



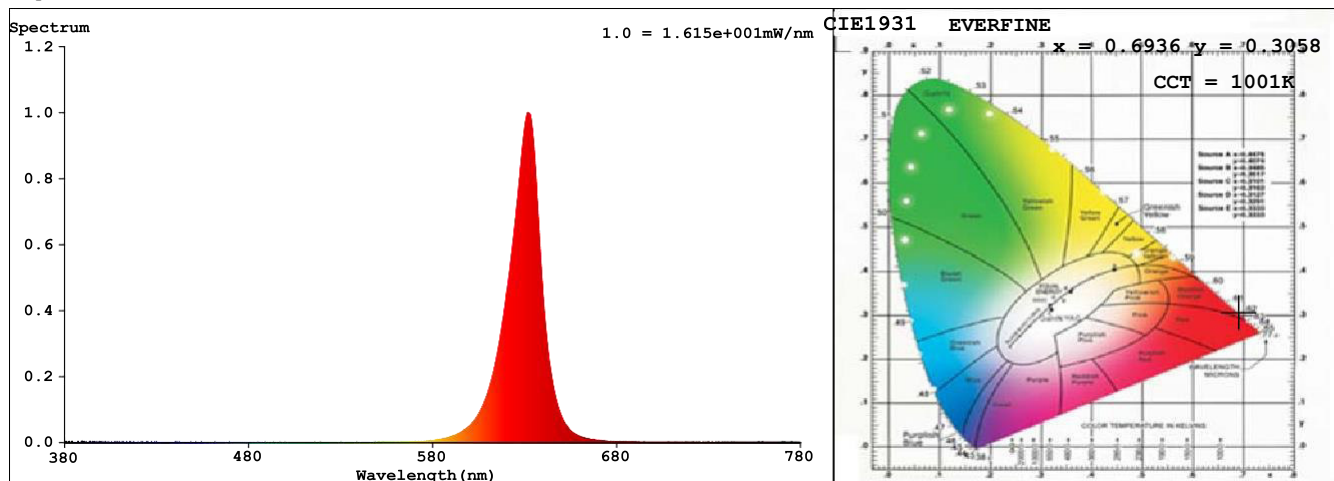
Spectrum Test Report

Sample	: E05N230DRGB	Date	: 2019-05-13 16:10:36
Specification	: 5050 60LED 10MM 5V 14.4W RGB WS2812 IP20 1M		
Sample No.	: LD19040302#46	Instrument	: HaasSuite(EVERFINE)
Manufacturer	:	Test by	: Velleman
Assessor	:		
Remark	:		

Test Condition

Temperature	: 25.3Deg	RH	: 65.0%
WL Range	: 380nm-780nm	IP	: 44869 (68%)
Test Mode	: Fast Test	T	: 213 ms
		Sensitivity	: High

Spectrum



Spectral Distribution

CIE1931 Chromaticity Diagram

Colorimetric Parameters

Chromaticity Coordinate: $x = 0.6936$ $y = 0.3058$ / $u' = 0.5252$ $v' = 0.5210$ ($duv = -7.77e-02$)

CCT= 1001K Prcp WL: $L_d = 621.3\text{nm}$ Purity=99.9%

Peak WL: $L_p = 632\text{nm}$ FWHM: $= 17.8\text{nm}$ Ratio: R=94.9% G=5.0% B=0.0%

Render Index: $R_a = 28.4$ CRI = 33.7 AvgR = 31.4 TM30: $R_f = 16$ $R_g = -1$

R1 =10 R2 =78 R3 =34 R4 =0 R5 =5 R6 =89 R7 =11

R8 =0 R9 =0 R10=72 R11=0 R12=79 R13=31 R14=62 R15=0

LEVEL:OUT WHITE:OUT

Photometric & Radiometric Parameters

Flux = 69.705 lm Eff. : 13.60 lm/W $F_e = 351.10$ mW

Flux of emitted photons($\mu\text{mol/s}$): 1.8421 Fluo. and blue light ratio: 2731 Fluorescent eff.: 68.48

