

HSP3000 Spectroradiometric Measurement System

Introduce

1. HSP3000 Spectrophotometer

It is designed to meet the requirement of the standard publication of CIE for the measurement of photometry and colorimetry. It is one of the most important instruments in this field. So it is widely employed to measure the parameters of photometry and colorimetry in the field of CFL, tungsten lamp and other light sources. As a result, it is the best selection for lamp industries and luminaries industries.

Characteristics and Specifications

Wavelength	Range	Normal	380~780nm
	Accuracy		±0.3nm
	Repeatability		±0.1nm
Chromaticity Coordinate	Accuracy ($\Delta x, \Delta y$)		±0.0003 (at Illuminant A)
Sample Interval	Normal		5nm
Photometry	Linearity		±0.3%
	Repeatability		±1%
Test Items	Relative Spectral Power Distributions		P(λ)
	Chromaticity Coordinate		(x,y), (u,v)
	Correlated Color Temperature		Tc
	Rending Index		Ra, Ri (i=1~14)
	Color difference		SDCM
	Peak Wavelength		nm
AC Input	Voltage		220V ±5% (50/60Hz)
	Frequency		48~62Hz
	Fuse		0.5A
	Consumption	Static	70VA
		Dynamic	120VA

2. 1.2m Optical fiber with connectors

Link the HSP3000 spectrophotometer and integrating sphere, i.e. lead the tested light from the sphere to HSP3000 spectrophotometer.

3. HP200 Photometer

It is one of the basic instruments in the field of photometry. It is widely employed to measure luminous flux (lumen), with fine $V(\lambda)$ approximation detector. It is necessary for lamp industries and other lighting enterprises to equip with this instrument.

3. HP502 DC Power Supply For Standard Light Source

HP502 DC Power supply (with 4 1/2 digital ampere monitor) is employed to calibrate HSP3000 spectrophotometer.

Characteristics and Specifications

1. Input voltage: AC 220V \pm 5%, (50/60Hz)
2. Output voltage: DC 10 to 38V
3. Output current: DC 0 to 2A
4. The drift of output voltage when at full range: \pm (0.1% of reading +1mV)/10min
5. Accuracy of the current meter: \pm (0.08% of reading + 0.02% of range)

4. HP100 Digital Power Meter

It is widely employed for electric household appliance industries, power supply industries, department of quality inspection, etc. To measure voltage, current, power, power factor.

Characteristics and Specifications

Items		Voltage (v)	Current (A)
Input circuit type		Floating replacement input	Floating replacement input
Input resistance		> 1M Ω	< 0.01 Ω
Range (Automatic)		600V/300V/150V/75V	20A / 8A/2A/0.5A
Instantaneous max permissible input		1600V	50A
Continuous max permissible input		800V	24A
Frequency range		Base frequency 45Hz~65Hz, Band 5 KHz	Base frequency 45Hz~65Hz, Band 5 KHz
Automatic range switch	Increase range	Measured value over 110% rated range	Measured value over 110% rated range
	Decrease range	Measured value lower than 80% rated range	Measured value lower than 80% rated range

Accuracy specifications

Item Condition	Voltage	Current	Power	Power Factor	Frequency
Temperature 25°C ±5°C Humidity 35% to 75%R.H Power supply:220±10V Input waveform: sine wave Input freq: 45Hz-65Hz				±(0.004+0.001 %reading value+1 digit)	±(0.1% read ing value+1 digit)

5. 1500mm Integrating Sphere

5.1. Applications:

- a. Luminous flux measurements on lamps for production and quality control, research, and development.
- b. Calibration of luminous flux working standards.
- c. Color measurements on light sources with colorimeters.

5.2. 1500mm

- a. Sphere: 1500mm dia.
- b. Burning position: pendant, horizontal
- c. Range: 0.01 to 1999900 lm

5.3. Interior sphere paint

- a. For painting of integrating sphere according to CIE Publ.No.84(1989)
- b. Diffuse, a selective reflectance
- c. Reflectance $\rho \approx 0.8$, variation of $\rho(\lambda) < 1.5\%$ in the visible range

6. Standard Light Source

An NIM traceable calibrated tungsten lamp is employed to calibrate the spectrum of HSP300 with manufacturer certification: Class 1 according to JJG213-90.

