Journée Très LEDs - De beaux tests à faire

Images & mesures par constructeur

JTL 10

TRANSPA

CST

icseyes services

Be4Post

MagicHour
Que vos projets deviennent réalité

A Bright LED day - Brilliant tests on the horizon

Images & measurements by manufacturer

KELVIN

EPOS 300

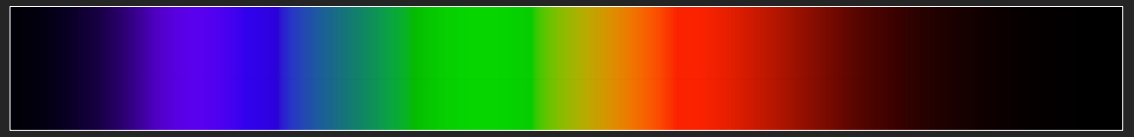
SONY VENICE 2Z

https://www.kelvinlight.com/

https://www.eurolight-system.com/index.php

Full-color

300 W Données du fabricant / Manufacturer's data



KELVIN

EPOS 300

Interview du fabricant en français :

Interview with the manufacturer in French:

https://www.youtube.com/watch?v=MqkmBQzDRN0&list=PLW8aVswX2z2Y6fVtZuJdpemmqLPavU5if&index=8

Plan / Plan

- EPOS 300 & Images
  - ✓ Peau caucasienne
    - Comparatifs EPOS 300 vs tungstène
    - Sous-exposition : ND 06 vs gradateur
  - ✓ Peau noire
    - Comparatifs EPOS 300 avec tungstène
    - Sous-exposition : ND 06 vs gradateur
- Mesures : Explications & exemples
- Mesures
- EPOS 300, Spectra & SSI
- EPOS 300, Images, Spectra & SSI
- EPOS 300, & TM-30
- Données constructeur
- Explications : K, CCT K, Duv & coordonnées x,y

- EPOS 300 & Images
  - ✓ Caucasian skin tone
    - Comparison EPOS 300 vs tungsten
    - Underexposure: ND 06 vs dimmer
  - ✓ Black skin tone
    - Comparison EPOS 300 vs tungsten
    - Underexposure ND 06 vs dimmer
- Measurements: Explanations & examples
- Measurements
- EPOS 300, Spectra & SSI
- EPOS 300, Images, Spectra & SSI
- EPOS 300 & TM-30
- Manufacturer’s data
- Explanations on K, CCT K, Duv & x,y coordinates

EPOS 300
& Images

CAUCASIAN

Alice

SONY VENICE 2

EPOS 300

Comparison with

TUNGSTEN

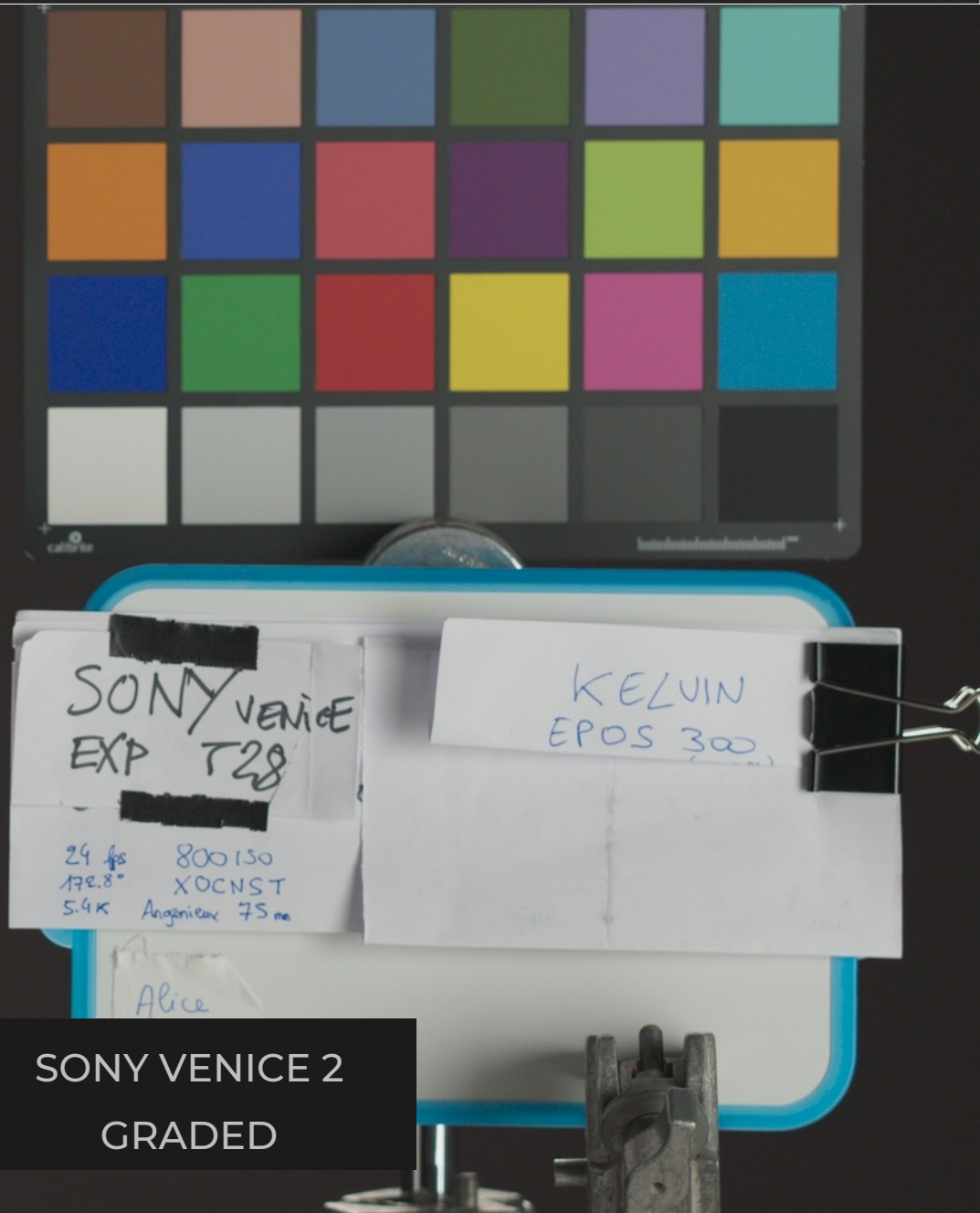
TUNGSTEN REF.

SONY VENICE 2

GRADED

Images & données KELVIN EPOS 300 Images & Data

EPOS 300



SONY VENICE 2

GRADED

Images & données KELVIN EPOS 300 Images & Data

TUNGSTEN REF.

SONY VENICE

GRADED

EPOS 300

CAUCASIAN

Alice

SONY VENICE 2

EPOS 300

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%

Images & données KELVIN EPOS 300 Images & Data

UNGRADED

EPOS 300

Underexposed -2 stops

Images & données KELVIN EPOS 300 Images & Data

GRADED

EPOS 300

Underexposed -2 stops

Images & données KELVIN EPOS 300 Images & Data

UNGRADED

EPOS 300

+ Dimmer @ 25%

GRADED

EPOS 300

+ Dimmer @ 25%

Images & données KELVIN EPOS 300 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

EPOS 300
+ Dimmer @ 25%

EPOS 300
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

EPOS 300
+ Dimmer @ 25%

EPOS 300
Underexposed -2 stops

CAUCASIAN

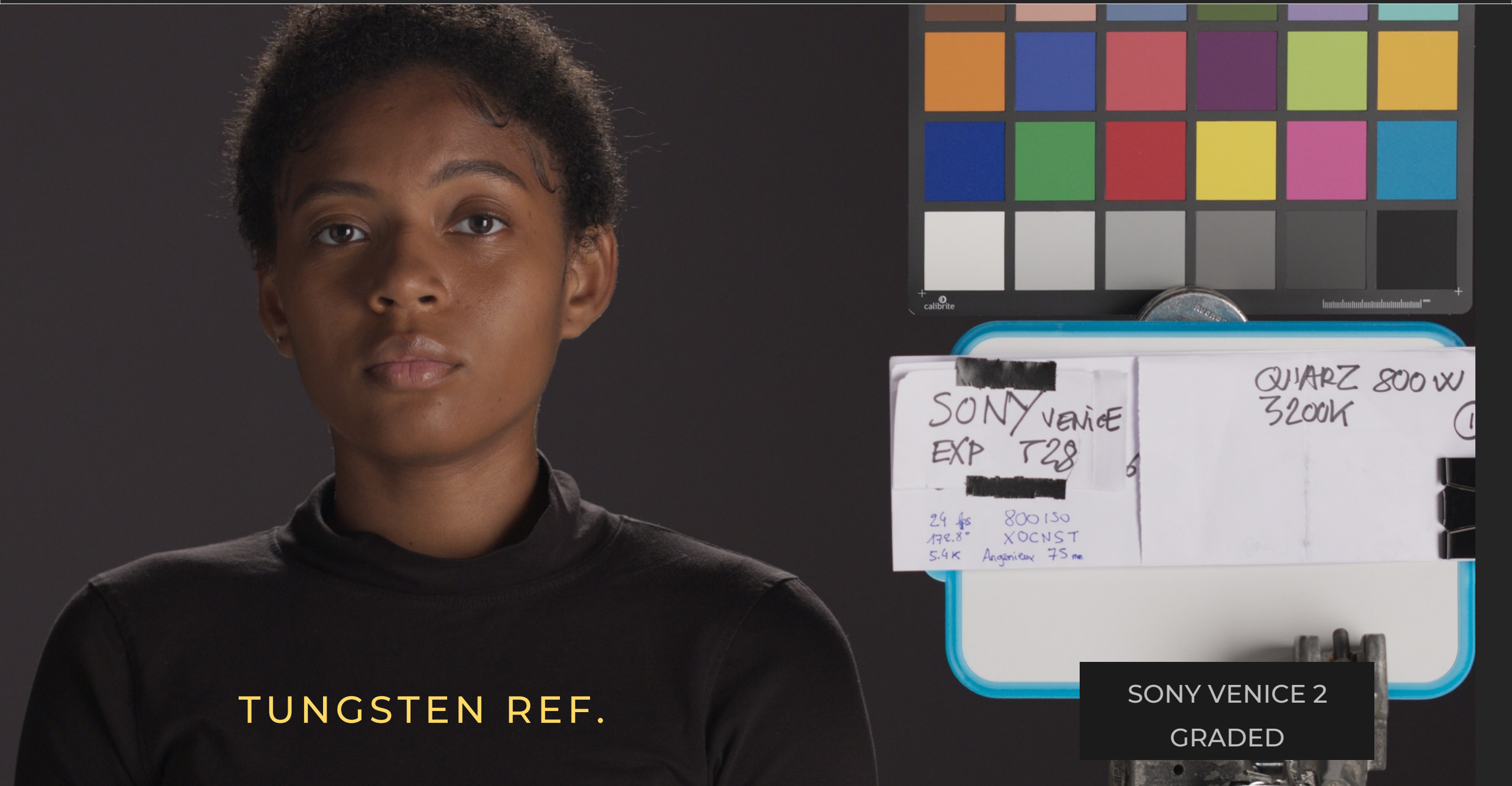
Alice

SONY VENICE 2

EPOS 300

Comparison with

TUNGSTEN


TUNGSTEN REF.
SONY VENICE
EXP T28
QUARZ 800 W
3200K
SONY VENICE 2
GRADED

Images & données KELVIN EPOS 300 Images & Data

EPOS 300

SONY VENICE 2
GRADED

TUNGSTEN REF.

SONY VENICE 2

GRADED

EPOS 300

CAUCASIAN

Alice

SONY VENICE 2

EPOS 300

UNDEREXPOSED (-2 STOPS ND 06)

Comparison with

DIMMER @ 25%

UNGRADED

EPOS 300

Underexposed -2 stops

GRADED

EPOS 300

Underexposed -2 stops

Images & données KELVIN EPOS 300 Images & Data

UNGRADED

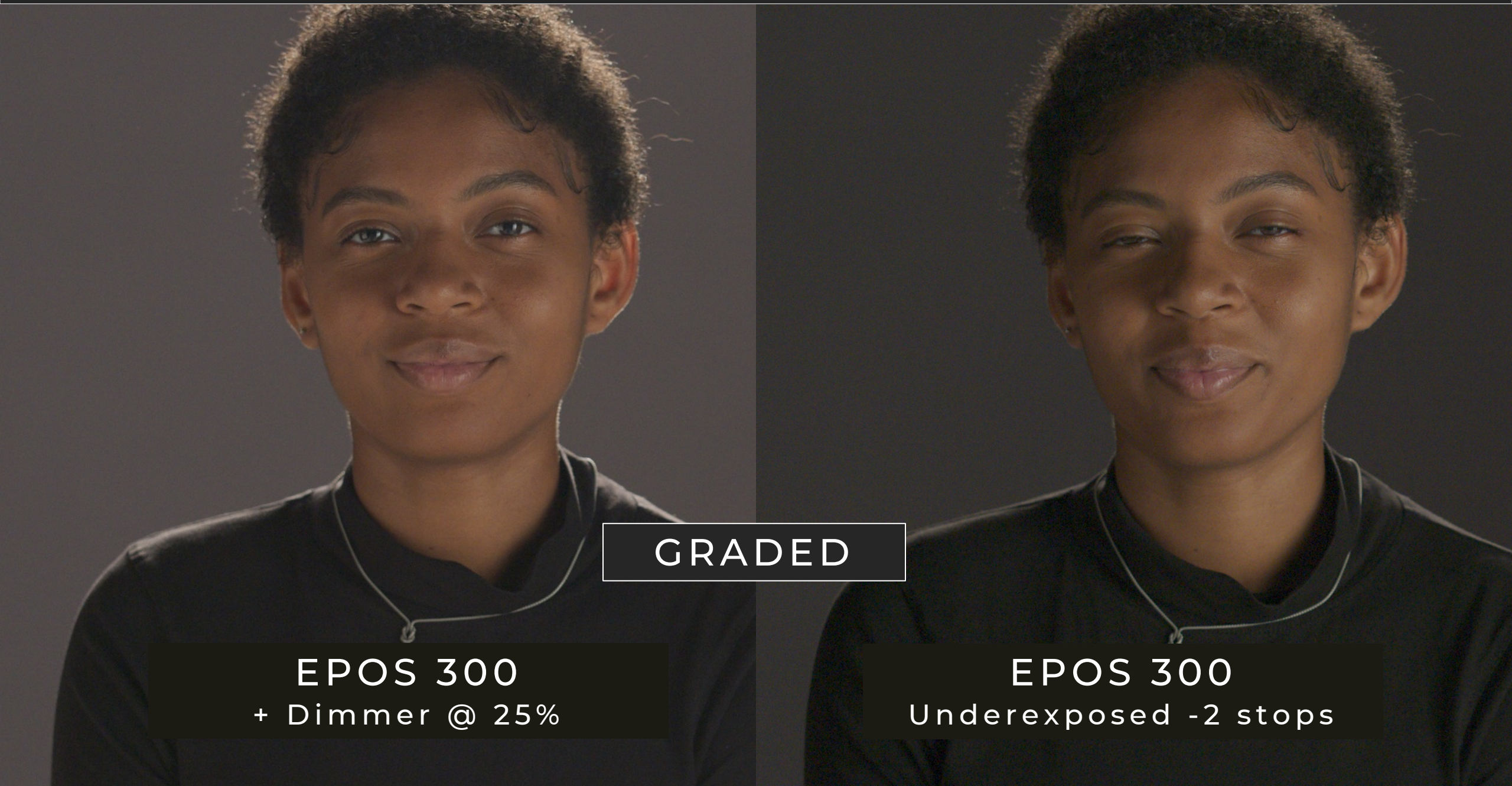
EPOS 300

+ Dimmer @ 25%

GRADED

EPOS 300
+ Dimmer @ 25%

Images & données KELVIN EPOS 300 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

EPOS 300
+ Dimmer @ 25%

EPOS 300
Underexposed -2 stops

Images & données KELVIN EPOS 300 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.

UNGRADED

EPOS 300
+ Dimmer @ 25%

EPOS 300
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).

