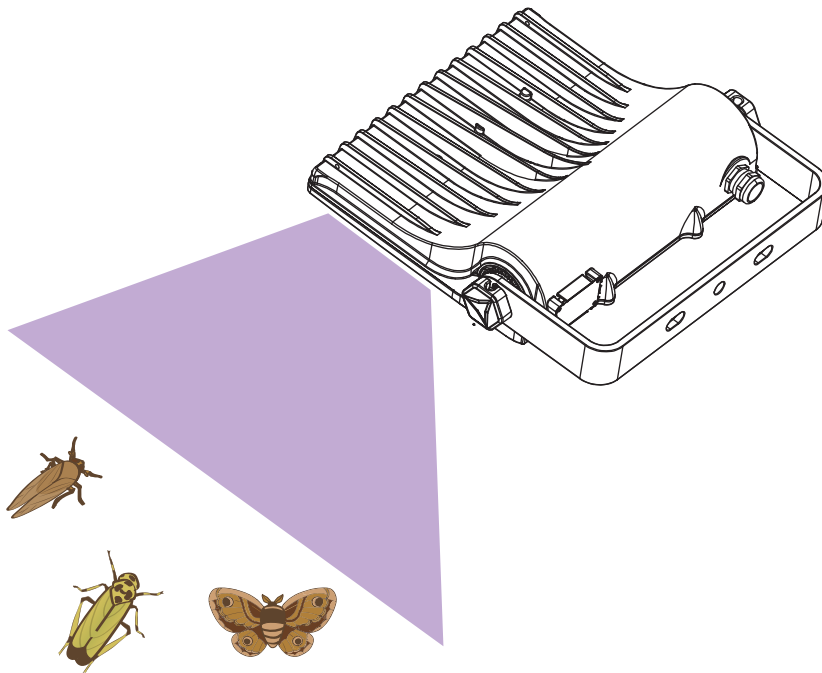


For outdoor use

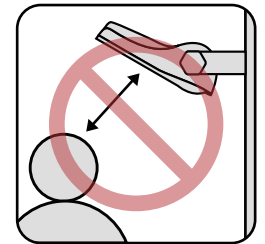
Insect-attracting LED light

VMK-001

USER MANUAL



 **product**



*Sincerely thank you for purchasing Nikken Hardware products.
To install and use the product correctly and safely,
please read this instruction manual carefully.*

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About warning symbols

-  (Warning): May cause serious accidents.
-  (Caution): May cause product damage or personal injury.
-  (Prohibited): Actions that are prohibited must be observed.
-  (Confirmation): Items to be checked or noted.

1. Important notice

▲ WARNING

When installing this product, ensure that the supporting structure is sufficiently strong to withstand vibration, strong winds, snow, etc. After installation, make sure the product is securely fixed to prevent it from falling. If the structure is not strong enough, reinforce or treat the surface before installation.

 To prevent damage or falling due to strong winds, the product should be installed at a height of ≤ 15 m above ground level. Do not use the product in the following environments/conditions:

Locations exceeding the temperature and humidity range specified in the technical specifications.

Locations with strong vibration or impact.

Locations with corrosive or flammable gases.

Environments with oil mist.

 Locations that may be directly exposed to water.

 Locations with flammable materials nearby.

Locations covered by grass, thermal insulation materials, soundproofing materials, etc.

Locations where people can easily touch the product.

△ CAUTION

 When connecting electrical wiring, follow the instructions exactly as described in the manual.

△ INSTALLATION NOTES

 Ensure the following:

The mounting surface is sufficiently strong and not weakened by rust or long-term corrosion.

 Light leakage does not affect surrounding areas.

 Do not leave the light on continuously for 24 hours, as this may significantly reduce the product's lifespan.

Do not turn on the light during daytime, especially under direct sunlight, as this may reduce the lifespan of the lamp.

 Damage caused by lightning is not covered by the warranty. Please install a lightning protection device in the circuit.

 Use RNCT power cable (rubber cable) of ≥ 0.75 mm² (2 cores or more).

- PROHIBITIONS

Installation and wiring must be carried out by a licensed electrician. Unlicensed persons are prohibited by law from performing electrical work.

 Do not connect the lamp to a dimmer, ballast, igniter, other power sources, or motion sensors.

