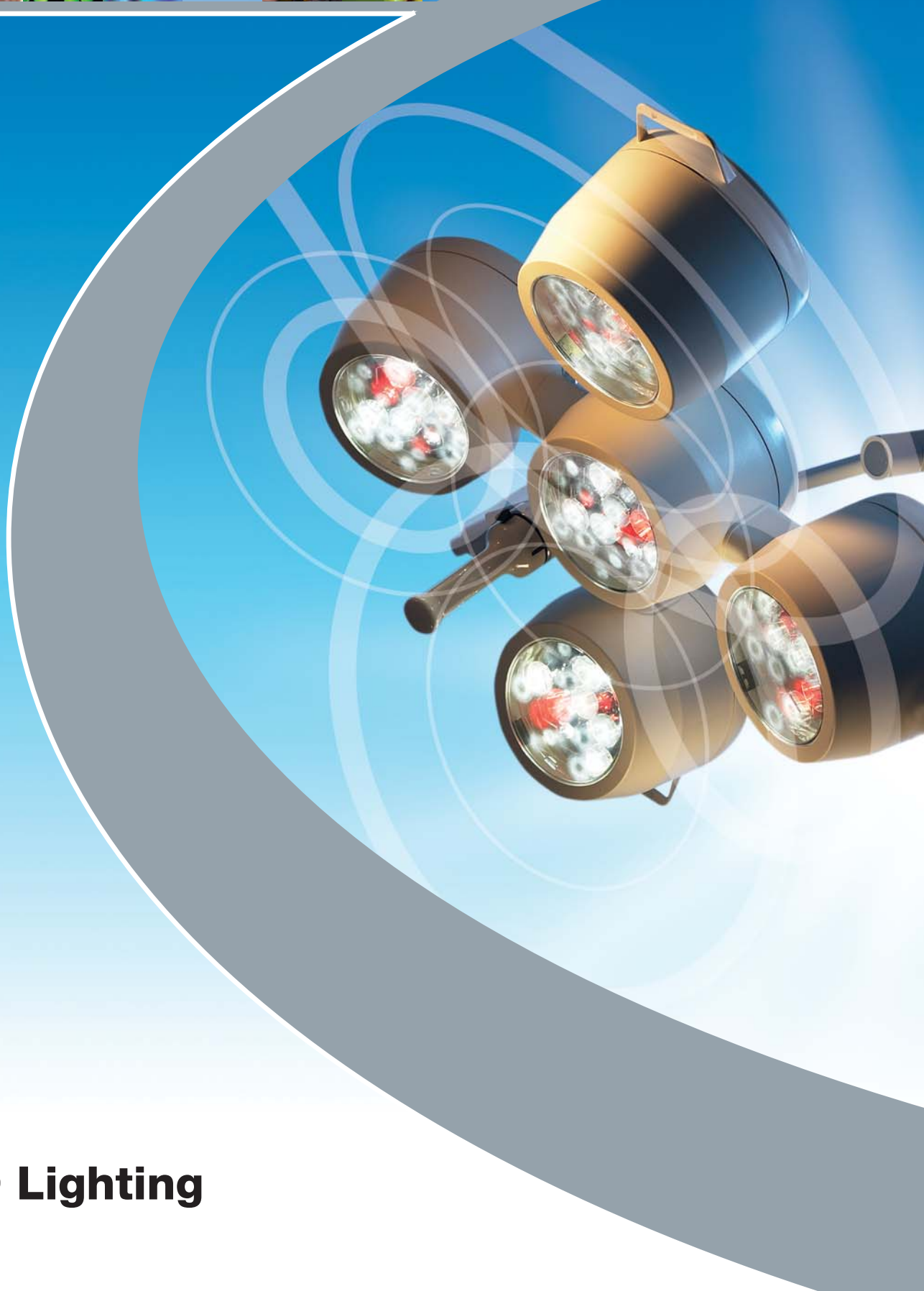
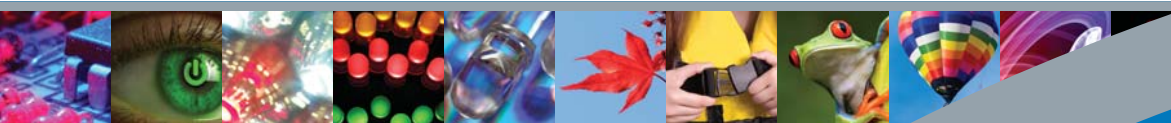
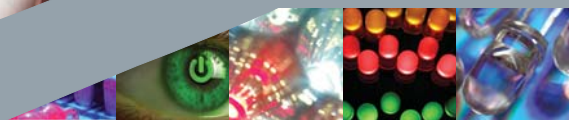


# Galaxy Ultra HD-LED®

## Operating Theatre Lights



## HD-LED Lighting





## HD-LED Lighting

# HD-LED Surgical Lighting

“HD-LED is a brand new technology with vastly better performance than standard definition LED or conventional surgical lights.”



