

tarm AG
Kreuzlingerstrasse 5
CH-8574 Lengwil

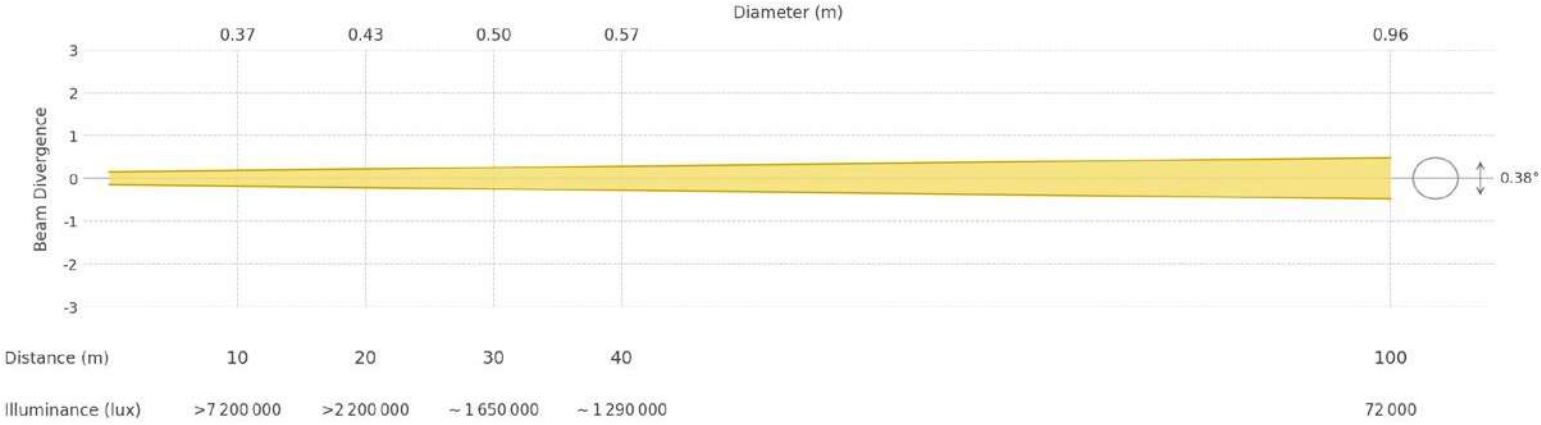
info@tarm.com
UID: CHE-422.406.186

Date: 2025-12-24 14:09:27

Photometry and Analysis Report

Product: tarm VANQUISH

Illuminance



Spectrum Test Report



tarm AG
Kreuzlingerstrasse 5
CH-8574 Lengwil

info@tarm.com
UID: CHE-422.406.186

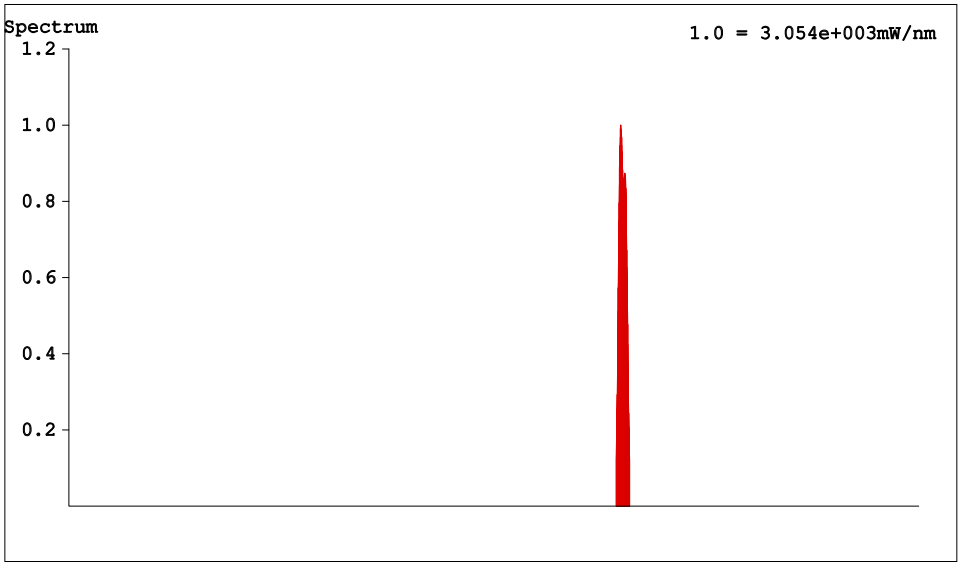
Date: 2025-12-25 08:48:03

Product: tarm VANQUISH
Specification: Focus 0, small angle
Sample No.: R
Manufacturer: tarm AG
Test Instrument:Haas Suite

Test Conditions

Temperature:	25.3 °C
WL Range:	380nm - 780nm
Test Mode:	Fast Test
RH:	65.0%
IP:	44993 (69%)
T:	83 ms
Spectrum:	Low

Wavelength-Spectrum Analysis

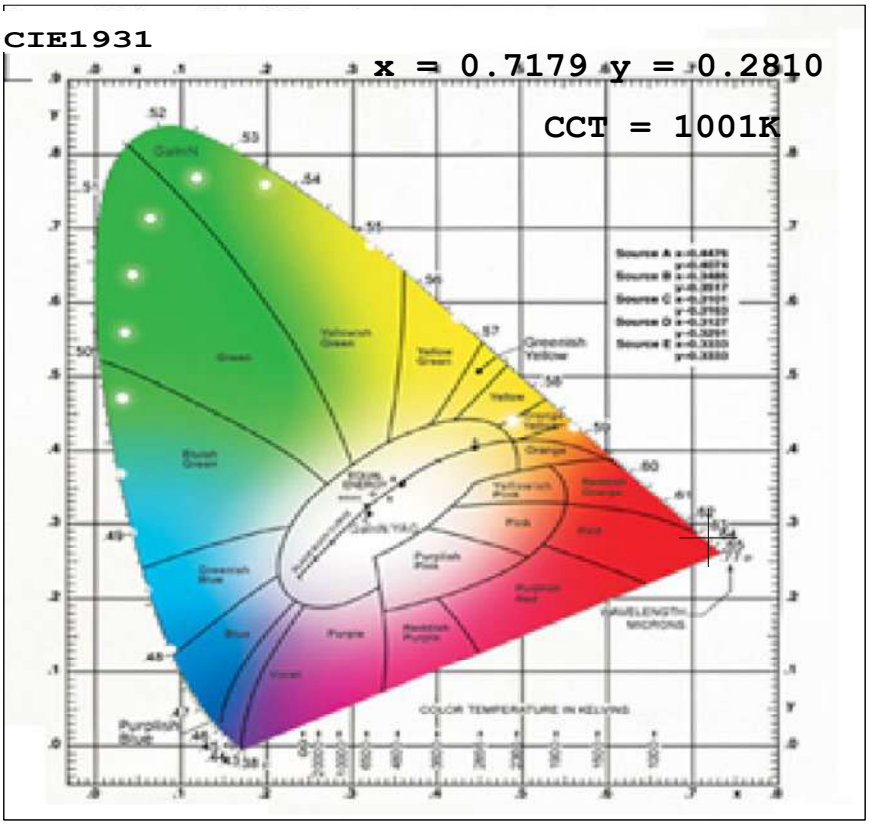


Colorimetric Parameters

Chromaticity Coordinate:
x = 0.7179 y = 0.2810 /
u‘ = 0.5817 v‘ = 0.5123
(duv=-1.34e-01)

CCT = 1001K
Prcp WL: Ld=640.1nm
Purity = 99.7%

Peak WL: Lp=640nm
FWHM: =4.5nm
Ratio: R=99.7% G=0.3% B=0.0%
Render Index: Ra = 24.3
TM30: Rf=0
Rg=239255835783158930000000000000000000
EEI: 1.71342 E Lowest
R1 =1 R2 =81 R3 =14 R4 =0 R5 =0 R6 =99
R7 =0 R8 =0 R9 =0 R10=74 R11=0 R12=78
R13=29 R14=51 R15=0



Product: tarm VANQUISH **Specification: Small Angle**

Photometric and Radiometric Parameters

Flux = 1608.3 lm Eff.: 7.95 lm/W Fe = 13.872 W

Flux of emitted photons (µmol/s): 74.114 Fluo. and blue light ratio: 3269 Fluorescent eff.: 59.79

Electrical parameters

V = 219.77 V I = 1.055 A P = 202.3 W PF = 0.8721 F= 50.01 Hz

Field angle: 2°

Spectrum Test Report



tarm AG
Kreuzlingerstrasse 5
CH-8574 Lengwil

info@tarm.com
UID: CHE-422.406.186

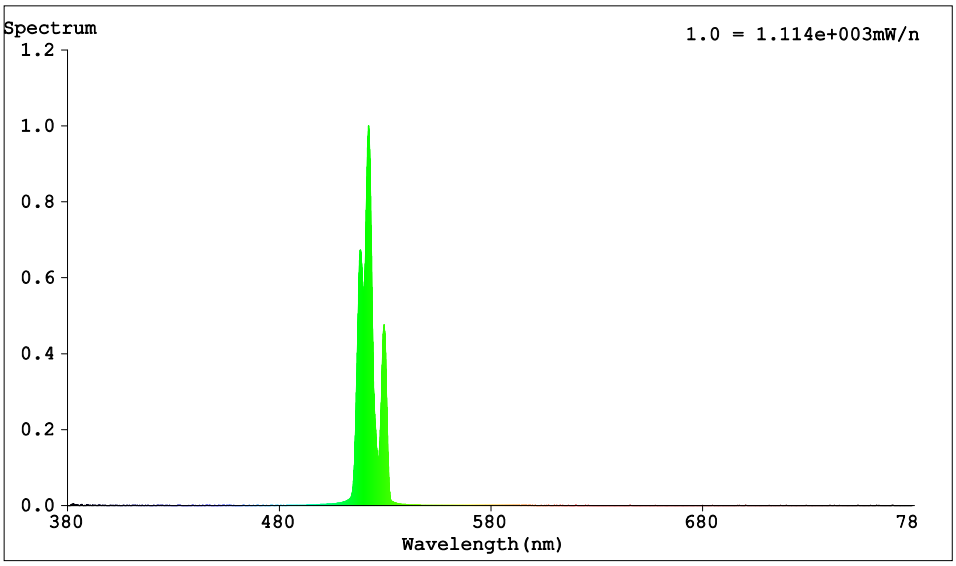
Date: 2025-12-25 08:48:24

Product: tarm VANQUISH
Specification: Focus 0, small angle
Sample No.: G
Manufacturer: tarm AG
Test Instrument:Haas Suite

Test Conditions

Temperature:	25.3 °C
WL Range:	380nm - 780nm
Test Mode:	Fast Test
RH:	65.0%
IP:	52170 (80%)
T:	197 ms
Spectrum:	Low

