



An Roinn Turasóireachta, Cultúir,
Ealaíon, Gaeltachta, Spóirt agus Meán
Department of Tourism, Culture,
Arts, Gaelacht, Sport and Media



Sports Capital Programme Workshop

Facility Development Department - 2020

Floodlighting Installations

1. Basic Floodlighting Designs
2. Sample Pricing for New Builds & Upgrades
3. LED vrs Metal Halide Floodlighting Systems
4. Useful Links



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1. Basic Floodlighting Designs

FAI Floodlighting Level Guidelines:

Table 1: Note: the below figures are for minimum 'maintained' levels.

Competition and training Lighting Recommendations				
Televised Events		Non Televised Events		
UEFA (Preliminary Rounds)	Eiroom League & Competitive non- senior Internationals	Regional Development & non-senior international friendlies	Senior, intermediate, junior and schoolboy Football	Training
1200 – 1400 (E _v)	800 (E _v)	500(E _v)	250 (E _v)	150 (E _v)

Standard Floodlighting Column Arrangements

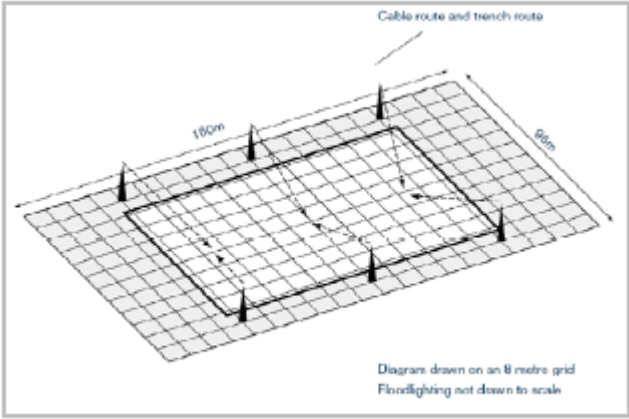


Diagram 2.0 6 column pitch lighting layout

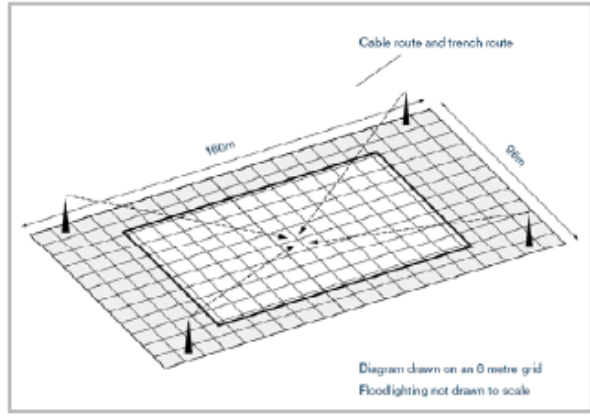
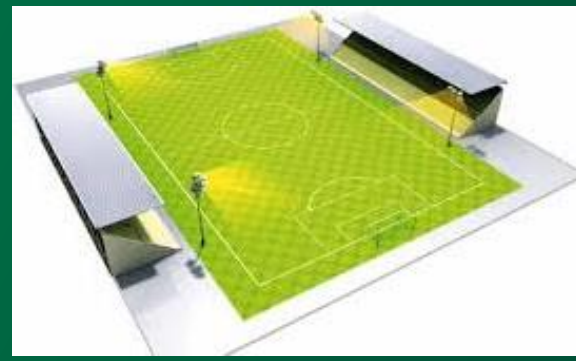
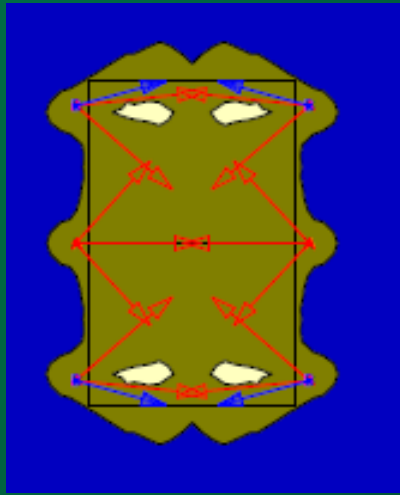
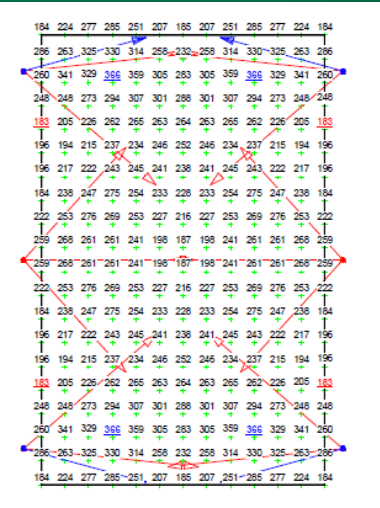


