Journée Très LEDs - De beaux tests à faire

# Images & mesures par constructeur

JTL 6

TRANSPA

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MagicHour
Que vos projets deviennent réalité

A Bright LED day - Brilliant tests on the horizon

# Images & measurements by manufacturer

## ARRI

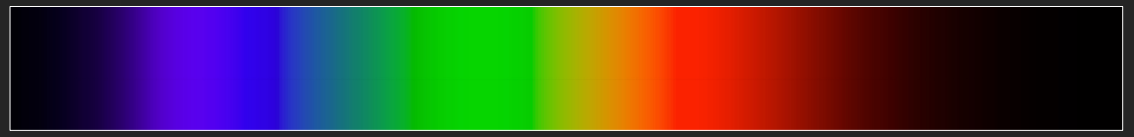
# SKYPANEL X (DOME & HYPER)

ARRI ALEXA 35

https://www.arri.com/en/lighting/led/skypanel/x-series

# Full-color

Max 800 W Données du fabricant / Manufacturer's data



ARRI

# SKYPANEL X (DOME & HYPER)

Interview du fabricant en français :

Interview with the manufacturer in French:

https://www.youtube.com/watch?v=dZfWsklh0VY&list=PLW8aVswX2z2Y6fVtZuJdpemmqLPavU5if&index=5

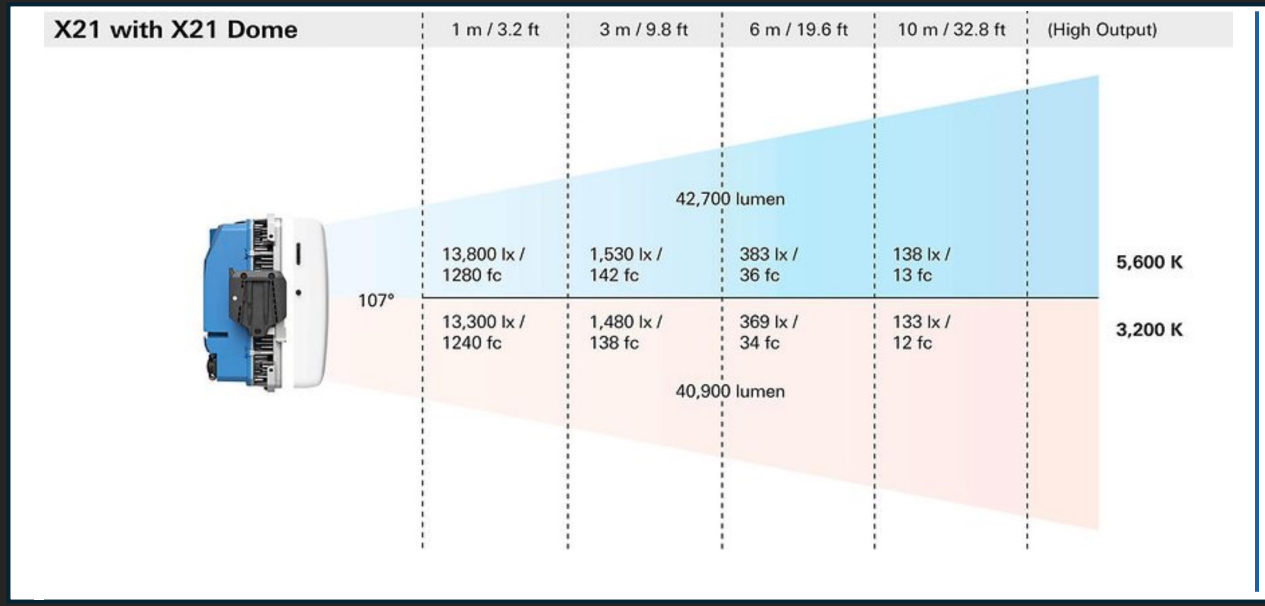
# Plan / Plan

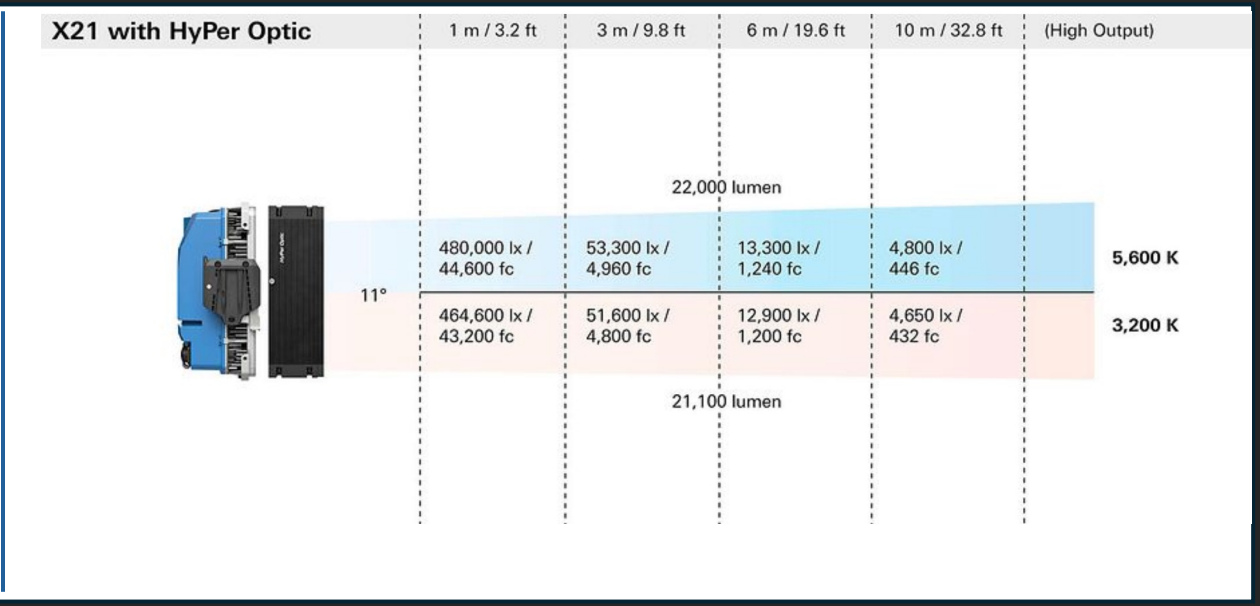
- SKYPANEL X & Images
  - ✓ Peau caucasienne
    - Comparatifs SKYPANEL X vs tungstène
    - Sous-exposition : ND 06 vs gradateur
  - ✓ Peau noire
    - Comparatifs SKYPANEL X avec tungstène
    - Sous-exposition : ND 06 vs gradateur
- Mesures : Explications & exemples
- Mesures
- SKYPANEL X, Spectra & SSI
- SKYPANEL X, Images, Spectra & SSI
- SKYPANEL X, & TM-30
- Données constructeur
- Explications : K, CCT K, Duv & coordonnées x,y

- SKYPANEL X & Images
  - ✓ Caucasian skin tone
    - Comparison SKYPANEL X vs tungsten
    - Underexposure: ND 06 vs dimmer
  - ✓ Black skin tone
    - Comparison SKYPANEL X vs tungsten
    - Underexposure: ND 06 vs dimmer
- Measurements: Explanations & examples
- Measurements
- SKYPANEL X, Spectra & SSI
- SKYPANEL X, Images, Spectra & SSI
- SKYPANEL X & TM-30
- Manufacturer’s data
- Explanations of K, CCT K, Duv & x,y coordinates

# SkyPanel X - Dome vs SkyPanel X – Hyper

## Lumière douce vs Lumière dure / Soft light vs Hard light



# SKYPANEL X
# & Images

CAUCASIAN

Alice

ARRI ALEXA 35

# SKYPANEL X

Comparison with

TUNGSTEN

# Images & données ARRI SKYPANEL X Images & Data

# Images & données ARRI SKYPANEL X Images & Data

# Images & données ARRI SKYPANEL X Images & Data

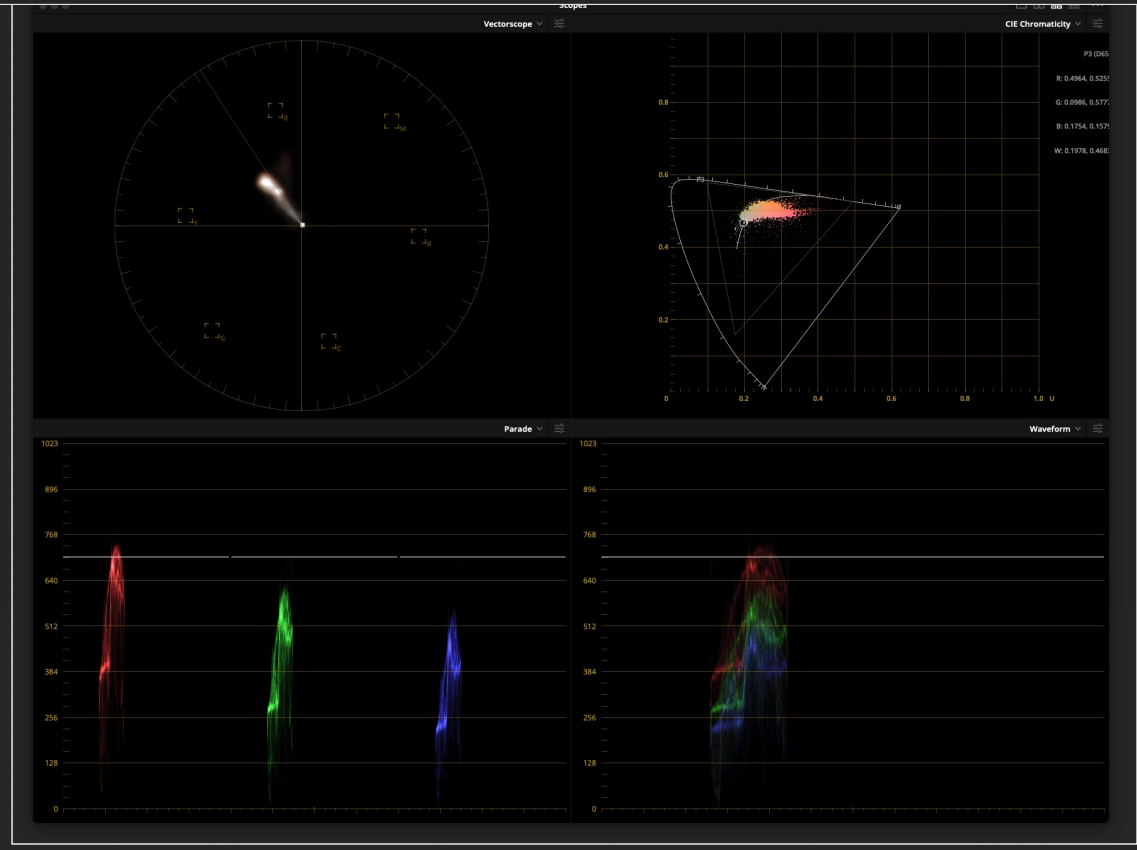
TUNGSTEN REF.

ARRI ALEXA 35

GRADED

SKYPANEL X

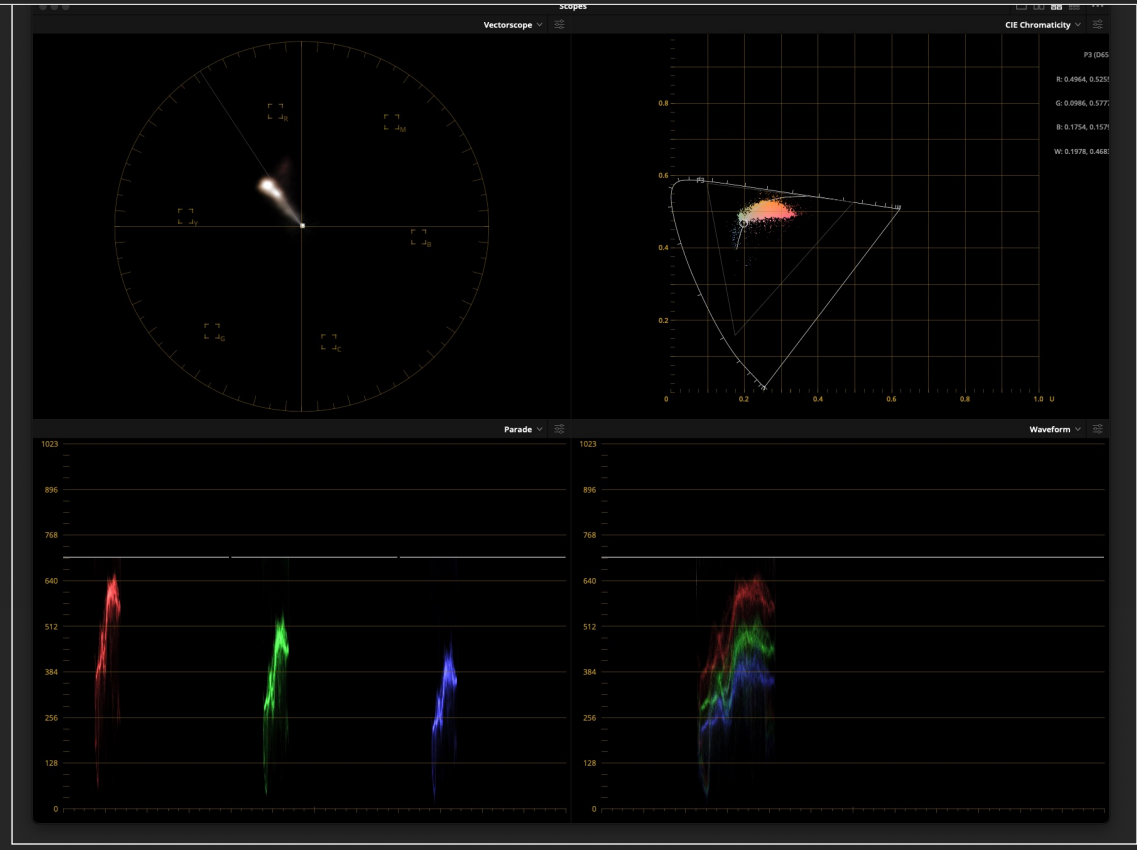
# Images & données ARRI SKYPANEL X Images & Data


ARRI ALEXA 35

GRADED

# Images & données ARRI SKYPANEL X Images & Data


CAUCASIAN

Alice

ARRI ALEXA 35

# ARRI SKYPANEL X

## UNDEREXPOSED (-2 STOPS ND 06)

Comparison with

## DIMMER @ 25%

# UNDEREXPOSED (-2 STOPS ND 06) Comparison with DIMMER @ 25%

Pour vérifier si les gradateurs des projecteurs sont fiables, nous avons fait une comparaison entre deux plans sous-exposés :

- Le premier avec un filtre ND 06
- Le second en diminuant la puissance sur le projecteur à 25%, ce qui entraîne automatiquement une différence d'exposition sur les fonds.

De ce fait, le visage devient la seule référence à comparer.
Pour ramener la correction d'exposition au keylight, on a travaillé en offset en équivalent points de lumière de tirage.

To check whether the projectors' dimmers are reliable, we compared two underexposed shots:

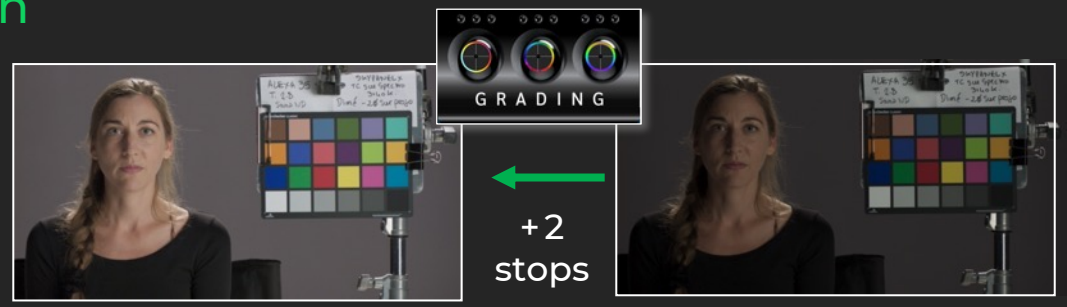
- The first with an ND 06 filter
- The second by dimming down the power on the projector to 25%, which automatically results in a difference in exposure on the backgrounds.

As a result, the face becomes the only reference to compare.
To correct the exposure up to the keylight, we worked in offset like with printer light points.

## Comparison


UNDEREXPOSED
(-2 STOPS ND 06)

Back to Keylight




Back to Keylight

DIMMER @ 25%

UNGRADED


SKYPANEL X

Underexposed -2 stops

GRADED

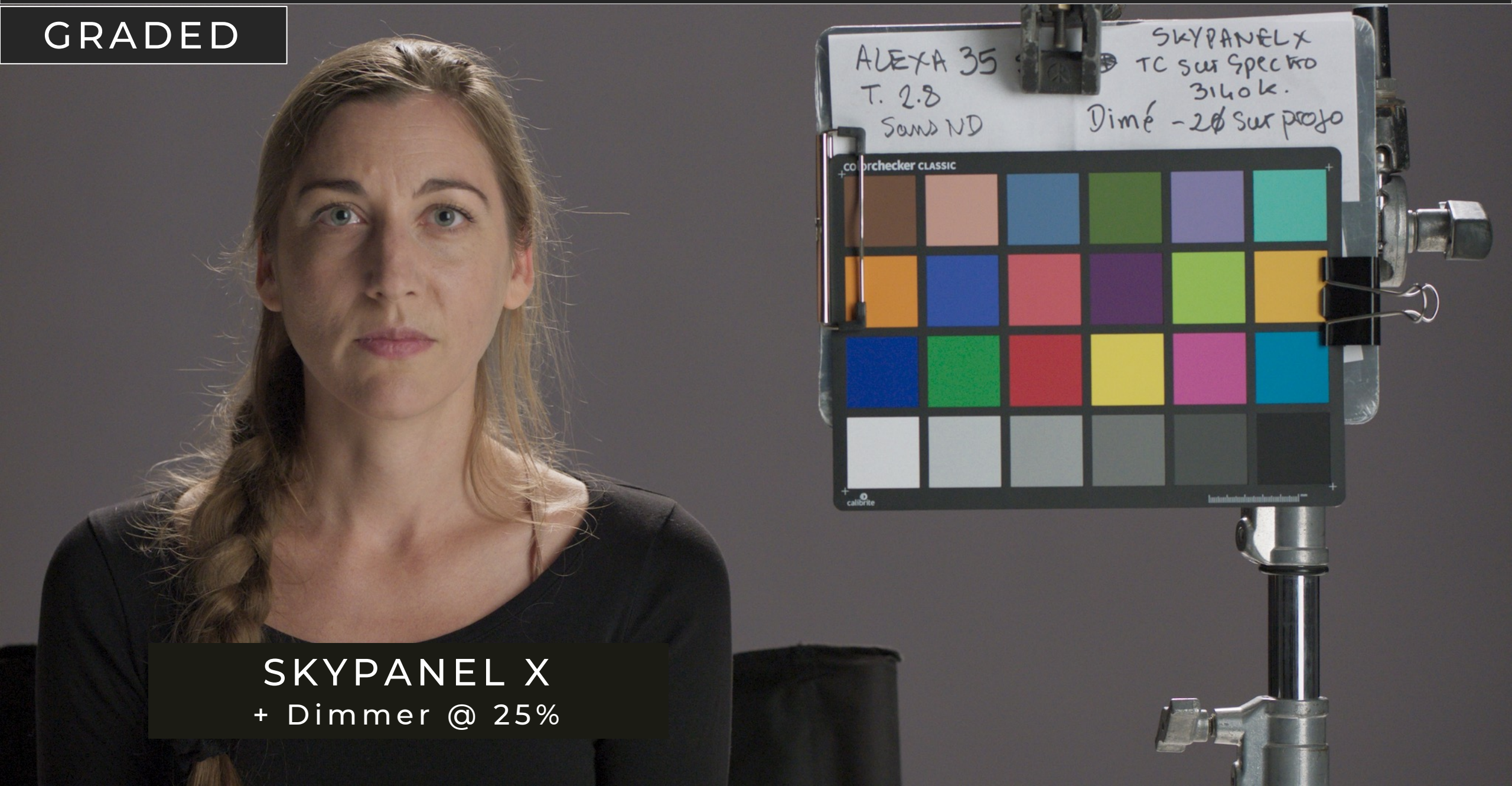

SKYPANEL X

Underexposed -2 stops

UNGRADED

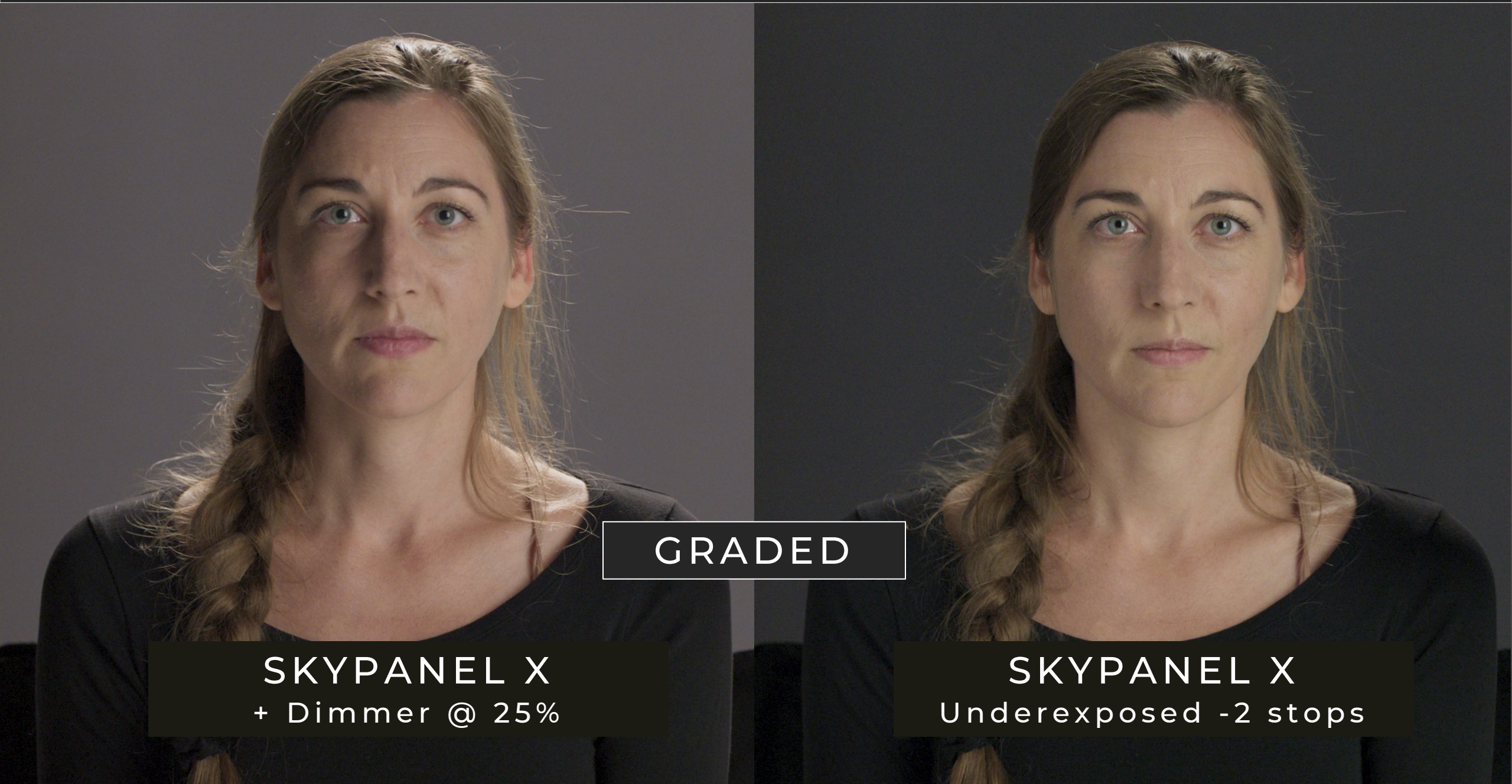

SKYPANEL X
+ Dimmer @ 25%

GRADED




SKYPANEL X
+ Dimmer @ 25%

# Images & données ARRI SKYPANEL X Images & Data



Les mesures comparatives de luminance doivent se faire sur la joue située droite caméra

Comparative luminance measurements should be taken on the cheek located camera right.

GRADED

SKYPANEL X
+ Dimmer @ 25%

SKYPANEL X
Underexposed -2 stops

Les mesures comparatives de luminance doivent se faire sur la joue située droite caméra

Comparative luminance measurements should be taken on the cheek located camera right.

UNGRADED

SKYPANEL X
+ Dimmer @ 25%

SKYPANEL X
Underexposed -2 stops

## BLACK SKIN TONE

Naymee

ARRI ALEXA 35

# SKYPANEL X

Comparison with

TUNGSTEN

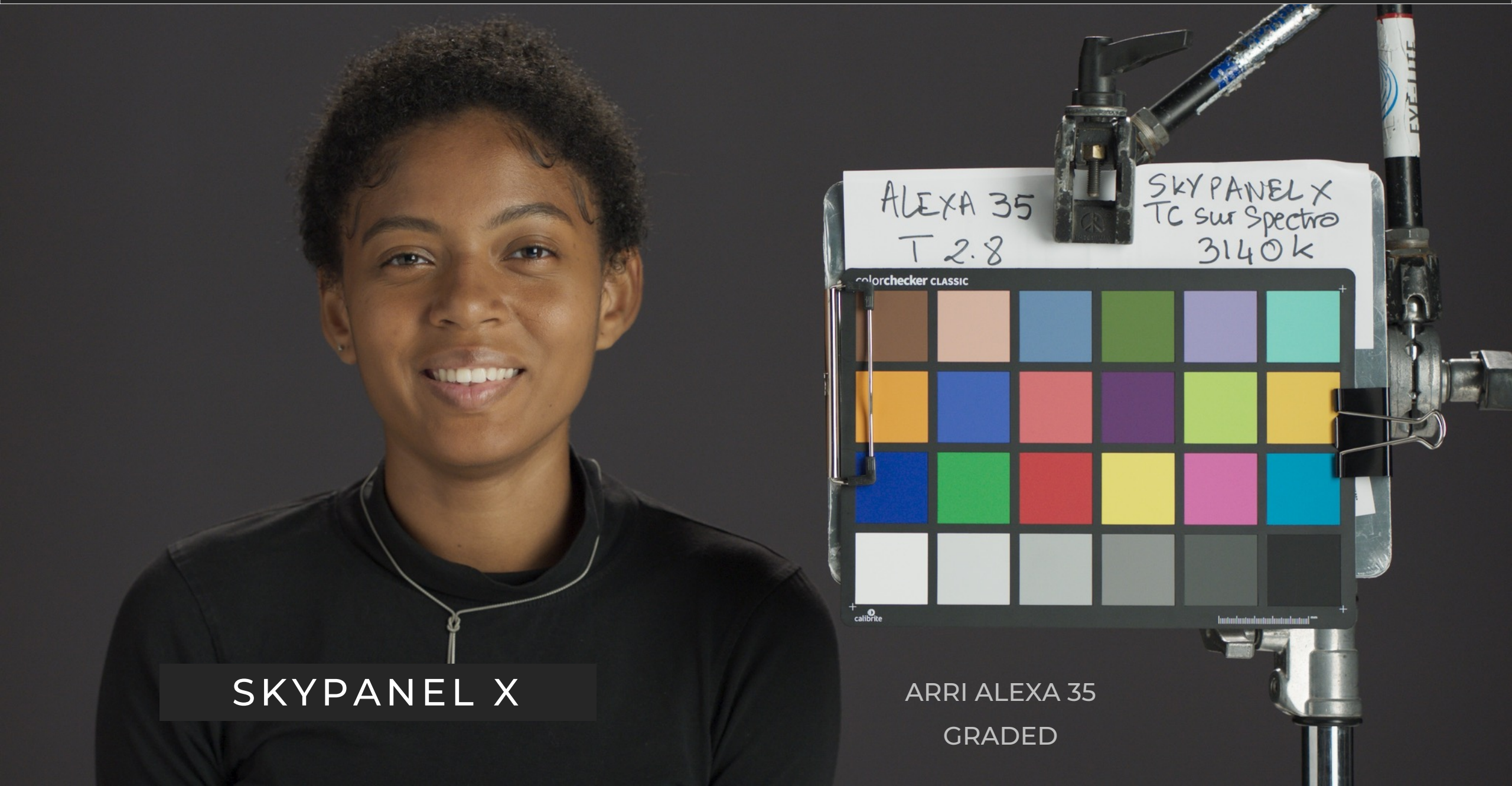
# Images & données ARRI SKYPANEL X Images & Data


TUNGSTEN REF.

ARRI ALEXA 35

GRADED

# Images & données ARRI SKYPANEL X Images & Data




SKYPANEL X

ARRI ALEXA 35

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# Images & données ARRI SKYPANEL X Images & Data

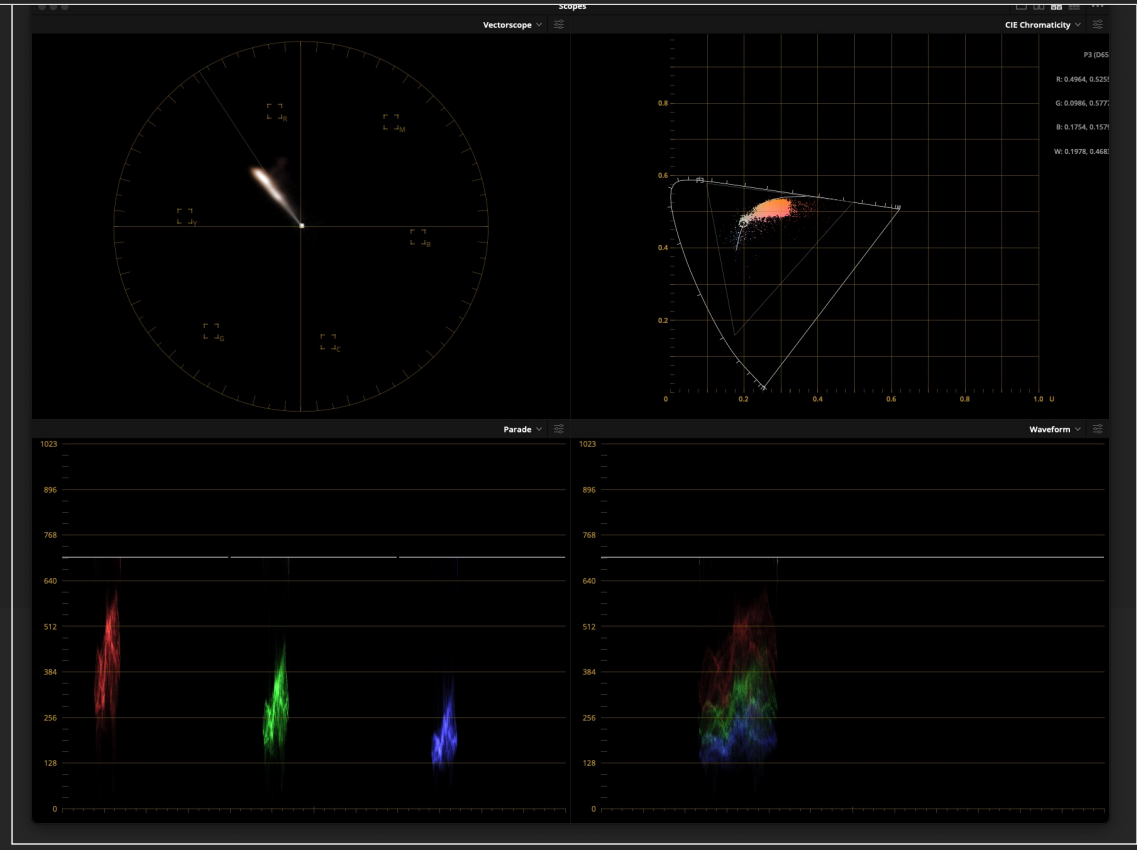
TUNGSTEN REF.

