

For generations of champions  
our lighting will always make  
your passion perfectly visible  
from every corner of the field.



ENG

# arianna

## *SPORT LAB*





# SportLab project

To best tackle your work challenges, you need passion. **To be able to achieve your goals**, dedication, application, commitment and study are essential.

Simple, elementary. And yet. And yet until yesterday **SportLab** did not exist. And yet until yesterday athletes were engaged in the competition between sweat and commitment.

The technicians to train them, the experts to comment on the performances and those whose task it is, like us, to provide light to the facilities that housed the athletes, their staff and their spectators, who limited themselves to putting their data on the field, believing they would be able to offer the best service. It took us a while too, but we realized how much calculations and passion, diagrams and sweat, graphics and adrenaline must go hand in hand.

*From this realization comes **SportLAB**, our **exclusive project** that has only one goal: the **perfect result**.*

We have put on the table some of the **best experts in light sources**, sports specialists and experts in sports facilities so that we can observe our goal from each point of view, without focusing excessively on one at the expense of another. The roundest way to guarantee the **highest visual quality** to athletes, technicians, experts and to the public.

At Arianna, we are convinced that **great successes** can only be obtained from significant collaborations. We wanted to open the doors of our laboratories to the experience of those who are familiar with the structures we serve and with those who practice sport. A new way of approaching our work, without ever ceasing to **guarantee constant and continuous assistance to our customers**.





# Club Gjelleråsen IF

## Norway

In 2019 Arianna and her partner Energy Optimal launched a competition for Norwegian sports clubs. The competition offered the latest generation **Arianna LED floodlights**, with Datek remote control, installed by Smart Elektro and supported by LillestrømBanken. The aim of the competition was to raise awareness among sports clubs on the need to **reduce energy consumption to make the facilities sustainable spaces** with a focus on **minimizing light pollution**.

A new light for players and spectators, on the pitch, in the stands and in the transit areas of the club, capable of transforming the venue into a **safe meeting place for young people**, children and for the entire community.

The winner of the competition was the Gjelleråsen IF club which stood out among the many participants with its detailed application presented, its well-known commitment to the environment and with the attention it places on young people and children.

Arianna supplied Petrarca with 6 modules with asymmetrical optics capable of illuminating the entire pitch uniformly. Arianna's reflector optics are used to contain glare thereby **making training for players comfortable** while directing the light with extreme precision, without waste, to reduce consumption and make the pitch the perfect setting for sporting events.

All the floodlights are equipped with the **latest remote-control technologies to illuminate** the pitch only where it is needed, at different light intensities, to control the switching on and off of partial or total floodlights and to detect faults and malfunctions. The remote control was provided by Datek, another competition partner.

Now the Gjelleråsen IF club can savour every detail of the pitch with **flicker-free, shadow-free and glare-free lighting**. This is why we at Arianna study, design and innovate. To give a sport that originates well beyond the last century the modernity it deserves.

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# Ski run Aprica

*Sondrio*

In 2020, the year that worldwide we will forever remember as the year of Covid, of the closures of factories, shops, schools, bars... the year of lockdowns, our partner Corus wasted no time and **created an installation that will remain memorable** for years to come.

In Aprica, in the province of Sondrio, Corus turned on the lights on what immediately beat the record as the **longest illuminated track in Europe**.

We at Arianna were silent partners in this operation, supplying the floodlights that made this descent spectacular. A snake of light that will accompany ski enthusiasts even at night to make up for the lost sporting year.

A **precise light with no dazzle**. **Lightweight and resistant floodlights**, with components chosen to guarantee **longevity for the system**. Installation is not easy and maintenance must be contained as far as possible.

For this reason, Corus chose to have its Vision floodlights produced by Arianna, because for us each product is studied in detail and subjected to **stringent quality tests**.