Diagram 1.0 4 column pitch lighting layout



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1. Basic Floodlighting Designs

Typical 800lux Design requirements (Televised Eircom League & Competitive Non-Senior Internationals):

- 4No. 25m Columns
- 56No. 1.35kW LED Floodlights

Typical 500lux Design requirements (Regional Development & Non-Senior International Friendlies):

- 4No. 18m Columns
- 36No. 1.35kW LED Floodlights

Typical 250lux Design requirements (Senior, Intermediate, Junior & Schoolboy Football):

- 6No. 15m Columns
- 18No. 1.35kW LED Floodlights

Typical 150lux Design requirements (Training Level):

- 6No. 15m Columns
- 12No. 1.35kW LED Floodlights

1. Basic Floodlighting Designs

Other Requirements:

- **Power Distribution Board** (*usually located in Pitch side Pillar or in Control Room*)
- **Switching Controls** (*usually located within Clubhouse, Control room etc.*)
 - **Switching High (Match) / Low (Training)**
 - **Switching Pitch in sections** (*e.g. Pitch may be divided in 3rds for 6 Column system*)
 - **GSM/Mobile Switching Options Available**
 - **Full Dali Dimming System Options Available** (*incl light shows, events etc.*)
- **Cabling: In-ground, Flex** (*Within column*) and **Switching/Dali Cabling**
- **Civil Engineering Works: Column Bases, Trenching/Ducting, Generator Base** (*if applicable*) and **Pillar Base** (*ESL can provide priced options if required*)



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1. Basic Floodlighting Designs

Other Considerations:

- **Power Requirements (New System) or Existing Power Supply for Upgrades (e.g. single phase, three phase, power enhancements etc.) – Generator Options may also be considered (ESL can provide priced option for suitable Generator if required)**
- **Pitch Floodlighting Layout (e.g. 6 Column system may not suit due to location of stand etc. Columns usually 4m-6m back from touch lines)**
- **Planning requirements and neighbouring properties (e.g. Column Heights may be subject to planning, Louvres may be required to Floodlights to limit light spill into neighbouring properties etc.)**
- **Likelihood for future upgrades: For example, should club initially require Training level lighting but plan to upgrade to Full Match level at a later stage; its more cost effective to install the complete infrastructure (e.g. cabling, columns, PDB etc.) for the full system during Phase 1, enabling only additional floodlights being required in Phase 2.**



2. Sample Pricing for New Builds & Upgrades

Typical 800lux Design requirements (Televised Eircom League & Competitive Non-Senior Internationals):

- New Build Price: €200,000 + VAT
- Upgrade MHL to LED: €115,000 + VAT

Typical 500lux Design requirements (Regional Development & Non-Senior International Friendlies):

- New Build Price: €110,000 + VAT
- Upgrade MHL to LED: €75,000 + VAT

Typical 250lux Design requirements (Senior, Intermediate, Junior & Schoolboy Football):

- New Build Price: €72,000 + VAT
- Upgrade MHL to LED: €39,000 + VAT

Typical 150lux Design requirements (Training Level):

- New Build Price: €60,000 + VAT
- Upgrade MHL to LED: €28,000 + VAT

Above prices are for guidance purposes only and are subject to site survey & site specific designs.

Prices for LED Floodlighting Systems only. Prices exclude Civil Engineering Works and/or Generator (if required). Price options available upon request.

For Upgrade Projects: The condition of existing Columns & Brackets would need to be assessed for structural integrity and in-ground cabling assessed for any power enhancements (e.g upgrade of lighting levels from Training to Match)



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3. LED vrs Metal Halide Floodlighting Systems



- Metal halide floodlights will be phased out in the near future
- Replacement / repair parts will be supported up to 2030
- LED offer circa 40% savings on energy as opposed to metal halide (*e.g. standard to replace 2.2kW MHL with a 1.35kW LED*)
- Smaller power supply required with LED (*i.e. reduced energy costs, smaller Generator, reduced ESB upgrade costs etc.*)
- LED is instant on 100% (*no warm up period required*)
- Should power outage occur during an event/match LED is instant back on
- LED offers much longer life, manufacturers claim up to 80,000 burn hours, metal halide normal lamp life is 8,000 burn hours. (*based on Philips MHL & LED Optivision range*)
- Little to no maintenance on LED saving clubs in the long term
- 10 Year Warranty available on LED where only 1 Year Warranty on Metal Halide
- LED provides enhanced lighting control and more limited light spill vrs MHL
- Sports Grant Applications only apply to LED Systems
- New LED Systems are more expensive than MHL, however substantial added benefits as per the above



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4. Some Useful Links

Electric Skyline Website: <https://electric skyline.ie/>

For Quotations, please e-mail: estimating@electric skyline.ie

FAI Floodlighting Guidelines:
<https://www.fai.ie/sites/default/files/atoms/files/Floodlighting%20Guidelines.pdf>



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