

THE HOUSE OF
ENLYTEN

MANUFACTURER REFERENCE
SHEETS

Design Specifications for Prototype Development

April 2026 · Sydney, Australia

Prepared for: Thai Son S.P · LED Clothing Studio Seoul · ODD Factory Sydney · LUMISONATA

Note: Watermark text visible on some reference images is for internal cataloguing only and does not form part of the design.

01 Silk Organza LED Gown

Hero Piece — Couture Division



HAND-DRAWN SKETCH



RENDERED CONCEPT

MATERIALS & CONSTRUCTION

Base Layer	100% silk slip dress, bias-cut, floor-length
Overlay	100% silk organza, full overlay, natural drape
Colorway	Iridescent — shifts warm gold to cool silver-white with movement
Silhouette	Column gown, minimal seaming to preserve drape integrity

LED SPECIFICATIONS

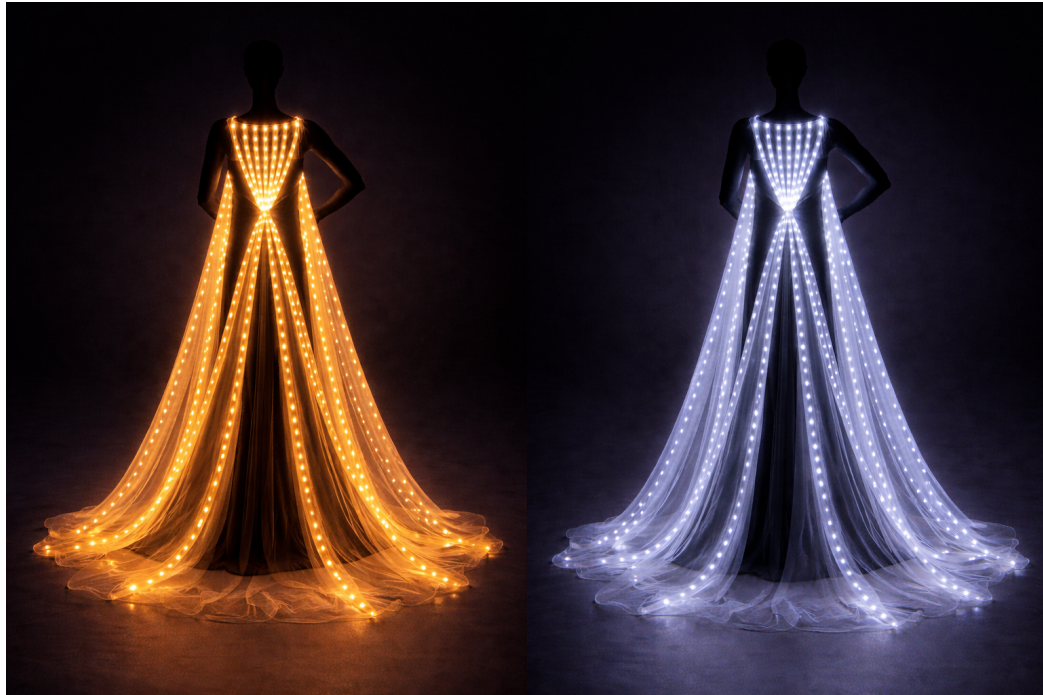
LED Type	Micro LED points or conductive thread embroidery
Distribution	Scattered throughout organza overlay — mimics scattered starlight
Density	Sparse to moderate — elegant, never costume
Power	Concealed battery pack (waist or hem channel)
Color Mode	Warm white / warm gold; optional soft fade cycle

KEY QUESTION FOR MANUFACTURER

Can you embed Micro LEDs or conductive thread embroidery into 100% silk organza without compromising the natural drape and hand of the fabric?

02 Cascading Cape Gown

Couture Division — Stage & Editorial



WARM GOLD MODE (LEFT) · COOL WHITE MODE (RIGHT) — BOTH COLORWAYS PROGRAMMABLE

MATERIALS & CONSTRUCTION

Bodice	Fitted black structured bodice, boned or semi-boned, open back
Cape / Train	Cathedral-length sheer panels (chiffon or silk organza), multi-layer cascade
Back Detail	Fan-shaped LED array at open back — architectural focal point
Hem	Raw or hand-rolled edge on sheer panels for couture finish

LED SPECIFICATIONS

LED Type	Fine LED strands running full length of each sheer panel
Distribution	Vertical strand lines — uniform spacing, full panel length
Dual Colorway	Warm gold mode / cool white-blue mode (switchable or programmable)
Back Fan	LED strands concentrated in fan shape at open back — primary impact zone
Power	Slim battery concealed in bodice lining or waistband

KEY QUESTION FOR MANUFACTURER

How flexible are your LED strands under continuous motion? Can they run the full length of a cathedral-length sheer panel without visible weight, stiffness, or break points during movement?

03 LED Stockings*Accessories Division*

MATERIALS & CONSTRUCTION

Base Fabric	Sheer hosiery — denier TBD (15–20D for transparency)
Fit	Full-length stocking, thigh-high or full pantyhose construction
LED Placement	Single vertical warm gold LED chain along outer seam of each leg
Coverage	Chain runs ankle to mid-thigh (or full length) — continuous, unbroken

LED SPECIFICATIONS

LED Type	Fine LED strand or micro LED chain — must follow seam line precisely
Color	Warm gold — single static mode
Attachment	Sewn into outer seam channel or bonded along seam line
Battery	Micro battery clip — ideally concealed in waistband or thigh band

FUNCTIONAL REQUIREMENTS

Washability	Hand wash or machine wash (delicate) without LED damage
Comfort	No pressure points, no rigid components against skin
Duration	Minimum 4–6 hours continuous illumination per charge/battery
Weight	No perceptible additional weight vs standard hosiery

KEY QUESTION FOR MANUFACTURER

What is your current approach to washability and battery placement for hosiery-integrated LEDs? Can the battery pack be fully concealed without creating bulk or discomfort during extended wear of 4–6+ hours?

04 Enlyten Scarf*Accessories Division — Branded Piece***MATERIALS & CONSTRUCTION**

Outer Fabric	Soft cashmere-feel (cashmere blend or cashmere-touch modal)
Lining	Sherpa lining on pocket interiors — contrast texture detail
Pockets	2 deep side pockets with concealed battery housing in lining
Fringe	Fringe hem — knotted or woven, matching fabric weight
Branding	Embroidered ENLYTEN crest — placement TBD (corner or center)

LED SPECIFICATIONS

LED Type	Scattered white LED pinpoints throughout scarf body
Distribution	Random scatter — mimics stars on dark fabric; subtle density
Color	Warm white or cool white — single static mode
Battery	Concealed within pocket lining; accessible via discreet zip or snap
On/Off	Single button toggle, concealed in pocket lining or seam

FUNCTIONAL REQUIREMENTS

Flexibility	LED integration must not reduce drape or softness of scarf
Durability	LEDs must survive daily use, folding, and storage without breakage
Washability	Dry clean or spot clean; battery module must be removable

KEY QUESTION FOR MANUFACTURER

*How do you achieve LED durability in soft, flexible fabrics that are folded and worn daily?
What is your recommended approach for battery concealment within a pocket lining while keeping the scarf supple and wearable?*

THE HOUSE OF ENLYTEN

"Illuminate and step out of the shadows"

All designs confidential. For prototype discussions only.

enlyten@polsia.app

