Chroma 58158 AC/DC LED Integrated Test System, compliances the AC LED Device National Standard and designs under the guidelines of LM-79, has integrated Chroma’s Power Electronics Test Equipment - Programmable AC Power Source and Digital Power Meter to offer users a real AC environment for measuring AC LED.

Furthermore, the 58158 also integrates Chroma DC Power Supplies with the flexible optical test platform which equips with integrating sphere, photo detector, and etc. Users can measure optical and electrical parameters of AC/DC LED through a friendly software interface.

**MODEL 58158 LED Test system**

*Key features:*
- Simulate the real AC test condition and environment
- Integrate AC, DC and optical feature test to one platform
- Support DC test for AC LED
- Support dual-optical test module in one platform (integrating sphere or average intensity)
- Support AC/DC LIV analysis
- Offer standard light source for calibration
### SPECIFICATIONS

<table>
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#### Measurement Items

**Optical Measurement Items**

- Lumens (lm), mW, Wp, Wd, FWHM, CIE(x,y), CIE(u',v'), CCT, CRI

**Electrical Measurement Items**

- Real power P, reactive power VAR, apparent power VA, power factor PF, energy, THD (current and voltage), Vf, If

#### Optical Measurement

**Photo Detector**

- **Wavelength Range**: 380~780nm
- **Lumens Range**: 1500lm (50cm integrating sphere)

**Spectrometer**

- **Detector Type**: 2048 Pixels Linear CCD array
- **Wavelength Range**: 380~780nm
- **Slit**: 100um
- **Resolution (FWHM)**: 3.8nm
- **Integration Time**: 1.2ms~10sec
- **Dynamic Range (Single scan)**: 2x108
- **Fiber Optic Connector**: SMA 905

#### Electrical Measurement

**AC Voltage**

- **Range**: 150/300/500Vrms (CF=1.6)
- **Accuracy**: 0.1%+0.05%*KHz of rdg + 0.08% of rng

**AC Current**

- **Range (H)**: 0.2/2/8/20Arms (CF=2 @0.2/2/8A, CF=4 @20A)
- **Accuracy**: 0.1%+0.05%*KHz of rdg + 0.12%rdg

**Power**

- **Range (W)**: 1.5W~10KW, 24 ranges
- **Power Factor accuracy**: 0.006 + (0.003 / PF) KHz

#### DC Measurement

**Output Voltage**

- 0~64V (>64V optional)

**Output Current**

- 0~3A (>3A optional)

**Ripple and Noise**

- 1400 uVrms & 14 mVp-p / < 1mA

**Line Regulation**

- 0.01% +3mV / 0.01% + 300 DΩ

**Load Regulation**

- < 6mV / 0.01% + 300 DΩ

**Program Accuracy**

- 0.02% + 10mV / 0.01%+1mA

**Read back Accuracy**

- 0.02% + 10mV / 0.01%+1mA

#### Power Consumption

- 300W

#### Software Support DC Source

- Chroma 11200 (650V), Chroma 11200 (800V), Chroma 52958, Chroma 6200P-300-8, Keithley 24XX Series, Motech PPS3210

### ORDERING INFORMATION

- **Photometric option**
  - 50cm integrating sphere
  - 1m integrating sphere
  - 2m integrating sphere

- **Application**
  - Bulb
  - MR-16
  - PAR
  - Small size luminaire

- **Occasion**
  - Lab

BTO for 3m integrating sphere

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**Developed and Manufactured by:**

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