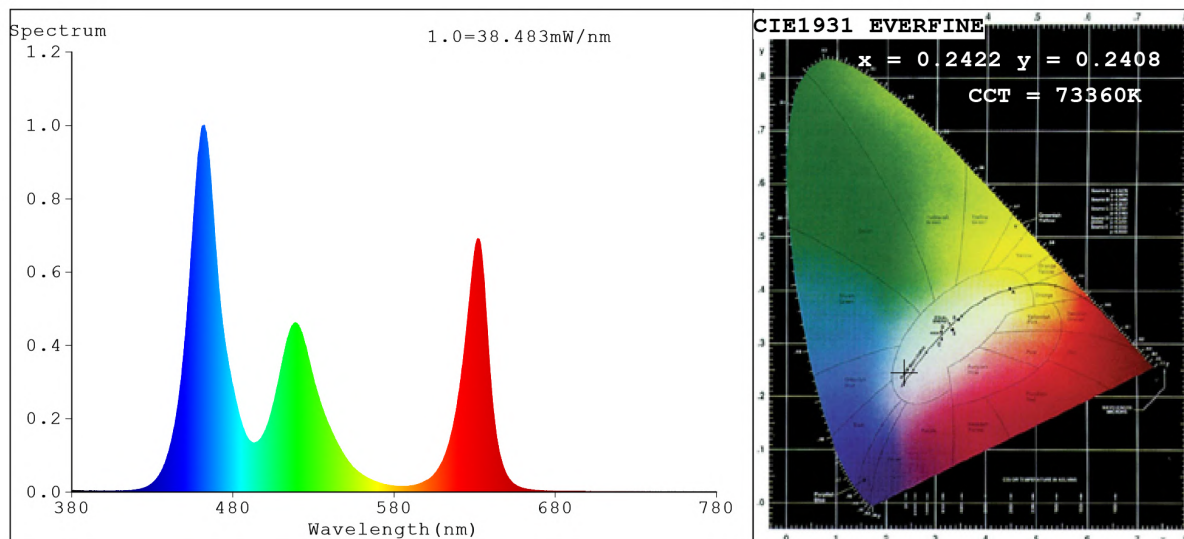


## Spectrum Test Report



### Color Parameters:

Chromaticity Coordinate:  $x=0.2422$   $y=0.2408$   $u'=0.1792$   $v'=0.4009$   
 $CCT=73360K$  ( $Duv=0.0017$ ) Dominant WL:  $Ld = 476.7nm$  Purity=39.7%  
 Ratio: R=21.7% G=65.7% B=12.5%; Peak WL:  $Lp=462.1nm$  FWHM=20.7nm  
 Render Index:  $Ra=46.6$  CRI=41.5 TM30:  $Rf=43$   $Rg=116$   

R1 =27	R2 =59	R3 =74	R4 =46	R5 =50	R6 =60	R7 =58
R8 =0	R9 =0	R10=4	R11=32	R12=61	R13=31	R14=79 R15=4

### Photo Parameters:

Flux = 465.7 lm Eff. : 43.09 lm/W  $Fe = 2.165 W$  Scotopic: 1911.6 S/P: 4.1046

### Electrical parameters:

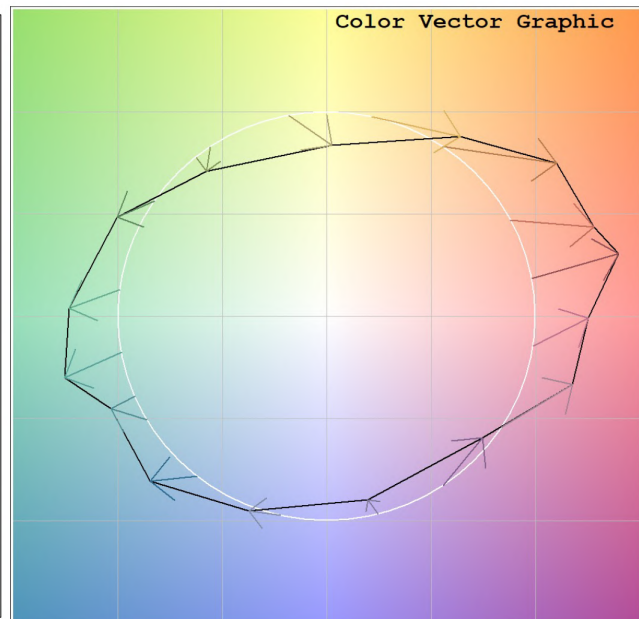
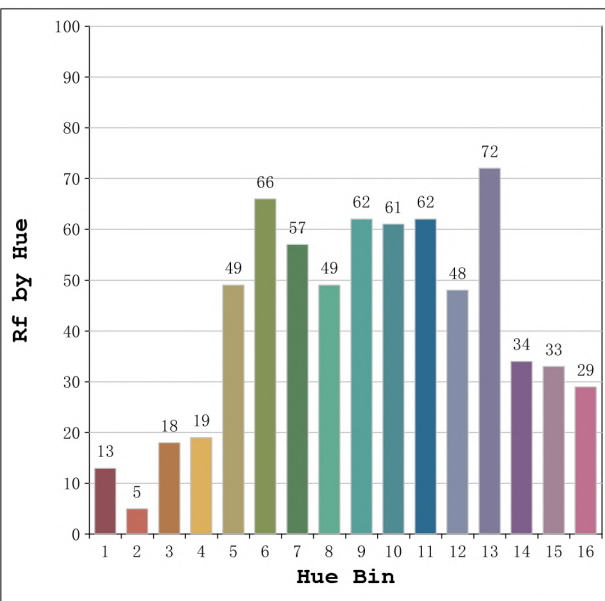
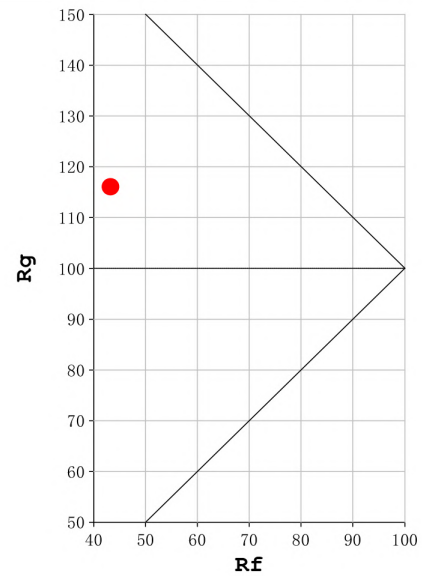
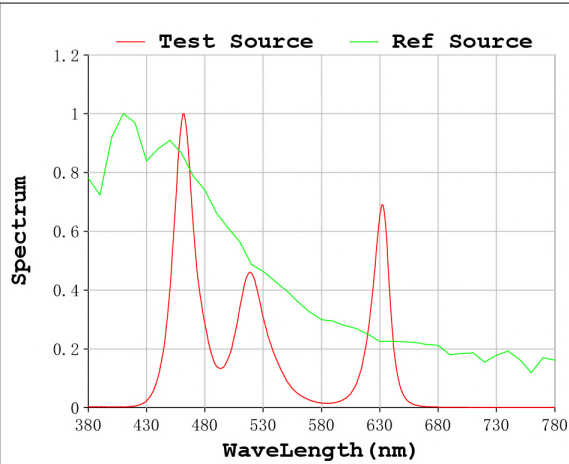
V = 23.998 V I = 0.4504 A P = 10.81 W PF = 1.000

