www.**luvis.**co.kr

DENTIS



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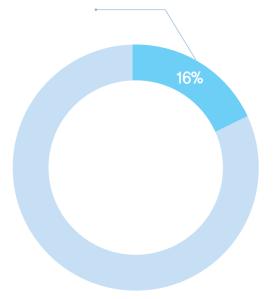
DENTIS

LED LIGHT SYSTEM LUVIS

DENTIS ORGANIZATION

Research & Development Center

Over 50 researchers in the R&D Center





Implant research laboratory



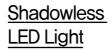
3D technology and material reseach laboratory



LED Optical reseach Laboratory



Bio reseach Laboratory



Proudly representing the Global Brand

Pioneer of Dental Treatment LED light manufacture in Korea

One and the only manufacturer with medical LED R&D in Korea

Domination of the domestic market share in Korea with a wide range of product lineups.

Possesing multiple domestic and overseas awards, nextgeneration world-class products Well known as a dental LED light manufacturer that changed the paradigm from halogen to LED.

Possessing the best technology in the industry based on independent development of source proprietary technology and accumulated clinical data

Possessing quality in line with global standards and various lineups tailored to medical environments

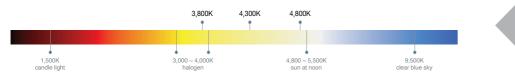
Achieved domestic and foreign design awards such as IF, GD, etc.

LED LIGHT SYSTEM LUVIS

UV

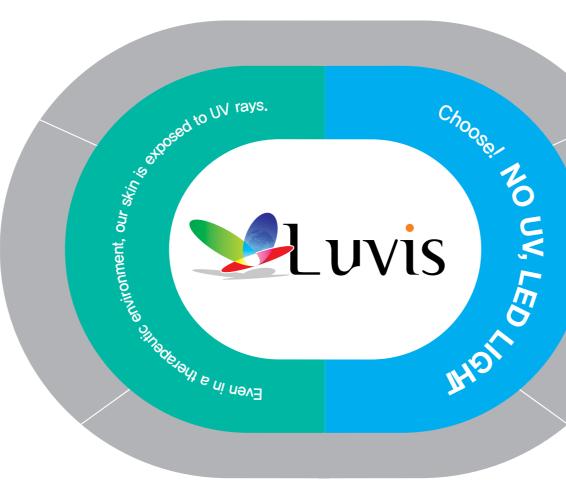
Color Temperature

The terminology of 'color temperature,' means the color of the light emitted by the light source, and the color of the light changes depending on the temperature. As the color temperature increases, it appears in blue, and as the color temperature decreases, it appears in red.



Comforting Eyes

With a high color temperature compared to the same illuminance, Luvis not only provides similar to the natural light but also allows the user to control the illuminance and color temperature to create a comfortable operating environment for the eyes.



LED

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Color Rendering Index

An indication shows with the images how well the original color of the object created by the LUVIS light source contrasts with the natural light. Under the surgical environment, excellent color rendering is proofed by showing more vivid and close to natural color.

► Maximum value 100 ► Luvis 85~100 (Av. 90)





Long-lasting & Energy-saving

Eco-friendly LED light source material allows for the prevention of heavy metal poisoning and provides longer service life compared to general lights.

▶ LED Light Source Service Life maintains average of 60,000 hours



Core Technologies representing LUVIS User-friendly advanced technologies from LUVIS

Shadow Dilution

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the shadowless effect, All of LUVIS's shadowless lights automatically compensates for the illuminance value, have achieved excellent shadowless effects through proprietary optical design technology.

Smart Sensor

Depth of Illumination

.

One of the essential elements in a surgical environment is Even if the surgical area is covered, the motion sensor Depth of illumination is one of the main functions of A Hybrid optical system is a hybrid product that combines working distance. High depth of field is effective in cases power consumption. where the surgical area is narrow and deep.

Hybrid LED System

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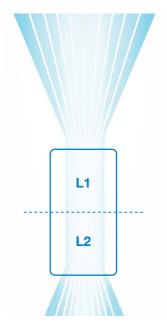
surgery, and it refers to the degree of maintaining a a reflector and lenses, It performs various functions such uniform illuminance environment despite the different as color temperature and pattern size adjustment with low

Channel Illumination System allows to adjust the electric Light uniformity is one of the main functions of surgery. The main control panel of the touch sensor allows the current and change the light pattern. Further the system lights, Under a high level of light uniformity, it is possible to user to adjust the illumination, temperature, and pattern also allows to change the central intensity of illumination maintain a uniform irradiation pattern without being size directly. with maximum of 10%,

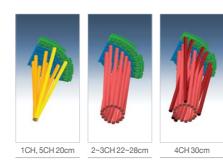












CIS (Channel Illumination System) Light Uniformity

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affected by pattern size. Therefore, a case with a wide surgical area is more effective.