Electrical parameters

V = 4.999 V I = 1.025 A P = 5.125 W PF = 1.000 F=0.00 Hz



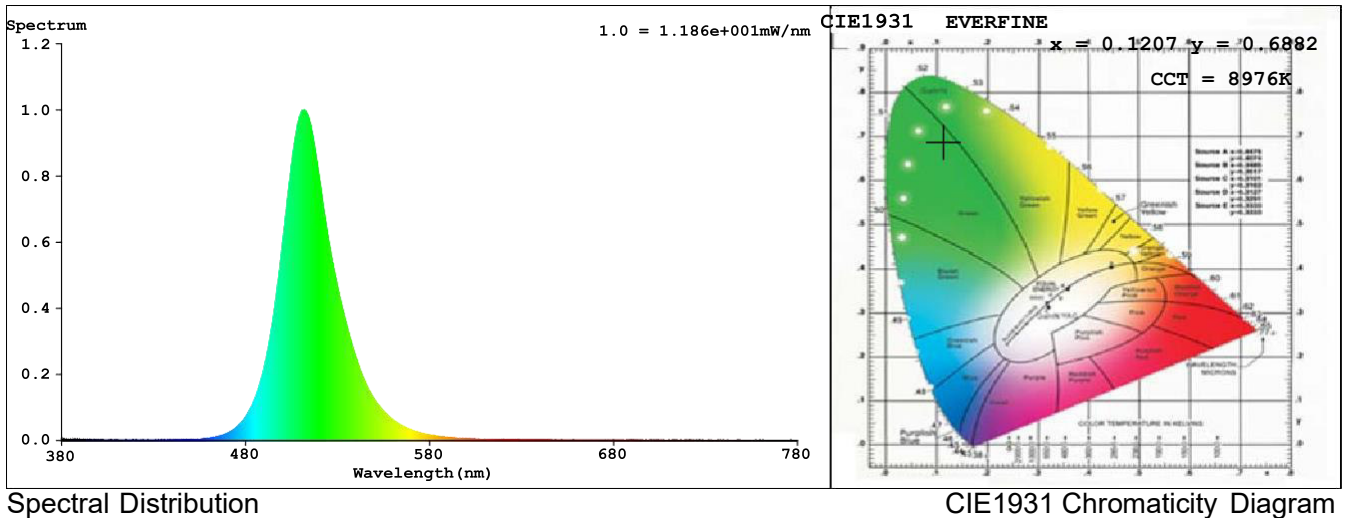
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Specification	: 5050 60LED 10MM 5V 14.4W RGB WS2812 IP20 1M		
Sample No.	: LD19040302#46	Instrument	: HaasSuite(EVERFINE)
Manufacturer	:	Test by	: Velleman
Assessor	:		
Remark	:		

Test Condition

Temperature	: 25.3Deg	RH	: 65.0%
WL Range	: 380nm-780nm	IP	: 52682 (80%)
Test Mode	: Fast Test	T	: 356 ms
		Sensitivity	: High

Spectrum



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.1207$ $y = 0.6882$ / $u' = 0.0438$ $v' = 0.5622$ ($duv=1.68e-01$)

CCT= 8976K Prcp WL: $L_d=515.7nm$ Purity=73.3%

Peak WL: $L_p=512nm$ FWHM: $=30.5nm$ Ratio:R=0.2% G=94.2% B=5.6%

Render Index: $R_a = 0.0$ CRI = 2.7 AvgR = 2.5 TM30:Rf=0 Rg=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

LEVEL:OUT WHITE:OUT

Photometric & Radiometric Parameters

Flux = 177.74 lm Eff. : 34.83 lm/W $F_e = 435.35$ mW

Flux of emitted photons($\mu mol/s$):1.8767 Fluo. and blue light ratio:57.96 Fluorescent eff.:83.88