CONFIRMATION

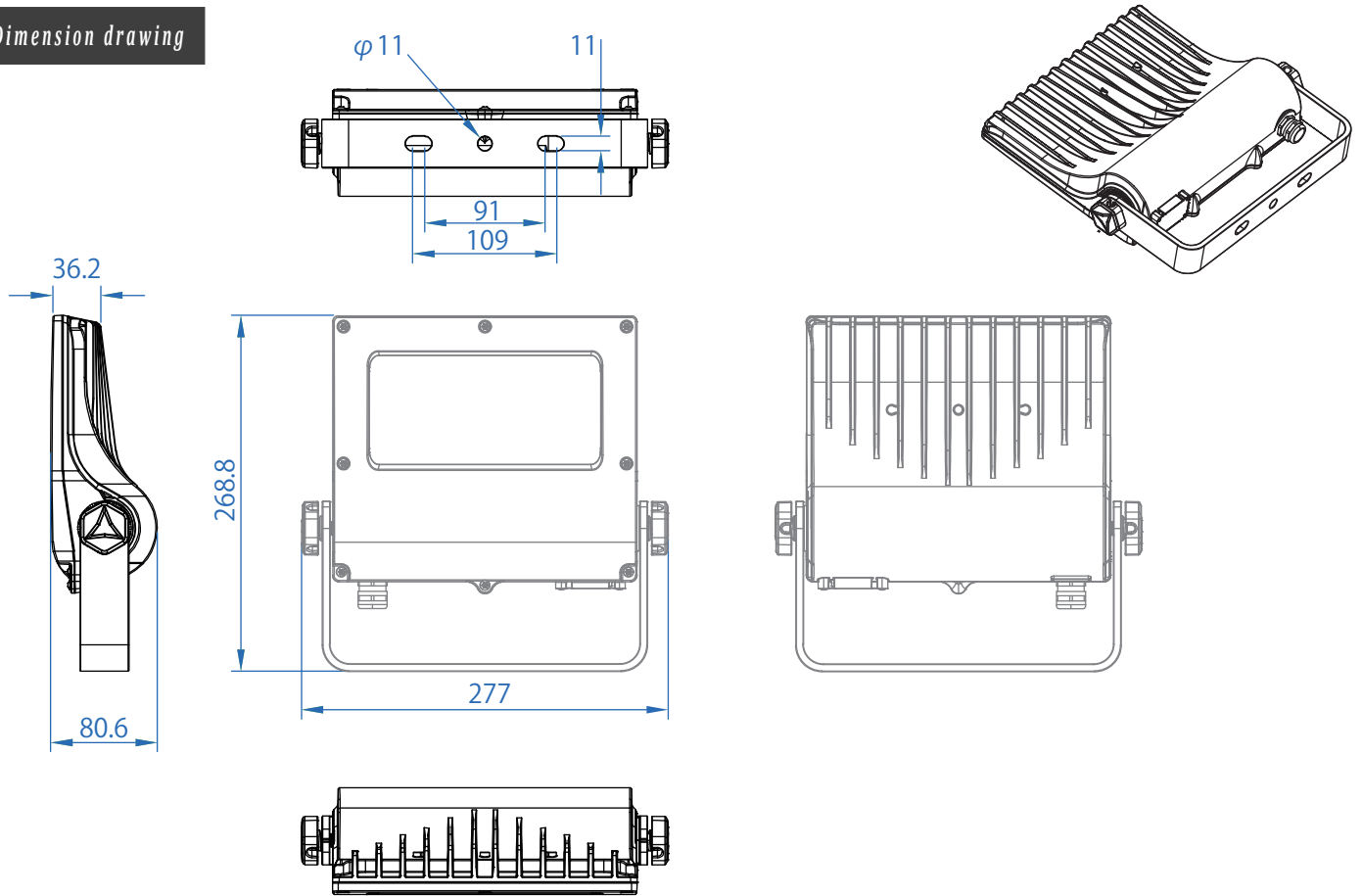
The lifespan of LEDs is highly dependent on the operating temperature. The rated lifespan in the specifications applies only when used within the specified temperature range.

