



Laboratory Equipment Manufacturer
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INSTRUCTION MANUAL FOR

CLRC-115

Color Comparison Cabinet



PLEASE READ THIS MANUAL CAREFULLY BEFORE OPERATION

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COLOUR COMPARISION CABINET

CLRC-115 Color Comparison cabinet are designed in accordanc with ASTM D1729, and liights standared of C.I.E the cabinet are intended for use by industry work shops, manufacturers, processors and inspectors, in short for any one involved with colour and colour maching on products, incorrect fomulation can be avoided.

APLICATION

- Paintm ink, pigment manufacturer and processor's and painting's colour matching.
- Plastic, rubber, textile and leather goods colour matching.
- Cars/Vehicles and machinerys finish colour matching.
- Cosmetic, food, chemical, medicine and papers industries colour assessment.

LAMPS OF LIGHT SOURCE

D65	Artificial daylight	6500°K
A	Standard filament light A	2300°-2800°K
CWF	Cool white floroscent light	4000°K
UV	Ultraviolet light	360nm wave length

REMARK: To ensure colour lamps should be changed every 2000 hours.

TECHNICAL DATA

Lams	D25 x 2, A x 2, CWF x 2, UV x 1
Outside dimension	710 x 460 x 580mm (LxDxH)
Inside dimension	680 x 420 x 405mm (LxDxH)
Housing	Steel case with paint finishing
Counter	9999/H
Power supply	AC 110V / AC220V. 60Hz / 50Hz
Weight	Net weight 32Kgs

(1) Lamp of Light Source And Application

Lamp And Model	Colour Of Key	Light Source	Application
D65 GE F20T12D	GREEN	Artificial Daylight	Artificial daylight, similar to international standards D65 (Ra94) for use in colour assessment.
CWF GE F20WT12CW	WHITE	Cool White	Normal illumination, as office, house lighting for reference in colour assessment.
A 10W or 60W	ORANGE	Standard Filament Light	According to Bs950 or ASTM D1729 used in checking different spectrum, or actual filament source.
UV FL20SBLB	PURPLE	Flourescent Light	Provide with ultraviolet light for checking flourescent articles.

(2) Application

An important factor in color measurement is the METAMERIC effect.

Two colours lit with light of a particular kind such as:

Standard Daylight C appear to be the same

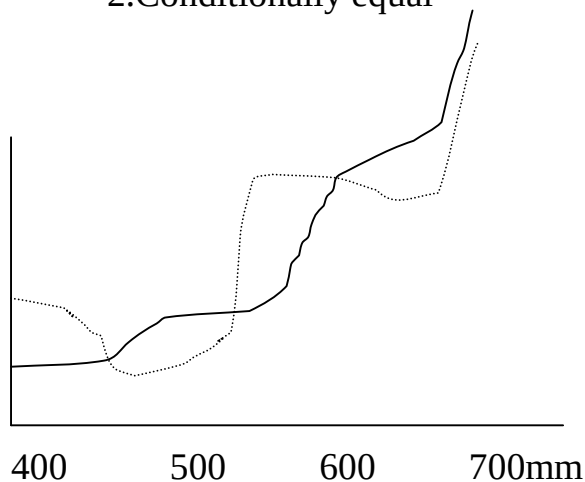
(and have the same identifying numbers of the colour)

Now,if the two specimens are illuminated by difference light source for example with Standard light A, we may have two following possibilities:

1. The colour again appear to be the same and are described as:
“ unconditionally equal” colours
2. The two colours now look different and give different mensurling results,these colours would be described as:
“ Conditionally equal” colours or as metameric colours

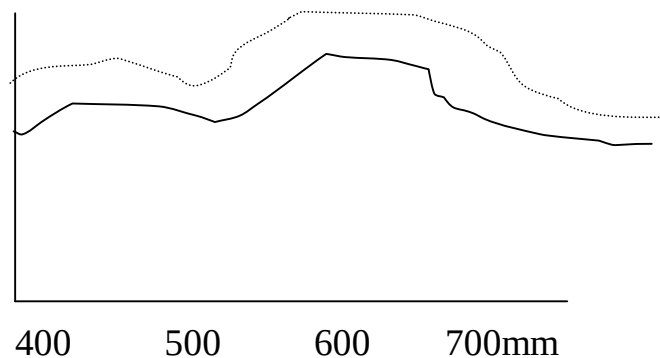
Please see the following two Figures:

2. Conditionally equal



Conditionally equal cocolours
(same colour but different spectral)

1. Unconditionally equal



Unconditionally equal colours

So, we can describe the above two possibilities based on following two Different terms of Colour matching:

1. Isomeric matching

It mean the three colour stimulus and the spectral reflection curves are all the same.

2. Metamesic matching

It means the two colours to be look as same under specific terms (usuall Should be under the same illumination light) under this condition, the Spectral reflection curves are still different.