LUMACELL

Innovative & reliable
emergency lighting
solutions

by ABB

new product

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Partner with Lumacell®

for expertise, reliability, and innovation

As a part of ABB, Lumacell® emergency lighting products and services are specifically designed to provide the utmost protection and safety. We are continuously enhancing our products to meet the evolving needs of our customers by investing in the latest manufacturing technologies as well as developing solutions that maximize efficiency and customer satisfaction. We have also invested in IoT platforms for our emergency lighting that will build a foundation for our future ecosystems taking building safety to the next level.

Bringing peace of mind through reliable safety solutions.

Emergency lighting experts

Our mechanical, electrical and software engineering teams work together to create unparalleled products through research and innovation. The entire operations team is centralized for maximum collaboration from initial design to final assembly and testing.

Product reliability and efficiency

Quality, safety, ease of installation, and long-term reliability are designed into each product. Our products go through rigorous testing while meeting quality and performance standards at every step of the process from design to production to fulfillment.

Manufacturing Center of Excellence

Most of our life safety equipment is designed, manufactured and distributed from our North American facility located in Montreal, Quebec. With over 150 people on our manufacturing team, we have complete control over lead time, service, and quality.

Partner with Lumacell®

for expertise, reliability, and innovation

Fast delivery

No need to wait for a large production run or overseas shipment, we produce each product in-house. Our manufacturing capabilities include plastic components, metal binding, circuit boards, and final assembly, including small inverters. We produce precisely what we need without waiting for a large production run or overseas shipment.

Fuelled by the creativity, innovation and commitment of every employee, the Lumacell® facility is a Centre of Excellence in emergency lighting.

Since 2001, the Lumacell® manufacturing facility has been ISO 9001 compliant.

Always at your service

Our customer service team is dedicated to ensuring satisfaction. With comprehensive engineering, manufacturing, and testing resources available at our Center of Excellence, we are committed to providing solutions.

The AOI (automated optical inspection) machine added to our printed circuit board operation is one of the first of its kind in use in North America.

High output MR16 LED

Emergency lighting

MR16 LED illumination

Light-emitting diode (LED) is becoming the preferred solution in lighting applications. The emergency lighting industry is no exception. Today, virtually every new product introduced to the market includes "white light" LEDs for emergency illumination. Extremely efficient and long-lasting, LED lamps become natural alternatives to incandescent lamps due to three main advantages:

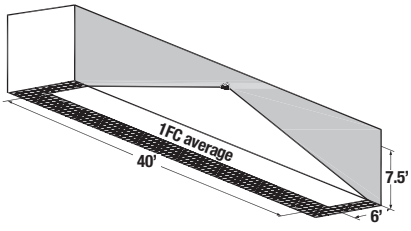
- Lamp efficacy: 50–100 lumens per watt compared to 15–30 lumens per watt of the best halogen lamp. Allowing for smaller batteries and units and/or remote capacity
- Operational life: 30,000+ hours, equivalent to a lifetime warranty in emergency lighting.
- Lower lamp temperature: 80–120°C (176–248°F) is a huge benefit for lighting in hazardous locations.

MR16 LED lamp benefits

- CSA C22.2 No. 141 certified.
- Reduces total cost of ownership, uses fewer fixtures due to superior illumination, thus reducing installations costs and future maintenance of the entire system.
- UL-recognized components.
- Available for standard battery voltages 6V, 12V, and 24V as well as 120V operation.
- Energy-efficient LED MR16 lamp provides equivalent lighting performance to a much higher watt halogen MR16 lamp.
- Reduces required battery capacity by 75%, for battery units and remote heads.
- Small profile, compact white lighting is ideal for architectural applications.
- Vibration-resistant LED stands up to industrial environments.
- Ideal for indoor and outdoor use.

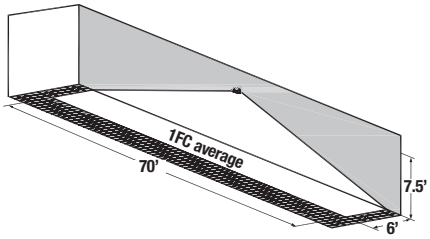
200-220-Lumen 4W MR16 LED

Leading the technology trend, we offer a complete series of 4W MR16 LED lamps available for all the standard battery voltages: 6V, 12V, 24V and 120V. With a luminous flux of typically 200 to 220 lumens, they are available with most emergency heads designed to hold an MR16 lamp and meet the majority of illumination specifications.



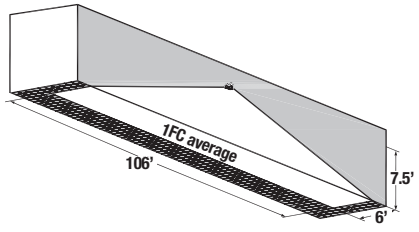
340-Lumen 5W MR16 LED

Keeping pace with technology, in 2012 we introduced a 12V-5W MR16 LED lamp. With a typical luminous flux of 340 lumens, the 12V-5W MR16 LED lamp has the same lighting performance as a 20W high-output halogen MR16. 6V-5W MR16 has been introduced in January 2020. A twin emergency head installed at a height of 7.5ft illuminates 70ft path of egress 70 ft.



540-590 Lumen 6W MR16 LED

A 6W MR16 LED lamp delivers up to 590 lumens for an average spacing in emergency lighting of 106 feet with an efficacy of 98.3 Lm/w, it is over 6 times the efficacy of an MR16 35W halogen with a similar light output. This lamp can deliver the highest linear foot of illumination per watt on a path of egress (spacing in ft/watt) 8.83ft compared to 1.37ft for an MR16 35W.



Highly efficient LED's provide cost-saving benefits

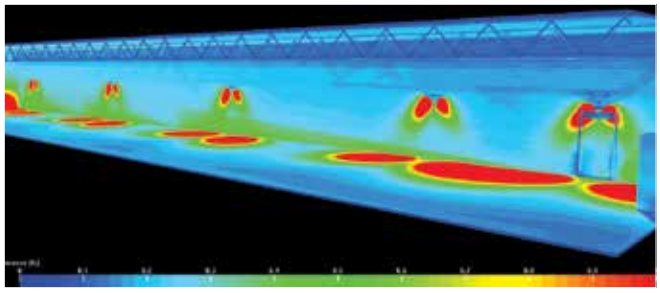
Case Study: Fewer MR16 LED units required

Emergency lighting units with MR16 LED lamps provide the same illumination at floor level using significantly fewer units.

- Reduced installation costs due to reduced product and labour requirements.
- Reduced energy costs keeping fewer batteries charged at full capacity to be ready to respond to an emergency at any time.
- Reduced maintenance and testing costs with fewer units to maintain and test in the Emergency Lighting System.
- Reduced lamp replacement costs as LED lamps have a 30,000+ hour lamp life compared to only a few hundred hours typical with incandescent lamps.
- Reduced Environmental Impact, fewer product materials, fewer batteries, less transportation, less packaging, less labour and less waste.

Compare

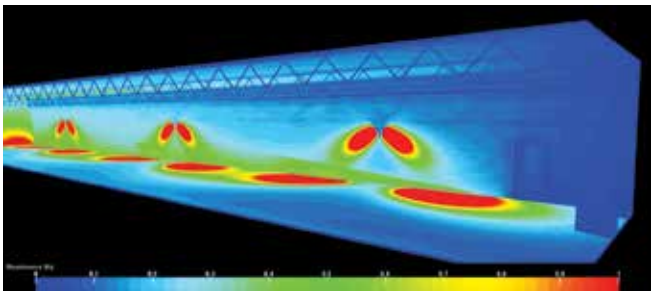
Where the building code requires a minimum of 1 foot-candle and a minimum of 0.1 foot-candle at floor level along the path of egress on a 150' x 9' x 9' corridor with an egress door at one end, a 150' x 6' path of egress, and a 7.5' unit mounting height.



4W MR16 LED Lamps

Same standard emergency lighting units 4W MR16 LED lamps

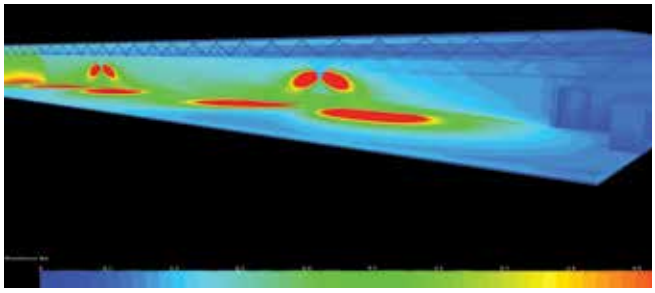
LAMP SUFFIX	VOLTAGE	WATTAGE	AVERAGE LUMEN
LD1	6	4	200
LD7	12	4	220
LD13	24	4	220
LD25	120	4	235
LD26	120	4	204



5W MR16 LED Lamps

Same standard emergency lighting units 5W MR16 LED lamps

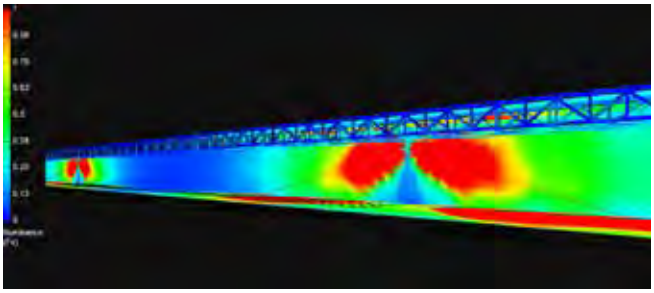
LAMP SUFFIX	VOLTAGE	WATTAGE	LUMENS
LD2	6	5	415
LD9	12	5	340



6W MR16 LED Lamps

Same standard emergency lighting units 6W MR16 LED lamps

LAMP SUFFIX	VOLTAGE	WATTAGE	LUMENS
LD10	12	6	540
LD14	24	6	590



6W, 10W and 15W MR16 LED Lamps

Same standard emergency lighting units 6W, 10W and 15W MR16 LED lamps

LAMP SUFFIX	VOLTAGE	WATTAGE	LUMENS
L6	12, 24	6	565
L10	12, 24	10	1030
L15	12, 24	15	1320

Nexus®

Wireless Emergency Lighting Monitoring System

Are you prepared for an emergency?

As with most safety equipment, emergency lighting is not fully appreciated until they are needed. In the interest of public safety, it is imperative to routinely monitor and test emergency lighting to ensure they are fully functional and provide adequate lighting to illuminate the path of egress and guidance to safety. Building owners or managers must meet the outlined requirements for exit signs and emergency lighting equipment, including the following:

- Conduct a functional test every month.
- Conduct functional tests annually.
- Keep a logbook of maintenance information.

Complying with these requirements can be labor-intensive and costly, especially in large buildings where every emergency fixture needs to be tested manually.

Manage testing with Nexus® to save time and costs

Nexus® is a real-time monitoring system that manages the status of your entire emergency lighting system from a central control unit. Nexus® runs diagnostics, performs required monthly and annual functional tests, generate maintenance logs and runs compliance reports. Available in wired or wireless versions, Nexus® helps increase system reliability and performance while reducing the risk of failed inspections. With Nexus®, monthly tests and reports on the status of all emergency lights can be done individually or in groups.

Maximize system availability

By allowing maintenance personnel to easily maintain and monitor an emergency lighting system without having to manually check each unit, Nexus® reduces the hours required to disrupt the power supply for inspections. Nexus® also saves time and operational costs by indicating the location of a faulty unit and reports it instantly without requiring a manual search.

Update status instantly

Nexus® works by communicating with the emergency units and a centrally located controller. Messages are passed between the unit and the controller to instruct them to perform all mandatory testing and for continuous monitoring.

Nexus® is supported by a 5-year warranty and can contribute to LEED certification and support green building initiatives.

Small system example

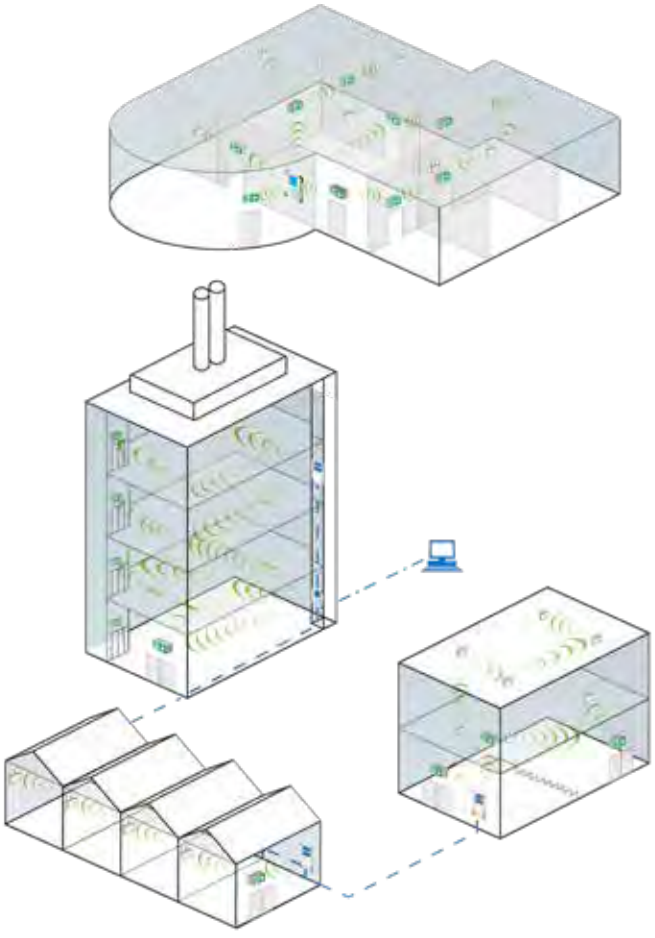
In a system with 100 units or less, it is likely that the only hardware required, besides emergency units, is a controller. All communication would occur wirelessly, and installation is as easy in a non-monitored system.

Building sizing does not restrict Nexus®. The systems flexibility enables different configurations and layouts to be built based on customer needs without a problem as each unit needs to be able to communicate with its neighbouring units and does not need to communicate directly with the controller.

Large system example

The Nexus® RF system has been designed to be extremely flexible and provides for a range of system options. Each large site will need to be assessed for the best system solution with the assistance of ABB technical staff. The basic Nexus® RF system is designed to run on an Ethernet network which is present in most modern buildings.

Site performance will be optimized through the careful selection and router placement to form efficient clusters. Building layout and materials will also play some role in determining the best solution to deliver a highly effective means of testing and maintenance requirements.



EXIT & PICTOGRAM SIGNS

new product

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Exit & Pictogram Signs Overview

Electrical Signs (connected to a source of power) differ from battery units as they must always be illuminated during normal AC operation, and not only upon loss of AC power. This has a direct impact on the acceptable energy consumption referenced in government regulations (National Resources Canada NRCan, CSA C22.2 No. 141), which is a maximum of 5W per legend single or double face.

A legend is defined as a single word, either "SORTIE" or "EXIT" or "PICTOGRAM" There are also bilingual Exit Signs with: "SORTIE EXIT" or "EXIT SORTIE", quite common in applications such as airports or federal buildings. A bilingual Exit Sign is acceptable up to a maximum of 10W. The legend must also meet visibility standards including dimensions, average brightness, uniformity, background contrast ratio. The most popular light source is based upon solid-state LED technology, which is capable of meeting both lumen output and energy efficiency requirements.

BACK-LIT AND EDGE-LIT EXIT SIGNS

Two different methods are used to illuminate the legend. The most common is found in back-lit signs, which use a light source located behind the legend, illuminated through a diffuser panel. The other method uses a clear, white or mirrored acrylic face panel on which the legend is etched or silkscreened. The light source is installed in the top portion of the panel. Light is transmitted from the top edge of the panel, which is where the "Edge-Lit" Sign gets its name from. In general, back-lit Signs are more economical and provide a more uniform illumination of the legend. On the other hand, acrylic Edge-Lit Signs are considered more high-end, elegant fixtures.

BATTERY, REMOTE, AC AND OTHER POWER SOURCES

Three types of fixtures are available for emergency lighting applications. The first type is the Self-Powered Sign, with a rechargeable battery for emergency mode operation. Next is the Remote Sign or AC/DC Sign: in addition to a normal AC power supply, it includes a DC input (6VDC, 12VDC, etc.) for remote power supplied by a separate battery backup. Installation of such Signs requires DC wiring between both fixtures. Finally, the AC-only Signs are for applications where emergency power is supplied from an AC Central System. A variation on Sign design uses photo-luminescent materials for the legend (letters and/or background).

According to the National Building Code, photo-luminescent Signs must be continuously illuminated by a dedicated light source connected to an emergency power supply.

In addition to electrical Signs, there are power free, self-luminous signs that incorporate radioactive materials such as tritium gas as a light source. Their brightness level is very low, which is 2-3% of the minimum level required for an electrical sign. However, they are safer and easier to install in hazardous/explosion-proof environments such as coal mines, natural gas installations, etc. As these signs are not electrical signs, they are not subject to CSA standards such as C22.2 No. 141.

COMBINATION UNITS

The combination unit or "combo", includes both a small battery-powered Emergency Lighting unit and an AC/DC Sign. An economical and easy to install alternative (installs to a single electrical box), the combo offers both a Sign indicating the direction of egress as well as emergency lighting on the path of egress.

EXPLOSION-PROOF ENVIRONMENT SIGN

The CSA C860 standard applies to all Signs, and in all applications with no exceptions. Compliance is required in all cases, even if a solution may be hard to find. For example, equipment for use in hazardous locations, such as areas classified under Class I, Division 1 (or Class I, Zones 0 and 1), defined as locations where flammable gases, vapors or liquids are present frequently or under normal operating conditions.

Required luminaires are designed specifically to meet CSA standards for explosion-proof equipment. Heavy-duty luminaires are rated for lamp wattages ranging from 50-250W. Constructed of Die-Cast aluminum, the units feature a resistant prismatic glass globe providing hemispherical light distribution. Until now, because of these characteristics, traditional Signs were using 15-25W incandescent lamps to provide sufficient illumination of the legend. Conversely, an LED Sign is typically rectangular and relatively thin (4-8cm) with an axial light source consisting of a line of LEDs to provide indirect illumination of the legend through multiple reflections. So, how is it possible to develop an LED Sign that meets NRCan/C22.2 No. 141 using a bulky heavy-duty luminaire dedicated to hazardous locations Class I, Division 1?

We developed a special LED lamp series that is easy to install in the lamp base of explosion-proof type luminaires. This special LED lamp consumes less than 5W in either AC or DC of high-performance LEDs configured in a unique pattern. Horizontal distribution is 360 degrees radially and vertical distribution is directly focused on the sign legend.

This innovative design meets the visibility criteria on standard size legends while limiting power consumption to between 3 to 4.7W per sign.

LED lamps are dedicated to various voltage ratings: 6V, 12V, 24V or 120V and operate on DC and AC, supplying power to the Sign from emergency lighting unit equipment or central AC or DC systems. Lamps are listed/certified CSA C-US to CSA T.I.L. B-69 and UL1993 standards for LED technology-based lamps or lamps with integral ballast. This further reinforces the assurance of performance and safety of the Signs using these lamps. The new Sign series includes fixtures designed for installation in all hazardous location classifications: Class I Divisions 1 and 2, Groups A, B, C, and D; Class II Divisions 1 and 2, Groups E, F, and G; Class III Divisions 1 and 2. Those specialized in industrial lighting can rest assured that they can specify certified hazardous location equipment also approved and compliant with NRCan/CSA C22.2 No. 141 standards. The new technology also significantly improves the maintained light output of the LED by utilizing materials that operate at lower temperatures than the previous generation of LEDs.

WHITE LEDS

Following the requirements of the National Building Code, the new generation of exit signs has replaced the text legend (EXIT, SORTIE) with a pictogram legend featuring a green running silhouette on a white illuminated background. Consequently, the legend is now illuminated by white LEDs, which replace the traditional monochrome red or green LEDs.

White LEDs are increasingly being used in the lighting industry. Their operational life is defined by industry standards like LM80, as the time elapsed until the LED luminous flux decreases to 70% of the initial value (life definition: L70). Following the minimum requirements of the LM80 standard, LED manufacturers usually test their products for 6,000 hours (little longer than 8 months) and then predict the total operational life based on statistical methods and extrapolation. The LED chip is based on a compound of three elements: Indium, Gallium, and Nitrogen (InGaN) and generates a monochrome light wave of royal-blue color. The white light emission is obtained by covering the chip with a layer containing mainly phosphor and three other elements: Yttrium, Aluminum, and Garnet silicate minerals (YAG). The InGaN-YAG technology has an estimated operational life of minimum of 50,000 hours before the light output decreases to 70% of the initial level.

Furthermore, the LEDs are powered by an ABB patented electronic circuit for constant direct current (CDC), specially designed to drive the LEDs for extended operational life.

To validate the design: in-house LED life tests commenced early in 2009, one year ahead of the adoption of the pictogram exit sign by the National Building Code. Data collected for 45,000 hours (five years+) of continuous operation indicate that LED light depreciation is less than 5% of the initial levels in 2009. This enables us to raise the statistical prediction of our LED life to at least 90,000 hours (over 10 years) of continuous operation to the L70 level.

The outstanding test results with the InGaN-YAG technology and patented LED drivers have allowed us to manufacture pictogram signs with maintained lighting performance. By design, the initial luminance levels of the legend exceed by 50% to 100% the minimum requirements of standard CSA C22.2 No.141-15. So, even after 10 years of continuous use, the projected luminance levels of the pictogram legend will still be compliant with the CSA standard of visibility.

LDE Series

Die-Cast Aluminum Pictogram Edge-Lit Exit Sign

nexus® CSA® Made in Canada

FEATURES

- Self-Powered models provide minimum two hours of emergency lighting
- Die-Cast Aluminum construction
- Modular design offers great choice of architectural profiles
- Universal Die-Cast back-box for surface or semi-recessed mounting on ceilings or walls
- LED strip module can be rotated in the unit for either wall or ceiling mount
- Flat Die-Cast trim plate and galvanized steel back-box for recessed ceiling mount
- Clear acrylic panel with pictogram legend
- Long-life white LED light sources is warrantied for ten (10) years
- Universal AC input: two-wire 120 to 347VAC; universal DC input: two-wire 6 to 24VDC
- Energy efficient – consumes less than 2.5W in AC and DC remote modes
- Special wording available (CSA 22.2 No. 250.0)
- Meets or exceeds CSA 22.2 No. 141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

TYPICAL SPECIFICATIONS

Supply and install the **Lumacell® LDE Series** of Die-Cast pictogram Edge-Lit signs.

When specified for surface mount, the unit shall come standard with a trim plate, trim ring, back box and canopy made of Die-Cast aluminum with _____ finish. The trim plate shall have a _____ profile and allow for wall- or ceiling-mount installation. The trim ring shall allow for semi-recessed installation in walls or ceilings with cavity. The canopy shall allow for wall, end, or ceiling mount.

When specified for recessed ceiling-mount, the unit shall come standard with a flat trim plate of Die-Cast aluminum with _____ finish, a back box of galvanized steel, and a hardware kit for back box installation between ceiling joists. The back box shall be provided with conduit knock-outs at the top, back and end.

All Edge-Lit units shall have the trim plate snap and lock in the housing with torsion spring retainers, thereby eliminating any visible screws or hardware. The legend shall be printed on a clear acrylic panel. The panel shall come standard with double-face legend, for single-face and double-face applications. The light source shall be long-life white light-emitting diodes (LED) and shall provide even illumination in normal and emergency operation. The Edge-Lit sign shall operate with universal 2-wire AC input voltage of 120 to 347VAC at less than 2.5W and universal 2-wire DC input voltage from 6 to 24VDC at less than 2.5W. The Edge-Lit sign in a Self-Powered configuration shall use a sealed Nickel-Cadmium battery of 2.4V nominal voltage and shall stay illuminated during emergency operation for at least two hours upon AC failure.

When specified, the Self-Powered unit shall include non-audible auto-test functions, managed by a micro-controller: it shall execute automatic tests for 5 minutes every 30 days, 30 minutes every 60 days and 120 minutes annually. When a fault is detected a red flashing LED shall identify the failure type: battery, charger circuitry, or LED lamps.

The Edge-Lit sign shall be CSA 22.2 No. 141-15 certified.

The equipment shall be **Lumacell®** Model: _____.