ARRI ALEXA 35

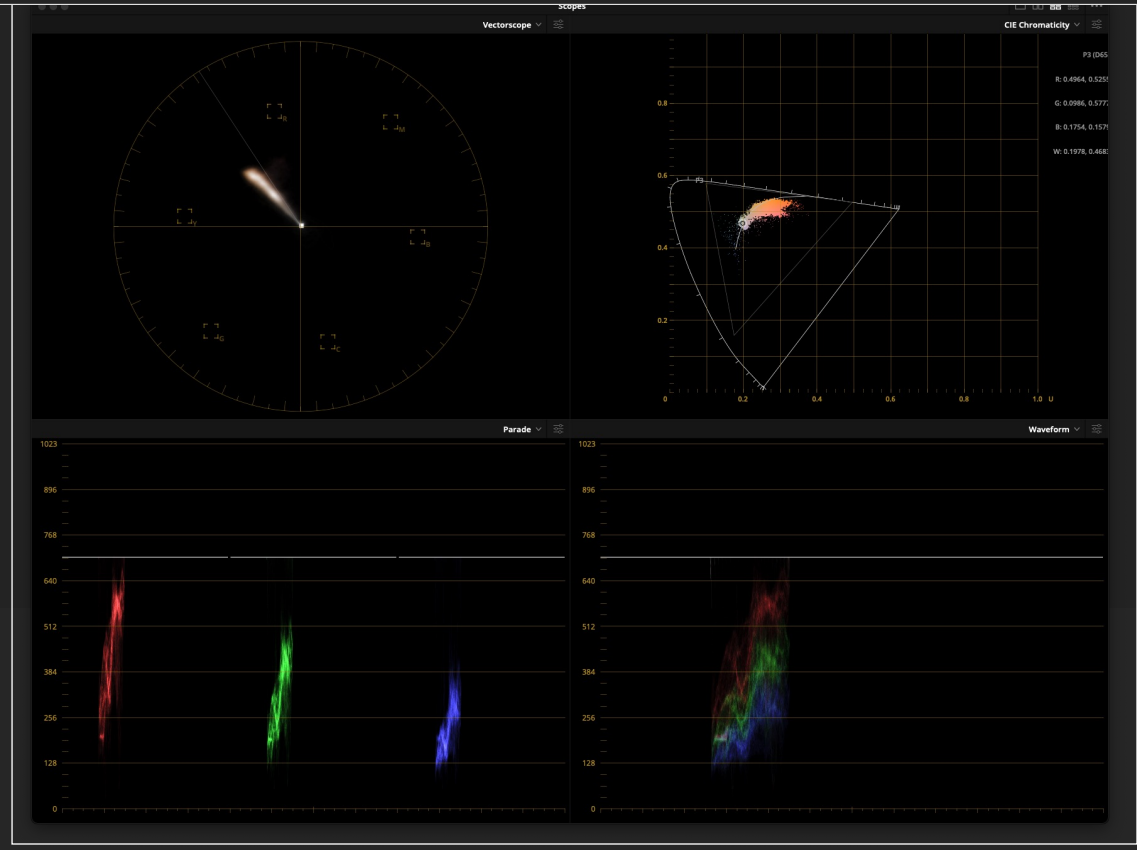
GRADED

SKYPANEL X

# Images & données ARRI SKYPANEL X Images & Data


# Images & données ARRI SKYPANEL X Images & Data


## BLACK SKIN TONE

Naymee

ARRI ALEXA 35

# SKYPANEL X

## UNDEREXPOSED (-2 STOPS ND 06)

Comparison with

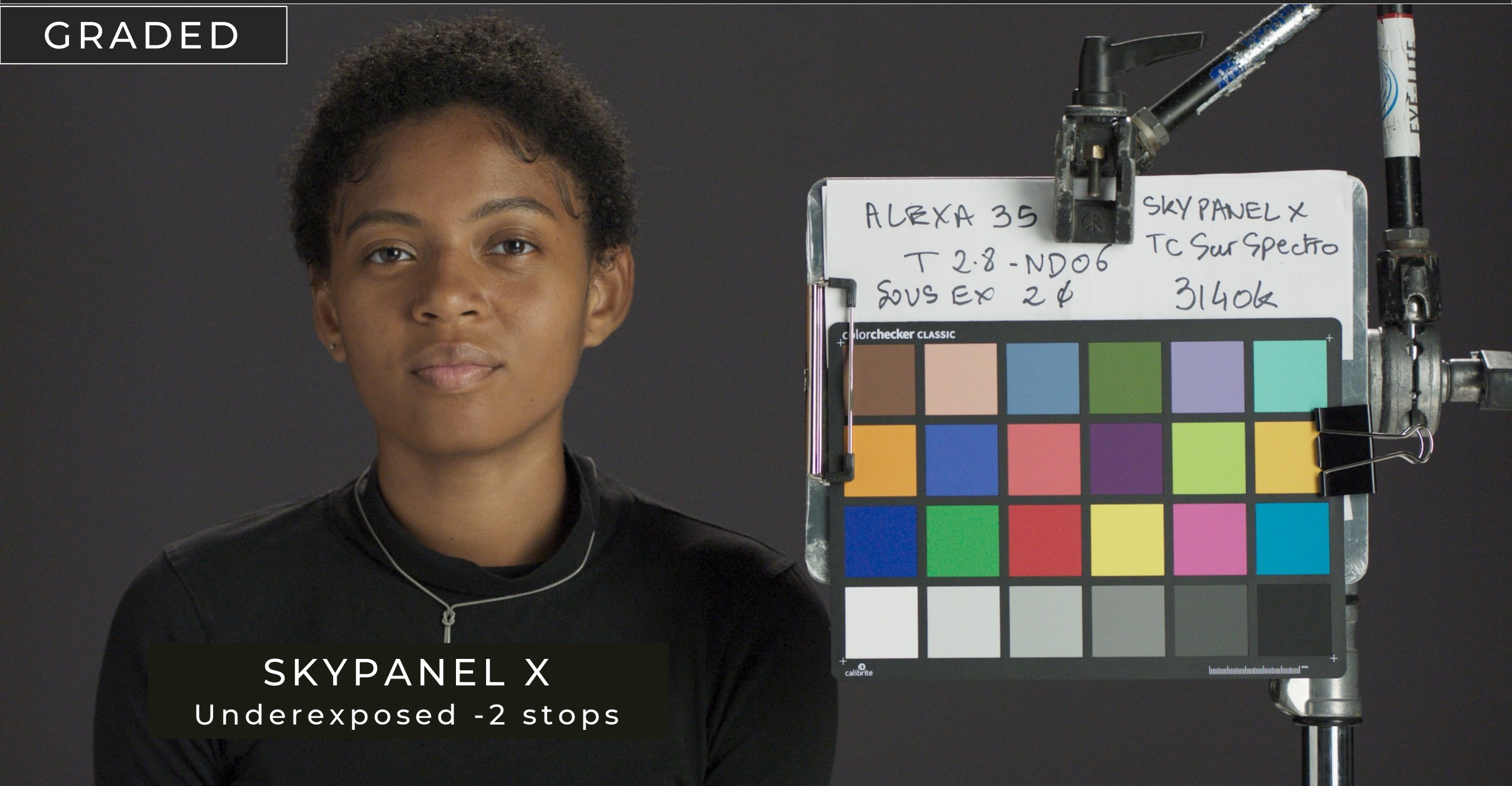
## DIMMER @ 25%

UNGRADED


SKYPANEL X

Underexposed -2 stops

GRADED



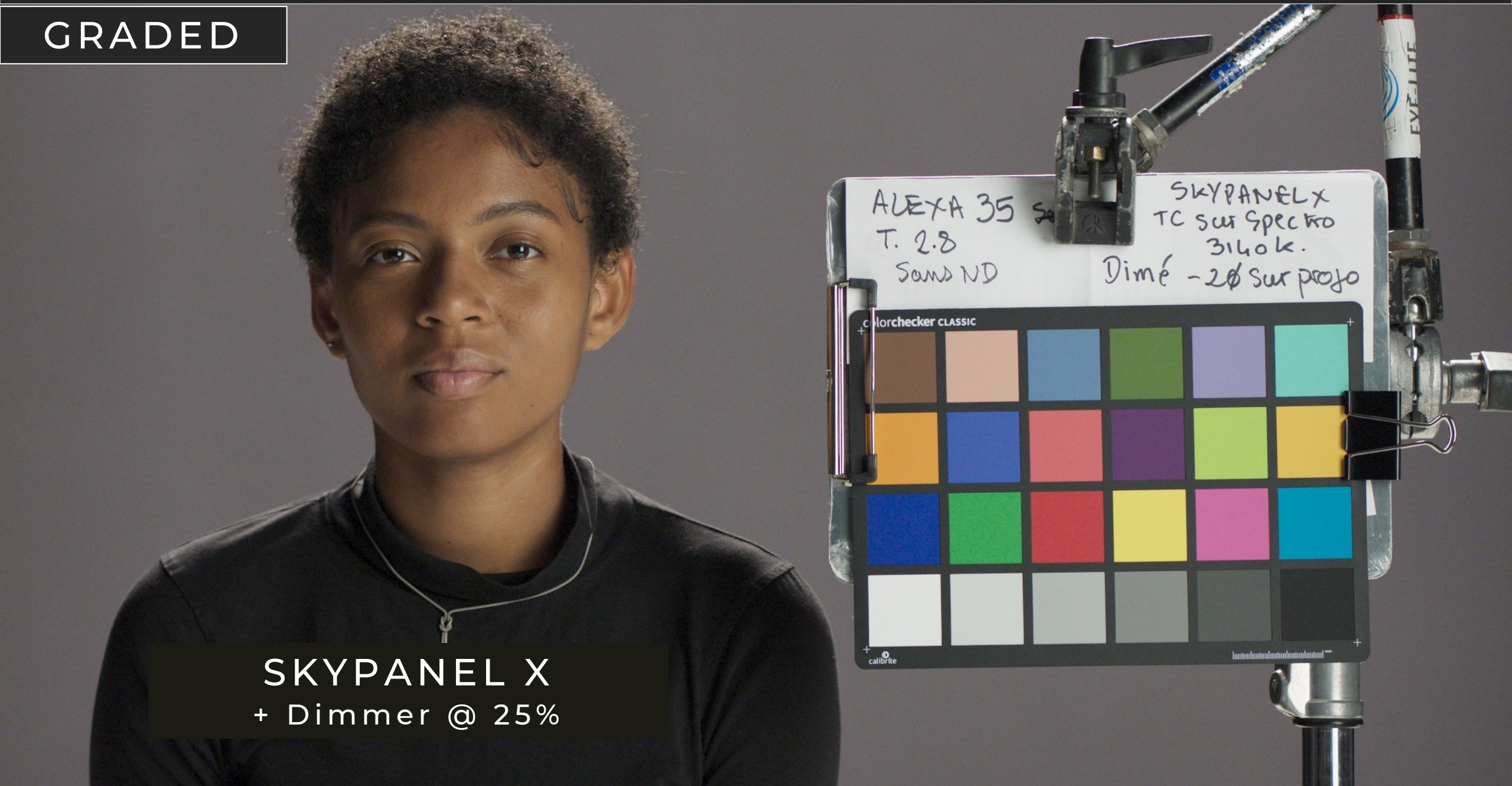

SKYPANEL X

Underexposed -2 stops

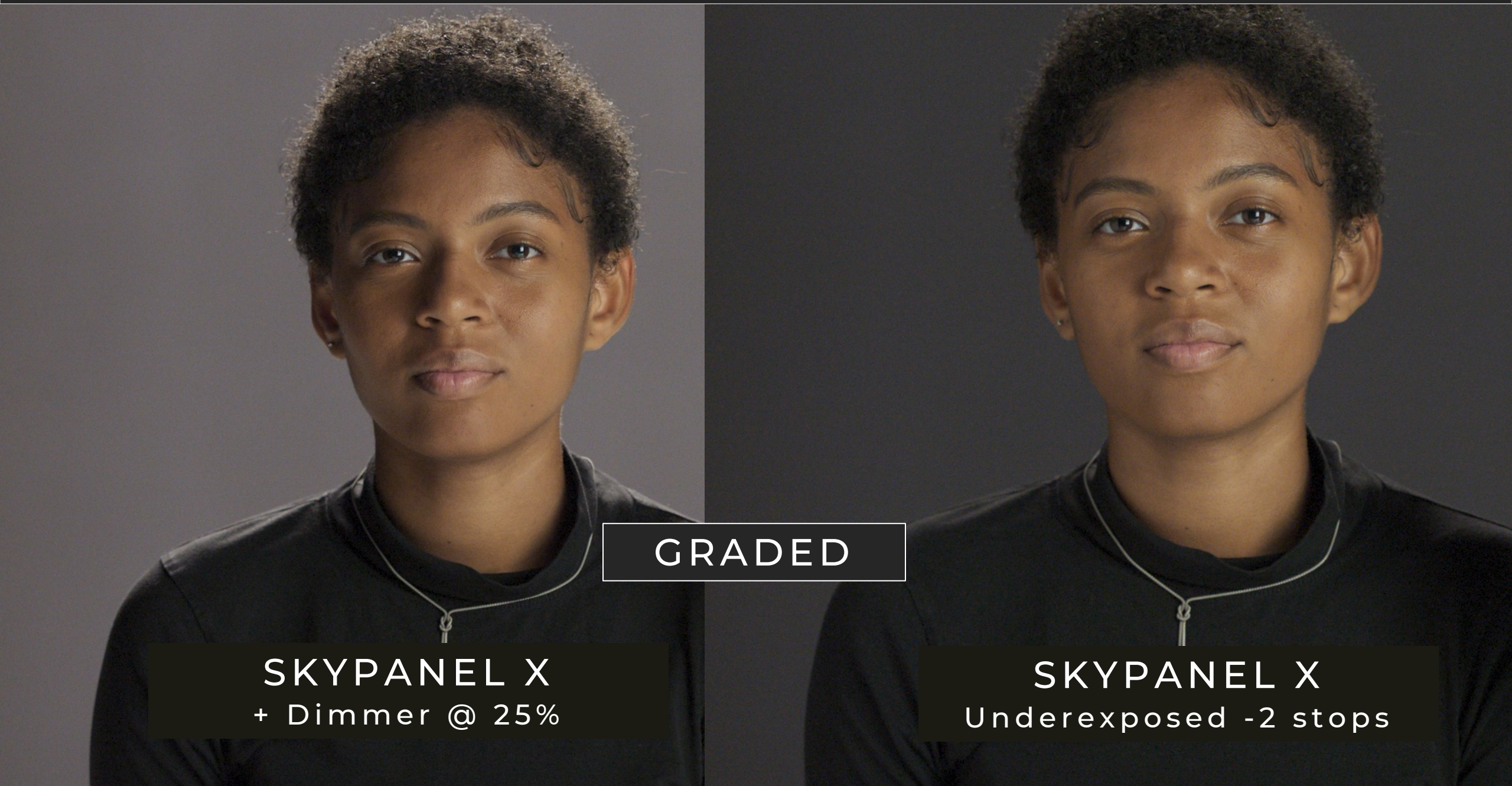
UNGRADED

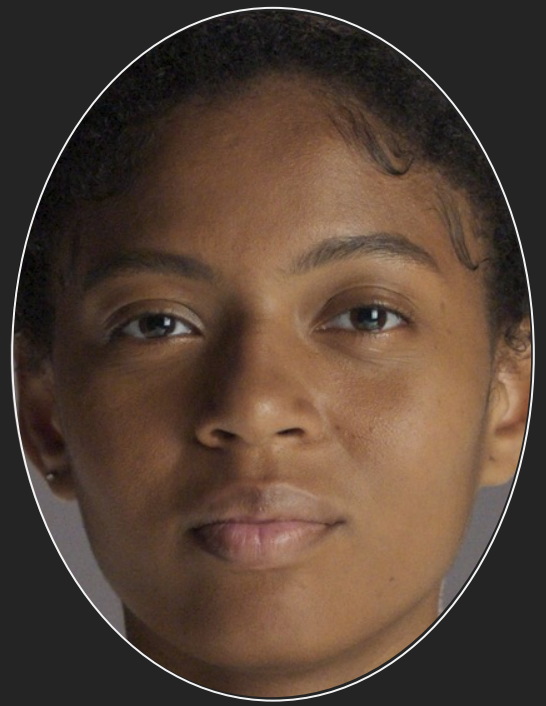

SKYPANEL X
+ Dimmer @ 25%

GRADED


ALEXA 35
T. 2.8
Sans ND
SKYPANEL X
TC sur Spectro
3140 k.
Dimé -2 sur projo
ColorChecker CLASSIC
calibrite
SKYPANEL X
+ Dimmer @ 25%

# Images & données ARRI SKYPANEL X Images & Data





Les mesures
Comparisons doivent
se faire sur la joue
située droite caméra

Comparison
measurements should
be taken on the cheek
located camera right.

GRADED

SKYPANEL X
+ Dimmer @ 25%

SKYPANEL X
Underexposed -2 stops

# Images & données ARRI SKYPANEL X Images & Data

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Comparisons doivent
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Comparison
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UNGRADED

SKYPANEL X
+ Dimmer @ 25%

SKYPANEL X
Underexposed -2 stops

# Mesures

## Explications & exemples

# Measurements

## Explanations & examples

# Explications / Explanation

| Type de données : Type of data: | Temp K * | CCT K * | Duv * | x * | y * | SSI * |
|---|---|---|---|---|---|---|

| Mesurées avec : Measured with: | JETI 1511 HiRes (JTI) | GOSSEN Mavospec Base (GSN) | SEKONIC C-800 |
|---|---|---|---|

| Relatives à : Related to: | Power @ 100% indicated by the LED | Power @ 100% indicated by JETI | Power @ 50% indicated by JETI | Power @ 25% indicated by JETI |
|---|---|---|---|---|

* Explications sur ces données en dernières pages
These data are explained on the last pages

* SSI : Index de similarité spectrale : expliqué dans le dossier JTL 2
SSI: Spectral Similarity Index: explained in the JTL 2 file

* Le calcul du SSI est basé sur une comparaison entre le SPD (Spectral Power Distribution) de la source à tester avec celui de l'illuminant standardisé CIE D55 (5503 K).

The calculation of the SSI is based on a comparison between the SPD (Spectral Power Distribution) of the source to be tested and that of the CIE D55 standard illuminant (5503 K).

## Les comparaisons entre les différents appareils de mesure

- Le but de cette métrologie était aussi de comparer les mesures entre un appareil de laboratoire (JETI) et des appareils de terrain (Sekonic & Gossen)

## Comparisons between different measuring equipment

- The aim of this metrology was also to compare measurements between a laboratory instrument (JETI) and field instruments (Sekonic & Gossen)




| Mesures prises avec : Measurements taken with: | JETI 1511 HiRes (JTI) | Gossen Mavospec Base (GSN) | Sekonic C800 |
|---|---|---|---|

# Explications / Explanation

Coordonnée x (CIE 1931 2°)
x coordinate (CIE 1931 2°)

Coordonnée y (CIE 1931 2°)
y coordinate (CIE 1931 2°)

Distance des coordonnées x y avec le corps noir
Distance of the x y coordinates from the black body

| Type de données : Type of data: | Temp K | CCT K | Duv | x | y | SSI |
|---|---|---|---|---|---|---|

Température de couleur
Color temperature

Température de couleur corrélée donnée par le LED
Correlated color temperature provided by the LED

Index de similarité spectrale
Spectral Similarity Index

# Example on SKYPANEL X - DOME

| LIGHT | | | JETI 1511 HiRes | | | | | |
|---|---|---|---|---|---|---|---|---|
| Ref | Power | Temp K | CCT K | Duv | x | y | SPD TEST csv | SSI |
| SKYPANEL DOME X RGBACL | 100% | CCT set on **LED** - 3200 | 3145 | -0,001 | 0,4259 | 0,398 | JTI_SKYPANEL-X_DOME_P3200_**LED_100%** | 72 |

Température de couleur corrélée donnée par le LED
Correlated color temperature provided by the LED

| Type de données : Type of data: | Temp K | CCT K | Duv | x | y | SSI |
|---|---|---|---|---|---|---|

Température de couleur corrélée donnée par le JETI
Correlated color temperature provided by the JETI

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SKYPANEL DOME X RGBACL | 100% | CCT set on JETI - 3200 | 3196 | -0,001 | 0,4225 | 0,3966 | JTI_SKYPANEL-X_DOME_P3200_**JTI_100%** | 73 |

# Example on SKYPANEL X - DOME

| LIGHT | | | JETI 1511 HiRes | | | | | |
|---|---|---|---|---|---|---|---|---|
| Ref | Power | Temp K | CCT K | Duv | x | y | SPD TEST csv | SSI |
| SKYPANEL DOME X RGBACL | 100% | CCT set on **LED** - 3200 | 3145 | -0,001 | 0,4259 | 0,398 | JTI_SKYPANEL-X_DOME_P3200_**LED_100%** | 72 |

| Relatives à :<br>Related to: | Power @ 100% indicated by the LED | Power @ 100% indicated by JETI | Power @ 50% indicated by JETI | Power @ 25% indicated by JETI |
|---|---|---|---|---|

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SKYPANEL DOME X RGBACL | 100% | CCT set on **JETI** - 3200 | 3196 | -0,001 | 0,4225 | 0,3966 | JTI_SKYPANEL-X_DOME_P3200_**JTI_100%** | 73 |

# Images & données ARRI SKYPANEL X Images & Data

Pourquoi tester à différentes puissances ?
100%, 50%, 25% ?

/

Why test at different power levels?
100%, 50%, 25%?

- Dans le passé, on a souvent pu constater des différences de température de couleur et d'index de qualité lors des changement de puissance

- In the past, we have often seen differences in colour temperature and quality index when changing power.

| Données relatives à : Data related to: | Power @ 100% indicated by the LED | Power @ 100% indicated by JETI | Power @ 50% indicated by JETI | Power @ 25% indicated by JETI |
|---|---|---|---|---|

# SSI Scores

La valeur SSI est toujours indiquée par rapport à une référence, laquelle est indiquée entre crochets, exemples :

The SSI value is always indicated in relation to a reference, which is indicated in square bracket, examples:

SSI[P3200] 86

SSI[CIE D55] 78

| 0 - 70 | 70 - 80 | 80 - 90 | 90 - 100 |
|---|---|---|---|
| Problèmes de rendu de couleur<br>Color rendering issues | Problèmes possibles<br>Possible problems | Bon<br>Good | Excellent<br>Excellent |

# Mesures

# Measurements

## SKYPANEL X - DOME

3200 K

5600 K

## SKYPANEL X - HYPER

# 3200 K

# SKYPANEL X - DOME

| LIGHT | | | JETI 1511 HiRes | | | | | |
|---|---|---|---|---|---|---|---|---|
| Ref | Power | Temp K | CCT K | Duv | x | y | SPD TEST | SSI |
| VISUAL TUNGSTEN REF. | 100% | 3200 | 3012 | 0,001 | 0,4372 | 0,406 | TUNGSTEN | 93 |
| SKYPANEL DOME X RGBACL | 100% | CCT set on **LED** - 3200 | 3145 | -0,001 | 0,4259 | 0,398 | JTI_SKYPANEL-X_DOME_P3200_**LED_100%** | 72 |
| SKYPANEL DOME X RGBACL | 100% | CCT set on **JETI** - 3200 | 3196 | -0,001 | 0,4225 | 0,3966 | JTI_SKYPANEL-X_DOME_P3200_**JTI_100%** | 73 |
| SKYPANEL DOME X RGBACL | 50% | CCT set on **JETI** - 3200 | 3152 | -0,001 | 0,4248 | 0,3964 | JTI_SKYPANEL-X_DOME_P3200_**JTI_50%** | 71 |
| SKYPANEL DOME X RGBACL | 25% | CCT set on **JETI** - 3200 | 3168 | -0,001 | 0,4235 | 0,3955 | JTI_SKYPANEL-X_DOME_P3200_**JTI_25%** | 68 |

| SEKONIC C-800 | | | GOSSEN MAVOSPEC BASE | | | |
|---|---|---|---|---|---|---|
| CCT | Duv | SSI | CCT | Duv | SSI | SPD TEST |
| 3023 | 0,0002 | 96 | - | - | - | VISUAL REF-TUNGSTEN |
| 3184 | 0 | 74 | 3131 | -0,0004 | 75 | GSN_SKYPANEL-X_DOME_P3200_**LED_100%** |
| 3239 | -0,0002 | 74 | 3188 | -0,0003 | 76 | GSN_SKYPANEL-X_DOME_P3200_**JTI_100%** |
| 3162 | -0,0007 | 73 | 3133 | -0,0006 | 74 | GSN_SKYPANEL-X_DOME_P3200_**JTI_50%** |
| 3153 | 0,0004 | 72 | 3149 | -0,0008 | 71 | GSN_SKYPANEL-X_DOME_P3200_**JTI_25%** |

# 3200 K

# SKYPANEL X - HYPER

| LIGHT | | | JETI 1511 HiRes | | | | | |
|---|---|---|---|---|---|---|---|---|
| Ref | Power | Temp K | CCT K | Duv | x | y | SPD TEST | SSI |
| VISUAL REF. TUNGSTEN | 100% | 3200 | 3012 | 0,001 | 0,4372 | 0,406 | TUNGSTEN | 93 |
| SKYPANEL X HYPEROPTIC RGBACL | 100% | CCT set on **LED** - 3200 | 3111 | -0,001 | 0,4273 | 0,397 | JTI_SKYPANEL-X_HYPER_P5600_**LED_100%** | 72 |
| SKYPANEL X HYPEROPTIC RGBACL | 100% | CCT set on **JETI** - 3200 | 3215 | -0,001 | 0,4205 | 0,3943 | JTI_SKYPANEL-X_HYPER_P3200_**JTI_100%** | 72 |
| SKYPANEL X HYPEROPTIC RGBACL | 50% | CCT set on **JETI** - 3200 | 3170 | -0,002 | 0,4228 | 0,394 | JTI_SKYPANEL-X_HYPER_P3200_**JTI_50%** | 71 |
| SKYPANEL X HYPEROPTIC RGBACL | 25% | CCT set on **JETI** - 3200 | 3185 | -0,002 | 0,4218 | 0,3936 | JTI_SKYPANEL-X_HYPER_P3200_**JTI_25%** | 68 |

| SEKONIC C-800 | | | GOSSEN MAVOSPEC BASE | | | |
|---|---|---|---|---|---|---|
| CCT | Duv | SSI | CCT | Duv | SSI | SPD TEST |
| 3023 | 0,0002 | 96 | - | - | - | VISUAL TUNGSTEN REF. |
| 3168 | 0 | 74 | 3100 | -0,0007 | 75 | GSN_JTI_SKYPANEL-X_HYPER_P3200_**LED_100%** |
| 3265 | -0,0003 | 74 | 3234 | -0,0003 | 75 | GSN_SKYPANEL-X_HYPER_P3200_**JTI_100%** |
| 3223 | -0,0005 | 73 | 3156 | -0,0011 | 74 | GSN_SKYPANEL-X_HYPER_P3200_**JTI_50%** |
| 3243 | -0,001 | 70 | 3166 | -0,0011 | 72 | GSN_SKYPANEL-X_HYPER_P3200_**JTI_25%** |

# SKYPANEL X - DOME

**5600 K**

| LIGHT | | | JETI 1511 HiRes | | | | | |
|---|---|---|---|---|---|---|---|---|
| Ref | Power | Temp K | CCT K | Duv | x | y | SPD TEST | SSI |
| SKYPANEL DOME X RGBACL | 100% | CCT set on **LED** - 5600 | 5507 | 0,002 | 0,3323 | 0,3456 | JTI_SKYPANEL-X_DOME_P5600_**LED_100%** | 67 |
| SKYPANEL DOME X RGBACL | 100% | CCT set on **JETI** - 5600 | 5618 | 0,003 | 0,3298 | 0,3436 | JTI_SKYPANEL-X_DOME_P5600_**JTI_100%** | 67 |
| SKYPANEL DOME X RGBACL | 50% | CCT set on **JETI** - 5600 | 5614 | 0,002 | 0,3299 | 0,3435 | JTI_SKYPANEL-X_DOME_P5600_**JTI_50%** | 67 |
| SKYPANEL DOME X RGBACL | 25% | CCT set on **JETI** - 5600 | 5693 | 0,002 | 0,3281 | 0,342 | JTI_SKYPANEL-X_DOME_P5600_**JTI_25%** | 64 |

| SEKONIC C-800 | | | GOSSEN MAVOSPEC BASE | | | |
|---|---|---|---|---|---|---|
| CCT | Duv | SSI | CCT | Duv | SSI | SPD TEST |
| 5645 | 0,0029 | 68 | 5411 | 0,0036 | 70 | GSN_SKYPANEL-X_DOME_P5600__**LED_100** |
| 5751 | 0,0032 | 69 | 5512 | 0,0038 | 70 | GSN_SKYPANEL-X_DOME_P5600_**JTI_100%** |
| 5644 | 0,0026 | 64 | 5496 | 0,0036 | 70 | GSN_SKYPANEL-X_DOME_P5600_**JTI_50%** |
| 5740 | 0,0025 | 67 | 5578 | 0,0038 | 67 | GSN_SKYPANEL-X_DOME_P5600_**JTI_50%** |

# SKYPANEL X - HYPER

**5600 K**

| LIGHT | | | JETI 1511 HiRes | | | | | |
|---|---|---|---|---|---|---|---|---|
| Ref | Power | Temp K | CCT K | Duv | x | y | SPD TEST | SSI |
| SKYPANEL X HYPEROPTIC RGBACL | 100% | CCT set on **LED** - 5600 | 5523 | 0,003 | 0,332 | 0,3467 | JTI_SKYPANEL-X_HYPER_P5600_**LED_100%** | 68 |
| SKYPANEL X HYPEROPTIC RGBACL | 100% | CCT set on **JETI** - 5600 | 5598 | 0,003 | 0,3303 | 0,3452 | JTI_SKYPANEL-X_HYPER_P5600_**JTI_100%** | 68 |
| SKYPANEL X HYPEROPTIC RGBACL | 50% | CCT set on **JETI** - 5600 | 5583 | 0,003 | 0,3306 | 0,3451 | JTI_SKYPANEL-X_HYPER_P5600_**JTI_50%** | 67 |
| SKYPANEL X HYPEROPTIC RGBACL | 25% | CCT set on **JETI** - 5600 | 5655 | 0,003 | 0,329 | 0,3442 | JTI_SKYPANEL-X_HYPER_P5600_**JTI_25%** | 64 |

| SEKONIC C-800 | | | GOSSEN MAVOSPEC BASE | | | |
|---|---|---|---|---|---|---|
| CCT | Duv | SSI | CCT | Duv | SSI | SPD TEST |
| 5578 | 0,0043 | 69 | 5347 | 0,0045 | 71 | GSN_SKYPANEL-X_HYPER_P5600__**LED_100** |
| 5709 | 0,0044 | 69 | 5442 | 0,0046 | 71 | GSN_SKYPANEL-X_HYPER_P5600_**JTI_100%** |
| 5677 | 0,0037 | 68 | 5406 | 0,0043 | 70 | GSN_SKYPANEL-X_HYPER_P5600_**JTI_50%** |
| 5759 | 0,0038 | 66 | 5481 | 0,0046 | 68 | GSN_SKYPANEL-X_HYPER_P5600_**JTI_25%** |

# SKYPANEL X

## DOME & HYPER

3200 K

5600 K

## Spectra & SSI

## TM-30-18 & CRI

JETI

# Images & données ARRI SKYPANEL X Images & Data

Manufacturer

PROJECTOR

Power: 100% - CCT set on JETI

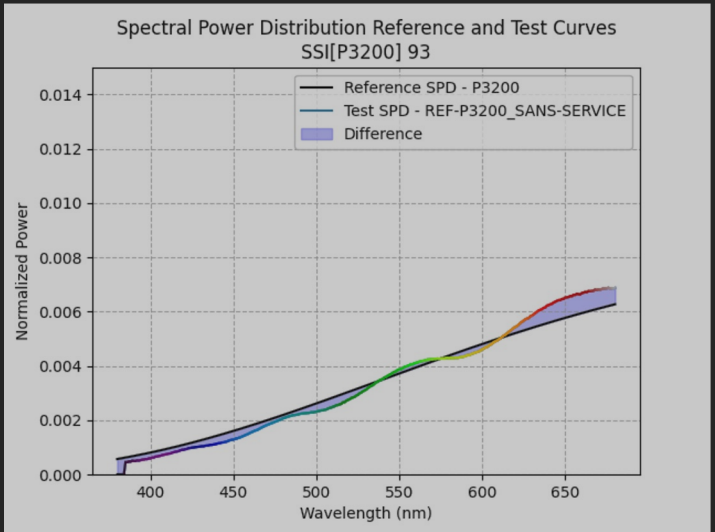
CCT 3012 Duv 0,001

CIE 1931 2° x 0.4372 y 0.4060

CRI Ra 97.51

IES TM-30-18 Rf 98 Rg 100

SSI[P3200] 93

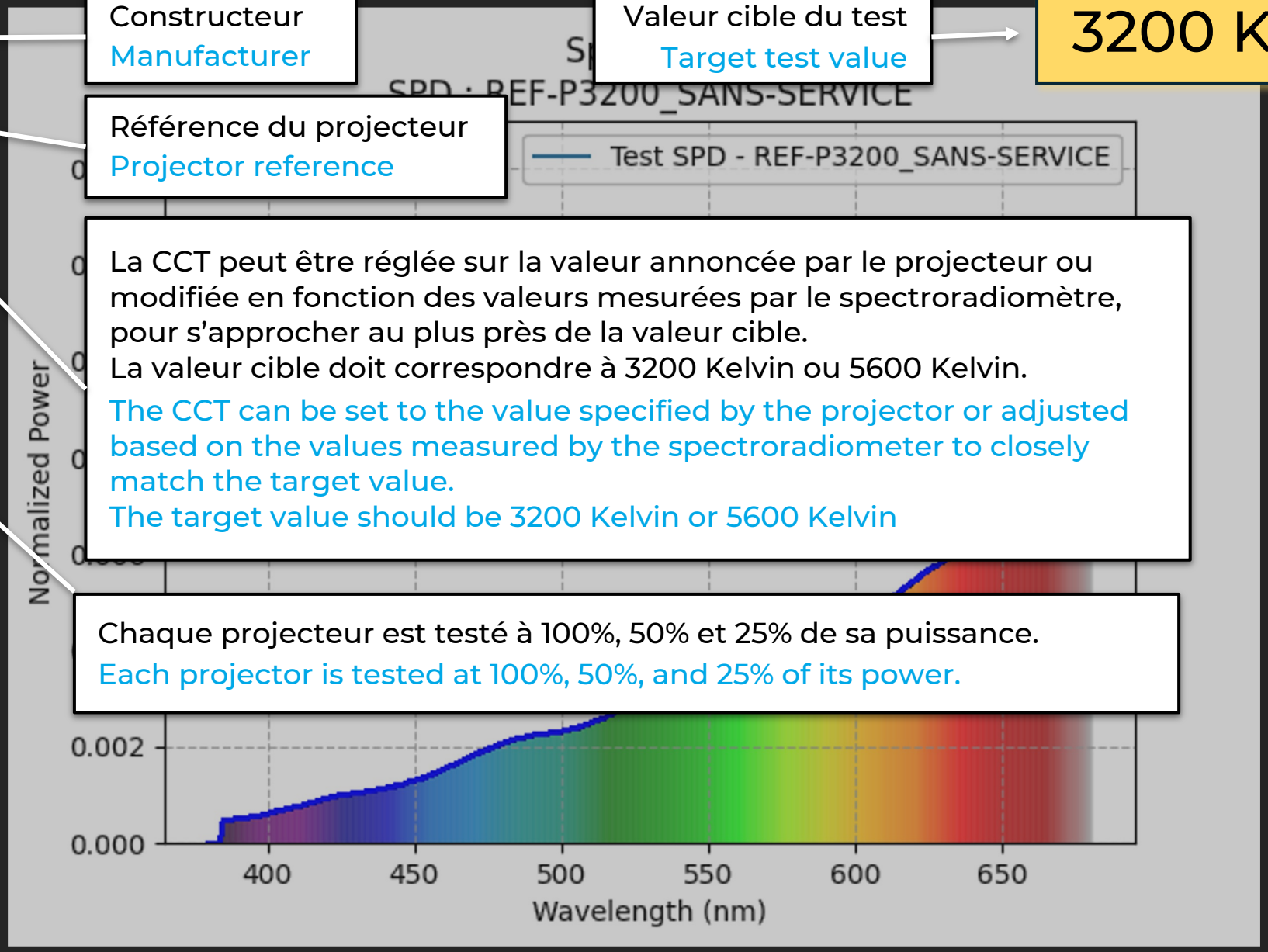



Constructeur
Manufacturer

Référence du projecteur
Projector reference

Valeur cible du test
Target test value

3200 K




La CCT peut être réglée sur la valeur annoncée par le projecteur ou modifiée en fonction des valeurs mesurées par le spectroradiomètre, pour s'approcher au plus près de la valeur cible.
La valeur cible doit correspondre à 3200 Kelvin ou 5600 Kelvin.

