



# HIOKI

## LUX METER FT3424

Environmental measuring instruments



### Broad coverage from low to high illuminance

Measure at 0.01 lx resolution to a maximum of 200,000 lx



#### Compatible with LED lighting

- Complies with DIN Class B and JIS Class AA
- Save up to 99 measured values in the instrument's internal memory and transfer them to a computer later for improved work efficiency
- Timer hold function lets you make measurements in remote locations while avoiding the effects of shadows and reflections



ISO 9001  
JMI-0216



ISO 14001  
JQA-E-90091



[www.hioki.com](http://www.hioki.com)

HIOKI company overview, new products, environmental considerations and other information are available on our website.



# Support for measurement of 1 lx makes the FT3424 ideal for low-illuminance measurement

20 lx range measurement resolution **0.01 lx**

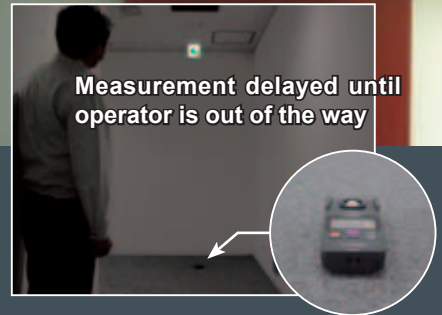
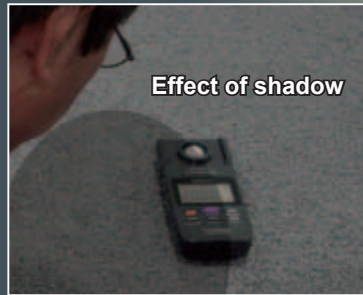


**Large, easy-to-see LCD display**  
The backlight turns on automatically whenever a measured value is retained in a low-illuminance environment.

## 1. Timer hold function



Retain the measured value after a user-configured amount of time has elapsed from the time the TIMER key is pressed. In this way, you can time measurement to occur after you have moved away from the lux meter so that measurement is not affected by clothing, shadows, etc.

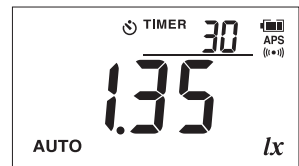


### Timer settings

Select from 5 / 10 / 15 / 20 / 30 / 45 / 60 sec.

### Remaining time display

Counts down with timer.



### After the set time has elapsed

The measured value is retained. → The backlight turns on and the beep sounds for 3 sec.

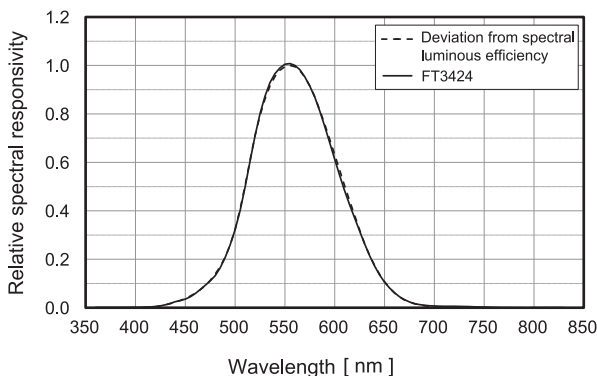
## 2. Measurement with sensor and display units undocked



Connection Cable L9820(Optional)

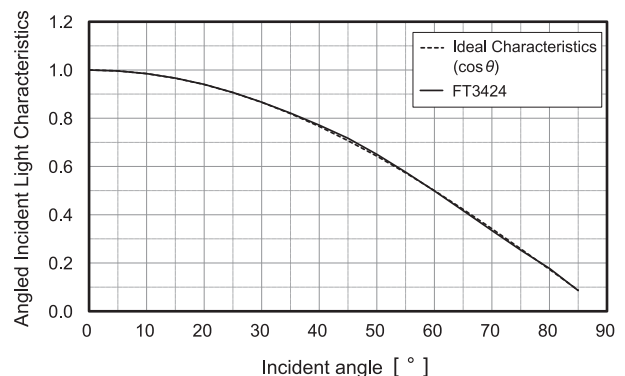
### Relative Spectral Response Characteristics in the Visible Spectrum

Human perception of brightness ranges from 380 nm to 780 nm in the wavelength and is the maximum at 555 nm. The International Commission on Illumination (CIE) has established comparative standards for luminosity, setting the maximum perception for 1 and indicating the amount of perception of each wavelength by the relative value, and calculating the average of many people. In this instrument, the relative spectral response characteristics are close to the comparative standards for luminosity.



### Angled Incident Light Characteristics

It is known that the luminance is proportional to the cosine of the incident angle of light (the cosine law). In this instrument, the shape of the light sensor, hook etc. is so made that it can follow the cosine law closely.



Graph illustrates typical characteristics. Characteristics exhibited by individual products may vary slightly.

