

How to Conduct Indoor Temperature Measurement?



General Guidelines on Routine Air Temperature Measurements



Number of Sampling Points

- Measurements should be taken at **air-conditioned space**
(Each floor for multi-storey air-conditioned premises)
- 1 sampling point per 2,000 m²
- 2 sampling points for area >4,000 m²
- 3 sampling points for area >6,000 m²



Example 1



Example 2



Number of Sampling Points

Average indoor temperature is the
numerical average all sampling points



General Consideration for Selecting Locations for Measurement



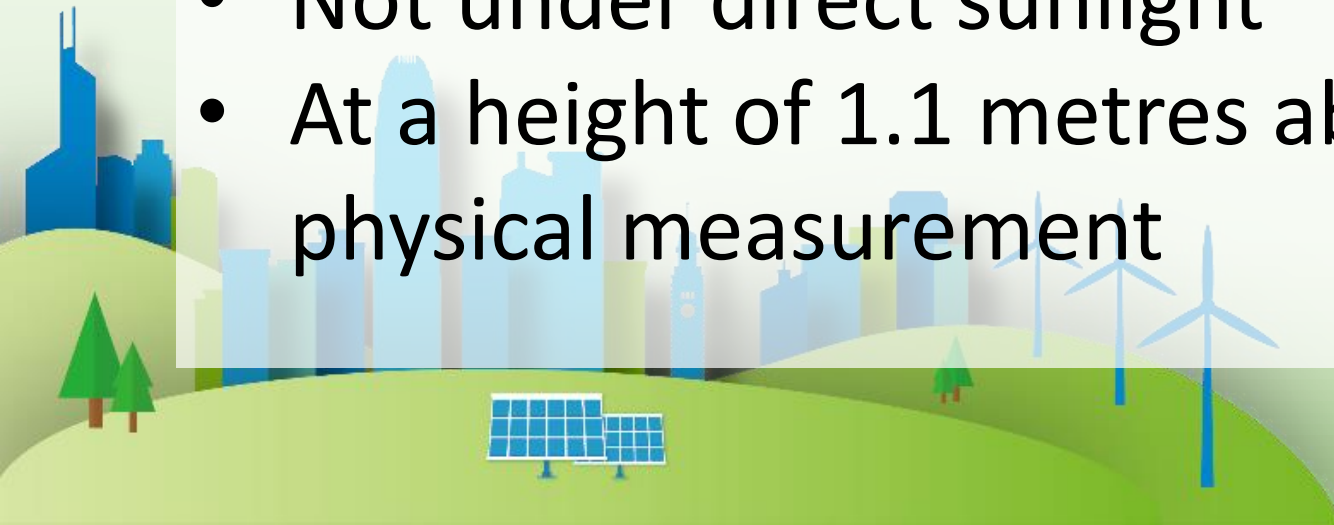
Measurements shall be taken ...

- Occupied zones during the occupied hours
- The sampling locations should be representative locations



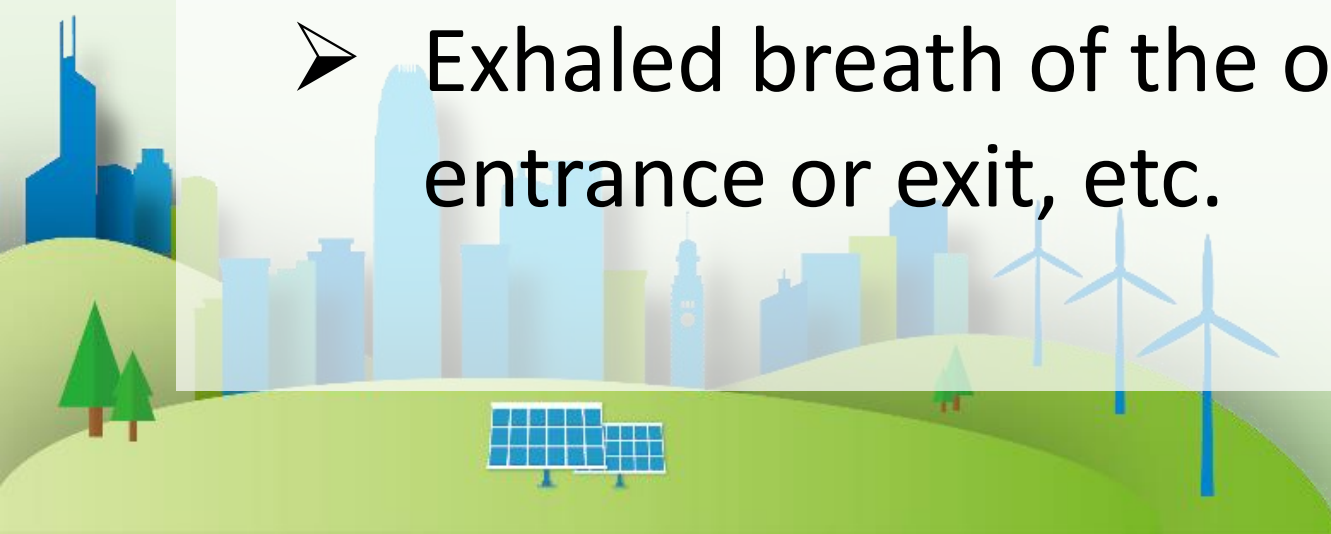
Measurements shall be taken ...