## 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 see clearly and 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 R<sub>9</sub> red colour rendition of any 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



# Galaxy Ultra *“Best in Class” Performance in*



## Perfect Lighting

- The perfect cold light. LEDs only emit cold light avoiding heat in the surgical area
- High intensity illumination up to 160,000 Lux with near perfect colour rendition
- Shadowless performance with multiple overlapping beams and high peripheral illumination
- The biggest illuminated area with the biggest range of adjustment (360mm to 180mm) using solid state focusing for ultimate reliability
- Deep column of “always in focus” light to illuminate the deepest cavities



## Ergonomic Controls

- Red balance control to optimise visualisation of red tissue
- Intensity control with Endoscopy setting
- Camera zoom control for optional surgical camera
- Solid state focus (field size) adjustment from the sterilisable handle







## Protecting Our Planet

- The highest lighting performance with the smallest energy consumption
- Estimated CO<sub>2</sub> reductions of at least 1.25 tonnes per year per operating theatre
- LEDs have a long life 30 to 40 times longer than conventional bulbs and are safe to recycle
- HD-LED does not use mercury, lead, cadmium, CFCs, POPs, VOCs or halogens



## Infection Control

- Incorporating Polygiene™ anti-microbial technology to destroy harmful bacteria, viruses and yeasts including MRSA
- Lamp heads are sealed to IP54 to protect from ingress of dirt and fluids
- Smooth surfaces for easy disinfection



**Polygiene®**  
Safer to Touch

# Galaxy Ultra *“Best in Class” Performance in*



## Pendant Integration

Galaxy Ultra is complemented by a comprehensive range of equipment arms and multi-movement pendants.

Medical supply pendants can be centrally mounted with the operating lights or on individual mountings.

Brandon's computer assisted configuration software allows us to plan pendant and light installations down to the smallest detail to ensure all the equipment integrates seamlessly.

Atlas Pendants provide unique benefits of space saving and flexibility. Separate brochures and information are available from Brandon Medical







## Reduce Infections (Proven Efficacy in UCVs)

Galaxy Ultra is the only operating light designed and proven to work in ultra clean ventilation (UCV) theatres without disrupting the laminar air flow.

Designed from principles established with Prof. Charnley during the original UCV development, the latest Galaxy Ultra lights have been proven to work during live surgery and in the air flow laboratory of the World's biggest UCV manufacturer.

The reticulated shape is optimised to minimise aerodynamic disruption of the laminar flow, regardless of the orientation of the light heads. Careful attention to thermal management eliminates air flow disruption from thermal buoyancy.



① “Tested by Surgeons”. Counting CFUs (colony forming units) during live surgery, Rikshospital, Oslo.

② “Tested by UCV manufacturers”. Laboratory testing to HTM03-61 at Wiess Klimatechnik.



# Galaxy Ultra *Multimedia & Integration*



## Integrated Equipment Solutions for Operating Theatres & Intensive Care

Brandon Medical offers a complete integrated package of the latest equipment and has a unique expertise in providing integrated solutions.

### Medical Lighting

- Operating Lights
- Minor Surgical Lights
- Examination Lights
- Medical Room Lighting