Operating the lamp in environments with oil, steam, furnaces, or direct sunlight may increase device temperature and significantly reduce lifespan.

If oil, dust, or sawdust accumulates on the lamp, heat dissipation will be reduced, which may cause damage.

Clean regularly with a dry cloth or a diluted neutral detergent solution.

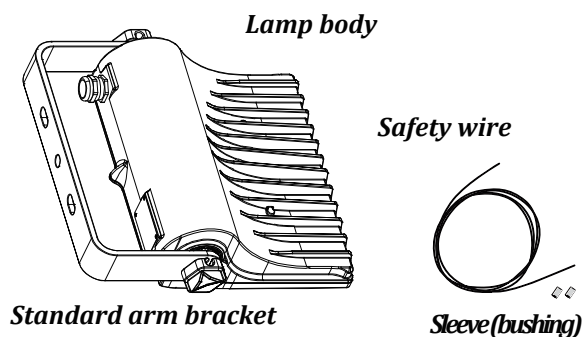
2. Dimension drawing



3. Specifications

Product code	Model: VMK-001
Rated power	Color: Black
Beam angle	Beam angle: 105°
Power consumption	Power consumption: 25W (±5%)
Current	Current: 100V: 0.3A / 200V: 0.15A
Input voltage	Input voltage: AC 100V-240V
Power factor	Power factor: > 0.9
Heat resistance	Lightning surge protection: Normal mode: 6KV / Common mode: 10KV
Weight	Weight: 2.7 kg (including bracket)
Cable length	Cable length: 2.0 m
Protection rating	Protection rating: IP65
Certifications / other tests	Certification: PSE (Electrical Appliance and Material Safety Law)
Rated lifespan	Testing: Vibration resistance (IEC60068-2-6), salt spray resistance (ISO9227), water & dust resistance (IP65)
Operating temperature	Rated lifespan: 50,000 hours (at ambient temperature 25°C)
Warranty period	Operating temperature: -25°C ~ 40°C
Material	Warranty period: 3 years
Accessories included	Material: Lamp body: die-cast aluminum; Light-emitting surface: tempered glass (frosted) Accessories included: 4 m safety wire

4. Inspection upon unpacking (Unboxing check)



※ This product requires work at height.
Please carefully inspect it before the installation date to ensure safety.

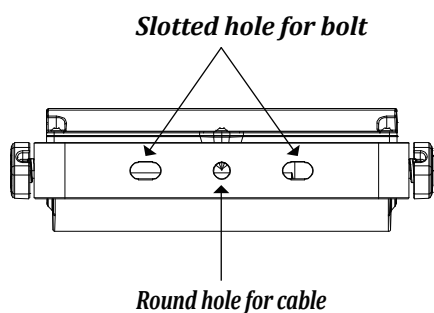
■ Check included accessories

Lamp body × 1 set
Standard mounting bracket × 1 set (pre-attached to the lamp body)
Safety wire × 1 (4 m), protective sleeves × 2

■ Check lamp operation

Supply power through the cable extending from the lamp body and check whether the lamp operates normally without flickering.

5. Installation method



■ Structural check of installation surface

Ensure that the installation location (wall, floor, arm, bracket, etc.) is strong enough to support the weight of the light fixture.

■ Installation of the light

Use the two slotted holes on the standard mounting bracket (pre-attached to the product body) and securely fix it to the wall, floor, arm, or bracket using M10 or 3/8" bolts.

The center round hole can be used as a cable entry hole.

When suspending from the ceiling, use the center round hole and commercial hanging hardware to secure it to structures such as H-beams or C-channels.

