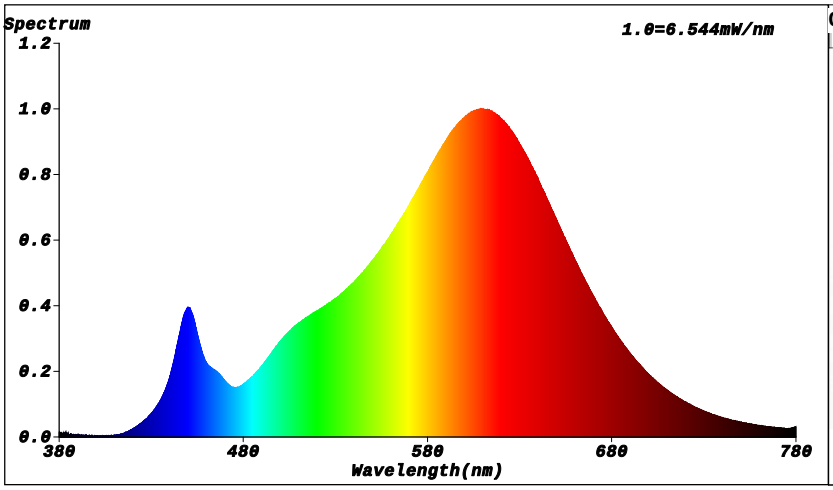
Spectrum Test Report

Product	: Midgard K831 emailliert	Date	: 2017-12-21
Sample No.	: Test 1_0 Minutes	Instrument	: HAAS-2000(EVERFINE)
Manufacturer	: Midgard	Operator	: JB

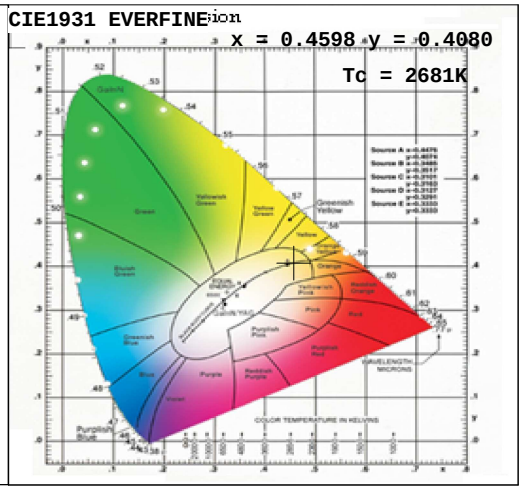
Test Condition

Temprature	: 25.3Deg	RH	: 65.0%
Scan Range	: 380nm-780nm	IP	: 52132 (80%)
		T	: 225 ms
Test Type	: Fast Test	Delicacy	: High

Spectroradiometric Parameters



Spectral Distribution



CIE1931 Chromaticity Diagram

CIE Color Parameters:

Chromaticity Coordinate: x=0.4598 y=0.4080/u'=0.2636 v'=0.5263(duv=-9.64e-04)

CCT:Tc= 2681K Prcp WaveL: λd=584.6nm Purity=60.5%

Peak WaveL:λp=609nm Half Width:Δλp=118.9nm Ratio:R=27.4% G=70.5% B=2.0%

Render Index:Ra=84.1

R1 =83	R2 =93	R3 =96	R4 =82	R5 =84	R6 =92	R7 =83	
R8 =61	R9 =16	R10=84	R11=82	R12=81	R13=85	R14=98	R15=76

Photo Parameters:

Flux = 324.2 lm Eff. : 39.13 lm/W Fe = 1.032 W

Fmol(umol/s):5.089e-001 Fluorescence and blue light ratio:12.25 Fluorescent efficiency:10.37

Electrical parameters:

V = 230.0 V I = 0.04000 A P = 8.285 W PF = 0.9005

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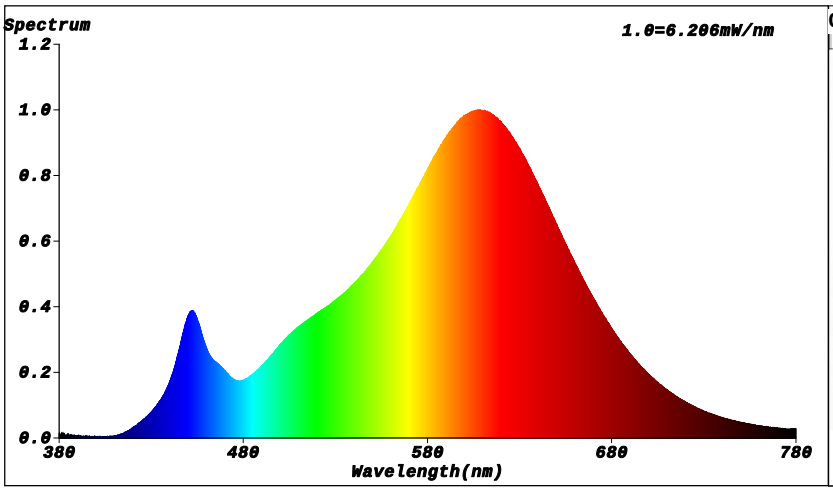
Spectrum Test Report

Product	: Midgard K831 emailliert	Date	: 2017-12-21
Sample No.	: Test 2_5 Minutes	Instrument	: HAAS-2000(EVERFINE)
Manufacturer	: Midgard	Operator	: JB

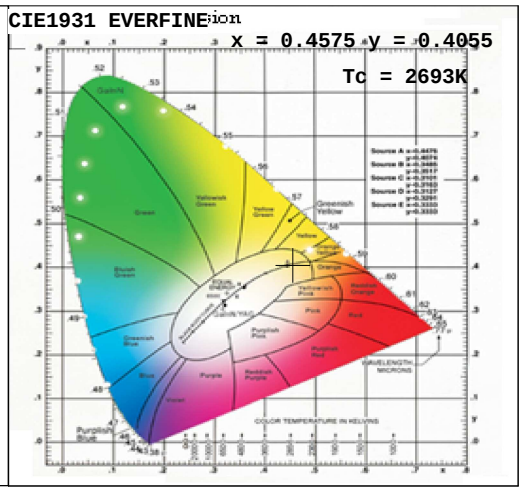
Test Condition

Temprature	: 25.3Deg	RH	: 65.0%
Scan Range	: 380nm-780nm	IP	: 49545 (76%)
		T	: 225 ms
Test Type	: Fast Test	Delicacy	: High

Spectroradiometric Parameters



Spectral Distribution



CIE1931 Chromaticity Diagram

CIE Color Parameters:

Chromaticity Coordinate: x=0.4575 y=0.4055/u'=0.2633 v'=0.5250(duv=-1.71e-03)

CCT:Tc= 2693K Prcp WaveL: λd=584.8nm Purity=59.0%

Peak WaveL:λp=608nm Half Width:Δλp=118.0nm Ratio:R=27.3% G=70.6% B=2.1%

Render Index:Ra=83.3

R1 =82	R2 =93	R3 =94	R4 =81	R5 =83	R6 =93	R7 =81	
R8 =59	R9 =14	R10=85	R11=80	R12=81	R13=85	R14=98	R15=75

Photo Parameters:

Flux = 307.9 lm Eff. : 37.11 lm/W Fe = 982.7 mW

Fmol(umol/s):4.840e-001 Fluorescence and blue light ratio:11.06 Fluorescent efficiency:9.797

Electrical parameters:

V = 230.0 V I = 0.04000 A P = 8.296 W PF = 0.9017

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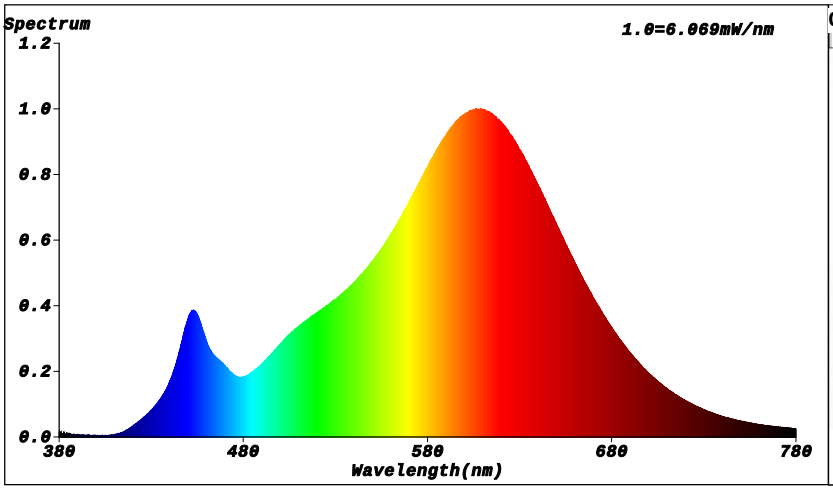
Spectrum Test Report

