

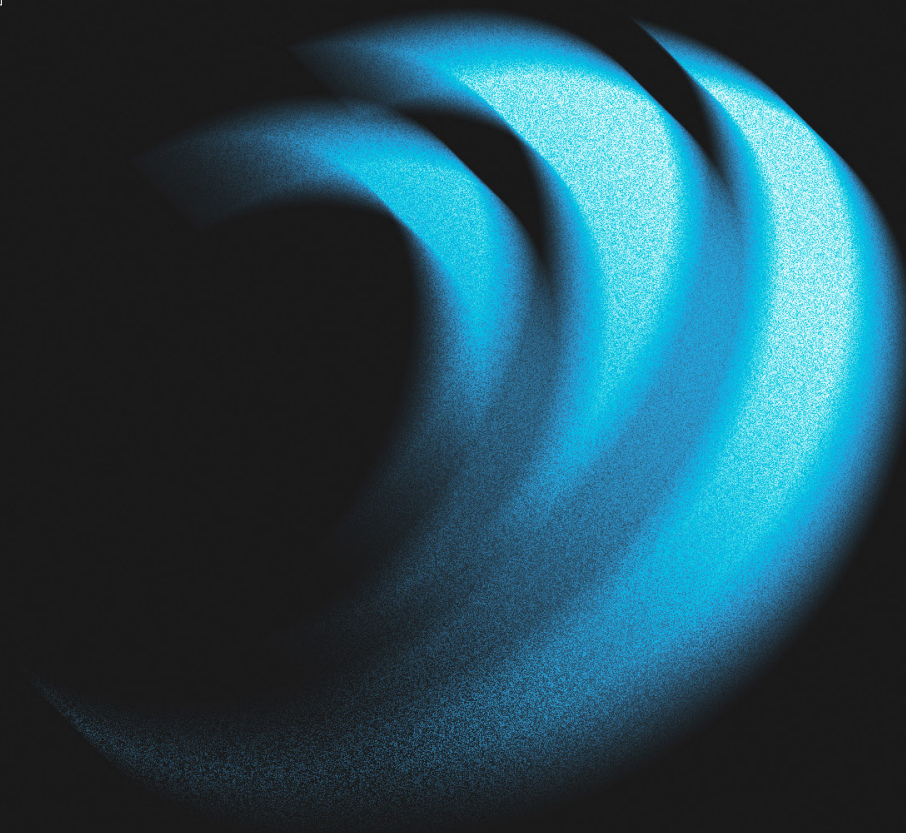


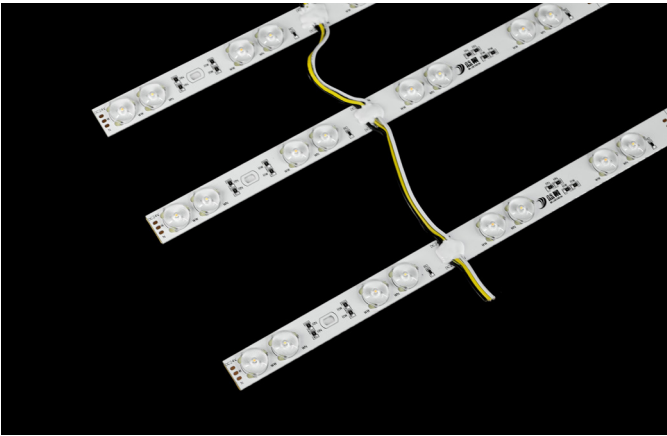
LED

RIGID BAR

DC 24V
BACK-LIT

H3-NW
(Full Spectrum)





H3-NW (Full Spectrum) | BACK-LIT

FEATURES

- Full-spectrum coverage with excellent spectral continuity
- High CRI 95+, delivering true-to-life color fidelity
- Low blue light content, reducing eye strain and supporting eye health
- Curtain style, easy mounting
- Adopt special secondary light distribution lens
- Aluminum substrate for direct and quick heat dissipation
- Lighting evenness of light box surface exceeds 0.8
- Compatible with external controller, support PWM, 0–10V, DALI, and DMX dimming.
- Multiple specifications, customization available.

