



FULL SPECTRUM FLUORESCENT COLORS

NATURAL LIGHT WITH A FRESH OUTDOOR FEELING

Similar to Natural Light



IMPROVES ATTITUDES

Colors Rendered Vividly and Accurately



INCREASES PRODUCTIVITY

Reduces Glare and Eyestrain



SAVES MONEY

FRESHWITE[®] XTRABRITE

• TONE: BRIGHT WHITE

- CRISP, WHITE LIGHT
- INCREASED SEEABILITY

- FWX8651
5100°K
86 C.R.I.
- FWX8550
5000°K
85 C.R.I.

VITALUX[™]

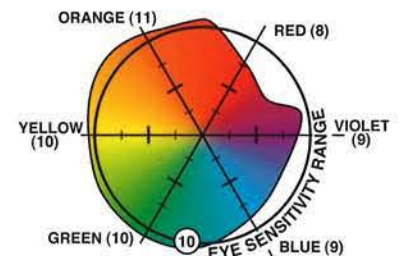
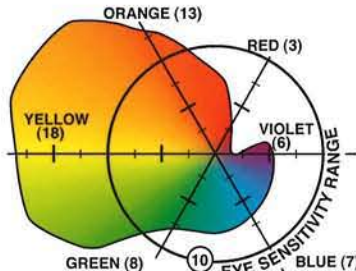
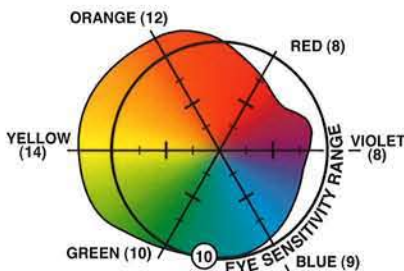
• TONE: BALANCED FULL SPECTRUM

- NATURAL SUNLIGHT ... WITHOUT GLARE
- VIVID, ACCURATE COLORS

- VL9156
5600°K
91 C.R.I.

FRESHWITE[®] is crisp white light which gives a natural feeling indoors, whites are whiter and colors more vivid. Improved color accuracy reduces glare and eye strain, and improves overall seeability. Ideal for offices, factories, retail operations or anywhere quality light is desired.

VITALUX[™] VL9156 is a balanced blend of the colors in a rainbow, closely simulating the sun's full color spectrum. It renders colors vividly and accurately. Glare and eyestrain are greatly reduced providing excellent seeability. Ideal for colorful retail operations, print shops, paint stores and anywhere high color accuracy is desired.



**FW XTRABRITE FWX8651
FRESHWITE[®] FW8251
CRISP WHITE
APPEARANCE**

**Spectra-COLWITE[™] CW6741
HEARTH-GLO[®] HG5430
EXCESS
YELLOW & ORANGE**

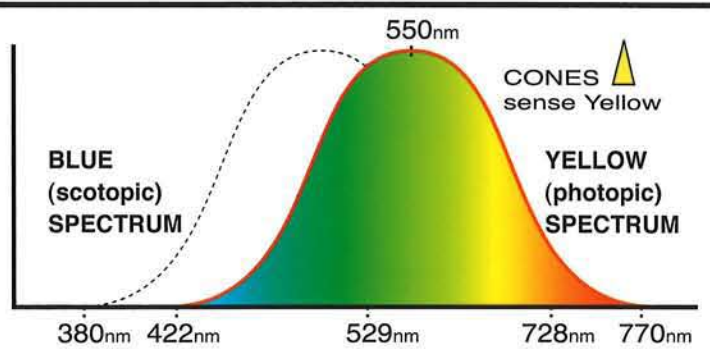
**VITALUX[™] VL9156
BEAUTIFUL
BALANCED COLORS**

LIGHT MEASUREMENT

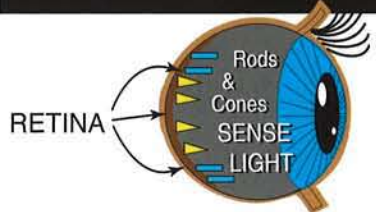
LIGHT METER



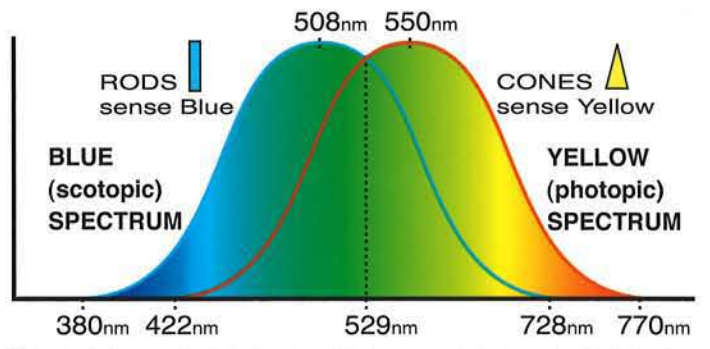
- Accurately measures light in the yellow part of the spectrum.
- Under measures light in the blue part of the spectrum.
- Measured in "Lumens".