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# Memo Geremia rugby facility

Padua

Thanks to **Arianna technology**, the Padova rugby facilities are now ethically committed to the environment, with better lit and “greener” grounds! These are the rugby ground where Padova’s top-flight team Argos Petrarca trains

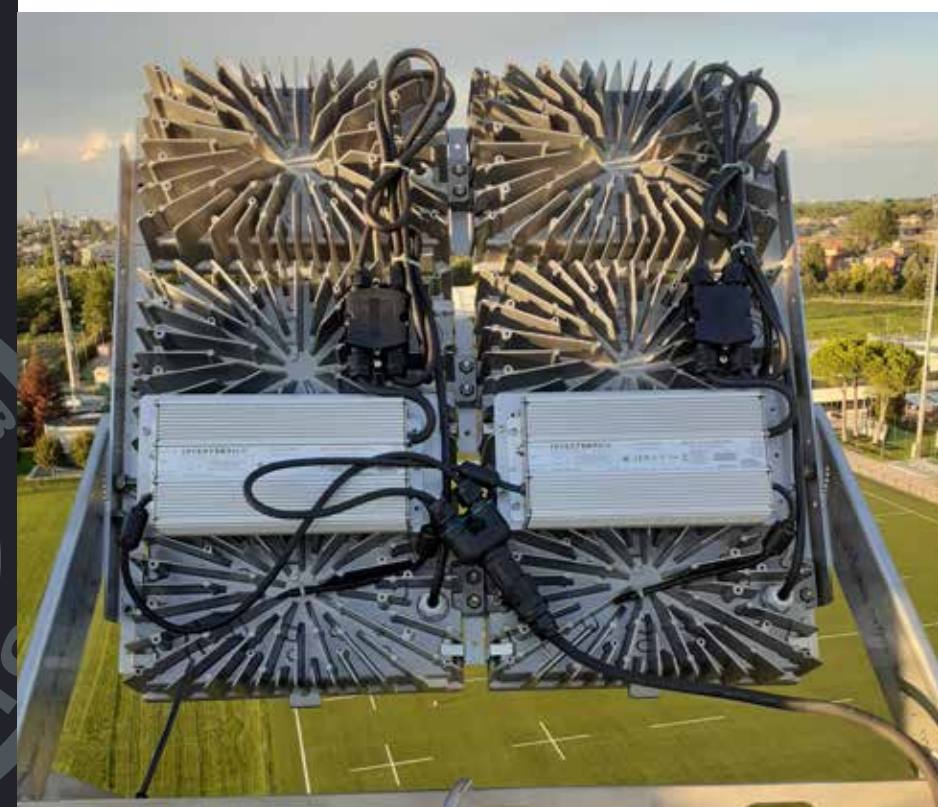
Arianna’s **modular and configurable technology** has made an important result possible. Lighting for training grounds without shadows and glare. Lighting that guarantees **perfect vision for players** in every position on the field. Our designers have devised a combination of optics that ensures **more direct and less dispersive lighting**, providing light only where it is needed, without waste, while giving a feeling of natural light that allows players to perceive the correct depth of the playing area.

The Petrarca fixtures installed were designed to replace 2000 W iodides floodlights, thus guaranteeing **energy savings of 60%**.

Lighting class III was the requirement for the rugby training grounds, and we in fact achieved 100 lux average on the entire field, with uniformity greater than 0,50. Despite the difficulty in lighting ground number 3 due to the lighting towers being erected on one side only, thanks to the effectiveness of the Arianna floodlight optics that allow the **entire light flux to be directed only where needed, without waste**, we succeeded in fully complying with the regulatory requirements for illumination ( $\geq 75$  lux), uniformity ( $\geq 0.50$ ) and glare ( $GR \leq 50$ ).

The lighting towers for the playing fields have been equipped with Petrarca floodlights, with 2 and 6 modules and power ranging from 400 W to 1200 W. Number 4 roto-symmetrical optics are used, positioned based on the lighting calculations performed by our expert in sports applications.

