



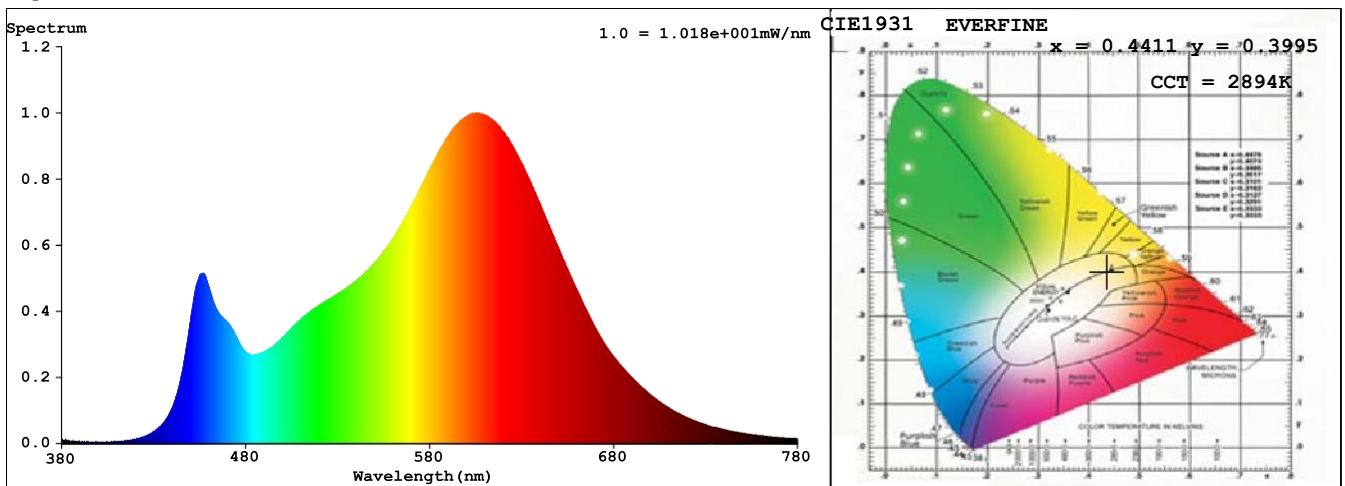
Spectrum Test Report

Sample	: E24W830RGBW	Date	: 2019-04-17 17:17:46
Specification	: 5050 60LED 12MM 24V 19.2W RGBW 4in1 IP68 1M		
Sample No.	: LD19040302#32	Instrument	: HaasSuite(EVERFINE)
Manufacturer	:	Test by	: Velleman
Assessor	:		
Remark	:		

Test Condition

Temperature	: 25.3Deg	RH	: 65.0%
WL Range	: 380nm-780nm	IP	: 52598 (80%)
Test Mode	: Fast Test	T	: 362 ms
		Sensitivity	: High

Spectrum



Spectral Distribution

CIE1931 Chromaticity Diagram

Colorimetric Parameters

Chromaticity Coordinate: $x = 0.4411$ $y = 0.3995$ / $u' = 0.2552$ $v' = 0.5202$ ($duv = -2.35e-03$)

CCT= 2894K Prcp WL: $L_d = 584.1\text{nm}$ Purity=52.3%

Peak WL: $L_p = 605\text{nm}$ FWHM: =115.4nm Ratio:R=24.2% G=72.6% B=3.2%

Render Index: $R_a = 84.1$ CRI = 80.3 AvgR = 80.0 TM30:Rf=82 Rg=95

R1 =85 R2 =97 R3 =90 R4 =81 R5 =86 R6 =95 R7 =80

R8 =59 R9 =15 R10=92 R11=81 R12=79 R13=88 R14=95 R15=77

LEVEL:OUT WHITE:ANSI_3000K

Photometric & Radiometric Parameters

Flux = 474.46 lm Eff. : 91.83 lm/W Fe = 1.4728 W

Flux of emitted photons($\mu\text{mol/s}$):7.1581 Flu. and blue light ratio:7.823 Fluorescent eff.:252.8

