

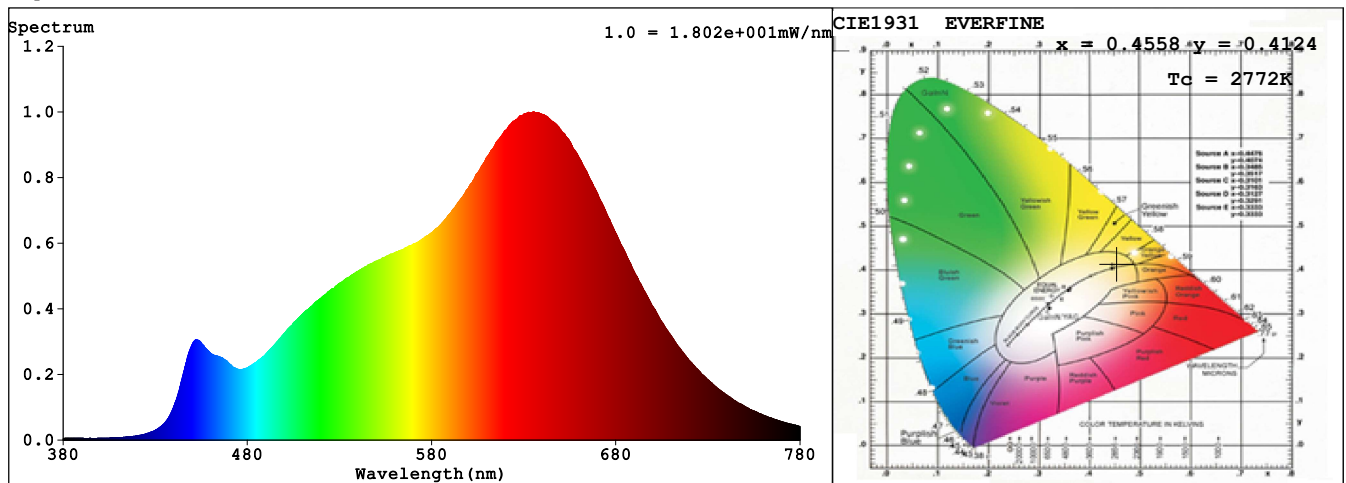
## Spectrum Test Report

Sample :	Date :	2020-09-22 10:32:53
Specification :	Sam. Status :	
Sample No. : #1	Instrument :	HaasSuite(EVERFINE)
Manufacturer :	Test by :	L

### Test Condition

Temperature : Deg	RH : %
WL Range : 380nm-780nm	IP : 47510 (72%)
Test Mode : Fast Test	T : 56 ms
	Delicacy : High

### Spectrum



Spectral Distribution

CIE1931 Chromaticity Diagram

### Colorimetric Quantities

Chromaticity Coordinate:  $x = 0.4558$   $y = 0.4124$  /  $u' = 0.2591$   $v' = 0.5274$  ( $duv=1.04e-03$ )

$T_c = 2772K$  Prcp WL:  $\lambda_d = 583.5nm$  Purity=60.6%

Peak WL:  $\lambda_p = 635nm$  Half Width:  $\Delta\lambda_p = 155.3nm$  Ratio: R=28.3% G=69.2% B=2.5%

Render Index:  $R_a = 97.8$

R1 =98	R2 =99	R3 =97	R4 =98	R5 =98	R6 =97	R7 =98	
R8 =97	R9 =94	R10=99	R11=95	R12=88	R13=98	R14=97	R15=99

### Photometric & Radiometric Quantities

Flux = 775.93 lm Eff. : 77.08 lm/W  $F_e = 2.9577 W$

Flux of emitted photons( $\mu mol/s$ ):1.4941 Fluo. and blue light ratio:15.67 Fluorescent eff.:27.62

