

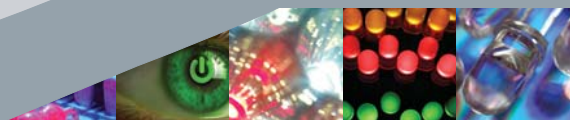
Astralite HD-LED®

Minor Surgical Lamps



HD
LED®

High Definition
LED Lighting





Astralite – HD-LED® technology in a Minor Surgical Light

High Definition LED is a breakthrough technology that changes the fundamental parameters of lighting.

The application of this advanced technology to Astralite minor surgical lights will prove invaluable to both the patient and practitioner's experience.



Full Spectrum Colour Rendition

The only surgical lighting with near perfect colour rendition across the full visible spectrum. Natural white light picks out all the visible colours for your eyes so you can clearly see without eye strain.

- Easy to distinguish small differences in tissue
- All the colours are strong and vibrant
- Reduced eye strain by making the light do the work instead of the eye



Fat Beam Illumination

More light flux provides the biggest beams of light in the business, bigger illuminated fields and more light across the full width of the illuminated area.

- High light intensity across the full illuminated area for uniform vision
- Avoids visual distraction by reducing high contrast in the illuminated area
- Adjust the beam size to suit your working area to eliminate peripheral distraction



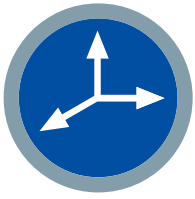
Red Balance Control

The highest R₉ red colour rendition of any other product provides the optimum visualisation of red tissues. Red balance enhancement compensates for our natural weakness in distinguishing shades of red and is user adjustable to fine tune the light to match our own red vision and the surgical conditions.

- Enhanced visualisation of red tissues
- Improved differentiation between tissues of similar colour
- You can adjust the light colour to match your own optical colour response



Astralite HD-LED® Real Operating Lights for



- **Large Movement Range**

Astralite is designed so that the lamp head can be positioned all the way around the couch to examine all parts of the patient. The 5 rotations allow easy positioning of the lamp beam from any angle.



- **Long Life**

LED life is 40,000 hours which equates to more than 20 years of normal use.



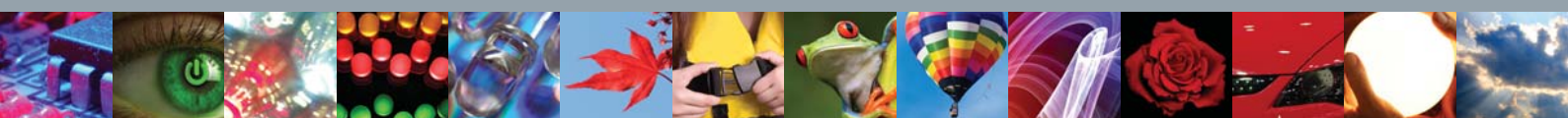
- **Variable Intensity Cold Light**

LEDs only emit cold light without any infra red which is ideal for comfort and safety. Variable intensity control is provided to set optimum illumination levels for the procedure.

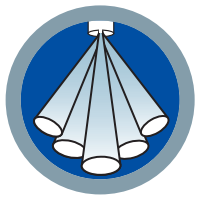


- **Environmentally Friendly**

Astralite LED uses less than 30 Watts of electricity to produce a large fat beam. LEDs are mercury free, do not contain CFCs, PoPs, VOCs, halogens or other harmful chemicals and are RoHS compliant.



Minor Surgery



- **Solid State Focusing**

World's first patented technology using LEDs with different beam shapes, superimposed on top of each other. This produces an extremely effective and reliable focus system with a big range of adjustment.



- **Shadow Control**

By spreading the LEDs across the whole lighting surface, a much better distribution of light is provided from the lamp head. This enables excellent shadow control to under-light obstructions during procedures.



- **Economical**

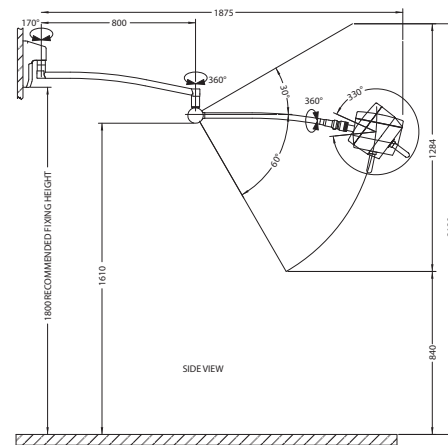
Never having to change a bulb for the lifetime of the product means that Astralite LED is highly economical. HD-LED® is substantially more efficient at producing more surgical quality light for less power.



- **Anti-microbial incorporating Polygiene™**

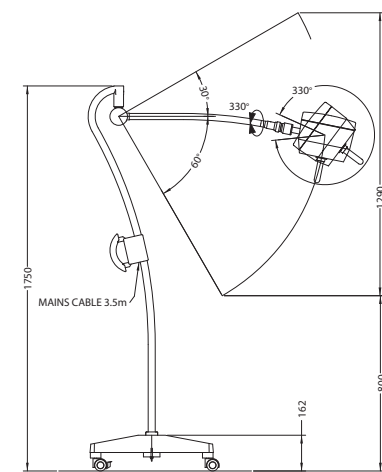
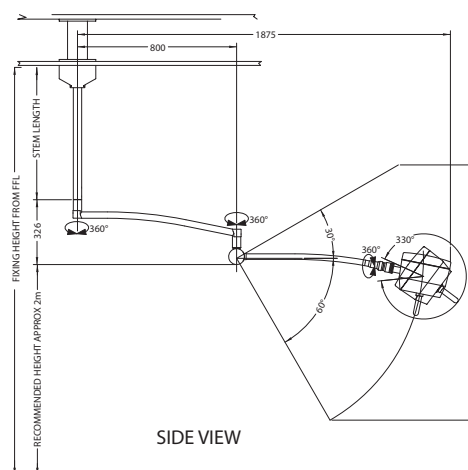
Incorporating Polygiene™ anti-microbial technology to destroy harmful bacteria, viruses and yeasts including MRSA.



