

#N°1 français du service pour les laboratoires

LABO AND CO

SOLUTIONS TECHNIQUES & SERVICES pour laboratoires & industries

NOTRE ÉQUIPE EST COMPOSÉE D'EXPERTS, DE PASSIONNÉS, DE TECHNICIENS, EN CONSTANTE FORMATION.

- PLUS DE 40 COLLABORATEURS
- PLUS DE 25 ANS D'EXPÉRIENCE
- UNE COUVERTURE NATIONALE



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DES CONSEILS POUR CHAQUE VENTE & SERVICE

AMÉNAGEMENT



Chaque laboratoire, entreprise ou industrie a ses enjeux, ses objectifs et ses contraintes. Les aménagements sont donc tous différents pour répondre à des problématiques toujours uniques. **Notre équipe est là pour comprendre votre besoin et vous accompagner au plus près.**
Labo and Co est à vos côtés pour l'établissement de votre cahier des charges, pour le suivi des travaux et leur réception et pour fournir le meilleur matériel et le plus haut niveau de service.

DISTRIBUTION

Labo and Co propose **des miliers de références d'équipement**, des plus simples aux plus complexes. Une équipe d'ingénieurs d'affaires et de techniciens, répartis dans toute la France, disposent d'une connaissance approfondie des équipements et mettent leur expérience à votre service. **Avant de conclure toute vente, nous nous assurons d'avoir compris tous vos enjeux.**
Nos partenariats et nos collaborations depuis des années avec **les plus grandes marques**vous garantissent une qualité sans faille.



SERVICES

DES INTERVENTIONS SÉCURISÉES ET CERTIFIÉES

Une réactivité essentielle
Chez Labo and Co, nous savons à quel point le dysfonctionnement d'un équipement peut avoir des répercussions catastrophiques sur des recherches ou sur une production.

Des techniciens pleinement habilités
Nos équipes disposent des habilitations requises : manipulation des fluides frigorigènes, habilitations électriques, risques chimiques, etc... Pour des interventions conformes et sécurisées.

Une offre complète et flexible
Notre large éventail de services nous permet de répondre à toutes vos problématiques, qu'il s'agisse d'un besoin ponctuel ou récurrent.

- QUALIFICATION & INSTALLATION
- MÉTROLOGIE & ÉTALONNAGE
- RECONDITIONNEMENT
- RÉPARATION & ENTRETIEN (ÉLECTRIQUE, MÉCANIQUE ET FROID)
- LOCATION
- ESSAIS EXTERNALISÉS

Vos essais externalisés sont effectués dans notre propre laboratoire par nos équipes spécialisées



CERTIFICATIONS

Labo and Co est **certifié pour garantir à ses clients des prestations fiables, traçables et conformes aux normes** les plus exigeantes du secteur du laboratoire et de l'industrie.

- **Certification ISO 9001** – Qualité et fiabilité de nos services
- **Certification CEFRI n°1616E** – Interventions en zones réglementées

ISO 9001 Opave Certification

CEFRI Certification N° 1616 E

Découvrez la Location Longue Durée
Une solution flexible et sécurisante pour équiper votre laboratoire en toute sérénité : Mise en service, maintenance, SAV, extensions de garanties, la solution clé en main !

La FrenchFAB · La French Care · Fabrilabo · Collège Français de Métrologie · CIFL · cemafroid · Chimique N1 & N2 Habilitation