▶ Luvis: 60% +

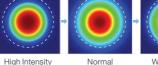
Shadowless lights standard: 50% +

Intuitive Control

Cool Light

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All luvis medical and surgical lights are equipped with a silent cooling system without an internal fan, Luvis M/L 200 emits significantly less radiant energy that dries out the surgical site, preventing blood clotting.



Wide Focu





Main Control Panel

DENTIS

LED LIGHT SYSTEM LUVIS

LUVIS Product Line up for LED Dental & Medical Lights



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Paradigm shift for Dental Lights!

LED examination light for dentistry Luvis C

_

No.1 marketshare in Korea for Dental & Medical Lights!

Best-selling LED surgical light Luvis S

_

Global standards leading the specialization of the Korean medical environment!

Medical and large LED surgical light representing Korea Luvis M/L



Rectangular shape for the oral environment

Light field

optimized for dental clinic



Various optimized options in of the environment such as treatment room,

carmera, remote control, resin cover, etc.



Compact size and User-friendly design

design

Design Award Winner

Luvis + C se

LED lights optimized for the Dental procedure

Optimal light inten

considering the dent

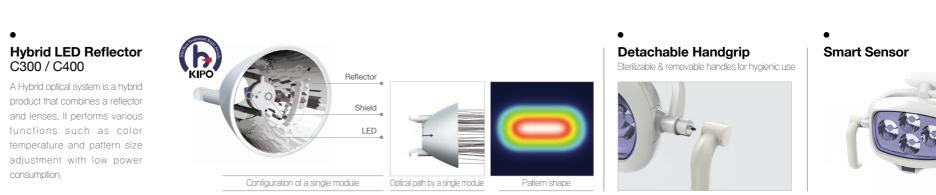
clinic environment

consumption.

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LED LIGHT SYSTEM LUVIS



Proximity Sensor Auto ON/OFF sensor within 2cm

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• Resin Cover Orange Color Filter slows down the resin curing

Detachable Handgrip Sterilizable & removable handles for hygienic use



DENTIS

C500







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DENTIS

LED LIGHT SYSTEM LUVIS



"RESIN MODE" with a single touch

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No separate COVER or device Optical design with resin–only LED, almost no UV wavelength





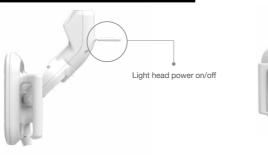
Remove HANDLE with single button : Sterilizable and removable handles for hygienic use



MOTION SENSOR APPLICATION, LIGHT ON/OFF

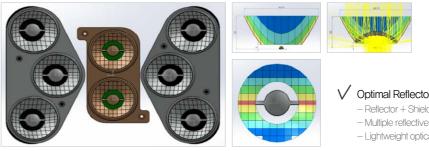
Auto ON/OFF sensor within 2cm to prevent cross infection







Hybrid optical design optimizes light field



✓ Optimal Reflector Optical Design Structure

- Reflector + Shield Type, reprint design

- Multiple reflective surfaces formed at fine angles
- Lightweight optical design without lens, no color separation of pattern

Excellent shadowless effect

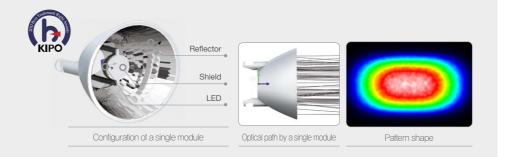
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Medical light standard (9680) 12x12 or less Excellent 3x3 minimized shadow by optical design structure with contrasts of 3rd party

Hybrid LED Reflector C600

A hybrid optical system is a hybrid product that combines a reflector and a lens, It saves energy, reduces heat dissipation, and consumes less power to adjust color temperature and pattern size,



Dental Mode/Resin Mode options, Minimize Shadows 5,000 K white daylight color temperature Light field of 16x9cm Hybrid LED Systems Motion sensor 5,000 to 50,000 lx Ra 95 for high color rendering Sterilizable & removable handles

Luvis S200 has improved optical efficiency through an 18 lens system completed with proprietary optical technology, and exhibits excellent shadow-free effect,



Hybrid LED Optical Design

A hybrid optical system is a hybrid product that combines a reflector and a lens. It saves energy and reduces heat emission, and exhibits various functions such as color temperature and pattern size adjustment with low power consumption.

