

**Abacus**<sup>®</sup>  
Leaders in Sports Lighting



**Brilliant Sports Lighting**

[www.abacuslighting.com/sports](http://www.abacuslighting.com/sports)

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# Lighting your facility

**NEW  
innovation**

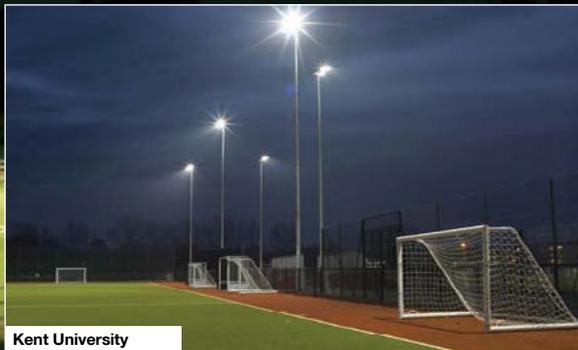
Installing lighting isn't just about extending play at your club. It's an investment in the future – one that can increase business and revenue for years to come.

Some of our customers have seen a net revenue increase of up to £30,000 per year as a result of installing Abacus sports lighting – not just from increased usage, but also takings from services such as car parking or food and drink.

To find out more, talk to one of our dedicated sports sales engineers. As experts in their field, they'll look at things from your point of view, devising a truly bespoke set-up that fits the bill in every sense.

Whatever your requirements; whatever the challenges – Abacus have the solution.

**Our new maintained illuminance system saves you up to 15% in energy, and with our Challenger® 1 floodlight, you can reduce light overspill by 25%.**



Kent University



Nottingham University

# Your lighting legacy

EXPERIENCE  
THAT PAYS OFF  
TIME AFTER TIME.

## For the environment

Getting the environmental credentials right for a new lighting scheme is a big responsibility for any club. Our solution to the waste and nuisance of light pollution is the Abacus Light Control System – a series of efficient, high-performance lamps, reflectors and anti-glare baffles that help keep the ULOR (Upward Light Output Ratio) of your facility's floodlighting to an absolute minimum. The result – less overspill and happier residents, players and spectators; not to mention the person who pays your club's energy bill.

## For the community

Developing your club's lighting plan is simple. What takes the most time, diplomacy and expertise is making sure that everyone is as happy with your plans as you are. We're here to help you do just that – from residential consultancy to lighting level checks, official planning negotiations to on-site management. Whatever the location, scale and challenges, our team will have tackled a similar project in the past. Now it's time to put their experience to work for you.

## For your credibility

The cost of downtime at your facility can cripple cashflow; and poorly maintained lighting is one of the greatest liabilities faced by clubs. A high-quality lighting system maintained by our expert engineers doesn't just boost your facility's reputation and usage in the short-term; it's an asset that will continue to bring pleasure to players and spectators for many years to come.

# Sports lighting the Abacus way

Our team don't just light sport – they watch it, play it, love it too. The insight that this gives us is invaluable. It means we can get under the skin of your project, understand exactly what you need to achieve and make it happen – without hassle, confusion or complication.

- Start-to-finish service – from initial planning and design through to product supply, installation, commissioning and servicing
- All project sizes and budgets – from local pitches to international stadia
- Bespoke solutions, offering the ideal combination of value for money and peace of mind
- Outstanding quality and value
- Low light pollution, without compromising on performance
- Durable masts which can be easily accessed for maintenance

## One lighting project in five simple steps

1	Abacus visit your site (if necessary), create a bespoke lighting design, advise on products and specifications and quote.
2	Project consultancy – our experts offer assistance on everything from planning to funding and environmental impact assessments.
3	Manufacture
4	Installation (see page 33 for details of the full process)
5	Full handover to end user.

## The all-inclusive Abacus package

Choosing a sports lighting supplier can be a tricky business, and you need to feel confident that you've made the right decision. The advantage of choosing Abacus is our ability to bundle complex services and processes into one straightforward, comprehensive package.

Tailor-made packages; from supply only to full turnkey solutions	✓
Planning assistance	✓
Environmental impact assessments	✓
Fully comprehensive warranty covering all parts, labour and lamps as well as cleaning	✓
Latest lighting technology, reducing light pollution & increasing performance	✓
Independently tested lighting performance (photometric) data, ensuring actual performance matches what was planned	✓
Range of mast solutions including base-hinged for easy access	✓
'Daylight' lamps, offering good colour rendering	✓
Double-ended lamps which maintain their position long after installation	✓
Energy management	✓
Carbon reduction	✓
Gun sight, precision aiming of the floodlights on site for accurate light distribution	✓
Easy-access maintenance, with base-hinged masts and rear access floodlights	✓
Upgrades	✓
NICEIC approved for electrical installations, with standard UK wiring	✓
ISO9001:2008 quality accreditations	✓
ISO14001:2004 environmental accreditations	✓
CE certification (European standard)	✓
Professional associations ensuring credibility & reliability. Look out for SAPCA, ILP, LIF, ECA, NICEIC	✓

# Flexible systems tailored to you

## Floodlights

### Challenger® 1

This is our most popular floodlight, favoured by outdoor sports grounds and smaller stadia for its outstanding performance and light control. Flat-glass technology and double-asymmetric reflectors mean excellent efficiency and beam purity, reducing upward light, overspill and glare.

### Challenger® 2

This series is ideally suited to lighting medium and large stadia from the side – typically from the roof; while the Challenger® 3's precise, symmetrical beam makes it ideal for floodlighting large stadia from above.



Osrava Baseball Club, Czech Republic



Roznov Football Club, Czech Republic



Keepmoat Stadium MUGA, Doncaster



# Masts

## Base-hinged

As the name suggests, a base-hinged mast lowers easily to the ground for safe, efficient servicing, whenever it's needed. Our most popular mast, it is specified worldwide for its clean profile, robustness, versatility and easy maintenance access. Fixed headframes also offer incredible stability, even in windswept areas. No one does base-hinged better than Abacus.

## Fixed masts

Typically used for larger sports stadia, but several options are available.

## Club telescopic

Think of a radio aerial – only a little bigger and more technical! Pioneered by Abacus, the Club telescopic mast is perfect for medium-sized sports facilities. Doubling in size from its retracted position, this solution is ideal for built-up areas where planning regulations are stricter.



Club telescopic mast



Base-hinged mast



Fixed mast

# Case study

## Forest Town FC /

Forest Town FC are part of the supreme division in the Central Midlands league. They came to us with a challenging brief and a very specific set of requirements – not made any less challenging by the position of the ground: right in the middle of an independently-lit velodrome, situated itself within a residential area of Mansfield in Nottingham. It goes without saying that both mast height and overspill needed to be kept to sensible levels in order to satisfy local planners, at the same time as meeting the league's minimum lighting-level requirement of 180 Lux.