- In air-conditioned areas with both high and low occupancy rate
- At least 0.5 metre inward from corners, windows, walls, doors
- Not under direct sunlight
- At a height of 1.1 metres above the floor level for physical measurement



Measurements shall be taken ...

- Not directly in front of:
 - Air supply diffusers
 - Floor fans
 - Heaters
 - Exhaled breath of the operators, lifts, escalators, entrance or exit, etc.

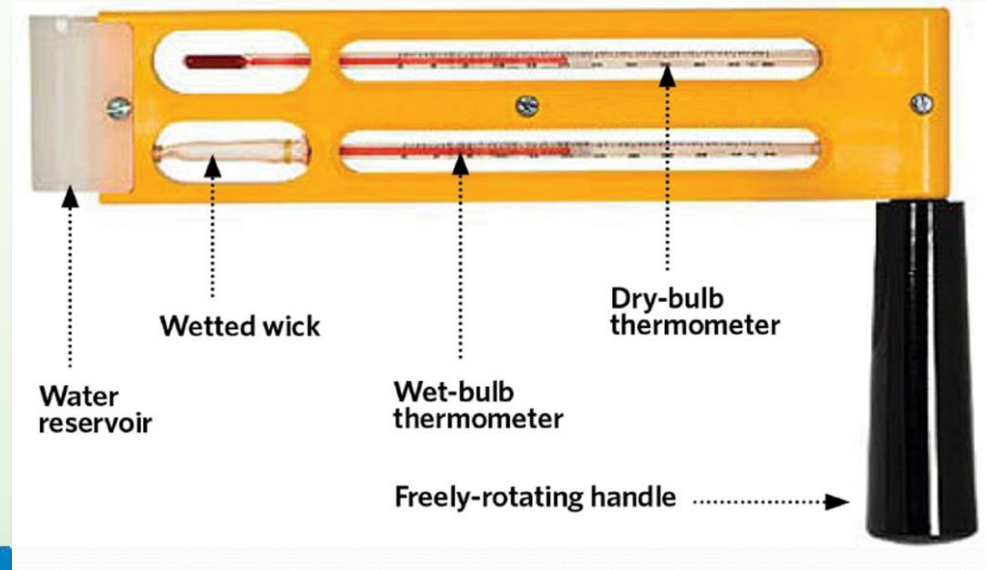


Measuring Instrument



By Electronic or Mechanical Thermometer

(Adequate measuring time, normally last for one minute)



Measuring Instrument

- Should have a valid calibration certificate issued by an accredited laboratory of Hong Kong Laboratory Accreditation Scheme (HOKLAS).

 Hong Kong Calibration Ltd.
香港校正有限公司

Calibration Certificate

Certificate No. 90 [redacted] Page 1 of 2 Pages

Customer : [redacted]
Address : [redacted] Kwun Tong, Kowloon.
Order No. : QS [redacted] Date of receipt : 18-Jun-19

Item Tested
Description : Humidity & Temperature Meter
Manufacturer : VAISALA I.D. : --
Model : HM 34 Serial No. : 590136

Test Conditions
Date of Test : 24-Jun-19 Supply Voltage : --
Ambient Temperature : (23 ± 3)°C Relative Humidity : (50 ± 25) %

Test Specifications
Calibration check.
Ref. Document/Procedure : T03, T08.

Test Results
All results were within the user's or manufacturer's specification.
The results are shown in the attached page(s).

Main Test equipment used:

Equipment No.	Description	Cert. No.	Traceable to
S223B	Std. Thermometer	[redacted]	NIM-PRC
S232	R.H. Standard	[redacted]	SCS-SWISS

The values given in this Calibration Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Hong Kong Calibration Ltd. shall not be liable for any loss or damage resulting from the use of the equipment.