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Luvis + S series`

Examination, treatment, operating room... Multi-purpose! LED Subsidary Light



• Combination of Exammination and Surgical

General purpose Medical Light

_ Various setting modes from Dental to Surgery



Unit chair and dental treatment

free dual dome installation

_ Chair/mobile/wall/ceiling various installation types



S200 Surgical light, S300 Shadowless light

Advanced options

•

• improved user experience

Smart control

_ Only in S300



Excellent Shadowless Effect



Adjustable Light Pattern

Focused light: 18cm Expansion & shadowless effect: 30cm

Detachable Handgrip

Central grip of Luvis S200 is hygienic as it is detachable and can be autoclavable.

Easy Controls Intensity (5 steps), color temperature (3 steps), light field adjustable Intensity : 100,000 lx (Max.) Color Temperature : 3,800 / 4,300 / 4,800 K ▶ Light Field Size : 18/30cm



<u>Luvis</u> S200



LED LIGHT SYSTEM LUVIS



ARM Touch Control



OT Light 1 or 2 Control (Sync)

- Light 1 / Light 2 Select
- Light Field Size, Intensity, Color Temp Mode Select(Dental, Examination, Max.)

OT Light (1 and 2) Sync

- Sync Mode

Dental Mode Dental Light ON/OFF Intensity Control

- Examination Mode

Examination. Light ON/OFF Intensity, Color Temp. Control

Max. Mode_OT Light

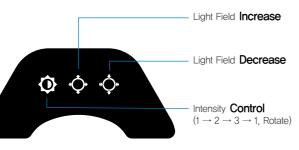
Light Field Size 3 Level and Intensity 3 Level Setting

Light ON/OFF

• S300

130,000 lx (Max.) 3 Steps of Color Temperature (3,800 / 4,300 / 4,800K) High color rendering with Ra 96 / R9 95 ARM Touch Control 3 treatment modes (Dental, Examination, Surgical) Hybrid optical system Adjustable Light Field Size 15 \sim 25cm Shadowless effect with 42 LEDs Low heat dissipation prevents blood clotting Removable sterile hand grip User-friendly design

Handle Touch Control (Quick & Easy)



DENTIS

OT Light 2

(S300)**▼**

OT Light 1 (S300)**▼**



V Sync Control (Android APP, IOS APP)

Luvis + M/L series

Exported to the whole world! Medium and large LED surgical lights



• High-end functions of illumination depth & light uniformity

Premeium Shadowless surgical light Next world–class product Chair / Mobile /Wall / Ceiling



Smart & Depth sensor, Various environments from Dental to Medical

installation type





shadowless performance contamination (Air

Convenience

Designed to p

World Design Award (iF)

Luvis M200/M300/L200



Luvis M200 / M210

120.000 lx (Max.) 4,300 K Color Temperature (Option :3,800 / 4,300 / 4,800 K) High color rendering with Ra 95 / R9 90 Hybrid optical system L1+L2 125 cm (20%) deep depth Light Filed Size 20~30cm [6 steps] adjustable Shadowless effect with 54 LEDs Low heat dissipation prevents blood clotting Intuitive control panel Sterilizable & removable handles User-friendly design



Luvis M300 / M310

160.000 lx (Max.) 4,300 K Color Temperature (Option :3,800 / 4,300 / 4,800 K) High color rendering with Ra 95 / R9 90 Hybrid optical system Smart Sensor L1+L2 125 cm (20%) deep depth Light Filed Size 20~30cm [6 steps] adjustable Shadowless effect with 84 LEDs Low heat dissipation prevents blood clotting Intuitive control panel Sterilizable & removable handles User-friendly design Full HD Camera Option (Internal)



Luvis L200

160.000 lx Maximum Intensity 3 Step Color Temperature (3,800 / 4,300 / 4,800 K) High color rendering with Ra 95 / R9 90 Hybrid optical system Intensity maintain system/smart sensor L1+L2 150 cm (20%) deep depth Light Filed Size 20~30cm [6 steps] adjustable Shadowless effect with 96 LEDs Low heat dissipation prevents blood clotting Intuitive control panel Sterilizable & removable handles User-friendly design Full HD Camera Option (Internal)