POWER CONSUMPTION

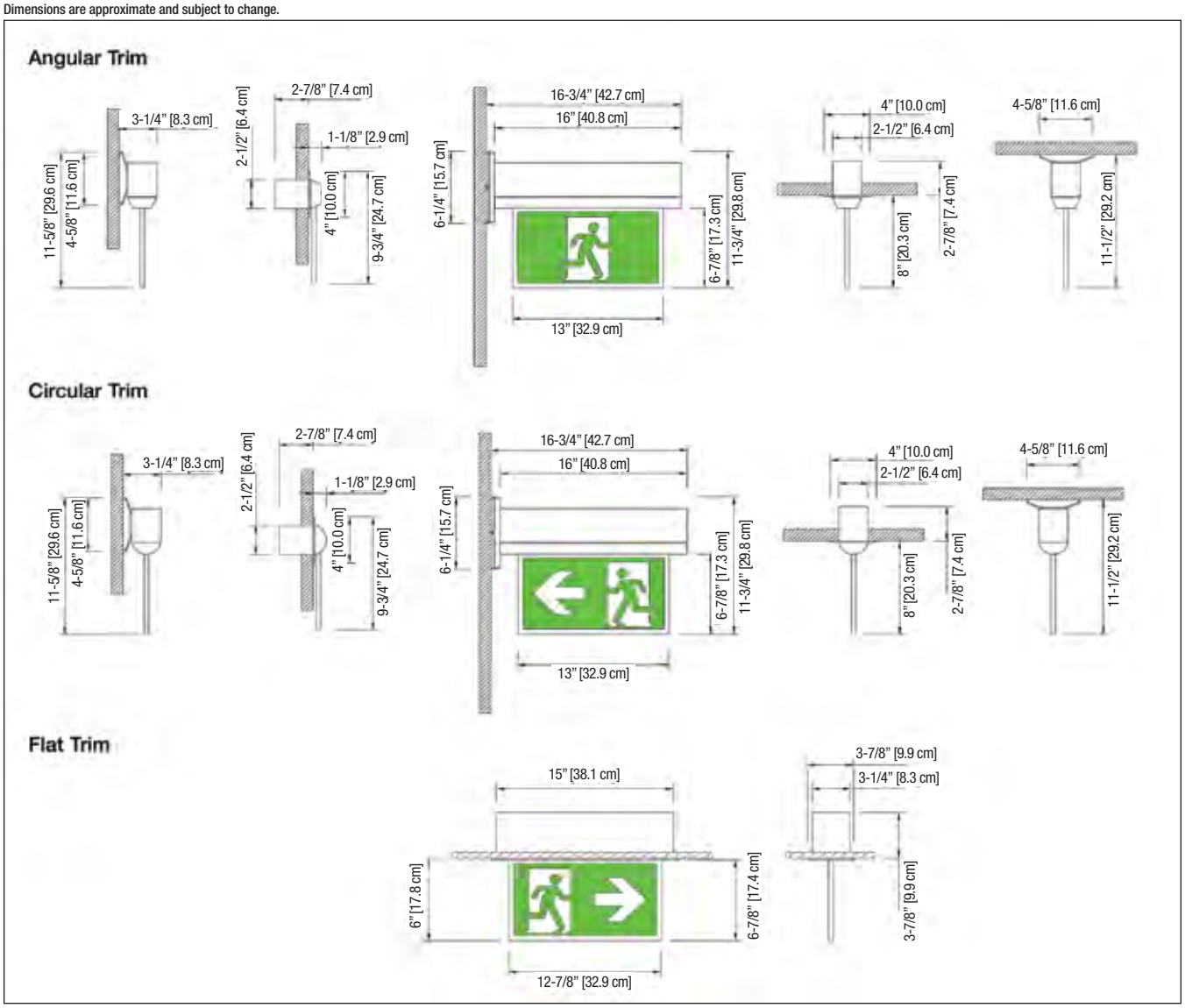
MODEL	AC SPECS		DC SPECS	
AC-only	120/347VAC	Less than 2.5 W	-	-
AC/DC standard	120/347VAC	Less than 2.5 W	6 to 24VDC	Less than 2.5 W
Self-Powered	120/347VAC	Less than 3.5 W	Nickel-Cadmium battery	120 minutes
Self-Powered diagnostic	120/347VAC	Less than 3.5 W	Nickel-Cadmium battery	120 minutes

LDE Series

Die-Cast Aluminum Pictogram Edge-Lit Exit Sign

DIMENSIONS

Dimensions are approximate and subject to change.



ORDERING INFORMATION

SERIES	FACES/ARROW	HOUSING COLOUR	TRIM	VOLTAGE	OPTIONS
LDE= Die-Cast Edge-Lit pictogram exit sign	**1**= single face, no arrows **A**= double face, arrow left or right **Blank**= special wording **L**= arrow left, single face **R**= arrow right, single face **_U9**= arrow up[1] **_D9**= arrow down[1] **_U4**= arrow up 45°[1] **_D4**= arrow down 45°[1] [1]Indicate 1 or 2 faces	**A**= brushed aluminum **B**= black **C**= chrome **W**= factory white **Z**= bronze	**A**= angular **C**= circular **F**= flat (fully recessed)	**AC**= AC only, 120 to 347VAC **ACD**= 120 to 347VAC, 6 to 24VDC option **NEX**= NEXUS® system interface[1] **NEXRF**= wireless NEXUS® system interface[1] **SD**= Self-Powered (non-audible), 120/347VAC **SD2**= Self-Powered (non-audible), 120/277VAC **SP**= Self-Powered, 120 to 347VAC **U48**= 120 to 347VAC, 48VDC [1]Not all options are available with NEXUS® system. Please consult your sales representative.	**LP**= panel shipped separately **X**= backbox shipped separately

EXAMPLE: LDE1ACSP

Note: Contrary to Exit Signs, the unit is not available in double arrow configuration.

Simplicity™ LER2 Series

Die-Cast LED Edge-Lit sign

nexus® Made in Canada

FEATURES

- Die-Cast Aluminum construction
- Modular design for universal mounting
- Trim plate choices: angular or circular for universal mounting and flat (recessed ceiling)
- Component-free back-box housing and canopy can be installed in advance, like a regular juction box.
- LED strip module can be rotated in the unit for either wall or ceiling mount
- Also available with white LEDs for custom-design, and special wording signs (ask our sales representatives)
- U-shaped clear acrylic panel with laser-etched contour for legend letters
- Long-life LED light source; red LEDs of **ALINGAP** technology is warrantied for ten (10) years
- Bi-colour LED pilot light allows visual diagnostic without need to open the unit (self-test and diagnostic option)
- Two-wire universal AC input: 120 to 347VAC 50/60Hz
- Sealed, maintenance-free Nickel-Cadmium battery
- Meets or exceeds CSA 22.2 No. 141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

TYPICAL SPECIFICATIONS

Supply and install the **Lumacell® Simplicity LER2 Series** of Die-Cast Edge-Lit Exit Signs.

The unit specified for universal mounting shall come standard with a trim plate, trim ring, back box and canopy all made of Die-Cast aluminum with _____ finish. The trim plate shall have a _____ profile and allow for wall- or ceiling-mount installation. The trim ring shall allow for recessed installation in walls or ceilings with cavity. The canopy shall allow for wall, end, or ceiling mount. The back box shall be provided with conduit knock-outs at the top, back and end.

The unit specified for recessed ceiling shall come standard with a flat trim plate of Die-Cast aluminum with _____ finish, a back box of 20-gauge galvanized steel. The back box shall be provided with conduit knock-outs at the top, back and end.

All models shall be provided with a hardware kit including two 27-inch adjustable bar hangers for back box recessed installation.

The unit shall have the trim plate snap and lock in the housing with torsion spring retainers, thereby eliminating any visible screws or hardware. The legend shall be printed on a clear acrylic panel. The panel shall have a U-shape and the legend shall have precision etched 6" high and 3/4" stroke red letters with laser-edged contour and with a white, clear or mirror background. The light source shall be long-life light-emitting diodes (LED) and shall provide even illumination in normal and emergency operation. Red LED technology shall be ALINGAP. The unit shall operate with two-wire universal AC input voltage from 120 to 347VAC and two-wire universal DC input from 6 to 24VDC, each input at less than 1.4W.

The Edge-Lit sign in a Self-Powered configuration shall use a sealed Nickel-Cadmium battery and shall stay illuminated during emergency operation for at least 90 minutes upon AC failure.

The Self-Powered unit with self-test and silent diagnostic functions shall be managed by a micro-controller: it shall execute automatic tests for one minute every 30 days, 30 minutes every 60 days and 90 minutes annually.

A diagnostic circuit shall continuously monitor the performance of the battery, charger module and LED lamps. When a fault is detected the pilot light shall change color from green to red and flash with a specific code. The red light is steady-on in case of battery disconnect; it will flash with one blink for battery failure, two blinks for charger failure and four blinks for LED lamp failure.

A label with the diagnostic legend shall be visible next to the pilot light.

The Edge-Lit sign shall be certified CSA C22.2 No.141-15.

The Exit Sign shall be **Lumacell®** Model: _____.

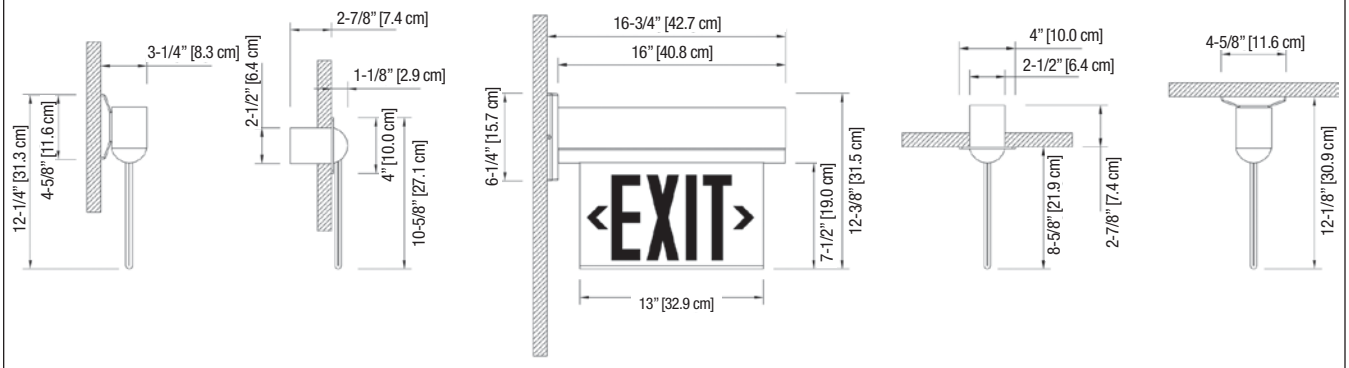
Simplicity™ LER2 Series

Die-Cast LED Edge-Lit sign

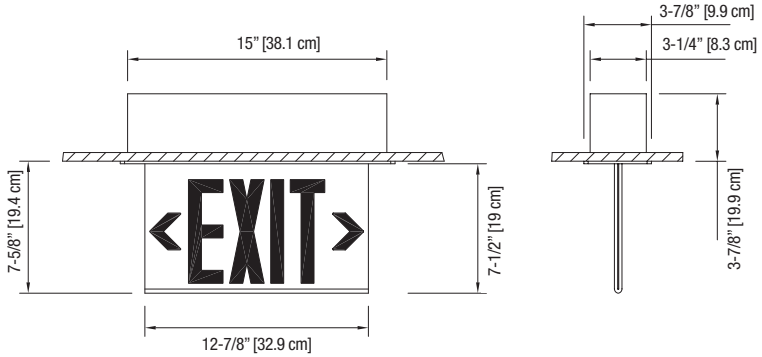
DIMENSIONS

Dimensions are approximate and subject to change.

DIE-CAST EDGE-LIT



DIE-CAST RECESSED EDGE-LIT



POWER CONSUMPTION

MODEL	AC SPECS		DC SPECS	
AC-only	120 to 347VAC	Less than 1.4W	—	
AC/DC-remote	120 to 347VAC	Less than 1.4W	6 to 24VDC	Less than 1.4W
Self-Powered	120 to 347VAC	Less than 2.3W	Nickel-Cadmium battery	Minimum 90 minutes
Self-Powered diagnostic	120 to 347VAC	Less than 2.3W	Nickel-Cadmium battery	Minimum 90 minutes

ORDERING INFORMATION

SERIES	FACES	CHEVRONS	HOUSING COLOUR	LEGEND	BACKGROUND COLOUR	VOLTAGE	TRIM OPTION
LER2	**1**= single face **2**= double face	**0**= no chevrons[1] **1**= one chevron, double face **2**= double chevrons **3**= chevron right[1] **4**= chevron left[1] [1]Not available on double face.	**A**= brushed aluminum **B**= black **BR**= bronze **CH**= chrome **W**= factory white	**R**= red **G**= green	**C**= clear single face **M**= mirror **W**= white	**AC**= AC only, 120 to 347VAC **DC**=120 to 347VAC, 6 to 24VDC **NEX**= NEXUS® system interface[1] **NEXRF**= wireless NEXUS® system interface[1] **SP**= Self-Powered, 120 to 347VAC[2] **SD**= Self-Powered diagnostic, 120/347VAC[2] **SD2**= Self-Powered diagnostic, 120/277VAC[2] [1]Consult your sales representative for options available with NEXUS® system. [2]Self-Powered (90 minutes time base)	**F**= flat trim, ceiling mount, recessed only **P**= pyramid, universal mount **R**= round, universal mount

EXAMPLE: LER210WRCDCP

LAE Series

Aluminum Slim Edge-Lit Pictogram Exit Sign

Made in Canada

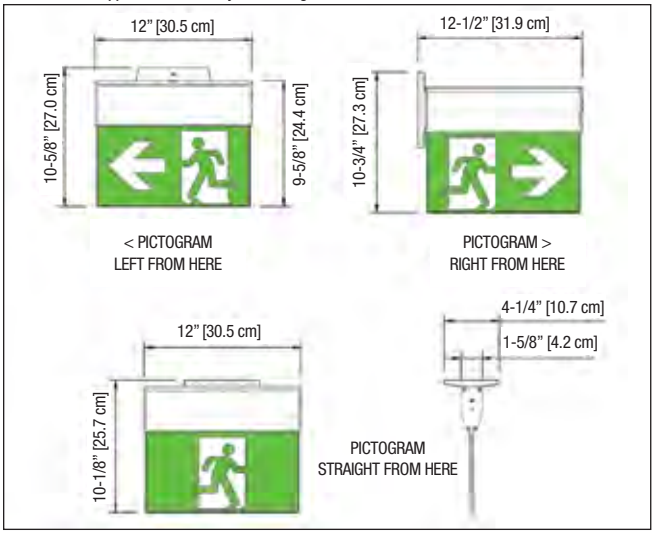
FEATURES

- Slim-profile extruded Aluminum housing
- Universal surface mounting – wall, ceiling or end mount
- Click-to-open housing door allows easy access to the panel and electrical wiring
- Acrylic panel with pictogram legend
- Long-life white LED light sources is warrantied for ten (10) years
- Universal AC input: two-wire 120 to 347VAC; standard DC input: two-wire 6 to 24VDC
- Energy efficient – consumes less than 3W in AC or DC-remote mode
- Self-Powered models provide minimum 120 minutes of emergency lighting
- Special wording available (CSA 22.2 No. 250.0)
- Meets or exceeds CSA 22.2 No. 141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

DIMENSIONS

Dimensions are approximate and subject to change.



TYPICAL SPECIFICATIONS

Supply and install the **Lumacell® LAE Series** of slim-profile pictogram Edge-Lit Exit Signs. The unit shall operate with universal 2-wire AC input voltage of 120 to 347VAC at less than 3W and universal 2-wire DC input voltage from 6 to 24VDC at less than 2.5W. The housing assembly shall be constructed of extruded aluminum with textured finish and _____ colour. The canopy shall be of Die-Cast aluminum and allow for wall, end, or ceiling mount. The legend shall be printed on a pure-acrylic panel. The panel shall come standard with double-face legend, for single-face and double-face applications. The light source shall be long-life white light-emitting diodes (LED) and shall provide even illumination in normal and emergency operation. The pictogram Edge-Lit Exit Sign in a Self-Powered configuration shall use a sealed Nickel-Cadmium battery of 2.4V nominal voltage and shall stay illuminated during emergency operation for at least 120 minutes upon AC failure.

The pictogram Edge-Lit Exit Sign shall be CSA 22.2 No. 141-15 certified.

The equipment shall be **Lumacell®** Model: _____.

POWER CONSUMPTION

MODEL	AC SPECS		DC SPECS	
AC-only	120 to 347VAC	Less than 3W	-	-
AC/DC standard	120 to 347VAC	Less than 3W	6 to 24VDC	Less than 2.5W
AC/48VDC	120 to 347VAC	Less than 3W	48VDC	2W
AC/120VDC	120 to 347VAC	Less than 3W	120VDC	4.7W
Two-wire 120V AC/DC	120VAC	Less than 3.5W	120VDC	Less than 3.5W
Self-Powered	120 to 347VAC	Less than 4W	Ni-Cd battery	120 minutes

ORDERING INFORMATION

SERIES	FACES/ARROW	HOUSING COLOUR	VOLTAGE	OPTIONS
LAE= extruded aluminum edge-lit pictogram exit sign	**1**= single face, no arrow **A**= double face, arrow left or right **Blank**= special wording **L**= single face, left arrow **R**= single face, right arrow **_U9**= arrow up[1] **_D9**= arrow down[1] **_U4**= arrow up 45°[1] **_D4**= arrow down 45°[1] [1]Indicate 1 or 2 faces	**OW**= off-white **TA**= textured aluminum	**AC**= 120 to 347VAC only **ACD**= 120 to 347VAC; 6 to 24VDC **SP**= Self-Powered, 120 to 347VAC[1] **U48**= 120 to 347VAC; 48 VDC **U120**= 120 to 347VAC; 120 VDC **2120**= 2-wires 120VAC/VDC [1]Self-Powered (120 minutes time base)	**LP**= panel shipped separately[1] [1]Order panel separately

EXAMPLE: LAEATASP

Unlike EXIT signs, the pictogram sign is not available in double arrow configurations.

new product

LAEC Series

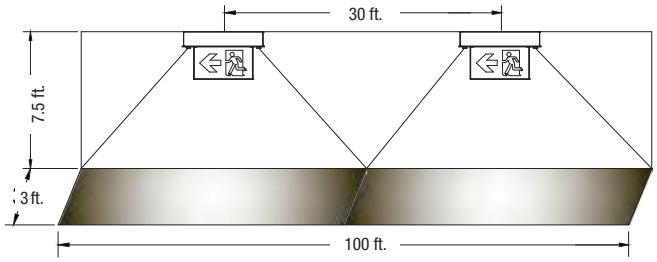
Pictogram extruded aluminum edge-lit combo

FEATURES

- Extruded aluminum trim plate
- Universal wall and ceiling surface or recessed mounting
- Includes pictogram panels for single and double face applications
- High power LED lamps
- Lamp heads are fully adjustable
- High temperature long life Ni-MH battery
- 120/347VAC 60Hz
- CSA C22.2 no.141-15 approved
- Standard with diagnostics
- Unit has a one-year limited warranty
  See warranty details at: www.tnb.ca/en/brands/lumacell

PHOTOMETRIC PERFORMANCE

SERIES	SPACING CENTER-TO-CENTER
	7.5 FEET MOUNTING HEIGHT
LAEC-2HO	30 feet



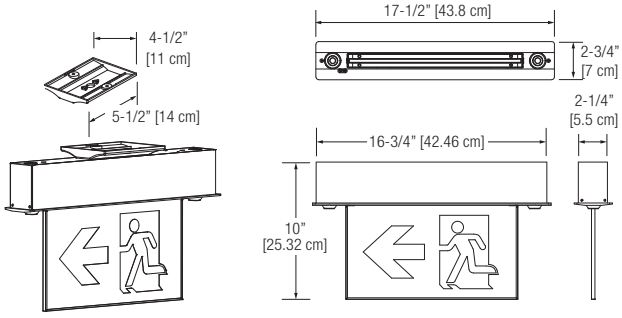
POWER CONSUMPTION

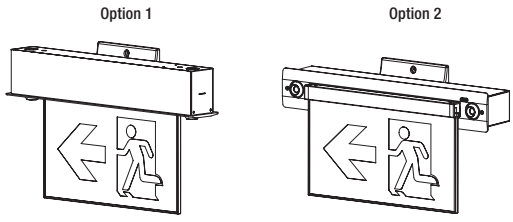
MODEL	AC SPECS		DC SPECS	
LAEC-2HO	120/347VAC, 60Hz	3W	Ni-MH battery	Minimum 90 minutes

DIMENSIONS

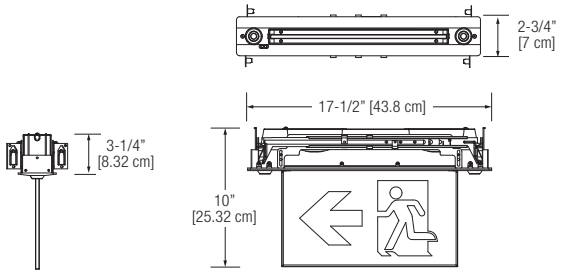
Dimensions are approximate and subject to change.

SURFACE MOUNT





RECESSED MOUNT



ORDERING INFORMATION

SERIES	FACE/ARROW (UNIVERSAL MOUNTING)	COLOUR	LAMP
LAEC	**Blank**= Universal faces	**Blank**= Factory white	**-2HO**= 2 high output LED lights

EXAMPLE: LAEC-2HO

LD Series

Die-Cast Pictogram Exit Sign

nexus® Made in Canada

FEATURES

- Slim contoured body design
- Single & double face models supplied with two pictogram films, universal face models supplied with three pictogram films for directional selection
- Durable powder-coated Die-Cast construction in a variety of finishes
- Slim-line Die-Cast canopy for ceiling and end mounting
- Universal mounting, wall, end, or ceiling
- Dual voltage input: 120/277VAC 60Hz or 120/347VAC 60Hz
- Low power consumption: less than 3.5W
- Maintenance-free, long life sealed Nickel-Cadmium battery delivers minimum 120 minutes of back-up lighting
- Optional vandal-proof shield and tamper-proof screws
- Special wording available (CSA 22.2 No. 250.0)
- Meets or exceeds CSA 22.2 No. 141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

TYPICAL SPECIFICATIONS

Stylish and built of Die-Cast aluminum, the new **Lumacell® LD Series** offers superior workmanship, versatile mounting capabilities and economical, long-lasting LED performance.

Supply and install the **LD Series** Pictogram Sign. The faceplate(s) and the back plate shall snap together and be made of Die-Cast aluminum. No screws are necessary to hold the faceplate(s) or the back plate to the housing. The light source shall be light emitting diodes (LED). The LED strip shall provide illumination in normal and emergency operation and shall be mounted inside the pictogram sign on a plastic frame/reflector.

The equipment in a Self-Powered configuration shall use a sealed Nickel-Cadmium battery of 2.4V nominal voltage. The equipment shall recharge the battery in 24 hours and stay illuminated at least 120 minutes upon AC failure. The equipment shall operate with a dual-voltage input of 120/277VAC 60Hz or 120/347VAC 60Hz with less than 3.5W of consumption.

When specified, the Self-Powered model equipped with advanced diagnostic shall self-test by simulating a power failure for one minute every 30 days, 30 minutes every 6 months and 120 minutes annually. A diagnostic circuit shall continuously monitor the performance of the battery, charger module and LED strip. Upon failure detection the system shall display the error on the AC pilot lamp, which will change color and will flash with a specific code.

The pictogram Exit Sign shall be CSA 22.2 No. 141-15 certified.

The Exit Sign shall be **Lumacell®** Model: _____.

WIRE GUARDS

460.0079-L	Wall Mount
460.0027-L	End Mount
460.0028-L	Ceiling Mount

POWER CONSUMPTION

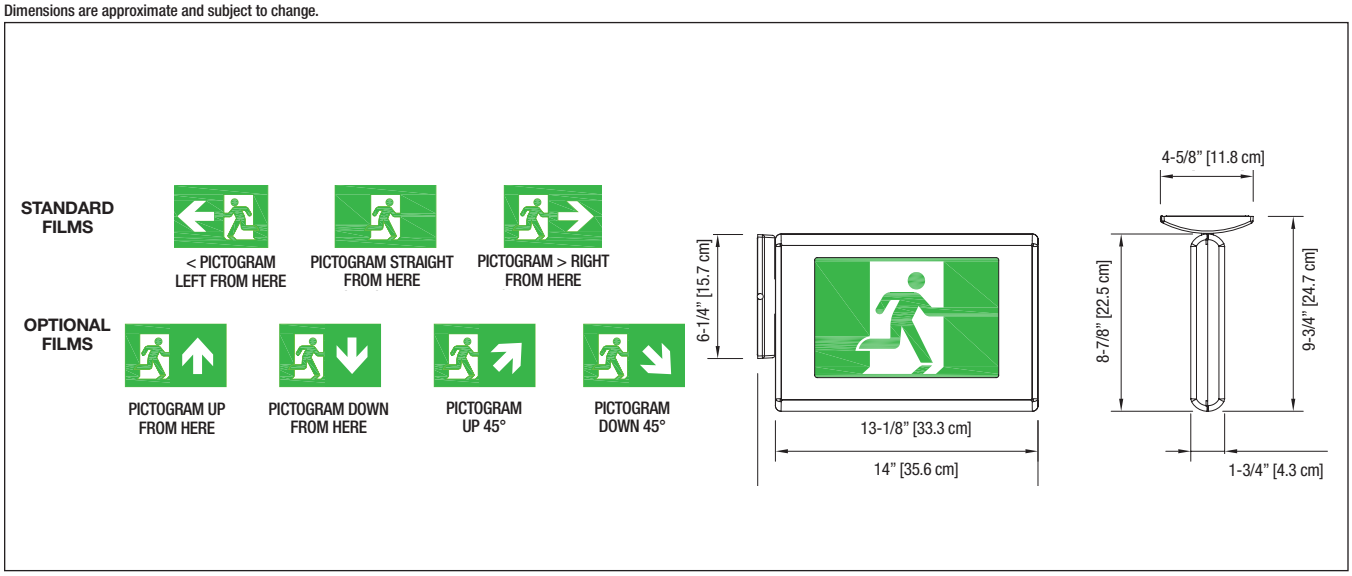
MODEL	AC SPECS		DC SPECS	
AC only	120/277VAC or 120/347VAC	Less than 2.5W	–	–
AC/DC standard	120/277VAC or 120/347VAC	Less than 2.5W	6 to 48VDC	Less than 2W
Self-Powered	120/277VAC or 120/347VAC	Less than 3.5W	Ni-Cd battery	120 minutes
Self-Powered with diagnostic	120/277VAC or 120/347VAC	Less than 3.5W	Ni-Cd battery	120 minutes

LD Series

Die-Cast Pictogram Exit Sign

DIMENSIONS

Dimensions are approximate and subject to change.