The CCT can be set to the value specified by the projector or adjusted based on the values measured by the spectroradiometer to closely match the target value.
The target value should be 3200 Kelvin or 5600 Kelvin

Chaque projecteur est testé à 100%, 50% et 25% de sa puissance.

Each projector is tested at 100%, 50%, and 25% of its power.

# Images & données ARRI SKYPANEL X Images & Data

Manufacturer

PROJECTOR

Power: 100% - CCT set on JETI

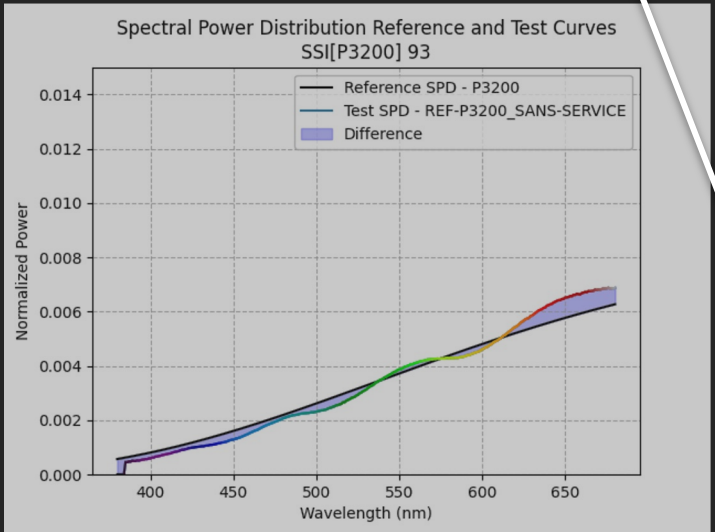
CCT 3012 Duv 0,001

CIE 1931 2° x 0.4372 y 0.4060

CRI Ra 97.51

IES TM-30-18 Rf 98 Rg 100

SSI[P3200] 93




CCT et Duv mesurés par le spectroradiomètre
CCT and Duv measured by the spectroradiometer

3200 K

https://cie.co.at/publications/colorimetry-part-1-cie-standard-colorimetric-observers-0
Coordonnées en x et y basées sur l'observateur CIE 1931 de référence 2°
Coordinates in x and y based on the CIE 1931 standard observer 2°

**CIE 13.3-1995 CRI Color Rendering Index**
**$R_a$** est la valeur de l'indice de rendu des couleurs basé sur la valeur moyenne des 8 premières couleurs de test. C'est la Valeur CRI usuelle.
La valeur **$R_e$** peut être trouvée dans l'annexe des mesures.
$R_a$ is the color rendering index value based on the average of the first 8 test colors. This is the usual CRI value.
The $R_e$ value can be found in the appendix of the measurements.

**IES TM-30-18** https://webstore.ansi.org/standards/iesna/ansiiestm3020
Color fidelity **$R_f$** mesure la ressemblance ou la dissemblance des couleurs aux couleurs références (similaire au CRI).
Gamut **$R_g$** Donne le niveau de saturation de la couleur. Les valeurs inférieures à 100 indiquent une saturation inférieure à la référence.
Color fidelity $R_f$ measures the similarity or dissimilarity of colors to the reference colors (similar to CRI).
Gamut $R_g$ indicates the level of color saturation. Values below 100 indicate a saturation lower than the reference.

# Images & données ARRI SKYPANEL X Images & Data

3200 K

Manufacturer

PROJECTOR

Power: 100% - CCT set on JETI

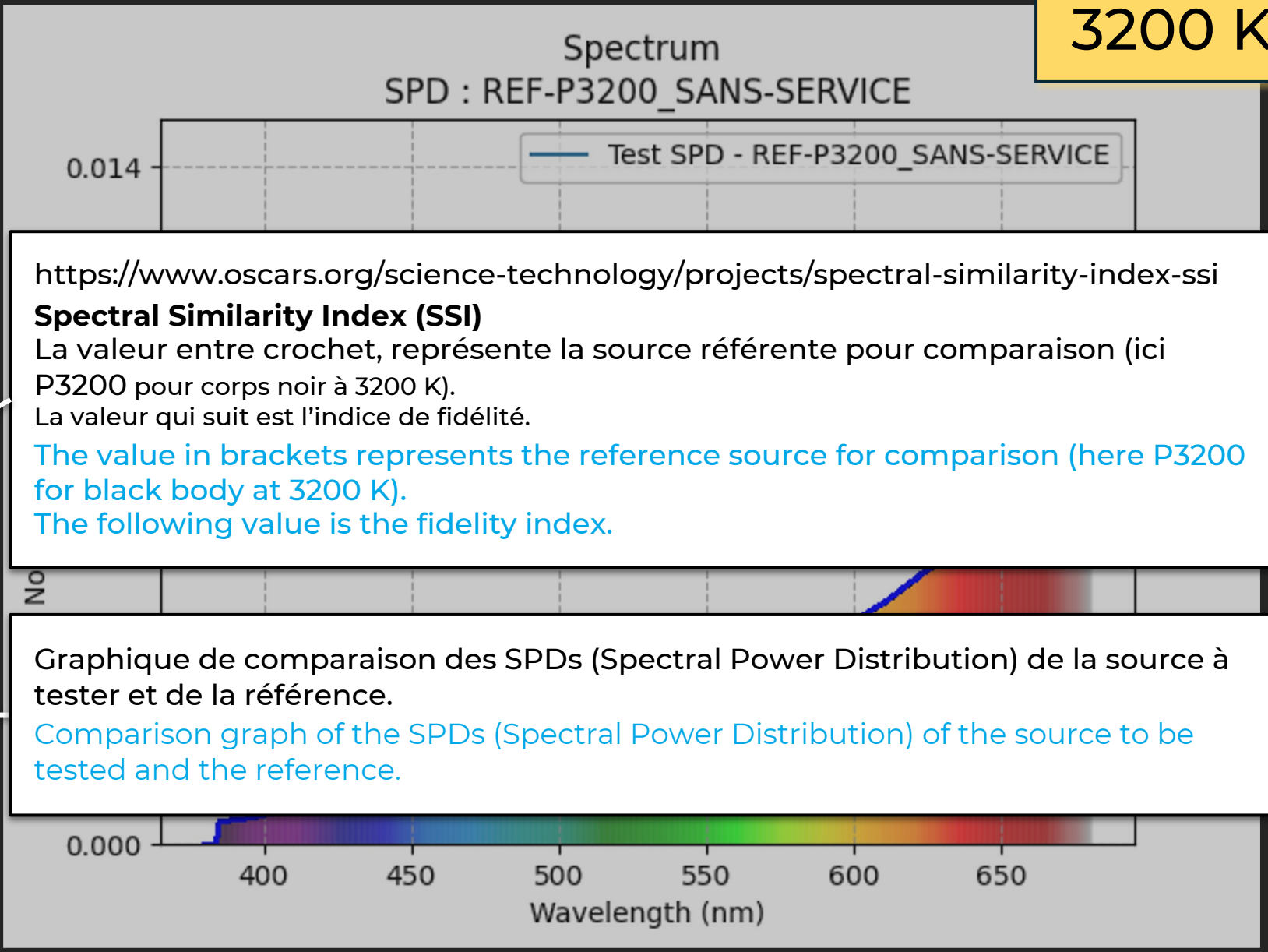
CCT 3012 Duv 0,001

CIE 1931 2° x 0.4372 y 0.4060

CRI Ra 97.51

IES TM-30-18 Rf 98 Rg 100

**SSI[P3200] 93**




https://www.oscars.org/science-technology/projects/spectral-similarity-index-ssi

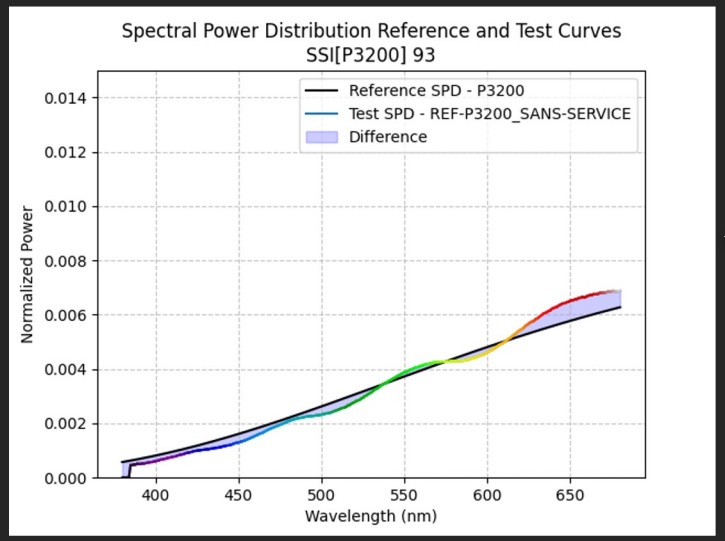
**Spectral Similarity Index (SSI)**

La valeur entre crochet, représente la source référente pour comparaison (ici P3200 pour corps noir à 3200 K).

La valeur qui suit est l'indice de fidélité.

The value in brackets represents the reference source for comparison (here P3200 for black body at 3200 K).

The following value is the fidelity index.




Graphique de comparaison des SPDs (Spectral Power Distribution) de la source à tester et de la référence.

Comparison graph of the SPDs (Spectral Power Distribution) of the source to be tested and the reference.

