

Spectrum Genius

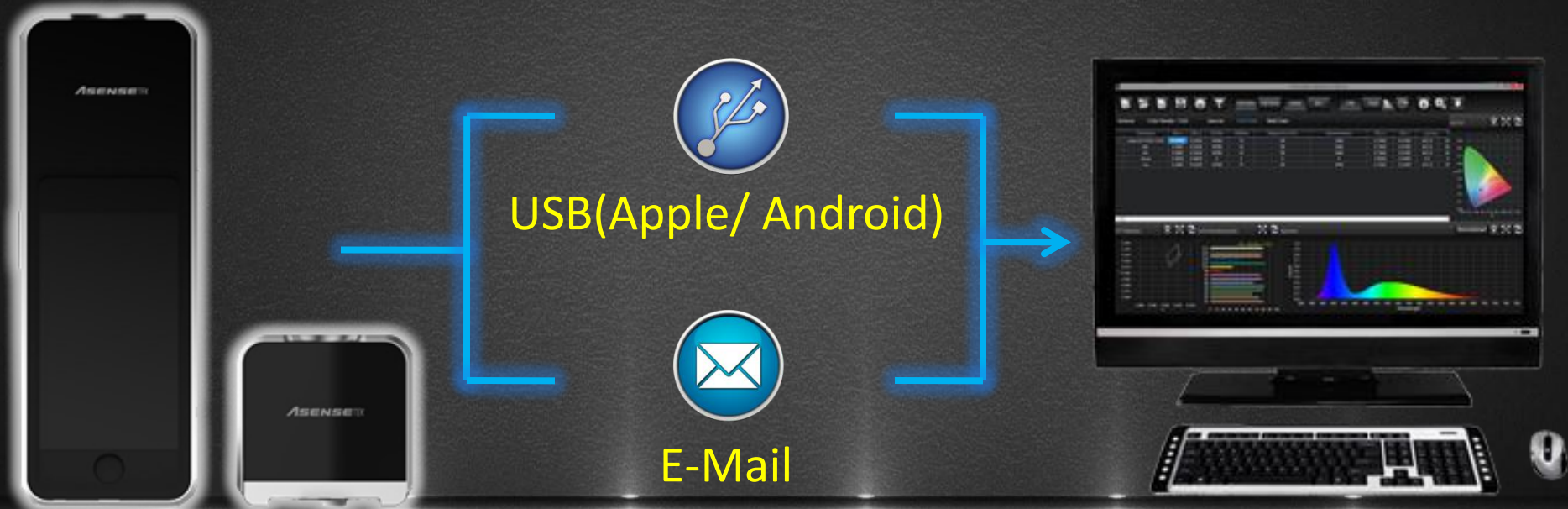
- PC Version -

Instructions



1) Transmit the data of Lighting Passport to the PC

◆ Two way to transmit the data



1-1) For "Apple", transmit the data to the PC.



◆ Open the iTunes and make the iDevice connect with the computer, then click the iDevice.



1-1) For "Apple", transmit the data to the PC.



◆ In the iDevice menu, click the application.



1-1) For "Apple", transmit the data to the PC.



