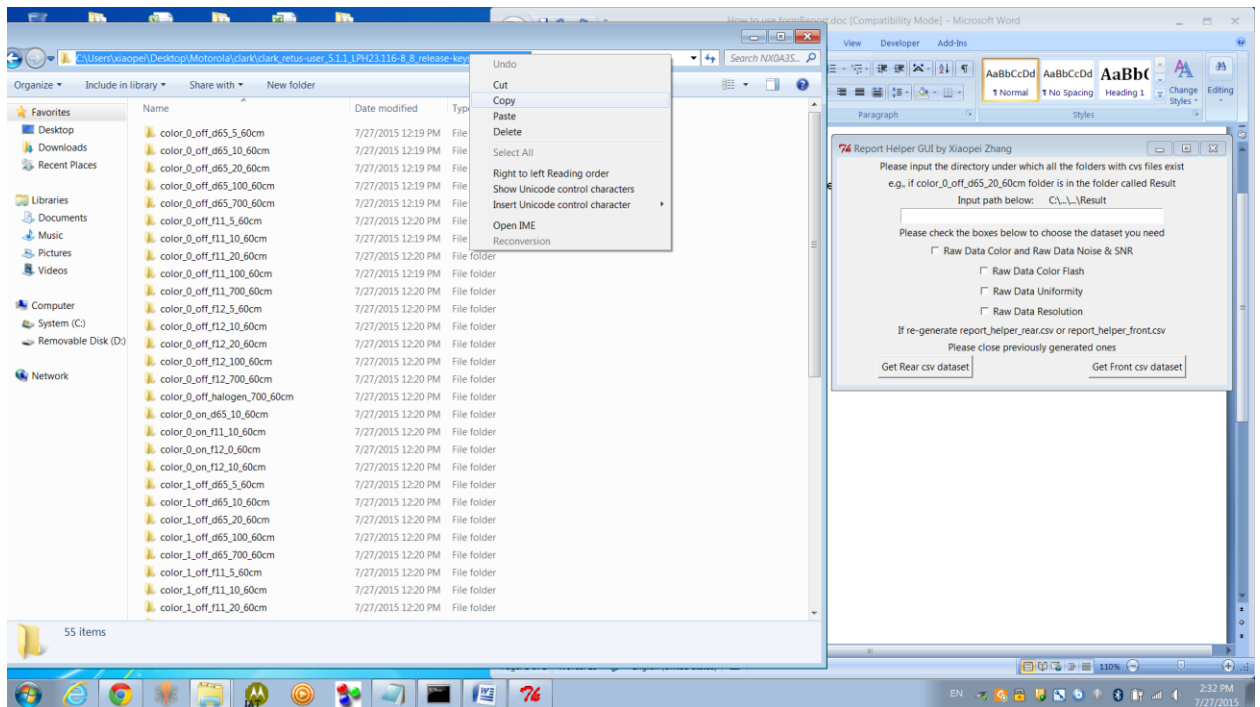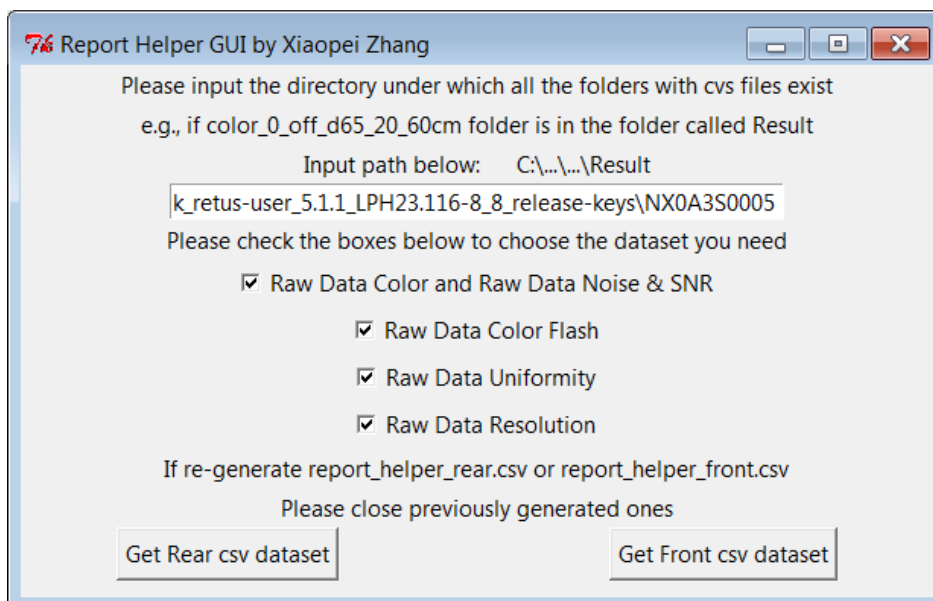# How to use formReport.exe by Xiaopei Zhang:

