

# OPELA III™ Cx



Wearable OR Lighting System  
Born From Surgeon's Experience

TAIYO Corporation

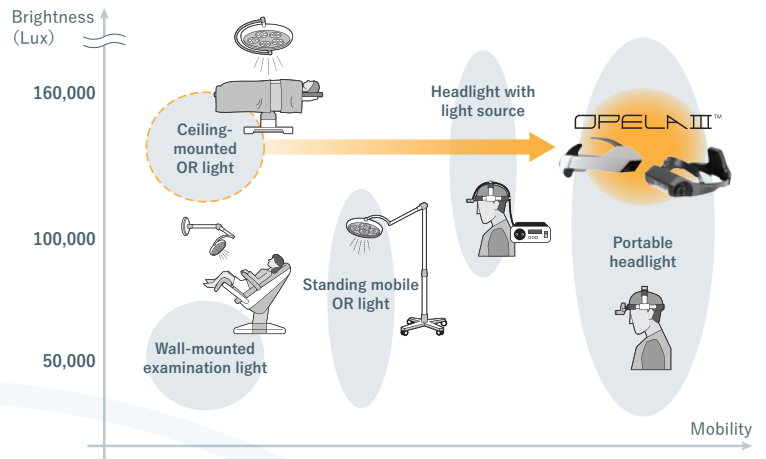


MADE IN  
JAPAN

# Concept

## To Make OR Lights Wearable

Many surgical lightings are characterized by “brightness” or “mobility”. OPELAIII Cx stands on its own as a unique Mobile Surgical Lighting System that maintains the brightness and shadow reducing function of a surgical light, while focusing on the quality of light itself, combining years of surgeon’s experience into its design.



\* Headlight illuminance is calculated based on illumination distance of 400mm

## Lighting Technology

Focusing on the user experience, its light quality is developed for surgeons.

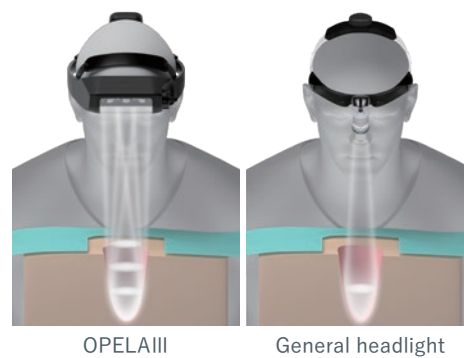
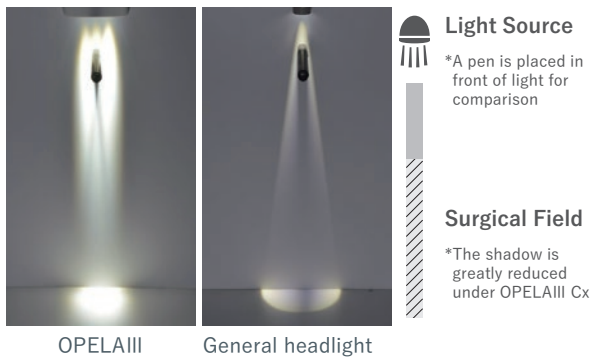
### Bright 160,000Lux\* (color temperature 5,000K\*)

It provides the highest luminance within the standard, BASIC SAFETY and ESSENTIAL PERFORMANCE of SURGICAL LUMINAIRES. The long-life LED has a color that makes it easy to distinguish tissue.



### Reduces shadows, illuminates deep areas and cavities

Unique optical distribution design minimizes shadows, penetrates deep into surgical field and illuminates inner cavities and walls.



### Flicker-free, Fatigue-free light

The optical engineering on OPELAIII Cx allows for faded boundary, making the light less tiring on the eyes. Using “DC lighting system” it keeps a constant current flowing through the LED. This eliminates “flickering”, which puts a strain on the eyes.

### Spot size diameter 6-23cm\* for flexible illumination

It can illuminate the surgical field with pinpoint accuracy, while also illuminating wider area of the operating field.



\* Headlight illuminance is calculated based on an illumination distance of 400 mm.

# Maximizing Efficiency

By completely redesigning from scratch, OPELAIII Cx provides high quality illumination with a revolutionary heat dissipation system.

## Light Weight

The centrally balanced weight-design makes it feel very light

- 20% reduction from the previous model

## More Compact

Eliminating anything that isn't 100% necessary, even by 1g or 1mm

- Light source module reduced by 52% in volume

## More Comfortable

Airy enough to forget you're wearing it



- Fitting system jointly developed with the leading Japanese motorcycle helmet manufacturer, OGK KABUTO

OPELAIII & OPELAIII Cx comparison



The special adjuster allows fine adjustment and uniform tightening to fit any head shape



The dual floating structure of the COOLMAX® inner pad reduces the contact area for a comfortable hold during long operation

# Evolved User Experience

## Simple Operation

- The power switch & brightness controls are all assembled on the back of the unit for ease of access
- An easy-to-operate adjustment allows for wide range of light angle adjustment



Rear controls with battery gauge



Dual dial for lighting angle and spot size adjustment

## Battery unit

- Simultaneous dual charger
- Fast charging (approx. 3 hours)
- 4-level charge indicator
- Compact pocket size
- Maximum 4 hours of continuous use at 160,000 Lux



## Power Source

- Can be used directly with AC adaptor, ready for any situation





## Case Studies and Usages

In addition to being used as an auxiliary light for surgical OR lamps, it can also be used as a MOBILE SURGICAL LIGHT in a variety of environments, such as the bedside, examination room, disaster sites and in vehicles.



## Specifications:

		
Model	OPELAIII Cx	OPELAIII
Maximum illuminance *Irradiation distance 400mm *When irradiation range is at minimum diameter	160,000Lux ±10%	145,000Lux ±10%
Color temperature	Approx. 5,000K	Approx. 4,500K
Brightness level	5 levels	8 levels
Irradiation size * Irradiation distance 400mm	(φ60~230mm)	(φ75~125mm)
Type of LED	3 high brightness LEDs (average lifespan of 50,000 hours)	3 high brightness LEDs (average lifespan of 50,000 hours)
Continuous lighting time (reference value) *Per battery unit when fully charged *Illumination distance 400mm	Level 5: 160,000Lux / 4 hours Level 4: 135,000Lux / 5.5 hours Level 3: 100,000Lux / 7.5 hours Level 2: 80,000Lux / 12 hours Level 1: 40,000Lux / 20 hours	Approximately 2.5 to 6 hours (@ 50~100%)
Battery	Nickel-metal hydride battery	Nickel-metal hydride battery
Operating environment (when in use)	0~35°C, 20~85%RH (non-condensing)	15~32°C, 20~85%RH (non-condensing)
Power consumption	Approx. 8W	Approx. 7.2W
Power supply (rated)	100-240V AC, 47-63Hz (when using AC adapter) DC6V (when using battery unit)	100-240V AC, 47-63Hz (when using AC adapter) DC9V (when using battery unit)
Weight	Main unit: approx. 310g Battery unit: approx. 430g Charging stand: approx. 250g	Main unit: approx. 390g Battery unit: approx. 480g
Head circumference size	51~65cm	53~66cm
Generic name	Headlight (Class 1)	Headlight (Class 1)
Manufacturing license number / Approval number	13B3X10231000002	13B3X10231000001
Patents	—	[Patent registration] Heat dissipation system <Japan> Patent No. 6283150 / <US> 10,401,004 [Design registration] <Japan> Registration No. 1598372 / <US> US D850,681 S <Europe> 004387694-0001

\* Specifications are subject to change without notice and may vary depending on usage conditions.

[ Manufacturer ]

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