Images & données KELVIN EPOS 300 Images & Data

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 EPOS 300

LIGHT			JETI 1511 HiRes					
Ref	Power	Temp K	CCT K	Duv	x	y	SPD TEST csv	SSI
KELVIN-EPOS-300-V	100%	CCT set on **LED** - 3200	3178	0,001	0,4258	0,4018	JTI_KELVIN-EPOS-300-P3200_**LED_100%**	85

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

KELVIN-EPOS-300	100%	CCT set on **JETI** - 3200	3211	0,001	0,4235	0,4006	JTI_KELVIN-EPOS-300-P3200_**JTI_100%**	85

Example on EPOS 300

LIGHT			JETI 1511 HiRes					
Ref	Power	Temp K	CCT K	Duv	x	y	SPD TEST csv	SSI
KELVIN-EPOS-300-V	100%	CCT set on **LED** - 3200	3178	0,001	0,4258	0,4018	JTI_KELVIN-EPOS-300-P3200_**LED_100%**	85

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

KELVIN-EPOS-300	100%	CCT set on **JETI** - 3200	3211	0,001	0,4235	0,4006	JTI_KELVIN-EPOS-300-P3200_**JTI_100%**	85

Images & données KELVIN EPOS 300 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 Color rendering issues	Problèmes possibles Possible problems	Bon Good	Excellent Excellent

Mesures

Measurements

EPOS 300

3200 K

5600 K

3200 K

EPOS 300

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
KELVIN-EPOS-300-V	100%	CCT set on **LED** - 3200	3178	0,001	0,4258	0,4018	JTI_KELVIN-EPOS-300-P3200_**LED_100%**	85
KELVIN-EPOS-300	100%	CCT set on **JETI** - 3200	3211	0,001	0,4235	0,4006	JTI_KELVIN-EPOS-300-P3200_**JTI_100%**	85
KELVIN-EPOS-300	50%	CCT set on **JETI** - 3200	3211	0,001	0,4233	0,4002	JTI_KELVIN-EPOS-300-P3200_**JTI_50%**	85
KELVIN-EPOS-300	25%	CCT set on **JETI** - 3200	3222	0	0,4224	0,3994	JTI_KELVIN-EPOS-300-P3200_**JTI_25%**	84

SEKONIC C-800			GOSSEN MAVOSPEC BASE			
CCT	Duv	SSI	CCT	Duv	SSI	SPD TEST
3023	0,0002	96	-	-	-	VISUAL REF-TUNGSTEN
3200	0,0011	86	3145	0,0008	86	GSN_KELVIN-EPOS-300_P3200_**LED_100%**
3240	0,001	86	3196	0,0009	87	GSN_KELVIN-EPOS-300_P3200_**JTI_100%**
3243	0,001	86	3186	0,0008	87	GSN_KELVIN-EPOS-300_P3200_**JTI_50%**
3244	0,0009	86	3200	0,0007	86	GSN_KELVIN-EPOS-300_P3200_**JTI_25%**

EPOS 300

5600 K

LIGHT			JETI 1511 HiRes					
Ref	Power	Temp K	CCT K	Duv	x	y	SPD TEST	SSI
KELVIN-EPOS-300	100%	CCT set on **LED** - 5600	5529	0,001	0,3318	0,3423	JTI_KELVIN-EPOS-300_P5600_**LED_100%**	73
KELVIN-EPOS-300	100%	CCT set on **JETI** - 5600	5600	0,001	0,3302	0,3408	JTI_KELVIN-EPOS-300_P5600_**JTI_100%**	73
KELVIN-EPOS-300	50%	CCT set on **JETI** - 5600	5607	0,001	0,3301	0,3404	JTI_KELVIN-EPOS-300_P5600_**JTI_50%**	73
KELVIN-EPOS-300	25%	CCT set on **JETI** - 5600	5606	0,001	0,3301	0,3409	JTI_KELVIN-EPOS-300_P5600_**JTI_25%**	73

SEKONIC C-800			GOSSEN MAVOSPEC BASE			
CCT	Duv	SSI	CCT	Duv	SSI	SPD TEST
5628	0,0012	74	5389	0,0019	75	GSN_KELVIN-EPOS-300__P5600__**LED_100**
5680	0,0011	73	5446	0,0018	75	GSN_KELVIN-EPOS-300__P5600_**JTI_100%**
5746	0,0011	73	5490	0,0016	75	GSN_KELVIN-EPOS-300__P5600_**JTI_50%**
5707	0,0013	73	5460	0,002	75	GSN_KELVIN-EPOS-300__P5600_**JTI_25%**

EPOS 300

Spectra & SSI

TM-30-18 & CRI

3200 K

5600 K

JETI

Images & données KELVIN EPOS 300 Images & Data

Manufacturer

PROJECTOR

Power: 100% - CCT set on JETI

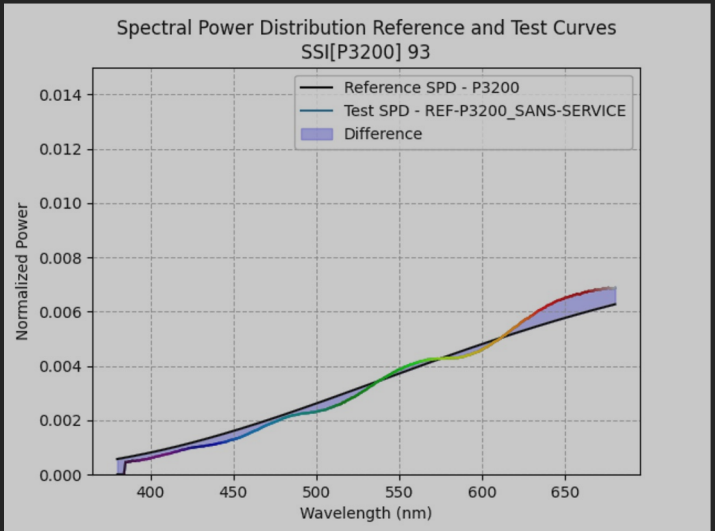
CCT 3012 Duv 0,001

CIE 1931 2° x 0.4372 y 0.4060

CRI Ra 97.51

IES TM-30-18 Rf 98 Rg 100

SSI[P3200] 93

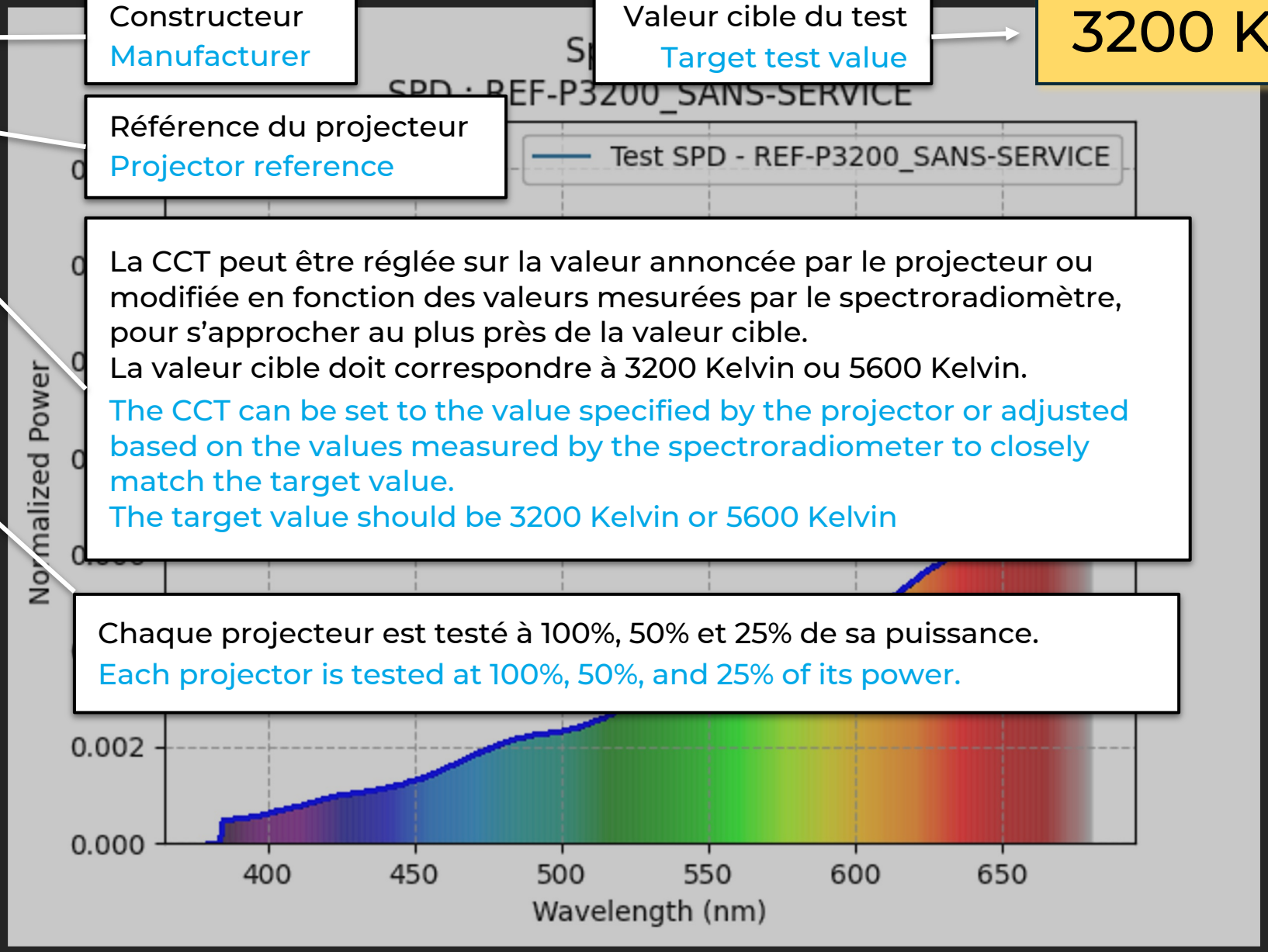


Constructeur
Manufacturer

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 KELVIN EPOS 300 Images & Data

Manufacturer

PROJECTOR

Power: 100% - CCT set on JETI

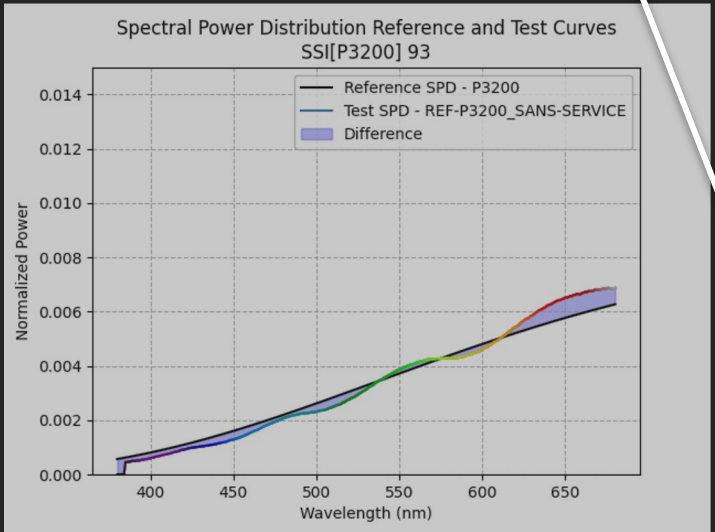
CCT 3012 Duv 0,001

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.

Manufacturer

PROJECTOR

Power: 100% - CCT set on JETI

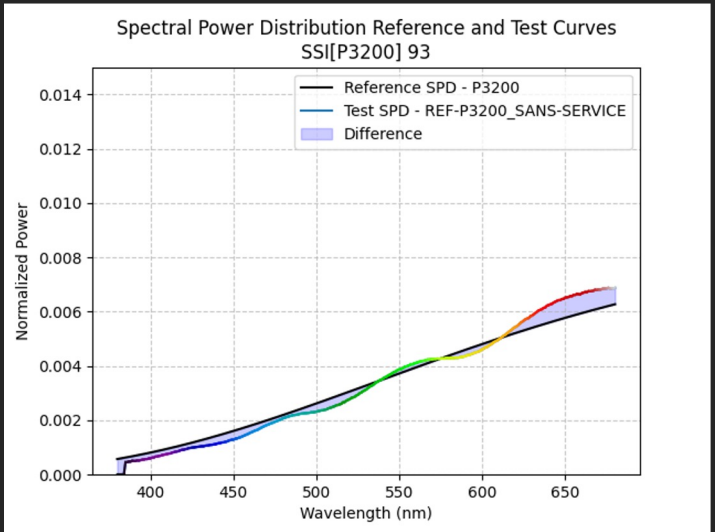
CCT 3012 Duv 0,001

CIE 1931 2° x 0.4372 y 0.4060

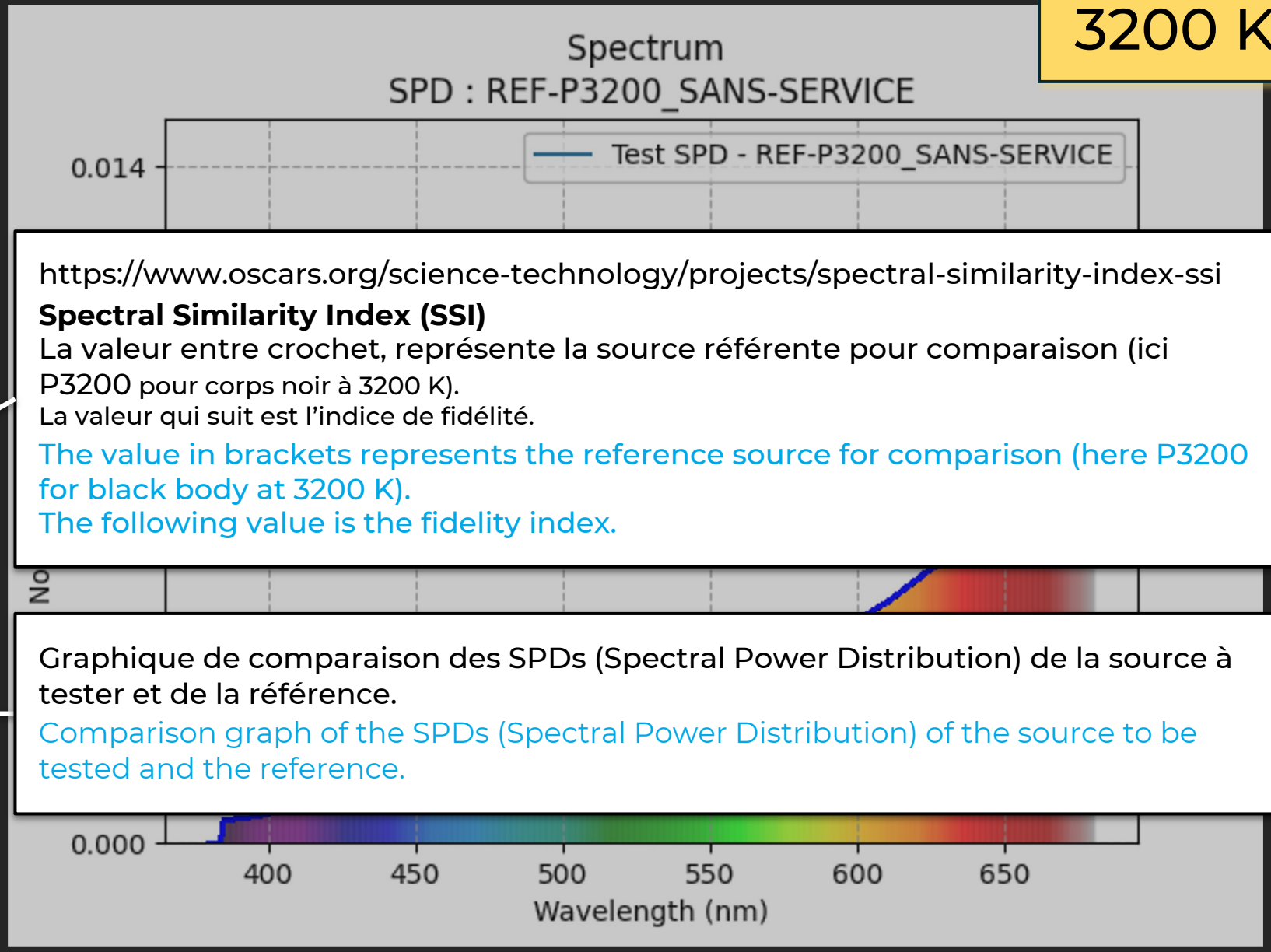
CRI Ra 97.51

IES TM-30-18 Rf 98 Rg 100

SSI[P3200] 93



3200 K



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.