Status: Integral T = 843 ms  $I_p = 52810$  (81%)

Model: Ecoled Gandia R+G+B  
 Tester: Sergio Carneros  
 Temperature: 20Deg  
 Manufacturer: Luz Negra

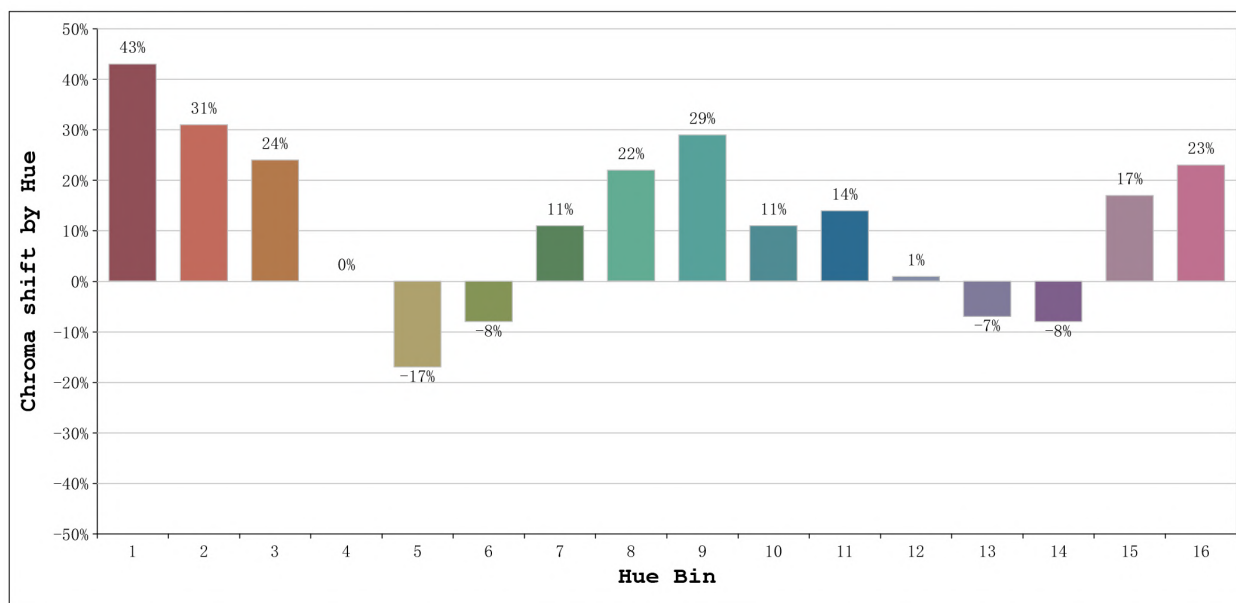
Number: 33.193  
 Date: 17-11-2023 11:22:24  
 Humidity: 57%  
 Remarks: 100cm de tira flexible

**Rf: 43**      **CCT: 73360 K**      **u': 0.1792**  
**Rg: 116**      **Duv: 0.0017**      **v': 0.4009**



Model:Ecoled Gandia R+G+B  
 Tester:Sergio Carneros  
 Temperature:20Deg  
 Manufacturer:Luz Negra

Number: 33.193  
 Date:17-11-2023      11:22:24  
 Humidity:57%  
 Remarks:100cm de tira flexible