### Electrical parameters

$V = 24.00 V$   $I = 0.4195 A$   $P = 10.07 W$  PF = 1.000

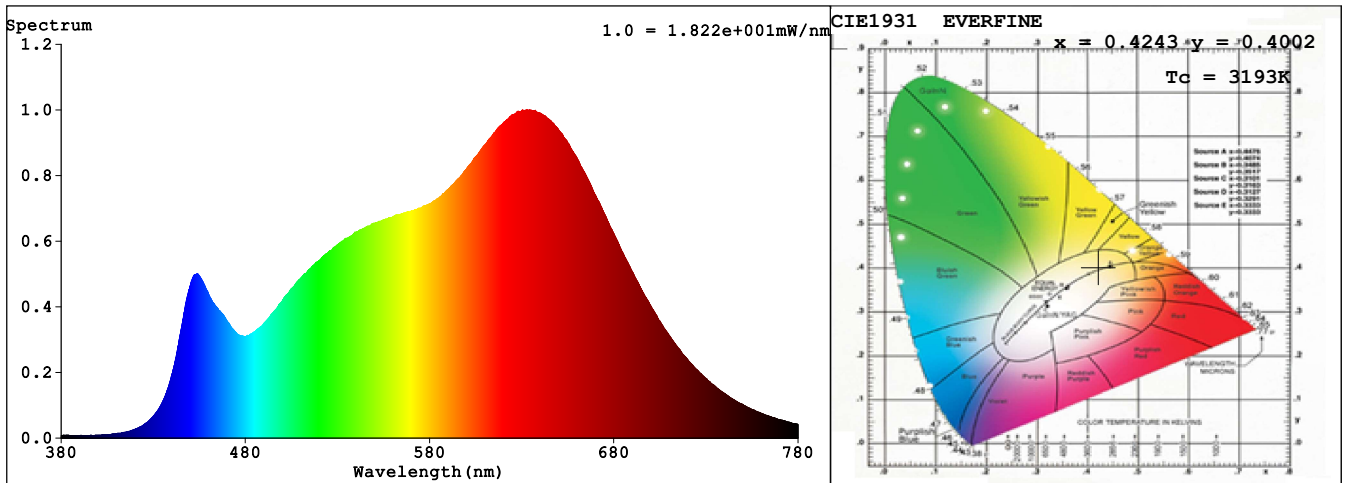
## Spectrum Test Report

Sample :	Date :	2020-09-22 10:37:26
Specification :	Sam. Status :	
Sample No. : #3	Instrument :	HaasSuite(EVERFINE)
Manufacturer :	Test by :	L

### Test Condition

Temperature : Deg	RH : %
WL Range : 380nm-780nm	IP : 48188 (74%)
Test Mode : Fast Test	T : 56 ms
	Delicacy : High

### Spectrum



Spectral Distribution

CIE1931 Chromaticity Diagram

### Colorimetric Quantities

Chromaticity Coordinate:  $x = 0.4243$   $y = 0.4002$  /  $u' = 0.2440$   $v' = 0.5180$  ( $duv=3.58e-04$ )

$T_c = 3193K$  Prcp WL:  $\lambda_d = 581.9nm$  Purity=47.5%

Peak WL:  $\lambda_p = 633nm$  Half Width:  $\Delta\lambda_p = 178.7nm$  Ratio: R=25.4% G=71.5% B=3.1%

Render Index:  $R_a = 98.4$

R1 =99	R2 =100	R3 =97	R4 =99	R5 =99	R6 =98	R7 =98	
R8 =98	R9 =95	R10=98	R11=98	R12=84	R13=99	R14=97	R15=98

### Photometric & Radiometric Quantities

Flux = 896.44 lm Eff. : 82.22 lm/W  $F_e = 3.3224 W$

Flux of emitted photons( $\mu mol/s$ ):1.6505 Fluo. and blue light ratio:9.525 Fluorescent eff.:27.59

