

Educational Lighting Guide 2024

Manufacturers of quality lighting since 1920





British Electric Lamps Ltd www.**belllighting**.co.uk



Benefits of BELL LED lighting

Over recent years, LED lighting has become more and more prevalent. As technology has improved, LED lamps and fittings have become more efficient, and with these improvements legislation has been introduced to move manufacturers towards LED lighting.

With LMR80 and B10 credentials stated for many of the fittings within our catalogue which are best suited to an education setting, our customers can expect a maximum 20% lumen depreciation over the stated lifetime hours of our products, and a maximum failure rate of 10% for installed products over the same period.

Our product range has you covered, with fittings and lamps to suit a host of environments, and we have a comprehensive offer where educational lighting is concerned. From our Mentor LED CCT Batten, named in reference to the sector which it was designed to serve, to our Arial Plus Backlit High Output UGR<19 LED Panel, which is an exceptional option for any space which requires high uniformity and lighting levels.

How much can you save?

Switching from Fluorescent to LED lighting is a guaranteed way to save money and reduce emissions. Along with this, LED products require less maintenance post installation, and their energy cost is significantly lower than their outdated technology equivalents.

Cost savings are always installation and project dependent, and our Energy Saving Calculator tool which can be found on our website is an excellent starting point in determining the potential benefits of switching to LED. As an example of the level of savings on offer, we used two recent college projects to determine an estimated general cost and energy saving when upgrading to LED within an educational setting. On average, changing to BELL Lighting products resulted in a £30,000 annual saving, amounting to a 40,000kg CO₂ saving and a 175,000kWh energy saving.

With exceptional warranties, lifetime hours, and long-term support on offer, our customers can be assured that switching to educational LED lighting is a sound decision which can provide a host of benefits, from immediate costs, maintenance, and lighting quality, to a reduction in the impact which lighting has on the environment.



Lighting Design, a dedicated team of specialist engineers ready to help

Our team of professional lighting designers and engineers have over 50 years of experience in the lighting industry. We know the importance of good lighting design and the benefits a lighting engineer will bring to a project. Our lighting design service ensures correct light levels are achieved in compliance with current regulations.

Our specialised knowledge of lighting and lighting control systems provides a smooth hassle free process, delivering beautiful energy saving lighting solutions on time and on budget.

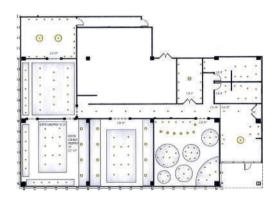


Working within the UK and internationally, the lighting team have established a reputation for designing a broad range of exciting projects of all sizes, from single rooms through to partnerships with multi-disciplined design teams on large infrastructure projects.

We are a responsive and fast moving team who can manage the complete lighting design process from concept through to the tender ϑ supply

For all internal, external & emergency projects contact:

lightingdesign@belllighting.co.uk



BELLlighting Case Study

Rotherham College

Mark Lewis, Electrical Engineer at Lilleker Bros Ltd said "I was asked by the head of the Facilities Management team at Thomas Rotherham College to see what could be done in the canteen/break out area. Their lighting at the time was 34 x 70W HQI (2,380W) these were replaced with 9 x 180W LED Lowbay fittings (1,620W). The quality of the light was poor due to low light levels, it was also expensive to run with the added disadvantage of frequent lamp/ballast failures.

I contacted BELL who offered an LED Solution including; Lowbays, Aqua & Deco fittings which reduced the quantity of fittings, minimised the running costs, improved the light level and atmosphere. The Head of Rotherham College FM said he was "Over the moon with the result".

- Over the life of the fittings Thomas Rotherham College could save £5376 in energy costs
- Energy Saving 34%
- Annual Energy Saving 2796kWh / Annual CO₂ Saving 1565kg / Annual Maintenance Saving £600





Case Study

The Change Foundation Cricket Centre

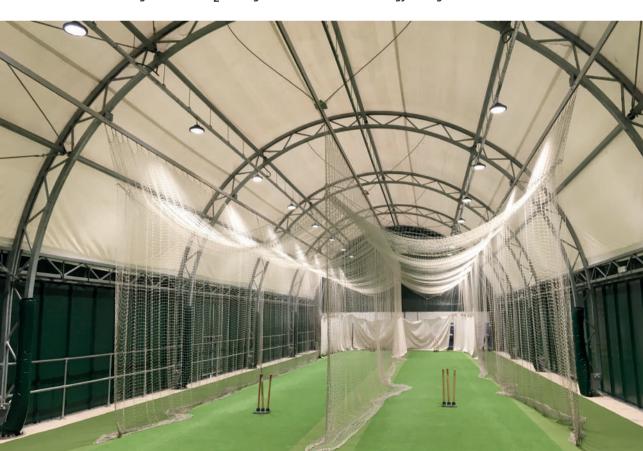
The Change Foundation is an award-winning charity that uses sport to change the lives of marginalised young people. They deliver targeted long-term interventions for the most vulnerable young people through Coach Mentors with lived experience, providing regular sport, personalised mentoring and work-related opportunities.

A detailed lighting design scheme was compiled by the Power Plus Group Lighting Design Team, and BELL 150W Illumina Atlas High Bay's with the UGR Honeycomb lens was selected to be the perfect luminaire for the upgrade.

The 36 original fittings were replaced with $18 \times 150 \text{w}$ fittings. This reduced the rows of fittings to 2 which is a great advantage as there are only 2 lanes so the new fittings did not interfere with the netting installed between the lanes.

The real benefits were; less energy consumption, reduction in glare rating and an improvement in lux levels from 500lux to over 950lux. The combination of these factors means that the players can practice in safety with lighting that delivers high definition, high luminance, low glare and accurate colour rendering.

Annual Savings: £9419 / CO₂ 1468kg / Maintenance £600 / Energy Saving 32%



BELLlighting





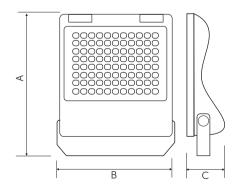
Asymmetric/Symmetric LED Floodlight

Designed and engineered in the UK specifically to meet the requirements for sports lighting and to reduce light pollution levels. The Skyline Virtus is a high specification floodlight, wattage switchable as standard with a 50,000 hour lifespan, 7 year warranty and 2 year on site warranty.

- Genuine replacement for 250/500/750W Metal Halide/Sodium Floodlight
- · Wattage Switchable
- · Perfect for sports, building facade, landscape, security & car park lighting
- Asymmetric distribution, low light pollution (Asymmetric version)
- 155 Lm/W
- Surge protected 10,000V
- · Aerodynamic, streamlined design for reduced windage
- Fully encapsulated IP66 TUV certified driver
- Nichia GRT-V1 LED
- Long life 50,000 hours (L80 B10 @ 25°C)
- · Robust construction, supplied with standard universal mounting bracket
- Supplied pre-flexed (1.5M)
- · Air pressure equalisation feature to eliminate capillary effect



LMR80: Maximum 20% of lumen depreciation over rated hours. B10: Maximum 10% of fittings failure rate over rated hours



| | 50/75/100W | 100/150/200W | 100/225/300W |
|---|------------|--------------|--------------|
| Α | 353mm | 447mm | 495mm |
| В | 287mm | 359mm | 419mm |
| С | 65mm | 75mm | 75mm |

 $^{^2}$ Exceeds EU standard of RA 80 for Colour Rendering Index 3 Subject to terms θ conditions (Contact Customer Service)







