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THE FUTURE IS HERE

PRODUCT CATALOGUE
LED SURGICAL LIGHT

MORBROS · SURGICAL LIGHTING SYSTEMS

LUMAX 60

PREMIUM LED OPERATING LIGHT

A 60-LED, single-dome surgical light built around an OSRAM light engine and individually-lensed optics – engineered for true colour rendering, shadow-diluted illumination, and a cool-running aluminium body.

OSRAM LEDS

CRI ≥95

160,000 LUX



SECTION 01

A LIGHT ENGINE BUILT ON PRECISION

02

Lumax 60 arranges 60 OSRAM LEDs across six sectors, each shaped by its own optical lens – delivering a wide, even, true-colour light field from a single aluminium dome.

**160,000 LUX AT 1 METRE****CRI ≥95, TRUE COLOUR RENDERING****>60,000 HOUR LED LIFE****STERILIZABLE CENTRE HANDLE****CEILING & MOBILE INSTALL**

SPECIAL FEATURES

- 60 OSRAM LEDs arranged in 6 independently-lensed sectors of 10 LEDs each
- LEDiL Angela-series optics for a focused, uniform beam and true colour rendering
- Sterilizable centre handle plus 3 removable side handles for full-range repositioning
- Complete aluminium body – top cover and internal heat sink – for a cool-running dome
- Capacitive touch brightness control, dimmable across the full range
- Available in ceiling-mounted or mobile floor-stand configurations



CEILING & MOBILE MOUNTING

The same dome mounts to a ceiling-suspended pendant arm or a mobile floor stand, so theatre layout – not the light – sets the limit.

SECTION 02

ONE LENS PER LED. ZERO GUESSWORK.



LEDiL Angela-series optic, PMMA optical grade

Every one of the 60 OSRAM LEDs sits behind its own LEDiL Angela-series lens — not a single shared cover glass. Each lens individually shapes its LED's beam to a precise ~60° cone before it ever reaches the field.

TRUE COLOUR, PRESERVED

Colour rendering starts at the OSRAM light engine, rated CRI ≥ 95 . The Angela lens's optical-grade PMMA passes more than 92% of that light through with minimal spectral loss — so the colour the LED produces is the colour that reaches the surgical site, not a filtered approximation of it.

SHADOWS, DILUTED

Because the light field is built from 60 individually-aimed sources instead of one large bulb, it reaches the site from dozens of angles at once. When a hand or instrument blocks one beam, the surrounding lenses are still lighting that same spot from elsewhere — softening a single hard shadow into near nothing.

SECTION 03

A GLASS COVER THAT EARNS ITS PLACE

In front of the lens array sits a single pane of ESG safety glass — toughened, monolithic glass rather than a laminate or acrylic cover. It's the layer between the optics and everything the theatre throws at it: cleaning chemicals, trolley knocks, day-to-day wear.

Being fire-resistant and scratch-proof means the cover keeps its optical clarity over years of service rather than months, and its smooth, non-porous face wipes down fast between cases — no seams or textured surface for residue to sit in.



Monolithic ESG safety glass cover

FILTERS WHAT SHOULDN'T REACH THE FIELD

The glass blocks UV and infrared wavelengths from passing through with the visible light — UV that tissue and staff don't need exposure to, and IR that would otherwise add heat at the surgical site. It's a second layer of the same cool-running story as the aluminium heat sink behind it.

WITHOUT LOSING LIGHT

None of that filtering comes at the cost of output. The glass is specified for high transmittance, so the illuminance measured at the field reflects what the OSRAM engine actually produces — not a dimmed approximation of it.

SECTION 04

BUILT FOR THE SURGEON'S HAND

05



Sterilizable centre handle

The centre handle sits directly in the sterile field — shaped as one continuous moulded grip, wide enough for a full gloved hand and angled so the wrist doesn't have to fight the dome's weight to redirect it.

Because the handle itself is sterilizable, the surgeon can reposition the light mid-procedure without stepping back or calling in a circulating nurse to touch a non-sterile control. A twist, tilt, or full swing to a new angle is a one-hand, one-motion adjustment.

**QUICK-RELEASE, TWIST ON & OFF****AUTOCLAVABLE, STANDARD CYCLES****REUSABLE THROUGH REPEATED CYCLES****CUTS CROSS-CONTAMINATION RISK**

THREE REMOVABLE SIDE HANDLES

Beyond the centre grip, three additional side handles let non-sterile staff make broad positioning changes before scrub-in. Every handle — centre and side — detaches with a simple quick-release for autoclaving, so the same fixture that gets gripped through a procedure is standard hospital-sterilized before the next one.

