




10 LUX

High Intensity & Multiple Light Therapy Device



Tentech Item

10 LUX

									
<p>10 THERMA Monopolar RF</p>	<p>10 THERA 2 Line HIFU</p>	<p>10 PL 168 Cell Fractional IPL</p>	<p>10 CELL 3cm x 3cm CO2 Fractional Laser</p>	<p>ONE THERA Dual Mode Ultrasound System</p>	<p>TEN HI Fractional & Thermal RF</p>	<p>10 SONO DSS & NBS Dual Mode System</p>	<p>LIPO THERA Dual Mode Ultrasound System</p>	<p>10 LUX High Intensity & Multiple Light Therapy Device</p>	<p>10 LUX HAIR PhotoBioModulation Device</p>
				<p>Rhino fill Premium Regevan fill volume MAX Regevan fill volume PRO Regevan fill volume UP Regevan fill Fine Monophasic Filler [for Export]</p>		<p>Regevan^{Ph} Polynucleotide Sodium</p>			
<p>Regevan^{LED} Mask Dr. Oracle LED Mask 4,474 LED Lights</p>	<p>10 mono Thread Mono Thread [Registered for NMPA]</p>	<p>10 cog Thread Asymmetrical Cog Thread</p>					<p>Regevan^C Growth Factor Ointment</p>	<p>Regevan^S Growth Factor Spray</p>	<p>Regevan^{ALO CARE} Growth Factor Ampoule</p>

10 LUX

PhotoBioModulation Treatment

10LUX emits light onto the skin using 5800 LEDs, enhancing cellular metabolic activity by the mitochondria within the cells. It has the feature of eliciting various responses based on different wavelengths.



Types of lights

10 LUX

	Blue	Yellow	Red	IR
Light source				
Wavelength	415nm	590nm	633nm	830nm
Application	Acne Reduction Antibacterial	Spots and Freckles Reduction Pigmentation Control	Cell Conduction Surface Circulation Anti-inflammatory	Regeneration Inhibits Pigmentation Control Pain Relief

Technical Specification				
Wavelength(nm) (Embedded Optical LENS)	415	590	633	830
Max Output (mW/cm ²)	40	20	100	120
Wavelength changing mechanism	Fixed panel			
Irradiation type	Single, Sequential, Mixed			
Number of light	5800ea			
Cooling system	Cross-flow system			
Usability	Flexible & Ergonomic light source panel			

PBM (Photo Bio Modulation)

Therapy utilizing the principle of enhancing cellular metabolic activity through light

Light → Activation of Transcription Factors →

Gene expression increase	
Protein Synthesis	Increase Cellular Activity
Proliferation	Tissue Repair And Regeneration Enhancement
Cell Migration	Wound Healing And Immune Response
Anti-Inflammatory Signaling	Reduction of Pain And Inflammation
Anti Apoptosis	Prevention Of Tissue Damage
Antioxidant	Prevention Of Tissue Aging

After the initial photon absorption events, numerous signaling pathways are activated via reactive oxygen species, cyclic AMP, NO and Ca²⁺, leading to activation of transcription factors.

These transcription factors can lead to increased expression of genes related to protein synthesis, cell migration and proliferation anti-inflammatory signaling, anti-apoptotic proteins, antioxidant enzymes. Stem cell and progenitor cells appear to be particularly susceptible to LLLT.

*Source: Proposed Mechanisms of Photobiomodulation or Low-Level Light Therapy. IEEE J Sel Top Quantum Electron. 2016 ; 22(3): . doi:10.1109/JSTQE.2016.2561201.