¹ Exceeds EU standard of 70 for Lumens Maintenance Ratio



| Technical Specification | on |
|-------------------------|--|
| Construction | Polyester coated die-cast LM6 Marine Grade aluminium & toughened safety glass |
| Driver | LiFud |
| LED Chip | Nichia GRT-V1 |
| IP Rating | IP66 |
| Operating Temp | -30°C to +35°C |
| Input Voltage | 110 - 240V |
| Power Factor | > 0.9 |
| CRI | 80 - Exceeds EU standard of Ra 70 for Colour Rendering Index |
| LMR | 80 - Exceeds EU standard of 70 for Lumens Maintenance Ratio |
| Windage/EPA | 100W 0.067M ² / 200W 0.112M ² / 300W 0.144M ² |
| Weight | 100W - 2.8Kg / 200W - 5.2Kg / 300W - 6.4Kg |

| Code | V | W | Description | Lm | Peak Intensity | Temp | Lm/W | Hours |
|-------|---------|-------------|---|-----------------|----------------------|-------|------|-------|
| 11485 | 110-240 | 50/75/100 | Skyline Virtus Switchable Asymmetric Floodlight | 7700- 15450 | 558 cd/klm @ 53° | 4000K | 152 | 50000 |
| 11486 | 110-240 | 50/75/100 | Skyline Virtus Wattage Switchable Symmetric Floodlight | 7500- 15100 | 1400 cd/klm @ 13° | 4000K | 148 | 50000 |
| 11482 | 110-240 | 50/75/100 | Skyline Virtus Wattage Switchable 30° Floodlight | 7400- 15950 | 3074 cd/klm @ 0° | 4000K | 157 | 50000 |
| 11489 | 110-240 | 100/150/200 | Skyline Virtus Wattage Switchable Asymmetric Floodlight | 15450- 30300 | 518 cd/klm @ 58° | 4000K | 152 | 50000 |
| 11490 | 110-240 | 100/150/200 | Skyline Virtus Wattage Switchable Symmetric Floodlight | 15100- 30050 | 1142 cd/klm @ 11° | 4000K | 148 | 50000 |
| 11483 | 110-240 | 100/150/200 | Skyline Virtus Wattage Switchable 30° Floodlight | 15950- 30900 | 3086 cd/klm @ 0° | 4000K | 156 | 50000 |
| 11491 | 110-240 | 150/225/300 | Skyline Virtus Wattage Switchable Asymmetric Floodlight | 22400- 46050 | 562 cd/klm @ 57° | 4000K | 154 | 50000 |
| 11492 | 110-240 | 150/225/300 | Skyline Virtus Wattage Switchable Symmetric Floodlight | 21850- 45650 | 1311 cd/klm @ 10° | 4000K | 150 | 50000 |
| 11484 | 110-240 | 150/225/300 | Skyline Virtus Wattage Switchable 30° Floodlight | 23400- 47800 | 2890 cd/klm @ 0° | 4000K | 158 | 50000 |

 $^{^1}$ Exceeds EU standard of 70 for Lumens Maintenance Ratio 2 Exceeds EU standard of RA 70 for Colour Rendering Index 3 Subject to terms θ conditions (Contact Customer Service)









LED CCT Wallpack

Designed to be used where the aesthetics of the light fitting, along with a tough robust construction is needed. The fittings are IP65 and IK8 compliant, supplied complete with an opal diffuser for even light distribution. Available in emergency and non emergency versions.

- Genuine replacement for 70W Metal Halide & Sodium
- High impact polycarbonate construction
- 68% energy saving
- 30000 hours

Options

- Photocell version
- Emergency / Emergency Photocell version











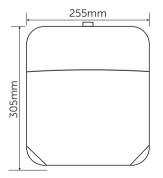








LMR80: Maximum 20% of lumen depreciation over rated hours. B10: Maximum 10% of fittings failure rate over rated hours













MUCO LED CCT Wallpack

| Technical Specificati | Technical Specification | | | |
|-----------------------|--|--|--|--|
| Construction | Polycarbonate Base & Lens | | | |
| Driver | BELL | | | |
| LED Chip | Samsung | | | |
| IP Rating | IP65 | | | |
| Operating Temp | -30°C to +35°C / Emergency version minimum temperature 0°C | | | |
| Input Voltage | 240V | | | |
| Power Factor | > 0.9 | | | |
| CRI | 80 - Exceeds EU standard of Ra 70 for Colour Rendering Index | | | |
| LMR | 80 - Exceeds EU standard of 70 for Lumens Maintenance Ratio | | | |

| Code | V | W | Description | Lm | Lm/W | Beam Angle | Temp | Hours |
|-------|---------|----|---|------|------|---------------|------------|-------|
| 11350 | 220-240 | 22 | Muro CCT LED Wallpack | 1600 | 72 | 120° | 3000/4000K | 30000 |
| 11351 | 220-240 | 22 | Muro CCT LED Wallpack Emergency | 1600 | 72 | 120° | 3000/4000K | 30000 |
| 11352 | 220-240 | 22 | Muro CCT LED Wallpack Microwave Sensor | 1600 | 72 | 120° | 3000/4000K | 30000 |
| 11353 | 220-240 | 22 | Muro CCT LED Wallpack Photocell | 1600 | 72 | 120° | 3000/4000K | 30000 |
| 11354 | 220-240 | 22 | Muro CCT LED Wallpack Emergency, Microwave Sensor | 1600 | 72 | 120° | 3000/4000K | 30000 |
| 11355 | 220-240 | 22 | Muro CCT LED Wallpack - Emergency, Photocell | 1600 | 72 | 120° | 3000/4000K | 30000 |

Emergency versions must be tested in line with the requirements of BS5266, failure to do so may effect battery life and warranty.

 $^{^1}$ Exceeds EU standard of 70 for Lumens Maintenance Ratio 2 Exceeds EU standard of RA 70 for Colour Rendering Index 3 Subject to terms & conditions (Contact Customer Service)







LED Integrated CCT Anti Corrosive Batten

The Dura LED CCT Anti Corrosive Batten is part of one of BELL's flagship luminaire families. The Dura CCT combines the reliability of the Dura Batten with the added CCT & wattage switchable functionality. Plug in emergency packs, Microwave and PIR on/off sensors create a very stock friendly solution for wholesalers and contractors alike.

- The ideal replacement for Single/Twin Fluorescent T8 and T5 Fixtures
- · Special high light transmission frosted polycarbonate diffuser for smooth uniform dimming
- Perfect for all commercial environments
- Tool-free termination
- Plug in accessories
- · Stock friendly product
- · Suitable for BESA Box mounting







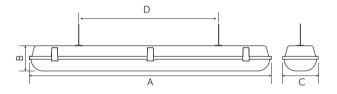








LMR80: Maximum 20% of lumen depreciation over rated hours. B10: Maximum 10% of fittings failure rate over rated hours



| | Α | В | С | D |
|------------------|--------|------|------|-------------|
| 20/40W 4' Batten | 1263mm | 90mm | 90mm | 900-955mm |
| 25/50W 5' Batten | 1530mm | 90mm | 90mm | 1000-1055mm |
| 30/60W 6' Batten | 1828mm | 90mm | 90mm | 1000-1055mm |

| w | Colour Temp (K) Selected | Lm |
|----|--------------------------------|------|
| | 3000 | 2850 |
| 20 | 4000 | 3000 |
| | 6000 | 2950 |
| | 3000 | 5100 |
| 40 | 4000 | 5550 |
| | 6000 | 5250 |
| | 3000 | 3550 |
| 25 | 4000 | 3800 |
| | 6000 | 3850 |
| | 3000 | 6350 |
| 50 | 4000 | 7000 |
| | 6000 | 6800 |
| | 3000 | 4250 |
| 30 | 4000 | 4500 |
| | 6000 | 4450 |
| | 3000 | 7500 |
| 60 | 4000 | 8150 |
| | 6000 | 7950 |









LED Integrated CCT Anti Corrosive Batten

| Technical Specificatio | Technical Specification | | | |
|------------------------------------|--|--|--|--|
| Construction | Polycarbonate Body & lens | | | |
| Driver | BELL | | | |
| LED Chip | Samsung | | | |
| IP Rating | IP65 | | | |
| Operating Temp | -30°C to +35°C / Emergency version minimum temperature -5°C | | | |
| Input Voltage | 220 - 240V | | | |
| Power Factor | > 0.9 | | | |
| CRI | 85 - Exceeds EU standard of Ra 80 for Colour Rendering Index | | | |
| LMR | 80 - Exceeds EU standard of 70 for Lumens Maintenance Ratio | | | |
| L1A / L1B / L2A / L2B Compliant | Yes | | | |