After performing a detailed pre-planning consultation, we specified, installed and aimed 20 high-performance Challenger<sup>®</sup> 1 floodlights atop four 25m base-hinged masts – the ideal solution given the need for both height and light-control, not to mention straightforward maintenance. The floodlighting – unobtrusive to the outside world yet impressively impactful to anyone visiting the ground – achieves an ideal balance between environmental responsibility, functionality and display.





“

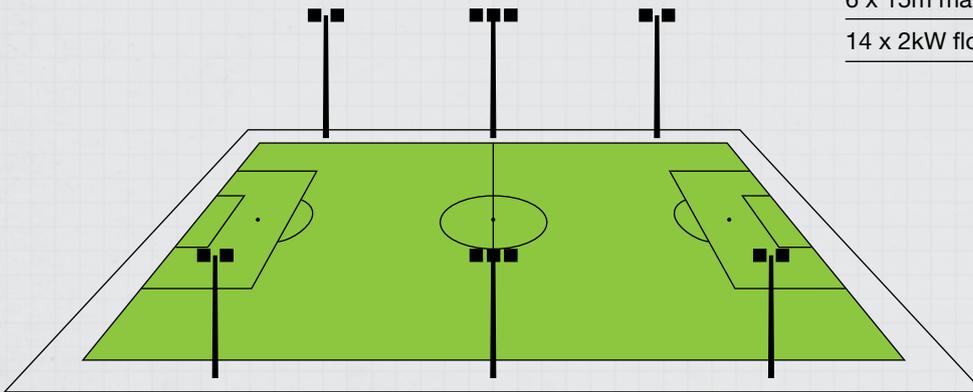
The lighting has really raised the profile of our ground. Even Away players have commented on the clarity and quality of lights, which far exceed that of many much larger grounds. It hasn't just boosted our reputation as a club – it's also generated additional revenue. That's a direct result of our ability to rent the site to other local teams for training, as well as staging concerts, family fun days and other community events.

”

John Stevens  
of Forest Town FC



# Abacus are experts in lighting football pitches, training grounds and stadia. Whatever your colours, we can help.



## FBFA

Minimum FA requirement

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180 Lux

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6 x 15m masts

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14 x 2kW floodlights

## FBC2

Class II

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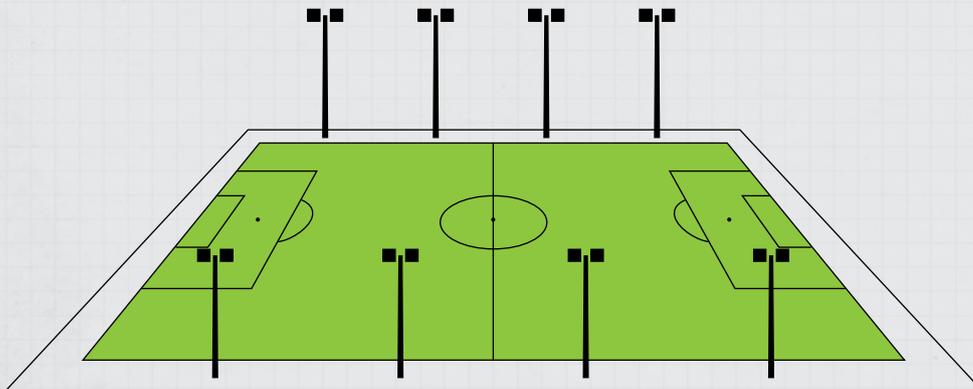
200 Lux Maintained

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6 or 8 x 15m masts

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16 x 2kW floodlights





### FBCD

Conference Division 1 & 2

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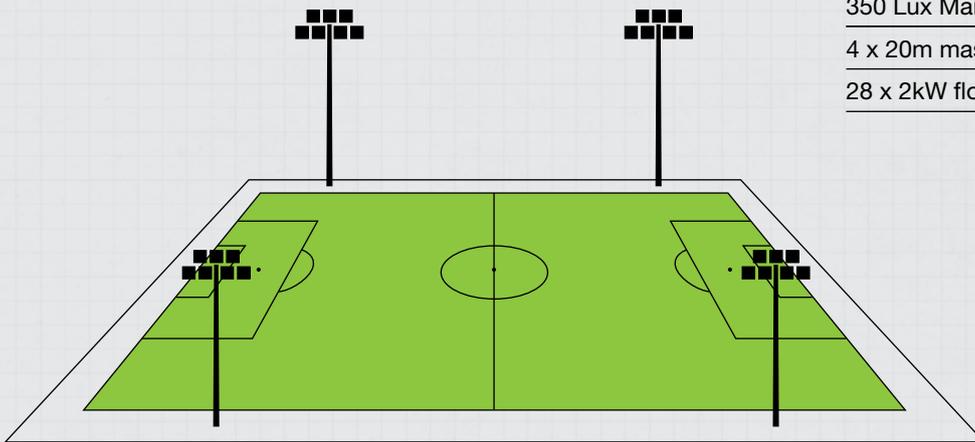
350 Lux Maintained

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4 x 20m masts

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28 x 2kW floodlights



### FBCH

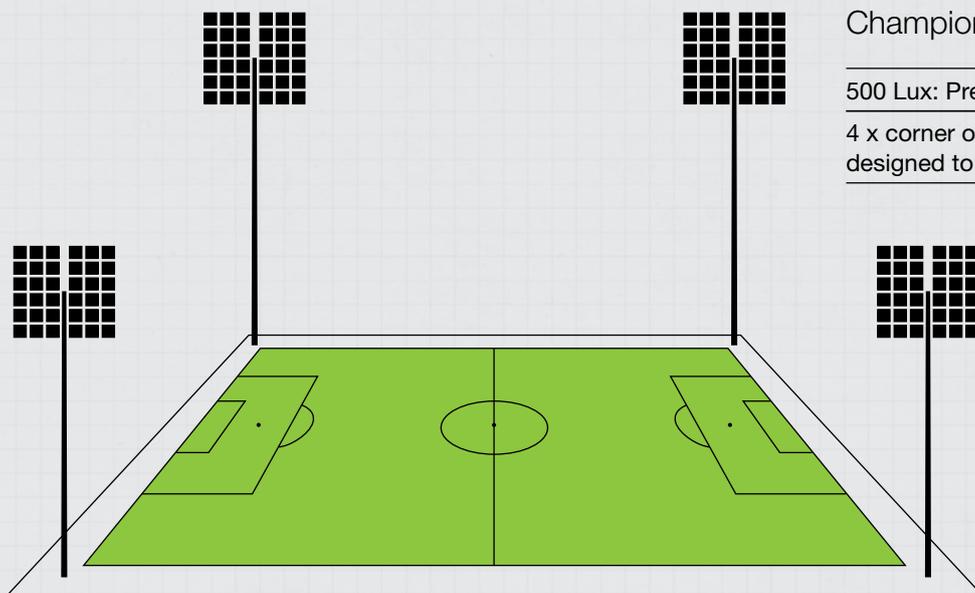
Championship

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500 Lux: Premiership. 800 Lux: UEFA/FIFA

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4 x corner or stand-mounted masts  
designed to suit larger stadia



NB. These standard configurations can be completely tailored to individual requirements



“

Regular meetings at every stage gave me real confidence in Abacus and their command of the project. The initial planning meetings were fantastic and helped us get a clear vision of Abacus' plans for the floodlighting scheme. As such, permission was unanimously granted without many revisits to the drawing board. The process felt seamless.

