BENETECH®

MODEL: GM1020

Digital Lux Meter Instruction Manual

Version：GM1020-EN-00

D.Function Overview

1、 Main Measurements:

► Current illuminance and temperature
► Illuminance difference
► Maximum illuminance and temperature
► Minimum illuminance and temperature
► Integrating illuminance
► Average integrating illuminance

2、 Storage, Query, and Deletion of Illuminance Data

► Illuminance data (1900 groups at most) can be stored automatically, queried, and deleted.
► Illuminance data (60 groups at most) can be stored manually, queried, and deleted.

A. Introduction

Application: widely used in electro-optical sources, research teaching, metallurgy building, industry inspection as well as agriculture researching and illumination control.

Highlights:

1、 Powerful measurement functions: It can measure not only current values, maximums, and minimums of illuminance and temperature, but also illuminance difference, integrating illuminance, and average integrating illuminance.
2、 Support for automatic storage of illuminance data (up to 1900 groups) and manual storage of illuminance data (up to 60 groups)
3、 Wide measuring range (0 to 200,000 lux) and support of automatic range shift
4、 Delivered with computer-based analysis software, allowing users to operate the meter with ease
5、 Quick response, high portability, and operable by a single hand
6、 The sensor can be rotated
7、 Backlight

B. Parts description（Figure 1）

1、 Photoelectric element
2、 LCD display
3、 Up/Set
4、 Power/Select key
5、 Down/ACK key
6、 Battery cover

3、 Other Functions

► Auto shutdown
► Backlight and data hold
► Optional units for illuminance and temperature
► Auto shutdown setting
► Auto data storage setting
► Deletion of integrating illuminance data

E. Specification

| Mode	
Measurable objects	Illuminance and temperature, illuminance difference, maximumand minimum illuminance and temperature, integrating illuminance and integrating time, and average integrating illuminance
Photoelectric element	Silicon diode
Thermal probe	NTC thermistor
Illuminance measuring range	Total measuring range:0～200, 000 Lux, into four ranges ×1: 0～199. 9 Lux ×10：200～1999. 9Lux ×100：2000～19999. 9Lux ×1000：20000～200000Lux
Temperature measuring range	0～40℃
Illuminance accuracy	±3%rdg (below 10000 Lux); ±4%rdg (above 10000 Lux)
Temperature accuracy	±1. 0 ℃
Units of illuminance and temperature	Four combinations of units are available. Lux/℃ Lux/℉ FC/℃ FC/℉
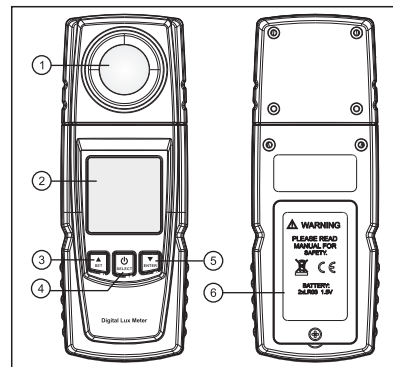
Figure1

C. LCD display(Figure 2)
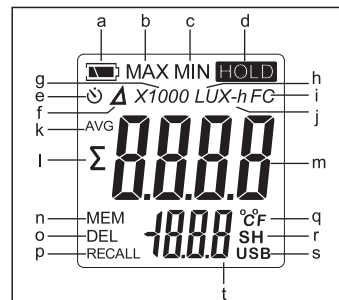
Figure2

a. Battery capacity
b. Max/Auto store
c. Min/Manual store
d. Data hold
e. Scheduled shutdown

f. Difference
g. Illuminance range
h. Unit of illuminance: Lux
i. Unit of illuminance: candela
j. Integrating illuminance unit
k. Average
l. Integrating
m.Read of illuminance
n. Memory
o. Deletion
p. Query
q. Unit of temperature
r. Unit of time/Data query range
s. USB connection
t. Read of temperature

Illumination data storage	Automatic：Up to 1900 groups of data can be stored. LuxLAB is used to set the storage cycle and whether to start or stop storage. Manual:Up to 60 groups of data can be stored. Whether to store is determined manually.
LCD display update frequency	Twice per second
Operating temperature/humidity	0～40℃， 10～90%RH
Storage temperature/humidity	−20～50℃， 10～90%RH
Power supply	Two AAA batteries
Battery life	10 hours (continuous operation with a USB connection)
Auto shutdown	You can set an auto shutdown timer through LuxLAB.

*please read the files in disc for more information.