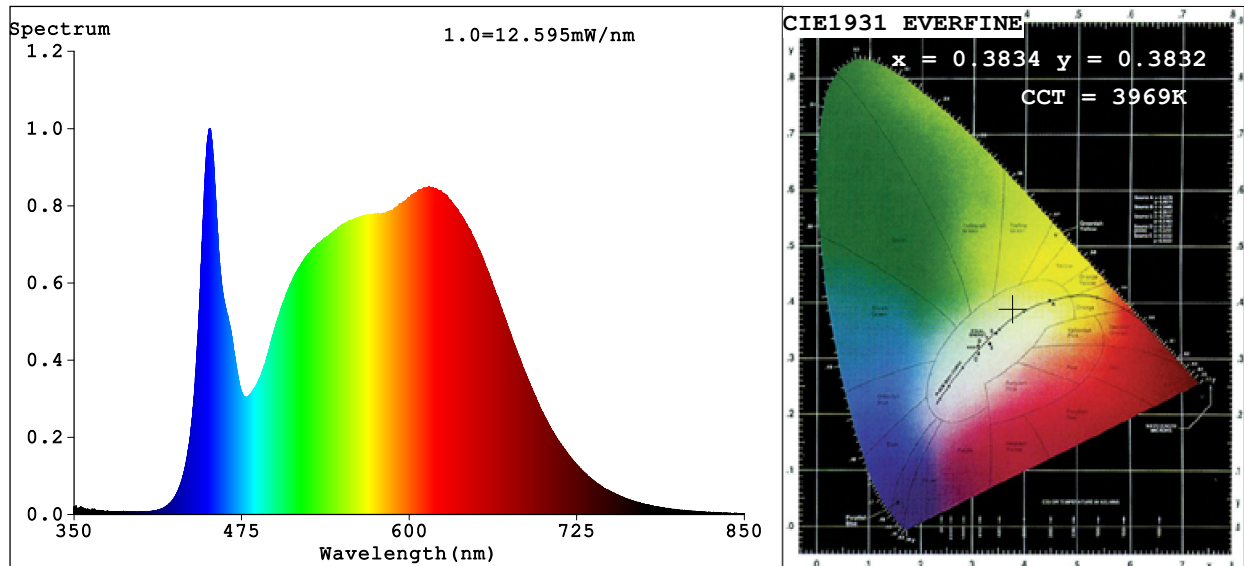


## Spectrum Test Report



### Color Parameters:

Chromaticity Coordinate:  $x=0.3834$   $y=0.3832$   $u'=0.2245$   $v'=0.5048$   
CCT=3969K (Duv=0.0021) Dominant WL:Ld =578.1nm Purity=30.0%  
Ratio:R=19.6% G=76.5% B=3.9%; Peak WL:Lp=451.2nm FWHM=22.5nm  
Render Index:Ra=92.1 CRI=88.2 TM30:Rf=90 Rg=99  
R1 =92 R2 =94 R3 =94 R4 =92 R5 =91 R6 =91 R7 =96  
R8 =87 R9 =65 R10=84 R11=92 R12=68 R13=93 R14=96 R15=90

### Photo Parameters:

Flux = 663.7 lm Eff. : 77.31 lm/W Fe = 2.247 W

### Electrical parameters:

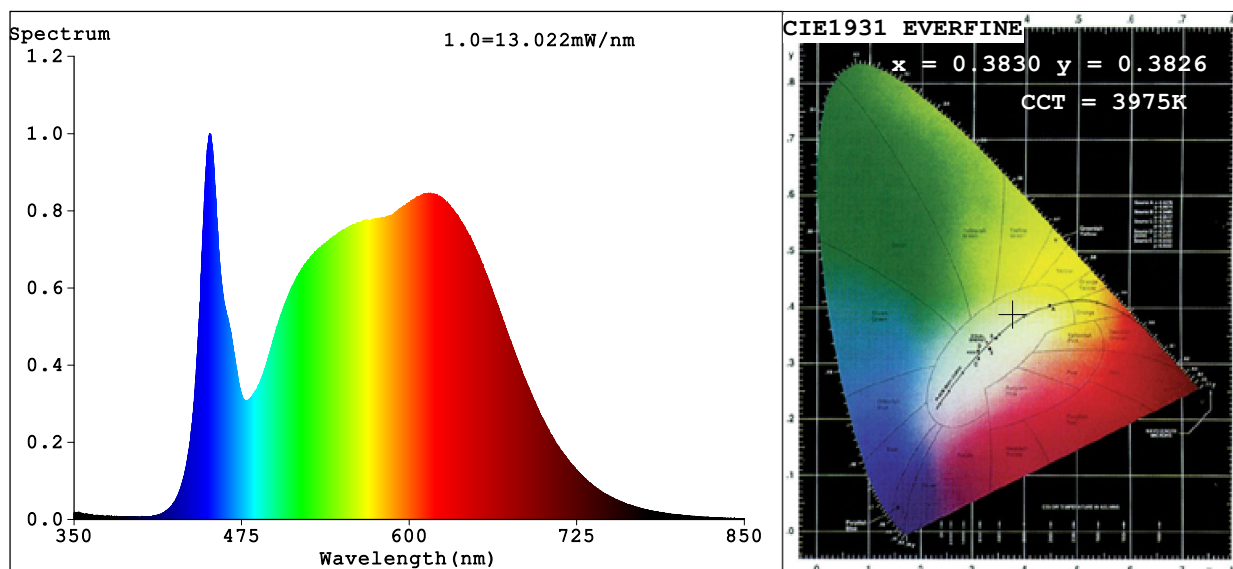
V = 230.07 V I = 0.07902 A P = 8.586 W PF = 0.4722

