Python Dictionaries

Create a program called "first_lines.py" that prints the first line of the contents of each file in a directory along with the source file name, e.g., like the index of a collection of poems. The program must do the following:

- Print a "usage" statement if given exactly no arguments and exit *with an error*
- Accept one or more positional arguments which should be directory names (hint: use `nargs='+'` to `argparse` to get a list instead of a single value)
- Iterate over the arguments; if an argument is not a directory, print ' "" is not a directory' *to STDERR* and skip to the next
- Print the directory name, then show a **sorted** list of first lines of the files contained in that directory, ellipses, then the file name
- Accept a `-w|--width` integer option that is the width of the space to print (default 50)

Expected behavior:

```
$ ./first_lines.py
usage: first_lines.py [-h] [-w int] DIR [DIR ...]
first_lines.py: error: the following arguments are required: DIR
$ ./first_lines.py foo
"foo" is not a directory
$ ./first_lines.py whitman
whitman
A sight in camp in the daybreak gray and dim, ..... 1.txt
I have said that the soul is not more than the body,  2.txt
Passing stranger! you do not know how longingly I look upon you,  4.txt
Shut not your doors to me, proud libraries, ....... 5.txt
We two, how long we were fool'd, .................. 3.txt
$ ./first_lines.py -w 40 dickinson blake
dickinson
'T is so much joy! 'T is so much joy! ... 4.txt
A precious, mouldering pleasure 't is ... 10.txt
A wounded deer leaps highest, ........... 8.txt
Glee! The great storm is over! .......... 5.txt
I know some lonely houses off the road .. 15.txt
If I can stop one heart from breaking, .. 6.txt
Much madness is divinest sense .......... 11.txt
Our share of night to bear, ............. 2.txt
Some things that fly there be, -- ....... 14.txt
Soul, wilt thou toss again? ............. 3.txt
Success is counted sweetest ............. 1.txt
The heart asks pleasure first, .......... 9.txt
The soul selects her own society, ....... 13.txt
Within my reach! ........................ 7.txt
```

```
blake
Cruelty has a human heart, .............. 4.txt
I dreamt a dream! What can it mean? ..... 5.txt
I was angry with my friend: ............ 1.txt
Never seek to tell thy love, ........... 6.txt
Sweet dreams form a shade, ............. 7.txt
To see a World in a Grain of Sand ...... 3.txt
Tyger! Tyger! burning bright, .......... 2.txt
```

Tests

A passing test suite looks like:

```
$ make test
python3 -m pytest -v test.py
========================================= test session starts =======================
platform darwin -- Python 3.6.8, pytest-4.2.0, py-1.7.0, pluggy-0.8.1 -- /anaconda3/bin/pytl
cachedir: .pytest_cache
rootdir: /Users/kyclark/work/biosys-analytics/assignments/06-python-first-lines, inifile:
plugins: remotedata-0.3.1, openfiles-0.3.2, doctestplus-0.2.0, arraydiff-0.3
collected 5 items

test.py::test_usage PASSED
test.py::test_bad_input PASSED
test.py::test_good_input1 PASSED
test.py::test_good_input2 PASSED
test.py::test_good_input3 PASSED

========================================= 5 passed in 0.31 seconds ===================
```