# SKYPANEL X

## DOME

**3200 K**

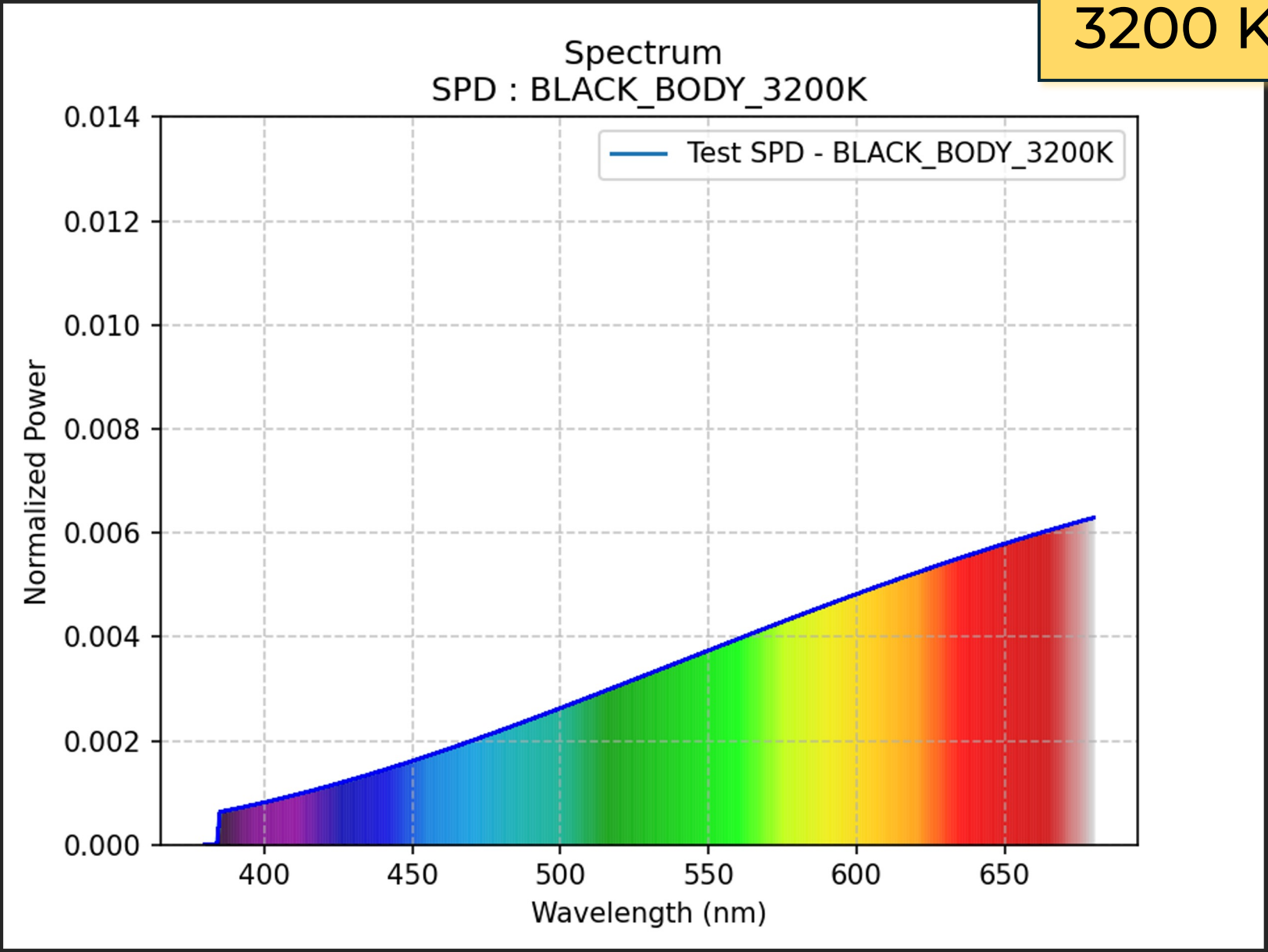
JETI

# SSI REFERENCE

## Corps noir / Black body

3200 K

3200 K



# SOURCE TUNGSTEN Comparison

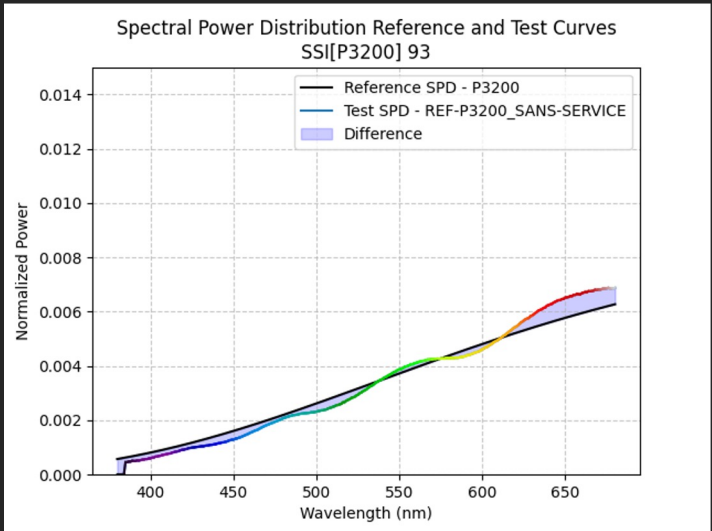
CCT 3012 Duv 0,001

CIE 1931 2° x 0.4372 y 0.4060

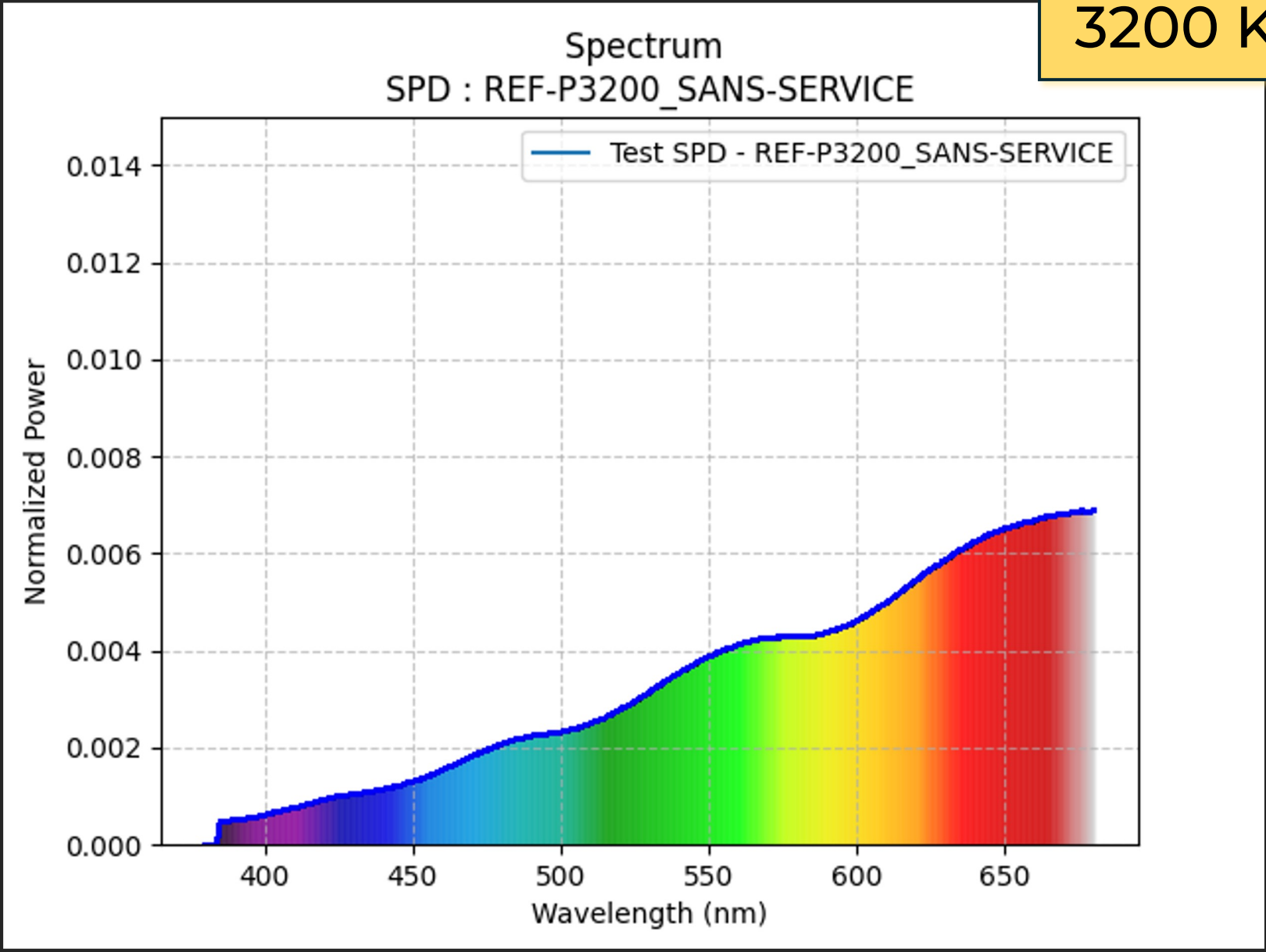
CRI Ra 97.51

IES TM-30-18 Rf 98 Rg 100

**SSI[P3200] 93**




3200 K



ARRI

# SKYPANEL X - DOME

Power: 100% - CCT set on LED

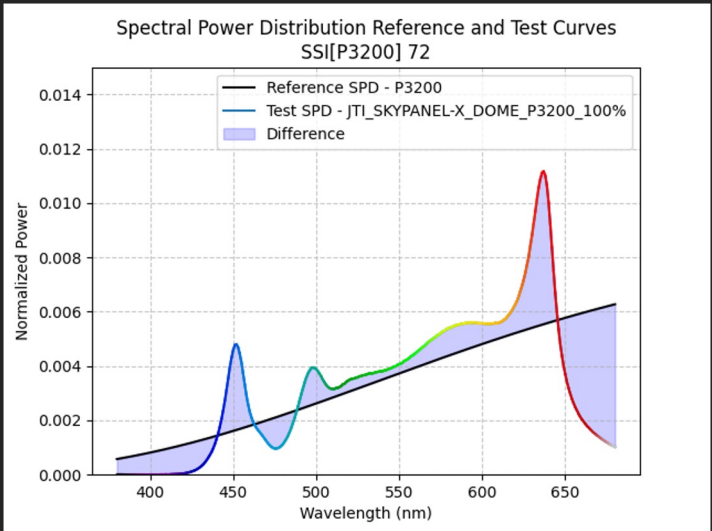
CCT 3145 Duv -0,001

CIE 1931 2° x 0.4259 y 0.3980

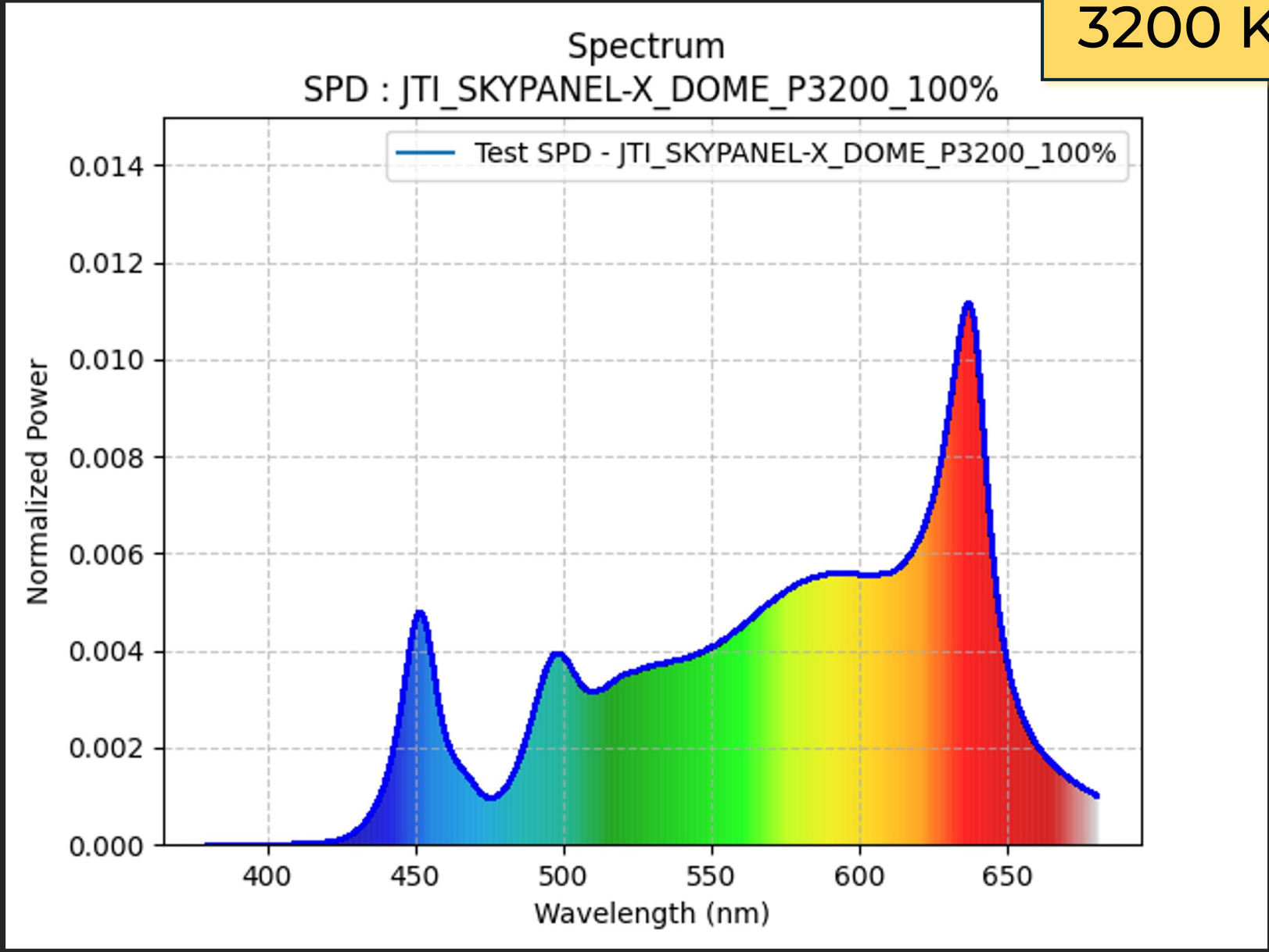
CRI Ra 95.26

IES TM-30-18 Rf 93 Rg 100

**SSI[P3200] 72**




3200 K



ARRI

# SKYPANEL X - DOME

Power: 100% - CCT set on JETI

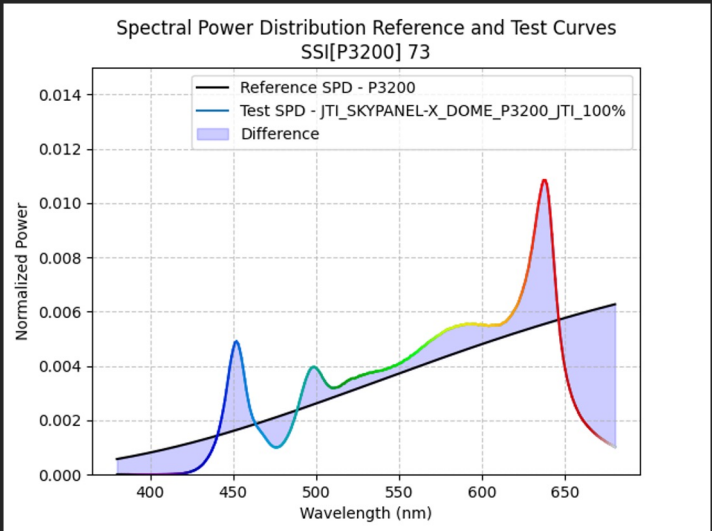
CCT 3196 Duv -0,001

CIE 1931 2° x 0.4225 y 0.3966

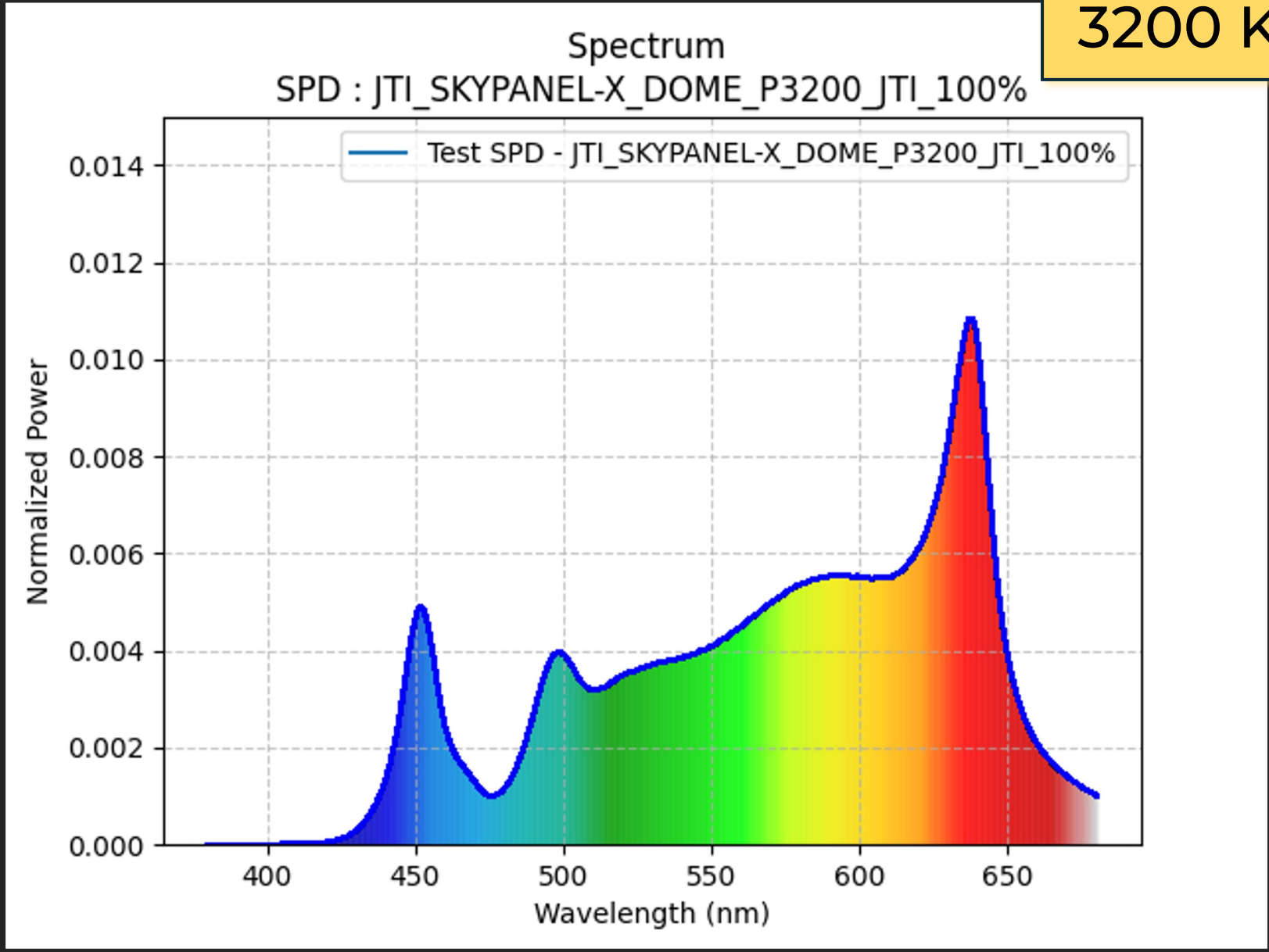
CRI Ra 95.55

IES TM-30-18 Rf 93 Rg 101

**SSI[P3200] 73**




3200 K



ARRI

# SKYPANEL X - DOME

Power: 50% - CCT set on JETI

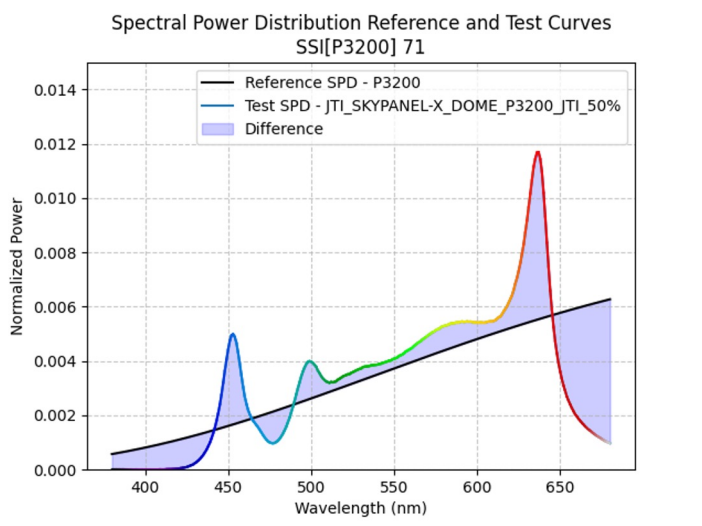
CCT 3152 Duv -0,001

CIE 1931 2° x 0.4248 y 0.3964

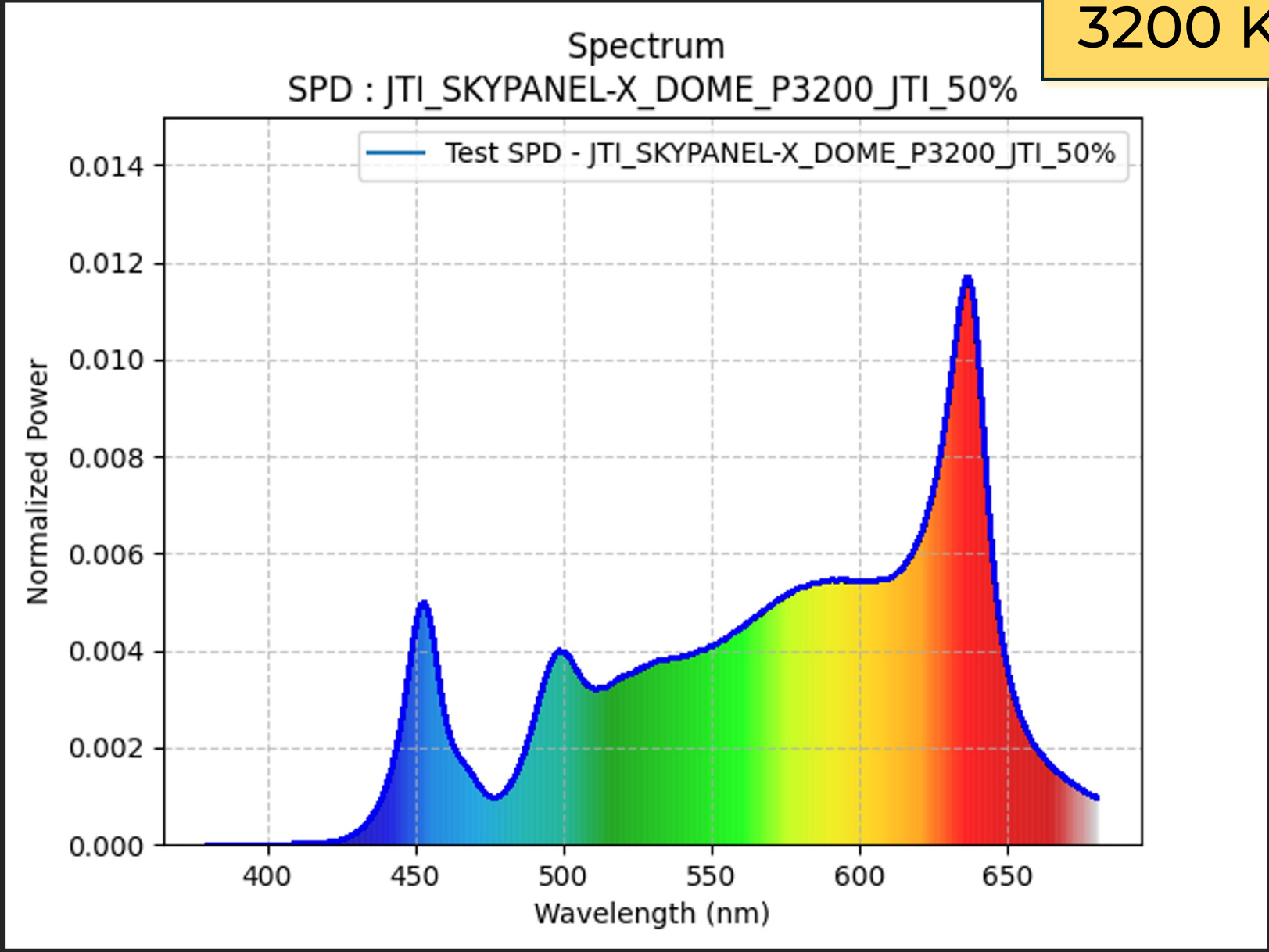
CRI Ra 96.40

IES TM-30-18 Rf 94 Rg 101

**SSI[P3200] 71**




3200 K



ARRI

# SKYPANEL X - DOME

Power: 25% - CCT set on JETI

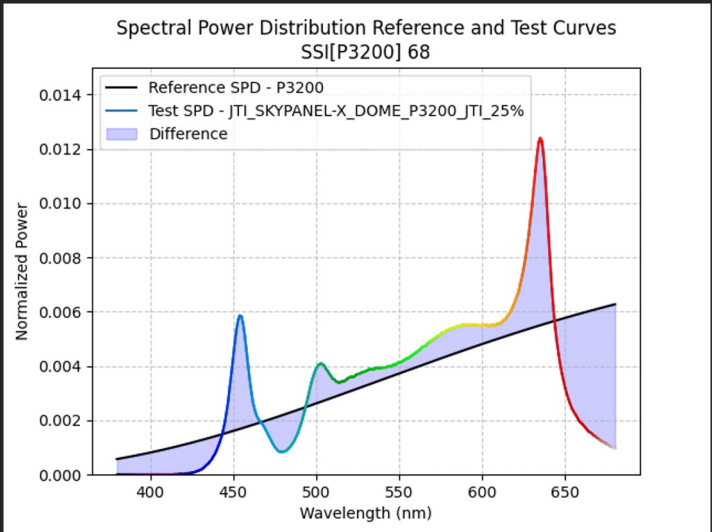
CCT 3168 Duv -0,001

CIE 1931 2° x 0.4235 y 0.3955

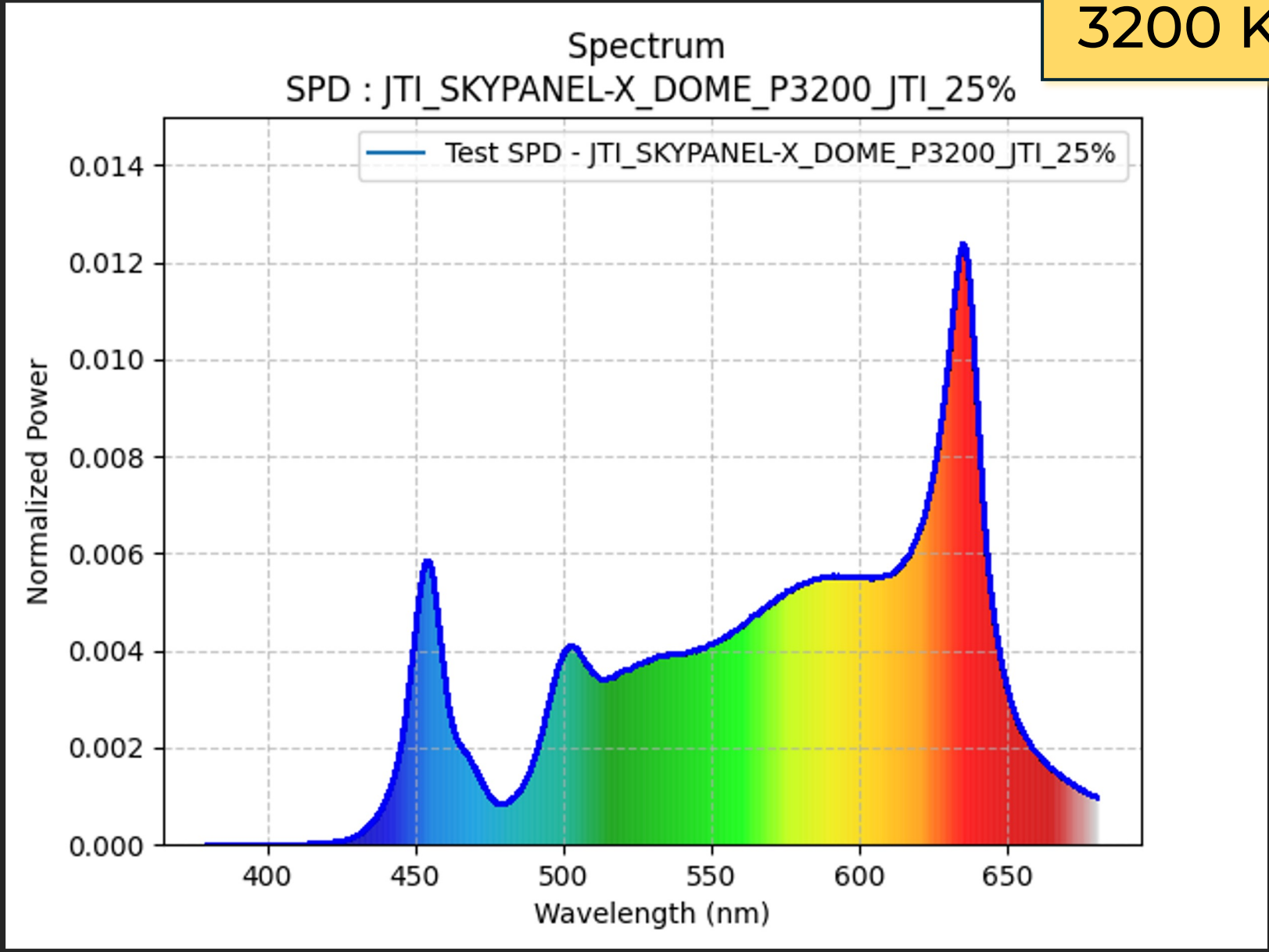
CRI Ra 95.62

IES TM-30-18 Rf 92 Rg 102

**SSI[P3200] 68**




3200 K



# SKYPANEL X

## HYPER

3200 K

# Images & données ARRI SKYPANEL X Images & Data

ARRI

## SKYPANEL X - HYPER

Power: 100% - CCT set on LED

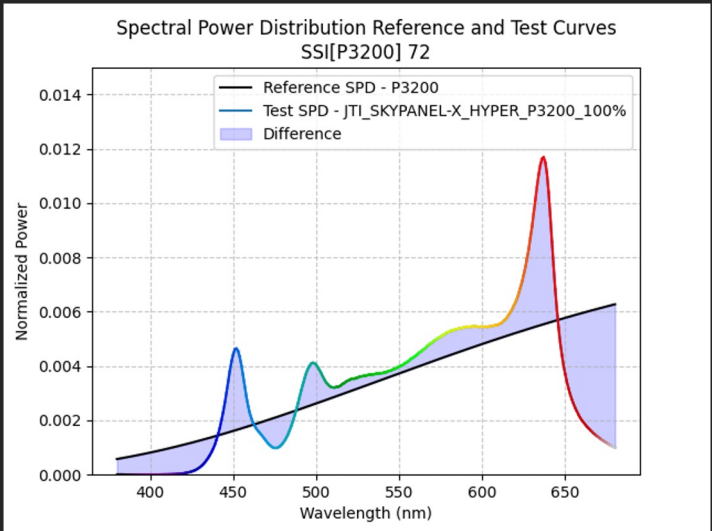
CCT 3111 Duv -0,001

CIE 1931 2° x 0.4312 y 0.3964

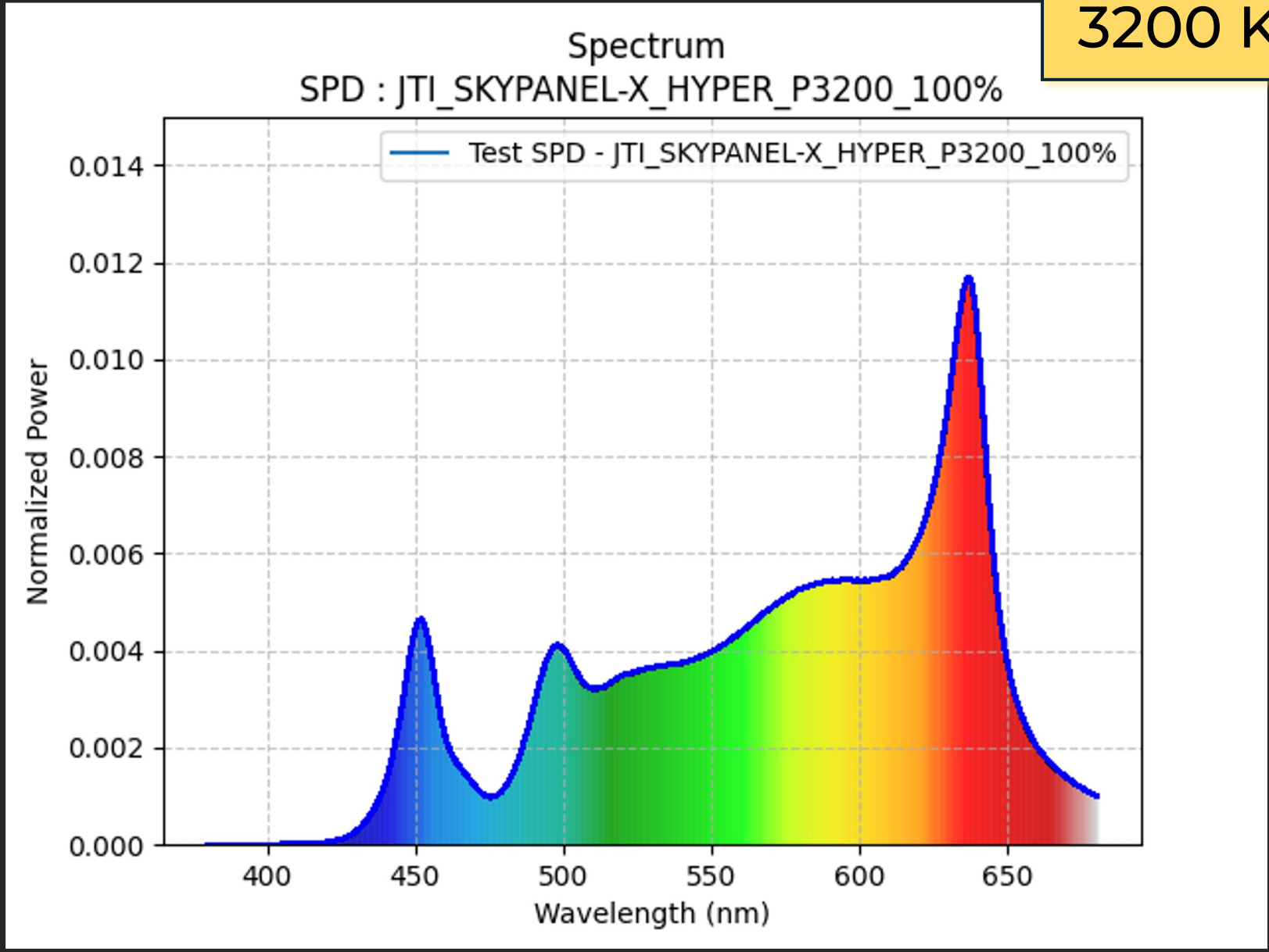
CRI Ra 96.22

IES TM-30-18 Rf 94 Rg 101

**SSI[P3200] 72**




3200 K



ARRI

# SKYPANEL X - HYPER

Power: 100% - CCT set on JETI

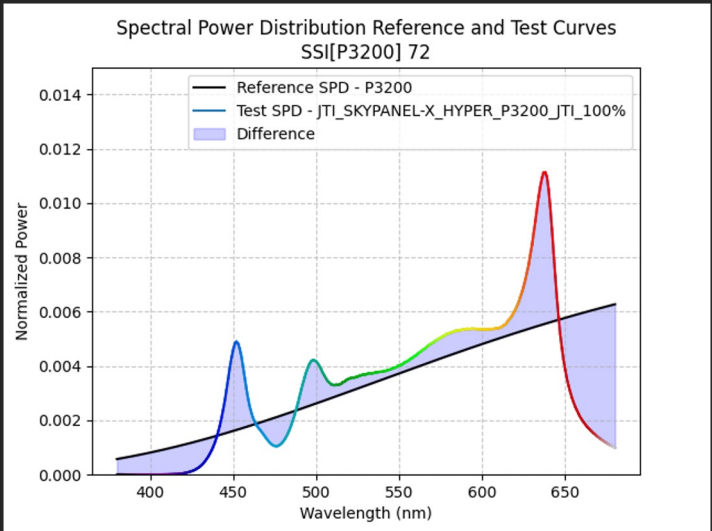
CCT 3215 Duv -0,001

CIE 1931 2° x 0.4205 y 0.3943

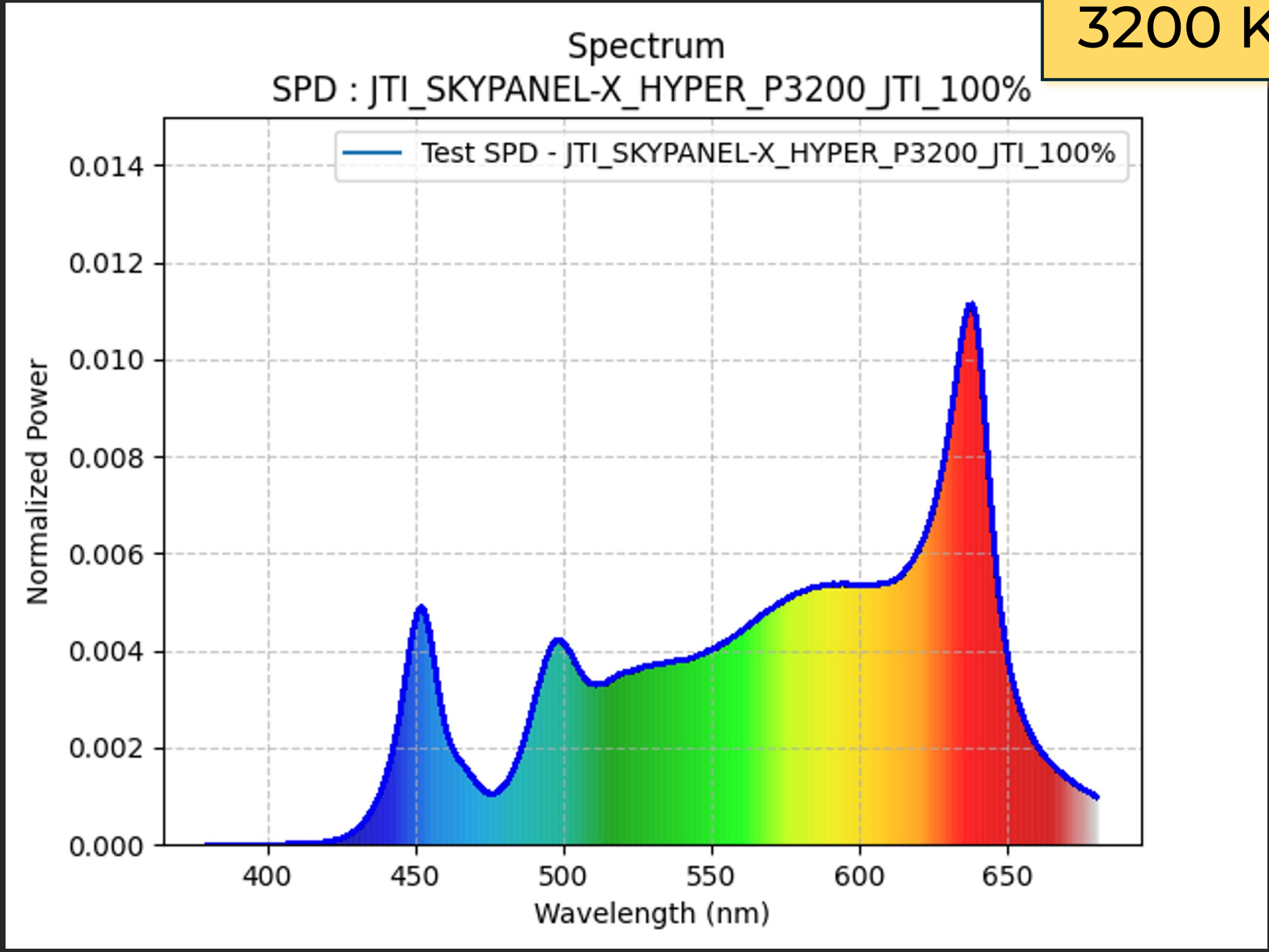
CRI Ra 96.66

IES TM-30-18 Rf 94 Rg 101

**SSI[P3200] 72**




3200 K



ARRI

# SKYPANEL X - HYPER

Power: **50%** - CCT set on **JETI**

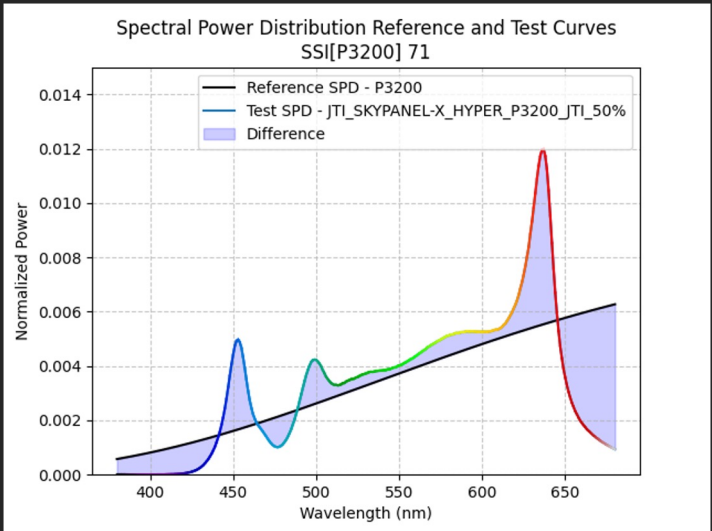
CCT **3170** Duv **-0,002**

CIE 1931 2° x **0.4228** y **0.3940**

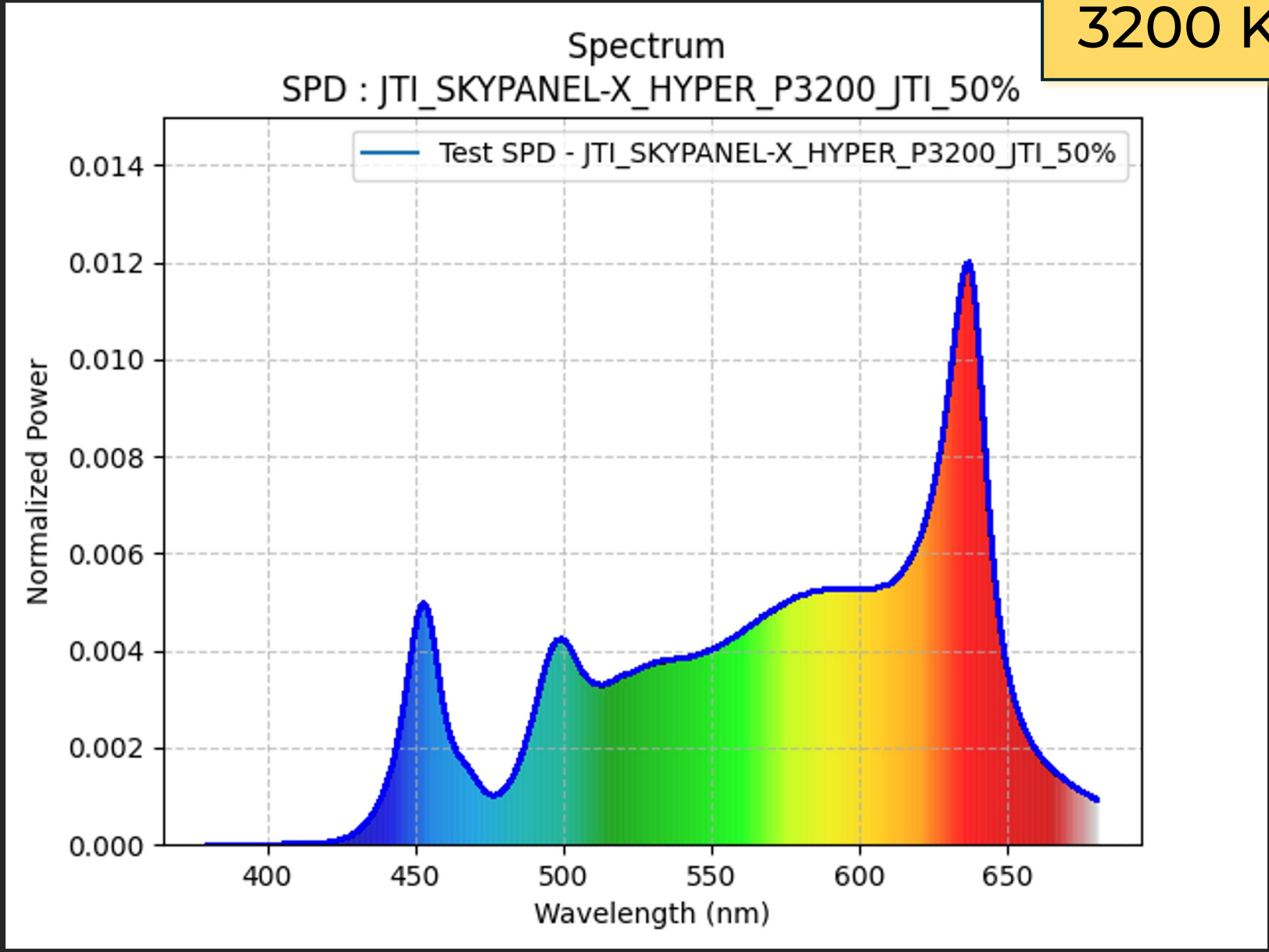
CRI Ra **96.44**

IES TM-30-18 Rf **94** Rg **102**

**SSI**[P3200] **71**




**3200 K**



ARRI

# SKYPANEL X - HYPER

Power: **25%** - CCT set on **JETI**

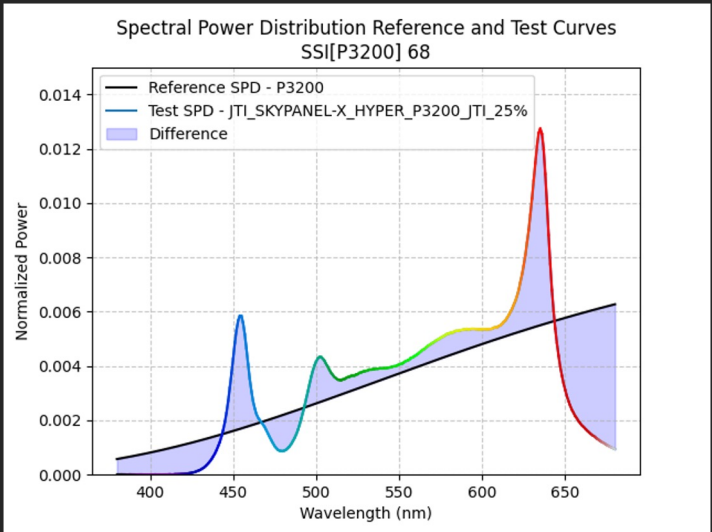
CCT 3185 Duv -0,002

CIE 1931 2° x 0.4218 y 0.3936

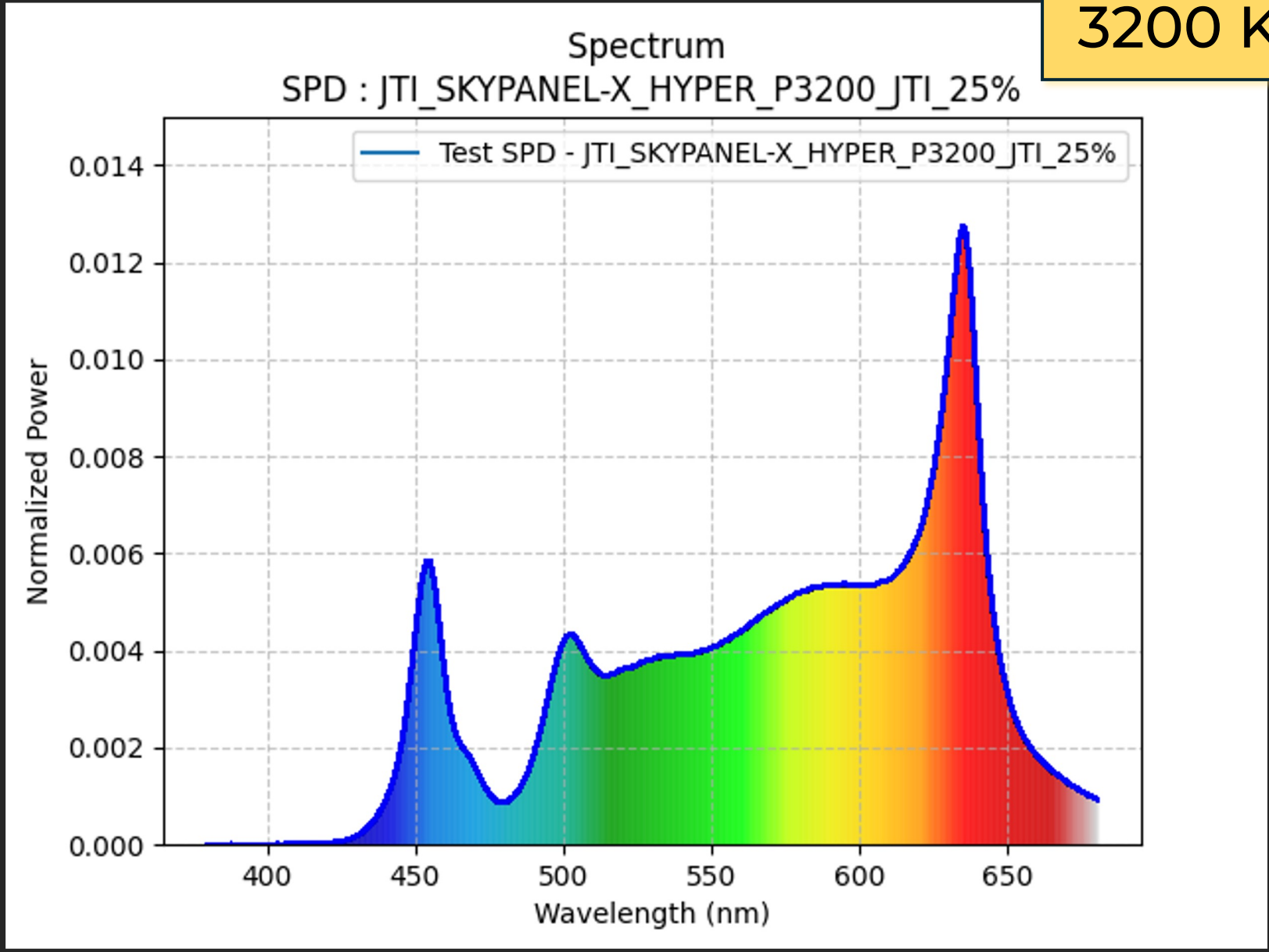
CRI Ra 96.37

IES TM-30-18 Rf 93 Rg 102

**SSI**[P3200] **68**




3200 K



# SKYPANEL X

## DOME

**5600 K**

JETI

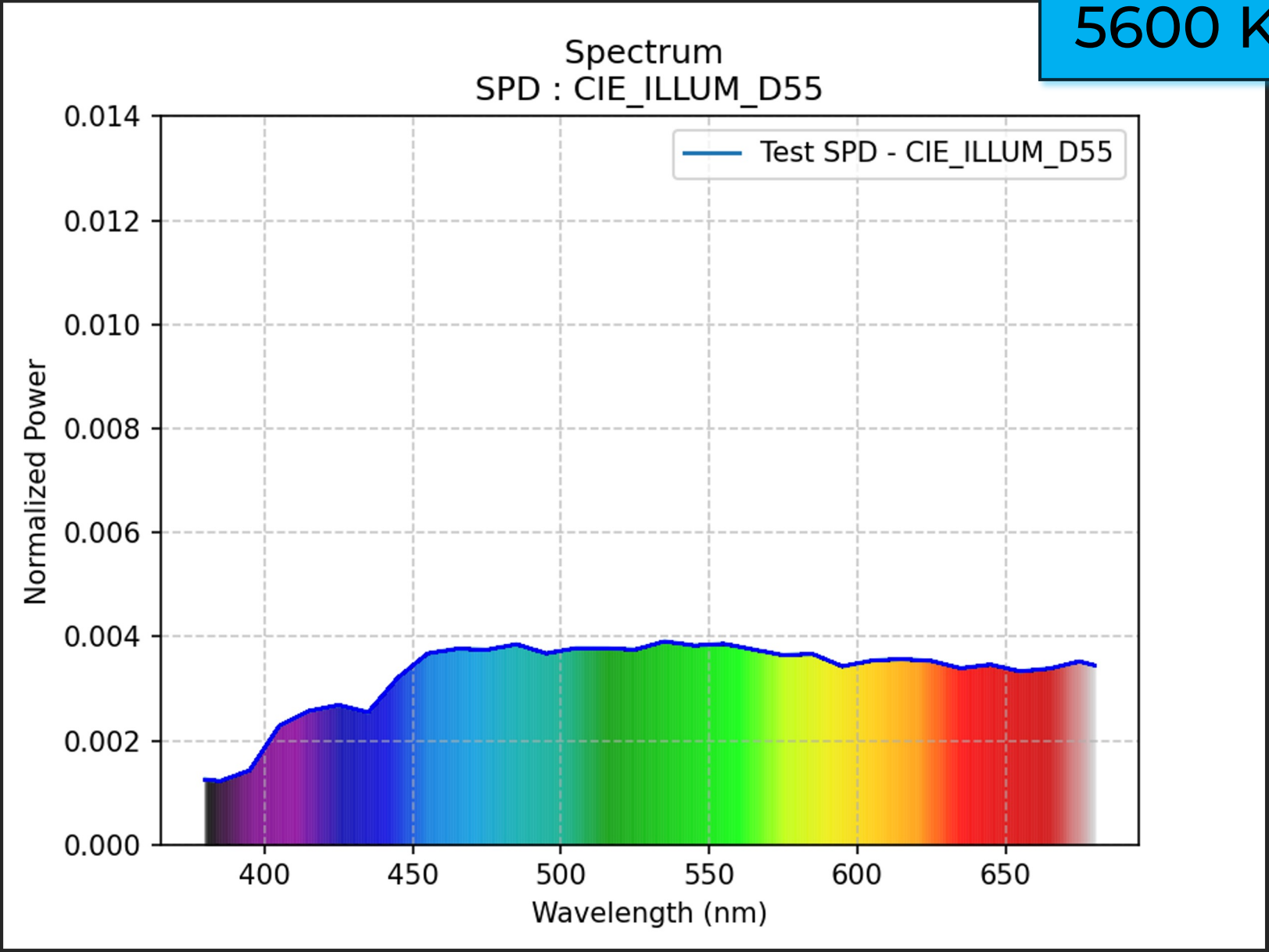
5600 K

# SSI REFERENCE Daylight Locus

## CIE illuminant D55* ≃ 5503,0598 K

Le SPD de référence utilisé dans cette partie est basé sur l'illuminant standardisé CIE D55. Sa température en Kelvin est de 5503 K environ. Le calcul SSI est donc effectué avec cette référence, bien que les sources à tester aient été réglées sur 5600 K.
Vous trouverez en annexe métrologie les mêmes calculs SSI basés sur un illuminant "Daylight locus" à 5600 K ainsi que sur les valeurs de cct mesurées. Les indices SSI sont similaires.

The reference SPD used in this section is based on the standardized CIE D55 illuminant. Its temperature in Kelvin is approximately 5503 K. Therefore, the SSI calculation is performed with this reference, even though the test sources were set to 5600 K. In the metrology appendix, you will find the same SSI calculations based on a "Daylight locus" illuminant at 5600 K as well as on the measured CCT values. The SSI indices are similar.