APPLICATION

- Suitable for light box with depth of 6-18cm.



PRODUCT OVERVIEW

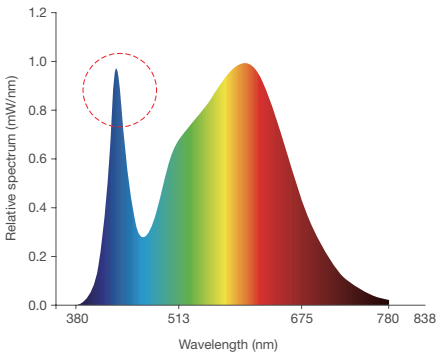
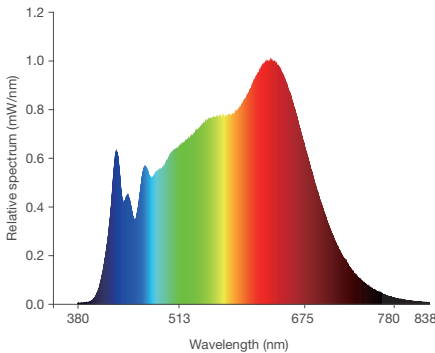
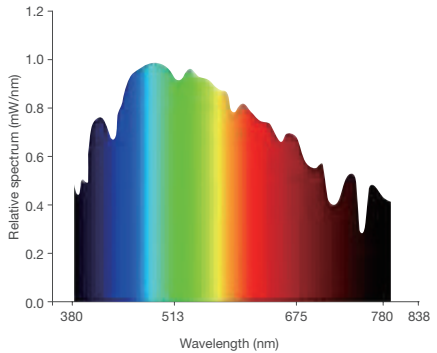
Full-spectrum, also known as natural spectrum, refers to light sources that cover the entire visible range (380–780 nm) with smooth and continuous distribution—no significant peaks or valleys, uniform wavelength ratios, and excellent color performance with high fidelity. The sun is the most common full-spectrum light source in daily life and represents the essence of natural light. Throughout evolution, humans and other living beings have adapted to the natural rhythm of sunrise and sunset, day and night cycles, and seasonal changes.

With the advent of artificial light sources, human life patterns have been reshaped. However, excessive reliance on artificial light may lead to visual fatigue, insomnia, light radiation hazards, and circadian rhythm disruptions, potentially impacting overall health.