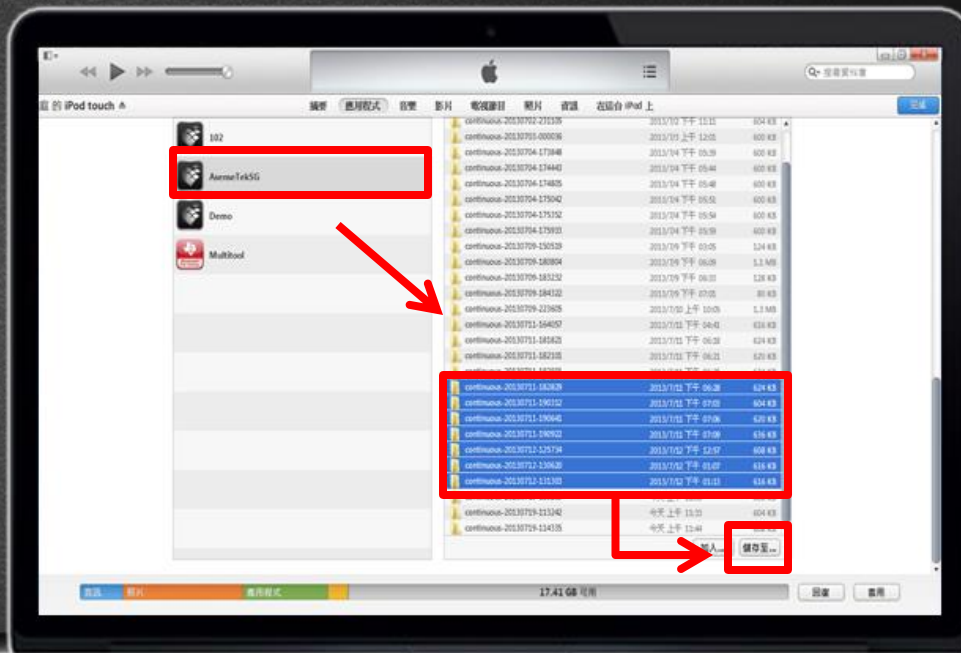
◆ Scroll down the bar



1-1) For "Apple", transmit the data to the PC.



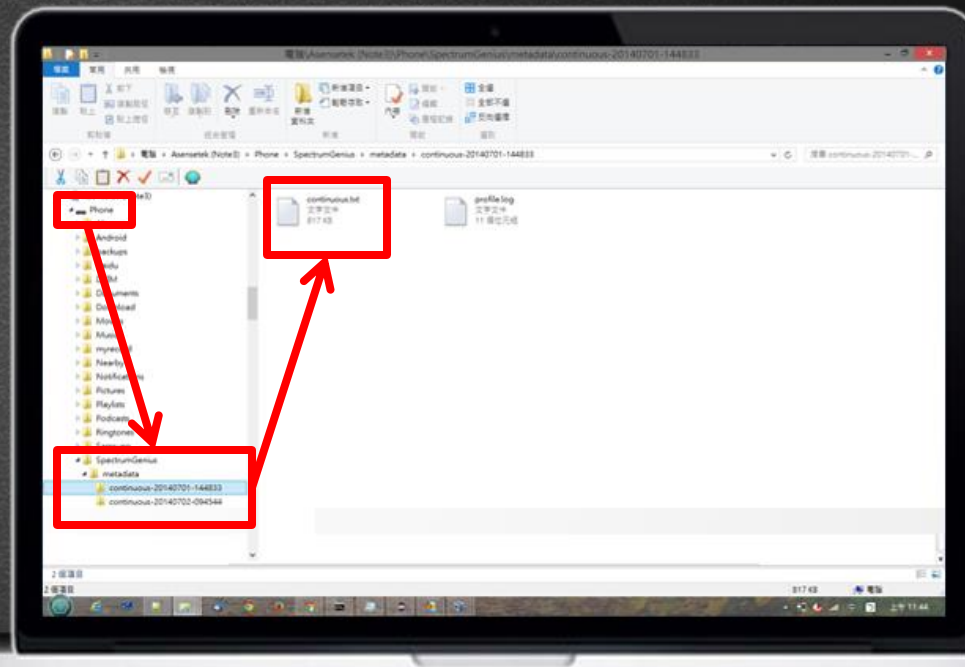
◆ Click the "SGM" folder, select the data, then click the "Save as".



1-2) For "Android", transmit the data to the PC.



- ◆ Choose your smart device and click the "SpectrumGenius" folder, select the data, then save the **txt data** to the PC folder.



1-3) Transmit the data to the PC by " E-mail "



◆ Click the "Record(s)" and select the data then email to the computer.



2) Execute SPECTRUM GENIUS PC Ver.

◆ Please click the SpectrumGenius.exe to run the program. If you are the Advanced User, remember to insert the Hard Key.

