LUMINUS
PerfectWhite™

MUSEUMS • HOSPITALITY • RETAIL

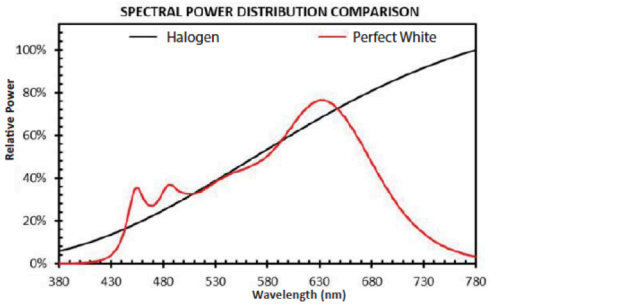
Luminus PerfectWhite COBs are the only LED solution that replicates the color and quality of light produced by halogen lamps without any harmful UV or violet emissions. Luminus' breakthrough innovation was to fill the 'cyan gap' in the spectrum – a step that's proved crucial to delivering near-perfect color rendering and a look and feel that's preferred to halogen. Gone are yellow tint that typifies light from halogen sources as is the perception that 'something just isn't right' when illuminated objects are viewed.

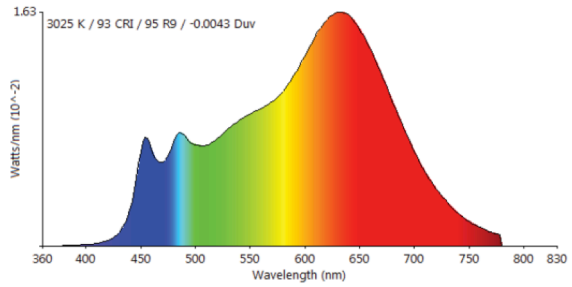
When compared to 3000K halogen illumination, lighting designers prefer PerfectWhite. Though the halogen and PerfectWhite spectrums are a virtual match, PerfectWhite's color point is slightly below the black body locus making it feel ever so slightly brighter than the typical halogen lamp. PerfectWhite is a full-spectrum source without the harmful near UV radiation that must be avoided in museum environments.

FEATURES & BENEFITS

- Power range from 5W MR16 to over 75W fixture.
- Lumen range from <500lm to over 3,500lm.
- Specified CCT and CRI.
- Beautiful pure white light with enhanced cyan color rendering.
- Exceptional long-term color stability.
- No harmful UV or violet emissions.
- Excellent optical emission uniformity and color over angle consistency.
- Uniform spectral response – no cyan dip – across the blue, green and into the red color spectrum.

Luminus Prefect White vs. Halogen





CCT	Ra	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15	GAI_{bb}
3000K	93	93	92	94	95	92	87	94	96	95	84	93	78	92	97	94	109

- True whites and extremely high contrast without the "yellowing" typical of halogen sources or the pink tint of sources below the black body locus.
- Fully qualified LM-80 test data and TM21lifetime results.

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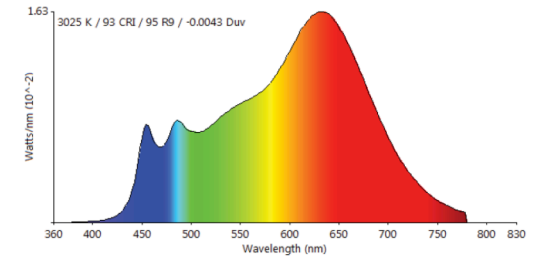
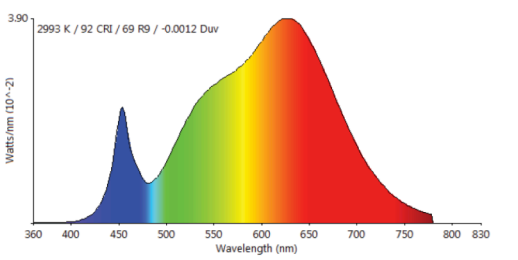
Luminus PerfectWhite spectra compared to standard 3000K 90CRI

Luminus 3000K Prefect White Color Parameters



Ra	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15	GAI_{BB}
93	93	92	94	95	92	87	94	96	95	84	93	78	92	97	94	109

Standard 3000K, 90 CRI Color Parameters



Ra	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15	GAI BB
92	93	95	93	92	92	91	94	87	69	84	91	75	93	95	92	104

PERFECTWHITE COB PORTFOLIO

Product Image	Product Family	Light Emitting Surface	Substrate Size	Typical Power	Flux @ 3000K, 90 CRI
	CXM-6	6.3 mm	13.5 mm * 13.5 mm	5.2 W	420 lm
	CXM-9	9.6 mm	13.5 mm * 13.5 mm	12.2 W	1,075 lm
	CXM-11	11.7 mm	19 mm * 19 mm	15.2 W	1,330 lm
	CXM-14	14.3 mm	19 mm * 19 mm	24.5 W	2,105 lm
	CXM-22	22 mm	28 mm * 28 mm	36.2 W	3,430 lm