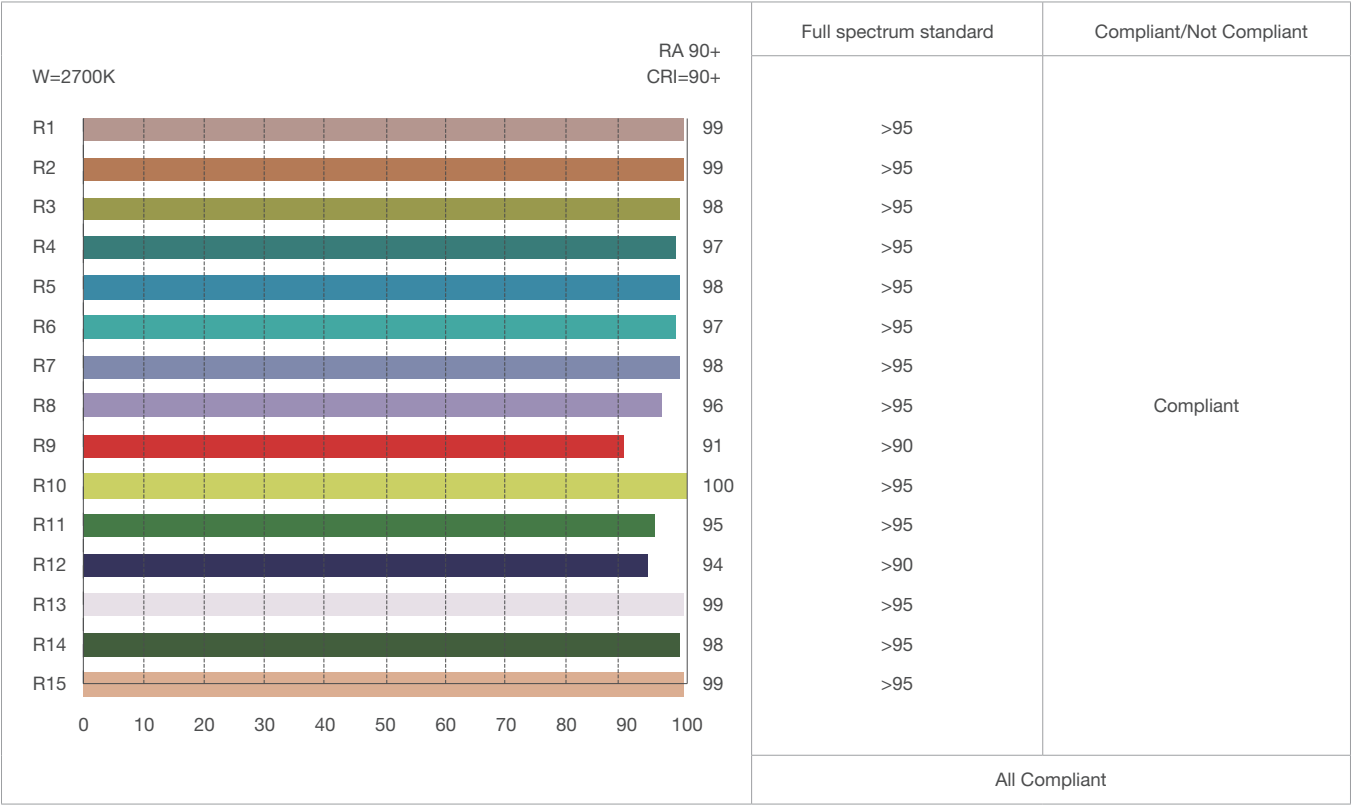
Full-spectrum LEDs, as a new branch of LED lighting, go beyond traditional parameters such as illuminance, brightness, and chromaticity. They also take into account nonvisual effects and light-radiation concerns, including the impact of light on human health, mood, comfort, and physiological responses. This makes full-spectrum LEDs not only “visible” but also “healthy and comfortable.”

By simulating the natural spectrum, full-spectrum LED technology enhances visual quality, improves psychological well-being, and creates healthier lighting environments. These products are especially suitable for environments with high lighting requirements, such as classrooms, offices, museums, broadcast studios, printing houses, theaters, surgical rooms, film sets, and plant-growth spaces.

SPECTRAL COMPARISON

Conventional LED spectrum	Full spectrum LED	Solar spectrum
		
Higher blue light content Distinct peak at 480 nm in the blue region	Red, orange, yellow, green, and cyan regions are close to the natural spectrum Lower blue light content Peak in the red region, consistent with visual comfort	Sawtooth-shaped spectral distribution Complete and continuous spectrum, covering 380–780 nm Full spectrum with no sharp peaks, evenly distributed

COLOR RENDERING INDEX



★ Reference Standard: SZTT/LSA 024.1-2019 Indoor Healthy Lighting Design Specification – Part 1: Full-Spectrum Technical Requirements. The table on the left shows the measured values at W=2700K. For other color temperatures, please contact our sales team.

OPTICAL & ELECTRICAL PARAMETERS

Model No.	Voltage	Ra	Color	CCT (K)	Typical Luminous Flux Value(Lm/pcs)	Efficacy(Lm/W)	Power(W/pcs)
H3-NW-62016 (Full Spectrum)	24V DC	>95	N	6500	907	135	6.72
			W	2700	907	135	6.72
H3-NW-77020 (Full Spectrum)	24V DC	>95	N	6500	1134	135	8.40
			W	2700	1134	135	8.40
H3-NW-93024 (Full Spectrum)	24V DC	>95	N	6500	1361	135	10.08
			W	2700	1361	135	10.08