Status: Integral T = 1658 ms Ip = 32117 (49%)

Model:Focalis Vex 4-6-8w  
Tester:Sergio Carneros  
Temperature:20Deg  
Manufacturer:Luz Negra

Number:18° 8w 4000k  
Date:2026-02-12 13:03:45  
Humidity:50%  
Remarks:1 unidad

## Spectrum Test Report



### Color Parameters:

Chromaticity Coordinate:  $x=0.3830$   $y=0.3826$   $u'=0.2244$   $v'=0.5045$

CCT=3975K (Duv=0.0020) Dominant WL:Ld =578.1nm Purity=29.8%

Ratio:R=19.6% G=76.5% B=3.9%; Peak WL:Lp=451.2nm FWHM=22.9nm

Render Index:Ra=92.0 CRI=88.1 TM30:Rf=90 Rg=99

R1 =92 R2 =94 R3 =94 R4 =92 R5 =91 R6 =91 R7 =95

R8 =87 R9 =64 R10=85 R11=92 R12=68 R13=93 R14=96 R15=90

### Photo Parameters:

Flux = 685.3 lm Eff. : 80.10 lm/W Fe = 2.318 W

### Electrical parameters:

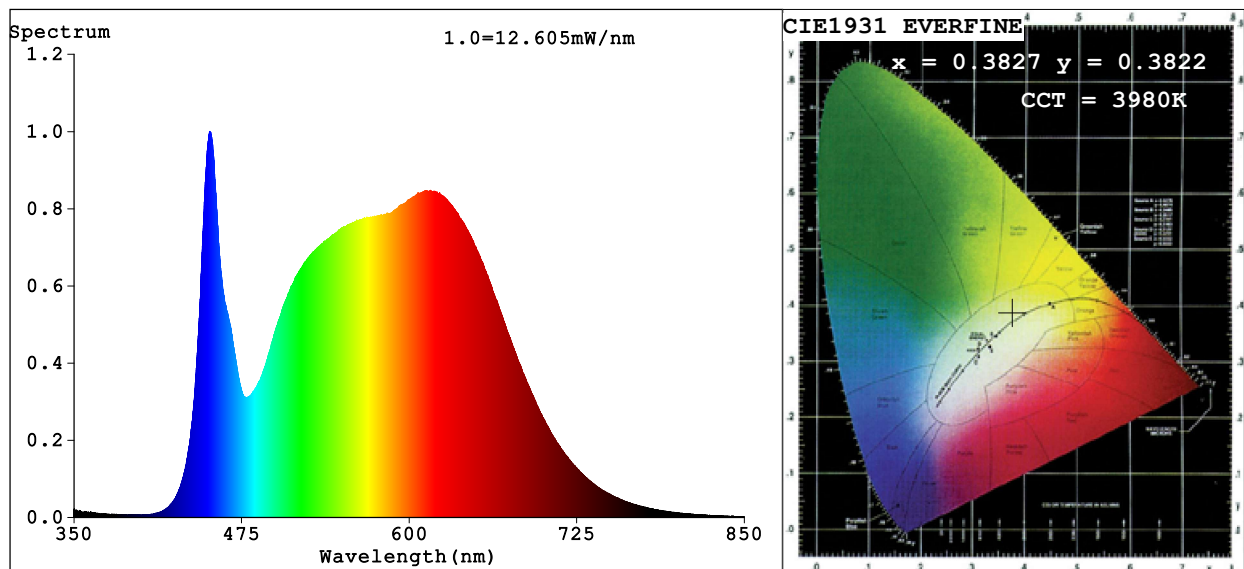
V = 230.07 V I = 0.07977 A P = 8.555 W PF = 0.4661

Status: Integral T = 1658 ms Ip = 33322 (51%)

Model:Focalis Vex 4-6-8w  
Tester:Sergio Carneros  
Temperature:20Deg  
Manufacturer:Luz Negra

Number:24° 8w 4000k  
Date:2026-02-12 13:07:43  
Humidity:50%  
Remarks:1 unidad

## Spectrum Test Report



### Color Parameters:

Chromaticity Coordinate:  $x=0.3827$   $y=0.3822$   $u'=0.2244$   $v'=0.5043$   
CCT=3980K (Duv=0.0019) Dominant WL:Ld =578.2nm Purity=29.5%  
Ratio:R=19.6% G=76.5% B=3.9%; Peak WL:Lp=451.2nm FWHM=23.3nm  
Render Index:Ra=92.0 CRI=88.1 TM30:Rf=90 Rg=99  
R1 =92 R2 =94 R3 =94 R4 =92 R5 =91 R6 =91 R7 =95  
R8 =86 R9 =64 R10=85 R11=92 R12=68 R13=93 R14=96 R15=90

