

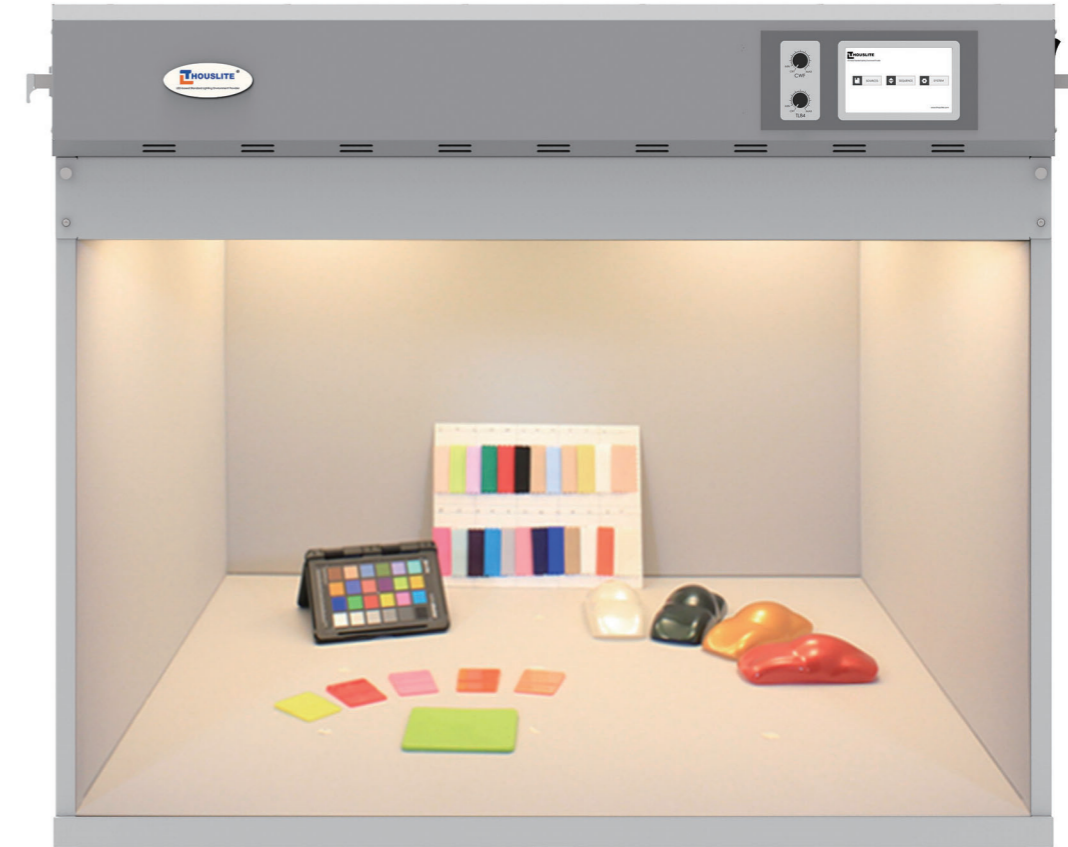
Thousand Lights Lighting (Changzhou) Limited or THOUSLITE is a high-tech enterprise, focusing on **multi-channel LED lighting technology** and **light quality management**. THOUSLITE is a global LED-based standard lighting environment provider, and we are active in international technical conference and standardization societies.

THOUSLITE offers full range of multi-channel LED lighting products for lighting research, industrial color viewing assessment, and camera & sensor test. We also provide customization services. "36 hours fast response" is the policy we make to better serve customers.

Based on our tremendous technical experience, THOUSLITE are committed to provide customer excellent products, advanced solutions and professional service.

