Medical LED Illumination
## Surgical LED Light

Luvis

Luvis L200

Stable Illumination

Luvis L200 delivers stable Illumination even for a long time use. Only 2% intensity drop after 12 hours continuous use .With Patiented CIS (Channel Illumination System), the intensity is maintained despite of Focus size.

- **CIS** (Channel Illumination System)
▶ Channel illumination technology helps to prevent large falling of intensity as enlarging the pattern size.
▶ Only 5% of difference will come as the pattern size enlarged while many others show 50% of intensity falling.
▶ Channel illumination technology will help the surgeon to have stable well-lit
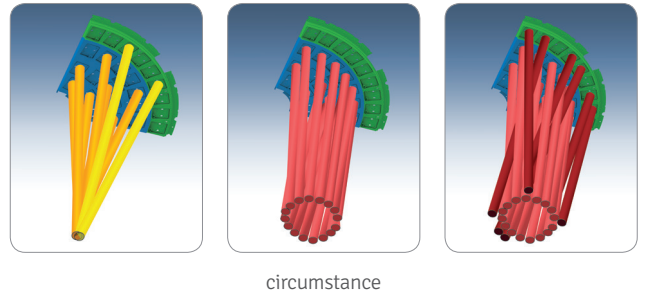

circumstance

Effective Illumination

By Adopting Hybrid LED Reflector, the efficiency of the illumination is maximized. With high efficiency, Luvis LED light minimize the heat emission.

- **Hybrid LED System**
Hybrid optical system delivers energy saving performance which directly link to lower heat emission. Hybrid optical system enables more various function such as color temperature change and focal size change even with less consumption of energy and heat. 30% higher efficiency comparing to normal reflector and less weighted solution comparing to lens system

- **Cool Light**
LED technology lets Luvis L200 keep cool. Operating theatre light should detain the irradiation of light as the heat dry up the affected part. Standard recommends not to exceed 1000W/m2 but all of LUVIS surgery lights irradiate far less than the standard requests Minimum heat emission will protect patients' wounds during the surgery.
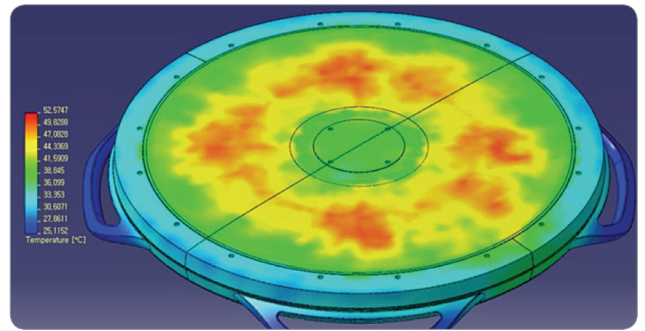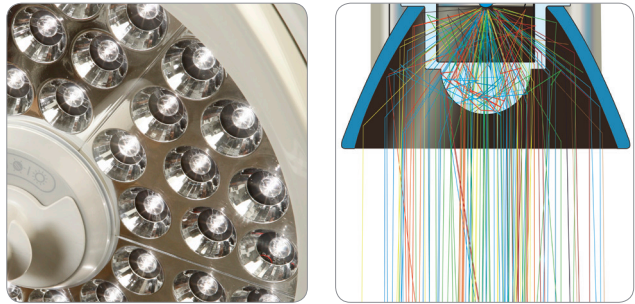

Excellent Optical Performance

- **Dilution Effect**
All Medical lights have tested the dilution test to ensure the proper dilution performance which is highly crucial for performance of medical surgery. Luvis L200 have excellent dilution effect comparing to any other existing medical illuminations.