EPOS 300

3200 K

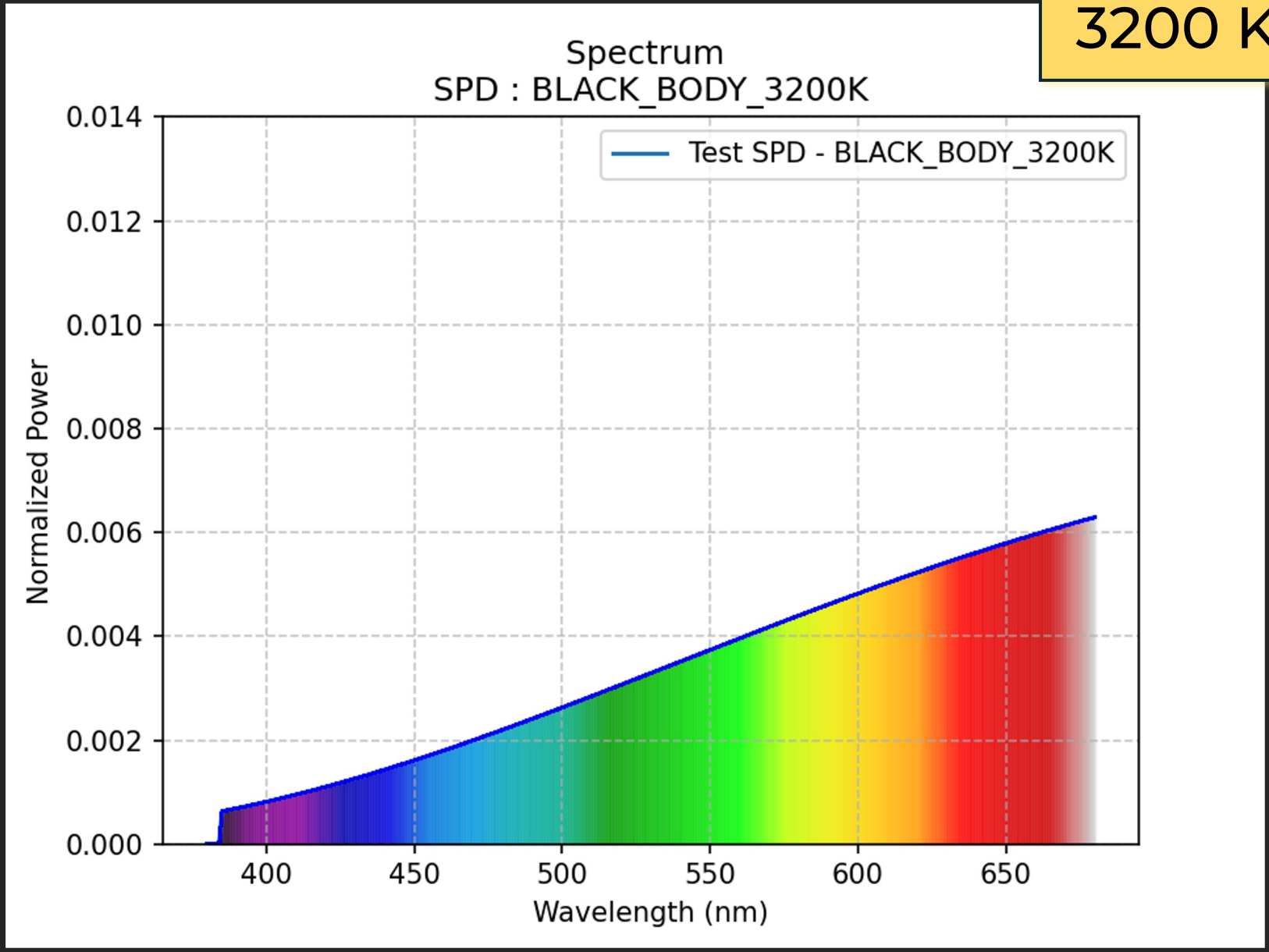
JETI

SSI REFERENCE

Corps noir / Black body

3200 K

3200 K



SOURCE TUNGSTEN comparative

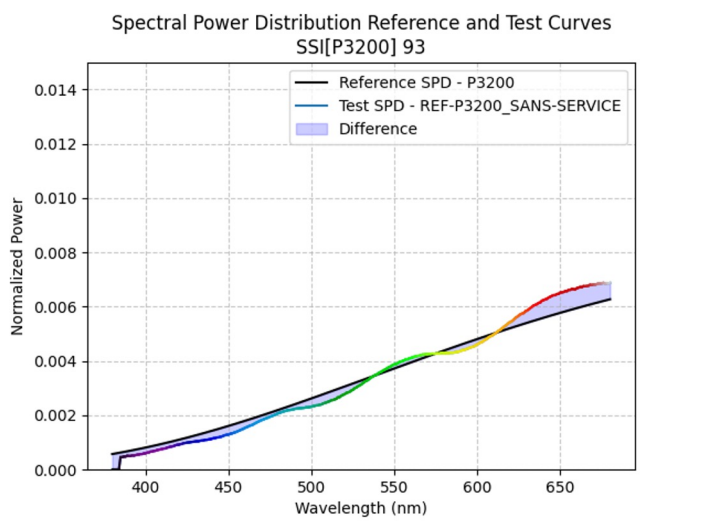
CCT 3012 Duv 0,001

CIE 1931 2° x 0.4372 y 0.4060

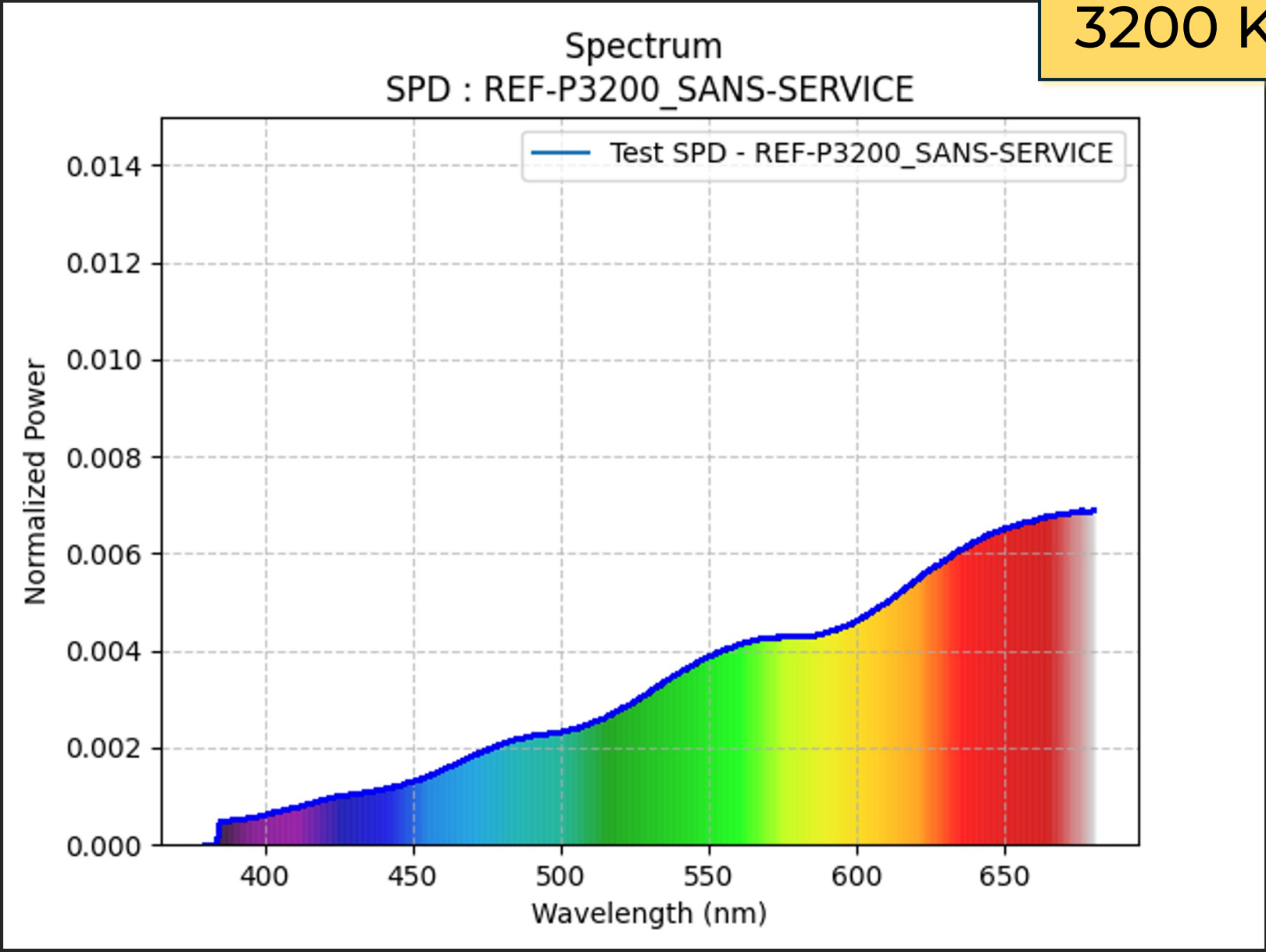
CRI Ra 97.51

IES TM-30-18 Rf 98 Rg 100

SSI[P3200] 93



3200 K



Images & données KELVIN EPOS 300 Images & Data

KELVIN

EPOS 300

Power: 100% - CCT set on LED

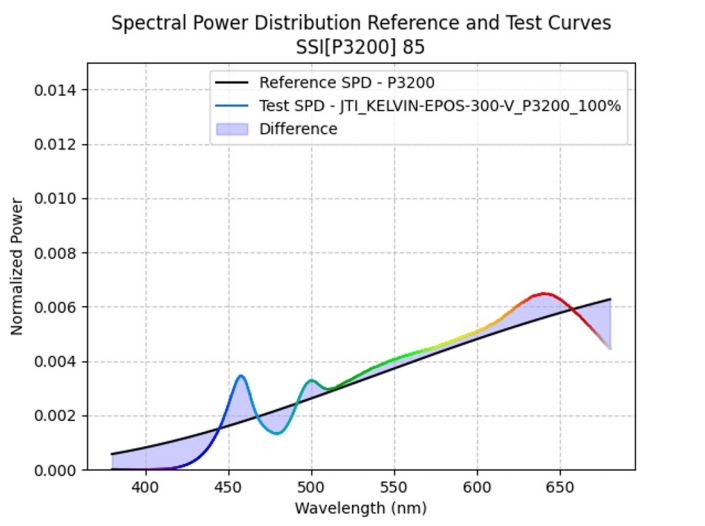
CCT 3178 Duv 0,001

CIE 1931 2° x 0.4258 y 0.4018

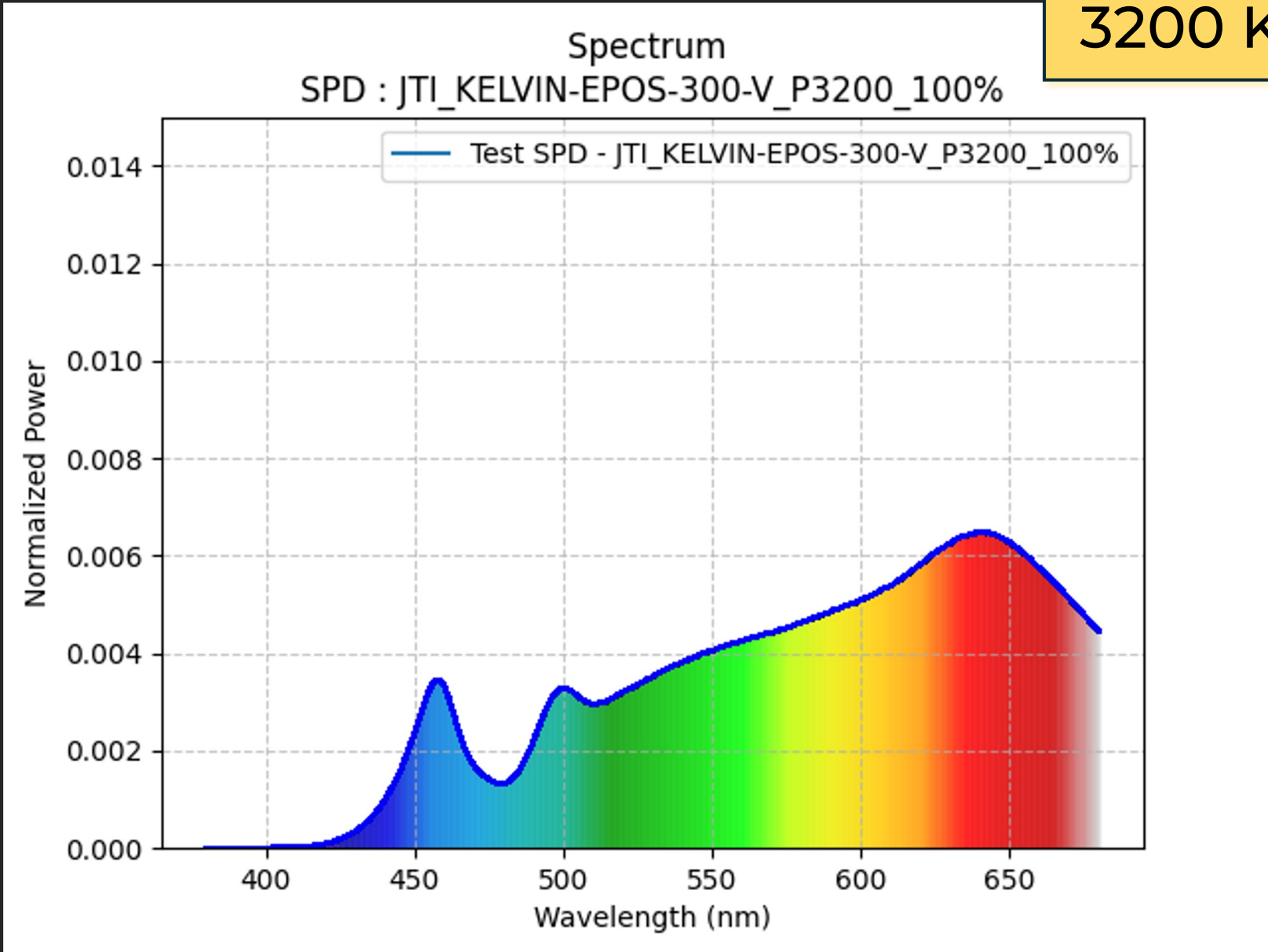
CRI Ra 98.73

IES TM-30-18 Rf 96 Rg 100

SSI[P3200] 85



3200 K



Images & données KELVIN EPOS 300 Images & Data

KELVIN

EPOS 300

Power: 100% - CCT set on JETI

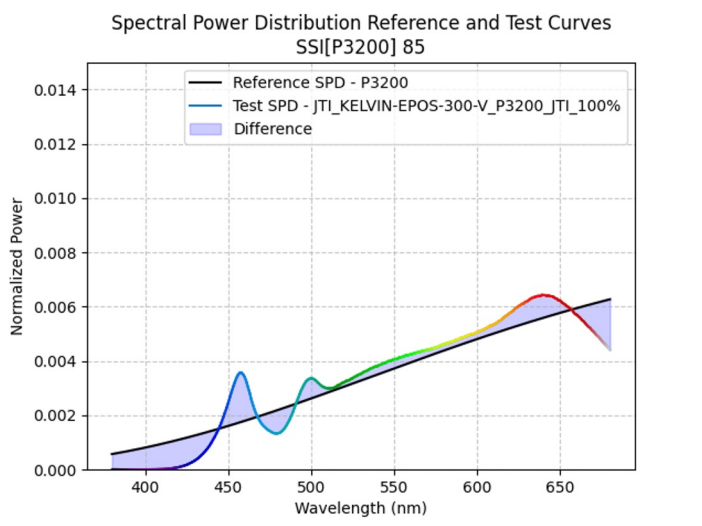
CCT 3211 Duv 0,001