OTHER PARAMETERS

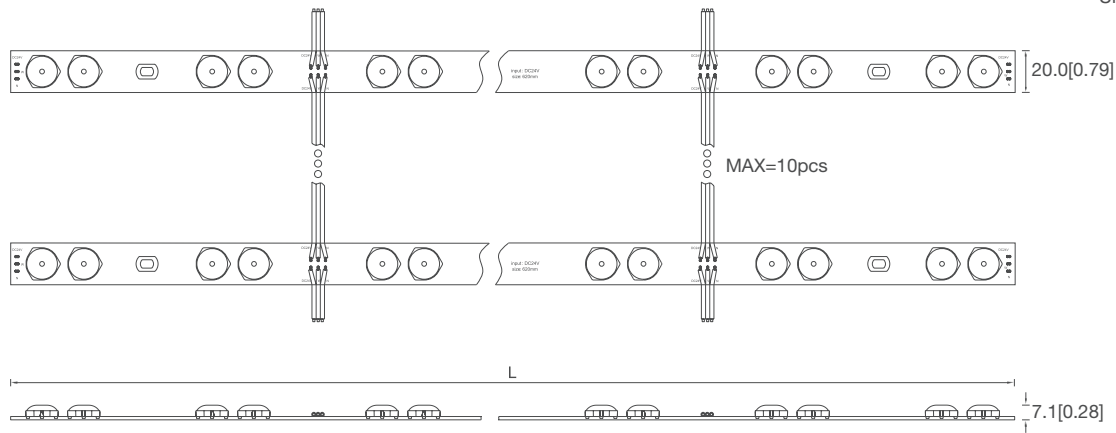
Model No.	LED Qty/pc	Product Size L*W*H (mm)	Standard Run (pcs)	Working Temperature	Storage Temperature
H3-NW-62016 (Full Spectrum)	16	620*20*7.1	10	-20~+60°C	-20~+70°C
H3-NW-77020 (Full Spectrum)	20	770*20*7.1			
H3-NW-93024 (Full Spectrum)	24	930*20*7.1			

NOTE:

- Test environment temperature : 25±2°C.
- Figures above are typical figures. Actual figures could be different with typical figures, and the data is subject to change without notice.
- The above luminous flux data is based on corresponding light colors.
- Different color temperature will make luminous flux different.
- The luminous flux and power error is ±10%.

PROFILE DRAWINGS

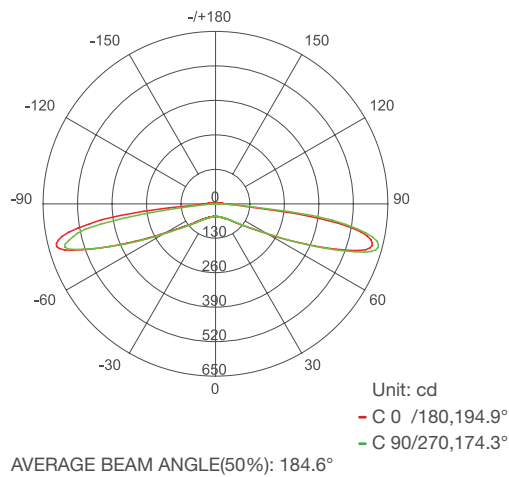
Unit: mm[inch]



Note: □ for more info, please contact sales rep. □ tolerances: length ±1mm, width ±0.2mm, thickness ±0.2mm.