Treatment mechanism of PBM

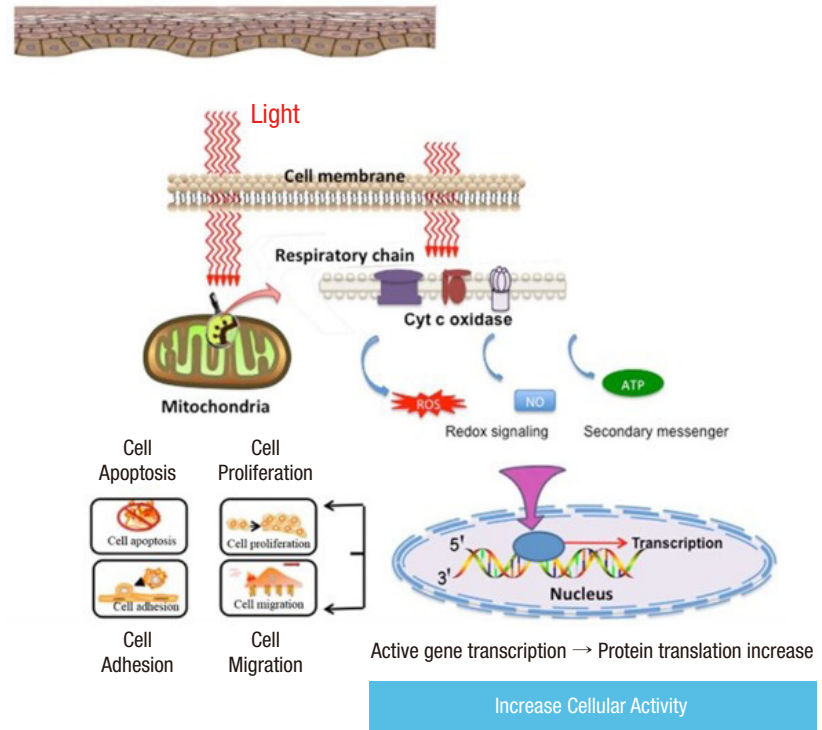
10 LUX

Utilizing the active absorption of light by mitochondria within the body to stimulate energetic metabolism, prompting skin improvement.

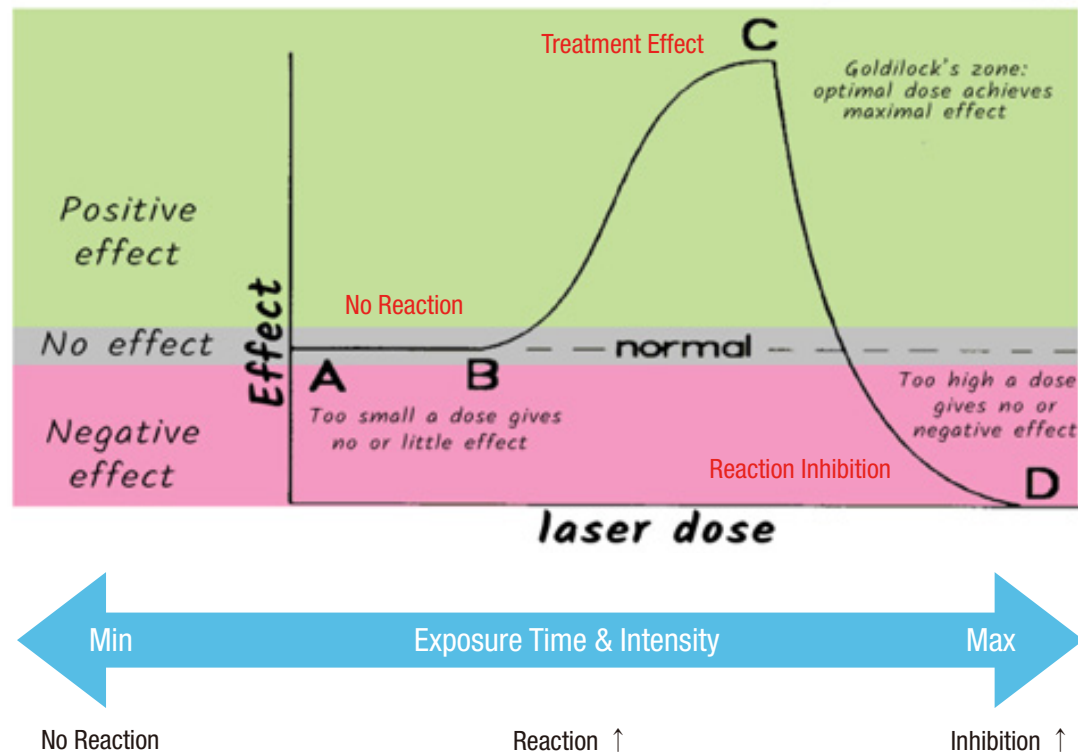
Light → Mitochondria → Energy Metabolism Increase