For the rear of the grandstand, the Petrarca 3 module model with number 1 asymmetrical optics has been chosen for diffused and uniform lighting in the spectator transit area. Replacement of all the previous fixtures will **reduce both CO<sub>2</sub> emissions and energy consumption**.





# Netball

## New Zealand

Arianna's sports lighting fixtures were chosen for the netball courts in Tauranga, New Zealand. Petrarca, in the sport version, ensures **uniform lighting with zero glare**.

Advanced lighting technologies, our New Zealand partner, decided to take on this new sport lighting project. A project **based on research and development**, a **unique patented system** and the ability to offer the **highest energy savings**.

Measurements made after installation assessed the **quantity and quality of light**, color rendering, **uniformity and glare control**. The shared project between Arianna's technicians and the New Zealand designers led to **exceptional results** that far exceeded expectations.

The 10 netball courts at the Tauranga sports ground have 14.7 m high posts.

The project involved installing on each post two 6-module Petrarca sport lighting fixtures (154,000 lm and 4000K). For sports lighting, Arianna has designed a **single product**, a solution for all different lighting requirements.

Petrarca is a **modular floodlight** that, with five different configurations and luminous flux from 12,000 to 150,000 lumens, **ensures the right lighting for every space and every situation**.







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## 8-a-side pitch and football pitch

*Luino (VA)*

We are in Luino in the province of Varese at a sports facility that includes two football pitches, one with 11 players per team and a smaller one for football with 8 players per team.

The **lighting systems** included 24 2000 W projectors on 4 30m lighting towers in the football pitch and 18 400 W floodlights on the 6 poles surrounding the 5-a-side pitch. Giving a total required power of 60 kW.

We at Arianna brought the system to a consumption of 13.8 kW with **75% energy savings**. 12 Petrarca 4-module lights with 807 W asymmetrical optics were installed in the football pitch and 10 Petrarca 2-module lights with 412 W asymmetrical optics in the 5-a-side pitch.

In both pitches we obtained **horizontal illuminance > 100 lux**, as required, and uniformity ranging from 0,60 to 0,65

In addition to the **energy savings**, the structure will **benefit from savings in terms of maintenance** because the Arianna floodlights are made with **selected materials** and subjected to stringent resistance tests.





