

MAT-200D 汽车光源自动测试系统 Automatic Test System for Automobile Light Source

- MAT-200D汽车光源自动在线测试系统采用高精度光谱辐射计家族产品测试汽车光源灯板上每颗LED 灯的光通量、颜色、电参数，并配合专业软件实现光色一致性校准。设定相对光度、色品分区的阈值，自动判别产品是否合格。非常适合在线100%测试。

The MAT-200D auto online testing system for automobile light source uses high-precision spectroradiometer family products to test the luminous flux, color and electrical parameters of each LED lamp on the lamp panel of the automobile light source, and cooperates with professional software to achieve the light color consistency calibration. Set the threshold value of relative luminosity and chromaticity partition, and automatically judge whether the product is qualified.



特点与优势 Characteristics and advantage

- **强大的软件分析测量功能：**
Powerful software analysis and measurement functions:
- **每颗LED的光色参数综合分析功能**
Comprehensive analysis function of light color parameters of each LED
- 1) 每颗LED产品的电学特性、相对光通量、色温、色坐标、色域值、光谱功率分布等参数；
1) Electrical characteristics, relative luminous flux, color temperature, color coordinates, color gamut, spectral power distribution and other parameters of each LED product;
- 2) 按照单颗LED的产品特点，设定相对光度、色品分区的阈值，自动判别产品是否合格；
2) According to the product characteristics of a single LED, set the threshold value of the relative luminosity and chromaticity partition to automatically determine whether the product is qualified;
- 3) 可自行设置不同产品规格的光度、色度的判别条件模板，软件可调用不同模板自动判别；
3) The judgment condition templates of luminosity and chroma of different product specifications can be set by yourself, and the software can call different templates for automatic discrimination;



- 可按用户LIN的控制要求来实现软件的自动控制测试，对于光度和色度范围超差的，可通过软件实现光度及色度的校准，直至光色满足用户设定要求。

The automatic control test of the software can be realized according to the control requirements of the user LIN. If the photometric and colorimetric range is out of tolerance, the photometric and colorimetric calibration can be realized through the software until the light color meets the user's setting requirements.

特点与优势 Characteristics and advantage

- **自动光色配比和验证功能**
Automatic light color matching and verification function
 - 1) 系统带有自动配光功能，根据每颗LED在R、G、B子单元下的发光特性，进行氛围灯白光目标色、其它颜色目标色的配比计算；
1) The system has the automatic light distribution function. According to the luminous characteristics of each LED in the R, G, B sub units, the system calculates the ratio of the white light target color of the atmosphere lamp and the target color of other colors;
 - 2) 系统在软件和拼板程序中导入供方独特的白光和其它颜色的配比算法调节灯板内部配比参数，点亮LED进行复测并判断其颜色是否在合格区域内；
2) The system imports the supplier's unique white light and other color matching algorithm into the software and panel assembly program to adjust the internal matching parameters of the light panel, light up the LED to retest and judge whether its color is within the qualified area;

- **身份识别以及数据管理追溯（选配）**
Identification and data management traceability (optional)
- **安装扫码功能，可实现测试数据与每只灯一一对应，便于数据追溯。**
The code scanning function is installed to realize one-to-one correspondence between test data and each lamp, which is convenient for data tracing.

技术参数 Specifications

- 根据被测灯条的长度、宽度来做。
It shall be made according to the length and width of the lamp strip to be tested.
- 直流供电电源范围：可根据需求选择脉冲电源，对LED的测量更有利；
DC power supply range: pulse power supply can be selected according to demand, which is more favorable for LED measurement;
- 光通量测量范围：0-100lm，分辨率：0.1lm；
Measuring range of luminous flux: 0-100lm, resolution: 0.1lm;
- 波长范围：380nm~780nm；
Wavelength range: 380nm ~ 780nm;
- 波长准确度：0.3nm；
Wavelength accuracy: 0.3nm;
- 色品坐标重复性 (x, y) : 0.0003 (标准A光源条件下)
Chromaticity coordinate repeatability (x, y): 0.0003 (under standard A light source conditions)
- 相关色温Tc, 峰值波长、半宽度、色纯度, 主波长、相对光谱功率分布 P (λ)
Related color temperature Tc, peak wavelength, half width, color purity, dominant wavelength, relative spectral power distribution P (λ)
- 显色指数Ra, Ri (i=1~15)
Color rendering index Ra, Ri (i=1-15)
- 色容差SDCM (麦克亚当椭圆、矩形框以及CIEu'v'圆), 用户可任意选择
Color tolerance SDCM (Macadam ellipse, rectangular box and CIEu'v'circle), user can choose at will