”

John Burdett  
Fixtures Secretary

# Case study

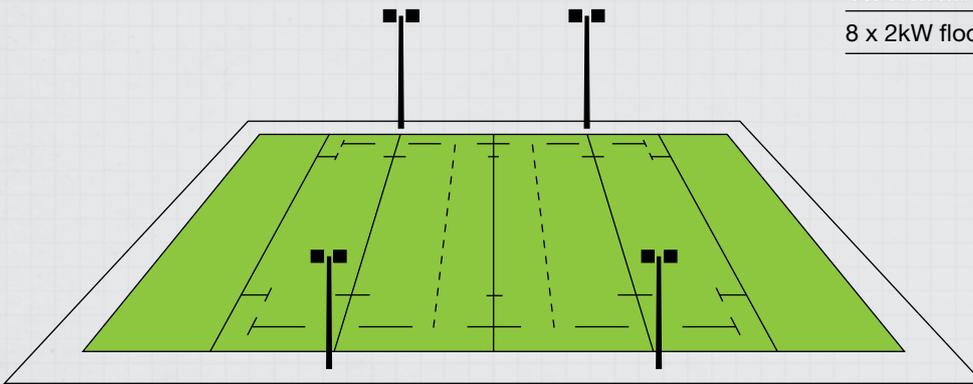
## Nuneaton Old Edwardians RFC /

Abacus is one of a select group of companies approved to supply lighting systems to RFU clubs. For Nuneaton Old Edwardians RFC, the choice was a simple one; Abacus had the right credentials mix. Flexibility, range, project-management and planning expertise – not to mention a cost-effective, environmentally responsible approach to lighting at club level.

Four 15m based-hinged masts and a total of 16 Challenger® 1 floodlights were installed at the Old Edwardians site, bringing lighting levels to an optimum 200 Lux. So far, the club has been able to increase usage on Friday nights and for school trial games in evenings. They are also able to hold an end-of-season tournament, which wasn't possible before. Knock-on revenue has included increased ticket sales for consecutive matches and raised bar sales – a happy consequence of any event held after dark.



# Whatever the complexities of your project, we'll tackle them head-on.



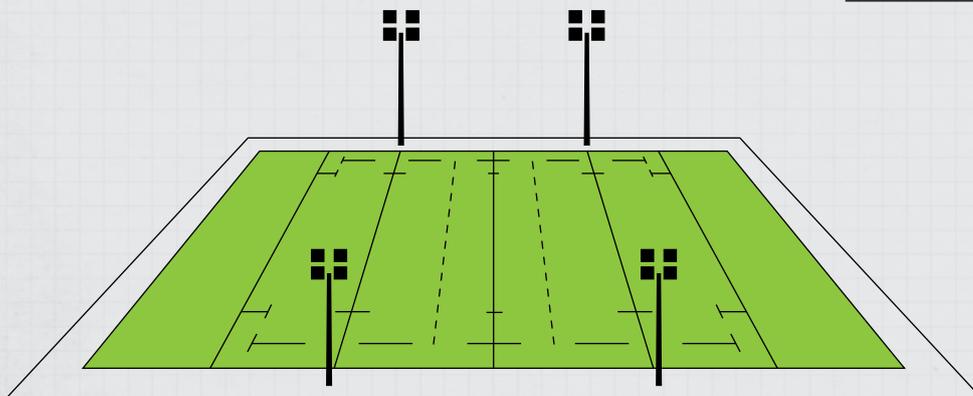
## RFC3

Class III (training standard)

75 Lux Maintained (upgradable to 200 Lux)

4 x 15m masts

8 x 2kW floodlights



## RFC2

Class II (club standard)

200 Lux Maintained

4 x 15m masts

16 x 2kW floodlights



**RFC1**  
Class I

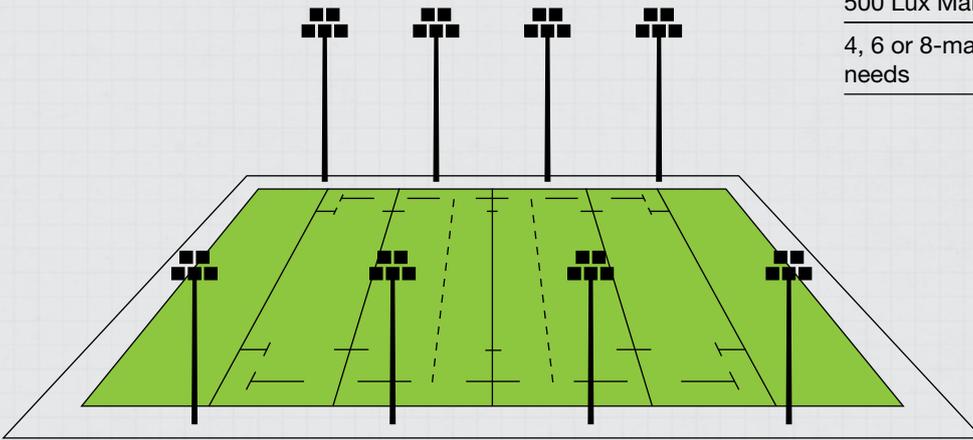
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500 Lux Maintained

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4, 6 or 8-mast system to suit your club's needs

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**RFPH**  
Premiership & Heineken Cup

