Data Verification Report

Basic Information

- Project Name: TSR
- Project Owner: Wukun
- Usercase Name: TSR_Classifier
- Datasets: TSR meta data
- Data Version: 26
- Test Time: 2023-11-29 11:41:21
- Data Requirements: Data-TSRClassifier

Test Result

SN	Rule Name	Classification	Verification Object	Verification Content	Test Result	Result Description
1	data-tsr-1	consistency	class label	taxonomy	SKIP	NULL
2	data-tsr-3	consistency	bounding box	object count	SKIP	NULL
3	data-tsr-4	consistency	bounding box	visibility	SKIP	NULL
4	data-tsr-5	consistency	bounding box	visibility	SKIP	NULL
5	data-tsr-6	consistency	image	perspective	SKIP	NULL
6	data-tsr-7	consistency	image	quality	SKIP	NULL
7	data-tsr-8	consistency	image	quality	SKIP	NULL
8	data-tsr-9	consistency	image	quality	SKIP	NULL
9	data-tsr-10	consistency	image	quality	SKIP	NULL
10	data-tsr-11	consistency	image	quality	SKIP	NULL
11	data-tsr-12a	accuracy	image	annotation	SKIP	NULL

SN	Rule Name	Classification	Verification Object	Verification Content	Test Result	Result Description
12	data-tsr-12b	accuracy	image	annotation	SKIP	NULL
13	data-tsr-13	accuracy	meta data	schema	SKIP	NULL
14	data-tsr-14	accuracy	meta data	schema	SKIP	NULL
15	data-tsr-15	accuracy	image	annotation	SKIP	NULL
16	data-tsr-16	accuracy	meta data	odd information	SKIP	NULL
17	data-tsr-17a	accuracy	meta data	odd information	SKIP	NULL
18	data-tsr-17b	accuracy	meta data	odd information	SKIP	NULL
19	data-tsr-19	accuracy	meta data	mapping	SKIP	NULL
20	data-tsr-20	accuracy	bounding box	deviation	SKIP	NULL
21	data-tsr-21	representativeness	dataset	distribution	REJECTED	Can not find odd_parameter: 'Rain quantity' in the metadata.
22	data-tsr-23	representativeness	dataset	parameter coverage	REJECTED	Can not find odd_parameter: Rain quantity in the metadata.
23	data-tsr-24	representativeness	dataset	parameter coverage	REJECTED	Can not find odd_parameter: Regions or states in the metadata.
24	data-tsr-25	representativeness	dataset	parameter coverage	REJECTED	Can not find odd_parameter: Road type in the metadata.
25	data-tsr-26a	accuracy	class label	specification	SKIP	NULL
26	data-tsr-26b	representativeness	dataset	label balance	SKIP	NULL
27	data-tsr-28	representativeness	dataset	scenario coverage	REJECTED	From the metadata, can not find odd_parameter: Rain quantity.
28	data-tsr-30	representativeness	dataset	scenario coverage	REJECTED	From the metadata, can not find odd_parameter: Rain quantity.
29	data-tsr-31	representativeness	dataset	amount	PASSED	No error.

Appendix

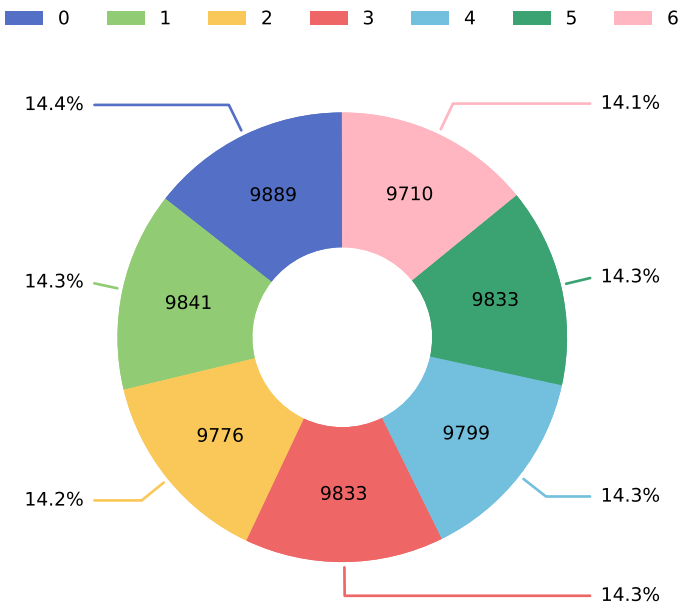
• *Dataset Summary*

Samples & Labels distribution

There are **68681** samples in full datasets, including **7** categories (['0', '1', '2', '3', '4', '5', '6']).

