

The QC of the Crystals for the second batch crystals of 174 pcs

Yinghua Tan, Wenhuan Wang, and Zhenyu Zhang
Wuhan University

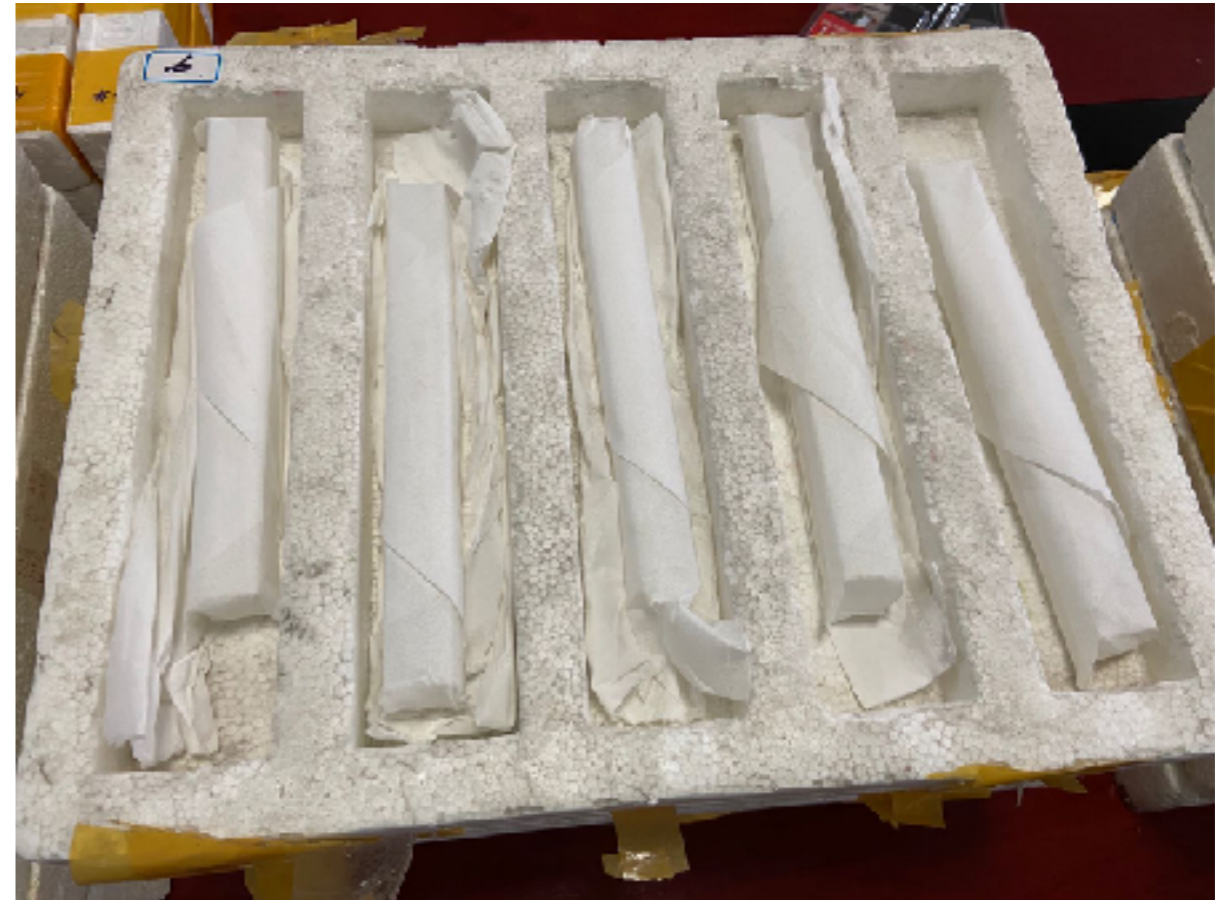
Shanghai Institute of Ceramics, CAS

Sep. 25-27, 2020

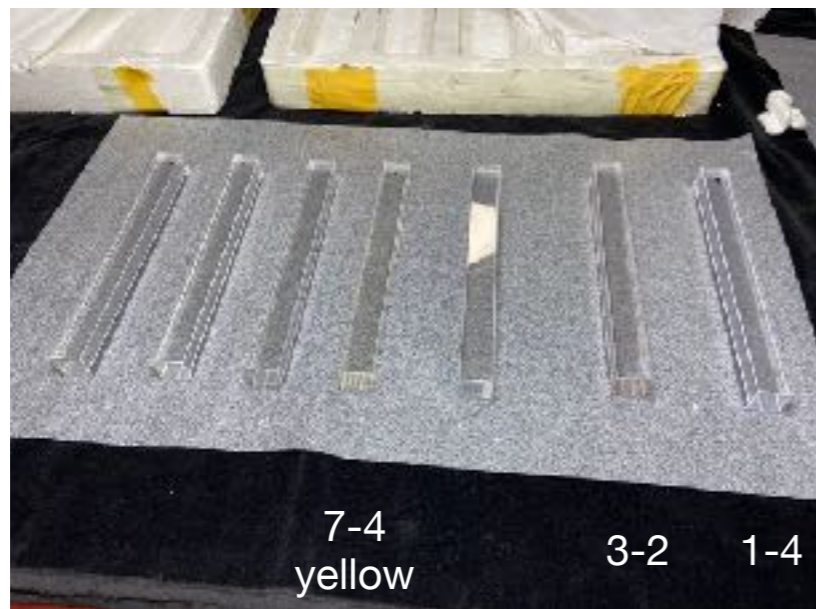
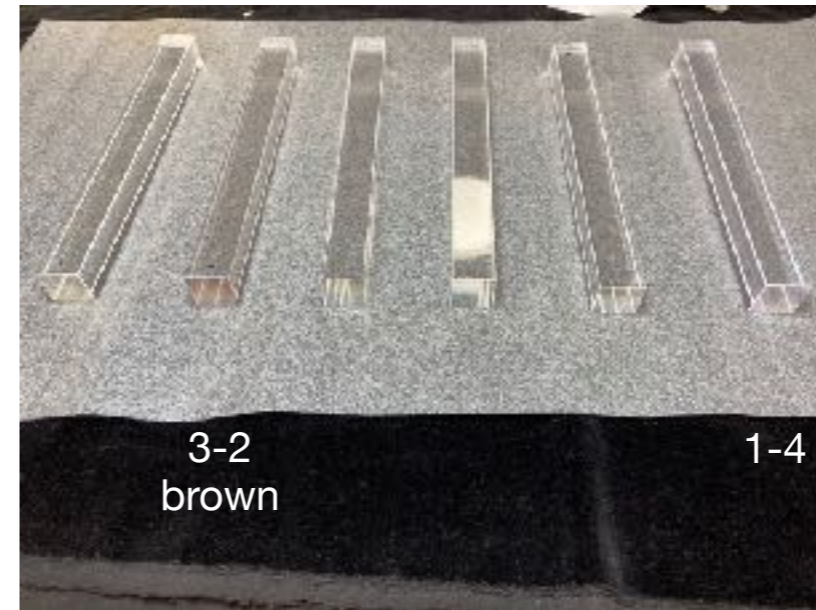
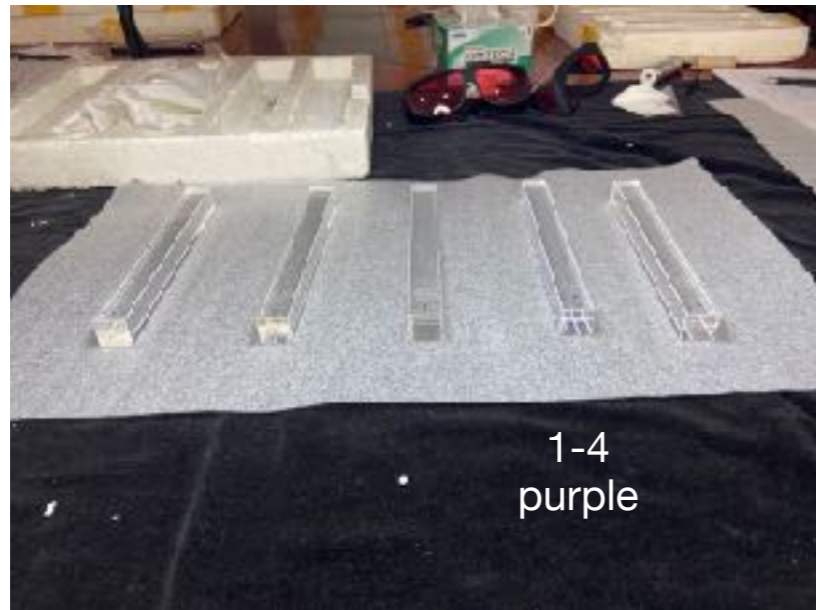




There is a number on the left-top of the box. Here it's 6.
From left to right, it's 6-1, 6-2, 6-3, 6-4, 6-5

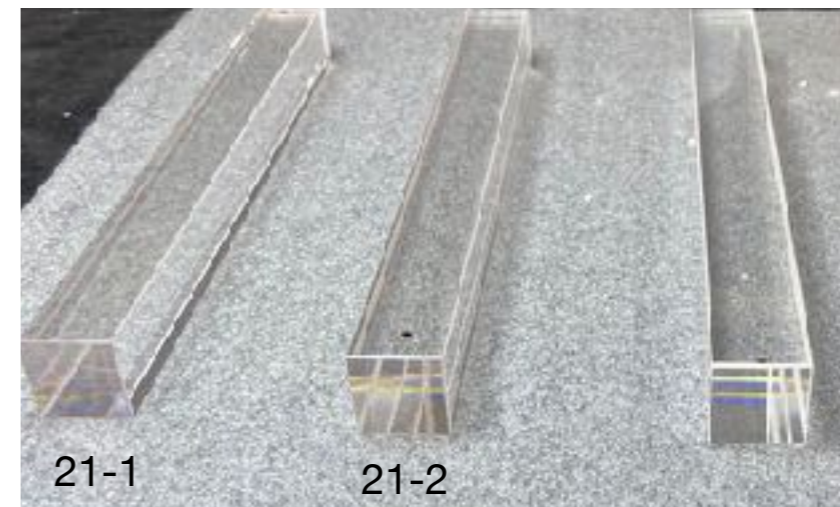
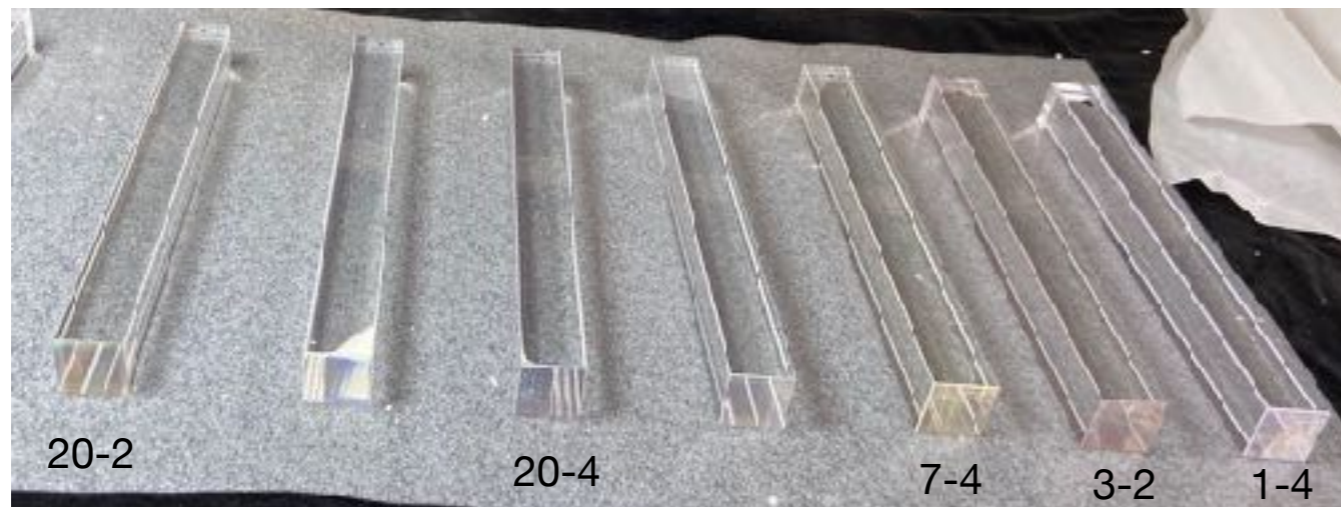
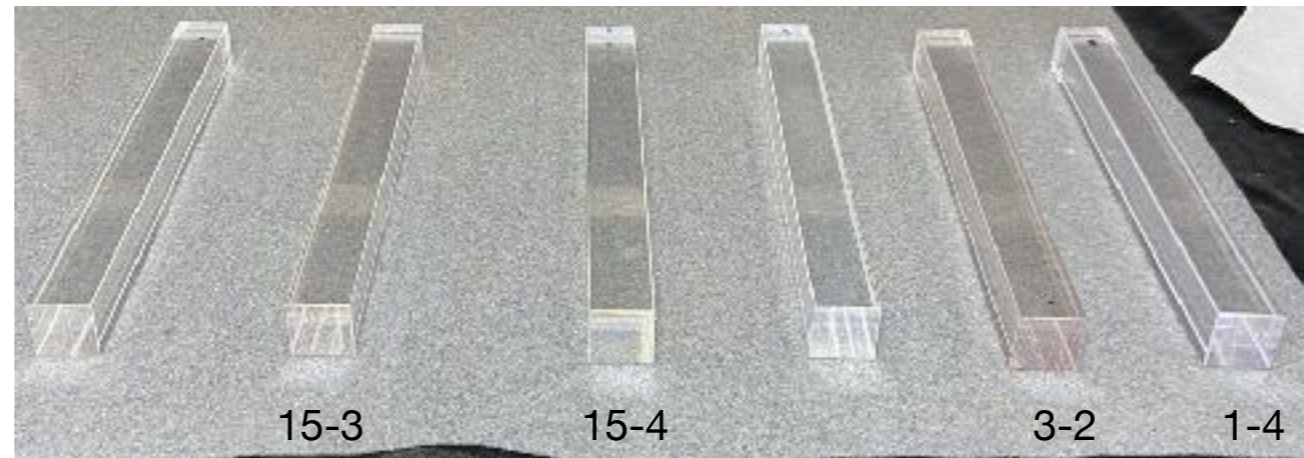
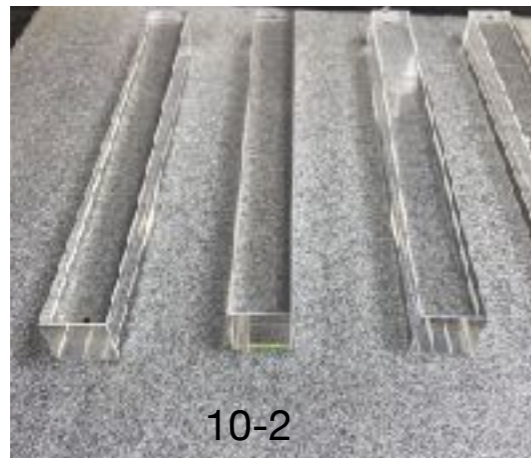


Longitudinal Transmittance



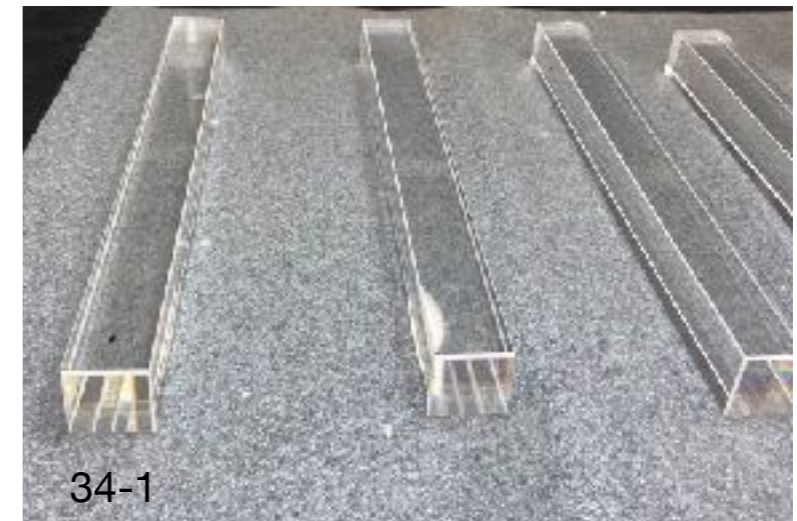
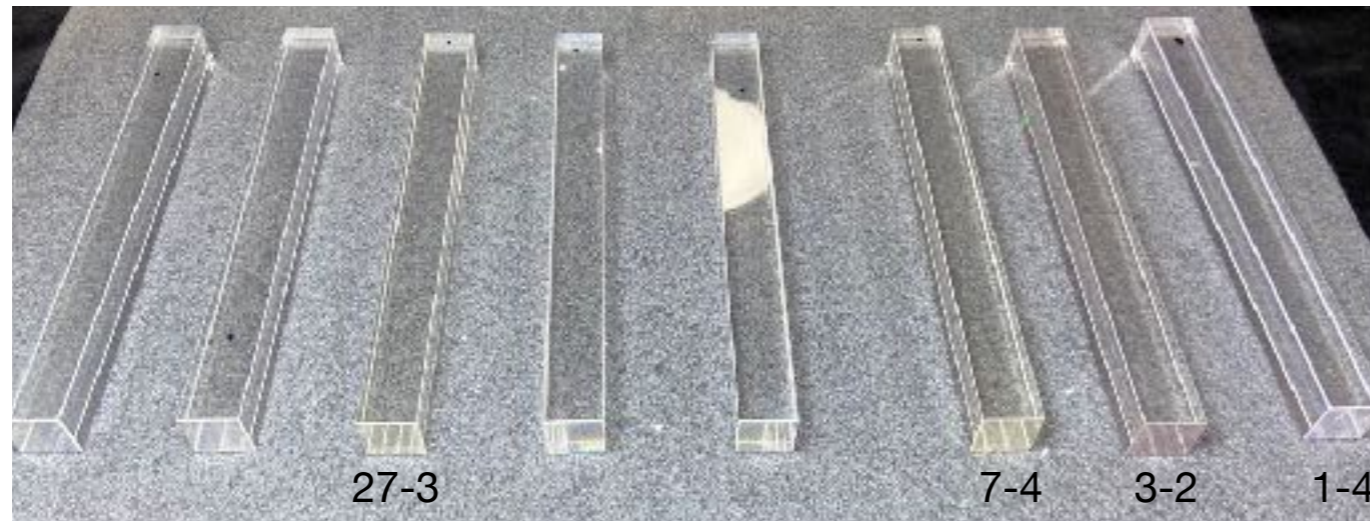
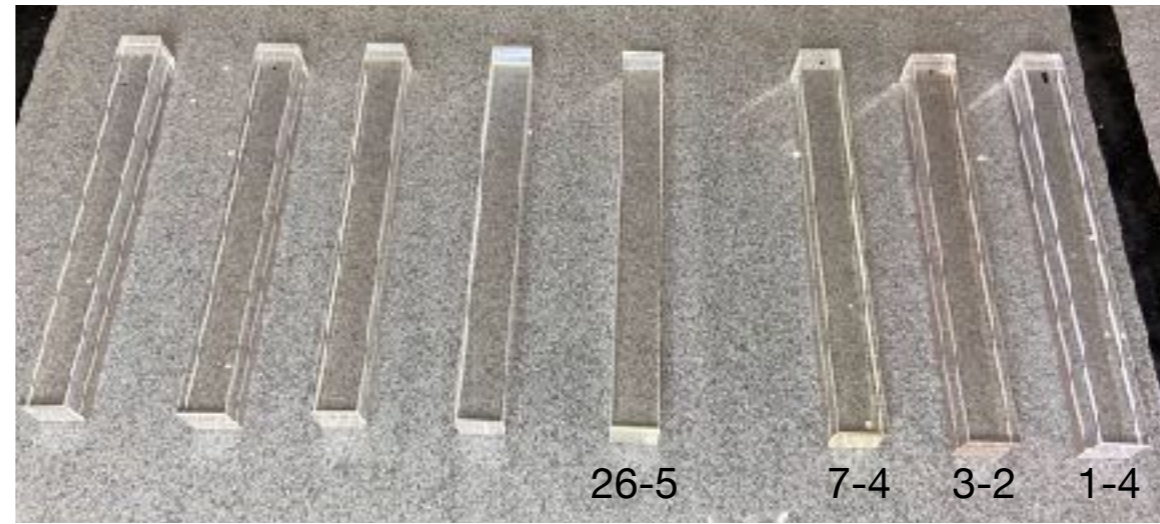
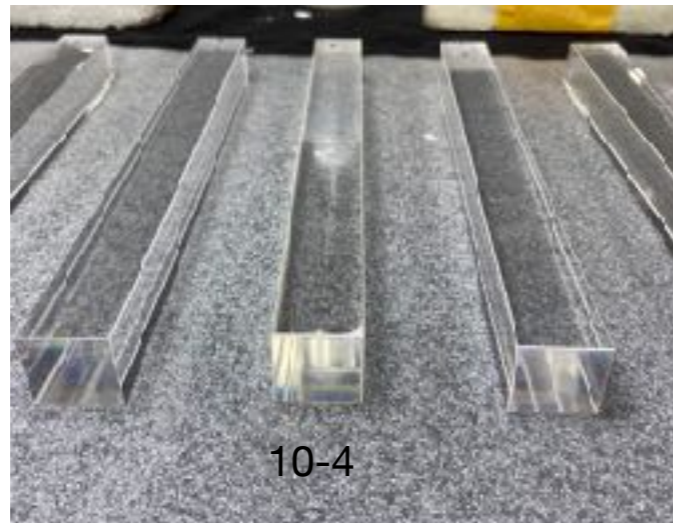
ID-Box	ID	T650	T420	T360	Color
1-4	229	71.8	60.4	29.9	Purple
3-2	237	70.7	60.7	25.2	Brown
7-4	259	71.4	60.3	26.7	Yellow

