

# ISO 9239-1 ASTM E648 Fire Tester Critical Radiant Flux with a Radiant Heat

**Energy Source** 







## Product Details:

Place of Origin: China

Brand Name: YUYANG

Certification: EN ISO 9239-1 ASTM E648 ASTM E970 NFPA 253

Model Number: YY516

### Payment & Shipping Terms:

Minimum Order Quantity: 1 set

• Price: Negotiation

Packaging Details: Plywood Box

Delivery Time: 25 work days

Payment Terms: T/T L/C Western Union

Supply Ability: 1 sets per month

Share to :

# ISO 9239-1 ASTM E648 Fire Tester Critical Radiant Flux with a Radiant Heat Energy Source

### **Description:**

FLOORING RADIANT PANEL TEST (CRITICAL RADIANT FLUX), ASTM E 648, NFPA 253, FED. STD. NO. 372, NBSIR 75-950: The Floor Radiant Panel apparatus involves a horizontally mounted floor covering test sample which receives radiant energy from a gas-air fueled radiant panel mounted above one end of the sample and inclined at an angle of 30o. The radiant panel generates a radiant flux profile along the length of the sample ranging from a maximum of 1.1 W/cm2 immediately under the panel to approximately 0.1 W/cm2 at the end of the test sample. A gas fired pilot burner is used to initiate the ignition in the sample. The distance the flooring system burns to extinguishment is converted to watts per square centimeter (W/cm2) and is reported as critical radiant flux (CRF). This is the minimum radiant energy a fire needs to sustain flame propagation in the flooring system. In this test, a higher number indicates a more flame-resistant system; i.e., 0.45 W/cm2 is better than 0.22 W/cm2.

#### Standard:

GB / T11785 "flooring combustion performance measurement - a radiant heat source" ISO9239-1:2002 "flooring combustion performance Part 1-the combustion performance

is determined with radiant heat resource"

ASTM E648:Standard Test Method for Critical Radiant Flux of Floor-covering Systems Using a Radiant Heat

ASTM E970:Standard Test Method for Critical Radiant Flux of Exposed Attic Floor Insulation Using a Radiant Heat Energy Source

NFPA 253:Standard Test Method for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source

#### Parameter:

- 1. Power supply:AC 220V,50HZ;
- 2. Total power:2KW;
- 3. Timer: timing accuracy < 1s/h;
- 4. Heat flux measurement range: (0-15) Kw / m2;
- 5. Heat flux meter accuracy: ± 0.2Kw / m2;
- 6. Heat flux meter accuracy: <± 3%;
- 7. Thermal radiation temperature measurement range: 400-600 °C, accuracy ± 0.5 °C;
- 8. Blackbody temperature error: ± 5 °C;
- 9. Exhaust speed:  $(2.5 \pm 0.2)$  m / s;
- 10. Exhaust capacity: (39-85) m3 / min;
- 11. Porous refractory radiant panel size: 300mm × 450mm, about 900 °C high temperature capability;
- 12. Thermocouple: K diameter stainless steel sheathed thermocouple of 3.2mm;
- 13. Heat flux distribution requirements: at 200mm :  $(9.1 \pm 0.4)$  KW / m2;
- at 400mm:  $(5.0 \pm 0.4)$  KW / m2;
- at 600mm:  $(2.4 \pm 0.2)$  KW / m2;
- 14. Combustion gases: propane (Customer);
- 15. Combustion gas flow rate:  $(0.026 \pm 0.002) L / S$ ;
- 16. Combustion burner: outer diameter  $\phi$  10mm inner diameter  $\phi$  6mm, burner tube hit 35  $\phi$  0.7mm hole;
- 17. Flame height: 60 ~ 120mm adjustable;
- 18. Ignition system: high-voltage electronic ignition;
- 19. Powerful exhaust system: This machine is equipped with a powerful exhaust fan, when the test is completed, the system will start the exhaust fan exhaust outside.

# **Specification:**

- 1. The apparatus is made of combustion chamber and control box;
- 2. Combustion chamber size: L1420 \* W1200 \* H2300 (mm);
- 3. Outline dimension:L2530\*W1270\*H2700mm(including electric cabinet);
- 4. Control box / combustion chamber material: high quality (t = 1.2mm) 304 is stainless steel, CNC machining, circular nice shape;
- 5. Blowtorch: made by our company, 304 stainless steel material, in full compliance with GB / T11785 standards;
- 6. Other mechanical parts are made of 304 stainless steel or A3 material thicker plating, anti-corrosion and rust.





Anemometer

Optical Filter





