

CS·CW·CV

Examination light

SKYLUX® YAMADA SHADOWLESS LAMP CO.,LTD.

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Providing an Optimal Light Environment to Every Medical Practice

Providing an Optimal Light Environment to Every Medical Practice



Yamada Shadowless Lamp found one light.

“Medical LEDs.”

This light is close to natural light. “An accurate but gentle light.”

A doctor’s eyes are just as important to them as their hands.

They are always looking at the patient’s ever-changing condition.

In the operation room, their eyes are continually strained under operation lights, brighter than sunlight.

We don’t want doctors to just accept that harsh environment and daily stress as unavoidable.

We don’t want doctors to pretend they don’t feel it.

The CLOVER Series is not only an operation light, but is fully equipped with “Medical LEDs” for all lights that envelop the entire space.

We’re on a mission.

We want to provide an optimal light environment to every medical practice.

To help doctors do their best. To help save lives.

CS·CW·CV

Examination light Clover series

Bringing gentle and reliable illumination to your examination.

This examination light combines a design made to put the patient at ease with “Medical LEDs” that ensure both accurate color visibility and distinguishability. Three types are available: the mobile stand type, the ceiling-mounted type, and the wall-mounted type. Choose the size, design and brightness that you need.



(1)



(2)



(3)

CS01

(1) Cute and compact

This examination LED light has a natural and soft design that easily fits into your environment and puts patients at ease.

(2) Sterile handle

The sterile handle for the 03 Series is detachable and replaceable.

(3) Smooth height adjustment (CS01)

You can easily move the stand pole up or down. Not only that, the spring arm can also be moved freely, allowing you to adjust it to the optimal position based on the treatment and the physician's position.



Mobile stand type CS03 (3 lamp heads)



Mobile stand type CS01 (1 lamp head)



Ceiling-mounted type
CV03 (3 lamp heads)

Wall-mounted type CW03 (3 lamp heads)

CS·CW·CV

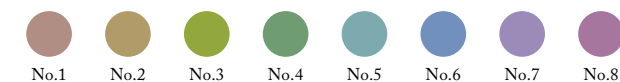
Examination light Clover series

We achieve a light environment optimal for medical practices.

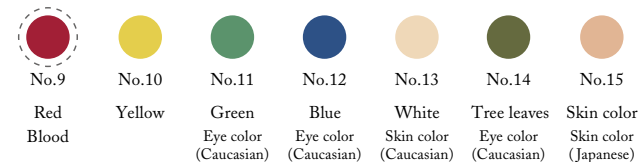
“Ultra-high color rendering LEDs” achieve reliable visibility and distinguishability

We used “Ultra-high color rendering LEDs” to achieve a high index of 92 for the R9 value. This corresponds to red (blood) in the special color rendering index (Ri), an index that includes colors close to the human body. This makes the colors of blood, organs, and tissue in the operative field more visible and distinguishable, helping improve the precision of operations.

Average color rendering index (No.1 to 8)



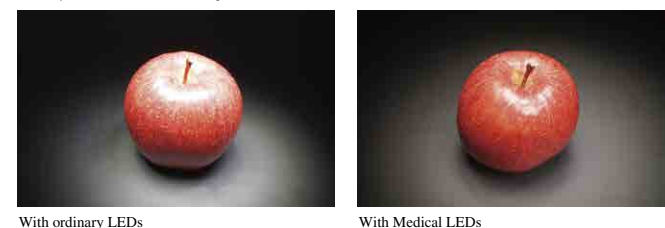
Special color rendering index (No.9 to 15)



Light which brings out an object’s true color and quality

Compared to ordinary LEDs, Medical LEDs have a spectrum closer to that of sunlight, and can bring out an object’s true color and quality. Human eyes see the light reflected off an object to recognize that object. Medical LEDs can express that reflection more accurately and illuminate more true.