▶ Luvis-L200 : 75%~100%

| Dilution Effect	With Tube(%)	100
	1 mask(%)	75
	2 mask(%)	60
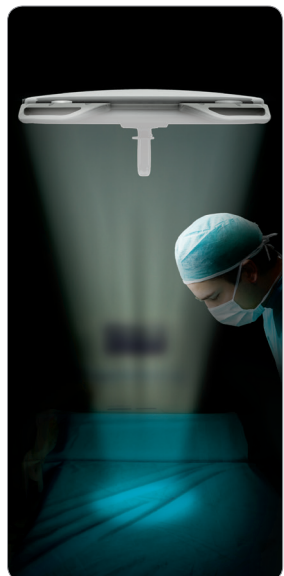
- **Depth of Illumination**
The distance between the point of maximum intensity of illumination at the center of the illuminated field (1 meter from the surface emission of light) and the detection of the value of 20% of the maximum intensity of illminazione, measuring in the direction of the emission surface (L1) that in the opposite direction (L2). These values, added together (L1 + L2), gives the depth of illumination without the need to refocus. A higher level of llumination depth is very important especially in cases of narrow and deep wound channels

Luvis-L200 delivers excellent depth of illumination

▶ Ec x 60% : 85cm
▶ Ec x 20% : 150cm

L1

L2
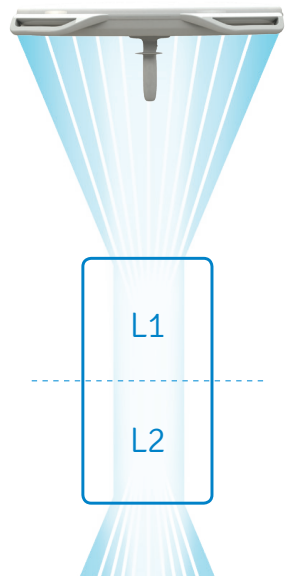
L200 / L200

160,000 Lux + 160,000Lux

Synchronized Intuitive Control Panel
touch sensor control

Illumination Intensity
160,000Lux (Max.)

Focus Size
6 steps adjustment
(Max. 30cm / Min. 20cm)

Color Temperature
3,800K / 4,300K / 4,800K

ENDO-MODE
ENDO Suitable for endo-surgery by one click, EC*5%

HD Camera (Option)

Installation Guide Video

Model	Code No.
L/L200	L2-MAS1000

Other Configuration

HD Camera

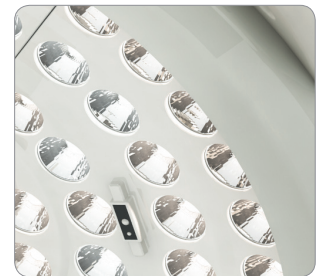| Camera Block	FCB-EV7100
Image Sensor	1 / 2.8 –Type CMOS
Lens	10x optical zoom f = 3.8 mm (wide) to 38 mm (tele) F1.8 to F3.4
Picture Quality	Full HD 1080p (1920 *1080)
Digital Zoom	12x (120x with optical zoom)
Output	HD SDI
Resolution	2.34Mega Pixel

320º Rotating Arm
With HD Camera

360º Rotating Arm

Hybrid LED System
Lower heat emission & Less consumption of energy

Center Grip
Quick controller & Autoclavable handle

Smart Sensor
Detect the obstacle & Increase the intensity automatically

Wall Mount Box

Classification	Description
Box Size	WxLxD=30x40x15cm
Control Box Material	Stainless
Number of controlled unit	1 or 2
Switch Type	Touch

Classification	Description
Range of wireless Com.	<10m
Protocol of Wireless Com.	IEEE802.15.4 (ISM 2.4GHz)
Input Voltage	220VAC, 50/60Hz
Out put Voltage	28VDC x 2

Luvis M300 / M310 M200 / M210

M300/M310

M200/M210

Stable Illumination

M300 and M200 delivers stable Illumination even for a long time use. Only 2% intensity drop after 12 hours continuous use.

Effective Illumination

By Adopting Hybrid LED Reflector, the efficiency of the illumination is maximized. With high efficiency, Luvis LED lights minimize the heat emission.