CIE 1931 2° x 0.4235 y 0.4006

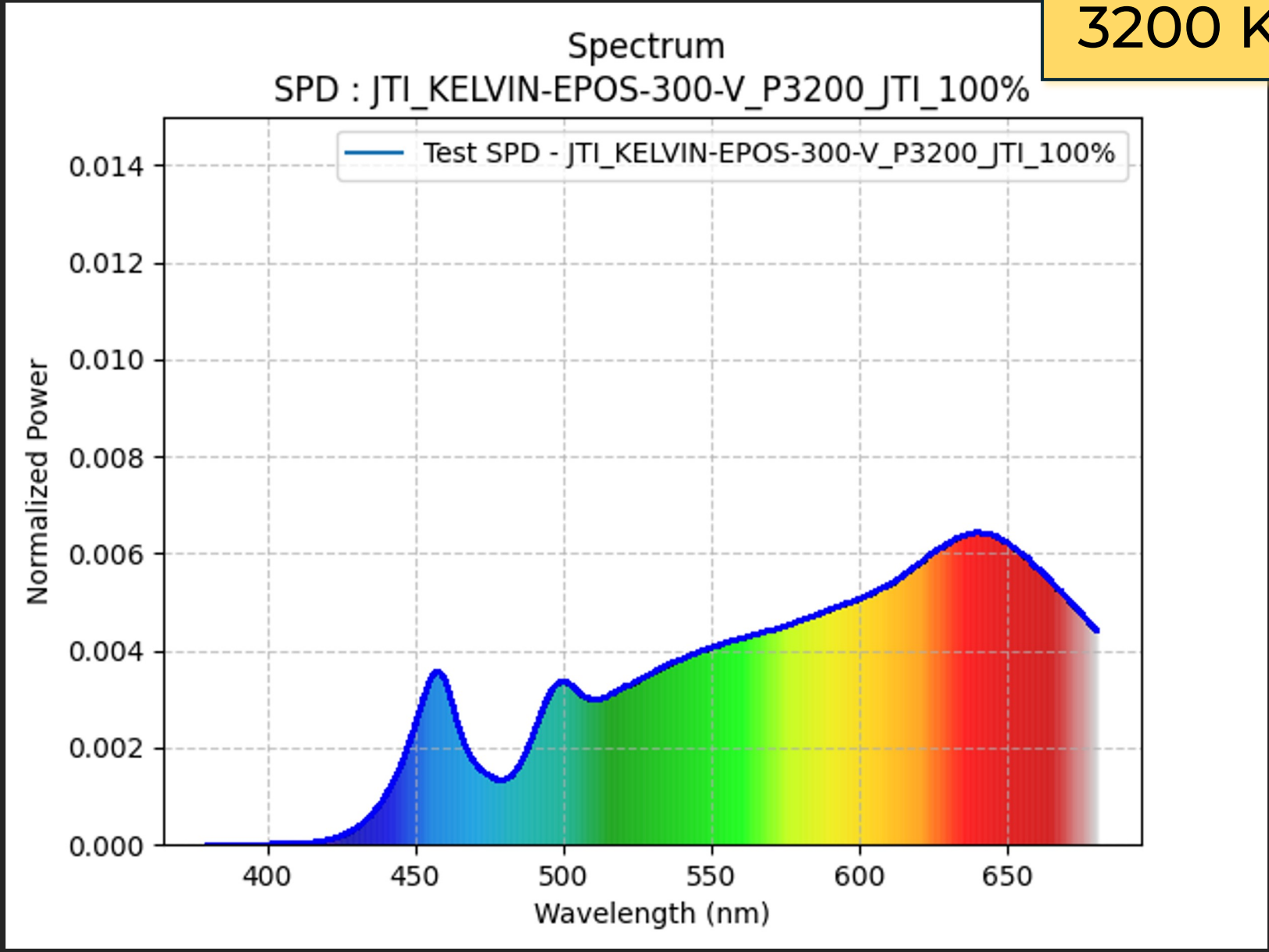
CRI Ra 98.85

IES TM-30-18 Rf 96 Rg 100

SSI[P3200] 85



3200 K



KELVIN

EPOS 300

Power: 50% - CCT set on JETI

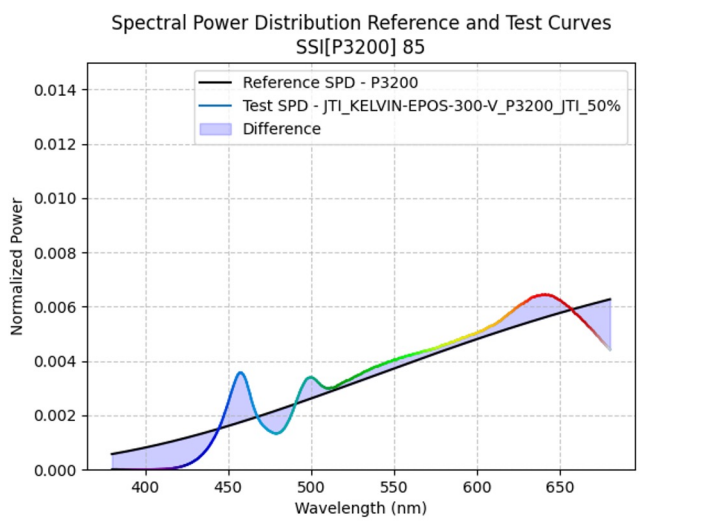
CCT 3211 Duv 0,001

CIE 1931 2° x 0.4233 y 0.4002

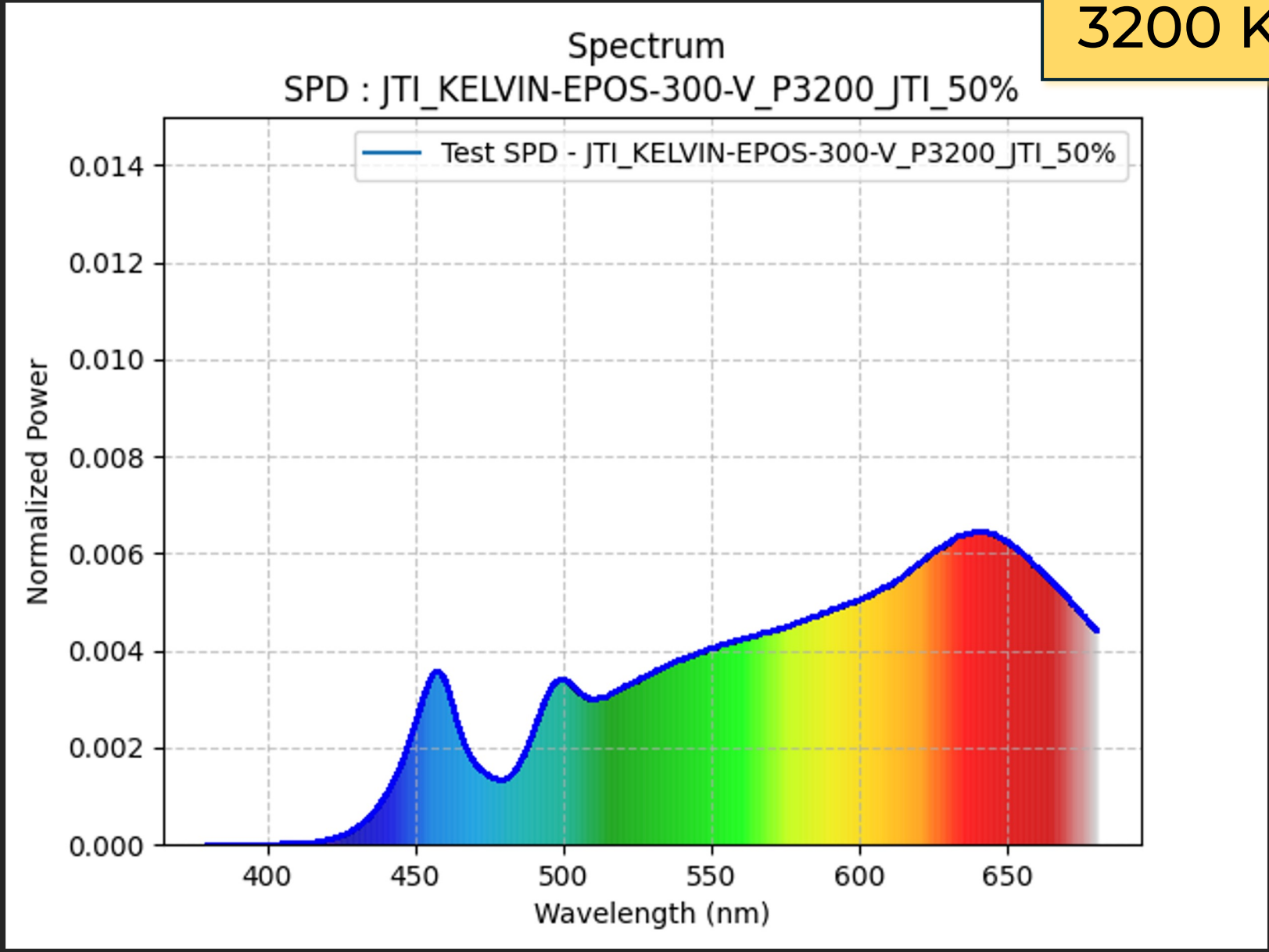
CRI Ra 98.93

IES TM-30-18 Rf 96 Rg 100

SSI[P3200] 85



3200 K



Images & données KELVIN EPOS 300 Images & Data

KELVIN

EPOS 300

Power: 25% - CCT set on JETI

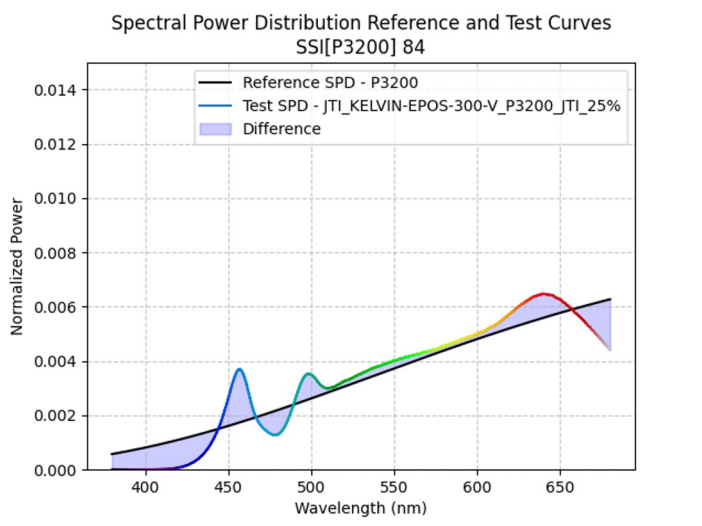
CCT 3222 Duv 0,000

CIE 1931 2° x 0.4224 y 0.3994

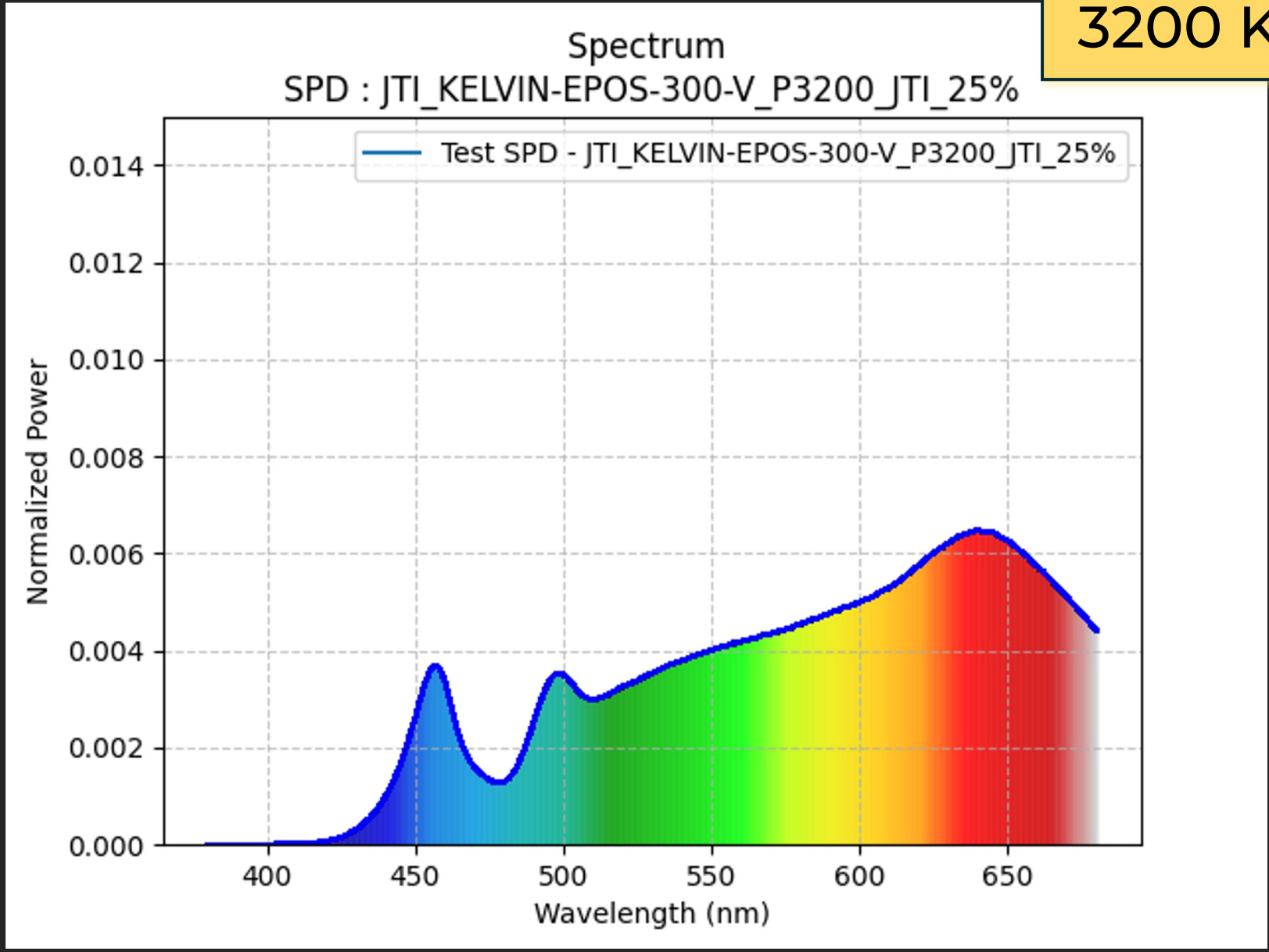
CRI Ra 98.71

IES TM-30-18 Rf 96 Rg 101

SSI[P3200] 84



3200 K



EPOS 300

5600 K

JETI

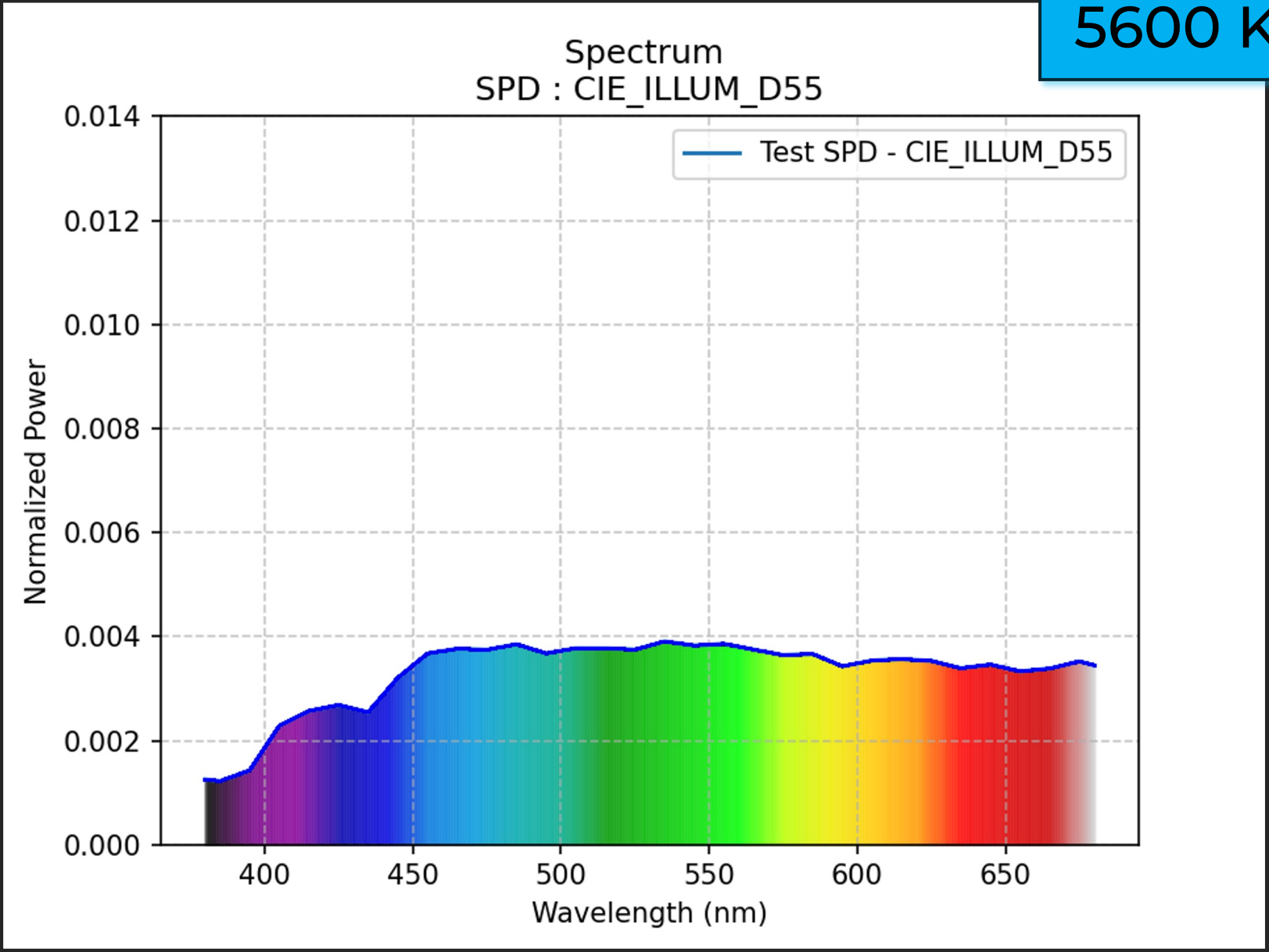
SSI REFERENCE Daylight Locus

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.