LEDView LIGHTING CABINET

-What You See is What You Measure



- High quality daylight simulator
- Blackbody locus simulator
- Dynamic lighting & high intensity range
- Flicker free & high uniformity
- Longer life time & excellent stability
- Conforms to international standards

Thousand lights lighting (Changzhou) Limited (Sino - British Joint Venture)

Location: Room 410, Building 3, No. 18 Huashan Road, Xinbei District, Changzhou City, Jiangsu Province, China, 213022

Phone: +86 0519-85289860

Fax: +86 0519-85289870

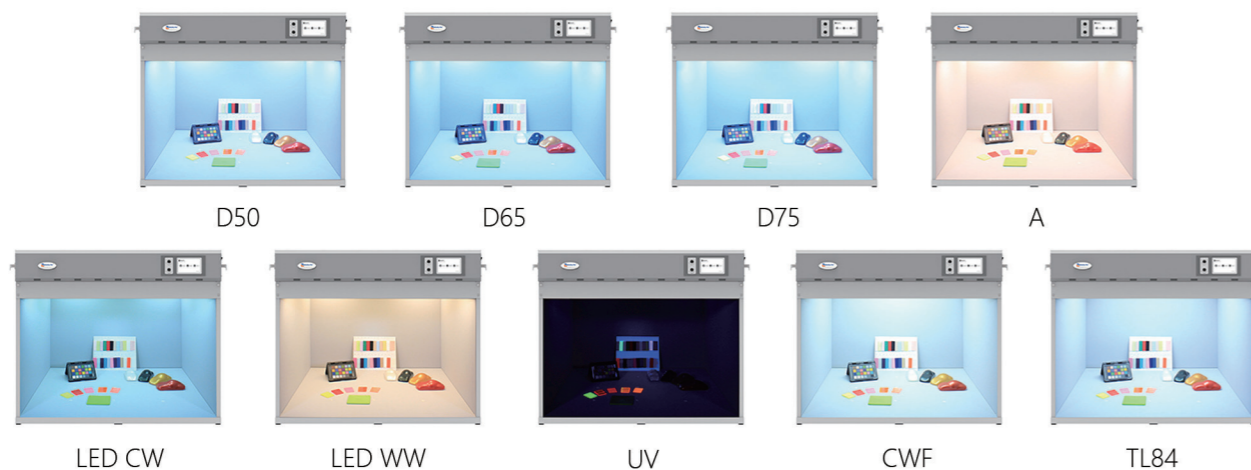
Email: binyu.wang@thouslite.com

Web: www.thouslite.com



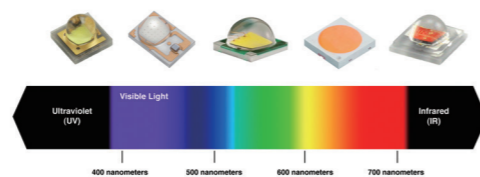
What is LEDView?

THOUSLITE LEDView products are epoch-making lighting cabinets based on the multi-channel LED technology. It is specially developed for **color and imaging industry**, including textile, coating, plastics, printing, graphic arts, imaging etc. LEDView gives consistent viewing conditions for color assessment, quality control, sensor evaluation, etc. By using a set of high power LEDs and our proprietary LEDNavigator-LV software, it can achieve the match to any desired SPD (Spectral Power Distribution), including daylight illuminant with best lighting quality. It guarantees **“what you see is what you measure”**. LEDView products have four models, including LEDView-Portable (12 channels, general visual assessment), LEDView-C15 (15 channels, color and lighting research), LEDView-I14 (14 channels, camera evaluation & sensor calibration), and LEDView-H11 (11 channels, high intensity).