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM

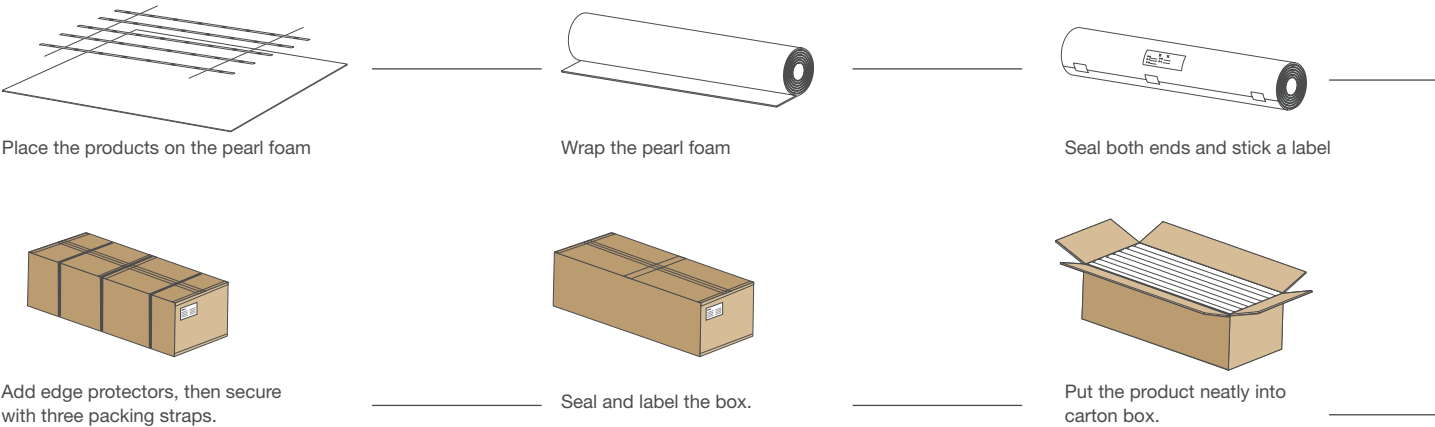
AVERAGE ILLUMINATION



Flux Out: 1486lm		CCT=6500K	
Height	Eavg, Emax	Beam Angle: 174.64°	Diameter
0.02m	1442,119703lx		85.41cm
0.04m	360.5,29926lx		170.82cm
0.06m	160.2,13300lx		256.23cm
0.08m	90.13,7481lx		341.64cm
0.10m	57.68,4788lx		427.05cm
0.12m	40.06,3325lx		512.46cm
0.14m	29.43,2443lx		597.87cm
0.16m	22.53,1870lx		683.28cm
0.18m	17.80,1478lx		768.68cm
0.20m	14.42,1197lx		854.09cm

Note: the above two figures are tested with the sample H3-NW-93024 (Full Spectrum) at 6500K. For other data,please consult sale rep.

PACKAGING INFORMATION



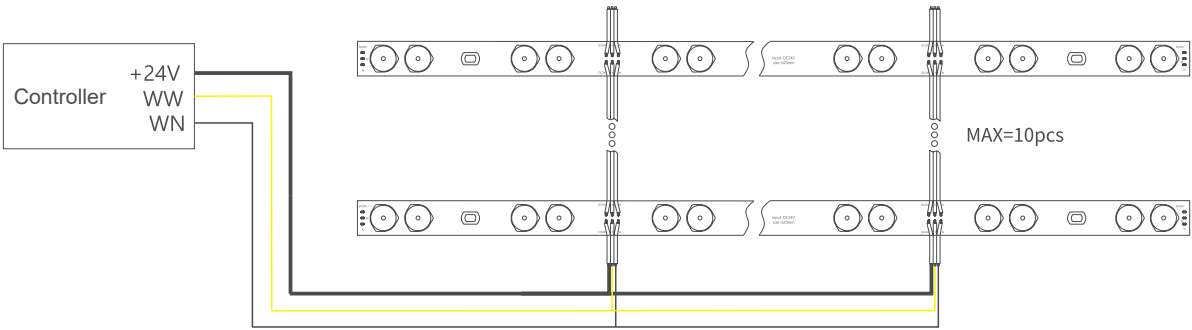
Model No.	Product Size L*W*H (mm)	Carton Size (mm)	Pcs/Carton	Net Weight (kg)	Gross Weight (kg)
H3-NW-62016 (Full Spectrum)	620*20*7.1	685*295*275	150	12.65(1±10%)	13.95(1±10%)
H3-NW-77020 (Full Spectrum)	770*20*7.1	825*295*275	150	15.25(1±10%)	16.55(1±10%)
H3-NW-93024 (Full Spectrum)	930*20*7.1	1010*295*275	150	18.41(1±10%)	19.99(1±10%)

Note:

This product is wrapped and loaded with white pearl foam and packed in long carton;

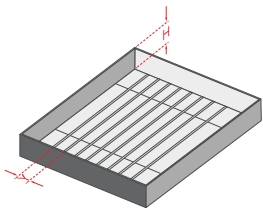
The above quantity and weight are only for the illustrated packaging method. There will be differences in the quantity and weight with other packaging methods.

