

Quasar® eLite

High Performance Surgical Lighting

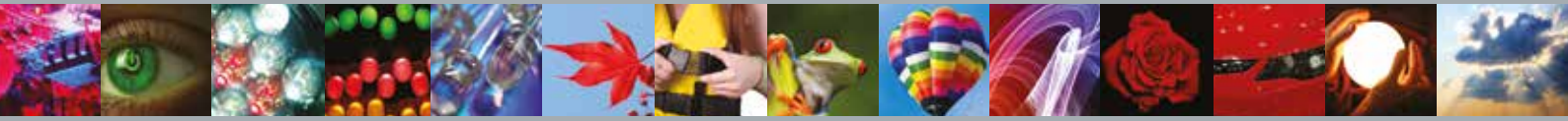


HD
LED
LED Lighting



Watch the Video

Quasar® *eLite* Unique Benefits



British Design & Technology

Quasar® *eLite* has been designed in Great Britain with inputs from leading product designers and practicing surgeons. Quasar® *eLite* incorporates collaborative research and technology outputs funded by the European Commission and performed by World renowned technology partners.



Made in the UK, Supplied Worldwide

Quasar® *eLite* is manufactured in a state-of-the-art facility in Leeds, England by a team with over 65 years' experience in making surgical lights and supplying them to customers around the world.

Brandon Medical Co Ltd

Quasar® *eLite* is designed and manufactured by Brandon Medical, a British company established in 1946. Brandon Medical has won numerous awards for design and innovation in the field of medical lighting, medical video systems and integrated operating rooms.





Why Quasar® eLite?

Near Perfect Colour Rendition with Red Balance Control

For the best visualisation of tissue during surgery.

Fat Beam Technology

The largest light beams of any current product with high intensity across the full beam width.

Unique Comfort Halo

A soft halo of light to reduce eye strain from high contrasts of light intensity.

Designed to Minimise Infections

Easy to clean, sealed light head, remote controls and anti-microbial coatings.

HDI-SDI Camera "Inside"

Integrated cameras are fully enclosed inside the light head for cleanliness and reduced cost.

Premium Quality Movement

Low weight light head and perfectly balanced arm system.

Quasar® eLite Quality Lighting Performance



Colour Shadows

Quasar® eLite uses carefully placed reflectors to eliminate colour separation or 'colour shadows' normally associated with combining different coloured LED's.

Why Red LED's?

Red light is crucial to see small differences in tissue. Quasar® eLite combines red and white LED's to provide the optimum balance between efficiency and colour rendition.



Prof Jonathan Sackier
(FRCS, FACS)
Clinical Director, Brandon Medical

“ Surgeons need “good lighting” but we are largely unaware what makes a surgical light “good”. Since working with Brandon Medical, I have learned that it's about the colour of the light, the uniformity of the light field and the ability to adjust the colour balance, not just about how bright it is! It's amazing how much research, knowledge and technology Brandon use in the design of their OR lights.”





Perfect Light (HD-LED)

Quasar® *eLite* is the only surgical light with near perfect colour rendition across the full visible spectrum. It features the highest R_9 colour rendition of any product and ensures strong and vibrant visualisation of tissues.

Red Balance Control

A unique feature to Quasar® *eLite*, Red Balance Control, provides the user with the option to adjust the balance of red light to match their own optical colour response. Allowing the user to fine tune the light ensures minimal eye strain by making the light do the work instead of the eye.

Quasar® *eLite* Quality Lighting Performance



Comfort Halo

Quasar® *eLite* has been specifically designed to reduce eye strain for the user. The unique Comfort Halo forms an intermediate corona to create a more gradual change in contrast between the area illuminated by the operating light and general theatre lighting.





Fat Beam Technology

Quasar® *eLite* provides the very best light beam quality of any other product. More light flux ensures the widest beams of light, 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.
- Large wound sites can be easily examined.
- Beam size is adjustable to user preference.
- 420mm beam diameter.



	d_{10}	d_{50}
Narrow Beam	200mm	120mm
Wide Beam	420mm	250mm

Quasar® *eLite* AV & Infection Control



HD-SDI Camera System “Inside”

Quasar® *eLite* is the only surgical light to feature HD cameras fully embedded into the lamp head. The HD-SDI system produces outstanding picture quality on large monitors and provides a foundation for Brandon Medical's Symposia® systems.