### Photo Parameters:

Flux = 664.4 lm Eff. : 77.97 lm/W Fe = 2.248 W

### Electrical parameters:

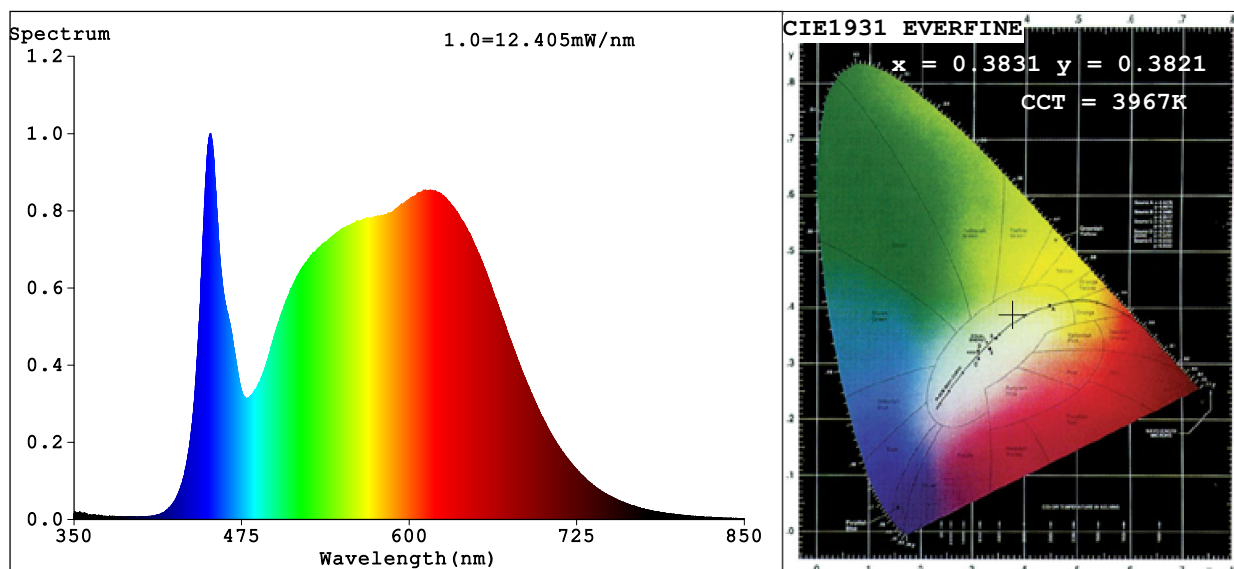
V = 230.07 V I = 0.07998 A P = 8.522 W PF = 0.4631

Status: Integral T = 1658 ms Ip = 32272 (49%)

Model:Focalis Vex 4-6-8w  
Tester:Sergio Carneros  
Temperature:20Deg  
Manufacturer:Luz Negra

Number:36° 8w 4000k  
Date:2026-02-12 13:08:56  
Humidity:50%  
Remarks:1 unidad

## Spectrum Test Report



### Color Parameters:

Chromaticity Coordinate:  $x=0.3831$   $y=0.3821$   $u'=0.2248$   $v'=0.5043$

CCT=3967K (Duv=0.0017) Dominant WL:Ld =578.3nm Purity=29.7%

Ratio:R=19.7% G=76.4% B=3.9%; Peak WL:Lp=451.9nm FWHM=23.4nm

Render Index:Ra=92.1 CRI=88.2 TM30:Rf=90 Rg=99

R1 =92 R2 =94 R3 =94 R4 =92 R5 =91 R6 =91 R7 =95

R8 =87 R9 =64 R10=85 R11=92 R12=68 R13=93 R14=97 R15=90

### Photo Parameters:

Flux = 657.1 lm Eff. : 77.30 lm/W Fe = 2.225 W

### Electrical parameters:

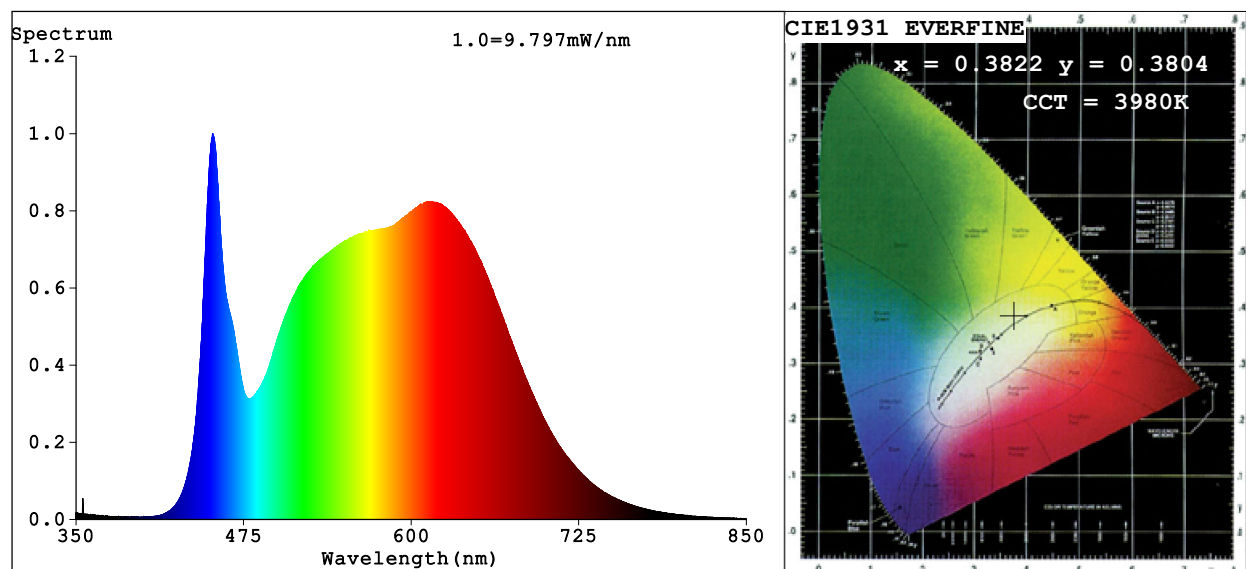
V = 230.07 V I = 0.07998 A P = 8.500 W PF = 0.4619