INSTALLATION



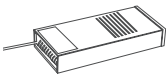
H3-NW -93024 (Full Spectrum)

Surface Material	Depth (H)	Illumination (lux)	Evenness	Density (pcs/m²)	Spacing (Y)	Power Density (W/m²)	Visual Effects
White Soft Film	6cm	12340-14520	0.85	7	14cm	134	OK
	8cm	9950-11850	0.84	6	16cm	115	
	10cm	7650-9220	0.83	5	20cm	96	
	12cm	7090-8250	0.86	5	20cm	96	
	15cm	6210-7050	0.88	5	20cm	96	
	18cm	5320-5890	0.90	5	20cm	96	



- Note:
- Light box type: single-sided light box
 - Light box bottom: Reflective coating
 - Spacing, see left
 - The data of above form is tested with the sample H3-NW-93024 at N&W two lights normal on.
 - For other data, please consult sales rep

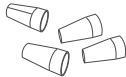
ACCESSORIES & TOOLS



LED power supply

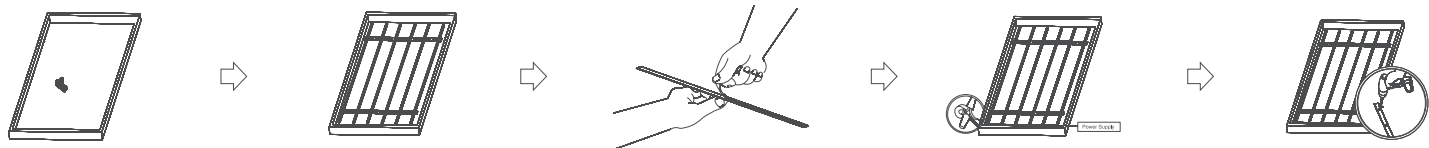


Diagonal pliers



Connection Terminal

INSTALLATION STEPS



- 1. Clean the mounting surface.
- 2. Arrange the mounting space.
- 3. Peel away the self adhesive tape on the rear of product and evenly mounting the product with appropriate space.
- 4. For bare wire connection, please use terminals.
Treat the thread with insulation,waterproof, and anti-corrosion arrangement as it cannot pull out by hands.
- 5. Check and ensure correct installation, and fix the product with screws ,then power on for self-test.

Note:
Screw to avoid welding plate, avoiding short circuit
When fastening the screw, make sure to add plastic gaskets to insulate the screw from the LED panel.

ATTENTIONS BEFORE INSTALLATION

- Before installation, please check whether the parameters of the product are consistent with the requirements (Seeing the Product Specification or Label).
- The voltage, current, and power of the power supply and load used must be consistent with this product.
- Follow the instructions of wiring diagram (first connect the load and then the power supply) to avoid short circuit.
- Product wires must be correctly connected to the positive and negative terminals of the power output, otherwise the light will not turn on.
- The power cord should be tightly screwed into the terminal, with a recommended tightness that cannot be pulled out by hand.
- The connection terminals must be effectively waterproof and corrosion-resistant.
- **After installing this product in the lightbox, cover with fabric within 48 hours. Avoid leaving it unused or idle for extended periods.**

WARNING

- Do not disassemble or retrofit the light. Do not touch the surface of the light with a sharp object.
- Do not do live-line working during installation,especially for high voltage product.
- Do not use any organic chemical solvents.
- Use neutral glass adhesive to fix this product and it needs to be dried 4 hours in the open environment after operation.
- Treat the ends and the circuit connection points that are not connected to the main line with insulation,waterproof, and anti-corrosion in the installation.
- Use 18AWG (0.75mm² cross-sectional area) or thicker core wire to avoid adverse consequences caused by overheating, if the power cable need to lengthen.
- Make sure the input voltage meets the requirements and lines are connected correctly before lighting on.
- This product is for signage, and do not use as general lighting.
- Series connection within the max run.
- The length of the power cable between the power supply and the led strip should not exceed 2 meters.Otherwise, large circuit loss will lead to inconsistent brightness.
- Installation, maintenance and repair should be operated by a qualified technician.

Version	Content	Date
A1.0	First release	2025-8-26

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