ngl

next generation led

DYNAMIC COLOUR TUNABLE AR111

Properties

- Lifespan L70 %: > 25.000 hours
- Perfect dimming - standard Triac dimmers
- Intelligent dynamic colour tunable from **1950 to 2800 K**
- Approaches daylight spectrum
- Fast wiring driver system
- External driver included
- Flicker free to reduce the eyestrain
- Environment friendly : no mercury or toxic gasses
- Immediate start regardless of temperature or humidity
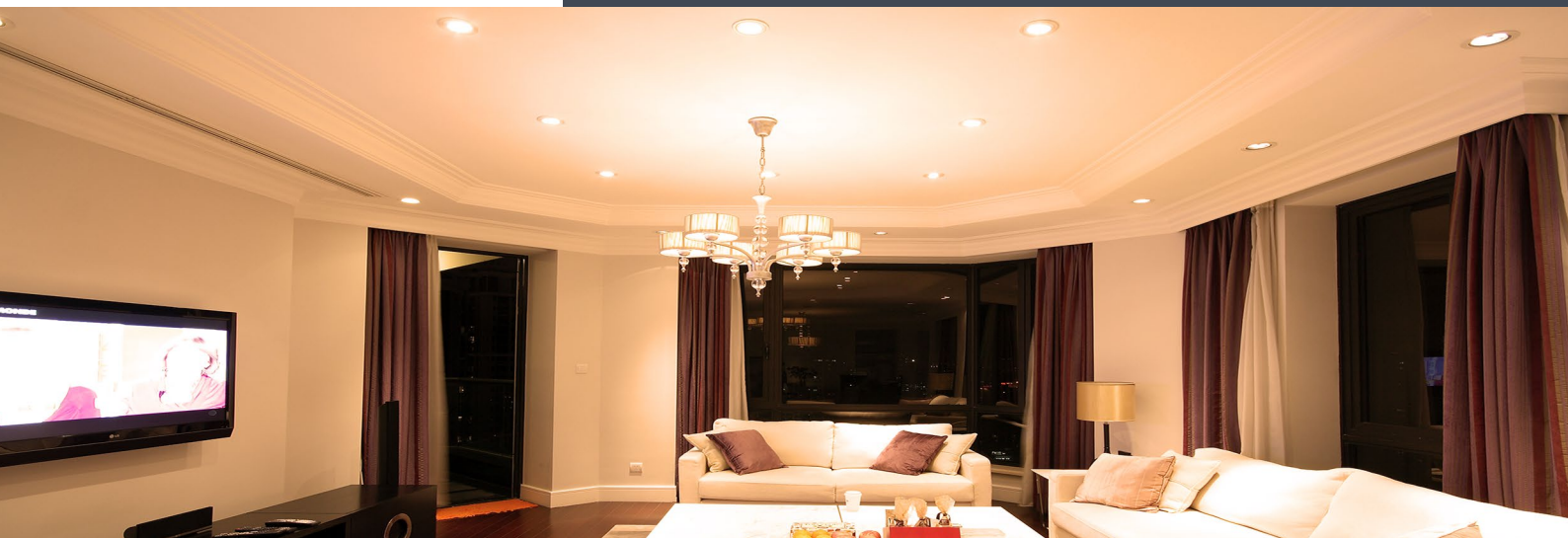- Equal light distribution and high uniformity
- Warranty: 3 years

Application

Offices, shops, showroom, exposition hall, meeting room, elevators, home applications …

CRI >88	Dynamic colour	Dimmable

Specifications

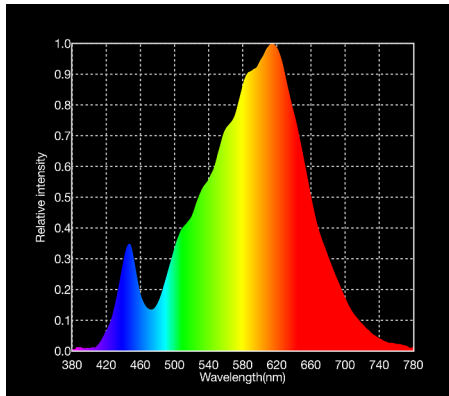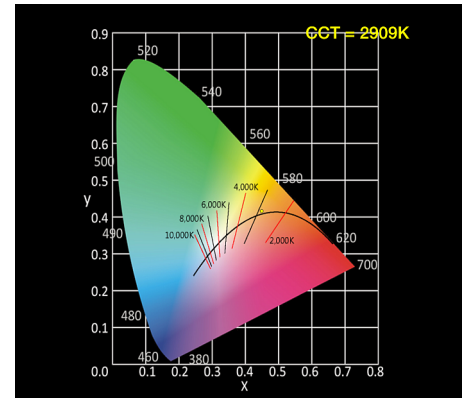| TUNABLE AR111	AR111 15	AR111 30
Power	15 W	
Luminous intensity	900 lm	
Beam Angle	15°	30°
Input voltage	180-240 V AC	
Color temperature	Dynamic colour changing 1950 - 2800 K	
Color rendering index	CRI > 88	
Size	111 mm x 41 mm	
Temperature in use	-20° C ~ + 50° C	