5600 K



SOURCE HMI comparative

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

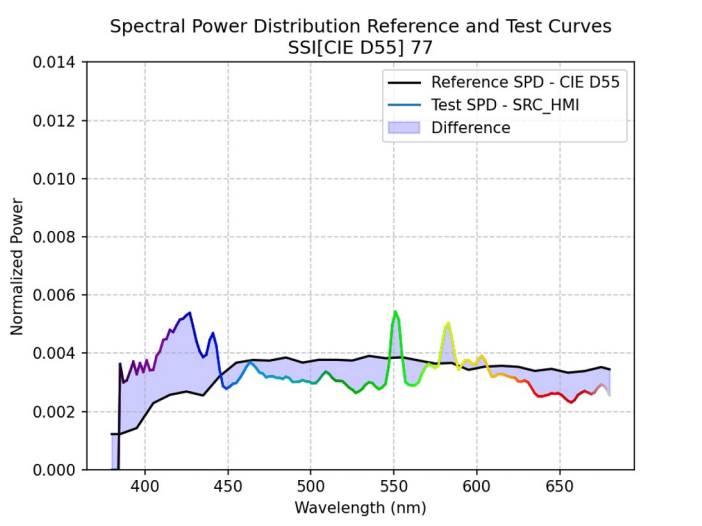
CCT 5605 Duv 0,000

CIE 1931 2° x 0.3301 y 0.3274

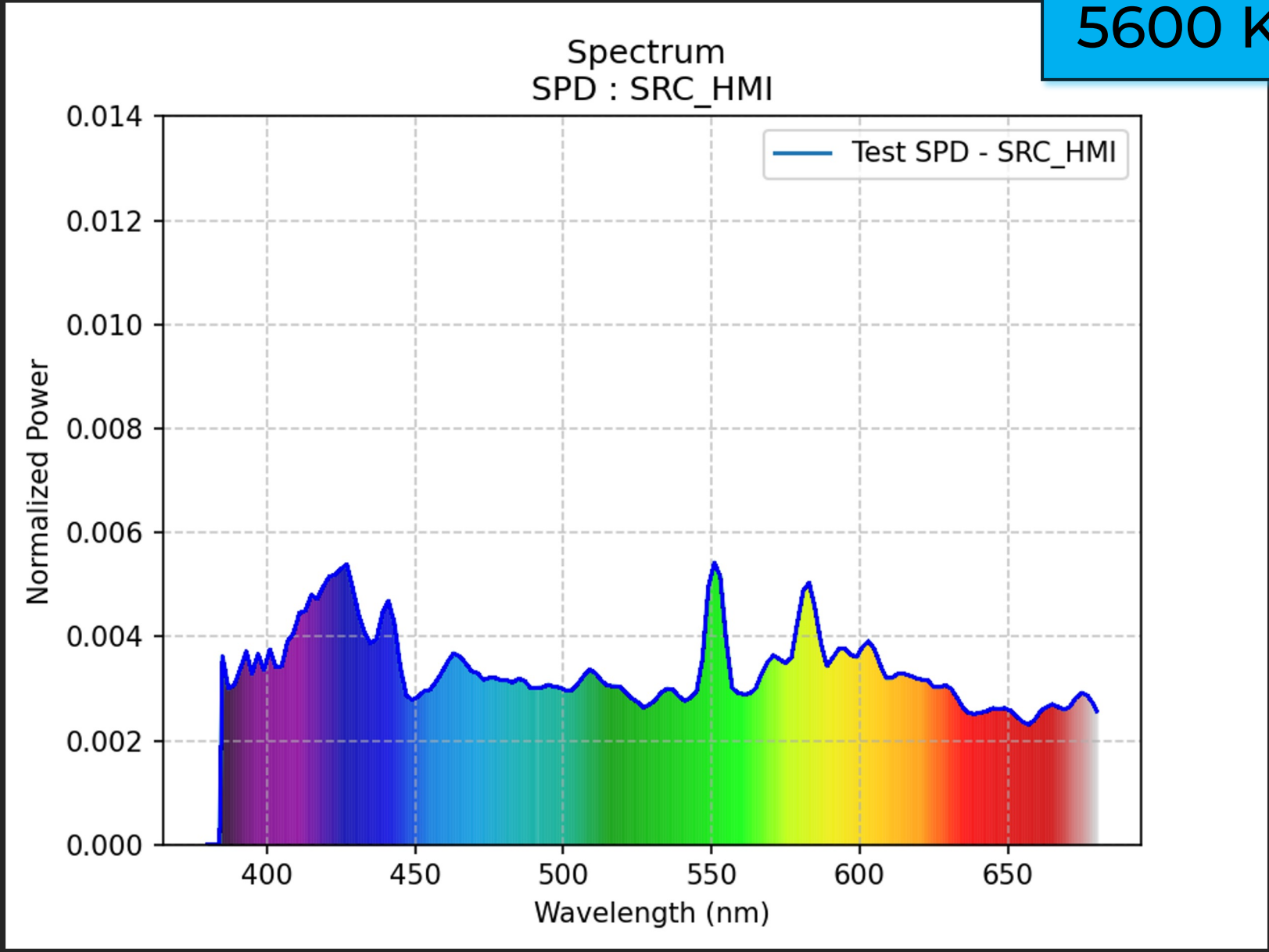
CRI Ra -

IES TM-30-18 Rf - Rg -

SSI[CIE D55] 77



5600 K



Images & données KELVIN EPOS 300 Images & Data

KELVIN

EPOS 300

Power: 100% - CCT set on LED

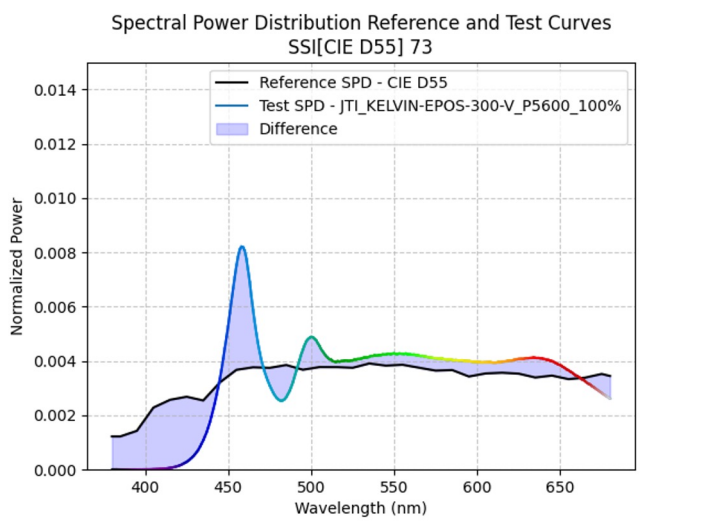
CCT 5529 Duv 0,001

CIE 1931 2° x 0.3318 y 0.3423

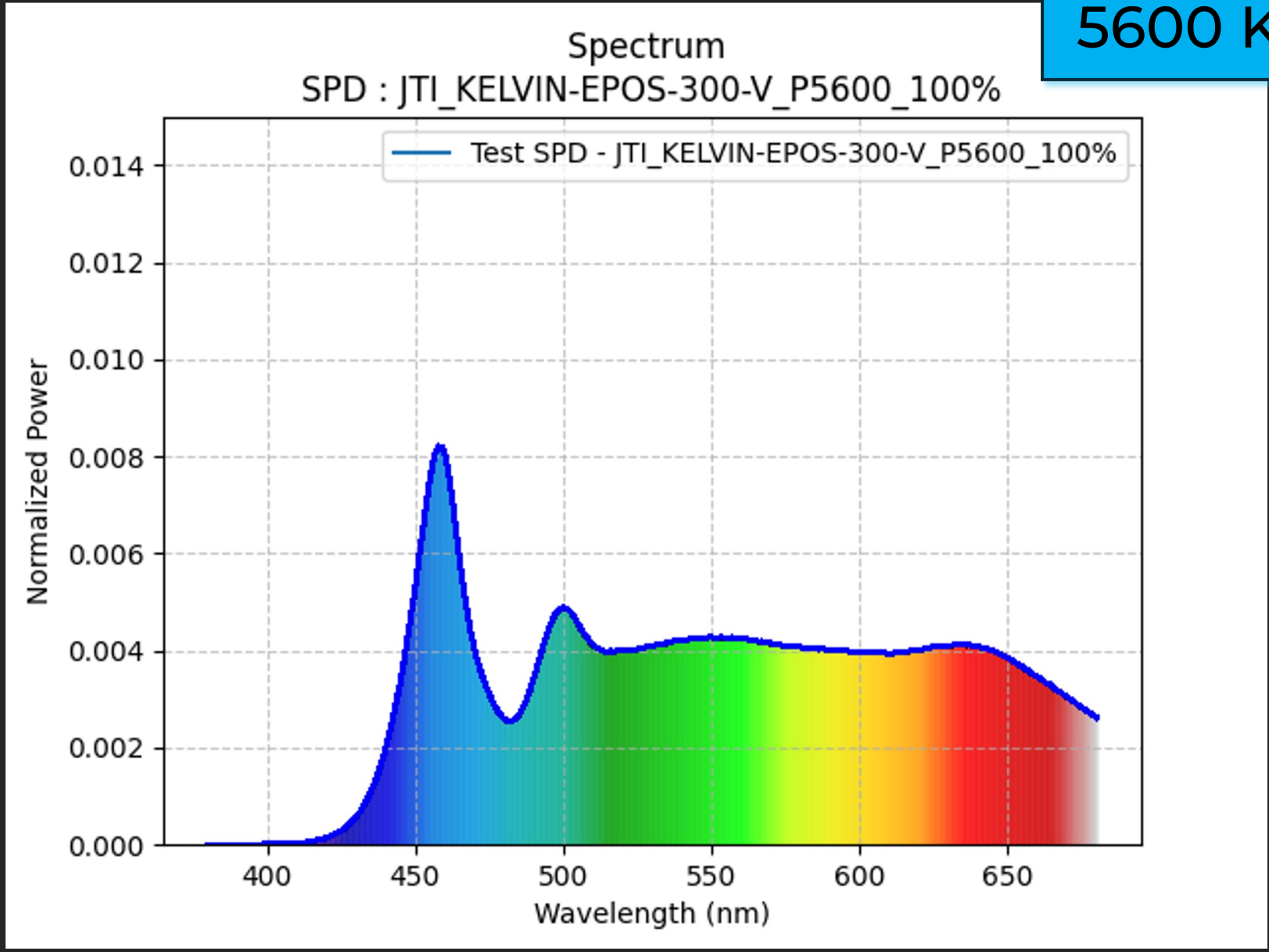
CRI Ra 98.08

IES TM-30-18 Rf 94 Rg 100

SSI[CIE D55] 73



5600 K



Images & données KELVIN EPOS 300 Images & Data

KELVIN

EPOS 300

Power: 100% - CCT set on JETI

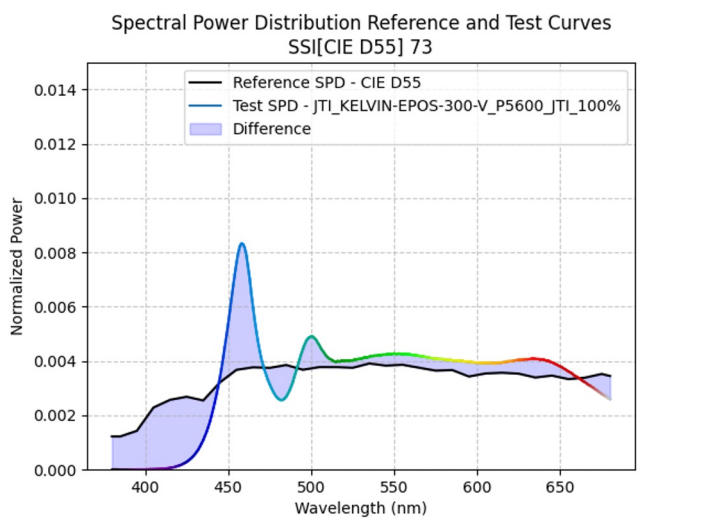
CCT 5600 Duv 0,001

CIE 1931 2° x 0.3302 y 0.3408

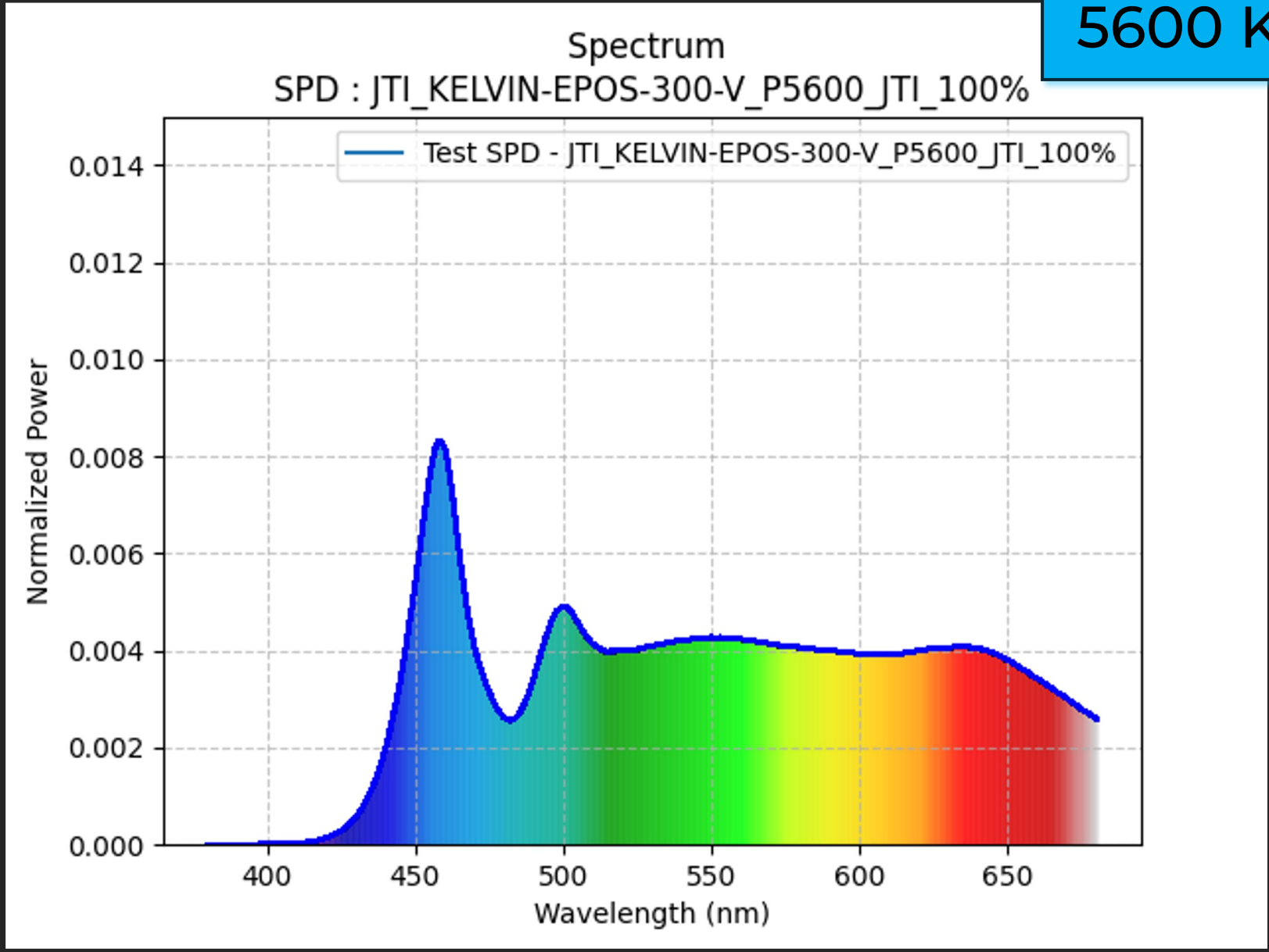
CRI Ra 98.04

IES TM-30-18 Rf 94 Rg 100

SSI[CIE D55] **73**



5600 K



Images & données KELVIN EPOS 300 Images & Data

KELVIN

EPOS 300

Power: 50% - CCT set on JETI

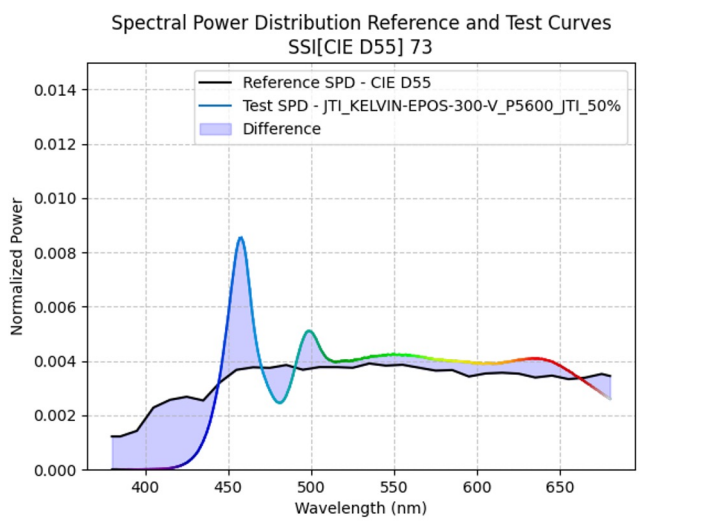
CCT 5607 Duv 0,001

CIE 1931 2° x 0.3301 y 0.3404

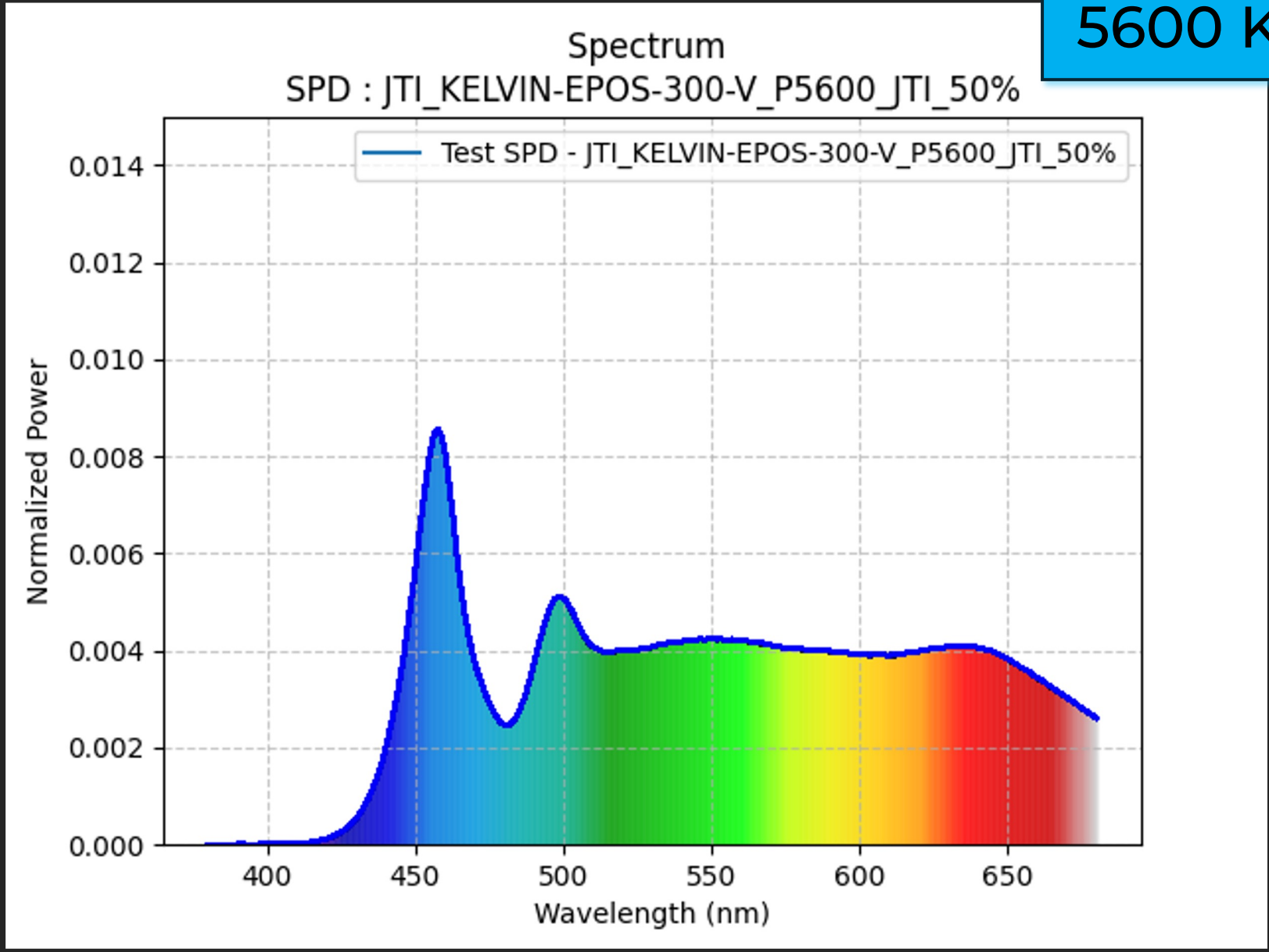
CRI Ra 98.17

IES TM-30-18 Rf 94 Rg 100

SSI[CIE D55] **73**



5600 K