 $^{^1}$ Exceeds EU standard of 70 for Lumens Maintenance Ratio 2 Exceeds EU standard of RA 80 for Colour Rendering Index 3 Subject to terms & conditions (Contact Customer Service)



LED Integrated CCT Anti Corrosive Batten

| Code | W | Description | Lm | Temp | Hours |
|-------|-------|--|-----------|-----------|-------|
| 10275 | 20/40 | Dura LED Anti Corrosive Batten - CCT, 1200mm (4ft) | 2850-5550 | 3/4/6000K | 50000 |
| 10276 | 25/50 | Dura LED Anti Corrosive Batten - CCT, 1500mm (5ft) | 3550-7000 | 3/4/6000K | 50000 |
| 10277 | 30/60 | Dura LED Anti Corrosive Batten - CCT, 1800mm (6ft) | 4250-8150 | 3/4/6000K | 50000 |
| 10281 | - | Plug in Emergency Pack for CCT Battens | - | - | - |
| 10282 | - | Plug in Sensor On/Off for CCT Battens | - | - | - |
| 10293 | - | Plug in PIR for CCT Battens | - | - | - |
| 10294 | - | Remote Control for CCT Battens (PIR only) | - | - | - |

PIR Max Operating Height 3.2m

Emergency versions must be tested in line with the requirements of BS5266, failure to do so may effect battery life and warranty







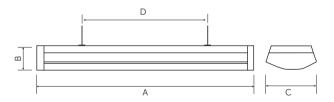
LED Integrated CCT UGR<19 Batten

The Mentor Wattage Switchable LED integrated CCT Batten is colour selectable with a choice of 3000K, 4000K or 6000K to suit your application. 36 in 1 fitting with plug-in emergency packs, Microwave and PIR on/off sensors available, along with a Dali Dimming version.

- The ideal replacement for Single/Twin Fluorescent T8 and T5 Fixtures
- Perfect for schools, universities & hospitals where a flexible wattage, selectable colour batten is required
- Suitable for food environments
- Special high light transmission frosted polycarbonate diffuser for smooth uniform lighting with reduced glare
- Tool-free termination
- Shatterproof
- Up to 140 Lm/W

LMR80: Maximum 20% of lumen depreciation over rated hours. B10: Maximum 10% of fittings failure rate over rated hours





| | Α | В | С | D |
|-----------|--------|------|-------|--------|
| 4' Batten | 1200mm | 97mm | 200mm | 1000mm |
| 5' Batten | 1500mm | 97mm | 200mm | 1300mm |

| w | Colour Temp (K) Selected | Lm |
|----------------|--------------------------------|------|
| | 3000 | 2650 |
| 20 | 4000 | 2800 |
| | 6000 | 2850 |
| | 3000 | 4550 |
| 38 | 4000 | 4800 |
| | 6000 | 4850 |
| | 3000 | 4100 |
| 32 Dali Dim | 4000 | 4350 |
| Dan Diiii | 6000 | 4400 |
| | 3000 | 5250 |
| 42 Dali Dim | 4000 | 5550 |
| Dati Diiii | 6000 | 5600 |
| | 3000 | 4300 |
| 34 | 4000 | 4550 |
| | 6000 | 4600 |
| | 3000 | 6500 |
| 53 | 4000 | 6900 |
| | 6000 | 6950 |
| | 3000 | 6100 |
| 47 Dali Dim | 4000 | 6450 |
| | 6000 | 6500 |
| | 3000 | 7350 |
| 55 Dali Dim | 4000 | 7800 |
| Juli Jilli | 6000 | 7850 |









LED Wattage Switchable, Integrated CCT Batten

| Technical Specificatio | Technical Specification | | | |
|------------------------------------|--|--|--|--|
| Construction | Steel Body / Polycarbonate Diffuser | | | |
| Driver | Tridonic | | | |
| LED Chip | Samsung | | | |
| IP Rating | IP40 | | | |
| Operating Temp | -30°C to +35°C / Emergency version minimum temperature -5°C | | | |
| Input Voltage | 220 - 240V | | | |
| Power Factor | > 0.9 | | | |
| CRI | 85 - Exceeds EU standard of Ra 80 for Colour Rendering Index | | | |
| LMR | 80 - Exceeds EU standard of 70 for Lumens Maintenance Ratio | | | |
| L1A / L1B / L2A / L2B Compliant | Yes | | | |

| Code | W | Description | Lm | Temp | Hours |
|-------|-------|---|-----------|-----------|-------|
| 10285 | 20/38 | Mentor Wattage Switchable LED Batten CCT, 1200mm (4ft) | 2650-4850 | 3/4/6000K | 50000 |
| 10286 | 34/53 | Mentor Wattage Switchable LED Batten CCT, 1500mm (5ft) | 4300-6950 | 3/4/6000K | 50000 |
| 10287 | 32/42 | Mentor Wattage Switchable LED Batten CCT, Dali Dim, 1200mm (4ft) | 4100-5600 | 3/4/6000K | 50000 |
| 10288 | 47/55 | Mentor Wattage Switchable LED Batten CCT, Dali Dim, 1500mm (5ft) | 6100-7850 | 3/4/6000K | 50000 |
| 10281 | - | Plug in Emergency Pack for above | - | | - |
| 10282 | - | Plug in Microwave Sensor On/Off for above | - | | - |
| 10293 | - | Plug in On/Off PIR for above | - | | - |
| 10294 | _ | Remote Control for CCT Battens (PIR only) | - | - | - |

Microwave Max Operating Height 3.2m

Emergency versions must be tested in line with the requirements of BS5266, failure to do so may effect battery life and warranty

¹ Exceeds EU standard of 70 for Lumens Maintenance Ratio ² Exceeds EU standard of RA 80 for Colour Rendering Index

³ Subject to terms & conditions (Contact Customer Service)











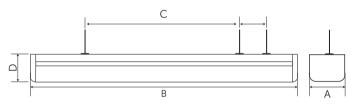
LED CCT Integrated Batten

The Ultra LED CCT is a versatile general-purpose batten. The Ultra CCT has the reliable features of the standard Ultra battens combined with the additional benefits of selectable colour temperature and wattage. Plug in emergency packs, Microwave and PIR on/off sensors create a very stock friendly solution for wholesalers and contractors alike.

- The ideal replacement for Single/Twin Fluorescent T8 and T5 Fixtures
- Special high light transmission frosted polycarbonate diffuser
- Tool-free termination
- Shatterproof
- Plug in accessories
- Stock friendly product



LMR80: Maximum 20% of lumen depreciation over rated hours. B10: Maximum 10% of fittings failure rate over rated hours



| Model | А | В | C (From Centre) | D |
|--------|------|--------|-----------------------|------|
| 20/40W | 69mm | 1230mm | 290mm / 170mm / 320mm | 82mm |
| 30/60W | 69mm | 1530mm | 290mm / 170mm / 320mm | 82mm |
| 40/80W | 69mm | 1795mm | 415mm / 170mm / 320mm | 82mm |

| w | Colour Temp (K) Selected | Lm |
|----|--------------------------------|-------|
| | 3000 | 2850 |
| 20 | 4000 | 2950 |
| | 6000 | 2960 |
| | 3000 | 5000 |
| 40 | 4000 | 5400 |
| | 6000 | 5200 |
| | 3000 | 4100 |
| 30 | 4000 | 4400 |
| | 6000 | 4450 |
| | 3000 | 7000 |
| 60 | 4000 | 7700 |
| | 6000 | 7550 |
| | 3000 | 5350 |
| 40 | 4000 | 5650 |
| | 6000 | 5650 |
| | 3000 | 9850 |
| 80 | 4000 | 10850 |
| | 6000 | 10400 |