140.000 lx (Max.) 4 steps of color temperature adjustment (3,600/4,200/4,800/5,400K) High level of CRI(color rendering index), Ra 97, R9 97 Hybrid optical system Intensity maintain system/smart sensor L1+L2 130 cm (20%) deep depth Light Filed Size 18~30cm [5 steps] adjustable Shadowless effect with 72 LEDs Low heat dissipation prevents blood clotting Intuitive control panel Sterilizable & removable handles User—friendly design Full HD Camera Option (Internal)

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L400

DENTIS

(1) Full-HD Camera



Specifications			
Image Sensor	1/2.8-Type CMOS		
Lens	30X Optical Zoom		
Image Point	Approx. 2.13 Megapixels		
Video System	Full HD 1080p(1,920X1,080)		
Video Output Signal	Digital : HD–SDI (BNC) Analog : Component (Y/Pb/Pr)		

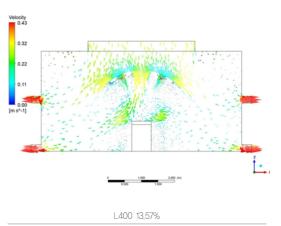
2 Handle Control



<u>_uvis</u> M/L400

Turbulence intensity, DIN 1946-4 Result of manufacturer's simulation

The turbulence intensity simulation test shows 13.57% (DIN 1946-4 standard). Therefore L400 allows for better airflow around the patient, reducing the risk of cross—infection.



LED LIGHT SYSTEM LUVIS

Classification	C300 / C400	C500	C600	S200	S300	M200	M210	M300	M310	L200
Design(Light Head)		22.22	14 14 14 14 14 14 14 14 14 14 14 14 14 1		A Constant of the second secon	1-3	I-0	B	B (A)	1
Installation Type	Chair Ceiling Wall	Chair Mobile Ceiling Wall	Chair Ceiling Wall	Dual Connection Mobile Ceiling (Single/Dual) Wall	Dual Connection Ceiling (Single/Dual) Wall Mobile	Ceiling(Single/Dual) Mobile	Ceiling(Single/Dual) Mobile	Ceiling(Single/Dual) Mobile	Ceiling(Single/Dual) Mobile	Ceiling(Single/Dual) Mobile
Head Size (cm)	32.6x22	28.4x16.5	263.5x196.7x73.3	35x34	41x42 (Max. 44)	50.6x50.6 (Max. 56)	50.6x50.6 (Max. 56)	60x60 (Max. 66)	60x60 (Max. 66)	D 66
Number of LED (EA)	4	8	8	18	42	54	54	84	84	96
Power Consumption (W)	14	20	30-45	29	56	46	53	99	111	63
Light Intensity (Ix)	25,000	50,000	50,000	100,000	130,000	120,000	120,000	160,000	160,000	160,000
Light Intensity Control	Dial+Sensor	Dial+Touch +Remote Control	Dial + Touch	Button	LCD Touch	Touch	Touch	Touch	Touch	Touch
Color Rendering Index / Ra	90	95	95	90	96	95	95	95	95	95
Color Rendering Index / R9	-	-	-	-	95	90	90	90	90	90
Color Temperature (K)	5,000	4,000/4,500/5,000	5,000	3,800/4,300/4,800	3,800/4,300/4,800	4,300	3,800/4,300/4,800	4,300	3,800/4,300/4,800	3,800/4,300/4,800
Light Distance (m)	0.7	0.7	0.7	1	1	1	1	1	1	1
Light Pattern Size (cm)	15x9	16x9	16x9	D 18 / 30	D 15 - 25	D 20 - 30	D 20 - 30	D 20 - 30	D 20 - 30	D 20 - 30
		Oval					Circle			
Light Pattern / Shape										
Light Uniformity (D50 / D10 x 100%)	75	75	65	60	60	60	60	60	60	60
Depth of Illumination / Ec 60% (cm)	-	-	-	-	75	65	65	90	90	85
Shadow Dilution / 1mask (No Tube / Tube) (%)	-	-	-	-	-	50 / 50	50 / 50	65 / 60	65 / 60	80 / 70
Shadow Dilution / 2masks (No Tube / Tube) (%)	-	-	-	-	50	48 / 48	48 / 48	55 / 50	55 / 50	70 / 65
Turbulence intensity (DIN 1946-4)	-	-	-	-	-	-	-	-	-	-
Option		Full HD Camera Remote Control Resin Cover			Tablet PC Backup Battery	Wall-mount Control Box Backup Battery	Wall-mount Control Box Backup Battery	Full HD Camera Wall-mount Control Box Backup Battery	Full HD Camera Wall-mount Control Box Backup Battery	Full HD Camera Wall-mount Control Box Backup Battery