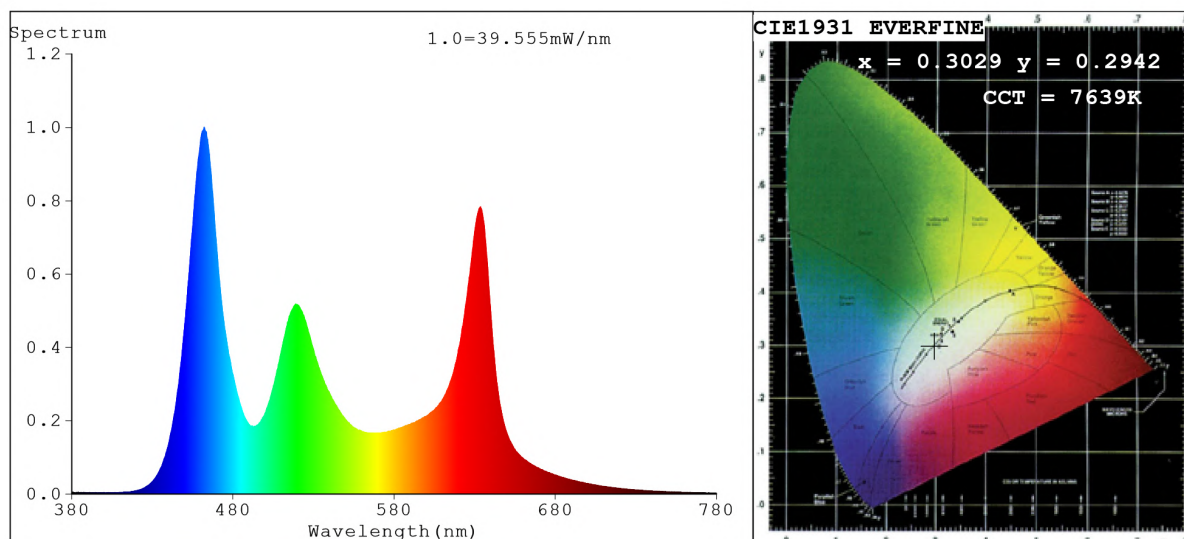


Hue Bin	Hue Angle	Rf	Graphic shift(%)	
			Chroma	Hue
1	0.0° - 22.5°	13	43	4
2	22.5° - 45.0°	5	31	-24
3	45.0° - 67.5°	18	24	-49
4	67.5° - 90.0°	19	0	-43
5	90.0° - 112.5°	49	-17	-17
6	112.5° - 135.0°	66	-8	8
7	135.0° - 157.5°	57	11	16
8	157.5° - 180.0°	49	22	14
9	180.0° - 202.5°	62	29	7
10	202.5° - 225.0°	61	11	-13
11	225.0° - 247.5°	62	14	-16
12	247.5° - 270.0°	48	1	-15
13	270.0° - 292.5°	72	-7	-2
14	292.5° - 315.0°	34	-8	28
15	315.0° - 337.5°	33	17	36
16	337.5° - 360.0°	29	23	19

Model:Ecoled Gandia R+G+B  
Tester:Sergio Carneros  
Temperature:20Deg  
Manufacturer:Luz Negra

Number: 33.193  
Date:17-11-2023 11:22:24  
Humidity:57%  
Remarks:100cm de tira flexible

## Spectrum Test Report



### Color Parameters:

Chromaticity Coordinate:  $x=0.3029$   $y=0.2942$   $u'=0.2045$   $v'=0.4469$   
 CCT=7639K (Duv=-0.0103) Dominant WL:Ld =470.8nm Purity=14.4%  
 Ratio:R=21.9% G=69.7% B=8.4%; Peak WL:Lp=462.2nm FWHM=22.7nm  
 Render Index:Ra=61.8 CRI=55.4 TM30:Rf=69 Rg=113  
 R1 =47 R2 =70 R3 =89 R4 =57 R5 =57 R6 =65 R7 =76  
 R8 =33 R9 =0 R10=37 R11=44 R12=60 R13=50 R14=90 R15=38

### Photo Parameters:

Flux = 809.8 lm Eff. : 54.86 lm/W Fe = 3.198 W Scotopic:2358.8 S/P:2.9129

### Electrical parameters:

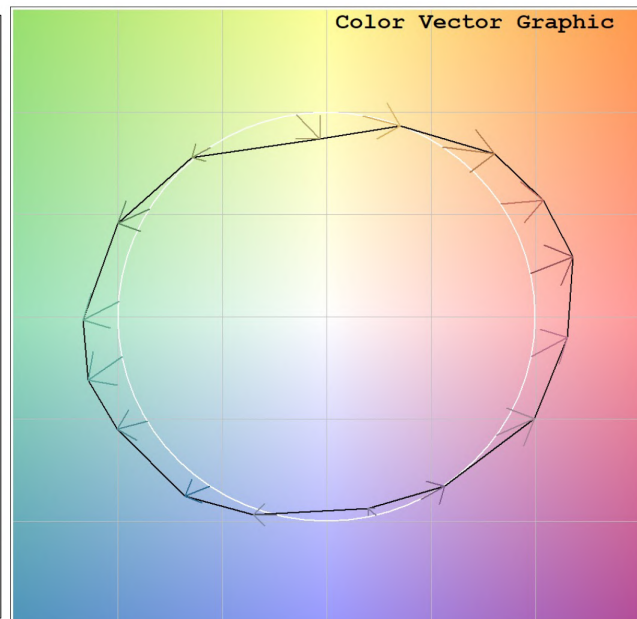
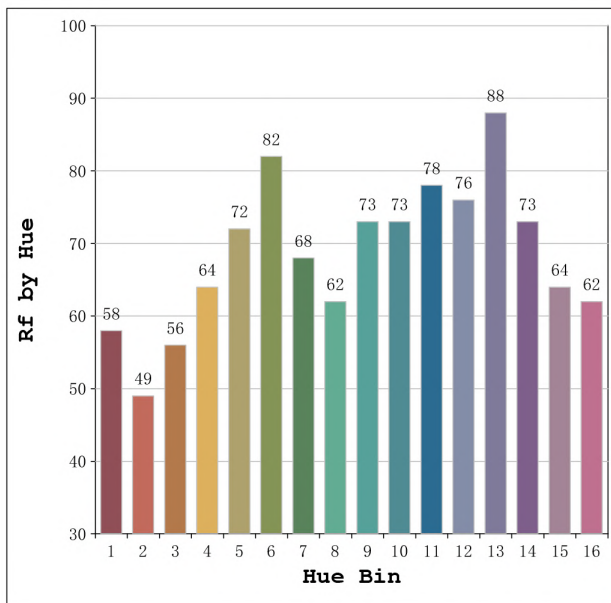
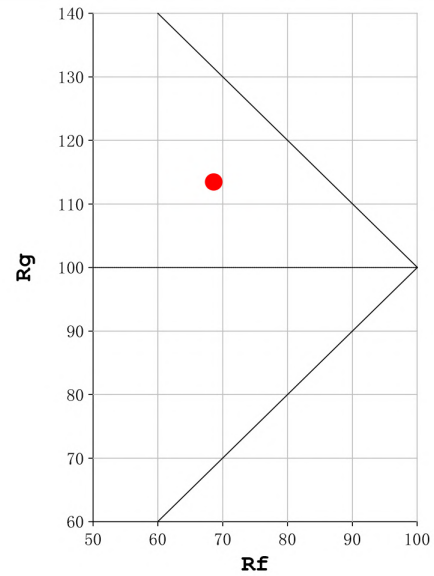
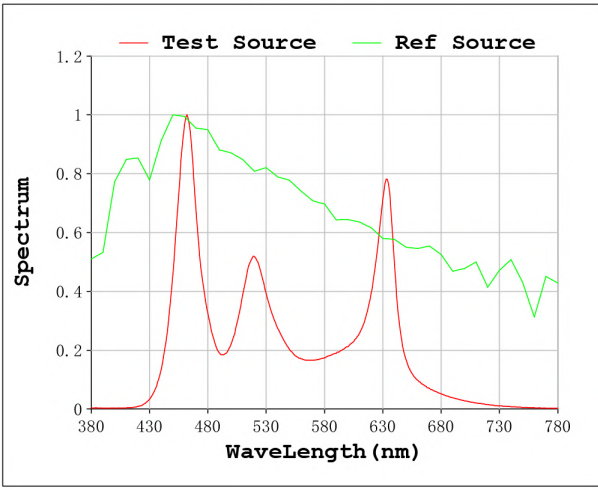
V = 23.998 V I = 0.6151 A P = 14.76 W PF = 1.000