# Circolo della Stampa Sporting

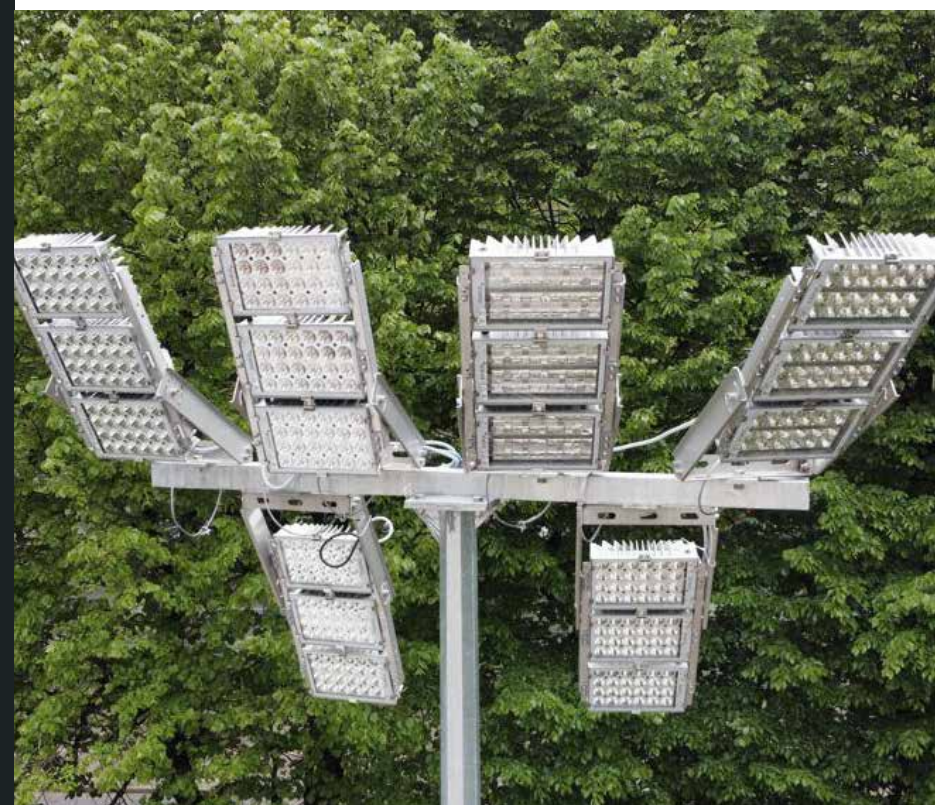
*Turin*

THE CIRCOLO DELLA STAMPA SPORTING is one of the most complete sports, play, recreational and cultural structures in Italy. Its undisputed charm and attractiveness reside in the **variety and quality of services and facilities**, in the location in which it is immersed but also in its history that defines it as a historic monument, fully qualifying it as an Architectural Heritage asset. In anticipation of the tournaments of the ATP Nitto Finals in mid-November, a series of renovations of the structure are being carried out at the club.

The new lighting of the Stadium Court, where the Italian champion Lorenzo Sonego may be appearing, will be overseen by Arianna. The court was not equipped with light towers for lighting, and was used only during the day. Arianna has designed **perfect lighting for flicker-free** television shooting with horizontal illuminance of 1000 lux and vertical illuminance of 700 lux. Four 15m light towers were installed around the structure seeking to respect the harmony of the location as much as possible. For each pole, 6 Petrarca 3-module lights with 600 W concentric and roto-symmetrical optics were installed.

Despite the particularity of the installation and the stringent requests, we managed to achieve very **high levels of illumination** (1000 lux horizontal and 700 lux vertical) and **uniformity greater than 0,80**.

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# Football pitch with athletics track