HUMAN EYE



- Cones in eye see same spectrum as light meter (yellow).
- Rods and cones in eye see blue part of the spectrum.
- "Seeable Lumens"™* measures both blue and yellow spectrums.



* Method of measuring light developed by Lawrence Berkeley Labs, Berkeley CA.

SEEABLE LUMEN™ TABLES

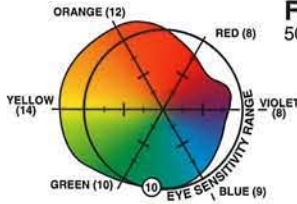
	COLOR	COLOR TEMP	CRI	PHOTOPIC LUMENS ▲	SEEABLE LUMENS™ ■ ▲	MAGNETIC BALLAST <i>Seeable Lumens™ per Watt</i>	ELECTRONIC BALLAST <i>Seeable Lumens™ per Watt</i>
T-12	T-12/EC					2 LAMP 74 WATT	2 LAMP 60 WATT
	CW6741/EC (CW)	4150°K	67	2650	3579	97 LPW	119 LPW
	HG5430/EC (WW)	3000°K	54	2650	2652	72 LPW	88 LPW
	T-12					2 LAMP 86 WATT	2 LAMP 72 WATT
	FWX8651 (FWX)	5100°K	86	3700	6050	140 LPW	168 LPW
	FW8251 (FW)	5100°K	82	2400	4024	94 LPW	112 LPW
	VL9156 (SL)	5600°K	91	2200	3982	93 LPW	111 LPW
T-8	T-8					2 LAMP 62 WATT (RS)	2 LAMP 58 WATT (IS)
	FWX8550 (FWX)	5000°K	85	3050	4866	157 LPW	168 LPW
	CW7541 (CW)	4100°K	75	3050	4336	140 LPW	150 LPW
	SR7535 (SR)	3500°K	75	3050	3810	123 LPW	131 LPW
	HG7530 (SR)	3000°K	75	3050	3562	115 LPW	123 LPW

FULL SPECTRUM

FRESHWITE® XTRABRITE 8651
5100°K, C.R.I. 86, TONE- BRIGHT WHITE

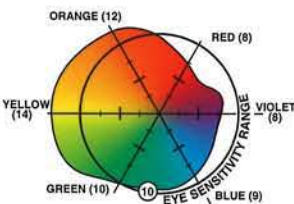
FRESHWITE® XTRABRITE 8550
5000°K, C.R.I. 85, TONE- BRIGHT WHITE

A crisp, white light which gives a natural feeling indoors. Improved color accuracy reduces glare and eyestrain while improving seeability and light levels. Ideal for offices, factories, retail operations or anywhere quality light is desired.



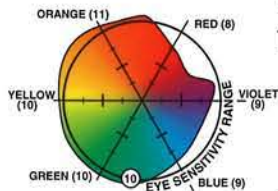
FRESHWITE® 8251
5100°K, C.R.I. 82, TONE- BRIGHT WHITE

A crisp, white light which gives a natural feeling indoors. Improved color accuracy reduces glare and eyestrain while improving seeability. Ideal for offices, factories, retail operations or anywhere quality light is desired.



VITALUX™ 9156
5600°K, C.R.I. 91
TONE- BALANCED FULL SPECTRUM

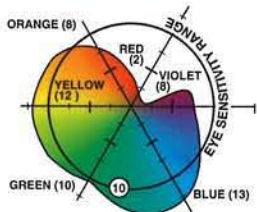
The colors of the rainbow are carefully blended together to simulate natural sunshine. It renders color accurately and vividly while reducing glare and eyestrain while improving seeability. Ideal for offices, factories, retail operations or anywhere quality light is desired.