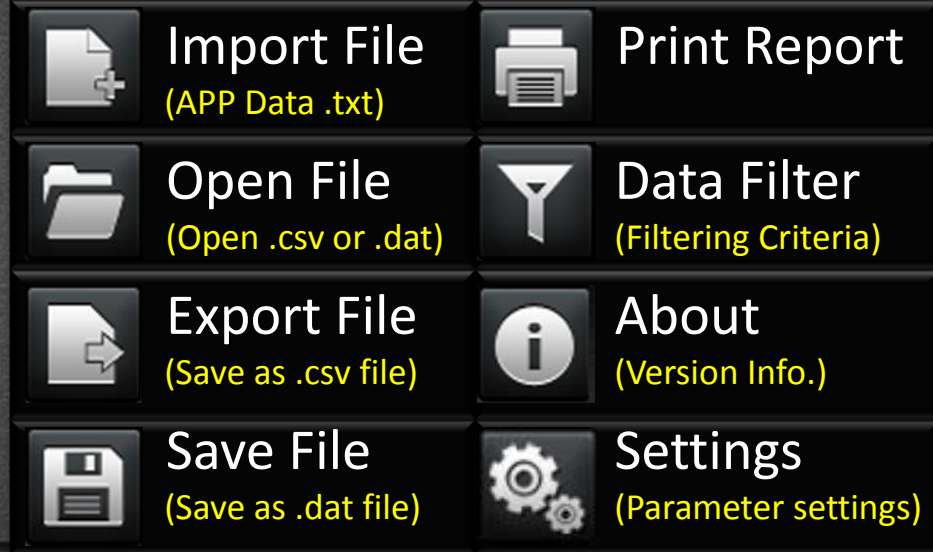


Windows 8 User should install the driver first, the driver is attached in the "USB_Key_Driver " folder in the CD.




3-1) UI Instruction

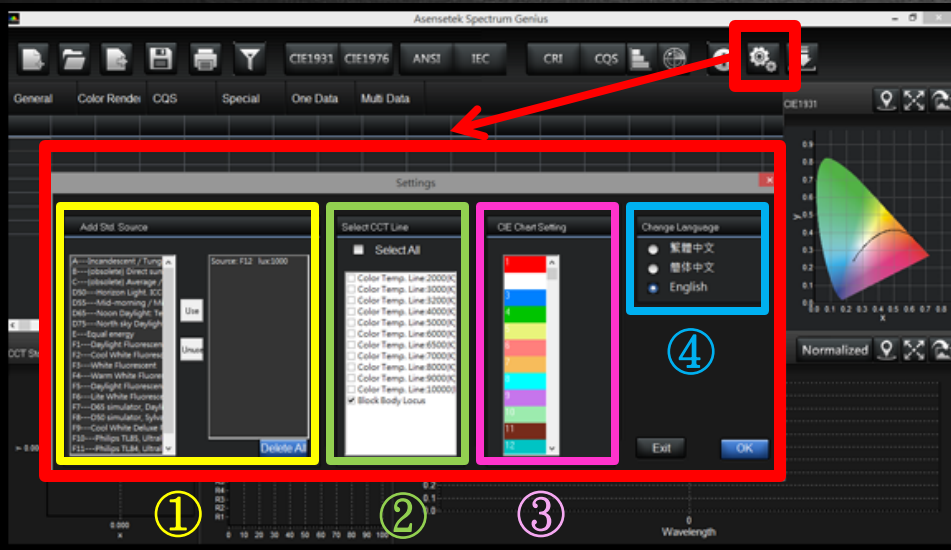
◆ Users can use the top left buttons to open the data; save as .dat file or Excel file (.csv); setting data filter and parameter; print the report.



* ①②③ are for Advanced Users only.

3-2) UI Instruction

◆  In the "Settings" page, users can customize a lot of advanced parameter settings, then get more convenient in analyzing data.



① **Add Std. Source:** Add the benchmark light source to compare with the measurement data.

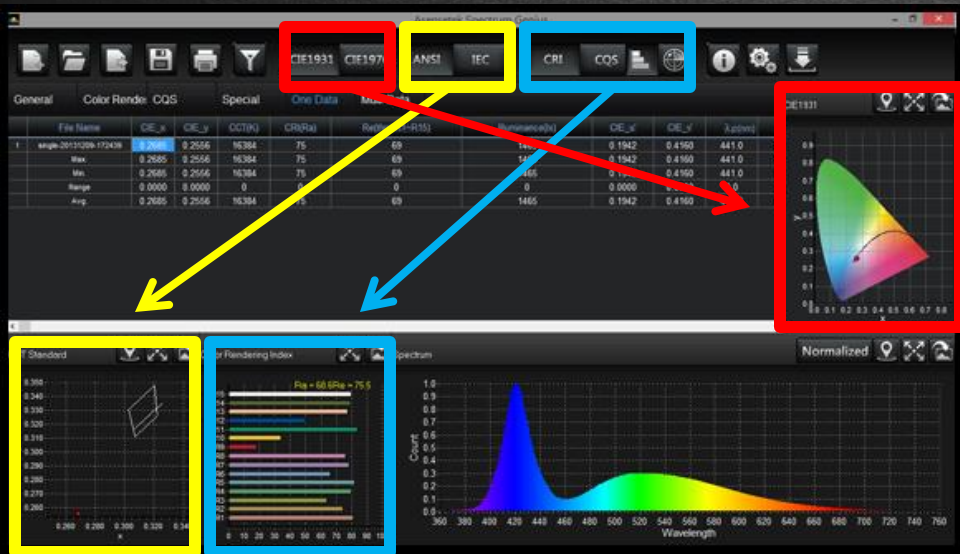
② **Select CCT Line:** Control the display of the Planckian Locus and the Isotemperature Line.