### Control & Power Systems

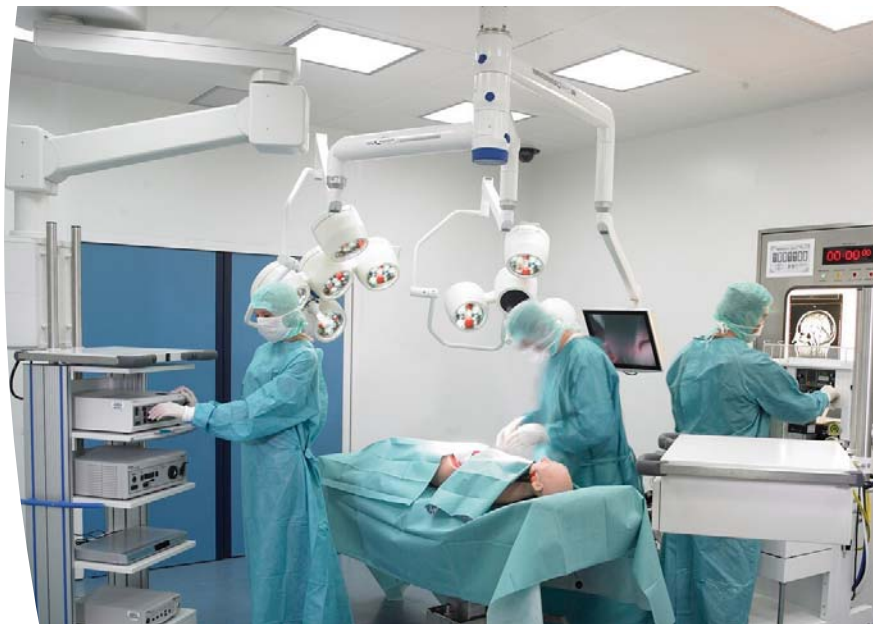
- Stainless Steel Surgeon Control Panels
- Membrane Control Panels
- Isolated Power Systems
- Emergency Power Supplies

### Medical Architectural

- Medical Service Pendants
- Thermal Ceilings (Patient Warming)
- Ultra Clean Ventilation
- Media Bridges

### Medical AV Systems

- Integrated Digital AV Systems
- Video & Audio over IP
- Video & Audio Data Archiving
- Integrated Management Hubs







## Integrated Video & Audio

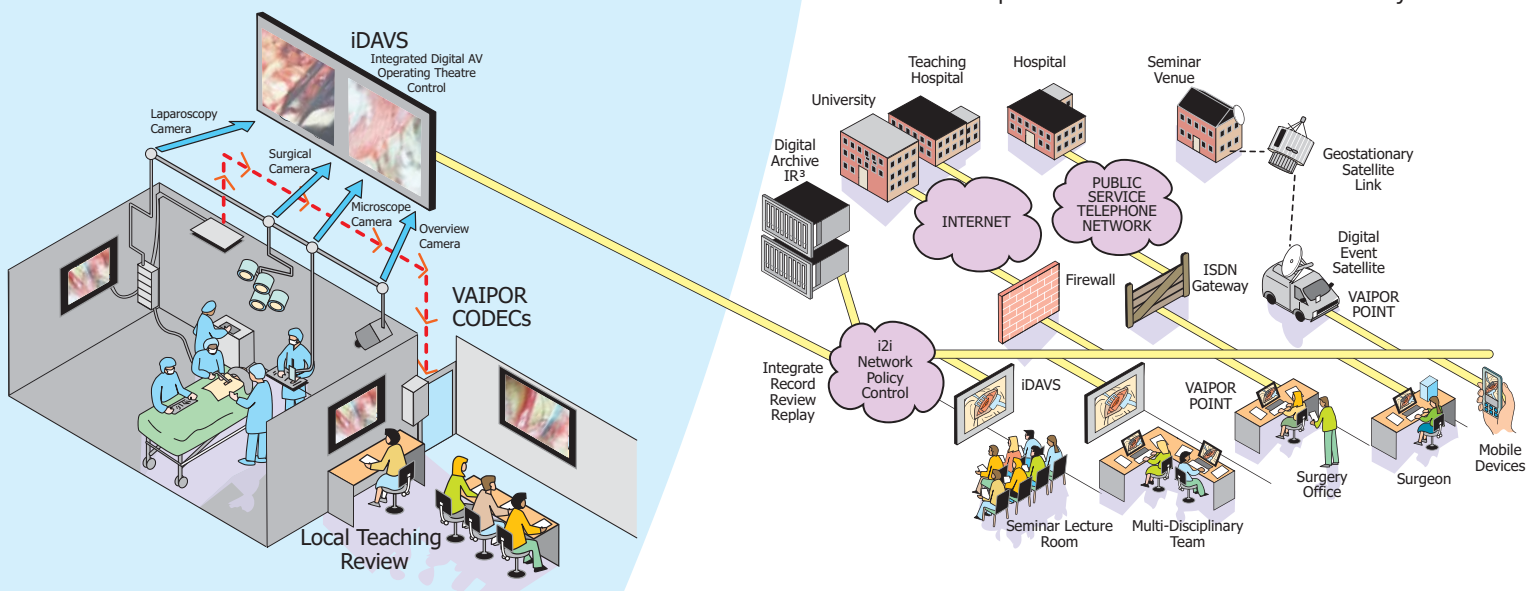
Galaxy Ultra is specifically designed for integration with the latest AV (Audio-Visual) technology, including Brandon Medical's award winning Symposia Medical AV.