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Technical drawing of a square plate with the following specifications:

- Overall dimensions: 140 mm by 140 mm.
- Corner chamfers: 14 mm by 14 mm.
- Central circular feature: 150 PCD (Pitch Circle Diameter).
- Four circular holes, each with a diameter of $\varnothing 13$.
- Label: "FIXING PLATE".



Brandon Medical are experts in the field of medical lighting design with over 40 years of healthcare experience. The Company manufactures and markets a wide range of medical lighting products, from major operating theatre lights through to bed head lights. Brandon has a strong reputation for research and innovation, having won numerous international awards for design. Brandon products are in use throughout the world and are supported by an extensive distributor network.

For more information
about Brandon products
call +44 (0)113 2777393



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FOR ENTERPRISE:
INNOVATION
2011**

Astralite HD-LED® Technical Information

Data Common to all Models

Colour Rendition Index	R _a	95
Colour Rendition (Red)	R ₉	98
Colour Temperature	Kelvin	4,300
LED life	Hours	> 40,000
Power Consumption	Watts	< 30
Hygienic Seal		IP54
Radiant Energy	W/m²/Klux	3.49

Typical Applications

Vasectomy	Accident & Emergency	Dermatology Procedures	Research Laboratories
Catheter Labs	G.P. Treatment Rooms	Anaesthetic Rooms	Day Surgery Rooms
Prolonged Examination	Orthodontic Surgery	Delivery and Obstetrics	Mortuary
Chiropody	Podiatry	Wound Repair	Gynaecology

Adjustable Focus Models






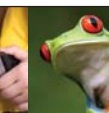


Mounting Type	Ceiling Height	Part Number	Light Intensity	Illuminated Field Size	Net Weight
Mobile Model		ALED10RM	50,000 Lux @ 1m	180-360mm	20 Kg
Mobile Model		ALED10RMEL	50,000 Lux @ 1m	180-360mm	33 Kg
Wall Model		ALED10RW	50,000 Lux @ 1m	180-360mm	8.7 Kg
Wall Model		ALED10RWST	50,000 Lux @ 1m	180-360mm	7.5 Kg
Ceiling Model	3.00-2.60m	ALED10RCA	50,000 Lux @ 1m	180-360mm	11.5 Kg
Ceiling Model	2.60-2.45m	ALED10RCB	50,000 Lux @ 1m	180-360mm	11.5 Kg
Ceiling Model	<2.4m	ALED10RCC	50,000 Lux @ 1m	180-360mm	11.5 Kg
Ceiling Model	3.00-2.60m	ALED10RCAST	50,000 Lux @ 1m	180-360mm	11.5 Kg
Ceiling Model	2.60-2.45m	ALED10RCBST	50,000 Lux @ 1m	180-360mm	11.5 Kg
Ceiling Model	<2.4m	ALED10RCCST	50,000 Lux @ 1m	180-360mm	11.5 Kg

CRI

R _a
95

Colour Rendering Index R_a






Colour Rendering Index (R_a) is a measure of how well a light source reproduces colours.

Full Spectrum Colour Rendition							
							
R ₁	R ₂	R ₃	R ₄	R ₅	R ₆	R ₇	R ₈
97	97	97	92	94	94	94	95

Near Perfect Colour Rendition Across the Visible Spectrum R₁-R₈

HD-LED has near perfect colour rendition for all 8 colour measurements used to calculate general Colour Rendering Index (R_a). The "strong red" colour so important for visualisation of red tissues is not included in the R_a measurement.

Red Balance Control

				
Enhanced Red II 3,700 °K	Enhanced Red I 3,900 °K	Optimum Red 4,300 °K	Reduced Red I 4,550 °K	Reduced Red II 5,000 °K

The % of visible red light can be increased or decreased to optimise the visualisation of red tissues. Colour temperature is variable from 3,700-5,000 °K

RED

R ₉
98

Enhanced Red Balance R₉

R₉ indicates visible red colour reproduction which is a critical parameter for surgical lights.

Optional Emergency Power Systems

All mobile models can be supplied with an integral emergency power supply for up to 3 hours support.

Part numbers are given the suffix "EL" to indicate emergency power option.

A stand alone emergency power supply for up to 3 hours operation is available for wall and ceiling models.

The part number for the stand alone power supply is BEPU0100L.

S.E.L.V. (Safe Extra Low Voltage) Applications

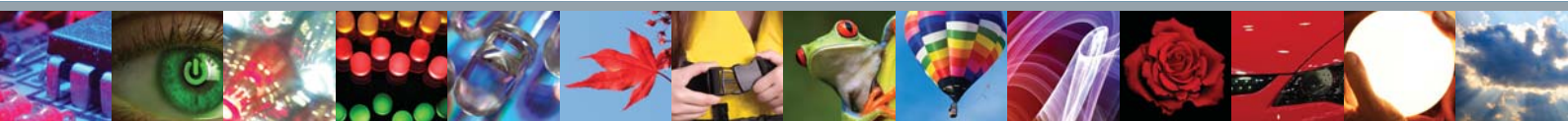
All models can be supplied with external power supplies for S.E.L.V. applications.

Part numbers are given the suffix "ST" to indicate external power supply.

High Intensity Setting

All models are available with a high intensity setting.

HD LED®



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