1. Copy and paste the directory where folders like color_0_off_d65_20_60cm exist
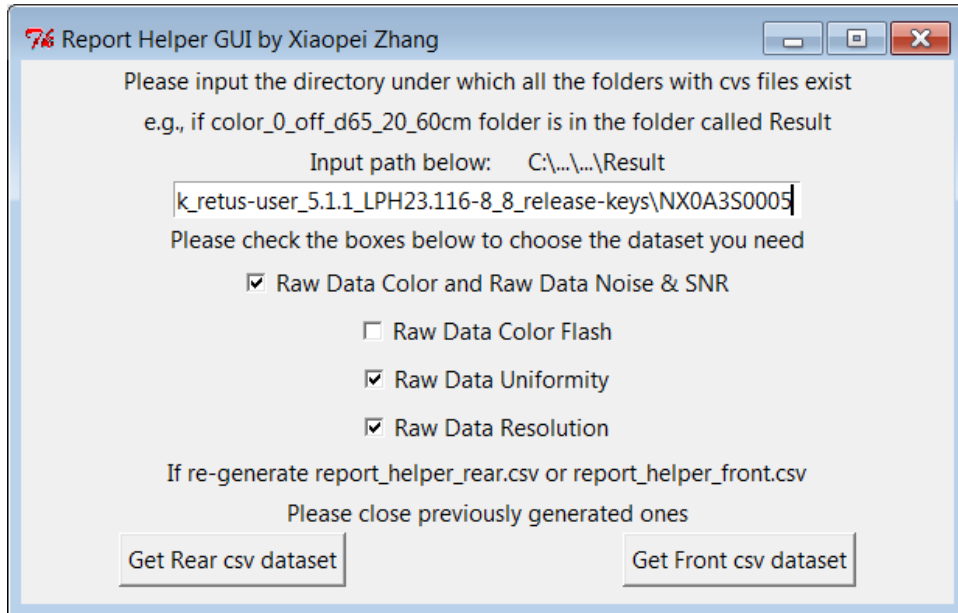

