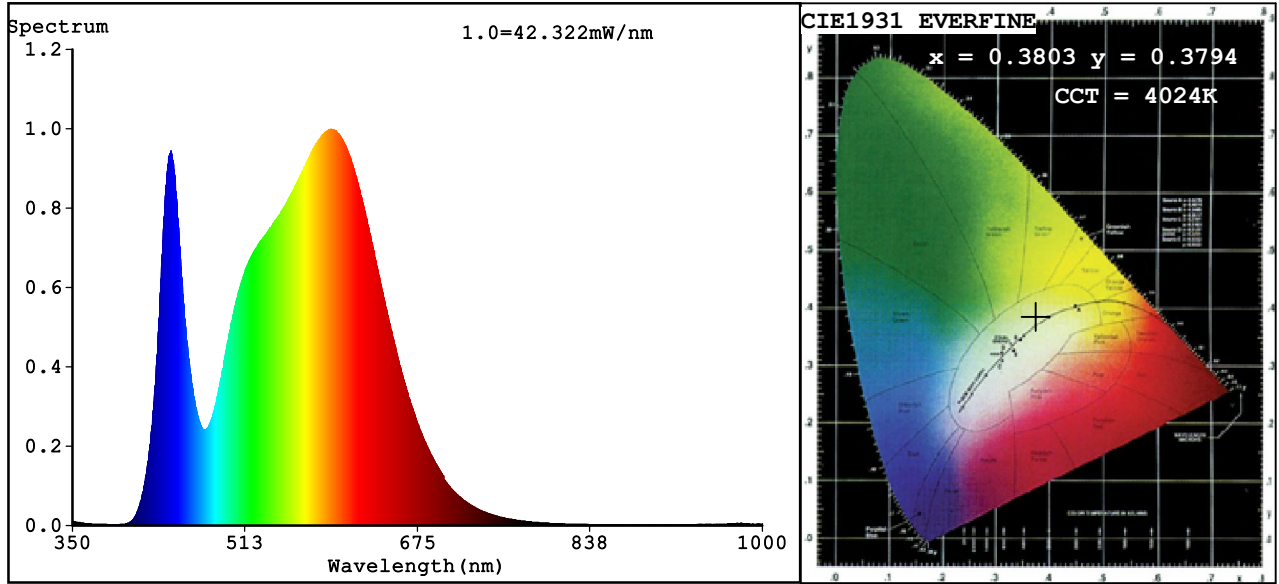


**Spectrum Test Report**



**Color Parameters:**

Chromaticity Coordinate:  $x=0.3803$   $y=0.3794$   $u'=0.2240$   $v'=0.5027$   
 CCT=4024K(Duv=0.0013) Dominant WL:Ld =578.3nm Purity=28.0%  
 Ratio:R=18.0% G=78.7% B=3.3%;;Peak WL:Lp=593.8nm FWHM=150.8nm  
 Render Index:Ra=81.8  
 R1 =80 R2 =86 R3 =93 R4 =83 R5 =81 R6 =83 R7 =85  
 R8 =64 R9 =3 R10=69 R11=83 R12=69 R13=81 R14=96 R15=73