Comparison of ordinary and Medical LEDs

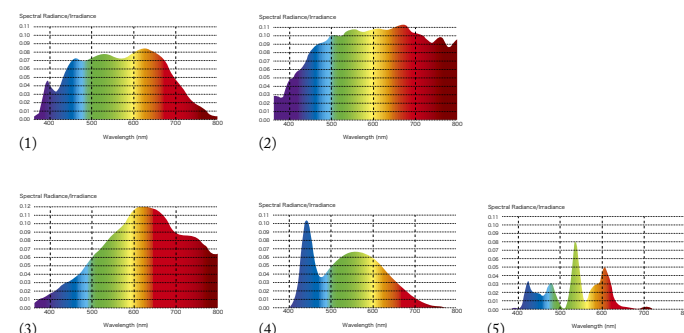


With ordinary LEDs

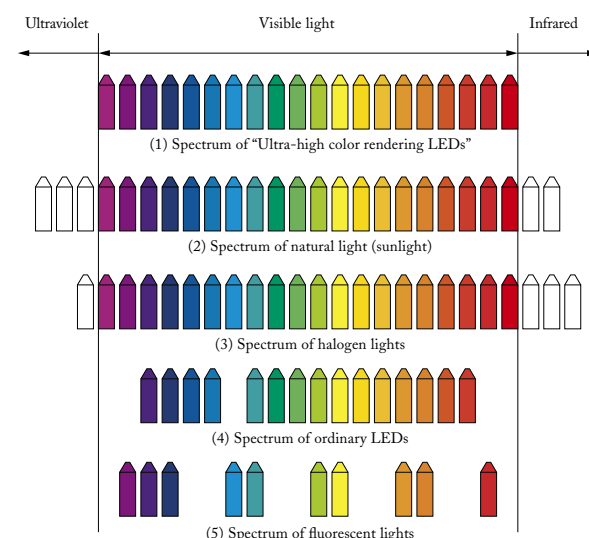
With Medical LEDs

Spectral wavelength range close to sunlight

For example, you can’t draw a colorful picture with only one or two colored crayons. If you don’t have a skin-colored crayon, you have to use the next closest color, yellow, and the picture ends up different from what you imagined. In the same way, by illuminating light with a spectrum that covers all wavelengths onto an object, that object’s true, natural colors become visible.

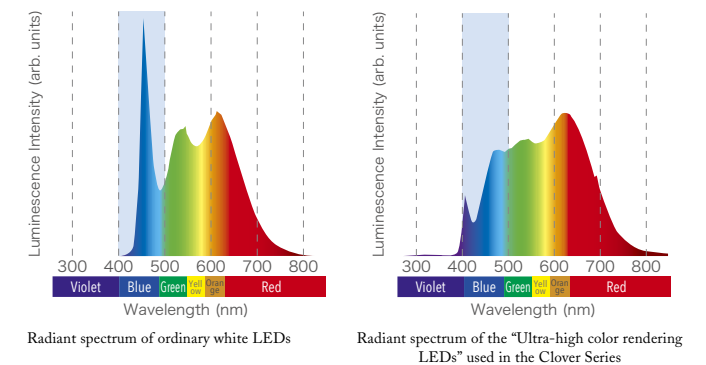


If we imagine the spectrum of light as crayons...



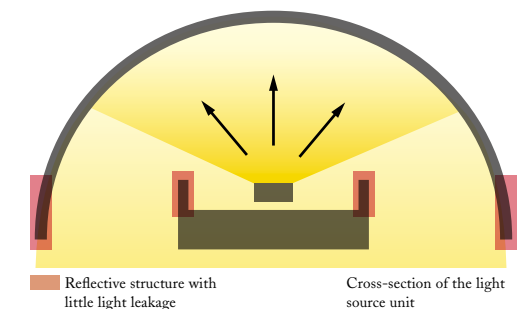
Light that is gentle on your eyes with reduced risk of blue light

Doctors who continue to look at an operation site under an abnormally bright light experience tired eyes due to blue light. “Medical LEDs” reduce the blue light risk and achieve a spectrum that does not strain the eyes.