ORDERING INFORMATION

SERIES/ ENCLOSURE	FACES/ MOUNTING	ARROW CONFIGURATION	HOUSING/ FACEPLATE COLOUR	CIRCUIT TYPE	VOLTAGE	OPTIONS
LD= Die-Cast Pictogram	**1**= single face, universal mount **2**= double face, universal mount **3**= universal face, universal mount[1]	**Blank**= standard film[1] **SW**= special wording **U9**= arrow up **D9**= arrow down **U4**= arrow up 45° **D4**= arrow down 45°	**BB**= black/black **BA**= black/brushed aluminum **WA**= factory white/ brushed aluminum **WW**= factory white/ factory white	**AC**= AC only **NEX**= Nexus® wired system interface **NEXRF**= Nexus® Wireless system interface **S**= Self-Powered **SD**= Self-Powered, diagnostic audible **SDN**= Self-Powered diagnostic non-audible **UD**= AC & 6 to 48VDC	**2**= 120/277VAC **3**= 120/347VAC	**TP**= tamper-proof screws[1] **SW**= special wording **VR**= vandal resistant shield and tamper-proof screws[1]
	[1]Only available with standard film. Not available with Nexus®	[1]See features for standard film details				[1]**990.0119-L**= tamper-proof bit (sold separately) Only available with Single or Double Face.

EXAMPLE: LD1BBSDN3

LA Series

Extruded Aluminum Pictogram Exit Sign

Made in Canada

FEATURES

- Durable extruded, one-piece aluminum housing and face plates
- Long-life white LED light sources is warrantied for ten (10) years
- Supplied standard with two pictogram films per face, for direction selection
- Universal AC input: two-wire 120 to 347VAC; standard DC input: two-wire 6 to 24VDC
- Energy efficient – consumes less than 2.5W in AC or DC-remote mode
- Self-Powered model gives standard two hours of back-up lighting
- Universal mounting – end, wall or ceiling
- Easy access to wiring entry for all mounting options
- Comes standard with the **Lumacell®** EZ2 canopy for quick and easy installation
- Special wording available (CSA 22.2 No. 250.0)
- Meets or exceeds CSA 22.2 No. 141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

TYPICAL SPECIFICATIONS

Supply and install the **Lumacell® LA Series** pictogram Exit Signs. The equipment shall operate with universal 2-wire AC input voltage of 120 to 347VAC at less than 2.5W and universal 2-wire DC input voltage from 6 to 24VDC at less than 1.5W for single and double face signs. The equipment shall be suitable for wall, end, or ceiling mount. The housing shall be constructed of rugged extruded aluminum and have a maximum depth of 2-1/2". The faceplate(s) shall be constructed of extruded Aluminum and shall incorporate a protective clear poly-carbonate panel. Each face plate shall come standard with two legend films for pictogram and direction selection. The light source shall be white light-emitting diodes (LED) and shall provide even illumination in normal and emergency operation. The pictogram Exit Sign in a Self-Powered configuration shall use a sealed Nickel-Cadmium battery of 2.4V nominal voltage and shall stay illuminated during emergency operation for at least 120 minutes upon AC failure.

The pictogram Exit Sign shall the CSA 22.2 No. 141-15 certified.

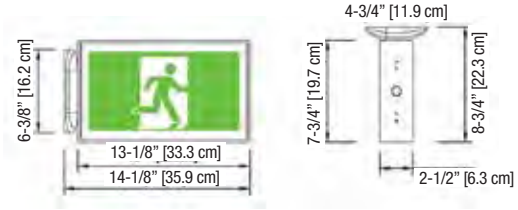
The equipment shall be **Lumacell®** Model: _____.

WIRE GUARDS

460.0079-L	Wall mount
460.0027-L	End mount
460.0028-L	Ceiling mount

DIMENSIONS

Dimensions are approximate and subject to change.



POWER CONSUMPTION

MODEL	AC SPECS		DC SPECS	
AC-only	120 to 347VAC	Less than 2.5 W	-	-
AC/DC standard	120 to 347VAC	Less than 2.5 W	6 to 24VDC	Less than 1.5 W
AC/Special DC	120 to 347VAC	Less than 2.5 W	36, 48, 120VDC	Less than 2.5 W
Two-wire 120V AC/DC	120VAC	Less than 2.5 W	120VDC	Less than 2.5 W
Self-Powered	120 to 347VAC	Less than 3 W	Nickel-Cadmium battery	120 minutes

ORDERING INFORMATION

SERIES	FACES / MOUNTING	COLOURS	VOLTAGE	OPTIONS
LA= pictogram exit sign	**1**= single face, universal mounting **2**= double face, universal mounting **3**= universal face, universal mounting	**A**= brushed aluminum **B**= black **TA**= textured aluminum **W**= factory white Other colours available.	**ATN**= Self-Powered diagnostic Ni-Cd, 120/347VAC, non-audible **NEX**= NEXUS® system interface[1] **NEXRF**= wireless NEXUS® system interface[1] **S**= Self-Powered,120 to 347VAC **U**= 120 to 347VAC, 6 to 24VDC **U00**= 120 to 347VAC only **U36**= 120 to 347VAC; 36VDC **U48**= 120 to 347VAC; 48VDC **U120**= 120 to 347VAC; 120VDC **2120**= 2-wires 120VAC/VDC [1]Not all options are available with NEXUS® system. Please consult your sales representative.	**SW**= special wording **SW2**= special wording – 2 LED strips **TP**= tamper-proof screws[1] **U9**= arrow up **D9**= arrow down **U4**= arrow up 45° **D4**= arrow down 45° **VR**= vandal-resistant shield and tamper-proof screws[1] [1]**990.0119-L**= tamper-proof bit (sold separately) Specify single or double face only.

EXAMPLE: LA2BUTP

LA Triangular Series

Extruded Aluminum Pictogram Exit Sign

Made in Canada

FEATURES

- Long-life white LED light sources is warrantied for ten (10) years
- Supplied standard with two pictogram films, for direction selection
- Universal AC input: two-wire 120 to 347VAC; standard DC input: two-wire 6 to 24VDC
- Energy efficient – consumes less than 2.5W in AC or DC-remote mode per face
- Easy access to wiring entry for all mounting options
- Special wording available (CSA 22.2 No. 250.0)
- Meets or exceeds CSA 22.2 No. 141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

TYPICAL SPECIFICATIONS

Supply and install the **Lumacell® LA Triangular Series** pictogram Exit Signs.

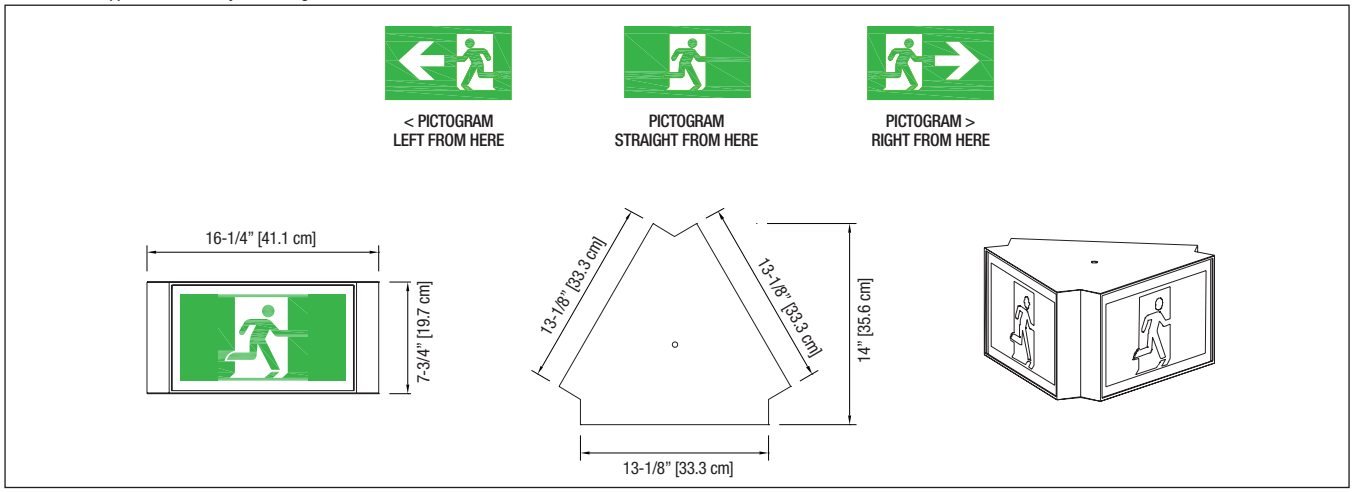
The equipment shall operate with universal 2-wire AC input voltage of 120 to 347VAC at less than 2.5W and universal 2-wire DC input voltage from 6 to 24VDC at less than 1.5W per face. The equipment shall be suitable for wall or pendant, or ceiling mount. The housing shall be constructed of rugged extruded aluminum. The faceplate(s) shall be constructed of extruded aluminum and shall incorporate a protective clear polycarbonate panel. Each face plate shall come standard with two legend films for pictogram and direction selection. The light source shall be white light-emitting diodes (LED) and shall provide even illumination in normal and emergency operation.

The pictogram Exit Sign shall be CSA 22.2 No. 141-15. certified.

The equipment shall be **Lumacell®** Model: _____ .

DIMENSIONS

Dimensions are approximate and subject to change.



POWER CONSUMPTION AND UNIT RATING

MODEL	AC SPECS		DC SPECS	
AC / DC - standard	120 to 347VAC	Less than 2.5W	6 to 24VDC	Less than 1.5W

ORDERING INFORMATION

SERIES	FACES/MOUNTING	COLOUR	VOLTAGE	OPTIONS
LA= pictogram exit sign	**T2S**= triangular 2 sided, wall and pendant mount only **T3S**= triangular 3 sided, pendant mount only	**Blank**= factory white	**UNIV**= 120 to 347VAC; 6 to 24VDC	**SW**= special wording **TP**= tamper-proof screws[1] **U9**= arrow up **D9**= arrow down **U4**= arrow up 45° [1]**990.0119-L**= tamper-proof bit (sold separately)

EXAMPLE: LAT2SUNIVTP

LAC Series

Extruded Aluminum Combination Unit

nexus® Made in Canada

FEATURES

- Solid metal construction, painted factory white
- Universal mounting: end, wall or ceiling
- Legend illuminated by white LED's warrantied for 10 years
- Comes standard with two pictogram films per face, for direction selection
- Twin LED lights provide up to 89 feet of egress illumination on a 6-foot wide path
- Twin 4W LED emergency lights provide 34 - 40 feet of egress illumination on a 6-foot wide path
- Sealed, maintenance-free Lead-Calcium battery
- Remote load capacity: 70' up to 350' feet of egress illumination when using LED remote heads
- Auto-testing capabilities (specific load requirements)
- Meets or exceeds CSA 22.2 No. 141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

TYPICAL SPECIFICATIONS

Supply and install **Lumacell® LAC Series** combination of unit equipment and pictogram Exit Sign. The unit shall be suitable for universal mounting: wall, end, or ceiling. The unit shall include a power pack made of steel and a legend housing including a one-piece extruded aluminum frame. The legend housing shall have a maximum depth of 2-1/2". The face plate(s) shall be of extruded Aluminum and shall incorporate a protective clear polycarbonate panel. Each face plate shall come standard with two legend films for pictogram and direction selection. The light source shall be white light-emitting diodes (LED) and shall provide even illumination in normal and emergency operation. The power pack shall be complete unit equipment with battery charger and rechargeable battery. The battery shall be maintenance-free, sealed Lead-Calcium. In case of AC power failure the equipment shall provide minimum 30 minutes of emergency lighting. The rated DC power available for emergency lights shall be 27W or up to 80W, as specified. The emergency heads shall require no tools to adjust and aim. The heads shall be made of durable thermoplastic construction and include 4W LED lights or as otherwise specified.

Units with "auto-test option" shall include a micro-controller circuit to monitor all the critical functions of the equipment and execute periodical tests of: one minute every 30 days, 10 minutes every 6 months and 30 minutes every 12 months. In case of equipment malfunction, an LED-based diagnostic display shall generate a service alarm and indicate the cause of failure: battery, charger circuit, emergency lamps or Exit Sign lamps.

The equipment shall be CSA 22.2 No. 141-15 certified.

The equipment shall be **Lumacell®** Model: _____ .

WIRE GUARDS

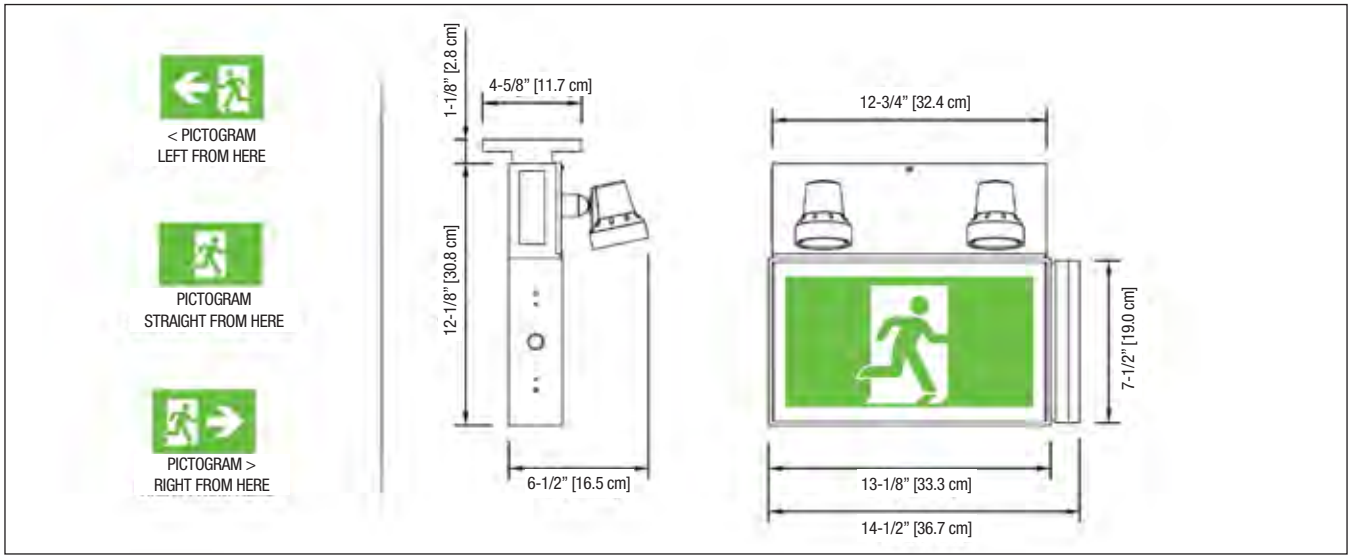
460.0081-L	Wall mount
460.0060-L	Ceiling mount

LAC Series

Extruded Aluminum Combination Unit

DIMENSIONS

Dimensions are approximate and subject to change.



POWER CONSUMPTION

MODEL	AC SPECS		EMERGENCY POWER AVAILABLE FOR LAMPS				
			30MIN	1H00	1H30	2H00	4H00
Pictogram module	120/347VAC	Less than 1.5W	-	-	-	-	-
LAC-627	120/347VAC	0.15/0.05A	27	16	11	9	-
LAC-640			40	23	16	13	-
LAC-672			72	42	30	24	12
LAC-1250	120/347VAC	0.25/0.09A	50	29	21	16	8
LAC-1280			80	46	32	27	13

ORDERING INFORMATION

SERIES	FACES / MOUNTING	COLOUR	POWER EM. LIGHTS	HEADS	HEAD STYLE AND WATTAGE	VOLTAGE	OPTIONS
LAC= pictogram aluminum combination unit	**1**= single face, universal mounting **2**= double face, universal mounting	**B**= black **W**= factory white	**627**= 6V-27W **640**= 6V-40W **672**= 6V-72W **1250**= 12V-50W **1280**= 12V-80W	**Blank**= no head **1**= one head **2**= two heads	**Blank**= no heads **LD1**= MR16 LED, 6V-4W **LD2**= MR16 LED, 6V-5W **LD7**= MR16 LED, 12V-4W **LD9**= MR16 LED, 12V-5W **LD10**= MR16 LED, 12V-6W	**Blank**= 120/347 VAC **ZC**= 120/277VAC input	**AT**= auto-test (audible)[1] **ATN**= auto-test (non-audible)[1] **NEX**= NEXUS® system interface[1] **NEXRF**= wireless NEXUS® system interface[1] **TP**= tamper-proof screws[2] **T3**= time delay (15 minutes)[3] **U9**= arrow up **D9**= arrow down **U4**= arrow up 45° **D4**= arrow down 45° [1]Not available with 6V-72W Not all options available with NEXUS® system interface. Please consult your sales representative [2]**990.0119-L**= tamper-proof bit (sold separately) [3]Available with auto-test or Nexus® only

EXAMPLE: LAC1W12502LD7

Unlike Exit Signs this pictogram sign is not available in double arrow configuration.

LS Series

All Metal Pictogram Exit Sign

Made in Canada

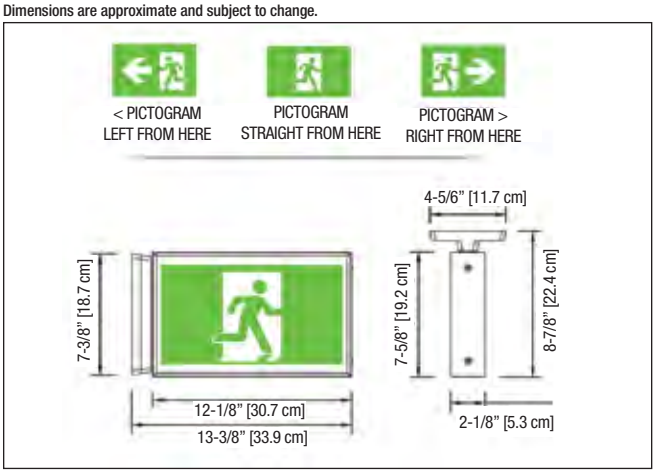
FEATURES

- Metal construction using Canadian cold-rolled steel
- Based on a modular design, this product comes pre-assembled for quick, easy installation
- Long-life white LED light source warrantied for 10 years
- Two-wire universal AC input: 120 to 347VAC; two-wire standard DC input: 6 to 24VDC
- Energy efficient – consumes less than 2.5W in AC mode and only 1W in DC-remote
- Self-Powered model delivers standard two hours of back-up lighting
- Universal mounting – end, wall or ceiling
- Easy access to wiring entry for all mounting options
- Canopy mounting system designed specifically for ease of installation
- Special wording available (CSA 22.2 No. 250.0)
- Meets or exceeds CSA 22.2 No. 141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

DIMENSIONS

Dimensions are approximate and subject to change.



TYPICAL SPECIFICATIONS

Supply and install the **Lumacell® LS Series** pictogram Exit Signs. The equipment shall operate with universal 2-wire AC input voltage of 120 to 347VAC at less than 2.5W and universal 2-wire DC input voltage from 6 to 24VDC at 1 Watt consumption for single and double face signs. The sign shall be suitable for wall, end, or ceiling mount. The frame and back plate shall each be of a one-piece steel construction. The faceplate(s) shall be constructed of robust clear poly-carbonate panels with an opaque border coloured factory-white. The light source shall be white light-emitting diodes (LED) and shall provide even illumination in normal and emergency operation. The pictogram Exit Sign in a Self-Powered configuration shall use a sealed Nickel-Cadmium battery of 2.4V nominal voltage and shall stay illuminated during emergency operation for at least 120 minutes upon AC failure.

The Exit Sign shall be CSA 22.2 No. 141-15 certified.

The equipment shall be **Lumacell®** Model: _____ .

WIRE GUARDS

460.0079-L	Wall mount
460.0027-L	End mount
460.0028-L	Ceiling mount

POWER CONSUMPTION

MODEL	AC SPECS		DC SPECS	
AC-only	120 to 347VAC	Less than 2.5W	-	-
A C/DC standard	120 to 347VAC	Less than 2.5W	6 to 24VDC	Less than 1W
AC/Special DC	120 to 347VAC	Less than 2.5W	36, 48, 120VDC	Less than 2.5W
Two-wire 120V AC/DC	120VAC	Less than 2.5W	120VDC	Less than 2.5W
Self-Powered	120 to 347VAC	Less than 2.5W	Ni-Cd battery	120 minutes

IN THE SAME FAMILY:

- LSC Series

ORDERING INFORMATION

SERIES	FACES / MOUNTING	COLOUR	VOLTAGE	OPTIONS
LS= steel pictogram Exit Sign	**1**= single face, universal mounting **2**= double face, universal mounting **3**= universal face, universal mounting	**B**= black **TA**= textured aluminum **W**= factory white	**S**= Self-Powered, 120 to 347VAC **U**= 120 to 347VAC; 6 to 24VDC **U00**= 120 to 347VAC only **U36**= 120 to 347VAC; 36VDC **U48**= 120 to 347VAC; 48VDC **U120**= 120 to 347VAC; 120VDC **2120**= 2-wires 120VAC/VDC	**SW**= special wording **SW2**= special wording – 2 LED strips **TP**= tamper proof screws[1] **U9**= arrow up **D9**= arrow down **U4**= arrow up 45° **D4**= arrow down 45° **VR**= vandal-resistant shield and tamper-proof screws[1] [1] **990.0119-L**= tamper-proof bit (sold separately) Specify single or double face only.

EXAMPLE: LS2BU

LSC Series

Steel Combination Unit

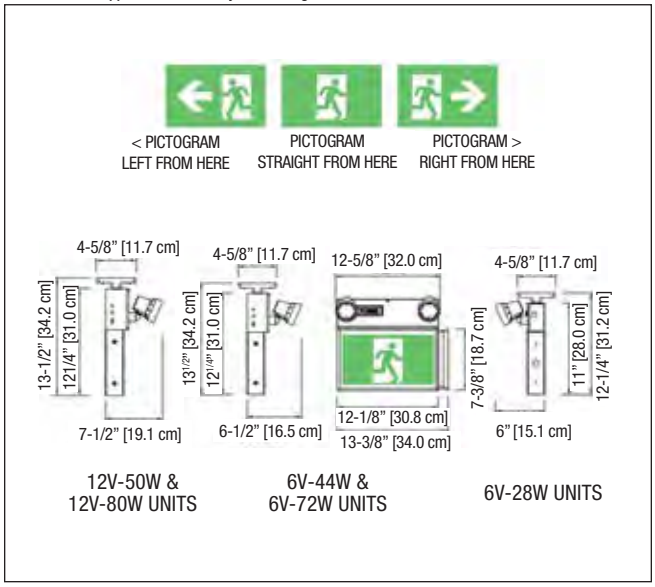
FEATURES

- Universal mounting: end, wall or ceiling
- Long-life white LED light sources is warrantied for ten (10) years
- Sealed, maintenance-free, 6V or 12V Lead-Calcium battery
- Remote load capacity: 80W up to 560 feet of egress illumination when using LED remote heads
- Auto-testing capabilities (specific load requirements)
- Meets or exceeds CSA 22.2 No. 141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

DIMENSIONS

Dimensions are approximate and subject to change.



TYPICAL SPECIFICATIONS

Supply and install **Lumacell® LSC Series** combination of unit equipment and pictogram Exit Sign. The unit shall be made of solid steel sheet metal and be suitable for universal mounting: wall, end, or ceiling. The legend housing shall have a maximum depth of 2-1/8". The legend face plate(s) shall be constructed of robust clear polycarbonate panel(s) with an opaque border coloured factory-white. The light source shall be white light-emitting diodes (LED) and shall provide even illumination in normal and emergency operation. The power pack shall include one circuit board with test switch and pilot light for battery charger and legend LED driver. The unit shall include one 6V, maintenance-free, sealed Lead-Calcium battery and shall provide minimum 30 minutes of emergency lighting upon AC power failure. The electrical power available for emergency lights shall be 28W or up to 72W, for 6V and 50W or up to 80W for 12V, as specified. The emergency heads shall require no tools to adjust and aim.

The equipment shall be CSA 22.2 No. 141-15 certified.

The equipment shall be **Lumacell®** Model: _____ .

WIRE GUARDS

460.0081-L	Wall mount
460.0060-L	Ceiling mount

POWER CONSUMPTION

MODEL	AC SPECS		EMERGENCY POWER AVAILABLE FOR LAMPS				
			30MIN	1H00	1H30	2H00	4H00
Pictogram module	120/347VAC	Less than 1.5W	-	-	-	-	-
LSC28		0.13 / 0.05 A	28	16	12	9	-
LSC44			44	26	18	15	7
LSC72			72	42	30	24	12
LSC-1250		0.25 / 0.09 A	50	29	21	16	8
LSC-1280			80	46	32	27	13

ORDERING INFORMATION

SERIES	POWER EM. LIGHTS	HOUSING COLOURS	HEADS	HEAD STYLE AND POWER	VOLTAGE	OPTIONS
LSC= pictogram steel combo exit sign	**28**= 6V-28W **44**= 6V-44W **72**= 6V-72W **1250**= 12V-50W **1280**= 12V-80W	**B**= black **W**= factory white	**Blank**= no heads **1**= one head **2**= two heads	**Blank**= no heads **LD1**= MR16 LED, 6V-4W **LD2**= MR16 LED, 6V-5W **LD7**= MR16 LED, 12V-4W **LD9**= MR16 LED, 12V-5W **LD10**= MR16 LED, 12V-6W	**Blank**= 120/347VAC **ZC**= 120/277VAC input	**AT**= auto-test[1] **ATN**= auto-test, non-audible[1] **DF**= double-face sign **NEX**= NEXUS® system interface[2] **NEXRF**= wireless NEXUS® system interface[2] **T3**= time delay (15 minutes) **TP**= tamper-proof screws[2, 3] **U9**= arrow up **D9**= arrow down **U4**= arrow up 45° **D4**= arrow down 45° [1]Not available with 6V models [2]Not available with 6V-72W [3]**990.0119-L**= tamper-proof bit (sold separately)

EXAMPLE: LSC28W2LD1

Unlike Exit Signs this pictogram sign is not available in double arrow configuration.

new product

LSC-BLD Series

Steel Combination Unit

Made in Canada

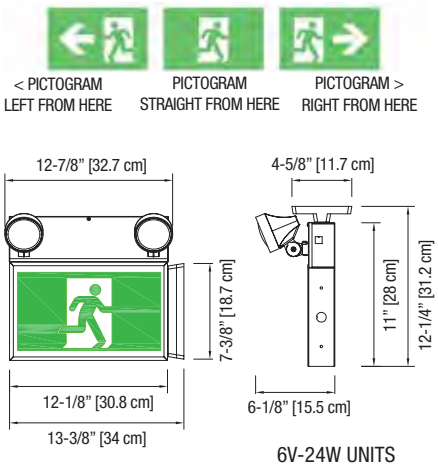
FEATURES

- "Built-in" 3W LED heads
- Universal mounting: end, wall or ceiling
- Sealed, maintenance-free, 6V Lead-Calcium battery
- Meets or exceeds CSA 22.2 No. 141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

DIMENSIONS

Dimensions are approximate and subject to change.