③ **Set Colors of Data :** Set the measure data's color of coordinate point and spectrum line.

④ **Chang Language:** Switching the locales.

3-3) UI Instruction

◆ Users can view the different charts by switch.



CIE1931

CIE1976

CIE1931/ CIE1976
(Color Coordinates Switch)

ANSI

IEC

C78.377/ SDCM
(CCT Standard Switch)

CRI

CQS

CRI/ CQS
(CQS only for Advanced users)



Radar chart/ Bar chart
(For R1 - R15/ Q1 - Q15)

* ①②④ are for Advanced Users only.

3-4) UI Instruction

◆ The small function keys will help users to check the charts by a much convenient way, and save the required chart directly.



①



Show Coordinate
(Show the coordinate on chart)

②



Zoom In/ Zoom Out
(Zoom in/ out the chart.)

③



Save Image
(Save the chart as an image.)

④



Normalized
(Switch the Normalized or not)

3-5) UI Instruction

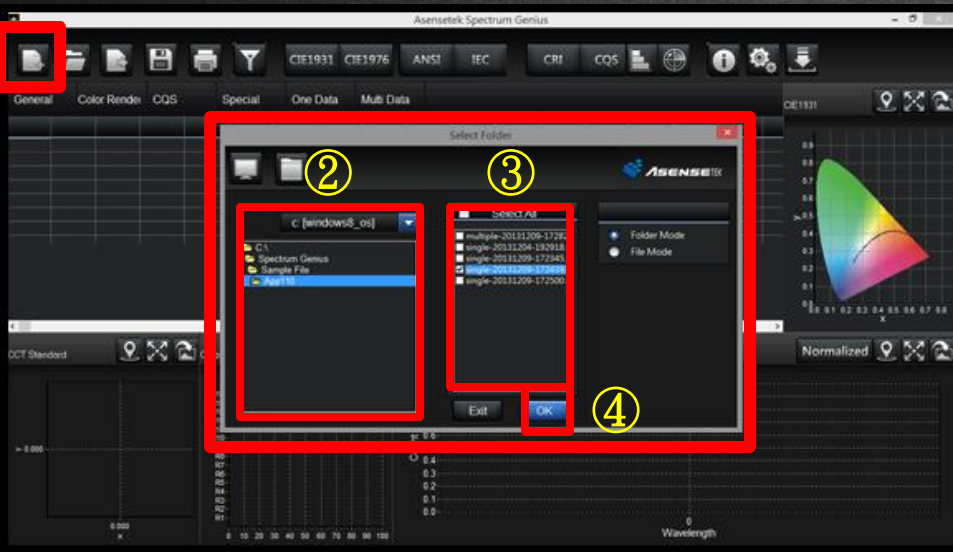
◆ Users can select and check CIE 1931, CIE 1976, C78.377-2008, IEC-SDCM, CRI, CQS, Radar chart, Bar chart.



4) New File – load the measuring data

◆ Click "New File" to choose the folder which you "save as", then select the single, multiple and continuous data (.txt file) you want

①



to analyze and click "OK". Standard User can only read one continuous data at most, 10 single and multiple data at most one time.

When the hard key is working, the red led will light.



5) General (One Data)

◆ Here, you can check the Max., Min., Range and Avg. of CIE_x, CIE_y, CIE_u', CIE_v', CCT, CRI, Illuminance, λ_p of measuring data.

Planckian Locus and Isotemperature Line can be showed by "Select CCT Line" of Settings page.



	File Name	CIE_x	CIE_y	CCT	CRI	Illuminance	CIE_u'	CIE_v'	λ_p
1	single-20130709-133628	0.3126	0.3312	6495	74	11830	0.1969	0.4695	445.0
	Max.	0.3126	0.3312	6495	74	11830	0.1969	0.4695	445.0
	Min.	0.3126	0.3312	6495	74	11830	0.1969	0.4695	445.0
	Range	0.0000	0.0000	0	0	0	0.0000	0.0000	0.0
	Avg.	0.3126	0.3312	6495	74	11830	0.1969	0.4695	445.0

6) CRI

◆ Here, you can check the Max., Min., Range and Avg. of R1 to R15 of measuring data.