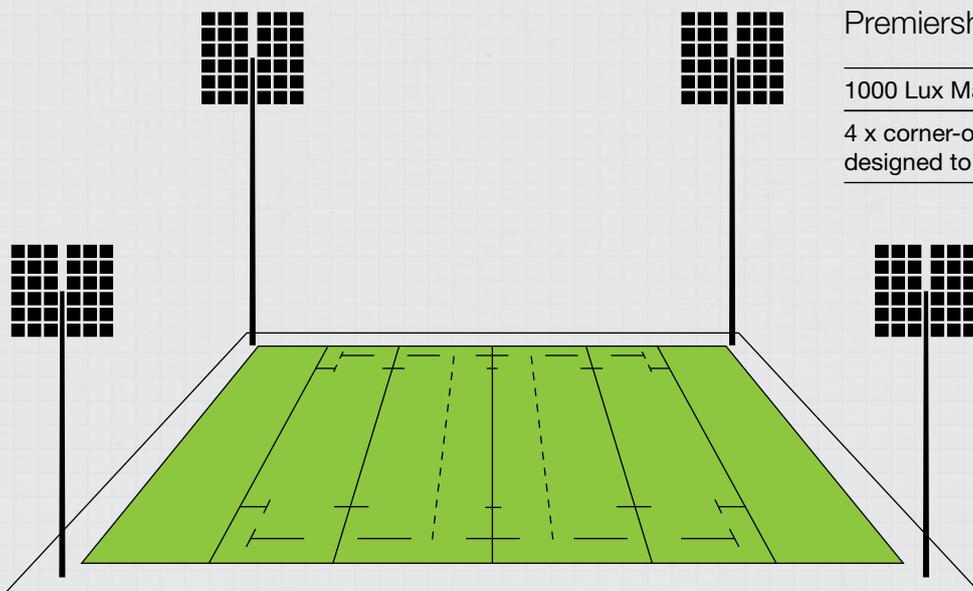
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1000 Lux Maintained

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4 x corner-or stand-mounted masts designed to suit larger stadia

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NB. These standard configurations can be completely tailored to individual requirements

# Case study

## Woldingham School Hockey Pitch /

Woldingham School in Surrey is one of the most prestigious independent girls' schools in the country. They asked us to help them plan and install a 350 Lux lighting scheme for their hockey pitch – a project that would enable them to use it for practice after hours and for hosting matches with other teams. Due to the pitch's location, special planning considerations were required – one of several reasons why the school chose Abacus' experienced team for the job.

After 6 months of planning consultation, made more challenging still by the lack of mains supply to the site, permission was granted and Abacus began the installation process. By sourcing and installing a permanent generator, we avoided the inevitable disruption of laying cables back to the nearest mains supply.

“

**This was a fairly complex project. A previous planning application had already been rejected, so we had to work very closely with the school and local authority to design a viable solution. Our scheme, comprising six 15m fixed masts, 20 Challenger® 1 floodlights and the permanent generator required to power them, has been extremely well received by all parties – not least the visitors who come to play and spectate at this newly improved facility.**

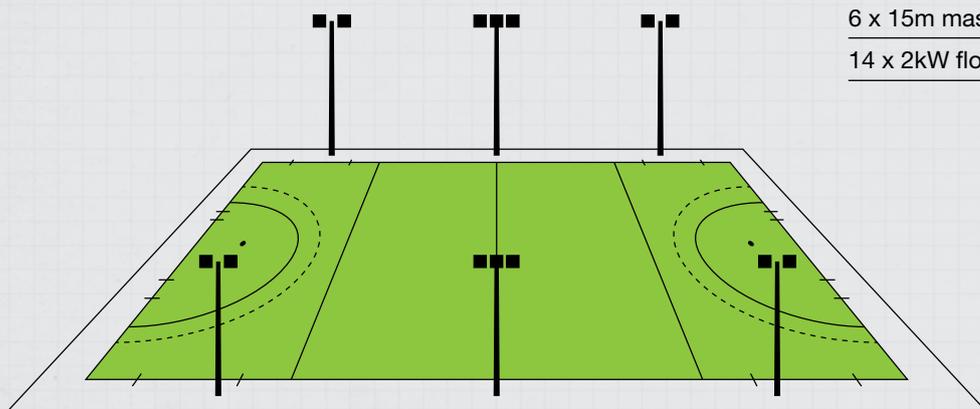
”

Project Engineer  
Abacus





# A fast, furious sport requires lightning-sharp lighting.



## HLC3

Class III (training standard)

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200 Lux Maintained

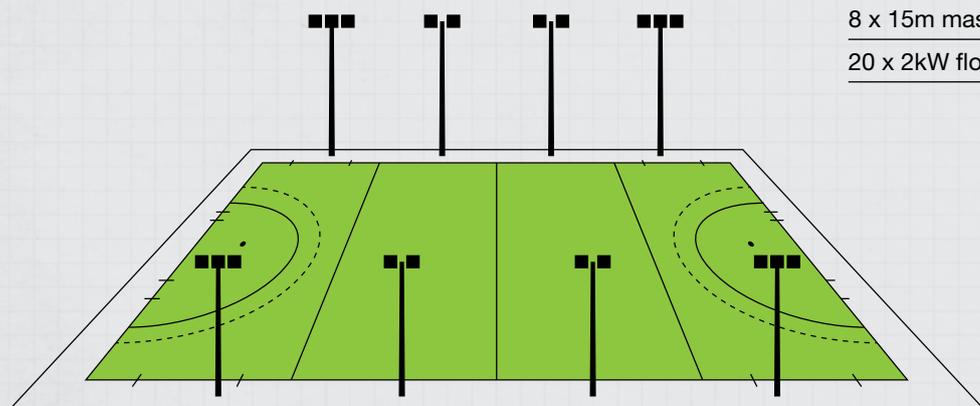
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6 x 15m masts

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14 x 2kW floodlights

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## HLC2

Class II

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300 Lux Maintained

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8 x 15m masts

---

20 x 2kW floodlights

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### HLC1 v1

Class I

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500 Lux Maintained

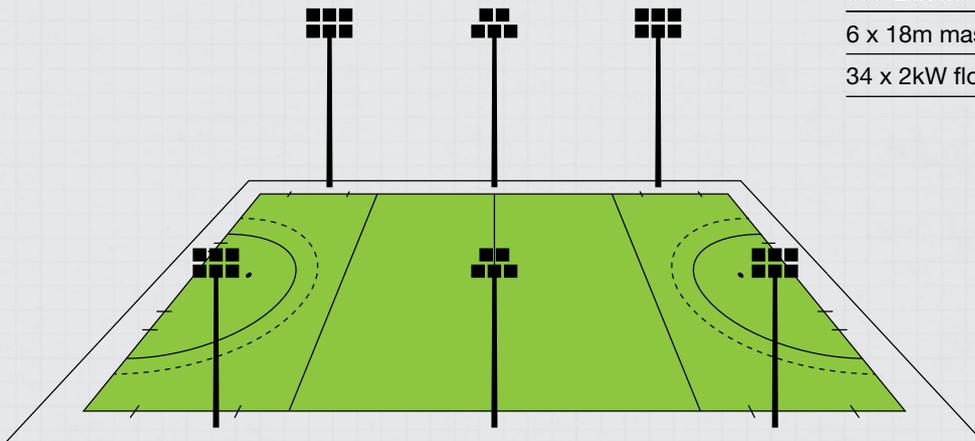
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6 x 18m masts

