

GW-LL135-1.5TS-40-W/MD-APP, Extreme Long Life 1720 J, Micro-Photoelectric Control and Motion Detection Sensor (Combined) with Close Loop Bluetooth Smart APP

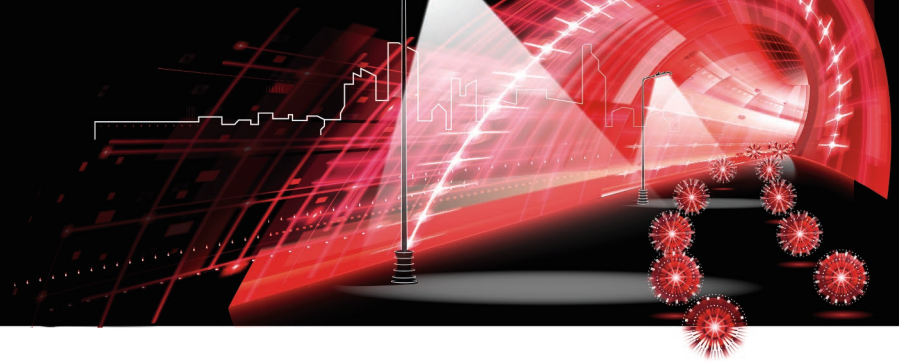
GW-LL135-1.5TS-40-W/MD-APP (GW-135) a "Closed Loop System", with 128-bit AES HW encryption, with a secondary authentication code between smart phone and GWI server. Twistlock Dimming Controller C136.10, whereas the GW-132 is an Internal enclosure for decorative lighting, but can be placed internally in fixtures without a 7-PIN receptacle wired directly to the driver. The features are the same as for the GW-130 and GW-132 units with user-friendly APP smartphone(s) application for parent and slave controls/node working with High Power Bluetooth Mesh V5.0 for street/road lighting 3,740 feet/1,140 meters between poles "MESH" system. Based on contour of land, an advanced, GWI modular design is highly flexible solution for today's increasingly demanding Ultra Low Power, Ultra-Long Range, and higher throughput applications in the IoT world. Inherent industry-grade security is essential in today's applications, a cryptographic accelerator is embedded. If unit/node and/or fixture it will fail off and send an alert to parent storage to be collected until Smart Phone is close to Parent Node to send the alerts back to the Smartphone in a report format of fixture by identification tag number. GW-135 Motion Detection (MD), the APP can turn On/Off the MD with and without schedule. The MD units with pole height 14-24 feet/4.3-8 meters height +/- 10% and will sense pedestrians, motorized and peddle bicycles and other define objects (optional).

The core components utilize an enhanced 51 kernel control chip and an online Bluetooth Mesh wireless communication module. As a result, the product is powerful, lightweight, reliable, easy to install and maintain, and 2/3 the cost of any current intelligent control systems on the market. The GW-130 and GW-132 meets the Mesh Protocol of Bluetooth Smart V5.0 communication standards and provides advantages such as flexible networking, strong anti-interference/long distance communications of up to 3,740 feet (1140 meters) between nodes and/or nodes to enhance duplication, and the ability to support multiple groups of streetlights with a maximum of infinity nodes. The GW-135 has a built-in light control circuit to automatically detect light intensity in the external environment and turn the streetlight on or off accordingly. It is FCC, Certification ID: modular X8WBT840X.



