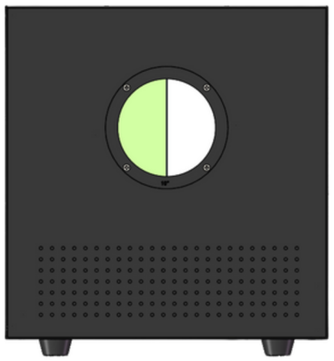
LEDMax

Individualized Color Perception,
Engineered to Perfection.

3 x Human cone spectral responses measured using 2 x 18 LED color channels



LEDMax is a precision trichromator that measures the three individual LMS cone spectral sensitivities through empirical color matching. Utilizing 2x18 multispectral LEDs (spanning 400 to 700nm) each illuminating one of two patented dual hemi-fields, the biometric visual data allow the mean theoretical CIE color standards to be replaced with precise individual functions, helping to eliminate observer metamerism across industries.

Eliminates observer metamerism with individualized CMFs

2 x 18-channel control ensures lab-to-field reliability

Empirical estimates of LMS and XYZ color matching functions

Features

- **Maxwell colour matching method:** Generates LMS cone spectral sensitivities and other color matching functions via observer-driven LED adjustments.
- **Spectral Biometrics** Measures LMS cone responses, compensating for pre-retinal filtering and genetic photopigment variance.
- **2 x 18 Multispectral LEDs** High spectral resolution for fine-tuned control and accurate SPD replication.
- **Visual Fields of between 2° and 10°:** Versatile for testing and industry.

Applications

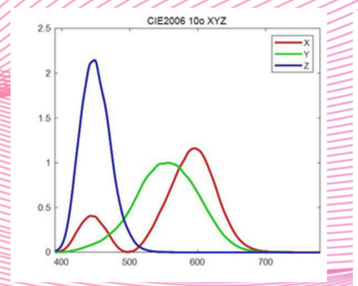
- **Color Vision Research** Individual assessments of color vision in normal and color-deficient observers.
- **Expert Screening** Identifies “golden eye” professionals for critical color assessment roles.
- **Color Standards** Sets local and global benchmarks for vision performance and variability.
- **Display Optimization** Minimizes observer-specific color mismatches in display design.
- **Personalized Calibration** Tailors color rendering for AR/VR, smartphones, and displays for individual users.
- **Precision Color Matching** Enhances accuracy in imaging, color management, and QC.

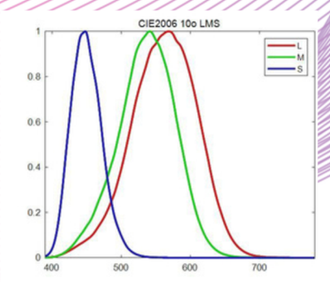
THOUSLITE

Specifications

	LEDMax-P18
LED channels*1	18 channels
Spectral range	400-700nm
LED channel drive method	Amplitude Modulation
Resolution*2	12bit (4096 steps dimmable for each channel)
Warm up time	10 minutes
Paek Wavelength of LED (±5nm)	405 415 432 441(Broad band) 449 461 475 508 526 546 549 576 595 606 636 662 675 706
Observation circle size	2° field of view：Φ17mm 10° field of view：Φ88mm
Electrical	100-240V 50/60Hz 100W (max)
Connection	USB cable
Dimensions(L/W/H)	246mm*290mm*315mm
Weight	12 Kg
Scope of delivery	Light Source ×1, Replacement Lens Sets ×4 (Options: 2°, 4°, 6°, 8°; Default: 10°), Power Cord (1.8 meters) ×1, Dual-Ended Type-A USB Cable (USB 3.0 Male to Male, 1.5 meters) ×1, Licensed Software ×1
Software	Single channel control(.DLL)

*1: The number of LED kinds.
*2: Actually 4000 steps can be used because some steps for low luminance calibration.





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