



reddot design award
winner 2010

MediLED Symphony

LED Surgical Lights

The world-class LED surgical light solution

MediLED SERIES

Superior optics and green energy LEDs

MediLED is a surgical lighting solution adopting the latest LED-based technology, it delivers precision lighting, functionality, and versatility for modern surgical environments.

Superior lighting performance, MediLED's designers aim to create an excellent medical lighting form without compromising functionality.

Heat dispersion and shadow control are all embedded into this beautifully symmetrical, laminar airflow compliant space-friendly 7-petal ring design; the easy-to-clean sleek lighthead surface is able to prevent dust / dirt / particles from falling into the surgical field and for better infection control.

Each petal is angled with calibrated precision and contains arrays of meticulously positioned LEDs that focus each column of light on specific targets to achieve the perfect light field.



Laminar airflow compliant.



Focus light on specific targets.



MediLED SERIES

Powerful optics performance



MediLED 44



MediLED 46



MediLED 4

High Performance Light Source, Low Energy Consumption

MediLED LEDs can deliver high efficiency, high performance lighting at over 100 lumens per watt, which comes to energy savings of 33% compared to the traditional surgical lighting system.

Perfection of the Light Field

MediLED is able to maintain a consistent light intensity at distances of 70 cm to 150 cm and creates an uniform light column that can reach various depths of illumination in any wound area.

R9 Index - Portraying Red

MediLED's R9 Index (red color index) reaches 95, indicating superb ability to render an accurate color of red, when distinguishing subtle shades of red color in a wound area that is diffused with red tissue and tinted in blood.

A Perfect Balance of Natural and Warm White LED

By providing natural white light, it enhances color differentiation that delivers a strong and clear contrast amongst different tissues, thus reducing eye fatigue in long surgeries.

Better Shadow Control

MediLED employs the special lens design method. With precise lens distribution on the light head, it reaches an outstanding shadow-free performance.

An Innovative Focus Adjustment System

Optional adjustable three color temperature 3,900, 4,300, and 4,700 Kelvin under lighting intensity between 40,000lux and 160,000lux, providing the color temperature preferred by the surgeon offers better enhancement and contrast on the meticulous surgical area.

Adjustable Color Temperature

The light pattern can be easily adjusted by using a motorized control to every kind of surgical procedure and operating room environment. Easy to focus light beam from the 7 petals onto one spot to form perfection of the light field on the surgical area.

Excellent Heat Management and Wound Care

MediLED owns exceptionally well heat dissipation (3.3 radiant power / intensity, mW / m² lux) in preventing desiccation of exposed tissue, which is consequently very beneficial for post-surgery wound recovery.

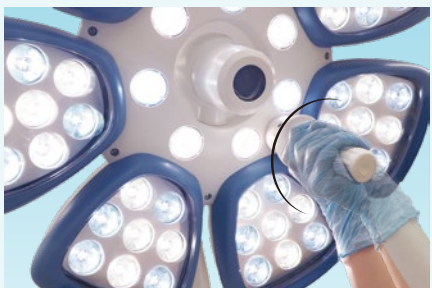
MANEUVERABILITY



Various solutions for smart intuitive control

Sterile Handle

The motorized sterile handle is designed to position the lighthead and used to adjust the pattern size. This handle allows the surgeon to conveniently reach up and make quick adjustments.



Non Sterile Handle

Non-sterile handles are integrated onto the outer edges of each petal, which allow the OR staff to grasp them and manually reposition the lighthead.



User Friendly Touch Screen Controller

The digital panel is designed for easier medical cleaning and control. The tilting design of the control panel is convenient for medical personnel to watch and adjust. The facing outward design of the panel does not interfere with the surgical procedures.



Maneuverable Control of Lightheads

Up to three lightheads can be selected from a single panel to control, this can minimize walking movements by the OR staff, thus reducing infection possibilities.



Multiple Controller Choices

Standard touch screen controller, infrared remote control and optional 3.5" wall control unit (LA001.10). MediLED's digital system can be integrated with Mediland's Operating Room Integration System.



Minimally Invasive Surgery (MIS) Lighting Mode

Seven LEDs bulbs are placed on the central ring for MIS lighting mode. When surgeons are performing MIS surgeries, this mode can be used as an ambient lighting.



HIGH DEFINITION MULTIMEDIA SOLUTION

The MediLED’s in-light HD camera, with 1080 lines horizontal resolution and 2 million pixels provides a high quality image which is ideal for recording surgical process, video broadcasting, medical education, and conferencing application.

The MediLED lighting solution provides supports according to weight for 19" to 31"suspension HD TFT-LCD displays used for displaying medical images from various sources. A high definition medical display and a high definition camera can be provided upon requests.