The test equipment used for calibration are traceable to International System of Units (SI), or by reference to a natural constant.
The test results apply to the above Unit-Under-Test only

Calibrated by : [redacted] Approved by : [redacted]
Date : 25-Jun-19

This Certificate is issued by
Hong Kong Calibration Ltd.
Unit 8B, 24/F., Wei Fung Industrial Centre, No. 55-75, Ta Chuen Ping Street, Kwai Chung, NT, Hong Kong
Tel: 2425 9201 Fax: 2425 9245
The copyright of this certificate is owned by Hong Kong Calibration Ltd. It may not be reproduced except in full.



Temperature Record

- Temperature readings captured by the BMS
- Seek assistance from building management offices for capturing air temperature reading



Temperature Record



Records of Temperature Measurement

- Measurement suggested to be taken at least twice a week
- Keep a record of the routine temperature measurements for future reference and review



Site Visit Records

Year	Site No.
2019	63
2020	64
2021	58
2022	70
2023	75

Venue selected
for temperature
checking is on
randomly basis

Temperature
measurement will
only be taken at the
area where signed up
the Charter



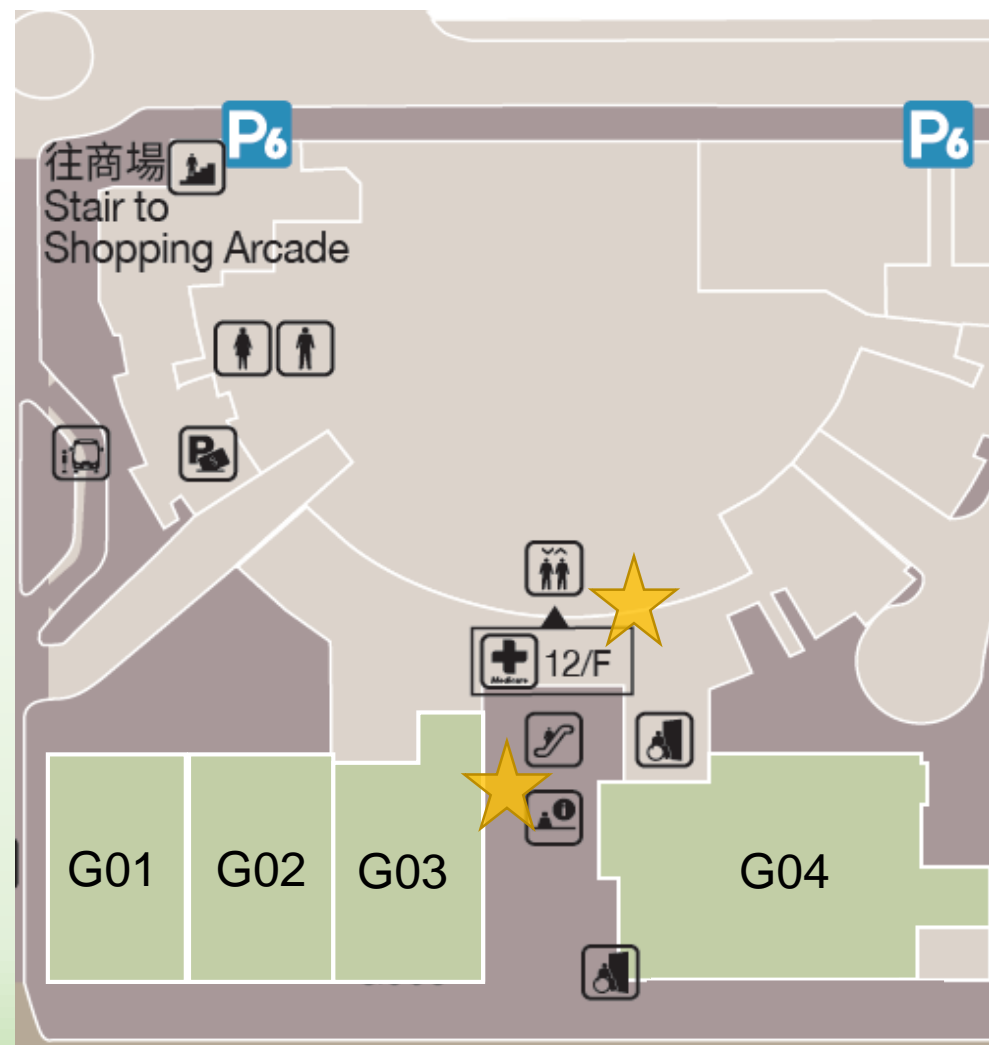
Example of Temperature Measurement Record



Example (G/F)