The related test results are as follows:

Fig1. The distribution & proportion of labels



Feature name list

From the metadata of the dataset, there are **7** features whose number of distinct values within the range of[2,10].

The related test results are as follows:

Fig1. Feature name list

SN	Feature Name	Feature Values	No. Of Values
1	augmentation	['0', '1']	2
2	dataset	['mfk0', 'AUGMENTATION', 'gtsrb', 'VIPER']	4

SN	Feature Name	Feature Values	No. Of Values
3	class	['2', '3', '4', '5', '6', 'fog severity 1', 'no fog']	7
4	Fog_intensity	['no snow', 'light snow']	2
5	Snowfall_intensity	['cloudy', 'sunny']	2
6	Illuminance	['partly sunny', 'error', 'light rain', 'no rain']	4
7	Rain_quantity	[]	3

Feature distribution display

The related test results are as follows:

Fig1. The distribution & proportion of augmentation

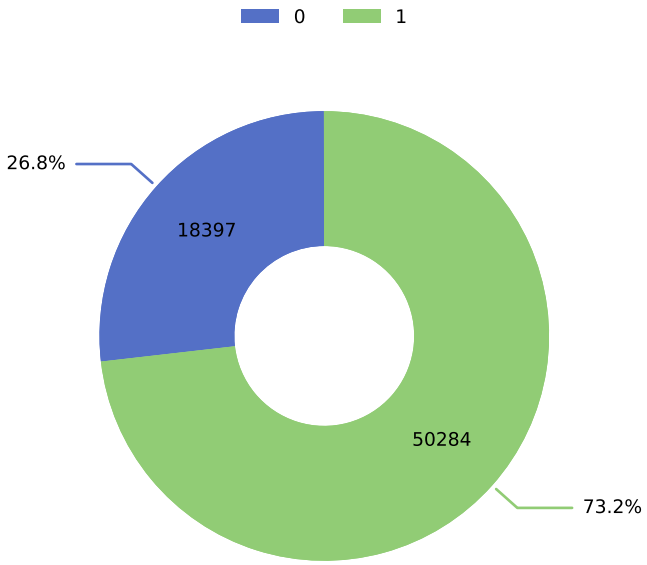


