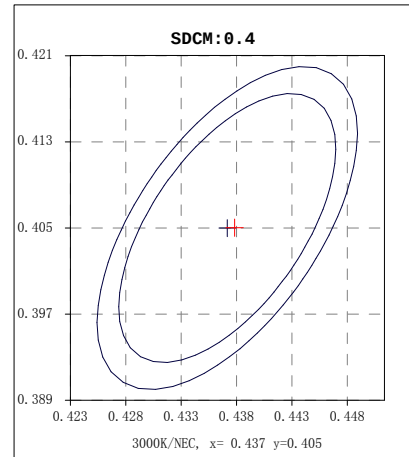
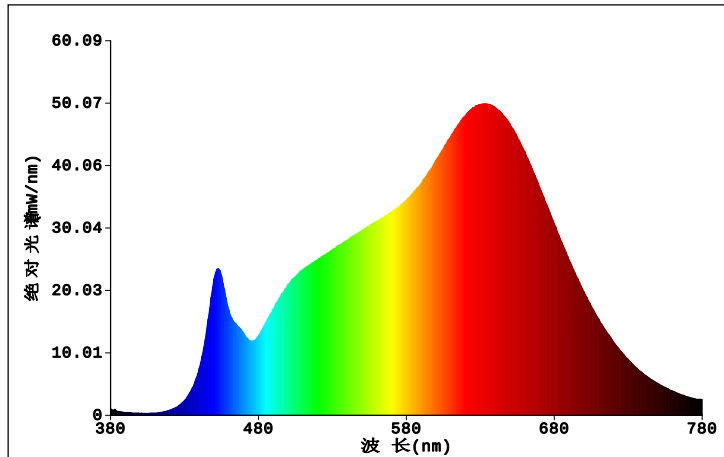


光源光谱测试报告



颜色参数:

色品坐标(2度): $x=0.4377$ $y=0.4050$ / $u'=0.2506$ $v'=0.5219$ $duv=2.778e-004$ 相关色温: $T_c=2996K$ 主波长: $\lambda_d=582.7nm$ 色纯度: Purity=52.9%色比: R=25.2% G=71.5% B=3.3% 峰值波长: $\lambda_p=631.6nm$ 半宽度: $\Delta\lambda_d=169.5nm$ 显色指数: $R_a=98.2$ $AvgR=96.8$ $K_{red}=18.11\%$ 平均波长 $\lambda_{av}=607.9nm$

R1 =98.18 R2 =98.79 R3 =99.08 R4 =98.12 R5 =98.27

R6 =98.46 R7 =97.44 R8 =98.54 R9 =94.57 R10=98.22

R11=95.16 R12=88.11 R13=98.05 R14=98.58 R15=98.62

TM30 参数: $R_f = 95.5$, $R_g=100.3$

光度参数:

光通量 $\Phi = 2339 lm$ 光效: $107.30 lm/W$ $\phi_e = 8738 mW$ 光量子 $= 4.367e+001 \mu mol/s$ 荧光蓝光比=9.26 荧光效能= $3.619e-001$

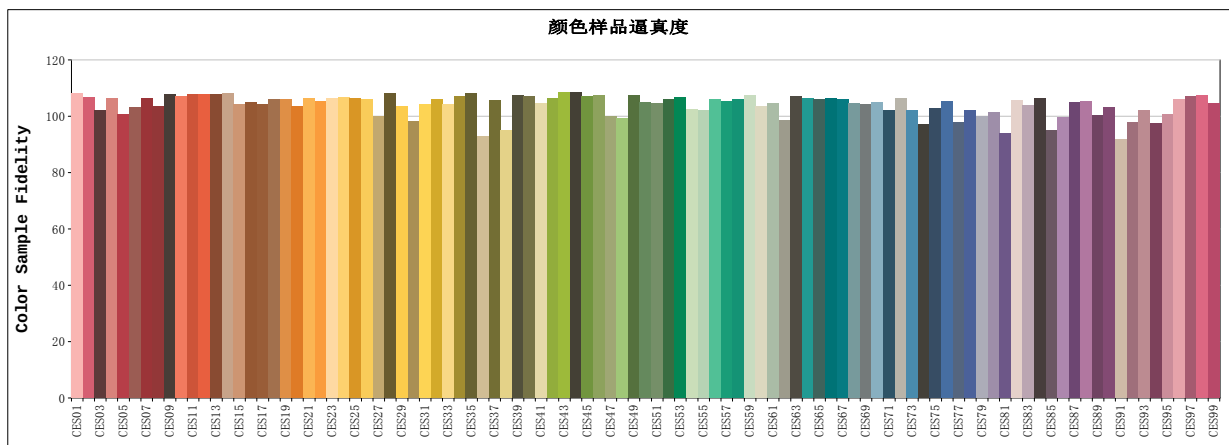
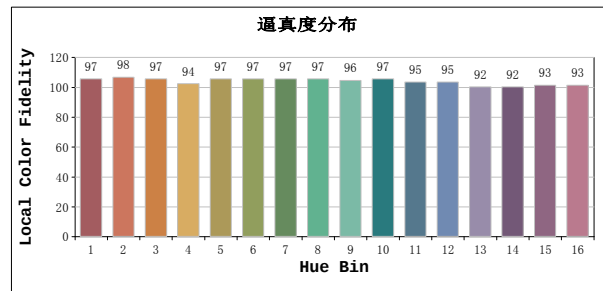
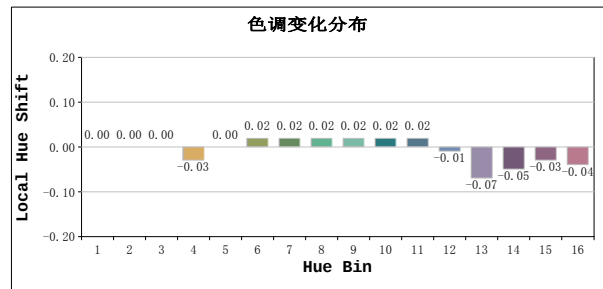
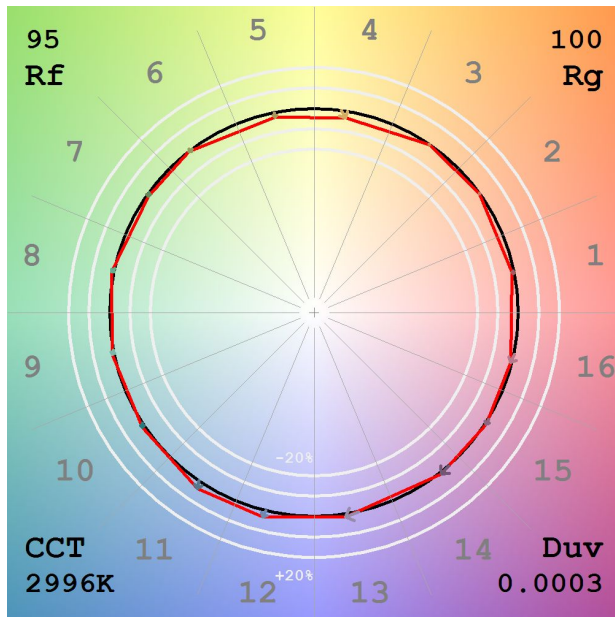
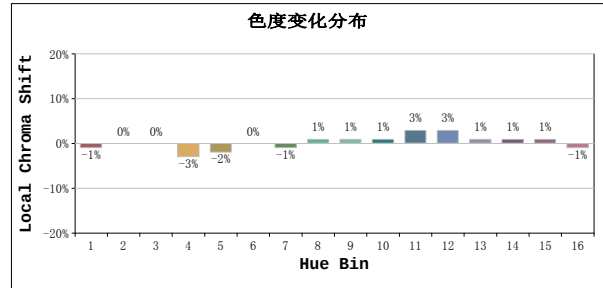
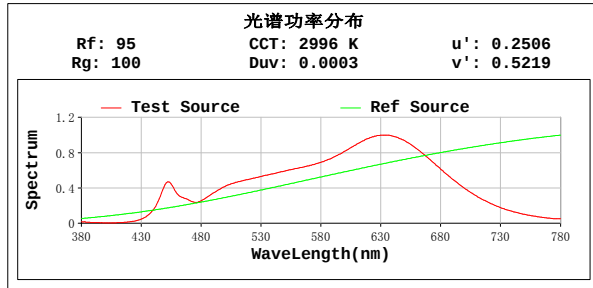
电参数:

正向电压 $V_F = 36.35 V$ 正向电流 $I_F = 599.7 mA$ 功率 $P = 21797 mW$ Ch1

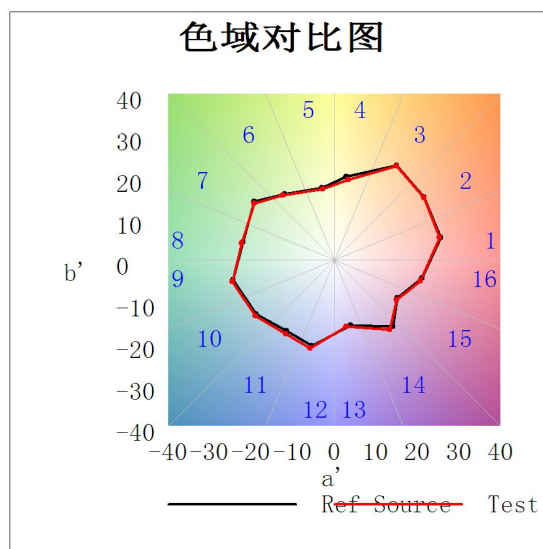
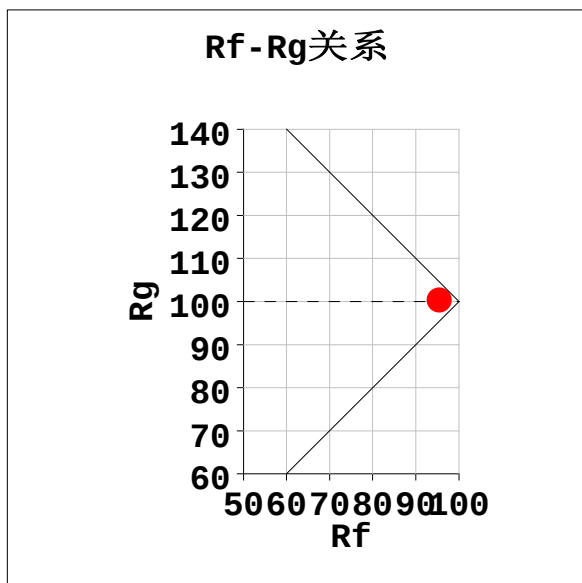
分级: *0[OUT] 白光分类: 3000K

仪器状态: 积分时间 $T=13.00ms$ $I_p=59886 (91\%)$ [HAAS2000_V1_USB] V2.00.302产品型号: 3000K
测试人员: DAMIN
环境温度: 25.3°C
制造厂商: EVERFINE
审核人员: damin
测试仪器: WY + HAAS2000_V1_USB产品编号: 1
测试日期: 2023-11-20 10-44
环境湿度: 65.0%
备 注: ---

IES TM-30-18 Color Rendition Report



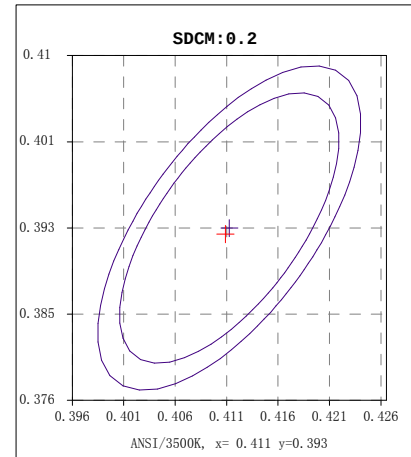
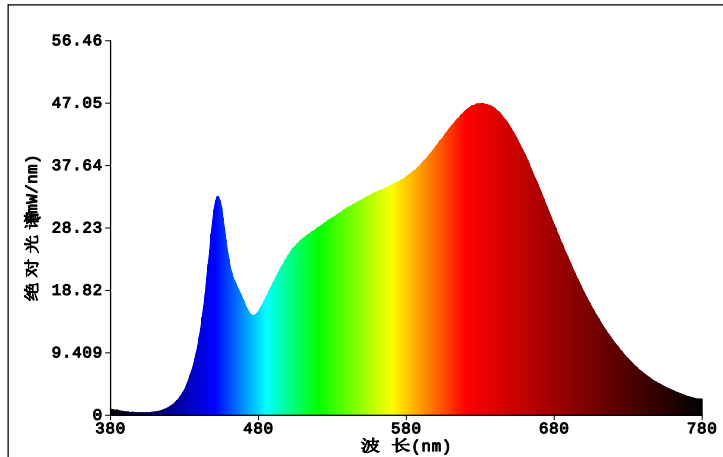
TM30 Report



数据分析表

			Graphic shift(%)	
Hue Bin	Hue Angle	Rf	Chroma	Hue
1	0.0° - 22.5°	97	-1	0
2	22.5° - 45.0°	98	0	0
3	45.0° - 67.5°	97	0	0
4	67.5° - 90.0°	94	-3	-3
5	90.0° - 112.5°	97	-2	0
6	112.5° - 135.0°	97	0	2
7	135.0° - 157.5°	97	-1	2
8	157.5° - 180.0°	97	1	2
9	180.0° - 202.5°	96	1	2
10	202.5° - 225.0°	97	1	2
11	225.0° - 247.5°	95	3	2
12	247.5° - 270.0°	95	3	-1
13	270.0° - 292.5°	92	1	-7
14	292.5° - 315.0°	92	1	-5
15	315.0° - 337.5°	93	1	-3
16	337.5° - 360.0°	93	-1	-4

光源光谱测试报告



颜色参数:

色品坐标(2度): $x=0.4106$ $y=0.3924$ $u'=0.2385$ $v'=0.5128$ $duv=-3.898e-004$ 相关色温: $T_c=3460K$ 主波长: $\lambda_d=581.4nm$ 色纯度: $Purity=41.0\%$ 色比: $R=22.9\%$ $G=73.2\%$ $B=3.9\%$ 峰值波长: $\lambda_p=631.7nm$ 半宽度: $\Delta\lambda_d=191.2nm$ 显色指数: $R_a=98.4$ $AvgR=97.1$ $K_{red}=16.29\%$ 平均波长 $\lambda_{av}=597.9nm$

R1 =98.84	R2 =99.51	R3 =98.47	R4 =99.48	R5 =98.81
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R6 =97.23	R7 =97.78	R8 =96.83	R9 =93.23	R10=99.89
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R11=97.05	R12=84.34	R13=98.95	R14=98.41	R15=98.37
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TM30 参数: $R_f = 95.7$, $R_g=100.8$

光度参数:

光通量 $\Phi = 2463 lm$ 光效: $113.17 lm/W$ $\phi_e = 9052 mW$ 光量子 $= 4.459e+001 \mu mol/s$ 荧光蓝光比 $= 6.8$ 荧光效能 $= 3.627e-001$

电参数:

正向电压 $V_F = 36.30 V$ 正向电流 $I_F = 599.7 mA$ 功率 $P = 21767 mW$ Ch1

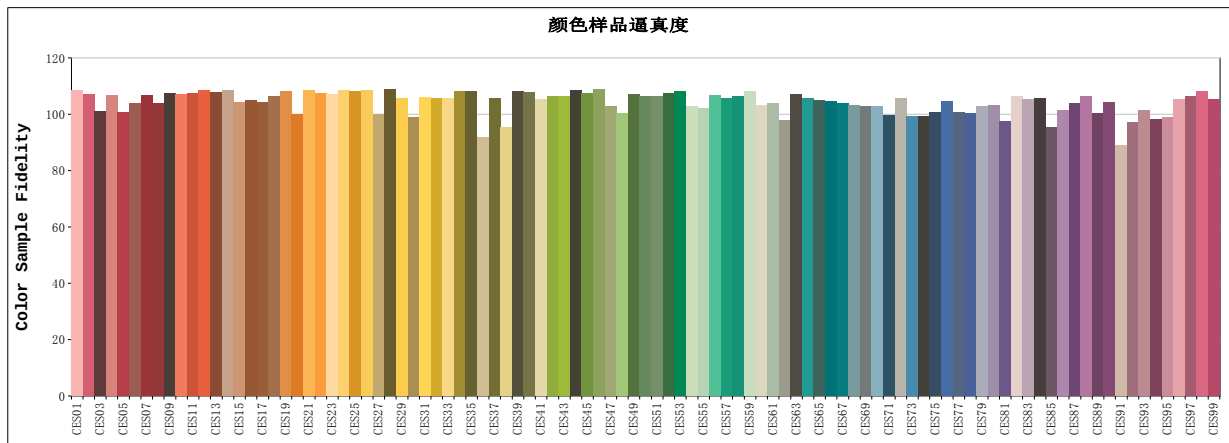
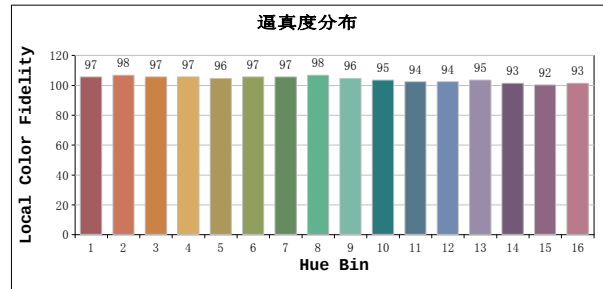
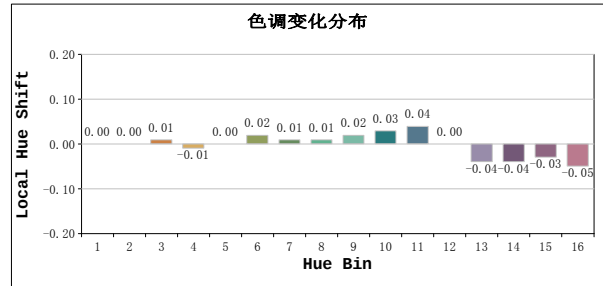
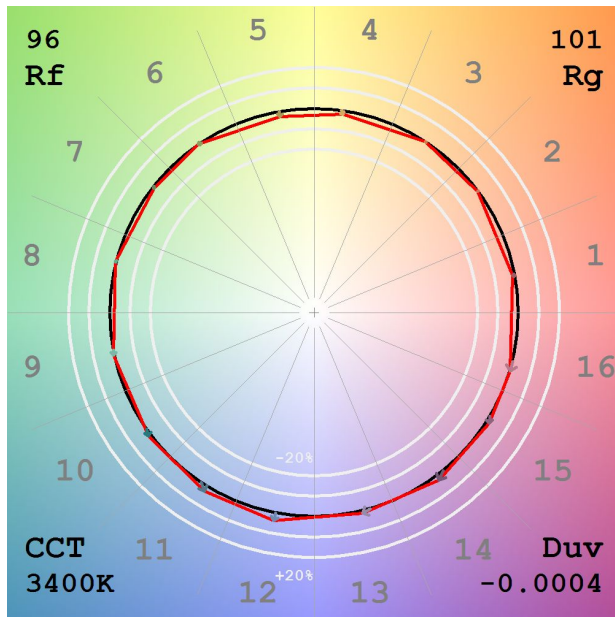
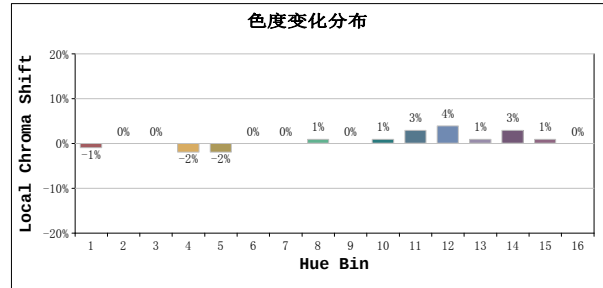
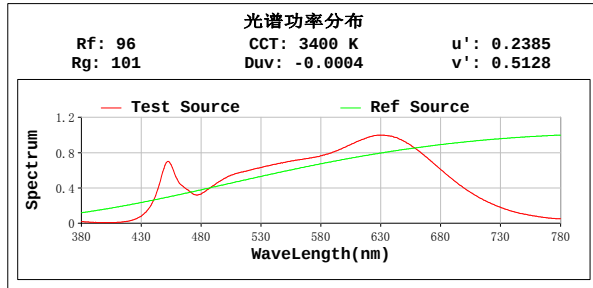
分级: *0[OUT] 白光分类: 3500K

仪器状态: 积分时间 $T=13.00ms$ $I_p=56333 (86\%)$ [HAAS2000_V1_USB] V2.00.302

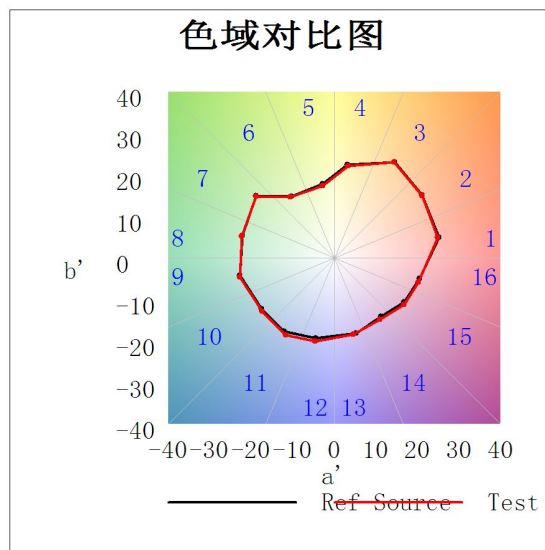
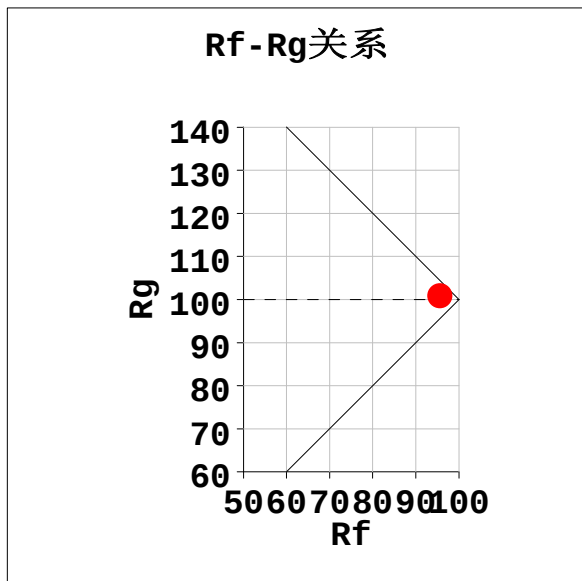
产品型号: 3500K
测试人员: DAMIN
环境温度: 25.3°C
制造厂商: EVERFINE
审核人员: damin
测试仪器: WY + HAAS2000_V1_USB

