中国计量科学研究院
National Institute of Metrology

CNAS 校准 CNAS L0502

校 准 证 书
Calibration Certificate

证书编号 GXgd2017-3502
Certificate No.

客户名称 Client	INSTITUTO NACIONAL DE CALIDAD-INACAL
器具名称 Instrument	卤素灯（产品名称：Standard Light Source） Halogen Lamp (Product Name:Standard Light Source)
型号/规格 Type/Model	SLS-50W
出厂编号 Serial No.	CAL201711180, CAL201711182
生产厂商 Manufacturer	Lisun Electronics Inc.
客户地址 Client Address	CALLE LAS CAMELIAS N° 817, SAN ISIDRO, LIMA, PERU.
校准日期 Date of Calibration	2017 年 11 月 27 日 Nov 27, 2017

批准人：刘慧
Approved by

中国计量科学研究院 —1— 校准专用章

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中国计量科学研究院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).

中国计量科学研究院的质量管理体系符合 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).

2011 年，中国计量科学研究院和中国合格评定国家认可委员会就认可领域的技术评价活动签署了谅解备忘录，承认中国计量科学研究院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 2011, 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.

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

参照 JJG 213-2003 分布（颜色）温度标准灯检定规程/Refer to JJG 213-2003 Verification regulation of standard lamps for distribution (colour) temperature

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：25　℃　地　点 Location：光学楼 115/Room 115, Building 13.

湿　度 Humidity：19　% 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 Measure range	不确定度/准确度 Uncertainty/Accuracy	证书编号 Certificate No.	证书有效期至 Due Date (YYYY-MM-DD)
标准光源 Standard lamp	2856K	U =10K (k = 2)	GXgd2017-2105	2018-07-21
标准光源 Standard lamp	(100 ～ 5×10³) lm	U = 1.2 % (k = 2)	Gxgd2017-0546	2018-02-28

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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		相关色温 Correlated Color Temperature (K)
			x	y	
CAL201711180	2.1965	23.03	0.4475	0.4071	2856

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

380, 0.03999	385, 0.04617	390, 0.05198	395, 0.05684	400, 0.06213
405, 0.06787	410, 0.07439	415, 0.08079	420, 0.08745	425, 0.09491
430, 0.10281	435, 0.11076	440, 0.11902	445, 0.12782	450, 0.13685
455, 0.14641	460, 0.15629	465, 0.16657	470, 0.17712	475, 0.18800
480, 0.19933	485, 0.21058	490, 0.22232	495, 0.23458	500, 0.24689
505, 0.25945	510, 0.27237	515, 0.28538	520, 0.29865	525, 0.31229
530, 0.32608	535, 0.33990	540, 0.35410	545, 0.36846	550, 0.38302
555, 0.39771	560, 0.41230	565, 0.42696	570, 0.44167	575, 0.45688
580, 0.47188	585, 0.48708	590, 0.50208	595, 0.51704	600, 0.53230
605, 0.54731	610, 0.56245	615, 0.57743	620, 0.59236	625, 0.60744
630, 0.62217	635, 0.63673	640, 0.65176	645, 0.66653	650, 0.68226
655, 0.69650	660, 0.70850	665, 0.72309	670, 0.73804	675, 0.75306
680, 0.76476	685, 0.77819	690, 0.79355	695, 0.80604	700, 0.81923
705, 0.83197	710, 0.84381	715, 0.85591	720, 0.87138	725, 0.88212
730, 0.89342	735, 0.90486	740, 0.91671	745, 0.92802	750, 0.93953
755, 0.95137	760, 0.95839	765, 0.96959	770, 0.98144	775, 0.99001
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：相关色温为 U =14 K（k=2），色品坐标 U=0.0015（k=2）。
The uncertainty of calibration results: correlated color temperature U=14 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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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		相关色温 Correlated Color Temperature (K)
			x	y	
CAL201711182	2.1542	23.73	0.4474	0.4071	2856

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

380, 0.03998	385, 0.04658	390, 0.05170	395, 0.05679	400, 0.06210
405, 0.06809	410, 0.07431	415, 0.08092	420, 0.08763	425, 0.09502
430, 0.10282	435, 0.11075	440, 0.11912	445, 0.12800	450, 0.13704
455, 0.14668	460, 0.15642	465, 0.16661	470, 0.17732	475, 0.18817
480, 0.19930	485, 0.21075	490, 0.22258	495, 0.23474	500, 0.24706
505, 0.25972	510, 0.27262	515, 0.28566	520, 0.29887	525, 0.31251
530, 0.32647	535, 0.34012	540, 0.35446	545, 0.36867	550, 0.38332
555, 0.39790	560, 0.41269	565, 0.42723	570, 0.44198	575, 0.45707
580, 0.47222	585, 0.48745	590, 0.50250	595, 0.51746	600, 0.53251
605, 0.54776	610, 0.56264	615, 0.57762	620, 0.59261	625, 0.60771
630, 0.62244	635, 0.63721	640, 0.65193	645, 0.66686	650, 0.68260
655, 0.69657	660, 0.70837	665, 0.72352	670, 0.73795	675, 0.75309
680, 0.76491	685, 0.77825	690, 0.79362	695, 0.80605	700, 0.81935
705, 0.83194	710, 0.84372	715, 0.85610	720, 0.87100	725, 0.88202
730, 0.89295	735, 0.90483	740, 0.91662	745, 0.92802	750, 0.93952
755, 0.95107	760, 0.95811	765, 0.96906	770, 0.98139	775, 0.98966
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：相关色温为 U =14 K（k=2），色品坐标 U=0.0015(k=2)。
The uncertainty of calibration results: correlated color temperature U=14 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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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)
CAL201711180	2.1965	23.03	805.1
CAL201711182	2.1542	23.73	817.4

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 =1.5%（k=2）。
The uncertainty of total luminous flux calibration results is U =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:
根据客户要求和校准文件的规定，通常情况下 12 个月校准一次。
According to the client or the calibration documents, the recommended calibration cycle is 12 months.

声明 Statement:
1.我院仅对加盖“中国计量科学研究院校准专用章”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： 刘建
Calibrated by

核 验 员： 刘慧
Checked by

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