### Electrical parameters

V = 24.00 V I = 0.4543 A P = 10.90 W PF = 1.000

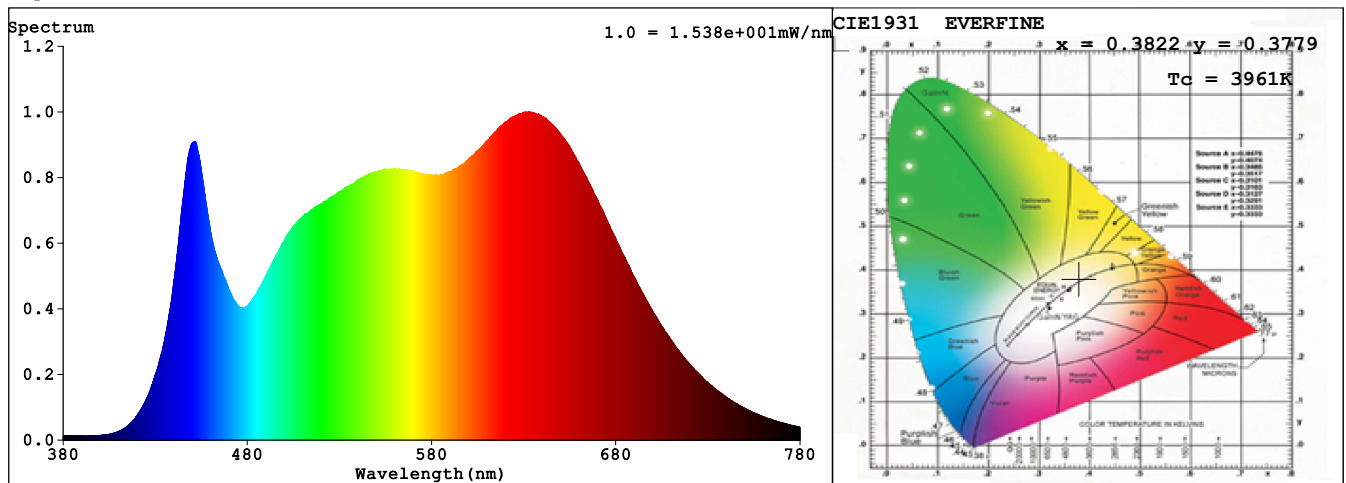
## Spectrum Test Report

Sample :	Date :	2020-09-22 10:30:39
Specification :	Sam. Status :	
Sample No. : #4	Instrument :	HaasSuite(EVERFINE)
Manufacturer :	Test by :	L

### Test Condition

Temperature :	Deg	RH :	%
WL Range :	380nm-780nm	IP :	50846 (78%)
Test Mode :	Fast Test	T :	70 ms
		Delicacy :	High

### Spectrum



Spectral Distribution

CIE1931 Chromaticity Diagram

### Colorimetric Quantities

Chromaticity Coordinate:  $x = 0.3822$   $y = 0.3779$  /  $u' = 0.2258$   $v' = 0.5024$  ( $duv=3.94e-05$ )

$T_c = 3961K$  Prcp WL:  $\lambda_d = 579.2nm$  Purity=28.1%

Peak WL:  $\lambda_p = 633nm$  Half Width:  $\Delta\lambda_p = 199.6nm$  Ratio: R=21.9% G=74.2% B=3.9%

Render Index:  $R_a = 97.9$

R1 =99	R2 =98	R3 =95	R4 =98	R5 =99	R6 =96	R7 =99	
R8 =99	R9 =99	R10=94	R11=97	R12=81	R13=99	R14=96	R15=99

### Photometric & Radiometric Quantities

Flux = 890.58 lm Eff. : 84.53 lm/W  $F_e = 3.2570 W$

Flux of emitted photons( $\mu mol/s$ ):1.5787 Fluo. and blue light ratio:6.226 Fluorescent eff.:26.64