6V-24W UNITS

TYPICAL SPECIFICATIONS

Supply and install **Lumacell® LSC-BLD Series** combination of unit equipment and pictogram Exit Sign. The unit shall be made of solid steel sheet metal and be suitable for universal mounting: wall, end, or ceiling. The legend housing shall have a maximum depth of 2-1/8". The legend face plate(s) shall be constructed of robust clear polycarbonate panel(s) with an opaque border coloured factory-white. The light source shall be white light-emitting diodes (LED) and shall provide even illumination in normal and emergency operation. The power pack shall include one circuit board with test switch and pilot light for battery charger and legend LED driver. The unit shall include one 6V, maintenance-free, sealed Lead-Calcium battery and shall provide minimum 30 minutes of emergency lighting upon AC power failure. The electrical power available for emergency lights shall be 24W.

The equipment shall be CSA 22.2 No. 141-15 certified.

The equipment shall be **Lumacell®** Model: _____ .

WIRE GUARDS

460.0081-L	Wall mount
460.0060-L	Ceiling mount

POWER CONSUMPTION

MODEL	AC SPECS		EMERGENCY POWER AVAILABLE FOR LAMPS				
			30MIN	1H00	1H30	2H00	4H00
Pictogram module	120/347VAC	Less than 1.5W	-	-	-	-	-
LCS24		0.13 / 0.05 A	24	14	10	8	4

ORDERING INFORMATION

SERIES	VOLTAGE/ CAPACITY	COLOUR	HEADS	HEAD STYLE AND POWER	OPTIONS
LSC= Pictogram steel combo exit sign	**24**= 6V-24W	**W**= Factory white	**1**= One head **2**= Two heads	**BLD**= Built-in LED	**DF**= Double face sign **ZC**= 120/277VAC input

EXAMPLE: LSC24W2BLD

Unlike Exit Signs this pictogram sign is not available in double arrow configuration.configuration.

LMCE Series

All Metal Exit Sign

FEATURES

- Universal mounting – end, wall or ceiling
- Supplied standard with two metal stencil plates, red diffusing lenses and back plate
- Canopy mounting system designed specifically for ease of installation
- Universal, field-selectable chevrons (knockout)
- Long-life LED light source of **ALINGAP** technology assures low maintenance cost and is warrantied for ten (10) years
- Energy efficient – consumes less than 3W in AC or DC mode
- Normal AC and emergency DC operation – 120 to 347VAC input; 6 to 24VDC input
- Also available with power pack; see 8LMCE catalogue sheet
- Special wording available (CSA 22.2 No. 250.0)
- Meets or exceeds CSA 22.2 No. 141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

TYPICAL SPECIFICATIONS

Supply and install the **Lumacell® LMCE Exit Signs.** The equipment shall operate with universal 2-wire AC input voltage of 120 to 347VAC at less than 1.5W and universal 2-wire DC input voltage from 6 to 24VDC at less than 1.5W for single and double face signs. The sign shall be suitable for wall, end, or ceiling mount. The faceplates shall be constructed of steel and shall come standard with knockout chevrons. The frame shall be of a one-piece steel construction.

The light source shall be light-emitting diodes (LED). The LED lamps shall provide illumination in normal and emergency operation and shall be mounted inside the exit housing, not on the face. Red LEDs shall be of **ALINGAP** technology.

An LED-sensitive diffuser shall be mounted behind the legend to provide the 6" high by 3/4" stroke letters with even illumination.

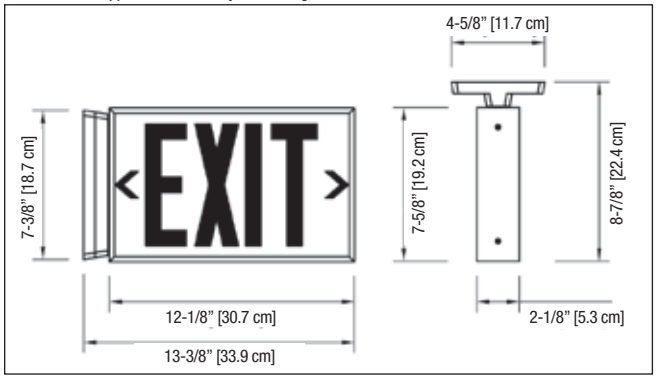
The Exit Sign in a Self-Powered configuration shall stay illuminated during emergency operation for at least 90 minutes upon AC failure.

The Exit Sign shall be CSA 22.2 No. 141-15 certified.

The equipment shall be **Lumacell®** Model: _____ .

DIMENSIONS

Dimensions are approximate and subject to change.



WIRE GUARDS

460.0079-L	Wall Mount
460.0027-L	End Mount
460.0028-L	Ceiling Mount

POWER CONSUMPTION

MODEL	AC SPECS		DC SPECS	
AC-only, red	120 to 347VAC	Less than 1.5W	-	-
AC/DC standard, red	120 to 347VAC	Less than 1.5W	6 to 24VDC	Less than 1.5W
AC/special DC, red	120/277/ 347VAC	Less than 3W	36 or 48 or 120VDC	Less than 2.5W
Self-Powered red	120 to 347VAC	Less than 3W	Ni-Cd Battery	Min. 90 minutes
AC-only, green	120 to 347VAC	Less than 1.5W	-	-
AC/DC standard, green	120 to 347VAC	Less than 1.5W	6 to 24VDC	Less than 2.5W
Self-Powered, green	120 to 347VAC	Less than 3W	Ni-Cd Battery	Min. 60 minutes

IN THE SAME FAMILY:

- 8LMCE Series

ORDERING INFORMATION

SERIES	COLOUR	VOLTAGE	OPTIONS
LMCE= LED EXIT sign/ Universal mount	**Blank**= factory white **BK**= black **TA**= textured aluminum	**-SDN2**= Self-Powered diagnostic, Ni-Cd, 120/277VAC (90 mins) **-SDN3=** Self-Powered diagnostic, Ni-Cd, 120/347VAC (90 mins) **SP**= Self-Powered, 120 to 347VAC **UN**= 120 to 347VAC, 6 to 24VDC **UN00**= 120 to 347VAC, no DC[1] **UN36**= 120/277/347VAC, 36VDC[2] **UN48**= 120/277/347VAC, 48VDC[2] **UN120**= 120/347VAC, 120VDC[2] **120VACDC2**= 120VAC, 120VDC, 2 wires[2] [1]Supply as single face. [2]For green legends, consult your sales representative	**GN**= green legend **SW**= special wording **SW2**= special wording – 2 LED strips **TP**= tamper proof screws[1] **VRSTP1**= vandal resistant shield and tamper-proof screws, single face[1] **VRSTP2**= vandal resistant shield and tamper-proof screws, double face[1] [1]**990.0119-L**= tamper-proof bit (sold separately)

EXAMPLE: LMCEUN

8LMCE Series

Metal Combination Unit

nexus® CSA® Made in Canada

FEATURES

- Dual-input voltages 120/347VAC
- Comes pre-assembled for quick, easy installation
- Universal mounting – end, wall or ceiling
- Easy access to wiring entry for all mounting options
- Canopy mounting system designed specifically for ease of installation
- Universal, field-selectable chevrons (knockout)
- Long-life LED light source of **ALINGAP** technology assures low maintenance cost and is warrantied for ten (10) years
- Energy efficient – complete unit consumes less than 5W
- Auto-testing capabilities (specific load requirements)
- Meets or exceeds CSA 22.2 No. 141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

TYPICAL SPECIFICATIONS

Supply and install the **Lumacell® 8LMCE** LED Exit Sign and power pack combination series. The exit housing and faceplates shall be constructed of steel. The Exit Sign shall have a maximum depth of 2-1/2". The faceplate(s) shall come standard with knockout chevrons. The light source for the Exit Sign shall be light-emitting diodes (LED). The LED lamps shall provide illumination in normal and emergency operation and shall be mounted inside the exit housing, not on the face. Red LEDs shall be of **ALINGAP** technology. An LED sensitive diffuser shall be mounted behind the legend to provide the 6" high by 3/4" stroke letters with even illumination. The power pack shall be a completely self-contained emergency unit with its own charger and rechargeable battery. The housing shall be made of steel. The power pack shall include a test switch and high charge pilot light. The equipment shall be designed to furnish exit illumination from the normal AC source. When a power failure occurs the Exit Sign along with the emergency heads shall illuminate for a minimum of 30 minutes. The power available for emergency lights shall be 28W or as otherwise specified.

The heads shall require no tools to adjust and aim. The heads will be of a durable thermoplastic construction and use 6V, 4W lamps or as otherwise specified.

The Exit Sign shall be CSA 22.2 No. 141-15 certified.

The equipment shall be **Lumacell®** Model: _____ .

WIRE GUARDS

460.0080-L	Wall Mount
460.0060-L	Ceiling Mount
460.0060-L	End Mount

EXTRA FACEPLATES

005406-L	Factory white faceplate + red diffuser	005409-L	Factory white faceplate + green diffuser
005407-L	Black faceplate + red diffuser	005410-L	Black faceplate + green diffuser
005408-L	Silver grey faceplate + red diffuser	005411-L	Silver grey faceplate + green diffuser

POWER CONSUMPTION AND UNIT RATING

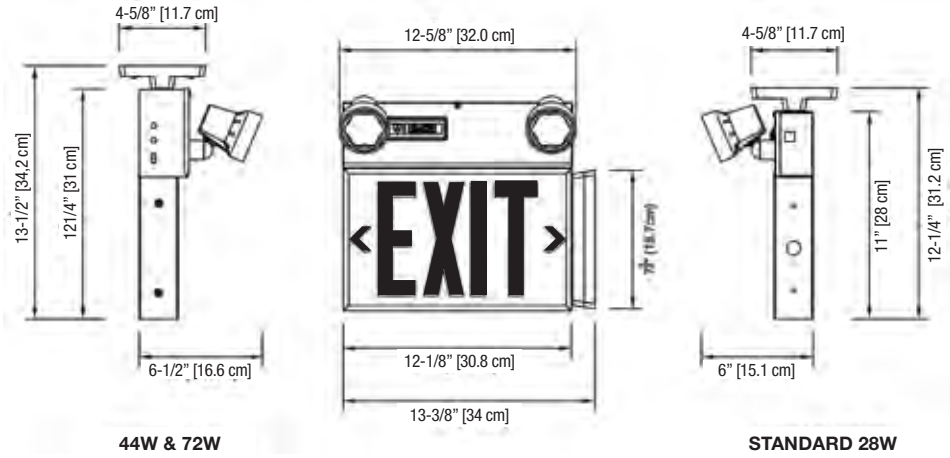
MODEL	AC SPECS		WATTAGE CAPACITY				
			30MIN	1H	1H30	2H	4H
Exit Sign Module	120/347 VAC	Less than 1W	-	-	-	-	-
8LMCE		0.15/0.05A	28	16	12	9	-
10LMCE		0.15/0.05A	44	26	18	15	7
7LMCE		0.15/0.05A	72	42	30	24	12
5LERLMCEU		Less than 5W	72	42	30	24	12
6LERLMCEU		Less than 5W	36	21	15	12	6

8LMCE Series

Metal Combination Unit

DIMENSIONS

Dimensions are approximate and subject to change.



44W & 72W

STANDARD 28W

ORDERING INFORMATION

6 VOLTS

SERIES	# OF HEADS	HEAD STYLE AND WATTAGE	COLOUR	VOLTAGE	CHARGER TYPE	OPTIONS
8LMCE= 6V-28W **10LMCE**= 6V-44W **7LMCE**= 6V-72W	**Blank**= no heads **1**= one head **2**= two heads	**LD1**= MR16 LED, 6V-4W **LD2**= MR16 LED, 6V-5W	**Blank**= factory white **BK**= black **SG**= grey[1] [1]Black heads	**Blank**= 120/347VAC **ZC**= 120/277VAC	**Blank**= standard **NEX**= NEXUS® system interface[1] **NEXRF**= wireless NEXUS® system interface[1] [1] 28W & 44W only	**Blank**= no options **GN**= green letters **TD**= time delay (15 minutes) **TP**= tamper-proof screws[1] [1] **990.0119-L**= tamper-proof bit (sold separately)

12 VOLTS

6LERLMCEU= 12V-36W **5LERLMCEU**= 12V-72W	**Blank**= no heads **1**= one head **2**= two heads	**LD7**= MR16 LED, 12V-4W **LD9**= MR16 LED, 12V-5W **LD10**= MR16 LED, 12V-6W	**Blank**= factory white **BK**= black **SG**= grey[1] [1]Black heads	**Blank**= 120/347VAC **ZC**= 120/277VAC	**AT**= auto-test, audible **ATN**= auto-test, non-audible **Blank**= standard **NEX**= NEXUS® system interface **NEXRF**= wireless NEXUS® system interface	**Blank**= no options **GN**= green legend **TD**= time delay (15 minutes) **TP**= tamper-proof screws[1] [1] **990.0119-L**= tamper-proof bit (sold separately)

EXAMPLE: 8LMCE2LD1TD

*NOTE: Supplied as single face, see extra faceplates ordering information.

LSRLMCSU Series

All Metal “Sortie” Sign

Made in Canada

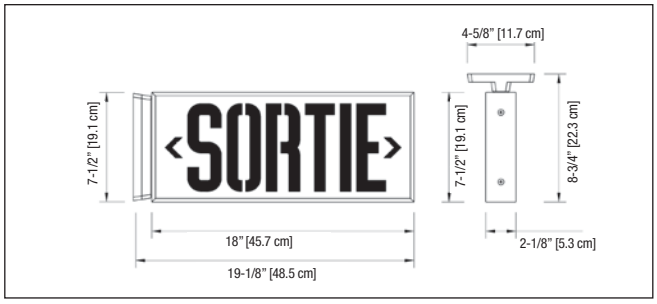
FEATURES

- Long-life LED light source of **ALINGAP** technology assures low maintenance cost and is warrantied for ten (10) years
- Based on a modular design concept, this Exit Sign comes pre-assembled for quick, easy installation
- Metal construction using Canadian cold-rolled steel
- Universal mounting – end, wall or ceiling
- Easy access to wiring entry for all mounting options
- Canopy mounting system designed specifically for ease of installation
- Standard field-selectable directional chevrons knockout
- Energy efficient – consumes less than 3W
- Normal AC and emergency DC operation – 120 to 347VAC input; 6 to 24VDC input
- Also available with power pack; see LM*CS catalogue sheet
- Special wording available (CSA 22.2 No. 250.0)
- Meets or exceeds CSA 22.2 No. 141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

DIMENSIONS

Dimensions are approximate and subject to change.



TYPICAL SPECIFICATIONS

Supply and install the **Lumacell® LSRLMCSU Series** LED “SORTIE” Exit Signs. The equipment shall operate with universal two-wire AC input voltage of 120VAC to 347VAC at less than 1.5W and universal two-wire DC input voltage from 6VDC to 24VDC at less than 1.5W for single or double face signs.

The sign shall be suitable for wall, end or ceiling mount. The faceplates shall be constructed of steel and shall come standard with knockout chevrons. The frame shall be of a one-piece steel construction.

The light source shall be light emitting diodes (LED). The LED lamps shall provide illumination in normal and emergency operation and shall be mounted inside the exit housing, not on the face.

Red LED technology shall be **ALINGAP**. An LED-sensitive diffuser shall be mounted behind the legend to provide the 6” (15cm) high by 3/4” (1.9cm) stroke letters with even illumination.

The Exit Sign in a Self-Powered configuration shall stay illuminated during emergency operation for at least 60 minutes upon AC failure.

The Exit Sign shall be CSA 22.2 No. 141-15 certified.

The equipment shall be **Lumacell®** Model: _____ .

WIRE GUARDS

460.0057-L	Wall Mount
460.0048-L	End Mount
460.0058-L	Ceiling Mount

POWER CONSUMPTION AND UNIT RATING

MODEL	AC SPECS		DC SPECS	
AC/DC standard	120 to 347VAC	Less than 1.5W	6 to 24VDC	Less than 1.5W
Self-Powered	120 to 347VAC	Less than 3W	Nickel-Cadmium battery	60 minutes
Self-Powered	120 to 347VAC	Less than 3W	Nickel-Cadmium battery	120 minutes

ORDERING INFORMATION

SERIES	APPROVAL	COLOUR	VOLTAGE	OPTIONS
LSRLMCSU= universal mounting LED SORTIE	**C860**	**Blank**= factory white **BK**= black **TA**= textured aluminum Other colours available.	**UNIV**= 120 to 347VAC, 6 to 24VDC **SP**= Self-Powered, 120 to 347VAC **SP2**= Self-Powered, 120 to 347VAC	**SW**= special wording **SW2**= special wording – 2 LED strips **TP**= tamper-proof screws[1] **VRSTP1**= vandal resistant shield and tamper-proof screws, single face[1] **VRSTP2**= vandal resistant shield and tamper-proof screws, double face[1] [1] **990.0119-L**= tamper-proof bit (sold separately)

EXAMPLE: LSRLMCSUC860UNIV

LMCEB6L & LMCSB6L Series

All Metal Bilingual Sign

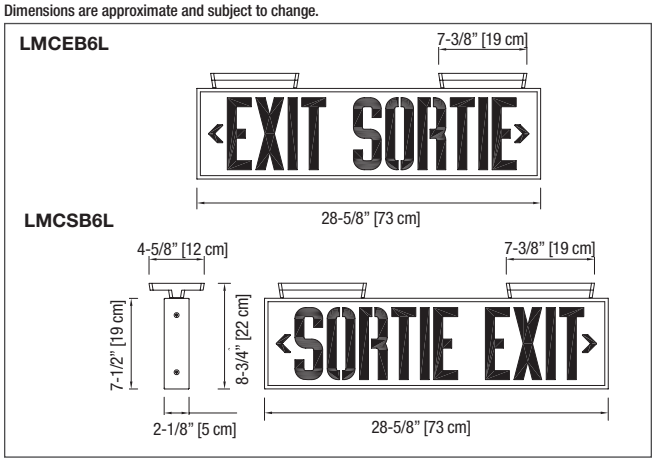
Made in Canada

FEATURES

- Single illumination module lights both single and double face Exit Signs
- Highly energy efficient – consumes a maximum of 5.5W in AC or DC mode
- Normal AC and emergency DC operation
  120 to 347VAC input; 6 to 24VDC input
- Special wording available (CSA 22.2 No. 250.0)
- Meets or exceeds CSA 22.2 No. 141-15
  See warranty details at: www.tnb.ca/en/brands/lumacell

DIMENSIONS

Dimensions are approximate and subject to change.



TYPICAL SPECIFICATIONS

Supply and install the **Lumacell®** bilingual **LMCEB6L Series** LED Exit Sign. The equipment shall operate with universal AC input voltage of 120 to 347VAC at less than 3W and universal two-wire DC input voltage from 6VDC to 24VDC at less than 3.5W for single and double face signs. The frame shall be of a one-piece steel construction and have a maximum depth of 2-1/8". The faceplate(s) shall be steel and come standard with knockout chevrons. The equipment shall have two (2) canopies that shall fasten for installation in ceiling-mount applications. The light source shall be light emitting diodes (LED). The LED lamps shall provide illumination in normal and emergency operation and shall be mounted inside the exit housing, not on the face. Red LED technology shall be **ALINGAP**. An LED-sensitive diffuser shall be mounted behind the legend to provide the 6" high by 3/4" stroke letters with even illumination.

The Exit Sign in a Self-Powered configuration shall stay illuminated during emergency operation for at least _____ minutes upon AC failure.

The Exit Sign shall be CSA 22.2 No. 141-15 certified.

The equipment shall be **Lumacell®** Model: _____ .

WIRE GUARDS

460.0059-L	Wall Mount
460.0092-L	Ceiling Mount

POWER CONSUMPTION AND UNIT RATING

MODEL	AC SPECS		DC SPECS	
AC/DC standard	120 to 347VAC	Less than 3W	6 to 24VDC	Less than 3.5W
AC/special DC	120/277/347VAC	Less than 5W	36 or 48 or 120VDC	Less than 5W
Self-Powered	120 to 347VAC	Less than 6W	Nickel-Cadmium Battery	Min. 60 or 120 minutes

ORDERING INFORMATION

SERIES	FACES	COLOUR	VOLTAGE	OPTIONS
LMCE= LED exit/sortie 6" letters **LMCS**= LED sortie/exit 6" letters	**1B6L**= single face **2B6L**= double face	**Blank**= factory white **BK**= black **TA**= textured aluminum	**120VACDC2**= 120VAC, 120VDC, 2 wires **UNIV**= 120 to 347VAC, 6 to 24VDC **UNIV36**= 120/277/347VAC, 36VDC **UNIV48**= 120/277/347VAC, 48VDC **UNIV120**= 120/277/347VAC, 120VDC **SP**= 120 to 347VAC, Self-Powered (60 minutes) **SP2**= 120 to 347VAC, Self-Powered (120 minutes)	**Blank**= 2 canopies supplied **SW**= special wording **SW2**= special wording – 2 LED strips **TP**= tamper-proof screws[1] **VRSTP**= vandal resistant shield and tamper-proof screws* [1] **990.0119-L**= tamper-proof bit (sold separately)

EXAMPLE: LMCE1B6LC860UNIV

LMCS Series

All Metal Combination Unit

Made in Canada

FEATURES

- Pre-assembled for ease of installation
- Metal housing with baked enamel finish – will not yellow
- Easy access to wiring entry
- Long-life LED light source of **ALINGAP** technology assures low maintenance cost and is warrantied for ten (10) years
- Energy efficient, consumes less than 3W in stand-by mode
- Power pack comes standard with premium Lead-Calcium battery
- Other colours and options are available upon request
- Meets or exceeds CSA 22.2 No. 141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

TYPICAL SPECIFICATIONS

Supply and install the **Lumacell® LMCS LED "SORTIE"** Exit Sign with power pack series. The exit housing and the faceplate(s) shall be constructed of steel. The Exit Sign shall have a maximum depth of 2-1/2" . The faceplate(s) shall come standard with knockout chevrons.

The light source shall be light emitting diodes (LED). Red LED technology shall be **ALINGAP**. The LED lamps shall provide illumination in normal and emergency operation and shall be mounted inside the exit housing, not on the face. An LED-sensitive diffuser shall be mounted behind the legend to provide the 6" (15cm) high by 3/4" (1.9cm) stroke letters with even illumination.

The power pack shall be a completely self-contained emergency unit with its own charger and rechargeable battery. The housing shall be made of steel. The unit shall be designed to furnish exit illumination from the normal AC source. When a power failure occurs, the mounted heads along with the Exit Sign are illuminated in emergency mode for a minimum of 30 minutes. The power pack shall be furnished with a test switch and high charge pilot light.

The heads shall require no tools to adjust and aim. The heads will be constructed of durable thermoplastic and use 6V, 4W lamps or as otherwise specified.

The Exit Sign shall be CSA 22.2 No. 141-15 certified.

The equipment shall be **Lumacell®** Model: _____ .

WIRE GUARDS

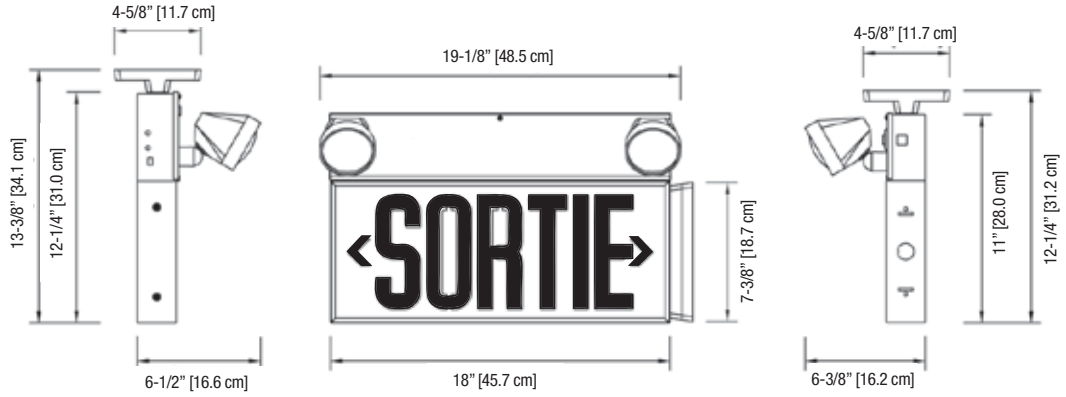
460.0078-L	Wall Mount
460.0060-L	Ceiling Mount

LMCS Series

All Metal Combination Unit

DIMENSIONS

Dimensions are approximate and subject to change.