2. Choose datasets you need
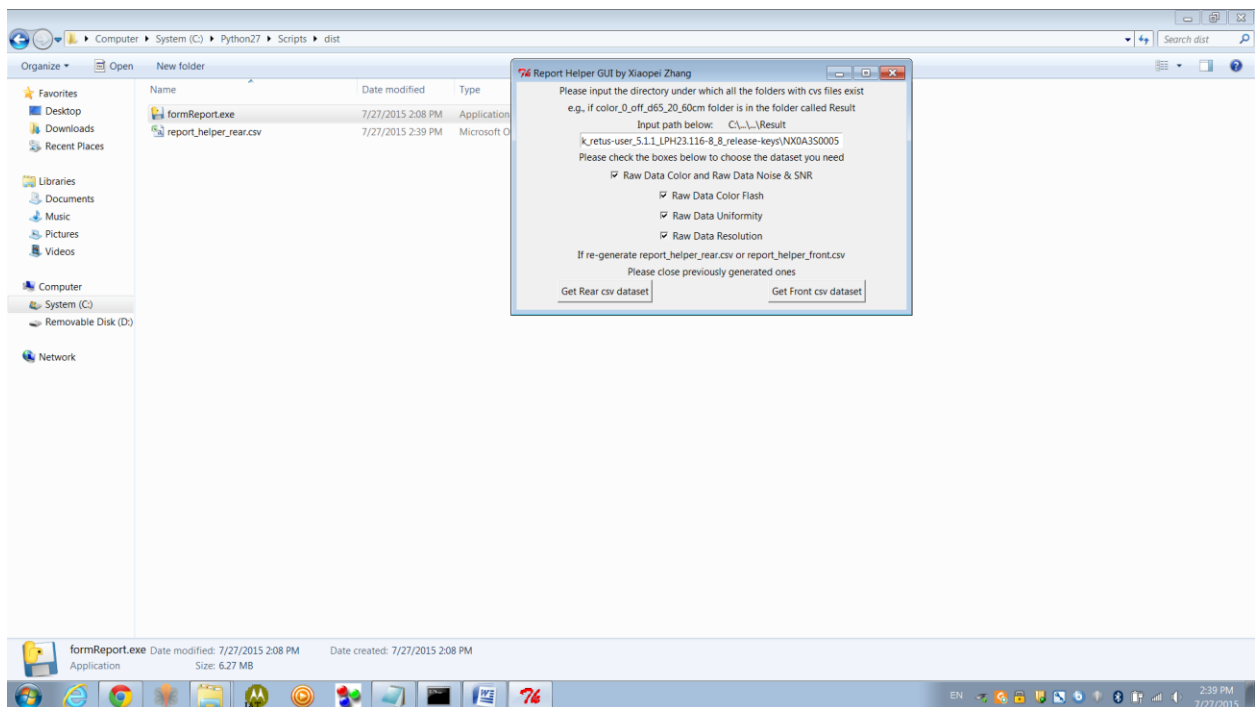
   For rear report, usually choose:

   For front report, usually choose:

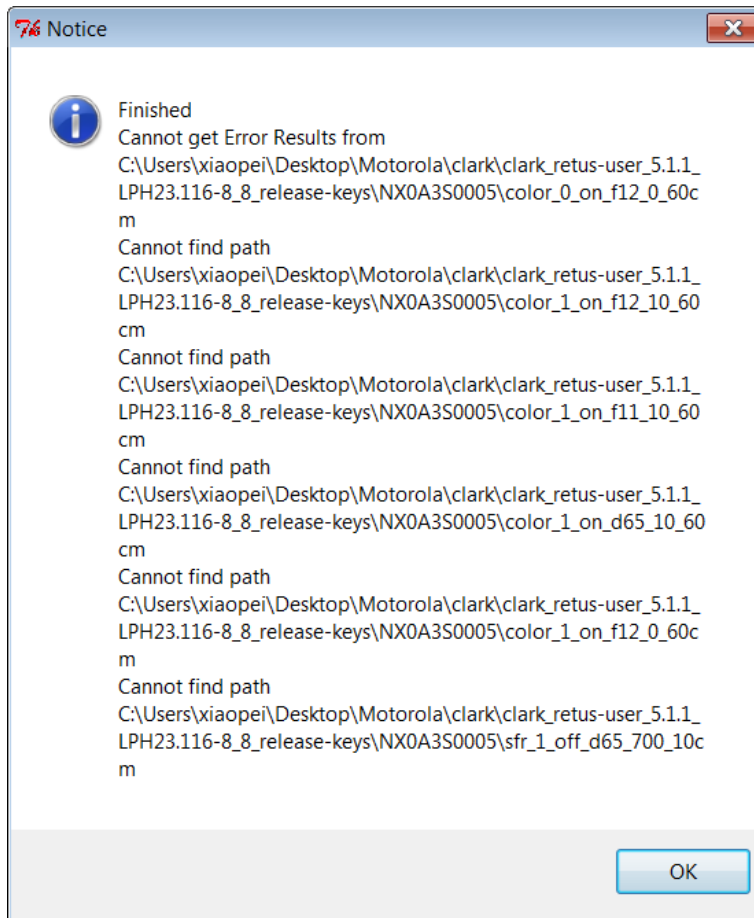If front flash data are also needed, choose Raw Data Color Flash as well

