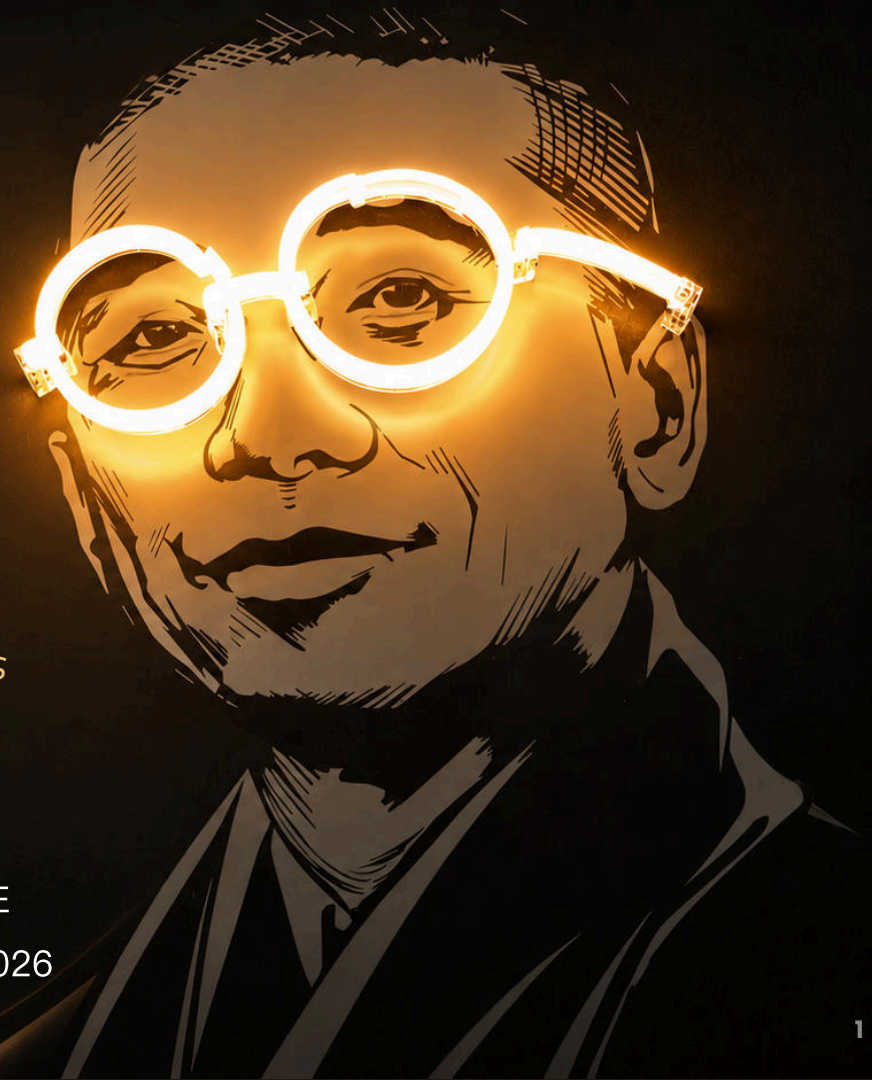
BEYOND THE GLOW

Introducing Premium Acrylic Neon Solutions



HOI YUE

May 29, 2026

AGENDA OVERVIEW

01 The Evolution: Legacy of Glass Neon

02 The Revolution: Glass vs. Acrylic Neon

03 Technical Excellence: Specifications & Safety

04 Bespoke Design: Showcase & Application

CHAPTER ONE

THE EVOLUTION

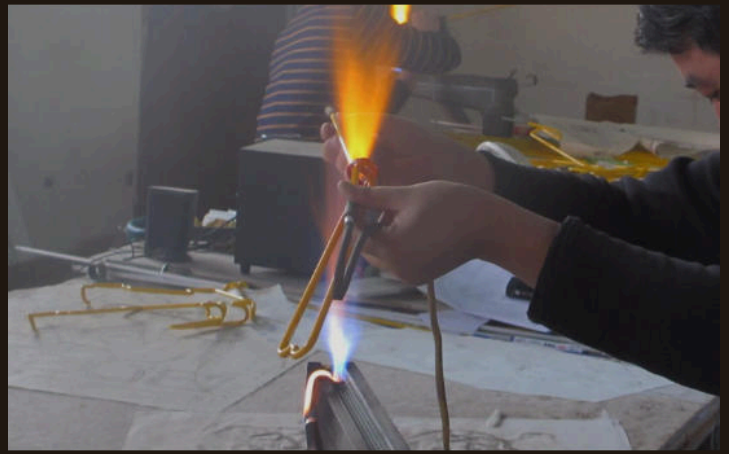
From the traditional neon glass workshop
to the pinnacle of modern signage technology.