HD Camera Technical Specification	
Image sensor	1/2.5 CMOS
Picture Quality	1080P/30
Pixel Resolution	2.1 Mega-pixels
Lens	F=1.8 to 2.2
Optical Zoom	10x
Focal Length	4.5mm (wide), 45mm (tele)
Mini Working Distance	10mm (wide), 1000mm (tele)
Video Output	HD-SDI

*Both the C module and B module are with the same camera specifications.

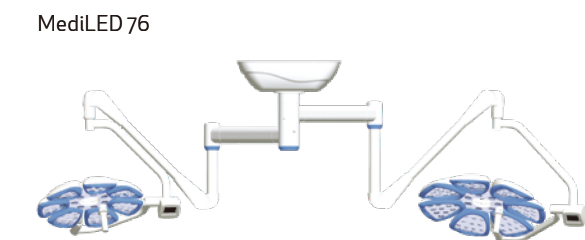
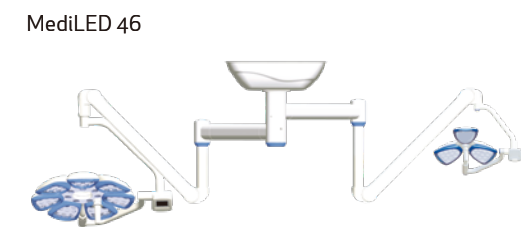
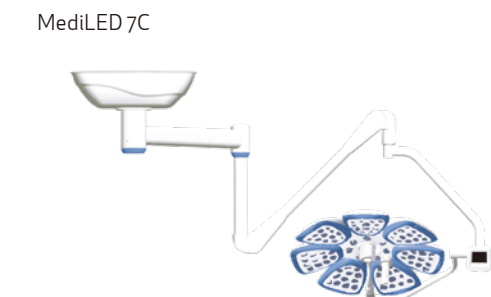
TECHNICAL SPECIFICATIONS



Features / Model	Lighthouse 4	Lighthouse 6	Lighthouse 7
Diameter of Lighthouse (cm)	61	63	75
Central Illuminance Ec (at 1m distance)	160,000		
Adjustable Color Temperature (Kelvin)	3900, 4300, 4700		
Color Rendering Index (CRI) / Red Color Index (R9)	95		
Radiant Power / Intensity Ee / Ec (mW / m2 lux)	3.3		
Light Field, d10 (cm)	17	18	
Light Field, d50 (cm)	10		
Pattern Size (cm)	18~30		
Number of LEDs	36	63	91
Lifetime of Bulbs (hour)	50,000		
Minimum Requirement for Ceiling Height (cm)	260	270	270
Depth of Illumination (L1+L2 ,cm)	90	80	80
Applicable Working Distances from Lighthouse to Surgical Area (dm)	80~140	70~150	70~150
Power Consumption of the Lighthouse (W)	36	63	91
Power Input	100~240VAC, 50 / 60Hz		

* Specifications are subject to change without notice.

VARIETY OF CONFIGURATIONS



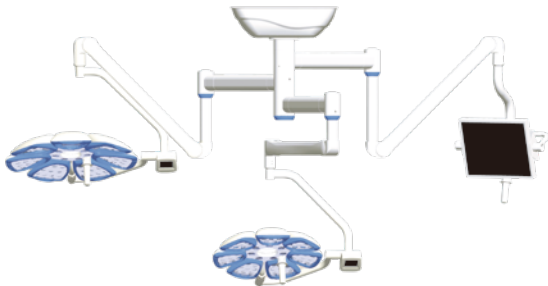
MediLED 6M
MediLED 6MB



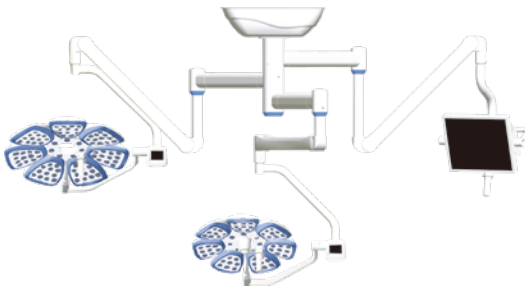
MediLED 76C



MediLED 76A



MediLED 76CA



Configurations with Arms

Arms model 1	Arms model 2	Arms model 3
MediLED4, 6, 6C, 7, 7C, A	MediLED44, 46, 46C, 47, 47C, 66 MediLED66C, 6A, 6CA, 76, 76C, 77, 7CA	MediLED466, 466C, 46A, 46B, 46CA, MediLED47A, 47B, 47CA, 66CA, MediLED76B, 76CA, 766, 766C, 76A

A: Display B: External Camera with a suspension arm C: Integrated Camera M: Mobile MB: Mobile with built-in batteries



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