Status: Integral T = 1658 ms Ip = 32011 (49%)

Model:Focalis Vex 4-6-8w  
 Tester:Sergio Carneros  
 Temperature:20Deg  
 Manufacturer:Luz Negra

Number:45° 8w 4000k  
 Date:2026-02-12 13:09:55  
 Humidity:50%  
 Remarks:1 unidad

## Spectrum Test Report



### Color Parameters:

Chromaticity Coordinate:  $x=0.3822$   $y=0.3804$   $u'=0.2248$   $v'=0.5034$   
 CCT=3980K (Duv=0.0012) Dominant WL:Ld =578.5nm Purity=28.9%  
 Ratio:R=19.7% G=76.2% B=4.0%; Peak WL:Lp=451.9nm FWHM=23.1nm  
 Render Index:Ra=92.7 CRI=89.1 TM30:Rf=90 Rg=99  
 R1 =93 R2 =95 R3 =95 R4 =93 R5 =92 R6 =92 R7 =95  
 R8 =87 R9 =67 R10=87 R11=92 R12=68 R13=94 R14=97 R15=91

### Photo Parameters:

Flux = 498.8 lm Eff. : 79.92 lm/W Fe = 1.701 W

### Electrical parameters:

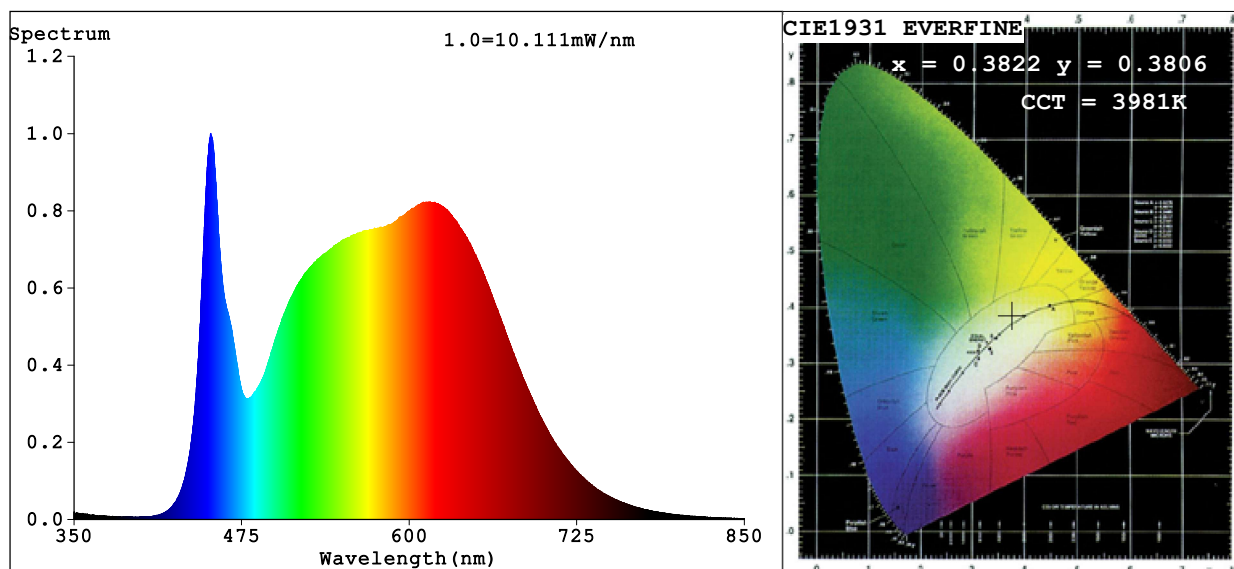
V = 230.09 V I = 0.06332 A P = 6.242 W PF = 0.4284

Status: Integral T = 3365 ms Ip = 49282 (75%)

Model:Focalis Vex 4-6-8w  
 Tester:Sergio Carneros  
 Temperature:20Deg  
 Manufacturer:Luz Negra

Number:18° 6w 4000k  
 Date:2026-02-12 13:12:01  
 Humidity:50%  
 Remarks:1 unidad