产品编号: 2
测试日期: 2023-11-20 10-45
环境湿度: 65.0%
备 注: ---

IES TM-30-18 Color Rendition Report



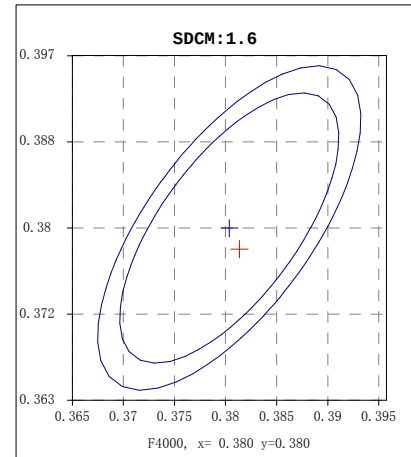
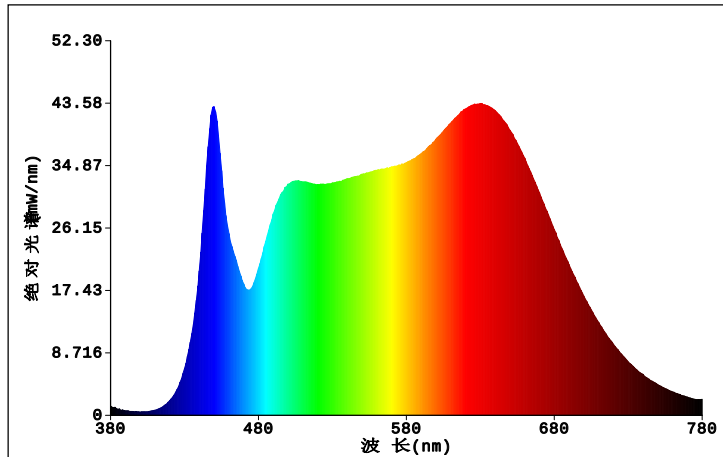
TM30 Report



数据分析表

			Graphic shift(%)	
Hue Bin	Hue Angle	Rf	Chroma	Hue
1	0.0° - 22.5°	97	-1	0
2	22.5° - 45.0°	98	0	0
3	45.0° - 67.5°	97	0	1
4	67.5° - 90.0°	97	-2	-1
5	90.0° - 112.5°	96	-2	0
6	112.5° - 135.0°	97	0	2
7	135.0° - 157.5°	97	0	1
8	157.5° - 180.0°	98	1	1
9	180.0° - 202.5°	96	0	2
10	202.5° - 225.0°	95	1	3
11	225.0° - 247.5°	94	3	4
12	247.5° - 270.0°	94	4	0
13	270.0° - 292.5°	95	1	-4
14	292.5° - 315.0°	93	3	-4
15	315.0° - 337.5°	92	1	-3
16	337.5° - 360.0°	93	0	-5

光源光谱测试报告



颜色参数:

色品坐标(2度): $x=0.3810$ $y=0.3779$ $u'=0.2250$ $v'=0.5022$ $duv=3.834e-004$ 相关色温: $T_c=3994K$ 主波长: $\lambda_d=578.9nm$ 色纯度: Purity=27.8%色比: R=20.8% G=74.3% B=4.9% 峰值波长: $\lambda_p=628.5nm$ 半宽度: $\Delta\lambda_d=206.6nm$ 显色指数: $R_a=98.3$ $AvgR=96.6$ $K_{red}=14.72\%$ 平均波长 $\lambda_{av}=584.4nm$

R1 =98.98 R2 =98.11 R3 =99.19 R4 =98.87 R5 =97.21

R6 =97.40 R7 =98.39 R8 =98.36 R9 =97.87 R10=95.59

R11=93.73 R12=87.04 R13=96.96 R14=99.03 R15=97.45

TM30 参数: $R_f = 95.7$, $R_g=100.9$

光度参数:

光通量 $\Phi = 2528 lm$ 光效: $116.99 lm/W$ $\phi_e = 9284 mW$ 光量子= $4.491e+001 \mu mol/s$ 荧光蓝光比=5.13 荧光效能= $3.596e-001$

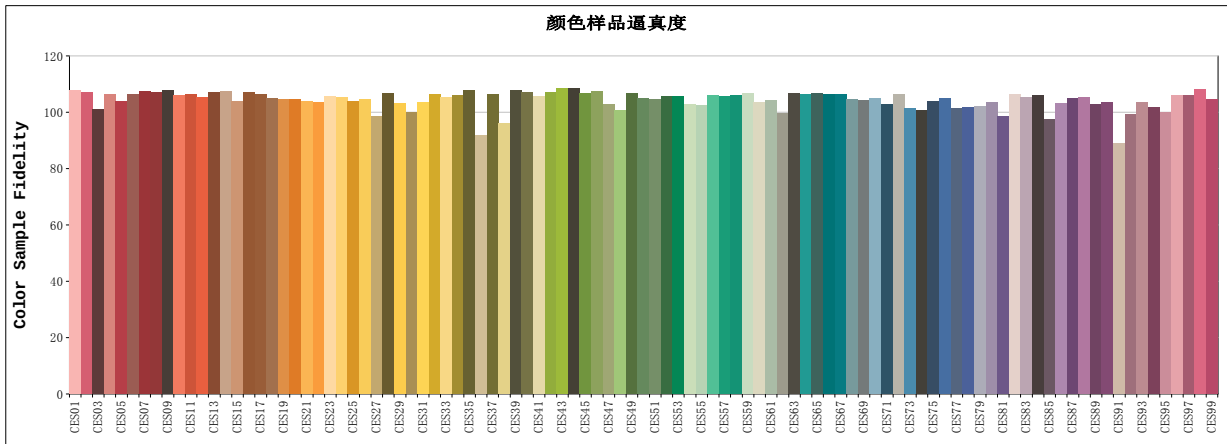
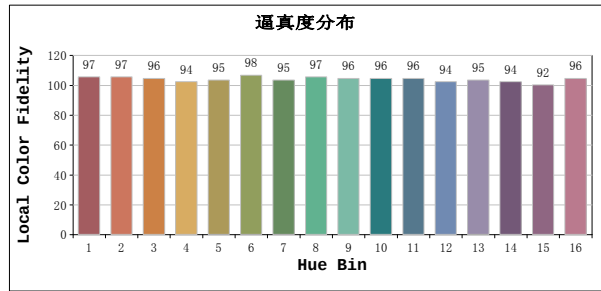
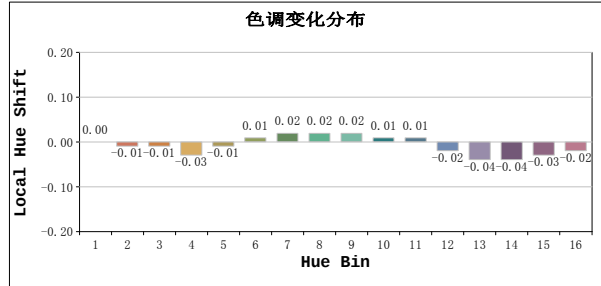
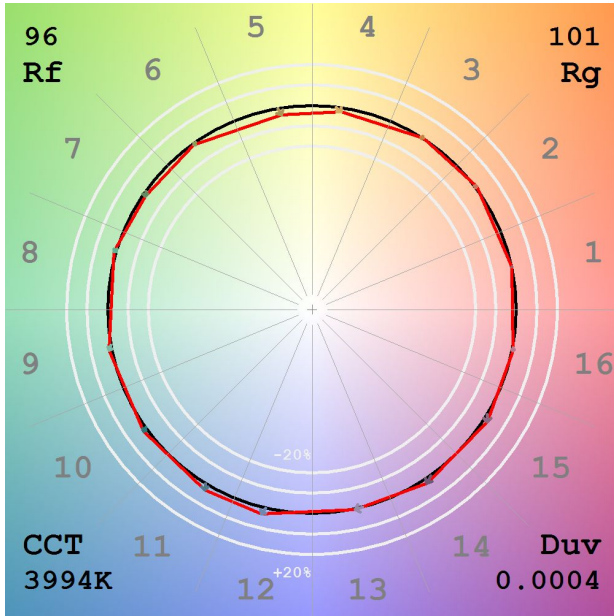
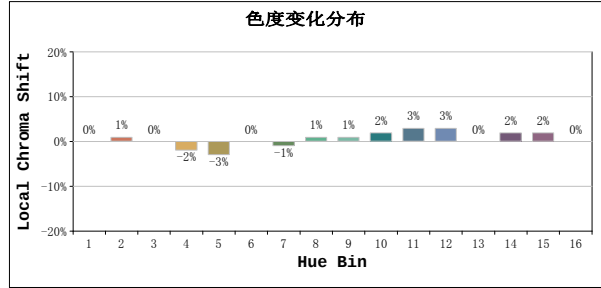
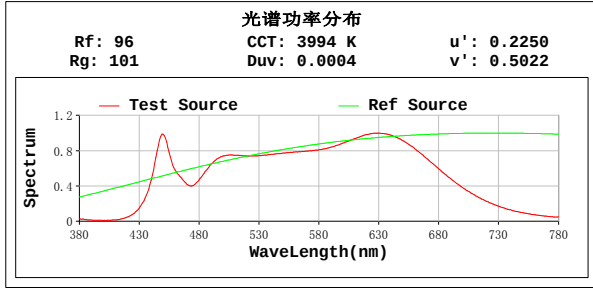
电参数:

正向电压 $V_F = 36.04 V$ 正向电流 $I_F = 599.7 mA$ 功率 $P = 21612 mW$ Ch1

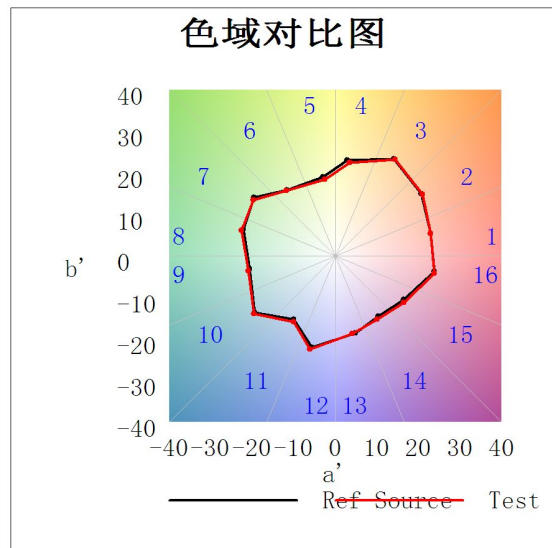
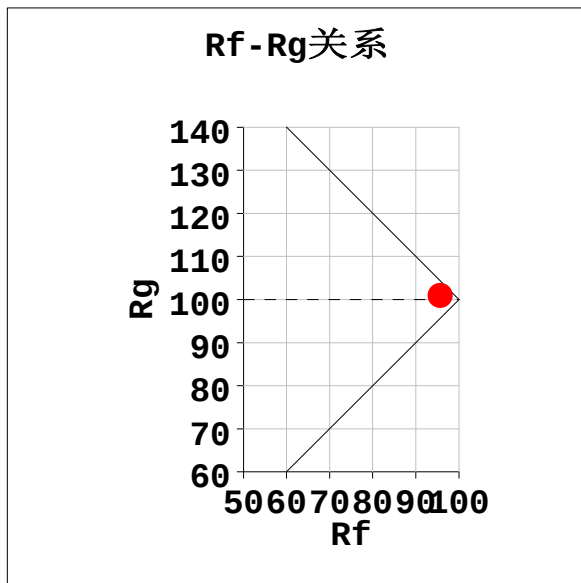
分级:*0[OUT] 白光分类:4000K

仪器状态: 积分时间 $T=13.00ms$ $I_p=52193 (80\%)$ [HAAS2000_V1_USB] V2.00.302产品型号:4000K
测试人员:DAMIN
环境温度:25.3℃
制造厂商:EVERFINE
审核人员:damin
测试仪器:WY + HAAS2000_V1_USB产品编号:3
测试日期:2023-11-20 10-46
环境湿度:65.0%
备 注:---

IES TM-30-18 Color Rendition Report



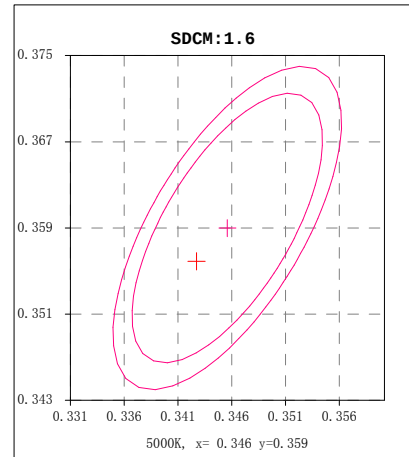
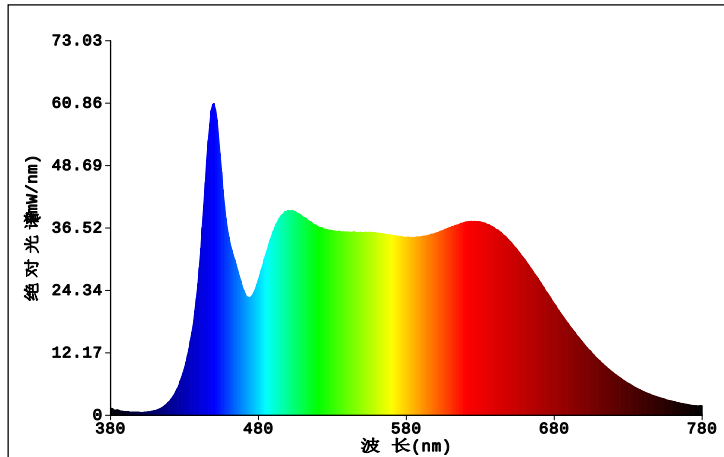
TM30 Report



数据分析表

			Graphic shift(%)	
Hue Bin	Hue Angle	Rf	Chroma	Hue
1	0.0° - 22.5°	97	0	0
2	22.5° - 45.0°	97	1	-1
3	45.0° - 67.5°	96	0	-1
4	67.5° - 90.0°	94	-2	-3
5	90.0° - 112.5°	95	-3	-1
6	112.5° - 135.0°	98	0	1
7	135.0° - 157.5°	95	-1	2
8	157.5° - 180.0°	97	1	2
9	180.0° - 202.5°	96	1	2
10	202.5° - 225.0°	96	2	1
11	225.0° - 247.5°	96	3	1
12	247.5° - 270.0°	94	3	-2
13	270.0° - 292.5°	95	0	-4
14	292.5° - 315.0°	94	2	-4
15	315.0° - 337.5°	92	2	-3
16	337.5° - 360.0°	96	0	-2

