Colour Assessment Cabinets (CAC)
颜 色 评 审 灯 箱

VeriVide CAC range creates the perfect alternative to natural daylight. With the use of nine phosphors and calculated to the CIE 51 standard, this cabinet produces the **best fluorescent D65 daylight simulator** (VeriVide) with the highest Colour Rendering Index (CRI) available to the colour viewing world. The CAC range has been developed for the visual assessment of colour in accordance with British Standards (BS950: Part 1 & Part 2) or American Standard (ASTM D1729) or International Standards (ISO 3664), etc...

VeriVide CAC 系列产品产生的光照效果是天然日光的完美替代。它使用了 9 种萤光剂，严格遵循国际照明学会 CIE 51 标准，VeriVide D65 是最佳的萤光灯光源日光仿真器，拥有最高的显色指数(CRI)，是颜色观察领域的首选设备。 颜色评审灯箱 CAC 系列可最佳用于 根据英国标准 (BS950：第 1 部分及第 2 部分) 或 美国标准 (ASTM D1729) 或 国际标准 (ISO 3664) 等 对颜色进行目视辨析。

The CAC range are suitable for all industries and applications where there is a need to maintain colour consistency and product quality, e.g. Textiles, Automotives, Ceramics, Cosmetics, Dyeing, Food, Footwear, Furniture, Inks, Knitwear, Leather, Ophthalmic, Packaging, Printing and much more.

适用于所有需要保持稳定产品颜色及质量的行业，例如 :纺织、汽车、陶瓷、化妆品、染色、食品、鞋类、油墨、针织品、包装和印刷等。

CAC60

(European Market 欧标)

CAC60-5 (N7)

(mainly for US Market 美标)

CAC Portable 手提式

CAC120-5 & CAC150 加长型

Our CAC Cabinets offer a maximum choice of up to 4 or 5 light sources, from a selection of the CIE illuminants, Point of Sale illuminants and Ultra-Violet. With multiple light sources it enables you to detect metamerism, where a colour seems to match under one light source but is clearly different under another.

我们的颜色评审灯箱 CAC 最多可选配 4 组或 5 组光源，包括国际照明学会(CIE)认可光源、商店光源 或 紫外线光源。使用几种光源配合，可发现同色异谱的测试，在哪颜色在一种光源下似乎匹配，但在另一种光源下明显不匹配现象。

CAC60 欧标灯箱

● **Specifications 规格:**

Model 型号	Interior Colour 内壁颜色	No. of Light Sources 光源数量	Light Sources Code 光源选择代码	Most importantly client approved 认可零售商 或 测试权威专家
CAC60-5(N7)	Munsell N7	5	D65, CWF, A (Inc-A), H (HOR), UV (Option : Lamps U30, D75)	GAP、JCP、NIKE、SEARS、等
CAC60 或 CAC150	Grey 5574	4	D65, TL84/P15, F, UV (Option : Lamps TL83)	ARCADIA、Bhs、DEBENHAMS、H&M、M&S、NEXT、等 或 测试权威专家 BV、INTERTEK、SGS、STR、等
CAC120-5	Grey 5574	5	D65, TL84, CWF, F, UV	Adidas-Solomon、等
CAC Portable	Grey 5574	5	D65, TL84, CWF, F, UV	

● **InteriorColour 内墙颜色:**

All cabinets are normally supplied with the interior coloured neutral matt Grey 5574 or Munsell N7.

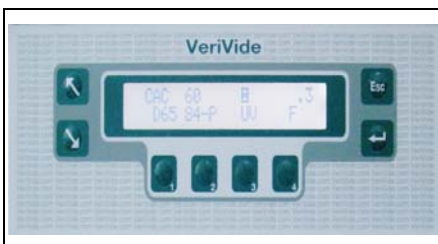为了最优化视觉条件的一致性，CAC 系列采用了精选的内墙颜色 Grey 5574 or Munsell N7。

Interior Colour 内墙颜色	Lightness (L) 光亮度	Chroma (C) 色度	Application 应用
Grey 5574 (=14.40D)	48 +/- 2	〈 2.0	European Market 欧标
Munsell N7	70 +/- 2	〈 1.0	US Market 美标

CAC60-5(N7) 美标灯箱

● **VeriVide Control Panel gives the user access to a variety of 8 advanced features :**

最新『数码显示控制平台』提供 8 大功能

- Warm up 暖机功能
- Data storage 资料功能
- Auto sequence 自动排序功能
- Power Save 省电功能
- Switch Interlocking 键盘锁功能
- Lamp setting 更改灯光型式功能
- Lamp service 灯光维修功能
- servicing indicator 维修提醒功能

● **Please select the Voltage your require for your cabinet by specifying on the order (eg : 220V or 110V).**

订购时请提供电压(如: 220V or 110V)

●Lamp Options 光源燈的選擇 :