## Spectrum Test Report



### Color Parameters:

Chromaticity Coordinate:  $x=0.3822$   $y=0.3806$   $u'=0.2247$   $v'=0.5035$

CCT=3981K (Duv=0.0013) Dominant WL:Ld =578.5nm Purity=28.9%

Ratio:R=19.7% G=76.3% B=4.0%; Peak WL:Lp=451.9nm FWHM=23.1nm

Render Index:Ra=92.5 CRI=88.8 TM30:Rf=90 Rg=99

R1 =93 R2 =95 R3 =95 R4 =92 R5 =91 R6 =91 R7 =95

R8 =87 R9 =66 R10=86 R11=92 R12=68 R13=93 R14=97 R15=91

### Photo Parameters:

Flux = 515.6 lm Eff. : 82.67 lm/W Fe = 1.754 W

### Electrical parameters:

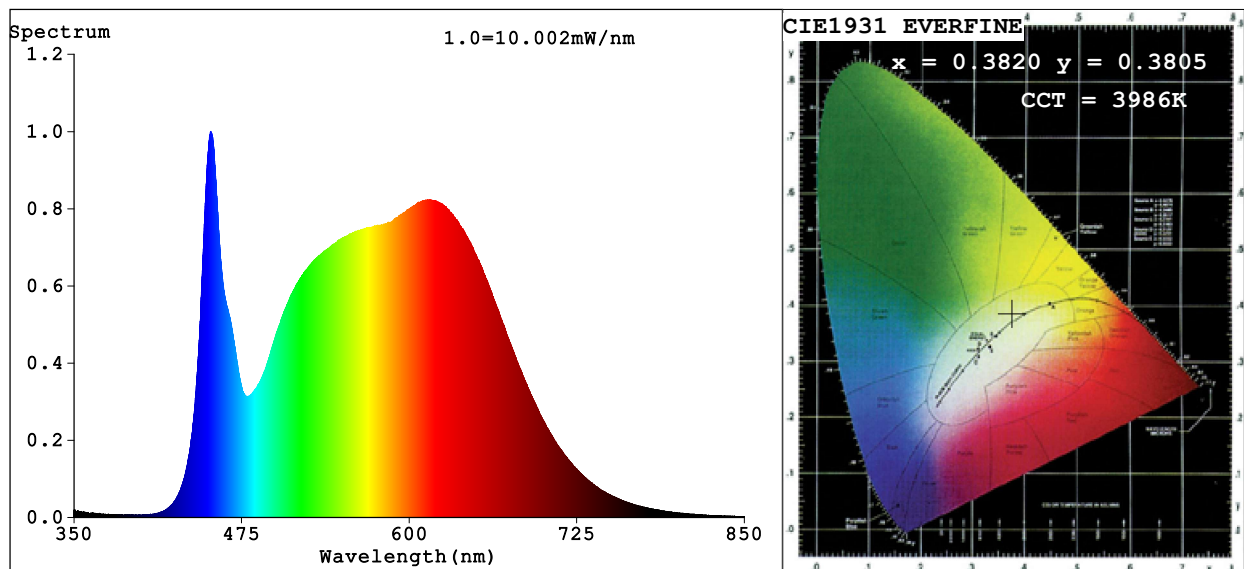
V = 230.09 V I = 0.06336 A P = 6.237 W PF = 0.4278

Status: Integral T = 3274 ms Ip = 49557 (76%)

Model:Focalis Vex 4-6-8w  
 Tester:Sergio Carneros  
 Temperature:20Deg  
 Manufacturer:Luz Negra

Number:24° 6w 4000k  
 Date:2026-02-12 13:13:34  
 Humidity:50%  
 Remarks:1 unidad

## Spectrum Test Report



### Color Parameters:

Chromaticity Coordinate:  $x=0.3820$   $y=0.3805$   $u'=0.2246$   $v'=0.5034$   
CCT=3986K (Duv=0.0013) Dominant WL:Ld =578.5nm Purity=28.8%  
Ratio:R=19.7% G=76.3% B=4.0%; Peak WL:Lp=451.9nm FWHM=23.2nm  
Render Index:Ra=92.5 CRI=88.7 TM30:Rf=90 Rg=99  
R1 =93 R2 =95 R3 =95 R4 =92 R5 =91 R6 =91 R7 =95  
R8 =87 R9 =66 R10=86 R11=92 R12=68 R13=93 R14=97 R15=91

### Photo Parameters:

Flux = 510.6 lm Eff. : 82.02 lm/W Fe = 1.736 W

### Electrical parameters:

V = 230.07 V I = 0.06348 A P = 6.226 W PF = 0.4263

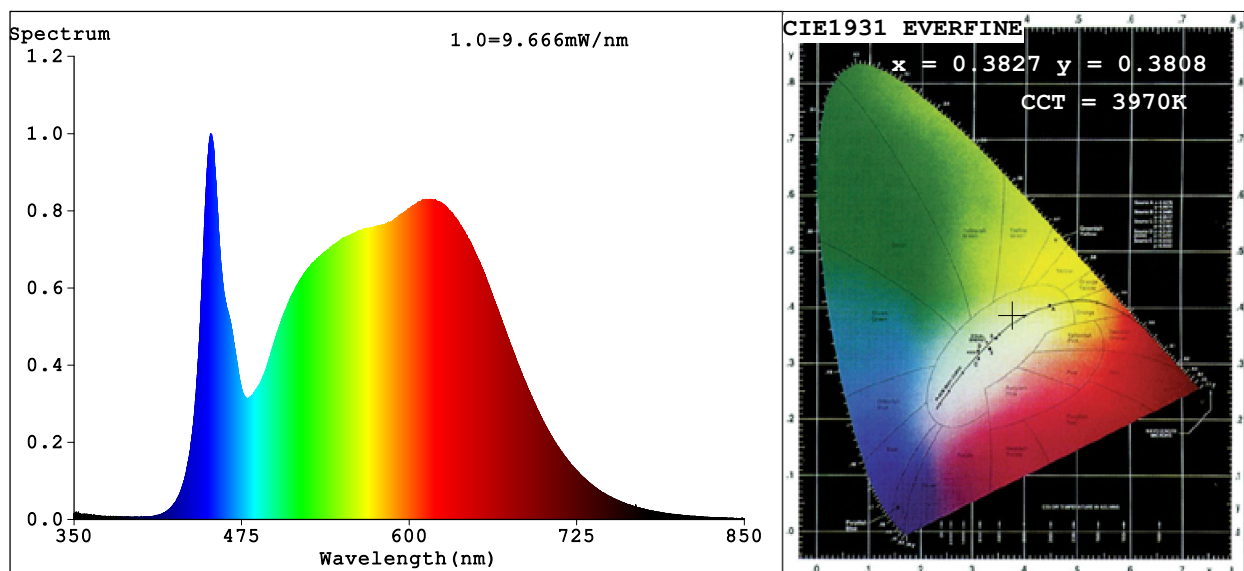
Status: Integral T = 3299 ms Ip = 49481 (76%)