Wavelength-Spectrum Analysis

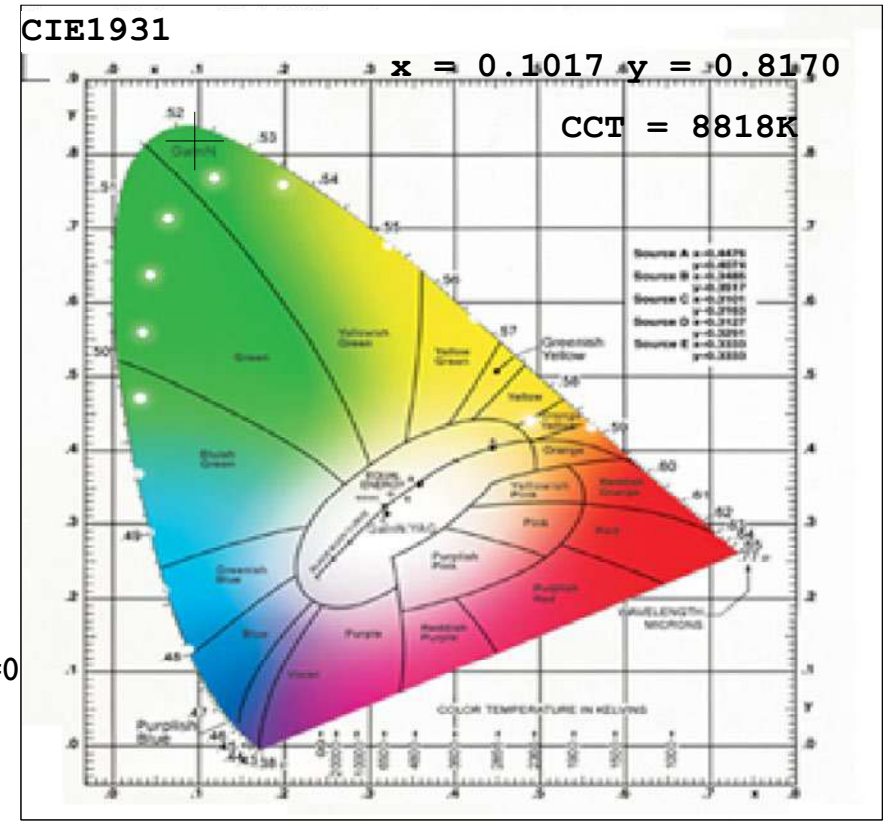


Colorimetric Parameters

Chromaticity Coordinate:
x = 0.1017 y = 0.8170 /
u‘ = 0.0323 v‘ = 0.5835
(duv=1.84e-01)

CCT = 8818K
Prcp WL: Ld=522.6nm
Purity = 96.9%

Peak WL: Lp=522nm
FWHM: =6.7nm
Ratio: R=0.1% G=99.8% B=0.1%
Render Index: Ra = 0.0
TM30: Rf=0 Rg=0
EEI: 0.75841 C
R1 =0 R2 =0 R3 =0 R4 =0 R5 =0 R6 =0 R7 =0
R8 =0 R9 =0 R10=0 R11=0 R12=0 R13=0
R14=2 R15=0



Product: tarm VANQUISH **Specification: Small Angle**

Photometric and Radiometric Parameters

Flux = 4389.0 lm Eff.: 17.96 lm/W Fe = 8.6694 W

Flux of emitted photons (μmol/s): 37.787 Fluo. and blue light ratio: 845.7 Fluorescent eff.: 31.91

Electrical parameters

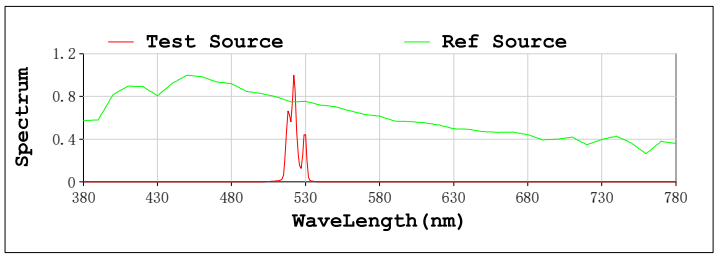
V = 219.83 V I = 1.235 A P = 244.4 W PF = 0.9003 F= 50.00Hz

Field angle: 2°

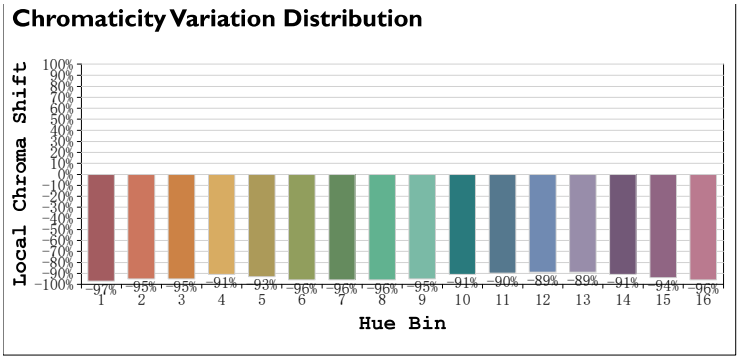
Spectrum Power Distribution

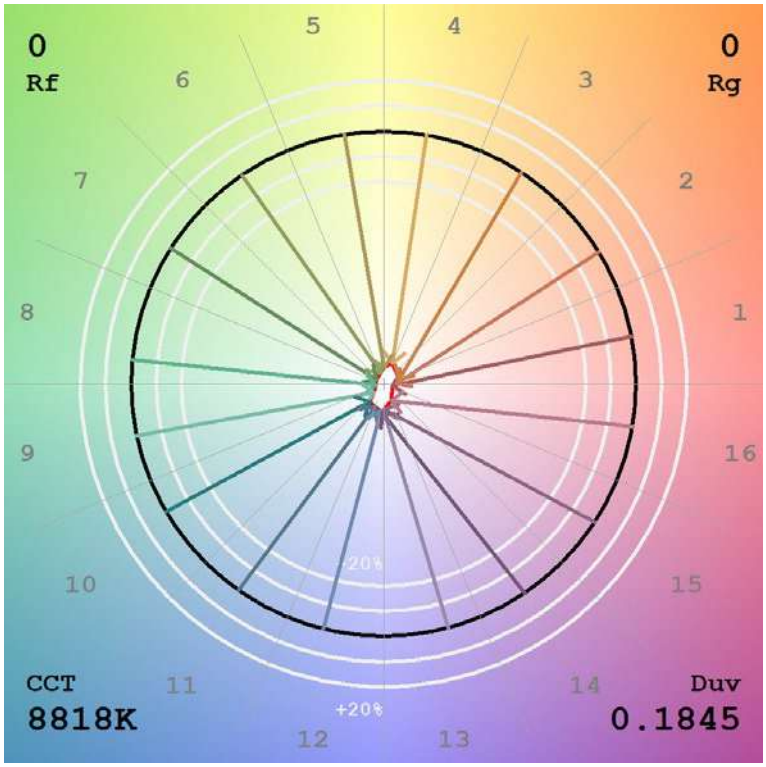
Rf: 0 CCT: 8818 K u': 0.0323

Rg: 0 Duv: 0.1845 v': 0.5835

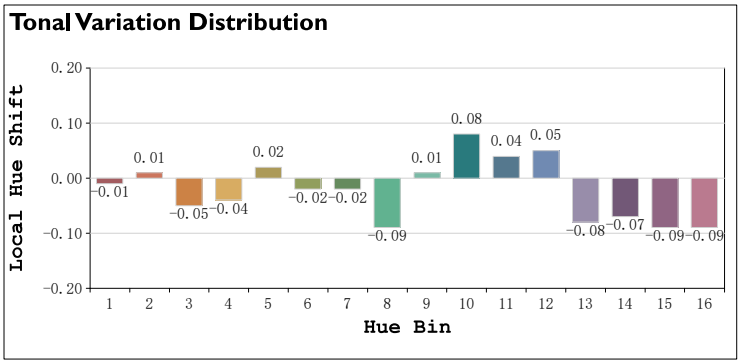


Chromaticity Variation Distribution

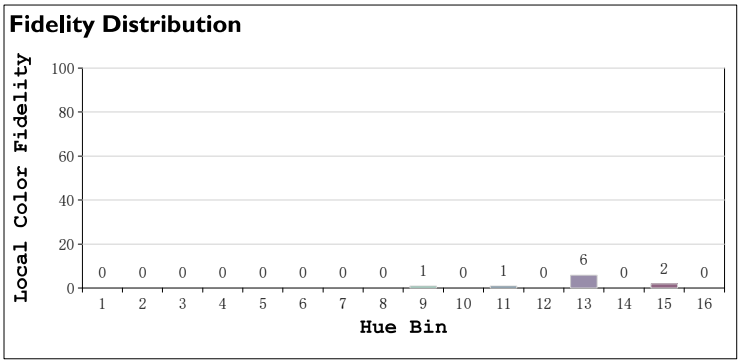




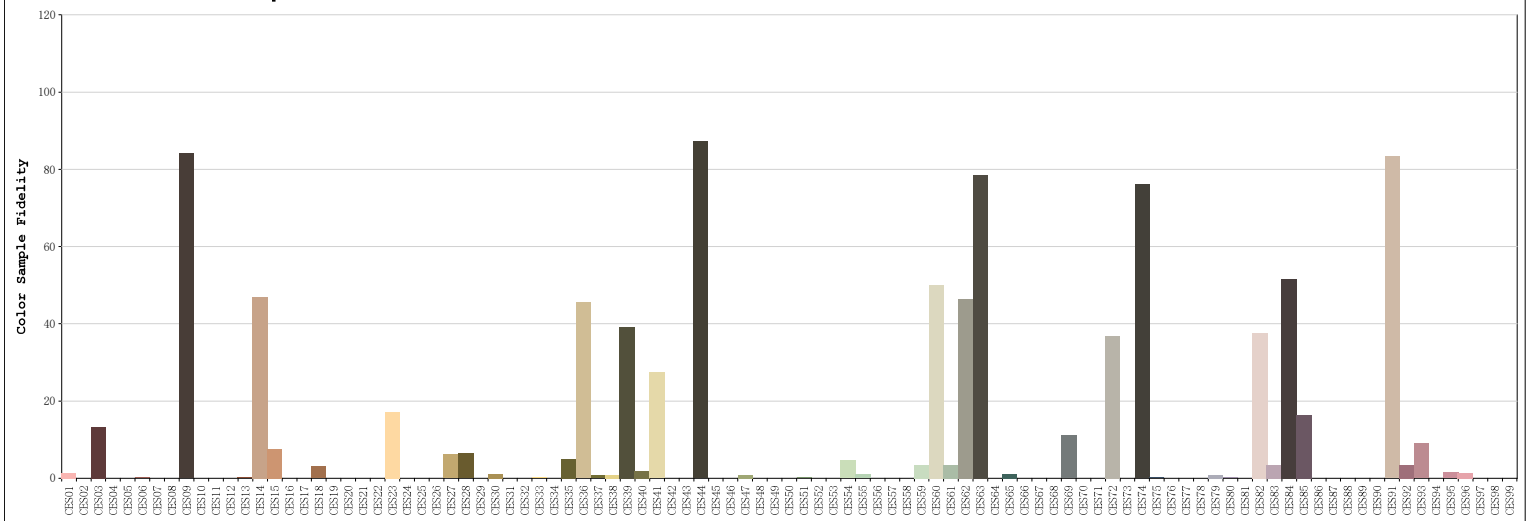
Tonal Variation Distribution



Fidelity Distribution



Color Evaluation Sample



Spectrum Test Report



tarm AG
Kreuzlingerstrasse 5
CH-8574 Lengwil

info@tarm.com
UID: CHE-422.406.186

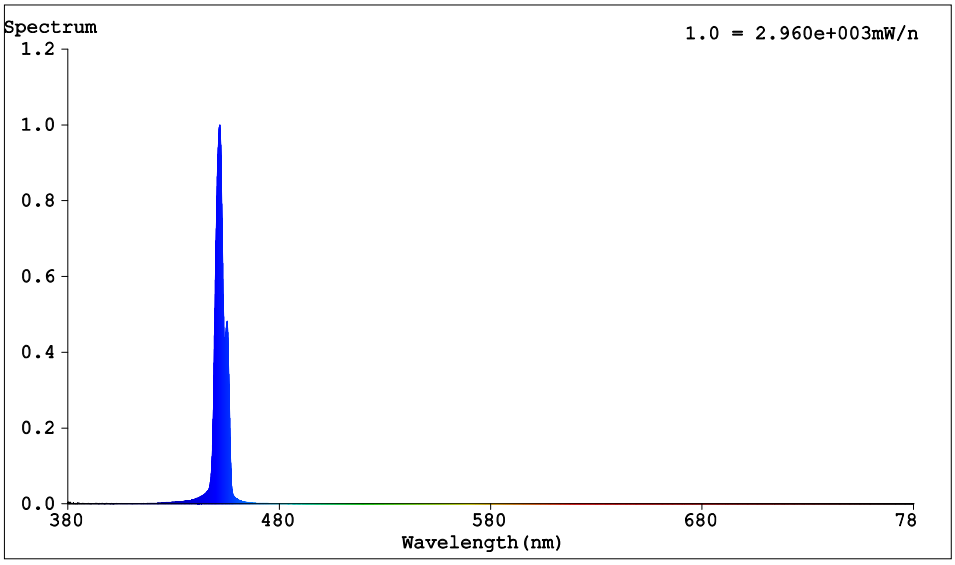
Date: 2025-12-25 08:48:40

Product: tarm VANQUISH
Specification: Focus 0, small angle
Sample No.: B
Manufacturer: tarm AG
Test Instrument:Haas Suite

