

# goLITE BLU

user guide



**PHILIPS**

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## Introduction:

### Intended Use

The goLITE BLU is intended to help people adjust their circadian rhythms to provide mood relief and to have more energy.

### Read All Warnings and Cautions Before Using Your goLITE BLU

Observe these safety instructions to avoid potential hazards that could result in personal injuries or damage to your goLITE BLU.

**Warnings:** *A warning indicates the possibility of injury to the user or the operator.*

- Use the goLITE BLU in a vertical position with the stand in place in the hole on the back of the unit. Do not use this device laying flat in a horizontal position without the stand.
- Do not expose this unit to rain or moisture. Do not use this light near a water source, while bathing, washing hands or while contacting water.
- If you suffer from an eye disease or have a history of eye disease in your family, you should consult your ophthalmologist before using this device.
- If you are experiencing any temporary eye problems, wait until the problems are resolved before using this device.
- Light emitted by this device may interact with photo-sensitizing medications. Be sure to review all medications that you are currently taking with your doctor before beginning treatment with this device.
- Do not use this product where the light might compromise your ability to perform essential tasks such as driving or operating heavy equipment.
- As with any bright light source, do not stare into the device.

- Do not use this product where the light might distract other individuals and compromise their ability to perform essential tasks such as driving or operating heavy equipment.
- Do not increase intensity by sitting closer to the light than recommended. Increased intensity will not improve response and may result in increased side effects.
- The goLITE BLU internal battery is protected within the device enclosure and is not user accessible. Never open the device and come in contact with the internal battery.
- The metal stand for the device could present a choking hazard.
- Individuals who use photosensitizing medications, who have had cataract surgery, or who have pre-existing eye conditions should avoid unnecessary exposure to light. They should consult their ophthalmologist before using the goLITE BLU.
- The goLITE BLU should not be used adjacent to or stacked with other equipment. However, if it is necessary, the device should be observed to verify normal operation.

**Cautions:** *A caution indicates the possibility of damage to the device.*

- The goLITE BLU contains an internal, rechargeable Lithium-ion battery pack. Do not incinerate, disassemble or expose to high temperatures above 60° C (140° F). Do not operate or charge the goLITE BLU in temperatures below -5° C (23° F) or above 35° C (95° F). Batteries can overheat causing fire or bursting. Dispose of the device with the internal battery properly.
- The goLITE BLU needs special precautions regarding EMC and how portable and mobile RF communication equipment can affect it. The goLITE BLU should be put into service according to the EMC Information provided at the end of this guide.
- Do not operate this device near any heat sources such as radiators, heat registers, or other apparatus that produce heat.
- Never use damaged or worn cords or plugs; this could result in electric shock, burns, and/or fire.

- Use our provided AC/DC adapter (MW170KB0900B02) only. If not, this may result in increased emissions or decreased immunity of the goLITE BLU.
- Do not place heavy objects on top of the power cord or the device.
- When unplugging this device grasp the adapter directly to avoid damaging the cord. Never pull on the power cord to remove the adapter from the socket.
- Do not block any ventilation openings on this device.
- If this device is damaged in any way or is not working, it should not be operated. Please contact the manufacturer for service assistance.
- There are no user serviceable parts inside the goLITE BLU. No modification of this equipment is allowed.

### Contraindications

The goLITE BLU may not be suitable for use on individuals who use photosensitizing medications, who have had cataract surgery, who have pre-existing eye conditions, or who have bipolar disorder.

### **Thank you for purchasing the goLITE BLU!**









Visit [www.LightTherapy.com](http://www.LightTherapy.com) now to:

- Register your goLITE BLU
- Learn more about your goLITE BLU and BLUEWAVE technology

Don't have Internet access? Be sure to fill out your warranty card located inside the box and mail it to the address listed.

## Symbol Key

The following symbols may appear on the device:

SYMBOL	DESCRIPTION
	Consult accompanying instructions for use
	DC Power
	DC Jack Polarity
	Serial Number
REF	Model Number
	European Declaration of Conformity
	TUV Safety Standard Compliance for North America
	Compliant with the Waste Electrical and Electronic Equipment/Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (WEEE) recycling directives.
	European Representative

## The Comfort of Blue

By using BLUEWAVE light-emitting diodes (LEDs), the goLITE BLU delivers safe and effective wavelengths of light, while eliminating harmful UV and the eyestrain that can be associated with other bright light treatments.

