

MEDIUM BRIGHTNESS

Ref: 32.086	6000°K
Ref: 32.087	4000°K
Ref: 32.088	3000°K
Ref: 32.089	Red
Ref: 32.090	Green
Ref: 32.085	Blue

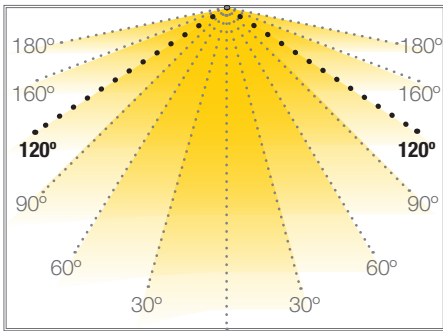
Single-coloured "PRO" flexible strip
IP20 with 266 leds/metre 2110SMD.

Requires use with led profile to permit dissipation.

4mm PCB

Daily recommended use: 18h
Maximum connection in open circuit: 3m
Maximum connection in closed circuit: 6m
Estimated lifespan: 50000h *

* Depending on the dissipation of the profile, the daily working hours and the external environmental working temperature

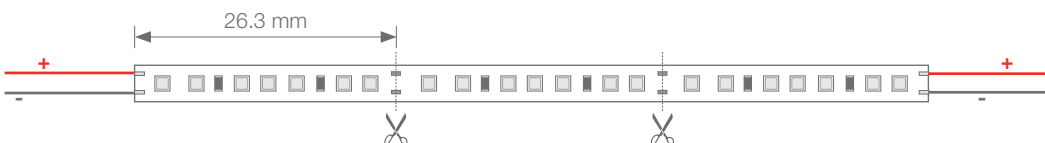
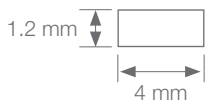


CIES PRO

FLEXIBLE STRIP

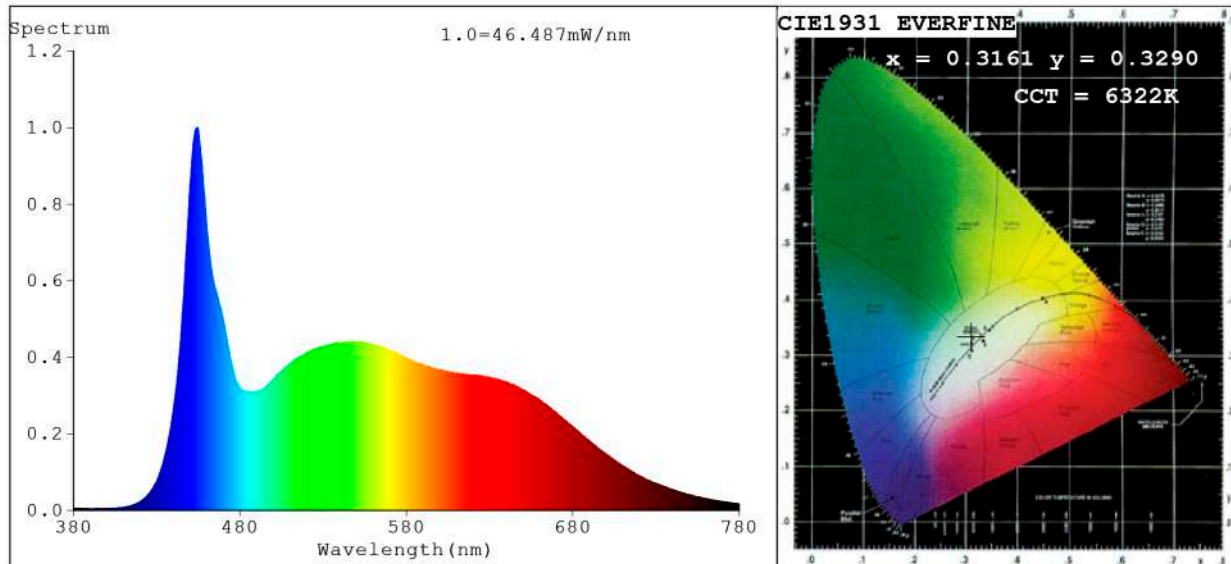


Power (W)	12W/m
Voltage (V)	24V
Led type	SMD2010
Lumens (6000°K)	1358 Lm/m
Lumens (4000°K)	1410 Lm/m
Lumens (3000°K)	1315 Lm/m
Lumens (Red)	123 Lm/m
Lumens (Green)	842 Lm/m
Lumens (Blue)	226 Lm/m
CRI	>85
Light emission	120°
Waterproofing	IP20
N° leds/m	266
Measurements	5000x4x1.2mm
Cutable	every 26.3mm
PCB	4mm
Working temperature	-40°C / +60°C
Apt for	indoor
Packaging	1 roll/5m
Guarantee	3 years



Approved by: 

Spectrum Test Report



Color Parameters:

Chromaticity Coordinate: $x=0.3161$ $y=0.3290$ / $u'=0.2002$ $v'=0.4689$
 CCT=6322K(Duv=0.0015) Dominant WL:Ld =488.5nm Purity=6.1%
 Ratio:R=15.3% G=78.1% B=6.6%; Peak WL:Lp=454.6nm FWHM=24.6nm
 Render Index:Ra=93.8 CRI=91.2 TM30:Rf=89 Rg=99 Lav=551.4nm
 R1 =95 R2 =97 R3 =95 R4 =91 R5 =92 R6 =92 R7 =95
 R8 =92 R9 =84 R10=91 R11=92 R12=65 R13=96 R14=98 R15=94

Photo Parameters:

Flux = 1358 lm Eff. : 115.71 lm/W Fe = 5.012 W Scotopic:3202.4 S/P:2.3576

Electrical parameters:

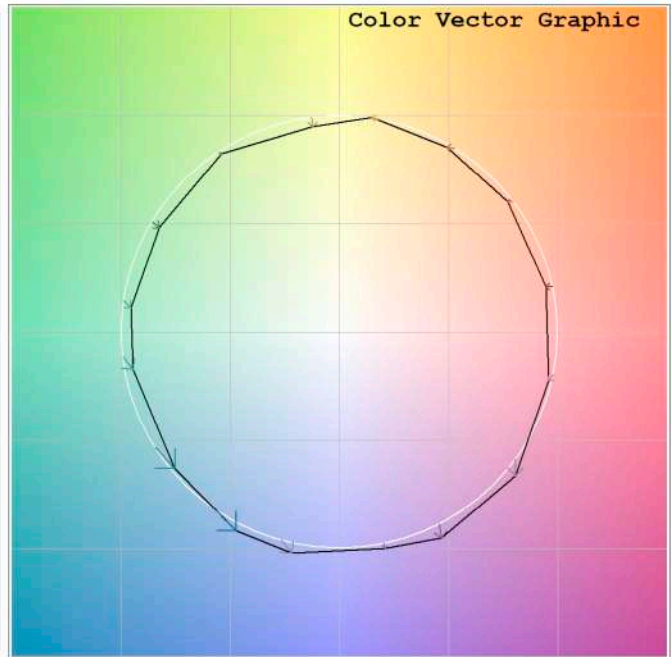
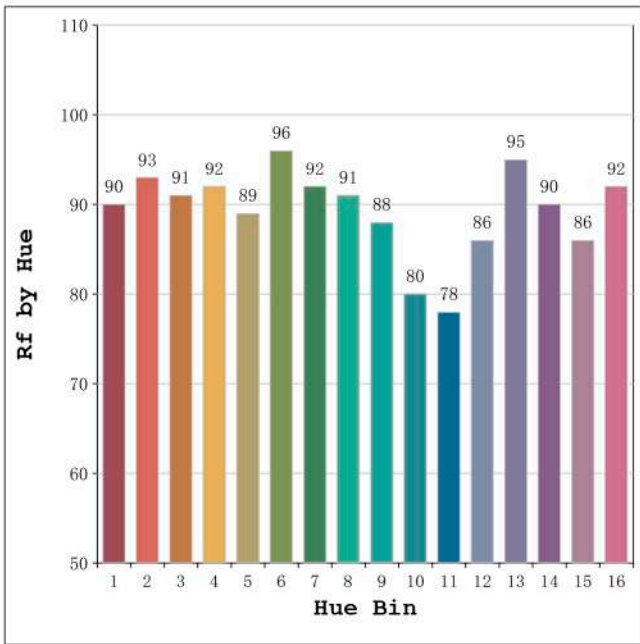
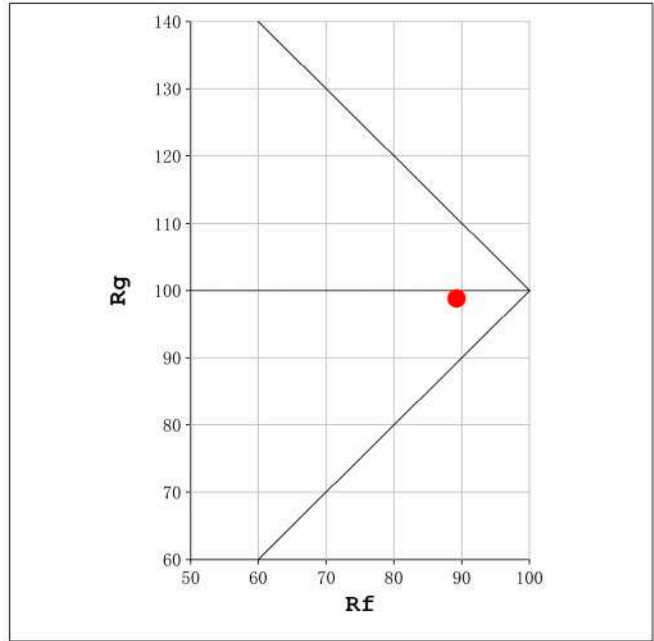
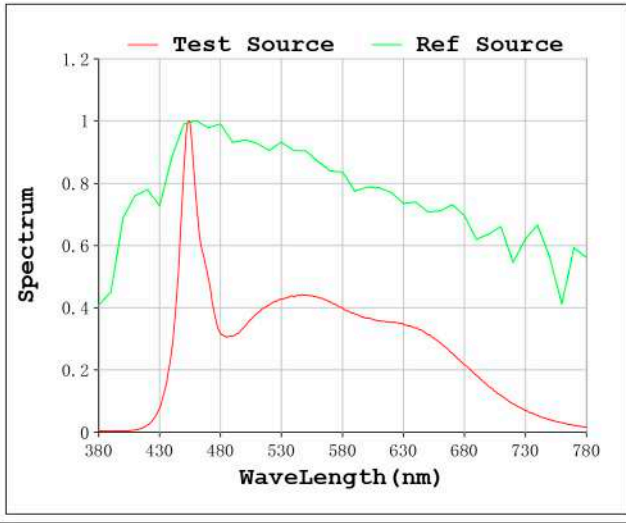
V = 23.998 V I = 0.4892 A P = 11.74 W PF = 1.000

Status: Integral T = 602 ms Ip = 42673 (65%)

Model:Ecoled Cies pro 6000K
 Tester:Sergio Carneros
 Temperature:25Deg
 Manufacturer:Luz Negra.S.L

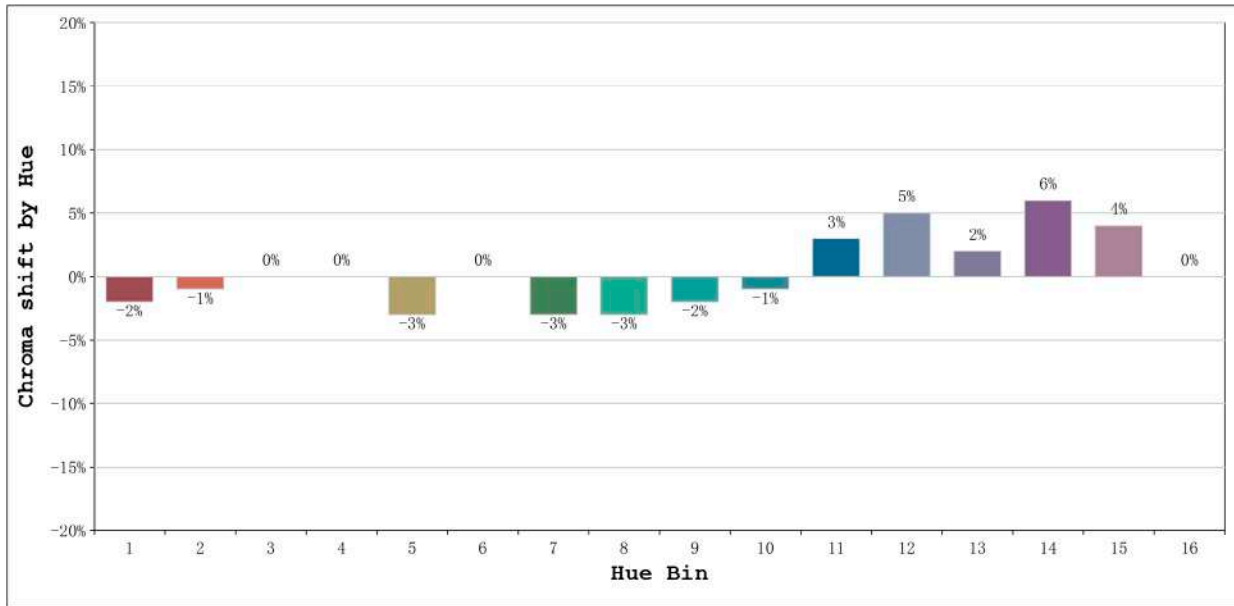
Number: 32.086
 Date:26-5-2021
 Humidity:57%
 Remarks:100cm Tira flexible