12V
12LM80 ONLY

6V & 12V
LM27, LM50 & 12LM50

POWER CONSUMPTION AND UNIT RATING

MODEL	AC SPECS		WATTAGE CAPACITY				
			30MIN	1H00	1H30	2H00	4H00
Sortie Sign Module	120/347VAC	Less than 2W	-	-	-	-	-
LM27		0.25/0.08A	27	15	12	9	-
LM50		0.25/0.08A	50	30	20	16	8
12LM50		0.25/0.08A	50	30	20	16	8
12LM80		0.25/0.08A	80	45	36	27	12

ORDERING INFORMATION

SERIES	MOUNTING/ FACES	NUMBER OF HEADS	HEADS STYLE / WATTAGE	HOUSING COLOUR	VOLTAGE	OPTIONS
LM27= 6V-27W **LM50**= 6V-50W **12LM50**= 12V-50W **12LM80**= 12V-80W	**CS1=** single face, wall or ceiling mount **CSU=** universal steel mount canopy with two faceplates	**Blank**= no heads **1**= one head **2**= two heads	**Blank**= no heads **LD1**= MR16 LED, 6V-4W **LD2**= MR16 LED, 6V-5W **LD7**= MR16 LED, 12V-4W **LD9**= MR16 LED, 12V-5W **LD10**= MR16 LED, 12V-6W	**B**= black **Blank**= factory white **TA**= textured aluminum[1] [1]Black heads	**Blank**= 120/347VAC	**Blank**= no options **T3**= time delay (15 minutes) **TP**= tamper-proof screws[1] [1]**990.0119-L**= tamper-proof bit (sold separately)

EXAMPLE: LM27CS12LD1

LP Series

Commercial-grade, Thermoplastic Pictogram Exit Sign

Made in Canada

FEATURES

The **Lumacell® LP Series** is a compact pictogram sign with an all-in-one, snap-fit design. Easy to install and affordable, the **LP Series** pictogram Sign is ideally suited for commercial applications, especially those in which large numbers of Exit Signs are required.

- Durable, factory white, thermoplastic housing
- Universal mounting: wall, end, or ceiling mount
- Long-life white LED light sources is warrantied for ten (10) years
- Two-wire universal AC input: 120 to 347VAC; two-wire standard DC input: 6 to 24VDC
- Energy efficient – consumes less than 2.5W in AC mode and only 1W in DC-remote
- Self-Powered model delivers standard two hours of back-up lighting
- Optional vandal-proof shield and tamper-proof screws
- Special wording available (CSA 22.2 No. 250.0)
- Meets or exceeds CSA 22.2 No. 141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

TYPICAL SPECIFICATIONS

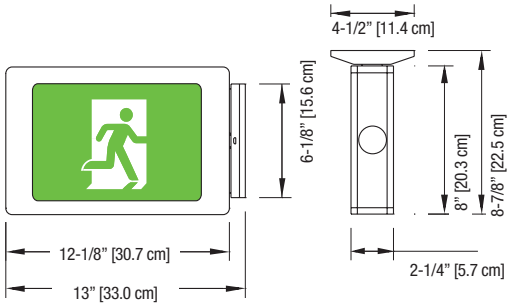
Supply and install the **Lumacell® LP** pictogram Exit Sign. The equipment shall operate with universal 2-wire AC input voltage of 120 to 347VAC at less than 2.5W and universal 2-wire DC input voltage from 6 to 24VDC at 1W consumption for single and double face signs. The sign shall come standard with a canopy and shall be suitable for wall, end, or ceiling mounting. The frame, faceplates, back plate and canopy shall each be constructed of a one-piece UV-stabilized thermoplastic material colored factory white. The light source shall be white light-emitting diodes (LED) and shall provide even illumination in normal and emergency operation. The equipment in a Self-Powered configuration shall use a sealed Nickel-Cadmium battery of 2.4V nominal voltage. The equipment shall recharge the battery in 24 hours and stay illuminated for 120 minutes upon AC failure.

The pictogram Exit Sign shall be CSA 22.2 No. 141-15 certified.

The equipment shall be **Lumacell®** Model: _____.

DIMENSIONS

Dimensions are approximate and subject to change.



POWER CONSUMPTION AND UNIT RATING

MODEL	AC SPECS		DC SPECS	
AC only	120 to 347VAC	Less than 2.5W	-	-
AC/DC standard	120 to 347VAC	Less than 2.5W	6 to 24VDC	Less than 1.5W
AC/Special DC	120 to 347VAC	Less than 2.5W	36, 48, 120VDC	Less than 2.5W
Two-wire 120V AC/DC	120Vac	Less than 2.5W	120VDC	Less than 2.5W
Self-Powered	120 to 347VAC	Less than 3W	Nickel-Cadmium Battery	120 minutes

ORDERING INFORMATION

SERIES	FACES/MOUNTING	ENCLOSURE COLOUR	VOLTAGE	OPTIONS
LP= plastic pictogram Exit Sign	**1**= single face, universal mounting **2**= double face, universal mounting **3**= universal face, universal mounting	**B**= black **W**= factory white	**S**= 120 to 347VAC; Self-Powered **U**= universal 120 to 347VAC; 6 to 24VDC **U00**= 120 to 347VAC only **U36**= 120 to 347VAC 36VDC **U48**= 120 to 347VAC; 48VDC **U120**= 120 to 347VAC; 120VDC **24**= 2-wire 6 to 24VDC **2120**= 2-wire 120VAC/VDC	**SW**= special wording **TP**= tamper-proof screws[1,2] **U9**= arrow up **D9**= arrow down **U4**= arrow up 45° **D4**= arrow down 45° **VR**= vandal resistant shield with tamper-proof screws[1,2] [1] **990.0119-L**= Tamper-proof bit (sold separately) [2] Specify single or double face only.

EXAMPLE: LP1WUVR

GRANDE™ Series

Commercial-grade, universal-mount, snap-fit Exit Sign

nexus® CSA® Made in Canada

FEATURES

- Durable, injection-molded, thermoplastic housing
- Universal mounting - supplied standard with two stencil plates, red diffusing lens and backplate.
- Universal, field-selectable snap in/out chevrons
- Available for wall, end or ceiling mounting
- Indirect refractive technology provides bright, even illumination
- Long-life LED light source of **ALINGAP** technology assures low maintenance cost and is warrantied for ten (10) years
- Energy efficient – consumes less than 3.5W
- Normal AC and emergency DC operation with dual AC input of 120V/347V and universal DC input of 6V to 48V
- Comes with the Lumacell® EZ2 canopy for quick & easy installation. See page 143 for information.
- Special wording available (CSA 22.2 No. 250.0)
- Meets or exceeds CSA 22.2 No. 141-15

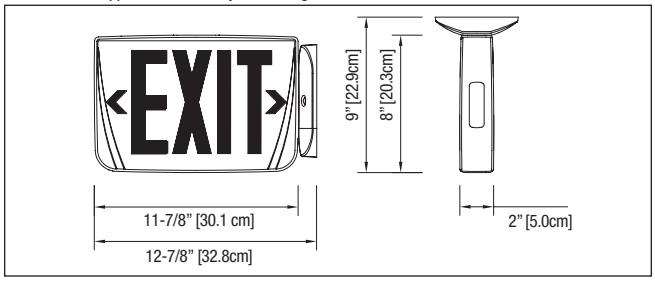
See warranty details at: www.tnb.ca/en/brands/lumacell

WIRE GUARDS

460.0079-L	Wall Mount
460.0027-L	End Mount
460.0028-L	Ceiling Mount

DIMENSIONS

Dimensions are approximate and subject to change.



TYPICAL SPECIFICATIONS

Supply and install the **Lumacell® Grande™ Series** Exit Sign. The standard equipment shall operate with a dual-voltage input of 120/347VAC with less than 2W of consumption and a universal two-wire DC input voltage from 6VDC to 48VDC at less than 2.5W for single and double face signs. The exit shall be suitable for wall, end, or ceiling mount. The faceplate shall be constructed of a durable high impact thermoplastic. No screws are necessary to hold the faceplate or the back plate to the housing. The faceplates shall come standard with snap in/out chevrons. The frame shall consist of a one-piece factory white thermoplastic. The light source shall be light emitting diodes (LEDs). The LEDs shall provide illumination in normal and emergency operation and shall be mounted inside the exit housing. Red LED technology shall be ALINGAP. A LED-sensitive diffuser shall be mounted in front of the LEDs to provide the 6" high by ¾" stroke letters with even illumination. The Exit Sign shall be C860 approved.

The Exit Sign in a Self-Powered configuration shall be equipped with a sealed, maintenance-free Nickel-Cadmium battery. The equipment shall recharge the battery in 24 hours and stay illuminated at least 90 minutes upon AC failure. The Self-Powered model equipped with advanced diagnostic shall self-test by simulating a power failure for one minute every 30 days, 30 minutes every 60 days and 90 minutes every 360 days. A diagnostic circuit shall continuously monitor the performance of the battery, charger module and LED lamps. Upon failure detection the system shall display the error on the AC pilot lamp, which will change color from green to red and will flash with a specific code. The red light shall be steady-on in case of *"Battery Disconnect"*; it shall flash with one blink for *"Battery failure"*, two blinks for *"Charger failure"* and four blinks for "LED lamp failure. A label with the diagnostic legend shall be visible next to the pilot light.

The Exit Sign shall be CSA 22.2 No. 141-15 certified.

The equipment shall be **Lumacell®** Model: _____ .

IN THE SAME FAMILY: THERMOPLASTIC

- Grande™ Series Thermoplastic Combination Unit

POWER CONSUMPTION AND UNIT RATING

MODEL	AC SPECS		DC SPECS	
AC only	120/347VAC	Less than 2.5W	-	-
AC/DC remote	120/347VAC	Less than 2W	6 to 48VDC	Less than 1.5W
Self-Powered	120/347VAC	Less than 3.5W	Nickel-Cadmium Battery	Minimum 90 minutes
Self-Powewed with diagnostic	120/347VAC	Less than 3W	Nickel-Cadmium Battery	Minimum 90 minutes

ORDERING INFORMATION

SERIES	COLOUR	UNIT CAPACITY	VOLTAGE	LEGEND COLOUR	OPTIONS
GRA= LED plastic universal exit	**B**= black **W**= factory white	**AC**= AC only **AC2C1**= dual AC circuit (2X 120V) **NEX**= NEXUS® system interface[1] **NEXRF**= wireless NEXUS® system interface[1] **SPN**= Self-Powered Ni-Cd **SDN**= Self-Powered diagnostic Ni-Cd **UNV**= 120/277 or 120/347VAC & 6 to 48VDC [1]Not all options are available with NEXUS® system. Please consult your sales representative.	**Blank**= dual AC circuit only **2**= 120/277VAC **3**= 120/347VAC	**G**= green **G1**= green single face[1] **G2**= green double face[1] **R**= red **R1**= red single face[1] **R2**= red double face[1] [1]Specify number of faces for TP & VRTP	**BA**= brushed aluminum stencil **SW**= special wording **TP**= tamper-proof screws[1, 2] **VRTP**= vandal resistant shield with tamper-proof screws[1, 2] [1]Specify single or double face. [2]**990.0119-L**= tamper-proof bit (sold separately)

EXAMPLE: GRAWAC2R

GRANDE™ Series

Thermoplastic Combination Unit

nexus® Made in Canada

FEATURES

The **Grande™** Series of combination units (unit equipment and pictogram exit sign) are designed to complement designer's look and ease of installation with performance and cost-competitiveness.

- One-pack combination of battery unit and Pictogram Sign, a compact and contemporary design
- Durable injection-molded thermoplastic housing with push-to-snap design
- Available in single or double face configurations both with means for ceiling mounting
- Supplied standard with two (single face) or three pictogram films (universal face) for direction selection
- Two LED lamps, shielded by a clear polycarbonate cover
- Twin LED lights provide up to 89 feet of egress illumination on a 6-foot wide path
- Long-life white LED light sources is warrantied for ten (10) years
- Remote load capacity: one unit equipment with LED remote lights covers up to 712 feet (217m) of egress illumination
- Sealed, maintenance-free, Lead-Calcium or Nickel-Metal-Hydride batteries
- Dual voltage input: 120/347VAC or 120/277VAC
- Comes standard with non-audible auto-diagnostics
- Optional vandal-resistant shield with tamper-proof screws
- Optional: Nexus® Compatible
- Auto-testing capabilities (specific load requirements)
- Meets or exceeds CSA 22.2 No. 141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

TYPICAL SPECIFICATIONS

Supply and install **Lumacell® Grande™** Series combination of unit equipment and pictogram exit sign. The unit frame and face plates shall be made of injection-molded thermoplastic. The faceplates shall feature a uniformly illuminated legend. The light source shall be long-life white light-emitting diodes (LED). The unit shall be equipped with two emergency heads with tool-less adjustable swivels and long-life LED lamps of ___ V and ___ W. Each lamp shall be protected by a snap-on, shock-absorbent, transparent polycarbonate cover.

The AC input voltage shall be standard 120/347VAC 60Hz. The unit shall be equipped with a test switch and a green pilot light, located on the face plate above the pictogram legend. The battery charger shall be driven by a micro-controller. All electronic circuitry (charger, LED driver, signage LED's) shall be installed on a single printed circuit board PCB. The unit equipped with self-testing / self-diagnostic features shall automatically self test for one minute every 30 days, 10 minutes in the 6th month and 30 minutes annually. When a fault is detected, the bi-color pilot-light shall turn from green to red and shall flash following a particular code. The code description shall be displayed on a label next to the pilot light to identify the failure type: battery, charger circuitry, LED lamps for signage, or emergency lights.

The combination unit shall be CSA 22.2 No. 141-15 certified.

The equipment shall be **Lumacell®** Model: _____ .

WIRE GUARDS

460.0078-L	Wall Mount

GRANDE™ Series

Thermoplastic Combination Unit

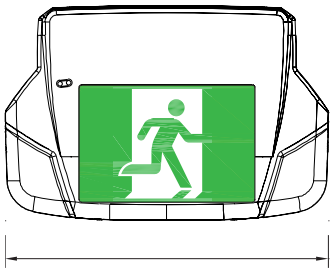
DIMENSIONS

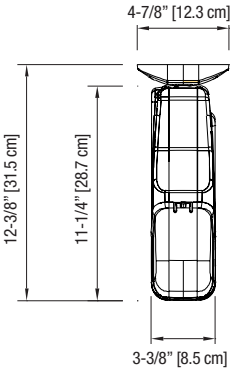
Dimensions are approximate and subject to change.

< PICTO
LEFT FROM HERE

PICTO
STRAIGHT FROM HERE

PICTO >
RIGHT FROM HERE





POWER CONSUMPTION

MODEL	AC SPECS		WATTAGE CAPACITY				
			30MIN	1H	1H30	2H	4H
Pictogram Sign module	120/347VAC	Less than 4W	-	-	-	-	-
2L		0.12/0.04 A	25	15	12	8	-
5L			50	30	24	16	8
12L5		0.24/0.08 A	50	30	24	16	8
12H5			50	36	24	18	9

ORDERING INFORMATION

SERIES	FACE/ MOUNTING	# OF HEADS	HEAD STYLE & WATTAGE	COLOUR	VOLTAGE	CHARGER TYPE	OPTIONS
2L= 6V-25W, Lead-Calcium **5L**= 6V-50W, Lead-Calcium **12L5**= 12V-50W, Lead-Calcium **12H5**= 12V-50W, NiMH	**GRAP1**= single face ceiling or wall mount **GRAP1N**= single face wall mount (less canopy) **GRAP2**= double face ceiling mount **GRAPU**= universal two faces backplate and canopy	**Blank**= no heads **2**= two heads	**Blank**= no heads **LD1**= MR16 LED, 6V-4W **LD2**= MR16 LED, 6V-5W **LD7**= MR16 LED, 12V-4W **LD9**= MR16 LED, 12V-5W **LD10**= MR16 LED, 12V-6W	**B**= black **W**= factory white	**2**= 120/277VAC **3**= 120/347VAC	**AT**= auto-test **Blank**= auto-test, non-audible **NEX**= NEXUS® system interface **NEXRF**= wireless NEXUS® system interface	**Blank**= no options **T3**= time delay (15 minutes) **TP**= tamper-proof screws[1, 2] **U9**= arrow up **D9**= arrow down **U4**= arrow up 45° **D4**= arrow down 45° **VR**= polycarbonate shield with tamper-proof screws[1, 2] [1]**091957-L**= tamper proof bit (sold separately) [2]VR +TP not available with GRAPU

EXAMPLE: 2LGRAP22LD1W3

GRANDE™ Series

Thermoplastic Combination Unit

nexus® CSA® Made in Canada

FEATURES

The Grande™ Series of combination units (emergency light battery unit with an Exit Sign) are designed with aesthetics, ease of installation and performance in mind.

- One-pack combination of battery unit and Exit Sign, a compact and contemporary design
- Durable injection-molded thermoplastic housing with push-to-snap design
- Available in single or double face configurations both with means for ceiling mounting
- Comes with the Lumacell® GrandeTM EZ2 canopy and field-selectable snap in/out chevrons for quick and easy installation
- Long-life LED light source of **ALINGAP** technology assures low maintenance cost and is warrantied for ten (10) years
- Two LED lamps, shielded by a clear polycarbonate cover
- Optional LED lamps with life expectancy 30,000+ hours
- Sealed, maintenance-free, Lead-Calcium or Nickel-Metal-Hydride batteries
- Up to 100W capacity for emergency lights
- Dual voltage input: 120/347VAC or 120/277VAC
- Optional advanced diagnostic circuitry, flasher/buzzer, fire alarm activated flasher
- Optional vandal-resistant shield with tamper-proof screws
- Optional advance diagnostics circuitry available
- Auto-testing capabilities (specific load requirements)
- Meets or exceeds CSA 22.2 No. 141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

TYPICAL SPECIFICATIONS

Supply and install the Lumacell® Grande™ Series combination of unit equipment and Exit Sign. The standard equipment shall operate with a dual voltage input of 120/347VAC. The unit shall be suitable for wall or ceiling mount. The unit frame and face plates shall be made of injection-molded durable high-impact thermoplastic and come standard with snap in/out chevrons. No screws are necessary to hold the faceplate or backplate to the housing. The one piece thermoplastic frame is molded in white (optional black). The faceplates shall feature a uniformly illuminated legend. The light source shall be light emitting diodes (LED) and shall provide illumination in normal and emergency operation and shall be mounted inside the combination housing. Red LED technology shall be **ALINGAP**. An LED-sensitive diffuser shall be mounted behind the legend to provide the 6" high by 3/4" stroke letters with even illumination. The unit shall be equipped with two emergency heads with tool-less adjustable swivels and long-life LED lamps of ___ V and ___ W. Each lamp shall be protected by a snap-on, shock-absorbent, transparent polycarbonate cover.

The unit shall be equipped with a test switch and a green pilot light, located on the face plate above the EXIT legend. The battery charger shall be driven by a micro-controller. All electronic circuitry (charger, LED driver, LED's) shall be installed on a single printed circuit board PCB. The unit equipped with self-testing / self-diagnostic features shall automatically self test for one minute every 30 days, 10 minutes in the 6th month and 30 minutes annually. When a fault is detected, the bi-color pilot-light shall turn from green to red and shall flash, identifying the source of the failure: battery, charger circuitry, lamp load, LED strip.

The Exit Sign shall be CSA 22.2 No. 141-15 certified.

The combo unit shall be Lumacell® Model: _____ .

WIRE GUARDS

460.0078-L	Wall Mount

IN THE SAME FAMILY: THERMOPLASTIC

- Grande™ Series Thermoplastic Exit Unit

POWER CONSUMPTION

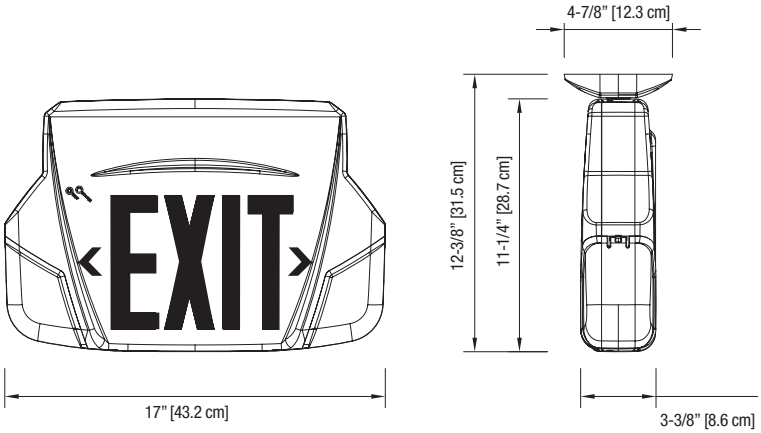
MODEL	AC SPECS		WATTAGE CAPACITY				
			30MIN	1H	1H30	2H	4H
Exit Sign module	120/347VAC	Less than 2W	-	-	-	-	-
2L		0.11/0.04 A	20	15	12	8	-
5L			50	30	24	16	8
12L5		0.22/0.08 A	50	30	24	16	8
12H5			50	36	24	18	9

GRANDE™ Series

Thermoplastic Combination Unit

DIMENSIONS

Dimensions are approximate and subject to change.



ORDERING INFORMATION

SERIES	FACES/ MOUNTING	# OF HEADS	HEAD STYLE/ WATTAGE	COLOUR	VOLTAGE	LEGEND COLOUR	OPTIONS
2L= 6V-20W, Lead-Calcium **5L=** 6V-50W, Lead-Calcium **12L5=** 12V-50W, Lead-Calcium **12H5=** 12V-50W, NiMH	**GRA1**= single face ceiling or wall mount **GRA1N**= single face wall mount (less canopy) **GRA2**= double face ceiling mount **GRAU=** universal 2 faces backplate and canopy	**Blank**= no heads **2**= two heads	**Blank**= no heads **LD1=** MR16 LED, 6V-4W **LD2**= MR16 LED, 6V-5W **LD7=** MR16 LED, 12V-4W **LD9=** MR16 LED, 12V-5W **LD10**= MR16 LED, 12V-6W	**B**= black **W**= factory white	**2**= 120/277VAC **3**= 120/347VAC	**Blank**=red legend **G**= green legend	**AT**= auto-test **ATN**= auto-test, non-audible **BA**= brushed aluminum exit stencil **Blank**= no options **NEX**= NEXUS® system interface[1] **NEXRF**= wireless NEXUS® system interface[1] **T3**= time delay (15 minutes) **TP**= tamper-proof screws[2] **VR**= polycarbonate shield with tamper-proof screws[2, 3] [1]Not all options are available with NEXUS® system. Please consult your sales representative [2]**091957-L**= tamper-proof bit (sold separately) [3]VR is not available with GRAU

EXAMPLE: 2LGRA22LD1W3

LCS Series

Plastic Pictogram Exit Sign

FEATURES

- Energy efficient, long-life white LEDs consuming 4.2W at normal operation
- Back plate included for single face wallmount installation. No canopy required
- Dual voltage input capability 120/347VAC
- Selection of AC/DC, 6 to 24VDC or Self-Powered using a 3.6V Nickel-Cadmium battery
- Automatic, temperature compensated, pulse type charger
- Low voltage disconnect prevents over discharge of battery
- Automatic brownout protection
- Battery lock-out prevents discharge during installation
- Comes standard with three pictogram legends for direction selection
- Red LED charger monitor
- Injection-molded off-white thermoplastic ABS housing
- Fast and easy installation with snap-together design
- Ceiling, wall or end mount installation
- Meets or exceeds CSA 22.2 No.141-15 certified
- Comes standard with one (1) year warranty

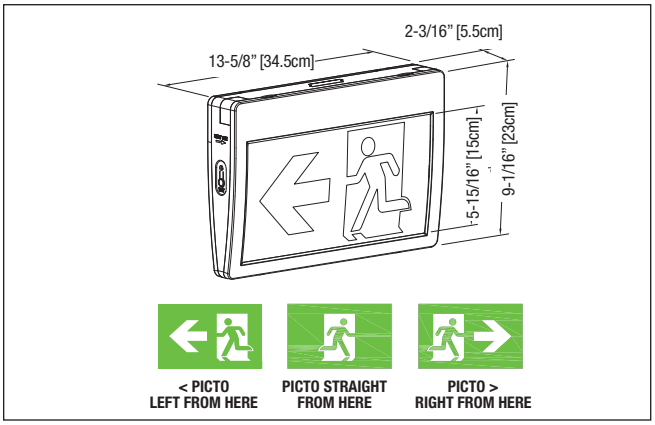
POWER CONSUMPTION AND UNIT RATING

MODEL	AC SPECS			DC SPECS	
AC/ DC-remote	120/347VAC	0.5/0.4 A	4.2/3.6W	6 to 24VDC	Less than 1.5W
Self-Powered				Ni-Cd battery	120 minutes

NOTE: The LCS Family cannot be combined with other Lumacell products on the same emergency A.C. circuit.

DIMENSIONS

Dimensions are approximate and subject to change.