- A full range of integrated video cameras
- Single and double monitor mounting arms
- Heavy duty monitor arms (for large monitors)
- Local controls, remote controls and software controls (via IP)

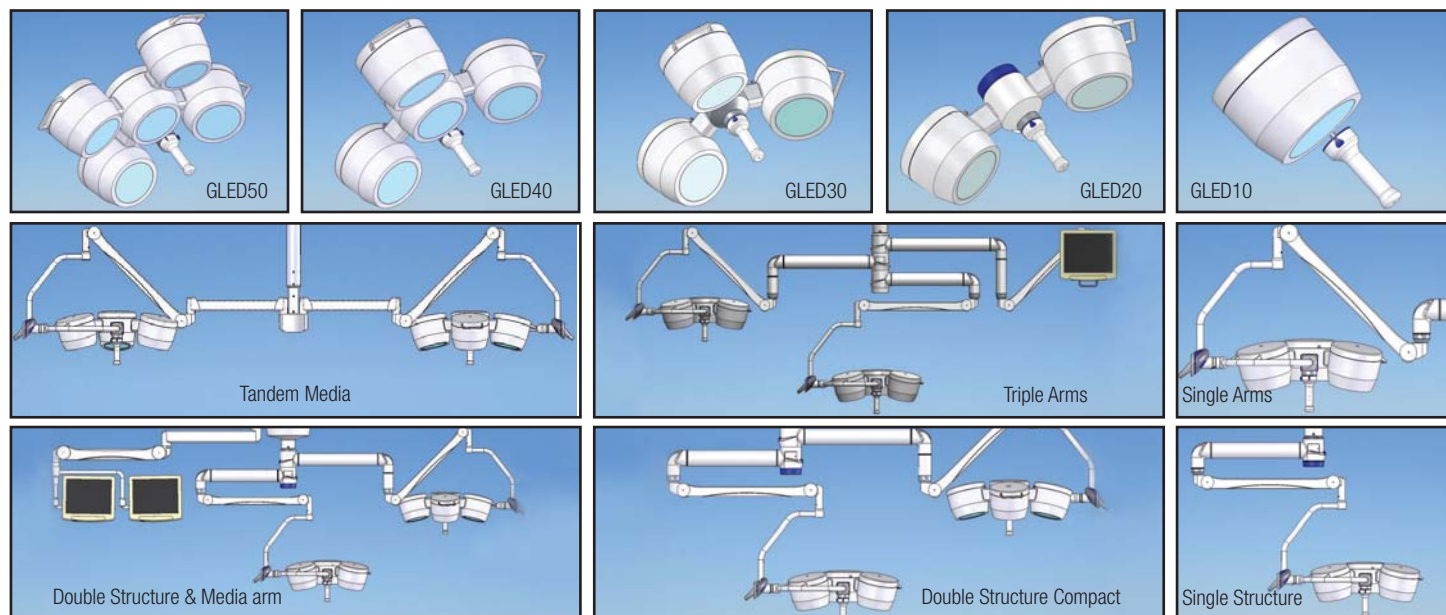


Symposia is an integrated Digital AV Systems that produces the highest quality images, video and audio. It includes all the elements to collect, review and display medical AV data with full 2-way audio and video communication.

Multi-media installations range from simple video camera installations to complete hospitals or full intranet telemedicine systems.