ATP generation + NO(Nitric Oxide) + Reactive Oxygen Species

1. NO(Nitric Oxide): Vasodilation → Increase Blood Circulation
2. NO(Nitric Oxide), Reactive Oxygen Species: Promotes Cellular Signalling System → Cell Growth And Differentiation



Arndt-Schultz Curve



The key is optimization of Intensity and Exposure Time.

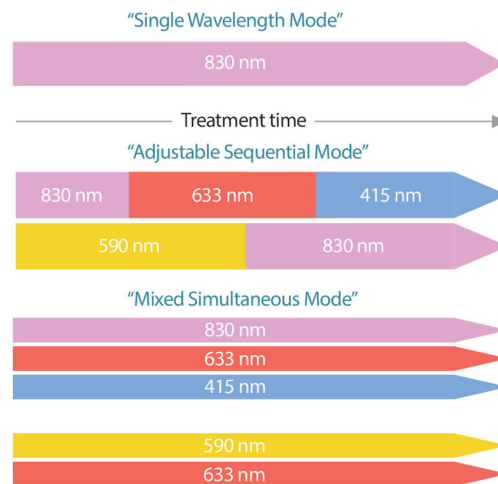
- 01 High And Uniform Light Irradiance
- 02 All-In-One Multi-Wavelength Equipped
- 03 Large-Surface Flexible & Ergonomic Panel
- 04 Single-Wavelength, Sequential, Mixed Irradiation Mode
- 05 Embedded Optical LENS
- 06 Efficient Cooling System Of Cross-Flow FAN (Ultra-low Sound Design)



Various treatment modes according to purpose of use

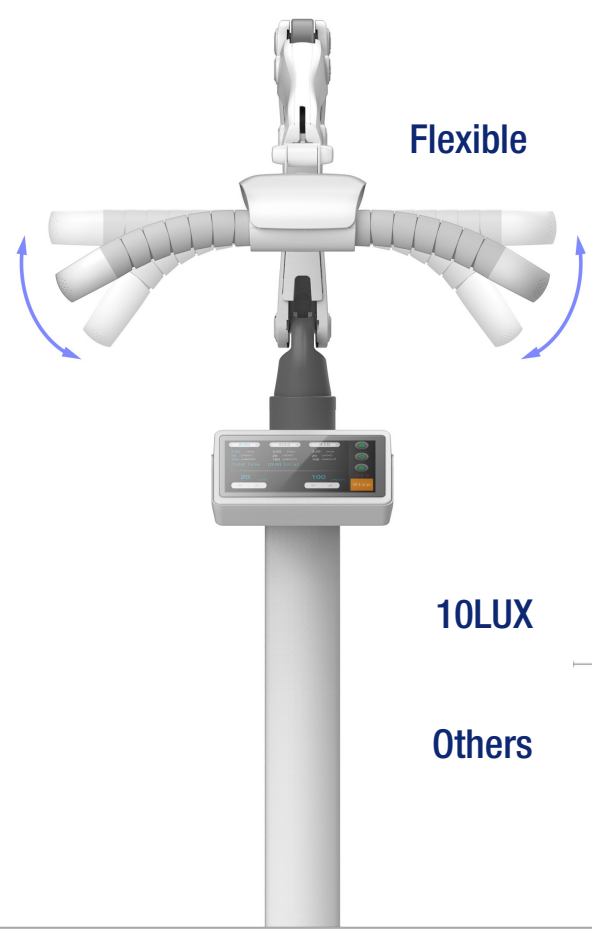
10 LUX

- Single Wavelength mode : Single Wavelength Irradiation
- Sequential mode : Sequential Irradiation Of The Selected 2 or 3 Wavelengths
- Mixed wavelength: Simultaneous Irradiation Of The Selected 2 or 3 Wavelengths