Location	Measured Temperature (°C)
Lift Lobby	24.3
G03	24.5

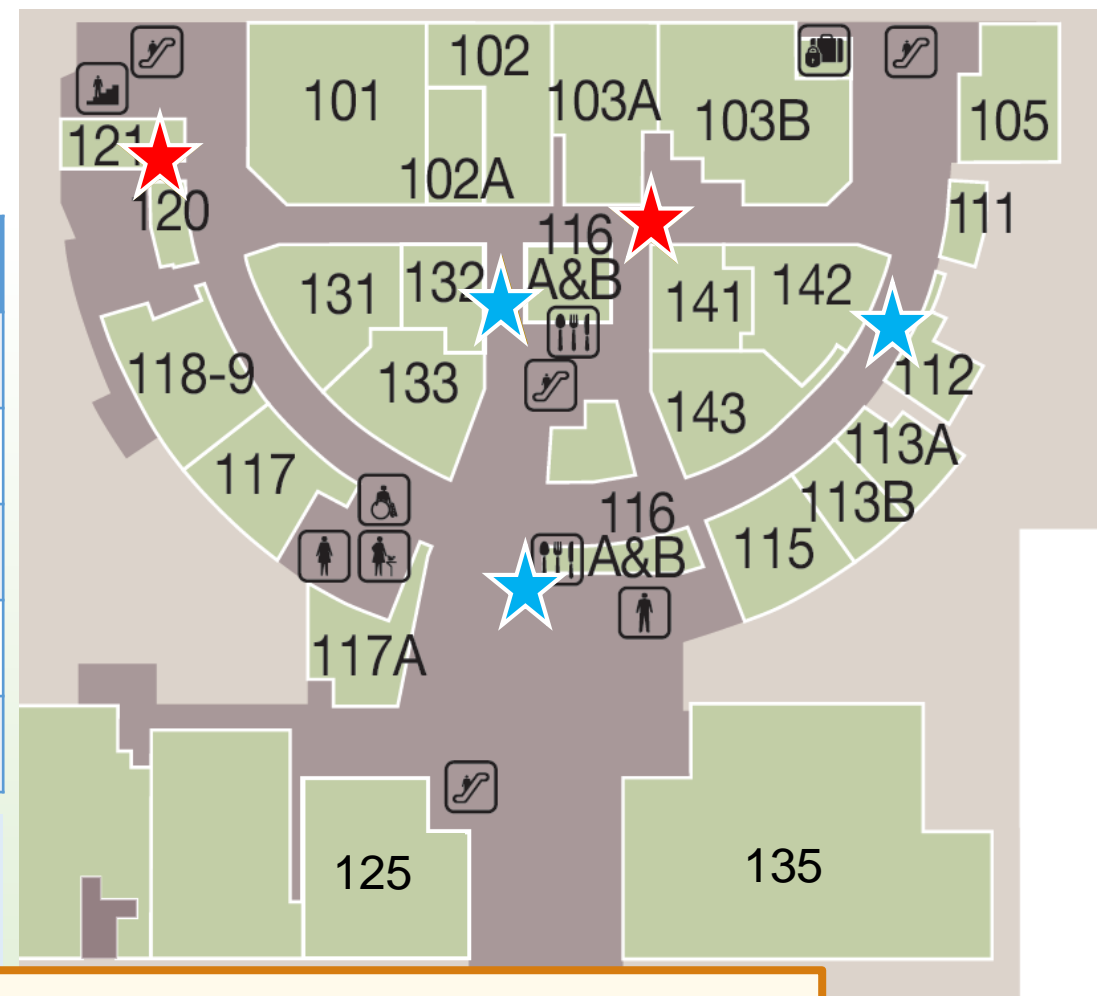
Average Indoor Temperature
for G/F (2 points) : **24.4°C**



Example (1/F)

Location	Measured Temperature (°C)
103A	23.8
121	24.0
132	24.2
116A&B	24.6
112	23.9

Average Indoor Temperature for
1/F (5 points) : **24.1°C**



Average Indoor Temperature
of the shopping mall
(G/F & 1/F, 7 points): **24.2°C**

ENERGY SAVING TIPS



2024

[Home](#) > Energy Saving Tips

Energy Saving Tips

(1) Maintain average indoor air temperature between 24-26°C

- For air temperature measurement, please refer to [General Guidelines on Air Temperature Measurement](#).
- Keep all the windows and doors close when air-conditioner is running.
- Keep doors between air-conditioned and non-air-conditioned areas such as those connecting the outside of the building, lift lobbies, toilets and stores shut so as to minimize air infiltration when the air-conditioner is operating. Keep door of fridge closed.
- Dress light to minimize the use of AC.
- Consider using an electric fan in conjunction with AC to spread cooled air more effectively.
- Set an indoor AC unit to low fan speed as the normal setting. Use a high fan speed first rather than low temperature setting to cater for an increased cooling demand.

For More Information:

<https://www.energysaving.gov.hk/esc2024/en/tips/index.html>



Thank You