Light unit which reduces brightness

The light unit is designed to have a structure that prevents the LEDs from interfering with your work. This structure prevents the physician and support staff from feeling uncomfortable brightness.



Light with “zero flickering” reduces strain on your eyes

Commonly-used lights adjust their brightness by repeatedly turning on and off in an extremely short interval (AC lighting, PWM control). However, the minute “flickering” strains your eyes, even if you’re not aware of it. This also applies to the light environment of the operation room. With our DC lighting, the light can be constantly “ON”, providing a light that does not flicker and is easy on your eyes.

If looking at a moving object



Afterimage occurs easily



Afterimage is prevented

Difference in illumination techniques

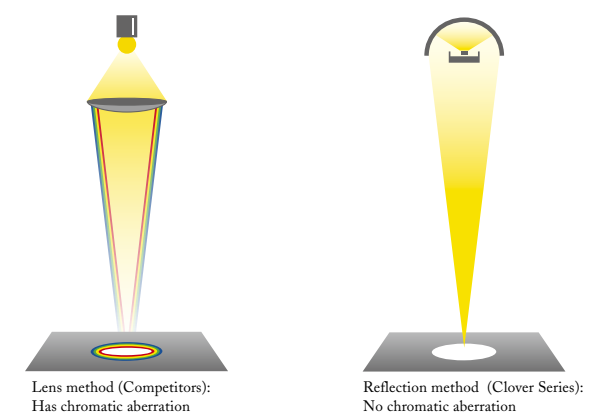
The unique structure of the light unit prevents “chromatic aberration” (that is, blurring or shifts in color) so you can accurately see the operation site.

- Lens method (Competitors)

Because refraction indexes vary by wavelength, chromatic aberration occurs, shifting or blurring the color in the edges of the light field.

- Reflection method

Luminescent method of the Clover Series. Chromatic aberration does not occur in the edges of the light field.



The unique optical design prevents glare when illuminated on the operation site.

The unique optical design prevents glare when shined on the operation site. This significantly reduces eye strain and discomfort for doctors, who must continue to look at the operation site over a long period of time.



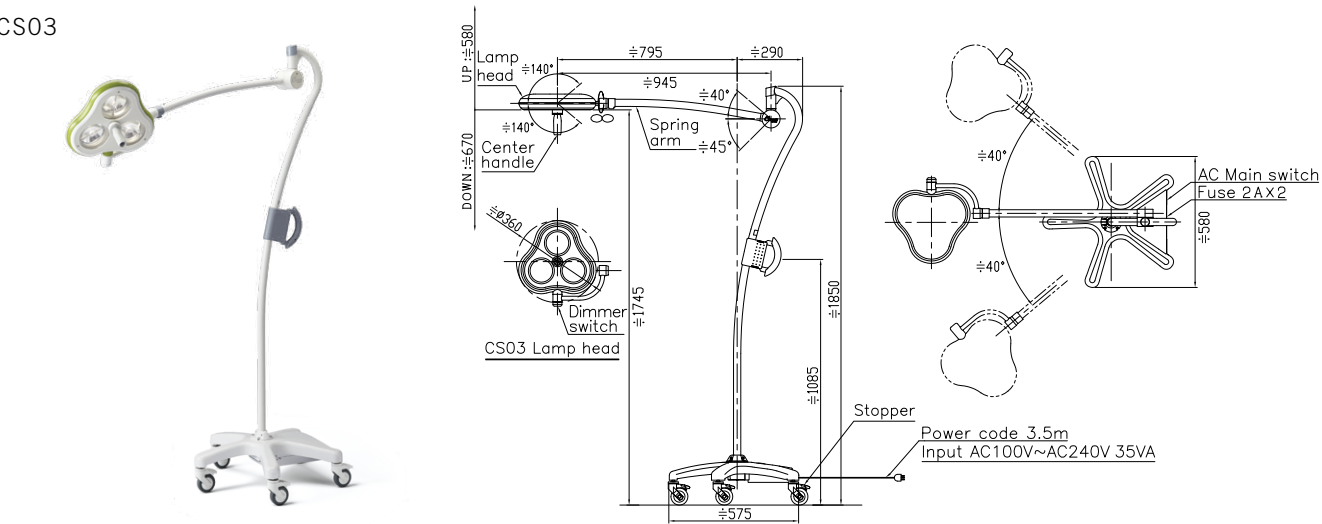
Ordinary white LEDs: Light with “glare”



