

PG8000 Spetctroradiometer and Integrating Sphere Test System for LED Chips and LED Modules (Brochure)

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EMC&EMI Test System: http://www.pegotester.com/products/EMC_EMI

Integrating Sphere System: http://www.pegotester.com/products/integrating_sphere

Goniophotometer test system: <http://www.pegotester.com/products/goniophotometer>

Electrical Safety Tester: http://www.pegotester.com/products/Safety_tester

Environment Test Chamber: http://www.pegotester.com/products/Test_chamber

AC&DC Power Supply: http://www.pegotester.com/products/power_supply

IEC60061-3 Lamp Gauges: <http://www.pegotester.com/products/gauge>

IEC and UL Probes for verification: <http://www.pegotester.com/products/probe>

1. Introduction

PG8000 Spectroradiometer and integrating sphere test system is designed for LED chips and LED modules to test the photometric and colorimetric performance. Built in 30V/2.5A DC power supply, the PG8000 spectroradiometer can power the LED under test directly. And adopts the CCD detector, the test can finish in 2s. It is a perfect system for incoming inspection.



2. Configuration

- 1) PG8000 CCD spectroradiometer (with English version software)
- 2) Optical fiber (1.5m)
- 3) Integrating sphere (0.3m for LED chips, 0.5m for LED modules)
- 4) Standard Luminaire (12V/5W)
- 5) Luminous intensity test device (manual operation)
- 6) Clamp
- 7) Computer and printer (prepare by user)

3. Parameters

- 1) PG8000 CCD Spectroradiometer

- Test parameters: chromaticity coordinates, correlated color temperature, color rendering index, SDCM, wavelength, half bandwidth, dominate wavelength, purity, luminous intensity, luminous intensity, efficiency, forward voltage, reverse leakage current and etc.

- Data can output as EXCEL and PDF files

Item	Range	Accuracy
Wavelength(nm)	380~780	
Chromaticity coordinates	X,Y, U,V	±0.0015 (x,y)
Luminous intensity (cd)	10mcd~3000cd	Class 1
CCT(K)	1000~100000	±3%
Luminous flux (lm)	10mlm-20000.0lm	Class 1
Forward current(mA)	0.01~2500.0	±0.5%
Forward voltage(V)	0.01~30.0	
Reverse current (μA)	0.01~200.0	
Reverse voltage (V)	0.01~30.0	
Test Speed	5ms~2s	

2) Optical fiber

Connect the spectroradiometer with integrating sphere for the single transmission.

3) Integrating sphere

The shell is coated with BaSO₄, which is stable and fadeless. The body adopts cold-roll steels.

Φ0.3m is for LED chips (SMD LED, DIP LED, power LED)

Φ0.5m is for LED modules

4) Standard luminaire

- 12V/5W, made by OSRAM
- Calibrate the color temperature and luminous flux of the system.

5) Luminous intensity test device

Work with PG8000 spectroradiometer to test the luminous intensity, manual operation.

6) Clamps

Multifunction calmps, 3528 and 5050 clamps.

4. Lab Requirements

1) computer and printer: Windows 2000/Windows XP system

2) Lab size: 3*4m

3) LED test: DIP LED, SMD LED (3528,5050,3024 and etc.), power LED, LED modules



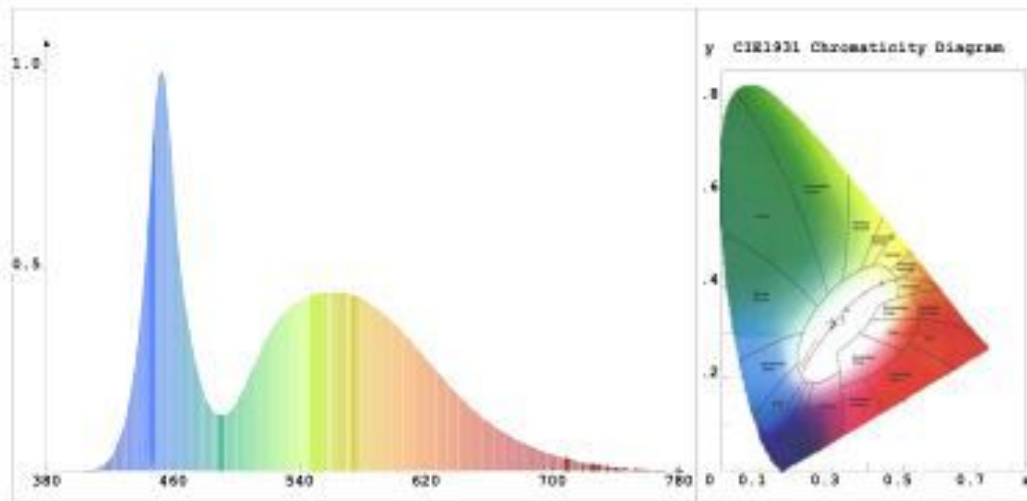
5. Reference Test Report (see the next page)

Typical Test Report

Product Mark

Product Type : SINGLE LED
 Temperature : 2'C
 Operator :

Manufacturer : 02 Led Illumination
 Humidity : 1
 Test Date : 2011-04-02



Chroma Parameters

Chro.Coord.: x=0.3116 y=0.3162 u=0.2020 v=0.3074 duv=-0.0030
 CCT: Tc= 6681K Dominant Wave.: 481.7nm Purity: 8.9%
 R ratio: R= 13.1 Peak Wavelength: 452.5nm Half Width: 23.1nm

Rending Index: Ra= 77.6

R1 =76.1 R2 =83.8 R3 =83.9 R4 =75.0 R5 =75.2 R6 =74.1 R7 =86.8
 R8 =66.6 R9 =-4.2 R10=56.7 R11=70.0 R12=41.0 R13=78.6 R14=90.8
 R15=0.0

Photo Parameters

Flux: 7.142lm Effi.: 0.0lm/W Radiant: 22.5mW Iv: 0.0mod

Ele. Parameters

Forward Current: If=20.0mA Forward Voltage: Vf=3.00V
 Reverse Voltage: Vr=5.00V Reverse Current: Ir=0.00uA

Instrument state

IntgeTime: 122.581ms VPeak: 15517 VDark: 1439
 Scan Range: 380-780nm