THE LEGACY OF GLASS

Traditional neon is a **100-year-old craft** that relies entirely on pure manual labor.
As master benders retire, the specialized skill set is rapidly disappearing from the modern world.

- Dangerous Manipulation
  - *Artisans must bend glass tubes over 1000°C open flames by hand.*
- Chemical Risks
  - *The process involves charging tubes with rare gases and high-voltage "bombardment" to purify the interior.*





THE AESTHETIC COMPROMISE

Low Fidelity

- *Due to the physical limitations of manual glass bending, it is **impossible to 100% replicate** complex CAD drawings or fine typography. Every piece carries human error.*

Visual Clutter

- *Traditional signs suffer from "Dead Tubing" - extra glass segment. Visible high-voltage wires and electrodes often clutter the luxury aesthetic.*

Scale Limits

- *Severe dimensional & scale restrictions inherent to glass tubes, failing to accommodate micro-sized characters/intricate patterns while remaining structurally unviable for oversized signage.*



THE BURDEN OF LEGACY TECH

High Risks

- *Operates on **3,000V - 15,000V** transformers. Faulty wiring or cracked glass can easily trigger electrical fires or shocks.*

Extreme Fragile

- *Made of **thin lead glass**. Any minor impact during shipping or installation leads to catastrophic failure and gas leakage.*

High Cost

- ***Massive energy consumption** combined with **high production and maintenance costs** make it an inefficient investment for long-term use.*





CHAPTER TWO

THE REVOLUTION

Acrylic Neon: Redefining standards for the 21st century.

GLASS NEON

- **High Voltage & Safety Risk:**
  Runs on dangerous 3kV–15kV currents, posing permanent fire and electric shock hazards.
- **Fragile & Hazardous Material:**
  Easily shatters during transit; contains toxic mercury gas.
- **Visual Clutter:**
  Heavy aesthetic layout with exposed wires, dead tubes, and transformers.
- **Limited Design & Size Flexibility:**
  Cannot replicate complex graphics, micro-sized, or oversized signage due to manual bending constraints.
- **Rigid Color & Light Quality:**
  Restricted by fixed noble gas and phosphor combinations; inconsistent glow and color accuracy, often dim or uneven.
- **Short Lifespan & High Maintenance:**
  Only 8,000-15,000 hour lifespan; prone to gas leaks; and blackening; high power consumption.
- **High Cost & Long Lead Times:**
  Expensive hand-blown glass components with long production lead times; unsuitable for outdoor use.

VS

HOI YUE's ACRYLIC NEON

- **Safe Low-Voltage Operation:**
  Powered by stable 12V/24V DC, perfectly cool to the touch.
- **Shatterproof & Durable Build:**
  Indestructible luxury polymer casing with zero hazardous elements; locally repairable.
- **The Invisible Backstage:**
  Patented hidden wiring channel for a pure, seamless glow.
- **Absolute Design & Size Fidelity:**
  Achieving a 100% flawless translation of complex digital graphics with no limits on shape, font, or size.
- **Infinite Chromatic Customization:**
  Offering an unrestricted spectrum of tailored color matching.
- **Long-Lasting, Efficient Performance:**
  50,000+ hour stable lifespan; uses 80% less power than traditional neon.
- **Cost-Effective & Versatile:**
  Competitive pricing with fast production lead times; suitable for indoor/outdoor applications.

ACRYLIC NEON SIGNAGE

Hoi Yue's patented innovation merges advanced material science with precision engineering to replicate the classic crystal glow of glass.

- **Ultra-Transparent Housing**
  High-diffusion acrylic shell provides 92% light transmittance.
- **Flexible Light Path**
  Patented "Guidance Channels" allow light to flow seamlessly through any complex 3D shape.
- **Continuous Line Source**
  High-density Micro-LED chips eliminate the "dotted" look of standard LEDs.