· Hybrid LED System

Hybrid optical system delivers energy saving performance which directly link to lower heat emission. Hybrid optical system enables more various function such as color temperature change and focal size change even with less consumption of energy and heat. 30% higher efficiency comparing to normal reflector and less weighted solution comparing to lens system
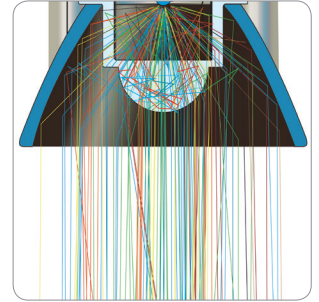
· Cool Light

LED technology lets Luvis M300 and M200 keep cool. Operating theatre light should detain the irradiation of light as the heat dry up the affected part. Standard recommends not to exceed 1000W/m2 but all of LUVIS surgery lights irradiate far less than the standard requests Minimum heat emission will protect patients' wounds during the surgery.
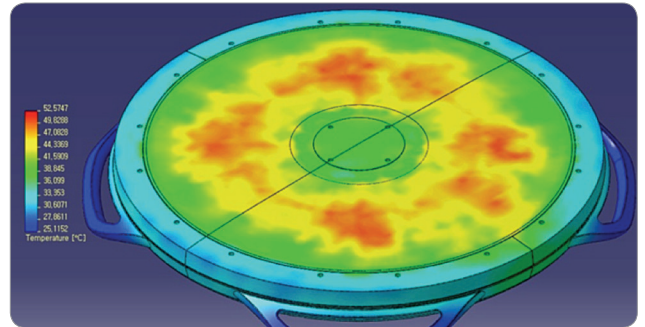
Excellent Optical Performance

· Dilution Effect

All Medical lights have tested the dilution test to ensure the proper dilution performance which is highly crucial for performance of medical surgery. Luvis M300/M200 have excellent dilution effect comparing to any other existing medical illuminations.

▶ Luvis M300 : 55~100%
▶ Luvis M200 : 50~100%

Model No.		M300	M200
Dilution Effect	With Tube(%)	100	100
	1 mask(%)	55	50
	2 mask(%)	52	48

· Depth of Illumination

The distance between the point of maximum intensity of illumination at the center of the illuminated field (1 meter from the surface emission of light) and the detection of the value of 20% of the maximum intensity of illminazione, measuring in the direction of the emission surface (L1) that in the opposite direction (L2). These values, added together (L1 + L2), gives the depth of illumination without the need to refocus. A higher level of llumination depth is very important especially in cases of narrow and deep wound channels
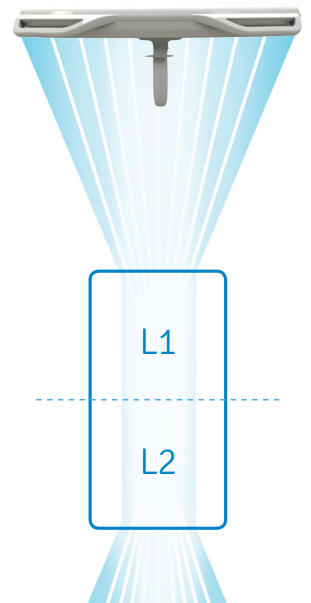
Luvis M300 and M200 delivers excellent depth of illumination

M300 ▶ Ec x 60% : 85cm
▶ Ec x 20% : 150cm

M200 ▶ Ec x 60% : 65cm
▶ Ec x 20% : 125cm

M300 / M200

160,000 Lux + 120,000Lux

Synchronized Intuitive Control Panel
touch sensor control

Illumination Intensity
160,000Lux (Max.)