### Safe and Effective

According to independent ocular safety testing, BLUEWAVE light is safe when following the recommended usage guidelines. BLUEWAVE technology in your goLITE BLU passes ICNIRP/ACGIH threshold value limits at only 15% (light energy exceeding 100% is considered potentially hazardous). The effectiveness of the type of light in BLUEWAVE has been researched and advocated by leading medical universities. For more information, visit [www.LightTherapy.com](http://www.LightTherapy.com).

### Understanding Light, Health, and Circadian Rhythms

The human body uses light cues, such as those provided by the sun, to time certain internal functions. Properly timed rhythms regulate mood, sleep, energy, appetite, and digestion. These daily internal cycles, called circadian rhythms, sometimes fall out of sync, resulting in an unregulated body clock.

Unfortunately, modern living has dramatically altered nature's cues. A modern day no longer starts at the crack of dawn and ends at 8:00 p.m. Workdays are getting longer and many people face shift work schedules. Additionally, the advent of electric lighting allows social gatherings and personal activities to extend well into the night. These factors have diminished the body's natural ability to regulate the body clock.

## Circadian Rhythm Imbalance

When our circadian rhythm becomes imbalanced, the body produces the wrong hormones, chemicals, and neurotransmitters at the wrong time of the day. The results range from feelings of sadness to sleeplessness to lack of energy. Many people suffer from a loss of energy and mood that can last for a short period of time to more than a couple of weeks. For many, these feelings come on stronger in the winter and in darker climates.

### An imbalance in circadian rhythms contributes to the following:

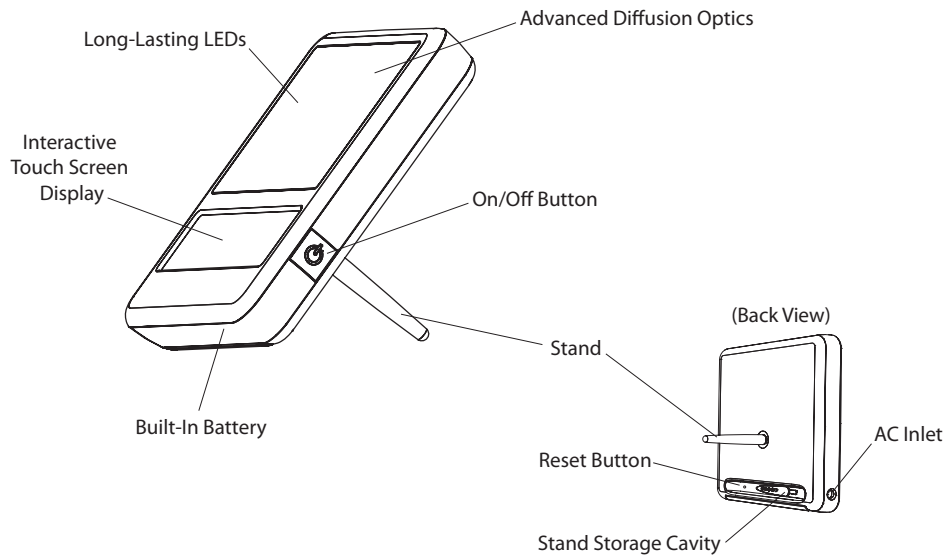
- Winter blues
- Feelings of sadness
- Jet lag
- Lack of concentration
- Loss of appetite
- Lack of energy (especially in the winter)
- Sleeplessness
- Mood swings
- Irritability

## Restored Balance with BLUEWAVE Technology

BLUEWAVE technology helps shift circadian rhythms back to their normal pattern by delivering a specifically engineered wavelength, color, and intensity of light that stimulates the production of key substances triggered by the brain. BLUEWAVE naturally affects the body by shifting the body clock to its correct timing, causing the proper signals to be produced at the right time of day.



## goLITE BLU Features



## Using Your goLITE BLU

### Plugging In Your goLITE BLU

Your goLITE BLU comes with a 9V AC/DC adapter with US-style prongs. Your adapter can operate on AC power ranging from 100–240 volts for usage worldwide. Use the enclosed adapter only. For safety and proper operation of your goLITE BLU, never use an unapproved adapter.