Rf: 89 CCT: 6322 K u': 0.2002
Rg: 99 Duv: 0.0015 v': 0.4689



Model:Ecoled Cies pro 6000K
Tester:Sergio Carneros
Temperature:25Deg
Manufacturer:Luz Negra.S.L

Number: 32.086
Date:26-5-2021
Humidity:57%
Remarks:100cm Tira flexible

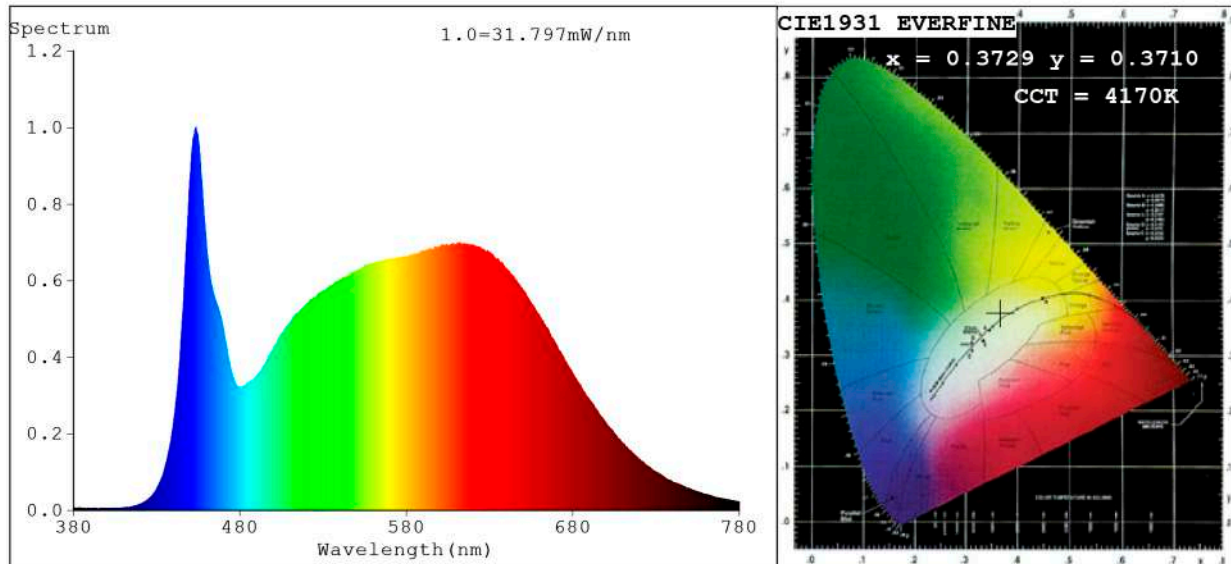


Hue Bin	Hue Angle	Rf	Graphic shift(%)	
			Chroma	Hue
1	0.0° - 22.5°	90	-2	1
2	22.5° - 45.0°	93	-1	2
3	45.0° - 67.5°	91	0	3
4	67.5° - 90.0°	92	0	4
5	90.0° - 112.5°	89	-3	0
6	112.5° - 135.0°	96	0	0
7	135.0° - 157.5°	92	-3	0
8	157.5° - 180.0°	91	-3	3
9	180.0° - 202.5°	88	-2	7
10	202.5° - 225.0°	80	-1	13
11	225.0° - 247.5°	78	3	13
12	247.5° - 270.0°	86	5	6
13	270.0° - 292.5°	95	2	0
14	292.5° - 315.0°	90	6	-2
15	315.0° - 337.5°	86	4	-5
16	337.5° - 360.0°	92	0	-2

Model:Ecoled Cies pro 6000K
Tester:Sergio Carneros
Temperature:25Deg
Manufacturer:Luz Negra.S.L

Number: 32.086
Date:26-5-2021
Humidity:57%
Remarks:100cm Tira flexible

Spectrum Test Report



Color Parameters:

Chromaticity Coordinate: $x=0.3729$ $y=0.3710$ / $u'=0.2225$ $v'=0.4979$
 CCT=4170K(Duv=-0.0005) Dominant WL:Ld =578.7nm Purity=23.2%
 Ratio:R=19.2% G=76.2% B=4.5%; Peak WL:Lp=453.6nm FWHM=23.5nm
 Render Index:Ra=93.0 CRI=89.6 TM30:Rf=89 Rg=98 Lav=576.3nm
 R1 =94 R2 =97 R3 =97 R4 =91 R5 =92 R6 =93 R7 =94
 R8 =87 R9 =69 R10=90 R11=91 R12=67 R13=95 R14=98 R15=92

Photo Parameters:

Flux = 1410 lm Eff. : 121.75 lm/W Fe = 4.857 W Scotopic:2611.6 S/P:1.8526

Electrical parameters:

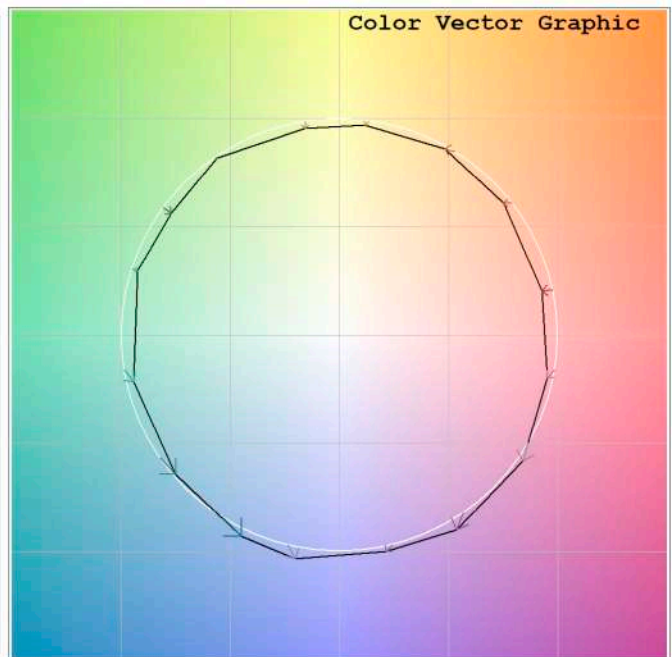
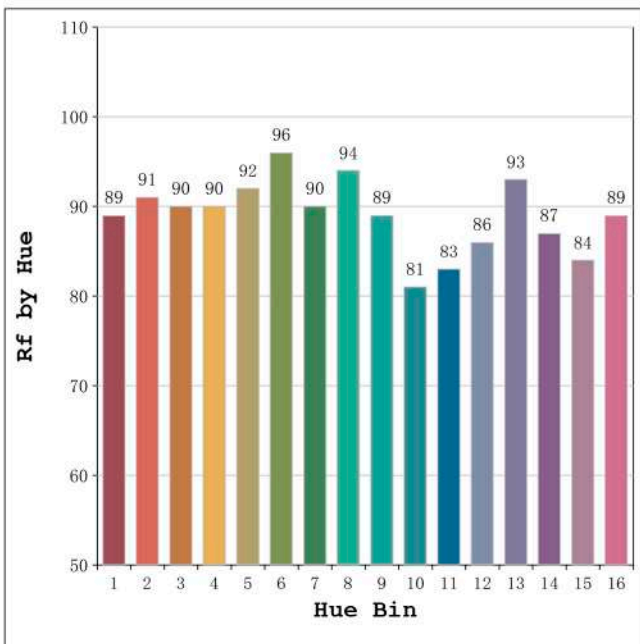
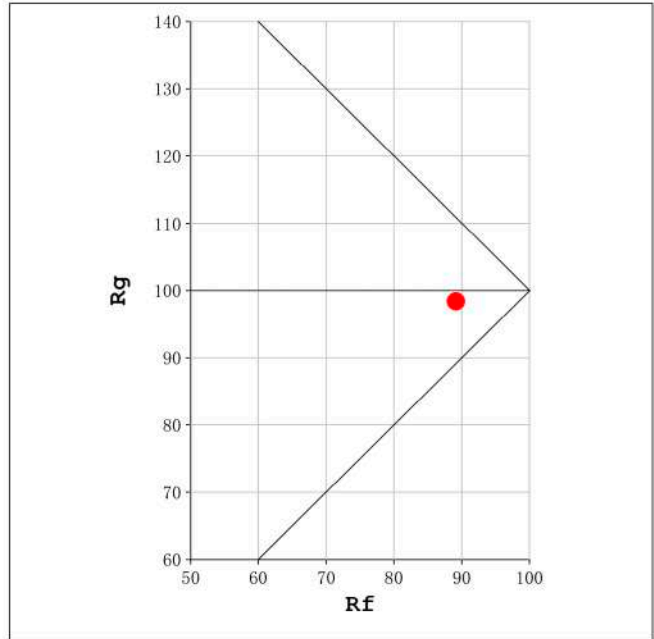
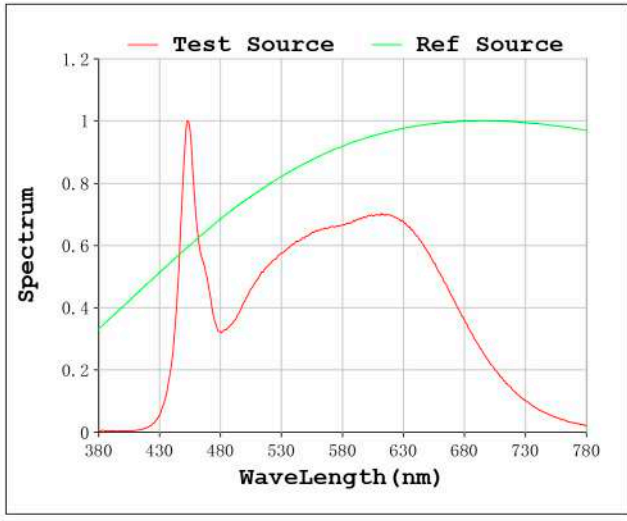
V = 23.998 V I = 0.4825 A P = 11.58 W PF = 1.000

Status: Integral T = 500 ms Ip = 23895 (36%)

Model:Ecoled Cies pro 4000K
 Tester:Sergio Carneros
 Temperature:25Deg
 Manufacturer:Luz Negra

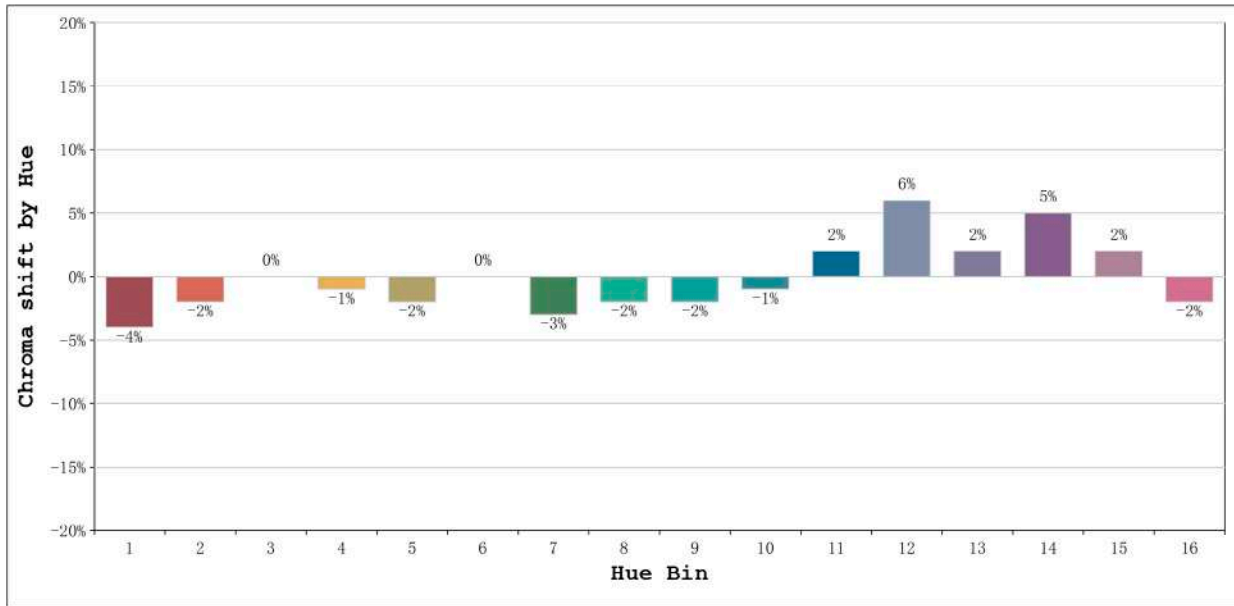
Number: 32.087
 Date:26-5-2021
 Humidity:57%
 Remarks:100cm Tira flexible