Focus Size
6 steps adjustment
(Max. 30cm / Min. 20cm)

Color Temperature
3,800K / 4,300K / 4,800K

ENDO-MODE
ENDO Suitable for endo-surgery by one click, EC*5%

Center Grip
Quick controller & Autoclavable handle

M200/M210

Other Configuration

Installation Guide Video

Model	Code No.
M300/M200	M3M2-SAD7000
M310/M210	M3M2-MAD7000

Model	Code No.
M/M300	M3M3-SAD1000
M/M310	M3M3-MAD1000

Luvis

360º Rotating Arm

Smart Sensor
Detect the obstacle &
Increase the intensity auto-
matically

Hybrid LED System
Lower heat emission & Less
consumption of energy

M300/M310

Model	Code No.
M300	M3-SAS1000
M310	M3-MAS1000

Model	Code No.
M200	M2-SAS2000
M210	M2-MAS2000

Model	Code No.
M/M200	M2M2-SAD2000
M/M210	M2M2-MAD2000

L200 / M200

160,000 Lux + 120,000Lux

Synchronized Intuitive Control Panel
touch sensor control

Illumination Intensity
160,000Lux (Max.)

Focus Size
6 steps adjustment
(Max. 30cm / Min. 20cm)

Color Temperature
3,800K / 4,300K / 4,800K

ENDO **ENDO-MODE**
Suitable for endo-surgery by
one click, EC*5%

Smart Sensor
Detect the obstacle & Increase
the intensity automatically

L200

Installation Guide Video

Model	Code No.
L/M200	L2M2-DAD7000
L/M210	L2M2-DAD7100
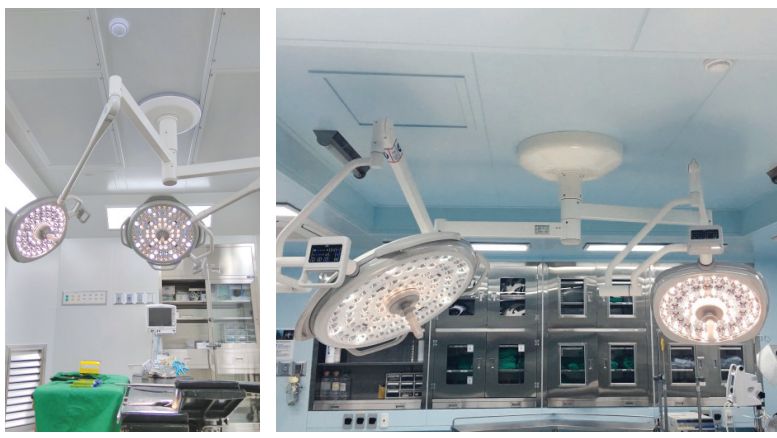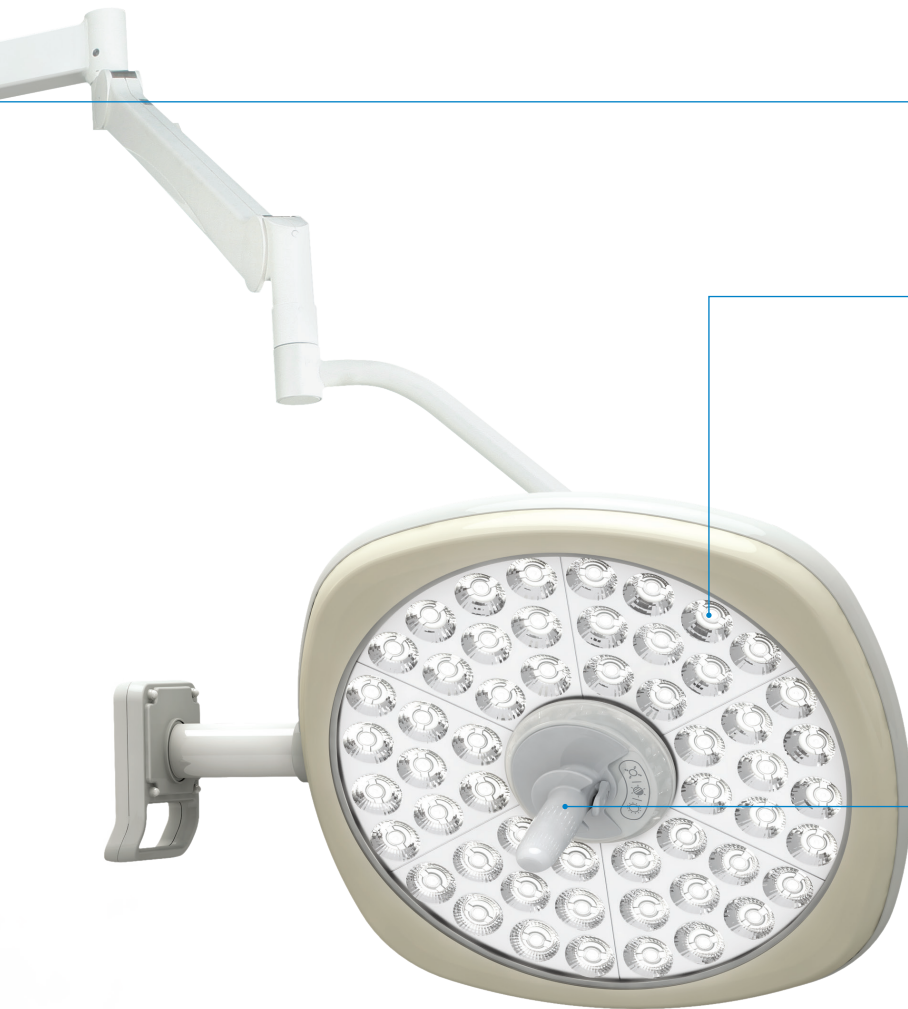
360º Rotating Arm