Electrical parameters

V = 24.00 V I = 0.2153 A P = 5.167 W PF = 1.000 F=0.00 Hz



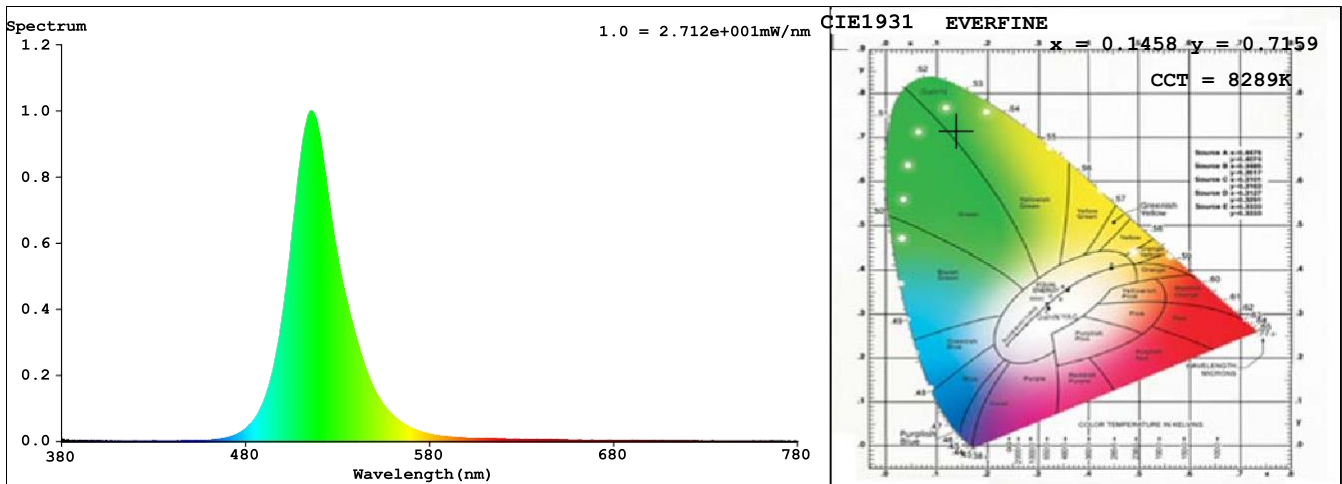
Spectrum Test Report

Sample : E24W830RGBW Date : 2019-04-17 17:19:23
 Specification : 5050 60LED 12MM 24V 19.2W RGBW 4in1 IP68 1M
 Sample No. : LD19040302#32 Instrument : HaasSuite(EVERFINE)
 Manufacturer : Test by : Velleman
 Assessor :
 Remark :

Test Condition

Temperature : 25.3Deg RH : 65.0%
 WL Range : 380nm-780nm IP : 53019 (81%)
 Test Mode : Fast Test T : 153 ms
 Sensitivity : High

Spectrum



Spectral Distribution

CIE1931 Chromaticity Diagram

Colorimetric Parameters

Chromaticity Coordinate: $x = 0.1458$ $y = 0.7159$ / $u' = 0.0516$ $v' = 0.5702$ ($duv=1.63e-01$)

CCT= 8289K Prcp WL: $L_d=521.8\text{nm}$ Purity=76.5%

Peak WL: $L_p=516\text{nm}$ FWHM: $=29.1\text{nm}$ Ratio:R=0.5% G=96.4% B=3.0%

Render Index: $R_a = 0.0$ CRI = 2.6 AvgR = 2.5 TM30:Rf=0 Rg=8

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

LEVEL:OUT WHITE:OUT

Photometric & Radiometric Parameters

Flux = 434.36 lm Eff. : 85.58 lm/W $F_e = 970.11$ mW

Flux of emitted photons($\mu\text{mol/s}$):4.2277 Flu. and blue light ratio:103.8 Fluorescent eff.:189.3