Images & données KELVIN EPOS 300 Images & Data

KELVIN

EPOS 300

Power: 25% - CCT set on JETI

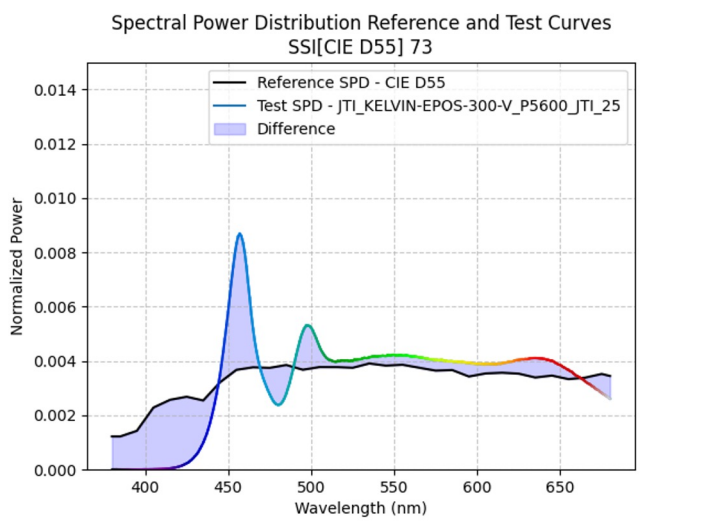
CCT 5606 Duv 0,001

CIE 1931 2° x 0.3301 y 0.3409

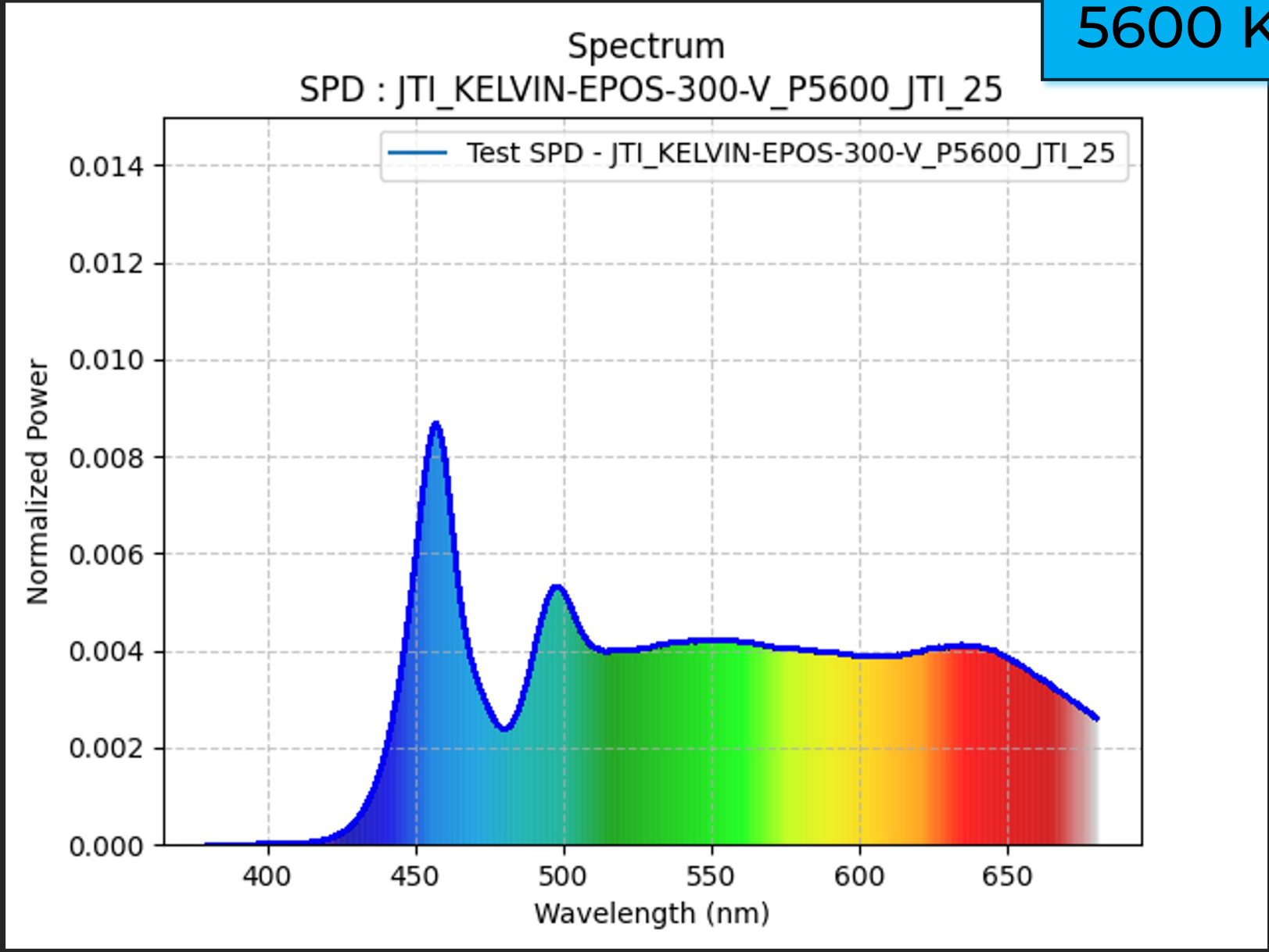
CRI Ra 98.17

IES TM-30-18 Rf 94 Rg 101

SSI[CIE D55] 73



5600 K



EPOS 300

Images, Spectra

& SSI

JETI

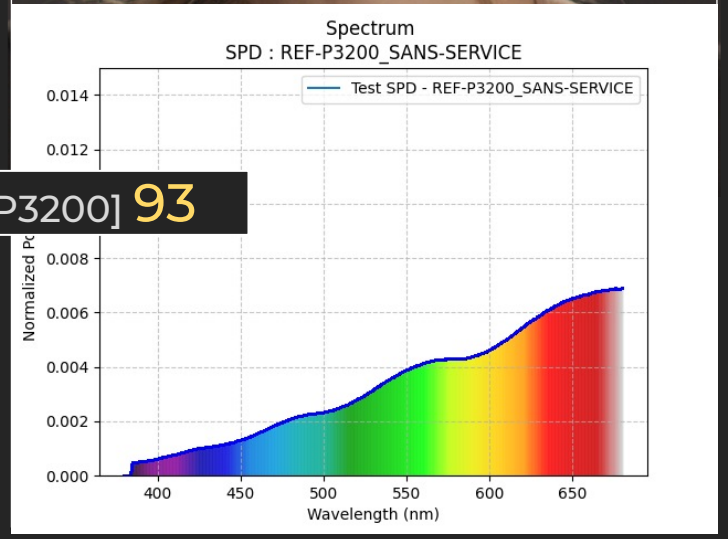
Images & données KELVIN EPOS 300 Images & Data

TUNGSTEN REF.

SONY VENICE
GRADED

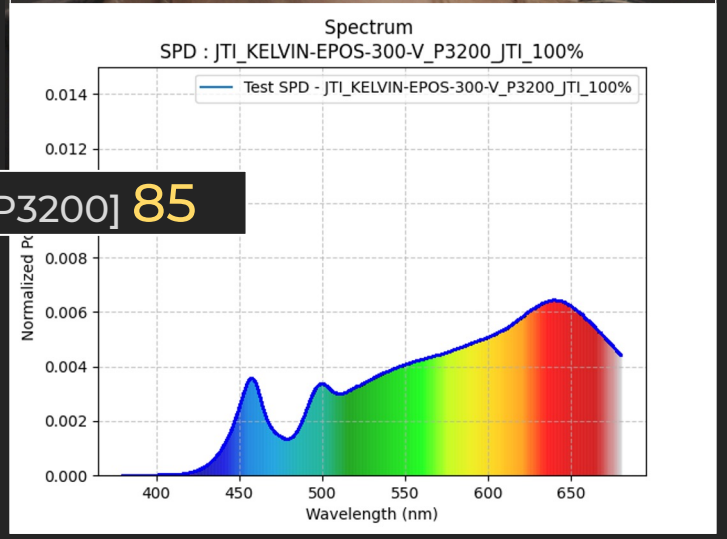
EPOS 300

Images & données KELVIN EPOS 300 Images & Data



SSI[P3200] 93

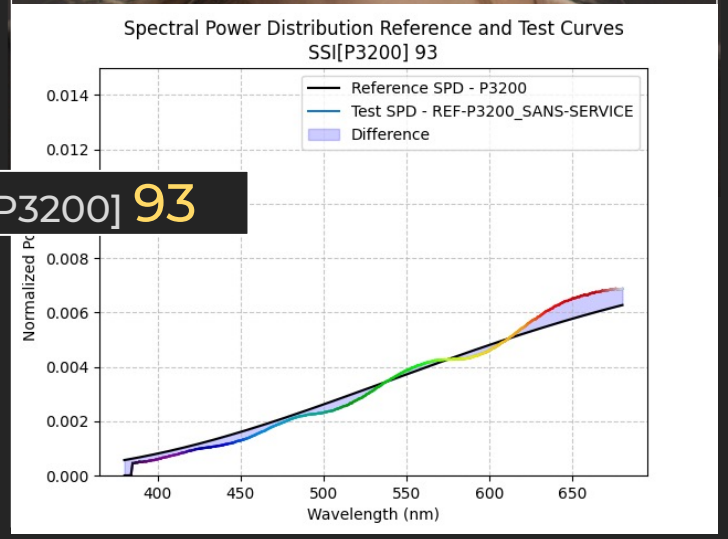
TUNGSTEN REF.



SSI[P3200] 85

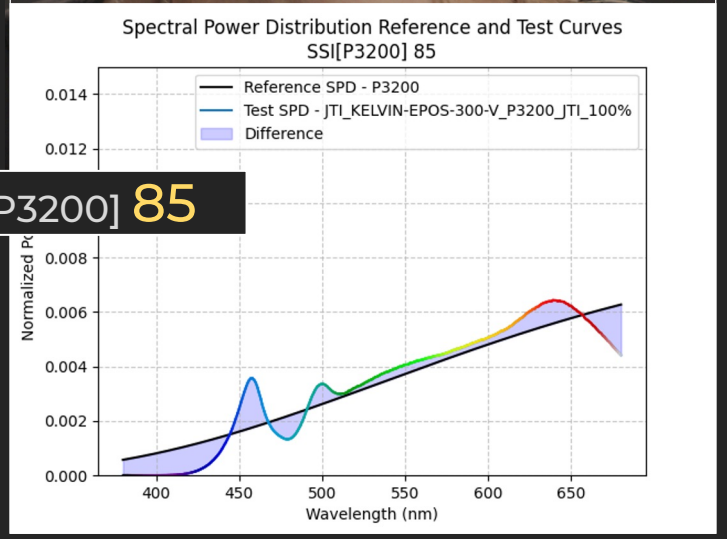
EPOS 300

Images & données KELVIN EPOS 300 Images & Data



SSI[P3200] 93

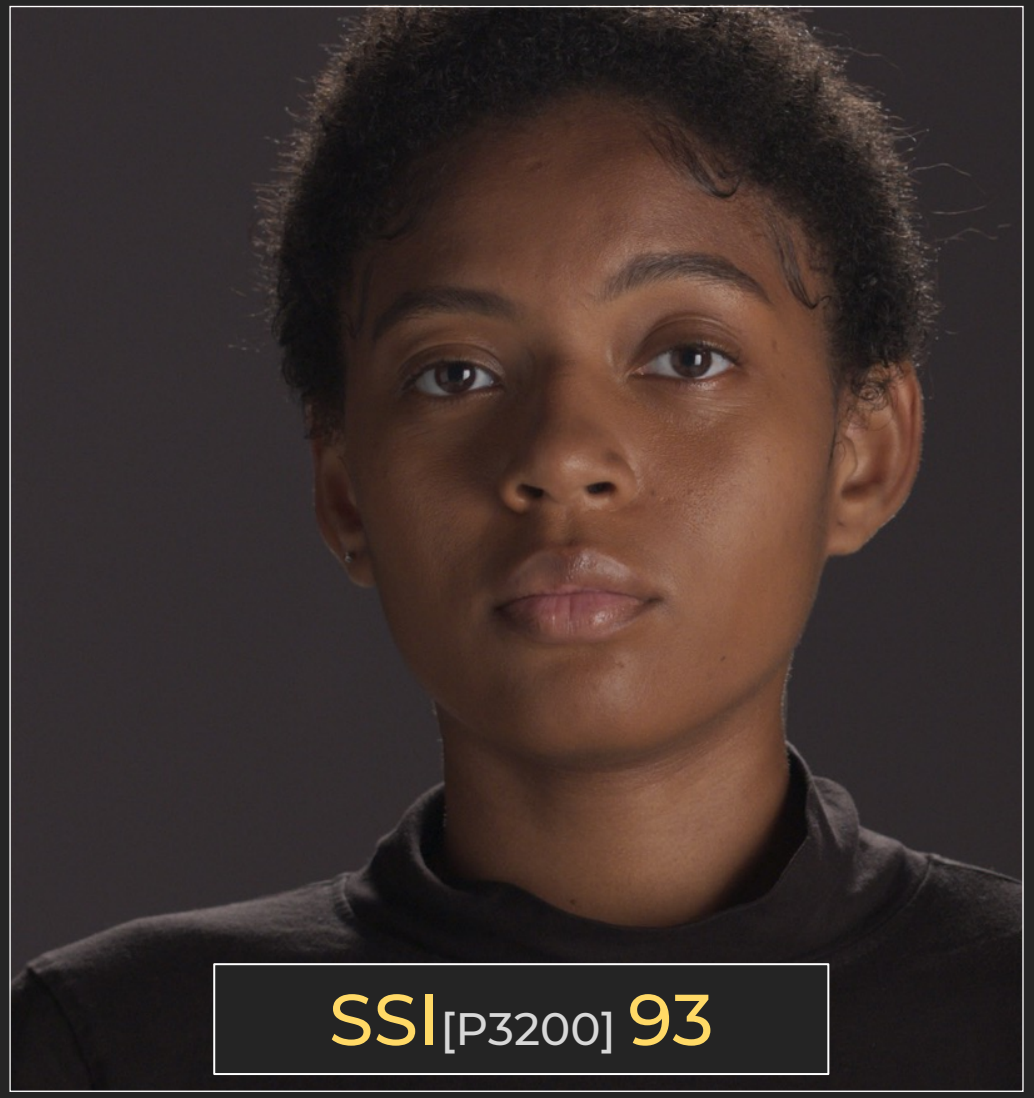
TUNGSTEN REF.



SSI[P3200] 85

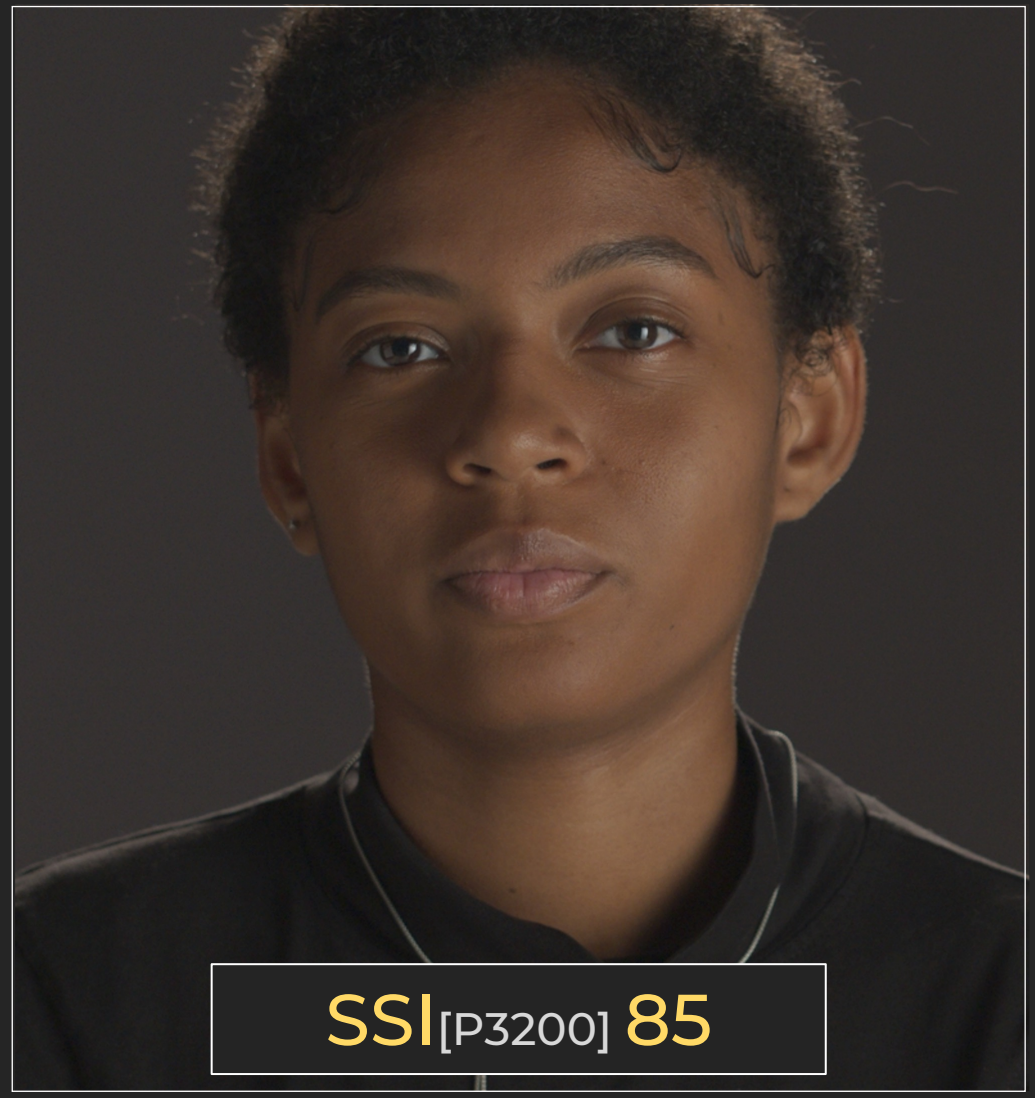
EPOS 300

Images & données KELVIN EPOS 300 Images & Data



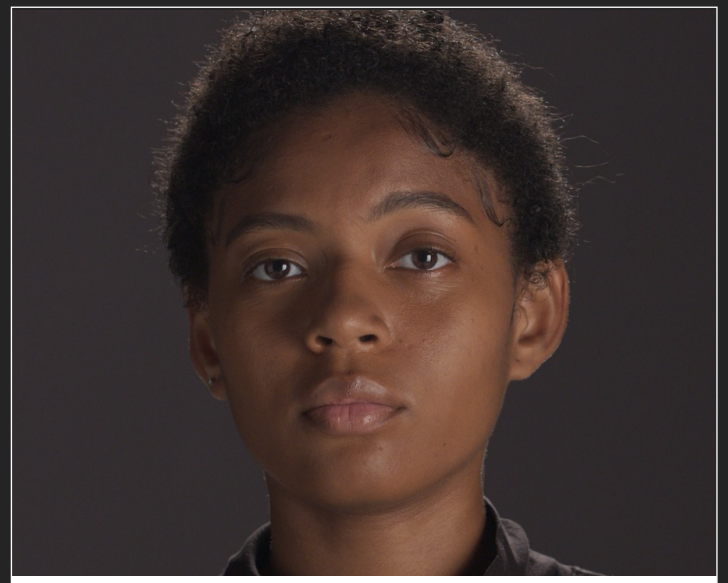
TUNGSTEN REF.

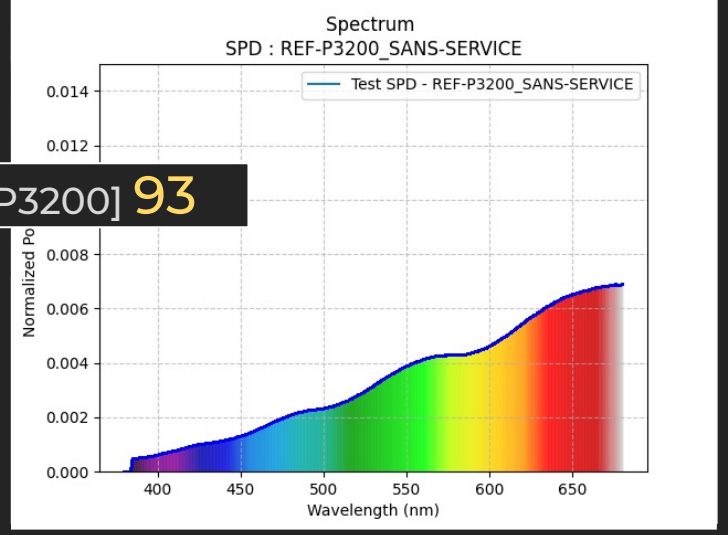
SONY VENICE 2
GRADED



EPOS 300

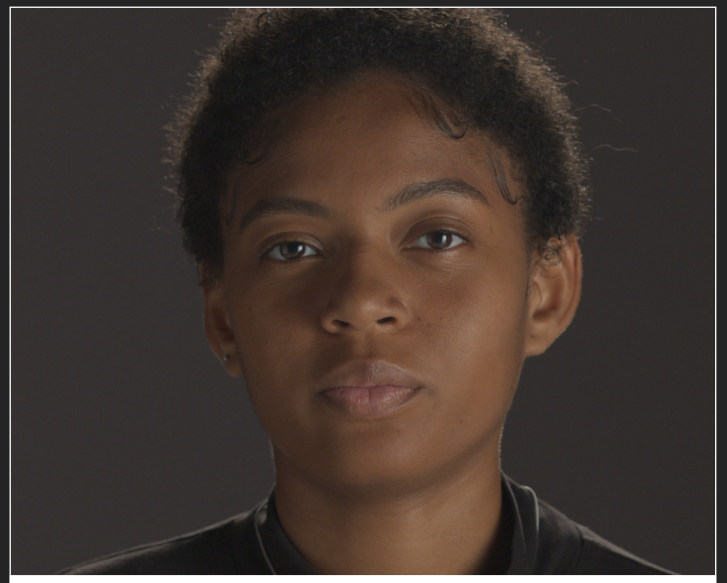
Images & données KELVIN EPOS 300 Images & Data

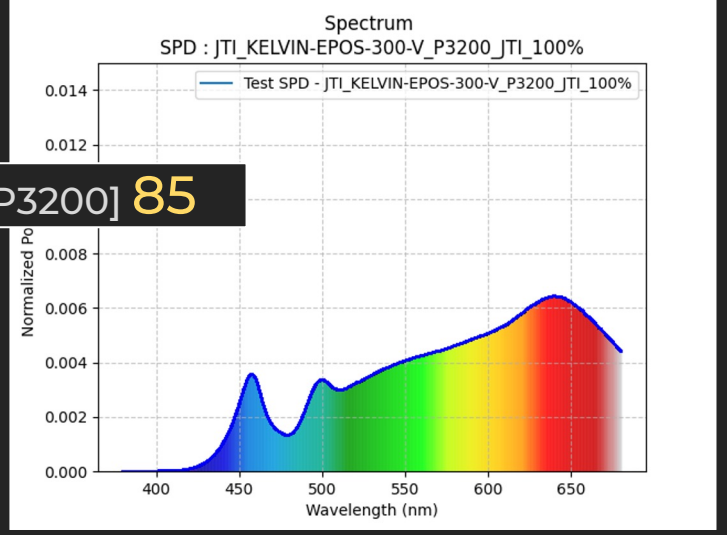




SSI[P3200] 93

TUNGSTEN REF.

