

How to Conduct Indoor Temperature Measurement?



General Guidelines on Routine Air Temperature Measurements

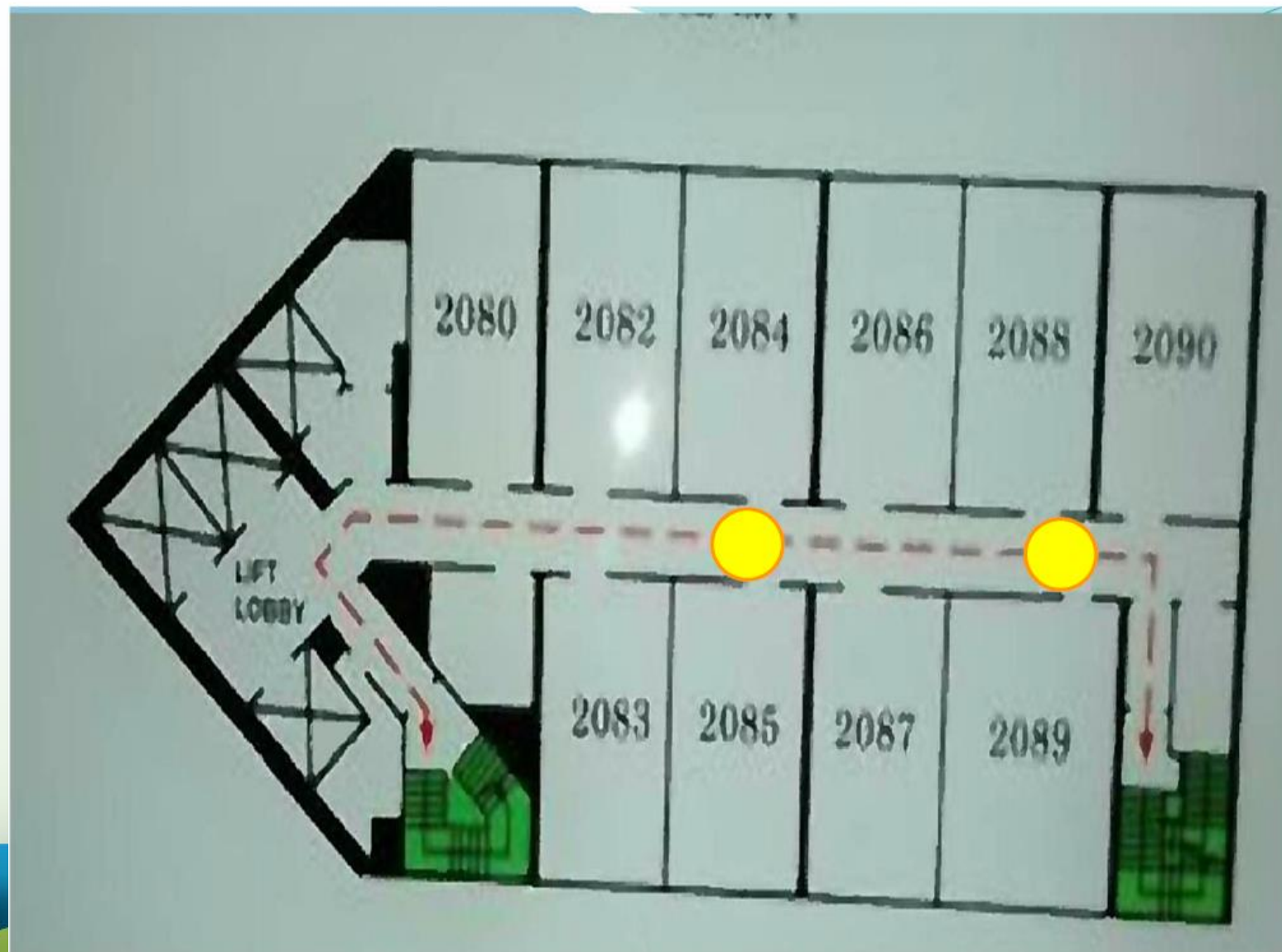


Number of Sampling Points

- 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 >4000 m²
- Sufficient number of samples for area <4000 m²



Example 1



Example 2



Example 3



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

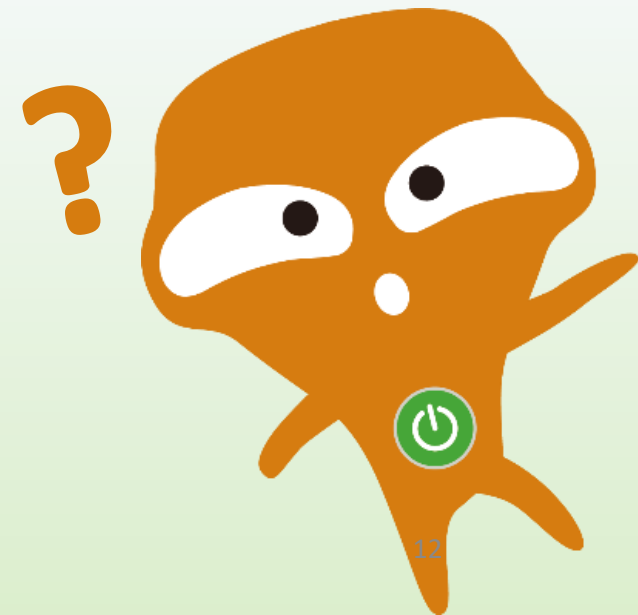


Measurements shall be taken ...