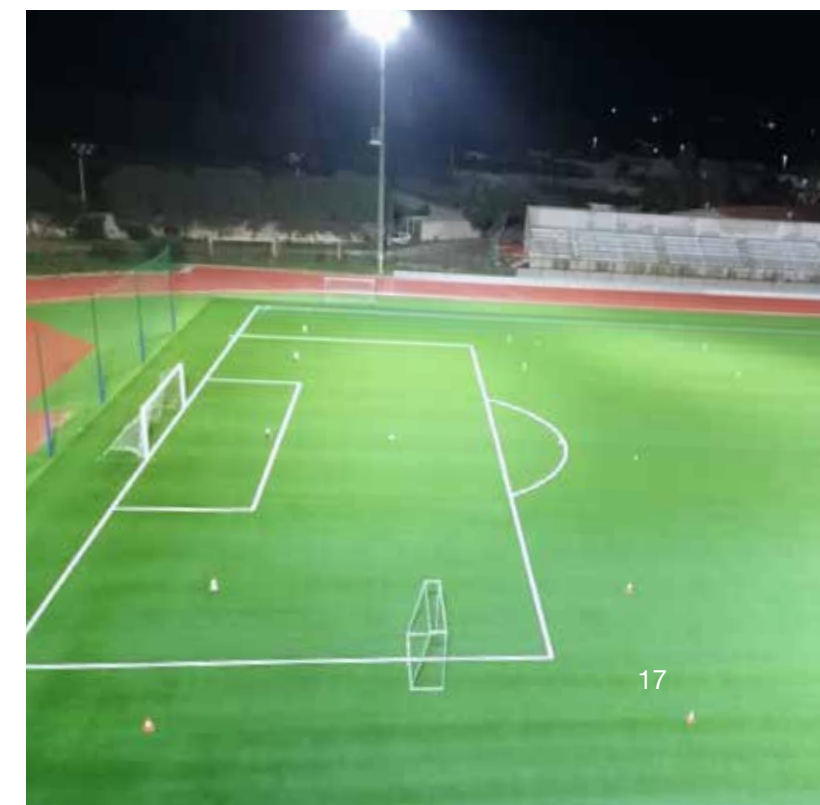
*Uta (CA)*

The football pitches with the athletics track around them are complex installations from a lighting point of view. To **achieve high uniformity** and illuminance values, significant powers are required but above all an extensive optical variety capable of responding to many different needs. We at Arianna have an **internal optical design department** that is perfectly aware of the needs of designers and, thanks to the modularity of the floodlights, is **always able to find the best solution**.

Here we are in Uta in the province of Cagliari. The request was to **illuminate the football pitch** with an illuminance value of 200 lux but also the athletics track that surrounds it, with 4 corner light towers measuring 23 meters.

After careful analysis and **precise lighting calculations**, our designers achieved the goal by installing 20 Petrarca 6-module lights with mixed optics: asymmetrical and concentrating rotosymmetrical. The total consumption is 24.2 kW and the uniformity ranges from 0,50 of the athletics track to 0,70 of the football pitch.

**Excellent results for high quality floodlights** that will guarantee the sports club an enormous reduction in maintenance costs but especially important energy savings.





# Canottieri Tennis Courts

## Padua

On the occasion of the Padua Challenge Open, women's international tennis teams, the collaboration between Arianna spa and the Canottieri of Padua led to **technological innovation in the world of sports lighting**.

Arianna's modular and configurable technology have made an **important result possible**. Lighting for tennis courts without shadows and compliant with the regulations relating to the type of competition. **Lighting that guarantees perfect vision** for players and the crowd.

The design made by Arianna's technicians, supported by the Canottieri team, allows players to perceive the **correct depth of the court**. More direct and less dispersive light, illuminating only where it is needed and **without waste**, giving the most natural sensation of light possible on the court.

For the type of competition that would take place in the club, the requirement was for 500 lux on the entire court and high uniformity.

To meet these requirements, we installed two Petrarca floodlights on each post. The first with two 39,000 lm modules, and the second with three 72,500 lm modules. The uniformity obtained in this way exceeds 0,75. The Petrarca fixtures installed were designed to replace 1000 W iodides floodlights, thus guaranteeing **energy savings of 60%**.

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# Swimming pool in San Pietro in Casale

*Bologna*

The **lighting system** is a fundamental element for every swimming pool both from an aesthetic and a functional point of view.

Here we are at the sports complex of San Pietro in Casale in the province of Bologna, where the installation of the Arianna floodlights has guaranteed **energy savings of 62%**. The new lighting has provided a new scenographic imprint capable of ensuring more comfortable swims by enhancing the shapes of the pool and the surrounding structures. Arianna products are designed to ensure **the best possible lighting combined with durability**, thanks to the materials chosen and the careful thermal study.

In the structure that houses the pool, 42 Arianna floodlights have been installed with **excellent efficiency**, capable of illuminating only where it is needed without waste, to increase visual comfort and to maximize savings. The **uniformity of the light** is fundamental in sports contexts, to improve the performance of those who practice sport and for coaches, instructors and for the public carefully watching the sport.

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# Paddle Court

## *Villa D'Adda (BG)*

In a very short space of time Paddle has become one of the sports most loved by Italians, a business in continuous growth. A sport that attracts millions of people throughout the year.

At Arianna **we supply compact and manageable spotlights** capable of **perfectly illuminating** the field without shadowy areas and avoiding waste. The field illuminated by Arianna is always the favorite of athletes due to the uniformity of lighting and the **absence of glare thanks to the patented reflection optics**.

But in addition to being a perfect game scenario, an Arianna field is also an installation that **minimizes costs: maximum efficiency to reduce consumption**, ease of installation to contain costs, and resistant materials to eliminate maintenance and to take advantage of the potential of the individual floodlight: enhanced illumination by installing **smaller and more economical modules**.

