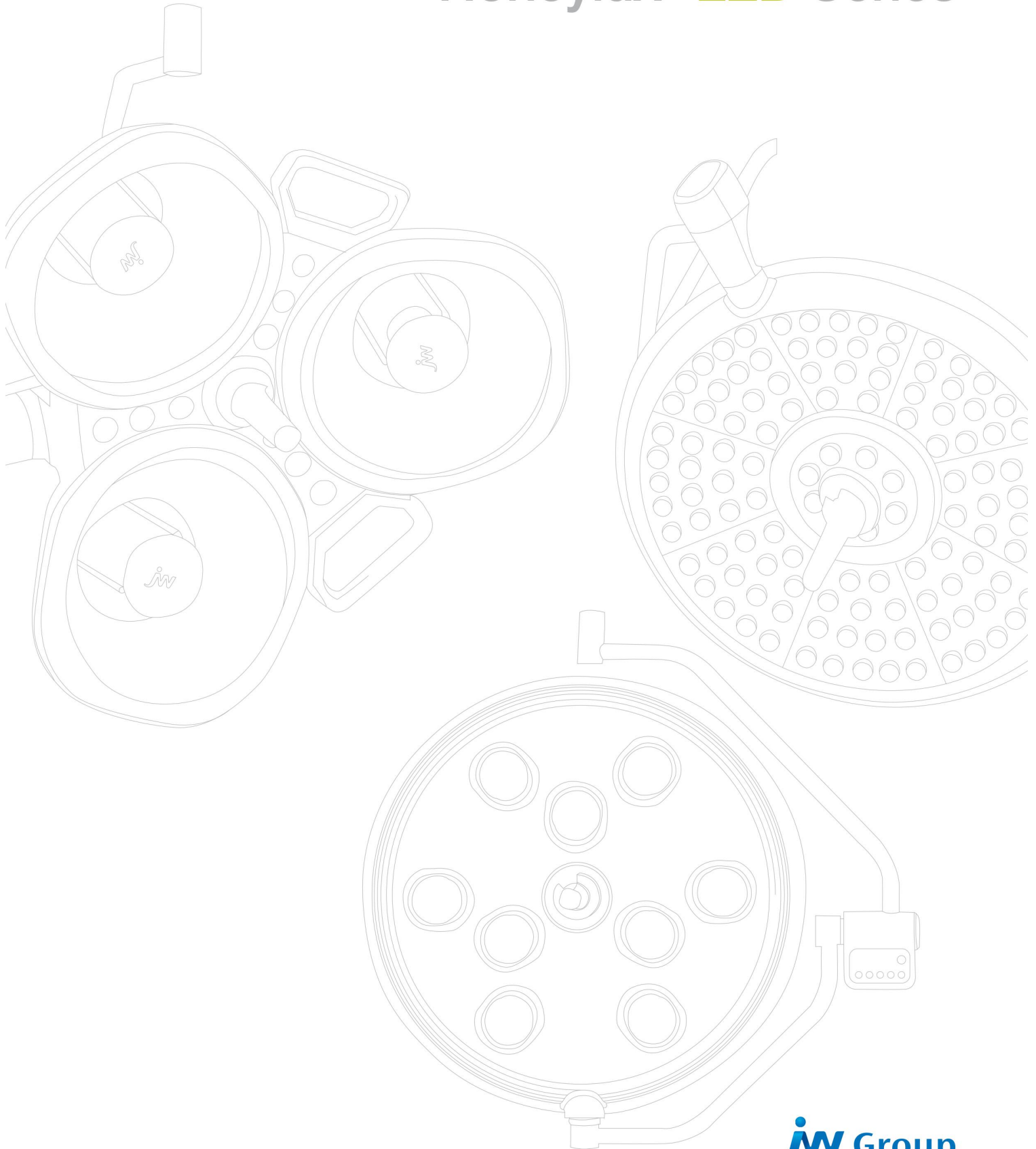


Surgical Light  
Honeylux® LED Series



# Honeylux<sup>®</sup> LED RK



## Unique LED Optical Structure

Combined technology of Reflector optical structure and LED module with unique LENS which is developed by JW R&D.