LED CCT Integrated Batten

| Technical Specification | | |
|------------------------------------|--|--|
| Construction | Steel Body, Polycarbonate lens | |
| Driver | BELL | |
| LED Chip | Samsung | |
| IP Rating | IP20 | |
| Operating Temp | -30°C to +35°C / Emergency version minimum temperature -5°C | |
| Input Voltage | 220 - 240V | |
| Power Factor | > 0.9 | |
| CRI | 85 - Exceeds EU standard of Ra 80 for Colour Rendering Index | |
| LMR | 80 - Exceeds EU standard of 70 for Lumens Maintenance Ratio | |
| L1A / L1B / L2A / L2B Compliant | Yes | |

 $^{^1}$ Exceeds EU standard of 70 for Lumens Maintenance Ratio 2 Exceeds EU standard of RA 80 for Colour Rendering Index 3 Subject to terms θ conditions (Contact Customer Service)



LED CCT Integrated Batten

| Code | W | Description | Lm | Temp | Hours |
|-------|-------|---|------------|-----------|-------|
| 10278 | 20/40 | Ultra LED Integrated Batten - CCT, 1200mm (4ft) | 2850-5400 | 3/4/6000K | 50000 |
| 10279 | 30/60 | Ultra LED Integrated Batten - CCT, 1500mm (5ft) | 4100-7700 | 3/4/6000K | 50000 |
| 10280 | 40/80 | Ultra LED Integrated Batten - CCT, 1800mm (6ft) | 5350-10850 | 3/4/6000K | 50000 |
| 10281 | - | Plug in Emergency Pack for CCT Battens | - | - | - |
| 10282 | - | Plug in Sensor On/Off for CCT Battens | - | - | - |
| 10293 | - | Plug in PIR for CCT Battens | - | - | - |
| 10294 | - | Remote Control for CCT Battens (PIR only) | - | - | - |

PIR Max Operating Height 3.2m

Emergency versions must be tested in line with the requirements of BS5266, failure to do so may effect battery life and warranty







Olluminaatlas

Switchable Wattage LED High Bay

The Illumina Atlas Switchable Wattage High Bay is a highly efficient versatile LED luminaire, ideally suited to a wide range of applications for both new installations and retrofit applications.

- 60-200 Switchable Wattages
- Seoul Semiconductor LED
- Plug-in PIR & Microwave sensors available
- Sensor parameters set by remote control
- Genuine Replacement for 250-600W Metal Halide or Sodium
- Perfect for warehousing, large retail and factories
- Emergency kit available
- 145 Lm/W













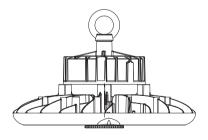








LMR80: Maximum 20% of lumen depreciation over rated hours. B10: Maximum 10% of fittings failure rate over rated hours



| | 100W | 150W | 200W |
|----------|-------|-------|-------|
| Diameter | 245mm | 245mm | 294mm |
| Height | 159mm | 174mm | 174mm |







11466

Infra-red remote control

Olluminaatlas

Switchable Wattage LED High Bay

| Technic | al Specificatio | n | | | |
|-----------|-----------------|---|-------------|-------|-------|
| Constru | • | Die Cast Aluminium Body, Polycarbonate Lens | | | |
| Driver | | Muso | | | |
| LED Chi | p | Seoul Semiconductor | | | |
| IP Rating | 9 | IP65 | | | |
| Operatir | ng Temp | -30°C to +50°C / Emergency version minimum temperatu | ıre -5°C | | |
| Input Vo | ltage | 220 - 240V | | | |
| Power F | actor | > 0.9 | | | |
| CRI | | 85 - Exceeds EU standard of Ra 70 for Colour Rendering I | ndex | | |
| LMR | | 80 - Exceeds EU standard of 70 for Lumens Maintenance | Ratio | | |
| Weight | | 60-100W 2Kg / 90-150W 2.1Kg / 120-200W 2.8Kg | | | |
| | | | | | |
| Code | W | Description | Lm | Temp | Hours |
| 11450 | 60-100 | Illumina Atlas Switchable Wattage LED High Bay 120° lens | 9000-14000 | 4000K | 50000 |
| 11452 | 90-150 | Illumina Atlas Switchable Wattage LED High Bay 120° lens | 14000-21000 | 4000K | 50000 |
| 11454 | 120-200 | Illumina Atlas Switchable Wattage LED High Bay 120° lens | 18000-28000 | 4000K | 50000 |
| 11451 | 60-100 | Illumina Atlas Switchable Wattage LED High Bay 90° lens | 9000-14000 | 4000K | 50000 |
| 11453 | 90-150 | Illumina Atlas Switchable Wattage LED High Bay 90° lens | 14000-21000 | 4000K | 50000 |
| 11455 | 120-200 | Illumina Atlas Switchable Wattage LED High Bay 90° lens | 18000-28000 | 4000K | 50000 |
| 11478 | - | Plug In Emergency Pack | - | _ | - |
| 11463 | - | Twist Microwave Sensor for Illumina Atlas Switchable Wattage High Bay | - | - | - |
| 11464 | - | Twist PIR Sensor for Illumina Atlas Switchable Wattage High Bay | - | - | - |
| 11465 | - | Casambi Bluetooth Wireless Node for Illumina Atlas Switchable Wattage High Bay | - | - | - |
| 11471 | - | Polycarbonate Reflector for 60/70/100W and 90/120/150W Illumina Atlas Switchable Wattage High Bay | - | - | - |
| 11472 | - | Polycarbonate Reflector for 120/160/200W Illumina Atlas Switchable Wattage High Bay | - | - | - |
| 11473 | - | Aluminium Reflector for 60/70/100W and 90/120/150W Illumina Atlas Switchable Wattage High Bay | - | - | - |
| 11474 | - | Aluminium Reflector for 120/160/200W Illumina Atlas Switchable Wattage High Bay | - | - | - |
| 11475 | - | Reflector Cover for 60/70/100W and 90/120/150W Illumina Atlas Switchable Wattage High Bay | - | | _ |
| 11476 | - | Reflector Cover for 120/160/200W Illumina Atlas Switchable Wattage High Bay | - | - | - |
| 11477 | - | 60° Adjustable Bracket for Illumina Atlas Switchable Wattage High Bay | - | - | - |





BELLlighting





LED CCT Wattage Switchable Bulkhead

This cost-effective, colour switchable bulkhead is an ideal replacement for 16w, 28w and 38w fluorescent fittings. With the benefits of a high transmission frosted diffuser, rear, side & BESA Box cable entry and is IP65 as standard.

- CCT Cool White / Warm White / Daylight (3/4/6000K)
- The smart replacement for 16w, 28w and 38w fluorescent
- Tri level control now included on corridor dim versions
- Microwave and corridor dimming function option
- Supplied with White Bezel or Black Bezel
- · White and Black Eyelids available
- · High transmission frosted diffuser
- No lamp replacement
- No maintenance
- 50000 hour life
- IP65 Sealed fitting
- 8M detection range on corridor dim option (2.6m mounting height)
- Rear, Side & BESA Box cable entry
- Supplied with tamper-proof screws

| Wattage Selected | Colour Temp (K) Selected | Lumens (lm) |
|---------------------|--------------------------------|----------------|
| | 3000 | 870 |
| 9W | 4000 | 930 |
| | 6000 | 930 |
| | 3000 | 1250 |
| 14W | 4000 | 1400 |
| | 6000 | 1350 |
| | 3000 | 1490 |
| 18W | 4000 | 1700 |
| | 6000 | 1620 |













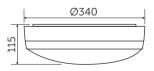


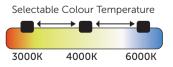






LMR80: Maximum 20% of lumen depreciation over rated hours. B10: Maximum 10% of fittings failure rate over rated hours