### Charging Instructions

**IMPORTANT:** Charge your goLITE BLU for at least 8 hours before initial use.

The goLITE BLU contains an internal Lithium-Ion battery pack. To charge your goLITE BLU, connect your AC/DC adapter to a wall outlet and plug the goLITE BLU into the adapter. The battery display icon will show the outline only. As the battery charges, the four bars will blink one by one and fill in as the charge increases. Once the battery is charged, the battery icon will switch to a steady display. Charge your goLITE BLU for at least 8 hours before initial use. Subsequent charges should be complete in three to four hours. A single charge should last for three to five treatment sessions.

**WARNING:** Do not incinerate, disassemble, or expose to high temperatures (above 60° C/140° F). Internal batteries may overheat causing fire, or bursting. Use the specified AC/DC adapter only.

### Positioning Your goLITE BLU

Use the goLITE BLU at a slight angle to your face (see figure 1). It is not necessary to look directly into the light.

- For best results, place the goLITE BLU approximately 20–30 inches from your eyes. Allow the light to bathe your face from the side.
- You can read, eat, work at the computer, watch TV, put on makeup, or exercise while using your goLITE BLU.
- Use your goLITE BLU in a well-lit room to minimize eyestrain.
- For best results, place the goLITE BLU near you at eye level so it shines directly into your eyes.
- The proper response to light therapy occurs through the retina of the eyes, not through the skin. However, you do not need to stare at the light. If you are in front of the goLITE BLU and position it close enough, only an occasional glance is needed achieve the maximum benefits.



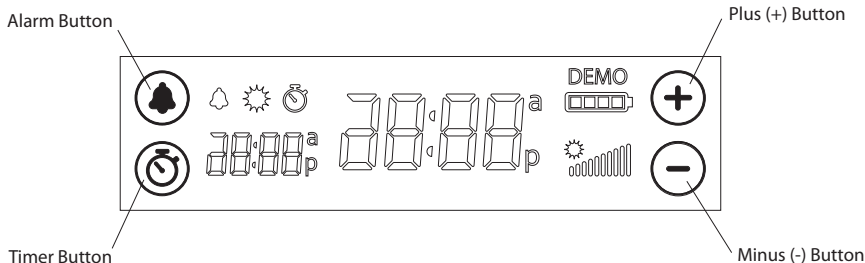
Figure 1

### Your Eyes Should Be Open for Optimal Results

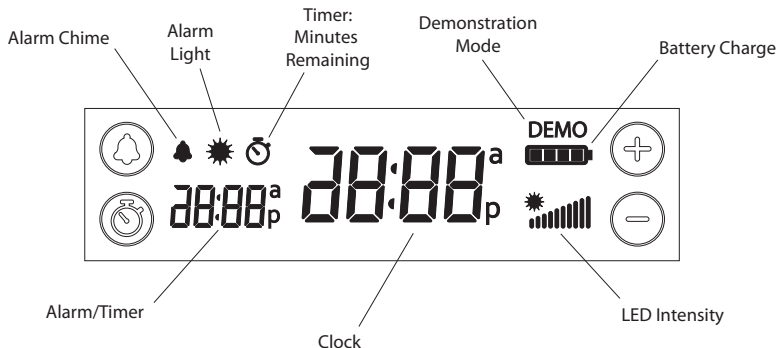
The hormonal response works through the eyes, not the skin. This is not a tanning light. In fact, our BLUEWAVE Technology creates specific wavelengths that produce a circadian response while eliminating UV hazards and minimizing eyestrain.

## User Interface Display

Refer to the following two figures when using your goLITE BLU.



**Figure 2 - Interactive Touch Screen Buttons**




**Figure 3 - Display Elements**

## Instructions for Use

To begin using the goLITE BLU, remove the stand from the storage cavity on the back and place the beveled end into the hole also on the back of the device. The stand is held in place in both the storage cavity and the hole with magnets.

## Turning on the goLITE BLU Display

Push the ON/OFF  button on the side of the device to turn the goLITE BLU display on. To turn the display off, press and hold the ON/OFF button for 2 seconds. When the device is on battery power only, after 5 minutes of inactivity, the goLITE will shut off automatically to preserve battery power.

## Setting the Clock

While the goLITE BLU is on, press and hold both the ALARM and TIMER buttons for 2 seconds. The clock display will flash while setting the clock. Press either the PLUS (+) or MINUS (-) button to adjust the clock. Hold down either the PLUS or MINUS button to cycle through the clock time quickly. When finished, press either the ALARM or TIMER button, or wait 10 seconds to exit the clock setting mode. To switch between 12-hour (a.m. & p.m.) or 24-hour time format, press and hold both the TIMER and MINUS buttons for 2 seconds.