Longitudinal Transmittance



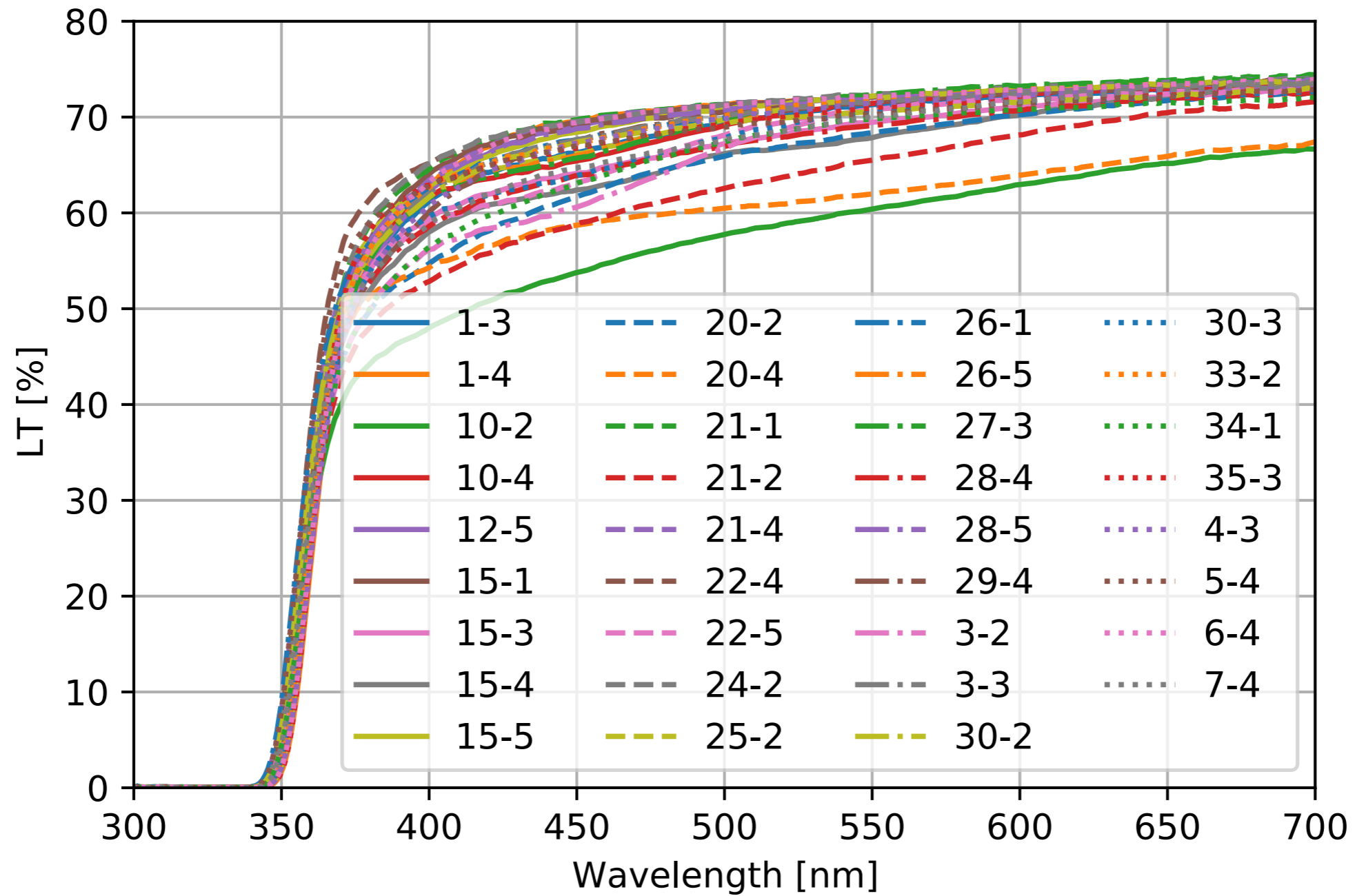
Looks slightly brown: 10-2, 15-3, 15-4, 20-2, 20-4, 21-1, 21-2, 30-2, 35-3, 28-4, 28-5

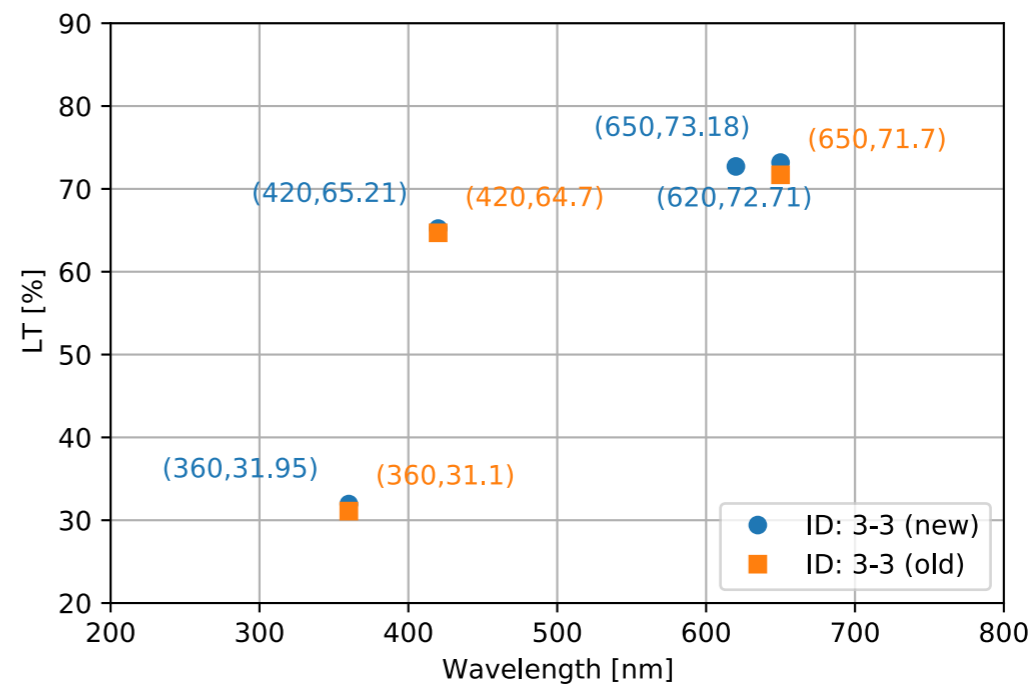
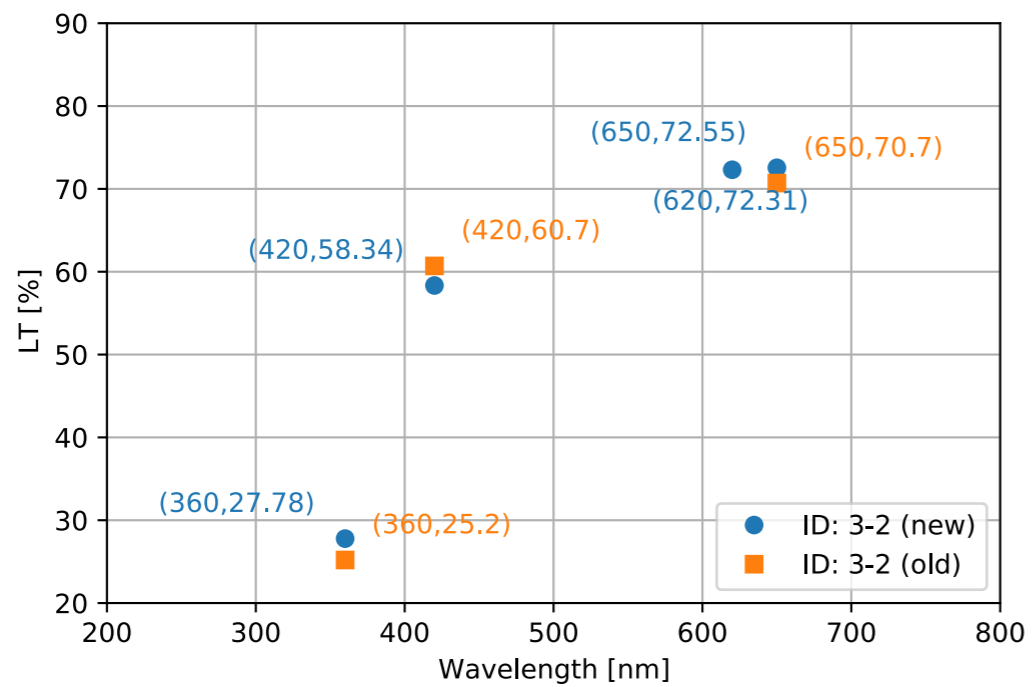
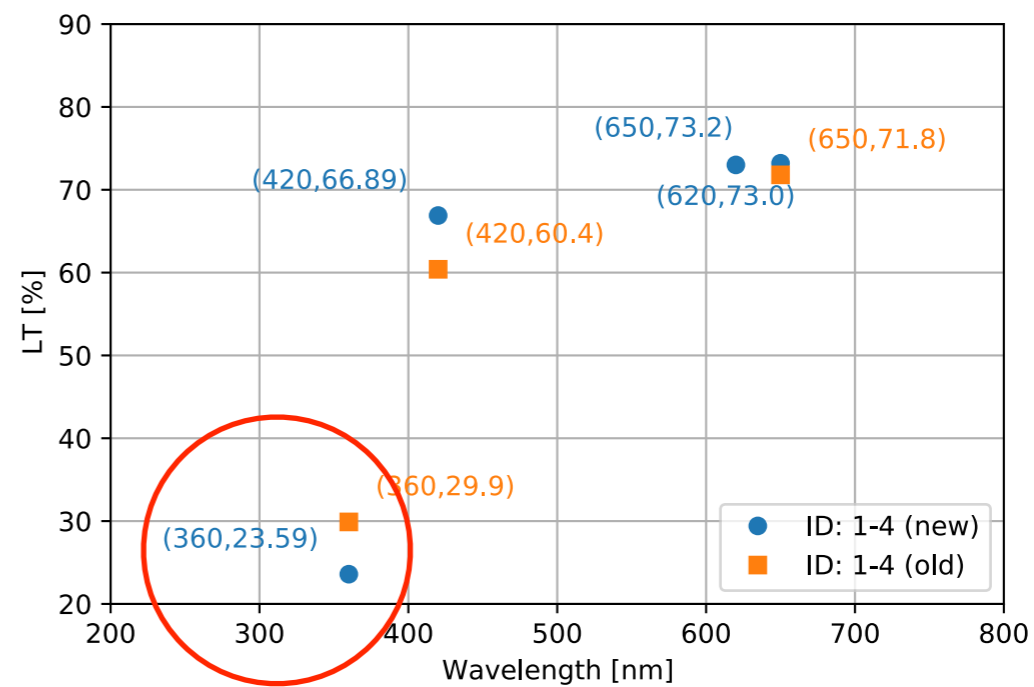
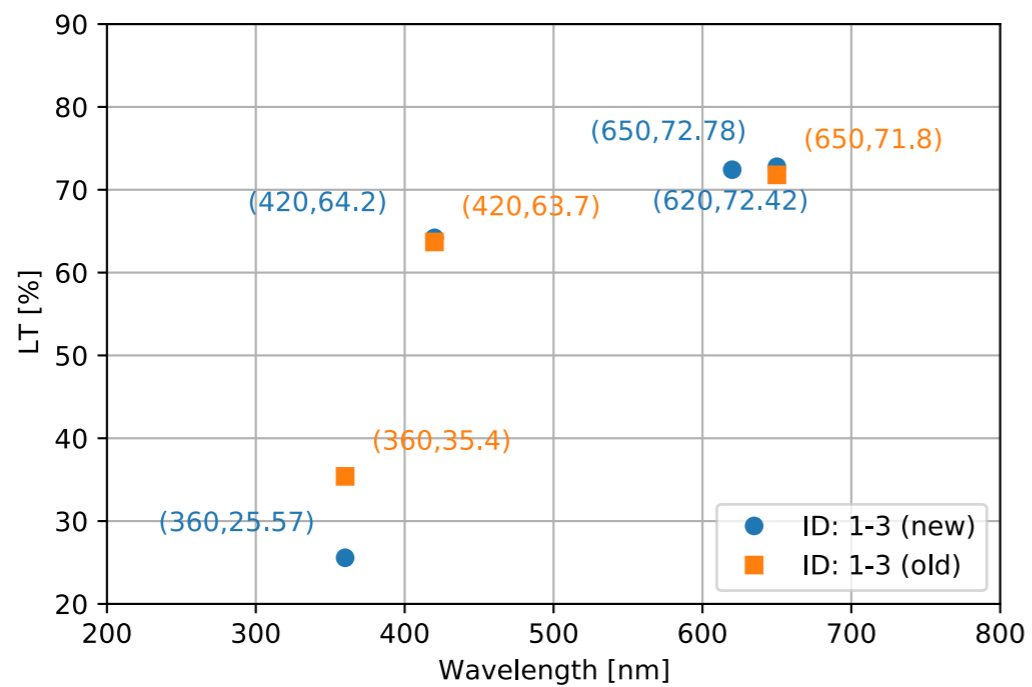
Longitudinal Transmittance

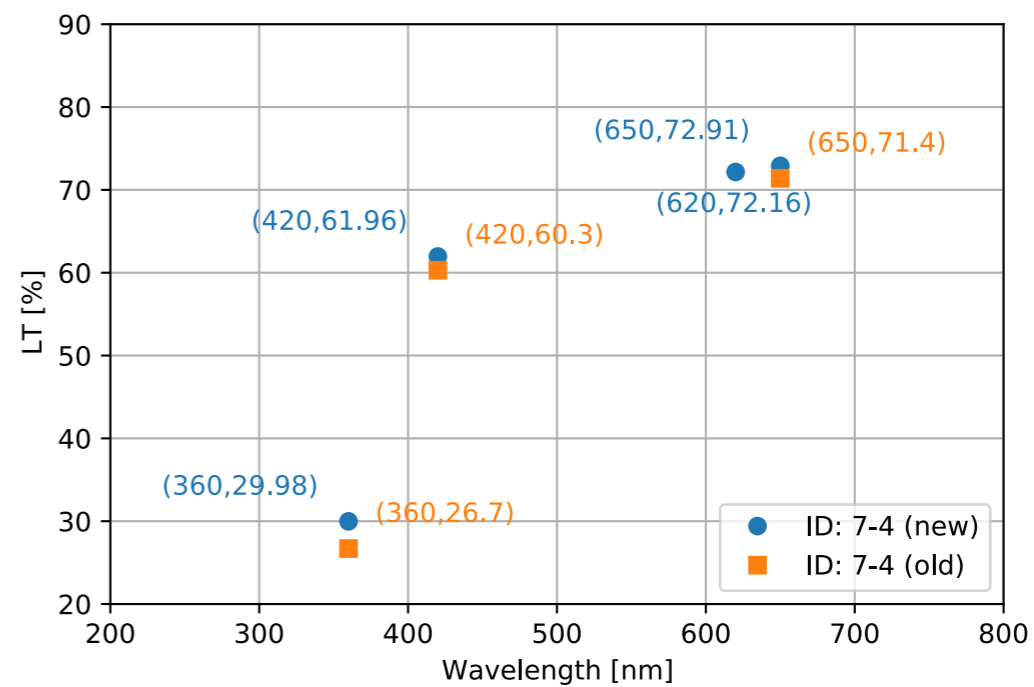
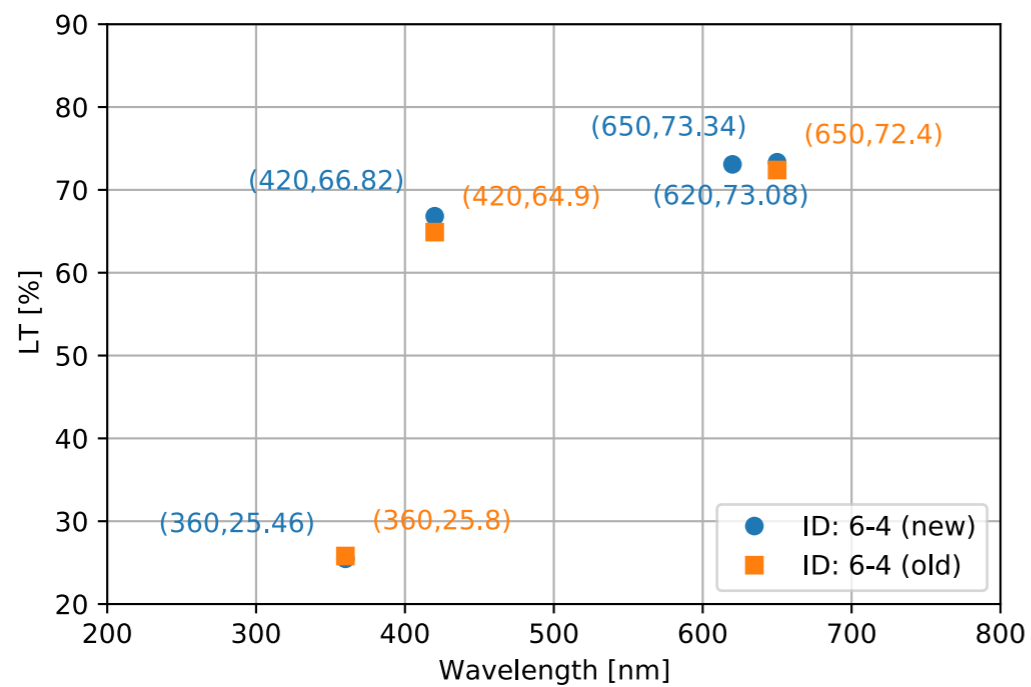
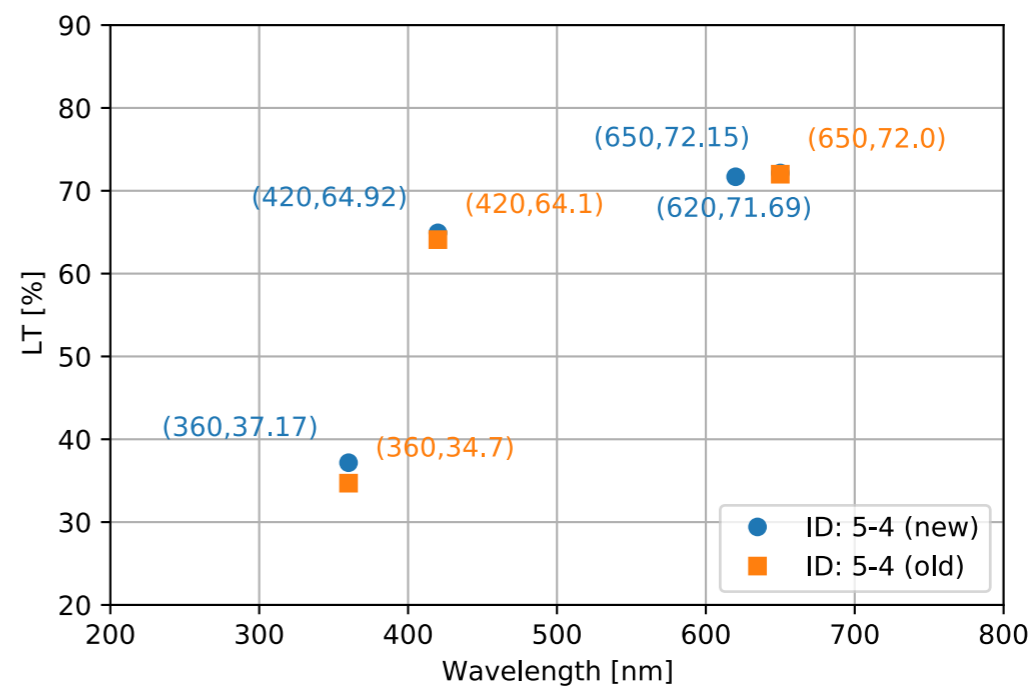
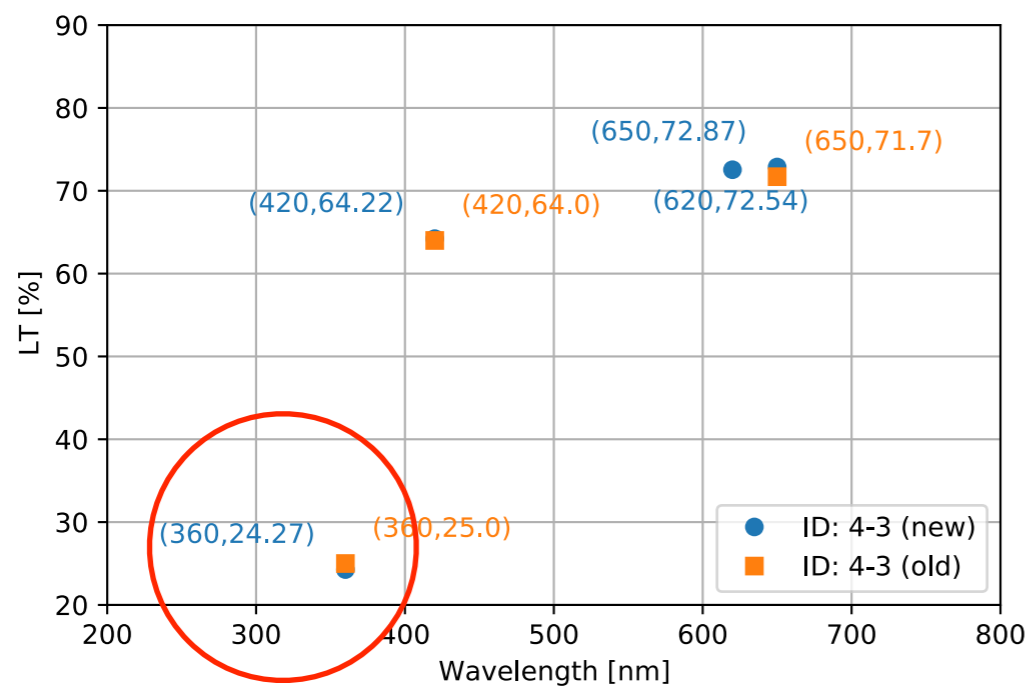