FEATURES

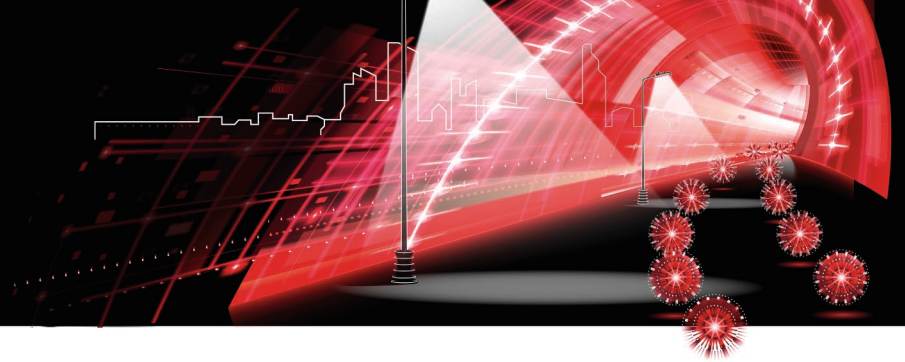
- DC power supply, low power consumption
- Meets UL733 and C136.41 ANSI/NEMA interface standard
- Microwave anti-error triggering, both indoor and outdoor
- Automatic dynamic microwave frequency adjustment to avoid mutual interference in dense installation
- Small size, suitable for installation in most street/roadway lightings
- 0~10V dimming interface
- Light sensor + microwave sensor, on-demand lighting, more power saving
- Interference lighting filtering
- Street/roadway lighting reflection filter (Bat PR)
- IP66
- Bluetooth V5.0
- Automatic connection between the smartphone application and nodes within 5 seconds NOTE both Bluetooth and power to the fixtures MUST be on
- Evacuation/SOS strobe function
- Automatic reset following a power outage as to the next schedule point
- Each fixture icon will have an identification, "PR" can be turn On/Off with and without schedule
- Each NODE has capability of Calendar/Day Light Saving Time
- Fixture/NODE with issue will fail off
- Motion Detection (MD), the APP can turn On/Off the MD with and without schedule.



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FEATURES (Continued)

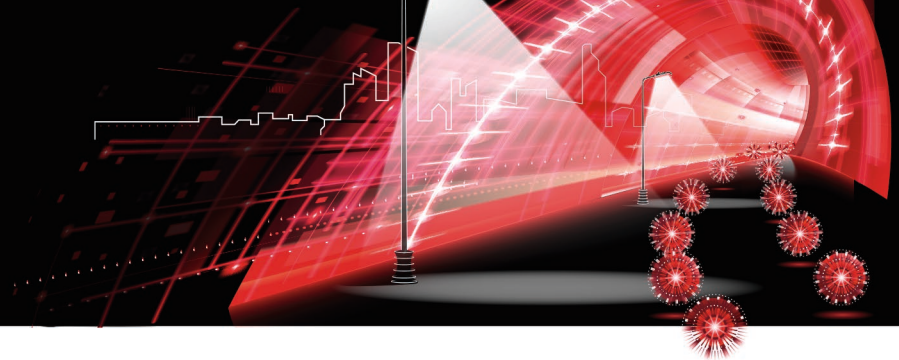
- Close Loop System
- Smart APP's is Android and IOS on Smartphone, Tablet and Notebook
- FCC Certificate: X8WBT84X
- Distance between poles, 3,740 feet/1,140 meters
- Recovery ALERTS off fixtures failures from the Parent Node to the Smartphone
- Security: AES128 encryption and authentication code between Smartphone and customer and/or GWI server via cloud
- Dimming capabilities from 1-100 by increments of one
- Separated multi-infinite streets/roads application with the same APP
- Each fixture icon on the Smartphone APP will have an identification number within the group
- Each NODE has capability of Calendar/Day Light Saving Time
- Fixture/NODE with issue will fail off
- Parent/node will save failed fixture data/alerts and can forward them to the Smartphone
- Separated multi-infinite streets/roads application. From one Fixtures to infinite
- Uses 7-Pin and meets C136.10 configuration
- 81,000 cycles On/Off
- All mesh messages are encrypted and authenticated.
- Network security, application security, and device security are addressed independently.
- Security keys can be changed during the life of the mesh network via a Key Refresh procedure.
- Message obfuscation makes it difficult to track messages sent within the network providing a privacy mechanism to make it difficult to track nodes.
- Mesh security protects the network against replay attacks.
- The process by which devices are added to the mesh network to become nodes, is itself a secure process.
- Nodes can be removed from network securely, in a way which prevents trashcan attacks.
- ARM CryptoCell-310 cryptographic co-processor



