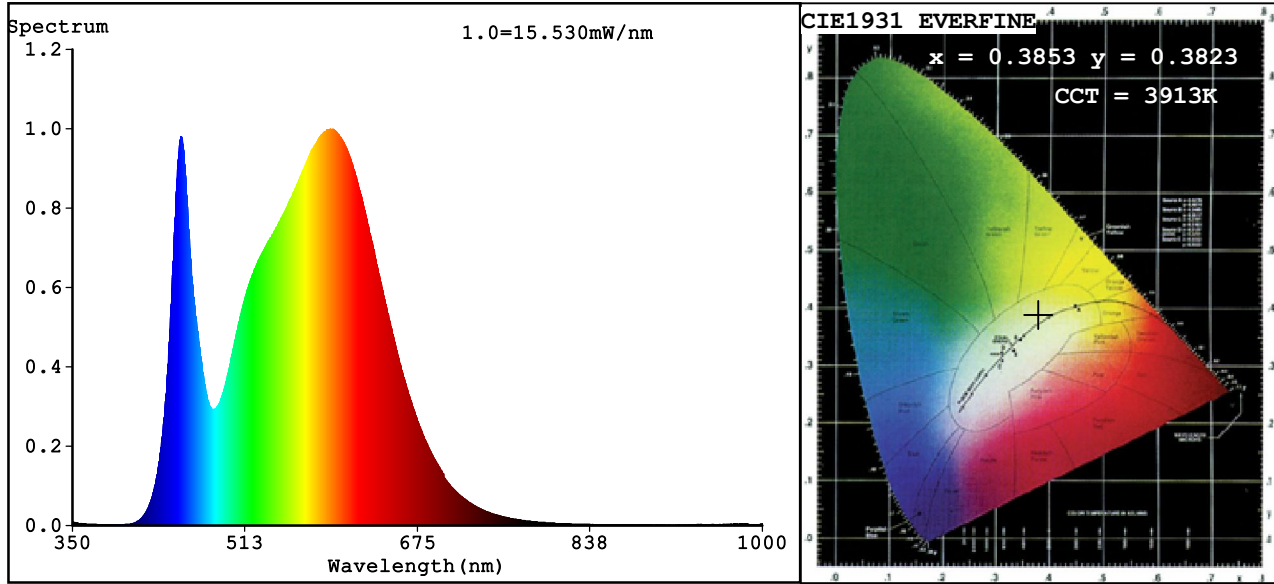


Spectrum Test Report



Color Parameters:

Chromaticity Coordinate: $x=0.3853$ $y=0.3823$ $u'=0.2261$ $v'=0.5047$

CCT=3913K(Duv=0.0012) Dominant WL:Ld =578.8nm Purity=30.4%

Ratio:R=18.3% G=78.2% B=3.5%;;Peak WL:Lp=592.8nm FWHM=144.4nm

Render Index:Ra=81.8

R1 =80	R2 =89	R3 =95	R4 =80	R5 =80	R6 =84	R7 =85		
R8 =62	R9 =3	R10=73	R11=78	R12=60	R13=82	R14=97	R15=73	

Photo Parameters:

Flux = 882.4 lm Eff. : 75.31 lm/W Fe = 2.658 W

Electrical parameters:

V = 229.88 V I = 0.09103 A P = 11.72 W PF = 0.5600

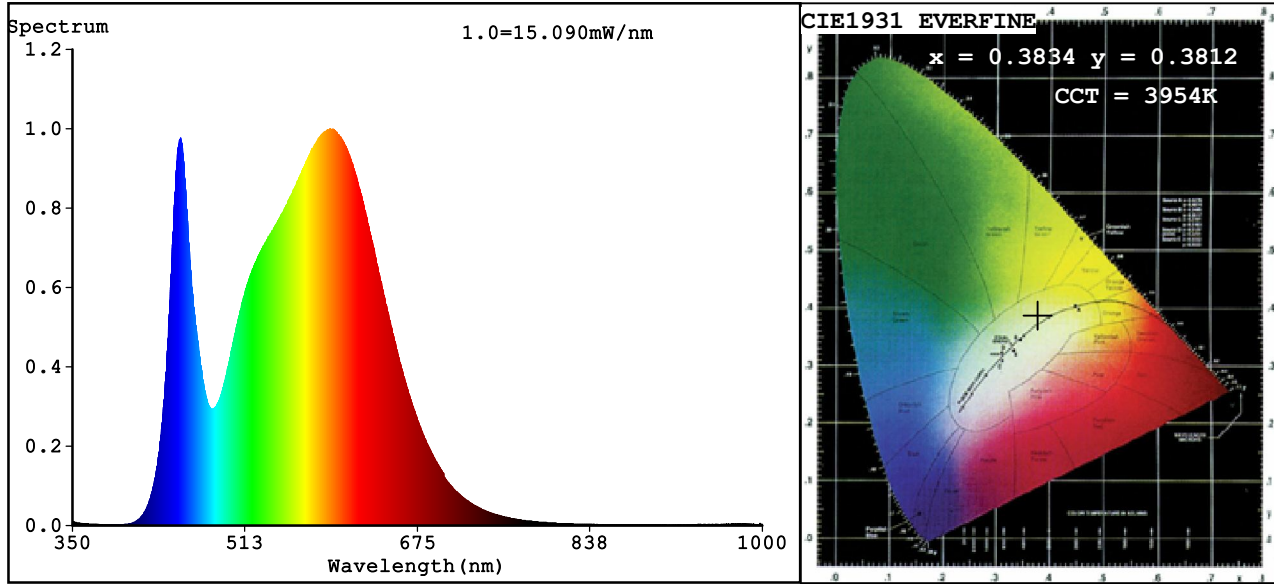
WHITE:ANSI_4000K

Status: Integral T = 52 ms Ip = 41153 (63%)

Model:LED AR111/11W
Tester:Petya Marinova
Temperature:25.3Deg
Manufacturer:ELMARK

Number:99LED904
Date:2017-10-19 09:47
Humidity:65.0%
Remarks:017V032B_4031

Spectrum Test Report



Color Parameters:

Chromaticity Coordinate: $x=0.3834$ $y=0.3812/u'=0.2253$ $v'=0.5039$
 CCT=3954K(Duv=0.0012) Dominant WL:Ld =578.6nm Purity=29.5%
 Ratio:R=18.2% G=78.3% B=3.5%;;Peak WL:Lp=592.8nm FWHM=145.8nm
 Render Index:Ra=82.0
 R1 =80 R2 =88 R3 =95 R4 =80 R5 =80 R6 =84 R7 =86
 R8 =63 R9 =4 R10=72 R11=79 R12=61 R13=82 R14=97 R15=74

Photo Parameters:

Flux = 863.5 lm Eff. : 69.96 lm/W Fe = 2.609 W

Electrical parameters:

V = 230.00 V I = 0.09460 A P = 12.34 W PF = 0.5672

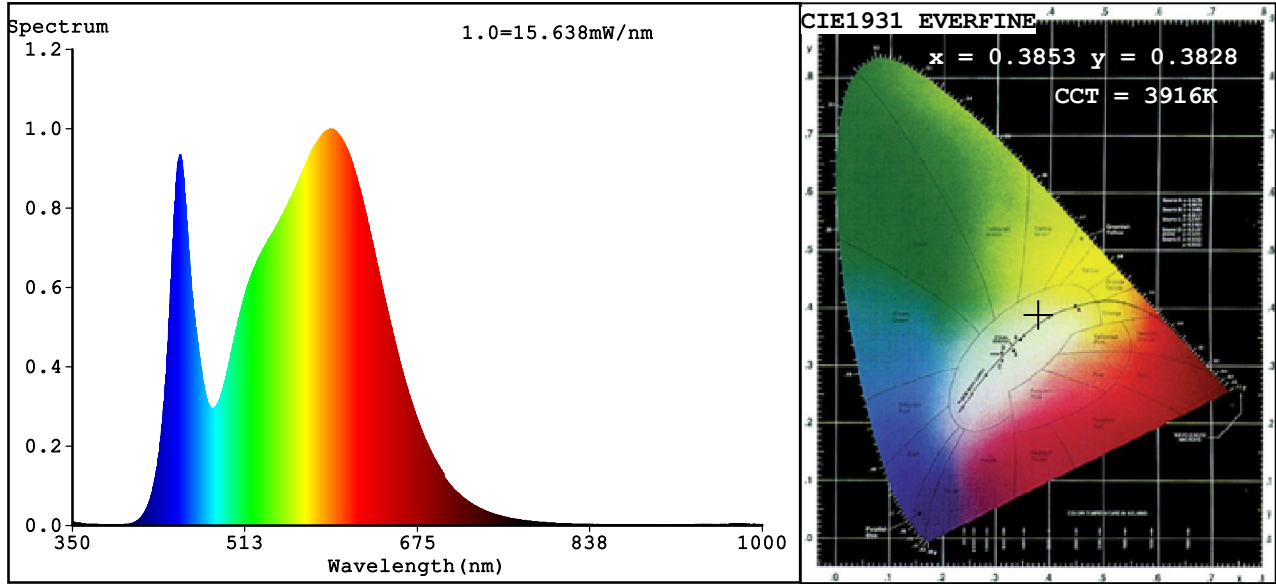
WHITE:ANSI_4000K

Status: Integral T = 52 ms Ip = 39964 (61%)

