



Adriatic Arena

Pesaro, Italy

Adjustment and efficiency of lighting of the sports facility.



Finally, the Adriatic Arena in Pesaro offers an improved visual experience for players and spectators who now enjoy an outstanding light.

The operators of sports facilities have the objective to create structures that give life to visually fascinating experiences but which are simultaneously scalable and flexible depending on the events that will be hosted.

The combination of these needs, together with the will and the duty to reduce energy and maintenance costs, translates into the installation of an innovative LED system adapted to European regulations.

The new standards in this area wish, through precise guidelines, to reach within 2020 a 20% improvement both in terms of energy efficiency and CO2 emissions reduction.

The Basketball Court

Lighting plays a fundamental role in sports fields, in particular for those sports that take place indoors and must always take advantage of artificial lighting.

A perfect system must be constructed in order to avoid glare phenomena for athletes and spectators. The minimum average illuminance values required are prescribed by the CONI rules and by the provisions of the League regulations, according to the type of activity expected and in any case suitable to satisfy the requirements of the television shooting. The lighting must also comply with the UNI EN 12193 standards. All lighting fixtures must be protected from accidental impacts and equipped with integrated safety hooking systems that prevent accidental fall of the lighting body in case of release from the supports.

The regular basketball court, (dimensions 32m x 19 m), requires a level of lighting type FIBA 2 that impose: Average illumination of 1400 lux in the direction of the main cameras (expected in the amount of two, both on the side along the field, one positioned centrally and the other in a lateral position, at a height of 1.5m above the floor) with overall uniformity (minimum over average) higher than 0.7 and illuminance diversity (minimum over maximum) greater than 0.6; illumination on the horizontal plane in a ratio between 0.75 and 1.5 with respect to the illumination in favor of the camera, with general uniformity (minimum on average) 0.8 and diversity of illuminance (minimum on maximum) above 0.7.





60%
ENERGY SAVING



3Yrs
PAYBACK



10 Yrs
WARRANTY



The old Plant

In 2016, the Adriatic Arena of Pesaro has started its project of adaptation and efficiency of the structure to the standards dictated by the European Union. The existing system consisted of 50 2000W discharge projectors that, under optimal conditions, ie all turned on, produced an average illumination between 800 and 1000 Lux. The old lighting system brought with it a series of limitations both in terms of efficiency and scalability. Starting from these problems, Rematarlazzi, partner company of the Arena and in charge of the redevelopment of the structure, has chosen Cree as its Technological Partner.

The Project

Accepted the challenge, our lighting consultants set off by carrying out an accurate analysis of the existing structure and electrical system to determine the qualitative and quantitative levels of the performances to be achieved.

The main needs highlighted by the property were:

- The improvement of light uniformity,
- Elimination of the harassing effect due to glare
- A drastic change of course that initiated an energy saving process.

The Cree designers defined a system with 54 Cree Edge HO fixtures, installed at 22m high, with a color temperature of 5000k and a color rendering of 90CRI.

The arena has therefore moved from a system of 50 2000W discharge projectors to an innovative LED system consisting of 54 831W fixtures with a lighting result of 900 to 2400 lux medium.

The uniformity and levels of lighting achieved are amazing, the plant is totally scalable depending on the type of event that will host and the new European regulations are fully respected.

Moreover, the overall color rendition has radically increased. The brand new equipment features a 90+ CRI that is delivering a whole new light with the most complete color spectrum to highlight bright, crispy colors in new limitless shades.

The results represent a great change of direction for the property, which is fully satisfied with the result obtained:

- **60% energy savings**
- **Elimination of flicker for HD shooting**
- **Drastically reduced energy bill costs**

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PRODUCT SERIES

- EDGE HO Series

PARTICIPANTS

ADRIATIC ARENA

PROJECT: Cree AE Team

Cree IS LED Lighting.

Visit www.cree-europe.com or contact a Cree® Lighting representative to learn more.