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34 x 2kW floodlights

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### HLC1 v2

Class I

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500 Lux Maintained

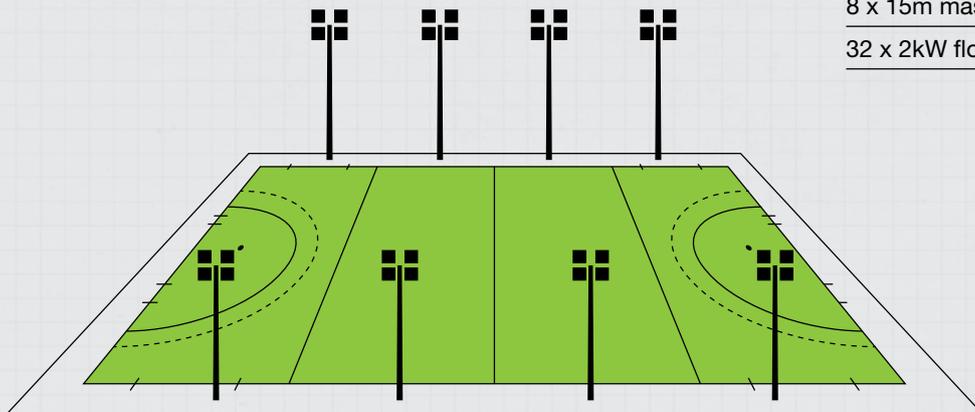
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8 x 15m masts

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32 x 2kW floodlights

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NB. These standard configurations can be completely tailored to individual requirements

# Case study

## Loughborough University /

### 8-lane running track

Loughborough University is renowned worldwide for its commitment to sport. Having already lit one of their rugby pitches, Abacus was commissioned by the university to put the finishing touches to a newly relaid eight-lane track – with floodlighting mounted on five fixed 20m masts and the roof of the sports pavilion.

Both specification and pricing had to be carefully structured to help Loughborough get the best value possible for its budget. A nearby A-road also meant light overspill needed to be kept to a minimum. As such, careful aiming and extra cowls were added to minimise overspill onto the main road.





“  
Another brilliant job from Abacus Lighting, from start to finish. As well as commissioning Abacus Lighting in the past, we knew they had lit Trent Bridge back in 2008; and for us, those credentials were proof enough of their capabilities in even the most restrictive areas.  
”  
Graham Orsborn  
Loughborough University

# From community facilities to world-renowned athletics stadia, Abacus solutions are world frontrunners.



## TFC3

Class III (training standard)

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100 Lux Maintained

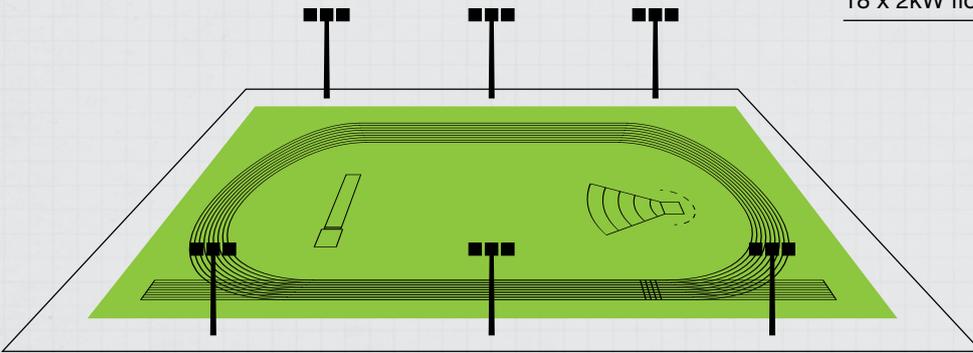
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6 x 18m masts

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18 x 2kW floodlights

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## TFC2

Class II

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200 Lux Maintained

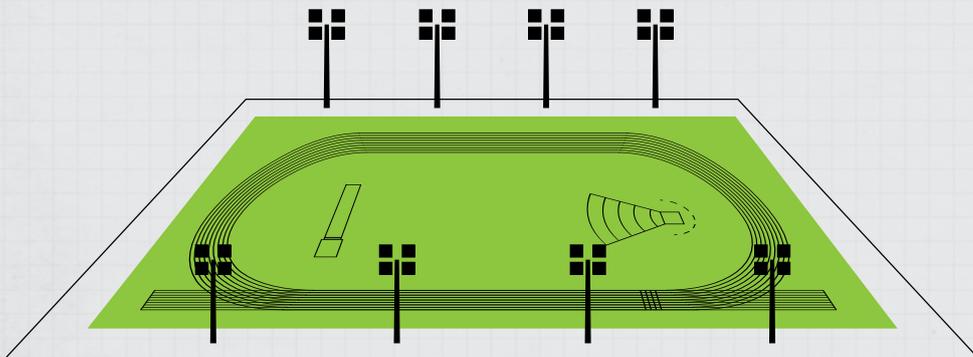
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8 x 18m masts

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32 x 2kW floodlights

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**TFC1**  
Class I

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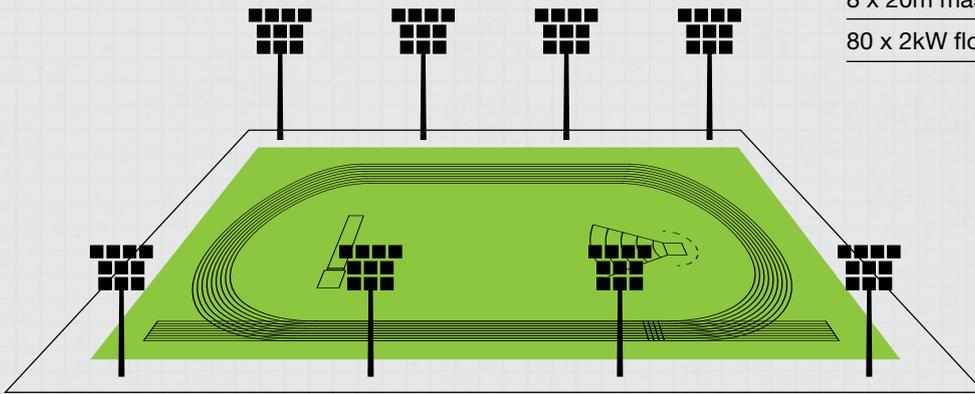
500 Lux Maintained