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

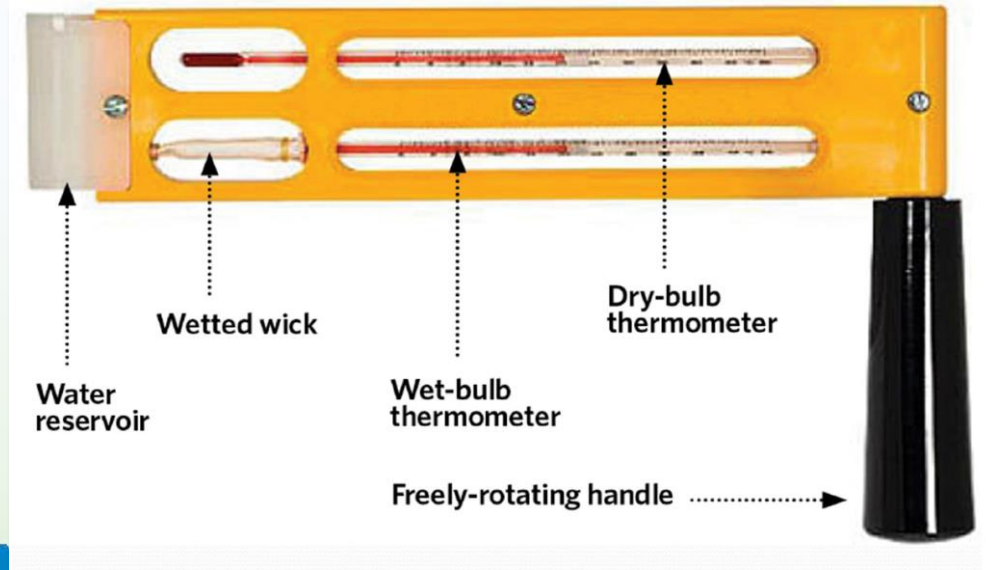
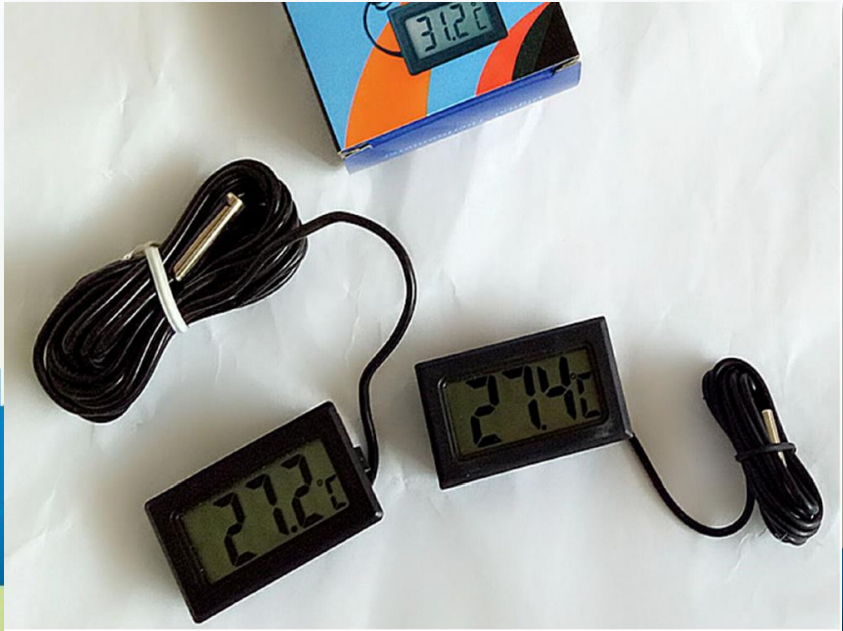


Measuring Instrument




By Electronic or Mechanical Thermometer

(Adequate measuring time, normally 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).

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 80, 24/F., Wei Fung Industrial Centre, No. 58-76, 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.