LED CCT Wattage Switchable Bulkhead

| Technical Specification | | | |
|-------------------------|--|--|--|
| Construction | Polycarbonate body and lens | | |
| Driver | BELL | | |
| LED Chip | Samsung | | |
| IP Rating | IP65 | | |
| Operating Temp | -20°C to +40°C | | |
| Input Voltage | 220 - 240V | | |
| Power Factor | > 0.9 | | |
| CRI | 85 - Exceeds EU standard of Ra 80 for Colour Rendering Index | | |
| LMR | 80 - Exceeds EU standard of 70 for Lumens Maintenance Ratio | | |

| Code | W | Description | Lm | Temp | Hours |
|-------|---------|--|----------|-----------|-------|
| 11600 | 9/14/18 | AQUA1 CCT Wattage Switchable Standard White Bezel | 870-1700 | 3/4/6000K | 50000 |
| 11601 | 9/14/18 | AQUA1 CCT Wattage Switchable Emergency White Bezel | 870-1700 | 3/4/6000K | 50000 |
| 11602 | 9/14/18 | AQUA1 CCT Wattage Switchable M/Wave Sen on/off White Bezel | 870-1700 | 3/4/6000K | 50000 |
| 11603 | 9/14/18 | AQUA1 CCT Wattage Switchable Emergency M/Wave Sen on/off White Bezel | 870-1700 | 3/4/6000K | 50000 |
| 11604 | 9/14/18 | AQUA1 CCT Wattage Switchable M/Wave Sen Cor/Dim White Bezel | 870-1700 | 3/4/6000K | 50000 |
| 11605 | 9/14/18 | AQUA1 CCT Wattage Switchable Emergency M/Wave Sen Cor/Dim White Bezel | 870-1700 | 3/4/6000K | 50000 |
| 11590 | 9/14/18 | AQUA1 CCT Wattage Switchable Standard Black Bezel | 870-1700 | 3/4/6000K | 50000 |
| 11591 | 9/14/18 | AQUA1 CCT Wattage Switchable Emergency Black Bezel | 870-1700 | 3/4/6000K | 50000 |
| 11592 | 9/14/18 | AQUA1 CCT Wattage Switchable M/Wave Sen on/off Black Bezel | 870-1700 | 3/4/6000K | 50000 |
| 11593 | 9/14/18 | AQUA1 CCT Wattage Switchable Emergency M/Wave Sen on/off Black Bezel | 870-1700 | 3/4/6000K | 50000 |
| 11594 | 9/14/18 | AQUA1 CCT Wattage Switchable M/Wave Sen Cor/Dim Black Bezel | 870-1700 | 3/4/6000K | 50000 |
| 11595 | 9/14/18 | AQUA1 CCT Wattage Switchable Emergency M/Wave Sen Cor/Dim Black Bezel | 870-1700 | 3/4/6000K | 50000 |
| 11256 | - | Black Bezel for above | - | - | - |
| 11257 | - | White Eyelid for above | - | - | |
| 11258 | - | Black Eyelid for above | - | _ | - |
| | | | | | |

Microwave Max Operating Height 3.2m

Emergency versions must be tested in line with the requirements of BS5266, failure to do so may effect battery life and warranty









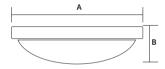
LED CCT Bulkhead

The Deco Slim LED Bulkhead is one of the most decorative, aesthetically pleasing bulkheads in the BELL range. Supplied with white bezel as standard with the option to add a variety of decorative bezels.

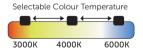
- Selectable colour temperature version 3000K/4000K/6000K available
- Supplied with white trim, chrome, satin, copper and antique brass trims available
- The ideal replacement for 2D and PL decorative fittings
- 8M detection range on corridor dim option (2.6m mounting height)
- Emergency option
- Microwave and corridor dimming function option (non CCT version)
- Rear entry



LMR80: Maximum 20% of lumen depreciation over rated hours. B10: Maximum 10% of fittings failure rate over rated hours



| Model | ΑØ | B Depth |
|-------|-------|---------|
| 12W | 250mm | 48mm |
| 18W | 300mm | 48mm |
| 25W | 300mm | 48mm |











LED CCT Bulkhead

| Technical Specificatio | Technical Specification | | | |
|------------------------------------|--|--|--|--|
| Construction | Polycarbonate | | | |
| Driver | BELL | | | |
| LED Chip | Samsung | | | |
| IP Rating | IP54 | | | |
| Operating Temp | -20°C to +35°C / Emergency version minimum temperature -5°C | | | |
| Input Voltage | 220 - 240V | | | |
| Power Factor | > 0.9 | | | |
| CRI | 85 - Exceeds EU standard of Ra 80 for Colour Rendering Index | | | |
| LMR | 80 - Exceeds EU standard of 70 for Lumens Maintenance Ratio | | | |
| L1A / L1B / L2A / L2B Compliant | Yes | | | |

Tri-Level Control (Corridor Function)



With sufficient natural light, the fitting does not switch on when presence is detected.



With insufficient natural light, the sensor switches on automatically when someone enters the room.



light dims to stand-by level (10% / 20% / 30%) after the hold-time.



Light switched off automatically after the stand-by period has elapsed.



Optional infra-red remote control available for sensor versions

Quick and easy adjustment for multiple fittings; dimming level, presence detection, light levels ϑ automatic on-off time. Average 4M range.

Offers 3 levels of light: 100%-dimmed light (10%, 20%, 30%)-off; and 2 periods of selectable waiting time: motion hold-time and stand-by period; selectable daylight threshold and choice of detection area.

¹Exceeds EU standard of 70 for Lumens Maintenance Ratio

² Exceeds EU standard of RA 80 for Colour Rendering Index

³ Subject to terms & conditions (Contact Customer Service)



| Code | W | Description | Lm | Lm/w | Temp | Hours |
|-------|----|---|------|------|-----------|-------|
| 06830 | 12 | Deco Slim LED Bulkhead CCT | 1056 | 88 | 3/4/6000K | 50000 |
| 06831 | 18 | B Deco Slim LED Bulkhead CCT | | 90 | 3/4/6000K | 50000 |
| 06832 | 25 | Deco Slim LED Bulkhead CCT | 2150 | 86 | 3/4/6000K | 50000 |
| 06833 | 12 | Deco Slim LED Bulkhead CCT Emergency | 1056 | 88 | 3/4/6000K | 50000 |
| 06834 | 18 | Deco Slim LED Bulkhead CCT Emergency | 1620 | 90 | 3/4/6000K | 50000 |
| 06835 | 25 | Deco Slim LED Bulkhead CCT Emergency | 2150 | 86 | 3/4/6000K | 50000 |
| 06824 | 12 | Deco Slim LED Bulkhead CCT Sensor On/Off | 1056 | 88 | 3/4/6000K | 50000 |
| 06825 | 18 | Deco Slim LED Bulkhead CCT Sensor On/Off | 1620 | 90 | 3/4/6000K | 50000 |
| 06826 | 25 | Deco Slim LED Bulkhead CCT Sensor On/Off | 2150 | 86 | 3/4/6000K | 50000 |
| 06827 | 12 | Deco Slim LED Bulkhead CCT Sensor Emergency | 1056 | 88 | 3/4/6000K | 50000 |
| 06828 | 18 | Deco Slim LED Bulkhead CCT Sensor Emergency | 1620 | 90 | 3/4/6000K | 50000 |
| 06829 | 25 | Deco Slim LED Bulkhead CCT Sensor Emergency | 2150 | 86 | 3/4/6000K | 50000 |
| 06752 | - | Satin Trim for 12W Deco Slim LED Bulkhead | - | - | - | - |
| 06753 | - | Satin Trim for 18/25W Deco Slim LED Bulkhead | - | - | - | - |
| 06754 | - | Chrome Trim for 12W Deco Slim LED Bulkhead | - | - | - | - |
| 06755 | - | Chrome Trim for 18/25W Deco Slim LED Bulkhead | - | - | - | - |
| 06756 | - | Copper Trim for 12W Deco Slim LED Bulkhead | - | - | - | - |
| 06757 | - | Copper Trim for 18/25W Deco Slim LED Bulkhead | - | - | - | - |
| 06758 | - | Antique Brass Trim for 12W Deco Slim LED Bulkhead | - | - | - | - |
| 06759 | - | Antique Brass Trim for 18/25W Deco Slim LED Bulkhead | - | _ | - | - |

Contact Customer Service for Emergency, Microwave and Corridor Dimming options

Microwave Max Operating Height 3.2m

Emergency versions must be tested in line with the requirements of BS5266, failure to do so may effect battery life and warranty





The Arial Plus Multi is our leading wattage switchable panel. With a high lumen output of up to 125 lumens per watt, this panel is ideal for areas that require high lux levels. The Arial Plus Multi can be installed in areas where TPa rated lighting products are essential, such as emergency exit routes including stairways and corridors.