ORDERING INFORMATION

SERIES	VOLTAGE
LCS	**-U**= 120/347VAC, 6 to 24VDC **-SP**= 120/347VAC, Self-Powered (120 mins)

EXAMPLE: LCS-SP

LCSC Series

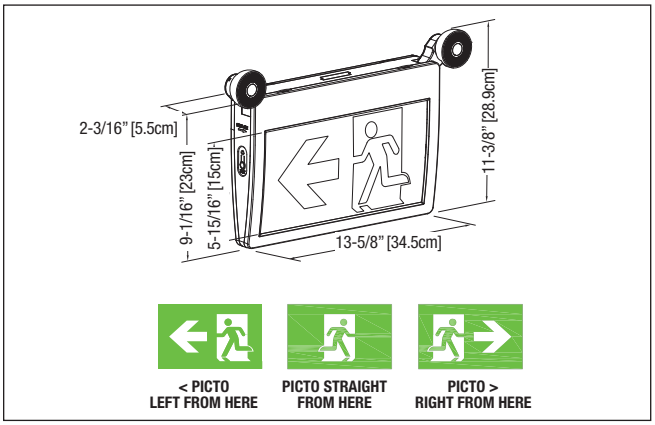
Plastic Pictogram Combination Unit

FEATURES

- Energy efficient, long-life white LEDs consuming 4.2W at normal operation
- Back plate included for single face wallmount installation. No canopy required
- Dual voltage input capability 120/347VAC
- 3.6V Nickel-Cadmium battery provides minimum 90 minutes of emergency lighting
- Fully adjustable LED glare-free lens
- 3.6V 1W long life LED light source, 6000K
- Adjustable light heads for forward or backward lighting
- Automatic, temperature compensated, pulse type charger
- Low voltage disconnect prevents over discharge of battery
- Automatic brownout protection
- Battery lock-out prevents discharge during installation
- Comes standard with three pictogram legends for direction selection
- Red LED charger monitor
- Injection-molded off-white thermoplastic ABS housing
- Fast and easy installation with snap-together design
- Ceiling, wall or end mount installation
- Meets or exceeds CSA 22.2 No.141-15 certified
- Comes standard with one (1) year warranty

DIMENSIONS

Dimensions are approximate and subject to change.



POWER CONSUMPTION AND UNIT RATING

MODEL	AC SPECS			DC SPECS	
LCSC-2LEDWR	120/347VAC	0.5/0.4 A	4.2/3.6W	Ni-Cd battery	Min. 90 minutes

NOTE: The LCS Family cannot be combined with other Lumacell® products on the same emergency A.C. circuit.

ORDERING INFORMATION

SERIES	VOLTAGE	LAMP
LCSC	**Blank**= 120/347VAC	**-2LEDWR**= 2X 1W LED

EXAMPLE: LCSC-2LEDWR

LN10 Series

NEMA-3R Rated Pictogram Exit Sign; 10” Legend

Made in Canada

FEATURES

- NEMA-3R rated
- Gasketed fiberglass housing designed specifically for industrial applications
- Sealed, vandal-resistant polycarbonate faceplate
- Suitable for cold-weather: -20°C (-4°F) for AC/DC
- Wall or ceiling mounting; wall or ceiling brackets available for easy installation
- Normal AC and emergency DC operation120 to 347VAC input; 6 to 24 DC input
- Certified for 160’ viewing distance. Ideal for large facilities with high ceilings
- Supplied standard with two pictogram films for direction selection
- Meets or exceeds CSA 22.2 No. 141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

TYPICAL SPECIFICATIONS

Supply and install **Lumacell® LN10 Series** LED Pictogram Exit Sign. The equipment shall be NEMA-3R rated operate with universal two-wire AC input voltage from 120VAC to 347VAC a less than 3W per face and universal two-wire DC input voltage from 6VDC to 24VDC at less than 3W per face. The housing shall be of grey fiberglass, gasketed, specially designed for industrial environment. The sealed front cover shall be constructed of heavyduty vandal-resistant transparent polycarbonate of 4mm thickness and shall be bent around the back box for increased rigidity. The front cover will feature an illuminated legend with a running man pictogram.

The equipment shall be suitable for wall or ceiling mount and be designed specifically for high abuse areas, wet locations, dust and oil-tight applications.

The equipment shall be NEMA-3R and CSA 22.2 No. 141-15 certified.

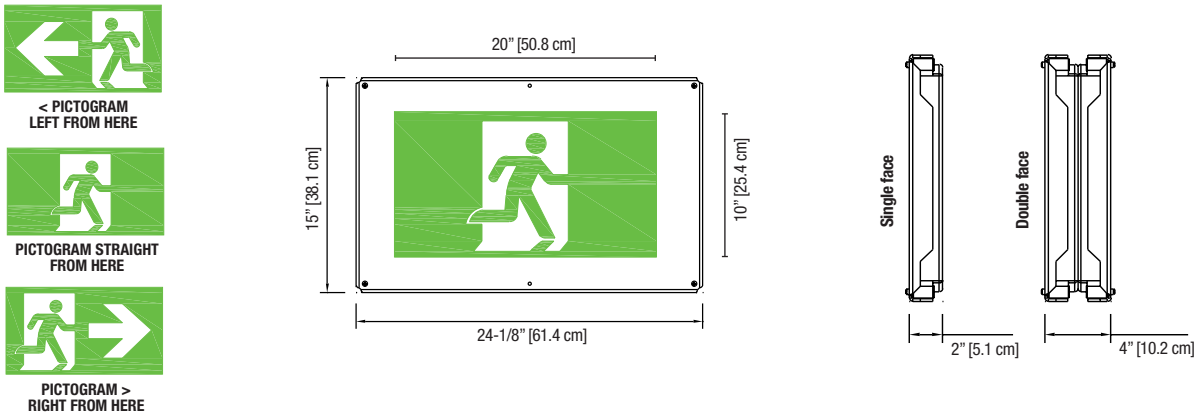
The equipment shall be **Lumacell®** Model: _____ .

WIRE GUARDS

460.0103-L	Wall Mount
460.0104-L	Ceiling Mount

DIMENSIONS

Dimensions are approximate and subject to change.



POWER CONSUMPTION AND UNIT RATING

MODEL	AMBIENT TEMPERATURE	AC SPECS (SINGLE FACE)*			DC SPECS	
AC-only	-40°C … +40°C	120 to 347VAC	0.06 to 0.18 A	Less than 3W	—	—
AC/DC	-40°C … +40°C	120 to 347VAC	0.06 to 0.18 A	Less than 3W	6 to 24VDC	Less than 3 W
Self-Powered	25°C ± 5°C	120 to 347VAC	0.13 to 0.38 A	Less than 7W	Ni-Cd battery	120 minutes

*** X2 for double face**

ORDERING INFORMATION

SERIES	FACES	VOLTAGE
LN10= 10” Pictogram Nema-3R Exit Sign	**1**= single face **2**= double face	**S=** Self-Powered 120 to 347VAC (25ºC ± 5ºC), 120 minutes **U**= 120 to 347VAC, 6 to 24VDC (-40 to +40ºC) **U00**= AC Only 120 to 347VAC (-40 to +40ºC) **U9**= arrow up **D9**= arrow down **U4**= arrow up 45° **D4**= arrow down 45°

EXAMPLE: LN102U00

LN Series

NEMA-4X rated & NSF Certified Pictogram Exit Sign

Made in Canada

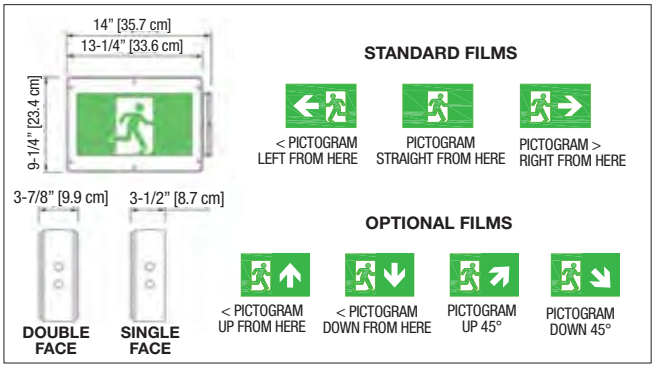
FEATURES

- NEMA-4X Certified
- NSF compliant for food processing
- Polymeric enclosure is fully gasketed around lens and canopy to secure against water leaks
- Sealed, heavy-duty, vandal-resistant polycarbonate face plate
- Universal mounting: wall-, end-, or ceiling-mount
- Suitable for cold-weather: -40°C (-4°F) for AC/DC and -20°C (-40°F) for Self-Powered models (option: -CW)
- Tamper-resistant, concealed test switch with magnetic action
- Long-life white LED light source is warrantied for ten (10) years
- Supplied standard with two pictogram films per face, for direction selection
- Universal AC input: two-wire 120 to 347VAC; standard DC input: two-wire 6 to 24VDC
- Energy efficient – consumes less than 2.5W in AC or DC-remote mode
- Self-Powered models deliver two hours of back-up lighting
- Special wording available (CSA 22.2 No. 250.0)
- Meets or exceeds CSA 22.2 No. 141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

DIMENSIONS

Dimensions are approximate and subject to change.



WIRE GUARDS

460.0079-L	Wall mount
460.0027-L	End mount
460.0028-L	Ceiling mount

TYPICAL SPECIFICATIONS

Supply and install the **Lumacell® LN Series** pictogram Exit Signs. The equipment shall be certified for NEMA- 4X and designed specifically for high abuse areas, wet location, and cold weather applications. The equipment frame shall be of industrial grade polyvinyl chloride with a gasket around lenses and canopy. The faceplate(s) shall be constructed of heavy-duty vandal-resistant polycarbonate and feature an even illuminated legend. Each face plate shall come standard with two legend films for pictogram and direction selection. The light source shall be white light-emitting diodes (LED). The pictogram Exit Sign shall operate with universal 2-wire AC input voltage of 120 to 347VAC at less than 2.5W and universal 2-wire DC input voltage from 6 to 24VDC at less than 1 Watt for single and double face signs. The Self-Powered model shall include a concealed green pilot light and magnet-sensitive test switch, shall use a sealed Nickel-Cadmium battery of 2.4V nominal voltage and shall stay illuminated during emergency operation for 120 minutes upon AC failure. When specified, the Self-Powered model shall include auto-test functions: it shall execute automatic tests for 5 minutes every 30 days, 30 minutes every 60 days and two hours annually. When a fault is detected, the bi-colour pilot light shall turn from green to red and flash following a particular code. The code description shall be visible on a label next to the pilot light to identify the failure type: battery, charger circuitry, or LED lamps.

The pictogram Exit Sign shall be CSA 22.2 No. 141-15 certified.

The equipment shall be **Lumacell®** Model: _____ .

POWER CONSUMPTION AND UNIT RATING

MODEL	AC SPECS		DC SPECS	
AC-only	120 to 347VAC	Less than 2.5W	-	-
AC/DC standard	120 to 347VAC	Less than 2.5W	6 to 24VDC	Less than 1W
AC/Special DC	120 to 347VAC	Less than 2.5W	36, 48, 120VDC	Less than 2.5W
Two-wire 120V AC/DC	120VAC	Less than 2.5W	120VDC	Less than 2.5W
Self-Powered	120 to 347VAC	Less than 3W	Ni-Cd battery	120 minutes
Auto test	120 / 347VAC	Less than 3.5W	Ni-Cd battery	120 minutes

IN THE SAME FAMILY: NEMA 4X

- LNC Series Pictogram Exit Sign

- RG-NX NEMA-4X Series Battery Unit

- MQM-NX NEMA-4X Remote Fixtures

ORDERING INFORMATION

SERIES	FACES/ MOUNTING	ARROW CONFIGURATION	COLOUR	VOLTAGE	OPTIONS
LN= NEMA-4X & NSF pictogram exit sign[1]	**1**= single face **2**= double face	**Blank**= Standard film[1] **U9**= Arrow Up **D9**= Arrow Down **U4**= Arrow Up 45° **D4**= Arrow Down 45°	**B**= black **W**= factory white	**NEX**= NEXUS® system interface, 120/347VAC **NEXRF**= wireless NEXUS® system interface, 120/347VAC **S**= Self-Powered, 120 to 347VAC[1] **SD**= Self-Powered diagnostic, non audible, Ni-Cd, 120/347VAC **SD2**= Self-Powered diagnostic non audible, Ni-Cd, 120/277VAC **U**= universal 120 to 347VAC; 6 to 24VDC **U00**= 120 to 347VAC only **U36**= 120 to 347VAC; 36VDC **U48**= 120 to 347VAC; 48VDC **U120**= 120 to 347VAC; 120VDC **2120**= 2-wires 120VAC/VDC [1]Not available with CW	**CW**= cold-weather[1] **SW**= special wording
[1]NEMA-4X certified for wall and ceiling mount only		[1]See features for standard film details			[1]-20°C for self-powered with diagnostic & NEXUS®, -40°C for universal 120 to 347VAC; 6 to 24VDC

EXAMPLE: LN1BUCW

Unlike Exit Signs this pictogram sign is not available in double arrow configuration.

LNC Series

NEMA-4X Rated Pictogram Combination Unit

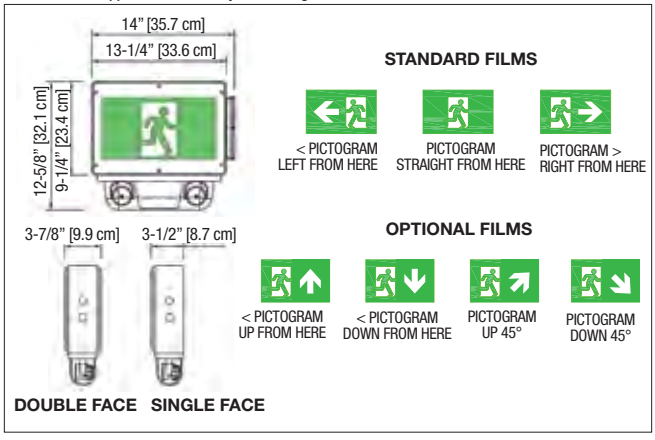
FEATURES

- Certified Nema-4X for wall or ceiling mount
- NSF for use in food processing areas
- Polyvinyl chloride frame, with built-in gasket to prevent water infiltration
- Sealed, vandal-resistant faceplate of polycarbonate
- Legend illuminated by long-life white LED's is warrantied for 10 years
- Comes standard with two pictogram films per face, for direction selection
- Two high-performance LED lamps shielded by a clear polycarbonate cover
- Sealed, maintenance-free Lead-Calcium or Nickel-Cadmium batteries
- Remote load capacity: covers with 4W LED lights 100 feet up to 230 feet of egress illumination
- Comes standard with auto-diagnostic
- Cold-weather option: -40°C (-40°F) with only 14W extra power consumption
- Auto-testing capabilities (specific load requirements)
- Meets or exceeds CSA 22.2 No. 141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

DIMENSIONS

Dimensions are approximate and subject to change.



WIRE GUARDS WITH HEADS

460.0078-L	Wall Mount
460.0060-L	End or Ceiling Mount

TYPICAL SPECIFICATIONS

Supply and install **Lumacell® LNC Series** combination of unit equipment and pictogram Exit Sign. Designed specifically for the industrial environment, the equipment frame shall be of industrial grade polyvinyl chloride with gaskets around both sides of the frame contour. The back plate shall be made of 1/8-inch thick aluminum sheet and shall include knock-outs for installation on an electrical box. The faceplate(s) shall be constructed of heavy-duty vandal-resistant clear polycarbonate and feature a uniformly illuminated pictogram legend. Each face plate shall come standard with two legend films for pictogram and direction selection. The light source shall be long-life white light-emitting diodes (LED). The unit shall have attached a lower compartment containing two emergency heads with adjustable swivels and long-life LED lamps of ___ V and ___ W. The heads shall be installed on a shield housing made of rigid thermoplastic and shall be protected by a shock-absorbent, clear polycarbonate cover.

The standard AC input voltage shall be 120/347VAC. The unit shall be equipped with a magnetic test switch and a LED pilot light protected by the clear face plate. The unit shall perform auto-test functions managed by a micro-controller and shall automatically self-test for one minute every 30 days, 10 minutes in the 6th month and 30 minutes annually. When a fault is detected, the bi-colour pilot light shall turn from green to red and flash following a particular code. The code description shall be displayed on a label next to the pilot light to identify the failure type: battery, charger circuitry, LED lights for the signage, or emergency lights. The combination unit shall be CSA 22.2 No. 141-15 certified.

The equipment shall be **Lumacell®** Model: _____ .

POWER CONSUMPTION

MODEL	AC SPECS		EMERGENCY POWER FOR LAMPS				
			30MIN	1H	1H30	2H	4H
Pictogram sign module	120/347VAC	Less than 2.5W	-	-	-	-	-
LNC-6L36	120/347VAC	0.10/0.03A	36	30	20	16	8
LNC-6L36-CW		0.25/0.08A	36	30	20	16	8
LNC-12N60		0.18/ 0.06A	60	40	30	20	10

IN THE SAME FAMILY: NEMA 4X

- LN Series Pictogram Exit Sign

- RG-NX NEMA-4X Series Battery Unit

- MQM-NX NEMA-4X Remote Fixtures

ORDERING INFORMATION

SERIES	FACES / MOUNTING[1]	ARROW CONFIGURATION	HOUSING COLOUR	BATTERY TYPE AND POWER	HEAD STYLE AND POWER	VOLTAGE	OPTIONS
LNC= NEMA-4X & NSF pictogram exit combo unit[1]	**1**= single face **2**= double face	**Blank**= Standard film[1] **U9**= arrow up **D9**= arrow down **U4**= arrow up 45° **D4**= arrow down 45°	**B**= black **W**= factory white	**6N36**= 6V-36W, Ni-Cd **12N60**= 12V-60W, Ni-Cd	**Blank**= no heads[1] **LD1**= MR16 LED, 6V-4W **LD2**= MR16 LED, 6V-5W **LD7**= MR16 LED, 12V-4W **LD9**= MR16 LED, 12V-5W **LD10**= MR16 LED, 12V-6W	**Blank**= 120/347VAC **ZC**= 120/277VAC input	**AT**= auto-test **Blank**= advanced diagnostic non-audible (standard) **CW**= cold-weather -40°C only with 6V single face **NEX**= NEXUS® system interface[1] **NEXRF**= wireless NEXUS® system interface[1] **T3**= time delay (15 minutes)
[1]NEMA-4X certified for wall and ceiling mount only	[1]Universal mounting	[1]See features for standard film details			[1]Remote load must be connected.		[1]Some options are not available with NEXUS®.

EXAMPLE: LNC2W12N60LD7

Unlike Exit Signs this pictogram sign is not available in double arrow configuration.

LER3000 Series

NEMA-4X rated and NSF Certified Exit Sign

Made in Canada

FEATURES

- NEMA-4X Certified
- NSF Certified for food processing
- Polymeric enclosure is fully gasketed around lens and canopy to prevent water infiltration
- Sealed faceplate of heavy-duty, vandal-resistant polycarbonate with evenly illuminated legend
- Universal mounting: wall-, end-, or ceiling-mount
- Suitable for cold weather: -40°C (-40°F) on non Self-Powered sign and -20°C on Self-Powered ("CW" option)
- Tamper-resistant magnetic test switch
- Self-diagnostic circuitry standard on all Self-Powered models
- Energy efficient – consumes less than 3W in AC or DC mode
- Normal AC and emergency DC operation 120 to 347V universal AC dual tap; 6 to 48V universal DC
- NEXUS® compatible
- Special wording available (CSA 22.2 No. 250.0)
- Meets or exceeds CSA 22.2 No. 141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

TYPICAL SPECIFICATIONS

Supply and install **Lumacell® LER3000 Series** LED Exit Signs. The equipment shall operate with universal two-wire AC input voltage from 120VAC to 347VAC at less than 3W and universal two-wire DC input voltage from 6VDC to 48VDC at less than 2W for single and double face signs. The equipment frame shall be of industrial grade polyvinyl chloride with a gasket around lenses and canopy designed specifically for hostile environments. The faceplate(s) shall be constructed of heavy-duty vandal-resistant polycarbonate and feature an even illuminated legend. The light source shall be light emitting diodes (LED). Red LED technology shall be **ALINGAP** or white LED source for NEXRF3 models only. An LED-sensitive diffuser shall be mounted behind the legend to provide the 6" high by 3/4" stroke letters with even illumination. The exit shall be certified for NEMA- 4X and designed specifically for high abuse areas, wet location, and cold weather -20°C (-4°F) applications.

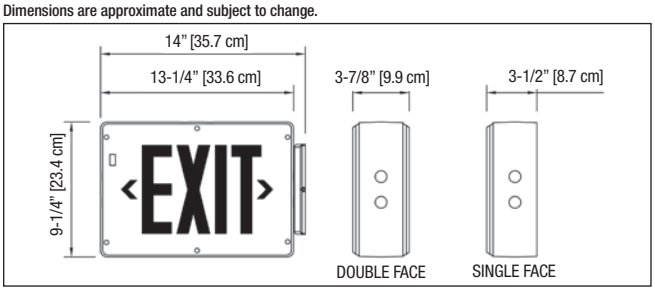
The Self-Powered model shall stay illuminated during emergency operation for at least 90 minutes upon AC failure and shall include a magnetic test switch and self-testing and self-diagnostic functions The equipment shall automatically self test for 5 minutes every 30 days, 30 minutes every 60 days and 90 minutes annually. A "Service Required" lamp shall be located near the test switch and flash when a fault is detected. A two-LED diagnostic display shall be located inside the equipment and shall identify the eventual source of failure (battery, charger circuitry, or LED lamps).

The Exit Sign shall be CSA 22.2 No. 141-15 certified.

The equipment shall be **Lumacell®** Model: _____ .

DIMENSIONS

Dimensions are approximate and subject to change.



WIRE GUARDS

460.0079-L	Wall Mount
460.0027-L	End Mount
460.0028-L	Ceiling Mount

POWER CONSUMPTION AND UNIT RATING

MODEL	AC SPECS		DC SPECS	
AC/DC red	120 to 347VAC	Less than 3W	6 to 48VDC	Less than 2W
AC/DC green	120 to 347VAC	Less than 3W	6 to 48VDC	Less than 2W
Self-Powered red	120 to 347VAC	Less than 3W	Ni-Cd battery	Min. 90 minutes
Self-Powered green	120 to 347VAC	Less than 3W	Ni-Cd battery	Min. 90 minutes

IN THE SAME FAMILY: NEMA 4X

- 3LER3000 Series Exit Sign

- RG-NX NEMA-4X Series Battery Unit

- MQM-NX NEMA 4X Remote Fixtures

ORDERING INFORMATION

SERIES	FACES/ MOUNTING	HOUSING COLOURS	VOLTAGE	OPTIONS	APPROVAL
LER3= NEMA-4X & NSF	**500**= single face **600**= double face	**BA**= black/aluminum **BK**= black/black **BW**= black/white **GA**= grey/aluminum **GB**= grey/black **GW**= grey/white **WA**= white/aluminum **WB**= factory white/black **WH**= factory white	**120VACDC2**= 120VAC, 120VDC, 2 wires **Blank=** Universal, 120-347VAC, 6-48VDC **NEX**= NEXUS® system interface **NEXRF2**= Wireless NEXUS® System Interface (120/277) **NEXRF3**= wireless NEXUS® system interface (120/347) **SPD**= 120 to 347VAC, Self-Powered diagnostic Ni-Cd	**Blank**= no options **CW**= cold weather[1] **GN**= green legend **SW**= special wording [1]-20°C for self-powered with diagnostics & Nexus®, -40°C for Universal 120-347VAC, 6-48VDC	**4X**= approved NEMA-4X and NSF[1] [1]NEMA-4X certified for wall and ceiling mount only

EXAMPLE: LER3500WH4X

3LER3000 Series

NEMA-4X rated & NSF Certified Combination Unit

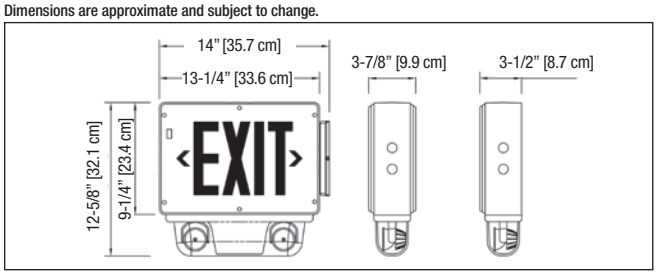
FEATURES

- NEMA-4X-certified for wall or ceiling mount or end mount
- NSF for food processing
- Shielded by a clear polycarbonate cover
- Continuous self-diagnostic monitoring and monthly self-testing
- Fully automatic charger is solid state
- Sealed, maintenance-free Nickel-Cadmium battery
- Non-intrusive magnetic test switch
- Comes standard with tamper proof screws
- Cold weather -40°C (-40°F)
- Auto-testing capabilities (specific load requirements)
- Meets or exceeds CSA 22.2 No. 141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

DIMENSIONS

Dimensions are approximate and subject to change.



Note: double face models have double the power consumption above.

WIRE GUARDS WITH HEADS

460.0078-L	Wall Mount
460.0060-L	End or Ceiling Mount

WIRE GUARDS WITHOUT HEADS

460.0079-L	Wall Mount
460.0027-L	End Mount
460.0028-L	Ceiling Mount

TYPICAL SPECIFICATIONS

Supply and install **Lumacell® 3LER3000 LED Exit Sign** and power pack series. The equipment shall operate under two input voltage, 120VAC or 347VAC. The equipment frame shall be of industrial grade polyvinyl chloride with a gasket around lenses and canopy designed specifically for hostile environments.

The unit shall be certified for NEMA-4X and designed specially for high abuse areas, wet location, and cold weather (CW option). The faceplate(s) shall be constructed of heavy-duty vandal-resistant polycarbonate and features an even illuminated legend. The legend light source shall be light emitting diodes (LED). Red LED technology shall be **ALINGAP**. Emergency lights shall be fully adjustable and high efficiency LED lamps. The Lumacell Advanced Diagnostic Microcontroller board shall supply the rated load for a minimum of a 1/2 hour to 87,5% of the rated battery voltage. The unit shall be rated 120/347 V, 60 Hz and be CSA listed. The unit shall have an output of: _____ V _____ W. The battery charger shall be driven by a micro-controller and shall include functions of: Lockout, Brownout Circuits, and Low Voltage Disconnection. It protects the unit from over-current, short-circuit, and reverse polarity. The unit shall self-test for 1 minute every 30 days, 10 minutes on the 6th month and 30 minutes every 12 months. The unit shall be capable of full recharge in compliance with CSA specifications. The unit shall be furnished with a magnetic test switch. A "Service Required" lamp shall be located near the test switch and flash when a fault is detected. A four-LED diagnostic display shall be located inside the equipment and shall identify the source of failure: battery, charger circuitry, LED lamps or emergency lights.