Hybrid LED System
Lower heat emission & Less consumption of energy

Center Grip
Quick controller & Autoclavable handle

M200/M210

Other Configuration

Model	Code No.
L201M	L2-MBM5000

Model	Code No.
M201M	M2-SBM5000
M211M	M2-MBM5000

Model	Code No.
M301M	M3-SBM5000
M311M	M3-MBM5000

S 200

Intensity Control in 5 Steps

INTENSITY   COLOR Temp

Stand-by
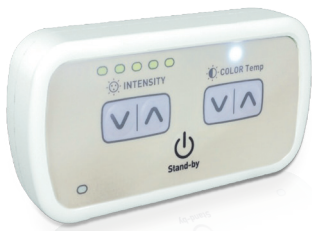
Illumination Intensity
100,000Lux (Max.)

Color Temperature
3,800K / 4,300K / 4,800K

Luvis

Installation Guide Video

Model	Code No.
S200 DUAL CEILING	PL2S50-002E0(S200)
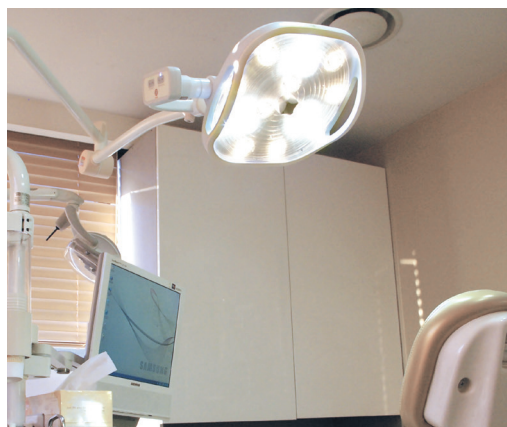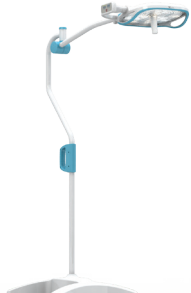
Adjustable Focus
Select focal size easily from 18cm to 30cm