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PARAMETERS

Power Supply	Rated voltage: 12~24VDC Rated current: 12V/45mA, 24V/30mA
Power Consumption day	12V/3.5mA, 24V/3.5mA
Sensor Type	Light-sensitive + Microwave
Spectral Acquisition Range	350~1100nm Peak wavelength 550nm
Dimming interface	Type: 0~10V Accuracy: $\pm 2\%$ Drive current: 40mA Typical
Turn on Illuminance (Options from GWI)	50Lux ± 10
Turn off Illuminance (Options from GWI)	Reflected light + 40Lux ± 10 after each turn on Lower limit: 50+40Lux ± 10 Upper limit: 6000Lux ± 100
Reflected light compensation upper limit	6000Lux ± 100
Initialization	After power on, the light is turned on by default and maintains 5S, then automatically turns off the light and enters the auto-sensing operation mode
Turn on delay	5s
Turn off delay	60s
0%~20%, 20%~100% Brightness change time	1s
100%~20%, X%~0% Brightness change time	8s
100% brightness hold time after microwave trigger	30s
Stand-by Dimming	20%
Maximum hanging height of microwave	15m/49ft
Sensing radius	4-8m (by 15m hanging height)/13-26ft (49ft hanging height)
Microwave induction angle	92°
Microwave anti-false trigger	Can prevent wind, rain, leaves, and small animals
Mechanical Vibration	IEC61000-3-3
Flammability Level	UL94-V0
Operating Temperature	-40°C~70°C
Storage Temperature	-40°C~85°C
Operating Humidity	5%RH~99%RH
IP Level	IP66

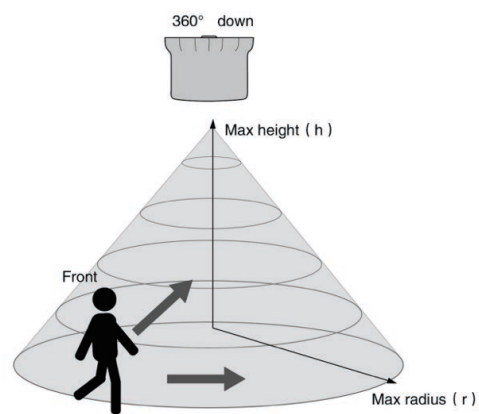
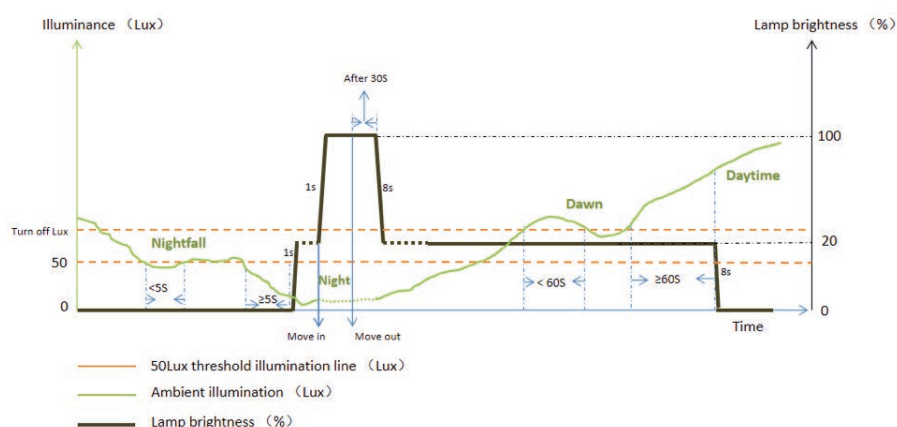


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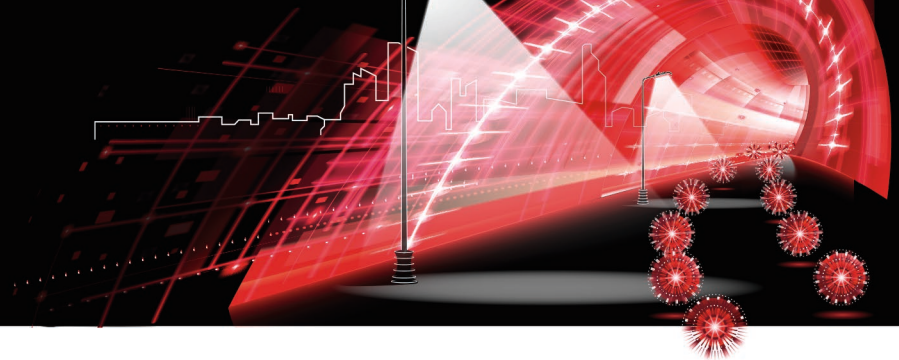
Notes