### Electrical parameters

$V = 24.00 V$   $I = 0.4390 A$   $P = 10.54 W$  PF = 1.000

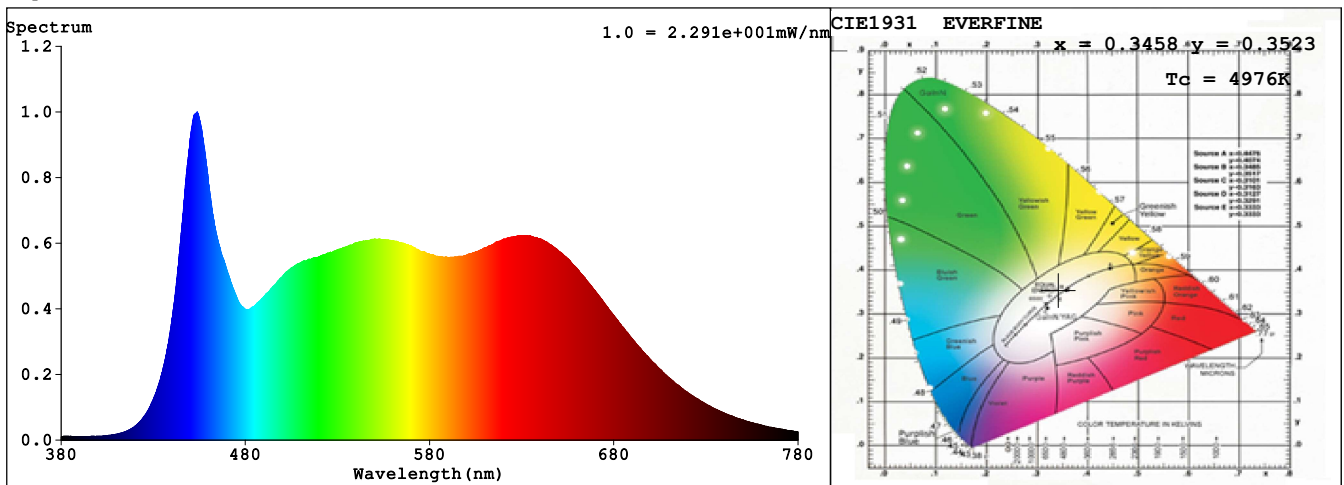
## Spectrum Test Report

Sample :	Date :	2020-09-22 10:40:58
Specification :	Sam. Status :	
Sample No. : #1	Instrument :	HaasSuite(EVERFINE)
Manufacturer :	Test by :	L

### Test Condition

Temperature : Deg	RH : %
WL Range : 380nm-780nm	IP : 53091 (81%)
Test Mode : Fast Test	T : 68 ms
	Delicacy : High

### Spectrum



Spectral Distribution

CIE1931 Chromaticity Diagram

### Colorimetric Quantities

Chromaticity Coordinate:  $x = 0.3458$   $y = 0.3523$  /  $u' = 0.2116$   $v' = 0.4851$  ( $duv=3.86e-05$ )

$T_c = 4976K$  Prcp WL:  $\lambda_d = 573.0nm$  Purity=9.5%

Peak WL:  $\lambda_p = 454nm$  Half Width:  $\Delta\lambda_p = 28.0nm$  Ratio: R=19.2% G=75.6% B=5.2%

Render Index:  $R_a = 97.1$

R1 =98	R2 =100	R3 =97	R4 =96	R5 =96	R6 =95	R7 =97	
R8 =97	R9 =97	R10=97	R11=97	R12=71	R13=99	R14=98	R15=96

### Photometric & Radiometric Quantities

Flux = 962.06 lm Eff. : 91.42 lm/W  $F_e = 3.5495 W$

Flux of emitted photons( $\mu mol/s$ ):1.6835 Fluo. and blue light ratio:4.162 Fluorescent eff.:27.20