Test Conditions

Temperature: 25.3 °C
WL Range: 380nm - 780nm
Test Mode: Fast Test
RH: 65.0%
IP: 53164 (81%)
T: 168 ms
Spectrum: Low

Wavelength-Spectrum Analysis

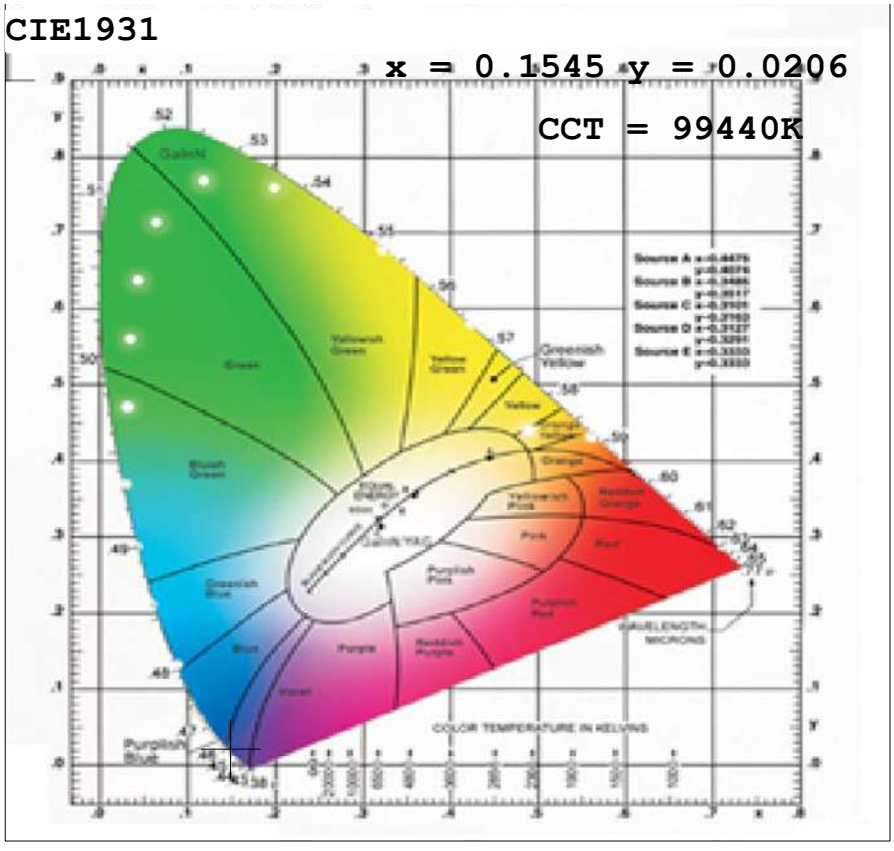


Colorimetric Parameters

Chromaticity Coordinate:
x = 0.1545 y = 0.0206 /
u‘ = 0.2103 v‘ = 0.0632
(duv=-2.26e-01)

CCT = 99440K
Prcp WL: Ld=452.4nm
Purity = 99.8%

Peak WL: Lp=452nm
FWHM: =4.2nm
Ratio: R=0.3% G=3.2% B=96.5%
Render Index: Ra = 0.7
TM30: Rf=0 Rg=1
EEI: 5.23716 E Lowest
R1 =0 R2 =0 R3 =0 R4 =0 R5 =6 R6 =0 R7 =0
R8 =0 R9 =0 R10=0 R11=0 R12=0 R13=0
R14=0 R15=0



Product: tarm VANQUISH **Specification: Small Angle**

Photometric and Radiometric Parameters

Flux = 480.97 lm Eff.: 2.14 lm/W Fe = 16.241 W

Flux of emitted photons(μmol/s): 61.24 Fluo. and blue light ratio: 1.032 Fluorescent eff.: 33.23

Electrical parameters

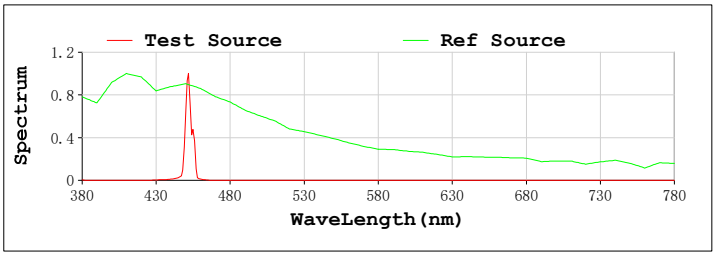
V = 219.84 V I = 1.150 A P = 224.5 W PF = 0.8884 F= 50.01 Hz