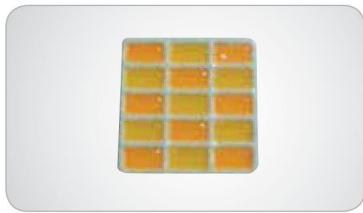
Unique LED optical structure mixes light through 2 steps and creates excellent illumination effect.

- Uniform generation of light through many light field overlays by unique lens and reflector
- Long life time LED module ( > 50,000 hr )
- Excellent shadowless effect through multi optical surface
- Non-blurring LED light through unique LED optical structure

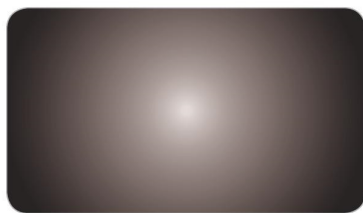


## High Technology LED module & JW's own Lens

White LED made of minimum size of matrix and unique lens provide optimal condition of lights.



- Minimize color temperature imbalance of LED
- Constant value of CRI=96 and R9=95 regardless of change of color temperature
- Combination of color temperature in any focusing position
- Adjustable color temperature according to surgical circumstances and individual preferences at 3 steps (3800K, 4400K and 5100K)



[3800K]



[4400K]



[5100K]

## ENDO dimming function

A function for endoscopy, where the brightness is approximately 5% of the maximum brightness of the housing

## Cool Light

LED does not release infrared rays, which occurs heat, and prevents tissue drying caused by heat providing a pleasant operating environment. (less than 1 degree of heat above operator's head)

# Honeylux<sup>®</sup> LED RK

## EXCELLENT SHADOW CONTROL

Multi optical surface provides excellent shadowless effect  
Advanced LED module by JW (Modular mixing technology)

## MANUAL FOCUSING

Users can easily control the light at any position

## ENDO-MODE

Suitable for endo-surgery by one click

## ADJUSTABLE COLOR TEMPERATURE

3800K, 4400K, 5100K



## UNIQUE HEADLIGHT DESIGN

JW Blue color and future-oriented spaceship design

## NON-BLURRING LIGHT

LED module developed by JW R&D provides comfortable surgical environment

## EXPANDABILITY

### Single Type



- LED 160RK  
- LED 120RK

### Dual Type



- LED 160RK/120RK  
- LED 160RK/160RK  
- LED 120RK/120RK

### Mobile Type

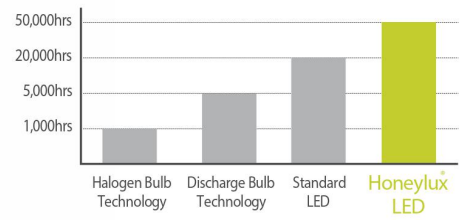


- LED 160 RK Stand  
- LED 120 RK Stand



## 360° ROTATING ARM

## LONG SERVICE LIFE



## STERILIZABLE HANDLE

Autoclave available

## ACCURATE COLOR RENDERING

Constant value of CRI=96 and R9=95 regardless of change of color temperature

## CONTROL MODE



Honeylux<sup>®</sup> LED



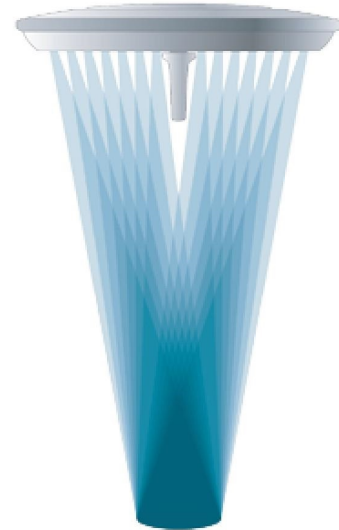
## Innovative LED Technology

Honeylux® LED is implemented with a LED which is a cutting-edge technology.

Compared with the conventional halogen lighting apparatuses, the heat radiation from the lamp is greatly reduced, minimizing the inconvenience of the operator during surgical operation and the maintenance cost due to long lamp service life.