The Exit Sign shall be CSA 22.2 No. 141-15 certified.

The equipment shall be **Lumacell®** Model: _____ .

POWER CONSUMPTION

MODEL	AC SPECS		WATTAGE CAPACITY				
			30MIN	1H	1H	2H	4H
Exit Sign Model	120/347VAC	Less than 2W	-	-	-	-	-
3LER3		0.15/0.05A	36	30	20	15	8
3LER300CW		0.41/0.15A	36	30	20	15	8
5LER3		0.27/0.09A	60	40	30	24	12

IN THE SAME FAMILY: NEMA 4X

- LER3000 Series Exit Sign

- RG-NX NEMA-4X Series Battery Unit

- MQM-NX NEMA 4X Remote Fixtures

ORDERING INFORMATION

SERIES	FACES	# OF HEADS	HEAD STYLE AND WATTAGE	HOUSING/ FACE COLOUR	VOLTAGE	OPTIONS
3LER3= 6V-36W, NEMA-4X & NSF **5LER3**= 12V-60W, NEMA-4X & NSF	**500**= single face **600**= double face[1] [1]Red only	**2**= two heads **Blank**= no heads[1] [1]Remote load must be connected	**Blank**= no heads **LD1**= MR16 LED, 6V-4W **LD2**= MR16 LED, 6V-5W **LD7**= MR16 LED, 12V-4W **LD9**= MR16 LED, 12V-5W **LD10**= MR16 LED, 12V-6W	**BA**= black/aluminum **BK**= black/black **GA**= grey/aluminum **GB**= grey/black **GW**= grey /white **WA**= white/aluminum **WB**= white/black **WH**= white/white	**Blank**= 120 to 347VAC **ZC**= 120/ 277VAC	**AT**= auto-test, audible **Blank**= auto-test, non-audible (standard) **CW**= cold weather -40°C[1] **GN**= green legend **NEX**= NEXUS® system interface[2] **NEXRF**= wireless NEXUS® system interface[2] [1]Available in single face only. [2]Not all options are available with NEXUS® system. Please consult your sales representative.

EXAMPLE: 3LER35002LD2WH

LH Series

Pictogram Exit Sign
Hazardous Locations
Class I Div 2, Class II Div 1&2 and Class III

nexus® SA® Made in Canada

FEATURES

- Compliant Class I Division 2, Groups A, B, C and D as per CSA C22.2 No.137-M1981
- Includes the addition of Class II Div. 1&2 Groups E, F and G as well as Class III ratings
- Temperature Code T6 (maximum + 85°C (185°F)) as per Canadian Electrical Code, Part I and CSA C22.2 No.137-M1981
- High-impact thermo-plastic frame with built-in gasket to secure against liquid leaks
- Sealed, heavy-duty, vandal-resistant polycarbonate face plate(s)
- Concealed pilot light and test switch with magnetic action
- Long-life white LED light source is warrantied for 10 years
- Supplied standard with two pictogram films per face, for direction selection
- Universal AC input: two-wire 120 to 347VAC; standard DC input: two-wire 6 to 24VDC
- Energy efficient – consumes less than 2.5 Watts in AC or DC-remote mode
- Self-Powered models come standard with auto-test functions and deliver two hours of back-up legend illumination
- Suitable for cold-weather: -40°C (-40°F) for AC/DC and -20°C (-4°F) for Self-Powered models (option: -CW)
- Meets or exceeds CSA 22.2 No.141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

TYPICAL SPECIFICATIONS

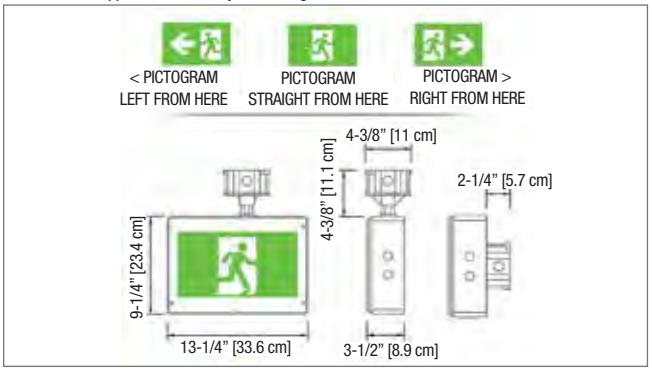
Supply and install the **Lumacell® LH Series** of pictogram Exit Signs. The equipment shall be certified for Hazardous Locations: Class I Division 2 Groups A, B, C and D with a temperature code T6 (maximum 85ºC (185ºF)). The equipment frame shall be of industrial grade polyvinyl chloride with a gasket around lenses and canopy. The faceplate(s) shall be constructed of heavy-duty vandal-resistant polycarbonate and feature an even illuminated pictogram legend. Each face plate shall come standard with two legend films for pictogram and direction selection. The light source shall be long-life white light-emitting diodes (LED). The pictogram Exit Sign shall operate with universal 2-wire AC input voltage of 120 to 347VAC at less than 2.5W and universal 2-wire DC input voltage from 6 to 24VDC at less than 1W for single and double face signs. The Self-Powered model shall include a concealed pilot light and magnet-sensitive test switch, shall use a sealed Nickel-Cadmium battery of 2.4V nominal voltage and shall stay illuminated during emergency operation for at least two hours upon AC failure. The Self-Powered model shall include auto-test functions: it shall execute automatic tests for 5 minutes every 30 days, 30 minutes every 60 days and 120 minutes annually. When a fault is detected, the bi-colour pilot light shall turn from green to red and flash following a particular code. The code description shall be visible on a label next to the pilot light to identify the failure type: battery, charger circuitry, or LED lamps.

The pictogram Exit Sign shall Meets or exceeds CSA 22.2 No.141-15.

The equipment shall be **Lumacell®** Model: _____.

DIMENSIONS

Dimensions are approximate and subject to change.



POWER CONSUMPTION AND UNIT RATING

MODEL	AC SPECS		DC SPECS	
AC-only	120 to 347VAC	Less than 2.5 W	-	-
AC/DC standard	120 to 347VAC	Less than 2.5 W	6 to 24VDC	Less than 1 W
AC/Special DC	120 to 347VAC	Less than 2.5 W	36, 48, 120VDC	Less than 2.5 W
Two-wire 120V AC/DC	120VAC	Less than 2.5 W	120VDC	Less than 2.5 W
Auto-test	120 / 347VAC	Less than 3.5 W	Ni-Cd battery	Min. 120 mins.

IN THE SAME FAMILY: CLASS 1, DIV. 2


- LHC Series Pictogram Exit Sign


- RG-HZ Series Battery Unit


- MQM-HZ Series Remote Fixtures

ORDERING INFORMATION

SERIES	FACES	HOUSING COLOUR	VOLTAGE	OPTIONS
LH= pictogram Exit Sign	**1**= single face, ceiling or wall mount **2**= double face, ceiling mount only	**G**= grey	**2120**= 2-wires 120VAC/VDC **NEX**= NEXUS® system interface, 120/347VAC[1] **NEXRF**= wireless NEXUS® System interface, 120/347VAC[1] **SD**= Self-Powered, auto-test, non-audible, Ni-Cd, 120/347VAC **SD2**= Self-Powered, auto-test, non-audible, Ni-Cd, 120/277VAC **U**= universal 120 to 347VAC; 6 to 24VDC **U00**= 120 to 347VAC only **U36**= 120 to 347VAC; 36VDC **U48**= 120 to 347VAC; 48VDC **U120**= 120 to 347VAC; 120VDC [1]Not all options are available with NEXUS® system. Please consult your sales representative.	**CW**= cold weather (-20°C for SD, SD2 and NEXUS®, -40°C for universal model) **U9**= arrow up **D9**= arrow down **U4**= arrow up 45° **D4**= arrow down 45°

EXAMPLE: LH1GU

LHC Series

Pictogram Combo, Hazardous Locations:

Class I Div 2, Class II Div 1&2 and Class III

nexus® Made in Canada

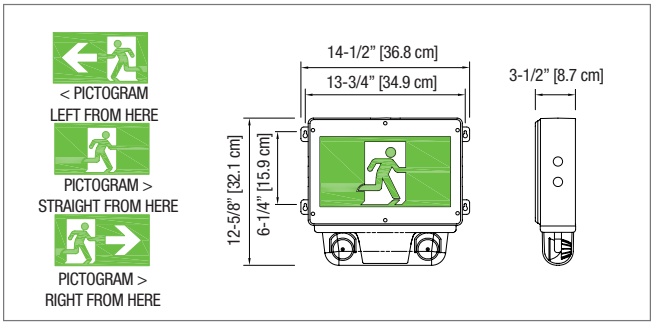
FEATURES

- Certified Class I Division 2, Groups A, B, C and D as per CSA C22.2 No.137-M1981
- Includes the addition of Class II Div 1&2 Groups E, F and G as well as Class III ratings
- Certified temperature Codes for several types of emergency lamps
- Polyvinyl chloride frame, with built-in gasket to prevent water infiltration
- Heavy-duty 1/8-inch thick aluminum back plate with key-holes for wall-mount installation
- Sealed, polycarbonate vandal-resistant faceplate
- Legend illuminated by long-life white LEDs is warrantied for 10 years
- Comes standard with two pictogram films for direction selection
- Two LED lamps shielded by a clear polycarbonate cover
- Sealed, maintenance-free Lead-Calcium or Nickel-Cadmium batteries
- Comes standard with auto-test, non audible
- Remote load capacity: covers with LED lights 200 ft up to 500 ft of egress illumination
- Cold-weather option: -40°C (-40°F) with only 14W extra power consumption
- Auto-testing capabilities (specific load requirements)
- Meets or exceeds CSA C22.2 No.141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

DIMENSIONS

Dimensions are approximate and subject to change.



POWER CONSUMPTION

MODEL	AC SPECS		EMERGENCY POWER FOR LAMPS				
			30 min.	1 hr.	1.5 hrs.	2 hrs.	4 hrs.
Pictogram sign module	120/347VAC	Less than 2.5W	-	-	-	-	-
LHC-6L36	120/347VAC	0.10/0.03A	36	21	15	12	-
LHC-6L36-CW		0.25/0.08A	36	-	-	-	-
LHC-6N36		0.10/0.03A	36	30	20	16	8
LHC-6N36-CW		0.25/0.08A	36	-	-	-	-
LHC-12N60		0.18/0.06A	60	40	30	20	10

TYPICAL SPECIFICATIONS

Supply and install **Lumacell® LHC Series** combination emergency light battery unit and pictogram sign. Designed specifically for hazardous locations, the equipment frame shall be of industrial grade polyvinyl chloride with gaskets around both sides of the frame contour. The back plate shall be made of 1/8-inch thick aluminum sheet and shall include knock-outs for installation on an electrical box and four keyholes for alternative installation on a wall surface. The faceplate shall be constructed of heavy-duty vandal-resistant clear polycarbonate and feature a uniformly illuminated pictogram legend. The unit shall come standard with two legend films for pictogram and direction selection. The light source shall be long-life white light-emitting diodes (LED). The unit shall have attached a lower compartment containing two emergency heads with adjustable swivels and long-life LED lamps of ___ V and ___ W. The heads shall be installed on a shield housing made of cast aluminum and protected by a shock-absorbent, clear polycarbonate cover.

The standard AC input voltage shall be 120/347VAC. The equipment shall be equipped with a magnetic test switch and one LED pilot light protected by the face plate. The unit shall perform auto-test function managed by a micro-controller and shall automatically self-test for one minute every 30 days, 10 minutes in the 6th month and 30 minutes annually. When a fault is detected, the bi-color pilot light shall turn from green to red and flash following a particular code. The code description shall be displayed on a label next to the pilot light to identify the failure type: battery, charger circuitry, LED lights for the signage, or emergency lights.

The combination unit shall be CSA 22.2 No.141-10 certified and No.137-M1981 for Class I Division 2 Groups A, B, C and D, Class II Divison 1&2 Groups E, F and G as well as Class III.

The combination unit shall be **Lumacell®** model: _____.

TEMPERATURE CODES

LAMP RATING	TEMPERATURE CODE	MAX. TEMPERATURE	REPLACEMENT PART NUMBER
6W MR16 LED	T4	135°C (275°F)	500.0106
6V-4W LED	T4A	120°C (248°F)	580.0097
12V-4W LED	T4A	120°C (248°F)	580.0093
12V-5W LED	T4A	120°C (248°F)	580.0104

IN THE SAME FAMILY: CLASS 1, DIV. 2

- LH Series Pictogram Exit Sign

- RG-HZ Series Battery Unit

- MQM-HZ Series Remote Fixtures

ORDERING INFORMATION

SERIES	HOUSING COLOUR	BATTERY TYPE AND POWER	HEAD STYLE AND WATTAGE	OPTIONS
LHC= pictogram combo	**G**= grey	**6L36**= 6V-36W, Lead-Calcium **6N36**= 6V-36W, Ni-Cd **12N60**= 12V-60W, Ni-Cd	**Blank**= No head **LD1**= MR16 LED, 6V-4W **LD2**= MR16 LED, 6V-5W **LD7**= MR16 LED, 12V-4W **LD9**= MR16 LED, 12V-5W **LD10**= MR16 LED, 12V-6W	**AT**= auto-test (audible) **Blank**= auto-test, non audible (standard) **CW**= cold weather -40°C (only 6V units) **NEX**= NEXUS® system interface[1] **NEXRF**= wireless NEXUS® system interface[1] **T3**= time delay (15 minutes) **U9**= arrow up **D9**= arrow down **U4**= arrow up 45° **D4**= arrow down 45° **ZC**= 120/277VAC input [1]Not all options are available with NEXUS® system. Please consult your sales representative

EXAMPLE: LHCG6N36LD1

LER-HZ Series

LED Exit Sign, Hazardous Locations:

Class I Div 2, Class II Div 1&2 and Class III

nexus® CSA® Made in Canada

FEATURES

- Certified Class I Zone 2, Groups IIA, IIB and IIC
- Certified Class I Div 2, Groups A, B,C and D as per CSA C22.2 No.137-M1981
- Includes the addition of Class II Div 1&2 Groups E, F and G as well as Class III ratings
- Temperature Code: T6 (maximum 85ºC as per Canadian Electrical Code, Part I and CSA C22.2 No.137-M1981)
- Suitable for cold-weather: -20ºC (-4ºF) (Self-Powered model, "CW" option) and -40ºC (-40ºF) (AC-only and AC-DC models)
- Input voltages: 120 to 347VAC universal AC-input; 6 to 48VDC universal DC-input
- High impact thermoplastic frame, with built-in gasket to prevent water infiltration
- Suited for areas with the risk of presence of flammable gases, vapors or liquids able to create an explosive atmosphere
- Sealed, polycarbonate faceplate of heavy-duty, vandal-resistant
- Tamper-resistant, hermetically sealed magnetic test switch
- Self-test/self-diagnostic circuitry is standard on Self-Powered models
- Batteries recharge as per CSA requirements and provide 90 minutes of emergency operation
- Come standard with industrial-grade, Die-Cast aluminum electrical box
- Long-life, **ALINGAP** technology energy-efficient LED light source is warrantied for 10 years
- Energy efficient – consumes less than 3W in AC or DC mode
- Meets or exceeds CSA 22.2 No.141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

TYPICAL SPECIFICATIONS

Supply and install **Lumacell® LER-HZ Series** LED Exit Signs. The equipment shall operate with universal two-wire AC input voltage from 120VAC to 347VAC at less than 3W and universal two-wire DC input voltage from 6VDC to 48VDC at less than 2W for single and double face signs. Designed specifically for hostile environments, the equipment frame shall be of industrial grade high impact thermoplastic with a gasket around lenses and canopy. The faceplate(s) shall be constructed of heavy-duty vandal-resistant polycarbonate and feature an even illuminated legend. The light source shall be light emitting diodes (LED). Red LED technology shall be **ALINGAP**. An LED-sensitive diffuser shall be mounted behind the legend to provide the 6" high by 3/4" stroke letters with even illumination.

The equipment shall be certified for Hazardous Locations: Class I Division 2 Groups A, B, C and D with a temperature code T6 Maximum 85ºC (185°F). The equipment shall be designed specifically for high abuse areas, wet location, and cold weather -20°C (-4°F) applications.

The Self-Powered model shall stay illuminated during emergency operation for at least 90 minutes upon AC failure and shall include a magnetic test switch and self-testing/self-diagnostic functions.

The equipment shall automatically self test for 5 minutes every 30 days, 30 minutes every 60 days and 90 minutes annually. A "Service required" lamp shall be located near the test switch and flash when a fault is detected. A two-LED diagnostic display shall be located inside the equipment and shall identify the eventual source of failure (battery, charger circuitry, or LED lamps).

The Exit Sign shall be CSA 22.2 No.141-15 certified.

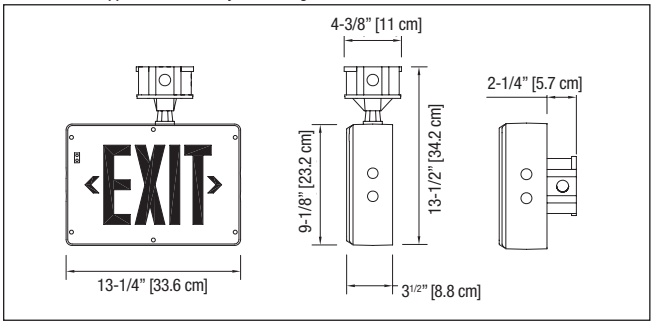
The equipment shall be **Lumacell®** Model: _____ .

WIRE GUARDS

460.0080-L	Wall Mount

DIMENSIONS

Dimensions are approximate and subject to change.



POWER CONSUMPTION AND UNIT RATING

MODEL	AC SPECS		DC SPECS	
AC/DC red	120 to 347VAC	Less than 3W	6 to 48VDC	Less than 2W
AC/DC green	120 to 347VAC	Less than 3W	6 to 48VDC	Less than 2W
Self-Powered red	120 to 347VAC	Less than 3W	Ni-Cd battery	Min. 90 minutes
Self-Powered green	120 to 347VAC	Less than 3W	Ni-Cd battery	Min. 90 minutes
120VAC/VDC 2 wires, red	120VAC	Less than 3W	120VDC	Less than 3W

Note: double face models have double the power consumption above.

IN THE SAME FAMILY: CLASS 1, DIV. 2

- 3LER-HZ Series Exit Sign

- RG-HZ Series Battery Unit

- MQM-HZ Series Remote Fixtures

ORDERING INFORMATION

SERIES	FACES/MOUNTING	COLOUR	VOLTAGE	OPTIONS
LERHZ= exit sign	**500=** single face, ceiling or wall mount **600**= double face, ceiling mount only	**SG**= silver grey	**120VACDC2**= 120VAC, 120VDC, 2 wires **Blank**= universal 120-347VAC, 6-48VDC **NEX**= NEXUS® system interface[1] **NEXRF**= wireless NEXUS® system interface[1] **SPD**= Self-Powered, auto-test, non-audible Ni-Cd, [1]Not all options are available with NEXUS® system. Please consult your sales representative	**Blank**= red legend **CW**= cold weather -20°C, Self-Powered only **GN**= green legend

EXAMPLE: LERHZ500SG

3LER-HZ Series

LED Combination Unit Hazardous locations

Combination Unit for Class I Zone 2 Hazardous Locations

nexus® Made in Canada

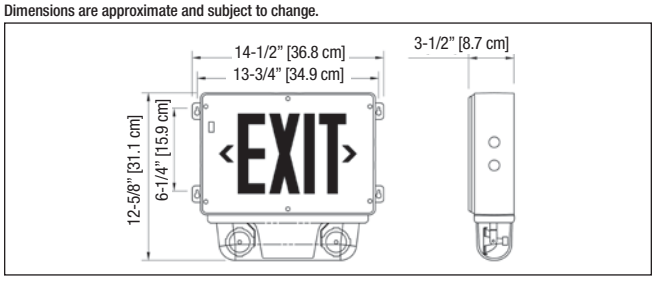
FEATURES

- Certified Class I Division 2, Groups A, B, C and D as per CSA C22.2 No.137-M1981 Class I Zone 2, Groups IIA, IIB and IIC
- Includes the addition of Class II Div 1&2 Groups E, F and G as well as Class III ratings
- Certified temperature Codes for several types of emergency lamps
- Polymeric frame, with built-in gasket to prevent water infiltration
- Heavy-duty 1/8" thick aluminum back plate with key-holes for secure wall-mount installation
- Sealed polycarbonate faceplate of heavy-duty, vandal-resistant
- Suited for areas with the risk flammable gases, vapors or liquids that can create an explosive atmosphere
- Long-life, **ALINGAP** technology energy-efficient LED light source is warrantied for 10 years
- Two LED lamps, shielded by a cast aluminum housing and a polycarbonate cover
- Sealed, maintenance-free Lead-Calcium or Nickel-Cadmium batteries
- Remote load capacity: covers with LED lights 200 ft up to 800 ft of egress illumination
- Comes standard with self-test/self-diagnostic functions
- Comes standard with industrial-grade, Die-Cast Aluminum electrical box
- 1/2 inch electrical conduit entry on both sides and at the top
- Auto-testing capabilities (specific load requirements)
- Meets or exceeds CSA C22.2 No.141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

DIMENSIONS

Dimensions are approximate and subject to change.



POWER CONSUMPTION

MODEL	AC SPECS		WATTAGE CAPACITY				
			30MIN	1H	1H30	2H	4H
3LERHZ	120/347VAC	0.15/0.06 A	36	21	15	12	-
3LERHZN		0.15/0.06 A	36	30	20	15	-
5LERHZN		0.30/0.10 A	60	40	30	20	10
12H10LERHZ		0.030/0.10 A	100	72	40	36	18

TYPICAL SPECIFICATIONS

Supply and install **Lumacell® 3LER-HZ Series** combination of unit equipment and LED Exit Sign. Designed specifically for hostile environments, the equipment frame shall be of industrial grade polymer with gaskets around both sides of the frame contour. The back plate shall be made of 1/8-inch thick aluminum sheet and shall include knockouts for installation on an electrical box and four keyholes for alternative installation on a wall surface.The faceplate shall be constructed of heavy-duty vandal-resistant polycarbonate and feature a uniformly illuminated legend. The light source shall be light emitting diodes (LED). Red LED technology shall be **ALINGAP**. An LED-sensitive diffuser shall be mounted behind the legend to provide the 6" high by 3/4" stroke letters with even illumination.

When specified, the equipment shall have attached a lower compartment containing two emergency lights with adjustable swivels and long-life LED lamps of _____ V and _____ W. The lamps shall be shielded by cast aluminum housing and protected by a shock-absorbent, transparent polycarbonate cover.The equipment shall be certified for Hazardous Locations: Class I Division 2 Groups A, B, C and D. The standard AC input voltage shall be: 120/347VAC. The equipment shall be equipped with a magnetic test switch located behind the face plate and two LED pilot lights: AC-on and "Service required".

The unit shall include self-testing/self-diagnostic functions monitored by a micro-controller and shall automatically self test for one minute every 30 days, 10 minutes in the 6th month and 30 minutes annually. The "Service required" LED shall light when a fault is detected. A four-LED diagnostic display located inside the equipment shall identify the source of the failure (battery, charger circuitry, or lamp load).

The Exit Sign module shall be CSA 22.2 No.141-15 certified.

The combination unit shall be **Lumacell®** Model: _____ .

WIRE GUARDS

460.0078-L	Wall Mount

TEMPERATURE CODES

LAMP RATING	TEMPERATURE CODE	MAX. TEMPERATURE	REPLACEMENT PART NUMBER
6V-4W LED	T4A	120°C (248°F)	580.0097
12V-4W LED	T4A	120°C (248°F)	580.0093
12V-5W LED	T4A	120°C (248°F)	580.0104
12V-6W LED	T4	135°C (275°F)	580.0106

IN THE SAME FAMILY: CLASS 1, DIV. 2

- LER-HZ Series Exit Sign

- RG-HZ Series Battery Unit

- MQM-HZ Series Remote Fixtures

ORDERING INFORMATION

SERIES	NUMBER OF HEADS	HEAD STYLE AND WATTAGE	HOUSING FACE COLOR	VOLTAGE	LEGEND COLOR	CHARGER TYPE
3LERHZN= 6V-36W, Ni-Cd **5LERHZ**= 12V-60W, Ni-Cd **12H10LERHZ**= 12V-100W, NiMH	**Blank**= no heads[1] **2=** two heads [1]Remote load must be connected.	**Blank**= no heads **LD1**= MR16 LED, 6V-4W **LD2**= MR16 LED, 6V-5W **LD7**= MR16 LED, 12V-4W **LD9**= MR16 LED, 12V-5W **LD10**= MR16 LED, 12V-6W	**GG**= grey/grey	**Blank**= 120/347VAC **ZC**= 120/277VAC	**Blank**= red legend **G**= green legend	**AT**= auto-test, audible **ATN**= auto-test, non-audible **NEX**= NEXUS® wired system interface[1] **NEXRF**= wireless NEXUS® system interface[1] [1]Not all options available with NEXUS® system. Please consult your sales representative

EXAMPLE: 3LERHZN2LD1GGAT

LX Series

Pictogram Exit Signs for Hazardous Locations: TP Series Transfer Panels

Made in Canada

FEATURES

Pictogram Sign Series

- CSA Certified for use in hazardous locations:
  - Class I, Division 1 and 2, Group A, B, C, D
  - Class II, Division 1 and 2, Group E,F,G
  - Class III, Division 1 and 2
- Very low Temperature Codes (see table)
- Lighting fixture of Die-Cast aluminum with grey epoxy powder coat finish
- Legend housing of industrial-grade 14-gauge steel with grey enamel finish
- Supplied standard with two pictogram films per face, for direction selection
- Long-life white LED light source
- Two-wire AC/DC input available in 6, 12, 24 or 120V
- Energy efficient – consumes maximum 4.0W in AC and DC mode
- Also available as Self-Powered
- Listed CSA C22.2 No.137-M1981
- Meets or exceeds CSA 22.2 No.141

TP Series Transfer Panel

- Available with housing for hazardous locations (Class 1, Division 1) or NEMA-1 housing (for use outside the hazardous location area)
- Standard AC input: 120Vac, optional: 277VAC, 347VAC
- Standard DC input: 6, 12 or 24VDC
- Two-wire output with permanently present AC/DC low voltage
- Output power: 25W, can drive up to six (6) LX Series remote pictogram exit signs

See warranty details at: www.tnb.ca/en/brands/lumacell

TYPICAL SPECIFICATIONS

Supply and install the **Lumacell® LX Series** remote pictogram exit signs. The lighting fixture shall have a Die-Cast aluminum body with grey epoxy powder coat finish and a transparent glass globe. The light source shall be long-life Light-Emitting Diodes (LED) in a lamp assembly rated __V. The LED assembly shall emit white light and shall consume less than 4W in AC or DC current. The legend housing shall be of industrial-grade 14-gauge steel with grey enamel finish. The face plate(s) shall consist of three layers: a white translucent panel, a green/clear legend film and a clear Polycarbonate panel for rigidity enforcement. Each face plate shall come standard with two legend films per face, for direction selection.