■ Beam angle adjustment

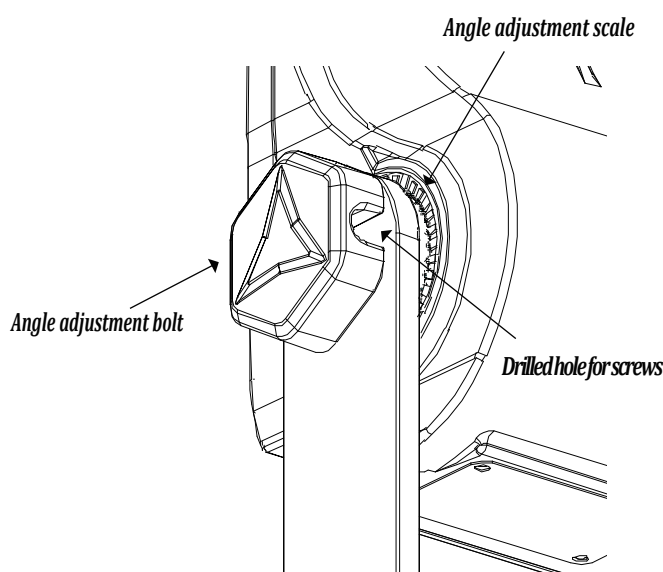
The product can rotate 360°, in 10° increments.

There is a degree scale under the angle adjustment bolt, with each mark representing 10°.

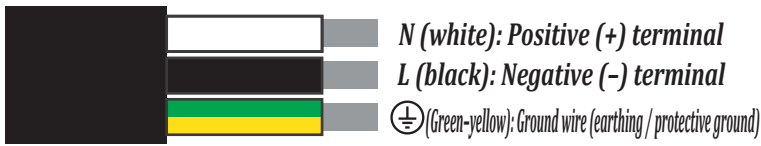
When adjusting, loosen both bolts, align the degree scales on both sides to the same position, then tighten to fix.

The adjustment bolt has a screwdriver slot to ensure secure tightening.

After hand-tightening, use a screwdriver for final tightening to ensure firm fixation.



6. Precautions when wiring connections



Connect the device's output cable to the power cable.
The wiring must be securely performed in accordance with electrical equipment standards and indoor electrical installation regulations, using connectors (sleeves), self-fusing tape, electrical insulation tape, etc.

Please refer to the diagram on the left to ensure correct polarity.
Type D grounding is mandatory.D

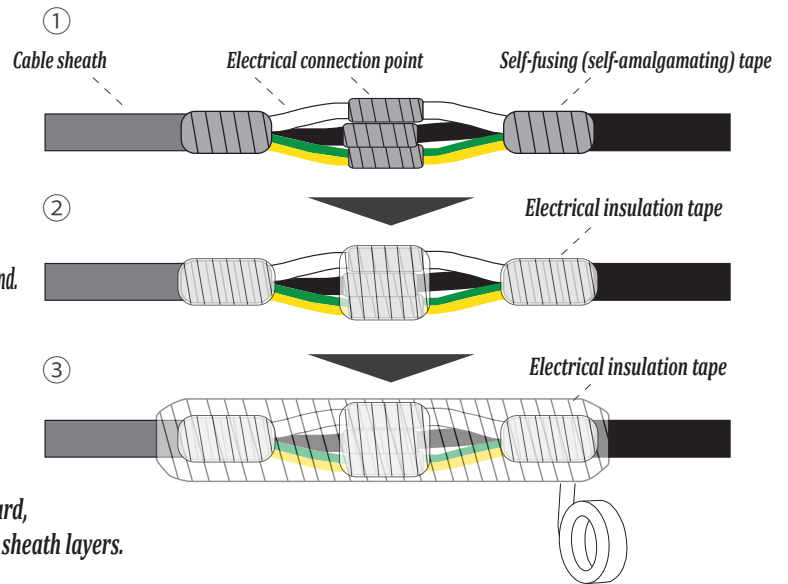
Please be aware of capillary action.

Please be aware of capillary action.
Take special care to prevent water from coming into contact with the wiring connection or the cable sheath and being drawn inside the power cable.

- ① Use self-fusing (self-amalgamating) tape to waterproof the connection point and the cable sheath end. Ensure that water cannot be drawn in through any gap between the sheath end and the wire.
- ② Wrap electrical insulation tape over the self-fusing tape area for insulation.
- ③ Continue wrapping electrical insulation tape to fully cover the entire area for overall insulation.



When using a sealed connector, fix the connection point facing upward, and ensure that water does not enter through the gaps between the sheath layers.



■ Safety wire installation method

There are wire threading holes on the left and right sides at the positions shown in the figure.

Pass the wire through both the left and right threading holes, then route it through a sufficiently strong structure (such as a beam or frame) and form a loop (hook shape).