## Timing a Session

To start a timed session, press the TIMER button. The timer icon and minutes will flash. Select the desired usage time by pressing either the PLUS or MINUS button. Hold down either the PLUS or MINUS button to cycle through the clock time quickly. The timer can be set between 1 and 60 minutes. This setting will then be stored in the device memory. When the light source is turned on, it will count down from this set time. When it has finished counting down, the session will end automatically.

## Turning on the Light

While the goLITE BLU is on, press and release the ON/OFF button on the side of the device to turn the light source on or off.

## Pausing a Session

Press the ON/OFF button, or press the MINUS button until the intensity reaches 0% to pause a timed session. Minutes remaining will still show in the display. Press the ON/OFF button again to continue the session, or press any of the 4 touch screen buttons to end the session. If you pause a session while on battery power only, after 5 minutes of inactivity, the session will end and the goLITE will shut off automatically.

## Changing the Intensity

While the light source is on, you can change light intensity by pushing either the PLUS or MINUS button. You can choose intensity settings in increments of 25%.

## Setting the Alarm

The alarm can be set to 3 possible modes: chime only, light only, or both chime and light. To specify the mode, press the ALARM button. The alarm mode icons will begin to flash. Press either the PLUS or MINUS button to cycle between the 3 modes. Once you make your choice, press the ALARM button twice or wait 10 seconds to store your setting.

To set the alarm time, press the ALARM button twice. The alarm time will begin to flash. Press either the PLUS or MINUS button to set the desired time. Hold down either the PLUS or MINUS button to cycle through the alarm time quickly. Once finished, press the ALARM button or wait 10 seconds to store your alarm setting. This setting will then be stored in the device memory as long as there is backup battery power.

## Silencing the Alarm Sound

To turn off the alarm while it is sounding, press any of the 4 touch screen buttons or the ON/OFF button on the side of the goLITE BLU.

## Disabling the Alarm

To disable the alarm, press and hold the ALARM button until the alarm icon and alarm time disappear.

## When to Use Your goLITE BLU

Because an imbalance in circadian rhythm affects everybody differently, understanding how it affects you is critical to feeling better. Knowing what time to use the goLITE BLU can mean the difference between responding in just a few days instead of weeks, or perhaps not responding at all. Follow these guidelines to understand how light affects your body clock and when to use the goLITE BLU for the best results.

### Usage Duration and Intensity

Most people get beneficial results from fifteen to thirty minutes of usage each day. You can start using your goLITE BLU at 50% intensity and increase the level of light if you feel like your body is not responding within a week of beginning light therapy.

### Time of Day

If you find it difficult getting up each day without an alarm clock or you are sleeping in, you need morning light. Use the goLITE BLU within the first hour or two after waking.

If you find it difficult staying awake in the late evening and wake up too early in the morning, you need evening light. Use the goLITE BLU before the onset of drowsiness.

If you don't notice a shifted circadian rhythm, use the goLITE BLU when you wake up in the morning for fifteen to thirty minutes and then again in the evening for approximately the same amount of time. Place the goLITE BLU further away from you during the evening treatment. This will keep your body clock from confusing the stronger morning signal with evening time. Don't use the goLITE BLU within two hours of bedtime. The goLITE BLU suppresses the nighttime hormones for at least two hours, and you may not be able to fall asleep.

## Shift Work

Use the following techniques to adjust your circadian rhythm to your work shift.

### Beginning a Night-shift Schedule

Many people benefit from receiving a 30-minute burst of light before work and then 15 minutes of light every three hours during work. This not only increases alertness and performance, but shifts the body clock as well. Within three days, your body clock will have changed to a night-shift schedule. Taking time-release melatonin upon arriving home after work may help accelerate the shifting of your body clock. After the second day, melatonin should not be necessary, and your body clock will have adapted to the new schedule.

**Note:** When coming off of night-shift work, it is important to wear sunglasses and avoid any bright light while going home. You should go to sleep as soon as possible after leaving work.

### Returning to a Day-shift Schedule

On the day your night shift ends, continue to wear sunglasses and avoid bright light in the morning hours. Do not take melatonin in the morning. Use your goLITE BLU for 30 minutes at about midday. On the first day, you may take an afternoon nap if you are having trouble staying awake. Go to bed at your normal evening bedtime.