DEMO VIDEO

Updated: August 2017

CIE 1931

The CIE color space, developed in 1931, is still used to define colors, and as a reference for other color spaces. The figure is a two-dimensional display of colors of the same intensity (brightness), which is based on observations of color measurements by people.
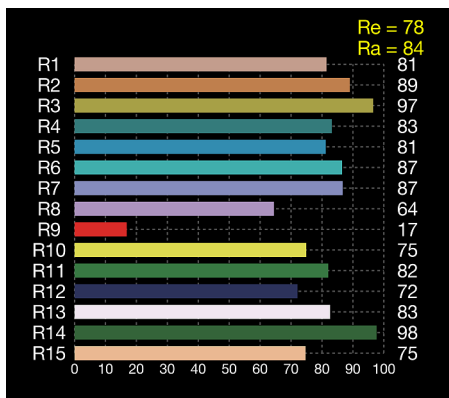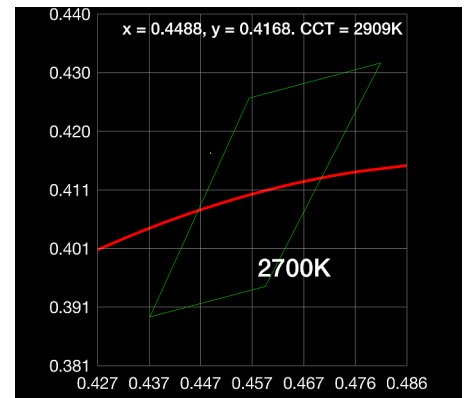

SPECTRUM

Isaac Newton used the Latin word spectrum to define the color series which arose when he dropped a bundle of sunlight through a glass prism. The color spectrum consists of the colors of the rainbow with the color sequence red-orange-yellow-green-blue-indigo-violet, which corresponds to bearish wave length (increasing frequency) of the light waves.

C78 377

ANSI C 78.377 is now the standard for color quality, as determined by the American National Standards Institute. ANSI recommends lamp manufacturers to stay within a 4-step ellipse. This means that manufacturers with a particular focus on the CIE diagram have a broad range of observable differences.

CRI HISTOGRAM

The color reproduction of a light source indicates whether the color of an object can be displayed true to nature. The graph shows whether we can accurately determine color, depending on the color rendering properties of the light source.
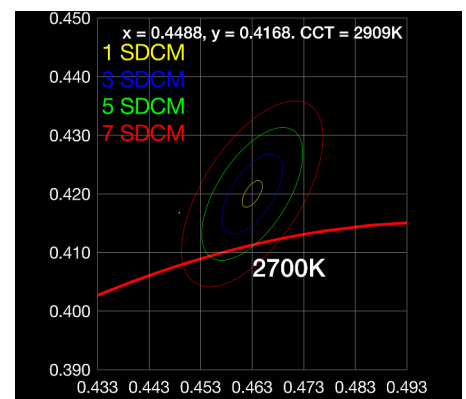Ra = average of R1 to R8
Re = average of R1 to R15
R9 = saturated red. Should be as high as possible.

SDCM

SDCM is an acronym which stands for Standard Deviation Colour Matching. SDCM has the same meaning as a "MacAdam ellipse". A 1-step MacAdam ellipse defines a zone in the CIE 1931 2 deg (xy) colour space within which the human eye cannot discern colour difference. Most LEDs are binned at the 4-7 step level, in other words you certainly can see colour differences in LEDs that are ostensibly the same colour.

SDCM	CCT @ 3000K	ΔUV
1x	±30K	±0.0007
2x	±60K	±0.0010
4x	±100K	±0.0020
7-8x	±175K	±0.0060

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REFERENCE	WATT	LUMEN	COLOR	BEAM ANGLE	DIMMABLE
100-0200	15 W	900 lm	1950-2800 K	15 °	Yes
100-0201	15 W	900 lm	1950-2800 K	30 °	Yes