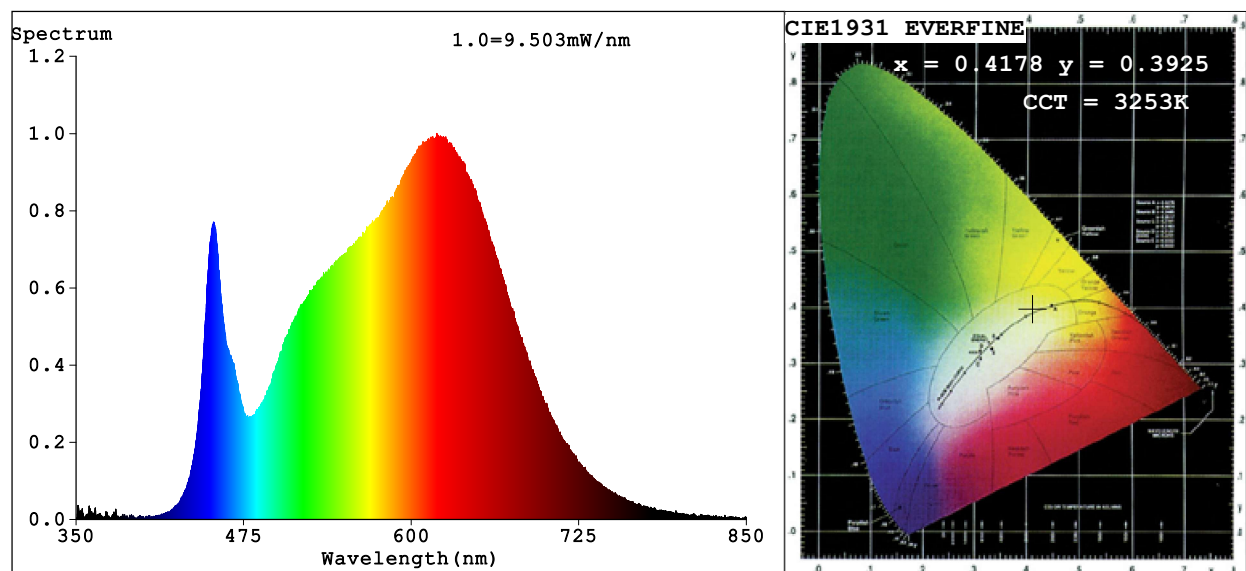


## Spectrum Test Report



### Color Parameters:

Chromaticity Coordinate:  $x=0.4178$   $y=0.3925$   $u'=0.2431$   $v'=0.5139$

CCT=3253K (Duv=-0.0018) Dominant WL:Ld =582.5nm Purity=43.2%

Ratio:R=23.1% G=73.7% B=3.2%; Peak WL:Lp=619.1nm FWHM=168.9nm

Render Index:Ra=93.8 CRI=90.9 TM30:Rf=91 Rg=100

R1 =95 R2 =97 R3 =97 R4 =94 R5 =94 R6 =95 R7 =93

R8 =85 R9 =66 R10=91 R11=94 R12=77 R13=96 R14=98 R15=92

### Photo Parameters:

Flux = 494.9 lm Eff. : 45.75 lm/W Fe = 1.711 W

### Electrical parameters:

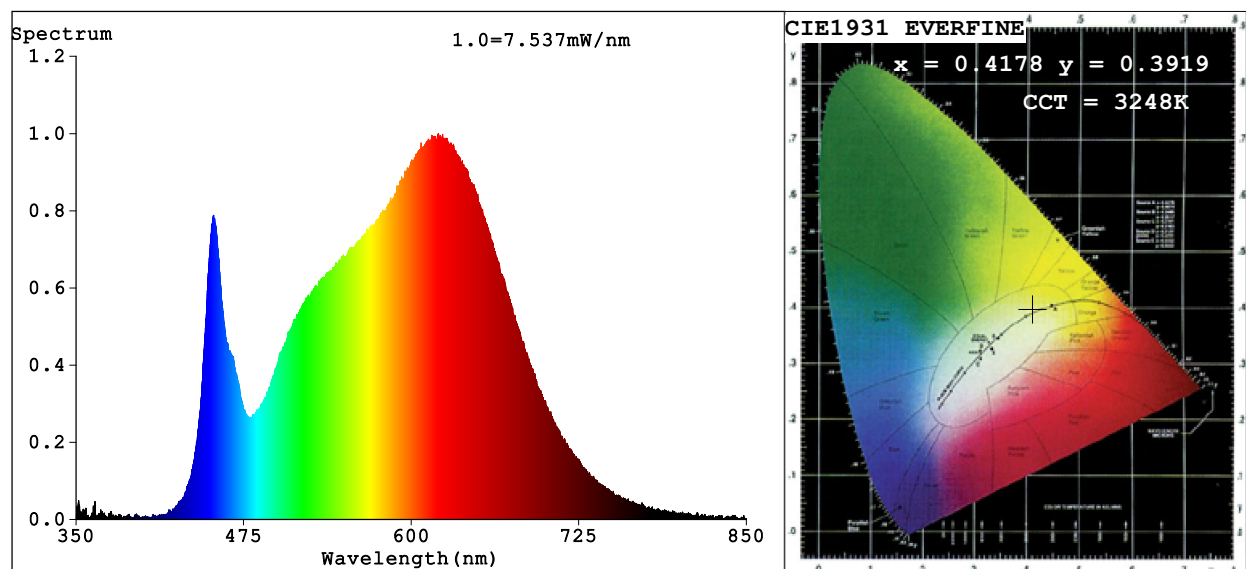
V = 230.08 V I = 0.04965 A P = 10.82 W PF = 0.9470