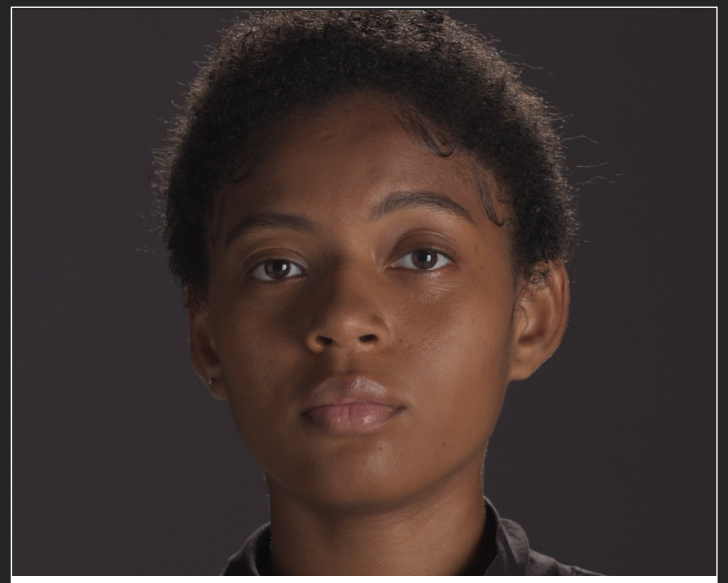


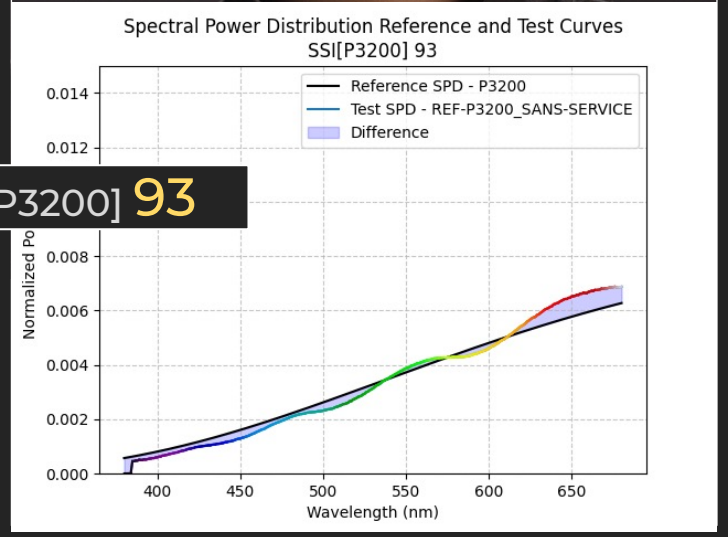


SSI[P3200] 85

EPOS 300

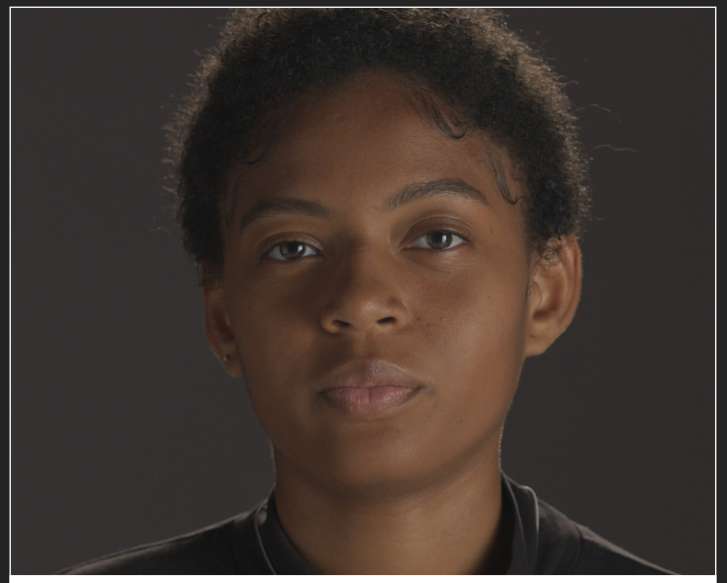
Images & données KELVIN EPOS 300 Images & Data

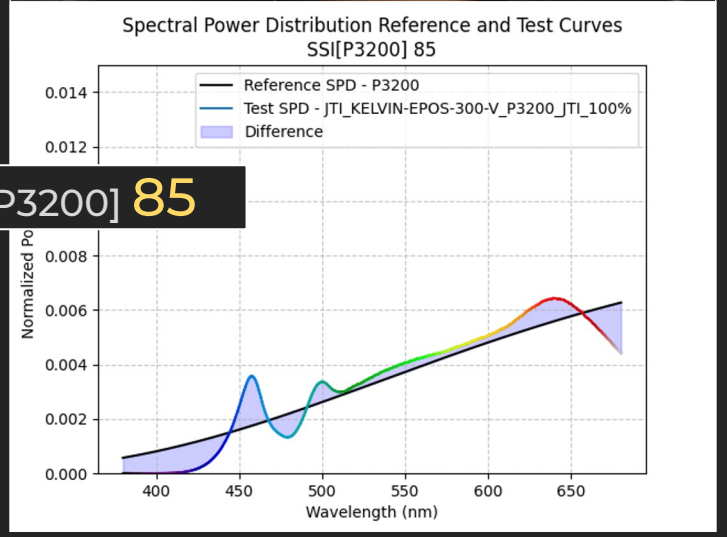




SSI[P3200] 93

TUNGSTEN REF.





SSI[P3200] 85

EPOS 300

EPOS 300

& TM-30-20

3200 K

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

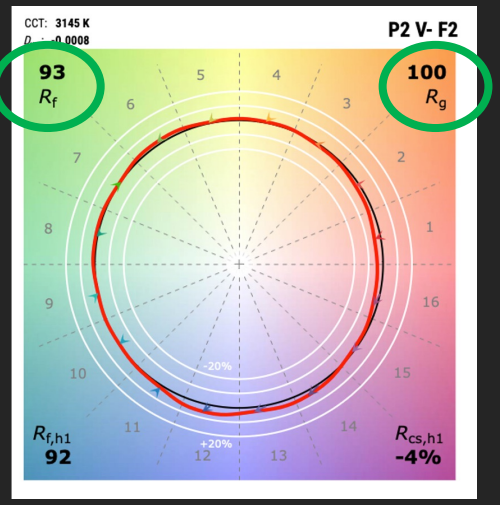
All the data in this section dedicated to the TM-30-20 has been calculated using JETI.

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.

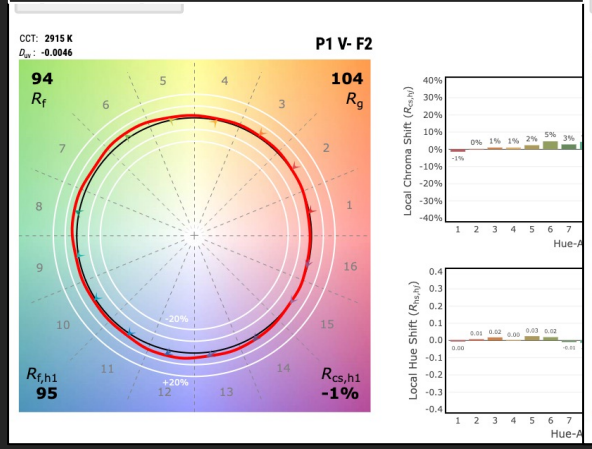
Toutes les mesures sont données en 3200 K et en 5600K

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

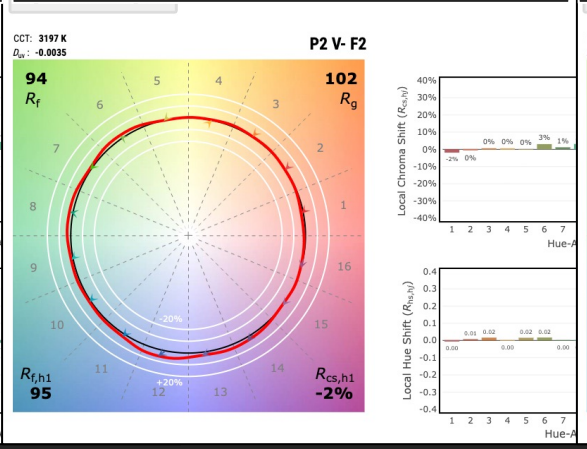
- graphs of the lighting fixture set at 100%, 50% and 25% power using JETI
- graphs of the lighting fixture set to 100% of its power thanks to the indications of the lighting fixture.

All measurements are provided in 3200K and 5600K

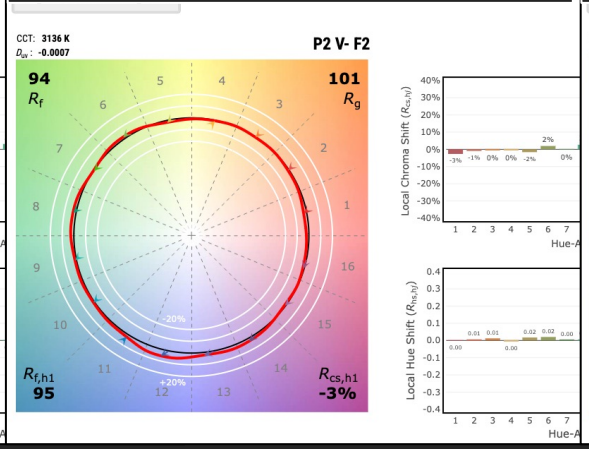
100 % indicated by fixture



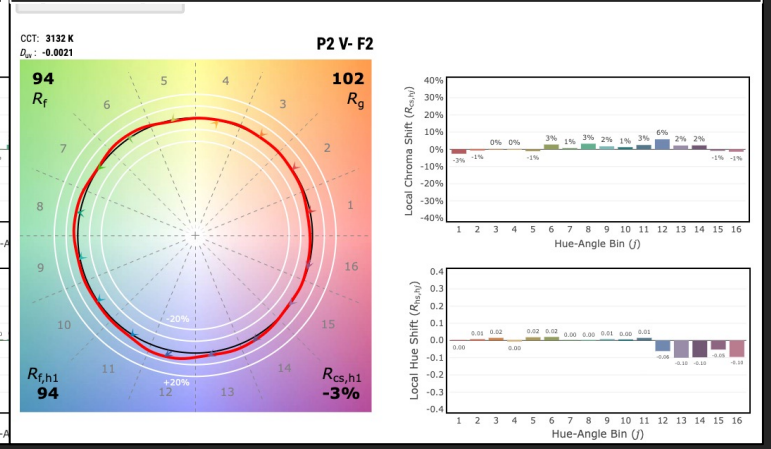
100 % indicated by JETI



50 % indicated by JETI



25 % indicated by JETI



3200 K

EPOS 300 TM-30-20

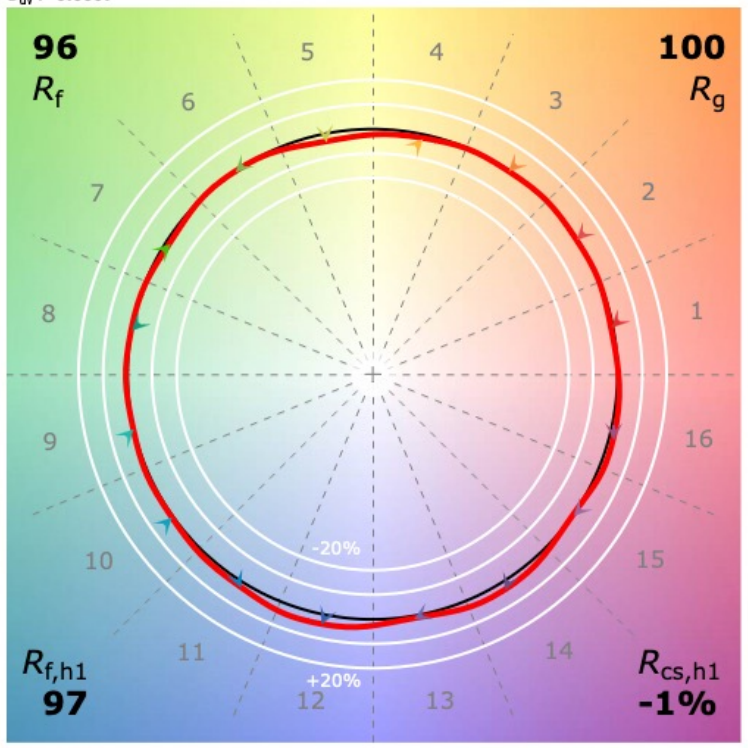
ANSI/IES TM-30-20 Color Rendition Report

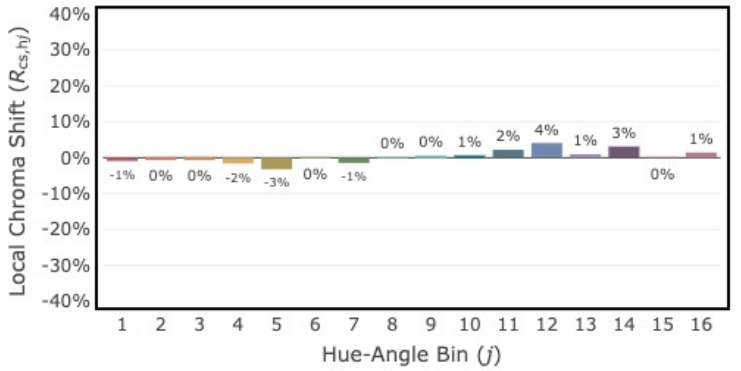
Unique Identifier:

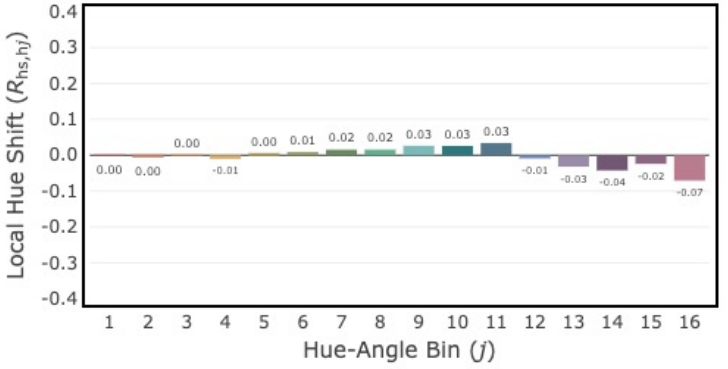
JTI_KELVIN-EPOS-300-V_P3200_J

CCT: **3213 K**
D_{uv} : **0.0007**

P1 V- F1



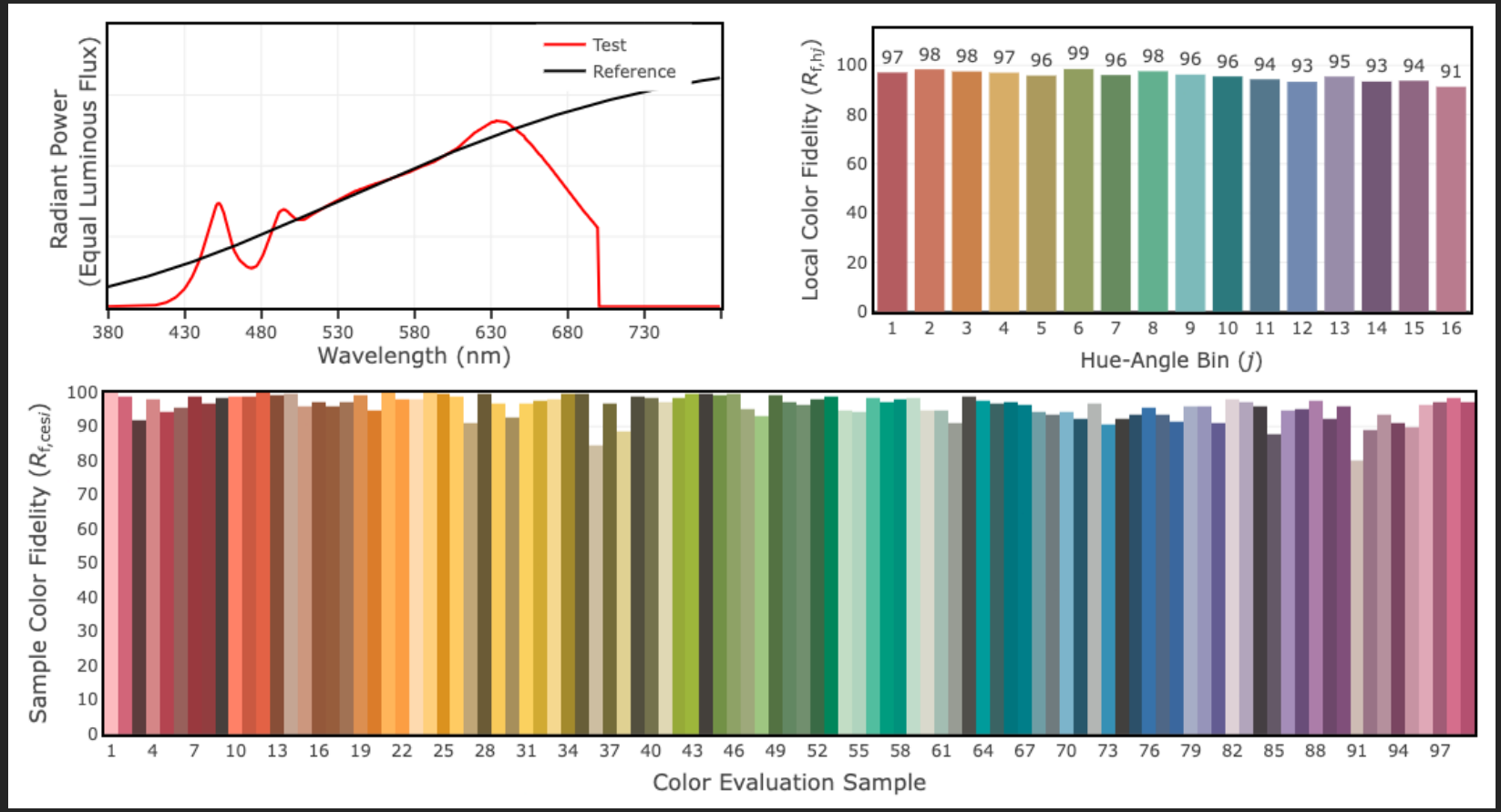




JETI

3200 K

EPOS 300 TM-30-20



JETI

3200 K

EPOS 300

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
P3200_**LED_100%**	85	96	100	98,73	97,5
P3200_**JTI_100%**	85	96	100	98,85	97,68
P3200_**JTI_50%**	85	96	100	98,93	97,89
P3200_**JTI_25%**	84	96	101	98,71	97,9