### Electrical parameters

V = 24.00 V I = 0.4385 A P = 10.52 W PF = 1.000

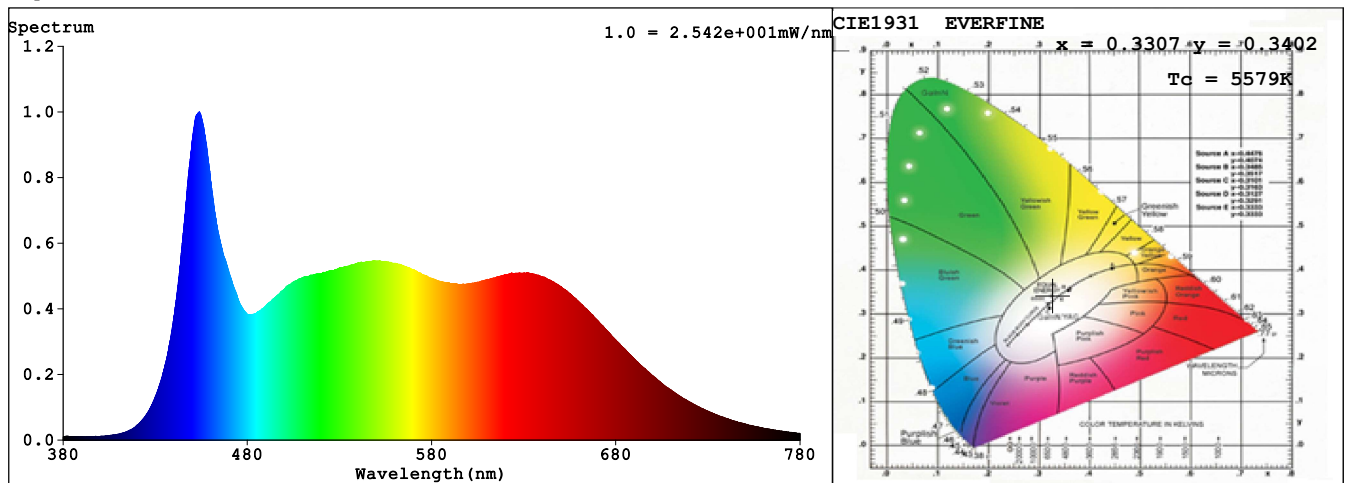
## Spectrum Test Report

Sample :	Date :	2020-09-22 10:50:53
Specification :	Sam. Status :	
Sample No. : #1	Instrument :	HaasSuite(EVERFINE)
Manufacturer :	Test by :	L

### Test Condition

Temperature : Deg	RH : %
WL Range : 380nm-780nm	IP : 46894 (72%)
Test Mode : Fast Test	T : 54 ms
	Delicacy : High

### Spectrum



Spectral Distribution

CIE1931 Chromaticity Diagram

### Colorimetric Quantities

Chromaticity Coordinate:  $x = 0.3307$   $y = 0.3402$  /  $u' = 0.2060$   $v' = 0.4768$  ( $duv=3.49e-04$ )

$T_c = 5579K$  Prcp WL:  $\lambda_d = 529.3nm$  Purity=1.4%

Peak WL:  $\lambda_p = 454nm$  Half Width:  $\Delta\lambda_p = 27.7nm$  Ratio: R=18.0% G=76.3% B=5.7%

Render Index:  $R_a = 97.3$

R1 =98	R2 =99	R3 =96	R4 =98	R5 =97	R6 =95	R7 =98	
R8 =98	R9 =98	R10=96	R11=97	R12=75	R13=100	R14=98	R15=97

### Photometric & Radiometric Quantities

Flux = 940.61 lm Eff. : 92.92 lm/W  $F_e = 3.4858 W$

Flux of emitted photons( $\mu mol/s$ ):1.6349 Fluo. and blue light ratio:3.460 Fluorescent eff.:26.72