3. If you want rear data, click Get Rear csv dataset; If you want front data, click Get Front csv dataset

You will get 'report_helper_rear.csv' (or 'report_helper_front.csv') in the folder where your 'formReport.exe' file is


You will also get a message frame

DO NOT PANIC! It is normal. It tells you what folders do not exist or do not contain csv files. YOU STILL HAVE report_helper_rear.csv AND report_helper_front.csv

For example, the above message box tells us that the rear flash-on 0lux pictures were not processed, the front flash-on folders do not exist and the front 10cm sfr does not exist.

4. Check whether the csv files exist
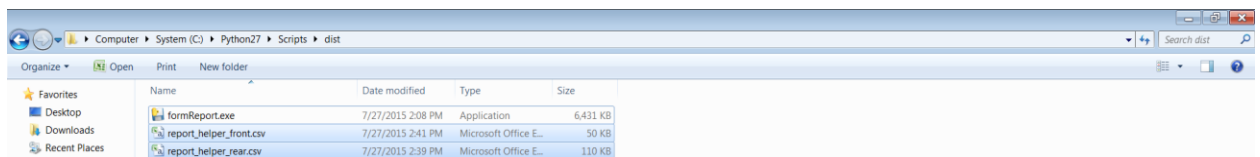
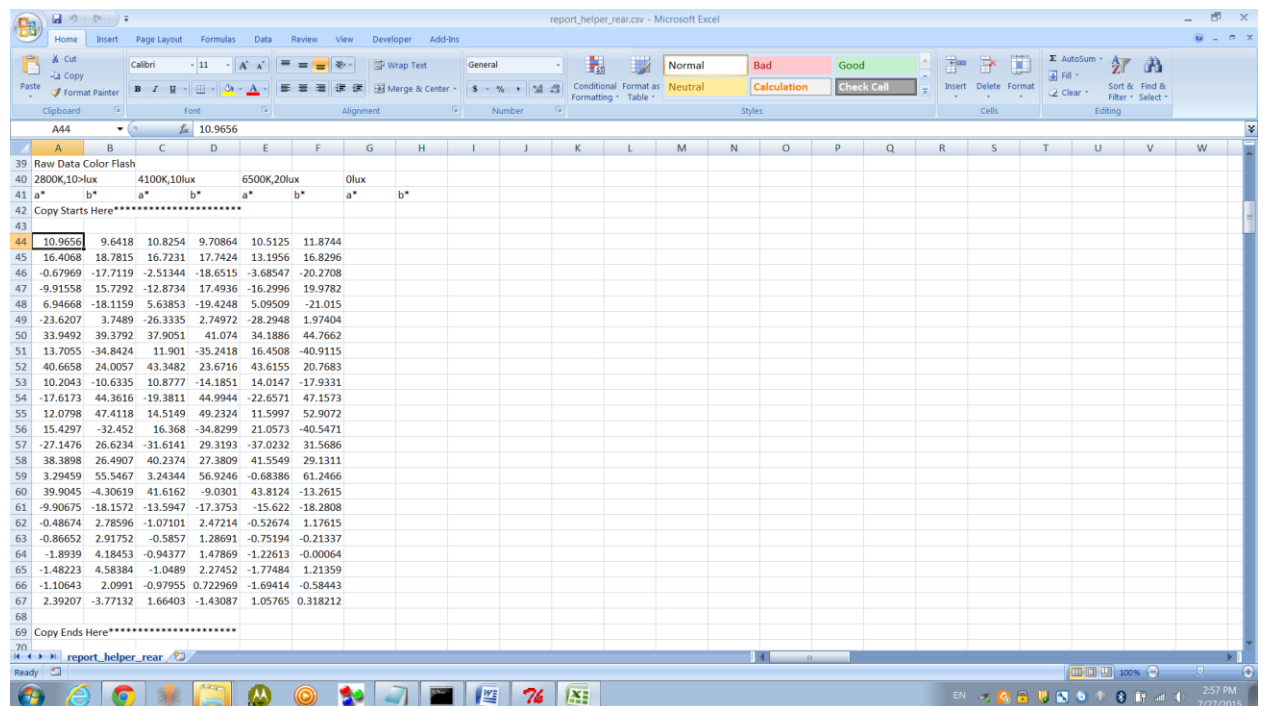5. Open csv files, copy from it and paste each sheet in the excel template we use