Status: Integral T = 843 ms Ip = 54008 (82%)

Model:Ecoled Gandia R+G+B+W  
 Tester:Sergio Carneros  
 Temperature:20Deg  
 Manufacturer:Luz Negra

Number: 33.193  
 Date:17-11-2023 11:41:24  
 Humidity:57%  
 Remarks:100cm de tira flexible

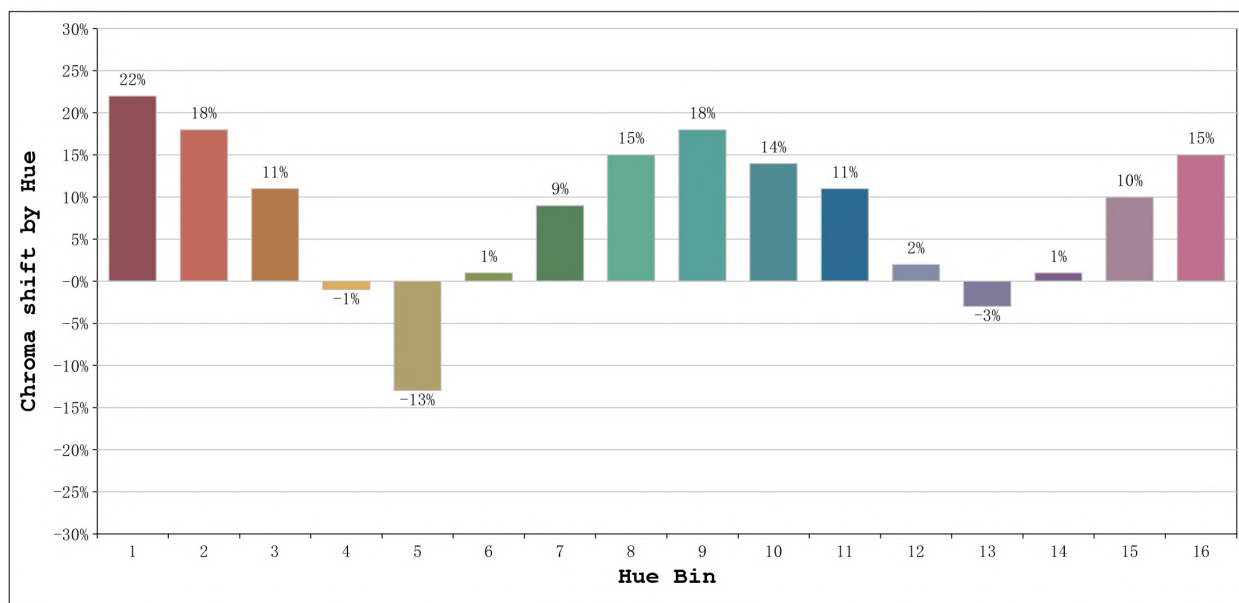
**Rf: 69**      **CCT: 7639 K**      **u': 0.2045**  
**Rg: 113**      **Duv: -0.0103**      **v': 0.4469**



Model:Ecoled Gandia R+G+B+W  
 Tester:Sergio Carneros  
 Temperature:20Deg  
 Manufacturer:Luz Negra

Number: 33.193  
 Date:17-11-2023 11:41:24  
 Humidity:57%  
 Remarks:100cm de tira flexible