Electrical parameters

V = 24.00 V I = 0.2115 A P = 5.076 W PF = 1.000 F=0.00 Hz



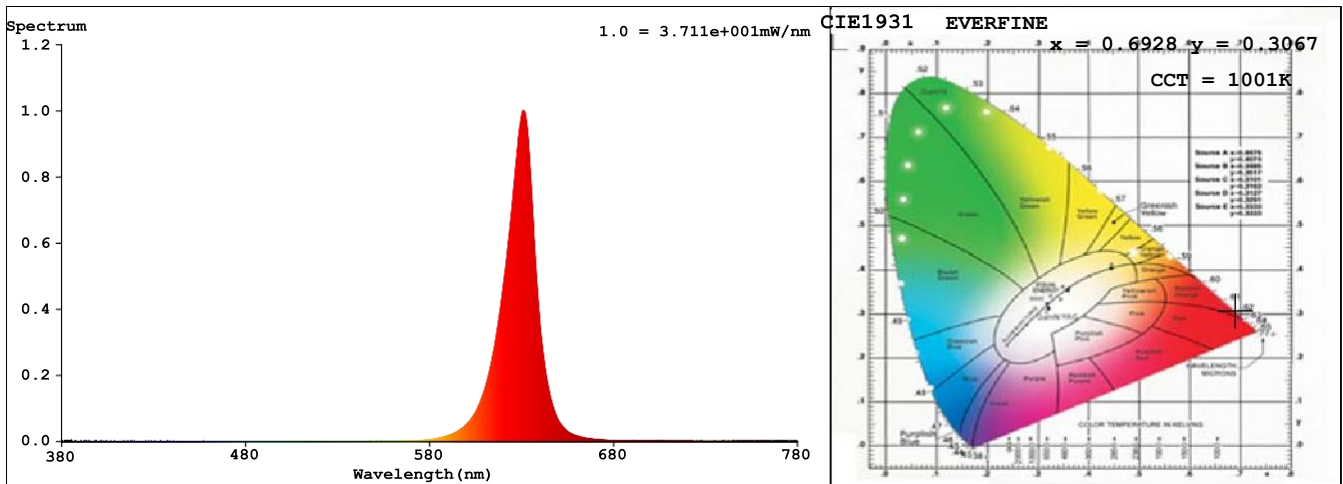
Spectrum Test Report

Sample	: E24W830RGBW	Date	: 2019-04-17 17:19:48
Specification	: 5050 60LED 12MM 24V 19.2W RGBW 4in1 IP68 1M		
Sample No.	: LD19040302#32	Instrument	: HaasSuite(EVERFINE)
Manufacturer	:	Test by	: Velleman
Assessor	:		
Remark	:		

Test Condition

Temperature	: 25.3Deg	RH	: 65.0%
WL Range	: 380nm-780nm	IP	: 53421 (82%)
Test Mode	: Fast Test	T	: 110 ms
		Sensitivity	: High

Spectrum



Spectral Distribution

CIE1931 Chromaticity Diagram

Colorimetric Parameters

Chromaticity Coordinate: $x = 0.6928$ $y = 0.3067$ / $u' = 0.5233$ $v' = 0.5213$ ($duv = -7.57e-02$)

CCT= 1001K Prcp WL: $L_d = 620.8\text{nm}$ Purity=99.9%

Peak WL: $L_p = 631\text{nm}$ FWHM: =17.1nm Ratio:R=95.0% G=5.0% B=0.0%

Render Index: $R_a = 27.8$ CRI = 33.3 AvgR = 31.0 TM30:Rf=11 Rg=-1

R1 =9 R2 =78 R3 =33 R4 =0 R5 =4 R6 =89 R7 =9

R8 =0 R9 =0 R10=72 R11=0 R12=79 R13=31 R14=61 R15=0

LEVEL:OUT WHITE:OUT

Photometric & Radiometric Parameters

Flux = 160.27 lm Eff. : 32.08 lm/W $F_e = 786.43$ mW

Flux of emitted photons($\mu\text{mol/s}$):4.1225 Fluo. and blue light ratio:4162 Fluorescent eff.:157.4