Here we are at Villa d'Adda and we have installed 4 1-module Petrarca lights with asymmetrical optics to replace the 8 old floodlights thus providing horizontal illuminance of 300 lux and 0,70 uniformity. We achieved the required results with only 1 floodlight per pole.

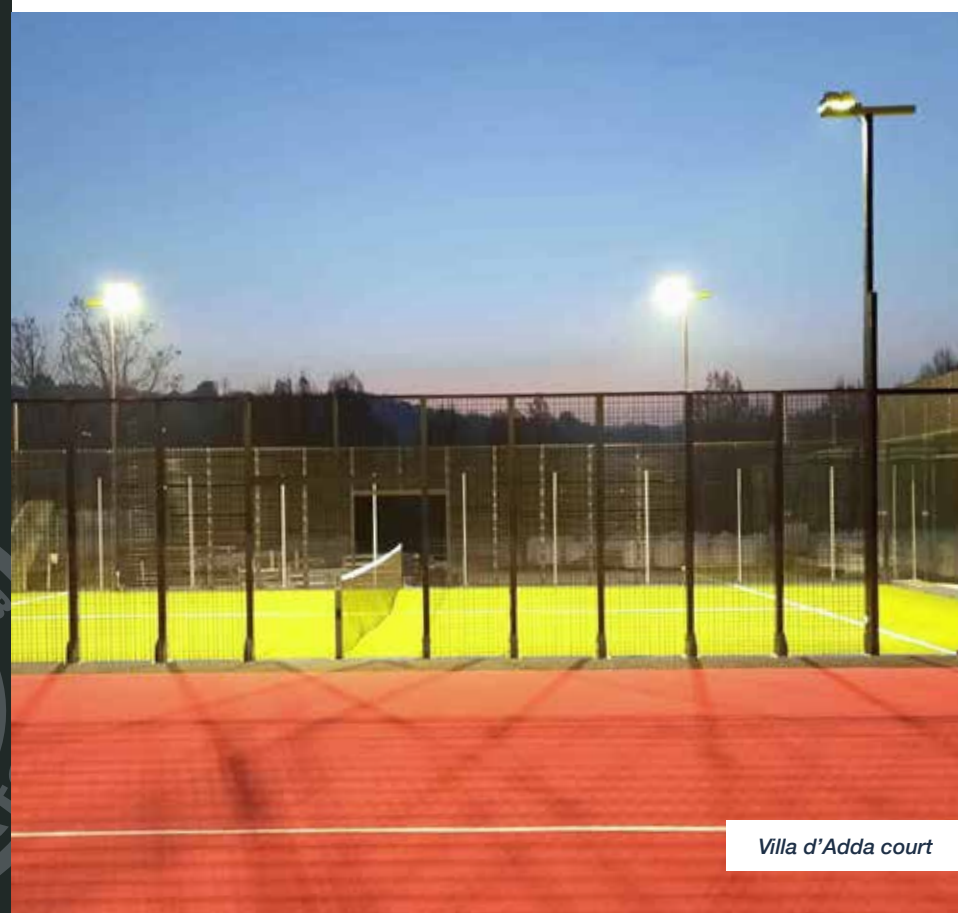
# Paddle Court

## *Nettuno (RM)*

Here we are at the T.C. Break Point Nettuno, one of the first clubs entirely dedicated to paddle in the province of Rome. We at Arianna have illuminated the field dedicated to challenges 1 against 1.

The lighting has made the small court a favorite with all sports fans. Because the right light, **without shadowy areas** and **without glare**, gives sports men and women a game of **maximum performance**, for more exciting challenges.

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Villa d'Adda court



Nettuno court



Villa d'Adda court



# Tennis courts Montecchio

Vicenza

We are in Montecchio Maggiore in the multipurpose structure of the town. The tennis club has 5 clay courts, 4 of which are covered for the winter season. Arianna was entrusted with the task of making the 4 covered playing fields **more efficient** in order to obtain **optimal lighting** and a **reduction in energy costs**.