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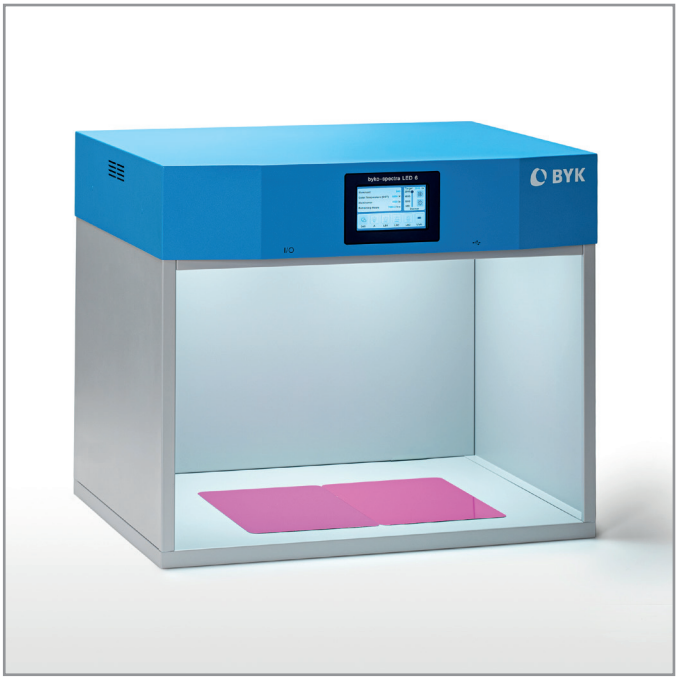
byko-spectra LED

The New Generation. LED Light Booth with CIE precision

The byko-spectra LED 6 is the new generation of LED light booths. Traditional incandescent bulbs and fluorescent tubes belong to the past whether at home or in retail. Due to their high energy consumption and, in the case of fluorescent tubes, the presence of harmful substances, they are no longer suitable for modern lighting solutions.

LED light sources are the future, offering outstanding energy efficiency, long lifetime, and consistent, reproducible lighting with virtually no maintenance. With its smart LED technology, the byko-spectra LED 6 precisely simulates all CIE standard illuminants – and surpasses the performance of conventional fluorescent systems. Designed as a sustainable and future-proof solution, the byko-spectra LED 6 sets a new benchmark for reliable, high-precision visual color assessment.



Color Looks Different. We Make It Consistent.

Color looks different with changing lighting conditions. Side-by-side evaluations under different light sources quickly reveals product defects, color variations, metameric effects, and the influence of optical brighteners.

Therefore, controlled illumination is key to delivering consistent judgements. By implementing standardized illuminations and best practices for visual appraisals, you streamline processes, reduce rejects and rework – and strengthen your competitive edge.

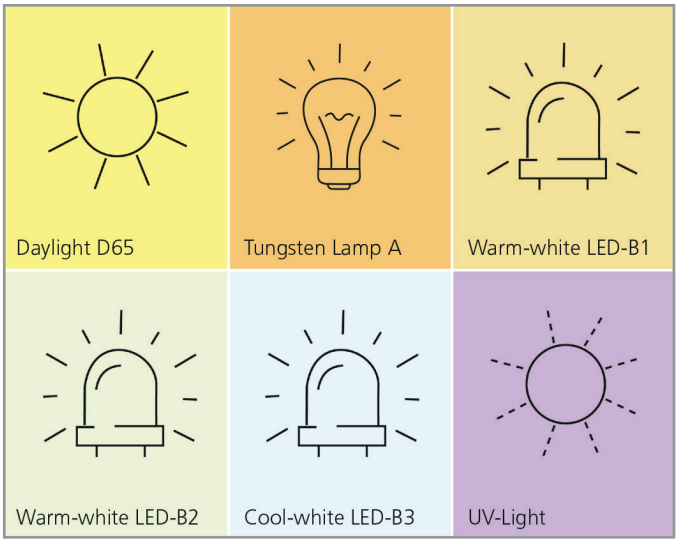


Standardized Appraisals. The Light Control for Harmony.