You may wish to use time-release melatonin in the early evening (about 7:00 p.m.) to accelerate your body clock to a normal schedule. You may want to wait a few hours after waking in the afternoon or evening before taking melatonin as it may cause drowsiness. This routine should only need to be repeated once or twice before you achieve a normal sleep/wake schedule.

After the first day, you should use the goLITE BLU each morning as needed for approximately 15–30 minutes.



For more detailed information about using your goLITE BLU to help adapt to shift work schedules, visit [www.LightTherapy.com](http://www.LightTherapy.com).

### Jet Lag

Rapidly traveling across several time zones creates disharmony between your internal body clock and the new external time. This not only causes problems with sleeping, but influences mood and energy as well. Because specialized light is effective for shifting circadian rhythms, your goLITE BLU can quickly adjust your rhythm to the new time zone. The best strategy for combating jet lag is to shift your body clock a day or two before leaving.

### Traveling East

Use your goLITE BLU in the morning two to three days before leaving. The number of time zones traveled corresponds to the hours needed to shift. On the first day, wake up an hour early and use the goLITE BLU for 30–45 minutes. This will shift your body clock up to three time zones. The next day(s) you need to awaken a couple of hours earlier and repeat this process. Taking time-released melatonin in the early evening or late afternoon can also help accelerate this shift. You should adjust your sleep schedule as described each day. Upon arrival, wear sunglasses to avoid any sunlight before 10:00 a.m. When returning, use your goLITE BLU in the evening for a few nights and avoid any morning light (see Traveling West).

### Traveling West

Use your goLITE BLU in the evening for 30–40 minutes a few days before leaving, and use the goLITE BLU a couple of hours later each successive day. Each day you use the goLITE BLU, you shift your internal time up to three hours, and you can increase this shift up to six hours per day by taking melatonin in the morning. When returning, avoid any bright afternoon and evening light and be sure to use your goLITE BLU in the morning for a few days (see Traveling East).

## Frequently Asked Questions

### Do I have to take off my glasses when I use the goLITE BLU?

No. This specialized type of light is designed to work with or without glasses. However, you should not wear tinted glasses or sunglasses when using the goLITE.

### Are there any major side effects?

The goLITE BLU is safe when used according to recommendations. There have been some reports of temporary headaches or nausea. This is usually resolved by sitting further away from the unit.

### Can I get sunburn from using the goLITE BLU?

No. While typical fluorescent bulbs produce small amounts of UV light, BLUEWAVE Technology eliminates all UV light.

### I've heard that light can be dangerous. Can the goLITE BLU damage my eyes?

The goLITE BLU emits safe levels of blue light, according to current standards. In fact, your goLITE BLU emits less blue light than other traditional forms of bright light therapy like full-spectrum, 10,000 lux white fluorescent light. However, if you suffer from an eye disease or have a history of eye disease in your family, you should consult your ophthalmologist before using your goLITE BLU. Also, if you are experiencing any temporary eye problems, wait until the problems are resolved before using the goLITE BLU.

When used as directed, all of our light products are free from ultraviolet light risk to the eye and produce a safe, diffused field of light. Our lights have been tested for ocular safety and have been used in dozens of government and clinical studies.

As with any bright light source, you should not stare directly into the light. The beneficial reaction happens when the melanopsin photoreceptors in the eye are stimulated. Since these photoreceptors lie in the periphery of the eye, you will get a much better outcome if you position the goLITE BLU at a slight angle to your face.

### Should I use the goLITE BLU every day?

You should use the goLITE BLU daily, especially during the winter months. Many people find that they don't need the light during the summer. Others use it year-round because they spend most of their time indoors and don't typically get the right kind of light signals to regulate circadian rhythms properly.

### Can the light cause harm to children or pets?

No. The lights are safe around children and pets. The lights will actually draw many pets to sit by it.

### Can I use the goLITE BLU more than once a day?

For most people, it is sufficient to use the goLITE BLU once a day. Keep in mind that using the goLITE BLU too late in the evening may adversely affect your sleep.

### How long do the LEDs last?

Under normal usage, the LEDs are rated for 10,000 hours of use, which at 30 minutes per day all year round equals over 50 years of life.

