

# IGT Lighting Cabinet

## For visual colour appraisal



The IGT Printability Testers produce colour strips, which are used for colour comparison and appraisal. To judge the colour strips visually the use of a lighting cabinet is recommended to diminish any influences from the surrounding area. For the visual judgement of the printed colour strips the lighting cabinet is a basic tool for safe and more consistent visual colour control. Communication will be easier and the risk of misunderstanding decreases considerably. Metamerism is easily detected when using the different light sources provided as standard.

### **Daylight and artificial daylight**

Most judgements of colour are performed in daylight. Unfortunately daylight is never constant. It varies depending on place and time, e.g. morning or evening; when the sun is low the daylight is redder than in the middle of the day. With these big variations in natural daylight and also with the demands to make judgements during the night a standardised method of artificial daylight is essential.

The lighting cabinets use artificial daylight with a temperature of 6500K (with alternative 5000K or 7500K). The cabinet also has a time counter for the daylight tubes so that when the output temperature changes after approximately 1300 working hours, an indicator is activated, warning that the tubes should be changed.

### **Metamerism**

Metamerism exists when the product being evaluated matches the standard in one light source but not in a different one. An example is when a panel on a car has been repainted after damage and is the same shade as the rest of the car in daylight, but at night under street lighting there is an obvious difference. Different pigments being used between the original paint and the automotive refinishing paint cause this difference. The lighting cabinet is supplied with tungsten lamps (temperature 2850K) and high efficiency tubes TL-84 (common in locations such as shops) in addition to the daylight tubes, so that this problem of Metamerism may be identified and therefore controlled.

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### **Ultra Violet Light**

By using ultra violet light or "black lamps", it is possible to study and compare the effect of different levels or different manufactures of optical brightening agents (OBA's) used on white textiles and in most detergents, which have the effect of making goods appear whiter.

### **Coloured Surroundings**

One problem with critical and accurate assessments and control of colours is the effect of coloured surroundings. The recommended environment is a neutral grey, but in many cases judgements are made in a room where the light is also reflected off curtains and walls of strong colour. Our lighting cabinets are painted internally with a matt neutral grey (NCS S 2500-N). For small samples there is a sample holder available for viewing at 45°, and painted in the same neutral grey. If you are judging samples with high gloss it's recommended to use our special glass as diffuser too.

### **Light sources:**

D: Daylight 6500K (alt 5000K or 7500K)  
A: Incandescent lamp 2850K  
X: Other fluorescent tubes TL84 (if no other specified) UV  
UV: Ultra Violet Light (black light)

Power Supply: 230V, 50Hz, 1A

Colour: neutral grey inside and outside, NCS S 2500-N

Model: MINISPECTRA  
Length: 500/505 mm (in-/external)  
Depth: 360/365 mm (in-/external)  
Height: 300/400 mm (in-/external)  
Weight: 15 kg