SECTION 05

ALUMINIUM BODY, COOL-RUNNING DOME

06



Aluminium top cover

The dome's outer shell and its internal heat sink are both machined from aluminium — a material chosen for two properties at once: it's light enough for smooth, effortless repositioning, and it conducts heat far faster than the plastic housings used on lower-tier lights.

That matters because 60 high-output LEDs generate real heat. The aluminium heat sink pulls it away from the light engine and spreads it across the body rather than letting it build up under the cover — so the dome stays cool to the touch through a full procedure, with nothing radiating warmth down onto the sterile field.

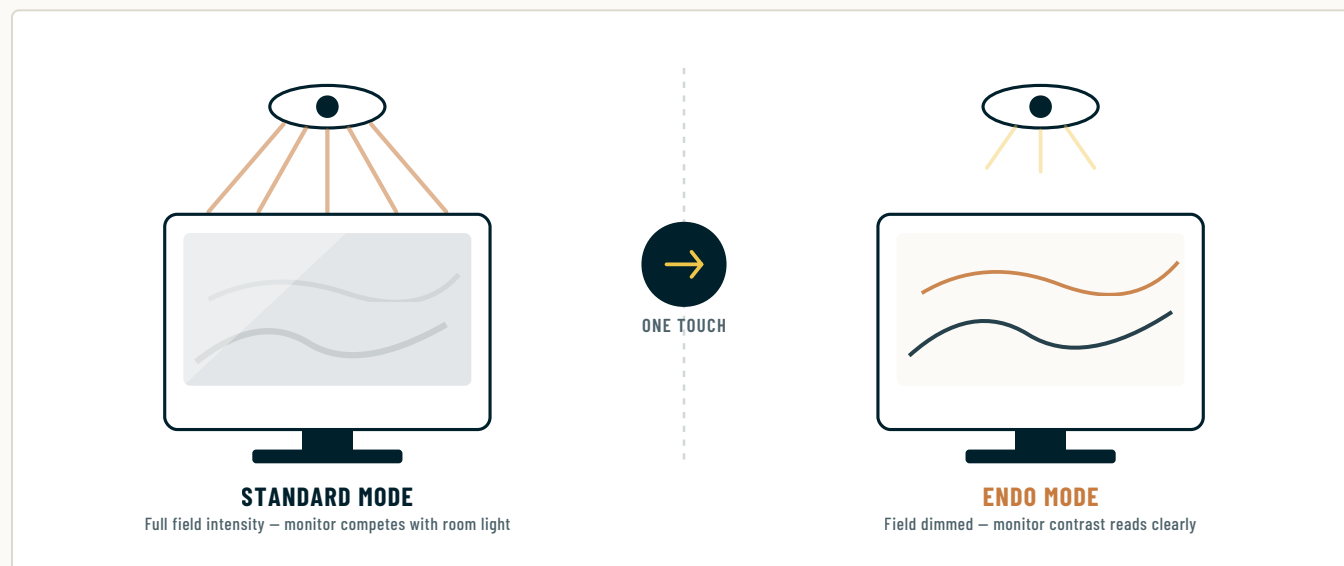
WHY IT LASTS

A cooler-running LED engine also degrades more slowly — part of how Lumax 60 is rated for more than 60,000 hours of LED life. The aluminium body isn't just a thermal choice, it's a durability one.

SECTION 06

BUILT TO GET OUT OF THE MONITOR'S WAY

A bright overhead field is exactly what a laparoscopic or endoscopic monitor doesn't want competing with it.



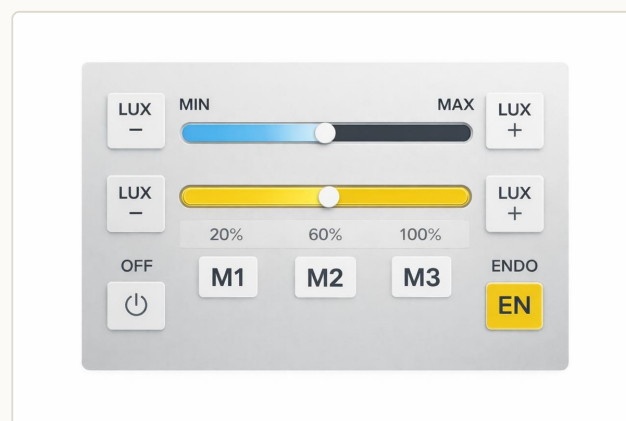
Ambient room light washes out contrast on the endoscope display and throws glare across the screen. A single touch drops Lumax 60 to a preset lower intensity – a dedicated preset, not a manual dial-down – cutting that glare without going dark on the field the team still needs to see.