光源光谱测试报告



颜色参数:

色品坐标(2度): $x=0.3431$ $y=0.3559$ $u'=0.2085$ $v'=0.4865$ $duv=2.931e-003$ 相关色温: $T_c=5089K$ 主波长: $\lambda_d=568.6nm$ 色纯度: $Purity=9.8\%$ 色比: $R=17.8\%$ $G=75.9\%$ $B=6.2\%$ 峰值波长: $\lambda_p=449.8nm$ 半宽度: $\Delta\lambda_d=23.4nm$ 显色指数: $R_a=98.1$ $AvgR=97.2$ $K_{red}=12.46\%$ 平均波长 $\lambda_{av}=563.3nm$

$R_1=98.04$	$R_2=98.73$	$R_3=98.99$	$R_4=97.62$	$R_5=98.01$
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$R_6=96.98$	$R_7=98.39$	$R_8=98.44$	$R_9=98.65$	$R_{10}=95.99$
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$R_{11}=94.21$	$R_{12}=88.27$	$R_{13}=98.16$	$R_{14}=99.05$	$R_{15}=98.34$
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TM30 参数: $R_f=96.6$, $R_g=101.0$

光度参数:

光通量 $\Phi=2606lm$ 光效: $118.86lm/W$ $\phi_e=9563mW$ 光量子: $4.513e+001\mu mol/s$ 荧光蓝光比: 3.61 荧光效能: $3.418e-001$

电参数:

正向电压 $V_F=36.56V$ 正向电流 $I_F=599.7mA$ 功率 $P=21926mW$ Ch1

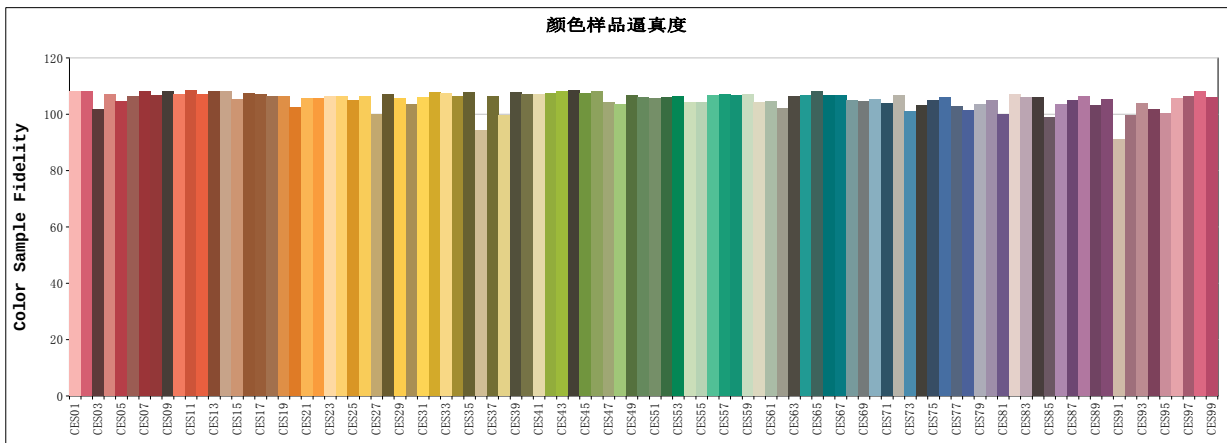
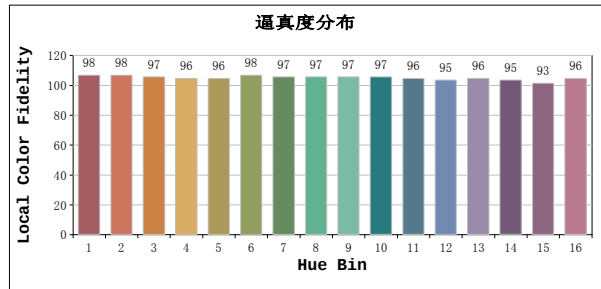
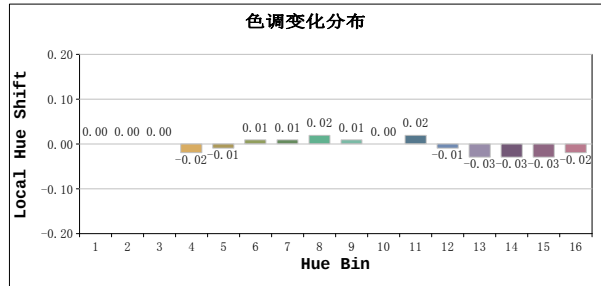
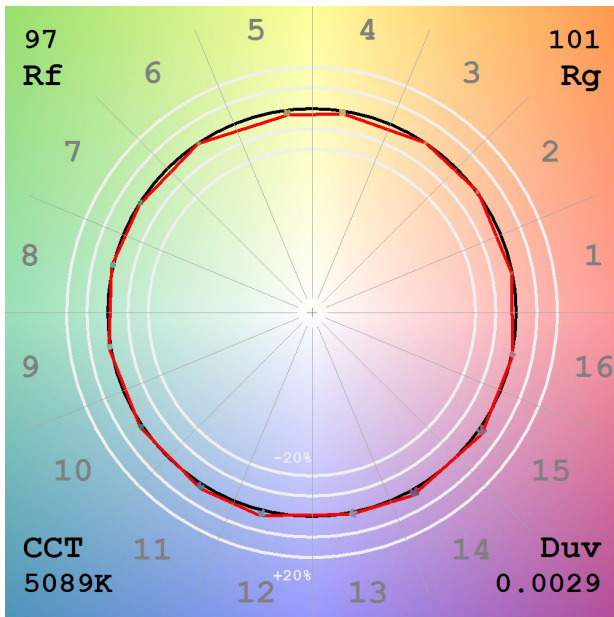
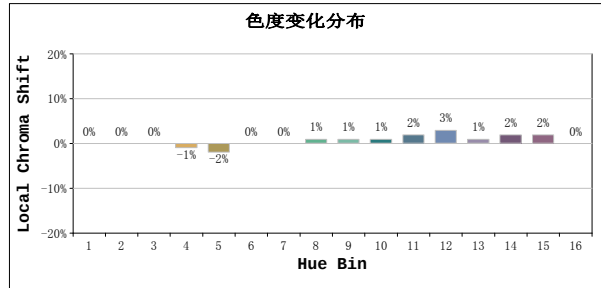
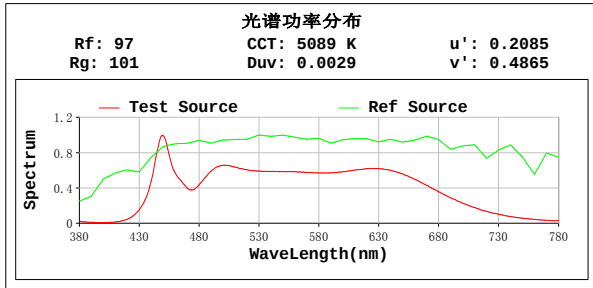
分级: *0[OUT] 白光分类: 5000K