Thanks to the **collaboration between the technicians and designers** of Arianna spa and the club managers, the best solutions have been studied to ensure **maximum visual comfort**, without shadowy areas, using the same positions as the existing 400W floodlights. Petrarca's **highly performing** asymmetrical reflection optics made it possible to combine lighting performance with **large energy savings**, as photometry optimises the lighting in the playing field **without wasting light** in the structure.

In all courts, a one-to-one replacement of the existing floodlights was performed. Petrarca 1-module floodlights of 153 and 206W were supplied, arranged according to the various assembly heights of the tensile structures of 5 or 7 meters. The Petrarca LED floodlights equipped with a very **high lm/W efficiency** were installed to replace the iodides 400W floodlights, generating an **energy saving of 63%**. The average illuminance in all courts exceeds the average 400 lux with a uniformity of 0,60.

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# Magliano Stadium

## Grosseto

Even in the small town of Magliano in the province of Grosseto, the football field has a new light. The transition from traditional lighting to the **new LED source** has given the structure a new image.

A coveted training ground, where players can best express their performance. Corus, our partner for **sports lighting**, after careful planning, installed 3 Vision, produced by Arianna, with 4 807 W modules, guaranteeing the sports club **energy savings of over 60%**.

The lux calculated after the relamping is an average of 100 in the field with a **uniformity higher than 0.60**.





# Memo Geremia Gym

Padua

We are in the gym at the Memo Geremia sports facilities in Padova. Arianna's technicians have designed lighting capable of guaranteeing an area **without shadows or annoying glare for the players**. The gym was built to accommodate volleyball, basketball, athletics and gymnastics competitions and training.

**LED technology** and the technical and design choices have improved the quality of lighting and energy performance: instant switching on and off, management of floodlights for partial lighting, high efficiency LEDs and quality materials all guarantee high energy savings for the entire system, with a **return on investment of just two years**.

For the indoor spaces we have supplied our versatile and compact SNELL fixtures, in the quick-fit version. This technical choice allowed all of the existing fixtures to be replaced without expensive building work.

The version chosen is the 107 W SNELL recessed floodlights, with symmetrical concentrator optics at a height of 7 m.

Snell's extremely high-performance optics ensure **high illumination** on the playing field not only by reducing the number of light fixtures (from 35 to 21), but also by significantly reducing the unit power of the individual floodlights. This gives a total saving of 7 kW installed, equivalent to **75% less power consumption**.

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# Gentili sports club

## Rome

In the wonderful setting of the Gentili sports club in Rome, our Petrarca sport floodlights took to the field to provide new light to the area dedicated to soccer.

The pitch today is **perfectly illuminated only where it is needed**, evenly without glare, guaranteeing players a match without disturbances. The club can become a new meeting place even in the evening thanks to the appearance conferred to it by the **new comfortable, clean, effective and discreet lighting**.

Eight 1-module Petrarca floodlights with 206 W symmetrical optics were installed, exactly half the power required by the floodlights they replaced. Guaranteeing the pitch **energy savings of 53%**. We achieved horizontal illuminance of 110 lux, as required, and uniformity of 0,70.







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# Rugby Colorno

## Parma

We are in Parma at the training ground of the country's rugby team which thanks to Corus has replaced its traditional lighting system to switch to the **innovative LED system**.

The installation was not the easiest because the pitch is lit by floodlights installed on very low light towers and present only on one side of the playing perimeter. Corus chose the Vision 4 modules 807 W produced by Arianna. Thanks to the **extremely performing asymmetrical optics**, we were able to overcome the installation problems, ensuring in the field the **minimum lighting requirements** for the dispute of evening training.

The values required to ensure the **perfect performance** of the evening workouts were achieved, against all expectations. **More comfortable fields** for players and technicians, but above all huge energy savings for the Parma club.