- · High efficiency
- TPa
- · Uniform light distribution
- Professional LFD Panel
- 0-10V Dimming or DALI Dimming options available
- · White finish
- Anti-twist frame
- Emergency panels with 5 year battery warranty available
- CCT option available

Also available in bulk packs for large project orders, reducing your cost & our carbon footprints.















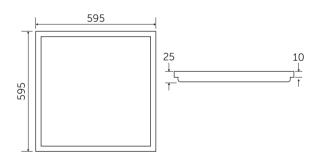








LMR80: Maximum 20% of lumen depreciation over rated hours. B10: Maximum 10% of fittings failure rate over rated hours



UGR (Unified Glare Rating) is a method of calculating glare from light sources.

The UGR rating helps to determine how likely a light source is to cause discomfort to those around it. This classification ranges from 5 to 40, with low numbers indicating low glare.

Glare can be a common problem in workplaces. Inappropriate lighting or excessive brightness can be bounced off reflective surfaces, such as computer screens, whiteboards etc. This can cause disruption for the occupants of offices.









| Technical Specification | |
|---------------------------------|--|
| Construction | Steel + Polycarbonate |
| Driver | BELL |
| LED Chip | Philips |
| IP Rating | IP40 |
| Operating Temp | 0°C to +35°C |
| Input Voltage | 220 - 240V |
| Power Factor | > 0.9 |
| CRI | 85 - Exceeds EU standard of Ra 80 for Colour Rendering Index |
| LMR | 80 - Exceeds EU standard of 70 for Lumens Maintenance Ratio |
| L1A / L1B / L2A / L2B Compliant | Yes |
| Emergency Battery Type | NiCd 1 Year Emergency / LiFePO4 5 Year Emergency |

| Code | W | Description | Up to Lm/W | Lm | Temp | Hours |
|-------|-------------|---|------------|-----------|-------|-------|
| 11748 | 20/26/30/36 | Arial Plus Multi Backlit LED Panel - 25mm 600x600mm, 4000K, UGR<19, White | 120* | 2400-4100 | 4000K | 50000 |
| 11750 | 20/26/30/36 | Arial Plus Multi Backlit LED Panel - 25mm 600x600mm, 4000K, UGR<19, Emergency, White (1Y Guarantee) | 120* | 2400-4100 | 4000K | 50000 |
| 11749 | 36 | Arial Plus Multi Backlit LED Panel - 25mm 600x600mm, 4000K, UGR<19, Emergency, White (5Y Guarantee) | 120* | 4100 | 4000K | 50000 |
| 11752 | 36 | Arial Plus Multi Backlit LED Panel - 25mm 600x600mm, 4000K, UGR<19, White, 0-10V Dim | 120* | 4100 | 4000K | 50000 |
| 11751 | 36 | Arial Plus Multi Backlit LED Panel - 25mm 600x600mm, 4000K, UGR<19, White, Dali Dim | 120* | 4100 | 4000K | 50000 |
| 11798 | 36 | Arial Plus Multi Backlit LED Panel - 25mm 600x600mm, 4000K, UGR<19, White, Casambi Enabled | 120* | 4100 | 4000K | 50000 |

¹ Exceeds EU standard of 70 for Lumens Maintenance Ratio ² Exceeds EU standard of RA 80 for Colour Rendering Index

³ Subject to terms & conditions (Contact Customer Service)



| Code | W | Description | Up to Lm/W | Lm | Temp | Hours |
|-------|-------------|---|------------|-----------|--------|-------|
| 11799 | 36 | Arial Plus Multi Backlit LED Panel - 25mm 600x600mm, 4000K, UGR<19, White, Emergency (1 Year Battery Guarantee), Casambi Enabled | 120* | 4100 | 4000K | 50000 |
| 11764 | 20/26/30/36 | Arial Plus Multi Backlit CCT LED Panel - 25mm 600x600mm, UGR<19, White | 120* | 2200-4100 | 3/4/6K | 50000 |
| 11766 | 20/26/30/36 | Arial Plus Multi Backlit CCT LED Panel - 25mm 600x600mm, UGR<19, Emergency, White (1Y Guarantee) | 120* | 2200-4100 | 3/4/6K | 50000 |
| 11765 | 20/26/30/36 | Arial Plus Multi Backlit CCT LED Panel - 25mm 600x600mm, UGR<19, Emergency, White (5Y Guarantee) | 120* | 2200-4100 | 3/4/6K | 50000 |
| 11768 | 36 | Arial Plus Multi Backlit CCT LED Panel - 25mm 600x600mm, UGR<19, White, 0-10V Dim | 120* | 4100 | 3/4/6K | 50000 |
| 11767 | 36 | Arial Plus Multi Backlit CCT LED Panel - 25mm 600x600mm, UGR<19, White, Dali Dim | 120* | 4100 | 3/4/6K | 50000 |
| 11772 | 20/26/30/36 | Arial Plus Multi Backlit LED Panel - 25mm 1200x300mm, 4000K, UGR<19, White | 125* | 2500-4100 | 4000K | 50000 |
| 11773 | 20/26/30/36 | Arial Plus Multi Backlit LED Panel - 25mm 1200x300mm, 4000K, UGR<19, White, Emergency (1Y Guarantee) | 125* | 2500-4100 | 4000K | 50000 |
| 11776 | 36 | Arial Plus Multi Backlit LED Panel - 25mm 1200x300mm, 4000K, UGR<19, White, 0-10V Dim | 125* | 4100 | 4000K | 50000 |

^{*}Lumens based on 4000K

Emergency versions must be tested in line with the requirements of BS5266, failure to do so may effect battery life and warranty.



| Code | W | Description | Up to Lm/W | Lm | Temp | Hours |
|-------|----------------|--|------------|-----------|-------|-------|
| 11775 | 36 | Arial Plus Multi Backlit LED Panel - 25mm 1200x300mm, 4000K, UGR<19, White, Dali Dim | 125 | 4100 | 4000K | 50000 |
| 11777 | 36 | Arial Plus Multi Backlit LED Panel - 25mm 1200x300mm, 4000K, UGR<19, White, Emergency Dali (1Y Guarantee) | 125 | 4100 | 4000K | 50000 |
| 11778 | 36 | Arial Plus Multi Backlit LED Panel - 25mm 1200x300mm, 4000K, UGR<19, White, Emergency 1-10V (1Y Guarantee) | 125 | 4100 | 4000K | 50000 |
| 11790 | 30/40/50/55/60 | Arial Plus Multi Backlit LED Panel - 25mm 1200x600mm, 4000K, UGR<19, White | 120 | 3600-6780 | 4000K | 50000 |
| 11791 | 30/40/50/55/60 | Arial Plus Multi Back- lit LED Panel - 25mm 1200x600mm, 4000K, UGR<19, White, Emergency | 120 | 3600-6780 | 4000K | 50000 |
| 11793 | 60 | Arial Plus Multi Backlit LED Panel - 25mm 1200x600mm, 4000K, UGR<19, White, 1-10V Dim | 120 | 6780 | 4000K | 50000 |
| 11792 | 60 | Arial Plus Multi Backlit LED Panel - 25mm 1200x600mm, 4000K, UGR<19, White, Dali Dim | 120 | 6780 | 4000K | 50000 |
| 11794 | 60 | Arial Plus Multi Backlit LED Panel - 25mm 1200x600mm, 4000K, UGR<19, White, Emergency Dali (1Y Guarantee) | 120 | 6780 | 4000K | 50000 |
| 11795 | 60 | Arial Plus Multi Backlit LED Panel - 25mm 1200x600mm, 4000K, UGR<19, White, Emergency 1-10V (1Y Guarantee) | 120 | 6780 | 4000K | 50000 |