### What if one or more LEDs stop working prematurely?

In the unlikely event that one or two LEDs fail prematurely, the effectiveness of your goLITE BLU will not be diminished. You can continue to use your goLITE BLU normally. However, if several LEDs stop functioning, you should probably have your goLITE BLU repaired to ensure that you are receiving the correct treatment dosage. For more information, refer to your goLITE BLU warranty card.

### What is DEMO on the display screen?

This is the Demonstration mode that is used to display the goLITE BLU at point-of-sale locations. If your goLITE BLU happens to be in this mode, DEMO will appear on your display screen. You will not need to be in this mode. While the goLITE BLU is off, press and hold the ON/OFF button for 10 seconds. The goLITE BLU will turn on and the word DEMO will clear from your display screen.

### How do I use the reset button?

The goLITE has a reset button located in the stand storage cavity on the back of the unit. If the goLITE locks up or is not working correctly, you can reset the device by inserting the end of a paper clip into the reset button hole. The goLITE will reset and the memory contents will be cleared.

## Maintenance

### Cleaning

The goLITE BLU should only be cleaned with a non-abrasive material such as a dry cleaning cloth. The device should never be immersed in any liquid.

### Service and Repair

We don't expect you to have any problems with your goLITE BLU, but occasionally issues may arise.

- **Repair Information and Troubleshooting:**  
For technical questions and troubleshooting, please visit [www.LightTherapy.com](http://www.LightTherapy.com).
- **Returning Your Light:**  
Before returning your goLITE BLU for servicing, you must first obtain a return authorization number. You can obtain this number at [www.LightTherapy.com](http://www.LightTherapy.com), or contact our Service Department by calling the telephone number located on the back of this manual.

## Specifications

### Environmental

**Shelf Life:** 2 years at 25° C (77° F)

**Operating Temperature:** -5 to 35° C (23 to 95° F) **Storage Temperature:** -20 to 60° C (-4 to 140° F)

**Relative Humidity (operating & storage):** 15 to 90% (non-condensing)

### Physical

**Dimensions:** 5.5 x 5.5 x 1 inches (14 x 14 x 2.5 cm)

**Weight:** < 14 ounces (0.4 kg)

### Standards Compliance

This device is designed to conform to the following standards:

IEC 60601-1 General Requirements for Safety of Medical Electrical Equipment

IEC 60601-1-2 Electromagnetic Compatibility

IEC 60825-1:1993+A1:1997+A2:2001 (Class 1 LED Product)

### IEC 60601-1 Classification

**Type of Protection Against Electric Shock:** Internally powered equipment

**Degree of Protection Against Harmful Ingress of Water:** IPX0 (Ordinary protection against ingress of liquids)

**Mode of Operation:** Continuous Operation

Not suitable for use in the presence of a flammable anaesthetic mixture with air, oxygen, or nitrous oxide.

### Electrical

**goLITE BLU DC Power Consumption:** 9.0 V DC, 1.1 A

**AC/DC Adapter Power Consumption:** 100 – 240 VAC, 50/60 Hz, 0.4 A

**AC/DC Adapter:** (model number: MW170KB0900B02) 9.0 V DC, 1.5A

*As of the date of publication, this is the complete list of approved AC/DC adapters for use with the goLITE BLU.*

*Contact customer service for an updated list of approved adapters.*

**Internal Battery:** (part number: 1053538) 2-cell rechargeable lithium-ion pack, 7.4 V, 850 mAh

Complies with IEC 62133 and UL 2054

### Disposal

Dispose of the device in accordance with local regulations.

## EMC Information


**GUIDANCE AND MANUFACTURER'S DECLARATION - ELECTROMAGNETIC EMISSIONS:** The goLITE BLU is intended for use in the electromagnetic environment specified below. The user of the goLITE BLU should make sure it is used in such an environment.

EMISSIONS TEST	COMPLIANCE	ELECTROMAGNETIC ENVIRONMENT - GUIDANCE
RF emissions CISPR 11	Group 1	The goLITE BLU uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	The goLITE BLU is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network.
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuations/Flicker emissions IEC 61000-3-3	Complies	

**GUIDANCE AND MANUFACTURER'S DECLARATION - ELECTROMAGNETIC IMMUNITY:** The goLITE BLU is intended for use in the electromagnetic environment specified below. The user of the goLITE BLU should make sure it is used in such an environment.