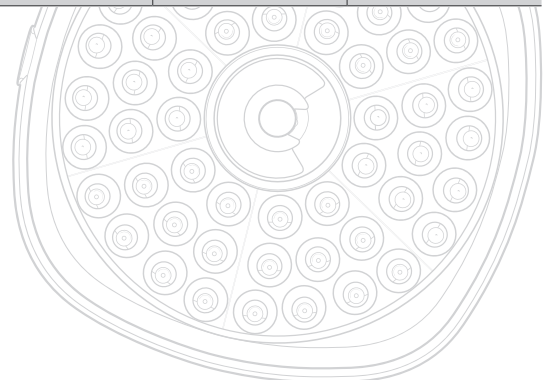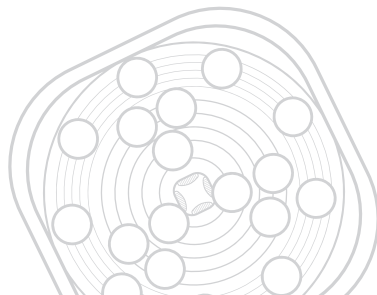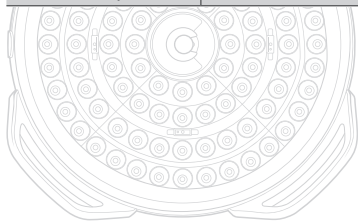**Detachable Handgrip**
Easy and stable handling autoclavable material

Other Configuration

Model	Code No.
S200 MOBILE	PL2S10-002A1(S200)

Model	Code No.
S200 CEILNG	PL2S40-002D0(S200)

Model	Code No.
S200 WALL	PL2S30-002C0(S200)

Technical Specification

Class.	L200	M310	M300	M210	M200	S200
Design(Light Head)						
Installation	Ceilling / Dual Ceilling/Mobile	Ceilling / Dual Ceilling/Mobile	Ceilling / Dual Ceilling/Mobile	Ceilling / Dual Ceilling/Mobile	Ceilling / Dual Ceilling/Mobile	Ceilling / Dual Ceilling/Mobile
Head size(cm)	67cm	60cm	60cm	50cm	50cm	35cm x 34cm
No. of LED(ea)	96	84	84	54	54	18
Intensity(LUX)	Max 160,000LUX at 1 M	Max 160,000LUX at 1 M	Max 160,000LUX at 1 M	Max 120,000LUX at 1 M	Max 120,000LUX at 1 M	Max 100,000LUX at 1 M
Intensity Control	6steps (40,000LUX ~ 160,000LUX)	6steps (40,000LUX ~ 160,000LUX)	6steps (40,000LUX ~ 160,000LUX)	6steps (40,000LUX ~ 120,000LUX)	6steps (40,000LUX ~ 120,000LUX)	5steps (5,000LUX ~ 100,000LUX)
C.R.I(Ra)	96	95	96	95	96	90
Color Temp.(K)	3,800/4,300/4,800	3,800/4,300/4,800	4,300	3,800/4,300/4,800	4300	3,800/4,300/4,800
Light field size(ø)	20cm~30cm at 1M	20cm~30cm at 1M	20cm~30cm at 1M	20cm~30cm at 1M	20cm~30cm at 1M	18cm or 30cm at 1M
Depth of iluumination	150cm(at20%) 85cm(at60%)	150cm(at20%) 90cm(at 60%)	150cm(at20%) 90cm(at 60%)	125cm(at20%) 65cm(at 60%)	125cm(at20%) 65cm(at 60%)	92cm(at 60%)
Smart sensor(*1)	4ea	4ea	4ea	No	No	No
Detachable Centre grip	Yes(2X)	Yes(2X)	Yes(2X)	Yes(2X)	Yes(2X)	Yes(2X)
LED Life	50,000Hrs	50,000Hrs	50,000Hrs	50,000Hrs	50,000Hrs	50,000Hrs
(option)built-in Camera	Adoptable	Adoptable	Adoptable	Adoptable	Adoptable	No
(option)Wall controller	Adoptable	Adoptable	Adoptable	Adoptable	Adoptable	No
(option)Backup battery	Adoptable	Adoptable	Adoptable	Adoptable	Adoptable	No
Certificate	CE/FDA/CSA	CE/FDA	CE/FDA	CE/FDA/CSA	CE/FDA/CSA	CE/FDA/CFDA/CSA
Power Consumption	63W	111W	99W	53W	46W	26W

Luvis

Surgical LED Light

www.**luvis**.co.kr/eng/

Luvis

DENTIS

Company Introduction

D-C-LVSCL-V2-201706-ENG