# SOURCE HMI Comparison

from https://ssi-calculator.oscars.org/

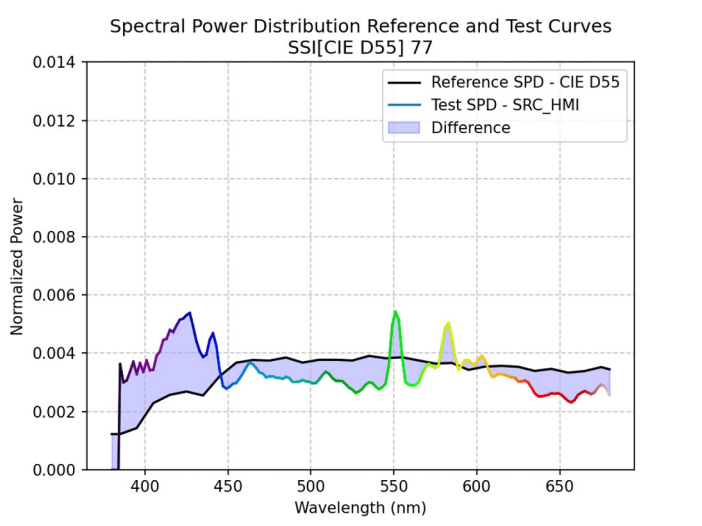
CCT 5605 Duv 0,000

CIE 1931 2° x 0.3301 y 0.3274

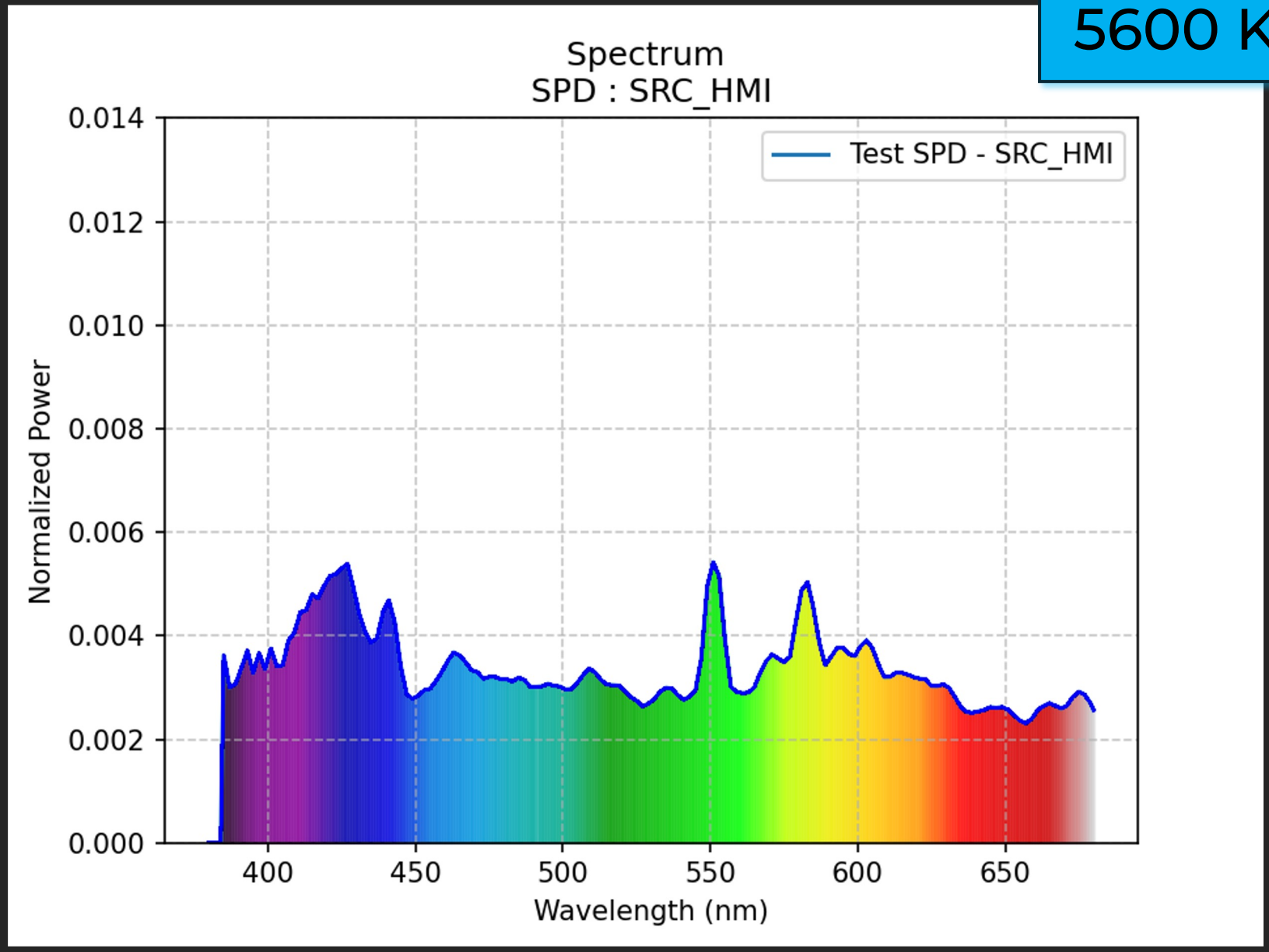
CRI Ra -

IES TM-30-18 Rf - Rg -

**SSI[CIE D55] 77**




5600 K



ARRI

# SKYPANEL X - DOME

Power: 100% - CCT set on LED

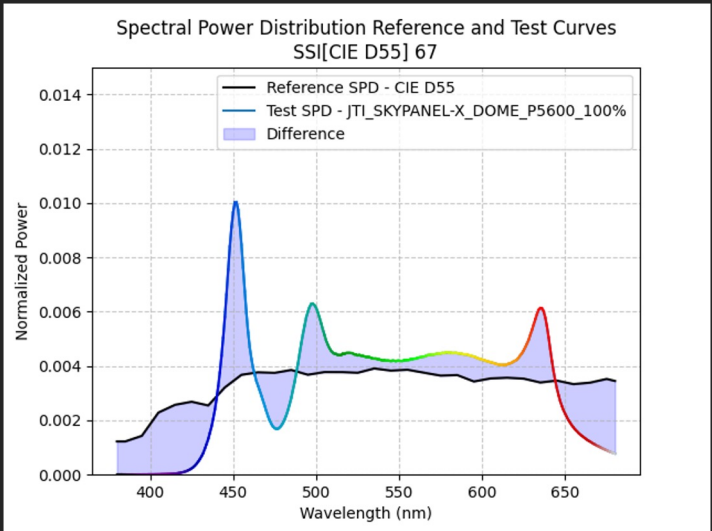
CCT 5507 Duv 0,002

CIE 1931 2° x 0.3323 y 0.3456

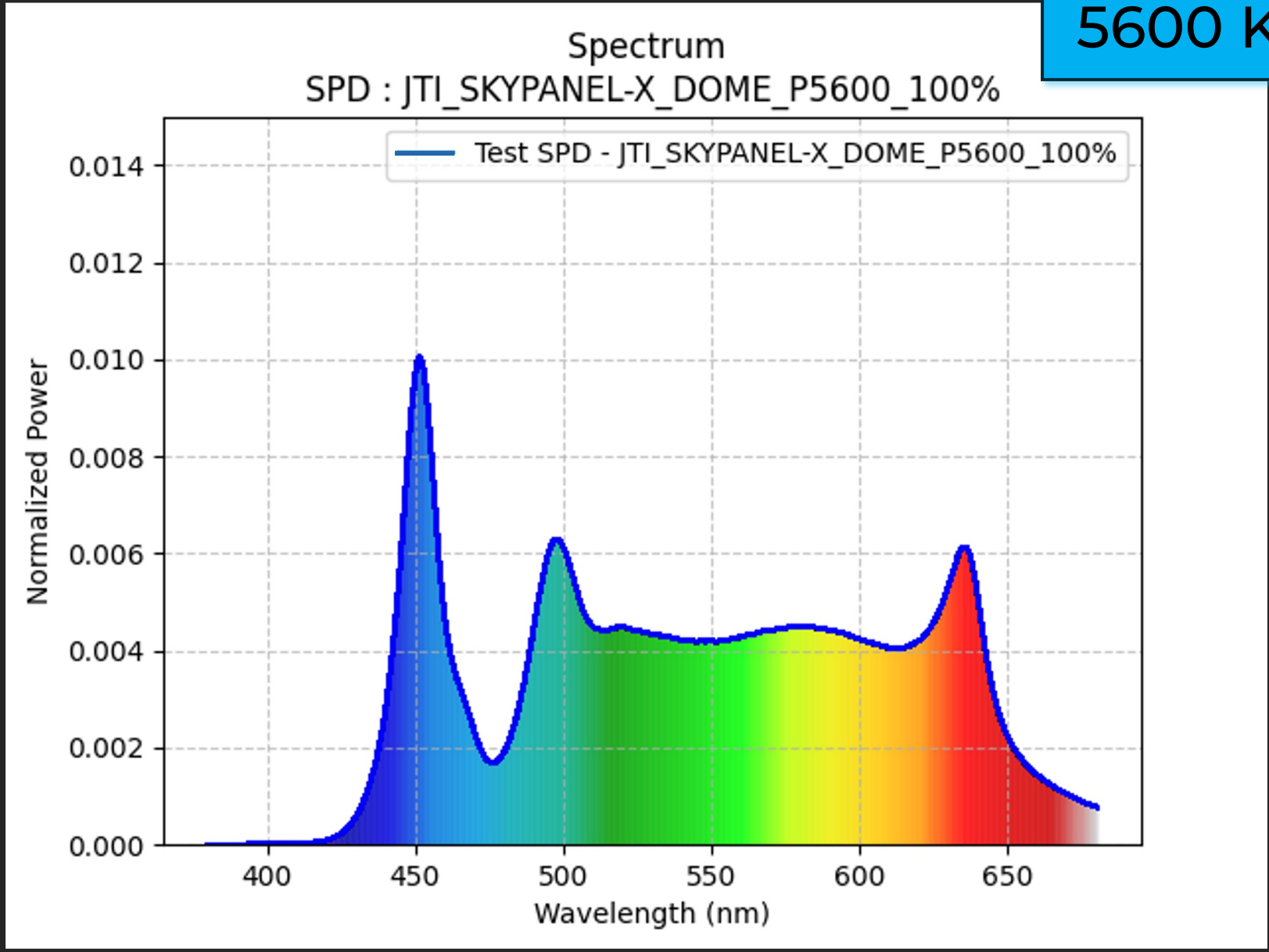
CRI Ra 96.24

IES TM-30-18 Rf 94 Rg 101

**SSI**[CIE D55] **67**




5600 K



ARRI

# SKYPANEL X - DOME

Power: 100% - CCT set on JETI

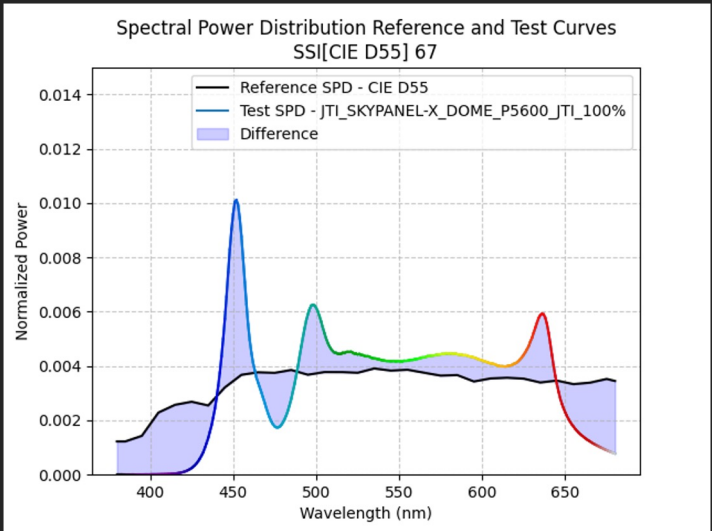
CCT 5618 Duv 0,003

CIE 1931 2° x 0.3298 y 0.3436

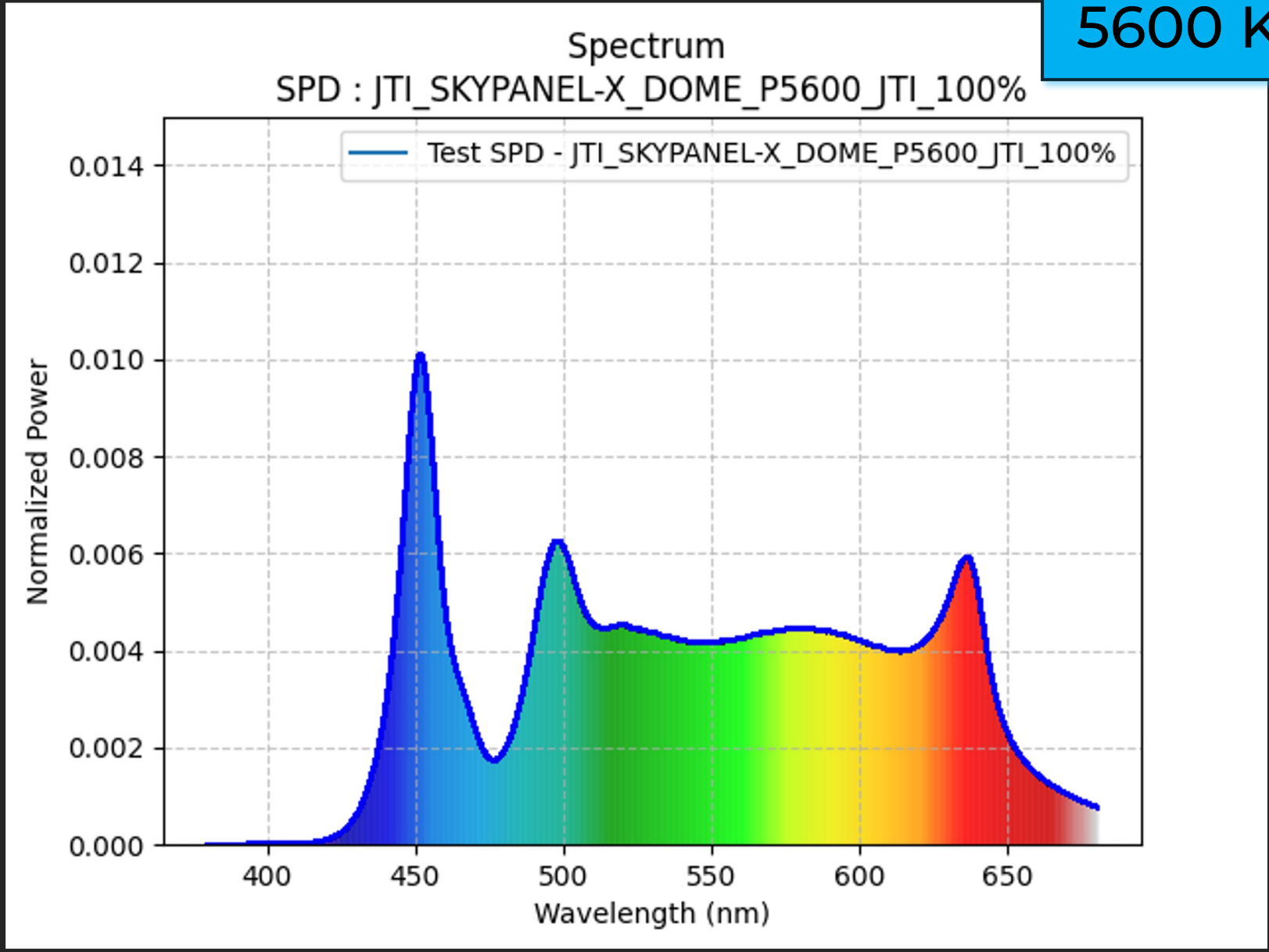
CRI Ra 96.35

IES TM-30-18 Rf 94 Rg 101

**SSI**[CIE D55] **67**




5600 K



ARRI

# SKYPANEL X - DOME

Power: 50% - CCT set on JETI

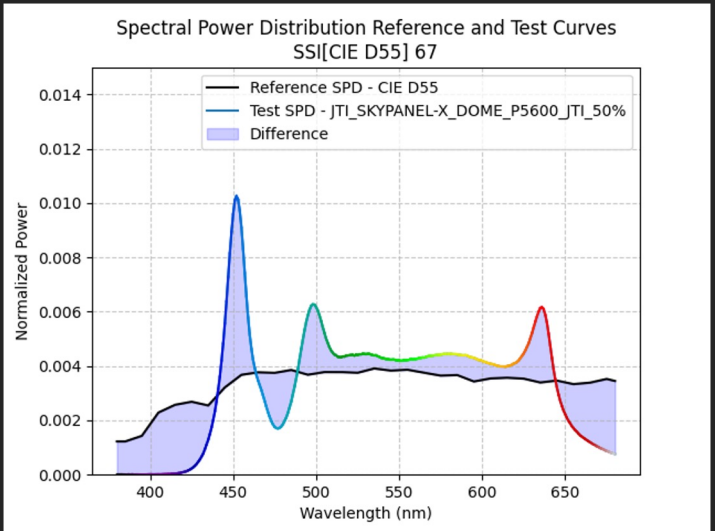
CCT 5614 Duv 0,002

CIE 1931 2° x 0.3299 y 0.3435

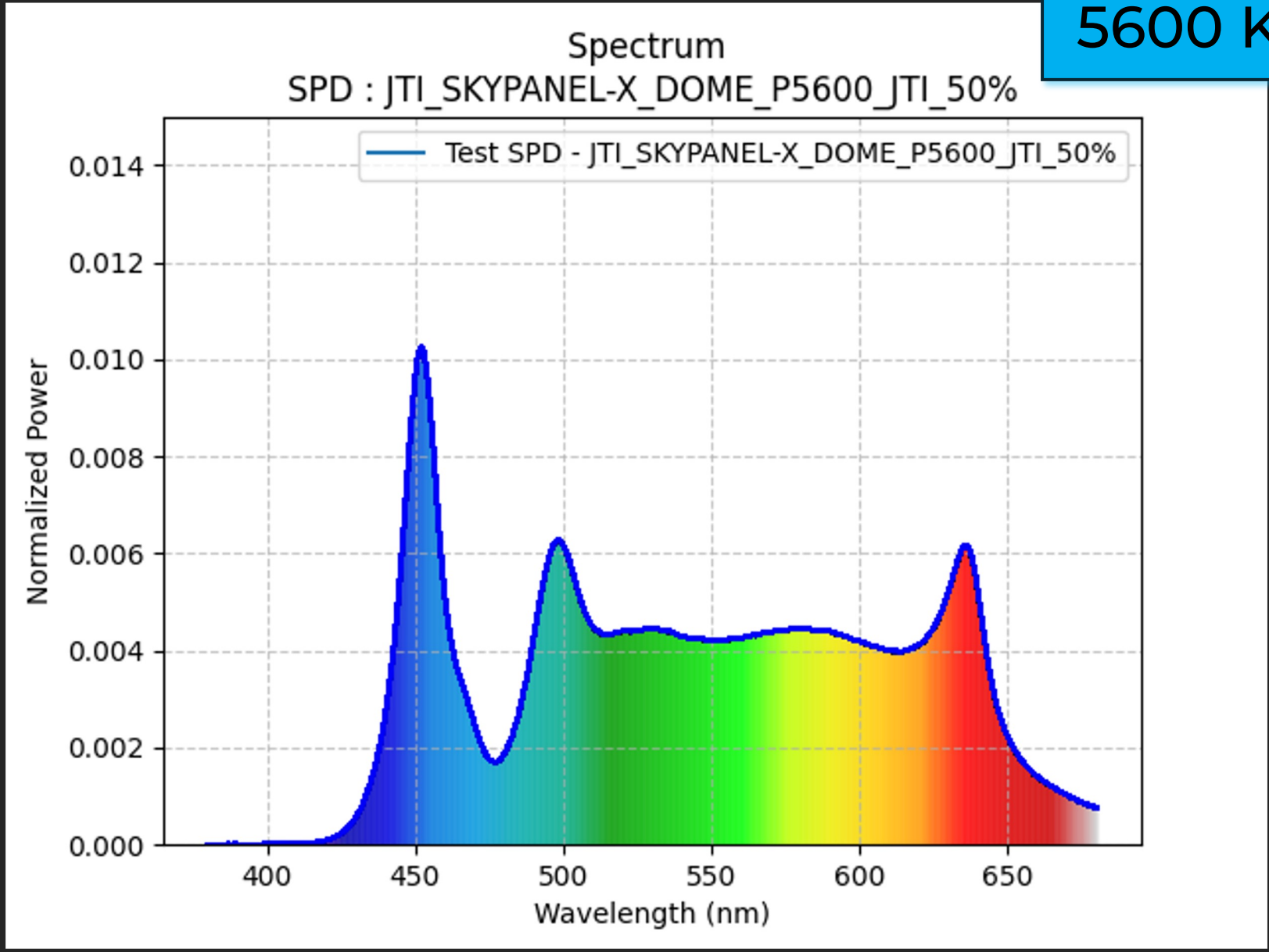
CRI Ra 96.46

IES TM-30-18 Rf 94 Rg 101

**SSI**[CIE D55] **67**




5600 K



ARRI

# SKYPANEL X - DOME

Power: 25% - CCT set on JETI

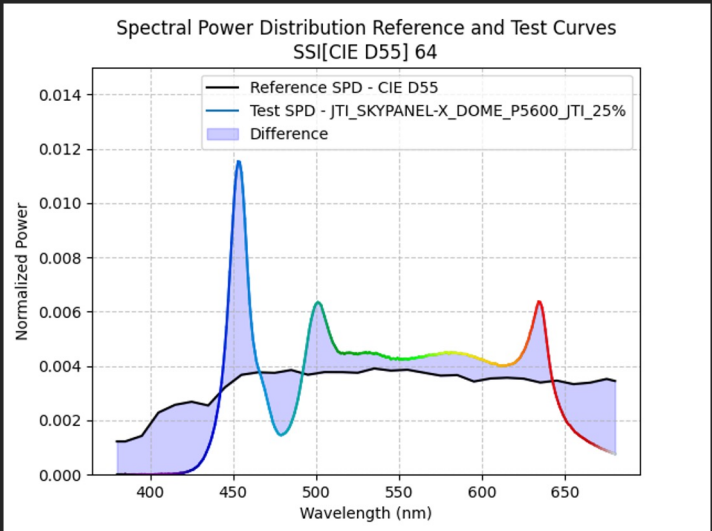
CCT 5693 Duv 0,002

CIE 1931 2° x 0.3281 y 0.3420

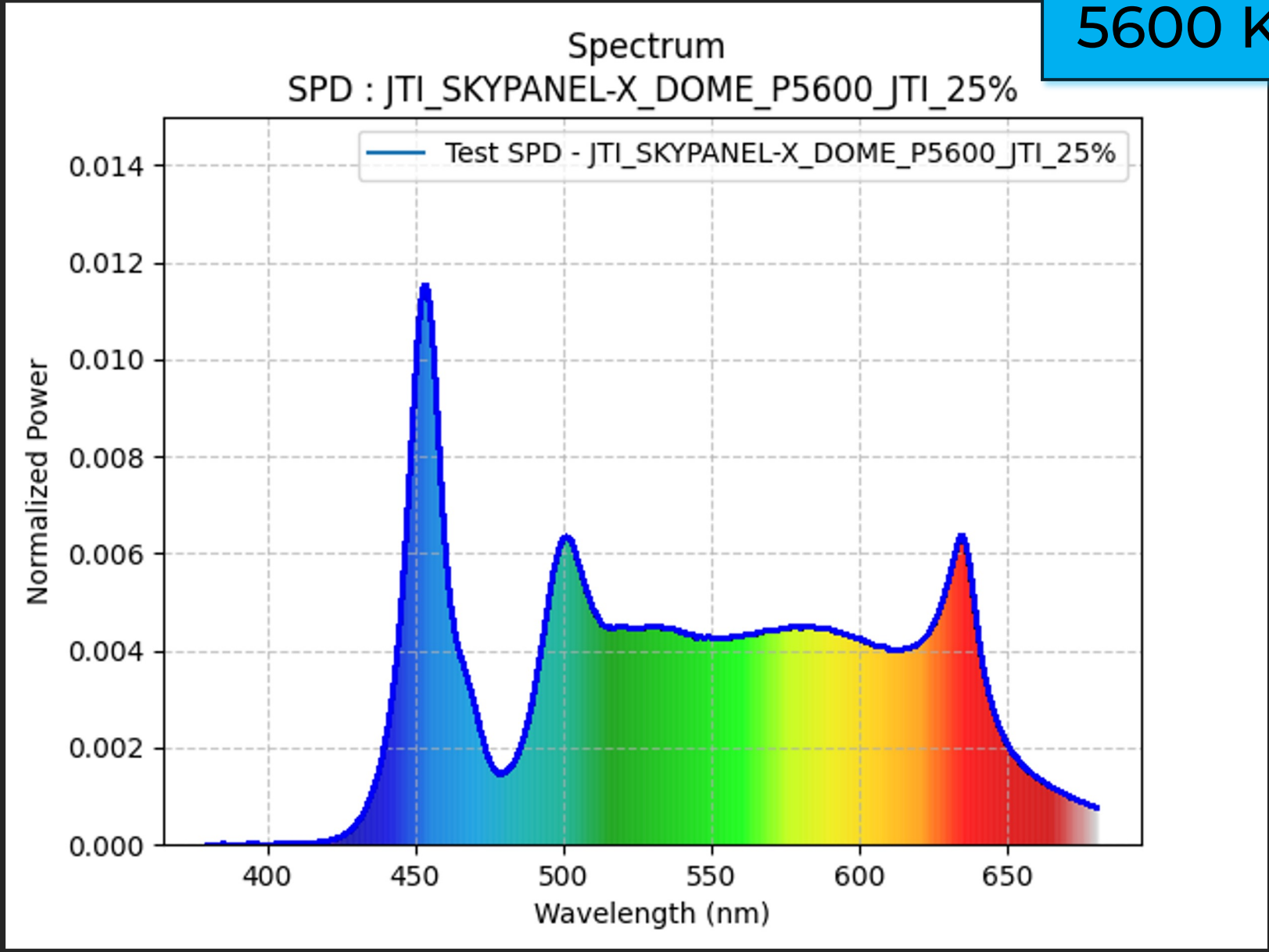
CRI Ra 95.47

IES TM-30-18 Rf 93 Rg 101

SSI [CIE D55] 64




5600 K



# SKYPANEL X

## HYPER

**5600 K**

JETI

ARRI

# SKYPANEL X - HYPER

Power: 100% - CCT set on LED

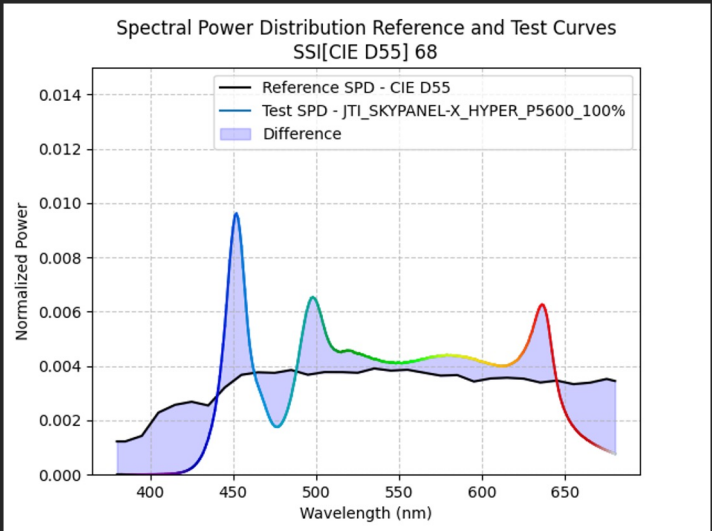
CCT 5523 Duv 0,003

CIE 1931 2° x 0.3320 y 0.3467

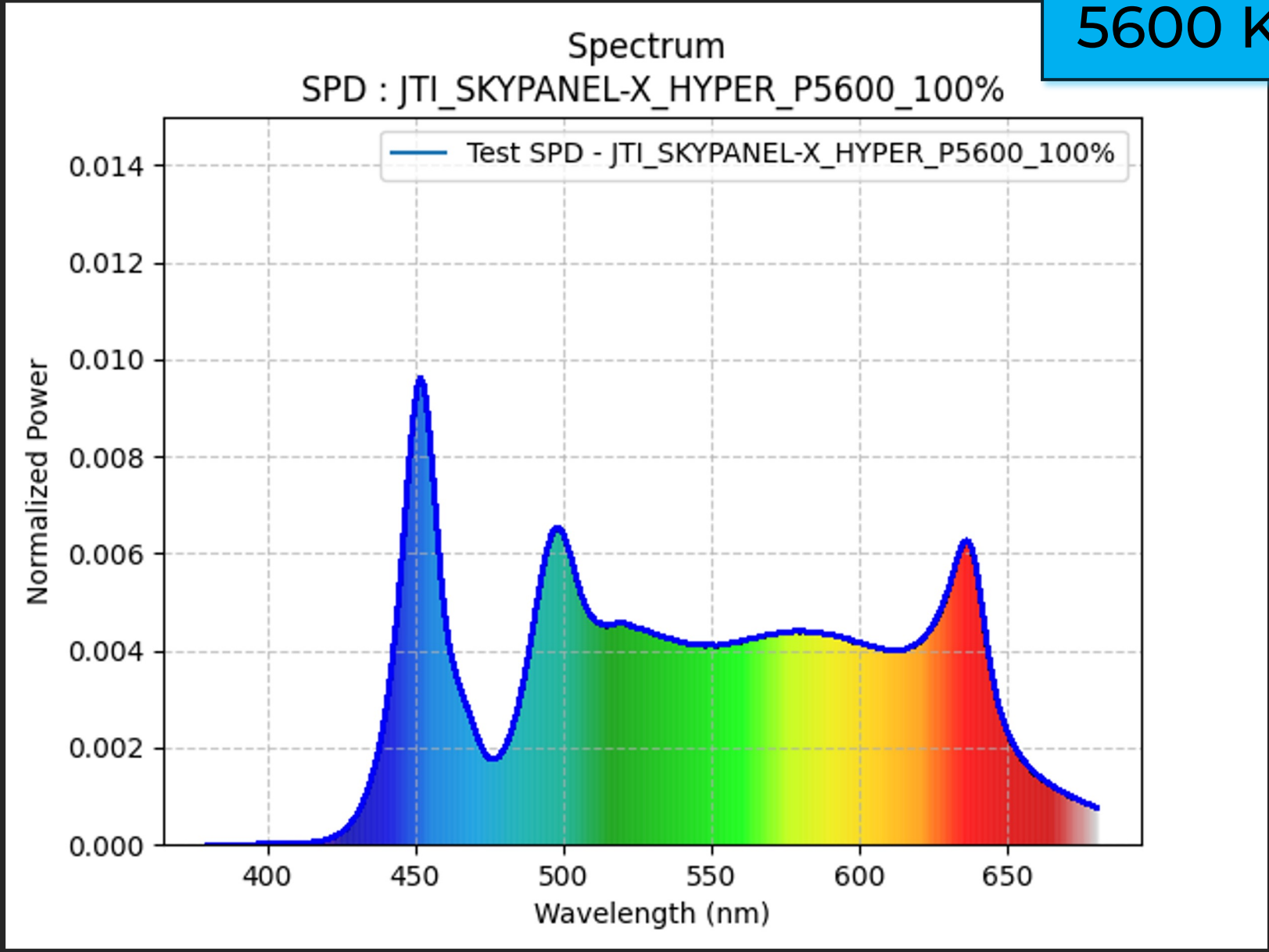
CRI Ra 96.93

IES TM-30-18 Rf 95 Rg 101

SSI[CIE D55] 68




5600 K



ARRI

# SKYPANEL X - HYPER

Power: 100% - CCT set on JETI

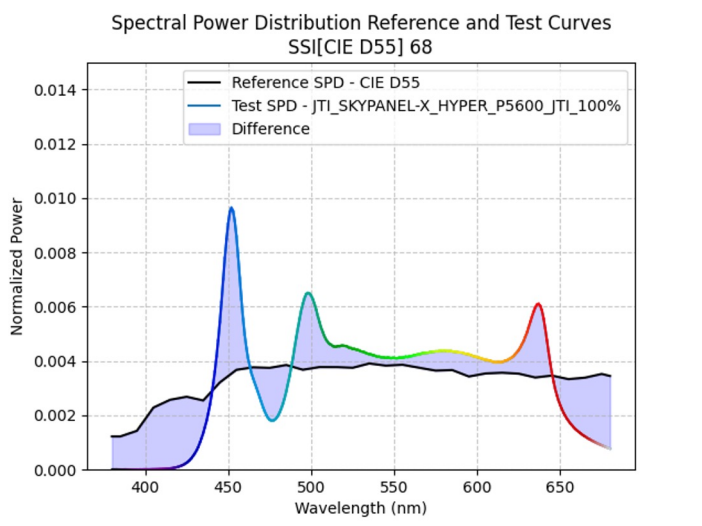