YOU HAVE TO USE Ctrl + Shift + Down + Right to choose data for the respective sheet in the excel and paste there. ONE SHEET, ONE COPY and ONE PASTE.

PAY ATTENTION to 'Copy Starts*******' and 'Copy Ends********'

Raw Data Color

Start from the cell I picked below, then Ctrl + Shift + Down + Right

REAR

Raw Data Color

2800K,>500lux		4100K,20lux		4100K,100lux		4100K,>500lux		6500K,20lux		6500K,100lux		6500K,>500lux	
a*	b*	a*	b*	a*	b*	a*	b*	a*	b*	a*	b*	a*	b*

Copy Starts Here*********************

15.8273	30.1075	16.95	18.5221	15.7377	22.6017	18.8825	27.8361	16.3586	17.6286	14.438	18.6091	15.229	22.861
18.5578	22.0102	16.0714	18.6907	15.7214	19.7523	19.6212	24.4768	13.2545	17.1792	14.2148	16.745	14.5547	19.7228
-7.76562	-14.1854	-6.30908	-17.618	-7.73841	-18.7918	-8.65184	-17.8804	-5.46155	-21.9631	-6.81161	-21.7498	-7.59825	-22.9314
-15.9649	38.7451	-17.7243	29.1658	-20.9021	35.7705	-21.8039	42.4682	-21.7508	29.7544	-22.0396	31.179	-25.3175	36.942
9.46828	-15.6903	5.92002	-18.9608	5.52111	-20.0852	6.78033	-19.5337	5.66779	-21.4835	6.48386	-23.1852	7.54003	-24.7134
-30.1993	4.99257	-27.2258	2.88368	-30.9765	3.79452	-34.0244	5.70331	-30.506	1.64376	-32.0622	1.31164	-35.7215	1.53283
30.9587	73.3658	37.3115	53.2807	34.0245	68.5116	39.6945	72.2918	33.3051	58.2628	31.0889	62.4632	32.9353	71.0442
8.76473	-37.2058	8.736	-38.1129	6.1154	-40.638	5.84353	-41.3893	10.9412	-43.6449	10.4534	-45.2747	10.1963	-48.2118
62.7964	21.3447	51.4571	23.0668	54.174	19.7944	64.4897	24.9358	51.2259	17.0051	51.7223	17.0118	57.5527	18.1621
34.7068	-15.2222	16.5476	-20.0314	21.5097	-24.6897	23.4461	-23.2492	21.9574	-26.909	23.1974	-27.251	24.7346	-28.8511
-24.7952	65.4672	-23.0111	57.3164	-26.7921	66.0534	-27.484	77.4974	-25.8719	55.874	-27.7438	56.7477	-31.5929	70.3123
10.6623	80.099	12.7473	64.1071	7.92012	78.9542	12.6417	80.4812	9.26784	69.0243	7.46643	73.6743	7.22782	81.8568
7.24453	-41.7117	15.4146	-41.4044	9.37882	-45.5868	8.56166	-46.6324	19.8543	-49.7126	14.278	-49.8637	14.2583	-52.6072
-37.8543	35.3841	-37.3161	35.7606	-40.7604	38.3115	-44.726	44.7804	-42.9505	35.2192	-43.5298	34.9583	-49.0112	40.9339
72.2618	37.6063	51.4807	35.13	60.9524	39.7085	68.4739	48.2079	54.0438	33.6528	57.9933	34.9654	63.0681	40.5064
-9.8349	87.8934	0.491352	71.3512	-7.99378	87.2691	-8.60986	88.1224	-4.40046	76.9	-9.84537	82.2548	-13.5193	90.1025
65.4701	-10.6546	47.8676	-12.3043	50.3909	-14.9142	57.7857	-12.7496	49.177	-17.1107	50.2607	-16.8783	55.87	-18.4623
-24.0375	-23.4794	-19.0899	-20.1519	-25.1281	-22.3131	-27.291	-23.4079	-23.2567	-22.1988	-25.7324	-24.5121	-27.4487	-26.1725
0	-1.33E-13	0.000147	4.1105	0	-1.33E-13	-0.34893	0.953409	-0.64886	1.4197	-0.34893	0.953409	0	-1.33E-13
-1.7964	7.38847	-0.57078	2.53212	-1.38499	2.77187	-0.75124	5.74747	-0.0386	-0.77653	-1.32581	-0.34496	-0.95981	0.583405
-2.15182	8.059	-1.56404	3.18987	-1.45128	2.88335	-1.35455	6.33955	-1.52912	-0.23705	-1.59756	-0.49748	-1.75115	0.109991
-1.51913	7.19397	-1.26332	3.2692	-1.51412	3.05353	-0.59853	6.11219	-0.28522	-0.08809	-1.26928	0.064709	-1.04172	0.416867
-2.82223	7.34879	-0.61529	2.43577	-0.9457	1.96539	-1.0518	4.97677	-0.90462	-1.10346	-0.67227	-0.94229	-1.69344	-0.88855