	Lamp Code 光源代碼	Lamp Description 燈的應用	*CRI 顯色 指數	*Kelvin (K) 色溫光值	Lamps of Brand 燈管牌子	Made in 製造地方
CIE Daylight Illuminants 國際照明學會(CIE)認可"日光"光源	D65	VeriVide D65 "Artificial Daylight". Within the tolerances prescribed in BS 950 : Part 1 Illuminant for colour matching appraisal. Specified for most applications where there is a need to maintain colour consistency and quality. Conforming highly to the CIE specifications, for accurate colour matching. VeriVide D65 "人工日光燈"。符合BS950：第1部分規定的公差範圍內。是客戶常用對色、配色及評審顏色"日光"光源。此光源確保顏色一致性和質量的標準光源。完全符合國際照明學會CIE指標，可進行準確的顏色比對。	98	6500K	VeriVide	EEC
	D75	VeriVide D75 "Artificial Daylight". Conforming to the ASTM (American Society for Testing and Materials) D1729-82 standard for D75 Illuminant. With high CIE specifications, for accurate color matching. VeriVide D75 "人工日光燈"。遵照ASTM (美國測試和材料協會) D1729-82標準對照明的要求D75光源。高CIE指標，可進行準確的顏色比對。	96	7500K	VeriVide	EEC
	D50	D50 "Artificial Daylight". For the Graphic Technology and Photography industries. Conforming to the BS 950 : Part 2 and ISO 3664. Recommended for transmitted light source to view transparencies and for the reflected light source to view reproductions. D50 "人工日光燈"。用於圖文技術和攝影行業。符合BS950：第2部分和ISO 3664標準。建議用作查看透射原稿的透射光源和觀察複製品的反射光源。	98	5000K	Philips	Holland
CIE Illuminants 'A' 國際照明學會(CIE)認可光源 'A'	F	Tungsten FILAMENT Lighting. Required by BS950 : Part 1 (1967) as a test for metamerism (approxiamating CIE Illuminant "A"). Typical light source used within domestic environments. Used to check for colour flaring. This is particularly important for those containing red and yellowing colouring matters. 鎢絲燈泡。符合BS950：第1部分(1967)要求作為對同色異譜的測試 (與CIE光源 "A"相似)。用於歐洲客戶家庭環境的典型室內光源及射燈。對於含有紅色和黃色染料的材料尤為重要。	100	2300K to 2800K	GE	Hungary
	A	Tungsten HALOGEN Lighting (CIE Illuminant "A"). This represents incandescent A (Inc-A). Typical light source used within domestic environments. Used to check for colour flaring. This light source is only available in the Model CAC60-N7. 鹵鎢燈 (CIE光源 "A")，即白熾燈A (Inc-A)。用於美國客戶家庭環境的典型室內光源及射燈。此光源只提供在型號CAC60 -N7。	98	2856K		
Alternative (fluorescent) lighting 其它(螢光)光源	TL84	Narrow Band Triphosphor Fluorescent Lamps. CIE Illuminant F11. Often chosen as a European "Point of Sale" Illuminant, with good colour rendering 窄帶三磷螢光燈 CIE 光源 F11。通常是歐洲客戶指定用"商店"光源，可完美顯色。	85	4000K	Philips	Poland
	TL84 / P15	As above (TL84), but manufactured to a tighter tolerance WITHIN 15% (Marks & Spencer specification). 同上(TL84)，但公差較小，百分比15%是 (Marks & Spencer 指定規格)。	85	4000K	Philips	Poland
	CWF	Cool White Broad Band Fluorescent Lamps. Used as an American "Point of Sale" Illuminant. Moderate colour rendering. 冷白寬帶螢光燈。通常是美國客戶指定用"商店"光源，中度顯色。	62	4150K	Sylvania	Germany
	U30	Ultralume Narrow Band Triphosphor Flourescent Lamp. An American "Point of Sales" Illuminant, with good colour rendering. Ultralume窄帶三磷螢光燈。是美國部客戶指定用"商店"光源，有良好的顯色特性。	85	3000K	Philips	USA
	TL83	Narrow Band Triphosphor Flourescent Lamp. Often chosen as a European "Point of Sales" Illuminant, with good colour rendering. 窄帶三磷螢光燈。是歐洲部客戶指定用"商店"光源，有良好的顯色特性。	85	3000K	Philips	Holland
Horizon 水平光源	H	Horizon Lighting. Used for Automotive, Apparel and Metamerism Testing. As specified by the ASTM (American Society for Testing and Merials) D1729-74, Standard Practise for Visual Evaluation of colour Differences of Opaque Materials. This light source is only available in the Model CAC60-N7. Horizon 水平燈。用於汽車、服裝和同色異譜的測試，採用ASTM (美國測試和材料協會) D1729-74 標準，是對不透明材料色差目視評定的標準作法，此光源只提供在型號CAC60 -N7。	98	2300K		
Ultra-Violet 紫外綫	UV	Ultra-Violet Blacklight. Used to detect the presence of Optical Brightening Agents and/or Fluorescent dyes. Therefore it is useful when assessing white and Fluorescent shades to check the level present and its evenness. 紫外綫黑光燈。用於檢測是否有螢光增白劑和 / 或螢光染料的存在。因而可用於評定白色和螢光色以檢查其程度和均匀性。	--	--	Sylvania	Japan