仪器状态: 积分时间 $T=14.00ms$ $I_p=49120(75\%)$ [HAAS2000_V1_USB] V2.00.302

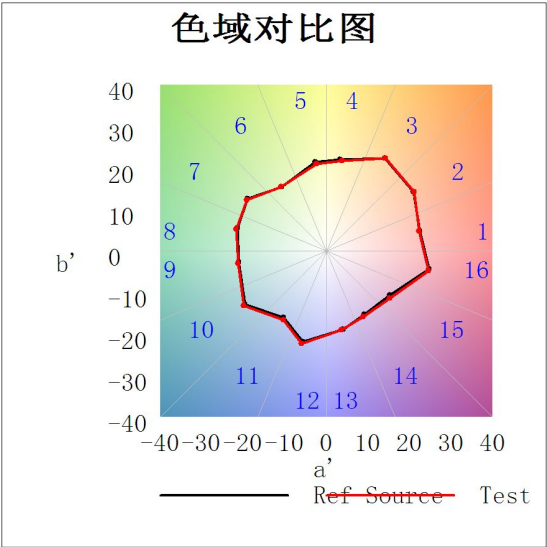
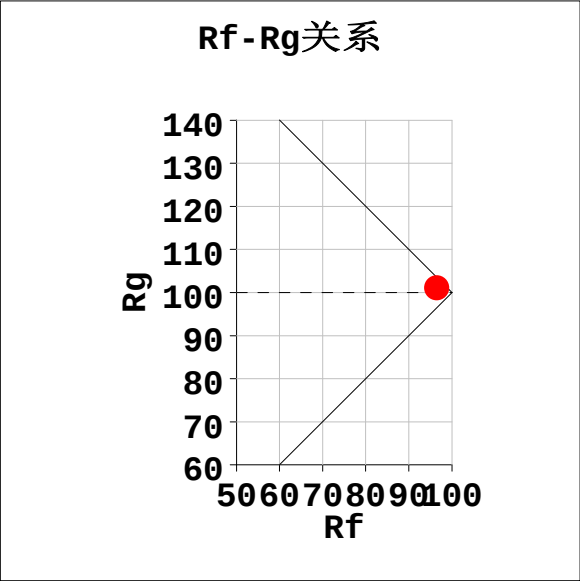
产品型号: 5000K
测试人员: DAMIN
环境温度: 25.3℃
制造厂商: EVERFINE
审核人员: damin
测试仪器: WY + HAAS2000_V1_USB

产品编号: 4
测试日期: 2023-11-20 10-52
环境湿度: 65.0%
备 注: ---

IES TM-30-18 Color Rendition Report



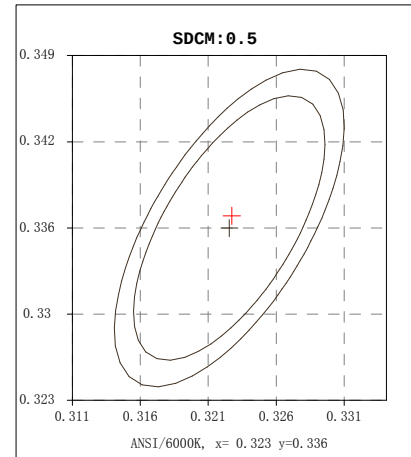
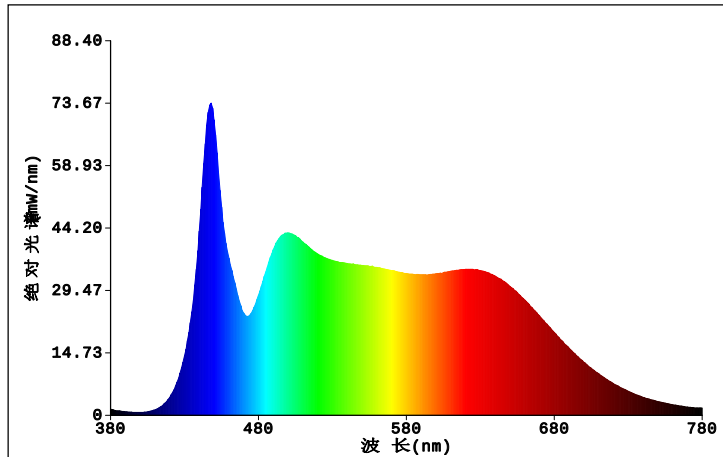
TM30 Report



数据分析表

			Graphic shift(%)	
Hue Bin	Hue Angle	Rf	Chroma	Hue
1	0.0° - 22.5°	98	0	0
2	22.5° - 45.0°	98	0	0
3	45.0° - 67.5°	97	0	0
4	67.5° - 90.0°	96	-1	-2
5	90.0° - 112.5°	96	-2	-1
6	112.5° - 135.0°	98	0	1
7	135.0° - 157.5°	97	0	1
8	157.5° - 180.0°	97	1	2
9	180.0° - 202.5°	97	1	1
10	202.5° - 225.0°	97	1	0
11	225.0° - 247.5°	96	2	2
12	247.5° - 270.0°	95	3	-1
13	270.0° - 292.5°	96	1	-3
14	292.5° - 315.0°	95	2	-3
15	315.0° - 337.5°	93	2	-3
16	337.5° - 360.0°	96	0	-2

光源光谱测试报告



颜色参数:

色品坐标(2度): $x=0.3232$ $y=0.3369$ / $u'=0.2021$ $v'=0.4740$ $duv=2.119e-003$ 相关色温: $T_c=5931K$ 主波长: $\lambda_d=496.2nm$ 色纯度: $Purity=3.2\%$ 色比: $R=16.6\%$ $G=76.5\%$ $B=6.9\%$ 峰值波长: $\lambda_p=447.8nm$ 半宽度: $\Delta\lambda_d=21.6nm$ 显色指数: $R_a=98.0$ $AvgR=96.9$ $K_{red}=11.50\%$ 平均波长 $\lambda_{av}=551.6nm$

$R_1=97.47$	$R_2=99.07$	$R_3=99.03$	$R_4=95.53$	$R_5=97.44$
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$R_6=97.36$	$R_7=99.33$	$R_8=99.07$	$R_9=96.80$	$R_{10}=96.66$
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$R_{11}=91.84$	$R_{12}=89.52$	$R_{13}=97.87$	$R_{14}=99.08$	$R_{15}=98.00$
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TM30 参数: $R_f=96.8$, $R_g=102.1$

光度参数:

光通量 $\Phi = 2571 lm$ 光效: $117.04 lm/W$ $\phi_e = 9626 mW$ 光量子: $4.477e+001 \mu mol/s$ 荧光蓝光比: 2.96 荧光效能: $3.276e-001$

电参数:

正向电压 $V_F = 36.63 V$ 正向电流 $I_F = 599.7 mA$ 功率 $P = 21969 mW$ Ch1

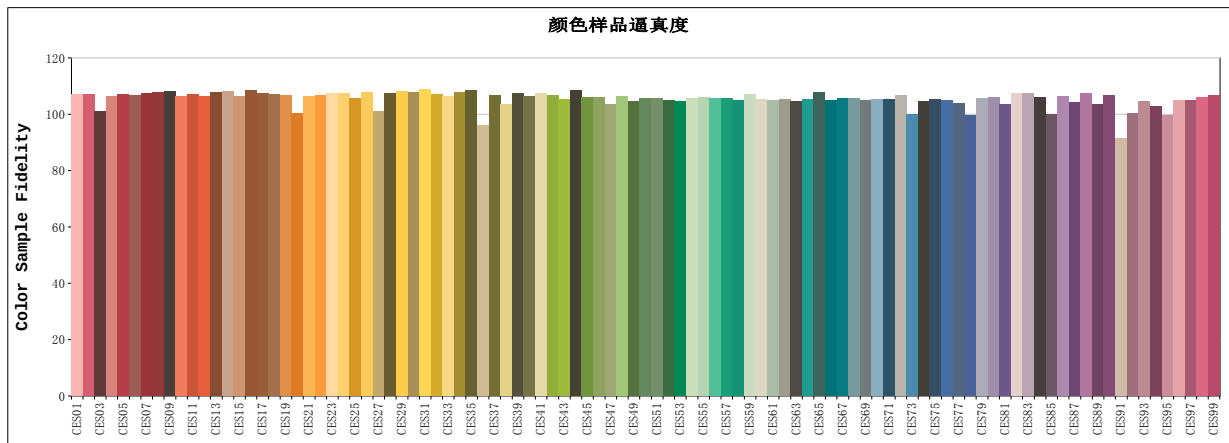
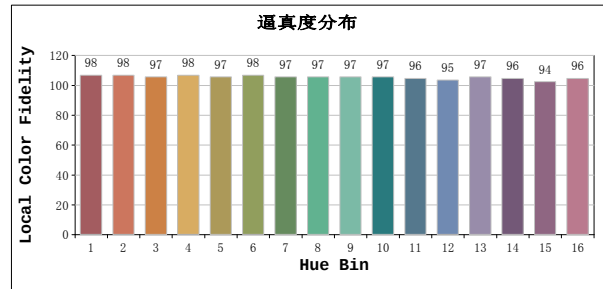
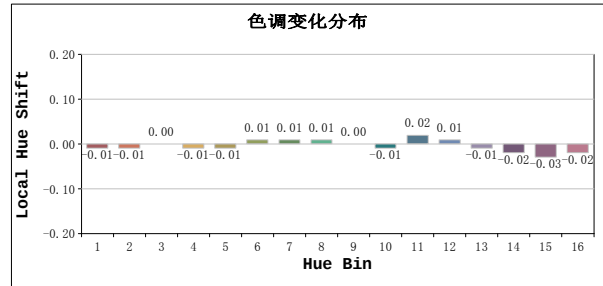
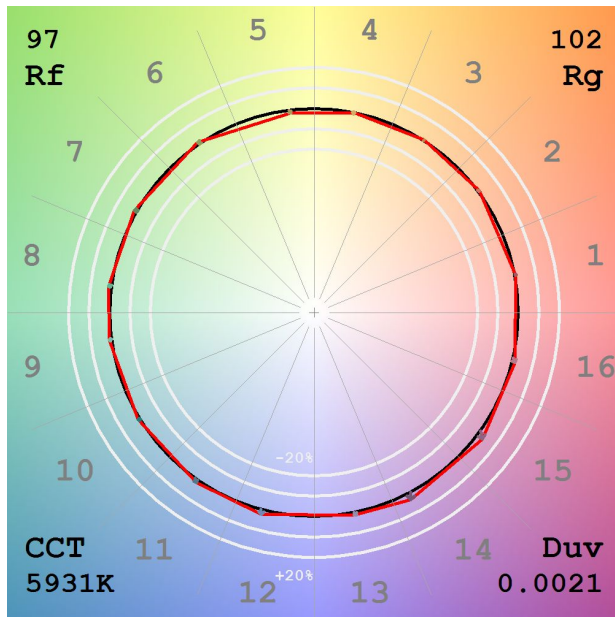
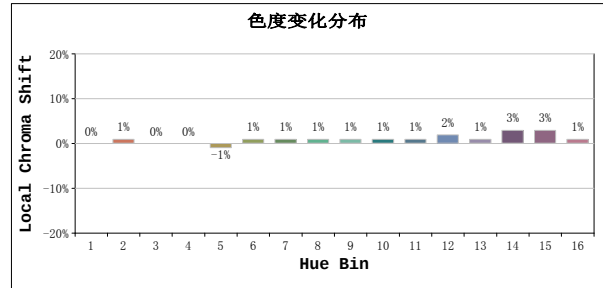
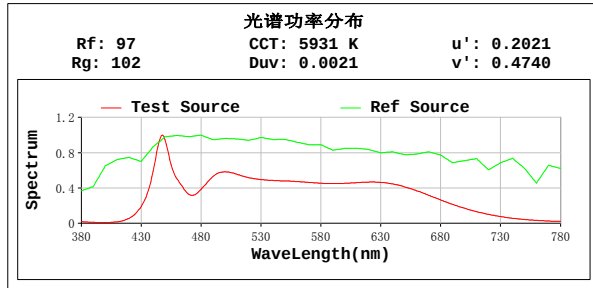
分级: *0[OUT] 白光分类: 5700K

仪器状态: 积分时间 $T=14.00ms$ $I_p=48363 (74\%)$ [HAAS2000_V1_USB] V2.00.302

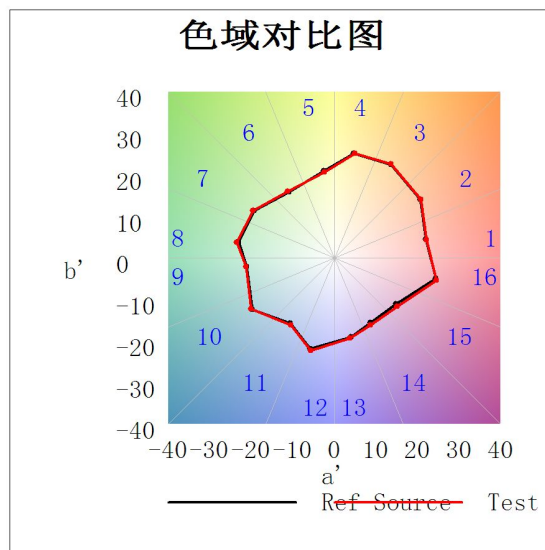
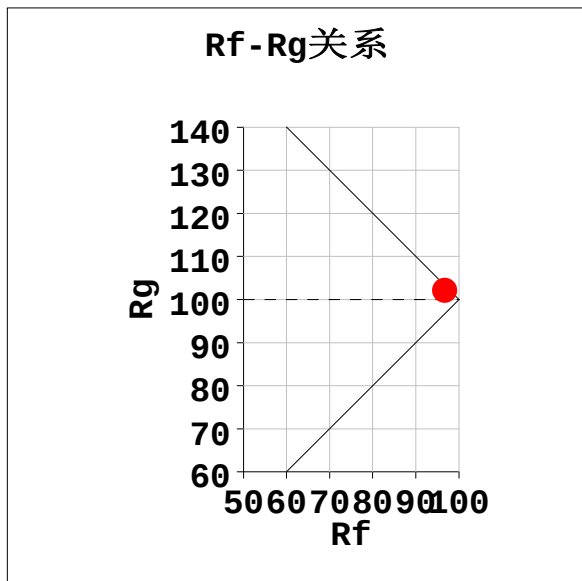
产品型号: 5000K
测试人员: DAMIN
环境温度: 25.3°C
制造厂商: EVERFINE
审核人员: damin
测试仪器: WY + HAAS2000_V1_USB

产品编号: 5
测试日期: 2023-11-20 10-54
环境湿度: 65.0%
备 注: ---

IES TM-30-18 Color Rendition Report



TM30 Report



数据分析表

Hue Bin	Hue Angle	Rf	Graphic shift(%)	
			Chroma	Hue
1	0.0° - 22.5°	98	0	-1
2	22.5° - 45.0°	98	1	-1
3	45.0° - 67.5°	97	0	0
4	67.5° - 90.0°	98	0	-1
5	90.0° - 112.5°	97	-1	-1
6	112.5° - 135.0°	98	1	1
7	135.0° - 157.5°	97	1	1
8	157.5° - 180.0°	97	1	1
9	180.0° - 202.5°	97	1	0
10	202.5° - 225.0°	97	1	-1
11	225.0° - 247.5°	96	1	2
12	247.5° - 270.0°	95	2	1
13	270.0° - 292.5°	97	1	-1
14	292.5° - 315.0°	96	3	-2
15	315.0° - 337.5°	94	3	-3
16	337.5° - 360.0°	96	1	-2