

VeriVide - Lamp Options



The colour requirements within Manufacturing and Retail are both complex and globally diverse. To control product colour it is often necessary to use more than one light source, for example 'Artificial Daylight' and a 'Point of Sale' Light. Multiple light sources are also necessary to allow colour inconsistencies such as metamerism* to be detected.

* Metamerism: "When a pair of samples which match under one set of viewing conditions no longer match when one of the viewing conditions is changed."

The Society of Dyers & Colourists

It is critical, especially for commercial use, to ensure components are assessed under same illuminants, using defined procedures, in a controlled viewing environment, by everyone in the supply chain. This will ensure colour assessment that is standardised and repeatable.

For consistency, the source of light must be controllable and constant and two factors need to be taken into consideration:

1. COLOUR TEMPERATURE - expressed in Kelvin. (K)

Colour temperature describes the colour appearance of the lamp itself and the light it emits and can vary along with its spectral power distribution.

"Correlated" colour temperature applies to fluorescent lamps and approximates the true colour temperature.

- Lamps with lower colour temperatures appear warmer i.e. red/orange and typical examples would be illuminant A and 830.
- By comparison, lamps with a higher colour temperature look bluer, and examples would include the VeriVide D65 and D75.

2. COLOUR RENDERING INDEX (CRI)

A numerical system that measures how well colours are rendered by a lamp in comparison to a reference light source. The CRI is measured on an index from 0 - 100, with 100 representing an exact match, whilst low values indicate poor colour rendering.

- Hence a lamp rated with a CRI of 98 such as the VeriVide D65 will show colours more accurately than a lamp with a CRI rating of 62 such as the CWF.

This rating method is recognised by the Illuminating Engineering Society (IES) and the Commission International de L'Eclairage (CIE).

RETAILER SPECIFICATIONS

Please note individual retailers have differing specifications for the lamps and paint used in the Colour Assessment Cabinets, for more details please refer to our website and click on 'Retailer Specifications'.

Our full list of available lamp options are detailed below.

CIE DAYLIGHT ILLUMINANTS

Light Source	Name	Description	C.R.I.	Length	Watts	Diam	Product Code
D75	VeriVide D75 "Artificial Daylight"	Correlated colour temperature 7500K. Conforming to the USA ASTM (American Society for Testing and Materials) D1729-82 standard for D75 Illuminant. With high CIE specifications, for accurate colour matching.	96	600mm	20w	T12	600D75
D65	VeriVide D65 "Artificial Daylight"	VeriVide D65 "Artificial Daylight". Correlated colour temperature 6500K. Within the tolerances prescribed in BS 950: Part 1; and all international specifications for D65 illuminant. 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.	98	600mm 1200mm 1500mm	18w 36w 58w	T8 T8 T8	600D65 1200D65 1500D65
D50	Osram Color Proof D50 "Artificial Daylight"	Correlated colour temperature of 5000K. For the Graphic Technology and Photography industries. D50 lamps conform to BS 950: Part 2 and ISO 3664. Recommended for transmitted light source to view transparencies and for the reflected light source to view reproductions.	98	600mm 1200mm 1500mm	18w 36w 58w	T8 T8 T8	60095 120095 150095

CIE ILLUMINANT 'A'

Light Source	Name	Description	C.R.I.	Length	Watts	Diam	Product Code
'F'	Tungsten Filament	Tungsten Filament Lighting. Approximate colour temperature of 2800K. Required by BS 950: Part 1 as a test for metamerism (approximating CIE Illuminant 'A'). Typical light source used within domestic environments.	100	Globe Globe Clear-284mm Opal-284mm	40w 60w 60w 60w	45mm 45mm - -	40G450 60G450 28460CL 28460OP
'A'	Tungsten Halogen	Tungsten Halogen Lighting (CIE Illuminant 'A'). This represents incandescent A (inc-A) with a colour temperature of 2856K. Typical light source used within domestic environments. Used to check for metamerism.	100	-	35w	-	HALO/12V /35WLP



ALTERNATIVE (FLUORESCENT) LIGHTING / POINT OF SALE

Light Source	Name	Description	C.R.I.	Length	Watts	Diam	Product Code
840 P15	VeriVide 840 P15	Narrow Band Triphosphor Fluorescent Lamps. Correlated colour temperature of 4000K. CIE Illuminant F11. Often chosen as a European "Point of Sale" light source, with good colour rendering and manufactured to a tighter tolerance specification as prescribed by Marks & Spencer. (Formerly TL84P15)	85	600mm 1200mm 1500mm	18w 36w 58w	T8 T8 T8	60084P15 120084P15 150084P15
CWF	Cool White	Cool White Broad Band Fluorescent Lamps. Correlated colour temperature of 4000K. Used as an American "Point of Sale" light source. Moderate colour rendering.	62	600mm 1200mm 1500mm	20w 40w 65/80w	T12 T12 T12	60033 120033 150033
U35	Ultralume 35	Ultralume Narrow Band Triphosphor Fluorescent Lamp. Correlated colour temperature 3500K. An American "Point of Sale" light source, with good colour rendering.	85	600mm 1200mm	17w 32w	T8 T8	600U35 1200U35
830		Narrow Band Triphosphor Fluorescent Lamp. Correlated colour temperature 3000K. Often chosen as a European "Point of Sale" light source with good colour rendering. (Formerly TL83)	85	600mm 1200mm 1500mm	18w 36w 58w	T8 T8 T8	60083 120083 150083

HORIZON

Light Source	Name	Description	C.R.I.	Length	Watts	Diam	Product Code
'H'	Tungsten Halogen	Colour temperature 2300K. Used for Automotive, Apparel and Metamerism Testing. As specified by the ASTM (American Society for testing and Materials) D1729-74, Standard Practise for Visual Evaluation of Colour Differences of Opaque Materials	98	-	75w	-	HALO/12V /75W

ULTRA VIOLET

Light Source	Name	Description	C.R.I.	Length	Watts	Diam	Product Code
UV	Ultra Violet	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.	N/A	Clear 450mm Blacklight 600mm	15w 18w	T8 T8	450UV15 600UV18

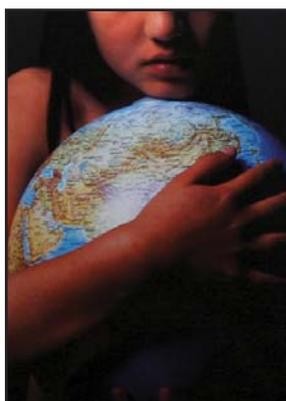
If you need further information regarding our range of replacement lamps for our cabinets please contact us.

Examples showing the colour change under three different light sources

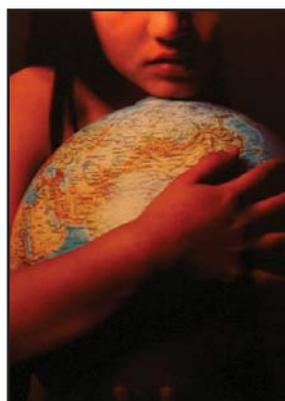
840 (TL84)



D50



Tungsten Filament



VeriVide
See in Truth

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