* Optical values are measured with a tolevance of ±10%

DENTIS

	M400		
Single Ceiling Dual Ceiling Mobile	Single Ceiling Dual Ceiling Mobile		
73	63		
96	72		
103	68		
160,000	140,000		
LCD Touch	LCD Touch		
97	97		
97	97		
3,600/4,200/4,800/5,400	3,600/4,200/4,800/5,400		
1	1		
D 18 - 30	D 18 - 30		
Circle			

0

60	60
65	60
90/85	70/70
65/60	55/55
13.57% (Result of man- ufacturer's simulation)	-
Full HD Camera Wall Controller (Tablet PC) Backup Battery	Full HD Camera Wall Controller (Tablet PC) Backup Battery

• Wall-mount control box

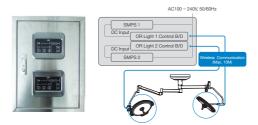
Classification	Description
Box Size (cm)	WxLxD=30x40x15
Control Box Material	Stainless
Number of Controlled Unit	1 or 2
Switch Type	Touch
Classification	Description
	· ·
Range of Wireless Com. (m)	<10
Protocol of Wireless Com.	IEEE802.15.4 (ISM 2.4GHz)
Input Voltage	AC100-240V. 50/60Hz

● M/L Full HD Camera

Classification	Specification		
Image Sensor	1/2.8-type CMOS		
Image Point	Approx. 2.14 Megapixels		
Lens	Optical		
Focus, Aperture	Auto, Manual		
Video Signal	HD-SDI(BNC)		
Resolution	Full HD 1080p, 1080i, 720p, 720i		

۰ C500 Full HD Camera

Classification	Specification
Image Sensor	1/2.8 Exmor CMOS
Image Point	Approx. 2.14 MegaPixels
Lens	Optical 30X
Focus, Aperture	Auto, Manual
Video Signal	HD-SDI
Resolution	Full HD 1080p, 1080i, 720p, 720i



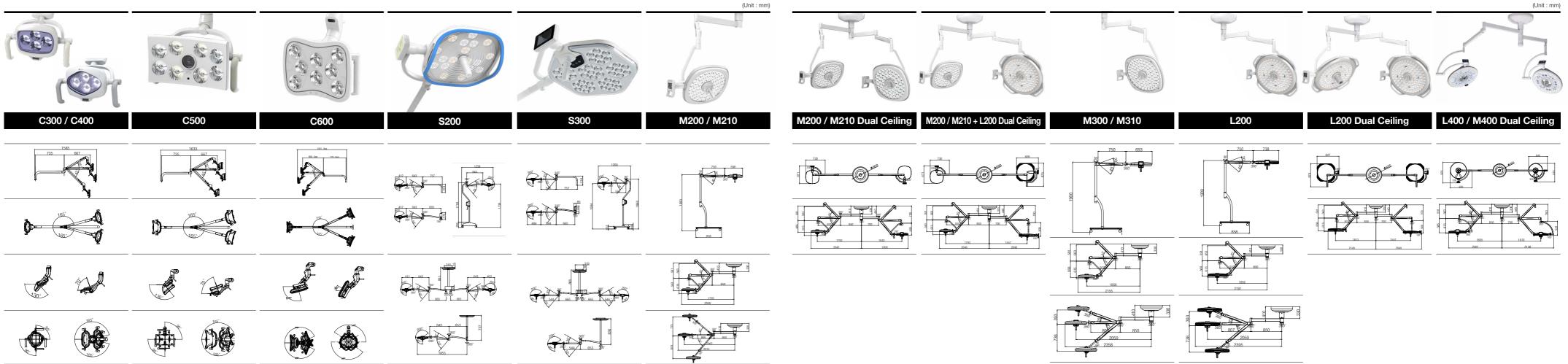






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Installation Guide



DENTIS

Giobal Standard

Wrold-class LED Medical Light

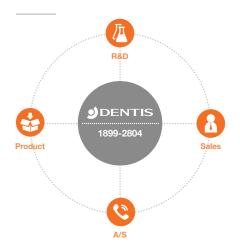


LUVIS is a national brand that Dentis co., Ltd. has independently developed with its own medical device department.

- Possessing Medical LED optical research center and large-scale production system.

•

Luvis's customer service team will visit you globally wherever you are.