Field angle: 2°

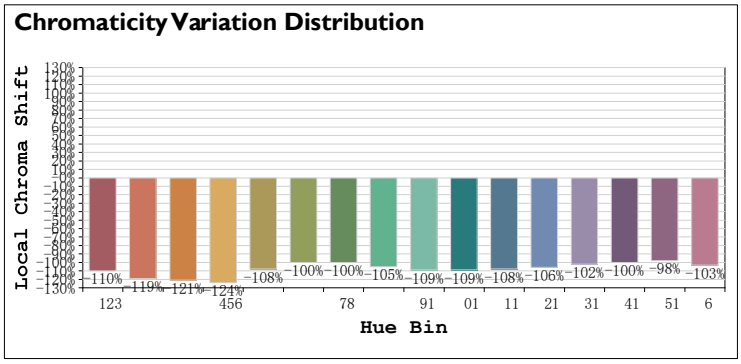
Spectrum Power DistributionC

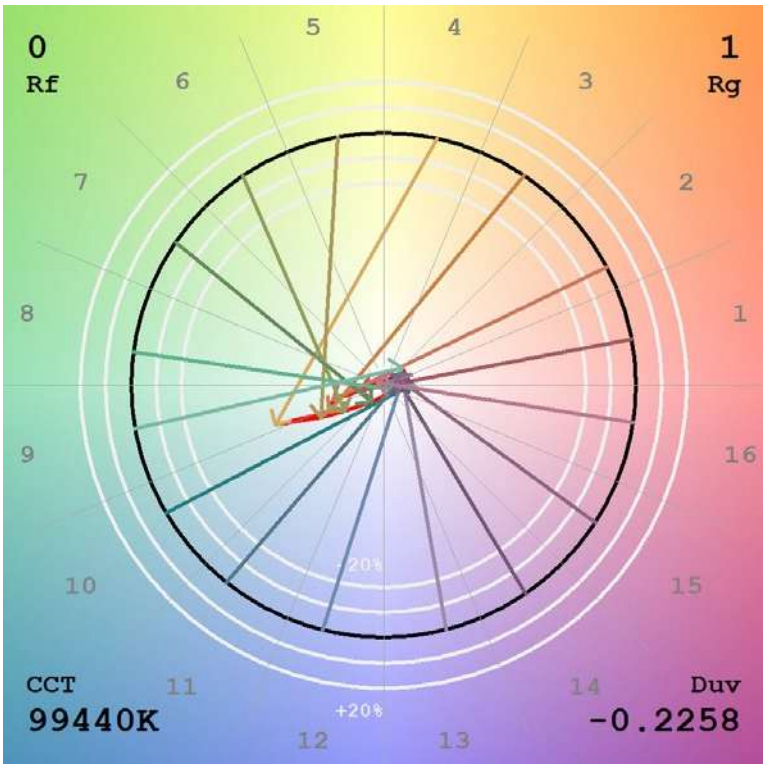
Rf: 0 CCT: 99440 K u': 0.2103

Rg: 1 Duv: -0.2258 v': 0.0632

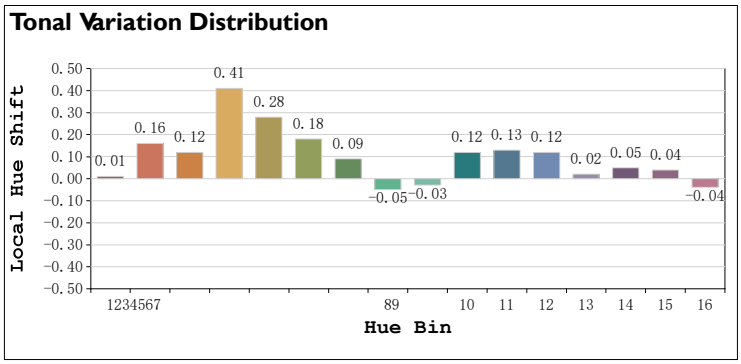


Chromaticity Variation Distribution

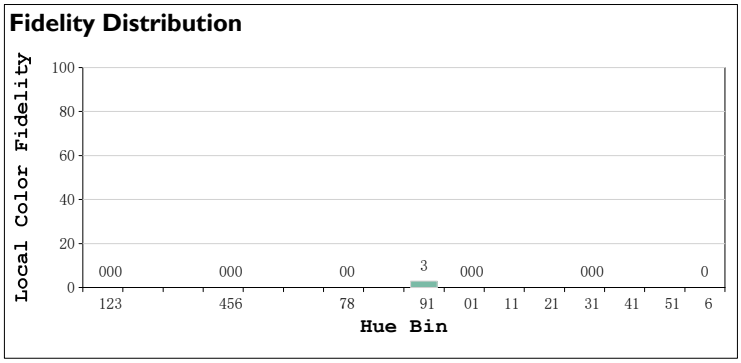




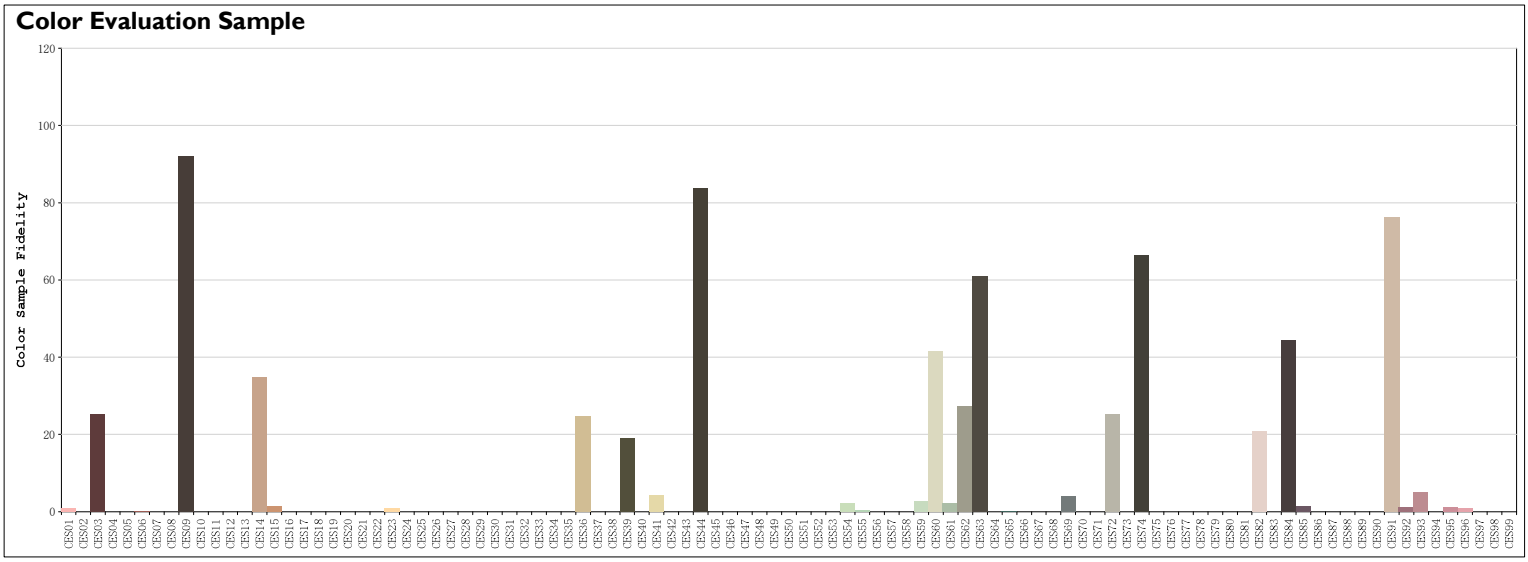
Tonal Variation Distribution



Fidelity Distribution



Color Evaluation Sample



Spectrum Test Report



tarm AG
Kreuzlingerstrasse 5
CH-8574 Lengwil

info@tarm.com
UID: CHE-422.406.186

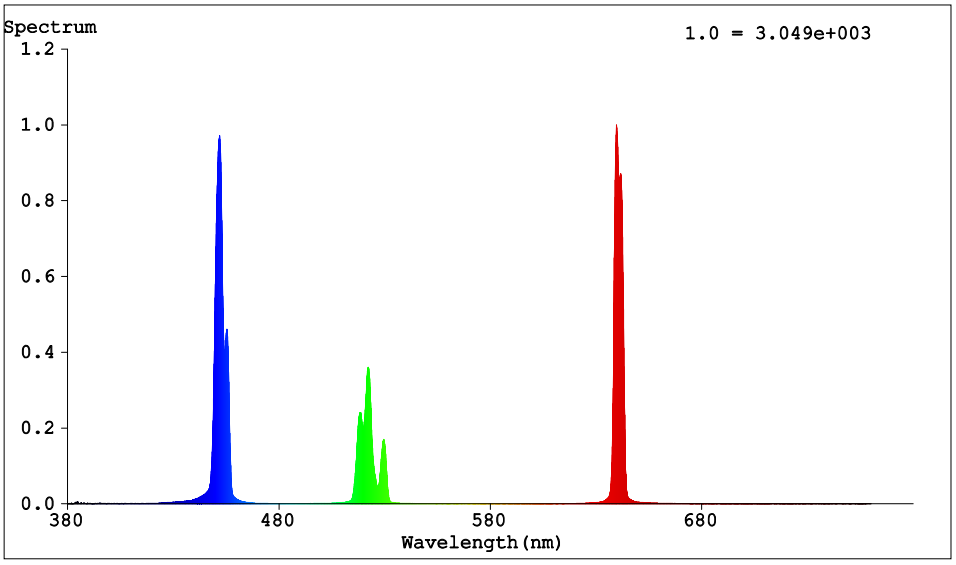
Date: 2025-12-25 08:48:56

Product: tarm VANQUISH
Specification: Focus 0, small angle
Sample No.: RGB
Manufacturer: tarm AG
Test Instrument:Haas Suite

Test Conditions

Temperature: 25.3 °C
WL Range: 380nm - 780nm
Test Mode: Fast Test
RH: 65.0%
IP: 45496 (69%)
T: 84 ms
Spectrum: Low

Wavelength-Spectrum Analysis

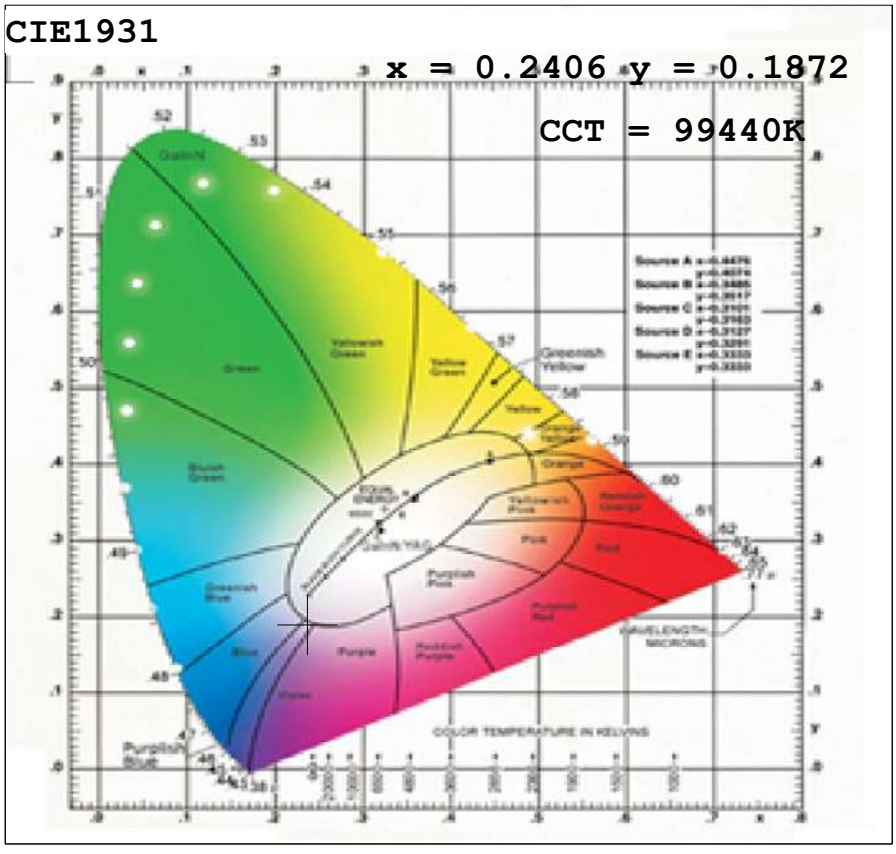


Colorimetric Parameters

Chromaticity Coordinate:
x = 0.2406 y = 0.1872 /
u‘ = 0.2020 v‘ = 0.3536
(duv=-3.70e-02)

CCT = 99440K
Prcp WL: Ld=461.2nm
Purity = 48.5%

Peak WL: Lp=640nm
FWHM: =4.5nm
Ratio: R=25.0% G=67.7% B=7.3%
Render Index: Ra = 22.8
TM30: Rf=16 Rg=157
EEI: 0.98574 E Lowest
R1 =0 R2 =56 R3 =37 R4 =0 R5 =4 R6 =57
R7 =28 R8 =0 R9 =0 R10=0 R11=0 R12=63
R13=0 R14=58 R15=0



Product: tarm VANQUISH **Specification: Small Angle**

Photometric and Radiometric Parameters

Flux = 6394.4 lm Eff.: 13.82 lm/W Fe = 38.388 W

Flux of emitted photons(μmol/s): 171.52 Fluo. and blue light ratio: 0.5614 Fluorescent eff.: 28.66

Electrical parameters

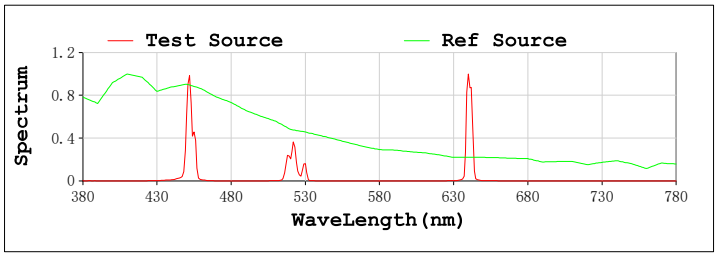
V = 219.80 V I = 2.191 A P = 462.7 W PF = 0.9609 F= 50.00 Hz