Product	: Midgard K831 emailliert	Date	: 2017-12-21
Sample No.	: Test 3_10 Minutes	Instrument	: HAAS-2000(EVERFINE)
Manufacturer	: Midgard	Operator	: JB

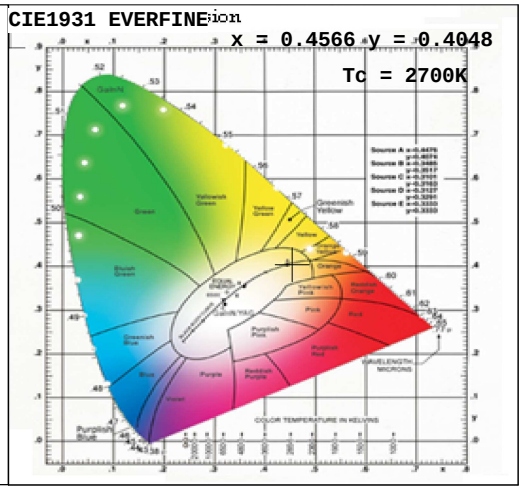
Test Condition

Temprature	: 25.3Deg	RH	: 65.0%
Scan Range	: 380nm-780nm	IP	: 48507 (74%)
		T	: 225 ms
Test Type	: Fast Test	Delicacy	: High

Spectroradiometric Parameters



Spectral Distribution



CIE1931 Chromaticity Diagram

CIE Color Parameters:

Chromaticity Coordinate: x=0.4566 y=0.4048/u'=0.2630 v'=0.5246(duv=-1.88e-03)

CCT:Tc= 2700K Prcp WaveL: λd=584.8nm Purity=58.6%

Peak WaveL:λp=609nm Half Width:Δλp=117.7nm Ratio:R=27.2% G=70.6% B=2.2%

Render Index:Ra=83.1

R1 =82	R2 =93	R3 =94	R4 =80	R5 =83	R6 =93	R7 =81	
R8 =59	R9 =13	R10=85	R11=80	R12=81	R13=85	R14=97	R15=75

Photo Parameters:

Flux = 301.5 lm Eff. : 36.31 lm/W Fe = 963.0 mW

Fmol(umol/s):4.741e-001 Fluorescence and blue light ratio:10.84 Fluorescent efficiency:9.585

Electrical parameters:

V = 230.0 V I = 0.04000 A P = 8.304 W PF = 0.9026

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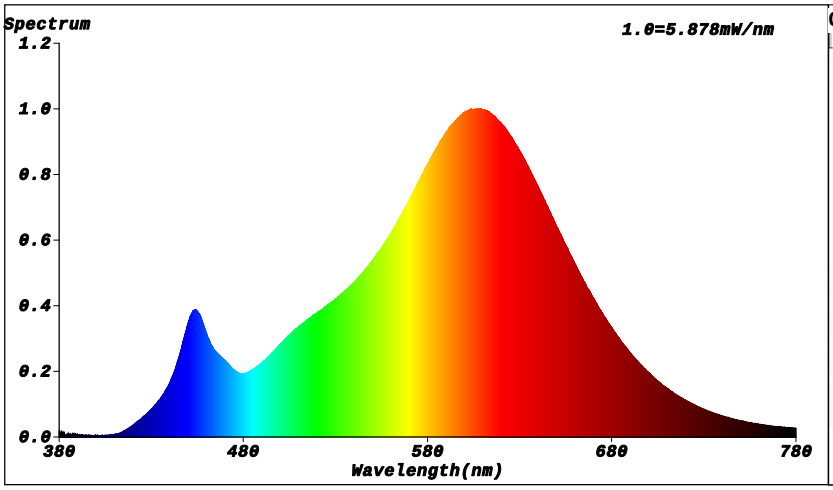
Spectrum Test Report

Product	: Midgard K831 emailliert	Date	: 2017-12-21
Sample No.	: Test 4_20 Minutes	Instrument	: HAAS-2000(EVERFINE)
Manufacturer	: Midgard	Operator	: JB