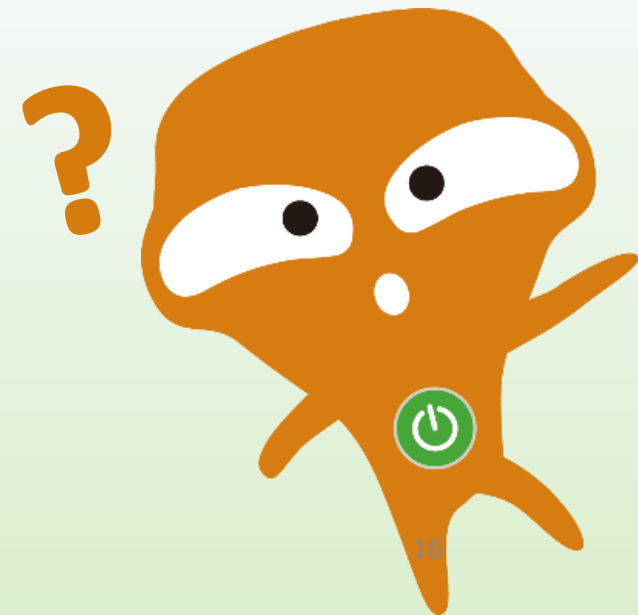


Temperature Record

- 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.
2018	63
2019	63
2020	64
2021	58

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**

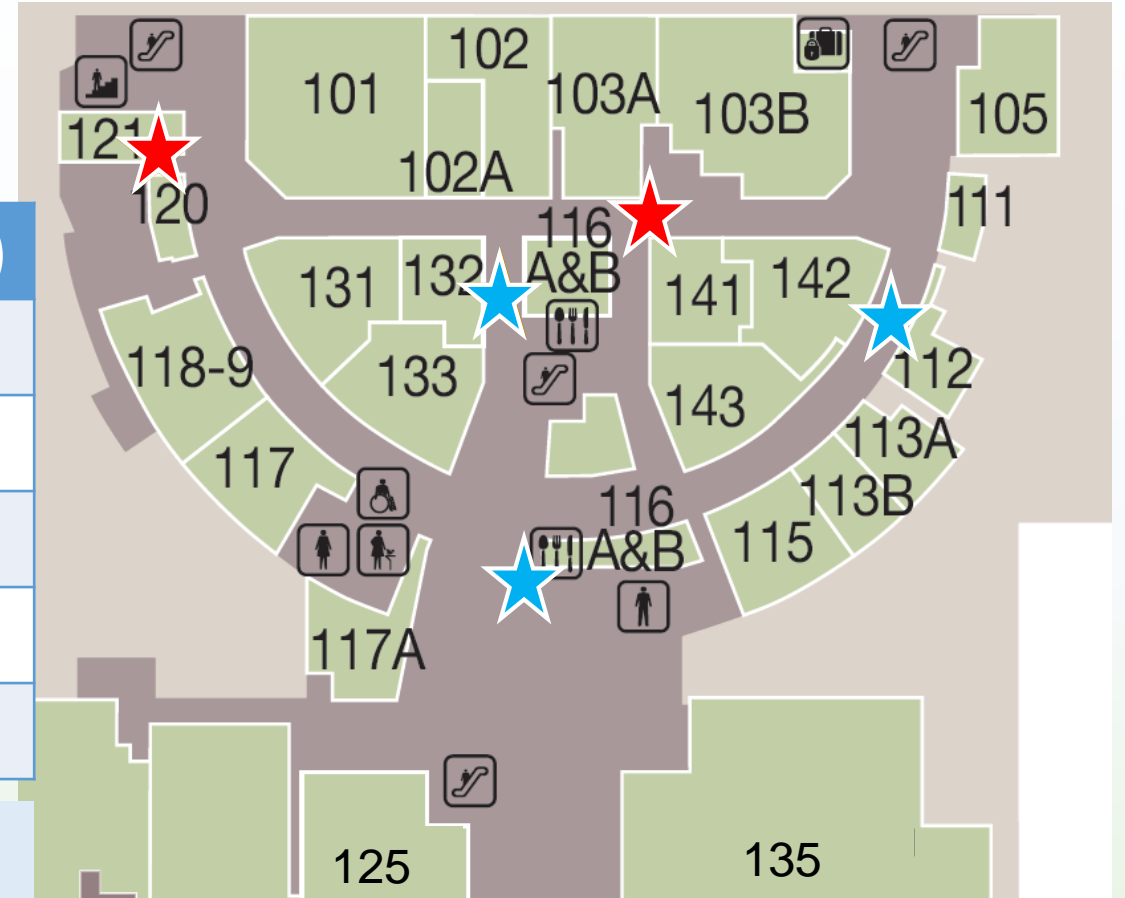


Example (1/F)

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**



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◎ 參與者

◎ 節能有計

◎ 4T有計

◎ 宣傳活動及推廣資

節能有計



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(1) 室內平均溫度維持在攝氏24至26度之間

- 夏季溫度可參考夏季溫度的一般指引。
- 空調設備開啟時應關上門窗。
- 利利用門作為空調區域及非空調區域之間的分隔（如升降機大堂、洗手間及商店等連接戶外的地方）。

(2) 關掉不使用的電器及系統

For More Information:

<https://www.energysaving.gov.hk/esc2022/tc/tips/index.html>





Thank You



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