Field angle: 2°

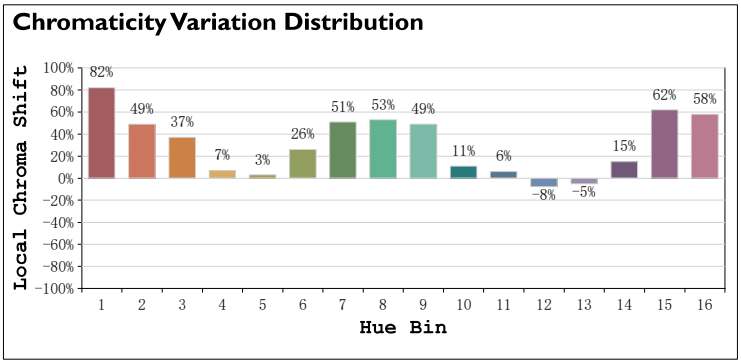
Spectrum Power Distribution

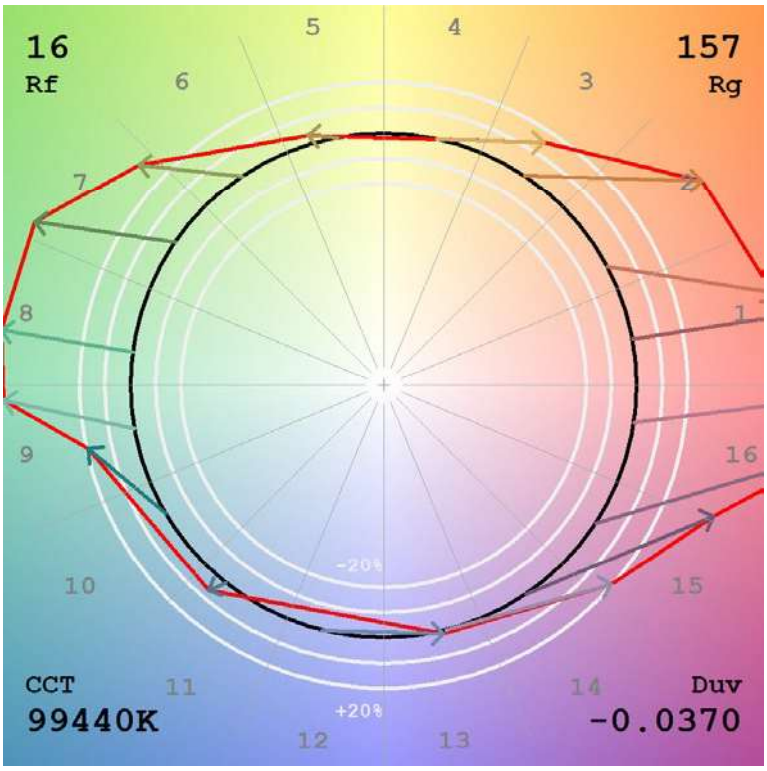
Rf: 16 CCT: 99440 K u': 0.2020

Rg: 157 Duv: -0.0370 v': 0.3536

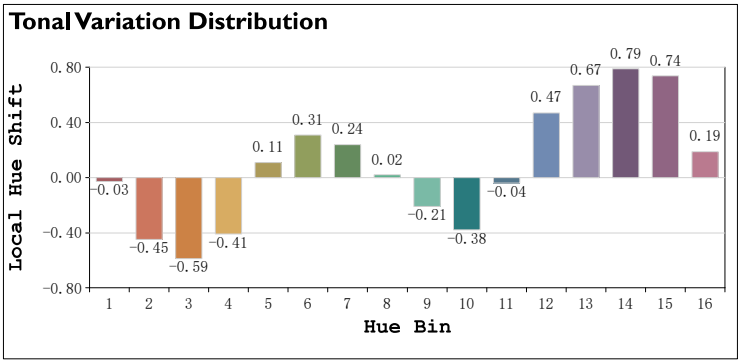


Chromaticity Variation Distribution

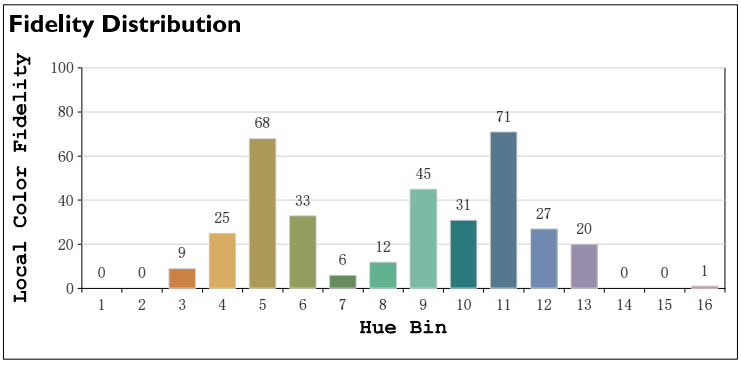




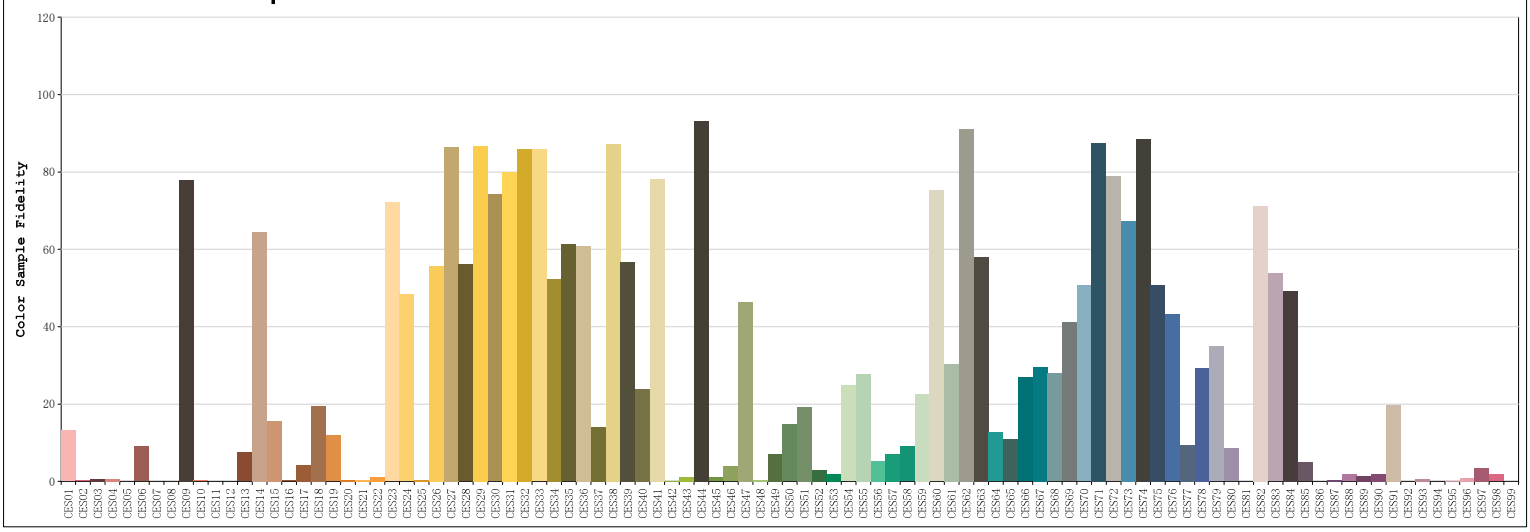
Tonal Variation Distribution



Fidelity Distribution



Color Evaluation Sample



Spectrum Test Report



tarm AG
Kreuzlingerstrasse 5
CH-8574 Lengwil

info@tarm.com
UID: CHE-422.406.186

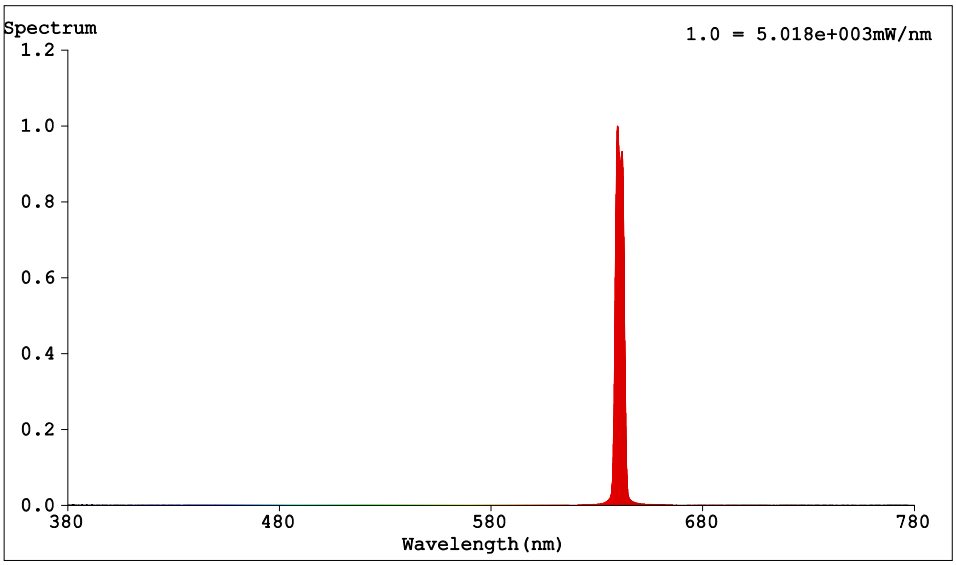
Date: 2025-12-24 14:09:27

Product: tarm VANQUISH
Specification: Focus 255, big angle
Sample No.: R
Manufacturer: tarm AG
Test Instrument:Haas Suite

Test Conditions

Temperature: 25.3 °C
WL Range: 380nm - 780nm
Test Mode: Fast Test
RH: 65.0%
IP: 53324 (81%)
T: 60 ms
Spectrum: Low

Wavelength-Spectrum Analysis

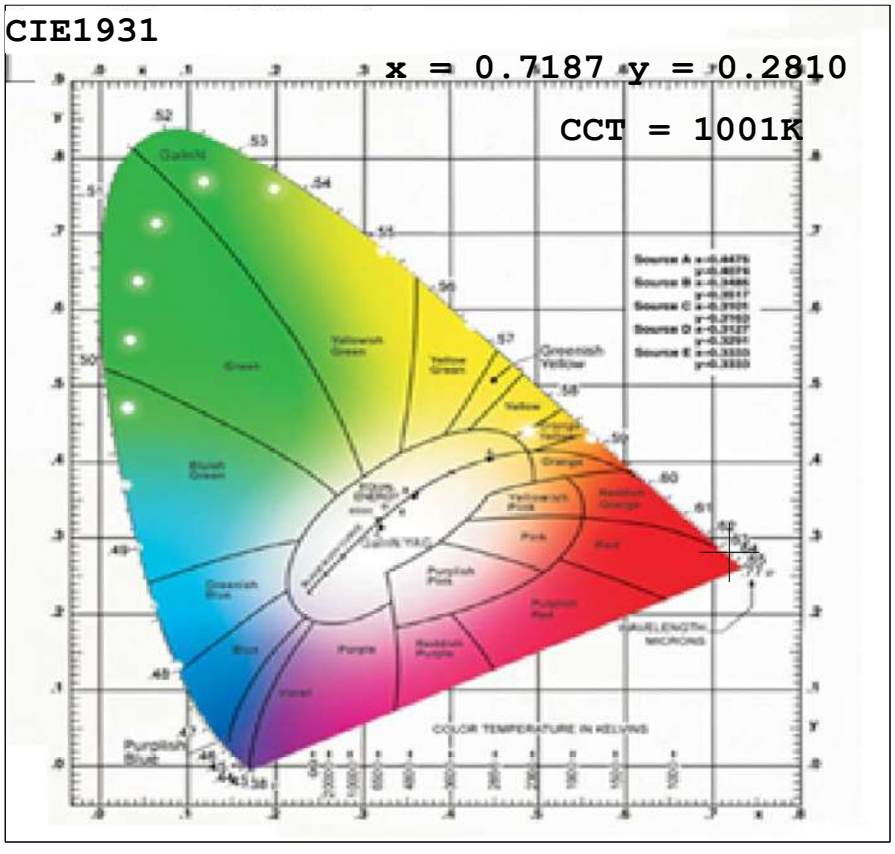


Colorimetric Parameters

Chromaticity Coordinate:
x = 0.7187 y = 0.2810 /
u‘ = 0.5825 v‘ = 0.5125
(duv=-1.35e-01)

CCT = 1001K
Prcp WL: Ld=639.9nm
Purity = 99.9%

Peak WL: Lp=640nm
FWHM: =4.6nm
Ratio: R=99.8% G=0.2% B=0.0%
Render Index: Ra = 24.0
TM30: Rf=0
Rg=239255835783158930000000000000000000
EEI: 1.01559 E Lowest
R1 =0 R2 =79 R3 =14 R4 =0 R5 =0 R6 =99
R7 =0 R8 =0 R9 =0 R10=72 R11=0 R12=81
R13=28 R14=50 R15=0



Product: tarm VANQUISH **Specification: Big Angle**

Photometric and Radiometric Parameters

Flux = 2720.8 lm Eff.: 13.41 lm/W Fe = 23.560 W

Flux of emitted photons(μmol/s): 125.95 Fluo. and blue light ratio: 2592 Fluorescent eff.: 101.5

Electrical parameters

V = 219.83 V I = 1.056 A P = 202.9 W PF = 0.8741 F= 50.01 Hz

Field angle: 2°

Spectrum Test Report



tarm AG
Kreuzlingerstrasse 5
CH-8574 Lengwil

info@tarm.com
UID: CHE-422.406.186

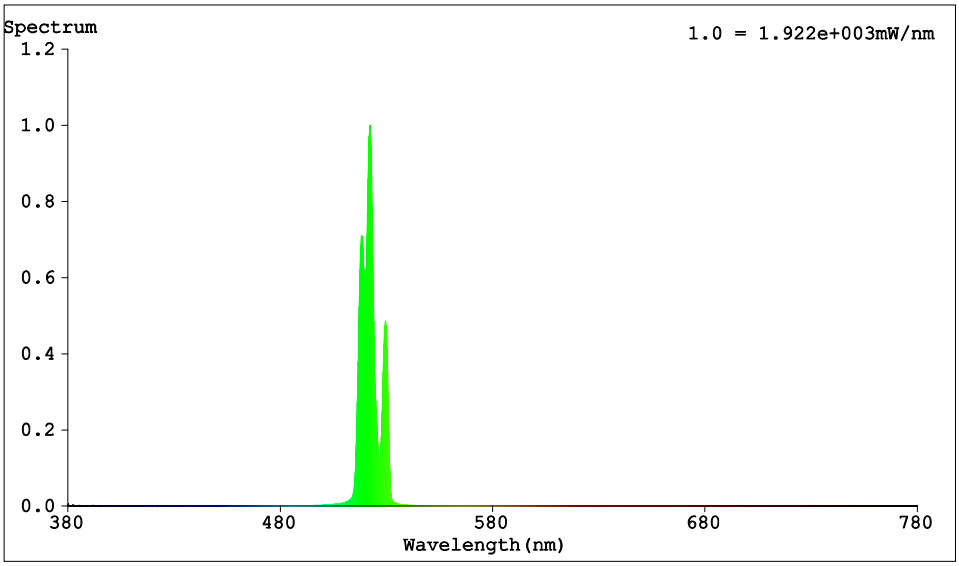
Date: 2025-12-24 14:09:48

Product: tarm VANQUISH
Specification: Focus 255, big angle
Sample No.: G
Manufacturer: tarm AG
Test Instrument:Haas Suite

Test Conditions

Temperature: 25.3 °C
WL Range: 380nm - 780nm
Test Mode: Fast Test
RH: 65.0%
IP: 52470 (80%)
T: 115 ms
Spectrum: Low