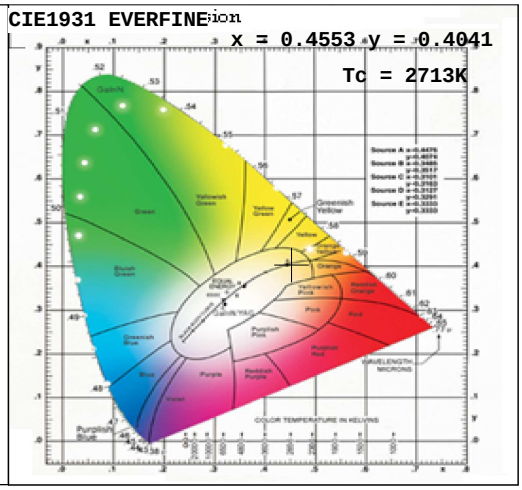
Test Condition

Temprature	: 25.3Deg	RH	: 65.0%
Scan Range	: 380nm-780nm	IP	: 47156 (72%)
		T	: 225 ms
Test Type	: Fast Test	Delicacy	: High

Spectroradiometric Parameters



Spectral Distribution



CIE1931 Chromaticity Diagram

CIE Color Parameters:

Chromaticity Coordinate: x=0.4553 y=0.4041/u'=0.2625 v'=0.5241(duv=-2.06e-03)

CCT:Tc= 2713K Prcp WaveL: λd=584.8nm Purity=58.0%

Peak WaveL:λp=609nm Half Width:Δλp=117.9nm Ratio:R=27.0% G=70.7% B=2.3%

Render Index:Ra=82.8

R1 =82	R2 =93	R3 =94	R4 =80	R5 =83	R6 =93	R7 =81	
R8 =58	R9 =12	R10=85	R11=79	R12=81	R13=85	R14=97	R15=75

Photo Parameters:

Flux = 293.2 lm Eff. : 35.24 lm/W Fe = 936.5 mW

Fmol(umol/s):4.608e-001 Fluorescence and blue light ratio:10.50 Fluorescent efficiency:9.296

Electrical parameters:

V = 230.0 V I = 0.04000 A P = 8.320 W PF = 0.9043

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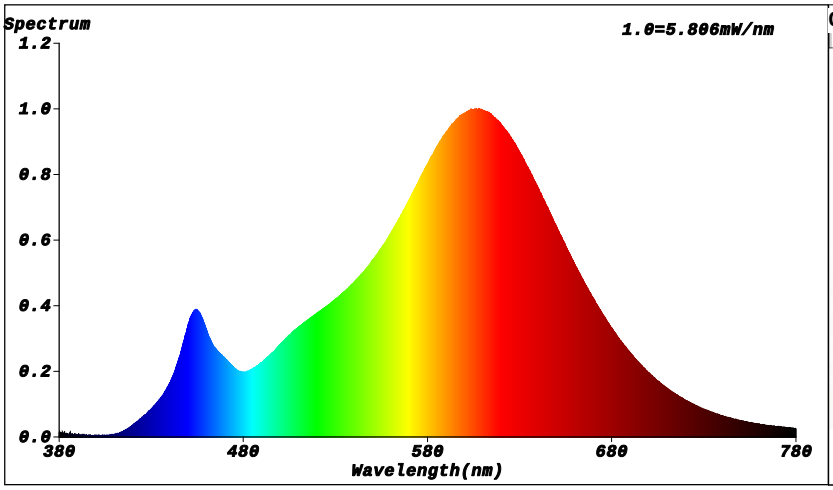
Spectrum Test Report

Product	: Midgard K831 emailliert	Date	: 2017-12-21
Sample No.	: Test 5_30 Minutes	Instrument	: HAAS-2000(EVERFINE)
Manufacturer	: Midgard	Operator	: JB

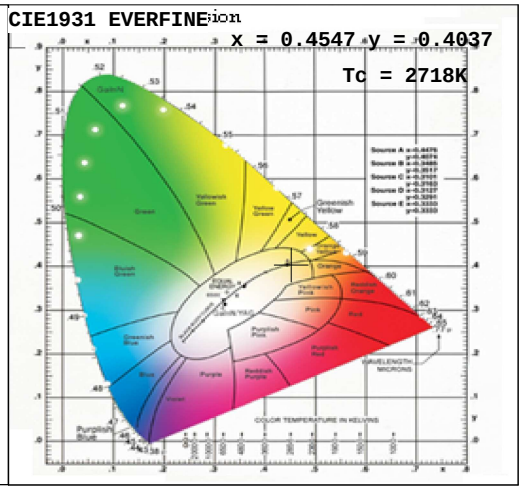
Test Condition

Temprature	: 25.3Deg	RH	: 65.0%
Scan Range	: 380nm-780nm	IP	: 46529 (71%)
		T	: 225 ms
Test Type	: Fast Test	Delicacy	: High