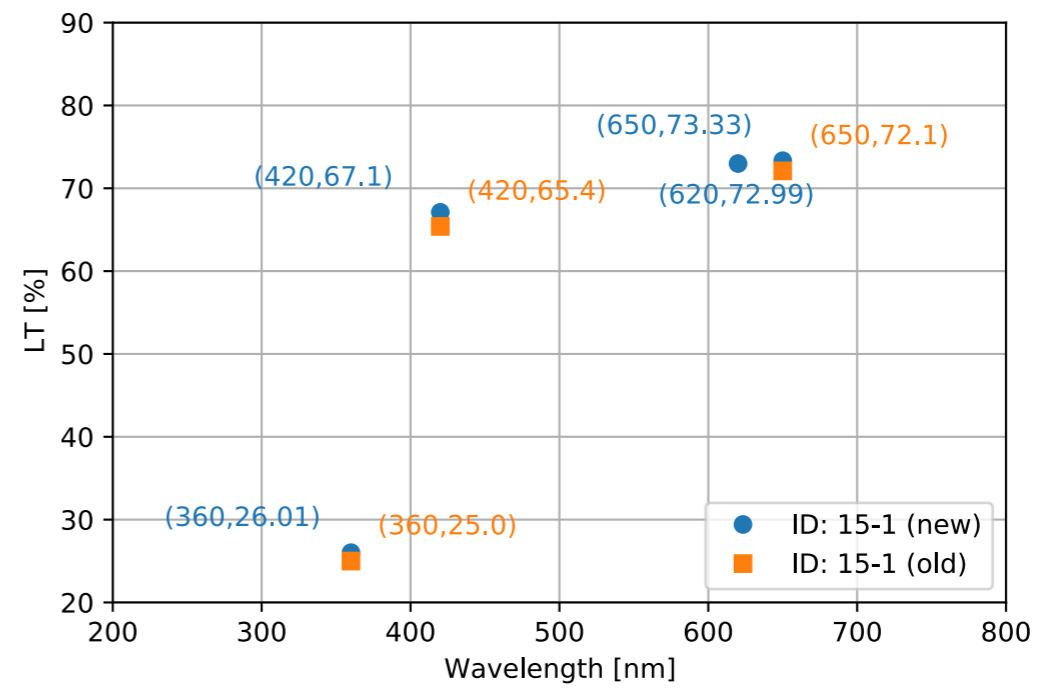
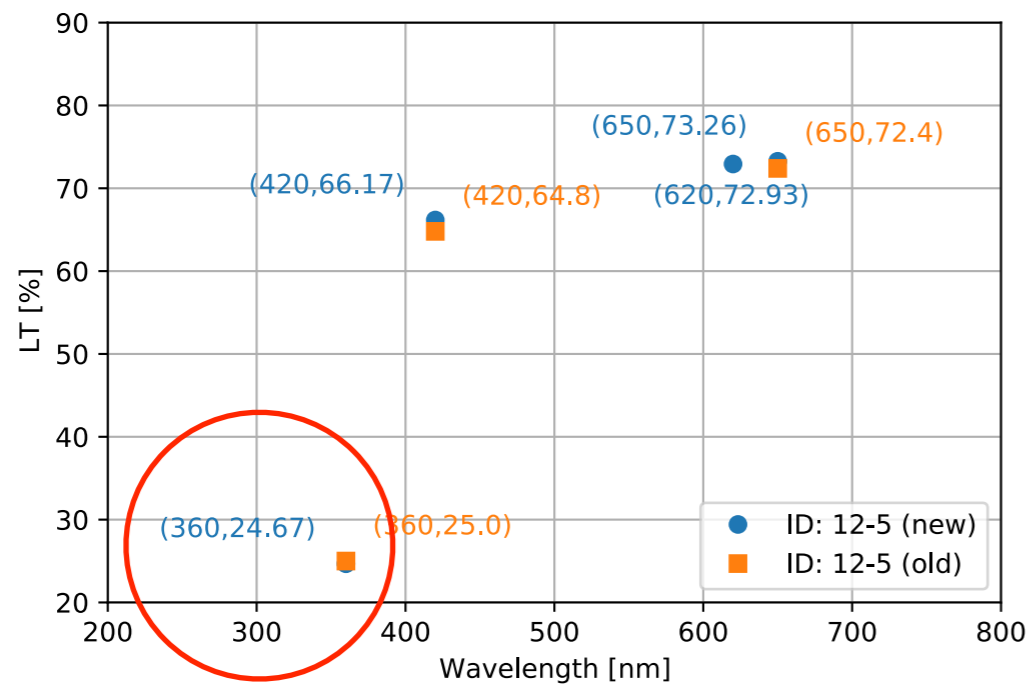
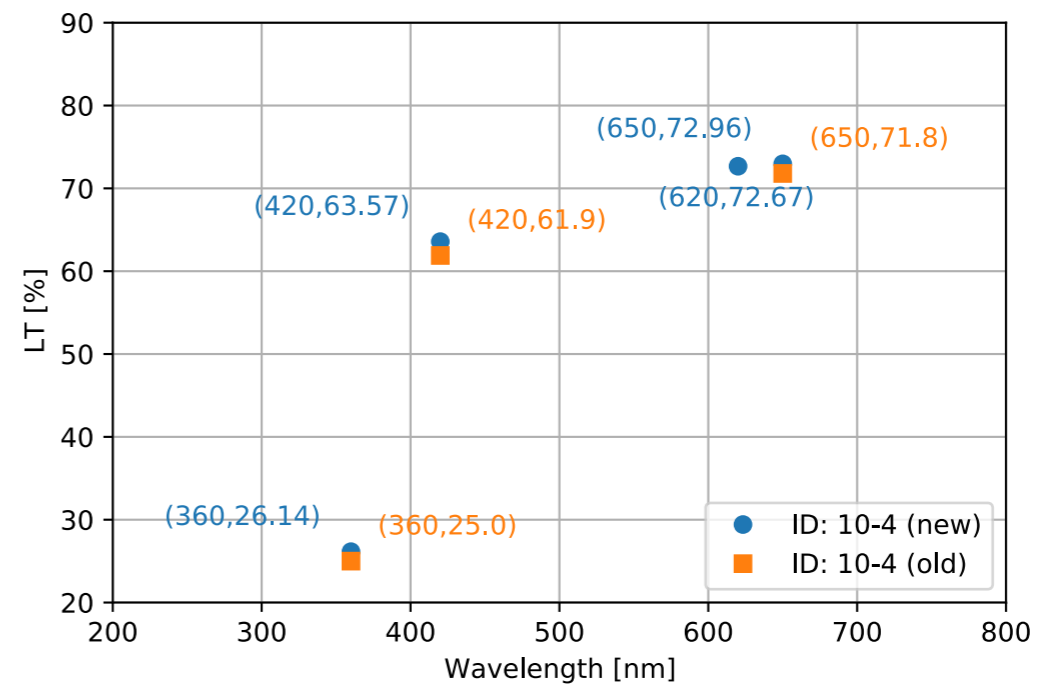
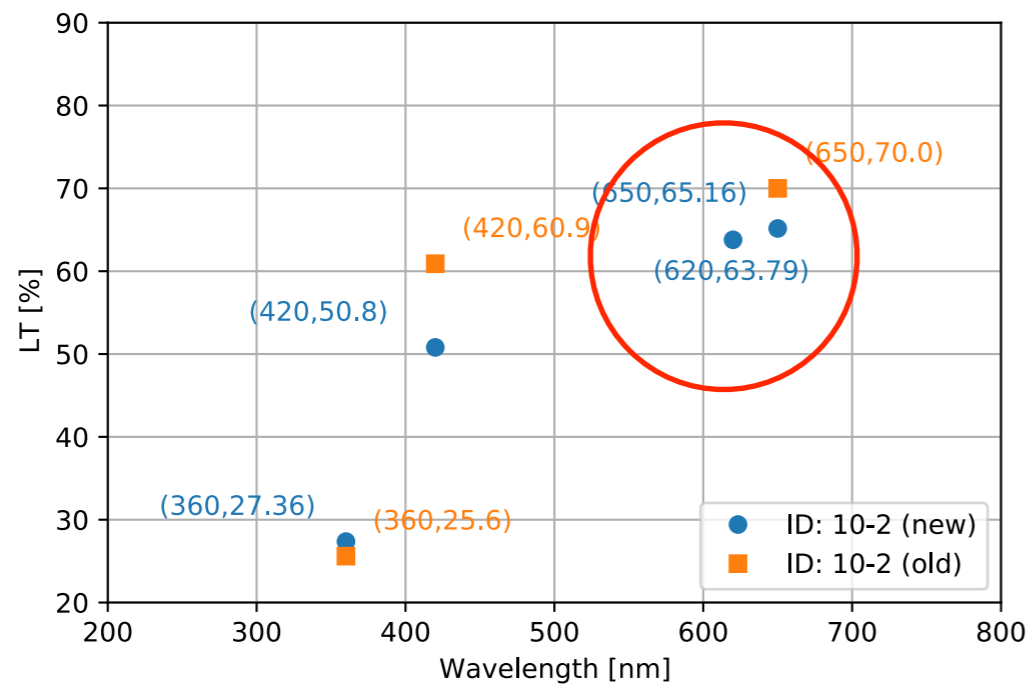
Looks slightly Yellow: 10-4, 25-2, 26-5, 27-3, 30-3, 34-1, 22-5

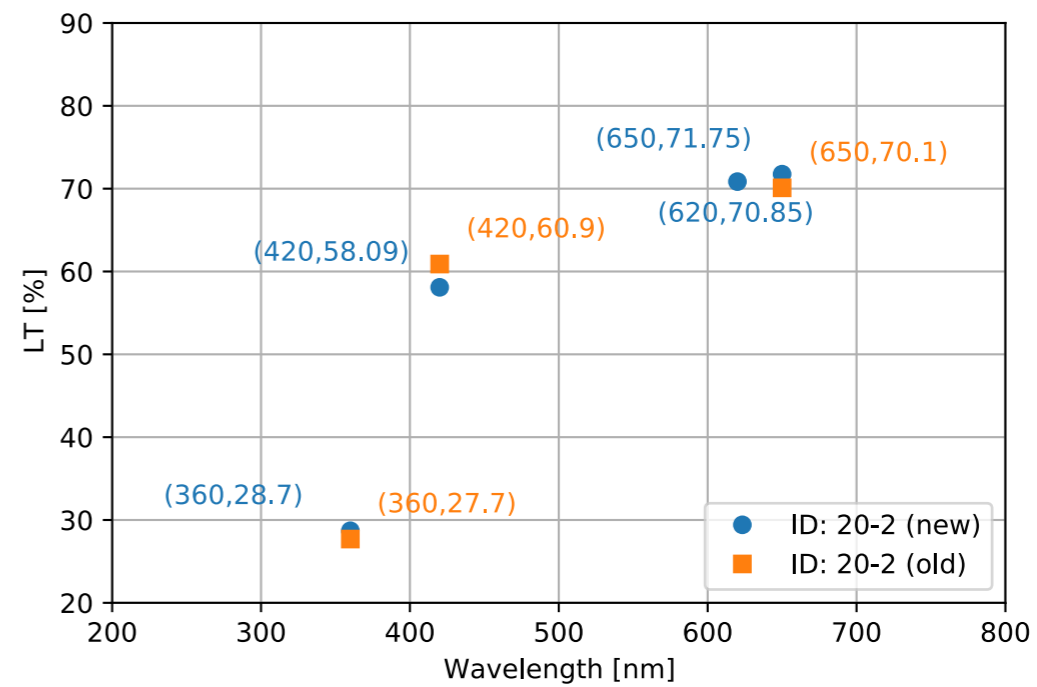
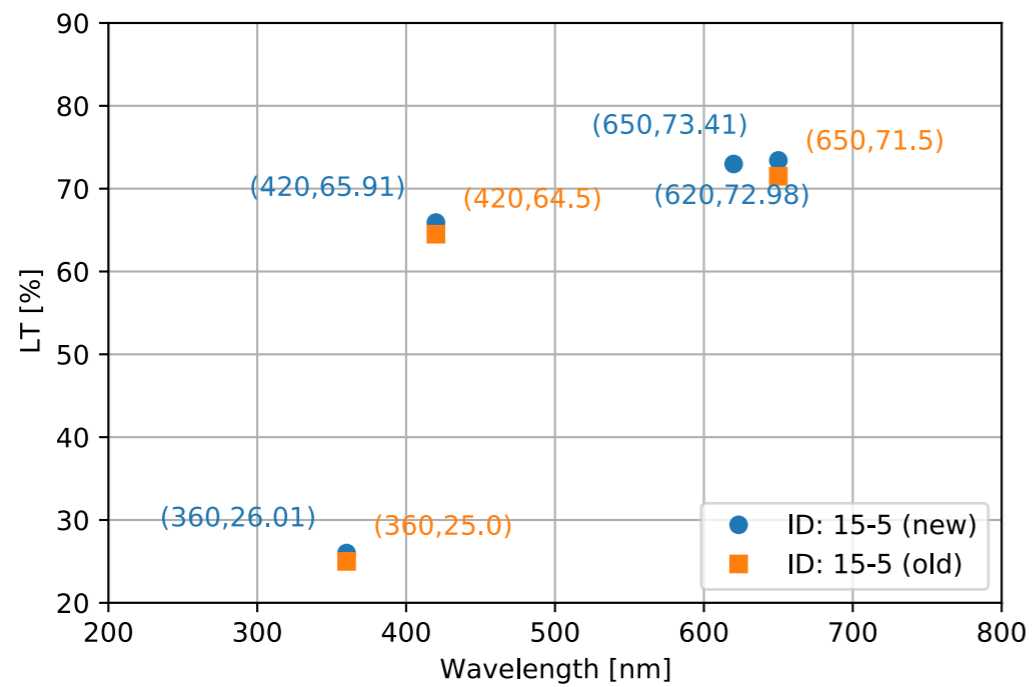
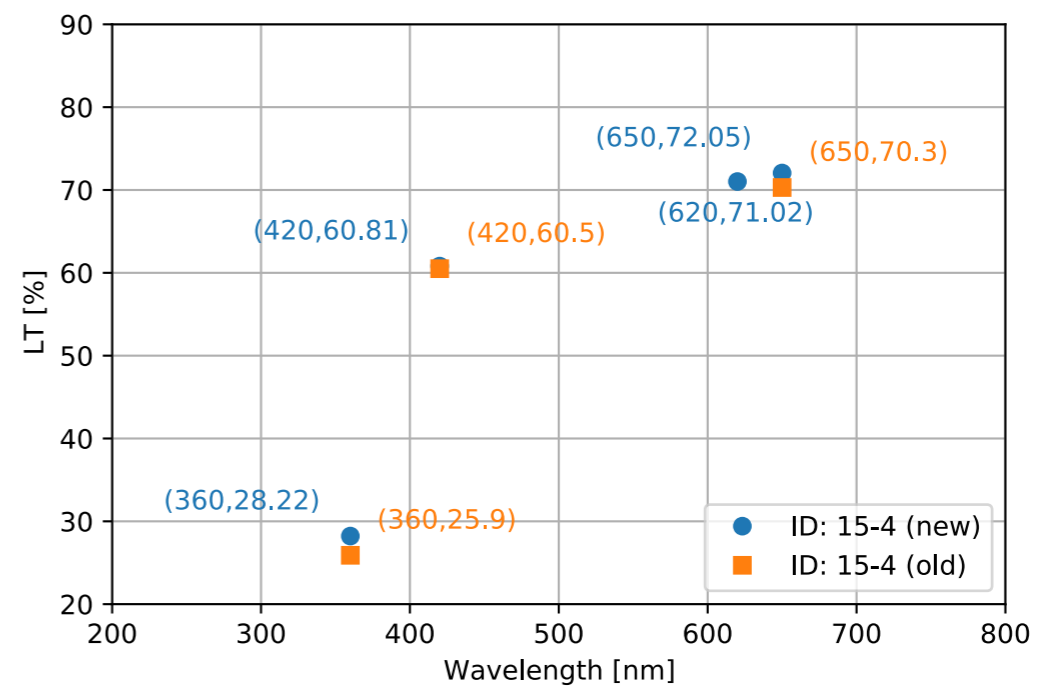
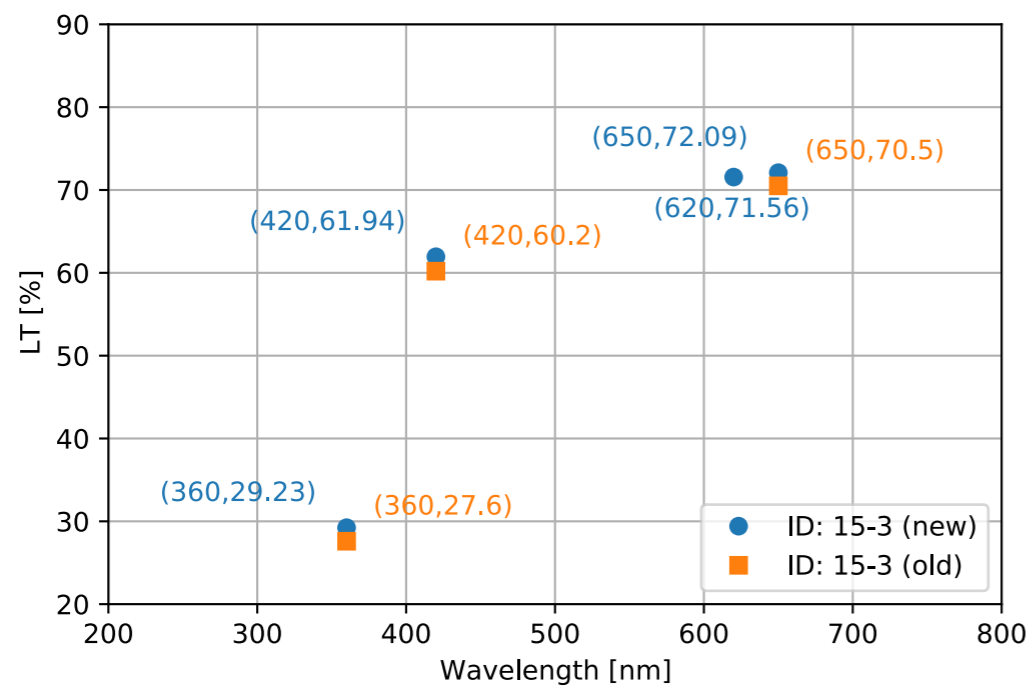
Longitudinal Transmittance