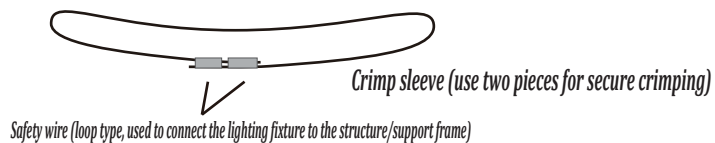
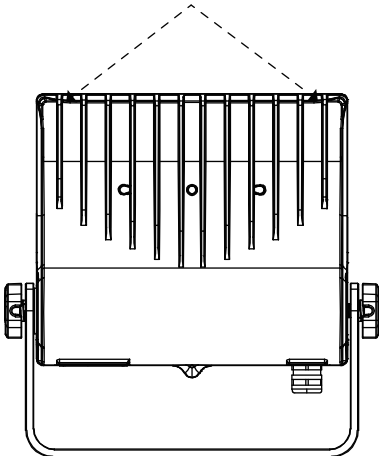
As shown in the illustration below, use the two supplied sleeves and crimp them in a loop shape at the specified positions (small size) using a dedicated sleeve crimping tool, ensuring a firm and secure crimp.

(Cannot be crimped with standard pliers. Using regular pliers will not ensure sufficient strength.)

Using two sleeves and securing them at two points provides stronger fixation.

When using the specified wire together with the two sleeves and proper crimping, the allowable static load is

Wire threading holes (2 locations)



■ When fixing to a support structure prepared by the customer (e.g., sign arm, etc.)

Please carry out fall-prevention installation in accordance with the "Wire installation method" described above.
For support structures such as sign arms, please also implement additional anti-vibration and anti-sway measures separately.

■ When using the optional sign arm (Sign Arm)

Please carry out fall-prevention installation in accordance with the "Wire installation method" described above.
For installation of the sign arm, refer to the instructions included with the L-arm.

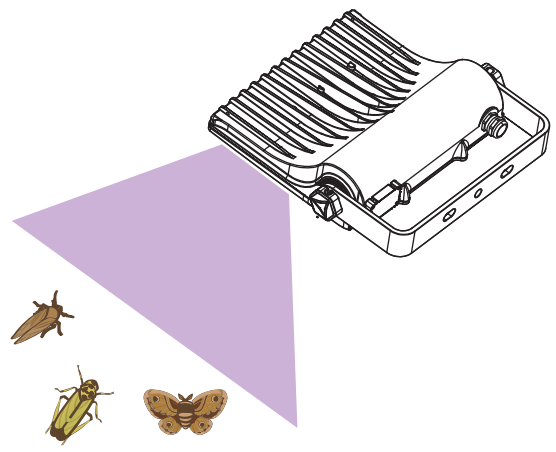
■ When using the optional 2-axis arm

Please carry out fall-prevention installation in accordance with the "Wire installation method" described above.
For installation of the 2-axis arm, refer to the instructions provided with the arm.

8. Insect attraction function

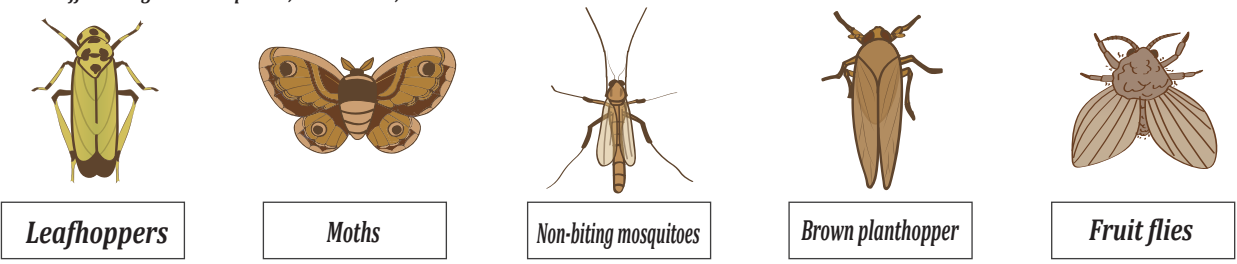
The "LED insect attraction device" uses a special blue-violet (blue-ultraviolet) LED light to attract insects.