Electrical parameters

V = 4.999 V I = 1.021 A P = 5.103 W PF = 1.000 F=0.00 Hz



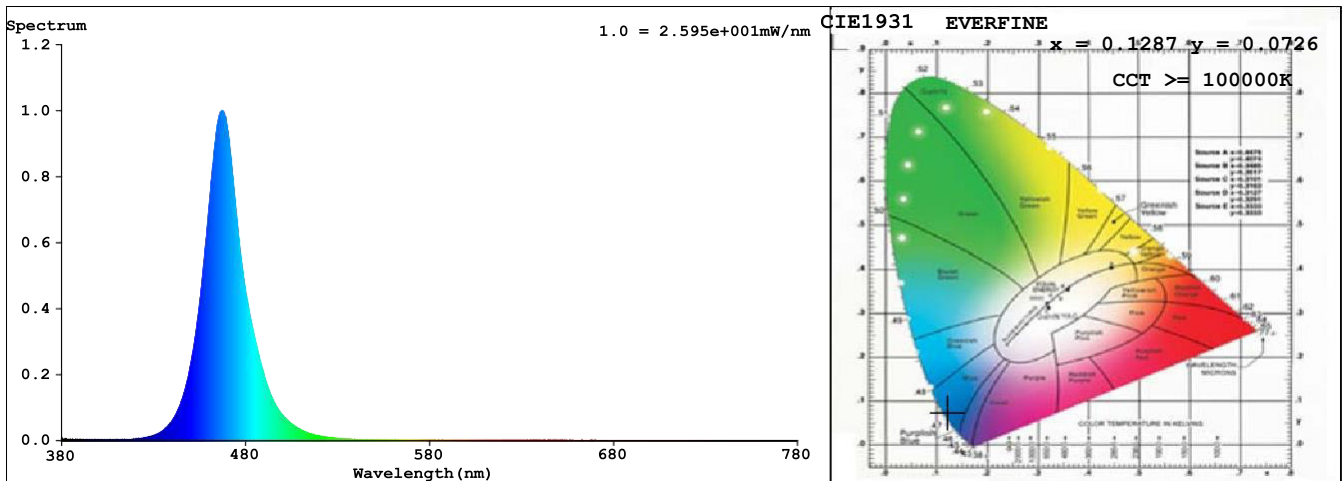
Spectrum Test Report

Sample	: E05N230DRGB	Date	: 2019-05-13 16:11:02
Specification	: 5050 60LED 10MM 5V 14.4W RGB WS2812 IP20 1M		
Sample No.	: LD19040302#46	Instrument	: HaasSuite(EVERFINE)
Manufacturer	:	Test by	: Velleman
Assessor	:		
Remark	:		

Test Condition

Temperature	: 25.3Deg	RH	: 65.0%
WL Range	: 380nm-780nm	IP	: 52856 (81%)
Test Mode	: Fast Test	T	: 233 ms
		Sensitivity	: High

Spectrum



Spectral Distribution

CIE1931 Chromaticity Diagram

Colorimetric Parameters

Chromaticity Coordinate: $x = 0.1287$ $y = 0.0726$ / $u' = 0.1425$ $v' = 0.1809$ ($duv=1.50e-01$)

$CCT \geq 100000K$ Prcp WL: $L_d=471.1nm$ Purity=96.5%

Peak WL: $L_p=467nm$ FWHM: $\approx 22.1nm$ Ratio: $R=0.2\%$ $G=16.9\%$ $B=82.8\%$

Render Index: $R_a = 0.1$ $CRI = 0.1$ $AvgR = 0.1$ $TM30:R_f=0$ $R_g=-59$

$R_1=0$ $R_2=0$ $R_3=0$ $R_4=0$ $R_5=1$ $R_6=0$ $R_7=0$

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

LEVEL:OUT WHITE:OUT

Photometric & Radiometric Parameters

Flux = 54.490 lm Eff. : 10.70 lm/W $F_e = 711.47$ mW

Flux of emitted photons($\mu mol/s$): 2.7907 Fluo. and blue light ratio: 0.2464 Fluorescent eff.: 27.67