Electrical parameters

V = 24.00 V I = 0.2082 A P = 4.996 W PF = 1.000 F=0.00 Hz



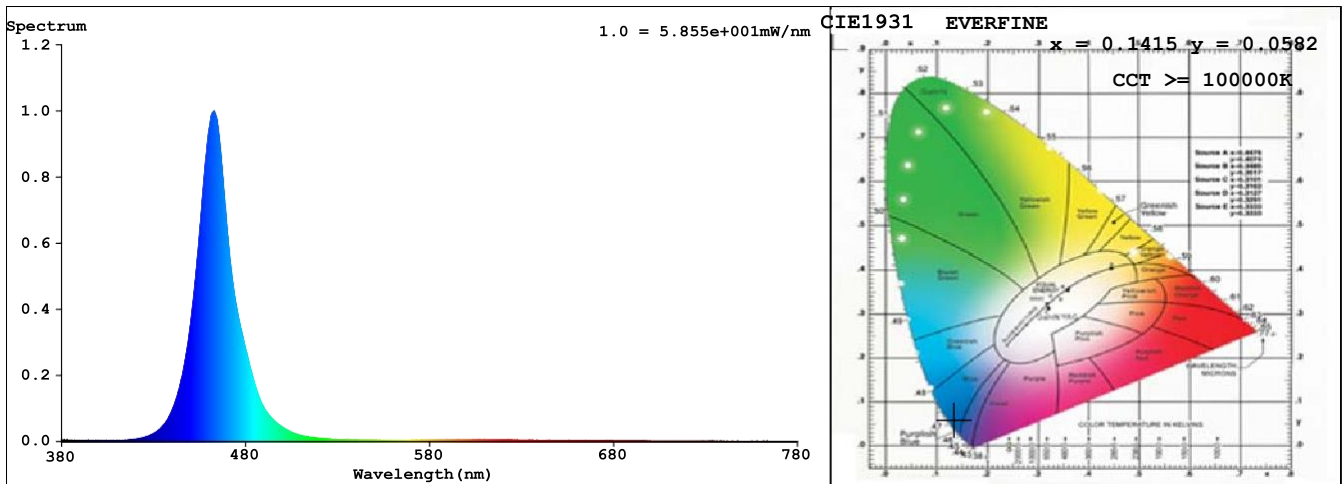
Spectrum Test Report

Sample : E24W830RGBW Date : 2019-04-17 17:20:06
 Specification : 5050 60LED 12MM 24V 19.2W RGBW 4in1 IP68 1M
 Sample No. : LD19040302#32 Instrument : HaasSuite(EVERFINE)
 Manufacturer : Test by : Velleman
 Assessor :
 Remark :

Test Condition

Temperature : 25.3Deg RH : 65.0%
 WL Range : 380nm-780nm IP : 53984 (82%)
 Test Mode : Fast Test T : 110 ms
 Sensitivity : High

Spectrum



Spectral Distribution

CIE1931 Chromaticity Diagram

Colorimetric Parameters

Chromaticity Coordinate: $x = 0.1415$ $y = 0.0582$ / $u' = 0.1657$ $v' = 0.1534$ ($duv=1.64e-01$)

$CCT \geq 100000K$ Prcp WL: $L_d=466.6nm$ Purity= 95.3%

Peak WL: $L_p=463nm$ FWHM: $=19.6nm$ Ratio: $R=2.7\%$ $G=19.4\%$ $B=77.9\%$

Render Index: $R_a = 5.7$ $CRI = 3.3$ $AvgR = 4.6$ $TM30:R_f=0$ $R_g=-316$

$R_1 = 18$ $R_2 = 0$ $R_3 = 0$ $R_4 = 0$ $R_5 = 28$ $R_6 = 0$ $R_7 = 0$

$R_8 = 0$ $R_9 = 0$ $R_{10} = 0$ $R_{11} = 0$ $R_{12} = 0$ $R_{13} = 0$ $R_{14} = 0$ $R_{15} = 24$

LEVEL:OUT WHITE:OUT

Photometric & Radiometric Parameters

Flux = 101.29 lm Eff. : 19.79 lm/W Fe = 1.5001 W

Flux of emitted photons($\mu mol/s$):5.8542 Flu. and blue light ratio:0.1587 Fluorescent eff.:40.19