I. 100% DESIGN FIDELITY

Unlike manual glass bending which relies on human estimation, Hoi Yue utilizes **CNC Precise Carving** to mirror your design exactly.

- **Complex Geometries:** Achieve small-angle bends and intricate cursive scripts that glass cannot reach.
- **Perfect Consistency:** 100% replication across multiple global locations.
- **Vibrant Spectrum:** Full customizability for color temperature and vibrant neon hues.





From DRAWING to REALITY

II. THE INVISIBLE BACKSTAGE

TRADITIONAL NEON MULTI–WIRE CHAOS



- Exposed Electrode Links: Every individual character requires separate physical wire loops to close the circuit.
- Visual Pollution: Massive external transformers and dangling cables destroy clean interior architecture.

HOI YUE PATENTED SINGLE–LINE INTEGRATION



- **Hidden Backplate Bus:** Internal circuit paths are entirely embedded within CNC-routed micro-channels behind the characters.
- **Unified Master Exit:** Multi-character arrays consolidate completely into one single elegant main cord delivering an unblemished museum-grade luxury aesthetic.

III. ENGINEERED RESILIENCE

Eco-Efficient

12V / 24V DC low-voltage power consumption.
Reduces energy costs by 80% vs glass.

Shatterproof

Impact-resistant acrylic housing.
No risk of glass shards or mercury leaks.

Waterproof

Designed for both humid interiors and extreme outdoor facades.



CHAPTER THREE

TECHNICAL EXCELLENCE

Precision Engineering for the Luxury Standards.

I. GENERAL SPECIFICATIONS

Parameter	Hoi Yue Standards
Country	Worldwide Availability
Quantity	No Minimum Ordering Quantity
Indoor / Outdoor	Suitable for Indoor & Outdoor Use
Warranty	5 Years (Indoor) / 1 Year (Outdoor)

A minimum order value of USD 500.

Drawing Lead Time



3 working days

- *Customers are requested to provide artwork files in AI or CDR format.*
- *If artwork is unavailable, Hoi Yue can prepare technical drawings for approval.*

Production Lead Time



14 / 28 working days

- *Begins upon artwork approval.*
- ***Standard products:** 14 working days*
- ***Custom projects:** 28 working days for color red / white (2200K, 4000K, 6500K). Negotiate separately for other colors.*

Delivery Time



within 2 working days

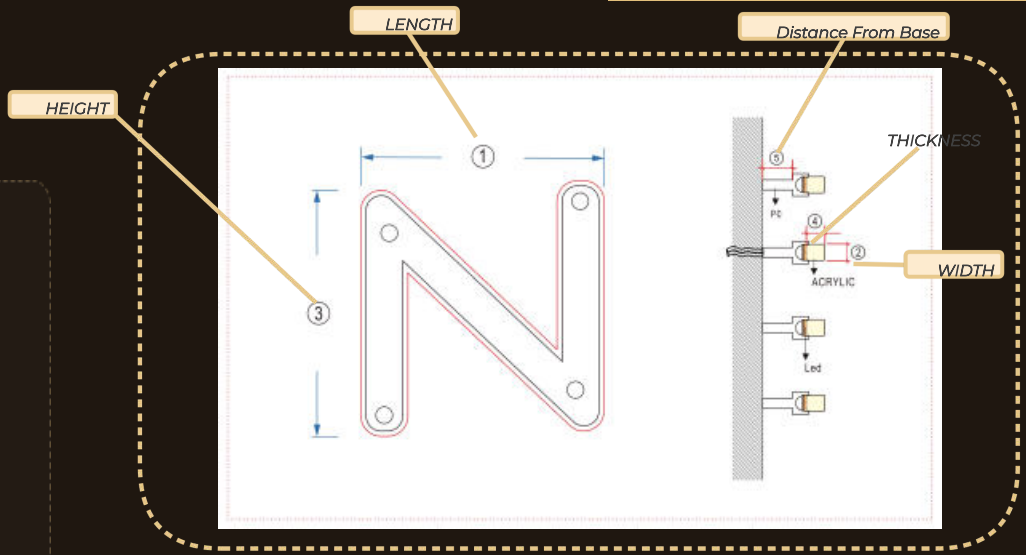
- *Delivery to the Guangzhou office within 2 working days after production completion.*

II. DIMENSIONS

Precision Design

Hoi Yue utilizes precision **CNC fabrication** to ensure complete accuracy from digital artwork to final production.

