuminates the textile sample.

Bottom: A close-up of the textured fabric sample before and after coloration.

The Process

COLOR EXPLORATION → Color palette built in LEDSimulator → Colorimetric data defined → Design hands off a feasible palette

COLOR SPECIFICATION → Fabric color/texture appearance reviewed in LEDSimulator → Color and appearance spec set by fabric → Brand assigns fabric/color spec to mill

COLOR MANUFACTURING → Color match confirmed in LEDSimulator → Production data uploaded to Brand

Performance

The three LED channels in the LEDPanels have a large color gamut plotted in CIELAB a*b* plane as shown in above. Three sets of color order systems are plotted in yellow, cyan, and green for Munsell, NCS, DIN, respectively. Black dots represent the color gamut of the LEDPanel virtual display. All physical samples fall well inside the display gamut.

Average color accuracy   0.50DE$_{CMC}$

Color repeatability   0.30 DE$_{CMC}$