Designed in classic round-type configuration, the JW's Honeylux® LED is easy for service including cleaning, and the touch buttons facilitate an easy control.

The Layered Silver Deco-Line complements the unique design of the JW's Honeylux® LED.



## Manual Focusing

Manual focusing sterilizable handle control the light more easily when it compares with automatic focus function.

It provides users to freely and accurately focus the surgical light and extends working spaces of the surgical field.

Just a short adjustment of the focus handle by hands will be maximizing light intensity without having to reposition of the light heads.



## ENDO dimming function

A function for endoscopy, where the brightness is approximately 5% of the maximum brightness of the housing

## Cool Light

LED does not release infrared rays, which occurs heat, and prevents tissue drying caused by heat providing a pleasant operating environment. (less than 1 degree of heat above operator's head)

# Honeylux<sup>®</sup> LED

## EXCELLENT SHADOW CONTROL

120EA(LED 160) & 88EA(LED 120) LED provide excellent shadowless effect

## MANUAL FOCUSING

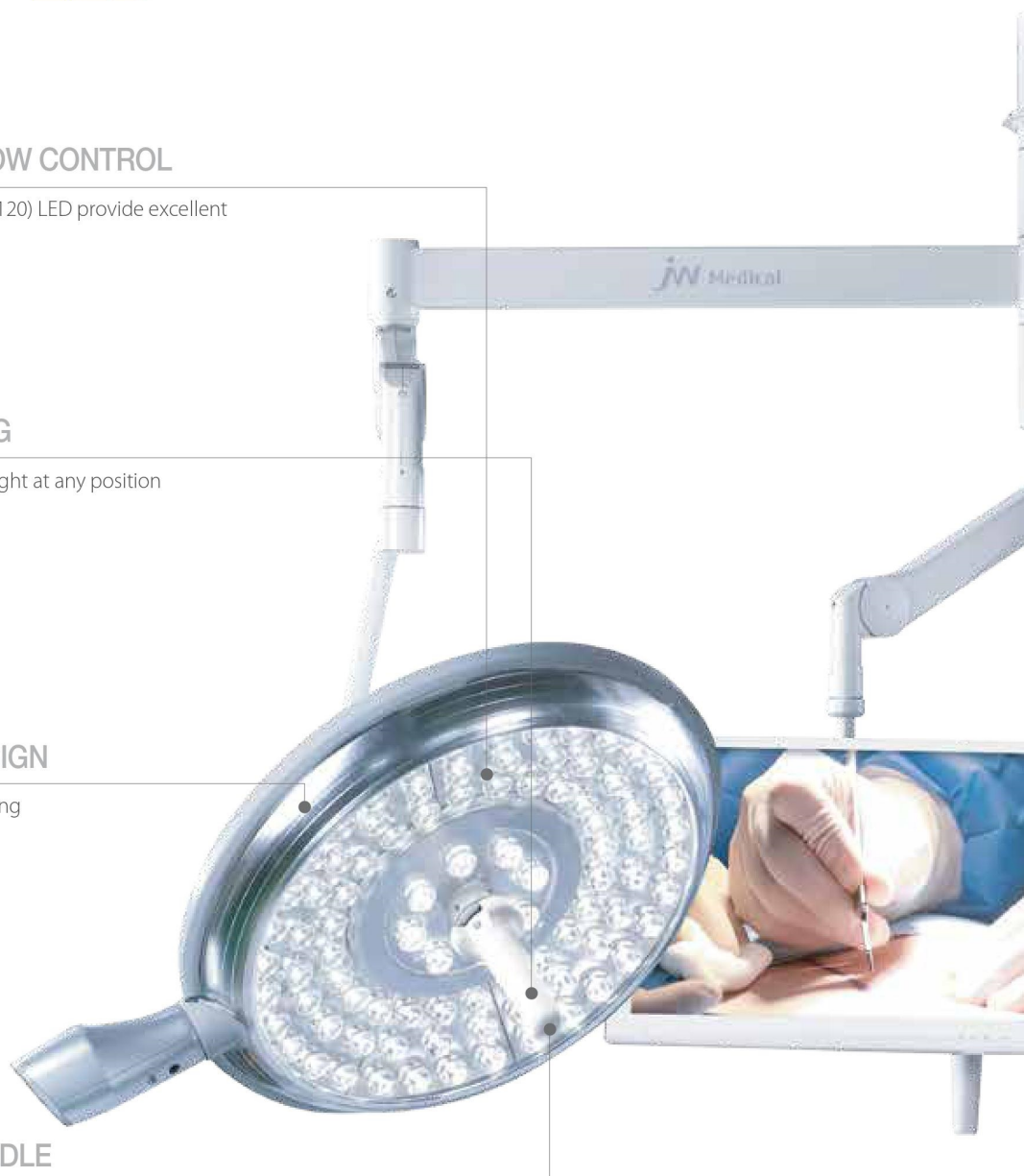
Users can easily control the light at any position