Model:LED AR111/11W
 Tester:Petya Marinova
 Temperature:25.3Deg
 Manufacturer:ELMARK

Number:99LED904
 Date:2017-10-19 11:06
 Humidity:65.0%
 Remarks:017V032B_4031

Spectrum Test Report



Color Parameters:

Chromaticity Coordinate: $x=0.3853$ $y=0.3828$ $u'=0.2259$ $v'=0.5049$
CCT=3916K(Duv=0.0014) Dominant WL:Ld =578.7nm Purity=30.5%
Ratio:R=18.3% G=78.2% B=3.5%;;Peak WL:Lp=592.8nm FWHM=145.7nm
Render Index:Ra=82.0
R1 =80 R2 =89 R3 =95 R4 =80 R5 =80 R6 =84 R7 =86
R8 =63 R9 =4 R10=73 R11=79 R12=61 R13=82 R14=97 R15=74

Photo Parameters:

Flux = 891.1 lm Eff. : 73.22 lm/W Fe = 2.688 W

Electrical parameters:

V = 230.01 V I = 0.09373 A P = 12.17 W PF = 0.5645

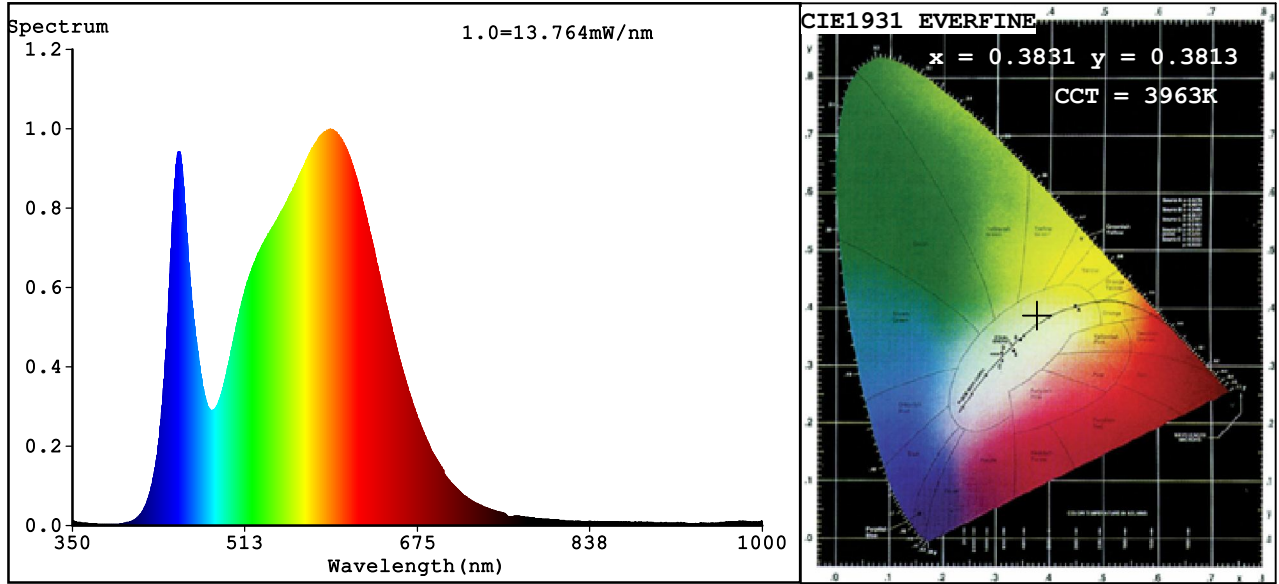
WHITE:ANSI_4000K

Status: Integral T = 52 ms Ip = 41383 (63%)

Model:LED AR111/11W
Tester:Petya Marinova
Temperature:25.3Deg
Manufacturer:ELMARK

Number:99LED904
Date:2017-10-19 11:09
Humidity:65.0%
Remarks:017V032B_4031

Spectrum Test Report



Color Parameters:

Chromaticity Coordinate: $x=0.3831$ $y=0.3813$ / $u'=0.2250$ $v'=0.5040$
CCT=3963K (Duv=0.0014) Dominant WL:Ld =578.5nm Purity=29.4%
Ratio:R=18.2% G=78.4% B=3.4%;; Peak WL:Lp=592.8nm FWHM=146.5nm
Render Index:Ra=81.8
R1 =80 R2 =88 R3 =94 R4 =81 R5 =80 R6 =83 R7 =86
R8 =63 R9 =4 R10=71 R11=79 R12=61 R13=82 R14=97 R15=74

Photo Parameters:

Flux = 790.6 lm Eff. : 66.16 lm/W Fe = 2.423 W

Electrical parameters:

V = 230.02 V I = 0.09226 A P = 11.95 W PF = 0.5631

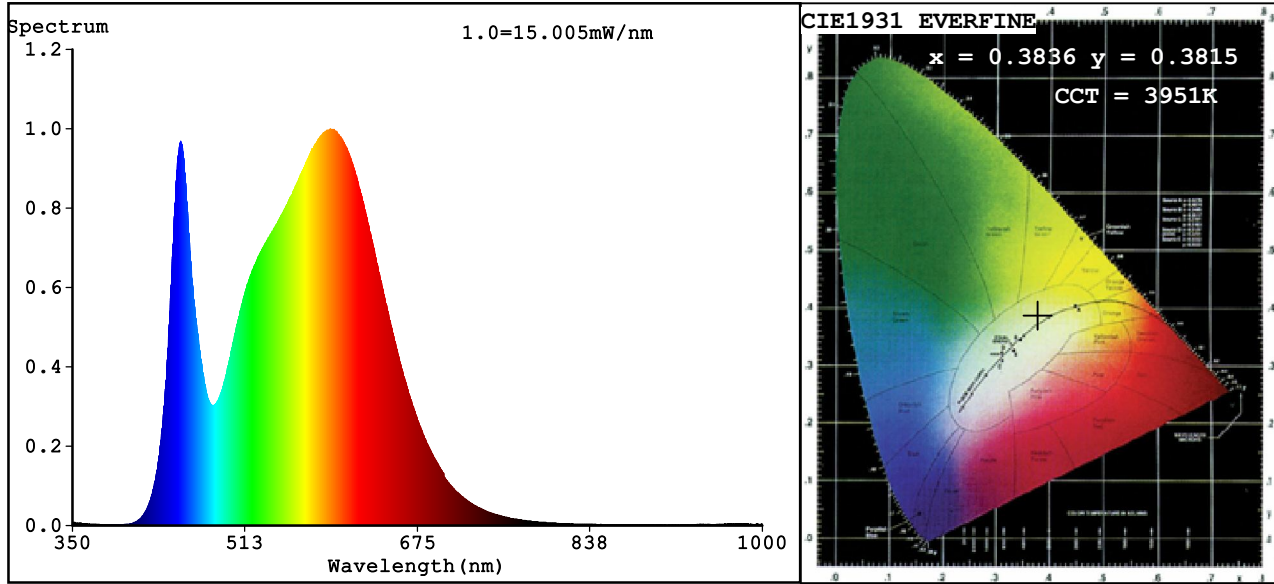
WHITE:ANSI_4000K

Status: Integral T = 52 ms Ip = 36464 (56%)

Model:LED AR111/11W
Tester:Petya Marinova
Temperature:25.3Deg
Manufacturer:ELMARK

Number:99LED904
Date:2017-10-19 11:13
Humidity:65.0%
Remarks:017V032B_4031

Spectrum Test Report



Color Parameters:

Chromaticity Coordinate: $x=0.3836$ $y=0.3815$ $u'=0.2253$ $v'=0.5041$
 CCT=3951K(Duv=0.0013) Dominant WL:Ld =578.6nm Purity=29.6%
 Ratio:R=18.3% G=78.2% B=3.6%;; Peak WL:Lp=592.8nm FWHM=146.0nm
 Render Index:Ra=82.2
 R1 =80 R2 =89 R3 =95 R4 =80 R5 =80 R6 =84 R7 =86
 R8 =63 R9 =5 R10=73 R11=79 R12=61 R13=82 R14=97 R15=74

Photo Parameters:

Flux = 858.1 lm Eff. : 70.57 lm/W Fe = 2.594 W

Electrical parameters:

V = 230.03 V I = 0.09366 A P = 12.16 W PF = 0.5644

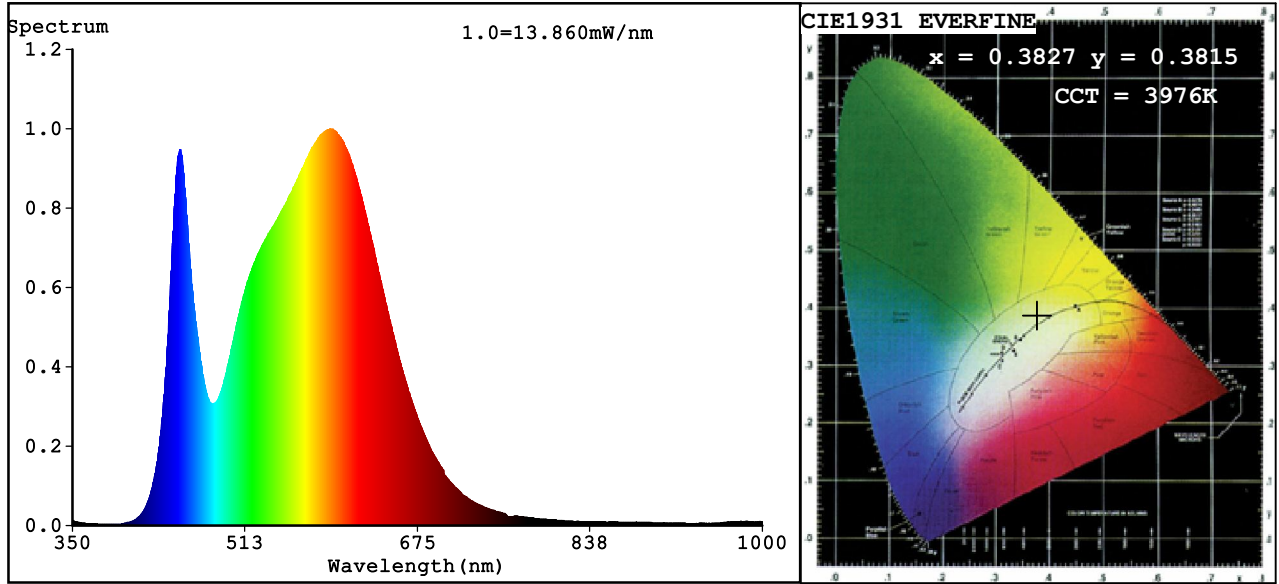
WHITE:ANSI_4000K

Status: Integral T = 52 ms Ip = 39741 (61%)

Model:LED AR111/11W
 Tester:Petya Marinova
 Temperature:25.3Deg
 Manufacturer:ELMARK

Number:99LED904
 Date:2017-10-19 11:15
 Humidity:65.0%
 Remarks:017V032B_4031

Spectrum Test Report



Color Parameters:

Chromaticity Coordinate: $x=0.3827$ $y=0.3815$ $u'=0.2247$ $v'=0.5040$

CCT=3976K(Duv=0.0016) Dominant WL:Ld =578.3nm Purity=29.3%

Ratio:R=18.1% G=78.3% B=3.6%;;Peak WL:Lp=592.8nm FWHM=146.6nm

Render Index:Ra=82.1

R1 =80 R2 =88 R3 =95 R4 =80 R5 =80 R6 =84 R7 =86

R8 =63 R9 =5 R10=72 R11=79 R12=61 R13=82 R14=97 R15=74

Photo Parameters:

Flux = 797.5 lm Eff. : 65.81 lm/W Fe = 2.443 W

Electrical parameters:

V = 230.04 V I = 0.09356 A P = 12.12 W PF = 0.5630

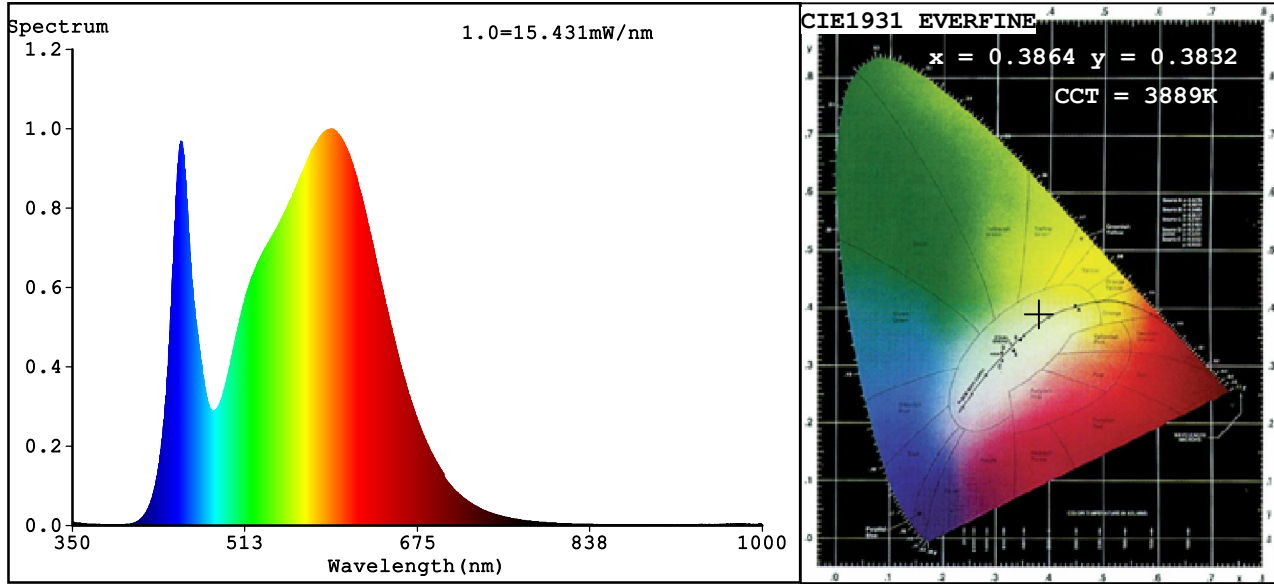
WHITE:ANSI_4000K

Status: Integral T = 52 ms Ip = 36764 (56%)

Model:LED AR111/11W
Tester:Petya Marinova
Temperature:25.3Deg
Manufacturer:ELMARK

Number:99LED904
Date:2017-10-19 11:20
Humidity:65.0%
Remarks:017V032B_4031

Spectrum Test Report



Color Parameters:

Chromaticity Coordinate: $x=0.3864$ $y=0.3832$ / $u'=0.2265$ $v'=0.5053$
 CCT=3889K (Duv=0.0013) Dominant WL:Ld =578.8nm Purity=31.0%
 Ratio:R=18.4% G=78.1% B=3.5%; Peak WL:Lp=594.5nm FWHM=144.2nm
 Render Index:Ra=81.7
 R1 =80 R2 =89 R3 =95 R4 =80 R5 =79 R6 =84 R7 =85
 R8 =62 R9 =3 R10=73 R11=78 R12=59 R13=82 R14=97 R15=73

Photo Parameters:

Flux = 875.1 lm Eff. : 73.32 lm/W Fe = 2.634 W

Electrical parameters:

V = 230.03 V I = 0.09207 A P = 11.93 W PF = 0.5635

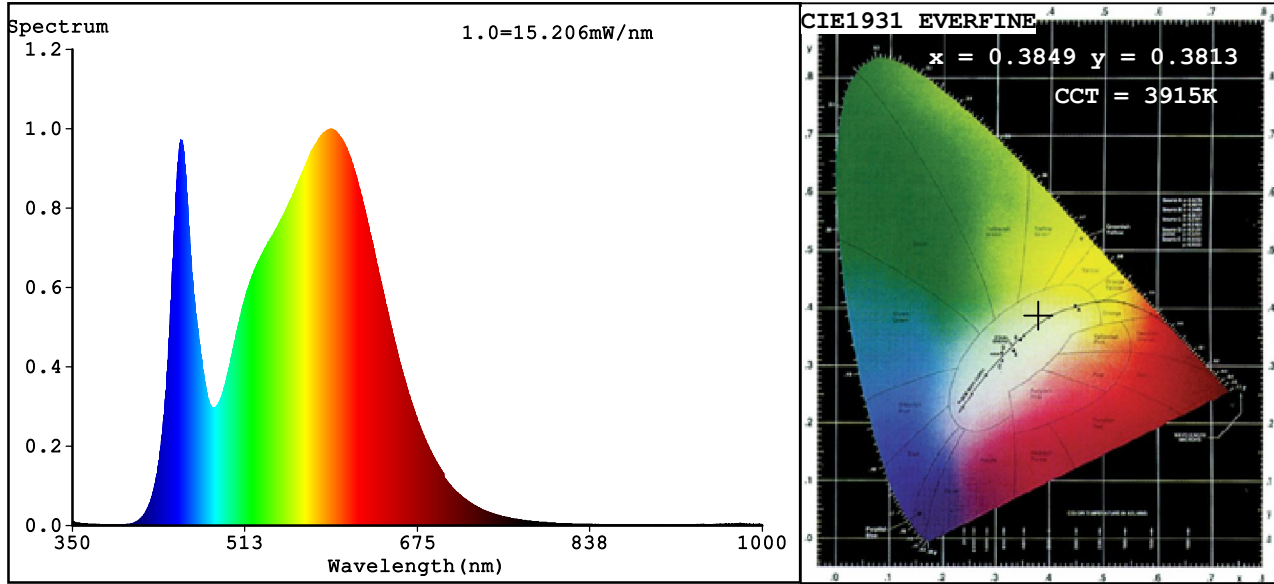
WHITE:ANSI_4000K

Status: Integral T = 52 ms Ip = 40872 (62%)