- If the light-emitting surface of the street/roadway lighting is completely shielded and isolated from the light-sensitive surface of the light controller when installed, that is, no reflected light enters the light controller after the street/roadway lighting is illuminated, then the light-off illuminance at this time is equal to the lower limit, that is, down The illuminance of the second turn off is approximately = the default turn on illuminance + 40 lux compensation value = 50 + 40 = 90 lux;
- If the installation fails to completely shield and isolate the light-emitting surface of the street/roadway lighting and the light-sensitive surface of the light controller, that is, the reflected light enters the light controller after the street/roadway lighting is illuminated. If the street/roadway lighting is lit to 100%, the current environment collected by the light controller If the illuminance is 500lux, the illuminance of the next turn off is approximately = the current ambient illuminance+40=540lux;
- If the power of the street/roadway lighting is high and the light-emitting surface is very close to the light-sensitive surface of the light controller, the reflected light exceeds the upper limit of compensation after the street/roadway lighting is turned on to 100%, that is, the light controller detects that the ambient illuminance has been stable after turning on the light If it is greater than 6000lux, the light controller will automatically turn off the light after 60S.

Ambient illumination and street/roadway lighting brightness schematic diagram

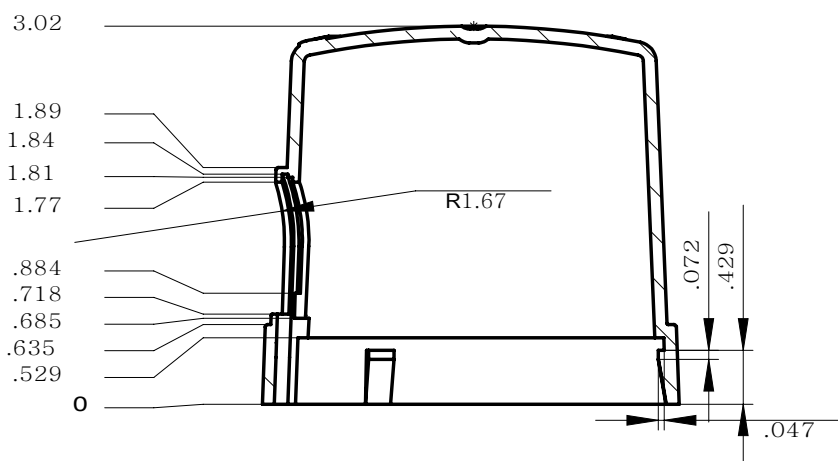


Microwave induction schematic

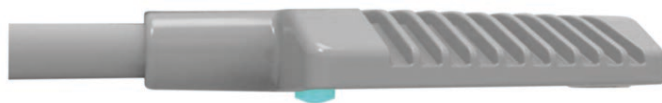
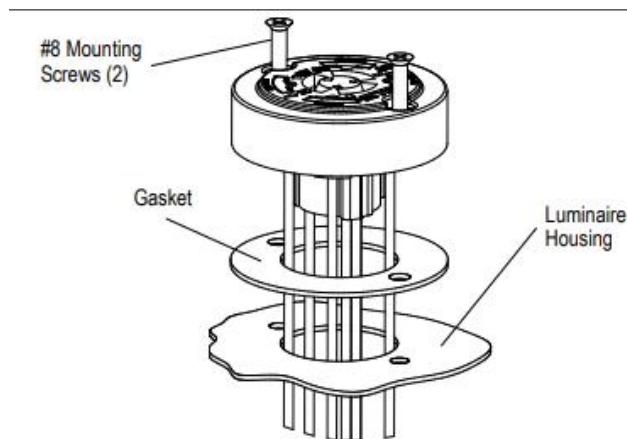


