Application Note

Using a Minolta Illuminance Meter

Overview
The Minolta illuminance meter measures amount of light striking a surface. The meter can output illuminance in either lux or foot-candles (1 fc = 10.76 lux). This very accurate illuminance meter:

- Displays real-time data on an LCD screen
- Measures light levels from 0.001 to 29,990 fc
- Has auto range capability or the range can be set manually
- Is cosine and color corrected

Taking an Illuminance Reading
1. Turn the meter on by setting the power switch on the left-hand side of the meter to “I”. Leave the cap on the sensor while the word “Cal” is displayed on the LCD screen. The meter performs an automatic zero calibration when the meter is turned on. The zero calibration is complete when a numeric display appears.

2. Set the response speed button on the left side of the meter to “Fast.” The fast speed setting is used when measuring illuminance from a typical light source, i.e. daylight or fluorescent or incandescent lamps. The “Slow” speed setting is used when measuring illuminance from flickering light sources, i.e. video display terminals or projectors.

3. To switch the measurement units between Lux and Footcandles, remove the battery cover and the batteries and move the switch to the desired measurement units. Replace the batteries and battery cover.

4. To take an illuminance reading:
   - Press the NORM button located on the front of the meter.
   - Check that the black HOLD button on the right side of the meter is not pushed in. The HOLD button freezes and unfreezes the readings displayed on the LCD screen.
   - Place the meter on the surface or hold at the desired location.
   - To avoid shading the sensor, duck down below the sensor if placed on surface, or hold at arms length to take readings. Press the HOLD button to freeze the reading.
   - Release the HOLD button for next reading.

5. When measuring a large surface or room, it is recommended that the space be divided into sections or a grid. Take illuminance readings at each grid section and average all of the illuminance readings to determine the average illuminance level for the space. Refer to the application note A Simple Illuminance Field Study for detailed instructions on performing an illuminance study.

6. Older T-1H models will need to multiply the displayed readings by a factor of 10. Meters needing the multiplier will have an x10 label near the LCD display screen.