Model:Focalis Vex 4-6-8w  
Tester:Sergio Carneros  
Temperature:20Deg  
Manufacturer:Luz Negra

Number:36° 6w 4000k  
Date:2026-02-12 13:14:54  
Humidity:50%  
Remarks:1 unidad



## Spectrum Test Report



### Color Parameters:

Chromaticity Coordinate:  $x=0.3827$   $y=0.3808$   $u'=0.2250$   $v'=0.5037$

CCT=3970K (Duv=0.0012) Dominant WL:Ld =578.5nm Purity=29.1%

Ratio:R=19.7% G=76.3% B=4.0%; Peak WL:Lp=451.9nm FWHM=23.3nm

Render Index:Ra=92.5 CRI=88.8 TM30:Rf=90 Rg=99

R1 =93 R2 =95 R3 =95 R4 =92 R5 =91 R6 =91 R7 =95

R8 =87 R9 =66 R10=86 R11=92 R12=68 R13=93 R14=97 R15=91

### Photo Parameters:

Flux = 496.2 lm Eff. : 79.83 lm/W Fe = 1.687 W

### Electrical parameters:

V = 230.09 V I = 0.06340 A P = 6.215 W PF = 0.4260

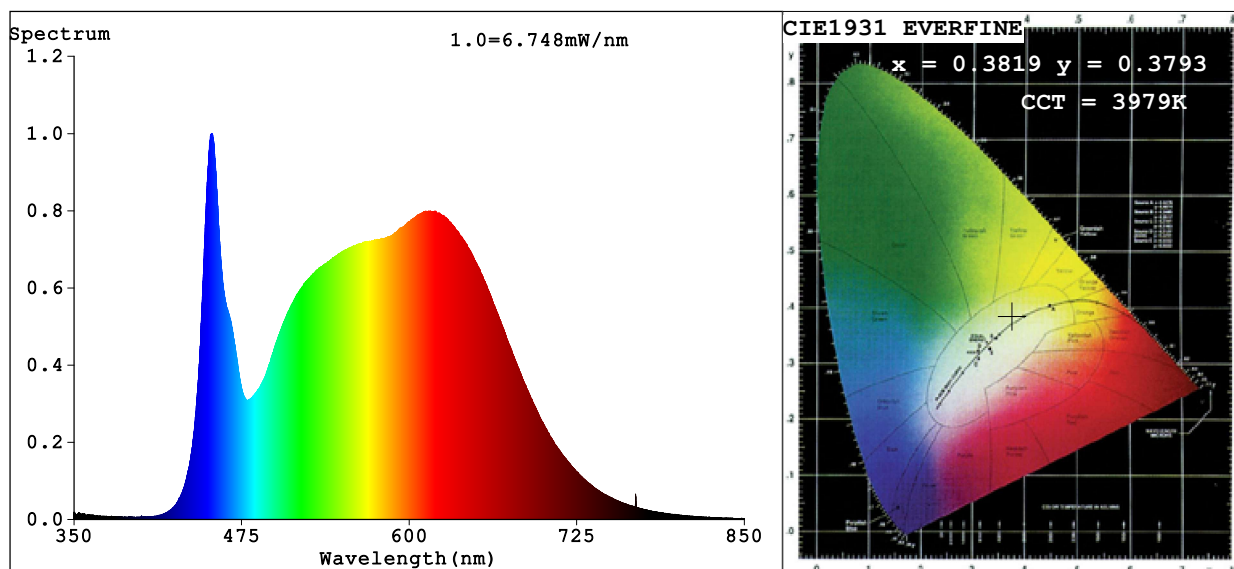
Status: Integral T = 3391 ms Ip = 49452 (75%)

Model:Focalis Vex 4-6-8w  
 Tester:Sergio Carneros  
 Temperature:20Deg  
 Manufacturer:Luz Negra

Number:45° 6w 4000k  
 Date:2026-02-12 13:16:15  
 Humidity:50%  
 Remarks:1 unidad