# Petrarca

## compact and modular floodlight

Petrarca is the family of modular floodlights which can adapt to the different lighting requirements for sport, large spaces and tunnels. Petrarca: the very best solution in terms of **technological performance**, **energy savings** and **easy installation**.

With Arianna, efficiency is not limited to the light source alone, but rather is amplified by series of technological details that **increase savings**.

Careful optical design, high-quality materials, advanced LED sources, **efficiency** and **reliability** tested to the highest levels in the street lighting sector, ensure **considerable savings** in terms of design, installation and operation.

For Arianna, sustainability takes concrete form in the creation of **quality products that respect the resources of the environment** and the future of people. A principle that has always inspired the design of all products.

universale  
riflessione  
totale  
super  
risparmio  
energetico  
iper-adattabile





# Sport light solutions

## *Arianna: the response you were looking for*

**1 High modularity:** Petrarca's configurability means the Arianna design team can provide solutions that consume only the power that is needed, while ensuring the right light for every situation, from small paddle courts to large football stadiums.

**2 Patented reflection optics:** the light source is concealed from view, ensuring very high levels of visual comfort that allows players and the public to enjoy the sporting experience with zero glare. By applying the total reflection patent to the reflectors, the spotlight can guarantee very high efficiency (module efficiency up to 170 lm/W) without glare.

**3 Radial thermal design** that disperses heat in the most optimum way, guaranteeing long system life with the objective of zero maintenance.

**4 Innovative remote control systems** to ensure exactly the light that is needed is provided for training, competition or partial use of the facilities, guaranteeing comfort, efficiency and minimising power consumption at all times.

**5 The compact and modular shape** facilitates installation, while the use of high-quality materials means maintenance is reduced to a minimum, ensuring long life for the entire system.



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**5 years** of warranty  
**50%** maintenance reduced  
**80%** energy savings  
**100%** made in Italy



# Smart Lighting

Arianna technology in every field

Arianna is able to offer smart solutions tailored to all customers that will optimise savings while **reducing waste** to the minimum, thanks also to remote control.

The **remote control** allows you to stay up-to-date on the **efficiency of the individual projector** (signalling malfunctions), to control the ignition and shutdown of the projectors at a distance, to set specific lighting scenarios (competition, training, partial use of the field) and it is equipped with an automatic shutdown of the system if the field is not being used.



Products with **incorporated SENSORS** able to detect any access on the playing fields, allowing you to turn on the lamps only when you need them



Point-by-point dimming to ensure **energy optimisation** and visual comfort



Creation of **customised scenarios**



**Remote control** of the system

## Arianna services: the answer to your **lighting** requirements

**Evaluation of the existing system:** Arianna offers its customers a professional preliminary inspection to promptly evaluate the existing system (ENERGY AUDIT).

**Precise planning:** each element is studied in detail to ensure that the final installation offers high performance, in compliance with the sector standards and respecting the light pollution laws. The lighting calculations are aimed at illuminating only where it is needed to avoid wasting energy.

**A choice of the highest performing tested product:** the LED and the materials chosen for the construction of the street lighting bodies guarantee durability of the system. Precise reliability tests confirm the quality of the components chosen and guarantee long-lasting products capable of minimising maintenance costs.

**Maximise savings:** thanks to the quality of the extremely efficient and effective products and the innovative remote-control systems, Arianna is able to offer the most advantageous solution for its customers in terms of energy savings and environmental sustainability.

**Economic evaluation of the project:** after the preliminary analysis and the precise project, Arianna is able to formulate the best technical-commercial and environmental offer, calculating the return on investment (Payback), and the saving of CO2 emissions.

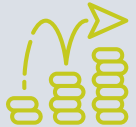
**Post installation assistance:** Arianna is also able to offer a complete technical test of post-work lighting technology verification according to the UNI standards.



Post installation assistance



Maximise savings and an economic evaluation of the project



A choice of the highest performing tested product




Precise planning



Evaluation of the existing system





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