¹ Exceeds EU standard of 70 for Lumens Maintenance Ratio ² Exceeds EU standard of RA 80 for Colour Rendering Index

³ Subject to terms & conditions (Contact Customer Service)



| Code | W | Description | Up to Lm/W | Lm | Temp | Hours |
|-------|-----|---|------------|----|------|-------|
| 10190 | - | Surface Mount Unit for 600x600 Arial Backlit Panel | | - | = | - |
| 10192 | - | Surface Mount Unit for 1200x300 Arial Backlit Panel | | - | - | - |
| 10193 | - | Surface Mount Unit for 1200x600 Arial Backlit Panel | | - | - | - |
| 10118 | - | Suspension Kit for 600x600/1200x300 Arial Backlit Panel | | - | - | - |
| 08747 | 2.5 | LED Emergency Pack (self + manual test | - | - | - | - |

Available on request:

- Emergency panels with 5 year battery warranty
- Emergency 0-10V Dim
- Emergency Dali Dim

For further information call 01924 893380 or email sales@belllighting.co.uk

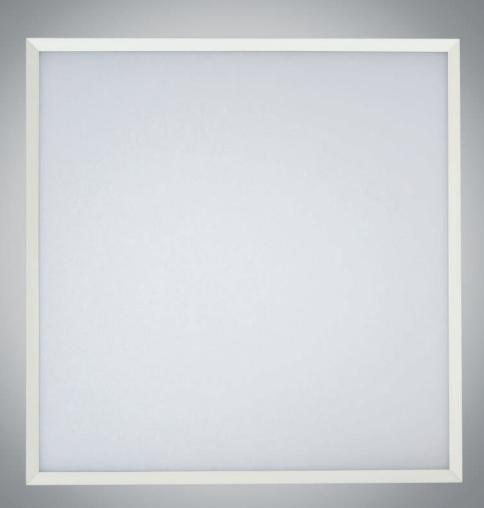
Emergency versions must be tested in line with the requirements of BS5266, failure to do so may effect battery life and warranty.

www.belllighting.co.uk











IP65 Backlit LED Panel

The IP65 version of our Arial Multi Backlit LED Panel is an ideal product for areas that may contain moisture such as changing rooms, locker rooms & commercial kitchen environments.

- Front face IP65
- Professional Backlit LED panel
- 0-10V Dimming or DALI Dimming options available
- TPb
- BELL Driver
- Anti-twist frame
- Emergency panels with 5 year battery warranty available











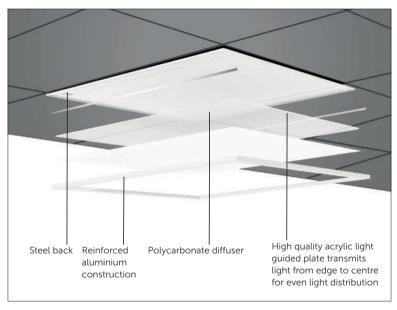








LMR80: Maximum 20% of lumen depreciation over rated hours. B10: Maximum 10% of fittings failure rate over rated hours















IP65 Backlit LED Panel

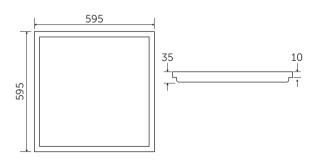
| Technical Specification | |
|---------------------------------|--|
| Construction | Aluminium + PMMA |
| Driver | Li Fud |
| LED Chip | Philips |
| IP Rating | IP65 (Front face) |
| Operating Temp | 0°C to +35°C |
| Input Voltage | 220 - 240V |
| Power Factor | > 0.9 |
| CRI | 85 - Exceeds EU standard of Ra 80 for Colour Rendering Index |
| LMR | 80 - Exceeds EU standard of 70 for Lumens Maintenance Ratio |
| L1A / L1B / L2A / L2B Compliant | Yes |
| Emergency Battery Type | NiCd 1 Year Emergency / LiFePO4 5 Year Emergency |

| Code | W | Description | Up to Lm/W | Lm | Temp | Hours |
|-------|-------------|---|------------|-----------|------|-------|
| 11070 | 20/26/30/36 | Arial IP65 LED Backlit Panel - 600x600mm, | 130 | 2630-4670 | 4000 | 50000 |
| 11071 | 20/26/30/36 | Arial IP65 LED Backlit Panel - 600x600mm, Emergency, (1 Year Battery Guarantee) | 130 | 2630-4670 | 4000 | 50000 |
| 11073 | 36 | Arial IP65 LED Backlit Panel - 600x600mm, White, 0-10V Dim | 130 | 4670 | 4000 | 50000 |
| 11074 | 36 | Arial IP65 LED Backlit Panel - 600x600mm, White, Dali Dim | 130 | 4670 | 4000 | 50000 |
| 08747 | 2.5 | LED Emergency Pack (self + manual test | - | - | - | - |

Available on request:

- Emergency 0-10V Dim
- Emergency Dali Dim
- Emergency panels with 5 year battery warranty available

For further information call 01924 893380 or email sales@belllighting.co.uk











Integrated LED Fixed Downlight

The Firestay Duo LED CCT is a High Output Downlight ideal for high ceilings or any project requiring high intensity light, 4 way colour and 2 wattages switchable straight out of the box.

With a 7 year product warranty, the front facing switch enables the user to seamlessly change the colour temperature (2700/3000/4000/6000K) to suit the mood of any space while the rear facing wattage switch enable you to instantly dictate the light level of any commercial or residential premises.

- Firestay Certification: 30, 60 and 90 minute solid joist ceilings, 30 minute I-Joist & Metal Web ceiling systems
- IP65
- · Front CCT switch
- 8 in 1 Fixture: 4 colour temperatures, 2 wattages
- White, Satin, Chrome, Brass, Antique Brass & Matt Black bezels available
- Part B / C / E compliant
- Tool-free termination
- 60° Beam Angle
- Spacer plate options available











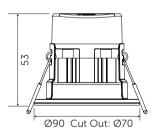








LMR80: Maximum 20% of lumen depreciation over rated hours. B10: Maximum 10% of fittings failure rate over rated hours



| Wattage Selected | Colour Temp (K) Selected | Lumens (lm) | Candelas (cd) |
|---------------------|--------------------------------|----------------|------------------|
| | 2700 | 550 | 495 |
| 6W | 3000 | 575 | 515 |
| OVV | 4000 | 635 | 565 |
| | 6000 | 620 | 565 |
| | 2700 | 415 | 375 |
| 4W | 3000 | 425 | 385 |
| 400 | 4000 | 465 | 415 |
| | 6000 | 460 | 420 |



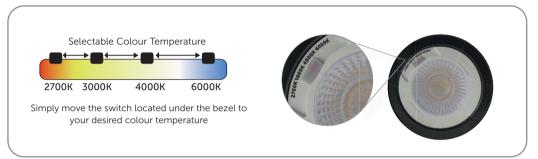






Integrated LED Fixed Downlight

The Firestay Duo LED has an easily accessible colour selectable switch located under the bezel on the front of the downlights. Simply move the switch to select your colour temperature option.