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8 x 20m masts

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80 x 2kW floodlights



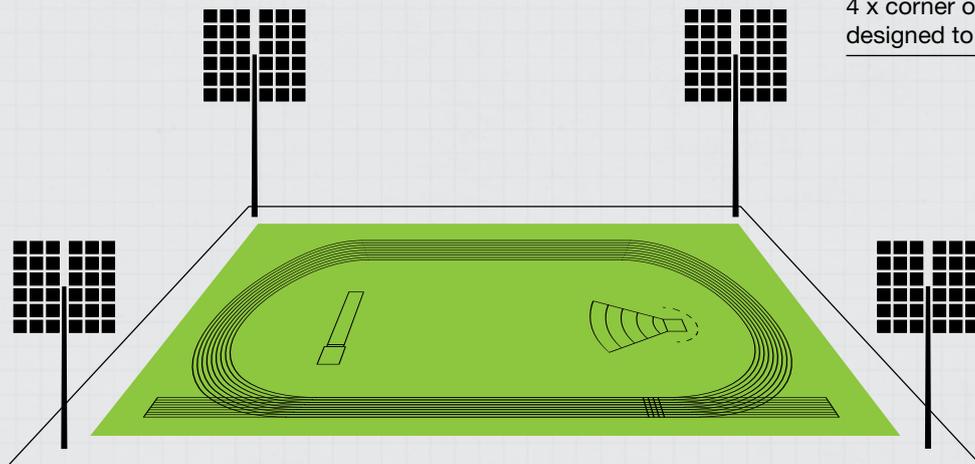
**TFLS**  
Class I

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500 Lux Maintained

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4 x corner or stand-mounted masts  
designed to suit larger stadia



NB. These standard configurations can be completely tailored to individual requirements

# Case study

## Fels Point Tennis Courts /

Working with trusted, high-profile partners was a priority for the Fels Point tennis club when it came to lighting four of their courts. With a primary road in close proximity, the development needed to be dark-skies friendly; so in collaboration with one of our international partners – the electrical contractors John Keane Electrical – we specified a lighting scheme that achieved both performance and practicality.

“

**We are delighted with the quality of advice and service we've received from Abacus. The combination of heavy-duty base-hinged columns and 16 Challenger® 1 floodlights gives a really impressive effect, without creating overspill, glare or headaches with ongoing servicing. In fact, the ease of access for maintenance is one of the greatest selling points of the system.**

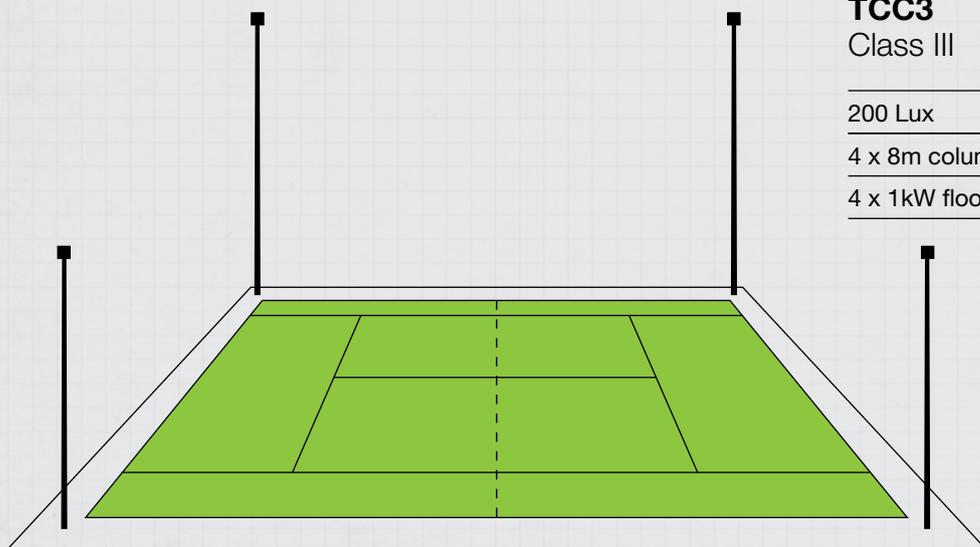
”