LEDView Features

- Reproducing high quality daylight illuminant**
 To reproduce any phase of daylight with highest quality on the market in terms of Color Rendering Index¹ (CRI) 99 and Metamerism Index² (MI) Grade A
- Same light intensity for all LED simulated sources**
 All LED simulated illuminants sources can have the same light intensity, or customer specified
- Flicker free and high uniformity**
 It provides a uniform and flicker free lighting environment
- Longer life time and excellent long term stability**
 Much longer lifetime compared to fluorescent technology, and optimized heat management guarantees excellent long term stability
- Conforms to international standards**
 Conforms to all major international standards, including ASTM D1729³, ISO 3664⁴ as well as DIN, AATCC and BS⁵ standards
- 36 hours customer response**
 If any product problems reported in working day, we will response in 36 hours for both domestic and international customers
- 80 LED simulated sources, 2 fluorescent lamps (except LEDView-Portable & LEDView-H11)**
 LEDView hardware can save up to 80 LED sources, which can be switched via touch screen controller, and LEDNavigator-LV software can reprogram the LED sources in hardware
- High intensity range**
 All LEDView models can achieve max >2500lux on the bottom plate, and LEDView-H11 can achieve max >12000lux on the bottom plate. The intensity of LED source and fluorescent is dimmable
- Blackbody locus simulator (except LEDView-Portable)**
 To accurately reproduce a range of sources from tungsten and daylight
- SPD Match (except LEDView-Portable)**
 To accurately reproduce any measured or imported SPD to record or reproduce any light you want. It is easy to spread SPD files between different locations for light communication
- Single-channel control (except LEDView-Portable)**
 Arbitrarily control the intensity of each channel in LEDView to design any light wanted
- Dynamic lighting (except LEDView-Portable)**
 Programmable illuminant light sequence and interval
- Fast & accurate feedback (except LEDView-Portable)**
 Maintain the same light quality, compensating for age and variable environments with external microspectrometer
- LED wavelength selection service (except LEDView-Portable)**
 Provide LED channel wavelength selection service from UV, VIS to NIR



- CIE 13.3-1995, Method of Measuring and Specifying Colour Rendering Properties of Light Sources
- ISO 23603-2005 / CIE S 012/E, Standard method of assessing the spectral quality of daylight simulators for visual appraisal and measurement of colour
- ASTM D1729-2003, Standard Practice for Visual Appraisal of Colors and Color Differences of Diffusely-Illuminated Opaque Materials.
- ISO 3664-2009, Viewing conditions-Graphic technology and photography
- SDC Best Practice Guide-2011, Viewing Cabinets for the Visual Assessment of Surface Colour.