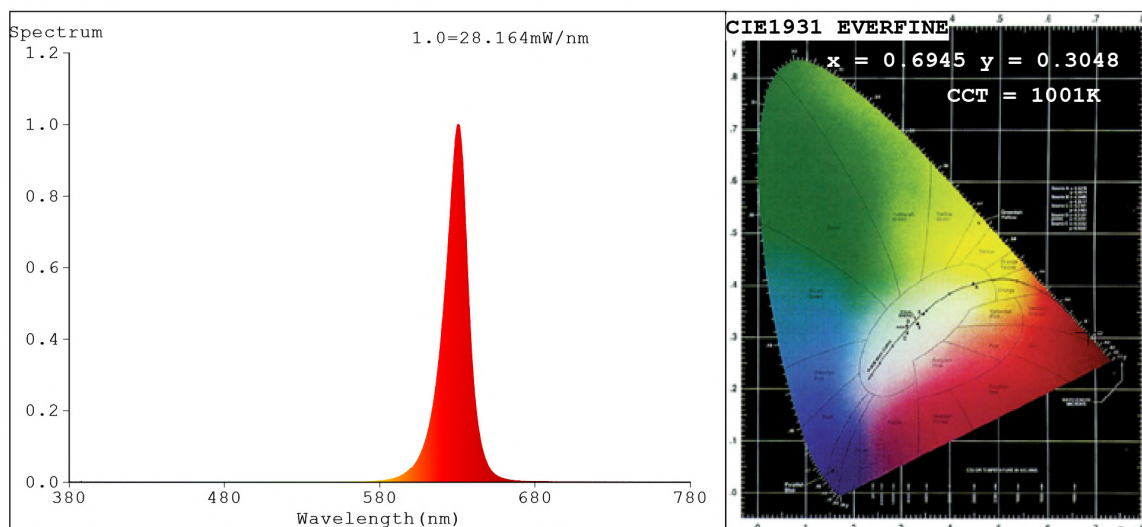


Hue Bin	Hue Angle	Rf	Graphic shift(%)	
			Chroma	Hue
1	0.0° - 22.5°	58	22	4
2	22.5° - 45.0°	49	18	-9
3	45.0° - 67.5°	56	11	-21
4	67.5° - 90.0°	64	-1	-17
5	90.0° - 112.5°	72	-13	-8
6	112.5° - 135.0°	82	1	10
7	135.0° - 157.5°	68	9	14
8	157.5° - 180.0°	62	15	13
9	180.0° - 202.5°	73	18	8
10	202.5° - 225.0°	73	14	-4
11	225.0° - 247.5°	78	11	-6
12	247.5° - 270.0°	76	2	-10
13	270.0° - 292.5°	88	-3	-2
14	292.5° - 315.0°	73	1	13
15	315.0° - 337.5°	64	10	17
16	337.5° - 360.0°	62	15	12

Model:Ecoled Gandia R+G+B+W  
Tester:Sergio Carneros  
Temperature:20Deg  
Manufacturer:Luz Negra

Number: 33.193  
Date:17-11-2023 11:41:24  
Humidity:57%  
Remarks:100cm de tira flexible

## Spectrum Test Report



### Color Parameters:

Chromaticity Coordinate:  $x=0.6945$   $y=0.3048$  /  $u'=0.5274$   $v'=0.5207$   
 CCT=1001K (Duv=-0.0798) Dominant WL:  $\lambda_d = 621.9\text{nm}$  Purity=99.8%  
 Ratio: R=96.1% G=3.9% B=0.0%; Peak WL:  $\lambda_p = 630.6\text{nm}$  FWHM=16.1nm  
 Render Index: Ra=26.9 CRI=32.6 TM30: Rf=11 Rg=-1  
 R1 =8 R2 =79 R3 =31 R4 =0 R5 =2 R6 =91 R7 =5  
 R8 =0 R9 =0 R10=72 R11=0 R12=79 R13=31 R14=60 R15=0

### Photo Parameters:

Flux = 111.3 lm Eff. : 33.69 lm/W Fe = 550.2 mW Scotopic: 6.0895 S/P: 0.05469

### Electrical parameters:

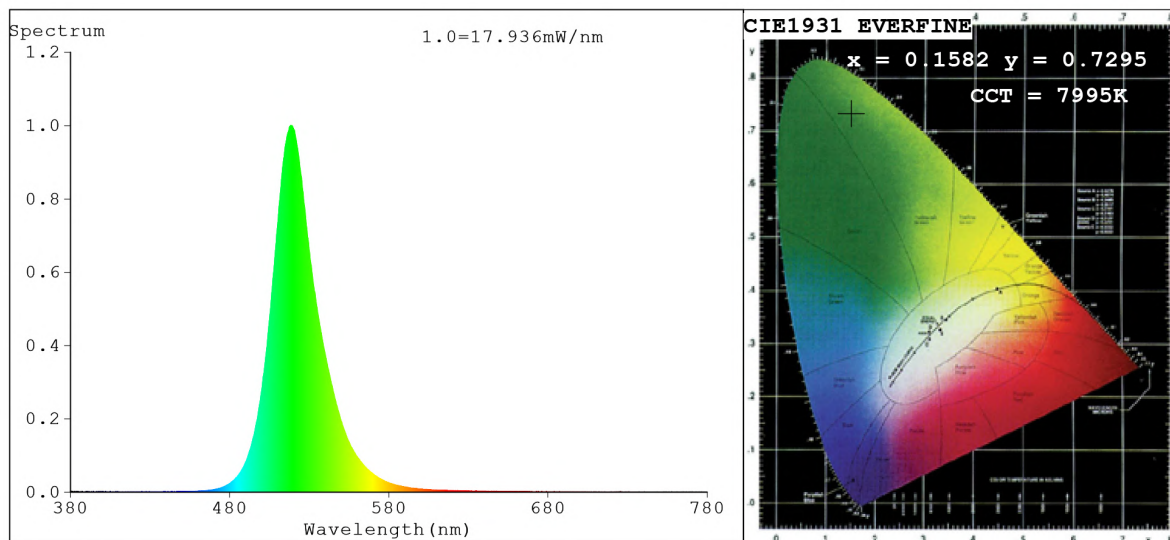
V = 23.998 V I = 0.1377 A P = 3.305 W PF = 1.000

Status: Integral T = 1000 ms Ip = 45039 (69%)

Model: Ecoled Gandia rojo  
 Tester: Sergio Carneros  
 Temperature: 20Deg  
 Manufacturer: Luz Negra