Spectroradiometric Parameters



Spectral Distribution



CIE1931 Chromaticity Diagram

CIE Color Parameters:

Chromaticity Coordinate: x=0.4547 y=0.4037/u'=0.2623 v'=0.5239(duv=-2.15e-03)

CCT:Tc= 2718K Prcp WaveL: λd=584.8nm Purity=57.7%

Peak WaveL:λp=608nm Half Width:$\Delta\lambda p$=117.4nm Ratio:R=27.0% G=70.7% B=2.3%

Render Index:Ra=82.7

R1 =82	R2 =93	R3 =93	R4 =79	R5 =82	R6 =93	R7 =81	
R8 =58	R9 =11	R10=85	R11=78	R12=81	R13=85	R14=97	R15=75

Photo Parameters:

Flux = 289.4 lm Eff. : 35.65 lm/W Fe = 924.6 mW

Fmol(umol/s):4.548e-001 Fluorescence and blue light ratio:9.988 Fluorescent efficiency:9.372

Electrical parameters:

V = 230.0 V I = 0.03900 A P = 8.120 W PF = 0.9052

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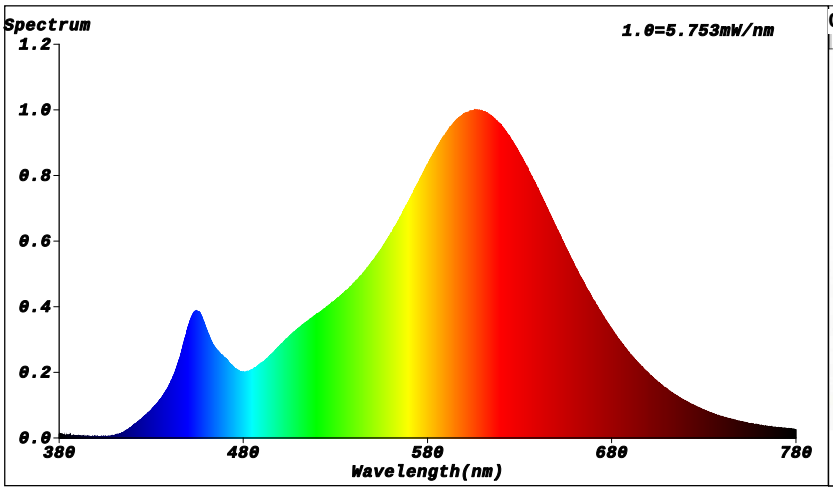
Spectrum Test Report

Product	: Midgard K831 emailliert	Date	: 2017-12-21
Sample No.	: Test 6_40 Minutes	Instrument	: HAAS-2000(EVERFINE)
Manufacturer	: Midgard	Operator	: JB

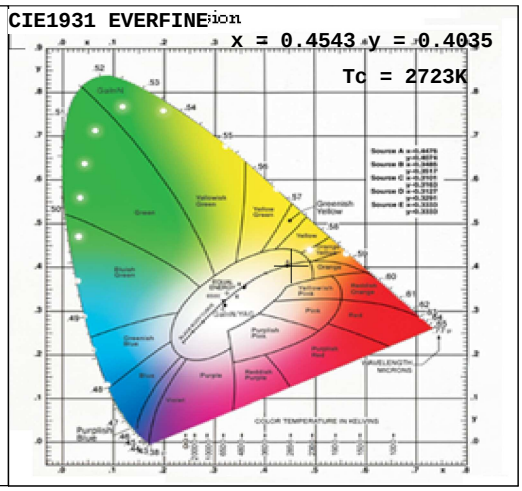
Test Condition

Temprature	: 25.3Deg	RH	: 65.0%
Scan Range	: 380nm-780nm	IP	: 46048 (70%)
		T	: 225 ms
Test Type	: Fast Test	Delicacy	: High

Spectroradiometric Parameters



Spectral Distribution



CIE1931 Chromaticity Diagram

CIE Color Parameters:

Chromaticity Coordinate: x=0.4543 y=0.4035/u'=0.2621 v'=0.5238(duv=-2.18e-03)