Electrical parameters

$V = 24.00 V$ $I = 0.2133 A$ $P = 5.119 W$ $PF = 1.000$ $F=0.00 Hz$



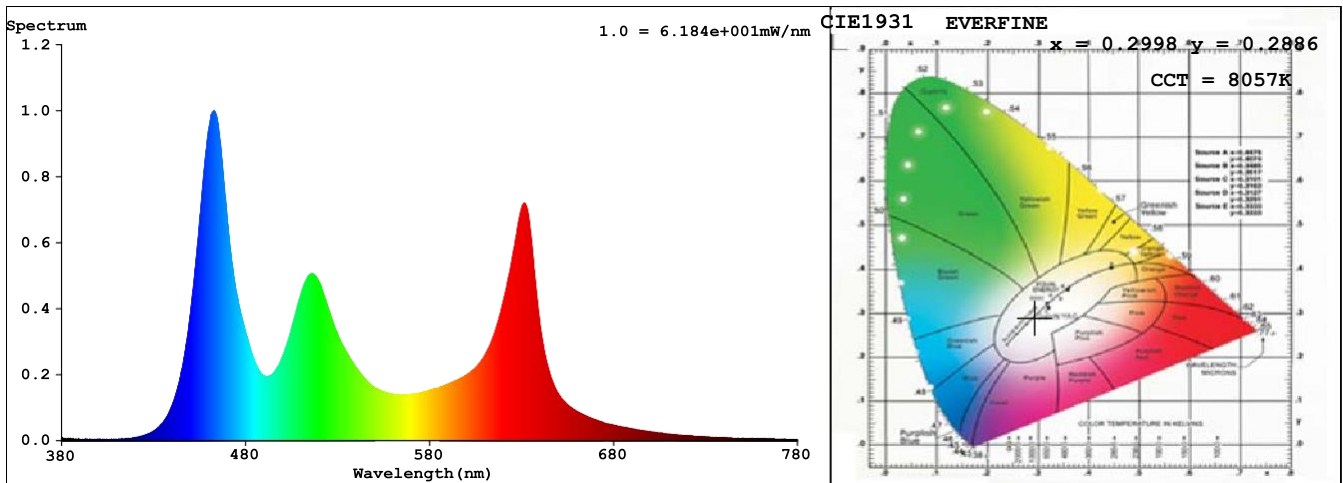
Spectrum Test Report

Sample	: E24W830RGBW	Date	: 2019-04-17 17:20:35
Specification	: 5050 60LED 12MM 24V 19.2W RGBW 4in1 IP68 1M		
Sample No.	: LD19040302#32	Instrument	: HaasSuite(EVERFINE)
Manufacturer	:	Test by	: Velleman
Assessor	:		
Remark	:		

Test Condition

Temperature	: 25.3Deg	RH	: 65.0%
WL Range	: 380nm-780nm	IP	: 52299 (80%)
Test Mode	: Fast Test	T	: 90 ms
		Sensitivity	: High

Spectrum



Spectral Distribution

CIE1931 Chromaticity Diagram

Colorimetric Parameters

Chromaticity Coordinate: $x = 0.2998$ $y = 0.2886$ / $u' = 0.2045$ $v' = 0.4430$ ($duv = -1.16e-02$)

CCT= 8057K Prcp WL: $L_d = 469.5\text{nm}$ Purity=16.1%

Peak WL: $L_p = 463\text{nm}$ FWHM: $\approx 21.2\text{nm}$ Ratio: R=23.0% G=67.8% B=9.2%

Render Index: $R_a = 54.7$ CRI = 47.6 AvgR = 46.5 TM30: $R_f = 63$ $R_g = 113$

R1 =38 R2 =62 R3 =83 R4 =50 R5 =49 R6 =54 R7 =73

R8 =29 R9 =0 R10=14 R11=35 R12=51 R13=41 R14=88 R15=31

LEVEL:OUT WHITE:OUT

Photometric & Radiometric Parameters

Flux = 1152.2 lm Eff. : 56.88 lm/W $F_e = 4.6586$ W

Flux of emitted photons($\mu\text{mol/s}$):21.041 Fluo. and blue light ratio:0.6122 Fluorescent eff.:87.34

Electrical parameters

V = 24.00 V I = 0.8442 A P = 20.26 W PF = 1.000 F=0.00 Hz