Number: 33.193  
 Date: 17-11-2023 11:48:14  
 Humidity: 57%  
 Remarks: 100cm de tira flexible

## Spectrum Test Report



### Color Parameters:

Chromaticity Coordinate:  $x=0.1582$   $y=0.7295$  /  $u'=0.0553$   $v'=0.5740$   
 CCT=7995K (Duv=0.1613) Dominant WL:  $\lambda_d = 525.2nm$  Purity=80.5%  
 Ratio: R=0.3% G=97.7% B=2.0% ; Peak WL:  $\lambda_p = 518.4nm$  FWHM=29.3nm  
 Render Index:  $R_a=0.0$  CRI=2.6 TM30:  $R_f=0$   $R_g=7$   
 R1 =0 R2 =0 R3 =0 R4 =0 R5 =0 R6 =0 R7 =0  
 R8 =0 R9 =0 R10=0 R11=0 R12=0 R13=0 R14=37 R15=0

### Photo Parameters:

Flux = 304.3 lm Eff. : 80.05 lm/W  $P_e = 637.9$  mW Scotopic: 895.31 S/P: 2.9421

### Electrical parameters:

V = 23.998 V I = 0.1584 A P = 3.801 W PF = 1.000

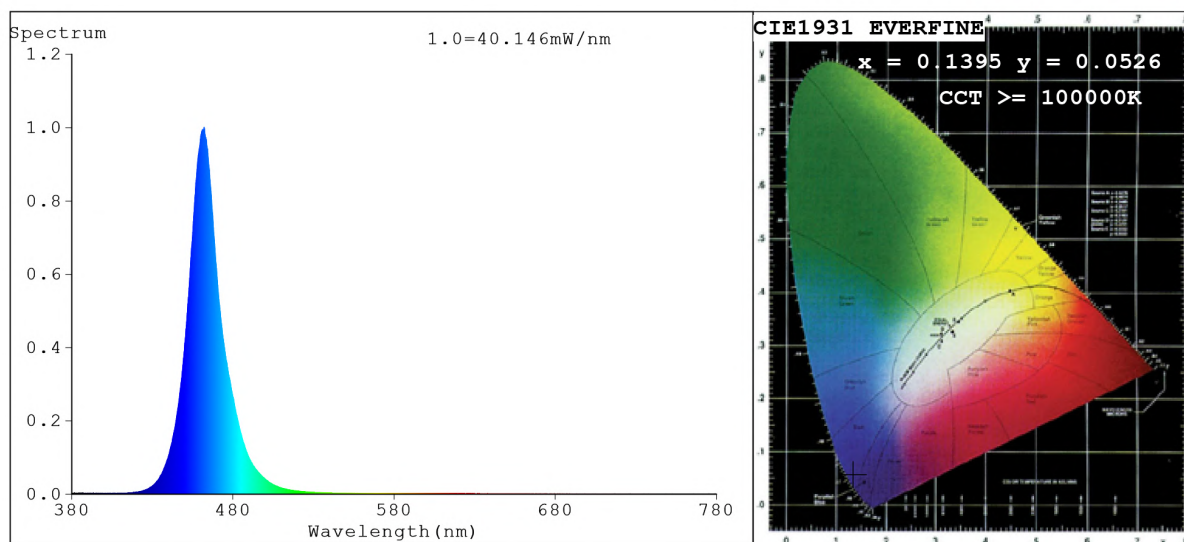
Status: Integral T = 1000 ms  $I_p = 36545$  (56%)

Model: Ecoled Gandia verde  
 Tester: Sergio Carneros  
 Temperature: 20Deg  
 Manufacturer: Luz Negra

Number: 33.193  
 Date: 17-11-2023 11:05:24  
 Humidity: 57%  
 Remarks: 100cm de tira flexible



## Spectrum Test Report



### Color Parameters:

Chromaticity Coordinate:  $x=0.1395$   $y=0.0526$   $u'=0.1664$   $v'=0.1413$   
 CCT=100000K (Duv=0.1724) Dominant WL:Ld =466.2nm Purity=96.8%  
 Ratio:R=1.0% G=15.6% B=83.4%; Peak WL:Lp=462.1nm FWHM=20.3nm  
 Render Index:Ra=1.1 CRI=0.6 TM30:Rf=0 Rg=118  
 R1 =0 R2 =0 R3 =0 R4 =0 R5 =9 R6 =0 R7 =0  
 R8 =0 R9 =0 R10=0 R11=0 R12=0 R13=0 R14=0 R15=7

### Photo Parameters:

Flux = 64.01 lm Eff. : 16.82 lm/W Fe = 1.031 W Scotopic:1055.3 S/P:16.48'

### Electrical parameters:

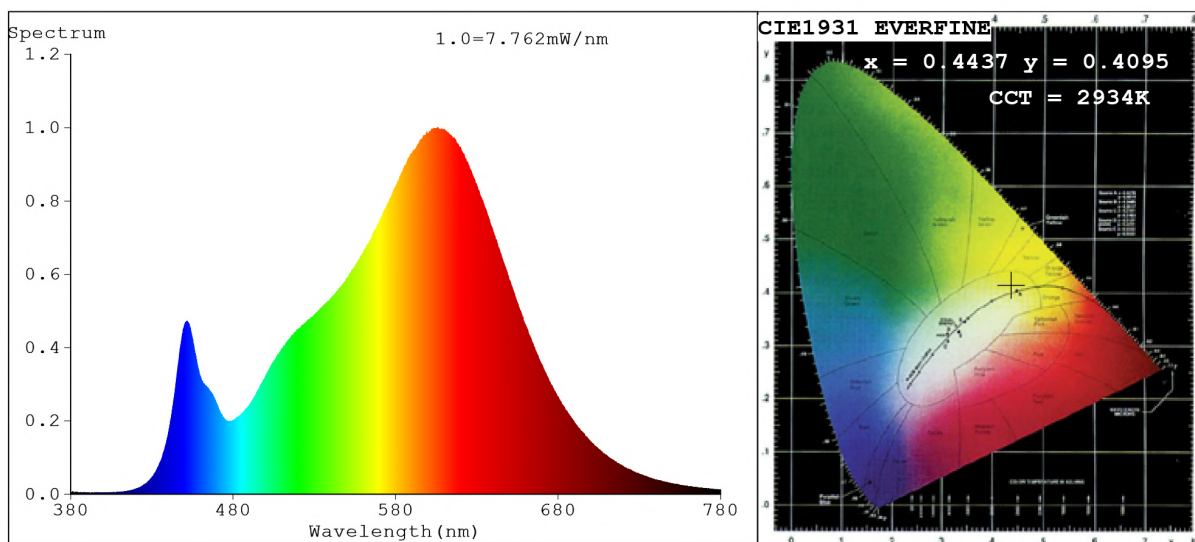
V = 23.998 V I = 0.1586 A P = 3.806 W PF = 1.000