	File Name	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	J15
1	single-20130709-133628	71.18	77.4	81.0	74.7	72.7	70.0	83.5	63.6	-19.6	45.5	71.4	49.5	71.9	89.2	65.5
	Max.	71.18	77.4	81.0	74.7	72.7	70.0	83.5	63.6	-19.6	45.5	71.4	49.5	71.9	89.2	65.5
	Min.	71.18	77.4	81.0	74.7	72.7	70.0	83.5	63.6	-19.6	45.5	71.4	49.5	71.9	89.2	65.5
	Range	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Avg.	71.18	77.4	81.0	74.7	72.7	70.0	83.5	63.6	-19.6	45.5	71.4	49.5	71.9	89.2	65.5

* This function is for Advanced Users only.

7) CQS

◆ Here, you can check the Max., Min., Range and Avg. of Q1 to Q15 of measuring data.



	File Name	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
1	single-20130709-133628	73.1	87.3	71.8	65.8	67.9	69.7	76.9	87.1	79.7	60.2	53.6	52.0	52.1	27.7	46.7
	Max.	73.1	87.3	71.8	65.8	67.9	69.7	76.9	87.1	79.7	60.2	53.6	52.0	52.1	27.7	46.7
	Min.	73.1	87.3	71.8	65.8	67.9	69.7	76.9	87.1	79.7	60.2	53.6	52.0	52.1	27.7	46.7
	Range	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Avg.	73.1	87.3	71.8	65.8	67.9	69.7	76.9	87.1	79.7	60.2	53.6	52.0	52.1	27.7	46.7

* Standard User only can check Qa, λ_d and Purity.

8) Special

◆ Here, you can check the Max., Min., Range and Avg. of Qa, λ_d , Purity, FWHM, PPF, SP Ratio of measuring data.



	File Name	Qa	λ_d	Purity	FWHM	PPF	SP ratio
1	single-20130709-133628	64.8	490.4	0.1	32.7	100.3	2.1
	Max.	64.8	490.4	0.1	32.7	100.3	2.1
	Min.	64.8	490.4	0.1	32.7	100.3	2.1
	Range	0.0	0.0	0.0	0.0	0.0	0.0
	Avg.	64.8	490.4	0.1	32.7	100.3	2.1

9) General (Multi Data)

◆ This function can support you to **analyze and compare** two or more measuring data. In the charts (**yellow box**), users can not only

check the bits at corresponding positions of those data, can also go to "Settings" page to add the custom benchmark light source, and compare with the Lighting Passport measurement data.



* This function is for Advanced Users only.

10) Normalized and Palette Generators(Multi Data)

◆ "Normalized" button can switch the normalization display in the spectrum chart of all measuring data; users can also change the label

color of data items in the "Settings" page, and the data's spectrum color line will follow the setting change.



11) Open File/ Save File

◆ After you review the measurement data, You can save this project as **".dat file"** (maybe you have multiple measurement data)

by the third icon **"Save File"**; You can open **".dat file"** and **"excel file"** by the second icon **"Open file"**.