Model:LED AR111/11W
 Tester:Petya Marinova
 Temperature:25.3Deg
 Manufacturer:ELMARK

Number:99LED904
 Date:2017-10-19 11:22
 Humidity:65.0%
 Remarks:017V032B_4031

Spectrum Test Report



Color Parameters:

Chromaticity Coordinate: $x=0.3849$ $y=0.3813$ $u'=0.2262$ $v'=0.5042$
 CCT=3915K(Duv=0.0008) Dominant WL:Ld =579.0nm Purity=29.9%
 Ratio:R=18.4% G=78.1% B=3.5%;;Peak WL:Lp=592.8nm FWHM=144.5nm
 Render Index:Ra=82.0
 R1 =80 R2 =89 R3 =95 R4 =80 R5 =80 R6 =84 R7 =85
 R8 =62 R9 =4 R10=73 R11=78 R12=60 R13=82 R14=97 R15=74

Photo Parameters:

Flux = 862.9 lm Eff. : 73.17 lm/W Fe = 2.607 W

Electrical parameters:

V = 230.04 V I = 0.09120 A P = 11.79 W PF = 0.5622

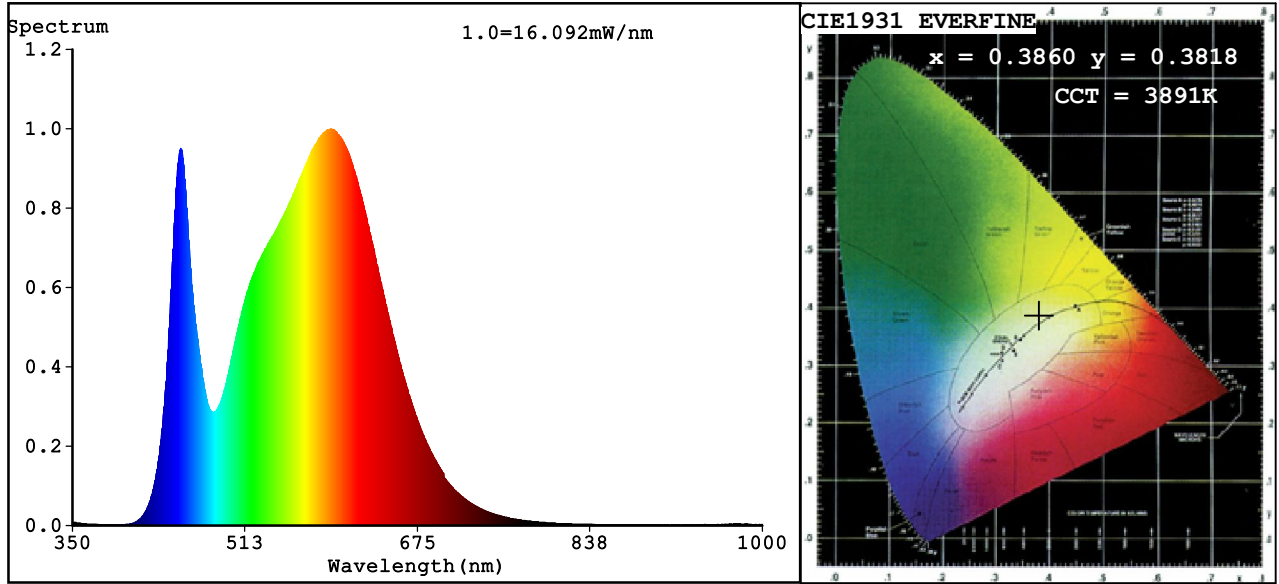
WHITE:ANSI_4000K

Status: Integral T = 52 ms Ip = 40239 (61%)

Model:LED AR111/11W
 Tester:Petya Marinova
 Temperature:25.3Deg
 Manufacturer:ELMARK

Number:99LED904
 Date:2017-10-19 11:24
 Humidity:65.0%
 Remarks:017V032B_4031

Spectrum Test Report



Color Parameters:

Chromaticity Coordinate: $x=0.3860$ $y=0.3818$ $u'=0.2267$ $v'=0.5046$
 CCT=3891K(Duv=0.0008) Dominant WL:Ld =579.1nm Purity=30.4%
 Ratio:R=18.4% G=78.1% B=3.5%;; Peak WL:Lp=592.8nm FWHM=144.1nm
 Render Index:Ra=81.7
 R1 =80 R2 =89 R3 =95 R4 =80 R5 =80 R6 =84 R7 =85
 R8 =62 R9 =3 R10=73 R11=78 R12=60 R13=82 R14=97 R15=74

Photo Parameters:

Flux = 910.8 lm Eff. : 72.91 lm/W Fe = 2.748 W

Electrical parameters:

V = 229.81 V I = 0.09627 A P = 12.49 W PF = 0.5647

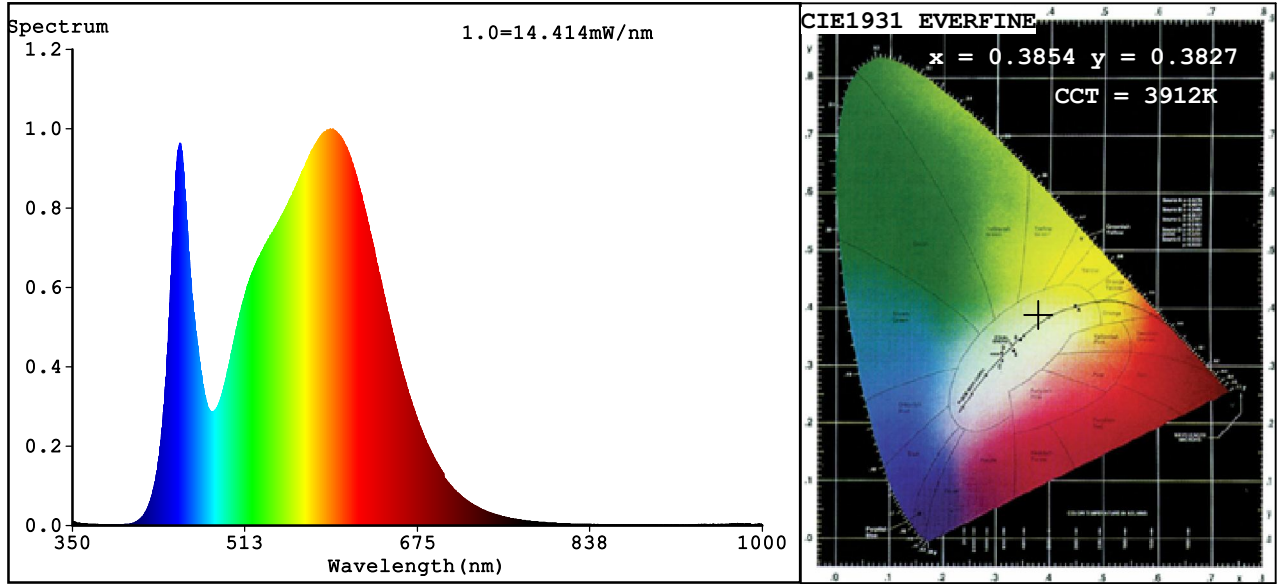
WHITE:ANSI_4000K

Status: Integral T = 62 ms Ip = 50811 (78%)

Model:LED AR111/11W
 Tester:Petya Marinova
 Temperature:25.3Deg
 Manufacturer:ELMARK

Number:99LED904
 Date:2017-10-20 15:20
 Humidity:65.0%
 Remarks:017V032B_4031

Spectrum Test Report



Color Parameters:

Chromaticity Coordinate: $x=0.3854$ $y=0.3827$ / $u'=0.2260$ $v'=0.5049$
CCT=3912K(Duv=0.0013) Dominant WL:Ld =578.7nm Purity=30.5%
Ratio:R=18.4% G=78.2% B=3.4%;;Peak WL:Lp=595.5nm FWHM=145.5nm
Render Index:Ra=81.9
R1 =80 R2 =88 R3 =95 R4 =80 R5 =80 R6 =84 R7 =86
R8 =63 R9 =4 R10=72 R11=78 R12=60 R13=82 R14=97 R15=73

Photo Parameters:

Flux = 821.4 lm Eff. : 69.04 lm/W Fe = 2.475 W

Electrical parameters:

V = 229.84 V I = 0.09204 A P = 11.90 W PF = 0.5624

WHITE:ANSI_4000K

Status: Integral T = 62 ms Ip = 45484 (69%)

Model:LED AR111/11W
Tester:Petya Marinova
Temperature:25.3Deg
Manufacturer:ELMARK

Number:99LED904
Date:2017-10-20 15:26
Humidity:65.0%
Remarks:017V032B_4031