TWO WAYS TO CONTROL IT



STANDARD CONTROLLER

Two memory presets (M1, M2), a dedicated Endo button, and on/off – intensity is read directly off a row of LED dots, no display needed.



DIGITAL CONTROLLER – OPTIONAL

A touch-slide LUX control with percentage markers, three memory presets (M1-M3), and a yellow-highlighted EN key that puts Endo Mode one glance away.

SECTION 07

ONE TOUCH. BOTH LIGHTS.

08

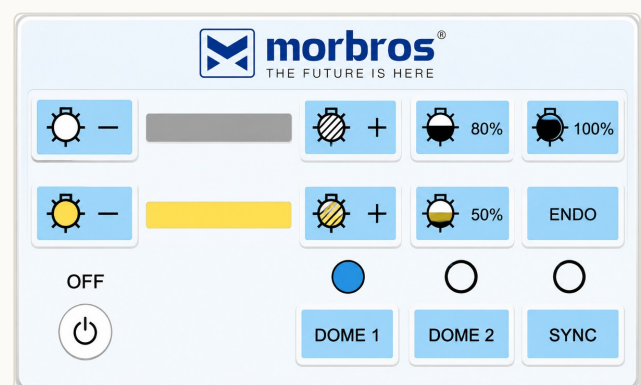
Where two Lumax 60 heads share a table, the wall control panel can hold and adjust both wirelessly – and bring them to identical intensity with a single tap.



Wall panel wirelessly holding Light A and Light B in sync, mid-procedure

WHY IT'S THERE

Two independent lights normally mean two independent dials – and a circulating nurse walking back and forth across the table to keep them matched every time the surgeon calls for more or less light. Lumax 60's wall panel removes that walk entirely: both heads are addressed from one fixed control point.