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Structure Dimensions

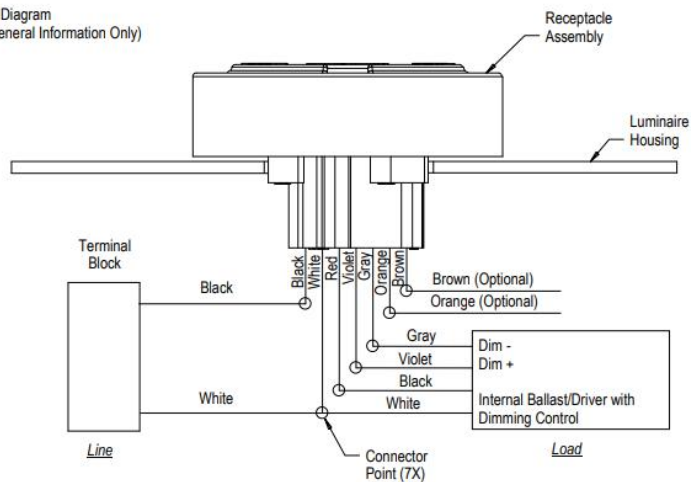


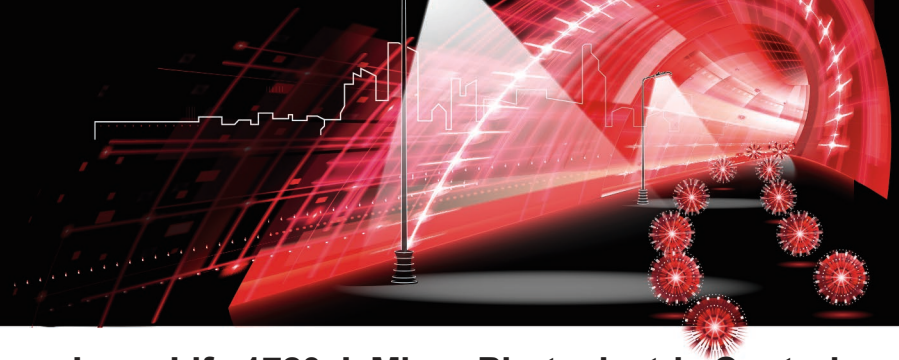
7-pin C136.10 ANSI/NEMA Receptacle



Bottom Installation Diagram

Wiring Diagram
(For General Information Only)

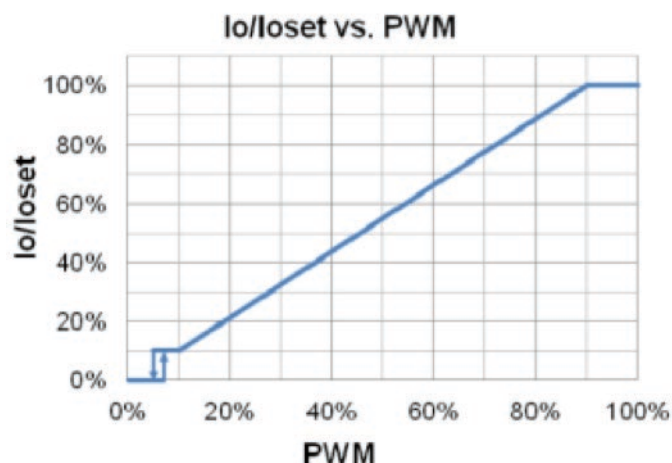




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ATTENTIONS

1. If the negative pole of the auxiliary power supply of the driver is separated from the negative pole of the dimming interface, they need to be shorted and connected to the light controller # 2.
2. If the light controller is installed very close to the light source surface of the street/roadway lighting and the street/roadway lighting power is relatively large, it may exceed the limit of the reflected light compensation and appear to turn off itself.
3. Because the light controller does not have the ability to cut off the AC power supply of the driver, the customer needs to select a driver with an output current close to 0mA when using the light controller, otherwise the phenomenon that the street/roadway lighting cannot be completely turned off may occur. As shown in the output current curve of the driver specification, the lowest output current is close to 0mA.
4. The light controller only outputs the dimming signal to the driver, regardless of the power load of the driver and the light source.
5. Don't use your fingers to block photosensitive window, it is likely that the lights will fail to turn on because of the light passing through your fingers.
6. When testing the microwave, please leave the microwave module more than 1 meter away, too close distance may be filtered out as a false trigger, resulting in failure to trigger normally.



WARRANTY

10 year warranty - All photocontrols are marked with the date of manufacture. This product is warranted to operate within its original specifications and shall be free of electrical or mechanical defects. Manufacturer's warranty shall be limited to providing a replacement control of same type and shall not cover costs of removal, replacement or loss of service nor any consequential damages. This warranty is in lieu of and excludes all other warranties either expressed or implied. Full warranty statement is available by consulting factory.