# Galaxy Ultra “Best in Class” Performance in



Std Model Code	Intensity @ 1m (Lux)		Field Size (max-min) (mm)		Min Room Height (mm)		Overall Pivot Radius (mm)		Folded Pivot Radius (mm)		Power (Watts)	Weight (Kg)
	Main	Satellite	Main	Satellite	Std	LC	Main	Satellite	Main	Satellite		
GLED55	160,000	160,000	360-180	360-180	2,850	2,615	2,090	2,195	780	885	135+135	118
GLED54	160,000	140,000	360-180	360-180	2,850	2,615	2,090	2,195	780	885	135+108	116
GLED53	160,000	120,000	360-180	360-180	2,850	2,615	2,090	2,195	780	885	135+80	114
GLED52	160,000	85,000	360-180	360-180	2,850	2,615	2,090	2,195	780	885	135+54	112
GLED51	160,000	50,000	360-180	360-180	2,850	2,615	2,090	2,195	780	885	135+27	108
GLED50	160,000		360-180	360-180	2,850	2480	2,090	NA	780	NA	135	55
GLED44	140,000	140,000	360-180	360-180	2,850	2615	2,090	2,195	780	885	108+108	114
GLED43	140,000	120,000	360-180	360-180	2,850	2615	2,090	2,195	780	885	108+80	112
GLED42	140,000	85,000	360-180	360-180	2,850	2615	2,090	2,195	780	885	108+54	110
GLED41	140,000	50,000	360-180	360-180	2,850	2615	2,090	2,195	780	885	108+27	106
GLED40	140,000		360-180	360-180	2,850	2480	2,090	NA	780	NA	108	53
GLED33	120,000	120,000	360-180	360-180	2,850	2615	2,090	2,195	780	885	80+80	110
GLED32	120,000	85,000	360-180	360-180	2,850	2615	2,090	2,195	780	885	80+54	108
GLED31	120,000	50,000	360-180	360-180	2,850	2615	2,090	2,195	780	885	80+27	104
GLED30	120,000		360-180	360-180	2,850	2480	2,090	NA	780	NA	80	51
GLED22	85,000	85,000	360-180	360-180	2,850	2615	2,090	2,195	780	885	54+54	106
GLED21	85,000	50,000	360-180	360-180	2,850	2615	2,090	2,195	780	885	54+27	102
GLED20	85,000		360-180	360-180	2,850	2480	2,090	NA	780	NA	54	49
GLED11	50,000	50,000	360-180	360-180	2,650	NA	1800	1900	780	885	27+27	98
GLED10	50,000		360-180	360-180	2,650	NA	1800	NA	780	NA	27	45

## ADDITIONAL SATELLITES: ADD UP TO 2 SATELLITES TO THE ABOVE TO CREATE TRIPLE AND QUADRUPLE LAMP HEAD SYSTEMS

GLED05	160,000	360-180	2,985	2,985	2,195	2,300	885	990	135	45
GLED04	140,000	360-180	2,985	2,985	2,195	2,300	885	990	108	43
GLED03	120,000	360-180	2,985	2,985	2,195	2,300	885	990	80	41
GLED02	85,000	360-180	2,985	2,985	2,195	2,300	885	990	54	39
GLED01	50,000	360-180	2,785	2,785	1,905	2,005	885	990	27	35

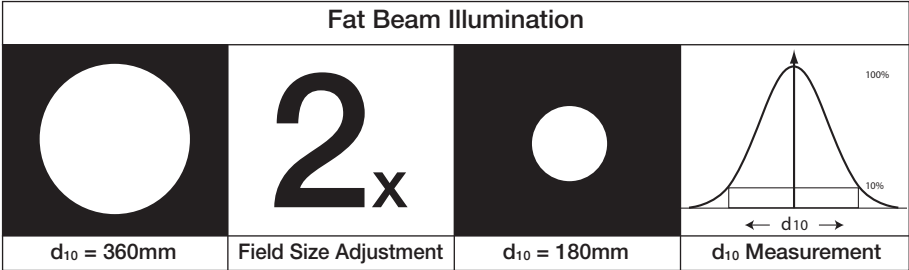
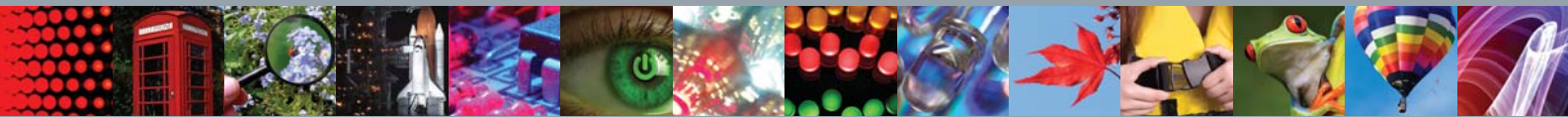
## TANDEM DUO MOUNTING SYSTEMS