IMMUNITY TEST	IEC 60601 TEST LEVEL	COMPLIANCE LEVEL	ELECTROMAGNETIC ENVIRONMENT - GUIDANCE
Electrostatic Discharge (ESD) IEC 61000-4-2	±6 kV contact ±8 kV air	±6 kV contact ±8 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrical Fast Transient/Burst IEC 61000-4-4	±2 kV for power supply lines ±1 kV for input-output lines	±2 kV for supply mains ±1 kV for input/output lines	Mains power quality should be that of a typical home or hospital environment.
Surge IEC 61000-4-5	±1 kV differential mode ±2 kV common mode	±1 kV differential mode ±2 kV for common mode	Mains power quality should be that of a typical home or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5% $U_T$ (>95% dip in $U_T$ ) for 0.5 cycle 40% $U_T$ (60% dip in $U_T$ ) for 5 cycles 70% $U_T$ (30% dip in $U_T$ ) for 25 cycles <5% $U_T$ (>95% dip in $U_T$ ) for 5 sec	<5% $U_T$ (>95% dip in $U_T$ ) for 0.5 cycle 40% $U_T$ (60% dip in $U_T$ ) for 5 cycles 70% $U_T$ (30% dip in $U_T$ ) for 25 cycles <5% $U_T$ (>95% dip in $U_T$ ) for 5 sec	Mains power quality should be that of a typical home or hospital environment. If the user of the goLITE BLU requires continued operation during power mains interruptions, it is recommended that the goLITE BLU be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical hospital or home environment.
NOTE: $U_T$ is the a.c. mains voltage prior to application of the test level.			

**GUIDANCE AND MANUFACTURER'S DECLARATION - ELECTROMAGNETIC IMMUNITY:** The goLITE BLU is intended for use in the electromagnetic environment specified below. The user of the goLITE BLU should make sure it is used in such an environment.

IMMUNITY TEST	IEC 60601 TEST LEVEL	COMPLIANCE LEVEL	ELECTROMAGNETIC ENVIRONMENT - GUIDANCE
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz	3 Vrms	Portable and mobile RF communications equipment should be used no closer to any part of the goLITE BLU, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.  <b>Recommended separation distance:</b> $d = 1.2 \sqrt{P}$ 150 kHz to 80 MHz
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2.5 GHz	3 V/m	$d = 1.2 \sqrt{P}$ 80 MHz to 800 MHz $d = 2.3 \sqrt{P}$ 800 MHz to 2.5 GHz  Where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m).  Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey <sup>a</sup> , should be less than the compliance level in each frequency range <sup>b</sup> .  Interference may occur in the vicinity of equipment marked with the following symbol: 
<p><b>NOTE 1:</b> At 80 MHz and 800 MHz, the higher frequency range applies.</p> <p><b>NOTE 2:</b> These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects, and people.</p> <p><b>a:</b> Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the goLITE BLU is used exceeds the applicable RF compliance level above, the goLITE BLU should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the goLITE BLU.</p> <p><b>b:</b> Over the frequency range 150 kHz to 80 MHz, the field strengths should be less than 3 V/m.</p>			



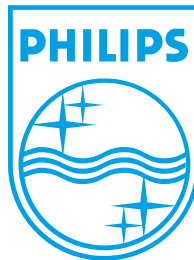
RECOMMENDED SEPARATION DISTANCES BETWEEN PORTABLE AND MOBILE RF COMMUNICATIONS EQUIPMENT AND THE GoLITE BLU: The goLITE BLU is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the goLITE BLU can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the goLITE BLU as recommended below, according to the maximum output power of the communications equipment.

RATED MAXIMUM POWER OUTPUT OF TRANSMITTER (W)	SEPARATION DISTANCE ACCORDING TO FREQUENCY OF TRANSMITTER (m)		
	150 kHz TO 80 MHz $d = 1.2 \sqrt{P}$	80 MHz TO 800 MHz $d = 1.2 \sqrt{P}$	800 MHz TO 2.5 GHz $d = 2.3 \sqrt{P}$
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23

For transmitters rated at a maximum output power not listed above, the recommended separation distance  $d$  in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where  $P$  is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

**Note 1:** At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

**Note 2:** These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects, and people.



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

947 South 500 East, Suite 210  
American Fork, Utah 84003  
USA

800.545.9667 – Toll Free  
801.492.1210 – International

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JR 8/05/2008