**Photo Parameters:**

Flux = 2446 lm Eff. : 98.21 lm/W Fe = 7.447 W

**Electrical parameters:**

V = 229.97 V I = 0.1142 A P = 24.91 W PF = 0.9485

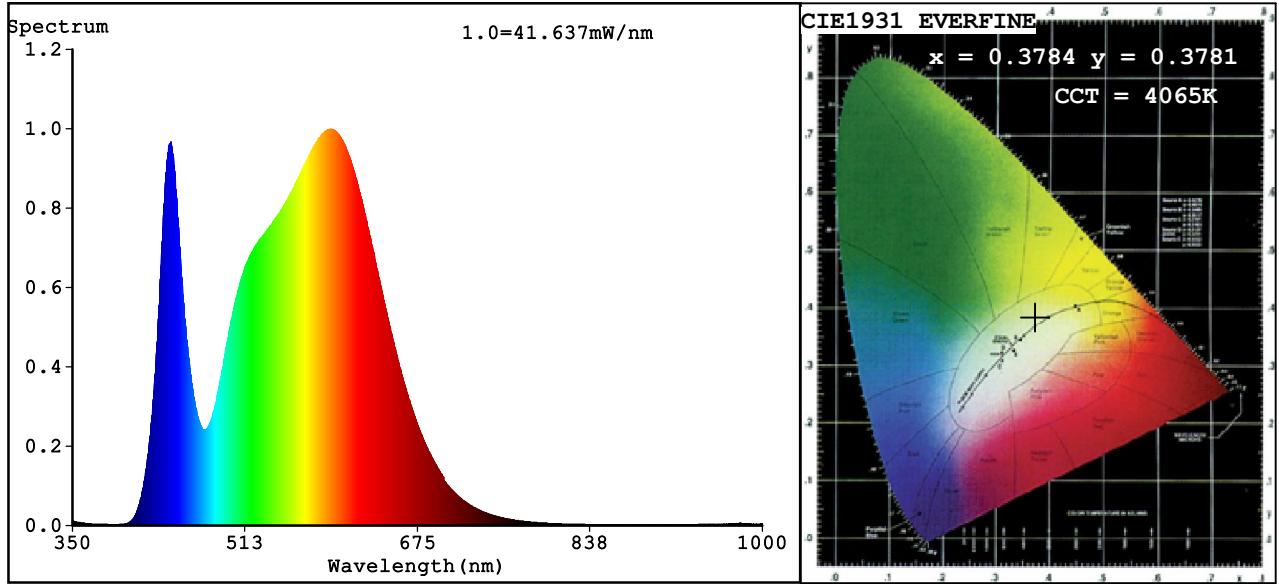
WHITE:ANSI\_4000K

Status: Integral T = 16 ms Ip = 43257 (66%)

Model:LED TUBE ECO/24W  
 Tester:Petya Marinova  
 Temperature:25.3Deg  
 Manufacturer:ELMARK

Number:99LED448M  
 Date:2018-08-09 11:16  
 Humidity:65.0%  
 Remarks:018V016B\_4764

**Spectrum Test Report**



**Color Parameters:**

Chromaticity Coordinate:  $x=0.3784$   $y=0.3781$  /  $u'=0.2232$   $v'=0.5019$

CCT=4065K (Duv=0.0012) Dominant WL:Ld =578.1nm Purity=27.0%

Ratio:R=17.8% G=78.8% B=3.3%;; Peak WL:Lp=593.8nm FWHM=150.7nm

Render Index:Ra=81.7

R1 =80	R2 =86	R3 =92	R4 =83	R5 =81	R6 =83	R7 =85	
R8 =64	R9 =3	R10=68	R11=83	R12=69	R13=81	R14=96	R15=73

**Photo Parameters:**

Flux = 2416 lm Eff. : 96.86 lm/W Fe = 7.359 W

**Electrical parameters:**

V = 230.01 V I = 0.1143 A P = 24.94 W PF = 0.9488

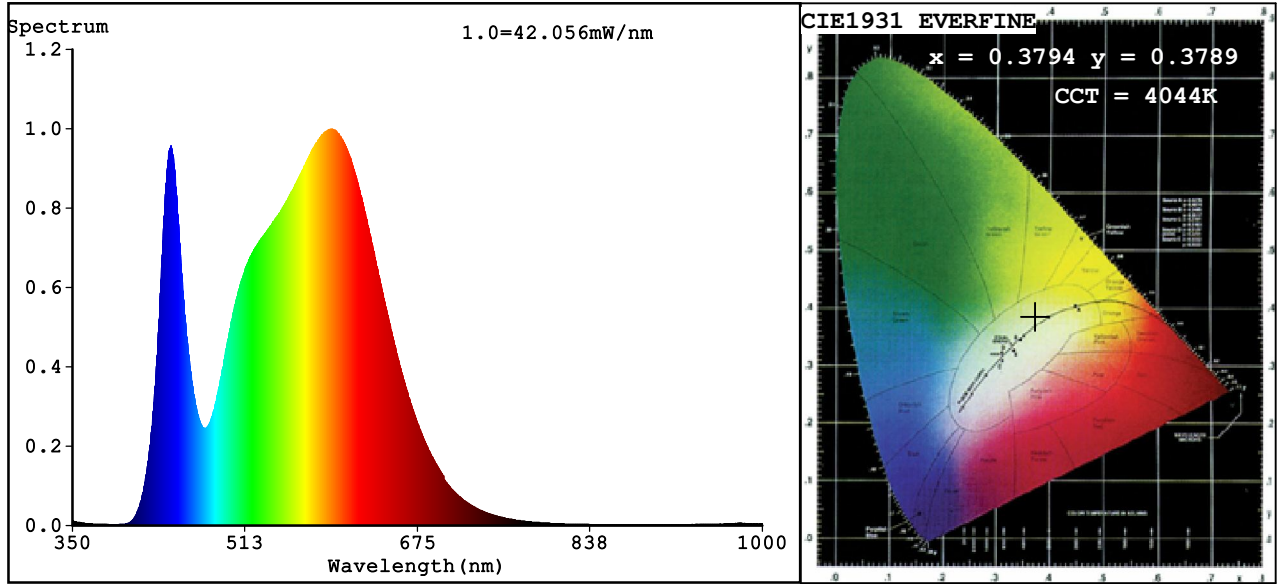
WHITE:ANSI\_4000K

Status: Integral T = 16 ms Ip = 42674 (65%)