Niall Lucey  
Manager





# The game of tennis is all about performance and precision. Lighting it is no different.

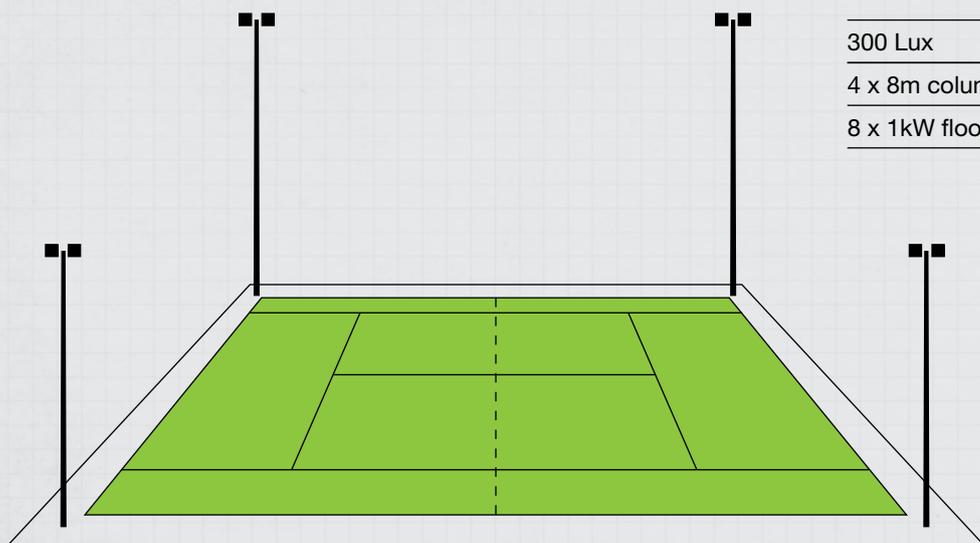


## TCC3 Class III

200 Lux

4 x 8m columns

4 x 1kW floodlights

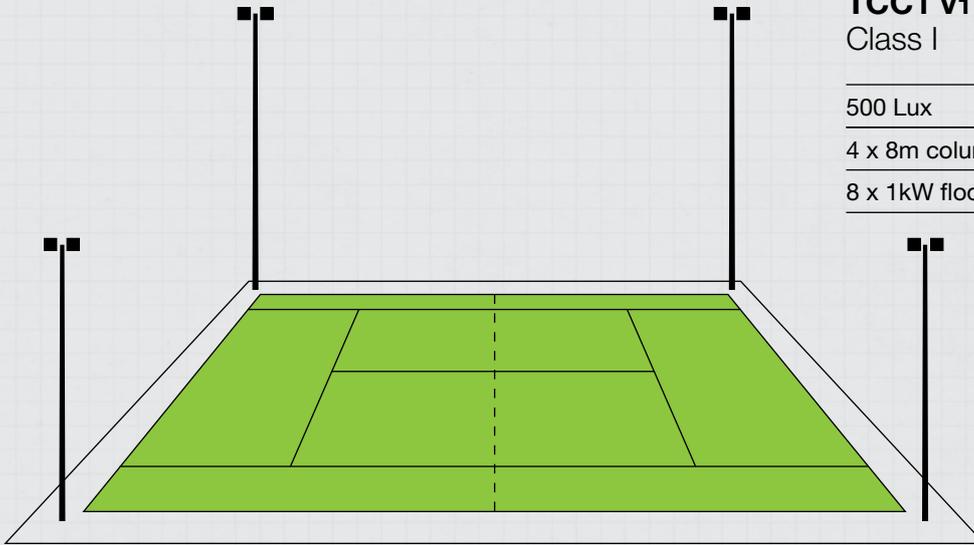


## TCC2 Class II

300 Lux

4 x 8m columns

8 x 1kW floodlights

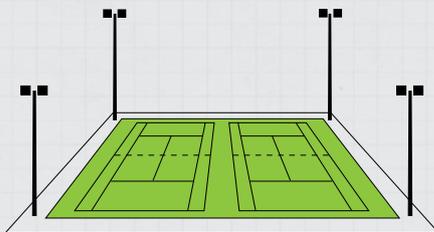


**TCC1 v1**  
Class I

500 Lux

4 x 8m columns

8 x 1kW floodlights



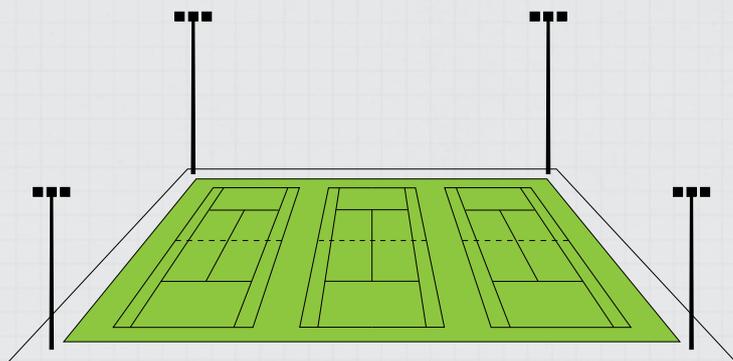
**TCC1 v2**

Class I – double court

500 Lux

4 x 10m columns

8 x 2kW floodlights



**TCC1 v3**

Class I – triple court

4 x 12m columns

12 x 2kW floodlights

NB. These standard configurations can be completely tailored to individual requirements



# Case study

## South Bristol Sports Centre /

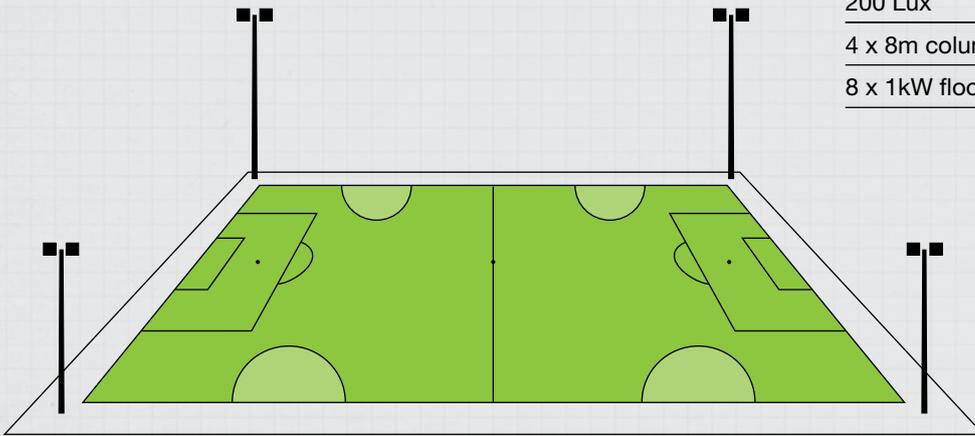
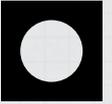
The South Bristol Sports Centre is a charity that promotes sport in the community, giving local schools and other groups access to facilities such as football and rugby pitches, squash courts and gymnasium equipment.

Our solution – eight 15m base-hinged masts and 20 Challenger® 1 headlights – an efficient, cost-effective solution that would maximise usage while minimising ongoing maintenance costs for the centre.

As part of a centre-wide upgrade including new car park and 3G pitch, the centre asked for our help planning, specifying and supplying a 200 Lux lighting scheme that would meet the standards set down by the Football Foundation.



# Lighting multi-use grounds calls for the highest level of expertise, experience and flexibility. With Abacus, all come as standard.