This product emits LED light with a specific wavelength from the lighting device to attract insects, keeping them concentrated in one location and thereby preventing their spread. Unlike electric shock insect control devices, this insect attraction device does not kill insects, but instead helps protect shops and business facilities from insect-related issues. As a result, the product is environmentally friendly and does not require the handling or cleaning of insect carcasses. Therefore, in recent years, this device has gained attention as a solution for maintaining hygiene in restaurants, food service establishments, and sanitary facilities, helping to reduce cleaning effort and costs.



Main types of insects effectively attracted by this product:

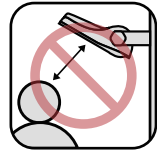
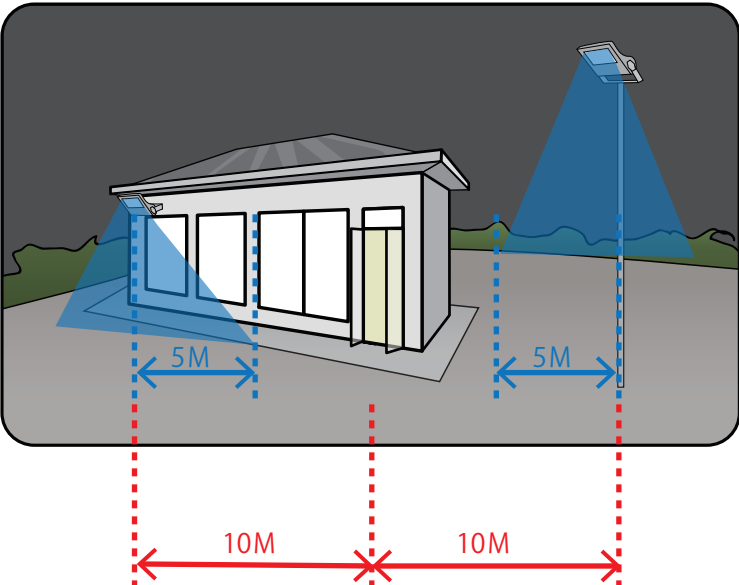
This product is not effective against all types of insects; its attraction performance varies depending on the insect species, location, and season. It is not effective against mosquitoes, cockroaches, etc.



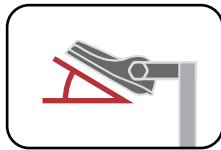
Effective lighting duration

- ① For stores operating 24 hours or where the lights are not turned off
→ Keep the insect attraction device on until sunrise in the morning, or at least for 1 hour after the store lights are turned off.
- ② For stores closed at night
→ Keep the device on for approximately 4 hours after sunset, or for a longer period depending on whichever condition applies.

Recommended installation location



Safety precautions during installation
Do not install the insect attraction device within 1 meter of human eye level. This may cause eye damage.



To prevent people from staring directly at the device for long periods, please place warning signs or notices in the installation area.
Recommended irradiation angle: 30°.

Please ensure that the light from the insect attraction device does not shine within a 5 m range. Please install the insect attraction device at a location approximately 10 m away from the entrance.

For end users

Regarding product lifespan

The lifespan of LED lights is highly dependent on the operating ambient temperature. The designed lifespan of 50,000 hours for this product is based on use under standard conditions with an ambient temperature of $\leq 25^{\circ}\text{C}$.

Using the product in environments such as oil mist, steam, above furnaces, or areas near rooftops exposed to direct summer sunlight may increase the operating temperature and significantly reduce the product's lifespan.

Regarding lighting duration

Do not operate continuously for 24 hours a day. Continuous lighting may cause damage or shorten the lifespan of the lamp.

Regarding cleaning

When oil smoke, dust, sawdust, etc. accumulate on the lighting fixture, the LED will not be able to dissipate heat properly, which may cause damage or reduce its lifespan. Please clean the device regularly using a dry cloth or a neutral detergent.

To protect against lightning:

To protect against lightning.

This product has surge protection up to 6 kV / 10 kV. However, since LED lamps use many semiconductor components, they are more susceptible to lightning damage compared to traditional lamps such as mercury vapor lamps.

Damage caused by lightning is not covered under warranty.

Please request the installation contractor to install lightning protection devices for the lighting circuit, such as a surge protector or lightning disconnect switch, to ensure proper protection.