Flexible & Ergonomic LED Panel

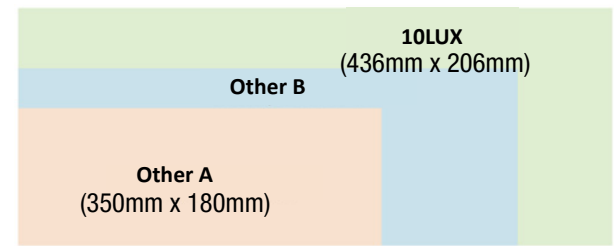
10 LUX



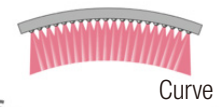
Flexible



LED Area Comparison (Maximum High-Output LEDs per unit area)

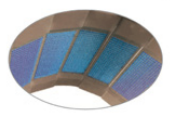


10LUX



vs

Others

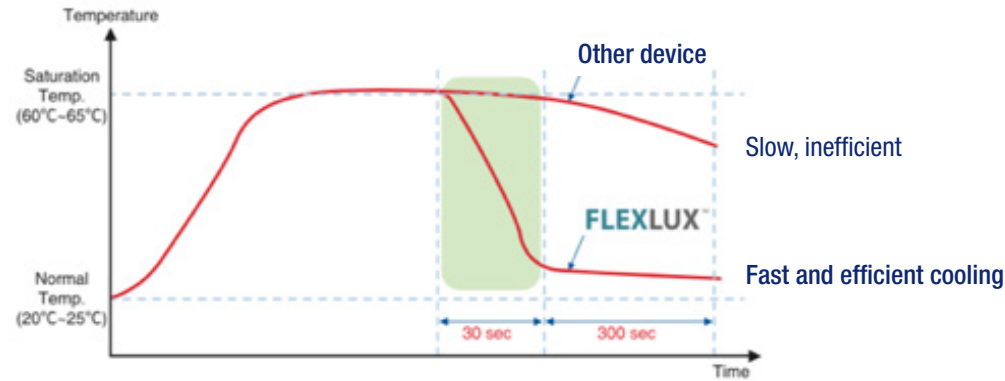


Uniform delivery of light energy to all treatment area

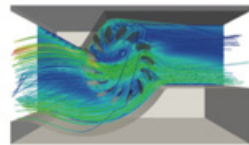
Non-uniform amount of light and distance
Significant Variance in light intensity depending on the treatment area

Optimal Cooling System

10 LUX



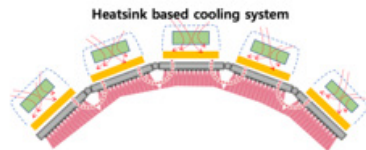
10LUX



VS

Enables continuous use by cooling evenly without creating hot spots
Reduces noise with cross-flow cooling method

Others



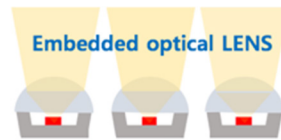
Reduces LED lifespan due to hot spots and long cooling time
Generates noise from air collides with the panel.

Existing OLET Technic
(Matrix LED substrate cover type lens)

VS

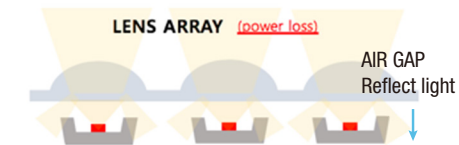
Embedded Optical LENS

10LUX



VS

Others



No loss of light and even transmission of light through the LENS integrated with the LED

Attaches lenses to cover LED (OLET Technology)
Light loss and unevenness due to manufacturing errors

10 LUX

All information in this document is subject to copyrights and other intellectual property rights of Tentech Inc. and other licensees. No modification, reproduction or copy of any or any part of this material may be made without prior written permission from Tentech Inc. and licensees. Additional information is available upon request. The following are trademarks or registered trademarks of Tentech, Inc. in Korea and other countries.