Wavelength-Spectrum Analysis

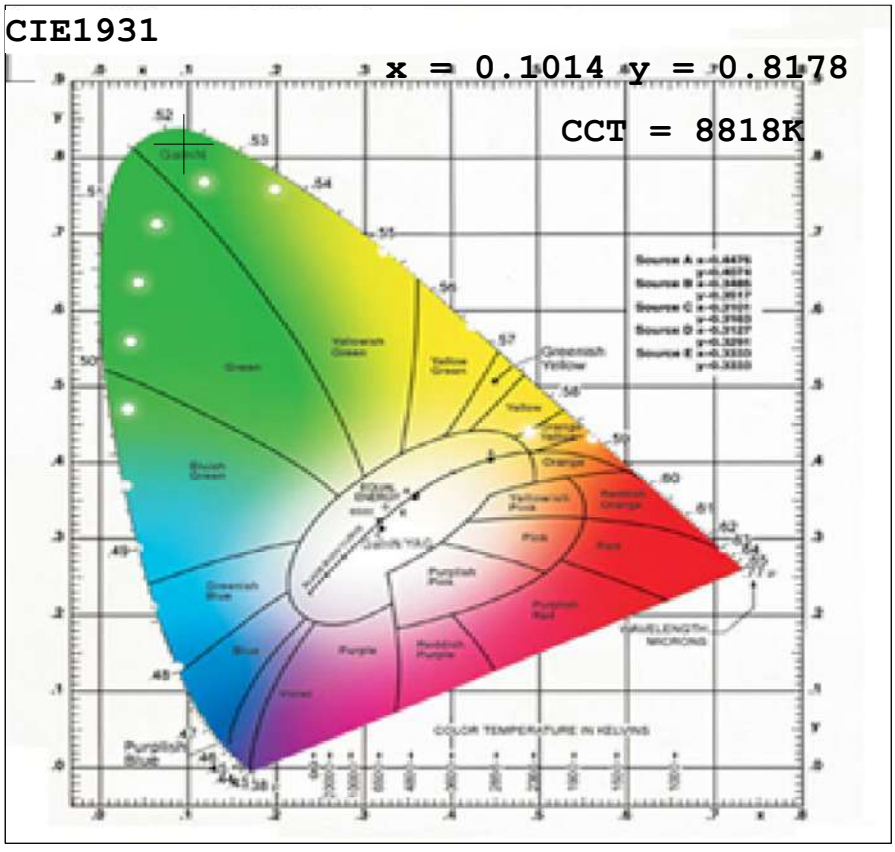


Colorimetric Parameters

Chromaticity Coordinate:
x = 0.1014 y = 0.8178 /
u‘ = 0.0322 v‘ = 0.5836
(duv=1.85e-01)

CCT = 8818K
Prcp WL: Ld=522.6nm
Purity = 97.1%

Peak WL: Lp=522nm
FWHM: =6.9nm
Ratio: R=0.0% G=99.9% B=0.1%
Render Index: Ra = 0.0
TM30: Rf=0 Rg=0
EEI: 0.42644 B
R1 =0 R2 =0 R3 =0 R4 =0 R5 =0 R6 =0 R7 =0
R8 =0 R9 =0 R10=0 R11=0 R12=0 R13=0
R14=2 R15=0



Product: tarm VANQUISH **Specification: Big Angle**

Photometric and Radiometric Parameters

Flux = 7726.1 lm Eff.: 31.94 lm/W Fe = 15.245 W

Flux of emitted photons(μmol/s): 66.448 Fluo. and blue light ratio: 3634 Fluorescent eff.: 56.74

Electrical parameters

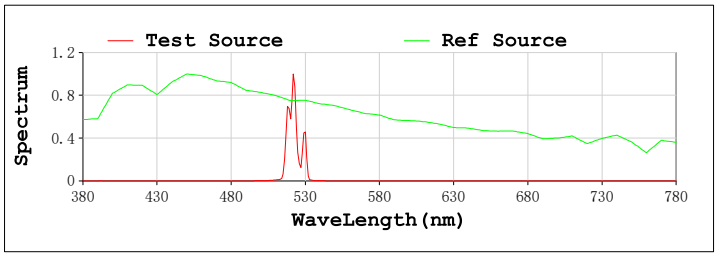
V = 219.85 V I = 1.222 A P = 241.9 W PF = 0.9004 F= 50.01 Hz

Field angle: 2°

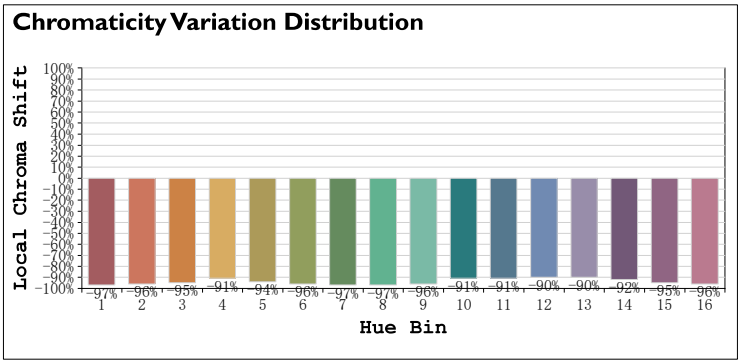
Spectrum Power Distribution

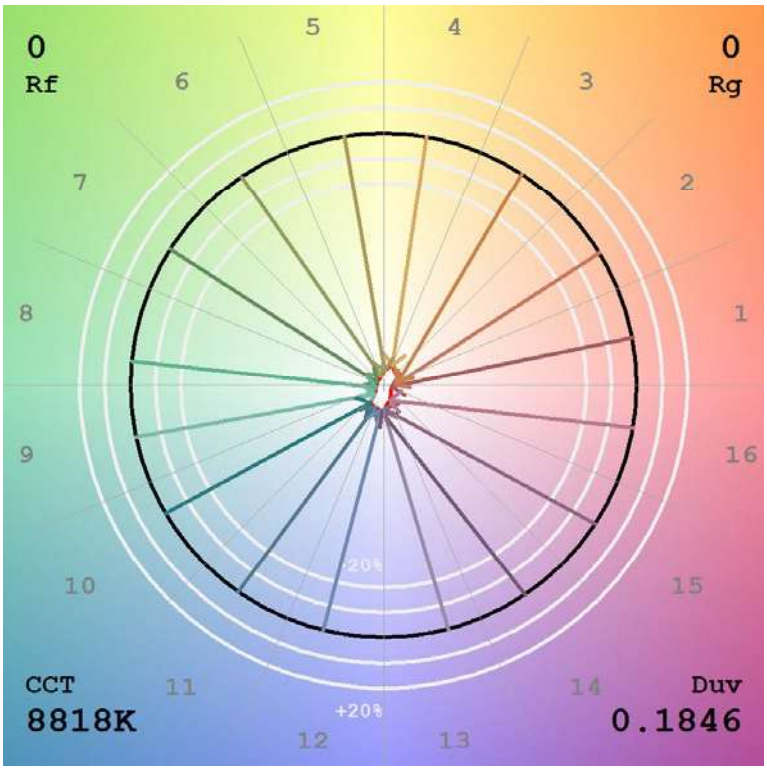
Rf: 0 CCT: 8818 K u': 0.0322

Rg: 0 Duv: 0.1846 v': 0.5836

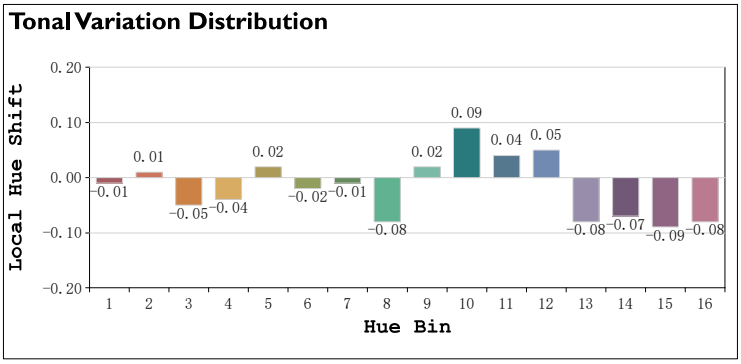


Chromaticity Variation Distribution

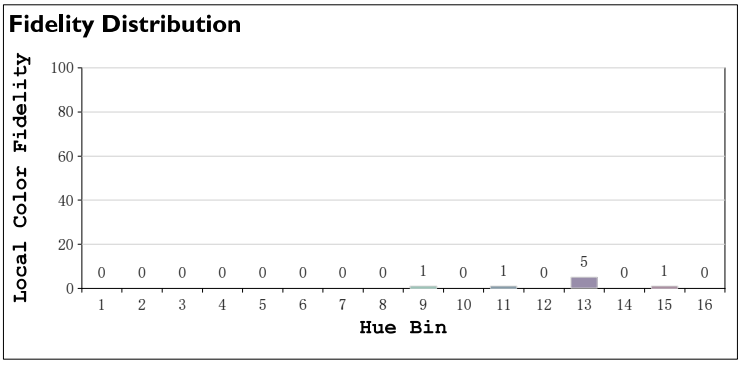




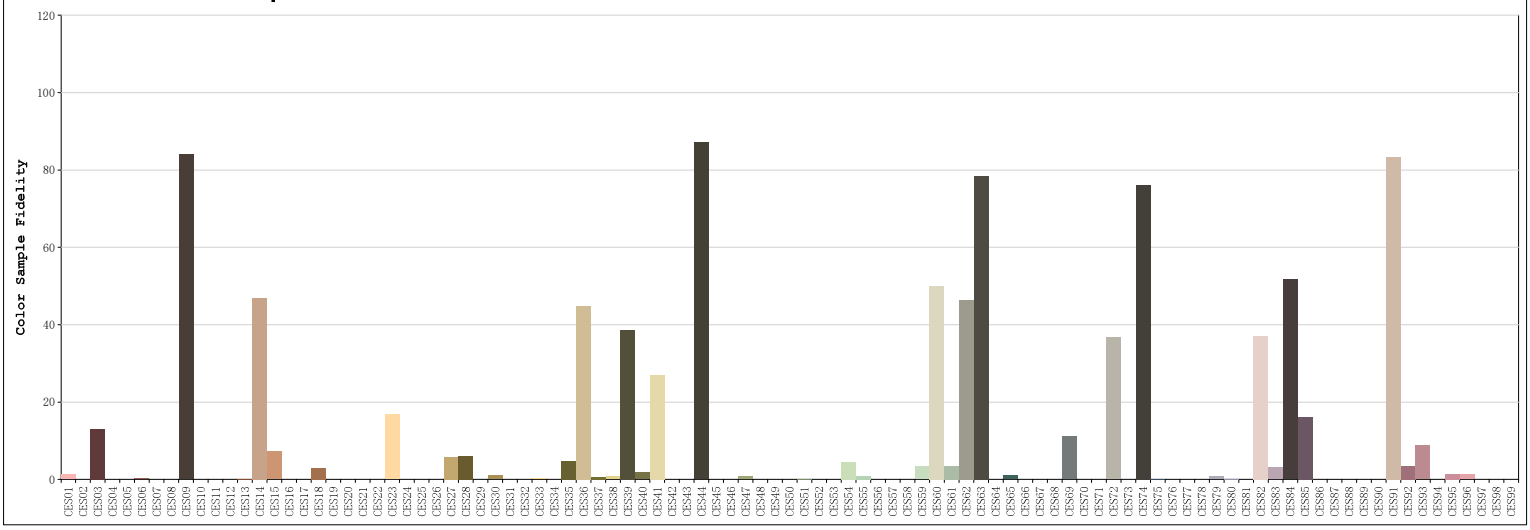
Tonal Variation Distribution



Fidelity Distribution



Color Evaluation Sample



Spectrum Test Report



tarm AG
Kreuzlingerstrasse 5
CH-8574 Lengwil

info@tarm.com
UID: CHE-422.406.186

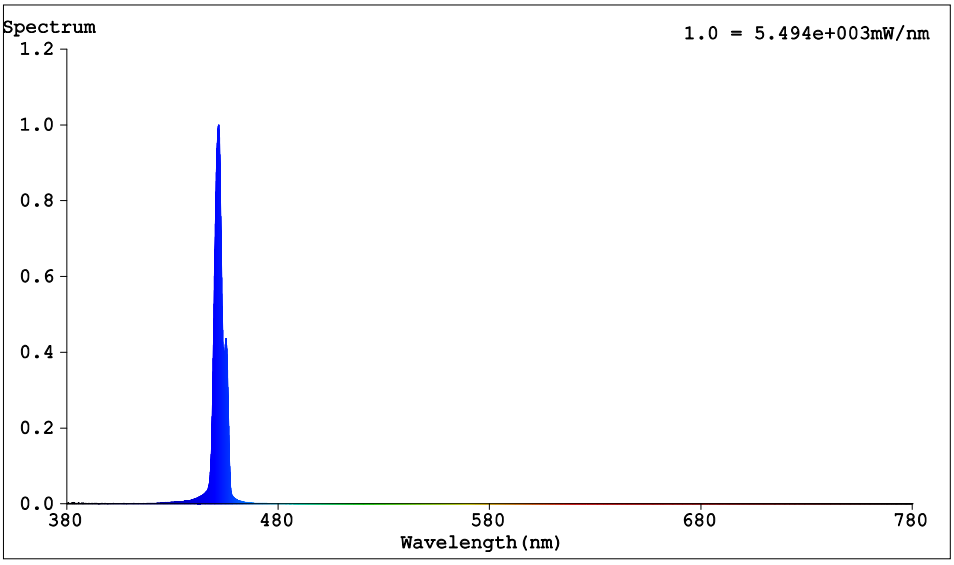
Date: 2025-12-24 14:10:03

Product: tarm VANQUISH
Specification: Focus 255, big angle
Sample No.: B
Manufacturer: tarm AG
Test Instrument:Haas Suite