12) Export

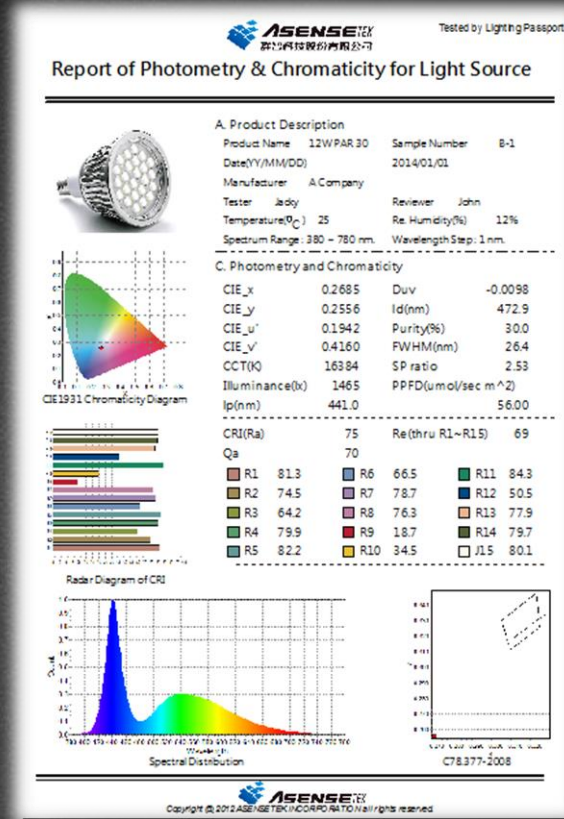
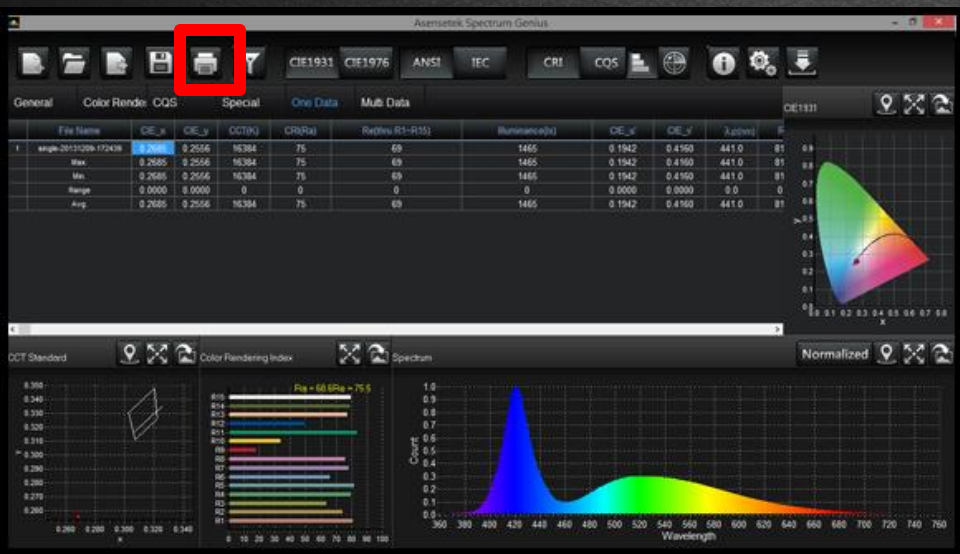
◆ You can export the Excel (.csv) form.



	A	B	C	D	E	F	G	H	I
1		File Name	CIE_x	CIE_y	CCT	CRI	Illuminance	CIE_u'	CIE_v'
2	1	continuous	0.4764	0.4177	2537	97	28142	0.27	0.5325
3	2		0.4773	0.4177	2526	97	29295	0.2705	0.5326
4	3		0.4774	0.4177	2524	97	44432	0.2706	0.5327
5	4		0.4771	0.4172	2525	97	29442	0.2706	0.5327
6	5		0.4768	0.4179	2534	97	45476	0.2701	0.5324
7	6		0.4771	0.4181	2532	97	45998	0.2702	0.5328
8	7		0.477	0.4175	2529	97	43606	0.2704	0.5325
9	8		0.4763	0.4173	2530	97	45874	0.27	0.5324
10	9		0.4771	0.418	2530	97	46829	0.2703	0.5327
11	10		0.475	0.4184	2560	97	43399	0.2687	0.5326
12	11		0.476	0.4176	2542	97	47121	0.2697	0.5324
13	12		0.4766	0.4178	2536	97	28176	0.27	0.5326
14	13		0.4755	0.4173	2546	97	24098	0.2695	0.5322
15	14		0.4779	0.418	2521	97	43162	0.2708	0.5329
16	15		0.4753	0.4183	2555	97	46235	0.269	0.5326
17	16		0.4774	0.4175	2526	97	44919	0.2707	0.5326
18	17		0.4777	0.4178	2522	97	41069	0.2707	0.5328
19	18		0.4771	0.4174	2526	97	28452	0.2705	0.5325
20	19		0.4768	0.4182	2536	97	46848	0.27	0.5325
21	20		0.4784	0.4184	2517	97	43948	0.2709	0.5331