## Spectrum Test Report



### Color Parameters:

Chromaticity Coordinate:  $x=0.3819$   $y=0.3793$   $u'=0.2251$   $v'=0.5029$

$CCT=3979K$  ( $Duv=0.0007$ ) Dominant WL:Ld =578.8nm Purity=28.4%

Ratio:R=19.9% G=76.1% B=4.1%; Peak WL:Lp=452.6nm FWHM=23.0nm

Render Index:Ra=93.2 CRI=89.6 TM30:Rf=90 Rg=99

R1 =94 R2 =96 R3 =96 R4 =93 R5 =92 R6 =92 R7 =95

R8 =88 R9 =69 R10=88 R11=93 R12=68 R13=94 R14=97 R15=92

### Photo Parameters:

Flux = 331.8 lm Eff. : 79.69 lm/W Fe = 1.136 W

### Electrical parameters:

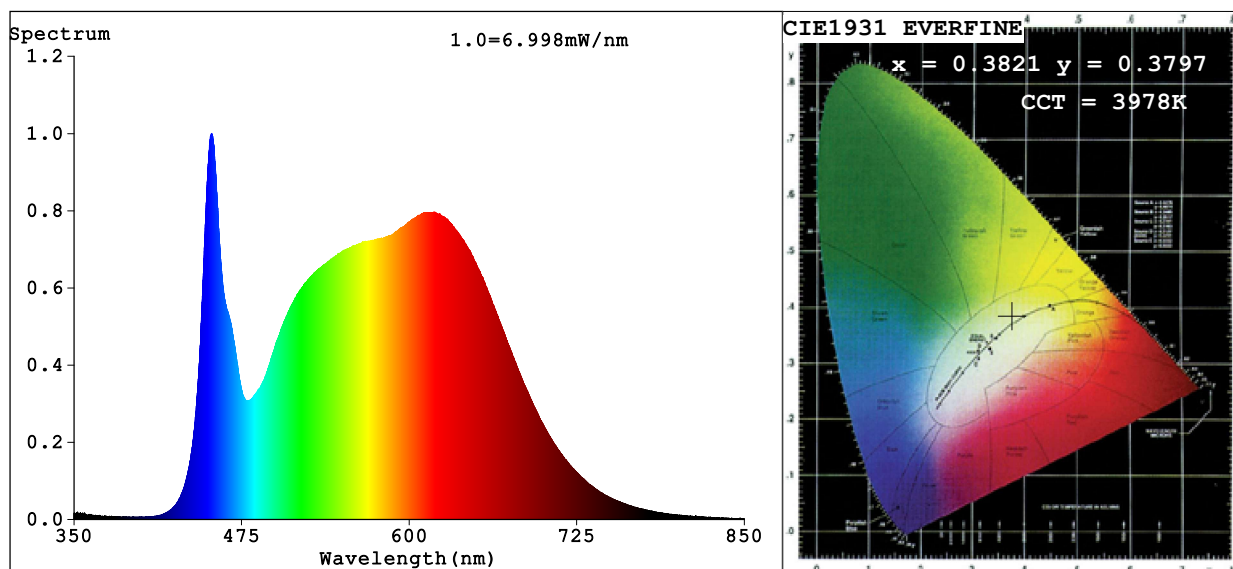
V = 230.08 V I = 0.04542 A P = 4.164 W PF = 0.3984

Status: Integral T = 5000 ms Ip = 48717 (74%)

Model:Focalis Vex 4-6-8w  
 Tester:Sergio Carneros  
 Temperature:20Deg  
 Manufacturer:Luz Negra

Number:18° 4w 4000k  
 Date:2026-02-12 13:17:58  
 Humidity:50%  
 Remarks:1 unidad

## Spectrum Test Report



### Color Parameters:

Chromaticity Coordinate:  $x=0.3821$   $y=0.3797$   $u'=0.2250$   $v'=0.5031$

$CCT=3978K$  ( $Duv=0.0009$ ) Dominant WL:Ld =578.7nm Purity=28.6%

Ratio:R=19.8% G=76.1% B=4.1%; Peak WL:Lp=452.6nm FWHM=22.8nm

Render Index:Ra=92.9 CRI=89.3 TM30:Rf=90 Rg=99

R1 =93 R2 =96 R3 =95 R4 =93 R5 =92 R6 =92 R7 =95

R8 =88 R9 =68 R10=88 R11=92 R12=68 R13=94 R14=97 R15=91

### Photo Parameters:

Flux = 343.8 lm Eff. : 82.45 lm/W Fe = 1.174 W

### Electrical parameters:

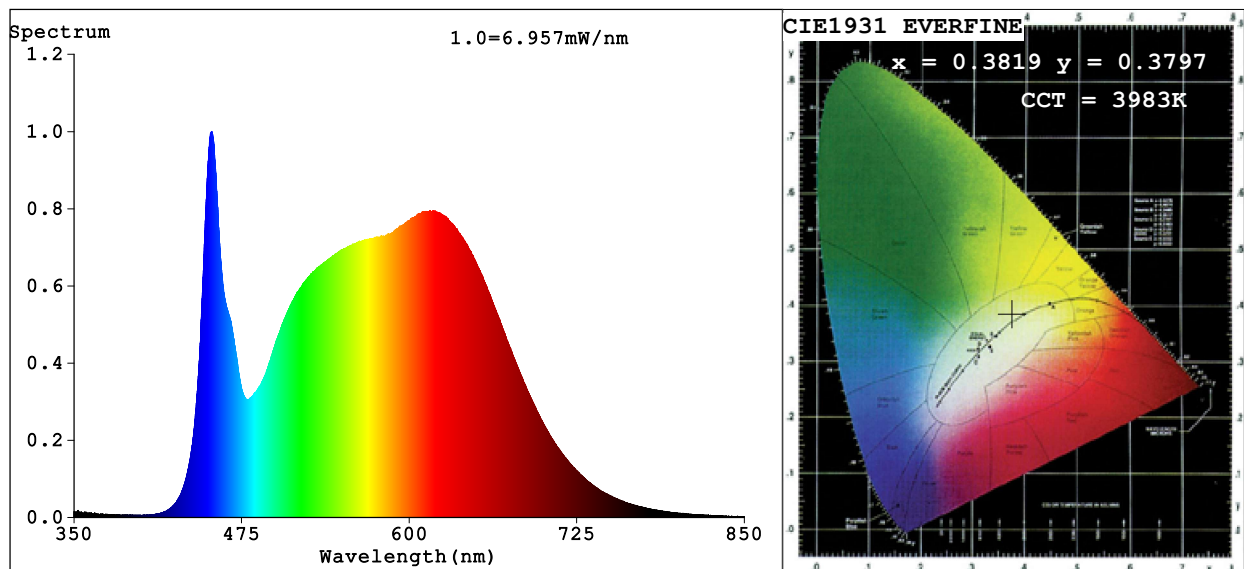
V = 230.08 V I = 0.04545 A P = 4.171 W PF = 0.3988