Status: Integral T = 500 ms Ip = 8422 (13%)

Model:Focalis ZIA 11W  
Tester:Sergio Carneros  
Temperature:20Deg  
Manufacturer:Luz Negra

Number:3200k 60°  
Date:2026-02-17 10:14:46  
Humidity:50%  
Remarks:1 unidad

## Spectrum Test Report



### Color Parameters:

Chromaticity Coordinate:  $x=0.4178$   $y=0.3919$   $u'=0.2434$   $v'=0.5136$   
 CCT=3248K (Duv=-0.0020) Dominant WL:Ld =582.6nm Purity=43.0%  
 Ratio:R=23.2% G=73.5% B=3.3%; Peak WL:Lp=620.4nm FWHM=168.8nm  
 Render Index:Ra=94.0 CRI=91.2 TM30:Rf=91 Rg=101  
 R1 =95 R2 =97 R3 =97 R4 =94 R5 =94 R6 =95 R7 =93  
 R8 =86 R9 =67 R10=92 R11=94 R12=77 R13=96 R14=98 R15=92

### Photo Parameters:

Flux = 389.9 lm Eff. : 46.65 lm/W Fe = 1.353 W

### Electrical parameters:

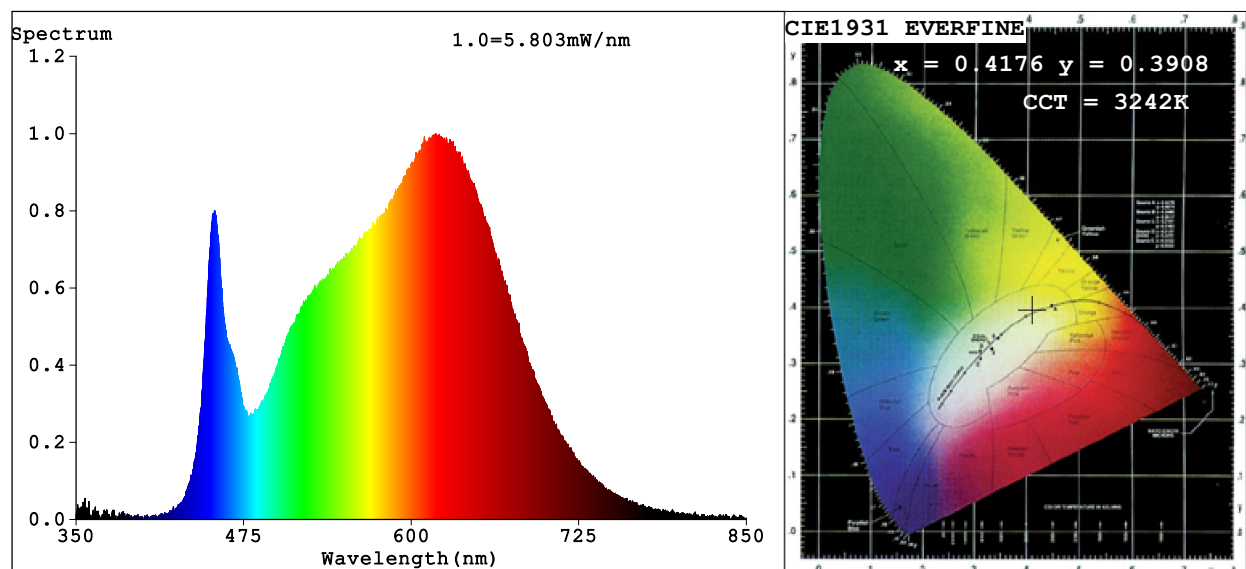
V = 230.10 V I = 0.03924 A P = 8.359 W PF = 0.9258

Status: Integral T = 500 ms Ip = 6680 (10%)

Model:Focalis ZIA 9W  
 Tester:Sergio Carneros  
 Temperature:20Deg  
 Manufacturer:Luz Negra

Number:3200k 60°  
 Date:2026-02-17 10:15:11  
 Humidity:50%  
 Remarks:1 unidad

## Spectrum Test Report



### Color Parameters:

Chromaticity Coordinate:  $x=0.4176$   $y=0.3908$   $u'=0.2437$   $v'=0.5131$   
 CCT=3242K (Duv=-0.0024) Dominant WL:Ld =582.8nm Purity=42.6%  
 Ratio:R=23.3% G=73.4% B=3.3%; Peak WL:Lp=618.1nm FWHM=169.0nm  
 Render Index:Ra=94.4 CRI=91.7 TM30:Rf=91 Rg=101  
 R1 =96 R2 =98 R3 =98 R4 =94 R5 =95 R6 =95 R7 =93  
 R8 =86 R9 =69 R10=93 R11=95 R12=78 R13=97 R14=98 R15=93

### Photo Parameters:

Flux = 299.1 lm Eff. : 46.55 lm/W Fe = 1.041 W

### Electrical parameters:

V = 230.07 V I = 0.03234 A P = 6.425 W PF = 0.8634

Status: Integral T = 500 ms Ip = 5172 (8%)

Model:Focalis ZIA 7W  
 Tester:Sergio Carneros  
 Temperature:20Deg  
 Manufacturer:Luz Negra

Number:3200k 60°  
 Date:2026-02-17 10:15:38  
 Humidity:50%  
 Remarks:1 unidad