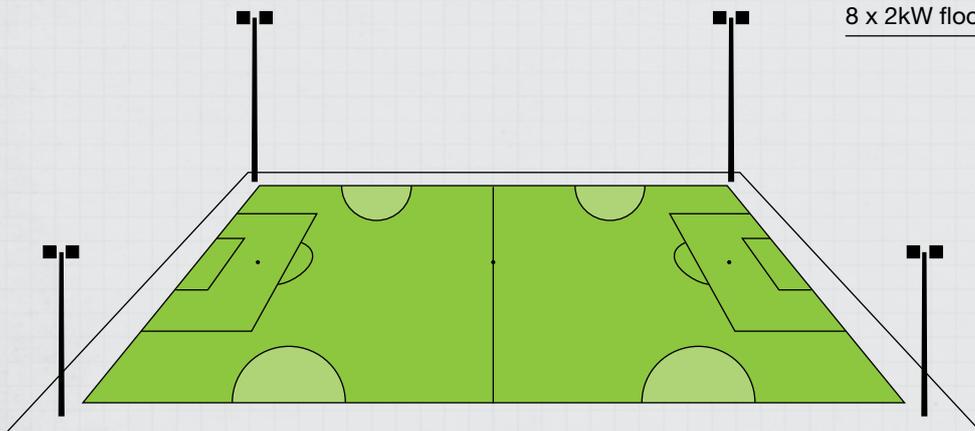


## MUC3 Class III

200 Lux

4 x 8m columns

8 x 1kW floodlights



## MUC2 Class II

300 Lux

4 x 8m columns

8 x 2kW floodlights



**MUC1**  
Class I

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500 Lux

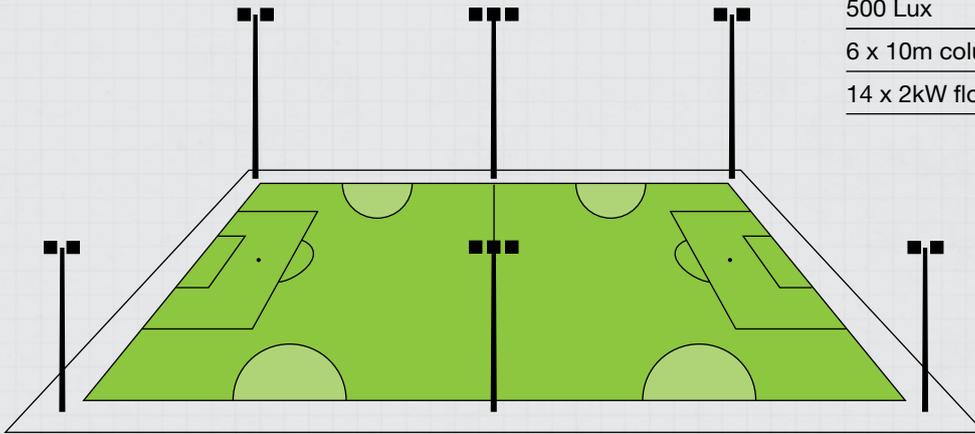
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6 x 10m columns

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14 x 2kW floodlights

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NB. These standard configurations can be completely tailored to individual requirements

# Installation

WE ENSURE  
EVERY BEAM IS  
**100%**  
ACCURATE.

If we can install floodlights by helicopter half way up a windswept Olympic ski jump in Liberec, we can do it anywhere. As well as being the fastest and safest lighting contractor, Abacus are also the most considerate – we never leave any site in a mess and any problems will be fully ironed out before we leave.

As the main contractor on site, we can take care of everything from foundations to final aiming and testing, to ensure 100% accuracy.



# Your lighting project

## From start to finish



- 1 Customer enquiry received
- ↓
- 2 Site assessment arranged (using paper plans and other information, or on-site visit for more complex projects) and estimate provided
- ↓
- 3 Pre-contract meeting to agree details
- ↓
- 4 Electrical survey, if necessary
- ↓
- 5 Foundations are excavated and foundation bolts installed
- ↓
- 6 Trench around pitch and back to mains, if required. Install supply cables and backfill
- ↓
- 7 Foundations cast and left to cure (for 2-3 weeks)
- ↓
- 8 Masts and cabinets delivered and erected onto foundations
- ↓
- 9 Floodlights fitted and aimed
- ↓
- 10 Cabling and electrical equipment fitted in masts and cabinets
- ↓
- 11 Any additional electrical equipment installed in mains room
- ↓
- 12 Electrical equipment connected and tested for NICEIC certification
- ↓
- 13 Floods switched on and lighting level checked
- ↓
- 14 System demonstrated to end user, including handover of operation and maintenance manuals

# The Abacus Total Care Warranty

The Abacus ten-year Total Care Warranty isn't like a normal warranty. It's a straightforward promise by Abacus Lighting that we will look after your lights and keep them working no matter what.

You can't get fairer than that.

It's not full of conditions and get-outs, problems and clauses and it's written in plain English for people who run and manage clubs and facilities like yours. There aren't pages of unfathomable terms and conditions either.

So how does the Abacus Total Care Warranty actually work?

## What does your warranty include?

Pretty much everything. All parts, all labour and even a proper cleaning of the light fittings at each service.

If your lighting system is operational for more than 500 hours per year, it will need an annual service. For those that run for less than 500 hours per year, once every two years will be enough.



## What isn't included?

Nothing. Our ten year all-inclusive warranty is just that – all-inclusive.

## And what does it cost?

One thing's for sure – it costs a lot less than you'll lose by having a lighting system that's out of action at any time.

Of course, every lighting scheme is different; so we'll provide a tailored warranty cost at the outset of your project.

## The inevitable small print

The service includes everything to keep your lights and your facility running, but you will still need an additional NICEIC Safety Inspection. We are happy to do this for you and can quote for your individual scheme.

Lamps will be changed when more than 10% fail or at regular service intervals, or more importantly if they ever fall below the requirement for your particular sport.



# What we include in our warranty

**ALL  
INCLUSIVE**

Our all-inclusive Total Care Warranty guarantees that your lighting will remain within the agreed league/design limits for the whole of the ten-year warranty agreement.

Service every one or two years	✓
All lamps	✓
All capacitors	✓
All ballasts	✓
All interim wiring	✓
All metalwork for control boxes	✓
All switches and relays	✓
All labour costs	✓
All engineer travel costs	✓
All engineer subsistence costs	✓
Full clean of light lenses	✓
Full clean of light control panel	✓



# Total Care Maintenance

WE OFFER  
MAINTENANCE  
FOR ABACUS AND  
NON-ABACUS  
PRODUCTS.

## For total peace of mind

With Abacus, the great service doesn't stop with installation. Our fully qualified engineers can also offer you a variety of maintenance packages to suit every requirement. Working at all heights, we will inspect and report on all aspects of your lighting system – including testing your electrical systems and cabling to certify compliance to NICEIC standards.

We can also repair and replace key components and develop a tailored maintenance programme to suit your specific project.



# The Abacus Advantage

## Total Turnkey Solution Provider



### Consultation

From initial ideas through to detailed plans we are able to supply consultancy as part of our package.



### Design

In-house experts providing both lighting and structural engineering designs.



### Manufacture

Our European and Asian manufacturing plants ensure that we achieve the most exacting standards.



### Installation

Experienced on-site Abacus teams ensuring safe and reliable installations, on time, everytime.



### Maintenance

Safeguarding your investment and ensuring longterm brilliant performance.



# Abacus International

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One of the greatest benefits of choosing Abacus is the breadth of our project portfolio. Whether you're a small ground or a world-famous international stadium, our extensive experience at every level makes us ideally placed to offer you the very best advice, design expertise and value for money across our entire product range.





Sevens Stadium, Dubai



Emirates Golf Course, Dubai



Mission Hills Golf Club, China



The Manuka Oval, Australia



**Abacus Lighting Ltd**  
Oddicroft Lane  
Sutton-in-Ashfield  
Nottinghamshire NG17 5FT  
United Kingdom

**Tel** +44 (0)1623 511 111  
**Fax** +44 (0)1623 552 133  
**Email** sales@abacuslighting.com  
**Web** www.abacuslighting.com

**Conditions of sale**

All goods supplied are subject to the company's general conditions of sale which are available on request.

**Registered Office:**

Oddicroft Lane, Sutton-in-Ashfield, Nottinghamshire, NG17 5FT, United Kingdom.  
Registered in England No. 8494722

**Trade Descriptions**

All descriptions represent only particulars of the goods to which they apply and do not form part of any contract. The company reserves the right to change specification without prior notification or public announcement.

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