

MAKE & KEEP 15 SOLAR RGB

Ideal lighting system, developed aiming for growing aquatic plants and viewing aquarium



SOLAR RGB

【Specification】 Lighting unit size: W43×D28×H6.4 (cm) / Lighting unit weight: 2.6 kg / Input voltage: AC 100～240 V (50Hz / 60Hz) / Power consumption: 130 W / Luminous flux: 3,000 to 3,500 lm / Illuminance: Around 21,000 Lx (30cm direct illuminance) / Color temperature: Approximately 9,000～12,000K (Due to the nature of LED, there are variations in color temperature) / Number of LED lights: 160 (RGB LED) / LED lifetime: Over 30,000 hours (depending on operating environment) / Operating temperature range: 0～35 °C /

From the initiation period to the present, the history of Nature Aquarium was also the history of lighting equipment used to cultivate aquatic plants. Starting from commercially available lighting equipment, you can see the name of the successive lighting fixtures in the aquascape data, when looking back at Nature Aquarium's works; Green Glow series equipped with NA Lamp, the world's first fluorescent lighting for growing aquatic plants, Solar I equipped with metal-halide lamps (NAMH-NAG), Solar II equipped with twin fluorescent lamps, and Grand SolarI with a metal halide lamp and a twin fluorescent lamp at the same time. The current Nature Aquarium lighting system is

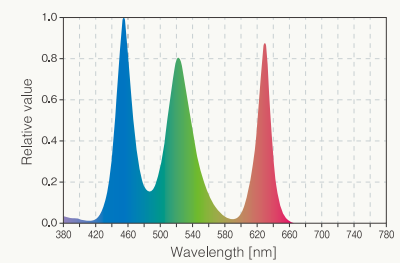
the Aqua Sky G series which adopted the white LED with enhanced green color spectrum and Solar RGB which adopted the special RGB LED. Solar RGB produces white light by mixing three colors of R (red), G (green), and B (blue) to emit at the same time, unlike lighting fixtures that adopt common white LEDs. Each output of R, G and B is adjusted to make the aquatic plants healthy and furthermore the green and red of the aquatic plants look vivid, so it is the ideal illumination system for the Nature Aquarium at the present moment. Even in ADA's NA Gallery, Solar RGB is now used in almost all aquariums with exception of some small aquariums.

Solar RGB performance and installation example

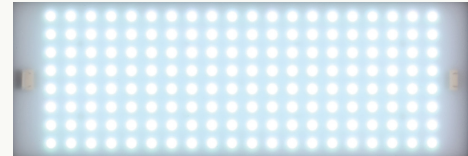
Solar RGB is a lighting system developed as a successor to Solar I and Grand Solar I (designed for a 60-90cm aquarium in one unit). In order to realize a layout with open feeling, the hanging type installation method has been handed over, and optional SOLAR RGB Stand is also available.



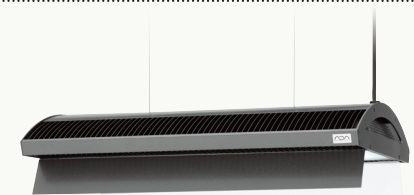
Installation example in a 60 cm aquarium.
The Solar RGB Stand is affixed to the side of the Wood Cabinet, and the lighting unit is suspended in a position about 30cm from the water surface.



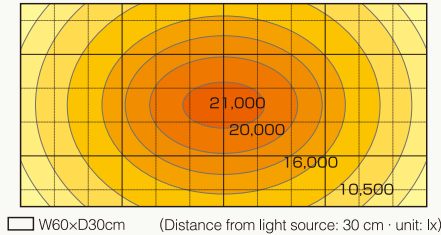
ADA realized ideal lighting for growing aquatic plants by adjusting the output of each color of RGB LED. The light of B (blue) is mainly used for the photosynthesis of aquatic plants, and it has the effect of emphasizing the transparency of water. The light of G (green) and R (red) look vivid, enabling more attractive appearance of planted aquarium.



The lighting unit is equipped with 160 RGB LEDs. By using a diffusing plate on the light emitting surface, light of R, G and B is mixed, and aquatic plants and fish are seen naturally when viewing the layout. In addition, the light moderately softens and the stemmed plants also grow healthy.



By attaching a special Shade (SOLAR RGB SHADE) to the lighting unit, light leakage to the front and back can be prevented and glare at the time of viewing is reduced. In addition, since the back side of the Shade is a reflection plate, there is also the effect that the direct illumination intensity becomes about 10% stronger by mounting.



When installing the Solar RGB lighting unit in a 60 cm aquarium 30 cm away from the water surface, it can be realized to have an illuminance of 20,000 Lx or more in direct illumination intensity and around 10,000 Lx in the periphery. This would be sufficient brightness for all the sun plants to grow healthy.