| Technical Specification | | |
|-------------------------|--|--|
| Construction | Die-Cast Aluminium | |
| Driver | BELL | |
| LED Chip | Epistar | |
| IP Rating | IP65 | |
| Operating Temp | -5°C to +35°C | |
| Input Voltage | 220 - 240V | |
| Power Factor | > 0.9 | |
| CRI | 85 - Exceeds EU standard of Ra 80 for Colour Rendering Index | |
| LMR | 80 - Exceeds EU standard of 70 for Lumens Maintenance Ratio | |

| Code | Description | Colour Temperature | Lm | Cd | Beam ^o | Hrs |
|-------|--|-----------------------|---------|---------|-------------------|-------|
| 11370 | 4/6W Firestay Duo LED CCT Switchable Wattage Fixed Downlight, CCT, P&P, 60° Beam Angle. Tool Free Termination | 2.7/3/4/6000 | 415-635 | 415-565 | 60º | 50000 |
| 11377 | 4/6W Firestay Duo LED CCT Switchable Wattage Fixed Downlight, CCT, P&P, 60° Beam Angle. Tool Free Termination. Contractor Pack (x10). Includes Matt White Bezels. | 2.7/3/4/6000 | 415-635 | 415-565 | 60º | 50000 |
| 11371 | Matt White Bezel for above | - | - | - | - | - |
| 11372 | Satin Bezel for above | - | - | - | - | - |
| 11373 | Chrome Bezel for above | - | - | - | - | - |
| 11374 | Brass Bezel for above | - | - | - | - | - |
| 11375 | Antique Brass Bezel for above | - | - | - | - | - |
| 11376 | Matt Black Bezel for above | - | - | - | - | - |
| 08196 | Emergency Pack for above | - | - | - | - | - |

 $^{^1}$ Exceeds EU standard of 70 for Lumens Maintenance Ratio 2 Exceeds EU standard of RA 80 for Colour Rendering Index 3 Subject to terms 6 conditions (Contact Customer Service)









LED Emergency Hinged Exit Box

Our Spectrum LED Emergency Hinged Exit Box is one of our most popular emergency products. The tried and tested robust design and polycarbonate construction makes this exit box ideal for all commercial and industrial environments.

- Hinged for quick and easy installation and maintenance
- Tool free termination
- Sleek, energy efficient design
- Different legend options available
- Suitable for commercial and industrial installations
- IP20
- Viewing distance 25m









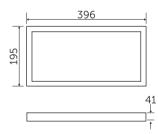


Auto Self Test Indicator. No requirement for manual key test (Code: 09084)

Normal operation: Green indicator illuminated

Battery failure: Red indicator flashes once every 3 seconds Light source failure: Red indicator flashes twice every 3 seconds

Less than rated duration time: Red indicator flashes three times every 3 seconds.









pectrum

LED Emergency Hinged Exit Box

Legend Options







09085 New (ISO) Legend Reversible Left & Right

09087 New (ISO) Legend Down

09086 New (ISO) Legend Up

| Technical Specification | | |
|-------------------------|---------------|--|
| Construction | Polycarbonate | |
| LED Chip | Samsung | |
| IP Rating | IP20 | |
| Operating Temp | -5°C to +35°C | |
| Input Voltage | 220 - 240V | |
| Power Factor | > 0.9 | |
| Battery | LiFeP04 | |

| Code | W | Description | Viewing Distance | Temp | Hours |
|-------|---|--|---------------------|-------|-------|
| 09083 | 4 | LED Emergency Hinged Exit Box including Up Legend. | 25M | 6500K | 30000 |
| 09084 | 4 | LED Emergency Hinged Exit Box, Self Test including Up Legend | 25M | 6500K | 30000 |
| 09085 | _ | New (ISO) Legend Reversible Left & Right (spare accessory) | - | - | - |
| 09087 | _ | New (ISO) Legend Down (spare accessory) | - | - | - |
| 09086 | _ | New (ISO) Legend Up (spare accessory) | - | - | |

 ${\it Must be tested in line with the requirements of BS5266, failure to do so may effect battery life and warranty.}$

 $^{^{1}}$ Exceeds EU standard of 70 for Lumens Maintenance Ratio 2 Exceeds EU standard of Ra 80 for Colour Rendering Index

³ Subject to terms & conditions (Contact Customer Service)





technical@belllighting.co.uk sales@belllighting.co.uk

School Tennis Court Lighting

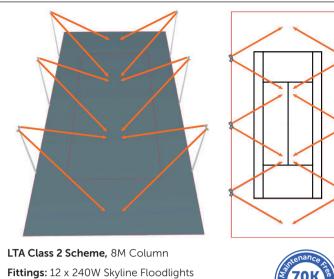
Benefits of LED lighting for school tennis courts

As with many other outdoor sports, lighting gives the opportunity to play tennis for an increased amount of time throughout the year and encourage and support participation, coaching and development for all levels of play.

Schools with lighting have an enormous advantage over those without lighting, attracting coaches, more players, extending playing times and gaining increased revenue from court fees during the winter months.

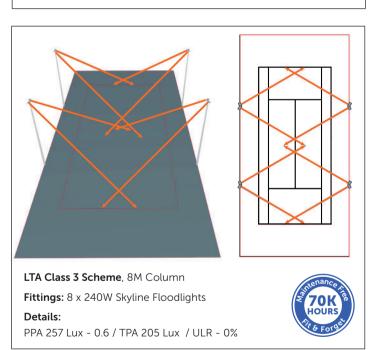
The problem is that, of the estimated 30,000 courts available to tennis players in Great Britain, less than 1.5% are floodlit.





Details:

PPA 300 Lux - 0.8 / TPA 250 Lux / ULR - 0%



School Football Lighting

Benefits of LED lighting for school football facilities

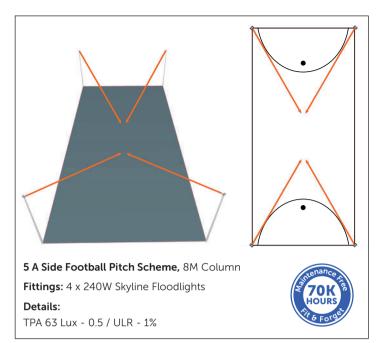
Outdoor sports lighting provides a great way of extending the use and the overall value of outdoor football venues. In the summer period, England enjoys long hours of daylight that give the opportunity to take part in football during the long summer evenings.

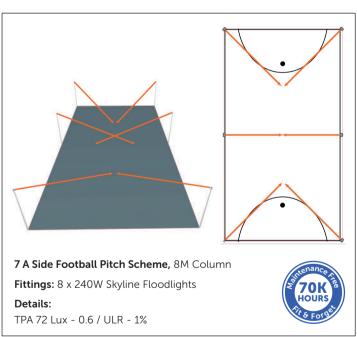
In contrast, the winter daylight can be as short as 7 hours a day and can restrict opportunities for football to short periods during the weekends.

In numerical terms, outdoor sports lighting can extend the playing hours by some 1000-1500 additional hours per annum and this can allow people to train or play in the evening all year round, increasing your revenue stream.

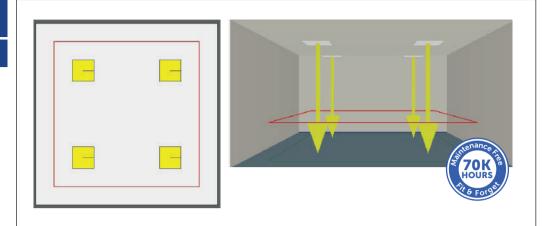
Typical use after the installation of floodlights can include: playing, training and coaching sessions for all adult and junior teams during the dark autumn/winter evenings.







CIBSE General Classroom Scheme.



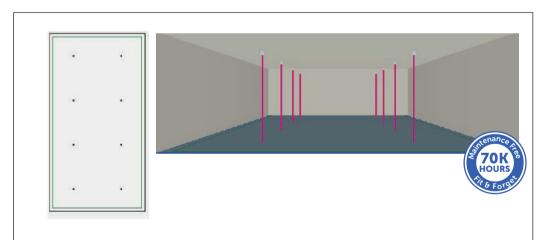
5x5m Room with 2.4m High Ceiling.

Fittings: 4 x 36W Arial Backlit UGR 600x600 panel.

Details: Desk Level Illuminance – 500 lux at 0.84 Uniformity.

Cylindrical Illuminance - 188 lux at 0.78 Uniformity. UGR Rating <18.

CIBSE School Sports Hall Scheme



28x15m Room with 5m High Ceiling

Fittings: 8 x 150W Illumina Atlas Highbay.

Details: Illuminance at Floor – 314 lux at 0.72 Uniformity.

Cylindrical Illuminance – 130 lux at 0.59 Uniformity.