Elimination of “Visual Banding”

High definition cameras can detect the modulation frequencies of LED lights. This causes visual horizontal bands on the display monitors.

Quasar® *eLite* eliminates visual bands by accurately synchronising the frequencies of the LED modulation and the shutter speed of the HD camera system.

Media Arms

A full range of media arms can be combined with Quasar® *eLite* to support video, PACS, data and touch screen control.





Designed to Minimise Infections

Quasar® *eLite* has been designed to minimise infections. Anti-microbial additives are used to destroy harmful bacteria. The smooth, continuous surfaces are easy to wipe clean, with split lines kept to a bare minimum.

The Quasar® *eLite* light head is sealed against the ingress of dirt and liquids to prevent contamination, whilst the central handle with removable sterile cover allows for easy positioning.



Polygiene®
Safer to Touch

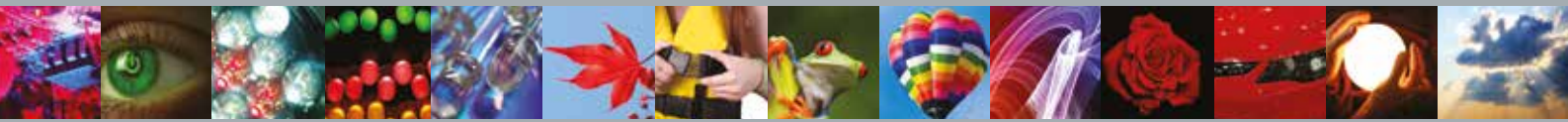


Andrew Kemp

Consultant Infection Control Nurse

“ The surface of the lamp is easily the best I have seen to clean... The Quasar® *eLite* creates a significantly lower risk than any other operating lamp I have reviewed. ”

Quasar® eLite User Friendly



Intuitive Lighting Controls

Quasar® eLite's ergonomic lighting control systems provide clear and intuitive adjustment of all lighting functions by the surgical team. This can be done at the light head, or outside of the sterile field via a secure wireless wall mounted control system.

Functions include:

- Electronic lighting control from the light head keypad.
- Focus (field size) adjustment from the keypad, sterilisable handle and wall mounted control.
- Red Balance Control to optimise the visualisation of red tissue.
- Light intensity control with endoscopy setting (5%).

Lamp Head Control Pad



Wireless Wall Mounted Control Unit



Minimal Environmental Impact

- The highest lighting performance with the smallest energy consumption.
- Estimated CO₂ reductions of at least 1.25 tonnes per year.
- LED life more than 60,000 hours.
- HD-LED does not use mercury, lead, cadmium, CFCs POPs, VOCs or halogens.





Manoeuvrability

Ergonomics have been a major factor in the design process of Quasar® *eLite* resulting in a light with unparalleled user benefits:

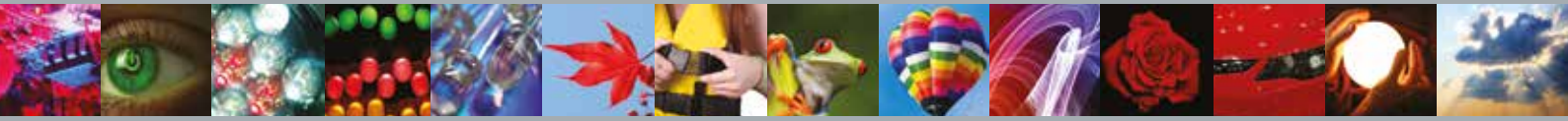
- Light head edges form 'virtual handles'.
- Low-weight light head allows easy positioning.
- Six rotations light head.
- Needle roller bearings suspension system.



Robustness

- >60,000 hours LED Life.
- Hard wearing, custom designed bearings.
- Six individual light engines ensure continuous illumination in the event of module failure.

Quasar® eLite Multimedia & Integration



Multimedia & Integration

Integrated Equipment Solutions for Operating Theatres & Intensive Care

Brandon Medical offers a complete, integrated package of the highest quality clinical equipment and has a unique expertise in providing integrated solutions.

