

中国计量科学研究院

National Institute of Metrology, China



中国认可
国际互认
校准
CALIBRATION
CNAS L0502

校准证书

Calibration Certificate

证书编号 GXgd2025-00361
Certificate No.

客户名称 Client	PT Rajawali Baskara Perkasa
器具名称 Instrument	标准光源 Standard Light Source
型号/规格 Type/Model	SLS-50W
出厂编号 Serial No.	CAL02B0078
生产厂商 Manufacturer	/
联络信息 Contact Information	Komplek Rukan Taman Tekno Boulevard Blok A20-21, Jl. Raya Taman Tekno Widya, BSD, Serpong, Tangerang
校准日期 Date of Calibration	2025 年 01 月 23 日
接收日期 Date of Receiving	2025 年 01 月 20 日
批准人: Approved by	刘慧
发布日期: Date of Issue	2025 年 02 月 05 日



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中国计量科学研究院（NIM）是国家最高的计量科学研究中心和国家级法定计量技术机构。1999 年授权签署了国际计量委员会（CIPM）《国家计量基(标)准和国家计量院签发的校准与测量证书互认协议》（CIPM MRA）。The National Institute of Metrology (NIM) is China's national metrology institute (NMI) and a state-level legal metrology institute. NIM is China's signatory to the Mutual Recognition of National Measurement Standards and of Calibration and Measurement Certificates Issued by National Metrology Institutes (CIPM MRA) which is arranged by the International Committee of Weights and Measures (CIPM).

质量管理体系符合 ISO/IEC17025 标准，通过中国合格评定国家认可委员会（CNAS）和亚太计量规划组织（APMP）联合评审的校准和测量能力（CMCs）在国际计量局（BIPM）关键比对数据库中公布。NIM's quality management system meets requirements of the ISO/IEC 17025. Its Calibration and Measurement Capabilities (CMCs) that are peer reviewed both by China National Accreditation Service for Conformity Assessment (CNAS) and the Asia Pacific Metrology Programme (APMP) are published in the International Bureau of Weights and Measures (BIPM) Key Comparison Database (KCDB).

2020 年，NIM 和 CNAS 就认可领域的技术评价活动签署了谅解备忘录，承认 NIM 的计量支撑作用和出具的校准/检测结果的溯源效力。NIM and CNAS signed a Memorandum of Understanding (MOU) for Recognition of Technical Assessment in Laboratory Accreditation Field in 2020, in which CNAS recognizing the technical supporting role of NIM in laboratory accreditation and the traceability of NIM's calibration / test results.

校准结果不确定度的评估和表述均符合 JJF1059 系列标准的要求。The evaluation and expression of uncertainty of the calibration results are in line with the requirements of JJF1059 series standards.

校准所依据/参照的技术文件（代号、名称）Reference documents (Code,Name)

参照 JJF 1976-2022 平均颜色温度标准灯校准规范/Refer to JJF 1976-2022 Calibration Specification for Averaged Color Temperature Standard Lamp

参照 JJG 247-2008 总光通量标准白炽灯检定规程/Refer to JJG 247-2008 Verification regulation of Incandescent standard lamp for total luminous flux

校准环境条件及地点 Calibration place and environment

温度 Temperature: (22.3-22.5) °C 地点 Location: 和-13-115

湿度 Humidity: (15±3) % RH 其它 Others: /

校准使用的计量基（标）准装置(含标准物质)/主要仪器

Reference Standards (Including the Reference Material) / Instruments used

名称 Name	测量范围 Measurement Range	不确定度/ 准确度等级 Uncertainty/Accuracy	证书编号 Certificate No.	证书有效期至 Due Date (YYYY-MM-DD)
平均颜色温度标准灯 校准装置 Measurement standard for averaged color temperautre standard lamp	(2300~3000)K (3000~6500)K	$U_l = (7 \sim 10) \text{ K } (k=2)$ $U_l = (10 \sim 35) \text{ K } (k=2)$	[2023] 国量标 证字第 461 号	2028-10-21
标准光源 Standard lamp	(100 ~ 5×10^3) lm	$U_{rel} = 1.2 \%$ ($k = 2$)	Gxgd2024-00913	2025-02-28



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校准结果

Calibration Results

灯 号 Lamp No.	灯电流 Lamp Current (A)	参考灯电压 Reference Lamp Voltage (V)	色品坐标 Chromaticity Coordinate		平均颜色温度 Averaged Color Temperature (K)
			<i>x</i>	<i>y</i>	
CAL02B0078	2.1340	23.46	0.4477	0.4078	2856