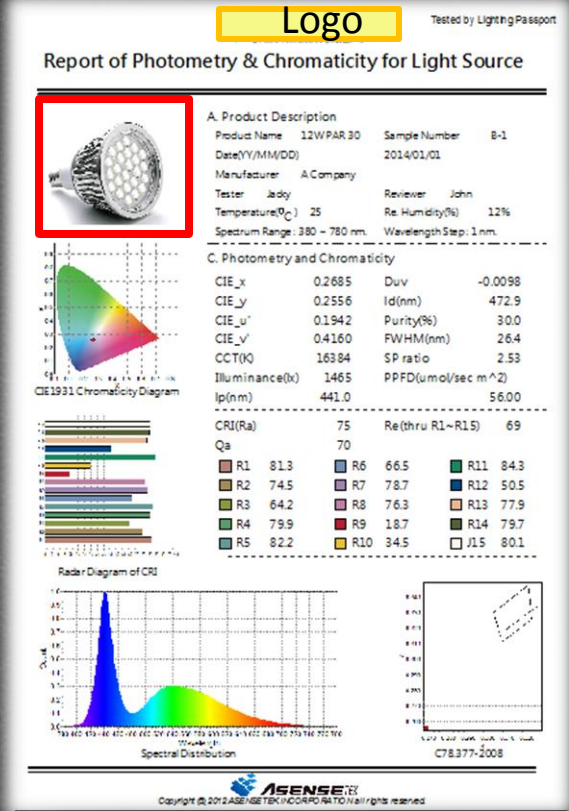
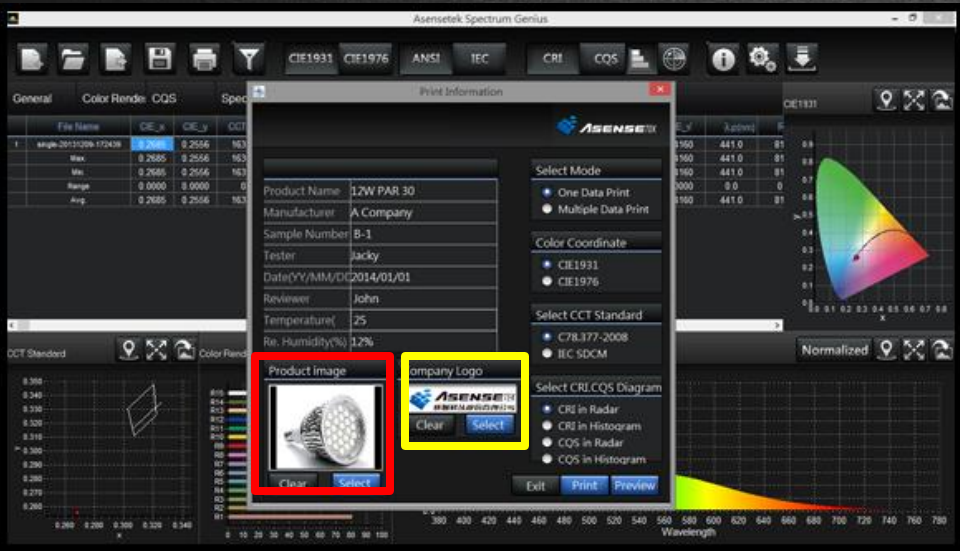
13-1) Print Report

◆ You can print the professional report.



13-2) Print Report

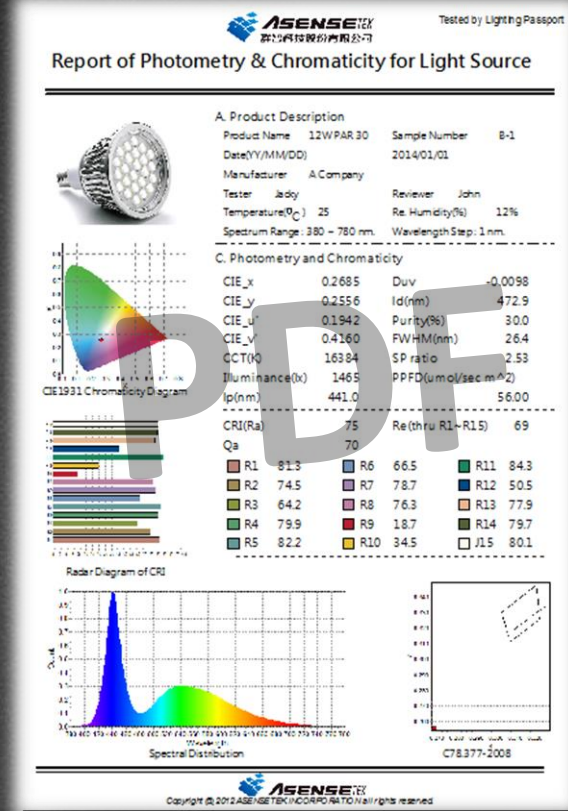
- ◆ You can also add the product picture in the reports.
- * Advanced User can put their logo on the report.