Medical Lighting

- Operating Theatre Lights
- Minor Surgical Lights
- Examination Lights
- Medical Room Lighting
- Illuminated Magnifiers

Control & Power Systems

- Isolated Power Systems
- Emergency Power Supplies
- Theatre Control Panels

Medical Architectural

- Medical Room Pendants
- Intensive Care Pendant Systems
- Ultra Clean Ventilation
- Media Bridges

Medical AV Systems

- Integrated Digital AV Environments
- Digital OR Solutions
- Surgical Skills & Anatomy Training Centres





Integrated Audio & Visual

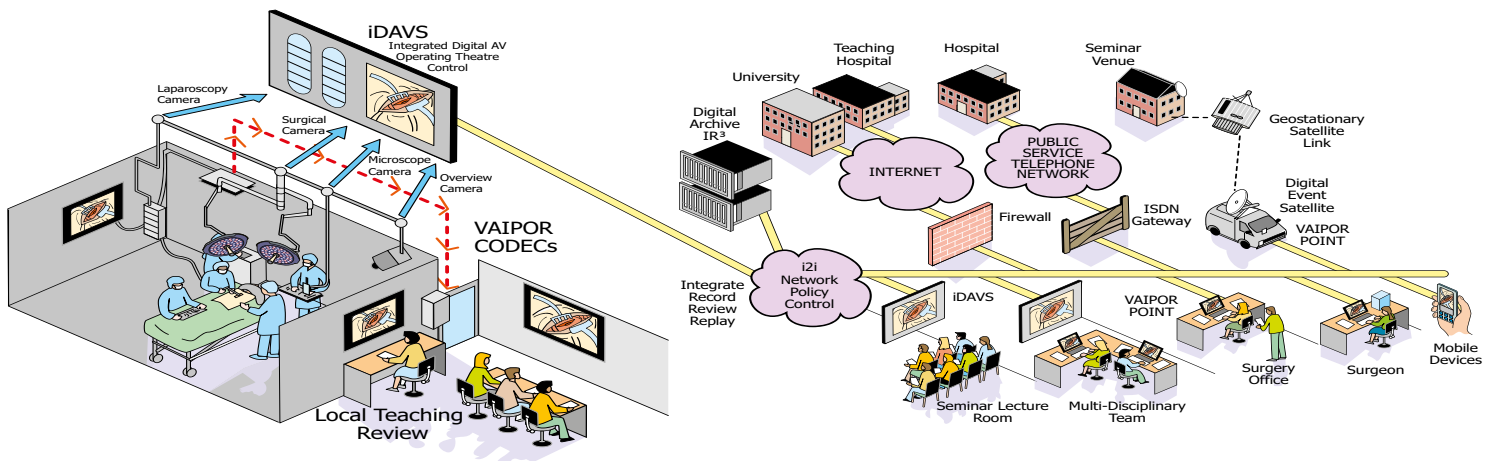
Quasar® *eLite* is specifically designed for the integration of the latest AV technology, including Brandon Medical's award winning Symposia systems.

- Fully integrated and enclosed HD cameras
- Single and double monitor mounting arms
- Heavy duty monitor arms
- Local controls, remote controls and software controls (via IP)

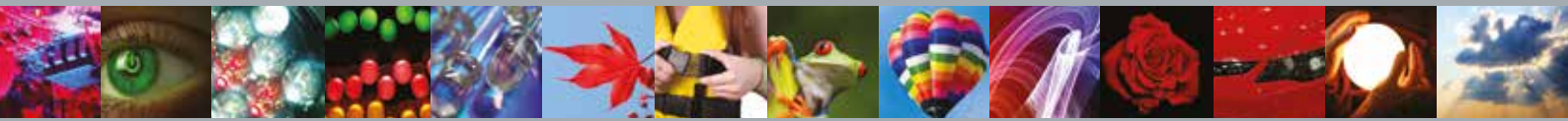


Symposia® is an integrated Digital AV system that produces the highest quality images, video and audio. It includes all the infrastructure to collect, review and display medical AV data with full 2-way audio and video communication.

Multi-medical installations range from simple video camera installations and complete hospital solutions and intranet telemedicine systems.