CCT 5598 Duv 0,003

CIE 1931 2° x 0.3303 y 0.3452

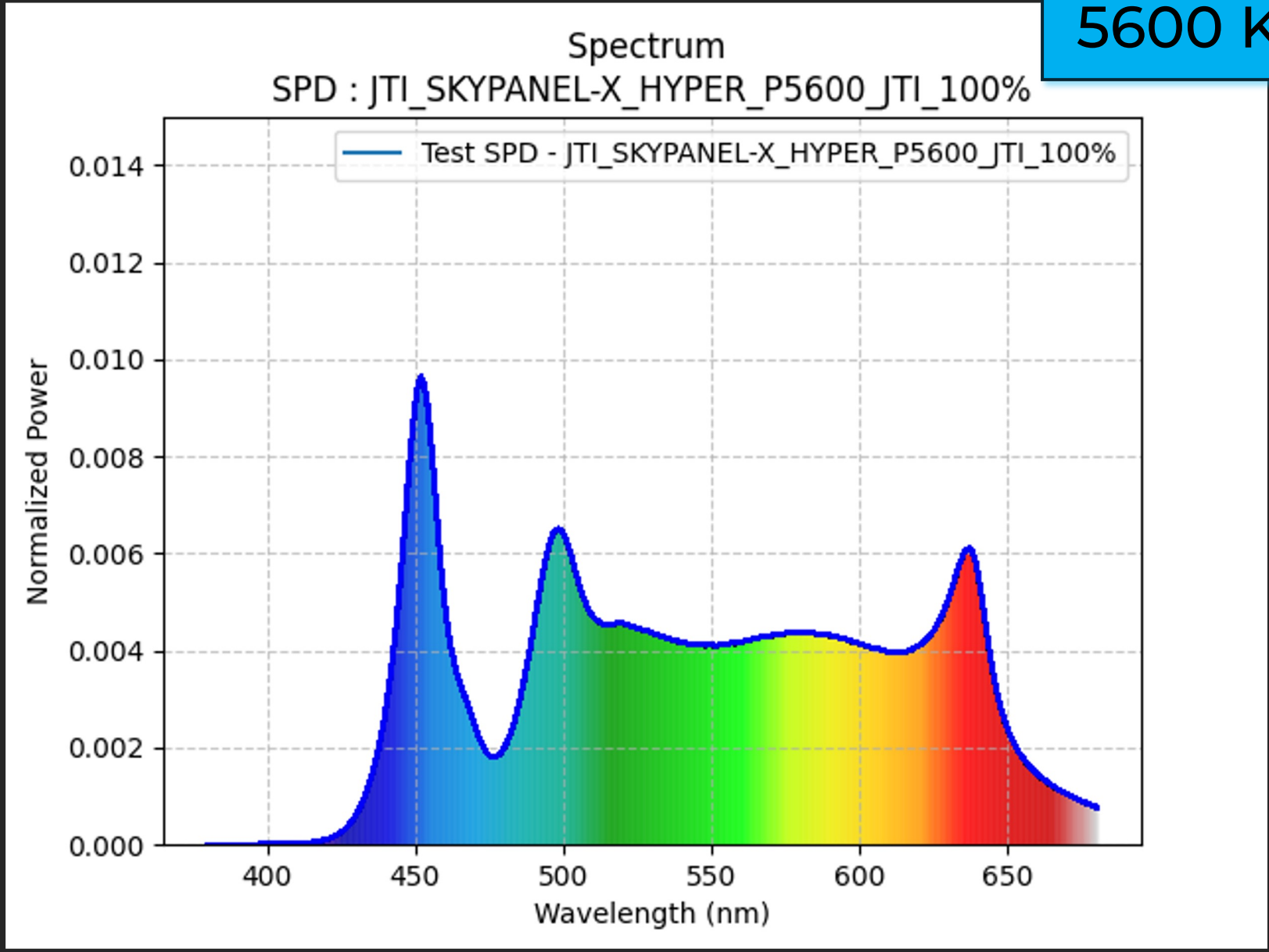
CRI Ra 97.02

IES TM-30-18 Rf 95 Rg 101

SSI[CIE D55] 68




5600 K



ARRI

# SKYPANEL X - HYPER

Power: 50% - CCT set on JETI

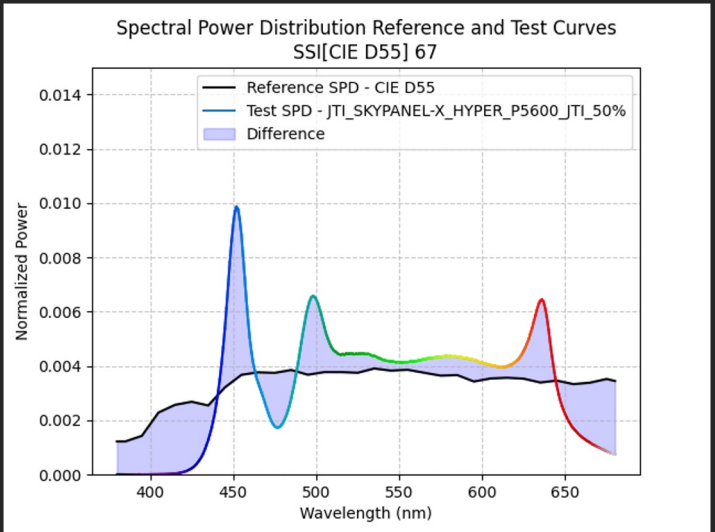
CCT 5583 Duv 0,003

CIE 1931 2° x 0.3306 y 0.3451

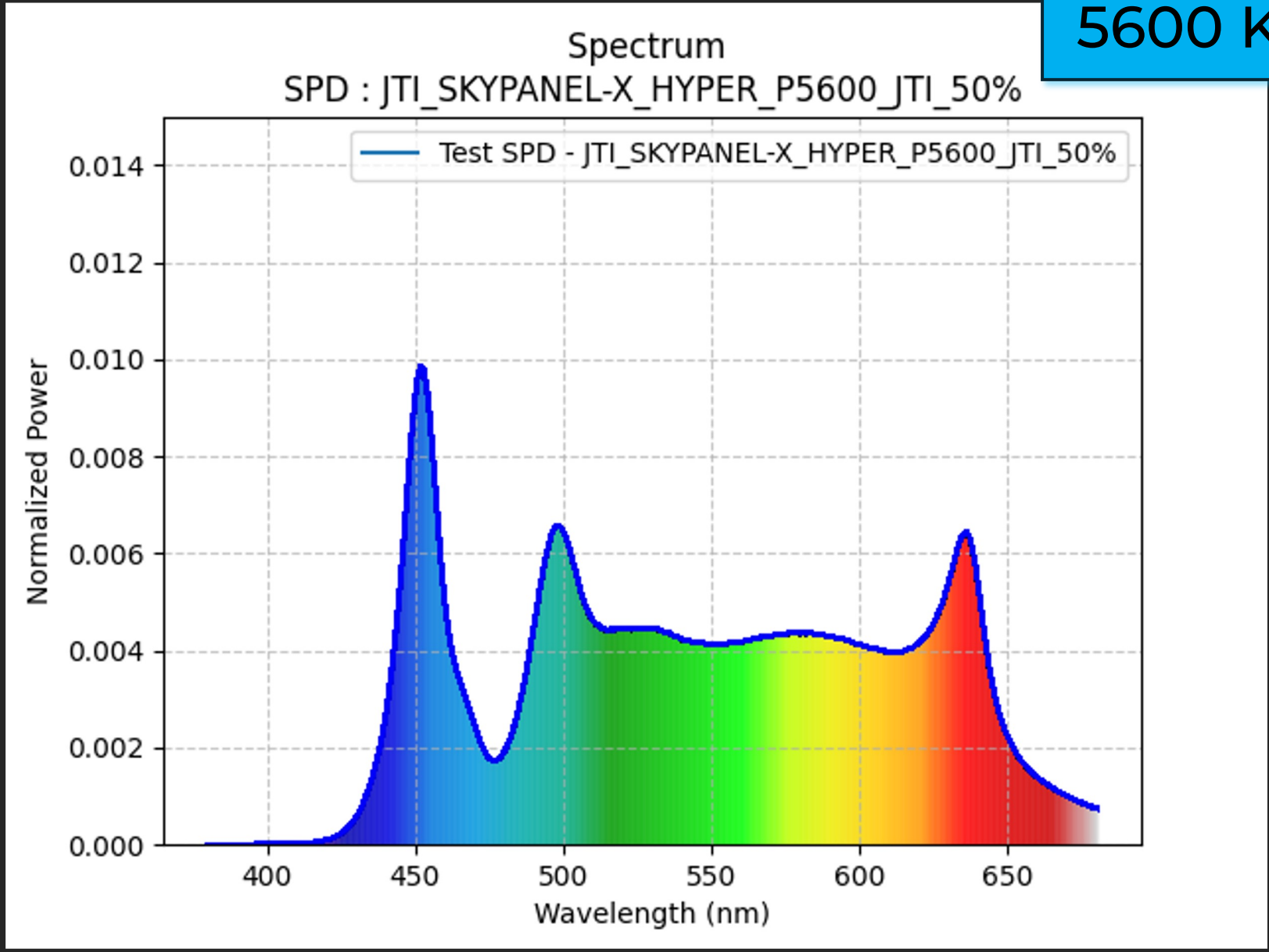
CRI Ra 97.11

IES TM-30-18 Rf 95 Rg 101

**SSI**[CIE D55] **67**




5600 K



ARRI

# SKYPANEL X - HYPER

Power: **25%** - CCT set on **JETI**

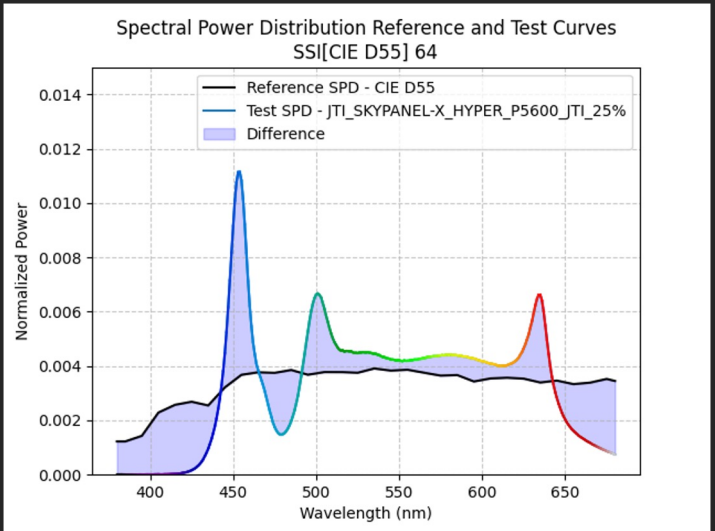
CCT 5655 Duv 0,003

CIE 1931 2° x 0.3290 y 0.3442

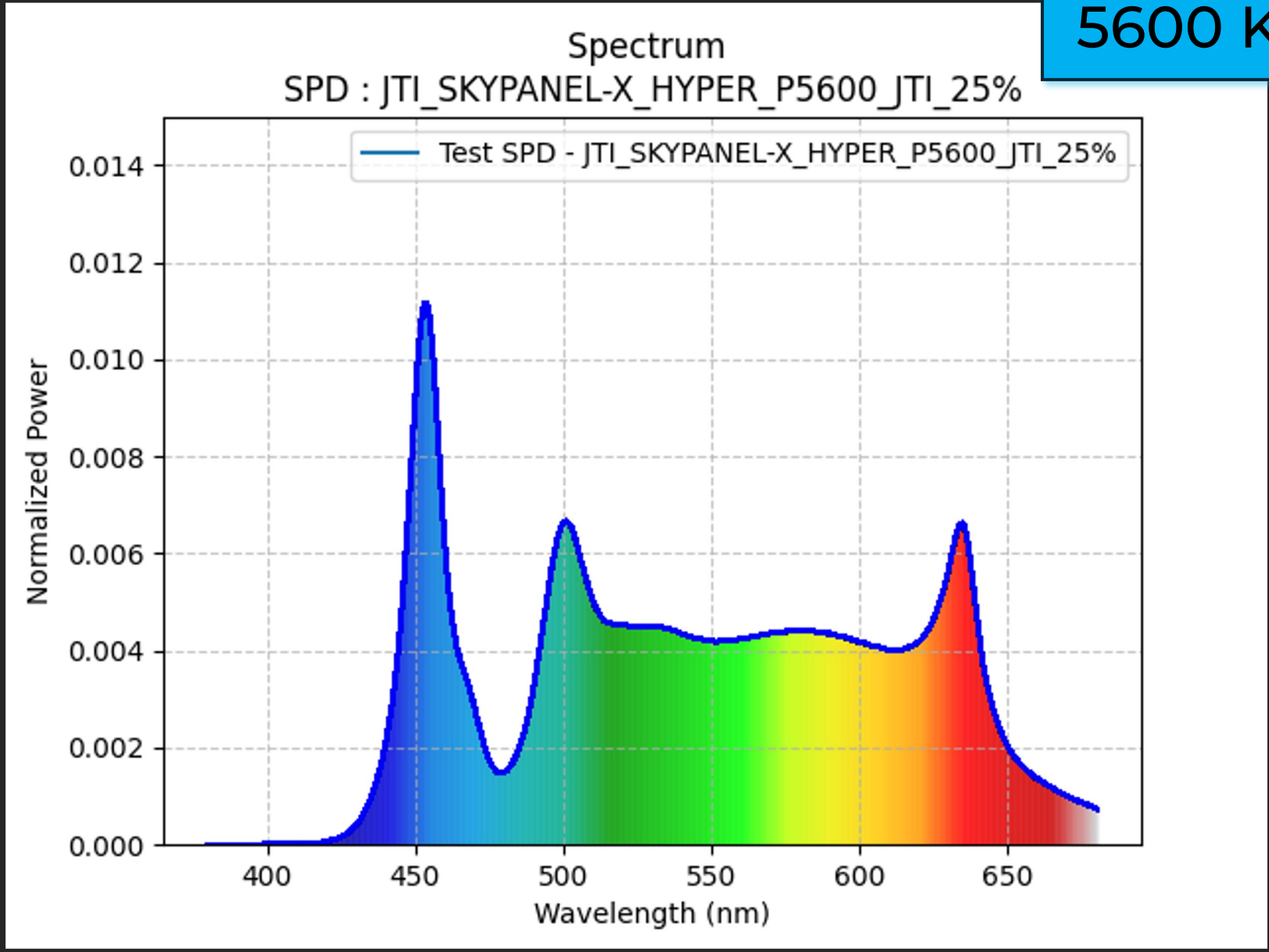
CRI Ra 96.54

IES TM-30-18 Rf 94 Rg 101

**SSI**[CIE D55] **64**




5600 K



# SKYPANEL X

# Images, Spectra

# & SSI

JETI

# Images & données ARRI SKYPANEL X Images & Data

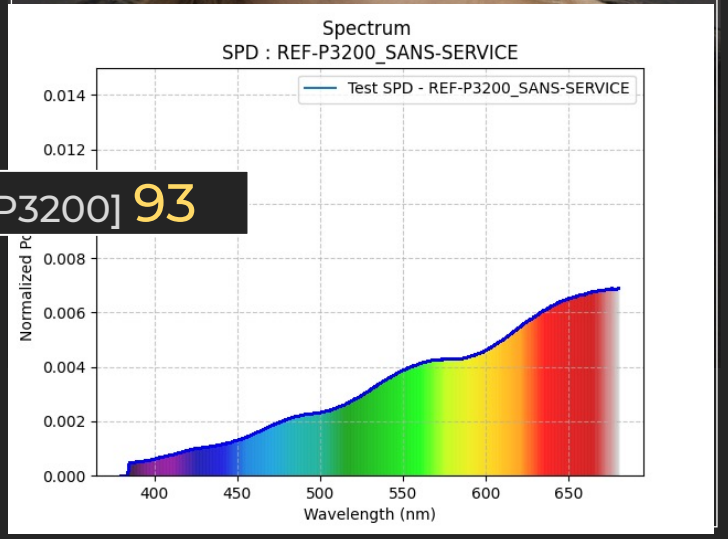

TUNGSTEN REF.


SKYPANEL X

ARRI ALEXA 35

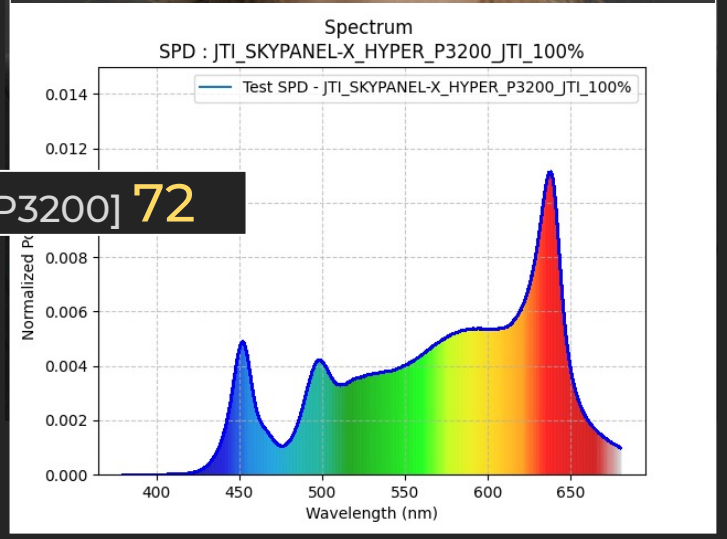
GRADED

# Images & données ARRI SKYPANEL X Images & Data




SSI[P3200] 93

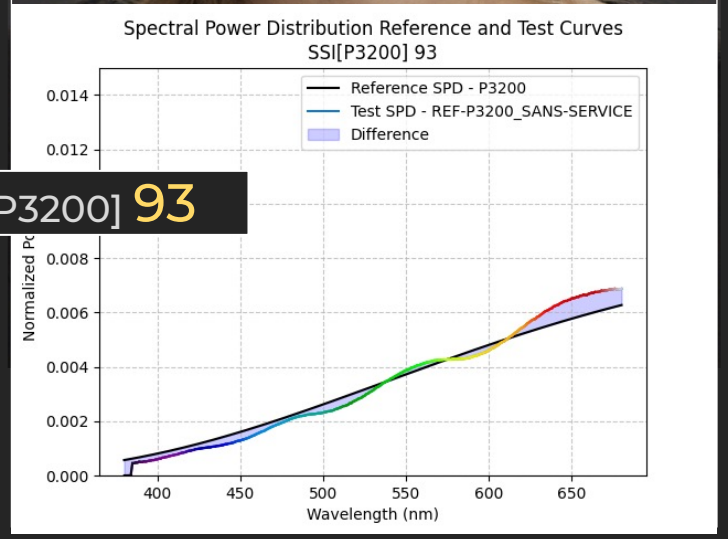
TUNGSTEN REF.




SSI[P3200] 72

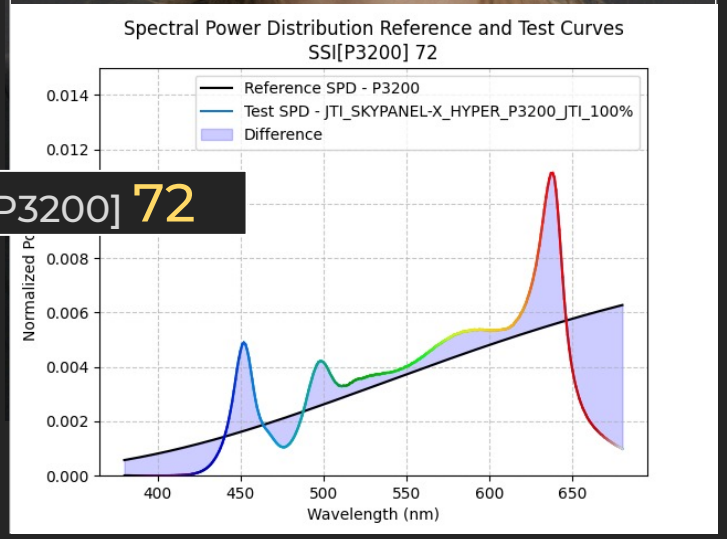
SKYPANEL X

# Images & données ARRI SKYPANEL X Images & Data




SSI[P3200] 93

TUNGSTEN REF.




SSI[P3200] 72

SKYPANEL X

# Images & données ARRI SKYPANEL X Images & Data


TUNGSTEN REF.

ARRI ALEXA 35
GRADED


SKYPANEL X

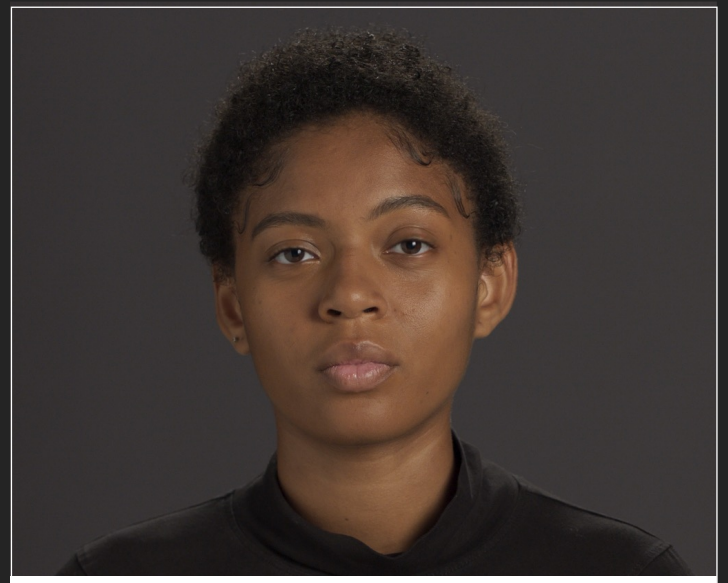
# Images & données ARRI SKYPANEL X Images & Data

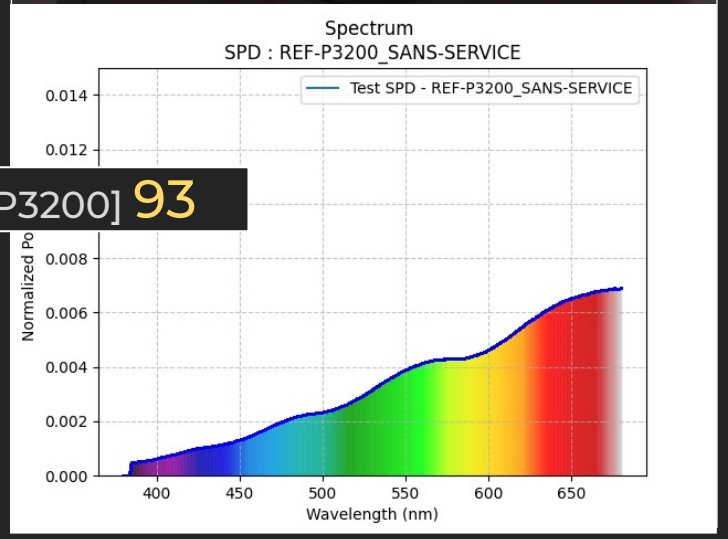

TUNGSTEN REF.

ARRI ALEXA 35
GRADED


SKYPANEL X

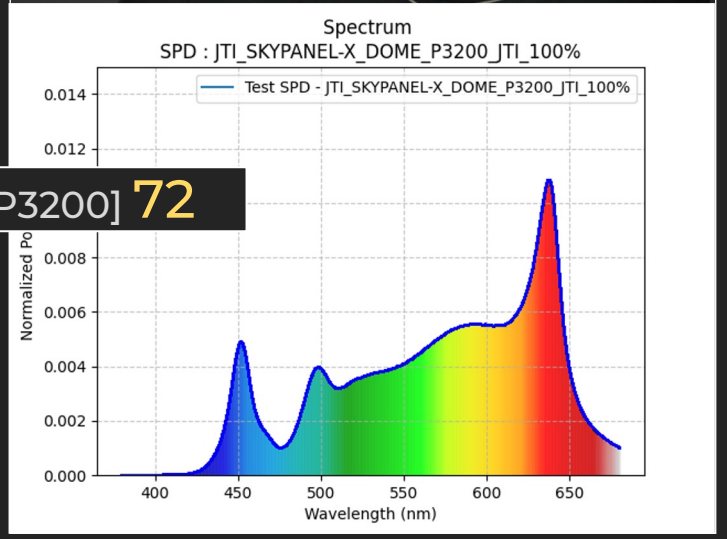
# Images & données ARRI SKYPANEL X Images & Data






SSI[P3200] 93

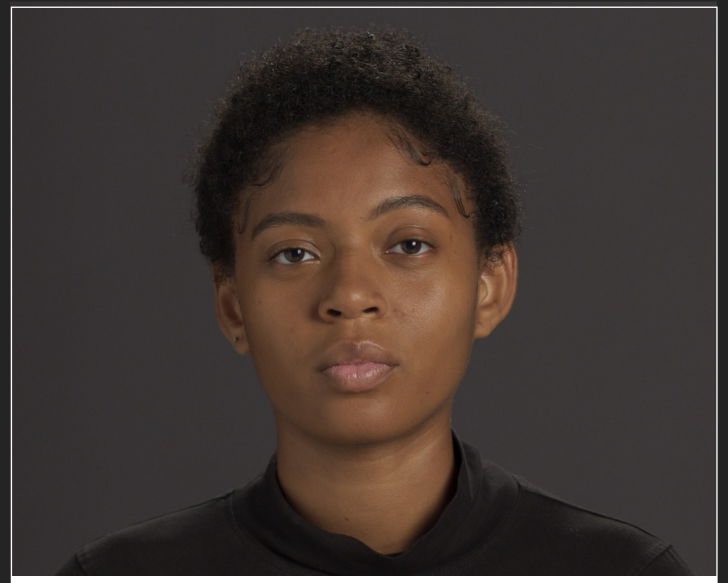
TUNGSTEN REF.