Model:LED TUBE ECO/24W  
Tester:Petya Marinova  
Temperature:25.3Deg  
Manufacturer:ELMARK

Number:99LED448M  
Date:2018-08-09 11:35  
Humidity:65.0%  
Remarks:018V016B\_4764

**Spectrum Test Report**



**Color Parameters:**

Chromaticity Coordinate:  $x=0.3794$   $y=0.3789$   $u'=0.2236$   $v'=0.5024$

CCT=4044K(Duv=0.0013) Dominant WL:Ld =578.2nm Purity=27.6%

Ratio:R=17.9% G=78.7% B=3.3%;;Peak WL:Lp=593.8nm FWHM=150.9nm

Render Index:Ra=81.8

R1 =80      R2 =86      R3 =93      R4 =83      R5 =81      R6 =83      R7 =85

R8 =64      R9 =3      R10=69      R11=83      R12=69      R13=81      R14=96      R15=73

**Photo Parameters:**

Flux = 2438 lm    Eff. : 98.05 lm/W    Fe = 7.426 W

**Electrical parameters:**

V = 229.96 V      I = 0.1141 A      P = 24.87 W PF = 0.9481

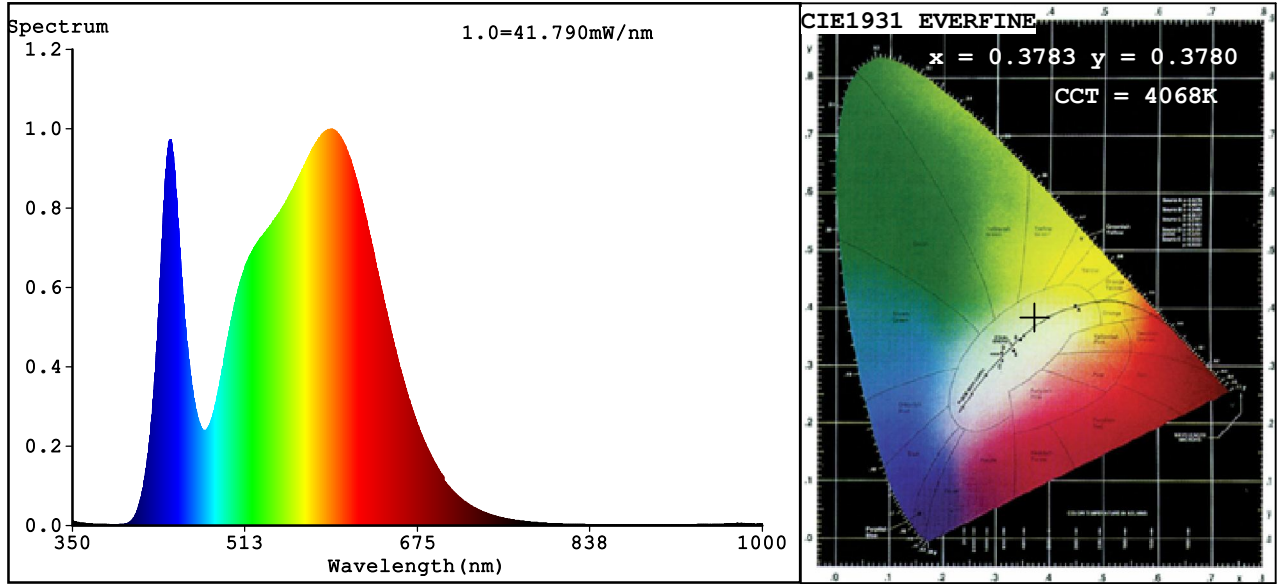
WHITE:ANSI\_4000K

Status: Integral T = 16 ms    Ip = 43018 (66%)

Model:LED TUBE ECO/24W  
Tester:Petya Marinova  
Temperature:25.3Deg  
Manufacturer:ELMARK

Number:99LED448M  
Date:2018-08-09 11:38  
Humidity:65.0%  
Remarks:018V016B\_4764

**Spectrum Test Report**



**Color Parameters:**

Chromaticity Coordinate:  $x=0.3783$   $y=0.3780$  /  $u'=0.2232$   $v'=0.5018$   
 CCT=4068K (Duv=0.0012) Dominant WL:Ld =578.1nm Purity=27.0%  
 Ratio:R=17.8% G=78.8% B=3.3%;; Peak WL:Lp=593.8nm FWHM=150.8nm  
 Render Index:Ra=81.6  
 R1 =80 R2 =86 R3 =92 R4 =83 R5 =81 R6 =82 R7 =85  
 R8 =64 R9 =3 R10=68 R11=83 R12=69 R13=81 R14=96 R15=73