- **No character design limitations.**
- **Precision bending for complex angles.**
- **Scalable from desktop displays to building facades.**



Dimension Type	Specification Range
① Length	10mm – 1,200mm
② Width	5mm – 25mm
③ Height	10mm – 1,200mm
④ Thickness	3mm – 25mm
⑤ Distance From Base	0 – 100mm

III. OPTICAL PERFORMANCE MATRIX

Parameter	Hoi Yue Standards
Color	Red / Green / Blue / Peach Pink / Purple / White (2200K~6500K)
Illuminance (LUX)	500~15,000 Lux
Color Rendering Index (CRI)	70~90
Ra	70~90
Viewing Angle	>180°
Lifetime Rating	>54,000 hours
Power	1-meter neon unit: 300mA, CE Certified
Dimming required	Optional 0-24V PWM Dimmer (Non-certified)

All colors are customizable. A minimum order value of USD 500. Optical specifications shown are based on the 619nm red light configuration. Parameters may vary depending on color selection.

A compatible power supply is required. Third-party power supplies are not recommended.

Compatible with standard constant-voltage PWM controllers Brightness adjustment only; color temperature is not adjustable

IV. ELECTRICAL & ENVIRONMENTAL RELIABILITY

- **Dual Input Support:** 110V/220V compatible
- **Safety Output:** Low-voltage 12V or 24V DC, cool-to-touch
- **Protection Class:** Water Resistant
- **Operating Range:** Reliable performance from -20°C to +60°C.
- **Compliance:** CE Certified.



V. BASE MATERIALS & FINISHES

Category	Available Options
Base Materials	Any Metal *(Copper, Steel, Aluminum, PC, Wood, Acrylic, etc.)*
Surface Color	Customizable Any Color
Finishing	PVD Coating, Spray Painting, Powder Coating, Screen Print, CNC Machining, Oxidation, Polishing
Thickness	1mm – any size
Dimensions	Up to 1220mm × 2440mm / 1500mm × 3000mm
Installation	Wall Embedded, Hanging, Base-Mounted, Underframe-Supported, Single Letter
Cable Length	Max. 3 Meters



NOTES: Custom material upgrades, complex processes, or increased metal thickness will result in additional costs.

CHAPTER FOUR

BESPOKE DESIGN

Versatility Beyond Commercial Boundaries.

I. RETAIL & BRANDING

Commercial Excellence

- Elevate the retail environment with signage that mirrors brand prestige.
- Our precision CNC technology ensures that every serif and stroke of a brand's logo is reproduced with absolute fidelity.

- **Boutique Atmosphere:** Soft, uniform light that enhances high-end luxury interiors.
- **Precision Logos:** Replicate complex 3D typography without the "hot spots" of traditional LEDs.
- **Global Consistency:** Standardized production for multi-national retail chains.

"Branding isn't just seen; it's felt through the quality of light."



II. ARTISTIC MASTERPIECES

Light as Art

- Acrylic neon transcends traditional signage, becoming a medium for fine art.
- By integrating glowing tubes with sketches, portraits, and canvases, we create multi-dimensional artistic experiences.