Fig2. The distribution & proportion of dataset

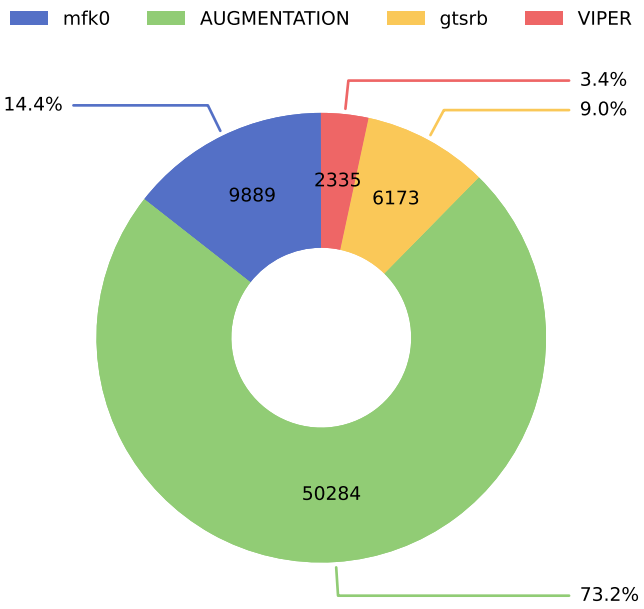


Fig3. The distribution & proportion of class

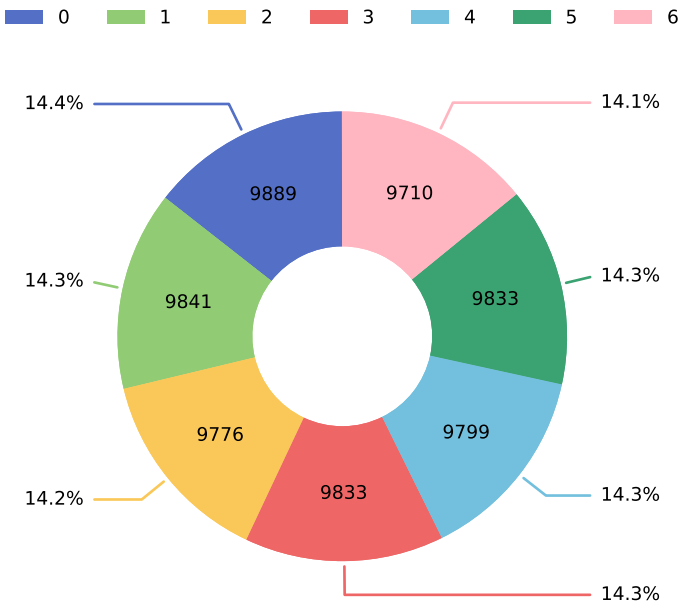


Fig4. The distribution & proportion of Fog_intensity

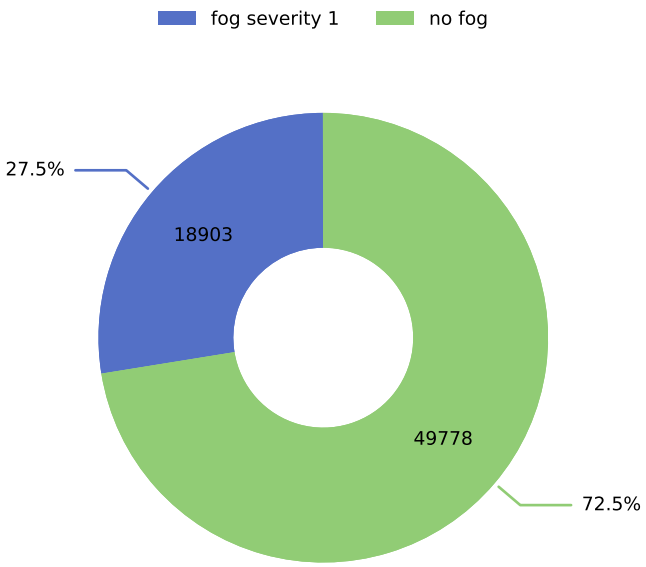


Fig5. The distribution & proportion of Snowfall_intensity

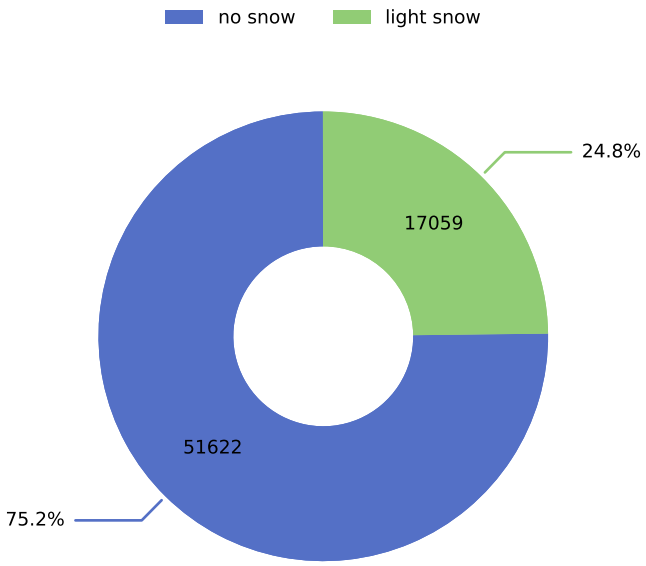


Fig6. The distribution & proportion of Illuminance

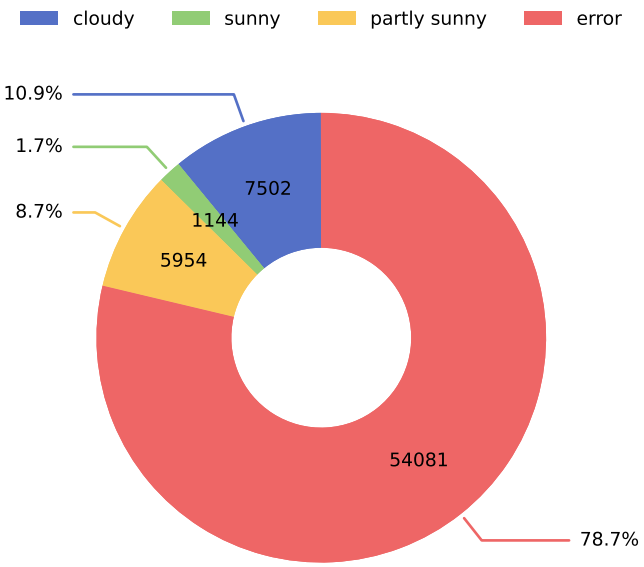
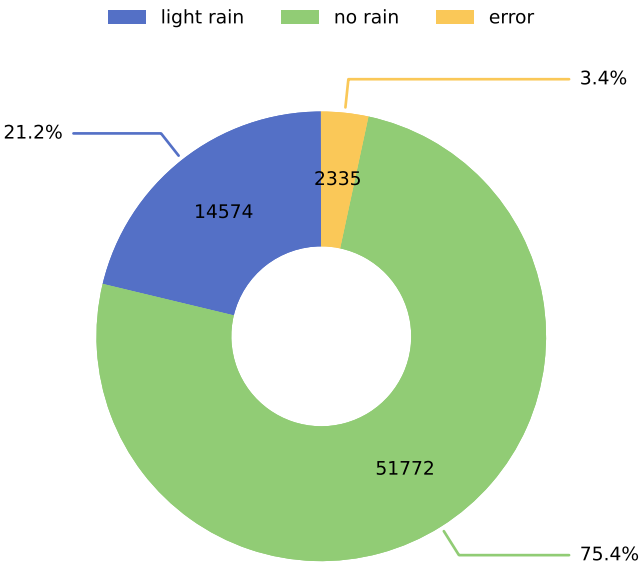


Fig7. The distribution & proportion of Rain_quantity



 # Double ODD cross coverage heatmap display

In this section, ODD cross coverage statistics are conducted between the **7** features in pairs.

For the features **augmentation, dataset, class, Fog_intensity, Snowfall_intensity, Illuminance, Rain_quantity**, the following **21** heat maps

are generated.

The related test results are as follows:

Fig1. coverage of augmentation and dataset

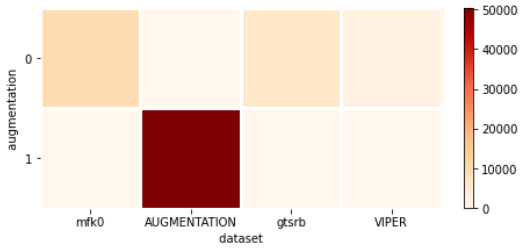


Fig2. coverage of augmentation and class

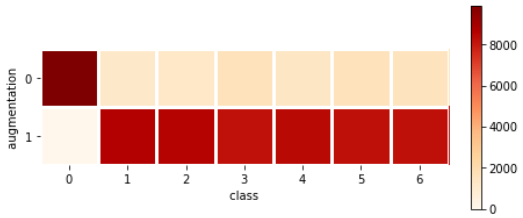


Fig3. coverage of augmentation and Fog_intensity

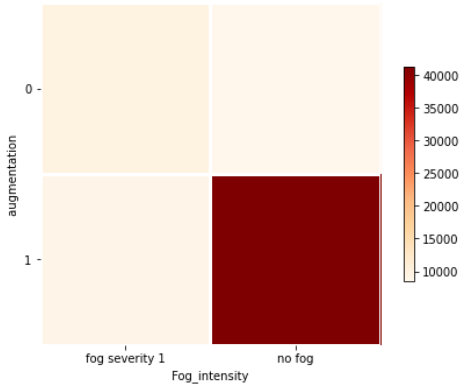


Fig4. coverage of augmentation and Snowfall_intensity

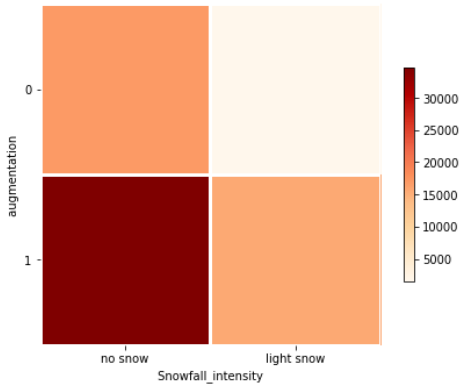


Fig5. coverage of augmentation and Illuminance

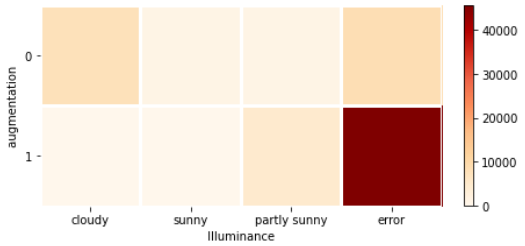


Fig6. coverage of augmentation and Rain_quantity

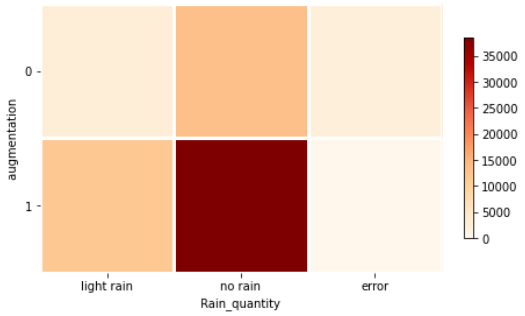


Fig7. coverage of dataset and class

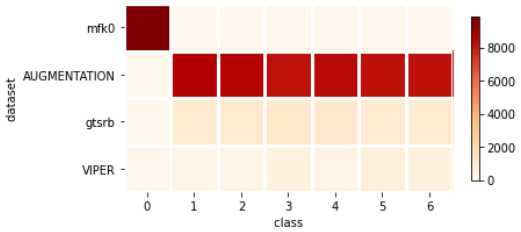


Fig8. coverage of Fog_intensity and dataset