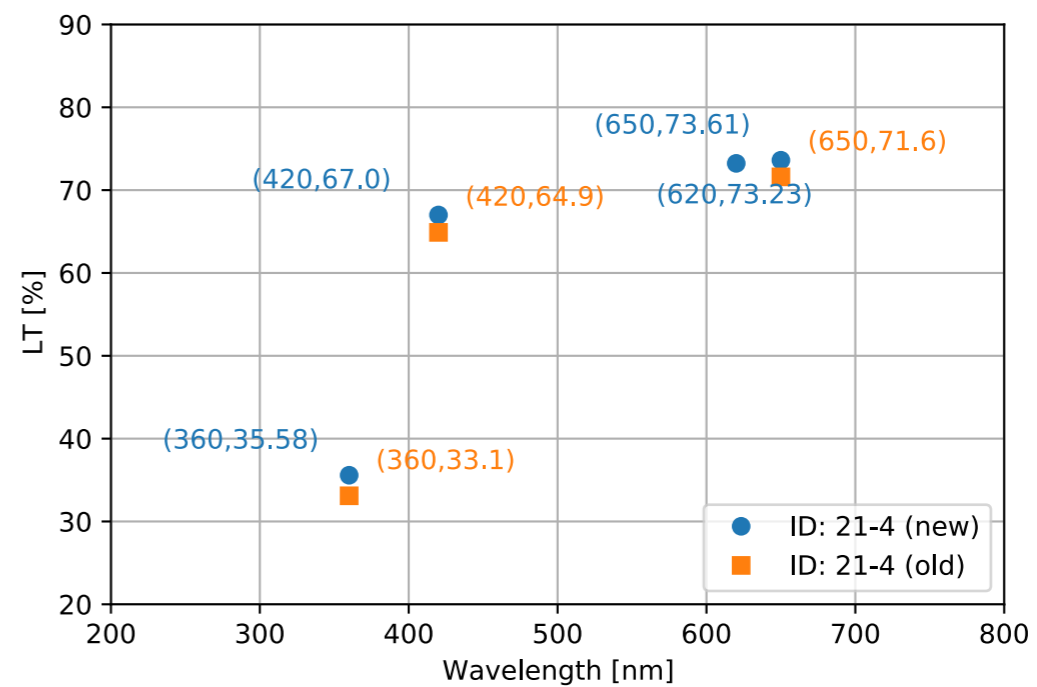
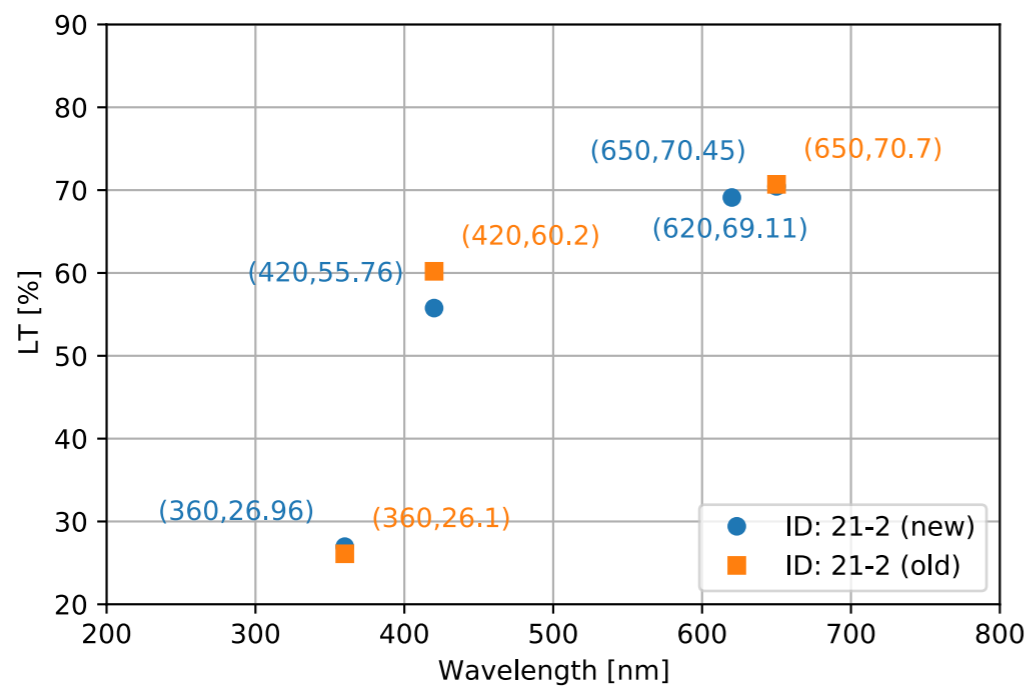
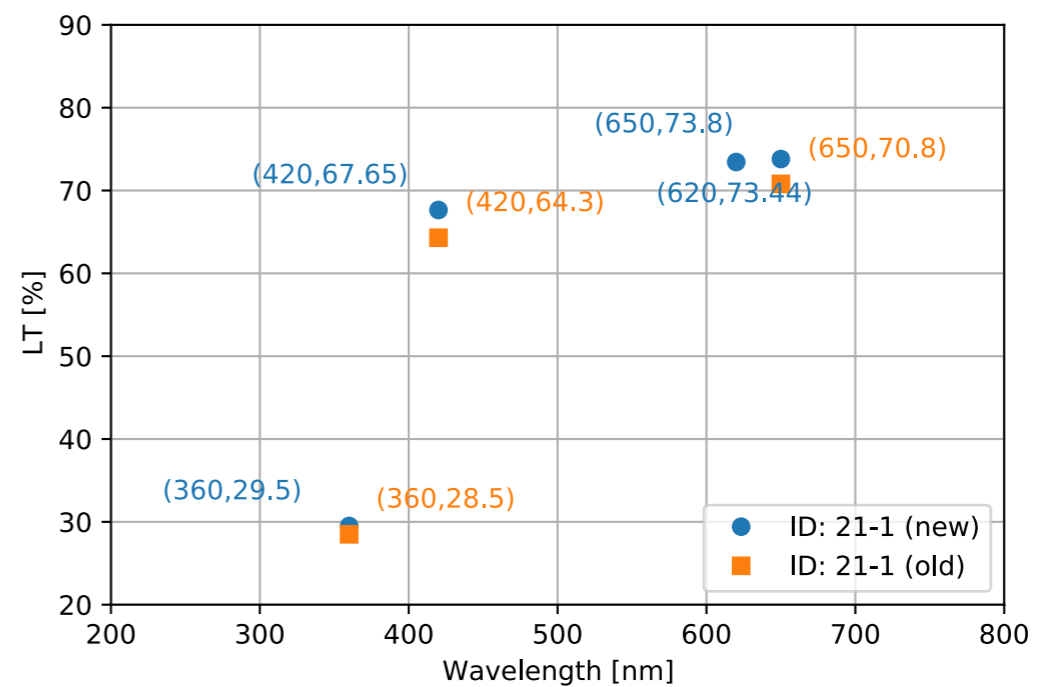
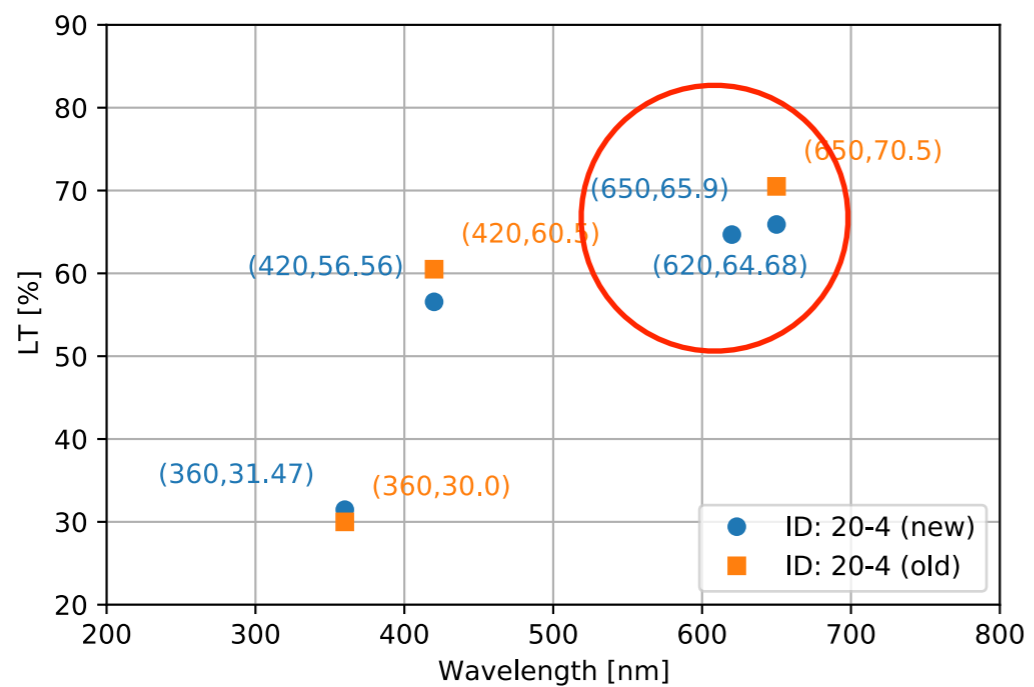


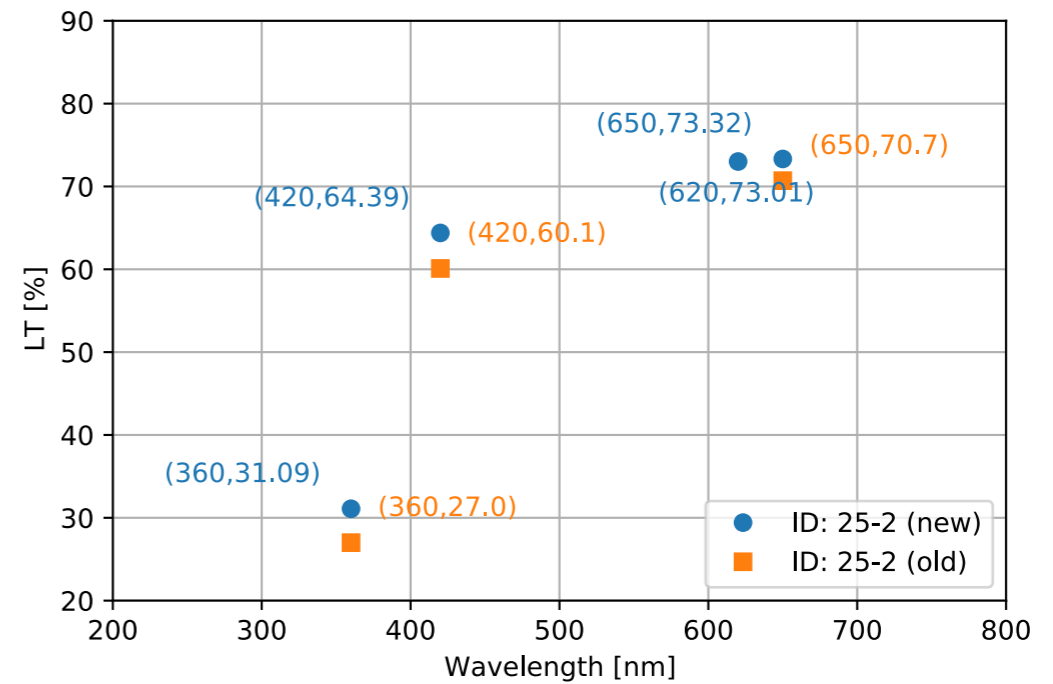
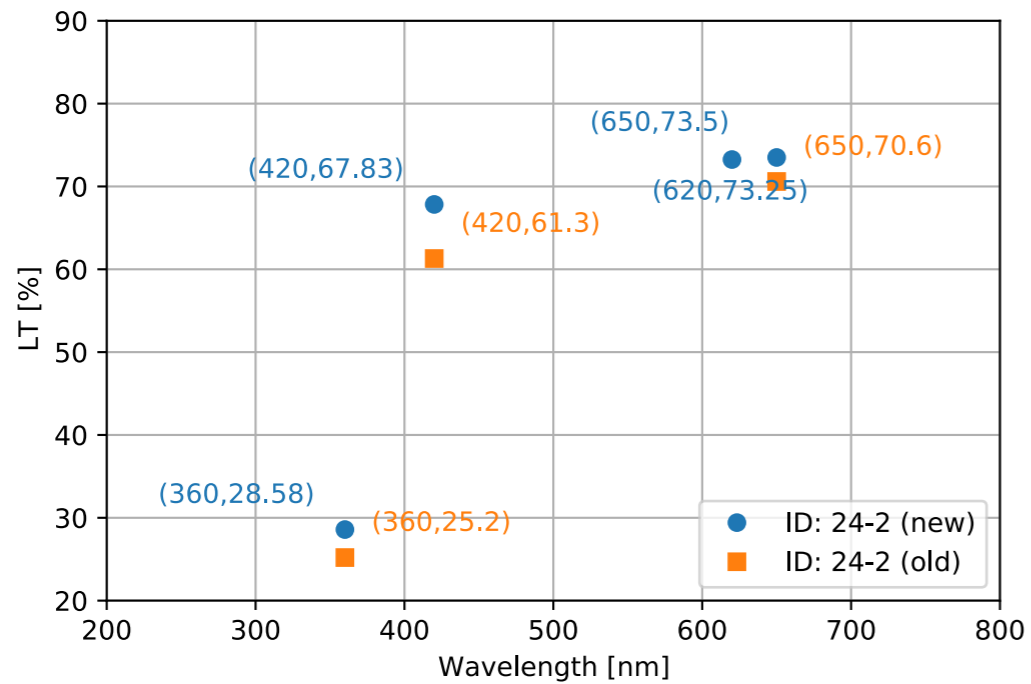
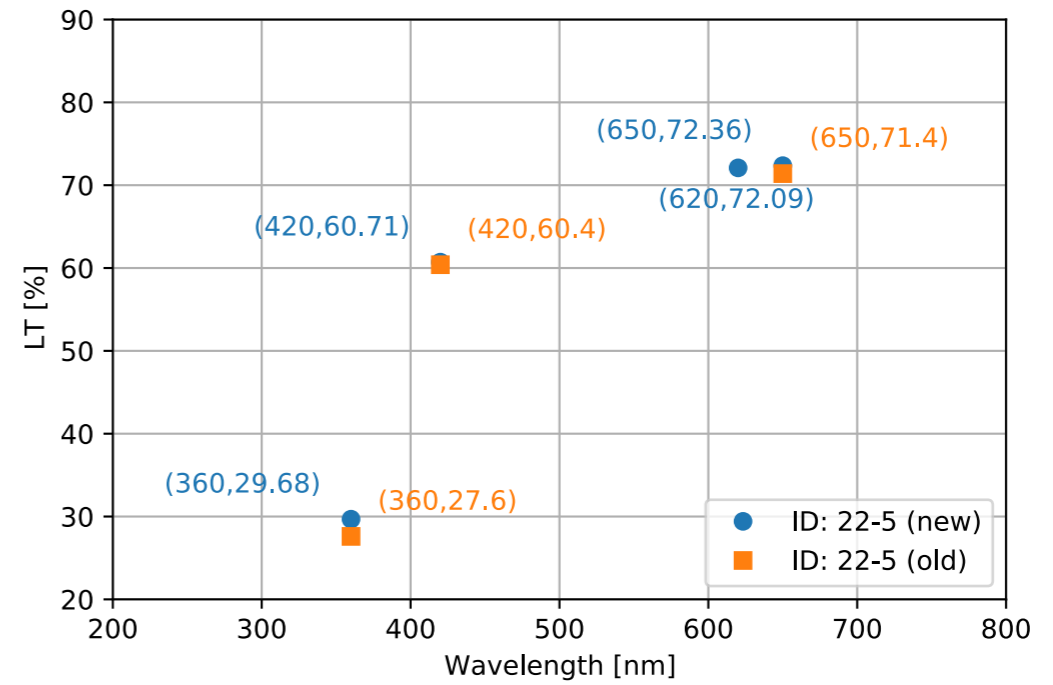
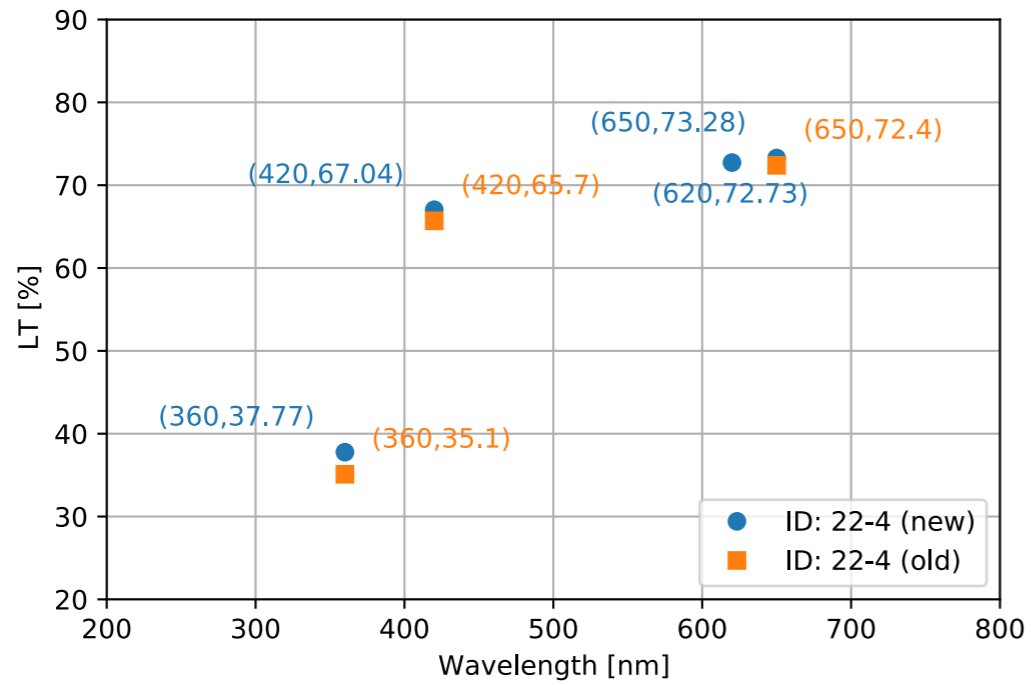