The CIE (Commission Internationale de l'Éclairage) defines for various appraisal situations illuminants with spectral power distributions (SPDs) to ensure standardized viewing conditions. The goal is to have color harmony under all lighting conditions. The new byko-spectra LED 6 offers a wide range of CIE industry-standard illuminants:

- Daylight – D65 with class A
- Warm home light: LED-A, LED-B2 3000K, LED-B1 3500K
- Cool retail light: LED-B3 4000K,
- UV lighting to evaluate optical brighteners

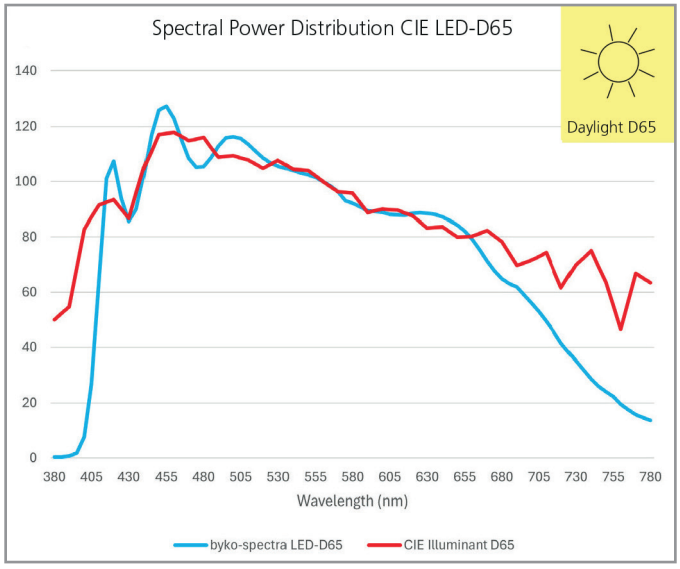
The byko spectra LED 6 delivers a precise match to these CIE-specified SPDs, ensuring highly reproducible and standardized conditions for visual assessments.



Color harmony under daylight. CLASS A.

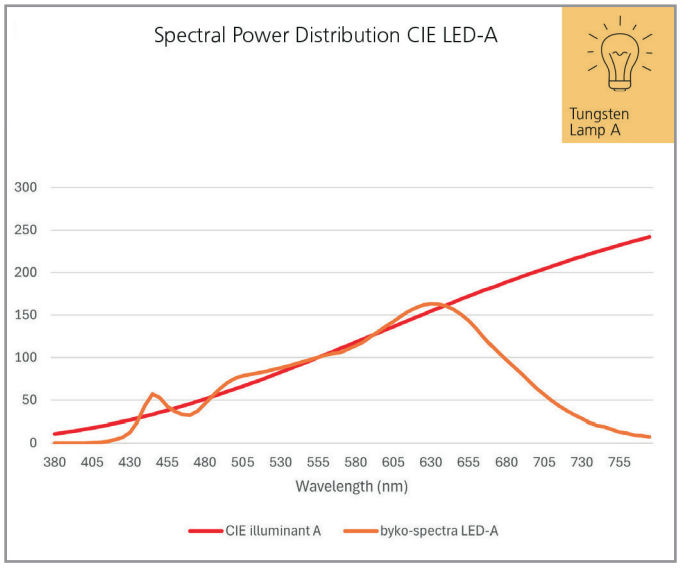
byko-spectra LED 6 offers daylight D65 at the highest quality level, providing excellent agreement with natural daylight. The smart selection of white LEDs guarantees best in class daylight simulation – tested according to CIE with MI_{vis} quality Class A.

For applications requiring enhanced evaluation of optical brighteners and fluorescent effects, UV light can be added to the D65 appraisal situation.



Color Harmony at Home. Tungsten Lamp Feeling.

Tungsten or incandescent lamps were used in the past to create a warm and cozy atmosphere at home. Today warm LED lighting is the standard for simulating traditional incandescent bulbs. With its advanced LED technology, the byko-spectra LED 6 offers LED-A which is very close to the original CIE illuminant A using specially tuned warm LEDs.