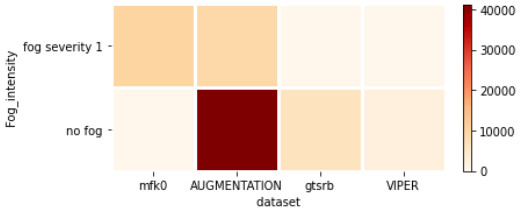


Fig9. coverage of Snowfall_intensity and dataset

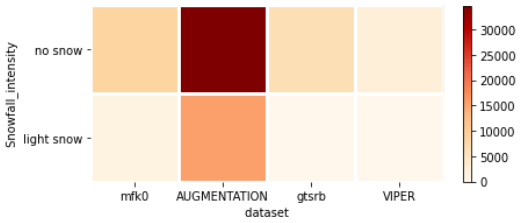


Fig10. coverage of dataset and Illuminance

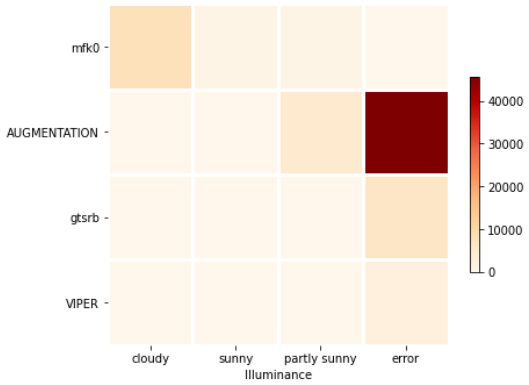


Fig11. coverage of Rain_quantity and dataset

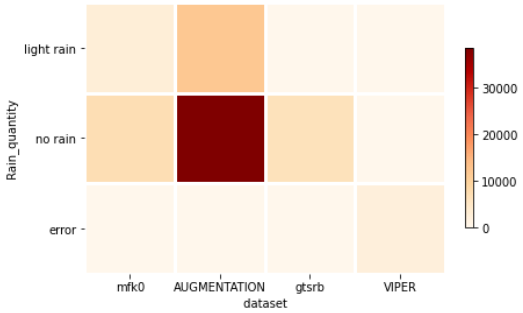


Fig12. coverage of Fog_intensity and class

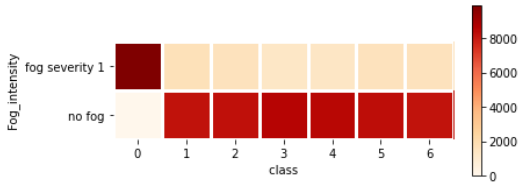


Fig13. coverage of Snowfall_intensity and class

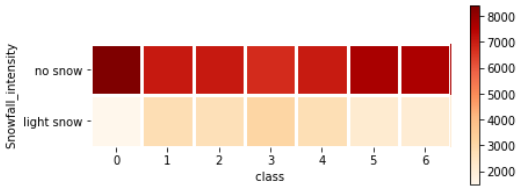


Fig14. coverage of Illuminance and class

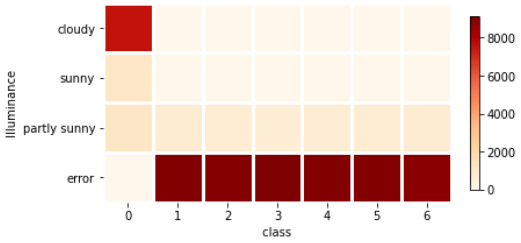


Fig15. coverage of Rain_quantity and class

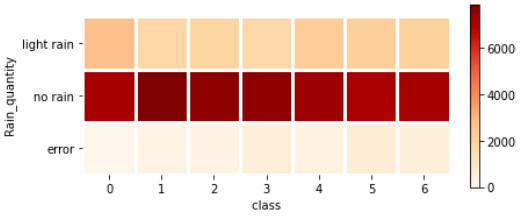