Status: Integral T = 4825 ms Ip = 48654 (74%)

Model:Focalis Vex 4-6-8w  
 Tester:Sergio Carneros  
 Temperature:20Deg  
 Manufacturer:Luz Negra

Number:24° 4w 4000k  
 Date:2026-02-12 13:19:47  
 Humidity:50%  
 Remarks:1 unidad

## Spectrum Test Report



### Color Parameters:

Chromaticity Coordinate:  $x=0.3819$   $y=0.3797$   $u'=0.2249$   $v'=0.5031$   
CCT=3983K (Duv=0.0010) Dominant WL:Ld =578.6nm Purity=28.6%  
Ratio:R=19.8% G=76.2% B=4.1%; Peak WL:Lp=452.6nm FWHM=22.7nm  
Render Index:Ra=92.9 CRI=89.2 TM30:Rf=90 Rg=99  
R1 =93 R2 =95 R3 =95 R4 =93 R5 =92 R6 =92 R7 =95  
R8 =87 R9 =68 R10=87 R11=92 R12=68 R13=94 R14=97 R15=91

### Photo Parameters:

Flux = 341.7 lm Eff. : 81.96 lm/W Fe = 1.165 W

### Electrical parameters:

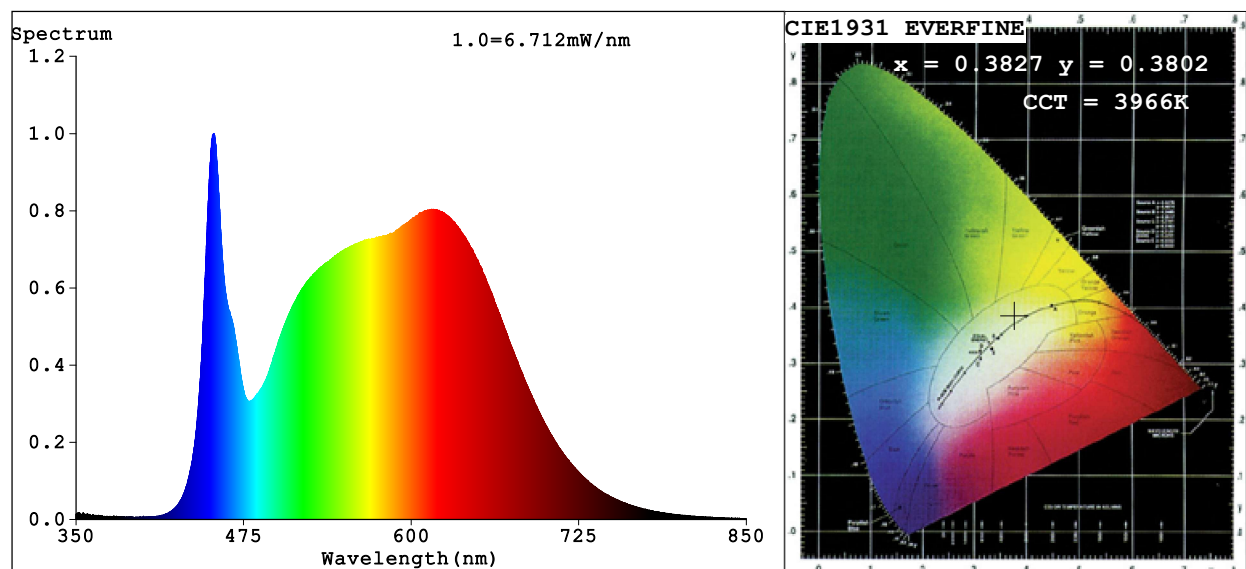
V = 230.09 V I = 0.04547 A P = 4.169 W PF = 0.3985

Status: Integral T = 4873 ms Ip = 48897 (75%)

Model:Focalis Vex 4-6-8w  
Tester:Sergio Carneros  
Temperature:20Deg  
Manufacturer:Luz Negra

Number:36° 4w 4000k  
Date:2026-02-12 13:21:41  
Humidity:50%  
Remarks:1 unidad

## Spectrum Test Report



### Color Parameters:

Chromaticity Coordinate:  $x=0.3827$   $y=0.3802$   $u'=0.2252$   $v'=0.5034$   
 CCT=3966K (Duv=0.0010) Dominant WL:Ld =578.7nm Purity=28.9%  
 Ratio:R=19.8% G=76.1% B=4.0%; Peak WL:Lp=452.6nm FWHM=22.7nm  
 Render Index:Ra=92.9 CRI=89.3 TM30:Rf=90 Rg=99  
 R1 =93 R2 =95 R3 =95 R4 =93 R5 =92 R6 =92 R7 =95  
 R8 =87 R9 =68 R10=87 R11=92 R12=68 R13=94 R14=97 R15=91

### Photo Parameters:

Flux = 332.2 lm Eff. : 79.84 lm/W Fe = 1.133 W

### Electrical parameters:

V = 230.09 V I = 0.04536 A P = 4.161 W PF = 0.3987

Status: Integral T = 4998 ms Ip = 48836 (75%)

Model:Focalis Vex 4-6-8w  
 Tester:Sergio Carneros  
 Temperature:20Deg  
 Manufacturer:Luz Negra

Number:45° 4w 4000k  
 Date:2026-02-12 13:23:12  
 Humidity:50%  
 Remarks:1 unidad