Rf: 89 CCT: 4170 K u': 0.2225
Rg: 98 Duv: -0.0005 v': 0.4979



Model:Ecoled Cies pro 4000K
Tester:Sergio Carneros
Temperature:25Deg
Manufacturer:Luz Negra

Number: 32.087
Date:26-5-2021
Humidity:57%
Remarks:100cm Tira flexible

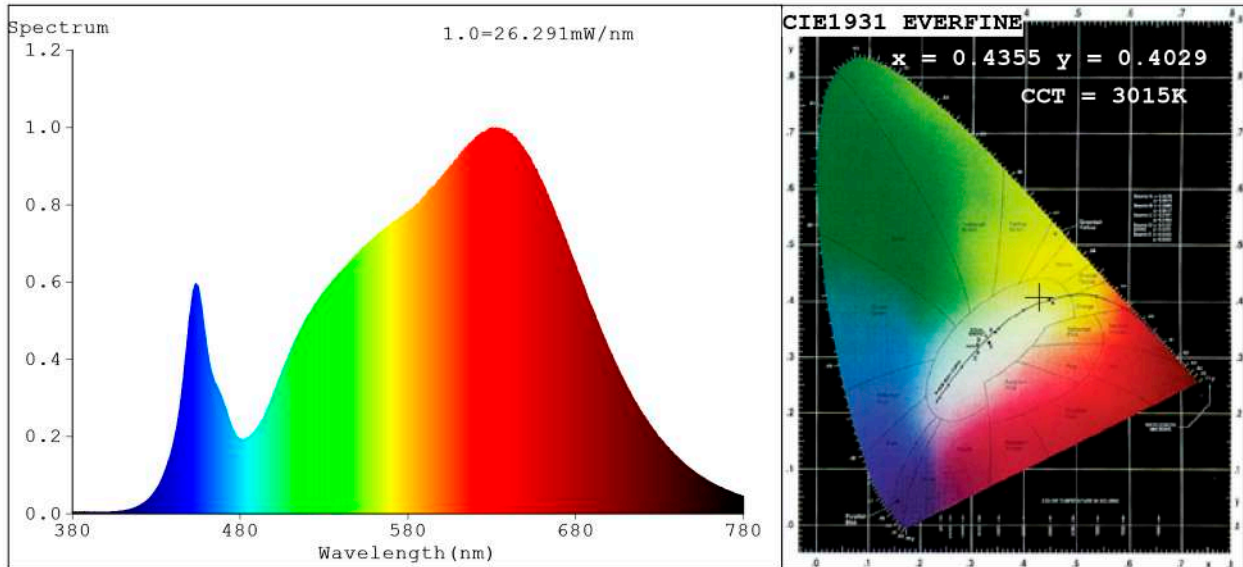


Hue Bin	Hue Angle	Rf	Graphic shift (%)	
			Chroma	Hue
1	0.0° - 22.5°	89	-4	1
2	22.5° - 45.0°	91	-2	2
3	45.0° - 67.5°	90	0	4
4	67.5° - 90.0°	90	-1	1
5	90.0° - 112.5°	92	-2	1
6	112.5° - 135.0°	96	0	0
7	135.0° - 157.5°	90	-3	0
8	157.5° - 180.0°	94	-2	1
9	180.0° - 202.5°	89	-2	6
10	202.5° - 225.0°	81	-1	10
11	225.0° - 247.5°	83	2	12
12	247.5° - 270.0°	86	6	4
13	270.0° - 292.5°	93	2	-2
14	292.5° - 315.0°	87	5	-6
15	315.0° - 337.5°	84	2	-7
16	337.5° - 360.0°	89	-2	-3

Model:Ecoled Cies pro 4000K
Tester:Sergio Carneros
Temperature:25Deg
Manufacturer:Luz Negra

Number: 32.087
Date:26-5-2021
Humidity:57%
Remarks:100cm Tira flexible

Spectrum Test Report



Color Parameters:

Chromaticity Coordinate: $x=0.4355$ $y=0.4029$ / $u'=0.2501$ $v'=0.5207$
 CCT=3015K (Duv=-0.0003) Dominant WL:Ld =582.8nm Purity=51.7%
 Ratio:R=24.1% G=73.4% B=2.6%; Peak WL:Lp=630.3nm FWHM=174.1nm
 Render Index:Ra=92.8 CRI=89.7 TM30:Rf=91 Rg=101 Lav=606.4nm
 R1 =94 R2 =95 R3 =93 R4 =93 R5 =92 R6 =91 R7 =96
 R8 =89 R9 =74 R10=85 R11=92 R12=73 R13=94 R14=95 R15=92

Photo Parameters:

Flux = 1315 lm Eff. : 108.54 lm/W Fe = 4.790 W Scotopic:1828 S/P:1.3903

Electrical parameters:

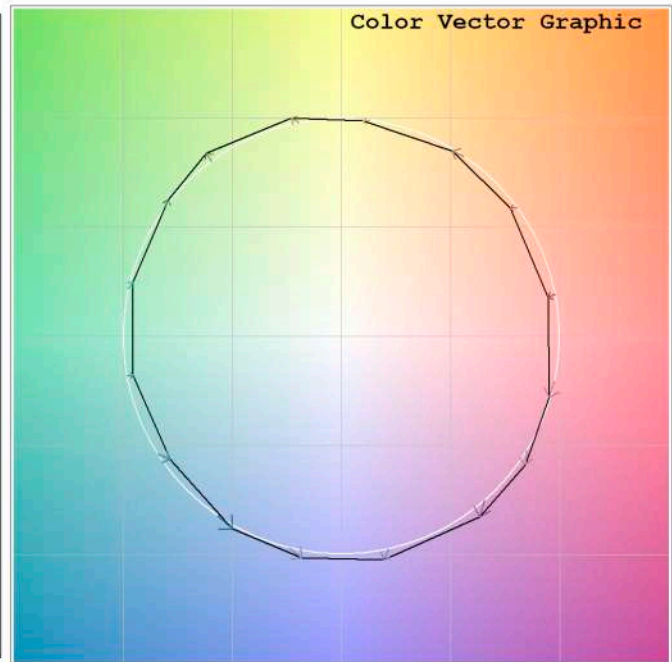
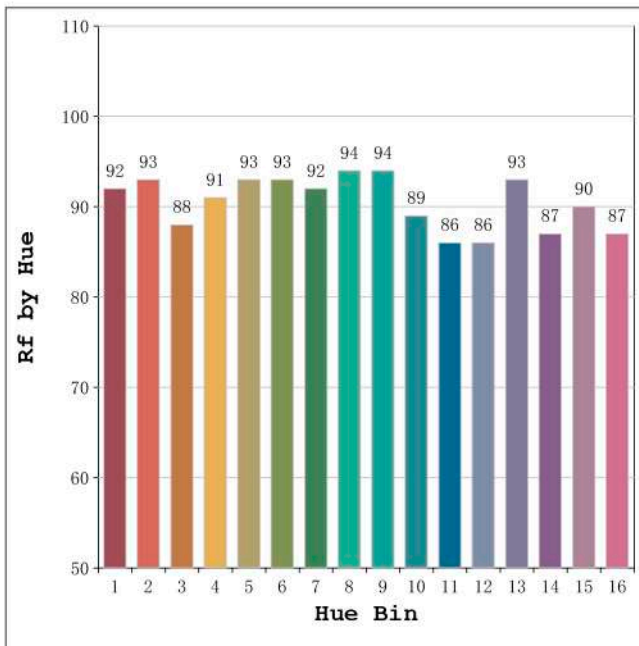
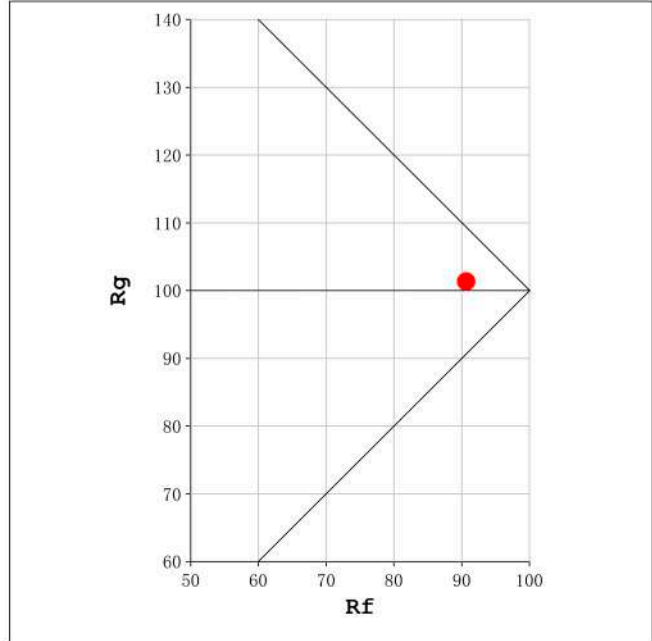
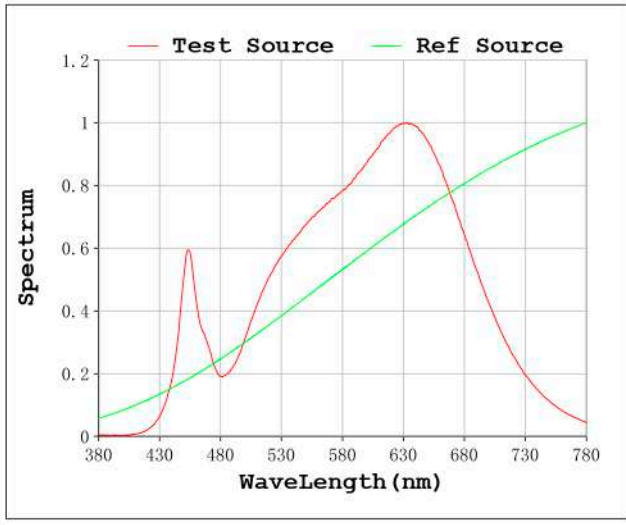
V = 23.998 V I = 0.5048 A P = 12.11 W PF = 1.000

Status: Integral T = 1205 ms Ip = 52848 (81%)

Model:Ecoled Cies pro 3000K
 Tester:Sergio Carneros
 Temperature:25Deg
 Manufacturer:Luz Negra.S.L

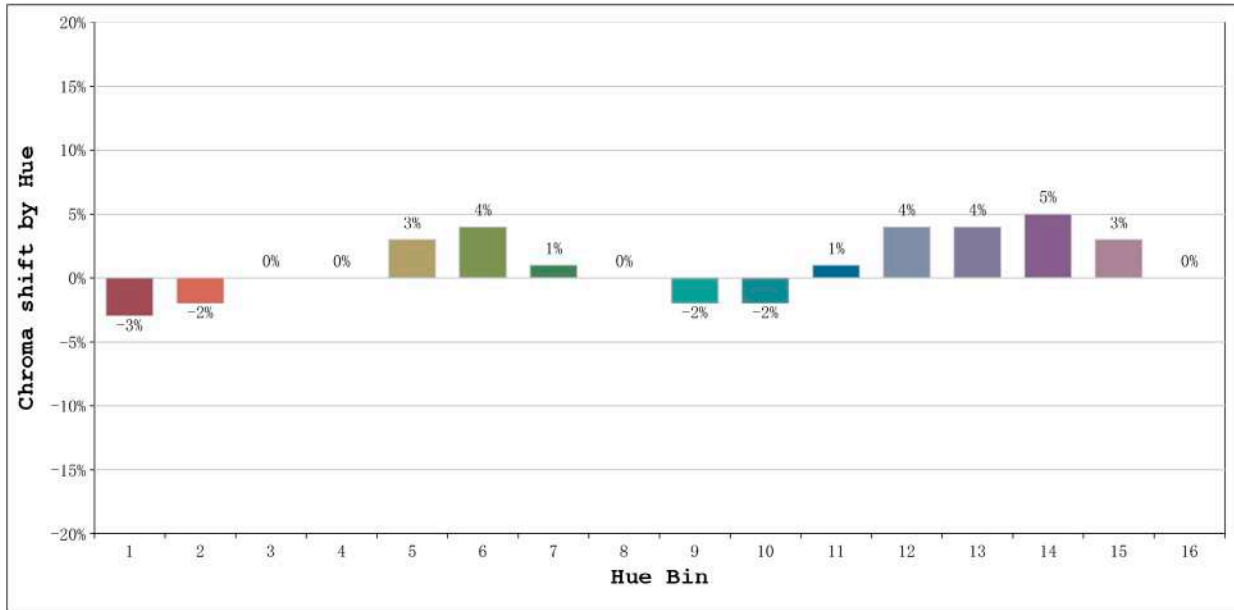
Number: 32.088
 Date:26-5-2021
 Humidity:57%
 Remarks:100cm Tira flexible