7. THP500 AC Power source

THP500 Test Power Supply is a precise pure sine wave supply with 50/60Hz frequency and high power, high stability, low distortion.

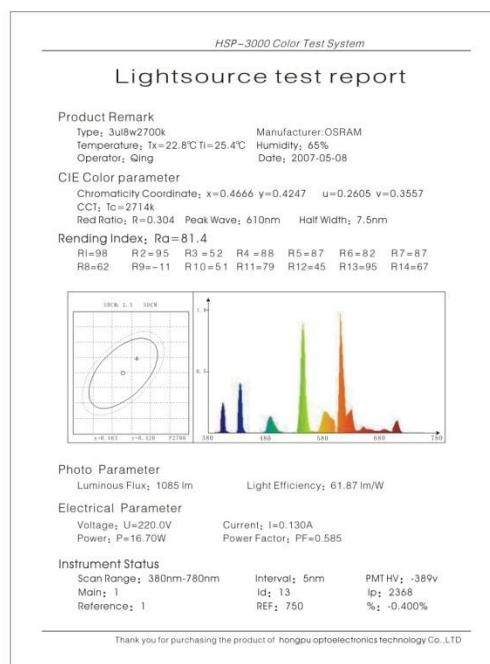
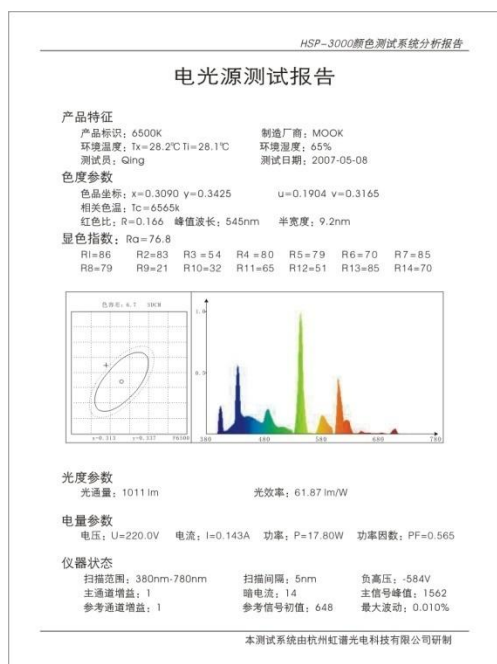
As an ideal standard AC power supply for harmonic test, it is particularly suitable to test electronic ballast, energy-saving lamp, and other low power appliance etc. It meets the requirement of the standard of IEC1000-3-2, IEC555-2, IEC929, IEC969 and etc.

Characteristics and Specifications

1. Frequency display: 4-digit LED display, accuracy: $\pm 0.05\text{Hz}$
2. Output voltage range: 0 to 120V (maximum output current: 4.2A)
0 to 300V (maximum output current: 2.1A)
3. Stability of voltage: 0.1% per 30 minutes
4. Voltage display: class 0.5 accuracy
5. Total voltage distortion: 0.6% (free or full resistive load)
6. Equivalent internal resistance: 0.1Ω
7. Load regulation: 0.1%
8. Maximum output power: 600VA
9. Isolate between output and input supply; floating output
10. Environment: Temperature 0 to 35°C
Humidity 30% to 80%
11. AC Input: 220V/50Hz OR 110V/60Hz



Typical report



Packing

Item Name	Wooden Box (L*W*H)	G.W.	N.W.
1500mm Integrating Sphere	1.73m*1.73m*2.0m	400kg	250kg
19 Inch Standard Instrument Tank	1.90m*0.88m*0.80m	150kg	80kg
HP-200 Luminance meter	0.61m*0.57m*0.53m	40kg	30kg
HP-100 Digital Power Meter			
HP-502 Power Supply			
Standard Light Source			
Luminous Flux Standard Lamp			
THP-500 AC Power Source	0.73m*0.58m*0.27m	50kg	40kg
HSP-3000 Spectrophotocolimeter	0.72m*0.56m*0.4m	50kg	35kg
1.2m Optical Fiber			