Electrical parameters

$V = 4.999$ V $I = 1.018$ A $P = 5.092$ W PF = 1.000 F=0.00 Hz



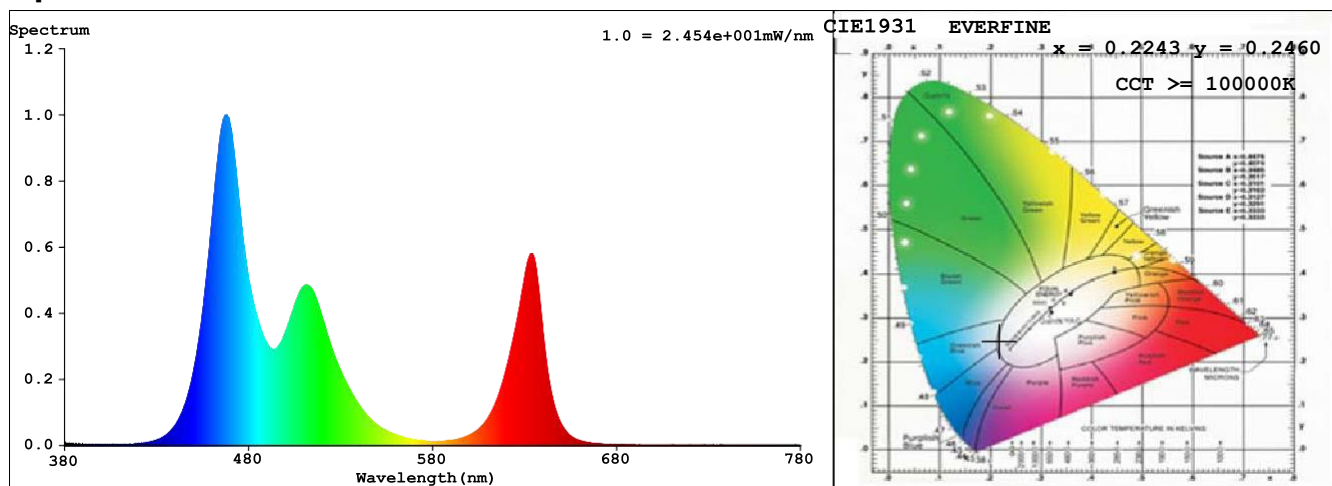
Spectrum Test Report

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Sample No.	: LD19040302#46	Instrument	: HaasSuite(EVERFINE)
Manufacturer	:	Test by	: Velleman
Assessor	:		
Remark	:		

Test Condition

Temperature	: 25.3Deg	RH	: 65.0%
WL Range	: 380nm-780nm	IP	: 50371 (77%)
Test Mode	: Fast Test	T	: 233 ms
		Sensitivity	: High

Spectrum



Spectral Distribution

CIE1931 Chromaticity Diagram

Colorimetric Parameters

Chromaticity Coordinate: $x = 0.2243$ $y = 0.2460$ / $u' = 0.1630$ $v' = 0.4023$ ($duv=1.78e-02$)

$CCT \geq 100000K$ Prcp WL: $L_d=480.5nm$ Purity=44.7%

Peak WL: $L_p=468nm$ FWHM: $=23.1nm$ Ratio: $R=20.3\%$ $G=61.2\%$ $B=18.5\%$

Render Index: $R_a = 37.1$ $CRI = 35.3$ $AvgR = 33.8$ $TM30:R_f=28$ $R_g=101$

$R_1 = 33$ $R_2 = 40$ $R_3 = 38$ $R_4 = 51$ $R_5 = 54$ $R_6 = 38$ $R_7 = 43$

$R_8 = 0$ $R_9 = 0$ $R_{10} = 0$ $R_{11} = 57$ $R_{12} = 51$ $R_{13} = 28$ $R_{14} = 62$ $R_{15} = 12$

LEVEL:OUT WHITE:OUT

Photometric & Radiometric Parameters

Flux = 284.06 lm Eff. : 20.71 lm/W Fe = 1.4090 W

Flux of emitted photons($\mu mol/s$): 6.1152 Fluo. and blue light ratio: 0.2939 Fluorescent eff.: 23.34

Electrical parameters

V = 4.999 V I = 2.743 A P = 13.71 W PF = 1.000 F=0.00 Hz