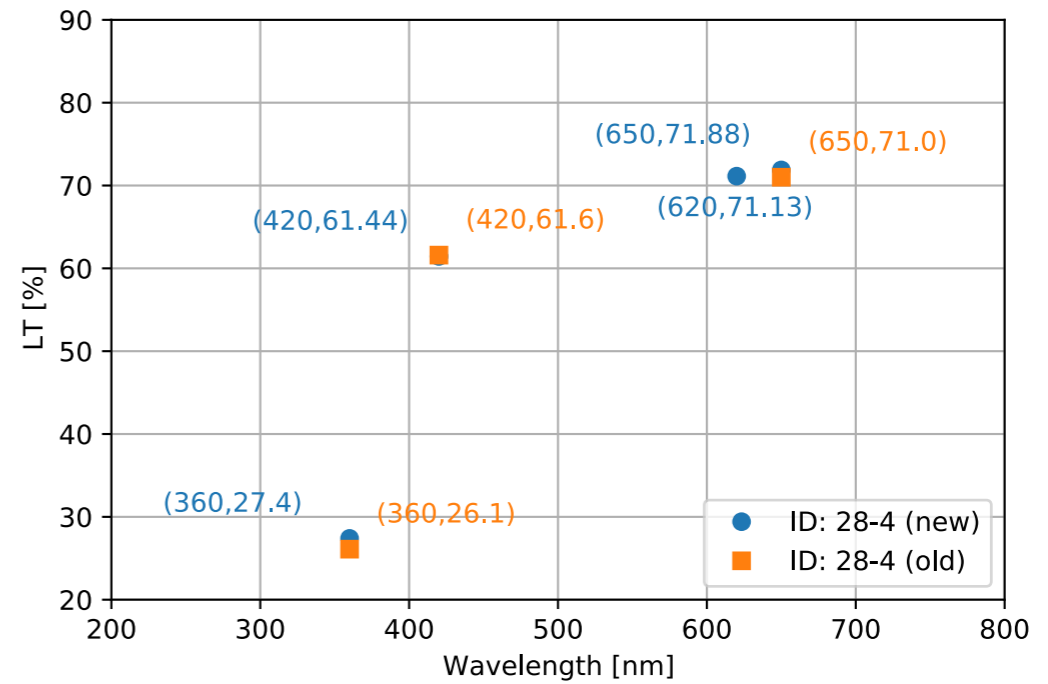
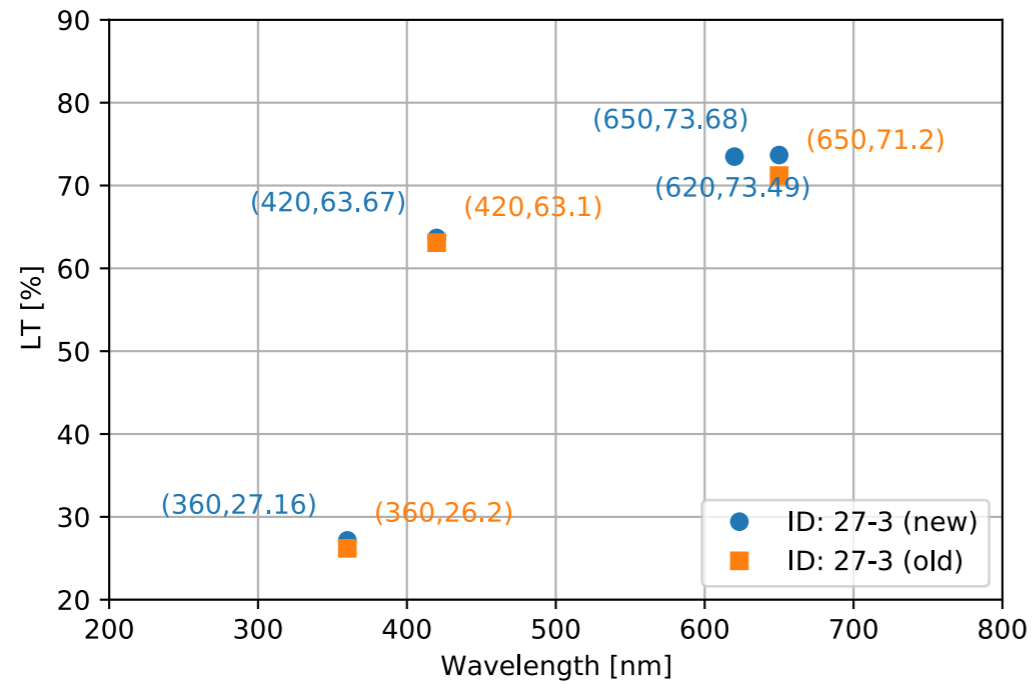
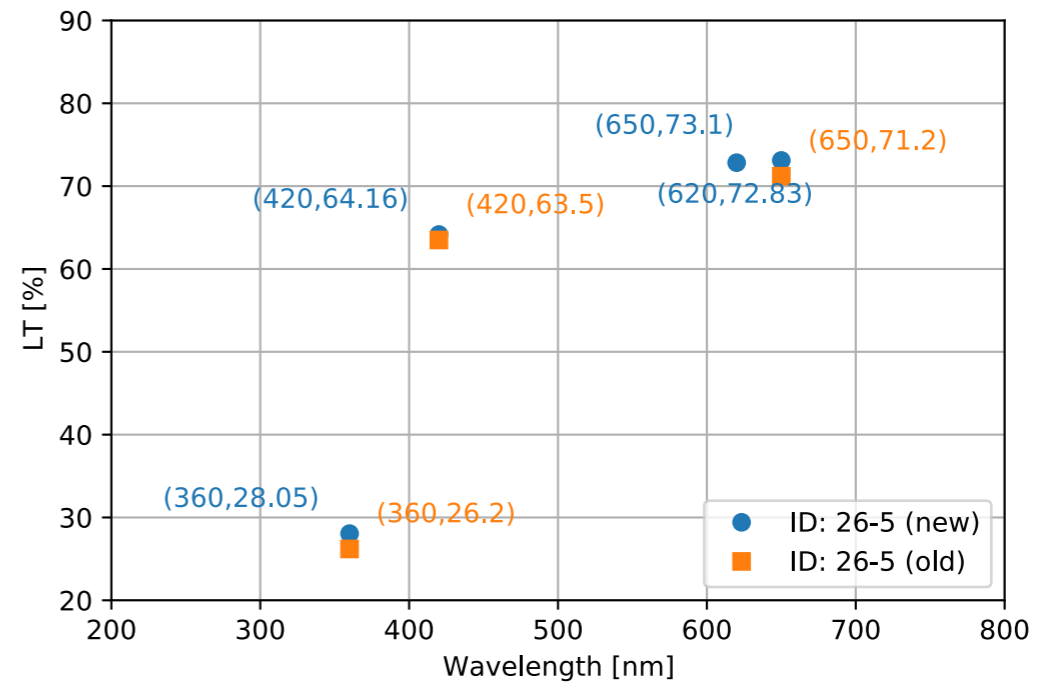
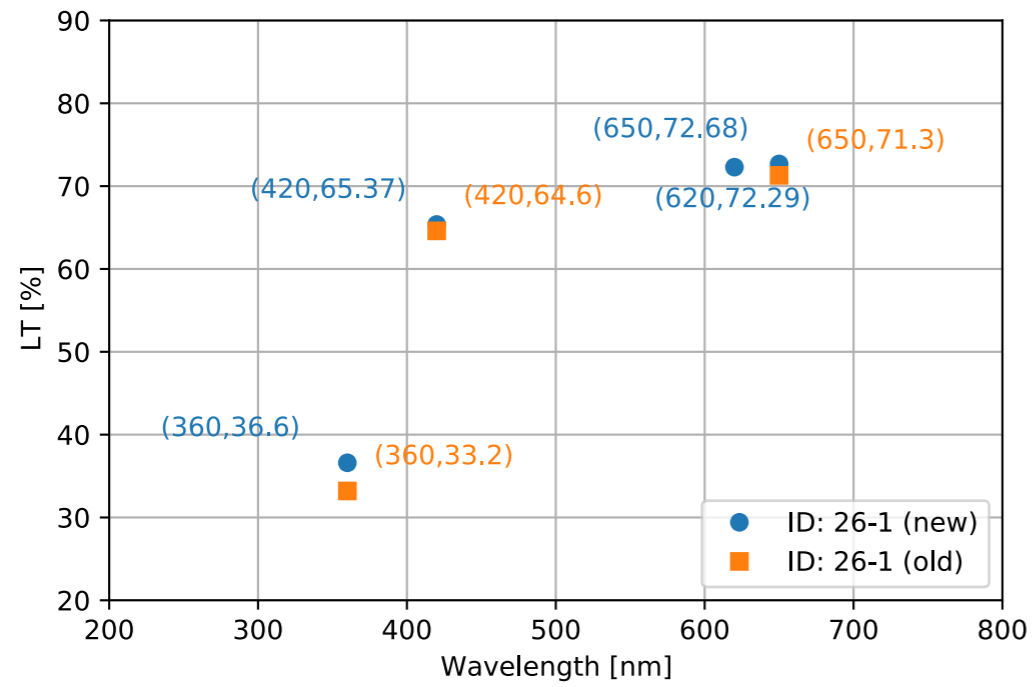


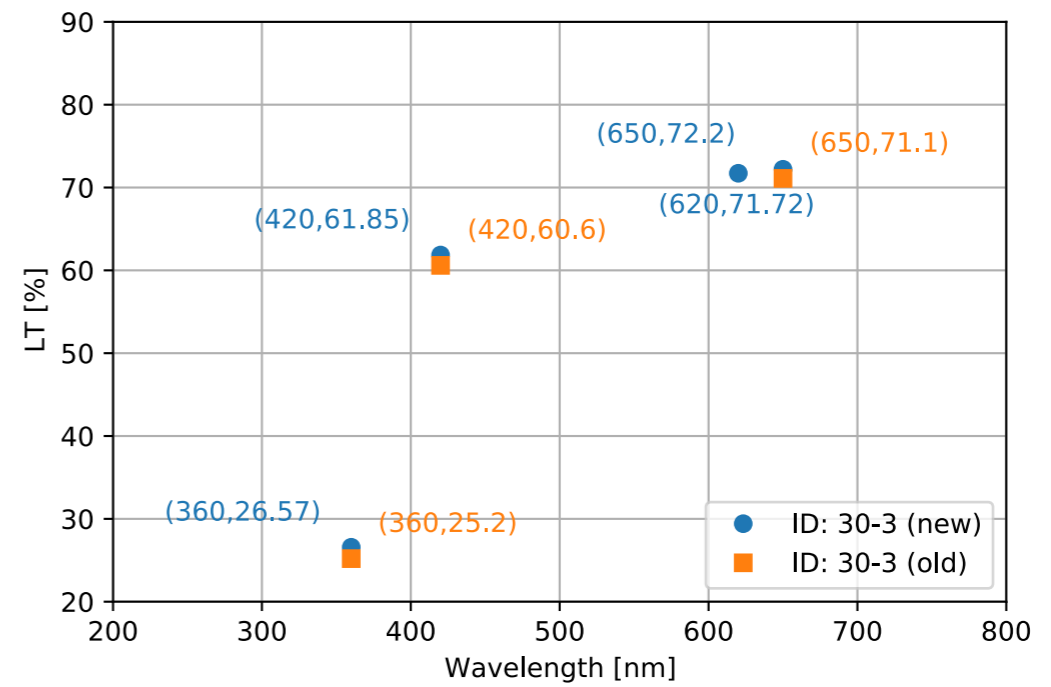
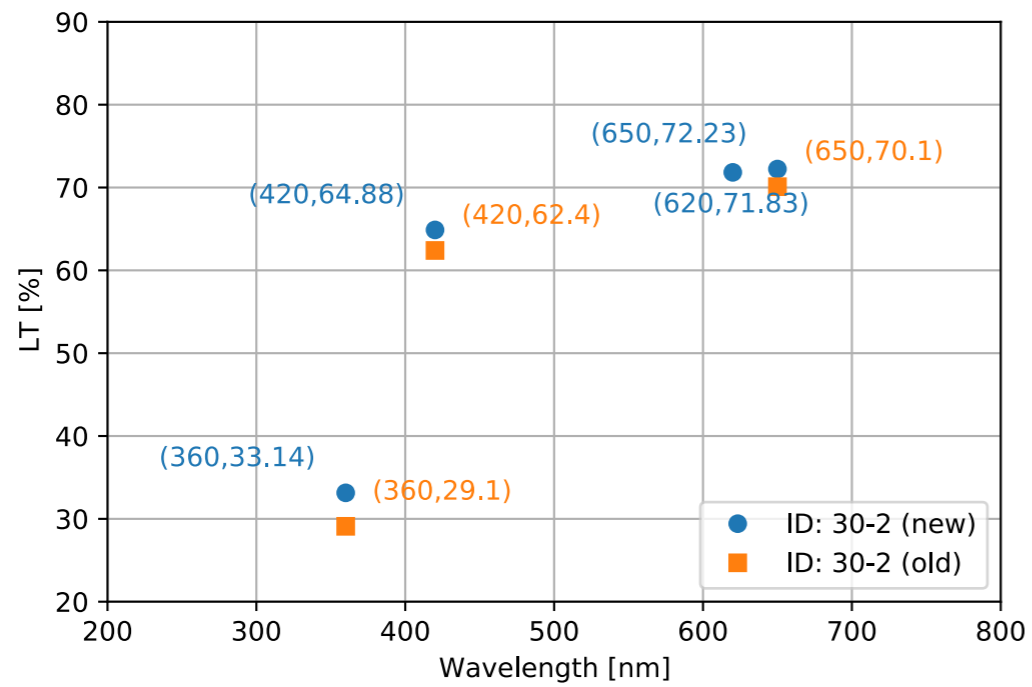
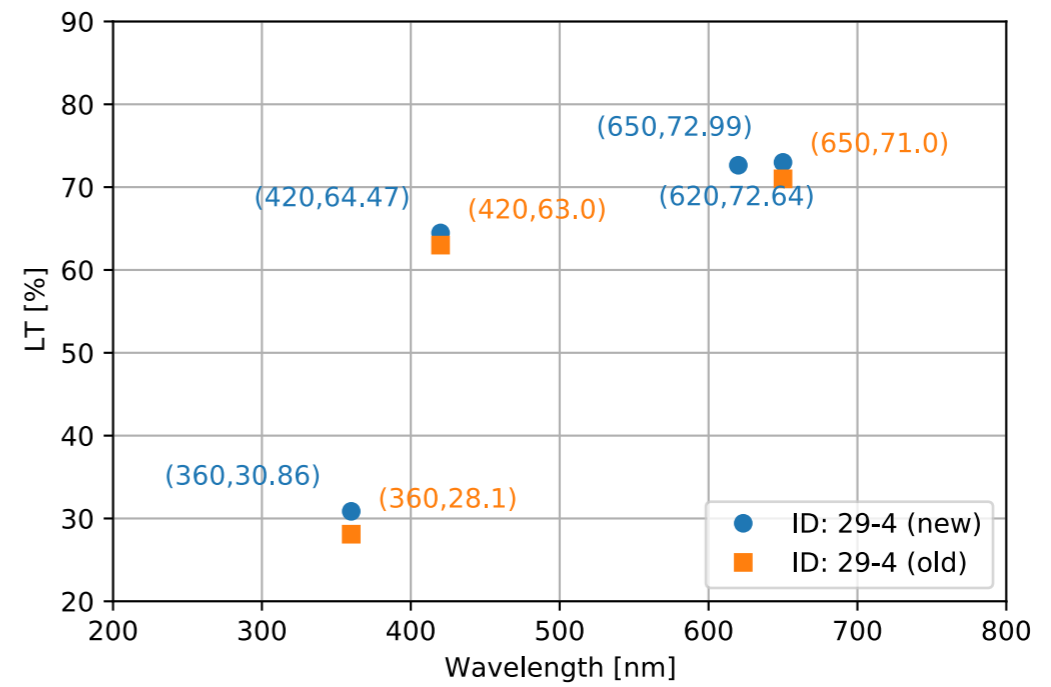
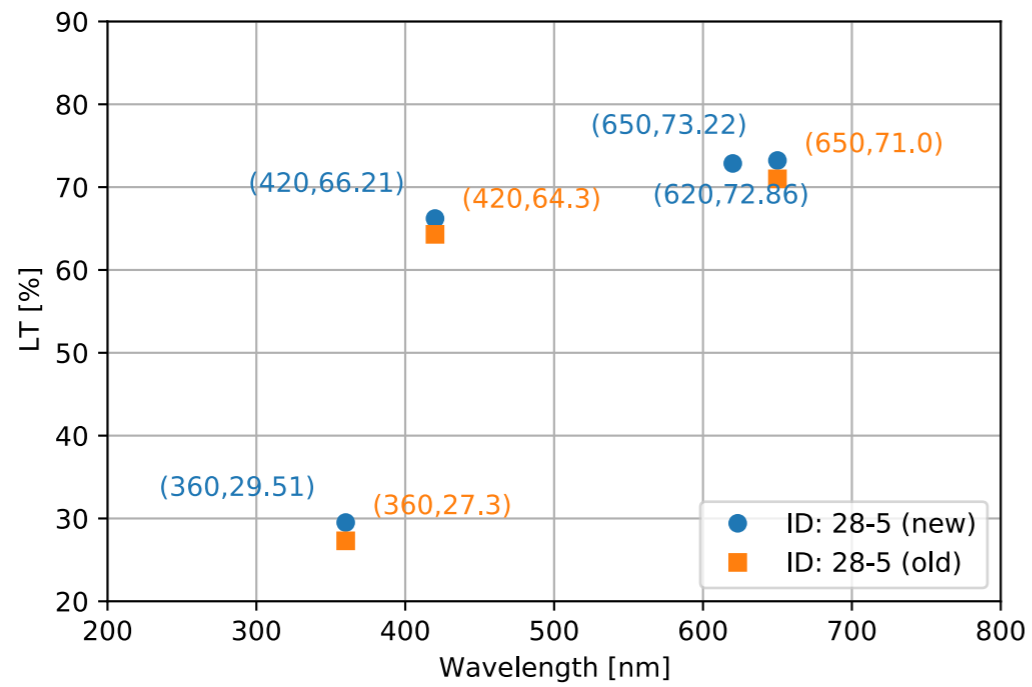