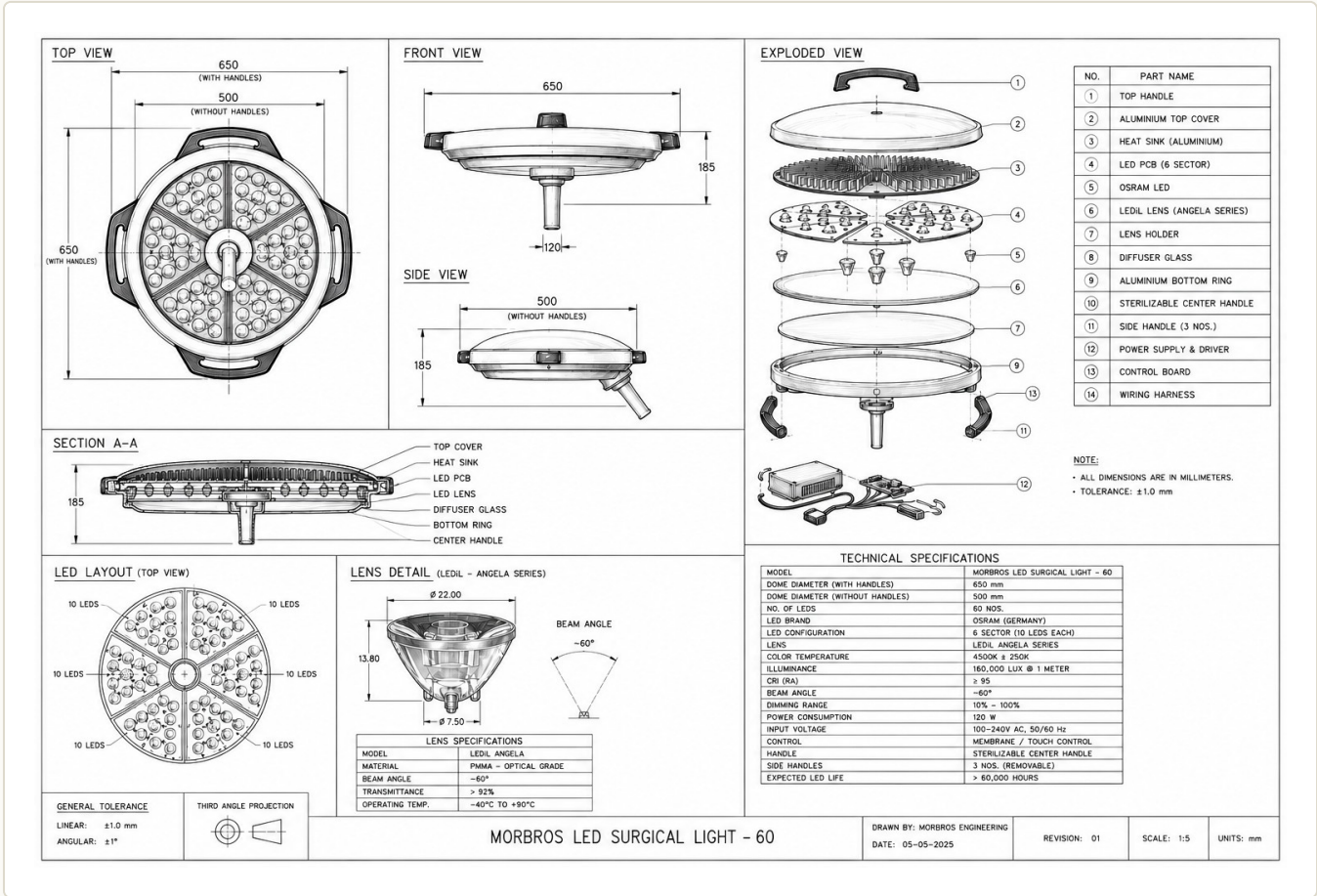


Light A and Light B can be driven independently for asymmetric setups, or locked to the same output with SYNC – no manual matching, no guessing whether the two domes are actually even.

SECTION 08

ENGINEERED DOWN TO EVERY LAYER

From the top handle down to the wiring harness, every Lumax 60 is built to the same dimensioned drawing – heat sink, LED PCB, lens holder, diffuser glass, and control board assembled in a fixed, repeatable stack.



General arrangement & exploded assembly drawing – Lumax 60

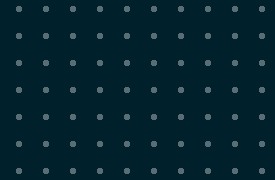
SECTION 09

TECHNICAL SPECIFICATIONS

10

PARAMETER	SPECIFICATION
Dome diameter (with handles)	650 mm
Dome diameter (without handles)	500 mm
Number of LEDs	60 (6 sectors × 10 LEDs)
LED brand	OSRAM (Germany)
Lens	LEDiL Angela series, PMMA optical grade, >92% transmittance
Colour temperature	4500 K ± 250 K
Illuminance	160,000 Lux @ 1 metre
Colour Rendering Index	≥ 95 Ra
Beam angle	~60°
Dimming range	10% – 100%
Power consumption	120 W
Input voltage	100–240V AC, 50/60Hz
Control	Capacitive touch / membrane panel
Handle	Sterilizable centre handle + 3 removable side handles
Body material	Complete aluminium (top cover & heat sink)
Installation option	Ceiling-mounted or mobile floor stand
Expected LED life	> 60,000 hours

Compiled from the Lumax 60 engineering drawing. A separate marketing spec sheet in circulation lists slightly different figures for illuminance (1,80,000 Lux), colour temperature (3800–5200K adjustable) and LED life (>50,000 hrs) – please confirm which values are current before this goes to print. Additional charges will apply for specific customizations.



SECTION 10

CERTIFICATIONS & COMPLIANCE

Lumax 60 is manufactured on the same Delhi production floor and under the same quality system covered by Morbros India's regulatory certifications, audited under the Deutsche Akkreditierungsstelle (DAB) accreditation framework:

**ISO 13485:2016**

Medical Devices Management System

Cert. MDS240271 · Valid to 18/02/2027

**ISO 9001:2015**

Quality Management System

Cert. QMS240270 · Valid to 18/02/2027

**IEC 60601-2-41:2021**

Safety & performance — surgical luminaires

Cert. IEC340722 · Valid to 08/07/2027

**IEC 60601-2-40:2016**

Safety & performance — EMG / evoked response equipment

Cert. IEC240721 · Valid to 08/07/2027

**CE CERTIFIED**

Per Directive 93/42/EEC (Annexure I)

Cert. CE240272 · Valid to 18/02/2027

**GMP CERTIFIED**

Good Manufacturing Practice

Cert. GMP230860 · Valid to 29/08/2026

Certificate numbers and validity dates as of original issue; ask your Morbros representative for current renewal status before publishing to a regulated market.

SECTION 11

TRUSTED IN REAL OPERATING THEATRES



Twin Lumax 60 heads installed and commissioned in a live operating theatre

5000+

EQUIPMENT INSTALLATIONS
EVERY YEAR

30+

YEARS OF
MANUFACTURING

36+

COUNTRIES
SERVED

PROFESSIONAL INSTALLATION | USER TRAINING
PREVENTIVE MAINTENANCE | LIFETIME SUPPORT