next generation led

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HIGH BAY ACORN

Properties

- Lifespan L70 %: > 50.000 hr
- Energy savings up to 65%
- Excellent efficacy : 104 Lm per watt
- Wireless lighting control in option
- Excellent cooling system
- Cast aluminum body and polycarbonated cover (3.0T)
- No UV radiation, optimal uniformity and glare free
- Uplighting effect
- Ceiling bracket (pipe & chain)
- Warranty : 5 years

IP 65

Specifications

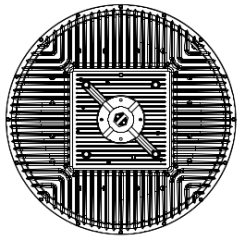
ACORN HIGH BAY	ACN180
Power	180 W
Luminous flux	18720 Lm
Input voltage	AC 100 - 277 V / 50/60Hz
Color rendering index	Ra >80
Color temperature	3000 K - 4000 K - 5000 K
Temperature in use	- 30°C ~ 50°C
Beam Angle	130 ° ~ uplighting 26%
Control	Wireless control in option
Size	dia 515 x 550 (pipe) or 463 (chain)
Weight	10 kg

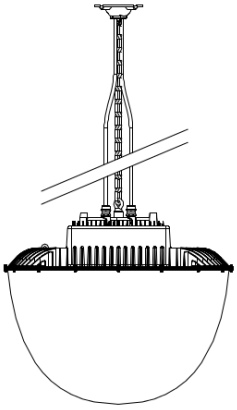
Application

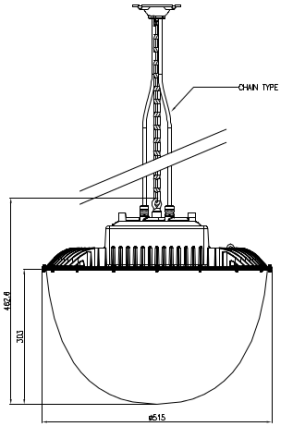
Showroom, auditorium, warehouse, factory, ...

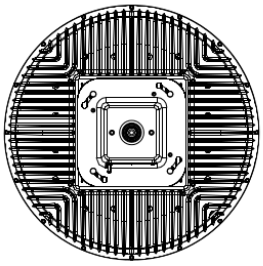
Updated: June 2017

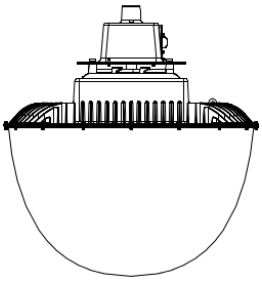
Specifications

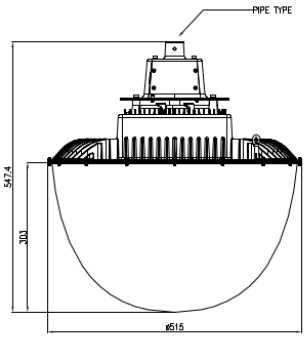












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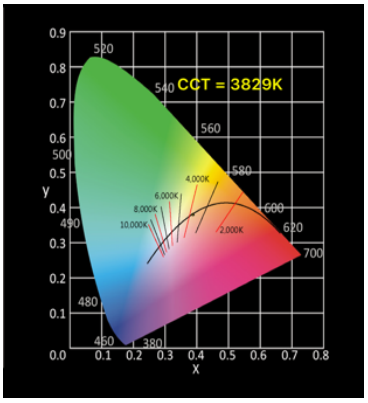
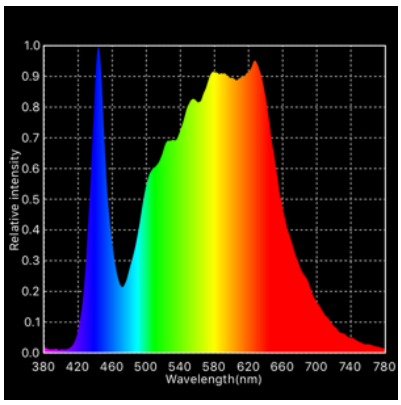
CIE 1931



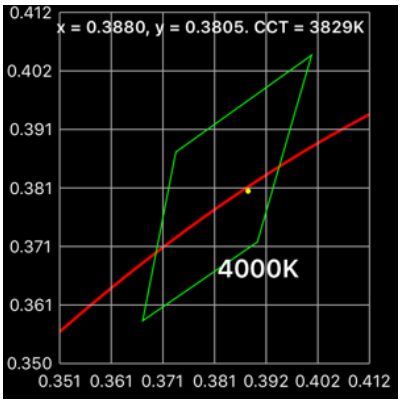
The CIE color space, developed in 1931, is still used to define colors, and as a reference for other color spaces. The figure is a two-dimensional display of colors of the same intensity (brightness), which is based on observations of color measurements by people.