CCT:Tc= 2723K Prcp WaveL: λd=584.8nm Purity=57.5%

Peak WaveL:λp=606nm Half Width:Δλp=117.5nm Ratio:R=26.9% G=70.8% B=2.3%

Render Index:Ra=82.6

R1 =82	R2 =93	R3 =93	R4 =79	R5 =82	R6 =93	R7 =80	
R8 =58	R9 =11	R10=85	R11=78	R12=81	R13=84	R14=97	R15=74

Photo Parameters:

Flux = 287.2 lm Eff. : 35.35 lm/W Fe = 917.1 mW

Fmol(umol/s):4.510e-001 Fluorescence and blue light ratio:9.933 Fluorescent efficiency:9.291

Electrical parameters:

V = 230.0 V I = 0.03900 A P = 8.123 W PF = 0.9056

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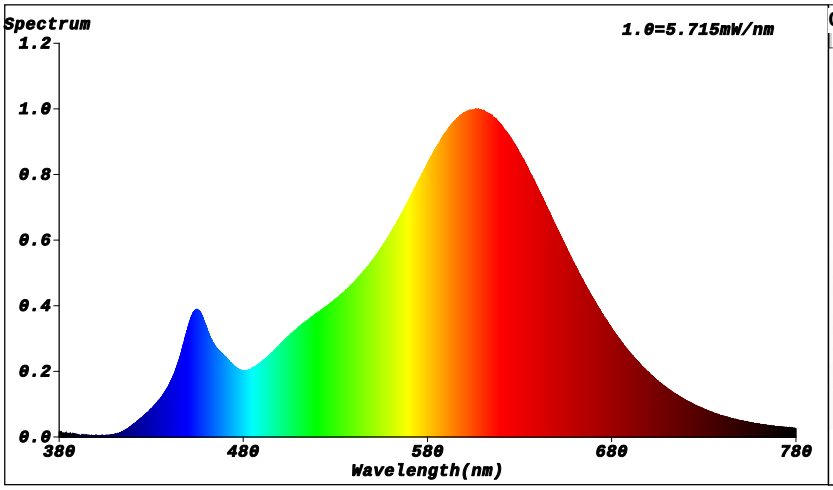
Spectrum Test Report

Product	: Midgard K831 emailliert	Date	: 2017-12-21
Sample No.	: Test 7_50 Minutes	Instrument	: HAAS-2000(EVERFINE)
Manufacturer	: Midgard	Operator	: JB

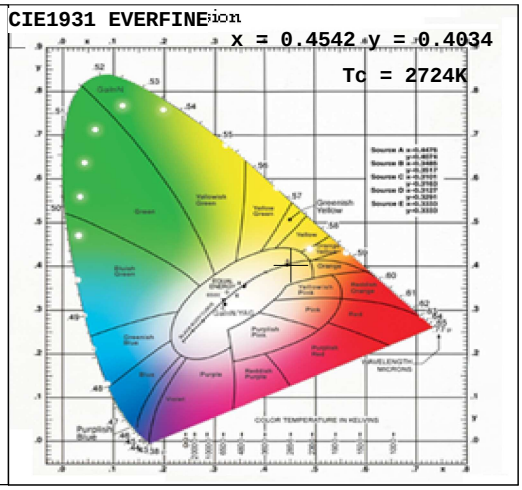
Test Condition

Temprature	: 25.3Deg	RH	: 65.0%
Scan Range	: 380nm-780nm	IP	: 45723 (70%)
		T	: 225 ms
Test Type	: Fast Test	Delicacy	: High

Spectroradiometric Parameters



Spectral Distribution



CIE1931 Chromaticity Diagram

CIE Color Parameters:

Chromaticity Coordinate: x=0.4542 y=0.4034/u'=0.2621 v'=0.5237(duv=-2.20e-03)

CCT:Tc= 2724K Prcp WaveL: λd=584.8nm Purity=57.4%

Peak WaveL:λp=606nm Half Width:Δλp=117.7nm Ratio:R=26.9% G=70.8% B=2.3%

Render Index:Ra=82.6

R1 =82	R2 =93	R3 =93	R4 =79	R5 =82	R6 =93	R7 =80	
R8 =58	R9 =11	R10=85	R11=78	R12=81	R13=85	R14=97	R15=74

Photo Parameters:

Flux = 285.2 lm Eff. : 35.10 lm/W Fe = 911.0 mW

Fmol(umol/s):4.480e-001 Fluorescence and blue light ratio:9.889 Fluorescent efficiency:9.225

Electrical parameters:

V = 230.0 V I = 0.03900 A P = 8.126 W PF = 0.9059

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