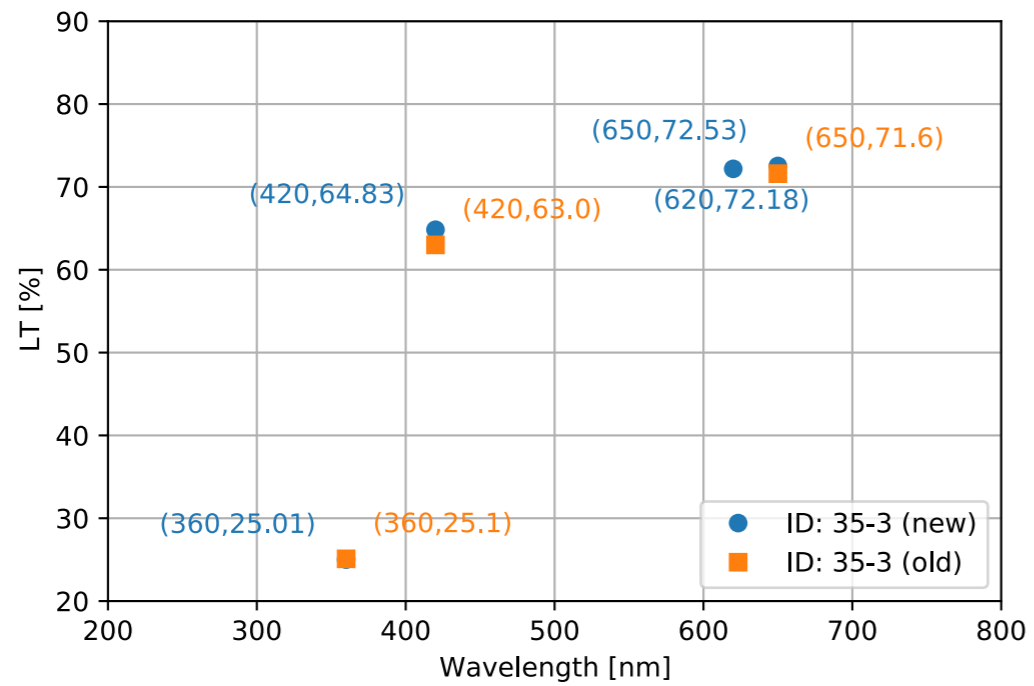
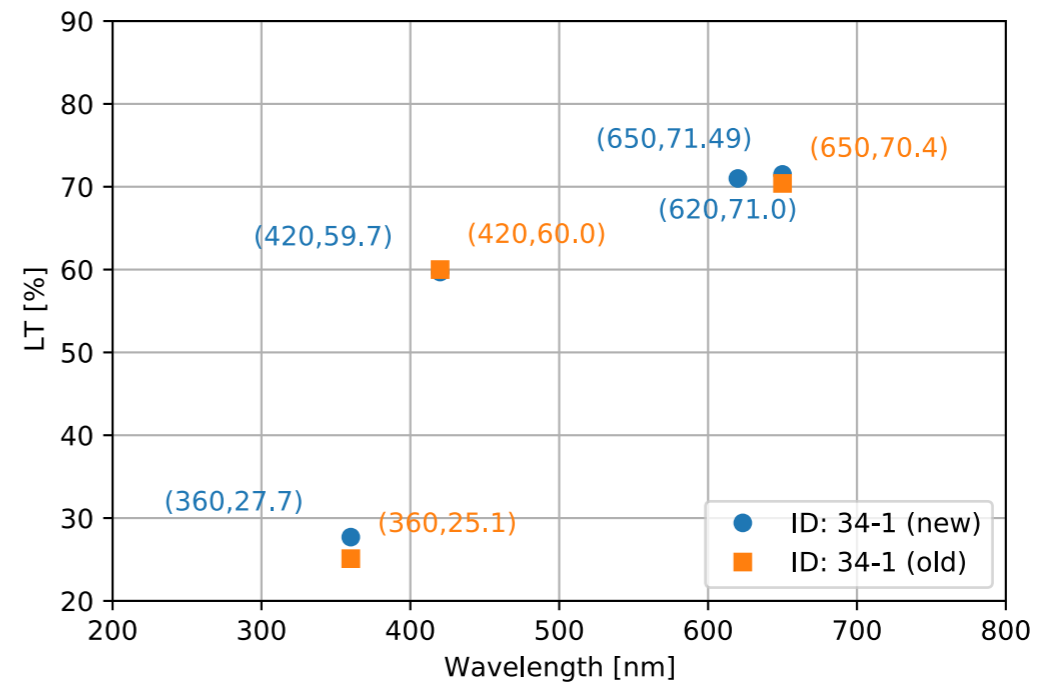
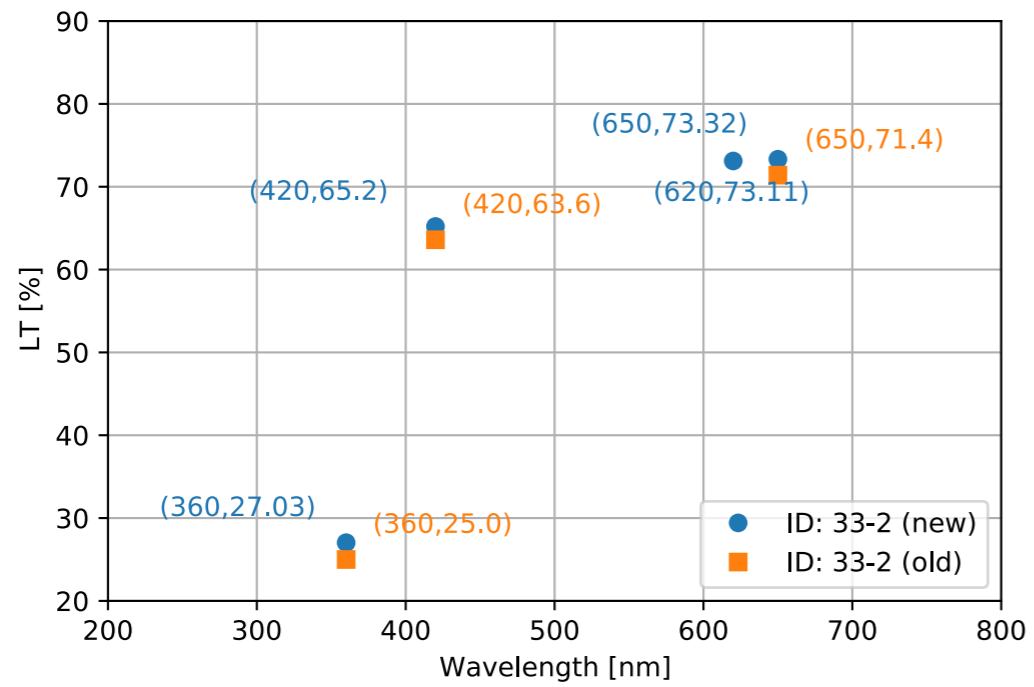












Longitudinal Transmittance

Suggestion: do-not-mailing-out list

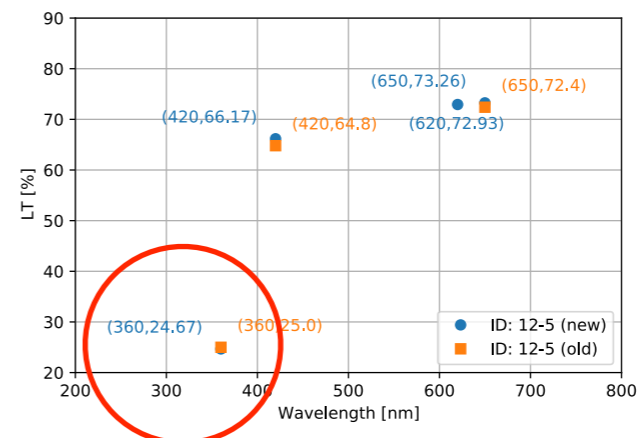
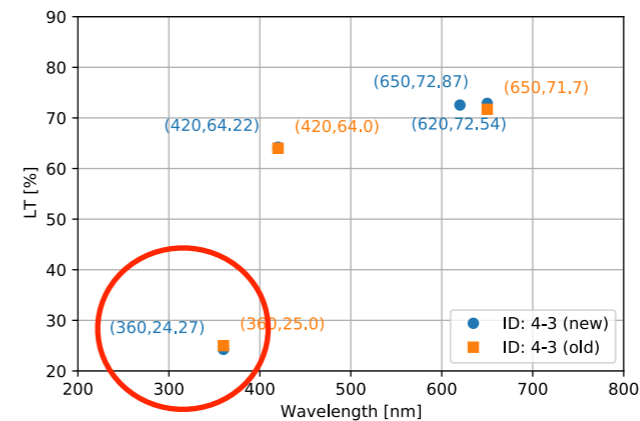
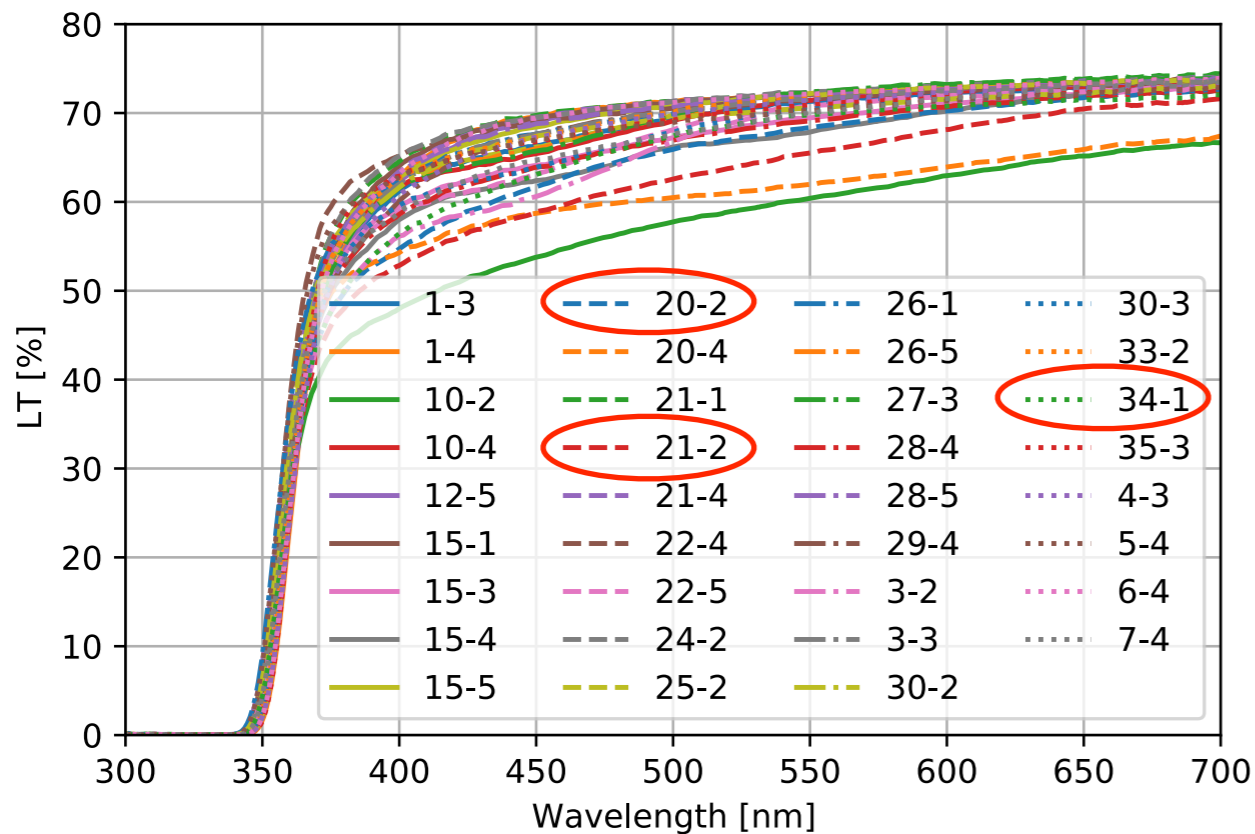
1-4, 3-2, 7-4, 10-2, 20-4