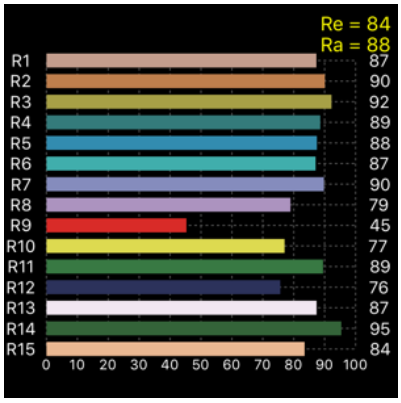
SPECTRUM

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



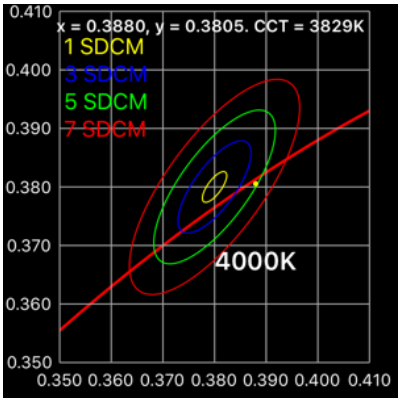
ANSI C 78.377 is now the standard for color quality, as determined by the American National Standards Institute. ANSI recommends lamp manufacturers to stay within a 4-step ellipse. This means that manufacturers with a particular focus on the CIE diagram have a broad range of observable differences.



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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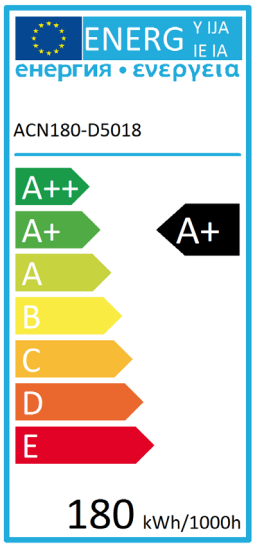
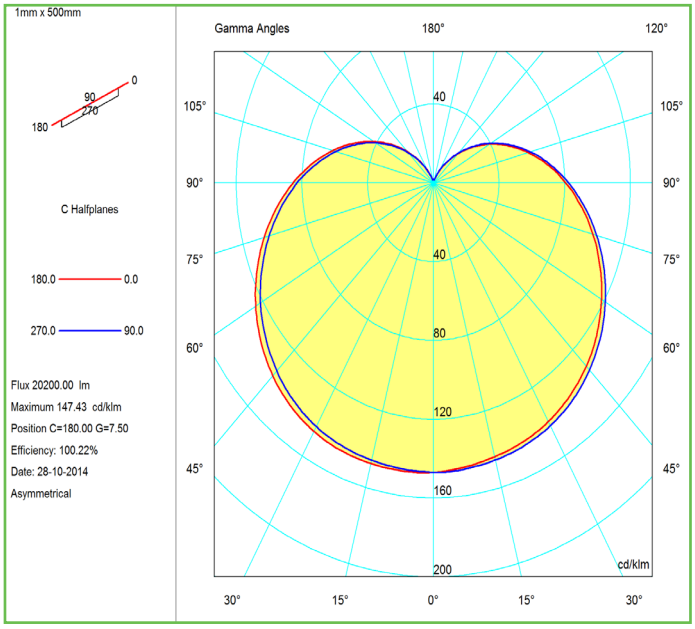
ENERGYLABEL

Electrical appliances carry an energy label. This label prints the so-called energy efficiency score in classes. These classes range from 'very energy efficient' (A++) to 'very waste of energy' (E).
A more expensive new device may eventually turn out to be cheaper if the energy score is good. IPEA is the new system for luminaire energy efficiency assessment.



POLAR DIAGRAM

The polar luminous intensity graph illustrates the distribution of luminous intensity, in candelas, for the transverse (solid line) and axial (dashed line) planes of the luminaire. The shown curve provides a visual guide to the type of distribution expected from the luminaire e.g. wide, narrow, direct, indirect... in addition to intensity.



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REFERENCE	WATT	LUMEN	COLOR	BUNDEL	WIFI
180-0325	180 W	18720 Lm	3000 K	180 °	Zigbee
180-0326	180 W	18720 Lm	4000 K	180 °	Zigbee
180-0327	180 W	18720 Lm	5000 K	180 °	Zigbee