LED Light Luvis Awarded 'World Class Product of Korea'

Image: Australia Image: Contract of Contract Image: Contract of Contract Image: Contract Image:



WORLD CLASS PRODUCT LUVIS!



Medical devices are being exported to over 80 countries by the global company, DENTIS.



LED LIGHT SYSTEM LUVIS

LUVIS

INSTALLATION INTERIOR CASES

- C300	• S200	- M200
- C400	- CHAIR TYPE - MOBILE TYPE	· M400
• C500 - CAMERA TYPE	• \$300 - CHAIR TYPE	- L400

• C600

LUVIS INSTALLATION INTERIOR CASES

LED surgical light that adds specialness to the treatment room



DENTIS

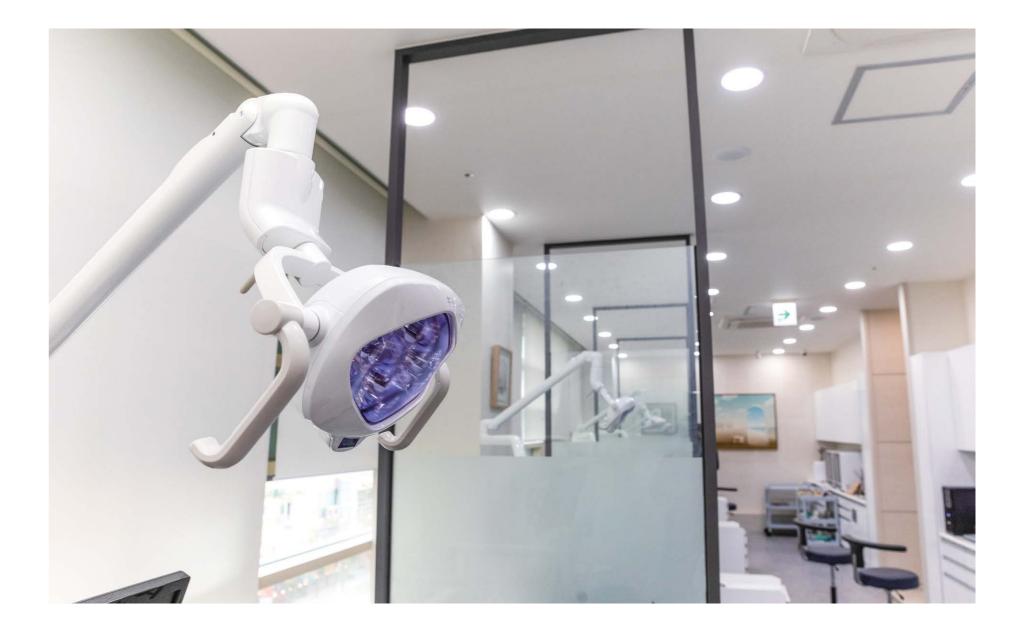
Luvis C300

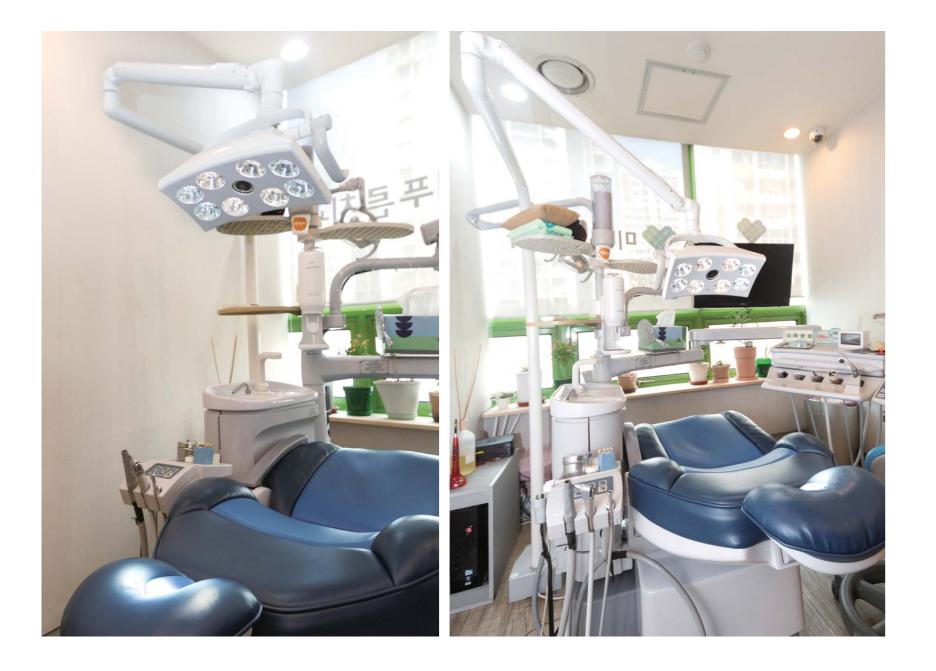




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Luvis C400



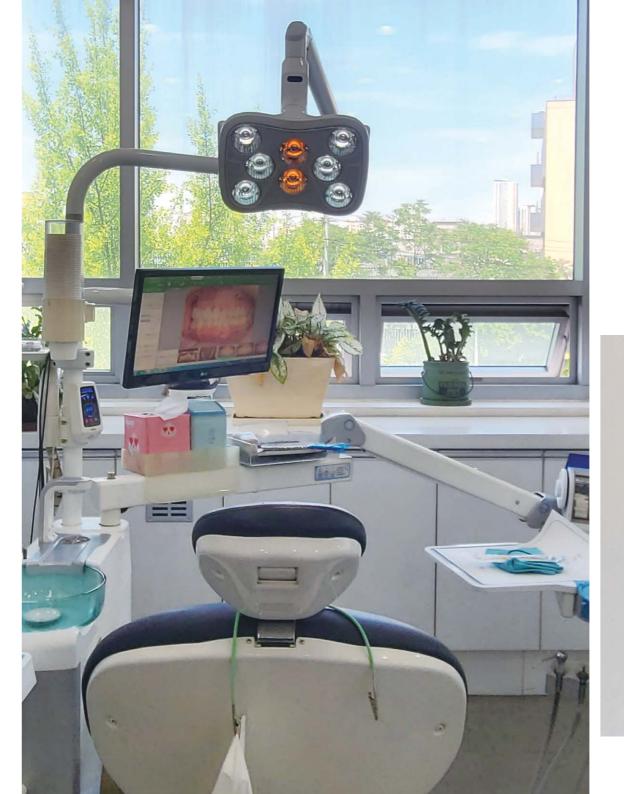


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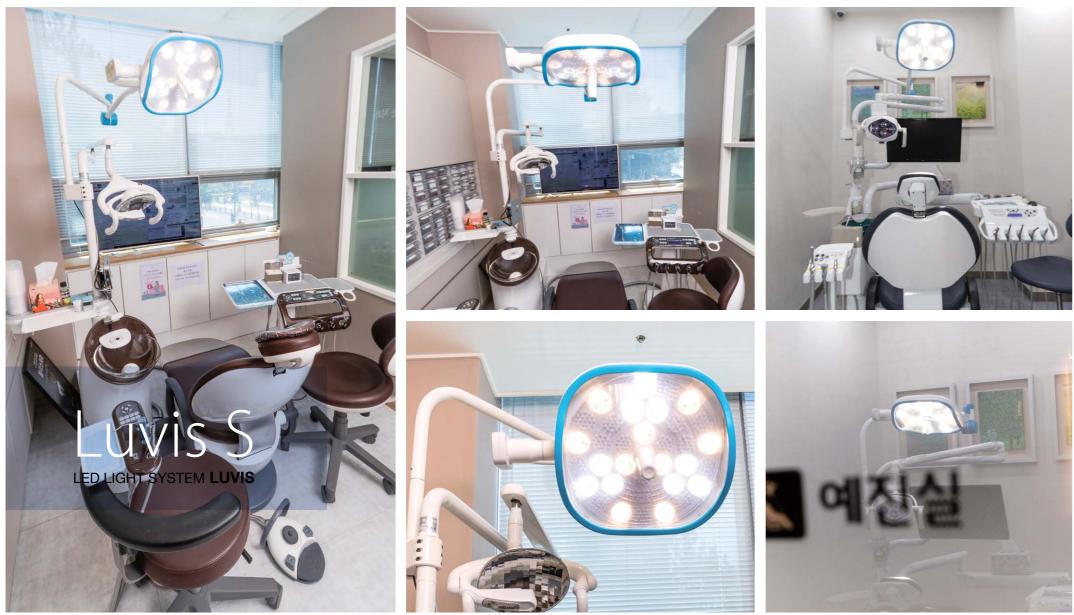
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Luvis C600

Chair Type



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Luvis S200 CHAIR TYPE / MOBILE TYPE