Quasar® eLite Technical Data



QE60



QE30

	QE60	QE30
Light Quality Characteristics		
Maximum light intensity	160,000 Lux	150,000 Lux
Beam Size Characteristics (measured at 1m)		
Light Field Diameter (d10)	200-420mm	140-310mm
Light Field Diameter (d50)	120-250mm	70-155mm
Beam Uniformity (d50/d10 Ratio)	0.6	0.5
Comfort Halo	2,000mm	Non Applicable

	QE60	QE30
Electrical & Mechanical Characteristics		
Nominal Power Consumption	48W	41W
Radiant Energy mW/m ² .Lux	<3.31	<3.31
IP Rating of Light Engine	54	54
LED Life	> 60,000 Hours	> 60,000 Hours

*Movement dimensions are approximate and subject to manufacturing variances of + / - 10%.

Part Number

Qe60	Quasar eLite (160,000 Lux)
Qe6060	Quasar eLite (160,000 Lux) with 1 satellite (160,000 Lux)
Qe6030	Quasar eLite (160,000 Lux) with 1 satellite (150,000 Lux)
Qe606030	Quasar eLite (160,000 Lux) with 2 satellites (160,000 Lux + 150,000 Lux)
Qe603030	Quasar eLite (160,000 Lux) with 2 satellites (150,000 Lux + 150,000 Lux)



Available in single, double and triple arm systems.



Standard Double Cardanic Yokes



Low Ceiling Yoke

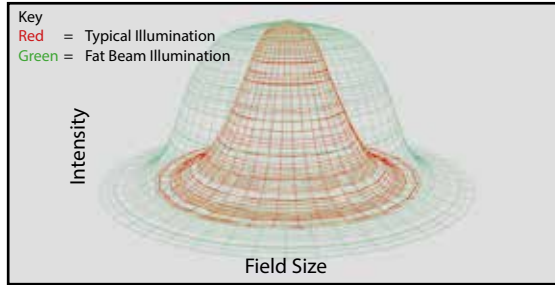
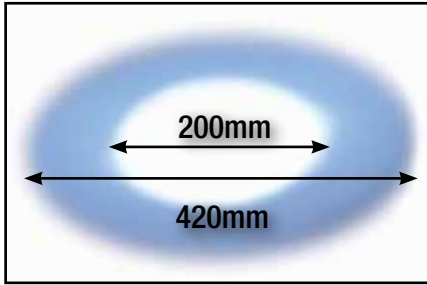


Single Cardanic Yoke.


Quasar® eLite is available in a variety of mounting combinations to suit the needs of the surgical environment. HD camera options can be integrated into the slim light head and a range of suspension arms are also available for the perfect integration in hybrid operating theatres and low ceiling theatres.

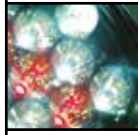










Fat Beam Technology



- 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

CRI

R_a
95

Full Spectrum Colour Rendition							
							
R₁	R₂	R₃	R₄	R₅	R₆	R₇	R₈
99	97	93	93	98	96	94	92

RED

R₉
95

Colour Rendering Index R_a






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

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.

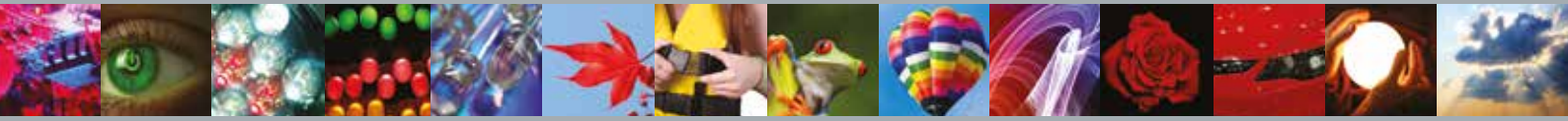
Enhanced Red Balance R₉

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

Red balance Control				
				
Enhanced Red II 3,100 °K	Enhanced Red I 3,400 °K	Optimum Red 3,700 °K	Reduced Red I 4,100 °K	Reduced Red II 4,600 °K

The % of visible red light can be increased or decreased to optimise the visualisation of red tissues. Colour temperature is variable from 3,100°K - 4,600°K.





Brandon Medical Co Ltd, Elmfield Road, Morley, Leeds, LS27 0EL

T: +44 (0)845 1243 666 F: +44 (0)845 1243 667

T: +44 (0)113 2777 393 F: +44 (0)113 2728 844

E: enquiries@brandon-medical.com

www.brandon-medical.com



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