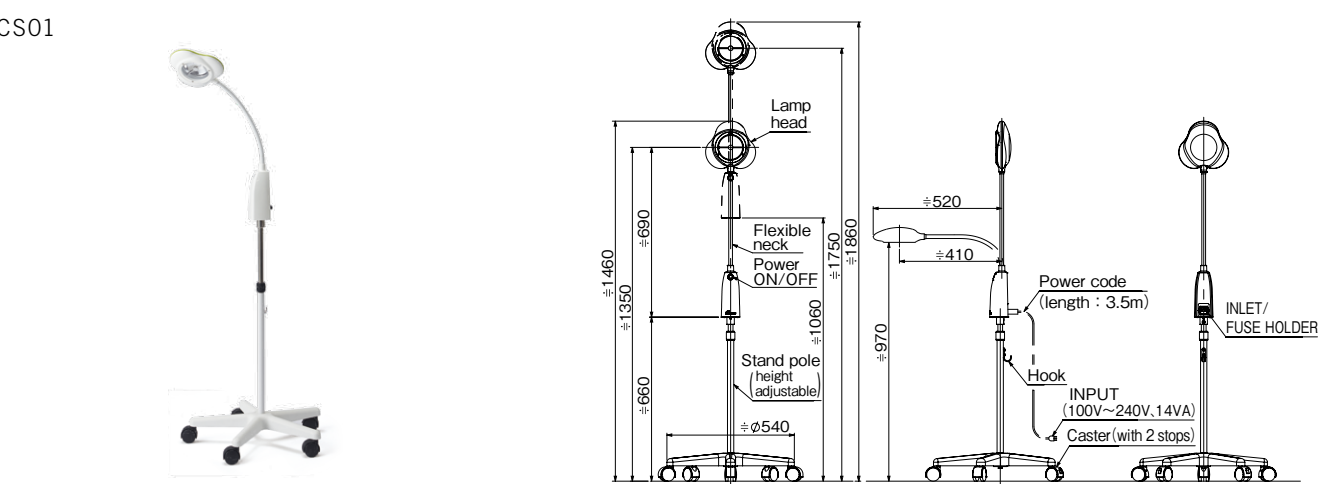
Clover Series: Light with reduced “glare”