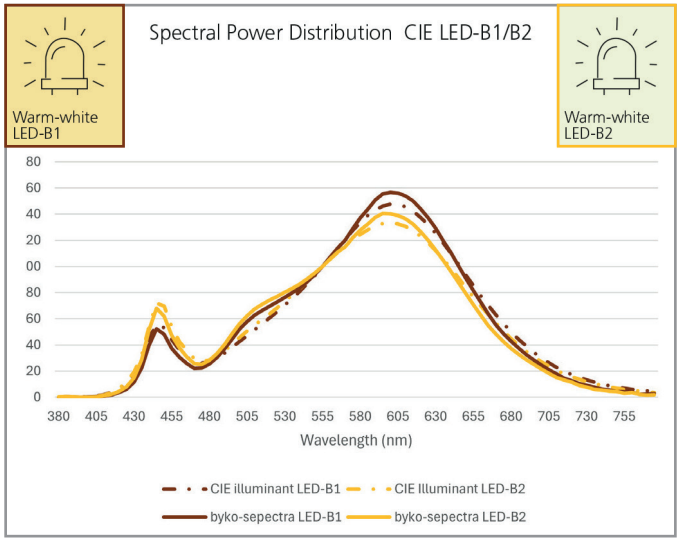


Color Harmony at Home. More warm LED illuminants.

As LED technology increasingly shapes today's interior environments, a variety of warm-white LED light sources are in use.

The CIE illuminants LED-B1 and LED-B2 represent typical phosphor-converted, blue-excited white LEDs commonly used in contemporary home and warm-toned commercial interiors. With correlated color temperatures of 2733 K (LED-B1) and 2998 K (LED-B2), they accurately reflect the warm ambiance produced by most everyday LED luminaires.

By simulating these lighting conditions with precision, the byko-spectra LED 6 light booth enables reliable assessment of how products will appear in real warm-LED environments.

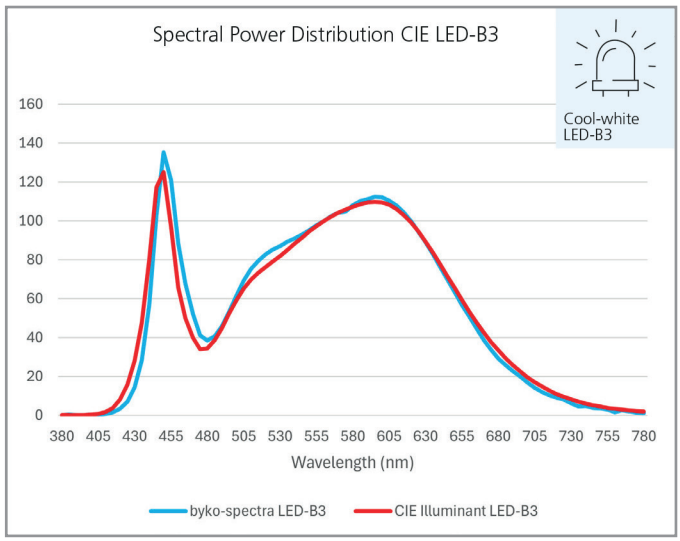


Color Harmony in Retail. Cool Light. Fresh Color.

Department stores intentionally rely on cool, bright lighting to create a fresh, modern atmosphere that captures attention and makes colors and surfaces appear clearer, more vibrant, and premium.

Therefore, retail stores have used fluorescent tubes, which created a distinctly "cool" light atmosphere. In Europe, the TL84 illuminant was commonly used, while CWF dominated in the United States.

To accurately reproduce these familiar retail lighting conditions with modern LED technology, the CIE has introduced the new standard illuminant LED-B3. With this illuminant, the byko spectra LED 6 enables precise and reproducible simulation of typical store lighting.



byko-spectra LED 6. Compact Design.

The byko-spectra LED 6 features a compact design that strikes the perfect balance — neither too small nor too large.

It fits easily on a standard laboratory bench while still providing ample interior space to evaluate samples up to 64 × 48 cm. The exterior walls are coated with a matte neutral gray color to eliminate the influence of the surroundings. The selected finish is extremely durable for long-term stability in daily use.