Rf: 91 CCT: 3015 K u': 0.2501
Rg: 101 Duv: -0.0003 v': 0.5207



Model:Ecoled Cies pro 3000K
Tester:Sergio Carneros
Temperature:25Deg
Manufacturer:Luz Negra.S.L

Number: 32.088
Date:26-5-2021
Humidity:57%
Remarks:100cm Tira flexible

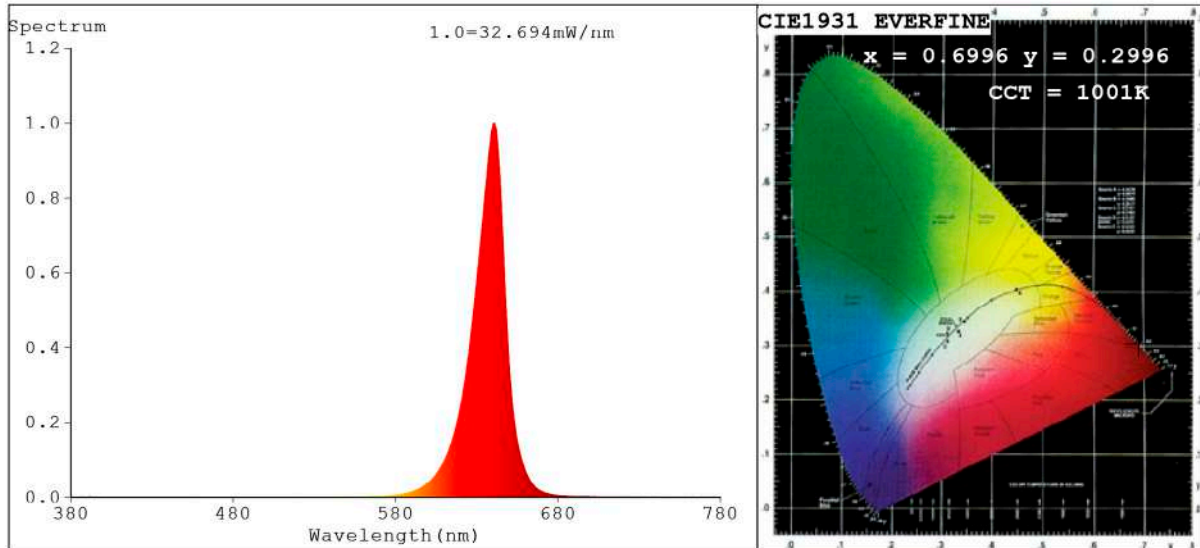


Hue Bin	Hue Angle	Rf	Graphic shift(%)	
			Chroma	Hue
1	0.0° - 22.5°	92	-3	0
2	22.5° - 45.0°	93	-2	2
3	45.0° - 67.5°	88	0	6
4	67.5° - 90.0°	91	0	3
5	90.0° - 112.5°	93	3	3
6	112.5° - 135.0°	93	4	0
7	135.0° - 157.5°	92	1	-3
8	157.5° - 180.0°	94	0	-2
9	180.0° - 202.5°	94	-2	0
10	202.5° - 225.0°	89	-2	5
11	225.0° - 247.5°	86	1	9
12	247.5° - 270.0°	86	4	7
13	270.0° - 292.5°	93	4	-2
14	292.5° - 315.0°	87	5	-5
15	315.0° - 337.5°	90	3	-5
16	337.5° - 360.0°	87	0	-7

Model:Ecoled Cies pro 3000K
 Tester:Sergio Carneros
 Temperature:25Deg
 Manufacturer:Luz Negra.S.L

Number: 32.088
 Date:26-5-2021
 Humidity:57%
 Remarks:100cm Tira flexible

Spectrum Test Report



Color Parameters:

Chromaticity Coordinate: $x=0.6996$ $y=0.2996$ / $u'=0.5386$ $v'=0.5189$
 CCT=1001K (Duv=-0.0911) Dominant WL:Ld =624.9nm Purity=99.8%
 Ratio:R=94.7% G=5.2% B=0.0%; Peak WL:Lp=640.7nm FWHM=20.0nm
 Render Index:Ra=32.8 CRI=37.1 TM30:Rf=38 Rg=-1 Lav=637.4nm
 R1 =16 R2 =79 R3 =44 R4 =0 R5 =14 R6 =87 R7 =23
 R8 =0 R9 =0 R10=74 R11=0 R12=80 R13=35 R14=67 R15=0

Photo Parameters:

Flux = 123.6 lm Eff. : 8.44 lm/W Fe = 792.7 mW Scotopic:6.6645 S/P:0.053909

Electrical parameters:

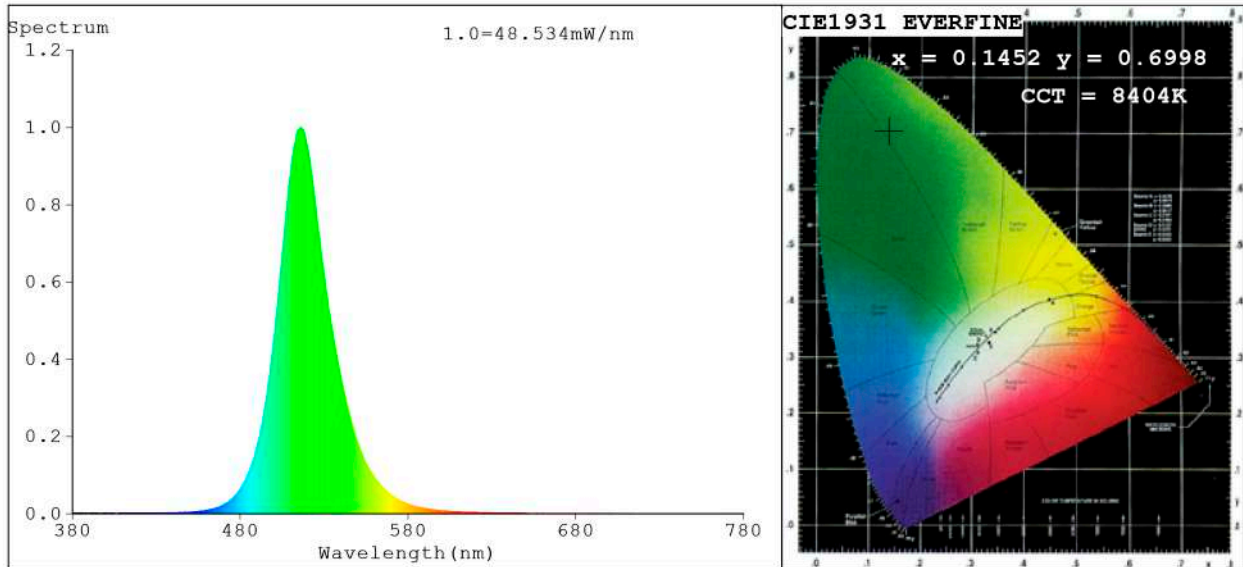
V = 23.998 V I = 0.6101 A P = 14.64 W PF = 1.000

Status: Integral T = 1013 ms Ip = 52447 (80%)

Model:Ecoled Cies pro Rojo
 Tester:Sergio Carneros
 Temperature:25Deg
 Manufacturer:Luz Negra.S.L

Number: 32.089
 Date:26-5-2021
 Humidity:57%
 Remarks:100cm Tira flexible

Spectrum Test Report



Color Parameters:

Chromaticity Coordinate: $x=0.1452$ $y=0.6998$ $u'=0.0523$ $v'=0.5670$
 CCT=8404K (Duv=0.1616) Dominant WL:Ld =520.3nm Purity=73.2%
 Ratio:R=0.3% G=95.9% B=3.8%;;Peak WL:Lp=516.0nm FWHM=32.5nm
 Render Index:Ra=0.1 CRI=3.1 TM30:Rf=1 Rg=9 Lav=518.5nm
 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=43 R15=0

Photo Parameters:

Flux = 842.5 lm Eff. : 76.95 lm/W Fe = 1.900 W Scotopic:2719 S/P:3.2275

Electrical parameters:

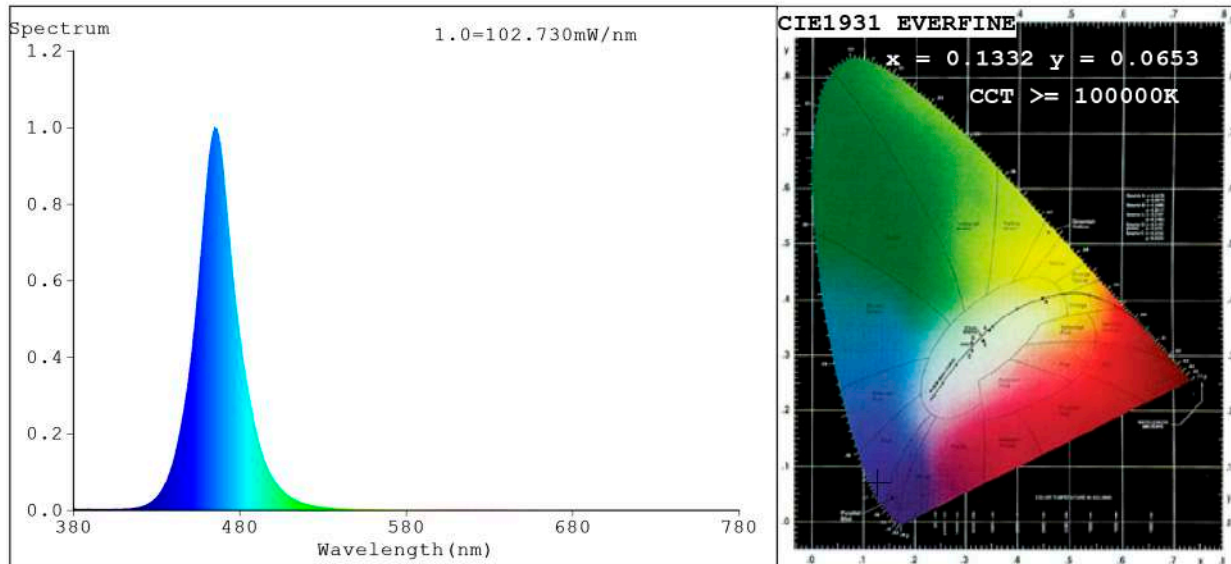
V = 23.998 V I = 0.4562 A P = 10.95 W PF = 1.000

Status: Integral T = 500 ms Ip = 49889 (76%)

Model:Ecoled Cies pro Verde
 Tester:Sergio Carneros
 Temperature:25Deg
 Manufacturer:Luz Negra.S.L

Number: 32.090
 Date:26-5-2021
 Humidity:57%
 Remarks:100cm Tira flexible

Spectrum Test Report



Color Parameters:

Chromaticity Coordinate:x=0.1332 y=0.0653/u'=0.1514 v'=0.1671
 CCT=100000K(Duv=0.1573) Dominant WL:Ld =469.4nm Purity=96.4%
 Ratio:R=0.3% G=17.9% B=81.8%; Peak WL:Lp=464.9nm FWHM=25.2nm
 Render Index:Ra=0.1 CRI=0.1 TM30:Rf=0 Rg=-79
 R1 =0 R2 =0 R3 =0 R4 =0 R5 =1 R6 =0 R7 =0
 R8 =0 R9 =0 R10=0 R11=0 R12=0 R13=0 R14=0 R15=0

Photo Parameters:

Flux = 226.2 lm Eff. : 16.93 lm/W Fe = 3.156 W Scotopic:3417.8 S/P:15.108

Electrical parameters:

V = 23.998 V I = 0.5567 A P = 13.36 W PF = 1.000

Status: Integral T = 250 ms Ip = 44677 (68%)

Model:Ecoled Cies pro azul	Number: 32.085
Tester:Sergio Carneros	Date:26-5-2021
Temperature:27Deg	Humidity:35%
Manufacturer:Luz Negra S.L.	Remarks:100cm de tira flexible