Specifications

	LEDView - Portable	LEDView - C15	LEDView - I14	LEDView - H11
LED channels	12 channel	15 channel	14 channel	11 channel
Spectral range	370~700 nm	350~700 nm	380~730 nm	400~700nm
LED channel drive method	Amplitude Modulation	Amplitude Modulation	Amplitude Modulation	Amplitude Modulation
Resolution	10 bit (1024 steps dimmable for each channel)	10 bit (1024 steps dimmable for each channel)	10 bit (1024 steps dimmable for each channel)	10 bit (1024 steps dimmable for each channel)
Warm up time	No	No	No	No
LED lifetime	>8,000 hours	>12,000 hours	>12,000 hours	>12,000 hours
LED simulated source amount	80 light sources	80 light source in LEDView hardware and can be switched via touch screen switch panel , unlimited in software	80 light source in LEDView hardware and can be switched via touch screen switch panel , unlimited in software	80 light source in LEDView hardware and can be switched via touch screen switch panel , unlimited in software
LED simulated source options	Daylight Options (exclude UV): D50, CIE Ra 98 Mlvis: A D65, CIE Ra 98 Mlvis: A (Default) D75, CIE Ra 98 Mlvis: A Others: Illuminant A: CIE Ra>97 (Default) UltraViolet (Default) LED Warm White (Default) LED Cool White (Default) or customer specify	Daylight Options (exclude UV): D50, CIE Ra 99 Mlvis: A (Default) D65, CIE Ra 99 Mlvis: A (Default) D75, CIE Ra 99 Mlvis: A (Default) Others: Illuminant A: CIE Ra>97 (Default) UltraViolet (Default) LED Warm White (Default) LED Cool White (Default) or customer specify Sources stored in the hardware can be reprogrammed by software LEDNavigator-LV	Daylight Options (exclude UV): D50, CIE Ra 99 Mlvis: A (Default) D65, CIE Ra 99 Mlvis: A (Default) D75, CIE Ra 99 Mlvis: A (Default) Others: Illuminant A: CIE Ra>97 (Default) LED Warm White (Default) LED Cool White (Default) or customer specify Sources stored in the hardware can be reprogrammed by software LEDNavigator-LV	Daylight Options (exclude UV): D50, CIE Ra 99 Mlvis: A (Default) D65, CIE Ra 99 Mlvis: A (Default) D75, CIE Ra 99 Mlvis: A (Default) Others: Illuminant A: CIE Ra>97 (Default) or customer specify Sources stored in the hardware can be reprogrammed by software LEDNavigator-LV
LED simulated source CCT range and accuracy	±100K	CCT: 2000~20000K CIE Ra: 0~100 Duv: -0.02~+0.02	CCT: 2000~20000K CIE Ra: 0~100 Duv: -0.02~+0.02	CCT: 2000~20000K CIE Ra: 0~100 Duv: -0.02~+0.02
LED simulated source illumination level	Default: 1500 lux or customer specify	Default: 1500 lux Further adjust via software. Max up to 2500lux, depending on the illuminant	Default: 1500 lux Further adjust via software. Max up to 2500lux, depending on the illuminant	illumiance adjustable via software. Max up to 12000lux for D50-D65
LED simulated source stability	±1.5%	±1.5%	±1.5%	±1.5%
Two options for fluorescent tubes	-	CWF (Default) TL84(Default) TL83 U30 U35	CWF (Default) TL84(Default) TL83 U30 U35	-
Fluorescent intensity adjustment	-	Yes	Yes	-
Software instrument compatibility	-	Konica Minolta CL500A THOUSLITE FS spectrometer Jeti Specbos 1211UV spectradiometer	Konica Minolta CL500A THOUSLITE FS spectrometer Jeti Specbos 1211UV spectradiometer	Konica Minolta CL500A THOUSLITE FS spectrometer Jeti Specbos 1211UV spectradiometer
Uniformity	80%	85%	85%	85%
Interior color	Munsell N5 Munsell N7 (Default)	Munsell N5 Munsell N7 (Default)	Munsell N5 Munsell N7 (Default)	Munsell N5 Munsell N7 (Default)
Electrical	230V/110V 50/60Hz, 54W Max	230V/110V 50/60Hz, 300W Max	230V/110V 50/60Hz, 300W Max	230V/110V 50/60Hz, 360W Max
Connection	Button switch panel	Touch screen switch panel, intensity dimmer for fluorescent, USB cable	Touch screen switch panel, intensity dimmer for fluorescent, USB cable	Touch screen switch panel, USB cable
External dimensions(L/W/H)	490×410×450 mm	1020×740×860 mm	1020×740×860 mm	520×520×850 mm
Viewing area(L/W/H)	465×300×310 mm	970×700×670 mm	970×700×670 mm	500×500×600 mm
Weight	10.5 Kg	60 Kg	60 Kg	40 Kg
Scope of delivery	Overhead luminarie, viewing cabinet, power cord	Overhead luminarie, viewing cabinet, diffuser, power cord, USB cable, software LEDNavigator-LV with dongle (optional), THOUSLITE FS spectrometer (optional) , SDK available on request	Overhead luminarie, viewing cabinet, diffuser, power cord, USB cable, software LEDNavigator-LV with dongle (optional), THOUSLITE FS spectrometer (optional) , SDK available on request	Overhead luminarie, viewing cabinet, diffuser, power cord, USB cable, software LEDNavigator-LV with dongle, THOUSLITE FS spectrometer (optional) , SDK available on request
Software	-	Modules in software LEDNavigator-LV: 1. Blackbody locus simulator 2. SPD Match 3. Single channel control 4. Dynamic lighting 5. Fast & accurate feedback	Modules in software LEDNavigator-LV: 1. Blackbody locus simulator 2. SPD Match 3. Single channel control 4. Dynamic lighting 5. Fast & accurate feedback	Modules in software LEDNavigator-LV: 1. Blackbody locus simulator 2. SPD Match 3. Single channel control 4. Dynamic lighting 5. Fast & accurate feedback