GLED44T	140,000	140,000	360-180	360-180	2,685	NA	2,150	2,150	690	690	108+108	77
GLED43T	140,000	120,000	360-180	360-180	2,685	NA	2,150	2,150	690	690	108+80	75
GLED42T	140,000	85,000	360-180	360-180	2,685	NA	2,150	2,150	690	690	108+54	73
GLED41T	140,000	50,000	360-180	360-180	2,685	NA	2,150	2,150	690	690	108+27	69
GLED33T	120,000	120,000	360-180	360-180	2,685	2,400	2,150	2,150	690	690	80+80	73
GLED32T	120,000	85,000	360-180	360-180	2,685	2,400	2,150	2,150	690	690	80+54	71
GLED31T	120,000	50,000	360-180	360-180	2,685	2,400	2,150	2,150	690	690	80+27	67
GLED22T	85,000	85,000	360-180	360-180	2,685	2,400	2,150	2,150	690	690	54+54	69
GLED21T	85,000	50,000	360-180	360-180	2,685	2,400	2,150	2,150	690	690	54+27	65
GLED11T	50,000	50,000	360-180	360-180	2,685	2,400	2,150	2,150	690	690	27+27	61

## Programmable Parameters

“Special” products can be made to suit individual requirements by re-programming the standard parameters.













CRI

R <sub>a</sub>
95

Colour Rendering  
Index R<sub>a</sub>

Colour Rendering Index (R<sub>a</sub>) is a measure of how well a light source reproduces colours.

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

Near Perfect Colour Rendition  
Across the Visible Spectrum R<sub>1</sub>-R<sub>8</sub>

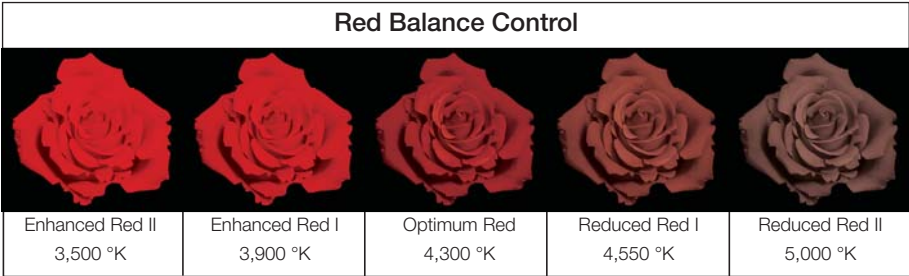
HD-LED has near perfect colour rendition for all 8 colour measurements used to calculate general Colour Rendering Index (R<sub>a</sub>). The “strong red” colour so important for visualisation of red tissues is not included in the R<sub>a</sub> measurement

RED

R <sub>9</sub>
97

Enhanced Red  
Balance R<sub>9</sub>

R<sub>9</sub> indicates visible red colour reproduction which is a critical parameter for surgical lights.



The % of visible red light can be increased or decreased to optimise the visualisation of red tissues. Colour temperature is variable from 3,500-5,000 °K

Lighting and Electrical Performance

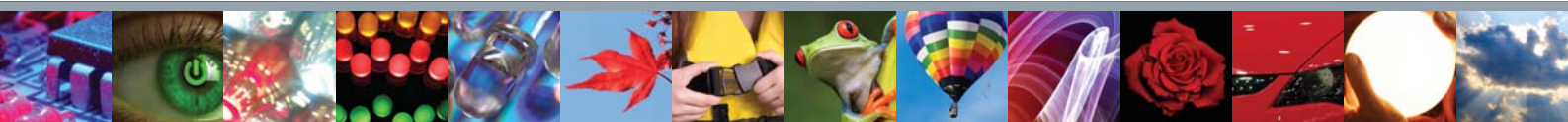
	Intensity @ 1m (Lux)	LED Life (Hrs)	Power (Watts)	Radiant Energy mW/m <sup>2</sup> .Lux	Dimming %	IP Rating	Endoscopy Setting
GLED5	160,000	>40,000	135	3.31	100-5%	54	5%
GLED4	140,000	>40,000	108	3.31	100-5%	54	5%
GLED3	120,000	>40,000	80	3.31	100-5%	54	5%
GLED2	85,000	>40,000	54	3.31	100-5%	54	5%
GLED1	50,000	>40,000	27	3.31	100-5%	54	5%

Quality, Safety and Reliability

Galaxy Ultra is designed to comply with all existing and foreseeable International Standards in terms of safety and performance. The quality of design, manufacture, installation and after sales service is strictly regulated by ISO 13485 and ISO 9000 quality systems. The CE mark is your guarantee that Galaxy Ultra meets or exceeds all European Union requirements for operating theatre lights.



# HD-LED Lighting



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[www.brandon-medical.com](http://www.brandon-medical.com)

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