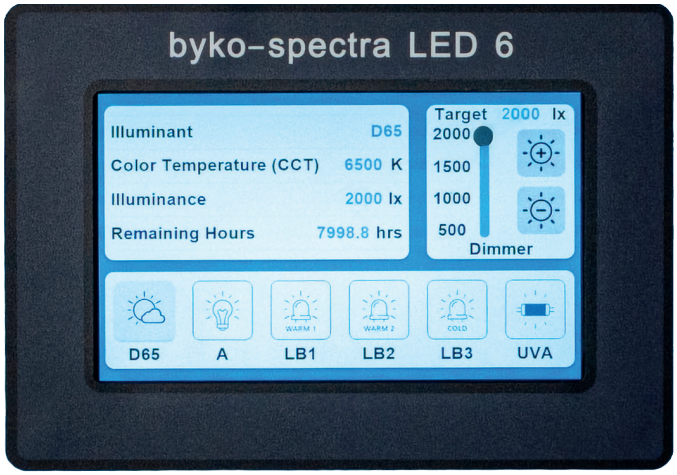
Designed for straightforward assembly, the light booth can be set up quickly without special tools, making installation fast and easy.



byko-spectra LED 6. Intuitive and smart.

A large, intuitive touch display enables simple and efficient operation. Users can easily switch between illuminants, adjust the illuminance level (lux), and monitor key parameters such as the correlated color temperature (CCT).

The lux output can be easily adjusted providing optimal conditions for evaluating both light and dark colors with consistent, reliable results. The automatic sequence function runs predefined illuminants consecutively for a set time, supporting hands free and reproducible color evaluation.
Very short switching times between light types, combined with the display of remaining LED lifetime, ensure efficient workflows, high productivity, and reliable long-term performance.

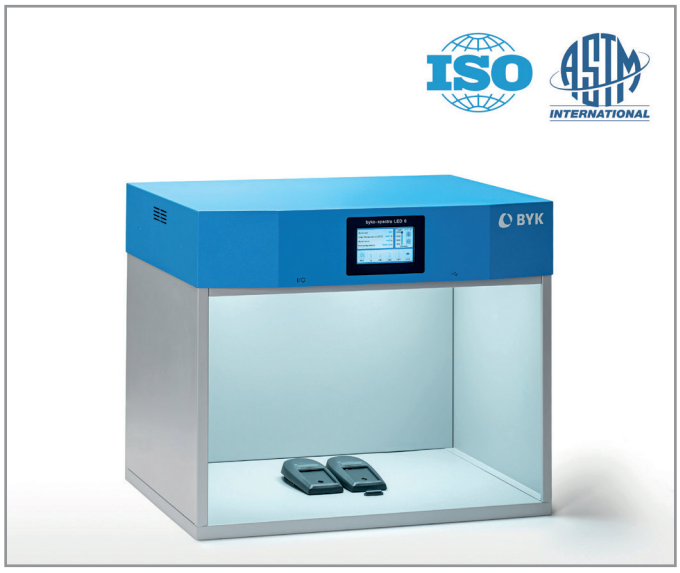


byko-spectra LED 6. Uniform Lighting.

Uniform and diffuse illumination is essential for reliable visual color evaluation.

The byko-spectra LED 6 uses a long-term stable, textured diffuser panel to mix the emitted light and ensure uniform luminance across the entire inspection field.
To minimize reflections and external influences, the interior surfaces are coated with a matte light gray finish (Munsell N7), creating a neutral and controlled viewing environment.

This precisely defined optical setup enables the light booth to fully meet the requirements of international standards such as ASTM D1729 and ISO 3668.



Standards

In compliance with:
ASTM D1729
ISO 3668

Catalog Number	**6091**
Short Description	**byko-spectra LED 6**
Viewing Area	64 x 48 x 40 cm
	25.2 x 18.9 x 15.7 in
No. of Illuminants	6
Illuminants	• Daylight (D65) • Incandescent light (A) • LED illuminants (B1,B2,B3) • Ultra-violet light (UV)
Light Source for Daylight	LED Array
Voltage	100-240 V, 50/60 Hz
Weight	27 kg
	60 lb
Dimensions: L x W x H	70 × 53 × 59 cm