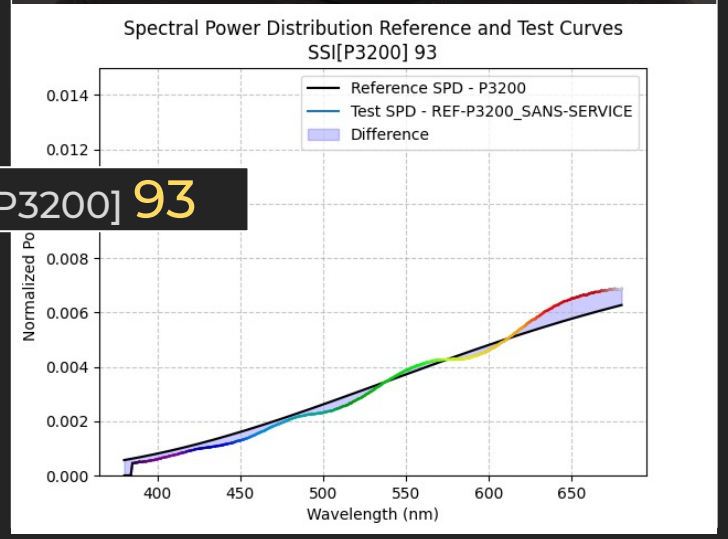



SSI[P3200] 72

SKYPANEL X

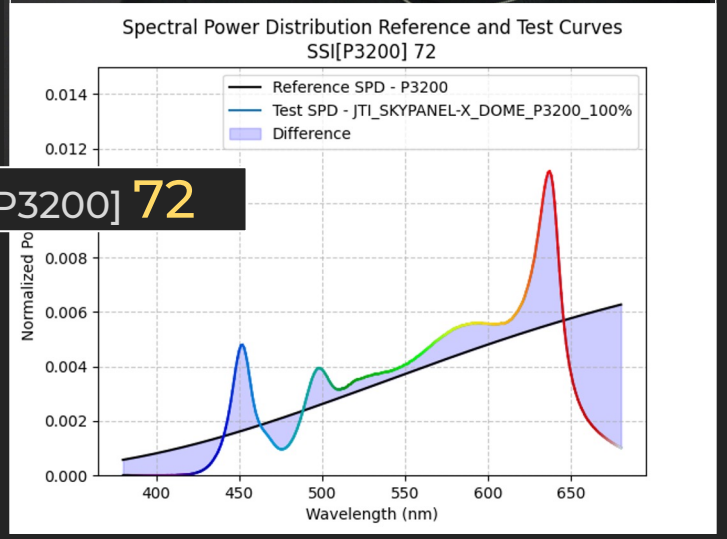
# Images & données ARRI SKYPANEL X Images & Data






SSI[P3200] 93

TUNGSTEN REF.




SSI[P3200] 72

SKYPANEL X

# SKYPANEL X - DOME

3200 K

## & TM-30-20

5600 K

+

## Comparison chart: SSI vs TM30-20 vs CRI

# TM-30-20

Toutes les données de cette partie dédiée au TM-30-20 ont été calculé avec le JETI.

Vous trouverez :

- les graphiques et résultats (incluant $R_f$ & $R_g$) du projecteur réglé à 100% de sa puissance à l'aide du JETI
- un tableau comparatif SSI / TM-30-20 / CRI.

Toutes les mesures sont données en 3200 K et en 5600K

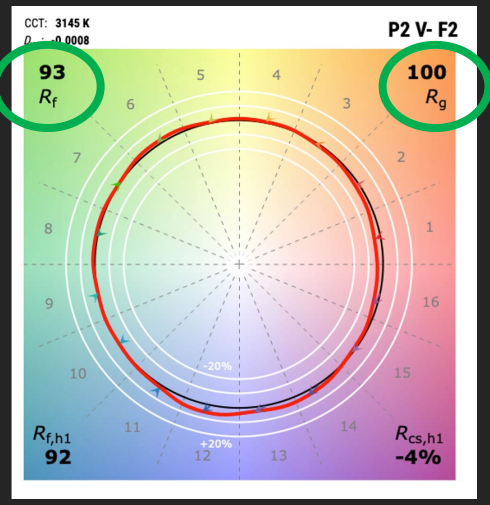
All the data in this section dedicated to the TM-30-20 has been calculated using JETI.

You will find :

- graphs and results (including $R_f$ & $R_g$) for the lighting fixture set at 100% power using JETI
- a table comparing SSI / TM-30-20 / CRI.

All measurements are provided in 3200K and 5600K

$R_f$




$R_g$

JETI

# TM-30-20

Dans le fichier JTL 20 consacré aux données TM-30-20 vous trouverez :

- les graphiques du projecteur réglé à 100%, à 50 % et à 25% de sa puissance à l'aide des indications du JETI
- les graphiques du projecteur réglé à 100% de sa puissance grâce aux indications du projecteur.

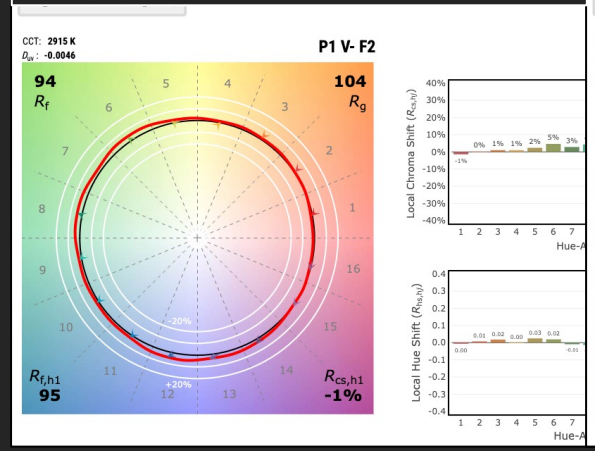
Toutes les mesures sont données en 3200 K et en 5600K

In the JTL 20 file dedicated to TM-30-20 data, you will find:

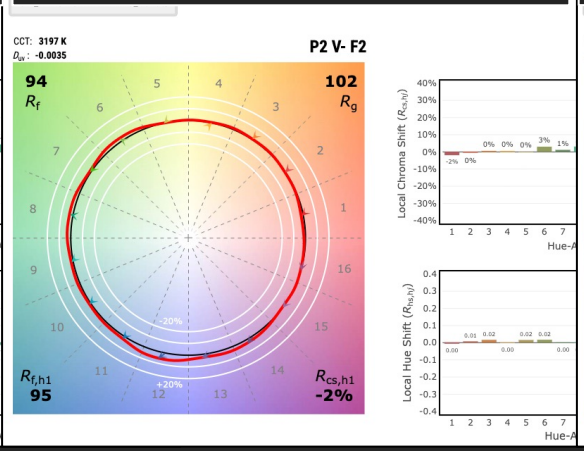
- graphs of the lighting fixture set at 100%, 50% and 25% power using JETI
- graphs of the lighting fixture set to 100% of its power thanks to the indications of the lighting fixture.

All measurements are provided in 3200K and 5600K

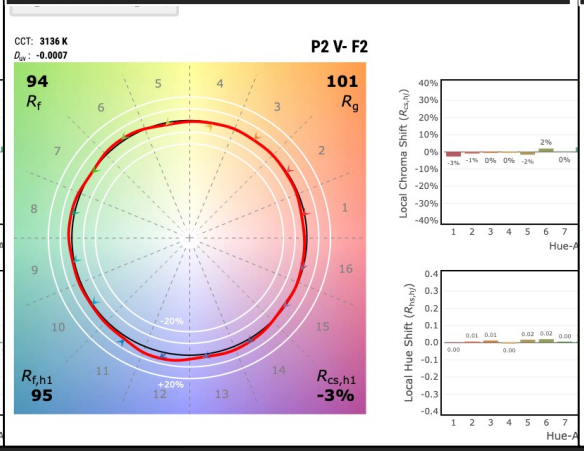
100 % indicated by fixture



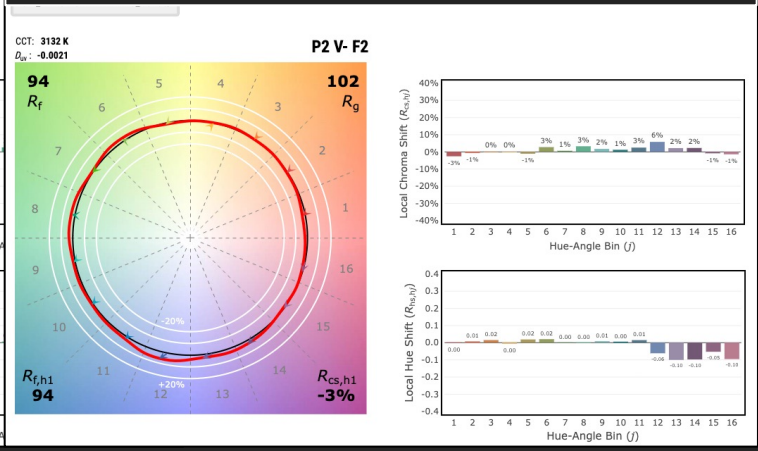

100 % indicated by JETI




50 % indicated by JETI




25 % indicated by JETI



3200 K

# DOME TM-30-20

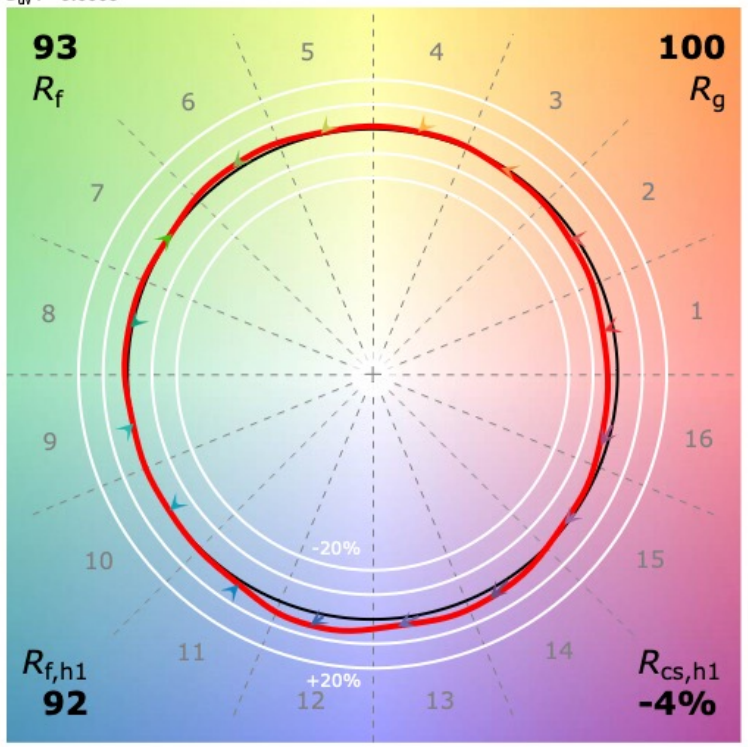
## ANSI/IES TM-30-20 Color Rendition Report

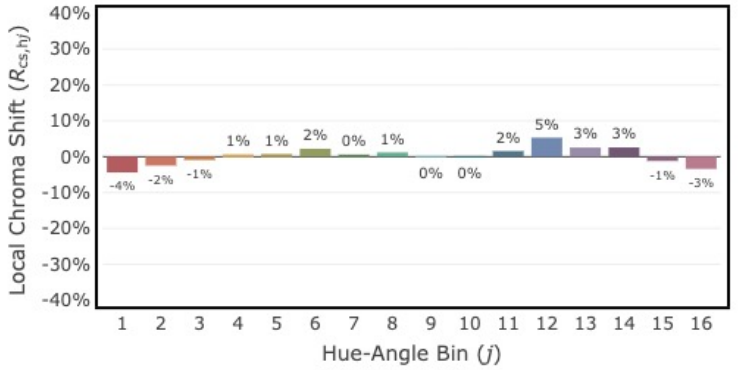
**Unique Identifier:**

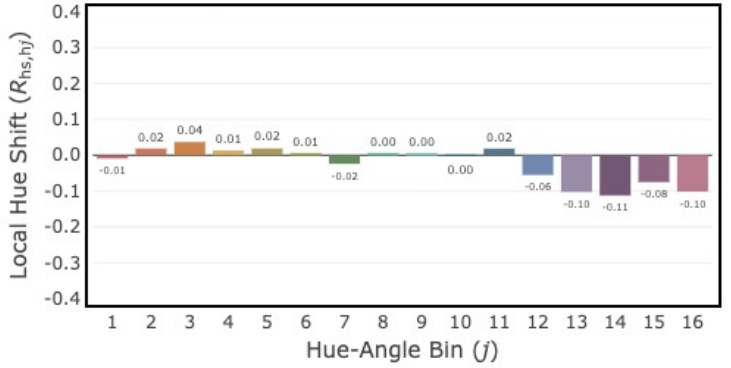
JTI_SKYPANEL-X_DOME_P3200_1

CCT: **3145 K**
$D_{uv}$ : **-0.0008**

**P2 V- F2**



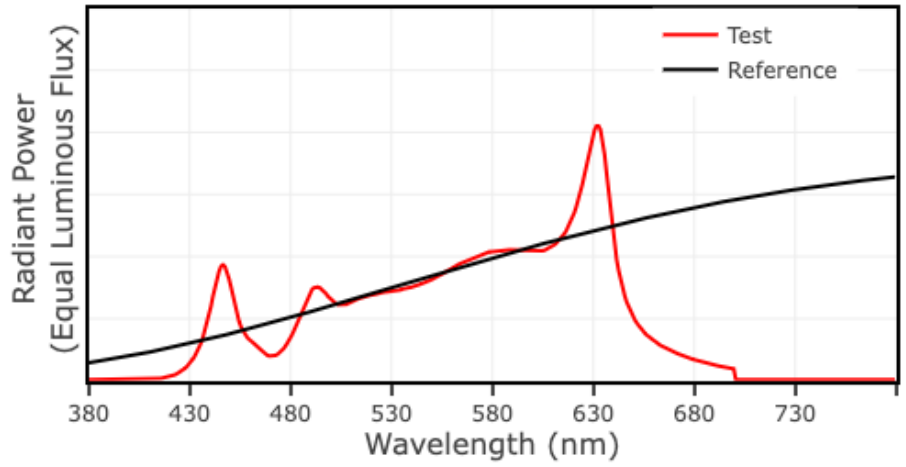



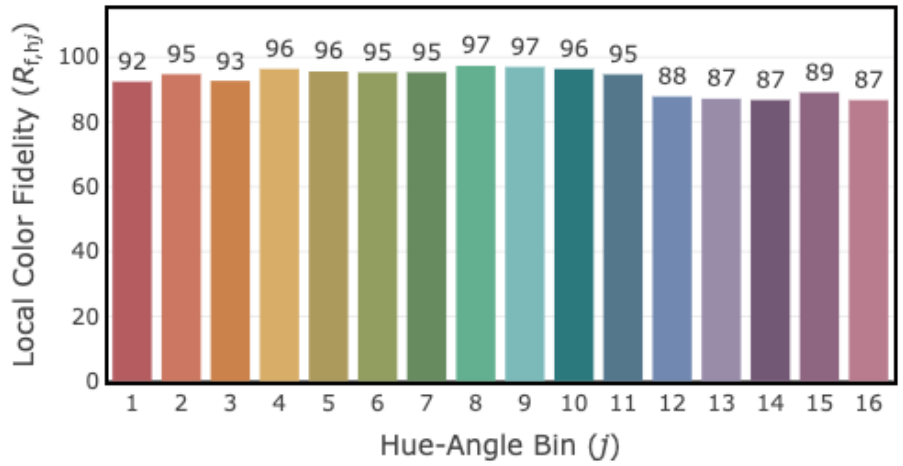



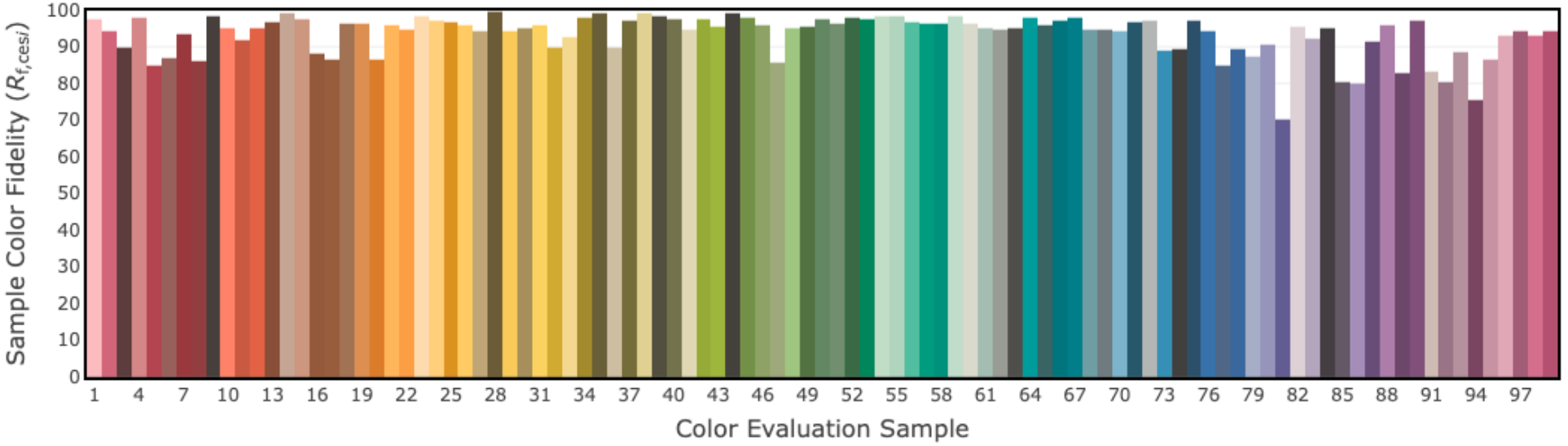

JETI

# 3200 K

## DOME TM-30-20




JETI

3200 K

# DOME

## Comparison chart: SSI vs TM30-20 vs CRI

| JETI 1511 HiRes | | | | | |
|---|---|---|---|---|---|
| SPD TEST | **SSI** | TM30 Rf | TM30 Rg | CRI Ra | CRI Re |
| TUNGSTEN VISUAL REF. | 93 | 98 | 100 | 97,51 | 97,05 |
| JTI_SKYPANEL-X_DOME_P3200_**LED_100%** | 72 | 93 | 100 | 95,26 | 94,07 |
| JTI_SKYPANEL-X_DOME_P3200_**JTI_100%** | 73 | 93 | 101 | 95,55 | 94,31 |
| JTI_SKYPANEL-X_DOME_P3200_**JTI_50%** | 71 | 94 | 101 | 96,4 | 95,22 |
| JTI_SKYPANEL-X_DOME_P3200_**JTI_25%** | 68 | 92 | 102 | 95,62 | 93,75 |

JETI

# DOME TM-30-20

**5600 K**

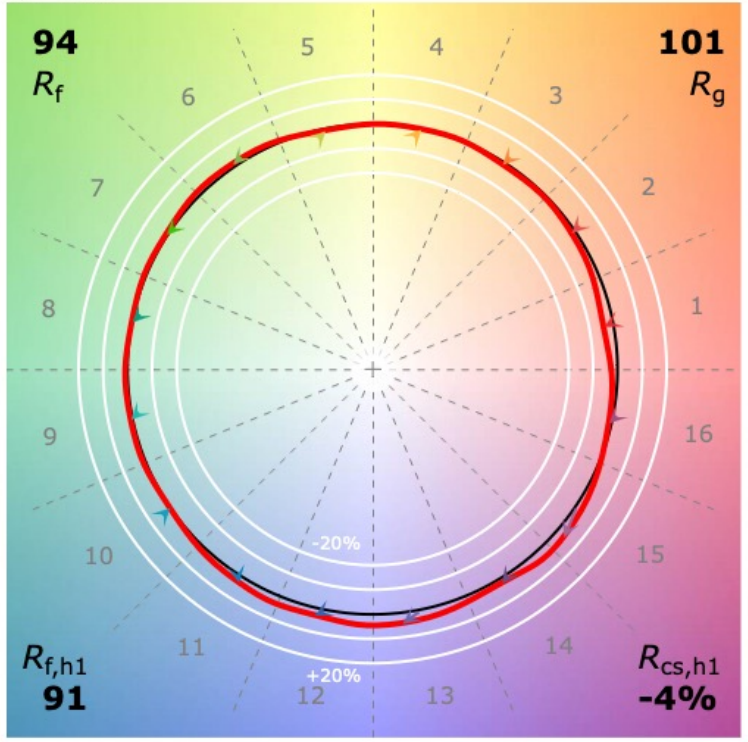
## ANSI/IES TM-30-20 Color Rendition Report

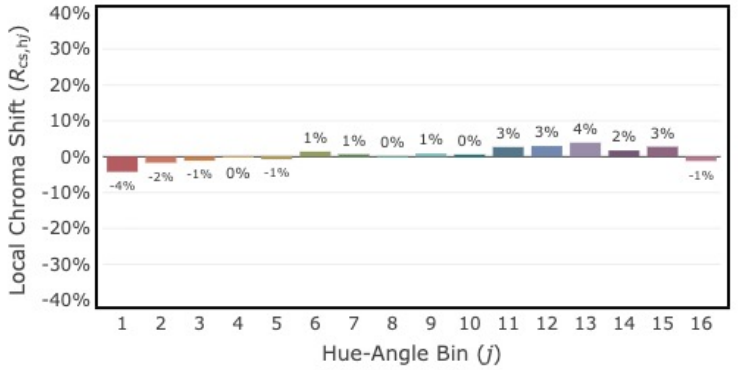
**Unique Identifier:**

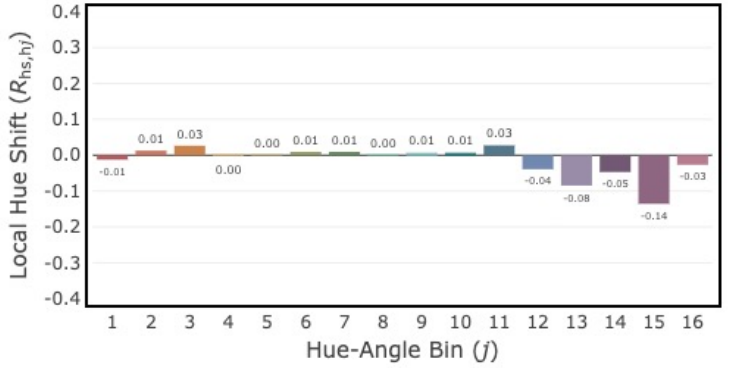
JTI_SKYPANEL-X_DOME_P5600_1

CCT: **5506 K**
$D_{uv}$ : **0.0024**

**P2 V- F2**



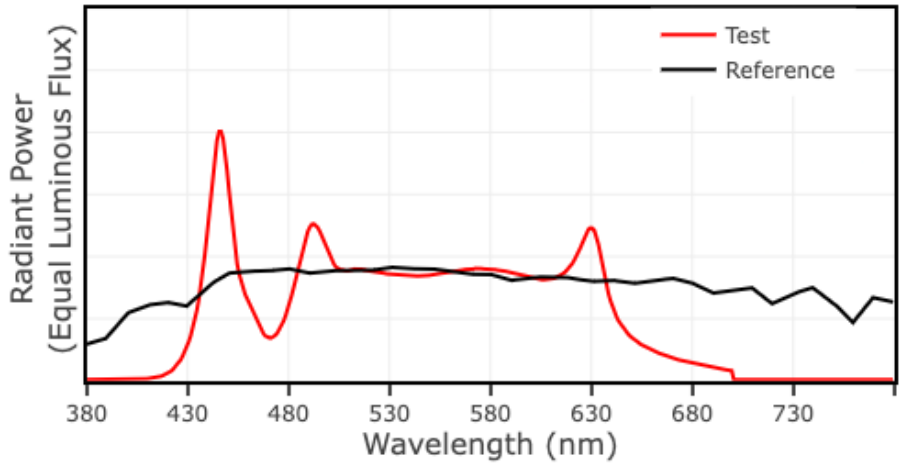



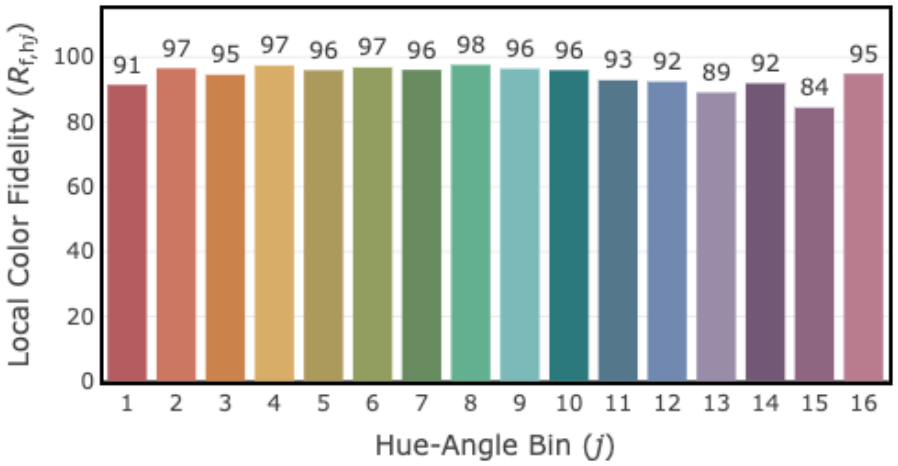



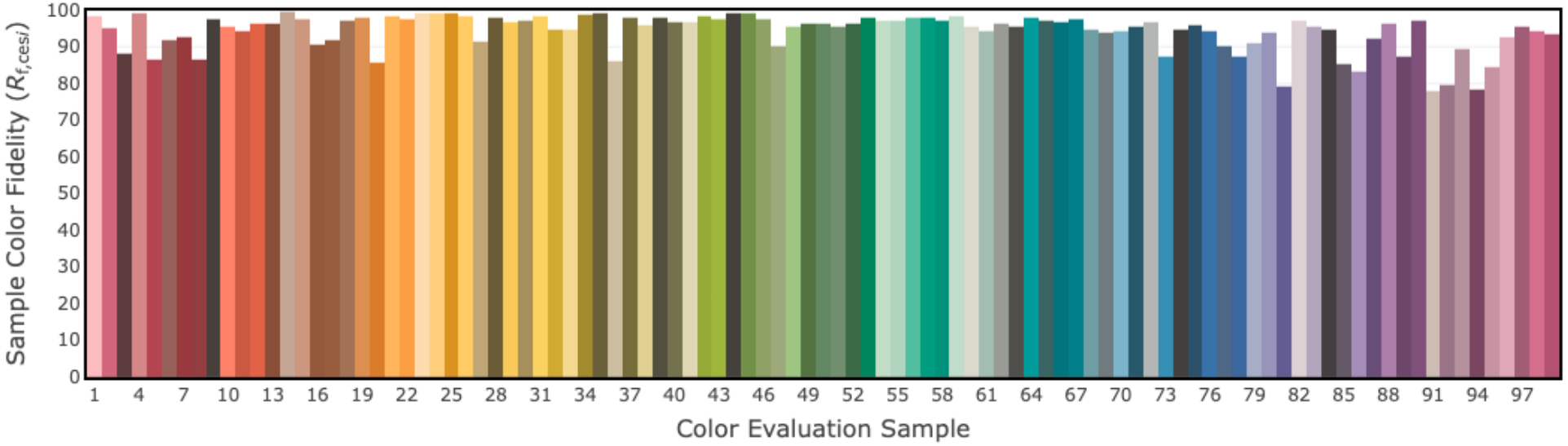

JETI

# DOME TM-30-20

**5600 K**




JETI

# DOME

5600 K

## Comparison chart: SSI vs TM30-20 vs CRI

| JETI 1511 HiRes | | | | | |
|---|---|---|---|---|---|
| SPD TEST | SSI | TM30 Rf | TM30 Rg | CRI Ra | CRI Re |
| JTI_SKYPANEL-X_DOME_P5600_**LED_100%** | 67 | 94 | 101 | 96,24 | 94,54 |
| JTI_SKYPANEL-X_DOME_P5600_**JTI_100%** | 67 | 94 | 101 | 96,35 | 94,61 |
| JTI_SKYPANEL-X_DOME_P5600_**JTI_50%** | 67 | 94 | 101 | 96,47 | 94,64 |
| JTI_SKYPANEL-X_DOME_P5600_**JTI_25%** | 64 | 93 | 101 | 95,47 | 92,84 |

JETI

# SKYPANEL X - HYPER

3200 K

& TM-30-20

5600 K

+

Comparison chart: SSI vs TM30-20 vs CRI

3200 K

# HYPER TM-30-20

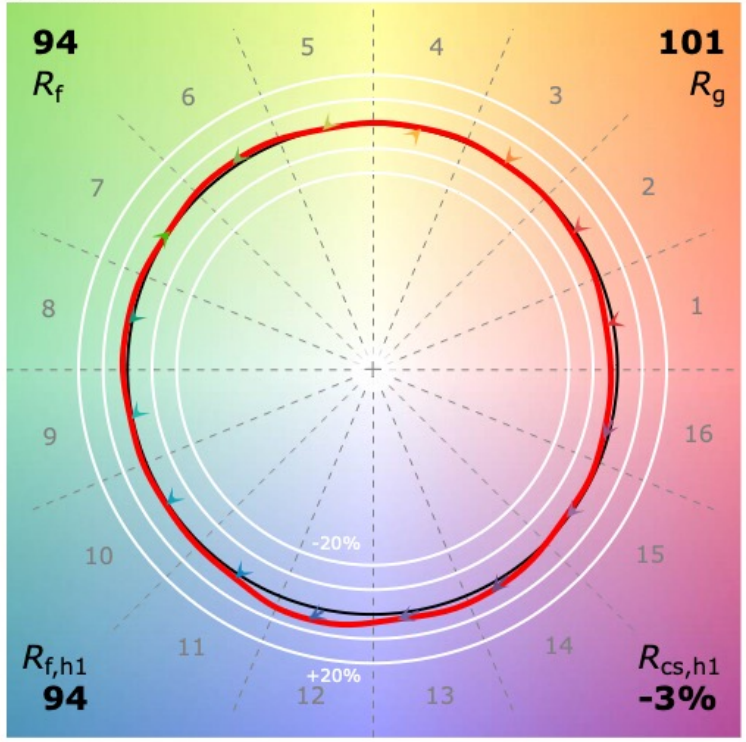
## ANSI/IES TM-30-20 Color Rendition Report