Raw Data Color Flash (As you can see below, it means there is no csv files for 0lux.)

Start from the cell I picked below, then Ctrl + Shift + Down + Right

Raw Data Color Flash

2800K,10>lux		4100K,10lux		6500K,20lux		0lux	
a*	b*	a*	b*	a*	b*	a*	b*

Copy Starts Here*********************

10.9656	9.6418	10.8254	9.70864	10.5125	11.8744
16.4068	18.7815	16.7231	17.7424	13.1956	16.8296
-0.67969	-17.7119	-2.51344	-18.6515	-3.68547	-20.2708
-9.91558	15.7292	-12.8734	17.4936	-16.2996	19.9782
6.94668	-18.1159	5.63853	-19.4248	5.09509	-21.015
-23.6207	3.7489	-26.3335	2.74972	-28.2948	1.97404
33.9492	39.3792	37.9051	41.074	34.1886	44.7662
13.7055	-34.8424	11.901	-35.2418	16.4508	-40.9115
40.6658	24.0057	43.3482	23.6716	43.6155	20.7683
10.2043	-10.6335	10.8777	-14.1851	14.0147	-17.9331
-17.6173	44.3616	-19.3811	44.9944	-22.6571	47.1573
12.0798	47.4118	14.5149	49.2324	11.5997	52.9072
15.4297	-32.452	16.368	-34.8299	21.0573	-40.5471
-27.1476	26.6234	-31.6141	29.3193	-37.0232	31.5686
38.3898	26.4907	40.2374	27.3809	41.5549	29.1311
3.29459	55.5467	3.24344	56.9246	-0.68386	61.2466
39.9045	-4.30619	41.6162	-9.0301	43.8124	-13.2615
-9.90675	-18.1572	-13.5947	-17.3753	-15.622	-18.2808
-0.48674	2.78596	-1.07101	2.47214	-0.52674	1.17615
-0.86652	2.91752	-0.5857	1.28691	-0.75194	-0.21337
-1.8939	4.18453	-0.94377	1.47869	-1.22613	-0.00064
-1.48223	4.58384	-1.0489	2.27452	-1.77484	1.21359
-1.10643	2.0991	-0.97955	0.722969	-1.69414	-0.58443
2.39207	-3.77132	1.66403	-1.43087	1.05765	0.318212