# DIN Class B and JIS Class AA compliant for optimal reliability



## Key feature

Memory function makes multipoint measurement a breeze

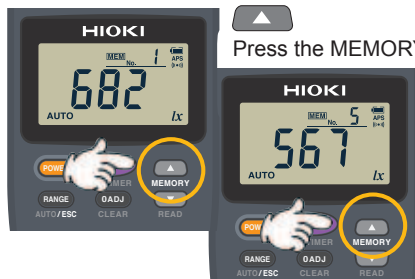


**1** Save in the field

Memory function (up to 99 values)  
Save measured values for multiple measurement locations in the instrument's internal memory on the spot for later display at your convenience.

**2** Transfer to your PC

Data communications functionality  
Transfer data saved in the instrument's internal memory to a computer via a USB connection. Data can be saved as a text file.



Press the MEMORY key.



USB connection

When making measurements at numerous locations, this feature lets you save values on the spot and then create a report later in the office at your convenience.

## Key feature

Record variations in illuminance with D/A output.  
(Use a commercially available USB power adapter to supply power for extended periods of time.)



Output voltage  
2 V / range f.s.



Output cord must be modified to suit the connected device.

Hioki Voltage Logger LR5042



Record interval data using computer communications software.



USB connection



### Other software functionalities

- Display graphs and save files for user-specified time intervals. (Data can also be saved manually.)
- Display measured values on a computer screen in real time.

### Operating Environment

Interface: USB  
OS: Windows 8,7, Vista (SP1 or later)



## Specifications

Classification	DIN 5032-7: 1985 class B JIS C 1609-1: 2006 general AA class		
Light receiving element	Silicon photodiode		
Display	Display: 4 digit, 2000 count LCD Display unit: lx (lux) Display update rate: 500 ms ±20 ms		
Measurement ranges	Range	Measurement range	Display step
	20 lx	0.00 lx to 20.00 lx	1 count/step
	200 lx	0.0 lx to 200.0 lx	
	2000 lx	0 lx to 2000 lx	10 counts/step
	20000 lx	00 lx to 20000 lx	
200000 lx	000 lx to 200000 lx	100 counts/step	
Range selection	Auto/Manual		
Linearity	±2% rdg. (Multiply by 1.5 for display values in excess of 3000 lx.)		
Accuracy guarantee conditions	Sensor unit and display unit must bear the same collation number.		
Accuracy guarantee for temperature and humidity	21°C to 27°C (69.8°F to 80.6°F), 75% RH or less (non-condensing)		
Temperature characteristics	±3% rdg.		
Humidity characteristics	±3% rdg.		
Accuracy warranty period	2 years		
Response time	Auto range: within 5 seconds Manual range: within 2 seconds		
Power supply	AA/LR6 alkaline battery × 2 R6 Manganese battery × 2 USB bus power 5V DC		
Continuous battery operation time	Approx. 300 hours (when using AA alkaline batteries)		
Auto-power off	Turns off the instrument 10 min. ±1 min. after the last key operation (can be canceled).		
Operating temperature and humidity	-10°C to 40°C (14°F to 104°F), 80% RH or less (non-condensing)		
Storage temperature and humidity	-20°C to 50°C (-4°F to 122°F), 80% RH or less (non-condensing)		
Operating environment	Indoors, pollution degree 2, altitude up to 2000 m (6562-ft.)		
Applicable standards	Safety: EN61010, EMC: EN61326		
Standard compliance	DIN 5032-7: 1985 class B JIS C 1609-1: 2006 general AA class		
Dustproof and waterproof	IP40 (EN60529)		
Dimensions and mass	Approx. 78W × 170H × 39D mm (3.07" W × 6.69" H × 1.54" D) Approx. 310 g (10.9 oz.) (including the batteries)		
Accessories	Instruction Manual ×1, AA/LR6 alkaline battery ×2, Sensor cap (with strap) ×1, Carrying case (soft) ×1, Strap ×1, USB cable (0.9 m) ×1, CD-R (USB driver, dedicated computer application software, and communications specifications) ×1		

## Oblique incident light characteristics

Angle	Deviation from cosine characteristics
30°	±2%
60°	±7%
80°	±25%

## Output specifications

Output method	D/A output
Output level	2 V/range f.s.

## Resolution

Range	Output rate
20 lx	1 mV DC/ 0.01 lx
200 lx	1 mV DC/ 0.1 lx
2000 lx	1 mV DC/ 1 lx
20000 lx	1 mV DC/ 10 lx
200000 lx	1 mV DC/ 100 lx

Output update rate	500 ms ±20 ms
Output accuracy	±1% rdg. ±5 mV (at output rate)
Output resistance	1.1 kΩ or less

## Soft carrying case (included accessory)

For storing the FT3424.



## Options

### Connection Cable L9820



Use when positioning the sensor unit and display unit separately during use.

### Output Cord 9094



Required when using the instrument's output function (length: 1.5 m)

### Carrying case .....

#### C0202 (Soft case)



Handy for storing the instrument with the Output Cord 9094, USB cable, and Connection Cable L9820.

145W x 210H x 70D mm (5.7" W x 8.27" H x 2.76" D)

#### C0201 (Semi-hard case)



Stores the Output Cord 9094 and a USB cable.

137W x 193H x 69D mm (5.4" W x 7.60" H x 2.72" D)

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