BLUE TONES

Spectra -DAYLIGHT™ 8265
6500°K, C.R.I. 82, TONE- BLUISH WHITE

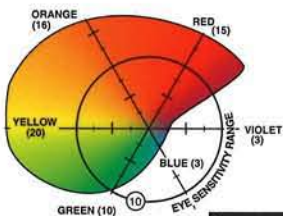
Provides a very cool bluish color similar to noon skylight. It has the tendency to strengthen greens and blues but tends to grey reds and oranges. After a long exposure to this light, the human eye may suffer from strain and fatigue due to the excess blue.



REFERENCE

INCANDESCENT

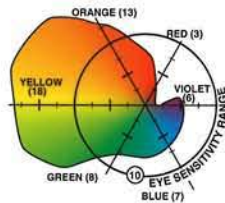
Incandescent lamps emit a color spectrum high in yellow, orange and red, while very deficient in violet, blue and green. They render earth tone colors, skin and wood tones in a most flattering manner. Matching green, blue and black objects under incandescent light is difficult due to its poor rendering ability.



YELLOW TONES

Spectra -COLWITE™ 6741
4150°K, C.R.I. 67, TONE- YELLOW WHITE

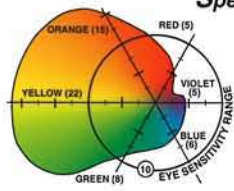
The most common fluorescent color in use today. Used for general illumination where high light output is more important than color quality. It tends to strengthen orange, yellow, and blue while it tends to grey reds. Eyestrain and glare may result with prolonged use. Common usages would be in hallways, warehouses, corridors and anywhere color quality is not important.



GOLDEN TONES

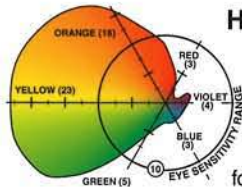
Spectra -SUNRISE® 7535
3500°K, C.R.I. 75, TONE- WARM

Creates a warm inviting atmosphere similar to warm white while providing improved color rendition. It enhances pinks, reds, skin and wood tones. Its deep, rich warm colors coupled with its improved color rendering make it an ideal source for furniture stores or anywhere a warm atmosphere and improved color rendition are desired.



HEARTH-GLO® 5430 (Warm White)
3000°K, C.R.I. 53.6, TONE- ORANGE WHITE

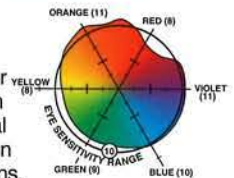
Creates a warm inviting atmosphere that draws and holds people. It enhances pinks, reds, skin and wood tones. It enriches wood colors making it ideal for furniture stores and its warm color makes it ideal for restaurants, lounges and certain offices.



SPECIALTY COLORS

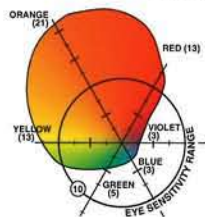
SPECTRA -75® 9575
7500°K, C.R.I. 95, TONE- BLUISH WHITE

The highest color rendition tube offered. Used wherever clarity in color is essential. Typical uses would be in color printing, textile mills, artwork, museums, and floral shops. Also possesses the unique ability to visually whiten yellowed objects, such as old bowling pins.



DISPLAY PINK
2800°K, C.R.I. 81, TONE- PINK

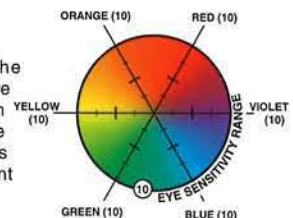
A blended soft pink light that enhances its surroundings with a subtle natural looking warmth. It compliments all warm colors and adds a glow to human skin tones. Display Pink is also used to highlight product display areas where an accent on red colors is desired.



REFERENCE

NATURAL SUNLIGHT

Natural Sunlight is shown here in the sunlight circle representing the light as we experience naturally. As can be seen in this representation, natural sunlight fills the eye's sensitivity range perfectly, and gives us a reference for examining fluorescent colors.



KELVIN TEMPERATURE °K

The temperature to which a standard black body must be heated to give off a particular color of light. Incandescent filaments follow this black body relationship of color temperature quite closely while other light sources (i.e. fluorescent) do not. A higher color temperature means more blue or white light, while a lower temperature is more pronounced in yellows and reds.

COLOR RENDERING INDEX CRI

A measure (percentage) of how closely an artificial light source approximates natural sunlight in bringing out colors. Expressed as a percentage, with sunlight at 100% and good light sources approaching this value.