**Photo Parameters:**

Flux = 2427 lm Eff. : 96.68 lm/W Fe = 7.395 W

**Electrical parameters:**

V = 229.97 V I = 0.1152 A P = 25.10 W PF = 0.9474

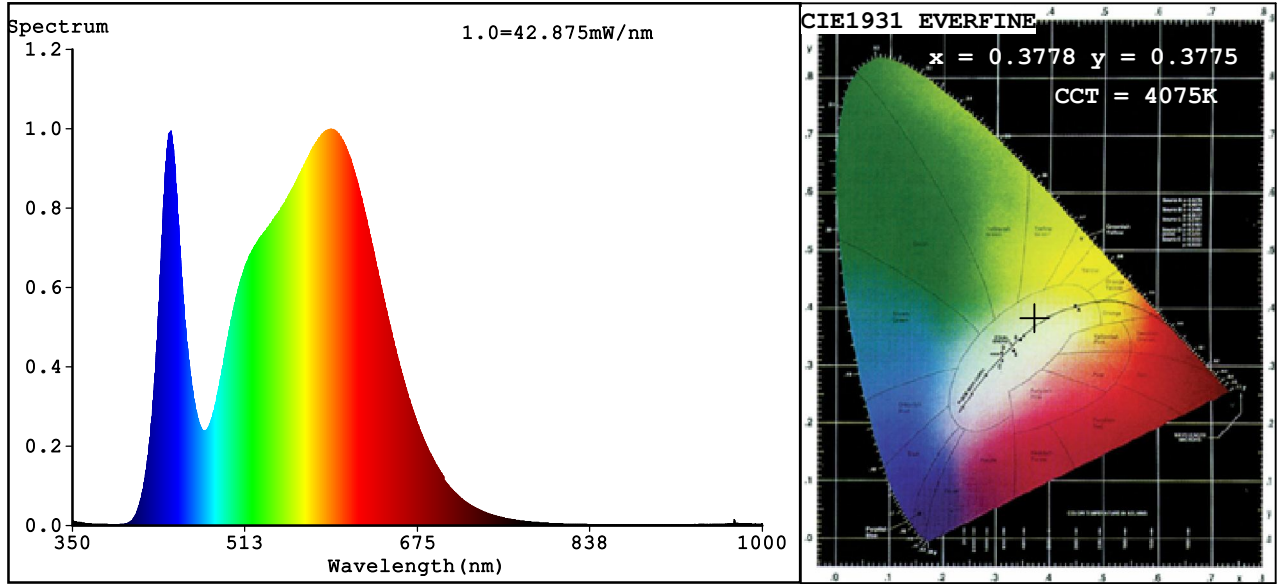
WHITE:ANSI\_4000K

Status: Integral T = 16 ms Ip = 42830 (65%)

Model:LED TUBE ECO/24W  
 Tester:Petya Marinova  
 Temperature:25.3Deg  
 Manufacturer:ELMARK

Number:99LED448M  
 Date:2018-08-09 11:42  
 Humidity:65.0%  
 Remarks:018V016B\_4764

**Spectrum Test Report**



**Color Parameters:**

Chromaticity Coordinate:  $x=0.3778$   $y=0.3775$   $u'=0.2231$   $v'=0.5015$

CCT=4075K(Duv=0.0011) Dominant WL:Ld =578.2nm Purity=26.7%

Ratio:R=17.8% G=78.8% B=3.3%;;Peak WL:Lp=593.8nm FWHM=151.0nm

Render Index:Ra=81.7

R1 =80 R2 =86 R3 =92 R4 =83 R5 =81 R6 =82 R7 =85

R8 =64 R9 =3 R10=68 R11=83 R12=69 R13=81 R14=96 R15=73

**Photo Parameters:**

Flux = 2495 lm Eff. : 98.66 lm/W Fe = 7.611 W

**Electrical parameters:**

V = 229.99 V I = 0.1159 A P = 25.29 W PF = 0.9487

WHITE:ANSI\_4000K

Status: Integral T = 16 ms Ip = 43931 (67%)

Model:LED TUBE ECO/24W  
Tester:Petya Marinova  
Temperature:25.3Deg  
Manufacturer:ELMARK

Number:99LED448M  
Date:2018-08-09 11:51  
Humidity:65.0%  
Remarks:018V016B\_4764