Multimedia Fusion

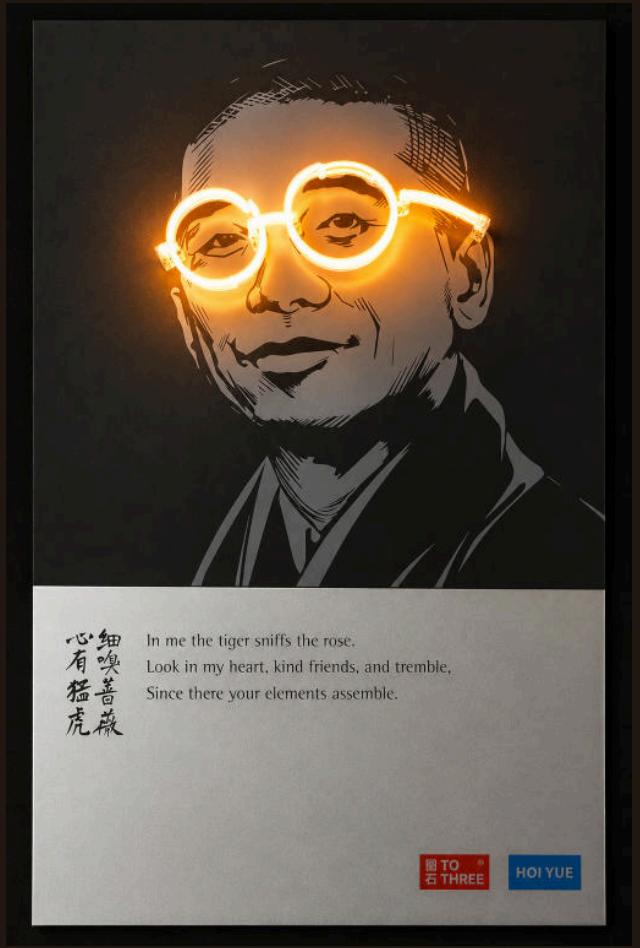
Seamlessly combine light with print, painting, or sculpture.

Public Spaces

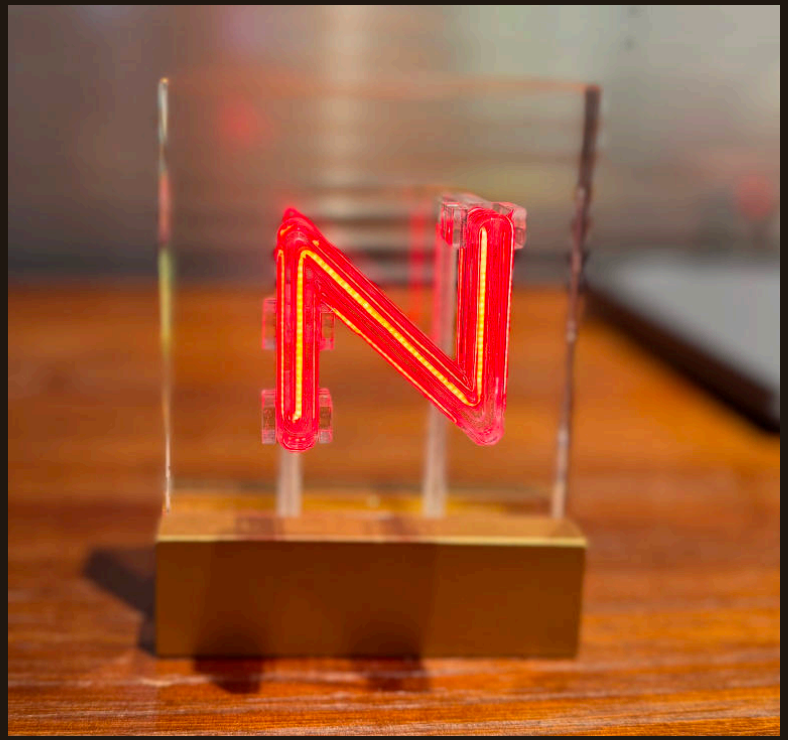
Engaging art installations for galleries, lobbies, and museums.

Gift Personalization

High-end custom portraits for weddings, anniversaries, or corporate awards.



III. LIFESTYLE & GIFTING



Tabletop Elegance

Transitioning from walls to desktops, our craft finds its way into daily life through exquisite tabletop ornaments and miniature sculptures.

Home Décor

Warm, dimmable ambient light for modern living spaces.

Bespoke Souvenirs

Letter-based ornaments (e.g., initial "N") on premium bases like marble or wood.

Executive Gifts

Perfect for high-level corporate gifting and boutique souvenirs.

And more...

Events & Weddings

Bespoke romantic backdrops and celebratory glow.

Architectural Facades

Weatherproof outlines for skyline silhouettes.

Hospitality & Bars

Atmospheric mood lighting for premium lounges.

Automotive Showrooms

Sleek, high-CRI accents for luxury vehicle displays.

Wayfinding & Directionals

Elegant, readable signage for hotels and offices.

Fashion & Runway

Avant-garde lighting for high-fashion spectacles.

WHERE DESIGN MEETS ETERNITY.

ILLUMINATE YOUR VISION

Thanks for your time.

www.hoiyue.com