

## Section 1.

**Table 1 Dataset of BIT-lidar**

Sample number	Date	Lidar Dataset	Daily Averaged AQI	Daily Averaged PM <sub>2.5</sub>	Daily Averaged PM <sub>10</sub>	Air quality
1	2016/12/17	18:15-06:10 (next day)	246	196	224	Heavily polluted
2	2016/12/18	18:45-06:15 (next day)	271	221	239	Heavily polluted
3	2016/12/19	18:00-06:29 (next day)	273	223	253	Heavily polluted
4	2016/12/20	17:41-06:26 (next day)	418	376	415	Severely polluted
5	2016/12/21	17:44-06:04 (next day)	431	396	415	Severely polluted
6	2016/12/22	17:20-07:40 (next day)	79	58	57	Severely polluted -> Good
7	2016/12/23	18:08-23:24	62	34	65	Good -> Lightly polluted
8	2016/12/26	19:01-22:10	160	122	152	Moderately polluted
9	2016/12/28	18:39-22:20	87	64	64	Severely polluted -> Good
10	2016/12/29	19:29-22:07	88	65	94	Good -> Severely polluted
11	2016/12/30	17:45-09:00 (next day)	262	212	255	Heavily polluted
12	2016/12/31	17:30-07:00(next day)	351	301	356	Severely polluted
13	2017/1/1	18:00-09:00 (next day)	470	454	512	Severely polluted
14	2017/1/2	17:00-9:00 (next day)	248	198	190	Heavily polluted
15	2017/1/3	18:17-06:25 (next day)	348	311	339	Severely polluted
16	2017/1/4	18:31-06:10 (next day)	389	364	389	Severely polluted
17	2017/1/5	17:30-09:00 (next day)	270	223	222	Heavily polluted
18	2017/1/6	17:20-22:03	248	199	183	Heavily polluted
19	2017/4/6	19:25-22:05	125	98	106	Lightly polluted
20	2017/6/14	19:35-22:25	123	37	60	Lightly polluted
21	2017/6/15	19:23-22:26	155	38	95	Moderately polluted
22	2017/6/19	19:00-22:10	154	37	70	Moderately polluted
23	2017/6/20	19:22-22:30	156	32	64	Moderately polluted
24	2017/6/28	20:02-22:37	189	98	125	Moderately polluted
25	2017/6/29	19:18-22:03	139	52	77	Lightly polluted
26	2017/7/10	19:32-22:33	136	25	55	Lightly polluted
27	2017/7/11	19:45-22:47	208	48	94	Heavily polluted
28	2017/7/12	19:53-22:23	191	74	132	Moderately polluted
29	2017/8/8	20:00-21:26	162	29	69	Moderately polluted
30	2017/8/15	20:05-21:13	106	55	75	Lightly polluted
31	2017/8/21	19:48-21:58	133	72	94	Lightly polluted
32	2017/9/7	19:59-21:59	150	45	74	Lightly polluted
33	2017/9/8	19:53-05:19 (next day)	127	34	72	Lightly polluted
34	2017/9/13	19:51-22:30	123	74	125	Lightly polluted
35	2017/9/14	18:56-22:30	112	85	118	Lightly polluted
36	2017/9/30	22:19-03:16 (next day)	104	71	96	Lightly polluted
37	2017/10/26	18:15-06:42 (next day)	202	153	123	Heavily polluted
38	2017/10/27	18:56-3:57 (next day)	221	170	123	Heavily polluted
39	2017/11/21	18:15-21:42	158	119	158	Moderately polluted