JETI

EPOS 300 TM-30-20

5600 K

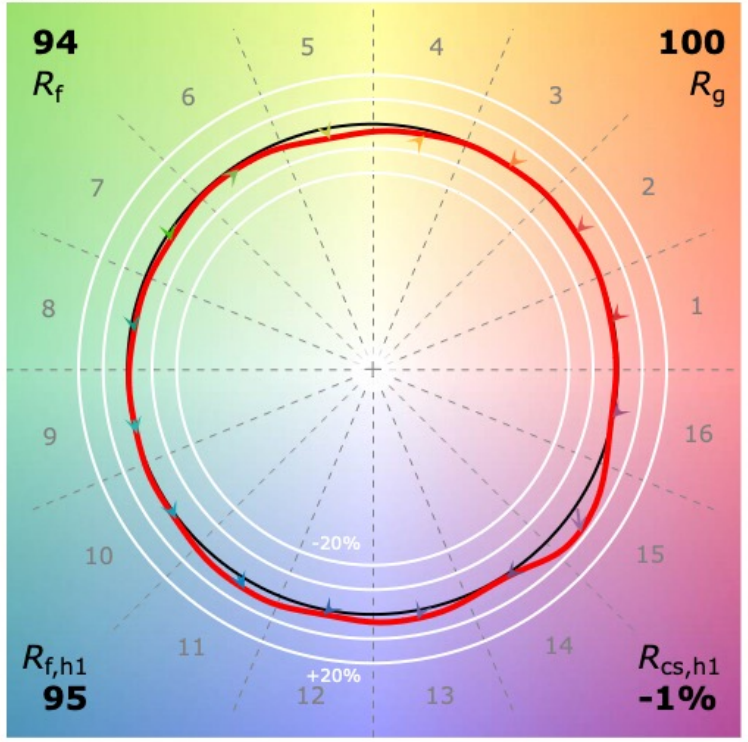
ANSI/IES TM-30-20 Color Rendition Report

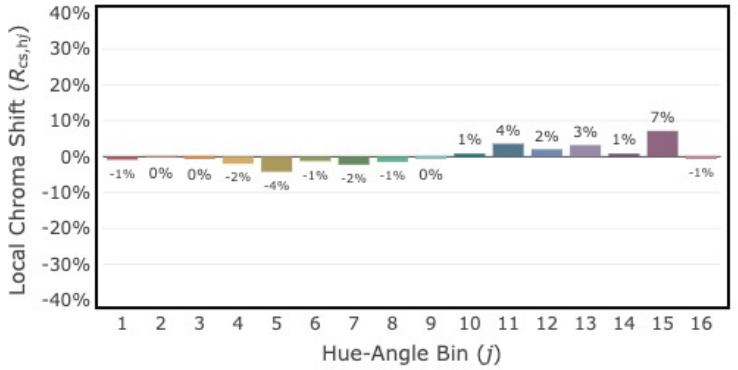
Unique Identifier:

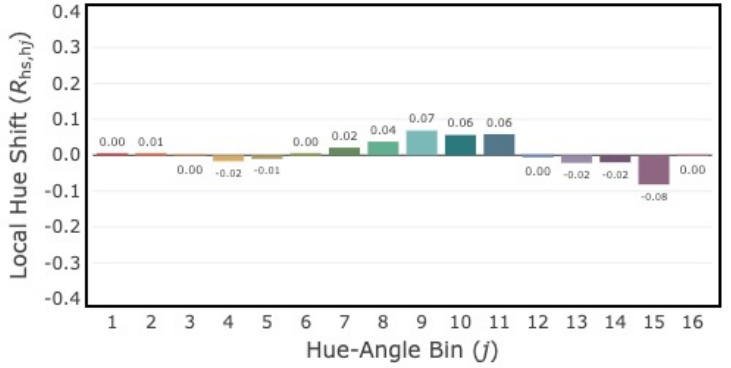
JTI_KELVIN-EPOS-300-V_P5600_J

CCT: **5602 K**
D_{uv} : **0.0009**

P1 V- F2



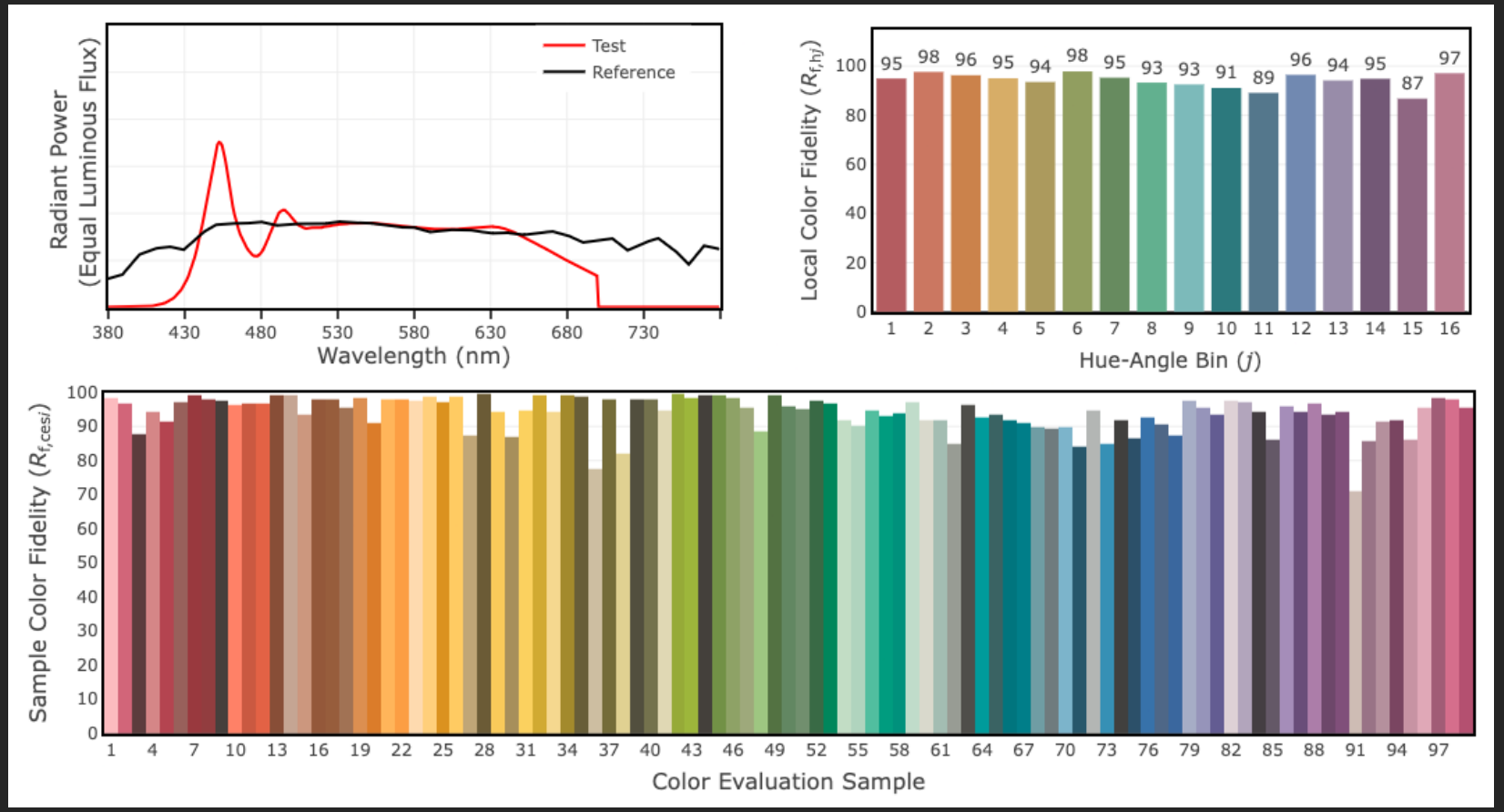




JETI

EPOS 300 TM-30-20

5600 K



JETI

5600 K

EPOS 300

Comparison chart: SSI vs TM30-20 vs CRI

JETI 1511 HiRes					
SPD TEST	SSI	TM30 Rf	TM30 Rg	CRI Ra	CRI Re
P5600_**LED_100%**	73	94	100	98,08	96,96
P5600_**JTI_100%**	73	94	100	98,04	96,91
P5600_**JTI_50%**	73	94	100	98,17	96,97
P5600_**JTI_25%**	73	94	101	98,17	96,86

JETI

Données constructeur

Manufacturer's data

KELVIN

Images & données KELVIN EPOS 300 Images & Data

Name of the tested product	EPOS 300				
Company	KELVIN				
Type of light: Fresnel, panel or others	COB				
Full Color or Bi-Color	Full Color - RGBACL		IP	20	
Dimensions (inches/cm)	26,5cm x 13,6cm X 14cm		Weight (Lbs/kg)	4,7 kg	
Built-in ballast		No	Ballast weight	3,48 kg without batteries	
Mandatory optical accessory		No	Optional optical accessories (excludes lightbox and louvers)	Yes	
If yes to optional, which ones?	Diffusers, Reflectors				
Type of circuit board material	FR4 (MCU) / Copper (emitter)				
Type of housing construction (metal, plastic, others)	Aluminium				
Website	https://www.kelvinlight.com/	https://www.eurolight-system.com/index.php			
Person in charge/Position	Bertrand Caurier				

Electrical power consumption	300W			
Maximum internal temperature	°C		F	
AC/DC - Battery voltage	240VAC	AC only	DC only Battery - voltage	12 to 30VDC
With AC, draws	Amps	With DC, draws	Amps/V	

Panel: Focusable unit	Yes	No	Beam angles			
Lux @ 1 meter (3.3 ft.) (Without diffuser)	@ 3200K @ 5600K	Lux @ 3 meter (10ft.) (Without diffuser)	@ 3200K @ 5600K	Lux @ 5 meter (15ft.) (Without diffuser)	@ 3200K @ 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	80	Types	R, G, B, A, C, L
Color temperature range	1 700 K	-	20 000 K
Color temperature preset	Yes		
Green Magenta Control	Yes		
Saturation Hue Adjustment	Yes		
Gels preset	Yes		
Camera profiles LUTs		No	
Color spaces	Yes	No	

Bi-Color				
Number of diodes		Types		
Color temperature between	K	and	K	
Color temperature preset	Yes	No		

Green Magenta Control	Yes	No	

Color index				
CRI	98			
TLCI	99			
TMA 30-18/20 - Rf	94-96	TMA 30-18/20 - Rg	100	
SSI [P3200]	86	SSI [CIE D55]	73	

Other specificities	62° reflector – no diffusion 1 m >35 klx@3200 K & @5600 K 3 m >3 klx @3200 K & @ 5600 K 5m 130 lx @3200 K, 150 lx @5600 K

Operating temperatures	From - 20°C to +45°C				From - 4 F to 113 F	
Fan:	Yes		Switchable	Yes		Noise level in dB at 1 m
If switchable, % of light output			If switched off, for how long			
High speed possibility	Yes		Maximum speed	5000 fps		
Camera shutter possibility	Yes		Maximum angle	5°		

Operating positions	All	No: limitations:	
Spigot diameter	16/28		

Memory of settings	Yes		Wireless DMX compatibility	Yes		
			Built in Lumen radio protocol	Yes		
Wired DMX compatibility	Yes		Maximum distance	100 m		
			Master/Slave: for synchronising multiple units	Yes		
Native apps	Yes		Apps compatibility	Yes		
Which ones?	All DMX related like Blackout, Luminair, ARRI Stellar					
			Color shifts when dimming		No	
			Change of light levels when selecting CT	By user	selection	

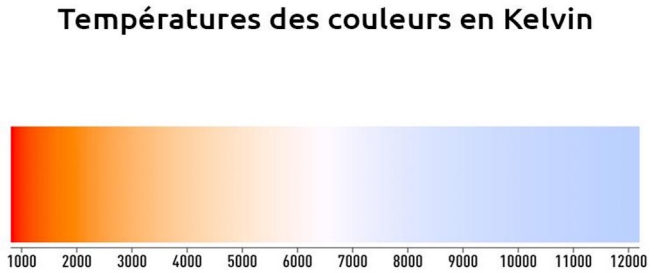
Environmental concern	
Warranty (in years)	3 years
For how long parts are available?	5 years – for electronics and LED on functional level
Average repair time	<1 week
What do you know about recycling your products?	We strive for max endurance as well as for recycling – max material and components purity to recycle individually. Carton box, no foam
Do customers send them back to you or do they take care of it themselves?	Repair / Maintenance - via certified service center or Kelvin HQ; special customer training on request Service - SW update via user
Country of manufacturing	NORWAY

Explications / Explanations

K / CCT K / Duv / x,y coordinates

Explications / Explanation

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

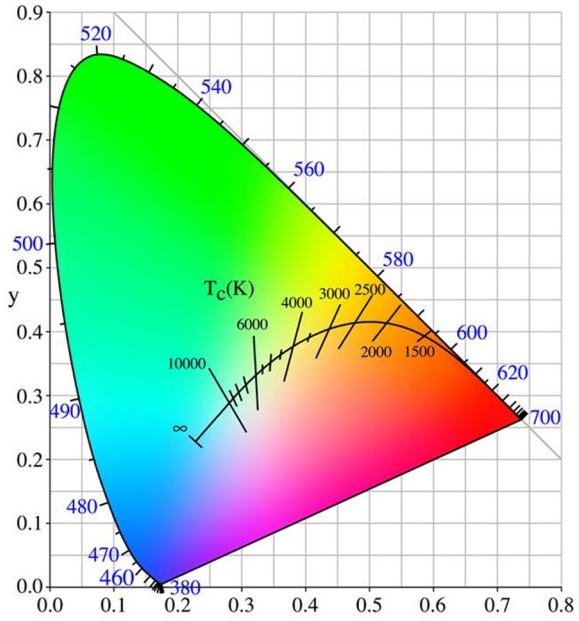


La température de couleur est la valeur cible idéale que nous cherchons à atteindre pour faire les mesures (3200 ou 5600). Celle-ci est basée sur la CCT et son unité est donc le Kelvin (K). La valeur peut être donnée directement par le projecteur ou réglée et ajustée avec les mesures prisent par le spectroradiomètre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

Explications / Explanation

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

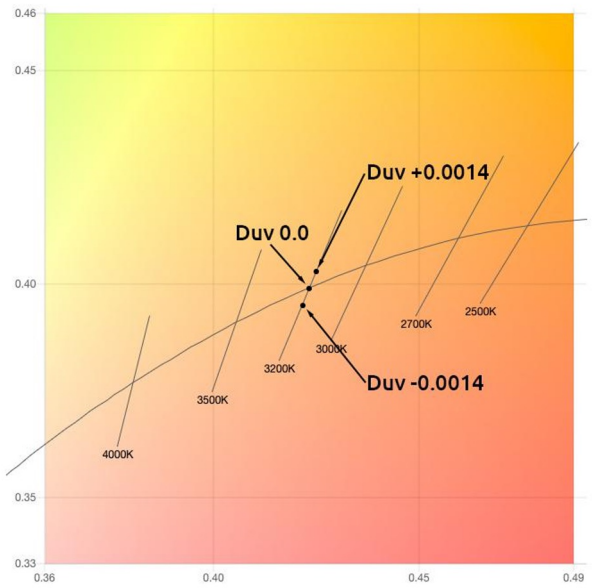


La CCT ou température de couleur corrélée, est la température précise d'un radiateur de Planck (corps noir) ayant la chromaticité la plus proche possible de celle associée à une distribution spectrale donnée. La CCT est donc calculée à partir de la distribution spectrale (SPD) de la source lumineuse ; 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.

Explications / Explanation

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

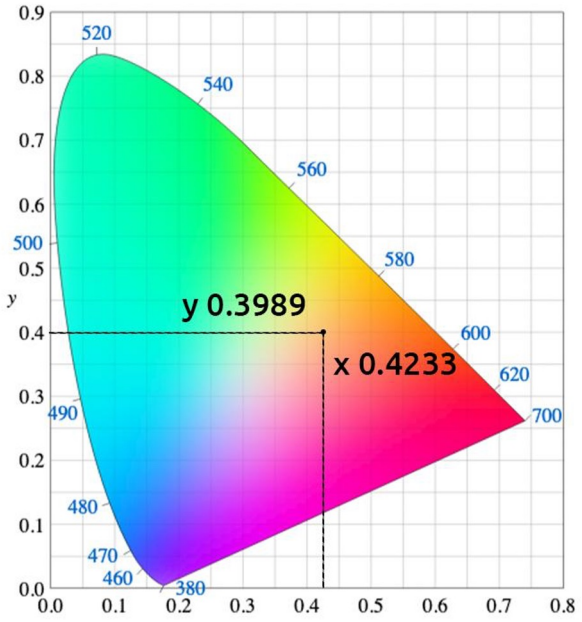


Le Duv ou Delta u,v est utilisé pour décrire la distance entre les coordonnées chromatiques de la source de lumière et le radiateur de Planck, appelé également lieu du corps noir. Une valeur négative indique que la source est en dessous de la courbe du corps noir (dominante magenta ou rose), une valeur 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.

Explications / Explanation

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