### Electrical parameters

V = 24.00 V I = 0.4218 A P = 10.12 W PF = 1.000

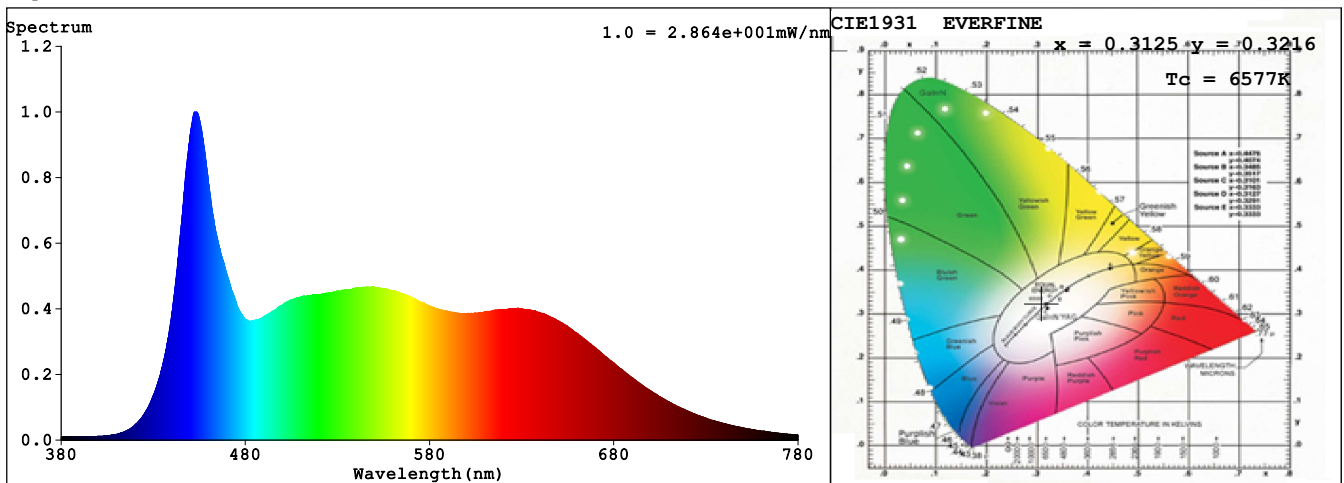
## Spectrum Test Report

Sample :	Date :	2020-09-22 10:48:29
Specification :	Sam. Status :	
Sample No. : #5	Instrument :	HaasSuite(EVERFINE)
Manufacturer :	Test by :	L

### Test Condition

Temperature : Deg	RH : %
WL Range : 380nm-780nm	IP : 52647 (80%)
Test Mode : Fast Test	T : 54 ms
	Delicacy : High

### Spectrum



Spectral Distribution

CIE1931 Chromaticity Diagram

### Colorimetric Quantities

Chromaticity Coordinate:  $x = 0.3125$   $y = 0.3216$  /  $u' = 0.2005$   $v' = 0.4643$  ( $duv = -5.51e-04$ )

$T_c = 6577K$  Prcp WL:  $\lambda_d = 484.1nm$  Purity=8.0%

Peak WL:  $\lambda_p = 452nm$  Half Width:  $\Delta\lambda_p = 27.8nm$  Ratio: R=16.9% G=76.6% B=6.5%

Render Index:  $R_a = 96.7$

R1 =97	R2 =99	R3 =96	R4 =97	R5 =96	R6 =94	R7 =98	
R8 =97	R9 =94	R10=97	R11=98	R12=72	R13=99	R14=98	R15=95

### Photometric & Radiometric Quantities

Flux = 897.52 lm Eff. : 90.78 lm/W  $F_e = 3.3942 W$

Flux of emitted photons( $\mu mol/s$ ):1.5699 Fluo. and blue light ratio:2.826 Fluorescent eff.:25.36

### Electrical parameters

$V = 24.00 V$   $I = 0.4120 A$   $P = 9.887 W$  PF = 1.000