Status: Integral T = 500 ms Ip = 32536 (50%)

Model:Ecoled Gandia azul  
 Tester:Sergio Carneros  
 Temperature:20Deg  
 Manufacturer:Luz Negra

Number: 33.193  
 Date:17-11-2023 11:10:24  
 Humidity:57%  
 Remarks:100cm de tira flexible

## Spectrum Test Report



### Color Parameters:

Chromaticity Coordinate:  $x=0.4437$   $y=0.4095$   $u'=0.2526$   $v'=0.5245$   
 CCT=2934K (Duv=0.0013) Dominant WL:Ld =582.7nm Purity=56.1%  
 Ratio:R=23.5% G=73.9% B=2.6%; Peak WL:Lp=605.9nm FWHM=124.0nm  
 Render Index:Ra=83.6 CRI=78.5 TM30:Rf=84 Rg=95  
 R1 =82 R2 =92 R3 =96 R4 =82 R5 =83 R6 =91 R7 =83  
 R8 =60 R9 =10 R10=82 R11=82 R12=73 R13=85 R14=99 R15=74

### Photo Parameters:

Flux = 371.2 lm Eff. : 93.97 lm/W Fe = 1.121 W Scotopic:493.4 S/P:1.3292

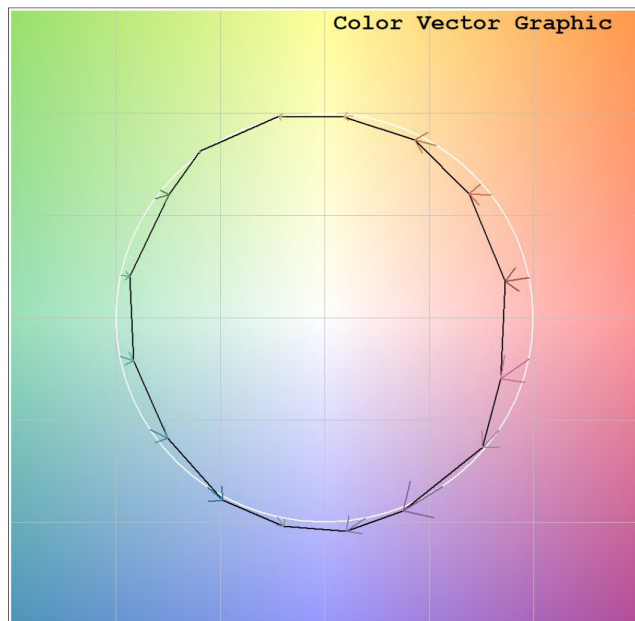
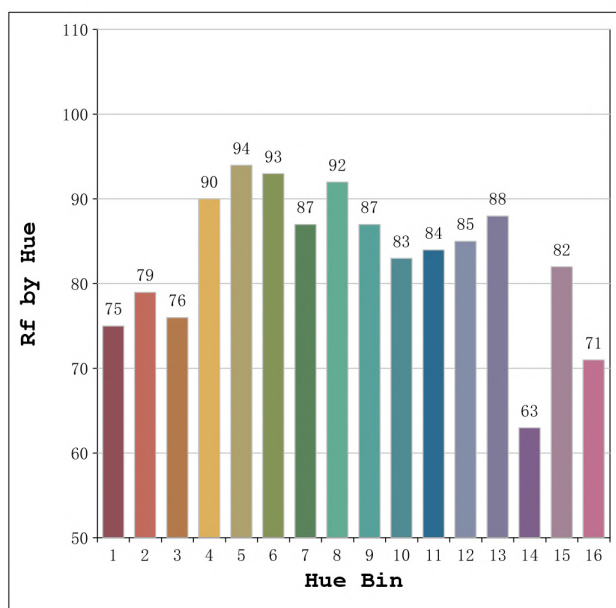
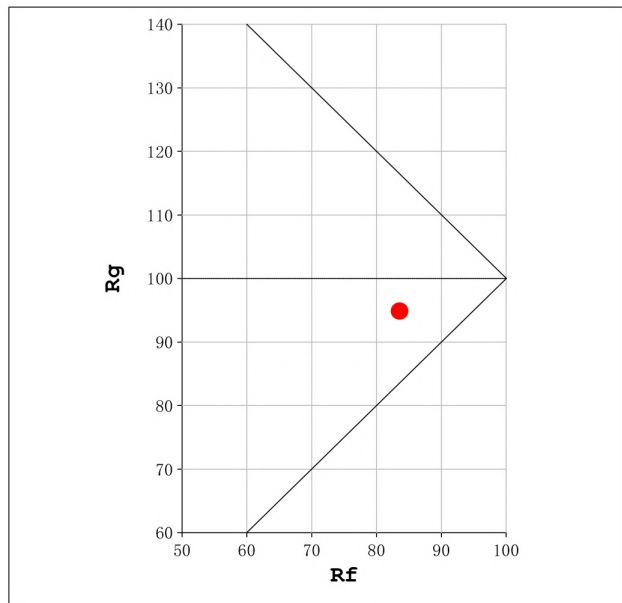
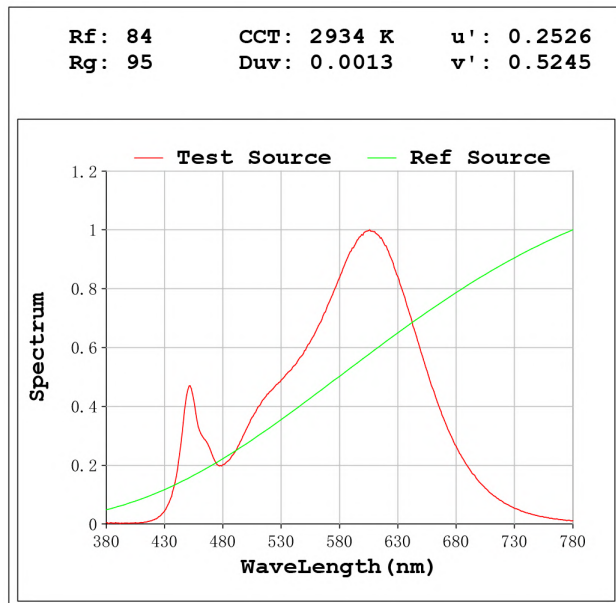
### Electrical parameters:

V = 23.998 V I = 0.1646 A P = 3.950 W PF = 1.000

Status: Integral T = 3675 ms Ip = 52433 (80%)

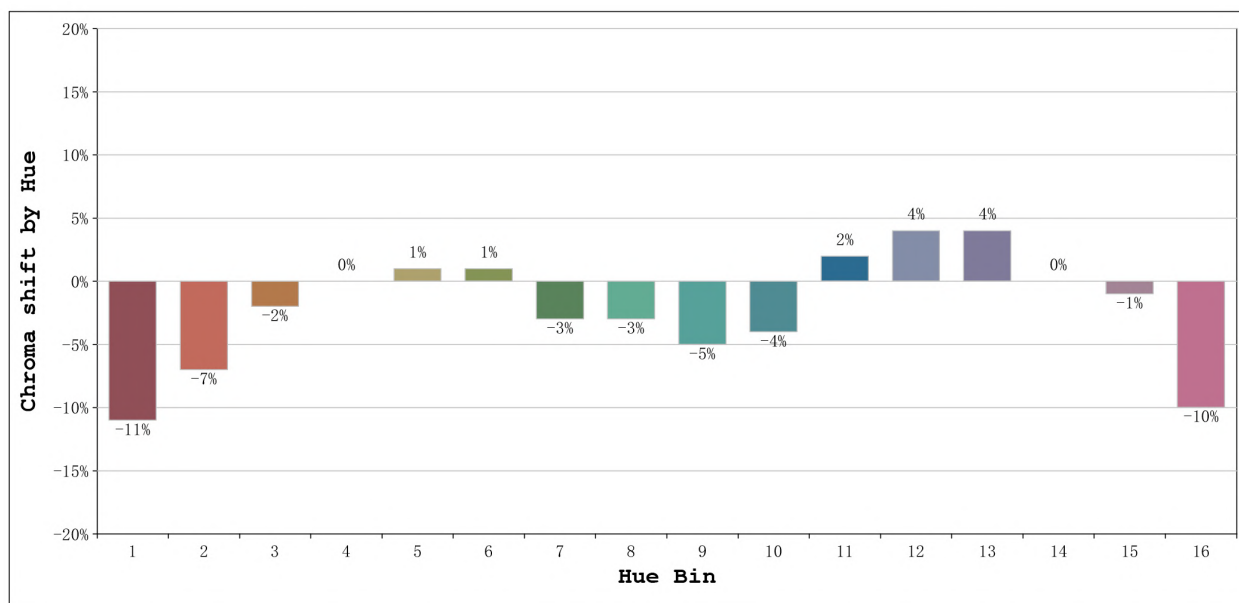
Model:Ecoled Gandia blanco  
 Tester:Sergio Carneros  
 Temperature:20Deg  
 Manufacturer:Luz Negra

Number: 33.193  
 Date:17-11-2023 11:01:24  
 Humidity:57%  
 Remarks:100cm de tira flexible



Model:Ecoled Gandia blanco  
 Tester:Sergio Carneros  
 Temperature:20Deg  
 Manufacturer:Luz Negra

Number: 33.193  
 Date:17-11-2023      11:01:24  
 Humidity:57%  
 Remarks:100cm de tira flexible



Hue Bin	Hue Angle	Rf	Graphic shift(%)	
			Chroma	Hue
1	0.0° - 22.5°	75	-11	1
2	22.5° - 45.0°	79	-7	6
3	45.0° - 67.5°	76	-2	10
4	67.5° - 90.0°	90	0	4
5	90.0° - 112.5°	94	1	3
6	112.5° - 135.0°	93	1	0
7	135.0° - 157.5°	87	-3	-5
8	157.5° - 180.0°	92	-3	0
9	180.0° - 202.5°	87	-5	3
10	202.5° - 225.0°	83	-4	8
11	225.0° - 247.5°	84	2	10
12	247.5° - 270.0°	85	4	4
13	270.0° - 292.5°	88	4	-9
14	292.5° - 315.0°	63	0	-21
15	315.0° - 337.5°	82	-1	-10
16	337.5° - 360.0°	71	-10	-11

Model:Ecoled Gandia blanco  
Tester:Sergio Carneros  
Temperature:20Deg  
Manufacturer:Luz Negra

Number: 33.193  
Date:17-11-2023 11:01:24  
Humidity:57%  
Remarks:100cm de tira flexible