13-3) Print Report

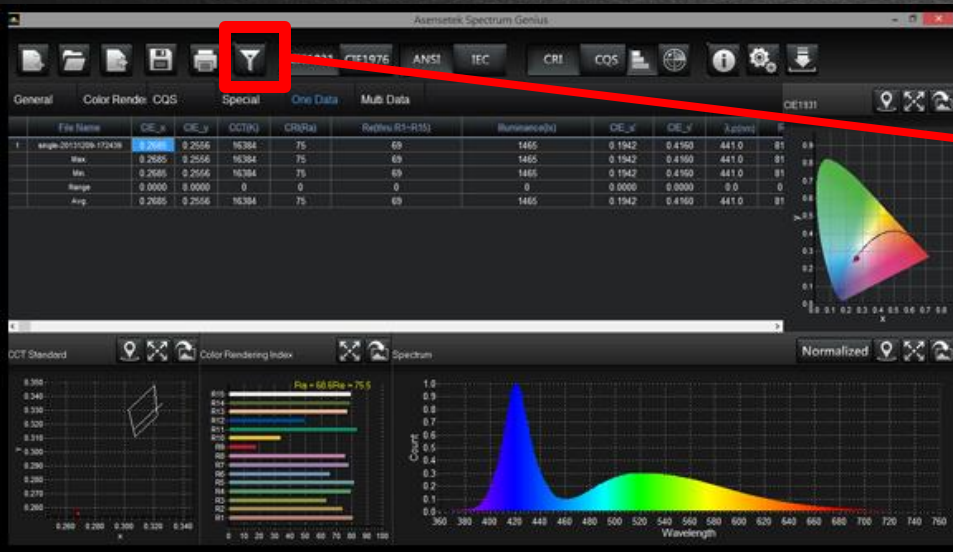
◆ If users want to export the **PDF file**, please download and install the **PDF Printer**.
(* Please refer **Bullzip website** and get a free download.)

◆ In the preview page, please click the "Printer Setup" and choose the **Bullzip PDF Printer** as the export printer, then click the "Print" to export the **PDF file**.



14) Data Filter

◆ You can set up the lower limit and upper limit Here, and the filter will show the irregular data by red.



Data Filter

General	CRI	CQS	Special															
	CIE_x	CIE_y	CCT	CRI	Illuminance	CIE_u'	CIE_v'	λ_p	R1	R2	R3							
Upper Limit			5000															
Lower Limit			5500															

Min. 5000
Max. 5500

Reset Apply

File Name	CIE_x	CIE_y	CCT	
single-20130709-133628	0.3126	0.3312	6495	
single-20130709-133808	0.3377	0.3680	5315	
single-20130709-133956	0.4766	0.4174	2532	
Max.	0.4766	0.4174	6495	
Min.	0.3126	0.3312	2532	
	0.1640	0.0862		
	0.3756			

15) Update

◆ Users can click the “Check Version” button to download the newest version in the start menu, or click the top right “Update” key.

The screenshot shows the 'Welcome' dialog box of the ASENSETEK Spectrum Genius Standard software. The dialog box is titled 'Welcome' and features the ASENSETEK logo and the text '群智科技 光谱精灵'. It includes a 'Select Language' dropdown menu set to 'English' and a 'Check Version' button highlighted with a red box. Below the language selection, there is a copyright notice and a 'Do you use Lighting Passport?' checkbox. The background of the software interface shows a color calibration chart and various data plots.

The screenshot shows the 'General' tab of the ASENSETEK Spectrum Genius software. The interface displays a table of data with columns for File Name, CIE_x, CIE_y, CIE_z, CR(Ra), Ref(Ra, R1-R15), Illuminance(lx), CIE_u', CIE_v', λ_{peak} , and R. The 'Update' button in the top right corner is highlighted with a red box. Below the table, there are several plots: a CCT Standard plot, a Color Rendering Index plot, and a Spectrum plot showing a distribution curve over a wavelength range from 380 to 780 nm.

File Name	CIE_x	CIE_y	CIE_z	CR(Ra)	Ref(Ra, R1-R15)	Illuminance(lx)	CIE_u'	CIE_v'	λ_{peak}	R
1	0.4372	0.2556	0.2556	15384	75	69	0.1942	0.4150	441.0	81
2	0.4372	0.4041	2395	84	75	10	0.2507	0.5214	610.0	94
3	0.4372	0.4041	2395	84	75	1000	0.1942	0.4150	441.0	81
Max	0.2685	0.2556	15384	75	69	1465	0.1942	0.4150	441.0	81
Min	0.2685	0.2556	15384	75	69	1465	0.1942	0.4150	441.0	81
Range	0.0000	0.0000	0	0	0	0	0.0000	0.0000	0.0	0
Avg	0.2685	0.2556	15384	75	69	1465	0.1942	0.4150	441.0	81