北京凯普海泰科技有限公司
Beijing Cap High Technology Co.,Ltd.

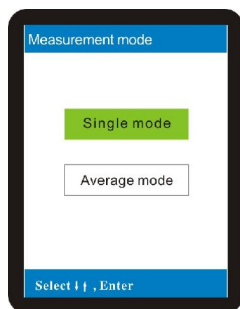## CR300 General colorimeter

■ **Introduction:**

According to international CIE1931,1976 and other relevant standards and national standards. The CR300 is a new economic and practical general colorimeter, We introduce the latest imported LED light source and sensor, it has stable, durable, the characteristics of the economy.

The interface we design the menu type, because it is simple and easy to understand. Our CR300 is not only widely used on Quality department about the color difference, but also used on the school teaching, scientific research, color design.
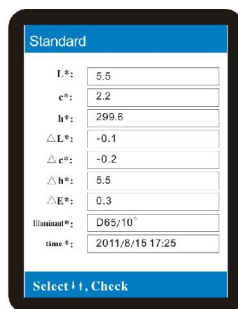
The instrument is suitable for Plastic.Spray paint. Design. Printing. Rag trade.Dipdye and etc, it main used on comparison and analysis of color-difference and quality control.
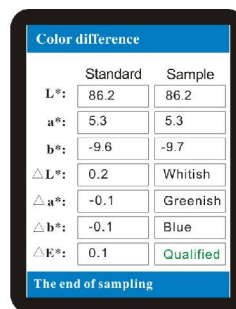
■ **Features:**

○ Button & menu operation. Easy to understand. Reasonable price
○ Commonly used of two measurement modes: Lab&Lch, easy to switch measurement
○ Automatically displays the bias degree of the color difference about sample and standard sample
○ Practical of the average measurement mode, uneven surface also can measure
○ The color quality management software can analysis,exchange the color-difference and data

Measurement mode		Standard		Color difference		
		L*:	5.5		Standard	Sample
		c*:	2.2	L*:	86.2	86.2
		h*:	299.6	a*:	5.3	5.3
Single mode		△L*:	-0.1	b*:	-9.6	-9.7
		△c*:	-0.2	△L*:	0.2	Whitish
Average mode		△h*:	5.5	△a*:	-0.1	Greenish
		△E*:	0.3	△b*:	-0.1	Blue
		Illuminant*:	D65/10°	△E*:	0.1	Qualified
		time*:	2011/8/15 17:25			
Select ↓↑ , Enter		Select ↓↑, Check		The end of sampling		

Measurement mode   Database shows   Qualified/Unqualified
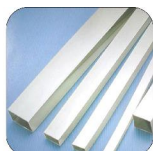
■ Scope of application:

- Injection colors matched and quality control in production process
- Color-difference detection and color-difference control or printing process
- The color-difference analysis of spray paint and electroplate surface
- Color-difference of different area of the metal treating surface
- Color quality inspection of batch products outdoors
- On-line monitoring of color difference in production process
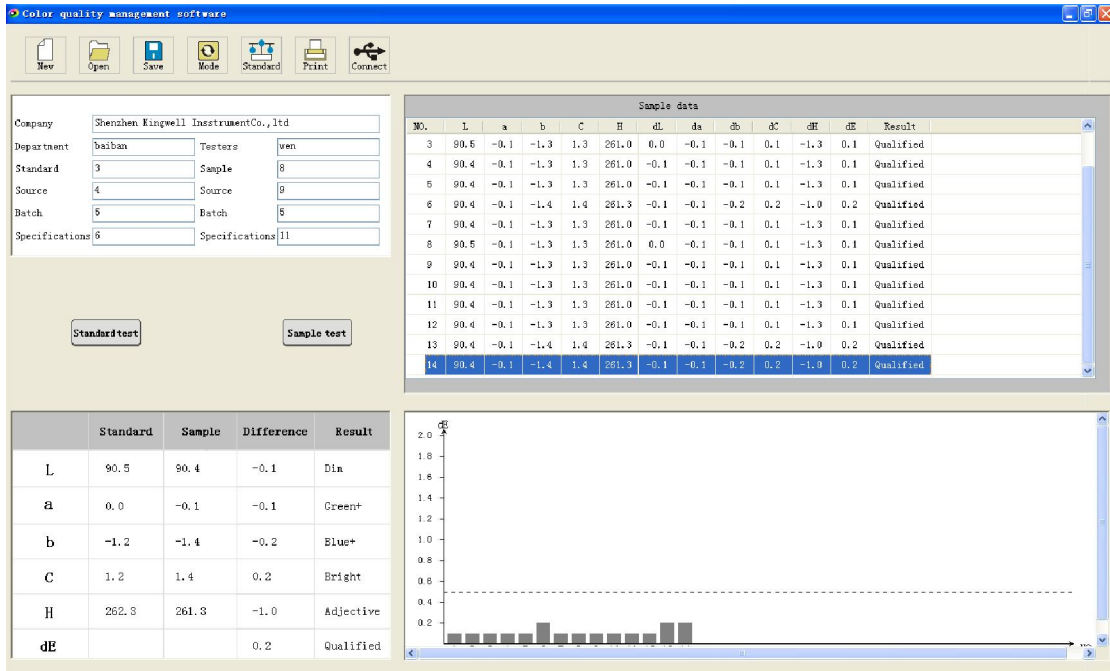
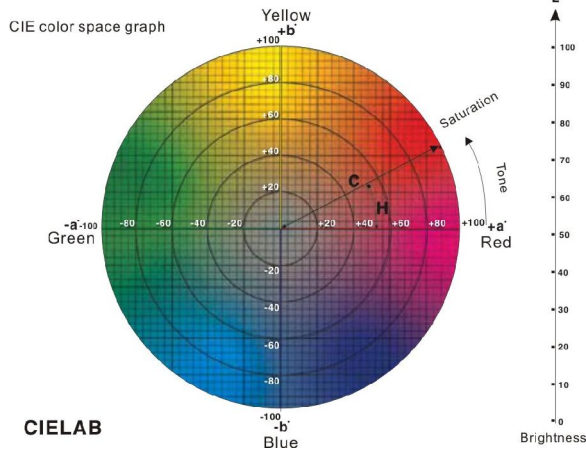| Rubber	Hardware	Building	Printing	Electrical	Spray-paint

■ Technical parameters:

Lighting/light system:	**45/0**
Measuring aperture:	**Ø8mm**
Display model:	**L*a*b*、L*C*H*、△E*ab、△（L*a*b*）、△（L*C*H*）**
Operating language:	**Simplified Chinese or English**
Measurement model:	**Single model, Average model**
Observe illuminant:	**D65**
Standard illuminant:	**10°**
Repeatability:	**Within △E*ab:0.1 standard deviation** **(When the white calibration plates is measured 30 times, and averaged)**
Measurement spaceing	**About 2 seconds**
Power source:	**4 AA-size battery or AC adapter**
Operating temperature:	**0-40℃（32-104℉）；Relative humidity 85% or less**
Size(WxHxD)	**110 ×60 ×190mm**
Weight	**310g(Without batteries）**
Standard Accessories	**Plastic packing, protection cap, AC adapter, Software, USB cable, stainless steel box**
Optional accessories	**Micro-printer**

■ Related software:

CR300 Color-difference quality management software

■ Color -difference formula：

$$\triangle E^* =[(\triangle L^*)^2 + (\triangle a^*)^2+(\triangle b^*)^2]^{1/2}$$

$\triangle L^* = L^*Sample- L^*Standard$

$\triangle a^* = a^*Sample - a^*Standard$

$\triangle b^* = b^*Sample - b^*Standard$

$\triangle E^*$：The total color difference

$\triangle L+$ Whitish， $\triangle L-$ Blackish

$\triangle a+$ Reddish，$\triangle a-$ Greenish

$\triangle b+$ Yellow， $\triangle b-$ Bluish