以 5nm 为间隔的相对光谱功率分布数据 (380nm-780nm) :
The relative spectral power distribution data (380nm-780nm) with interval 5nm:

波长 Wavelength (nm)	相对光谱 功率 Relative Spectral Power	波长 Wavelength (nm)	相对光谱 功率 Relative Spectral Power	波长 Wavelength (nm)	相对光谱 功率 Relative Spectral Power	波长 Wavelength (nm)	相对光谱 功率 Relative Spectral Power
380	0.02730	385	0.03336	390	0.03991	395	0.04647
400	0.05429	405	0.06126	410	0.06901	415	0.07681
420	0.08477	425	0.09313	430	0.10135	435	0.11034
440	0.11962	445	0.12890	450	0.13828	455	0.14836
460	0.15834	465	0.16906	470	0.18021	475	0.19052
480	0.20218	485	0.21380	490	0.22580	495	0.23818
500	0.25059	505	0.26305	510	0.27618	515	0.29023
520	0.30289	525	0.31672	530	0.33081	535	0.34506
540	0.35879	545	0.37385	550	0.38930	555	0.40419
560	0.41927	565	0.43433	570	0.44934	575	0.46409
580	0.48001	585	0.49469	590	0.50895	595	0.52477
600	0.53975	605	0.55542	610	0.57016	615	0.58637
620	0.60091	625	0.61653	630	0.63044	635	0.64612
640	0.66075	645	0.67451	650	0.68910	655	0.70390
660	0.71822	665	0.73276	670	0.74546	675	0.75926
680	0.77361	685	0.78760	690	0.80054	695	0.81390
700	0.82626	705	0.83846	710	0.85122	715	0.86389

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Calibration Results

波长 Wavelength (nm)	相对光谱 功率 Relative Spectral Power	波长 Wavelength (nm)	相对光谱 功率 Relative Spectral Power	波长 Wavelength (nm)	相对光谱 功率 Relative Spectral Power	波长 Wavelength (nm)	相对光谱 功率 Relative Spectral Power
720	0.87542	725	0.88656	730	0.89912	735	0.91031
740	0.92177	745	0.93154	750	0.94225	755	0.95284
760	0.96163	765	0.97241	770	0.98137	775	0.99186
780	1.00000						

说明:

Specification:

1. 直流稳流、稳压电源供电, 校准时以控制灯电流为准。

During calibration use a constant current and voltage DC power supply, and control the current of the lamp.

2. 校准结果的不确定度: 平均颜色温度 $U=14\text{ K}$ ($k=2$), 色品坐标 $U=0.0015$ ($k=2$)。The uncertainty of calibration results: averaged color temperature $U=14\text{ K}$ ($k=2$), chromaticity coordinate $U=0.0015$ ($k=2$)。

3. 下次送检请带此证书复印件。

Please take a copy of the certificate at next calibration.

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Certificate No.校准结果
Calibration Results

灯号 Lamp No.	灯电流 Lamp Current (A)	参考灯电压 Reference Lamp Voltage (V)	总光通量 Total Luminous Flux (lm)
CAL02B0078	2.1340	23.46	806.7

说明: Specification:

1. 直流稳流、稳压电源供电, 校准时以控制灯电流为准。

During calibration use a constant current and voltage DC power supply, and control the current of the lamp.

2. 总光通量校准结果的不确定度为 $U_{rel} = 1.5\%$ ($k=2$)。The uncertainty of total luminous flux calibration results is $U_{rel} = 1.5\%$ ($k=2$)

3. 下次送检请带此证书复印件。

Please take copy of the certificate at next calibration.

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建议 Suggestion:

根据校准规范 JJF1976-2022 的规定, 通常情况下 12 个月校准一次。

According to the calibration specification JJF1976-2022, the recommended calibration cycle is 12 months.

声明 Statement:

1. 我院仅对加盖“中国计量科学研院校准专用章”的完整证书负责。

NIM is ONLY responsible for the complete certificate with the calibration stamp of NIM.

2. 本证书的校准结果仅对所校准的计量器具有效。

The certificate is ONLY valid for the calibrated instrument.

3. 本证书用中英文两种语言表达, 准确含义以中文为准。

The certificate is reported in both English and Chinese, with the Chinese version as standard.

校准员:

赵伟强

Calibrated by

核验员:

刘慧

Checked by