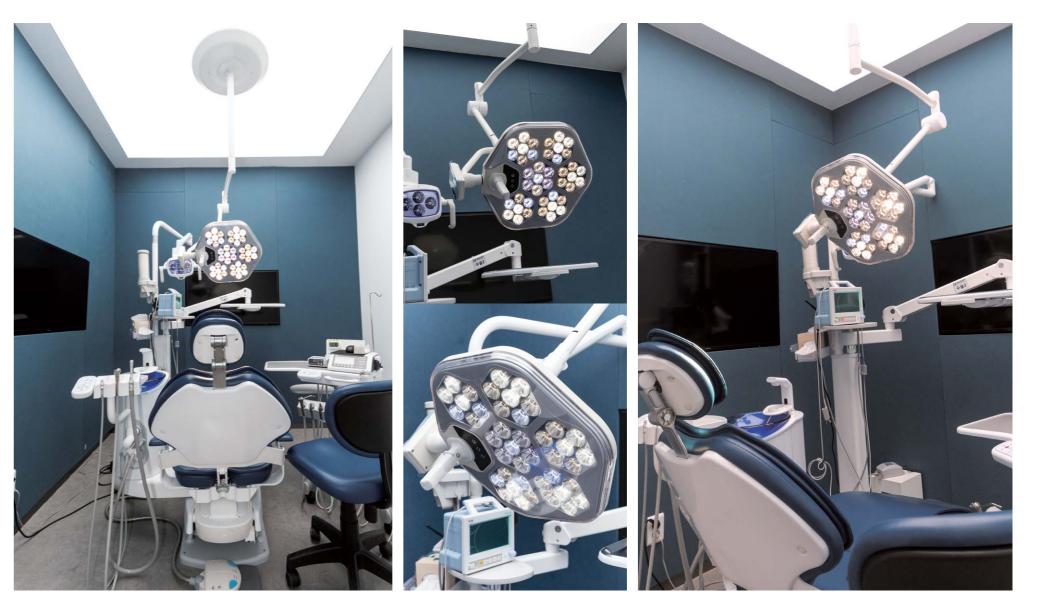
Mobile Type

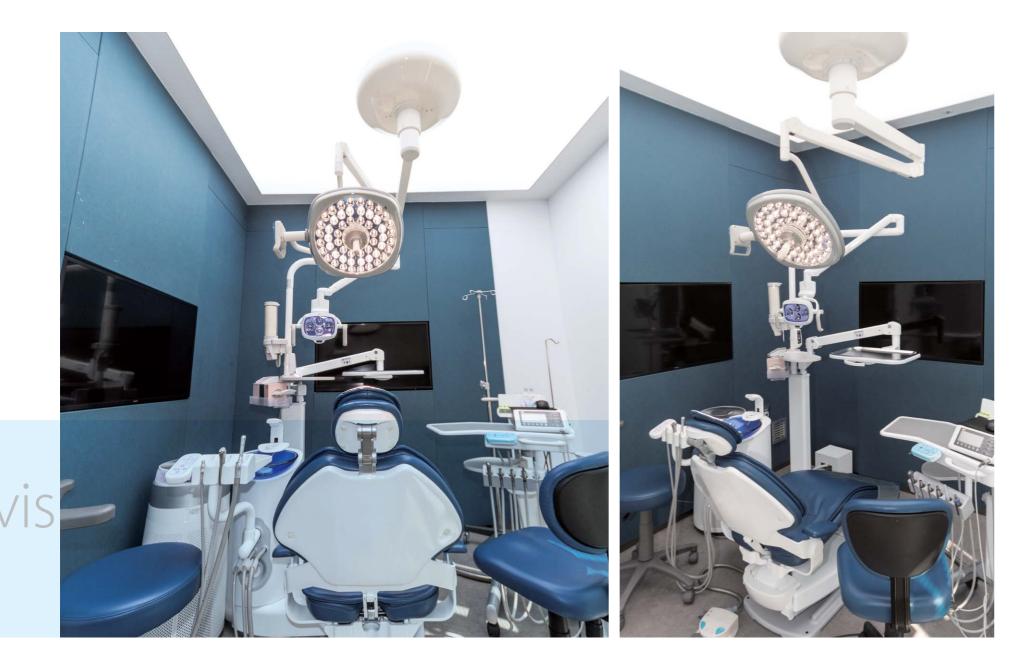




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Luvis S300 CHAIR TYPE













Luvis M400





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Luvis M400













54

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Luvis L400

