



### • Issue Reported

Efficiency and one-bedroom apartments were experiencing elevated relative humidity (RH) for extended periods of time resulting in resident complaints, mildew and in some cases mold growth.

### • Type / Construction

Concrete construction with stucco finish.

### • Location

South Florida

### • Background

Innovative Dehumidifier Systems was contacted by property management at this South Florida luxury apartment property to resolve various moisture related problems inside apartments. Mechanical system design included unconditioned outside air being introduced into mechanical closets. Additionally, some of the one-bedroom units were served by 2-ton split air conditioners which were grossly over-sized.

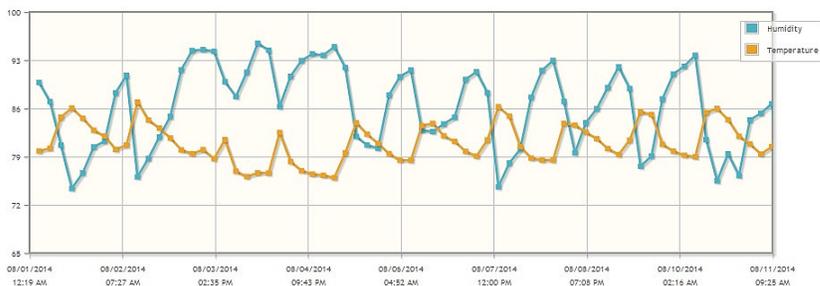
Prior to the installation of the IW-25 in-wall dehumidifier, some of the two-ton air conditioners were replaced by 1.5 ton units with some improvement; however, RH remained elevated.

### • Process

The first IW-25 in-wall dehumidifier was installed adjacent to the living room of a one-bedroom unit. An iMonnit data logging system was placed and humidity sensors were placed inside and out to monitor temperature and relative humidity (RH).

# CASE STUDY

## South Florida



### Ambient Humidity - Outside Air

- Outdoor RH ranged between 70% and 95% during the monitored period
- Average RH was in excess of 86%RH
- Moisture-laden outside air was being introduced into apartments

### Monitoring unit 311 - Bathroom

- Indoor RH prior to installation of the IW-25 ranged between 67% and 78% RH
- Air-conditioner run cycles were documented as short at 4.5 minutes
- RH was maintained at safe and acceptable levels between 52% and 56% after the IW-25 was installed

### Monitoring unit 311 - Bathroom

- Secondary sensors were placed in the bathroom to take additional temp & RH data
- Data measurements were accumulated every 10 minutes

### Conclusion

Prior to the installation of the IW-25 in-wall dehumidifier, thousands of dollars were spent on ineffective corrective action including consulting engineers, replacement mechanical systems and temporary solutions such as portable dehumidifiers. Not only was the IW-25 the most effective solution for this application, it was by far the least expensive. Contact us to learn more about the award-winning IW-25 and see how we can be a resource for you.