Test Conditions

Temperature: 25.3 °C
WL Range: 380nm - 780nm
Test Mode: Fast Test
RH: 65.0%
IP: 52865 (81%)
T: 90 ms
Spectrum: Low

Wavelength-Spectrum Analysis

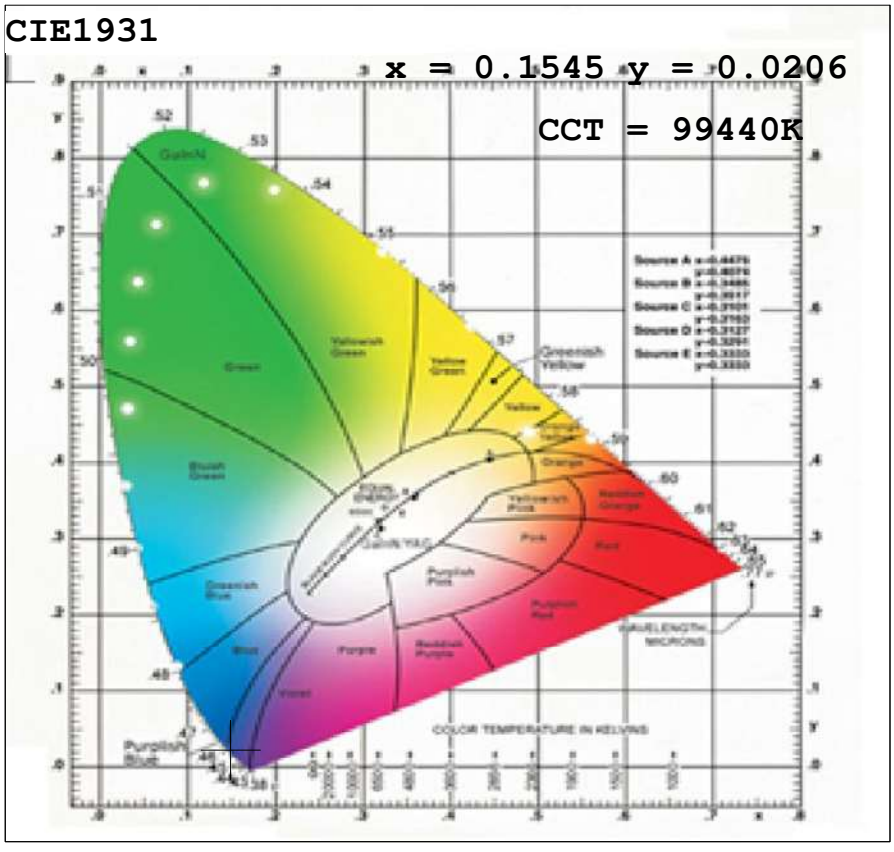


Colorimetric Parameters

Chromaticity Coordinate:
x = 0.1545 y = 0.0206 /
u‘ = 0.2103 v‘ = 0.0632
(duv=-2.26e-01)

CCT = 99440K
Prcp WL: Ld=452.3nm
Purity = 99.8%

Peak WL: Lp=452nm
FWHM: =4.1nm
Ratio: R=0.3% G=3.1% B=96.5%
Render Index: Ra = 0.8
TM30: Rf=0 Rg=1
EEI: 3.23471 E Lowest
R1 =0 R2 =0 R3 =0 R4 =0 R5 =6 R6 =0 R7 =0
R8 =0 R9 =0 R10=0 R11=0 R12=0 R13=0
R14=0 R15=0



Product: tarm VANQUISH **Specification: Big Angle**

Photometric and Radiometric Parameters

Flux = 870.34 lm Eff.: 3.92 lm/W Fe = 29.438 W

Flux of emitted photons(μmol/s): 111.01 Fluo. and blue light ratio: 1.028 Fluorescent eff.: 60.86

Electrical parameters

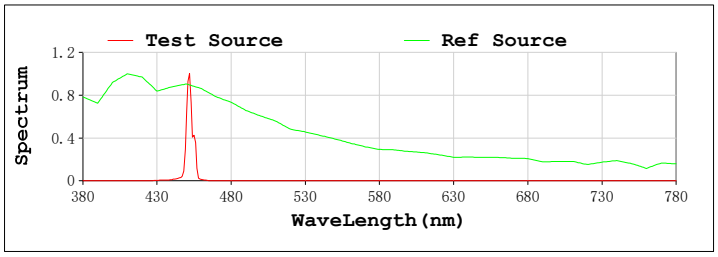
V = 219.76 V I = 1.137 A P = 221.9 W PF = 0.8886 F= 50.01 Hz