Copy Ends Here*********************

Raw Data Noise & SNR

Start from the cell I picked below, then Ctrl + Shift + Down*5 times + Right

Raw Data Uniformity

Start from the cell I picked below, then Ctrl + Shift + Down*15 times + Right
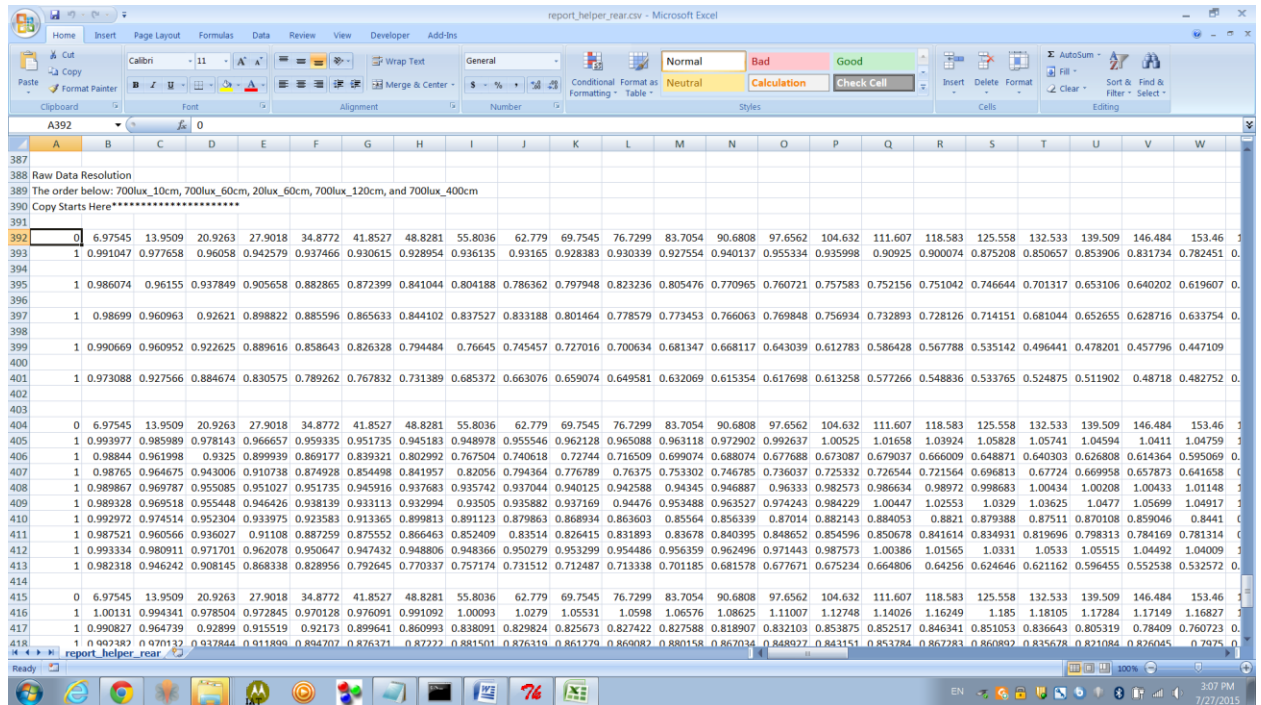
Raw Data Resolution

Start from the cell I picked below, then Ctrl + Shift + Down*13 times + Right

If there is no 10cm data

Start from the cell I picked below, then Ctrl + Shift + Down*7 times + Right

6. Then you are done with the data part. Remember to fill Cover Page.

7. NOTICE

   Message box will accumulate warning messages. If you would like to regenerate csv files and do not want to see former warning messages, please restart formReport.exe.

   For Manual IQ, please use the folders in the 'manual_iq.zip' in my Google drive.

   A trick for manual IQ using rail automation: you can connect lab pc with another phone that can be run by automation, and position the phone you actually care on the holder. As the automation is running the phone you does not care, you can manually follow the speed of the rail and the light boxes and manually take pictures. Since the pictures will be in the Camera folder in the order of, you do not have to rename. After IQ is done, paste pictures in their respective folders in my 'manual-iq' folder.

   See the picture below for setting up. Secure the 'fake' phone down, and position the 'actual' phone right.