External drawing

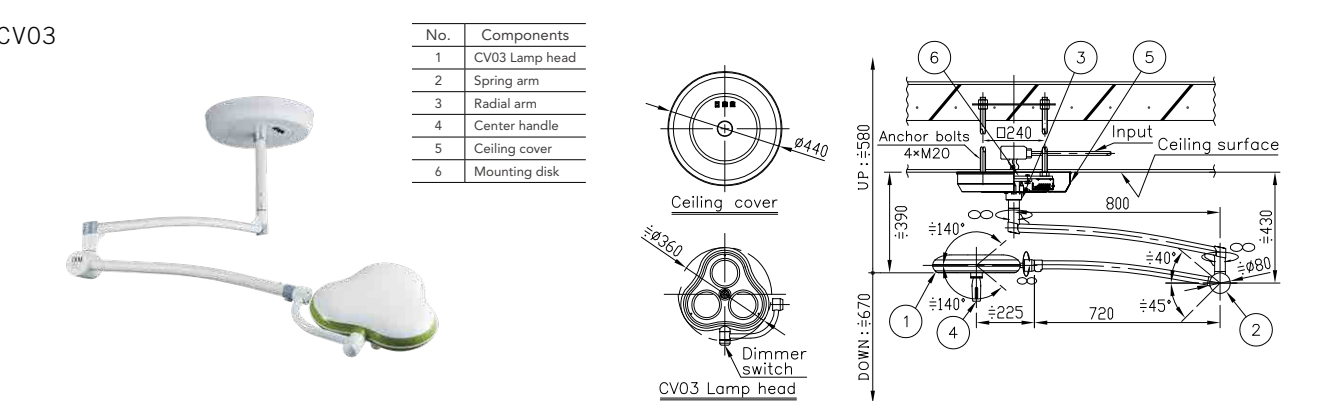
CS03



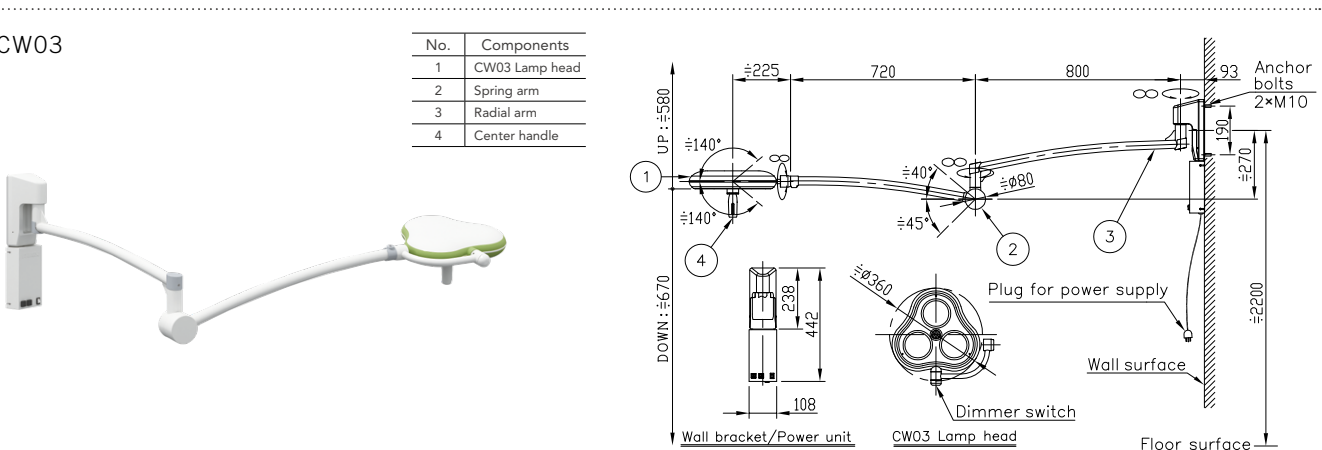
CS01



CV03



CW03



Specifications

Item / Model	Mobile stand type CS01	Mobile stand type CS03	Wall-mounted type CW03	Ceiling-mounted type CV03
LED technology	“Ultra-high color rendering LEDs”			
Light head diameter	Approx. ϕ 210 mm	Approx. ϕ 360 mm		
LED service life	40,000 hours (up to 70% light intensity)			
Rated input voltage / Electric capacity	AC 100 to 240 V, 50/60 Hz, 30 VA (MAX)	AC 100 to 240 V, 50/60 Hz, 45 VA (MAX)		
Central illuminance (Ec of 80 cm)	Approx. 30,000 Lux	Approx. 75,000 Lux		
Irradiance (at 80 cm)	110 W/m ² (Maximum)	280 W/m ² (Maximum)		
Color temperature (K)	Approx. 4,250 ± 250 K			
Color rendering index ^{*1}	Ra: 98 (Typical value), R9: 92 (Typical value)			
Light field diameter/Brightness adjustment	ϕ 160mm	ϕ 160 mm/Dimmer switch (30 to 100%)		
Net weight	Approx. 4.5 kg	Approx. 21 kg	Approx. 15 kg	Approx. 21 kg

*1: The described values are typical values, and are not guaranteed.
*Product design and specifications are subject to change without prior notice due to product improvements, etc.