Field angle: 2°

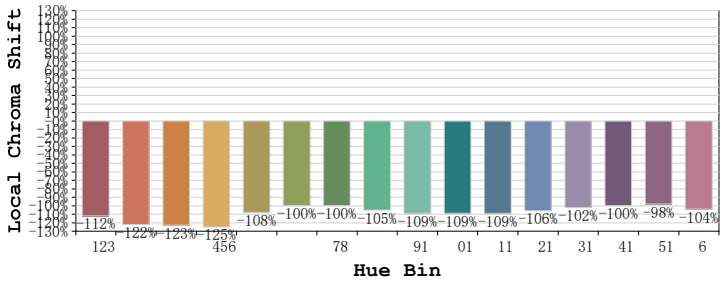
Spectrum Power DistributionC

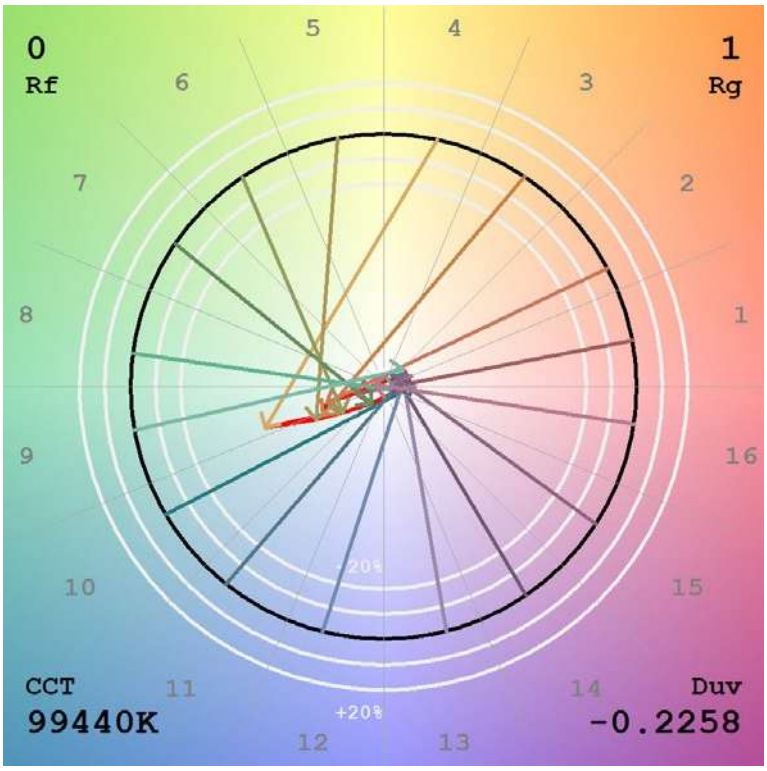
Rf: 0 CCT: 99440 K u': 0.2103

Rg: 1 Duv: -0.2258 v': 0.0632

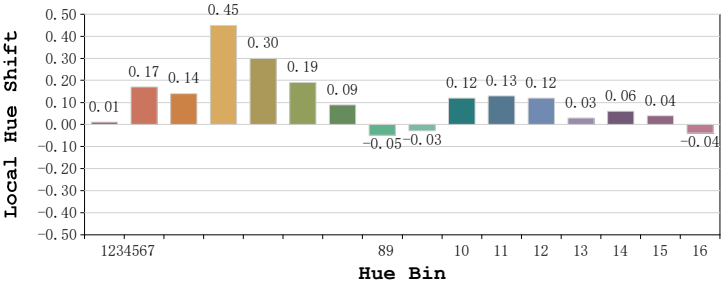


Chromaticity Variation Distribution

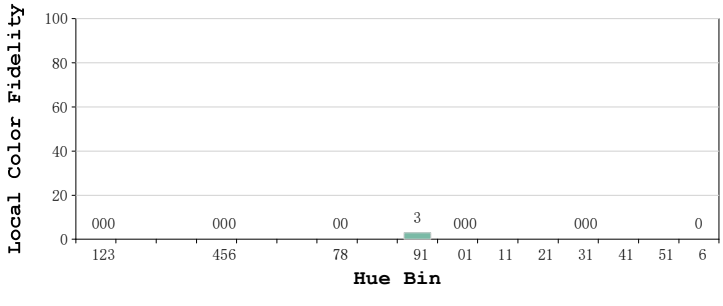




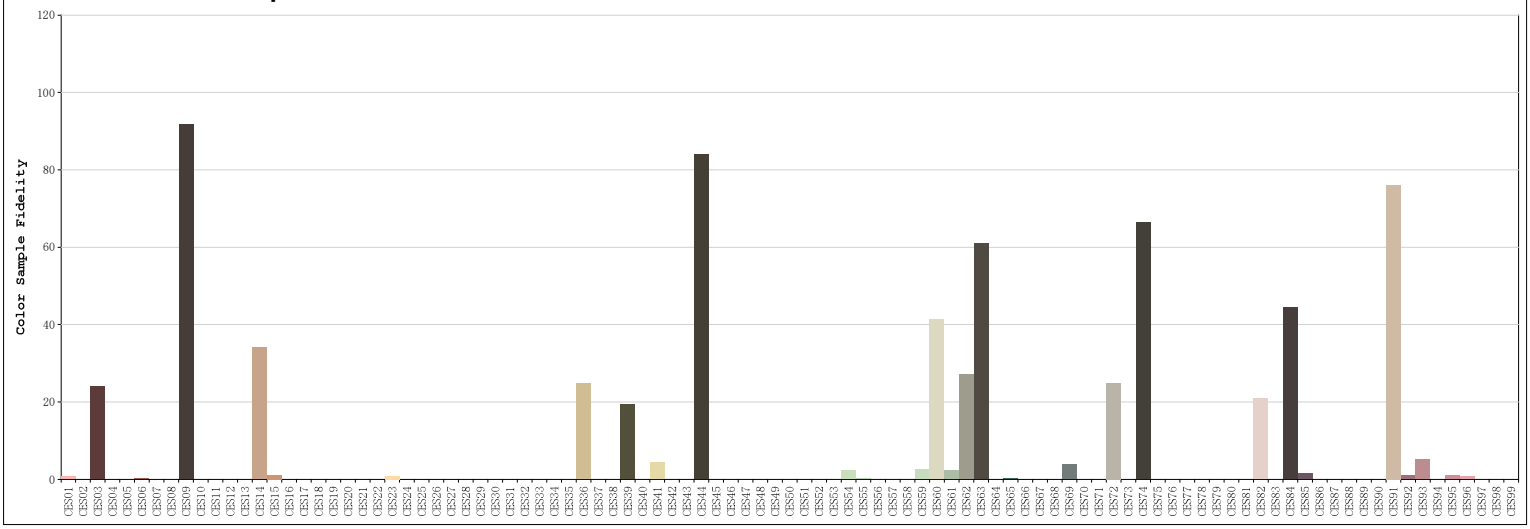
Tonal Variation Distribution



Fidelity Distribution



Color Evaluation Sample



Spectrum Test Report



tarm AG
Kreuzlingerstrasse 5
CH-8574 Lengwil

info@tarm.com
UID: CHE-422.406.186

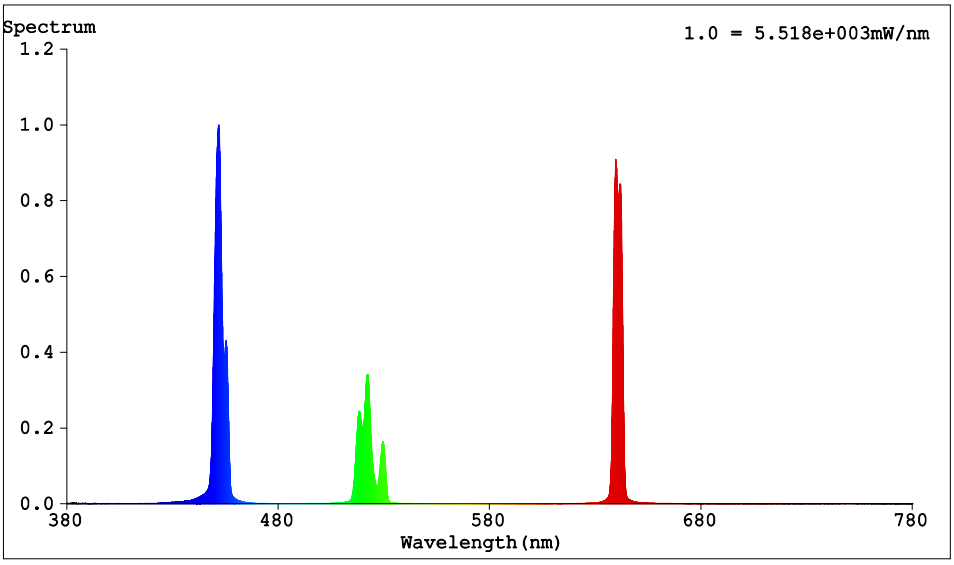
Date: 2025-12-24 14:10:52

Product:	tarm VANQUISH
Specification:	Focus 255, big angle
Sample No.:	RGB
Manufacturer:	tarm AG
Test Instrument:	Haas Suite

Test Conditions

Temperature:	25.3 °C
WL Range:	380nm - 780nm
Test Mode:	Fast Test
RH:	65.0%
IP:	50730 (77%)
T:	57 ms
Spectrum:	Low

Wavelength-Spectrum Analysis

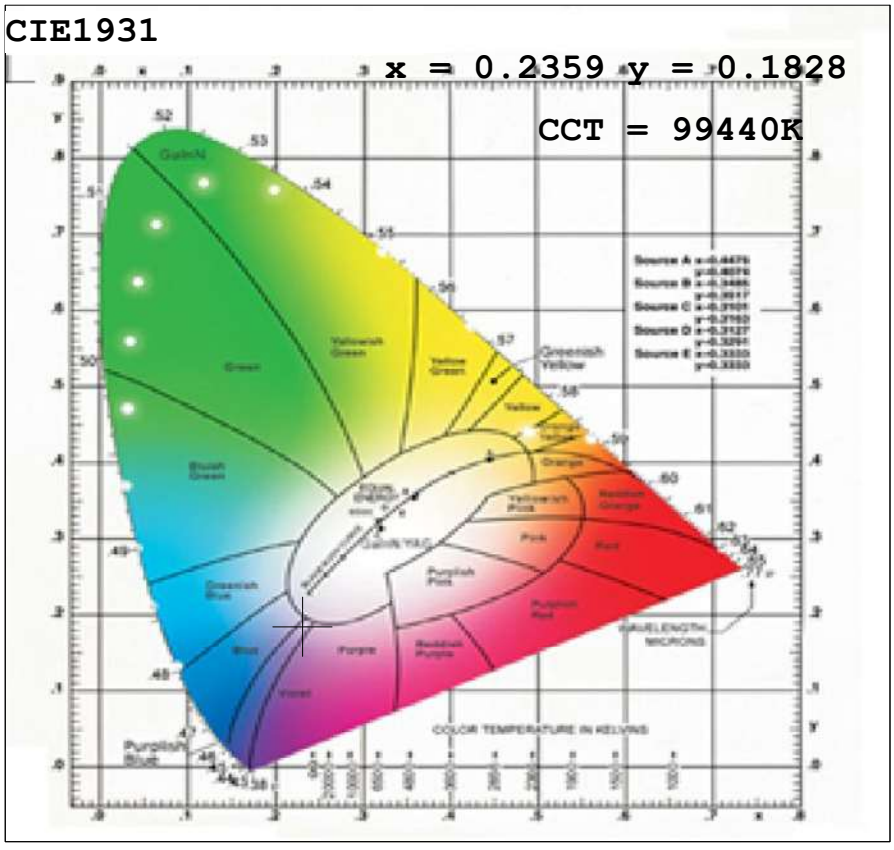


Colorimetric Parameters

Chromaticity Coordinate:
x = 0.2359 y = 0.1828 /
u‘ = 0.1998 v‘ = 0.3485
(duv=-3.87e-02)

CCT =	99440K
Prcp WL:	Ld=462.6nm
Purity =	50.3%
Peak WL:	Lp=452nm
FWHM:	=4.1nm
Ratio:	R=24.3% G=68.1% B=7.6%
Render Index:	Ra = 24.8
TM30:	Rf=16 Rg=157
EEI:	0.56982 B

R1 =0 R2 =57 R3 =42 R4 =0 R5 =9 R6 =58
R7 =32 R8 =0 R9 =0 R10=0 R11=0 R12=64
R13=0 R14=61 R15=0



Product: tarm VANQUISH **Specification: Big Angle**

Photometric and Radiometric Parameters

Flux = 11173 lm Eff.: 23.91 lm/W Fe = 67.709 W

Flux of emitted photons(μmol/s): 301.19 Fluo. and blue light ratio: 0.5316 Fluorescent eff.: 48.37

Electrical parameters

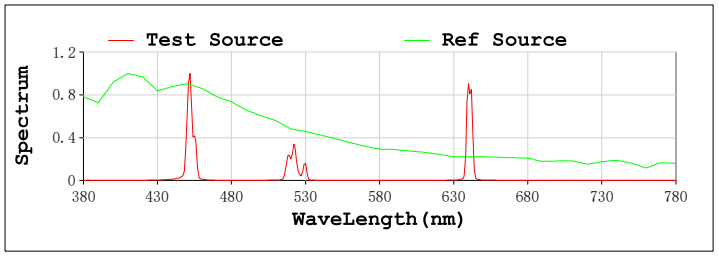
V = 219.79 V I = 2.211 A P = 467.4 W PF = 0.9620 F= 50.00 Hz

Field angle: 2°

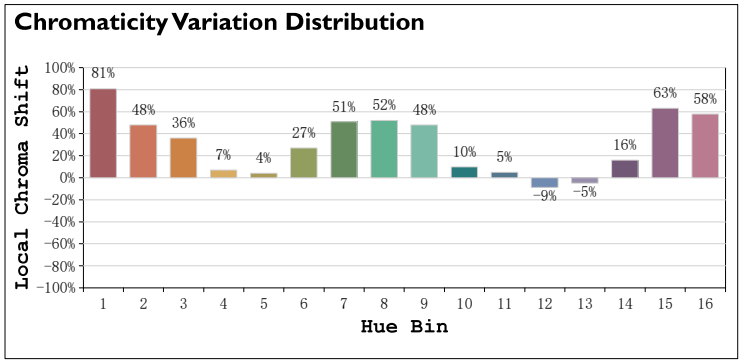
Spectrum Power Distribution

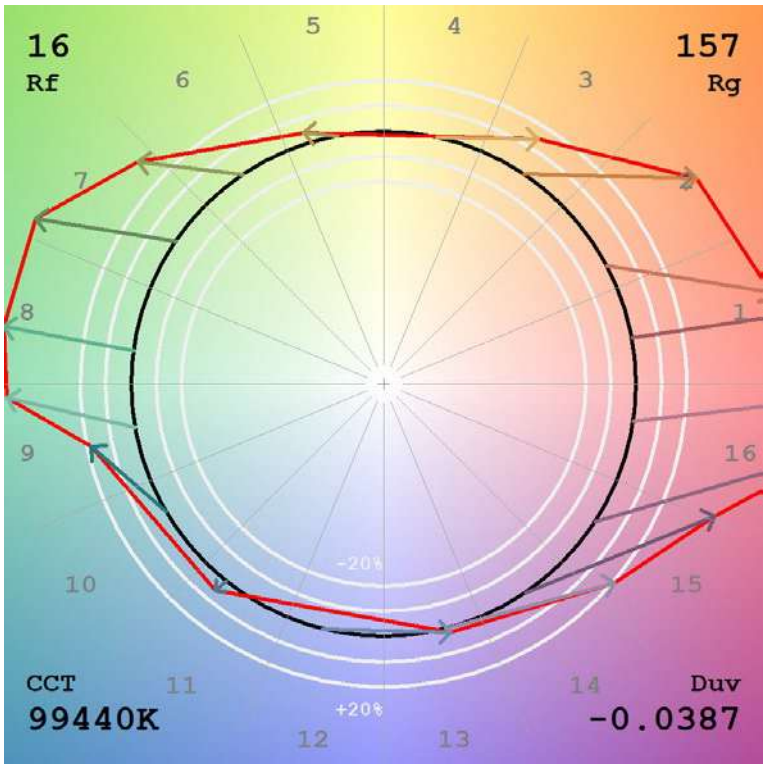
Rf: 16 CCT: 99440 K u': 0.1998

Rg: 157 Duv: -0.0387 v': 0.3485

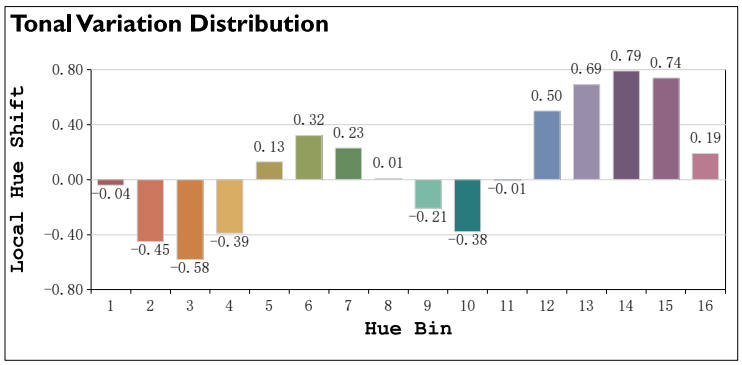


Chromaticity Variation Distribution

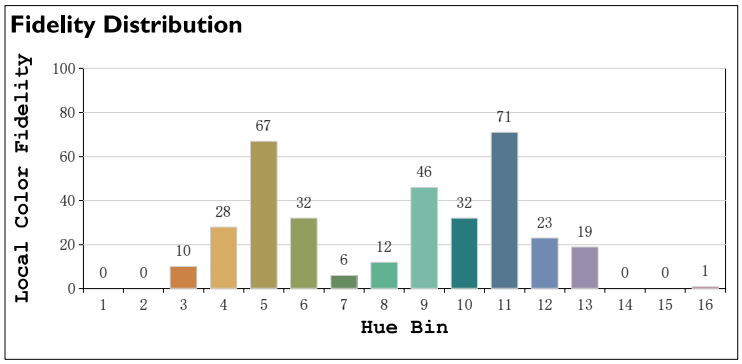




Tonal Variation Distribution



Fidelity Distribution



Color Evaluation Sample