## STREAMLINED DESIGN

Suitable for laminar flow ceiling

## STERILIZABLE HANDLE

Autoclave available



## EXPANDABILITY

### Single Type



- LED 160
- LED 120

### Dual Type



- LED 160/120
- LED 160/160
- LED 120/120

### Triple Type



- LED 160/120 VISION
- LED 160/160 VISION
- LED 120/120 VISION
- LED 120/120/120
- LED 160/120/120

### Mobile Type



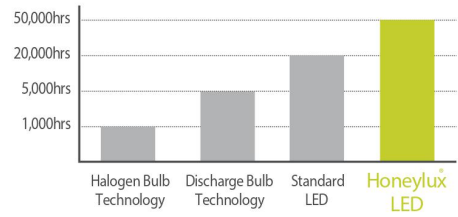
- LED 160 Stand
- LED 120 Stand





## 360° ROTATING ARM

## LONG SERVICE LIFE



## FULL HD CAMERA CONTROL

Camera offers multimedia and interactive communication (option)

## MODULAR LAMP

Low maintenance requirement due to modular lamp inside



## ENDO-MODE

Suitable for endo-surgery by one click



## CONTROL MODE

Main Controller



Wall Controller (Option)



Remote Controller (Option)



# Honeylux<sup>®</sup> LED ECO



## ECO Friendly Surgical Light

The curved structure helps user to precisely control the desired illumination angle and area.

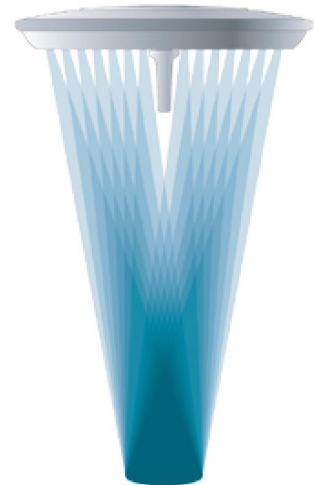
Illumination can be controlled by both wall control unit and light head control.

The streamlined design is suitable for 'Laminar flow'.

Classical rounded design make it easy to clean.

Layered silver is unique design.

The brightness can simply be adjusted by just one touch.



### COOL LIGHT

LED does not release infrared rays, which occurs heat, and prevents tissue drying caused by heat providing a pleasant operating environment. (less than 1 degree of heat above operator's head)



### ECO - FRIENDLY

System uses only 40% of electricity compared to Halogen lamp

## Long Lifespan



**Honeylux® LED ECO guarantees LED lifespan of 50,000hrs which outcomes cost effectiveness.**

# Honeylux<sup>®</sup> LED ECO

## EXCELLENT ILLUMINATION

Special filter glasses maximize focusing effect clearly

## STERILIZABLE HANDLE

Autoclave available

## EASY TO CLEAN

Cleanliness is all-important for OR and the rounded figure helps easy cleaning, making the model suitable for the OR



## EXPANDABILITY

### Single Type



- LED ECO 130
- LED ECO 90

### Dual Type



- LED ECO 130/90
- LED ECO 130/130
- LED ECO 90/90

### Mobile Type



- LED ECO 130 Mobile
- LED ECO 90 Mobile



### 360° ROTATING ARM

### MANUAL FOCUSING

Users can easily control the light at any position

### DIMMING

5 Steps of dimming range can be controlled by controller on Honeylux® LED ECO as well as by IR remote controller(option)

### STREAMLINED DESIGN

Suitable for laminar flow ceiling

## CONTROL MODE

Main Controller



Remote Controller (Option)



## FULL HD CAMERA (OPTIONAL)

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### Motorized turn

- Image rotation is possible by using the remote control, PC, Wall controller.