Fig16. coverage of Fog_intensity and Snowfall_intensity

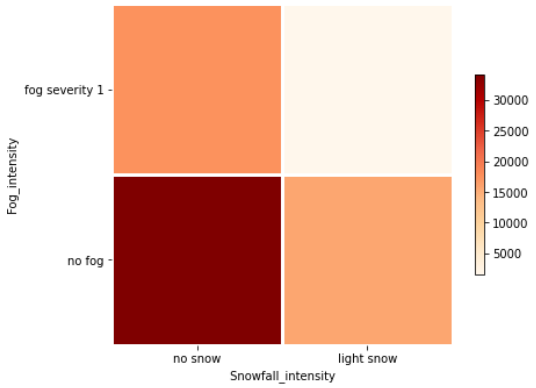


Fig17. coverage of Fog_intensity and Illuminance

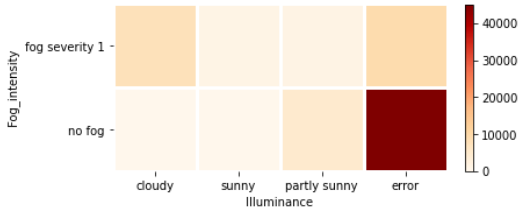


Fig18. coverage of Fog_intensity and Rain_quantity

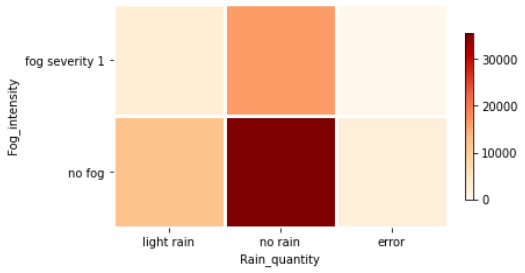


Fig19. coverage of Snowfall_intensity and Illuminance

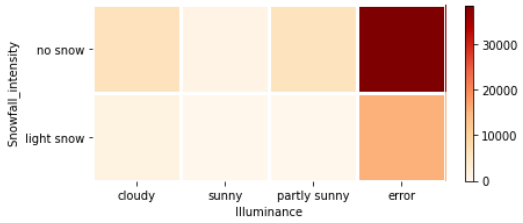


Fig20. coverage of Snowfall_intensity and Rain_quantity

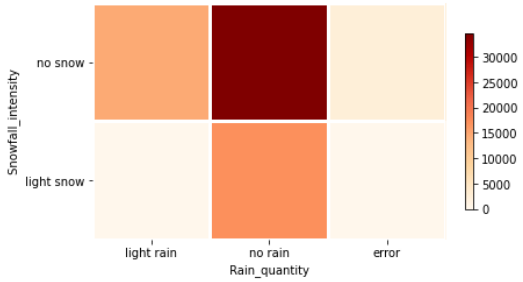
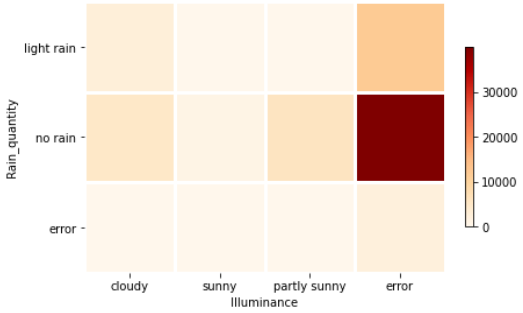


Fig21. coverage of Rain_quantity and Illuminance



- ***Data coverage details within scenarios from data requirements***

 # ODD parameters list

 # ODD data coverage display