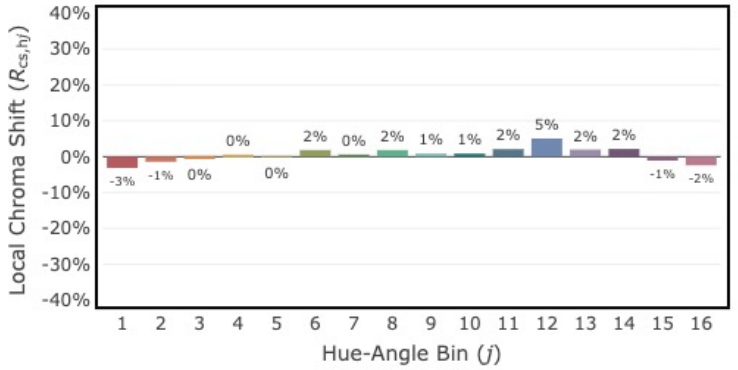
**Unique Identifier:**

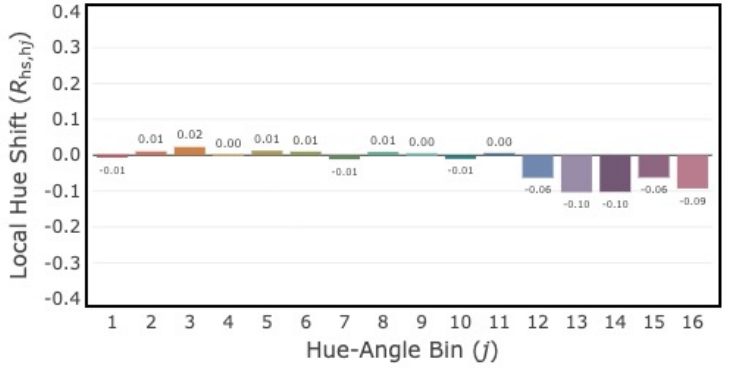
JTI_SKYPANEL-X_HYPER_P3200_

CCT: **3216 K**
$D_{uv}$: **-0.0015**

**P2 V- F2**



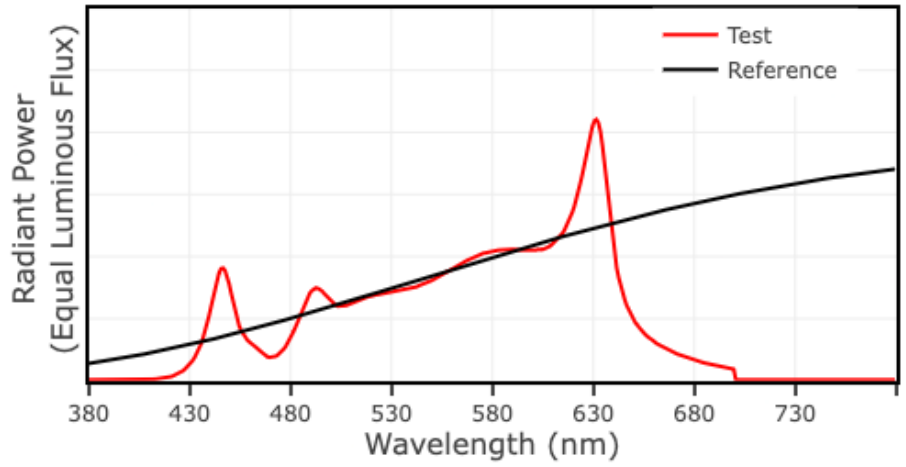



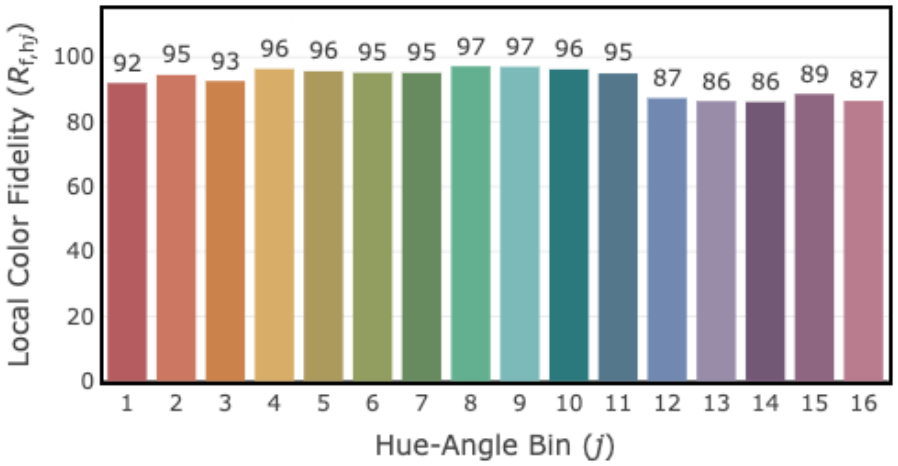



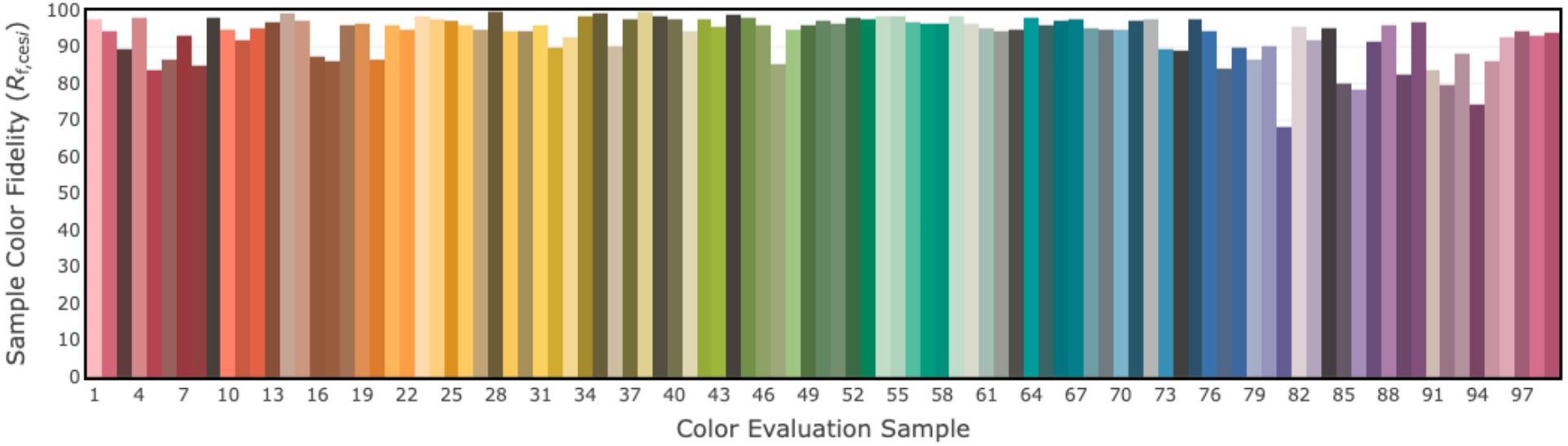

JETI

# 3200 K

## HYPER TM-30-20




JETI

3200 K

# HYPER

## Comparison chart: SSI vs TM30-20 vs CRI

| JETI 1511 HiRes | | | | | |
|---|---|---|---|---|---|
| SPD TEST | SSI | TM30 Rf | TM30 Rg | CRI Ra | CRI Re |
| TUNGSTEN VISUAL REF. | 93 | 98 | 100 | 97,51 | 97,05 |
| JTI_SKYPANEL-X_HYPER_P5600_**LED_100%** | 72 | 94 | 101 | 96,66 | 95,84 |
| JTI_SKYPANEL-X_HYPER_P3200_**JTI_100%** | 72 | 94 | 101 | 96,66 | 95,84 |
| JTI_SKYPANEL-X_HYPER_P3200_**JTI_50%** | 71 | 94 | 102 | 96,44 | 95,58 |
| JTI_SKYPANEL-X_HYPER_P3200_**JTI_25%** | 68 | 93 | 102 | 96,37 | 94,98 |

JETI

# HYPER TM-30-20

**5600 K**

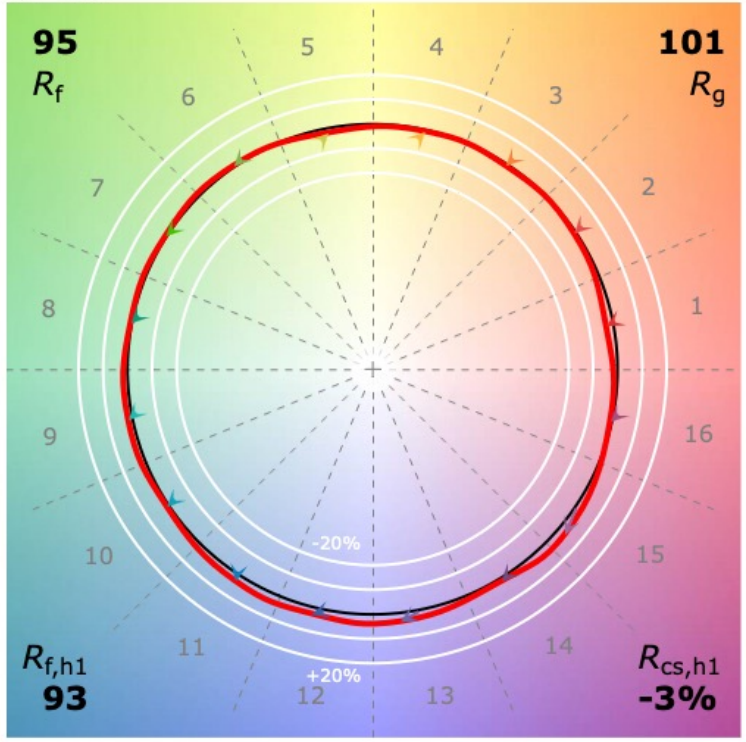
## ANSI/IES TM-30-20 Color Rendition Report

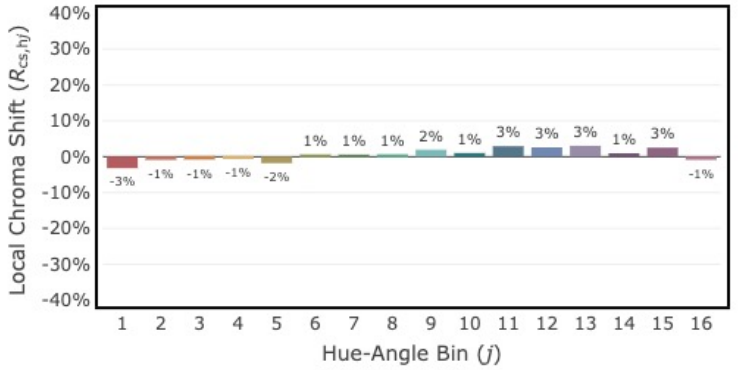
**Unique Identifier:**

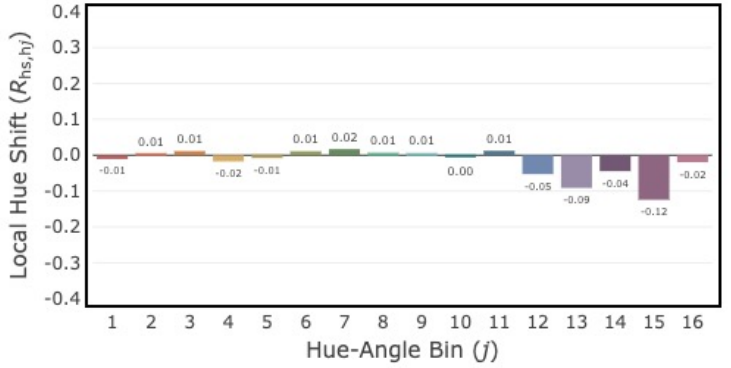
JTI_SKYPANEL-X_HYPER_P5600_

CCT: **5521 K**
$D_{uv}$ : **0.0031**

**P2 V- F1**



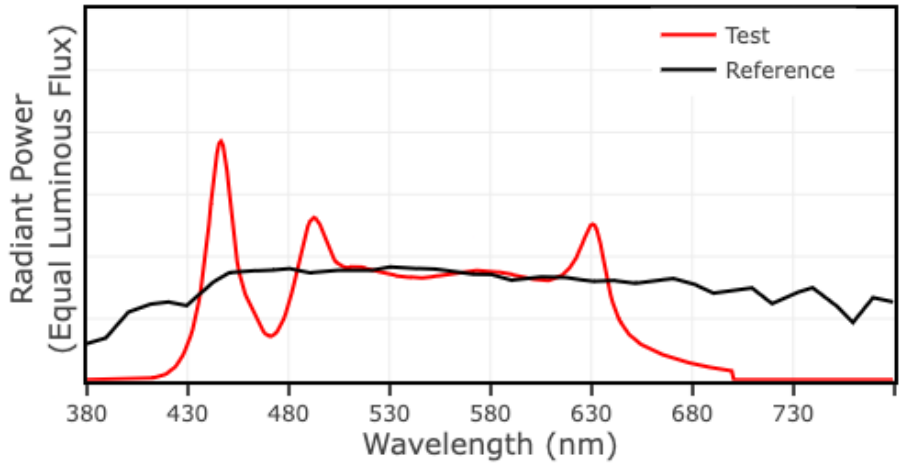



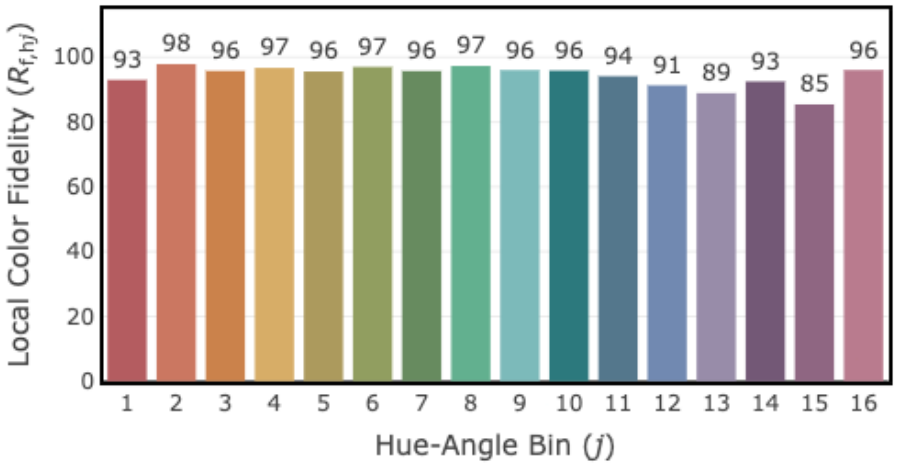



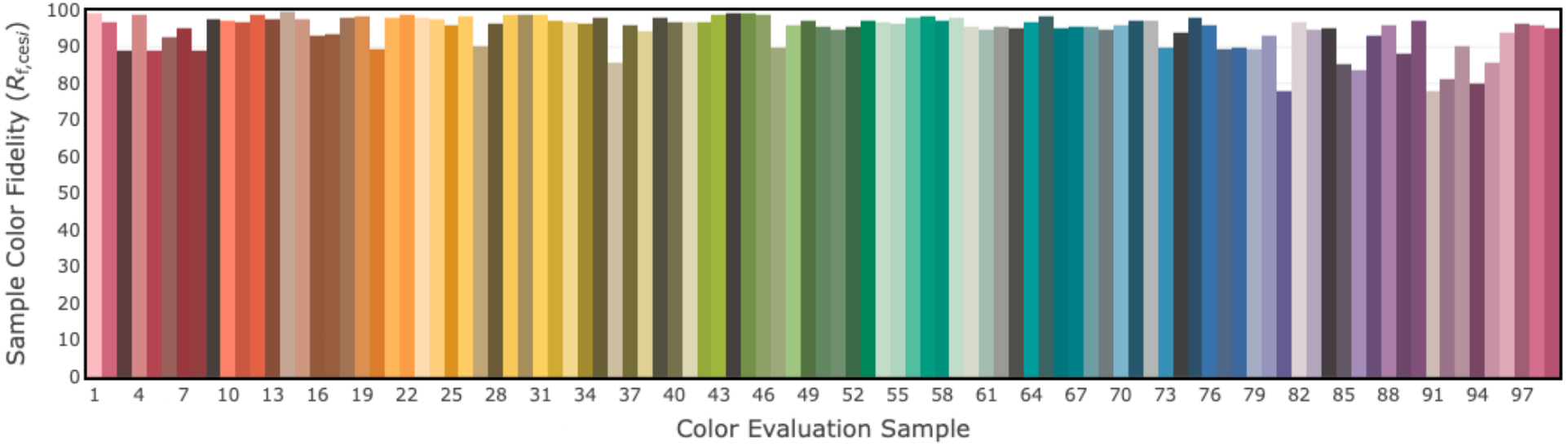

JETI

# HYPER TM-30-20

**5600 K**




JETI

# HYPER

5600 K

## Comparison chart: SSI vs TM30-20 vs CRI

| JETI 1511 HiRes | | | | | |
|---|---|---|---|---|---|
| SPD TEST | SSI | TM30 Rf | TM30 Rg | CRI Ra | CRI Re |
| JTI_SKYPANEL-X_HYPER_P5600_**LED_100%** | 68 | 95 | 101 | 96,93 | 95,44 |
| JTI_SKYPANEL-X_HYPER_P5600_**JTI_100%** | 68 | 95 | 101 | 97,02 | 95,49 |
| JTI_SKYPANEL-X_HYPER_P5600_**JTI_50%** | 67 | 95 | 101 | 97,11 | 95,6 |
| JTI_SKYPANEL-X_HYPER_P5600_**JTI_25%** | 64 | 94 | 101 | 96,54 | 94,27 |

JETI

# Données constructeur

# Manufacturer’s data

# ARRI

# Images & données ARRI SKYPANEL X Images & Data

| | |
|---|---|
| Name of the tested product | SkyPanel X |
| Company | Arnold & Richter Cine Technik GmbH & Co. Betriebs KG |
| Type of light: Fresnel, panel or others | Panel |
| Full Color or Bi-Color | Full Color |
| IP | 66 |
| Dimensions (inches/cm) | 73,8 x 33,9 x 15,4 cm / 29.1 x 13.3 x 6.1 in |
| Weight (Lbs/kg) | approx. 15 kg / 33 lbs |
| Built-in ballast | Yes |
| Ballast weight | |
| Mandatory optical accessory | Yes |
| Optional optical accessories (excludes lightbox and louvers) | Yes |
| If yes to optional, which ones? | Hard (HyPer Optic), soft (X21 Dome or S60 Adapter) |
| Type of circuit board material | MCPCB |
| Type of housing construction (metal, plastic, others) | Mixed (metal, Plastic) |
| Website | https://www.arri.com/en/lighting/led/skypanel/x-series |
| Person in charge/Position | M. Huelskemper / VP Product Management |

| | | | | | |
|---|---|---|---|---|---|
| Electrical power consumption | Max. 800W | | | | |
| Maximum internal temperature | | Tc 85°C | | Tc +185° F | |
| AC/DC - Battery voltage | 100-240 V | AC only | DC only Battery - voltage | | 48 V – 52V |
| With AC, draws | max. 20 Amps | | With DC, draws | | 15 Amps |

| | | | | | |
|---|---|---|---|---|---|
| Panel: Focusable unit | Yes | | Beam angles | | 11° |
| Lux @ 1 meter (3.3 ft.) (Without diffuser) | 454000@ 3200K 480000@ 5600K | Lux @ 3 meter (10ft.) (Without diffuser) | 50444@ 3200K 53333@ 5600K | Lux @ 5 meter (15ft.) (Without diffuser) | 18160@ 3200K 19200@ 5600K |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Fresnel diameter (cm/inches) | | Beam angles: | Spot | ° | Mid | ° | Flood | ° |
| Lux @ 1 meter (3.3 ft.) **Optic Spot** | @ 3200K @ 5600K | Lux @ 3 meters (10 ft.) **Optic Spot** | @ 3200K @ 5600K | Lux @ 5 meters (15 ft.) **Optic Spot** | @ 3200K @ 5600K | | | |
| Lux @ 1 meter (3.3 ft.) **Optic Mid** | @ 3200K @ 5600K | Lux @ 3 meters (10 ft.) **Optic Mid** | @ 3200K @ 5600K | Lux @ 5 meters (15 ft.) **Optic Mid** | @ 3200K @ 5600K | | | |
| Lux @ 1 meter (3.3 ft.) **Optic Flood** | @ 3200K @ 5600K | Lux @ 3 meters (10 ft.) **Optic Flood** | 1 @ 3200K @ 5600K | Lux @ 5 meters (15 ft.) **Optic Flood** | @ 3200K @ 5600K | | | |

| Full Color (RGB - Large spectrum) | | | |
|---|---|---|---|
| Number of color diodes | 6 | Types | R, G, B, A, C, L |
| Color temperature range | 1500K | - | 20000K |
| Color temperature preset | Yes | | |
| Green Magenta Control | Yes | | |
| Saturation Hue Adjustment | Yes | | |
| Gels preset | Yes | | |
| Camera profiles LUTs | Yes | | |
| Color spaces | Yes | No | |



| Color index | | | | |
|---|---|---|---|---|
| CRI | 90 min. / 99 max.<br>98@3200K<br>99@5600K<br>(High CRI VariFan mode) | | | |
| TLCI | 93 typical (High CRI VariFan mode) | | | |
| TMA 30-18/20 - Rf | 89 min. / 96 max<br>95@3200K<br>96@5600K<br>(High CRI VariFan mode) | TMA 30-18/20 - Rg | 100 min. / 102 max<br>101@3200K<br>102@5600K<br>(High CRI VariFan mode) | |
| SSI [P3200] | 75<br>(High CRI VariFan mode) | SSI [CIE D55] | 69<br>(High CRI VariFan mode) | |

| Other specificities |
|---|
| Detachable Control panel (wired, opt.)<br>Connectors:<br>2x AC (In and Through), max. 20 A, TRUE1 TOP<br>1x DC (In) 48 V for battery use<br>2x DMX (In and Out), XLR-5pin<br>2x LAN / Ethernet, RJ45, EtherCON compatible<br>1x USB type C<br>1x LEMO for ALL-WEATHER Control Panel |

| | | | | | |
|---|---|---|---|---|---|
| Operating temperatures | From -20° to +40 | | | From -4°F to 104°F | |
| Fan: | Yes | | Switchable | | No |
| Noise level in dB at 1 m | | | | | |
| If switchable, % of light output | | | If switched off, for how long | | |
| High speed possibility | Yes | No | Maximum speed | | |
| Camera shutter possibility | Yes | No | Maximum angle | | |

| | | | |
|---|---|---|---|
| Operating positions | All | No: limitations: | |
| Spigot diameter | 28mm | | |

| | | | | | |
|---|---|---|---|---|---|
| Memory of settings | Yes | | Wireless DMX compatibility | Yes | |
| | | | Built in Lumen radio protocol | Yes | |
| Wired DMX compatibility | Yes | | Maximum distance | | |
| | | | Master/Slave: for synchronising multiple units | Yes | |
| Native apps | Yes | | Apps compatibility | Yes | |
| Which ones? | LiCo, Luminaire, Blackout | | | | |
| | | | Color shifts when dimming | | No |
| | | | Change of light levels when selecting CT | Yes | |

| Environmental concern | |
|---|---|
| Warranty (in years) | 3 years |
| For how long parts are available? | 5 years after product discontinuation |
| Average repair time | 1 hour |
| What do you know | ARRI provides service for all products and strives to offer a quick |

| | |
|---|---|
| about recycling your products? | and cost-efficient repair service. In case customers return products to us after their active product life we take care of forwarding them to a certified recycling service. |
| Do customers send them back to you or do they take care of it themselves? | In most cases when products are “retired” or discarded customers do not send them back or notify us. |
| Country of manufacturing | Germany |

Please use next page for other specificities or comments. Thank you!

Other specificities & remarks

° Product Service: ARRI collaborates with certified service centers around the world to enable quick and sustainable (short distance transport) service. If customers have internal repair facilities also trainings for repair and access to spare parts are offered on request.

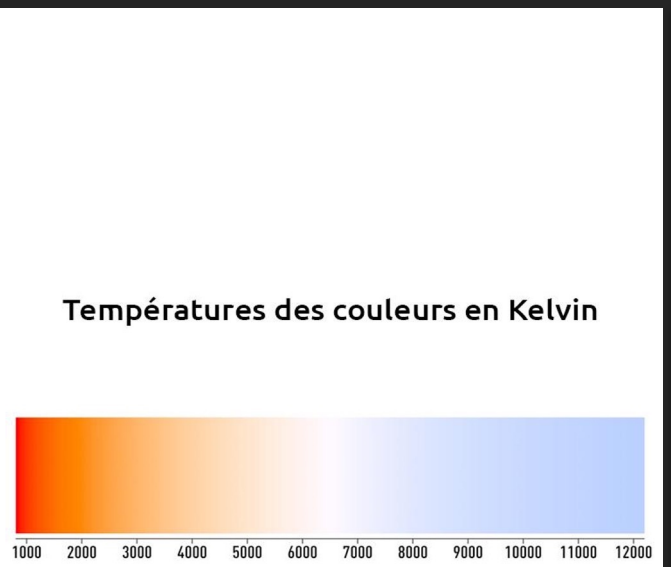
Explications / Explanations

K / CCT K / Duv /

x,y coordinates

# Images & Data / Explications / Explanations

| Type de données : Type of data: | Temp K | CCT K | Duv | x | y | SSI |
|---|---|---|---|---|---|---|

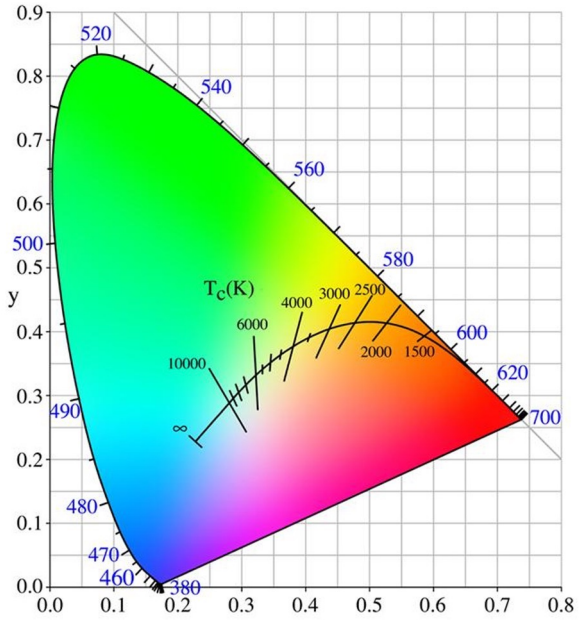



La température de couleur est la valeur cible idéale que nous cherchons à atteindre pour faire les mesures (3200 ou 5600). Celle-ci est basée sur la CCT et son unité est donc le Kelvin (K). La valeur peut être donnée directement par le projecteur ou réglée et ajustée avec les mesures prisent par le spectroradiomètre JETI 1511 HiRes.

The color temperature is the ideal target value we aim to achieve for measurements (3200 or 5600). It is based on the CCT and its unit is Kelvin (K). The value can be directly provided by the projector or set and adjusted using the measurements taken by the JETI 1511 HiRes spectroradiometer.

# Images & Data / Explications / Explanations

| Type de données : Type of data: | Temp K | CCT K | Duv | x | y | SSI |
|---|---|---|---|---|---|---|

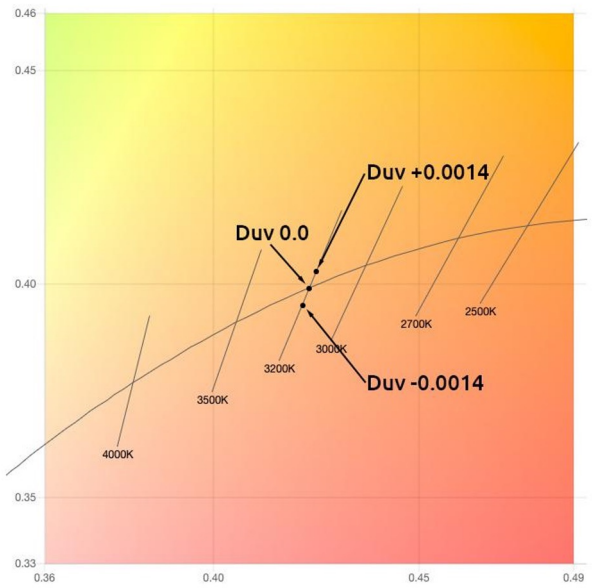



La CCT ou température de couleur corrélée, est la température précise d'un radiateur de Planck (corps noir) ayant la chromaticité la plus proche possible de celle associée à une distribution spectrale donnée. La CCT est donc calculée à partir de la distribution spectrale (SPD) de la source lumineuse ;Elle utilise comme unité standard le Kelvin (K). La CCT seule ne suffit pas pour définir précisément les coordonnées chromatiques (x, y ou u', v') d'une couleur, il faut également le Duv.

CCT, or correlated color temperature, is the precise temperature of a Planckian radiator (black body) that has a chromaticity as close as possible to that associated with a given spectral distribution. CCT is calculated from the spectral power distribution (SPD) of the light source; it uses Kelvin (K) as the standard unit. CCT alone is not sufficient to precisely define the chromatic coordinates (x, y or u', v') of a color, Duv is also required.

# Images & Data / Explications / Explanations

| Type de données : Type of data: | Temp K | CCT K | Duv | x | y | SSI |
|---|---|---|---|---|---|---|



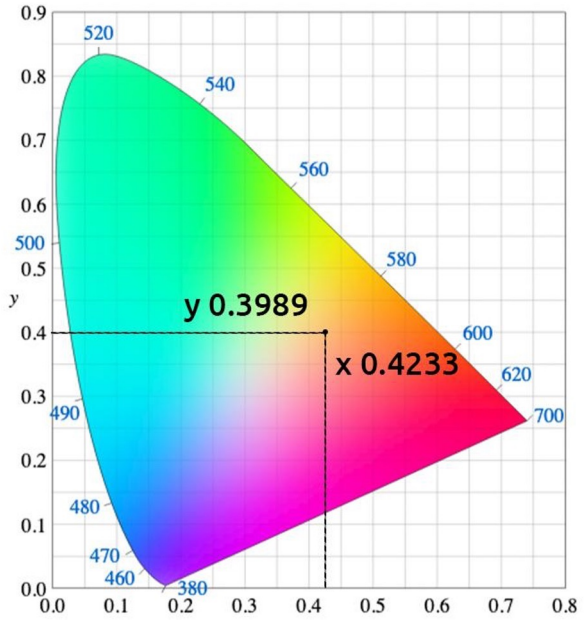

Le Duv ou Delta u,v est utilisé pour décrire la distance entre les coordonnées chromatiques de la source de lumière et le radiateur de Planck, appelé également lieu du corps noir. Une valeur négative indique que la source est en dessous de la courbe du corps noir (dominante magenta ou rose), une valeur positive indique que la source est au-dessus de la courbe du corps noir (dominante verte ou jaune). L'EBU TECH 3355 préconise une valeur limite de viabilité a la CCT (différence juste perceptible) de 0,0054, l'ANSI une valeur de +–0,006.

Duv or Delta u,v is used to describe the distance between the chromatic coordinates of the light source and the Planckian radiator, also known as the black body. A negative value indicates that the source is below the black body curve (magenta or pink tint), while a positive value indicates that the source is above the black body curve (green or yellow tint). The EBU TECH 3355 recommends a perceptibility threshold at the CCT

(just noticeable difference) of 0.0054, while ANSI recommends a value of +–0.006.

# Images & Data / Explications / Explanations

| Type de données : Type of data: | Temp K | CCT K | Duv | x | y | SSI |
|---|---|---|---|---|---|---|




Le système de coordonnées CIE xy 1931 est dérivé du système CIE XYZ. Les valeurs x et y sont des coordonnées cartésiennes qui permettent de définir précisément une couleur, sans toutefois prendre en compte sa luminance.

The CIE 1931 xy coordinate system is derived from the CIE XYZ system. The x and y values are Cartesian coordinates that allow for precise color definition, without considering its luminance.

## Tournage des tests

## Shooting tests

| | | |
|---|---|---|
| Directeur de Cininter | François Roger | Cininter, CEO |
| Directeur de la photographie, AFC | Philippe Ros | Cinematographer, AFC & co-chair of the ITC |
| Directeur technique de la CST | Éric Chérioux | CST Technical Manager |
| Directeur de la photographie, AFC | Patrick Duroux | Cinematographer AFC |
| Directrice de la photographie, UCO & Représentante du département image de la CST | Françoise Noyon | Cinematographer, UCO & Representative of the CST image department |
| Consultant en postproduction & Représentant du département image de la CST | Thierry Beaumel | Post-production consultant & Representative of the CST image department |
| Senior coloriste, AFC membre associé | Jean Coudsi | Senior Colorist, AFC associate member |
| Monteuse, CST | Bohdana Korohod | Editor, CST |
| Responsable de la communication externe et interne CST | Sebastien Lefebvre | Head of External and Internal Communications CST |

# Banque de données / Data Bank

## PDF presentations

| | | |
|---|---|---|
| Directeur de la photographie, AFC | Philippe Ros | Cinematographer, AFC & co-chair of the ITC |
| Directeur technique de la CST | Éric Chérioux | CST Technical Manager |
| Directrice de la photographie, UCO & Représentante du département image de la CST | Françoise Noyon* | Cinematographer, UCO & Representative of the CST image department |
| Consultant en postproduction & Représentant du département image de la CST | Thierry Beaumel* | Post-production consultant & Representative of the CST image department |
| Responsable de la communication externe et interne, CST | Sebastien Lefebvre | Head of External and Internal Communications, CST |

## Clips

| | | |
|---|---|---|
| Monteuse, CST | Bohdana Korohod | Editor, CST |
| Directeur de la photographie, AFC | Patrick Duroux | Cinematographer, AFC |
| Responsable de la communication externe et interne CST | Sebastien Lefebvre | Head of External and Internal Communications CST |