### Video recording and playback using a PC

- You may be using a PC without additional video recording devices, HD video recording and playback.

### The main features of the output image

- ◆ Full HD(2M pixel)
- ◆ 120X with optical zoom
- ◆ Output signal: HD-SDI, Component
- ◆ White balance(Auto/Manual)
- ◆ Focusing(Auto/Manual)
- ◆ Preset, Freeze

## Technical Specification

Image sensor	1/3-type CMOS
Video output	Y/Pb/Pr , HD-SDI
Effective picture elements	Approx. 2,000,000 pixels
Aspect ratio	HD 16:9
Lens	10x zoom, f=5.1 mm (WIDE) to 51 mm (TELE), F 1.8 to F 2.1
Zoom ratio	10X – 120X (10X Optical, 12X Digital)
Range of focus	10 mm (WIDE end) 800 mm (TELE end)
Exposure (Iris)	Automatic/Manual
Electronic shutter speed	1/2 to 1/10000 sec. (21 steps)
Minimum illumination	1.0 Lux (ICR On Mode)
Signal/Noise ratio	More than 50dB
Focus	Automatic/Manual
Camera rotation	Clockwise/Anti-Clockwise 360 Degrees
Outside dimensions	Φ71mm x 137mm
Weight	Approx. 990g

## TECHNICAL SPECIFICATIONS

Honeylux® LED RK		LED 160RK	LED 120RK
Max Illumination	(lux)	160,000	120,000
LED Service Life	(hrs)	50,000	50,000
Color Temperature	(K)	3,800 / 4,400 / 5,100	3,800 / 4,400 / 5,100
Color Rendering Index	(Ra)	96	96
Light Field Diameter	(cm)	18~27	18~27
Depth of Illumination	(cm)	110	120
Dimming Range	(%)	20~100 (5Steps)	20~100 (5Steps)
Power Consumption		100VA	70VA
Power Supply		110~230VAC, 50/60Hz	110~230VAC, 50/60Hz
Number of LED Bulbs		3	2
Operating Temperature		-40°C - 70 °C	-40°C - 70 °C
Operating Humidity		10% ~ 100%	10% ~ 100%

Honeylux® LED		LED 160	LED 120
Max Illumination	(lux)	160,000	120,000
LED Service Life	(hrs)	50,000	50,000
Color Temperature	(K)	4,300	4,300
Color Rendering Index	(Ra)	94	94
Light Field Diameter	(cm)	22~31	22~29
Depth of Illumination	(cm)	113	150
Lighthouse Diameter	(cm)	77	62
Dimming Range	(%)	10~100 (10Steps)	10~100 (10Steps)
Power Consumption		120VA	120VA
Power Supply		110~230VAC, 50/60Hz	110~230VAC, 50/60Hz
Number of LED Bulbs		120	88
Operating Temperature		10°C - 40 °C	10°C - 40 °C
Operating Humidity		10% ~ 100%	10% ~ 100%

Honeylux® LED ECO		LED ECO 130	LED ECO 90
Max Illumination	(lux)	130,000	90,000
LED Service Life	(hrs)	50,000	50,000
Color Temperature	(K)	4,300	4,300
Color Rendering Index	(Ra)	90	90
Light Field Diameter	(cm)	18	17
Depth of Illumination	(cm)	69	71
Lighthouse Diameter	(cm)	77	62
Dimming Range	(%)	20~100 (5Steps)	20~100 (5Steps)
Power Consumption		95VA	80VA
Power Supply		110~230VAC, 50/60Hz	110~230VAC, 50/60Hz
Number of LED Bulbs		9	6
Operating Temperature		10°C to 40°C	10°C to 40°C
Operating Humidity		30% ~ 95%	30% ~ 95%

\* All technical specifications max. +/-10% tolerance



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