To pick light sources in line with your needs, there are two factors to be taken into consideration 在了解光源時，需要考慮兩個因素：

*(1) Colour Temperature articulated in Kelvin (K) 表示色溫光值(K) :-

This refers to the colour appearance of a light source, which varies along with its spectral power distribution. Fluorescent lamps with lower colour temperatures look red; with higher colour temperatures look blue.
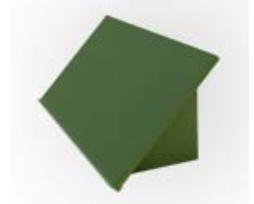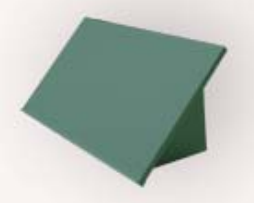
指光源的顏色外觀，隨光譜能量分布而改變，較低色溫的螢光燈為紅色 或 較高色溫的螢光燈為藍色。

*(2) Colour Rendering Index (CRI) is a numerical system 顯色指數 (CRI) 是一套數字系統 :-

The CRI is measured on an index from 0 - 100, with 100 representing an exact match, whilst low values indicate poor colour rendering.

從 0 至 100等級，100 表示顯色更準確完美對色，確保顏色一致性和質量的標準，低數值表示顯色不佳。

		Model 型号	Size 尺寸	Width 宽度	Height 高度	Depth 深度	Weight 包装重量
Cabinet Dimensions (mm) 灯箱尺寸 (mm)		CAC60-5 (N7)	Overall 灯箱尺寸：	710	545	420	35kg
			Viewing Cavity 观测尺寸：	680	335	380	
			Carton Size 纸箱尺寸：	780	330	480	
		CAC60	Overall 灯箱尺寸：	710	545	420	25kg
			Viewing Cavity 观测尺寸：	680	335	380	
			Carton Size 纸箱尺寸：	780	330	480	
		CAC150	Overall 灯箱尺寸：	1560	755	620	70kg
			Viewing Cavity 观测尺寸：	1530	545	590	
			Carton Size 纸箱尺寸：	1640	280	680	
		CAC120-5	Overall 灯箱尺寸：	1290	755	740	65kg
			Viewing Cavity 观测尺寸：	1260	545	710	
			Carton Size 纸箱尺寸：	1640	280	680	
		CAC Portable	Overall 灯箱尺寸：	670	415	315	14kg
			Viewing Cavity 观测尺寸：	630	275	280	
			Carton Size 纸箱尺寸：	750	260	440	

●**Other Optional Items 其它选择项目:**

i	**Fixed Angle Table of Grey 5574 观察斜台--欧标**
	A 45° Fixed Angle Table with Grey 5574, creating standardized viewing geometry, for example when carrying out colour fastness assessments. Size of 24" Long x 9" High. (Marks & Spencer specification).
	设计角度为 45°颜色为欧标 Grey 5574，标准化的观察条件。例如在进行色牢度评定时使用，尺寸是 24 寸宽 x 9 寸高。是 (玛莎百货指定规格)。
ii	**Fixed Angle Table of Munsell N7 观察斜台--美标**
	A 45° Fixed Angle Table with Munsell N7, creating standardized viewing geometry, for example when carrying out colour fastness assessments. Size of 24" Long x 9" High
	设计角度为 45°颜色为美标 Munsell N7，标准化的观察条件。例如在进行色牢度评定时使用，尺寸是 24 寸宽 x 9 寸高。
iii	**Maintenance Pack for Re-painted Cabinet 围板翻新工具及油漆一套**
	Enables the white reflector to be cleaned and polished, the grey interior walls to be prepared and repainted, providing a complete service form one disposable pack. The pack includes protective gloves, paint roller, paint tray, paint brush, protective apron, cleaning/polishing cloth, anti-static cleaning wipes, abrasive paper and 0.5 litre Matt paint for Grey 5574 or Munsell N7.
	可清除及擦拭旧围板表面颜色，准备并重新给灰色内壁刷漆，全部翻新工作均可通过一次性完成，工具包括：保护手套、漆滚、漆盘、漆刷、保护围裙、清洁/擦拭布、两块抗静电清洁布、砂纸和 0.5 升哑光油漆 Grey 5574 or Munsell N7。
iv	**A set of Board for VeriVide Cabinet** 颜色评审灯箱围板更新一套

<u>**Remark**注意:</u>

i) Lamps must be changed after 1000 hours for **Marks & Spencer** or 2000 hour for clients. These measures will ensure comfortable and accurate colour appraisal.

如是玛莎百货 M&S 的供货商对色灯管使用 1000 小时后必须要更换，其它客户通常使用 2000 小时后也要更换,确保对色效果的一致性。

ii) For the best results, glare, extraneous lights and anything, which will maladapt the visual response must be avoided. Any windows near the cabinet should be fitted with grey blinds. No direct light should be in the field of view and the wall behind the cabinet should be finished in light grey emulsion.

在使用对色灯箱时，为了使对色结果更加准确，必须尽量避免外界光线以及视觉干扰，观察区域不能有外界的直射光线，灯箱后面的墙壁也要涂上灰色乳胶漆。