Purple
Brown
Yellow
Slightly brown

Discussion list

21-2, 20-2, 34-1, 4-3, 12-5

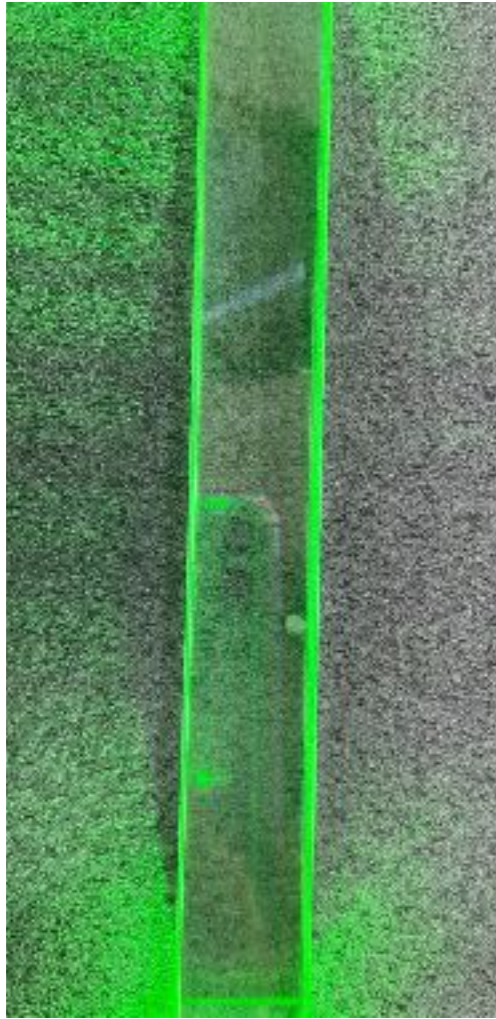
Slightly brown
Slightly yellow



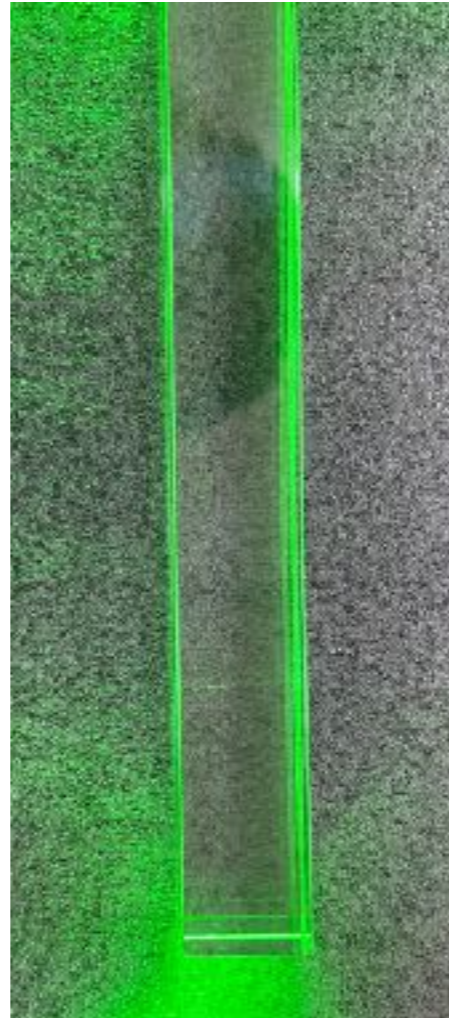
4-3

Defects inside
For more information
see P. 19&21

Green laser beam for cloudy regions



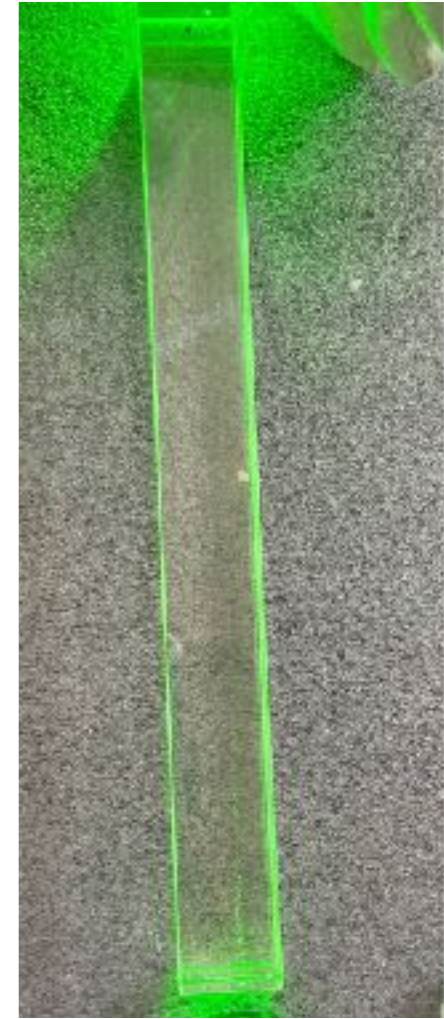
15-2



18-5



34-1

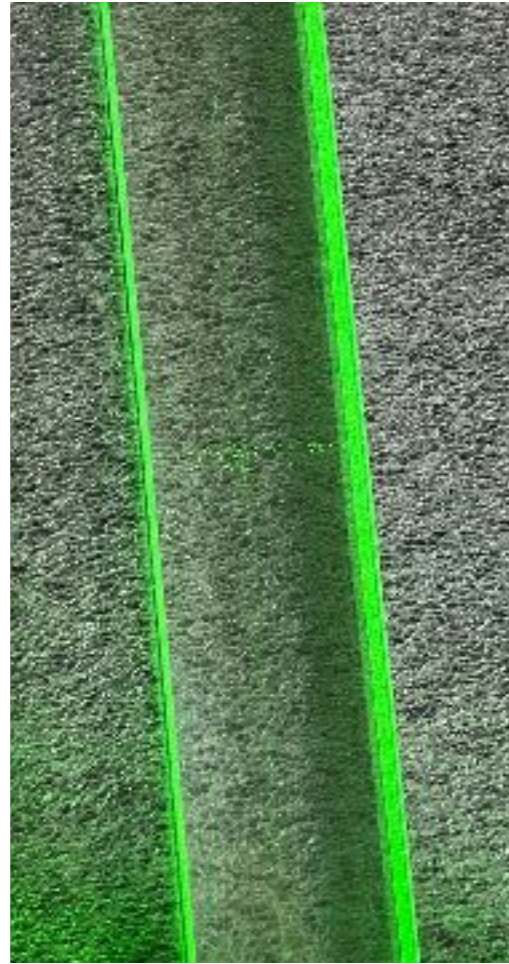


35-3

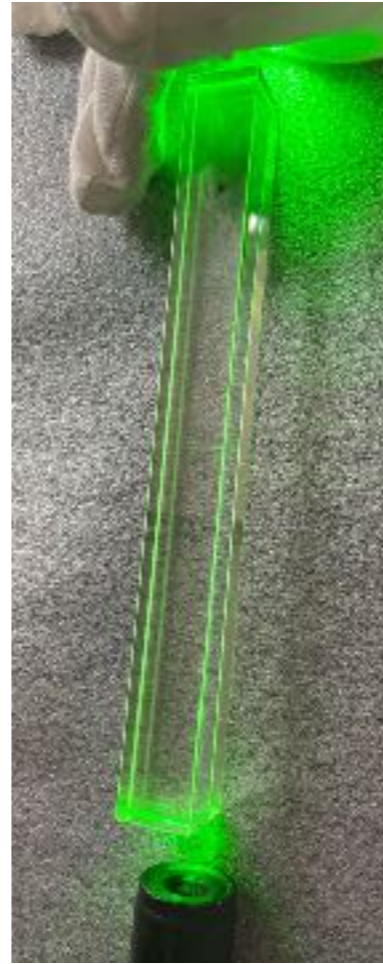
Green laser beam for cloudy regions



8-2



8-4



33-4

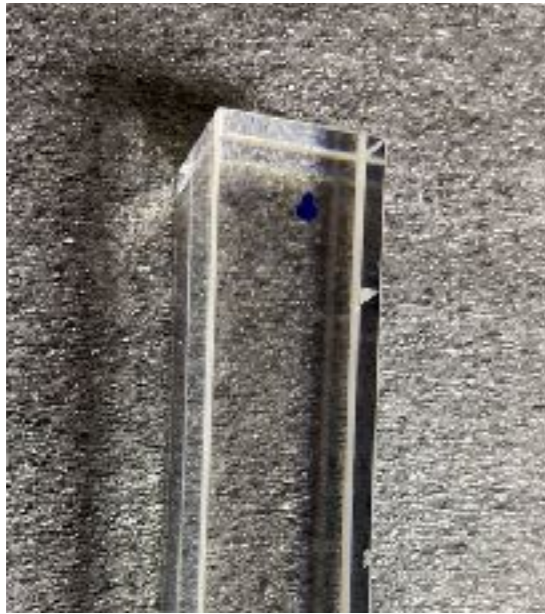


23-3



23-5

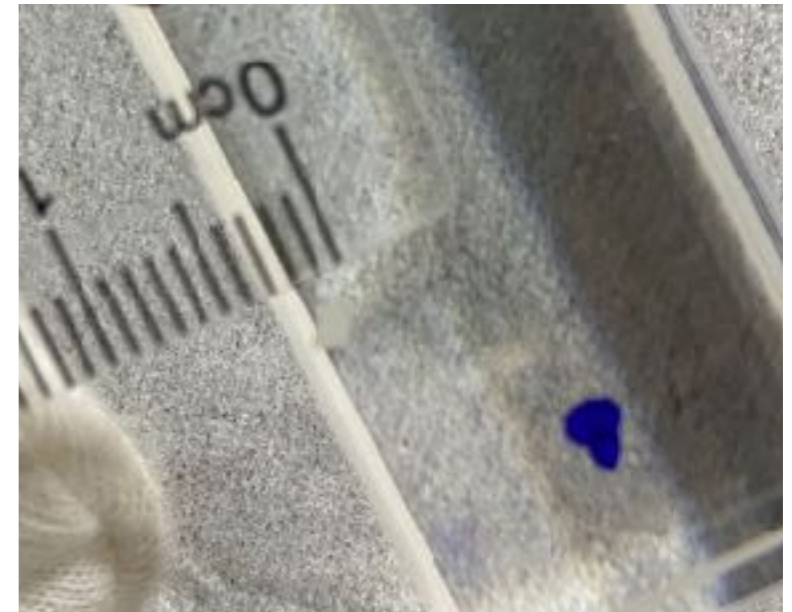
Defects inside



4-2



4-2



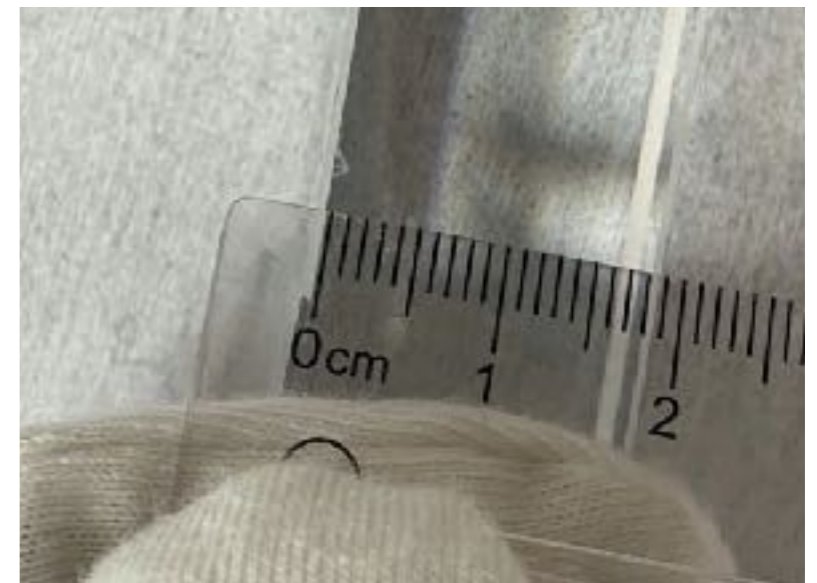
4-2



4-3



4-3

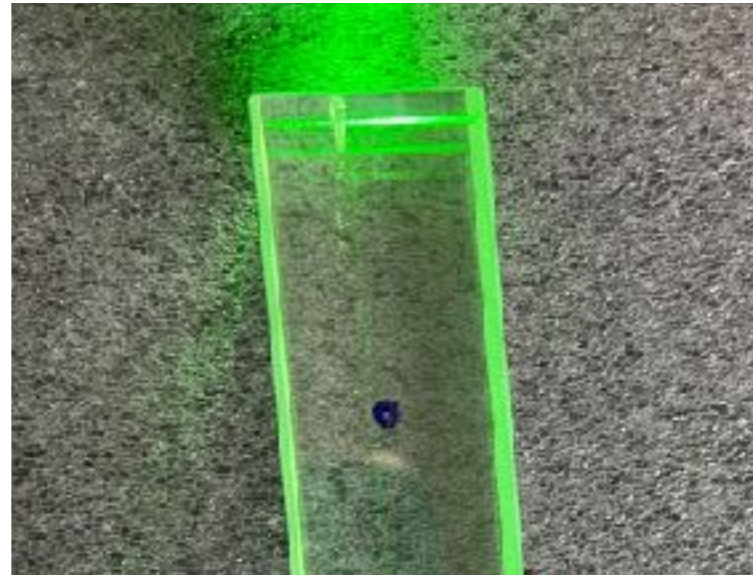


4-3

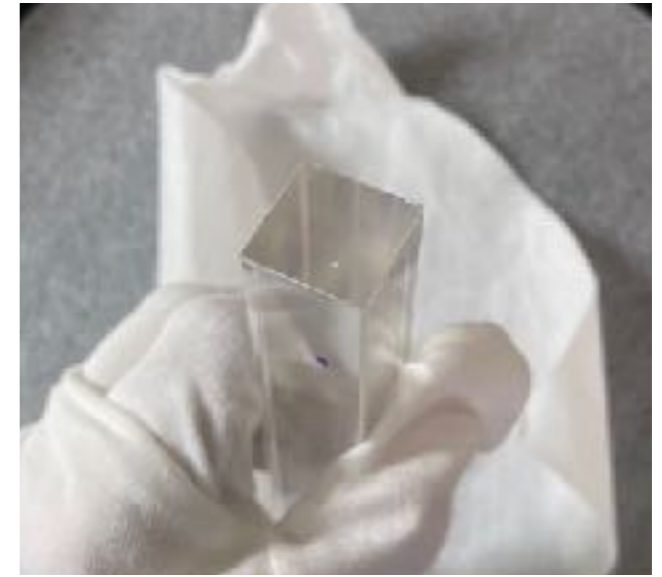
Defects inside



4-5



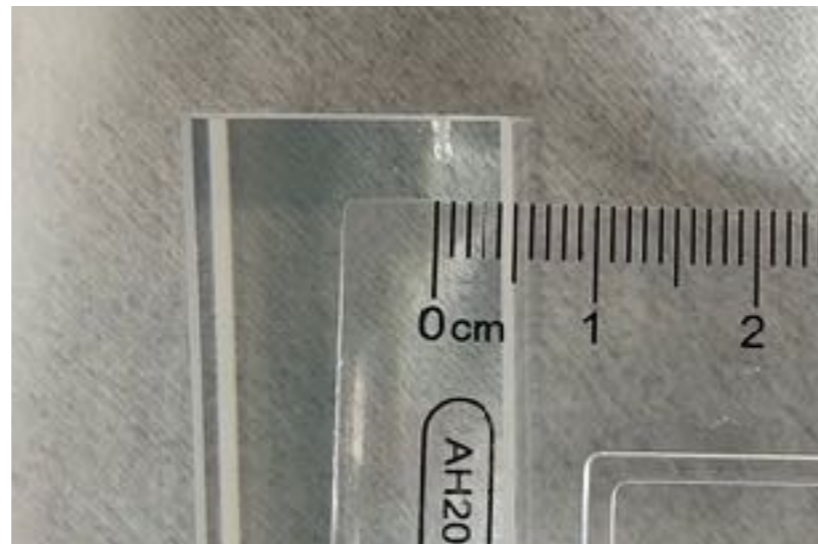
4-5



4-5



4-5



4-5

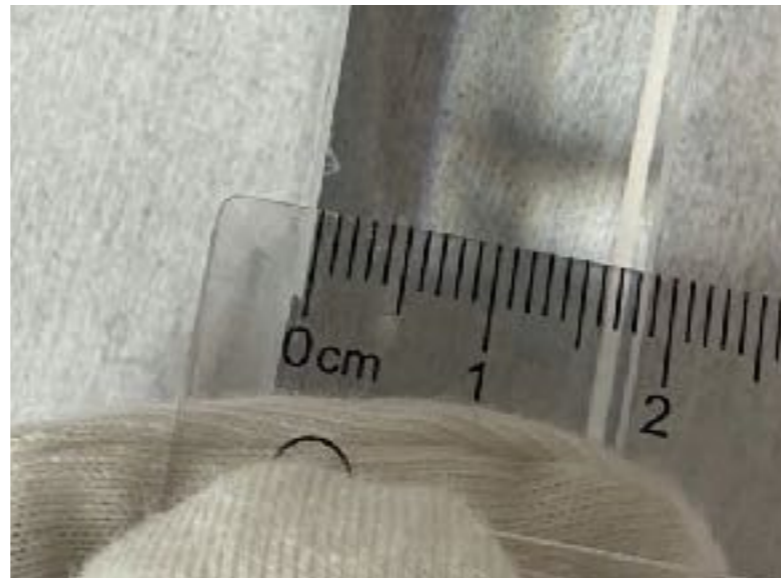
Defects inside

Suggestion: do-not-mailing-out list
4-5

Discussion list
4-3
✗

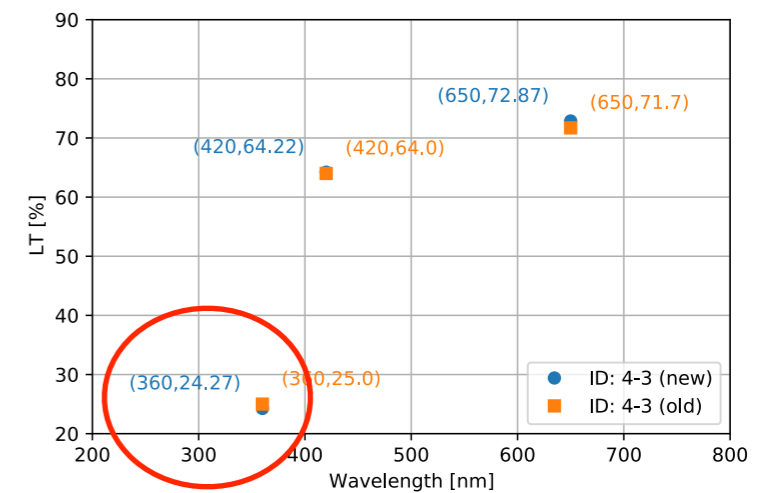


4-3

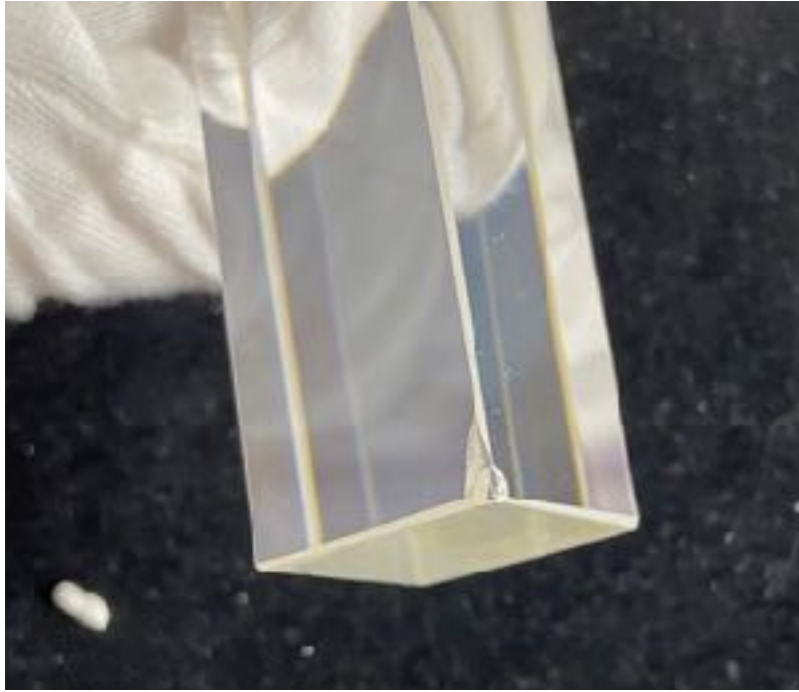


4-3

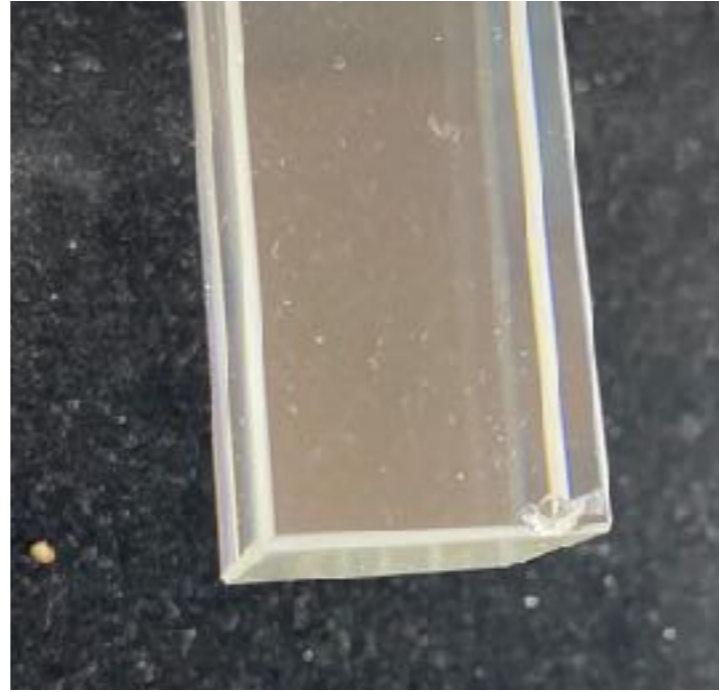
The deep is about 1mm



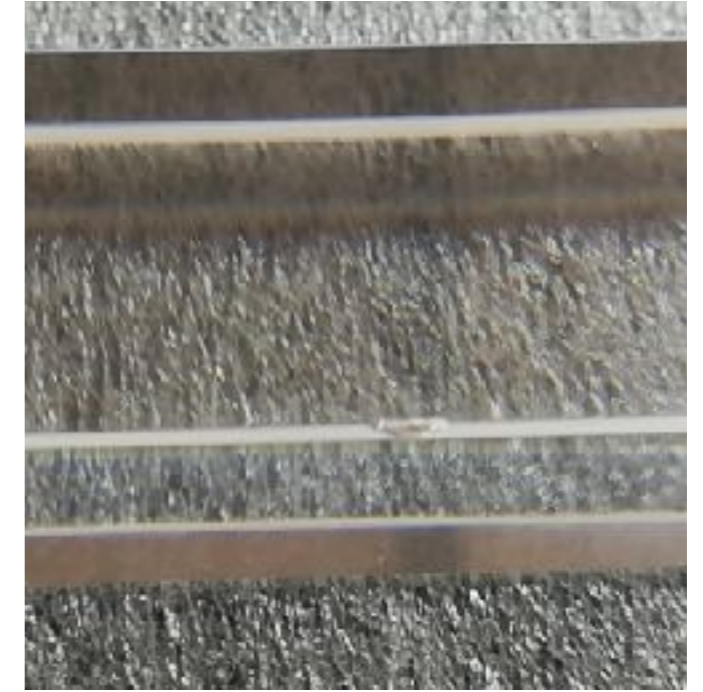
Defects — — chips



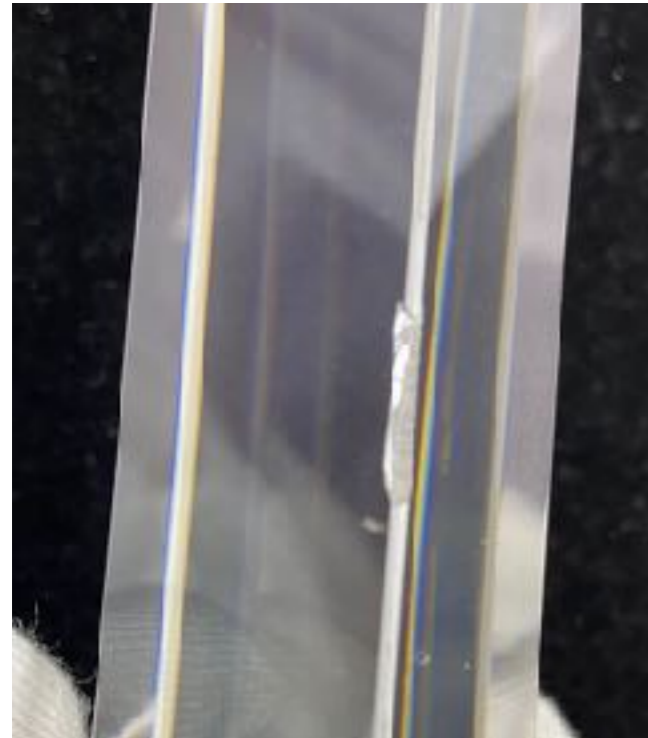
2-1



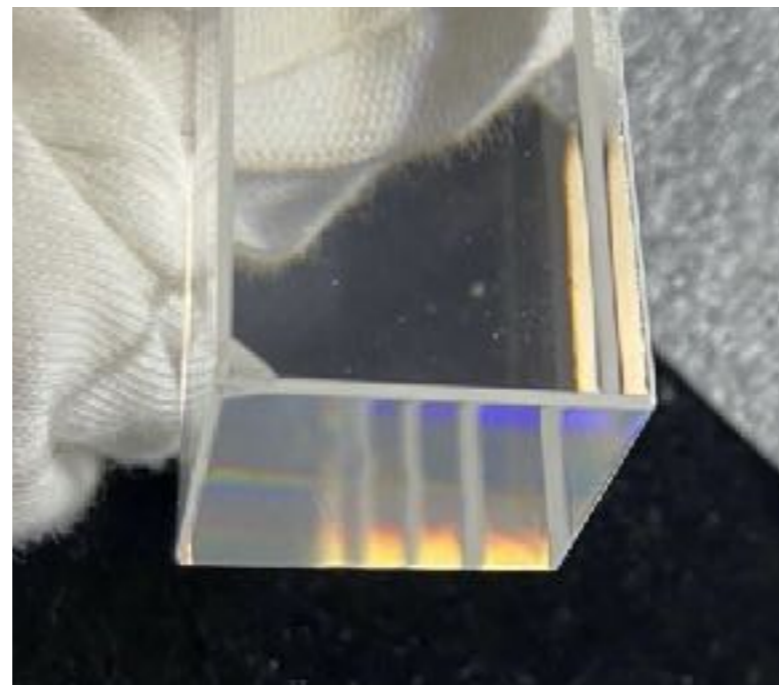
2-3



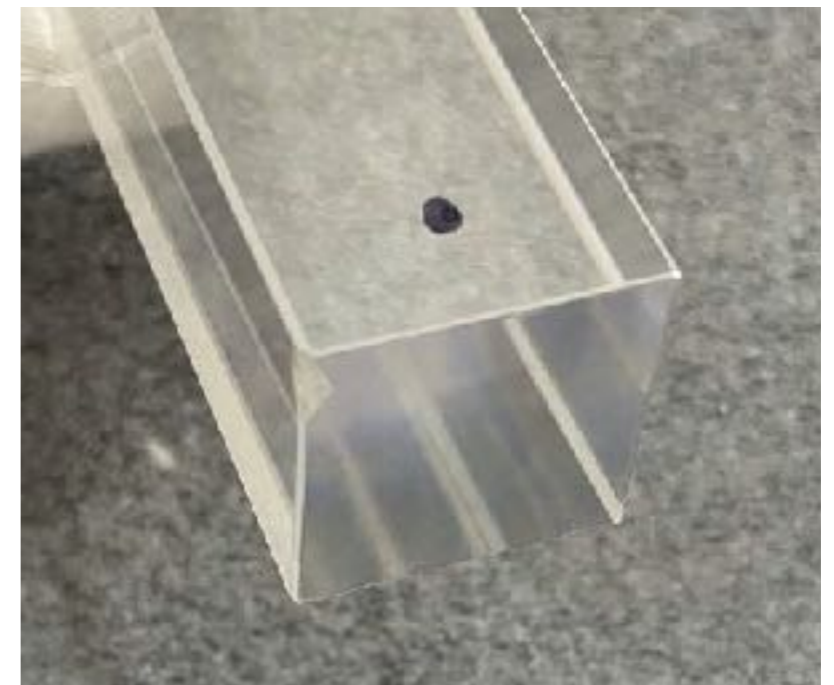
3-5



4-1



8-4



14-3

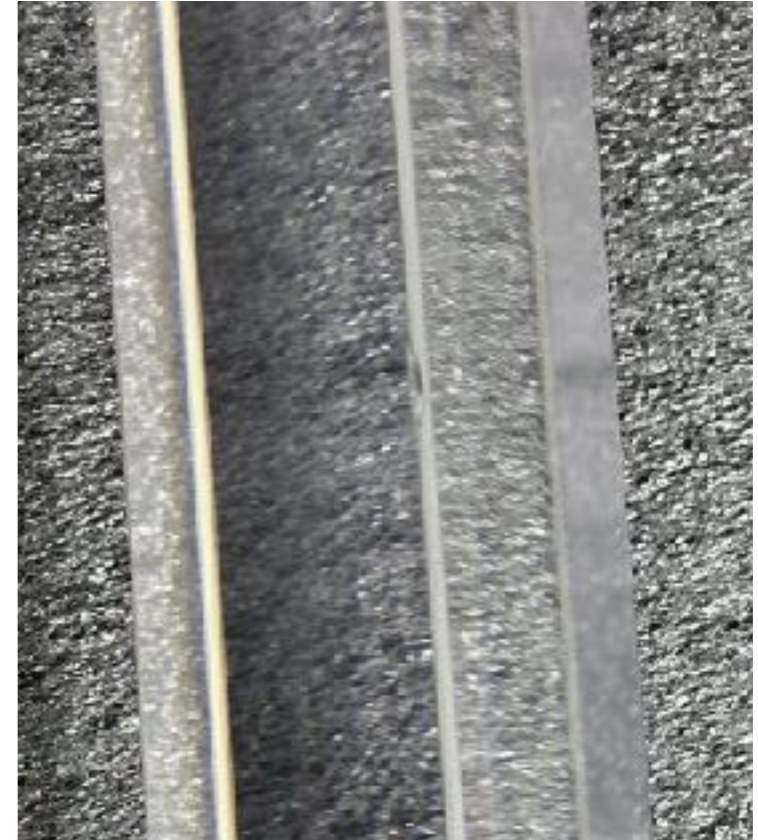
Defects — — chips



4-2

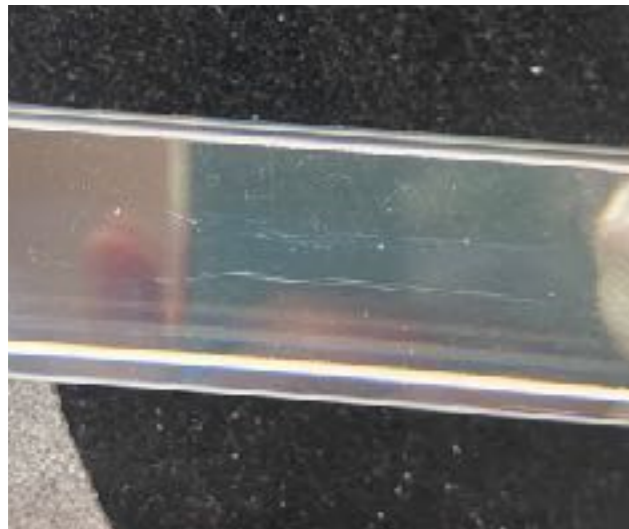


4-2



4-2

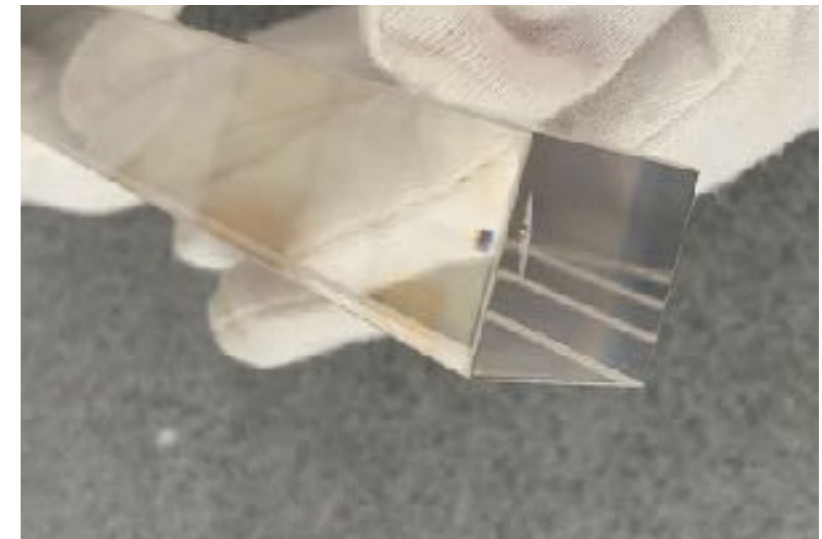
Defects — — scratches



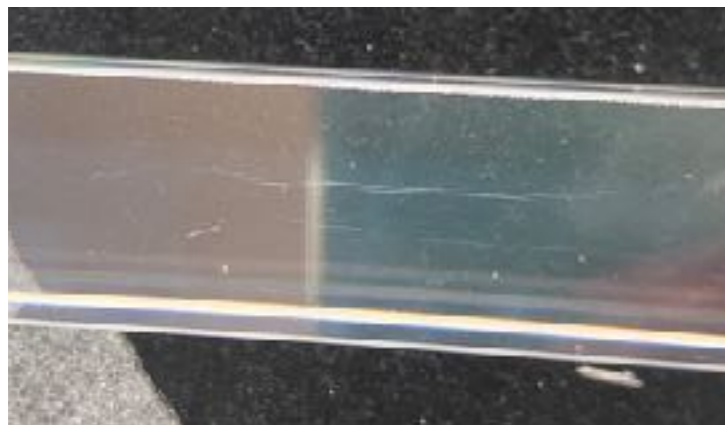
33-1



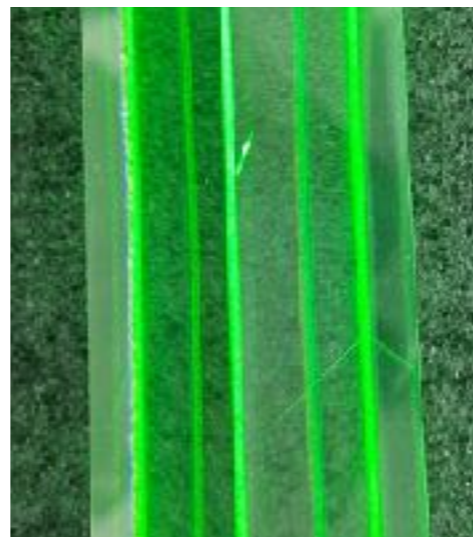
2-4



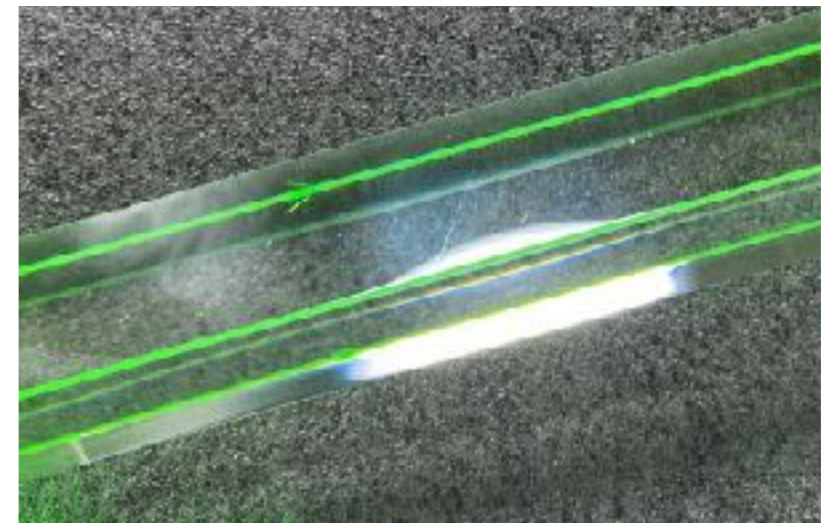
14-1



33-1

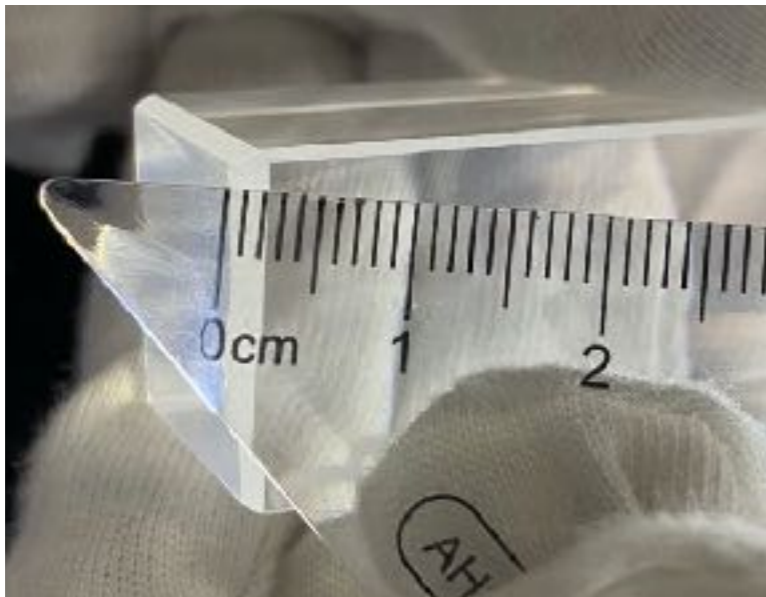
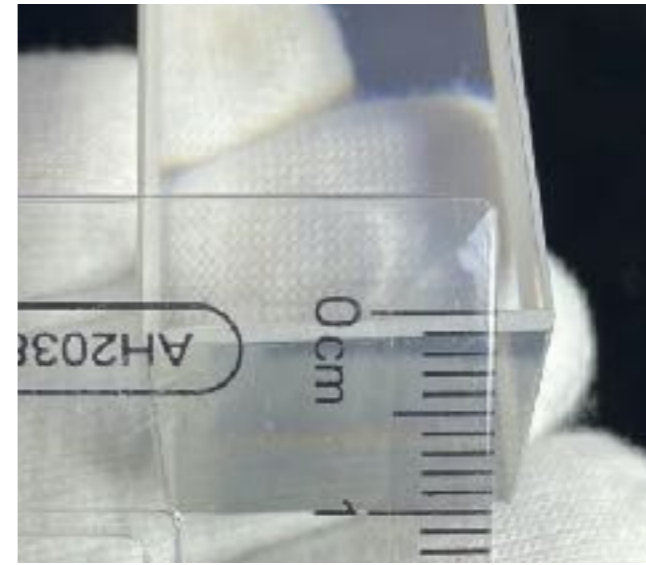
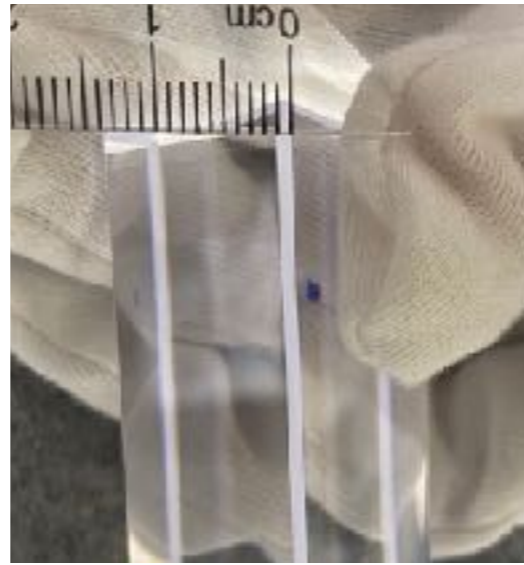
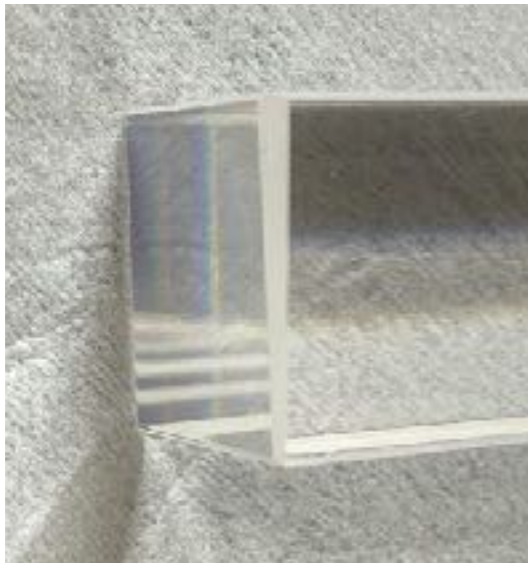


12-5

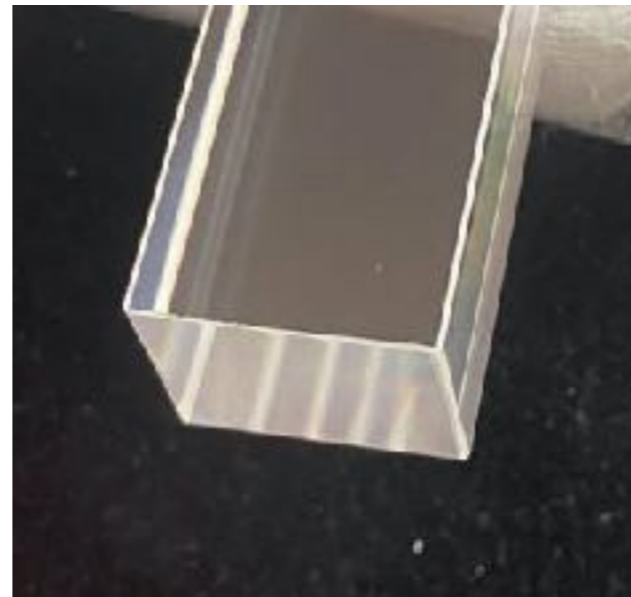


12-5

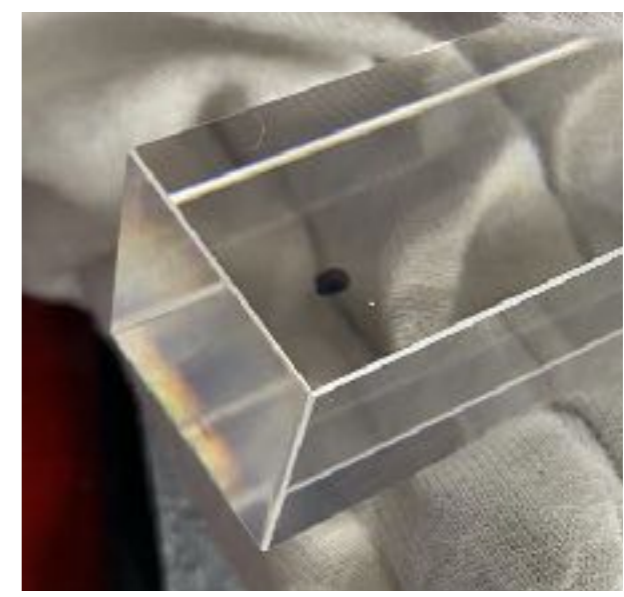
Chamfers



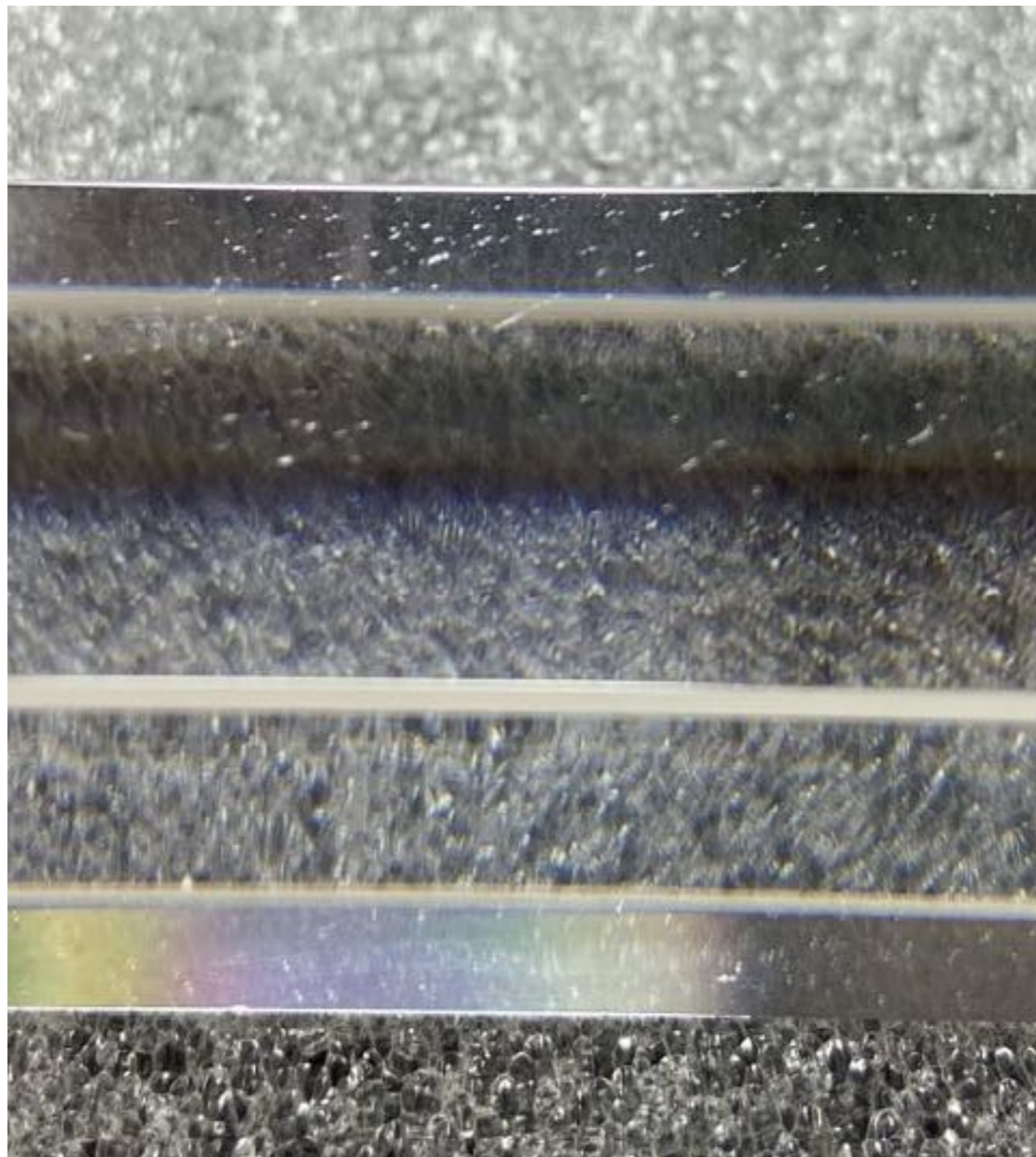
2-5



29-4



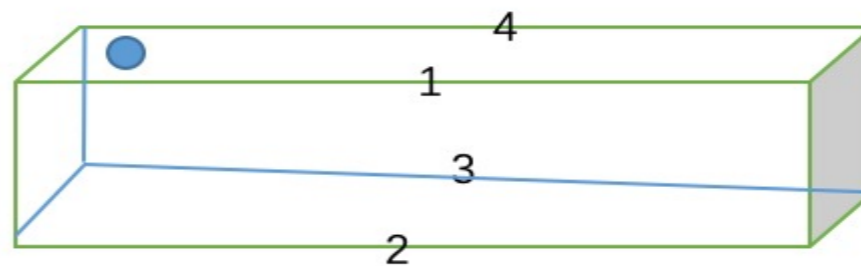
5-4



22-3

Geometry

ID	Width of the longitudinal chamfers (mm) (4 sides)				Length Upsides (mm) (4 sides)				Length Downsides (mm) (4 sides)				Angle (4 sides)			
231	0.98	0.98	0.99	1.00	20.56	20.51	20.53	20.57	20.59	20.54	20.66	20.63	90.0	89.3	90.2	90.0
232	1.00	1.02	1.00	1.02	20.70	20.61	20.62	20.57	20.57	20.61	20.60	20.64	90.0	90.0	90.0	89.6
233	1.00	0.98	0.98	0.95	20.59	20.58	20.55	20.60	20.60	20.58	20.55	20.58	90.2	90.2	89.5	90.0
234	0.95	0.98	0.95	0.95	20.64	20.75	20.57	20.63	20.55	20.52	20.53	20.55	89.5	89.7	90.0	89.9
235	0.96	0.98	1.00	0.95	20.65	20.59	20.75	20.60	20.58	20.57	20.57	20.56	89.6	90.1	90.0	90.3
271	0.91	0.90	0.85	0.90	20.51	20.49	20.52	20.52	20.55	20.57	20.53	20.54	90.2	89.6	89.6	90.1
272	1.00	0.90	0.96	0.88	20.55	20.65	20.58	20.57	20.60	20.56	20.57	20.64	89.6	89.6	90.0	90.2
273	0.90	0.80	0.95	0.95	20.54	20.56	20.60	20.63	20.53	20.53	20.52	20.52	89.8	90.3	89.6	89.6
274	0.80	0.60	0.80	0.80	20.51	20.53	20.52	20.49	20.56	20.53	20.53	20.53	89.3	89.4	89.6	89.8
275	0.80	0.95	0.98	0.95	20.51	20.52	20.53	20.51	20.51	20.52	20.52	20.56	89.5	89.3	89.7	90.0
311	0.80	1.00	0.98	0.98	20.52	20.53	20.53	20.54	20.51	20.62	20.50	20.52	90.2	89.4	89.5	90.0
312	0.70	0.70	0.65	0.70	20.54	20.53	20.54	20.56	20.54	20.58	20.53	20.51	89.8	90.2	90.0	90.0
313	0.80	0.95	1.00	0.95	20.54	20.54	20.51	20.59	20.54	20.52	20.51	20.49	89.8	89.8	90.0	89.8
314	0.55	0.75	0.55	0.50	20.58	20.54	20.52	20.53	20.54	20.54	20.52	20.53	90.1	90.0	90.0	90.2
315	0.40	0.85	0.70	0.85	20.57	20.56	20.56	20.54	20.55	20.56	20.54	20.55	89.8	90.1	90.2	89.7
351	0.90	0.85	0.85	0.75	20.70	20.61	20.64	20.64	20.62	20.66	20.61	20.58	90.3	89.9	90.0	89.8
352	0.80	0.60	0.85	0.60	20.63	20.58	20.65	20.59	20.61	20.59	20.63	20.66	89.7	89.9	90.2	89.9
353	0.85	0.55	0.85	0.90	20.59	20.65	20.67	20.63	20.61	20.60	20.59	20.59	89.8	90.7	89.9	89.3
354	0.80	0.90	0.80	0.90	20.55	20.56	20.57	20.60	20.59	20.55	20.54	20.54	90.0	90.1	89.4	89.9
355	0.80	0.70	0.80	0.85	20.60	20.59	20.56	20.59	20.55	20.57	20.55	20.58	89.4	89.6	90.1	90.3



The Not-Sending-List

229	1-4, Purple
237	3-2, Brown
243	4-3, Close to 25% at 360nm & Defects inside
245	4-5, Defects inside
259	7-4, Yellow
272	10-2, Brown
322	20-2, Slightly Brown
324	20-4, Brown
327	21-2, Slightly Brown

For the second batch of crystals we accepted **165** pieces of crystals.