The equipment shall be certified CSA C22.2 No.137-M1981 for Hazardous Locations: Class __, Division __, Groups _____ with the temperature code: _____. The equipment shall be certified CSA 22.2 No.141

The equipment shall be **Lumacell®** Model: _____ .

RSTP SERIES TRANSFER PANEL:

Supply and install the **Lumacell® RSTP Series** transfer panel for hazardous location remote Exit Signs. The unit shall have two voltage inputs: _____ VAC and _____ VDC and shall be able to maintain an output of _____ V 25W for the permanent supply of a total of five remote LED Exit Signs.

The transfer panel shall be suitable for Class ___, Division___, Group_____ or for a NEMA 1 environment.

The unit shall be **Lumacell®** Model: _____ .

POWER CONSUMPTION AND UNIT RATING

MODEL	AC SPECS		DC SPECS	
AC/DC red two-wire	6VAC	less than 5W	6VDC	less than 5W
	12VAC		12VDC	
	24VAC		24VDC	
	120VAC		120VDC	

***NOTE: Exit Signs of 6,12 or 24 V must be connected through transfer panels; maximum five Pictogram Exit Signs per panel.**

1. SEVERITY CODE SELECTION GUIDE

ENVIRONMENT	SEVERITY CODE
Class I Div.1 Groups A, B	S1
Class I Div.1 Groups C, D	S2N
Class I Div.2 Groups A, B, C, D	S3
Class II Div. 1 & 2 Groups E, F, G Class III Div.1 and 2	S4

2. TEMPERATURE CODES: MEASURED AT 40°C AMBIENT

SEVERITY CODE	S1	S2N	S3	S4
TEMPERATURE CODE	T6	T6	T4A	T6 (E, F, G)
CSA/UL RATING	maximum 85° C	maximum 85° C	maximum 120° C	maximum 85° C

LX Series

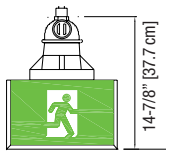
Pictogram Exit Signs for Hazardous Locations: TP Series Transfer Panels

DIMENSIONS

Dimensions are approximate and subject to change.

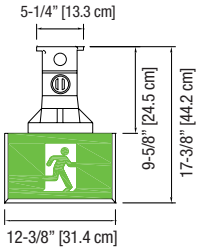
SEVERITY CODES S1 & S2N

*SINGLE PENDANT MOUNT



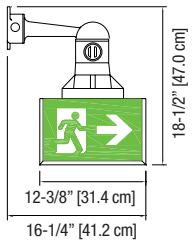
*HARDWARE SUPPLIED BY OTHER.

CEILING MOUNT



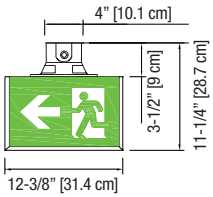
SEVERITY CODES S2N ONLY

WALL MOUNT

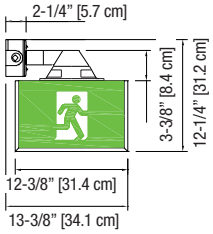


SEVERITY CODES S3, S4

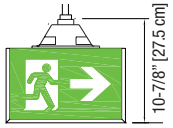
CEILING MOUNT



WALL MOUNT

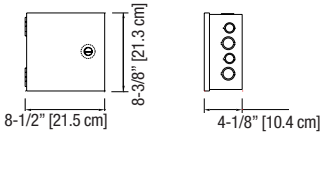


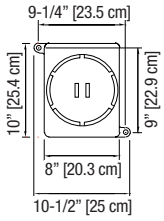
*SINGLE PENDANT MOUNT



*HARDWARE SUPPLIED BY OTHER.

TRANSFER PANELS





NOTE: TRANSFER PANELS HAVE NO SEVERITY RATING

PICTOGRAM LEGENDS

< PICTOGRAM LEFT FROM HERE

PICTOGRAM STRAIGHT FROM HERE

PICTOGRAM > RIGHT FROM HERE

ORDERING INFORMATION

Before ordering, identify the environment of your application: Class _____, Division _____, Group _____. Refer to table 1 for the Severity Code to use in your catalogue number. For temperature information, please see table 2.

3. LX SERIES

SERIES	NO. OF FACES	SEVERITY CODE	MOUNTING	INPUT VOLTAGE	OPTIONS
LX= Hazardous Location pictogram sign	**1**= single face **2**= double face	**S1**= Class I Div.1 Gr. A, B **S2N**= Class I Div.1 Gr. C, D **S3**= Class I Div.2 Gr. A, B, C, D **S4**= Class II Div.1&2 Gr. E, F, G Class III Div.1&2	**C**= Ceiling **P**= Pendant[1] **W**= Wall[2] [1]Mounting hardware not included [2]Wall mount only available for severities S2N, S3 & S4 only	**6**= 6V AC/DC **12**= 12V AC/DC **24**= 24V AC/DC **120**= 120V AC/DC	**U9**= arrow up **D9**= arrow down **U4**= arrow up 45° **D4**= arrow down 45°

EXAMPLE: LX1S1C6

Unlike EXIT signs, the pictogram sign is not available in double arrow configuration.

4. TRANSFER PANELS - RSTP SERIES

SERIES	AC VOLTAGE	DC VOLTAGE		LOAD POWER	HOUSING
RSTP= Transfer Panel	**120**= 120VAC **347**= 347VAC **277**= 277VAC	**6**= 6V **12**= 12V	**24**= 24V **120**= 120V	**25**= 25W[1] [1]4W required per DC "pictogram exit" load	**Blank**= NEMA1 **XP**= hazardous locations

RG-X LED "Picto" Series

new product

Battery Units, Self-Powered Pictogram Exit Signs, Combination Units

Made in Canada

CSA certified for use in hazardous locations

The **RG-X LED Pictogram Series** of battery equipment is designed to cover emergency lighting applications for the entire spectrum of hazardous locations, where inflammable gases, vapors, liquids, dust particles or fabrics tissues are permanently present or are likely to exist.

The **RG-X LED Pictogram Series** combines in one simple-to-order catalogue family three traditional emergency lighting products with battery back-up: battery units with emergency lights, Self-Powered Pictogram Signs, and combination units with emergency lights and Pictogram Sign. The equipment is also available with additional emergency power capacity to drive remote heads and Pictogram Signs.

FEATURES

- CSA Certified for use in hazardous locations:
  - Class I, Division 1, Groups B, C, D
  - Class I, Division 2, Groups A, B, C, D
  - Class II, Divisions 1 and 2, Groups E, F, G
  - Class III, Divisions 1 and 2
- For wall mount only
- Die-Cast aluminum body with grey epoxy powder coat finish; clear, impact and heat resistant prismatic glass globe
- Long-life, maintenance-free lead-calcium battery
- Battery charger is current limited, temperature compensated, short-circuit proof and reverse polarity protected
- Emergency heads with one or twin lamp design
- Large Self-Powered combo includes a transfer circuit to drive an additional three (3) remote pictogram exit signs (total power max 15W)
- Easy-to-build catalogue number based on the **Lumacell®** Severity Codes
- Meets or exceeds CSA C22.2 No.141-10 & No. 137

See warranty details at: www.tnb.ca/en/brands/lumacell

TYPICAL SPECIFICATIONS

Supply and install the **Lumacell® RG-X LED Pictogram Series** of hazardous location battery equipment. The battery unit housing will be constructed of die cast aluminum with grey epoxy powder coat finish and equipped with heavy-duty key holes for wall mount. The equipment shall be rated for 120, 277 or 347V, 60 Hz input and be CSA listed. The equipment shall have an output of _____ V and _____ W and shall supply the rated load for a minimum of a 1/2 hour to 87,5% of the rated battery voltage. The battery shall be a long-life, maintenance-free lead-calcium type. The charger shall be fully computer tested and have its charge voltage set in the factory to ± 1% tolerance. The charger shall be current limited, temperature compensated, short circuit proof and reverse polarity protected. The charger shall be furnished with an electronic lockout circuit, which will connect the battery when the AC circuit is activated, and an electronic brownout circuit.

Where required the equipment shall come complete with _____ heads, each of them equipped with _____ lamp(s) of _____ W.

The head housing shall be Die-Cast aluminum with grey epoxy powder coat finish. The lenses shall be a clear, impact and heat resistant prismatic glass globe. The head shall be factory sealed, with no need for external seals.

Where required the equipment shall come complete with one Pictogram Exit Sign and will include a transfer circuit to maintain the Pictogram Sign permanently lighting in both normal and emergency operation. The picto housing shall be industrial grade 14-gauge steel and finished in grey enamel. The faceplate will be constructed of heavy-duty 14-gauge steel.

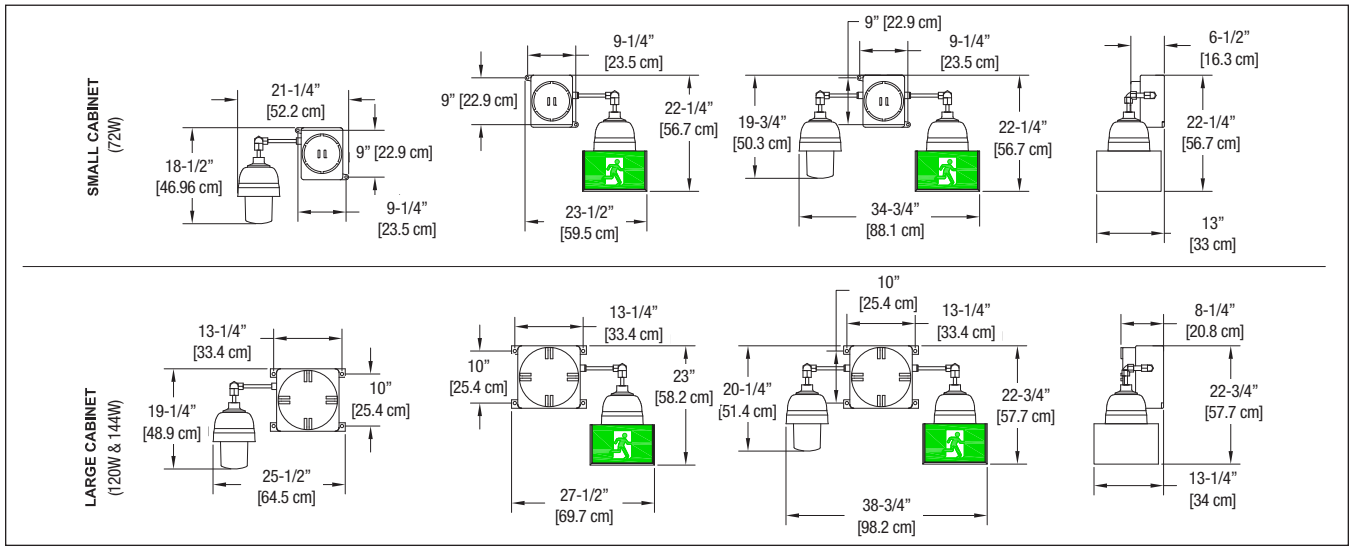
The equipment shall be certified CSA C22.2 No.137-M1981 for Hazardous Locations: Class ____, Division ____, Group ____ with the temperature code ____.

The Pictogram Exit Sign shall be CSA C22.2 No.141-10 certified.

The equipment shall be **Lumacell®** Model: _____ .

DIMENSIONS

Dimensions are approximate and subject to change.



new product

RG-X LED "Picto" Series

Battery Units, Self-Powered Pictogram Signs, Combination Units

POWER CONSUMPTION AND UNIT RATING

UNIT CAPACITY	INPUT VOLTAGE	INPUT RATING	WATTAGE CAPACITY				
			30MIN	1H	1H30	2H	4H
12V-72W*	120V, 60Hz	0.25A, 25W	72	36	25	20	10
	277V, 60Hz	0.125A, 28W					
	347V, 60 Hz	0.115A, 28W					
12V-120W	120V, 60Hz	0.45A, 37W	120	60	40	30	15
	277V, 60Hz	0.209A, 42W					
	347V, 60 Hz	0.176A, 42W					
24V-144W	120V, 60Hz	0.465A, 38W	144	72	50	40	20
	277V, 60Hz	0.208A, 42W					
	347V, 60 Hz	0.178A, 42W					

*** Combo, no remote Exit capability**

TEMPERATURE CODES: MEASURED AT 40°C AMBIENT

Explosion-proof equipment is composed of one or more modules, each of them qualified for a specific temperature code. The temperature code of the complete equipment (enclosure + picto sign + emergency heads) is defined as the most severe of the temperature codes identified for each of the modules below.

TEMPERATURE CODES FOR RG-X SERIES (Battery & pictogram combination units)

SEVERITY CODE	S1	S2	S3	S4
TEMPERATURE CODE	T6 85°C (185°F)	T6 85°C (185°F)	T6 120°C (248°F)	T6 85°C (185°F)

SEVERITY CODE SELECTION CHART

ENVIRONMENT	SEVERITY CODE
Cl. I, Div. 1 & 2, Gr. B	S1
Cl. I, Div. 1, Gr. C, D	S2
Cl. I, Div. 2, Gr. A, B, C, D	S3
Cl. II, Div. 1 & 2, Gr. E, F, G & Cl. III	S4

RG-X

D.C VOLTAGE	CAPACITY	HOUSING	SIGN/FACE	HEAD STYLE	LAMP TYPE, VOLTAGE AND POWER	SEVERITY CODE	A.C VOLTAGE	OPTIONS
RG12= 12V	**72**= 72W[1] **120**= 120W	**X**= Hazardous location	**Blank**= No sign **P1**= Single face LED Pictogram **P2**= Double face LED Pictogram	**0**= No heads **A1**= Single remote, 1 lamp **A2**= Single remote, 2 lamps **A3**= Double remote, 1 lamp each[1]	**Blank**= no lamp **LD7**= 12V-4W MR16 LED **LD9**= 12V-5W MR16 LED **LD10**= 12V-6W MR16 LED **LD13**= 24V-4W MR16 LED	**S1**= Cl.I, Div.1&2, Gr.B **S2**= Cl.I, Div.1, Gr. C, D **S3**= Cl.I, Div.2, Gr. A, B, C, D **S4**= Cl.II, Div.1&2, Gr. E, F, G & CLIII	**Blank**= 120VAC **ZC**= 277VAC input **ZD**= 347VAC input	**Blank**= No options **TD**= Time delay (15 minutes) **TP**= Transfer panel[1] **U9**= arrow up **D9**= arrow down **U4**= arrow up 45° **D4**= arrow down 45°
RG24= 24V	**144**= 144W							

[1]Combo, no remote Exit capability

[1]Not available with pictogram sign

[1]Not available with 12V-72W model

EXAMPLE: RG1272XP1A1LD7S2

XP/RSTP Series
LERE-XP

Hazardous Location Exit TP Series & Transfer Panel

Made in Canada

CSA certified for use in hazardous locations

The **LERE-XP Series** of "EXIT" signs are designed to cover emergency lighting applications for the entire spectrum of hazardous locations, where inflammable gases, vapors, liquids, dust particles or fabrics tissues are permanently present or are likely to exist. The **LERE-XP** Exit Signs can be connected to the **RSTP** transfer panel (see below), the **RG-X** Series of battery equipment, or the **Lumacell® DC system.**

FEATURES

LERE-XP Series Exit Signs

- CSA Certified for use in hazardous locations:
  - Class I, Divisions 1 and 2, Group A, B, C, D
  - Class II, Divisions 1 and 2, Group E,F,G
  - Class III, Divisions 1 and 2
- Die-Cast aluminum body with grey epoxy powder coat finish
- Exit housing and faceplate made of industrial-grade 14-gauge steel and finished in grey enamel
- Faceplate features universal knockout chevrons
- Two-wire input circuit for both AC and DC inputs
- Available in 6, 12, 24 and 120VAC/dc
- LED lamp with **ALINGAP** LEDs; consumes less than 5W in AC and DC mode
- New, easy-to-build catalogue number based on the Lumacell Severity Codes
- Listed CSA C22.2 No. 137-M1981
- Listed CSA 22.2 No. 141

/RSTP Series Transfer Panel

- Available with hazardous location housing (Class I, Division 1) or NEMA-1 housing (for use outside the hazardous location area)
- Standard AC input: 120VAC, optional 277VAC, 347VAC; standard DC input: 6, 12 or 24VDC
- Two-wire output with permanently present AC/DC low voltage
- Output power: 25W, can drive up to five (5) units of the LERE-XP remote exit series
- Also available as Self-Powered Exit Sign, battery unit and combo unit; see RG-X catalogue sheet

TYPICAL SPECIFICATIONS

LERE-XP Series Remote Exit Sign:

Supply and install the **Lumacell® LERE-XP Series** remote Exit Sign. The exit housing shall be industrial grade 14-gauge steel and finished in grey enamel. The faceplate will be constructed of heavy-duty 14-gauge steel and feature universal knockout chevrons and the red letters shall not be less than 6" (150 mm) in height with a 3/4" (19 mm) stroke. The sign shall come complete with a _____ Volt LED lamp, and function from one voltage source only, in AC and DC current. The LED Lamp shall use **ALINGAP** LEDs and shall consume less than 5W in either AC or DC current.

The equipment shall be certified CSA C22.2 No. 137-M1981 for Hazardous Locations: Class ____, Division ____, Groups ____, with the temperature code: ____.

The equipment shall be certified 22.2 No. 141

The Exit Sign shall be **Lumacell®** Model: _____ .

RSTP Series Transfer Panel:

Supply and install the **Lumacell® RSTP Series** transfer panel for hazardous location remote Exit Signs. The unit shall have two voltage inputs: _____ VAC and _____ VDC and shall be able to maintain an output of _____ Volts 25W for the permanent supply of a total of five remote LED Exit Signs.

The transfer panel shall be suitable for Class _____, Division_____, Group_____ or for a NEMA 1 environment.

The unit shall be **Lumacell®** Model: _____ .

POWER CONSUMPTION AND UNIT RATING

MODEL	AC SPECS		DC SPECS	
AC/DC red two-wire	6VAC	Less than 5W	6VDC	Less than 5W
	12VAC		12VDC	
	24VAC		24VDC	
	120VAC		120VDC	

*NOTE: Exit Signs of 6,12 or 24 V must be connected through transfer panels; maximum five Exit Signs per panel.

1.

ENVIRONMENT	SEVERITY CODE
Cl. I, Div. 1, Gr. A, B	S1
Cl. I, Div. 1, Gr. C, D	S2N
Cl. I, Div. 2, Gr. A, B, C, D	S3
Cl. II, Div. 1 & 2, Gr. E, F, G Cl. III, Div. 1 & 2	S4

2.

CERTIFICATION GUIDE FOR LERE-XP (40°C AMBIENT)				
Severity Code	S1	S2N	S3	S4
Temperature Code	T6	T6	T4A	T6 (E,F,G)
CSA/UL rating	Max. 85°C (185°F)	Max. 85°C (185°F)	Max. 120°C (248°F)	Max. 88°C (190.4°F)

XP/RSTP Series
LERE-XP

Hazardous Location Exit TP Series & Transfer Panel

DIMENSIONS

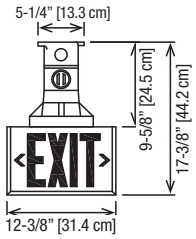
Dimensions are approximate and subject to change.

SEVERITY CODES S1 & S2N

*SINGLE PENDANT MOUNT

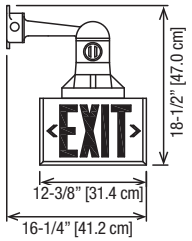
*HARDWARE SUPPLIED BY OTHER.

CEILING MOUNT



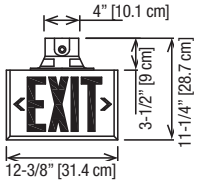
SEVERITY CODES S2N ONLY

WALL MOUNT

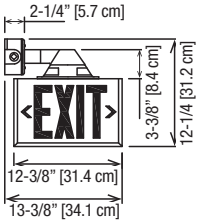


SEVERITY CODES S3, S4

CEILING MOUNT



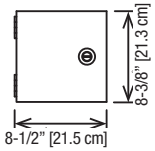
WALL MOUNT

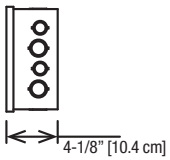


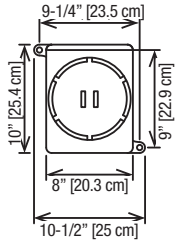
*SINGLE PENDANT MOUNT

*HARDWARE SUPPLIED BY OTHER.

TRANSFER PANELS







NOTE: TRANSFER PANELS HAVE NO SEVERITY RATING

ORDERING INFORMATION

Before ordering, identify the environment of your application: Class _____, Division _____, Group _____. Refer to the table 1 for the Severity Code to use in your catalogue number. For temperature information, please look at the table 2.

3. LERE-XP

SERIES	VOLTAGE	SEVERITY CODE	MOUNTING
LERE1X= exit single face C860 LED **LERE2X**= exit double face C860 LED	**-L6**= 6V **-L12**= 12V **-L24**= 24V **-L120**= 120V	**S1**= Cl. I, Div. 1 & 2, Gr. A, B **S2N**= Cl. I, Div. 1 & 2, Gr. C, D **S3**= Cl. I, Div. 2, Gr. A, B, C, D **S4**=CL. II, Div.1 & 2 Gr. E, F, G CL. III, Div.1 & 2	**C**= ceiling **P**= pendant[1] **W**= wall[2] [1]Mounting hardware not included [2]Severity S2N, S3 and S4 only

EXAMPLE: LERE1X-L6S1C

4. TRANSFER PANEL

SERIES	AC VOLTAGE	DC VOLTAGE		WATTAGE	HOUSING
RSTP= transfer panel	**120**= 120VAC **347**= 347VAC **277**= 277VAC	**6**= 6V **12**= 12V	**24**= 24V **120**= 120V	**25**= 25W[1] [1]5W required per DC "Exit" load	**Blank**= NEMA 1 **XP**= hazardous location

EXAMPLE: RSTP1206-25

RG-X LED "Exit" Series

new product

Battery Units, Self-Powered Exit Signs, Combination Units

Made in Canada

CSA certified for use in hazardous locations

The **RG-X LED Exit Series** of battery equipment is designed to cover emergency lighting applications for the entire spectrum of hazardous locations, where inflammable gases, vapors, liquids, dust particles or fabrics tissues are permanently present or are likely to exist.

The **RG-X LED Exit Series** combines in one simple-to-order catalogue family three traditional emergency lighting products with battery back-up: battery units with emergency lights, Self-Powered Exit Signs, and combination units with emergency lights and Exit Sign. The equipment is also available with additional emergency power capacity to drive remote heads and Exit Signs.

FEATURES

- CSA Certified for use in hazardous locations:
  - Class I, Division 1, Groups B, C, D
  - Class I, Division 2, Groups A, B, C, D
  - Class II, Divisions 1 and 2, Groups E, F, G
  - Class III, Divisions 1 and 2
- For wall mount only
- Die-Cast aluminum body with grey epoxy powder coat finish; clear, impact and heat resistant prismatic glass globe
- Long-life, maintenance-free lead-calcium battery
- Battery charger is current limited, temperature compensated, short-circuit proof and reverse polarity protected
- Emergency heads with one or twin lamp design
- Large Self-Powered exit (combo) includes a transfer circuit to drive three (3) remote LED-based remote Exit Signs
- Self-Powered combo includes a transfer panel to drive three remote LED-based remote Exit Signs
- Meets or exceeds CSA C22.2 No. 141-10 & No. 137
  See warranty details at: www.tnb.ca/en/brands/lumacell

TYPICAL SPECIFICATIONS

Supply and install the **Lumacell® RG-X LED Exit Series** of hazardous location battery equipment. The battery unit housing will be constructed of die cast aluminum with grey epoxy powder coat finish and equipped with heavyduty key holes for wall mounting. The equipment shall be rated for 120, 277 or 347V, 60 Hz input and be CSA listed. The equipment shall have an output of _____ V and _____ W and shall supply the rated load for a minimum of a 1/2 hour to 87,5% of the rated battery voltage. The battery shall be a long-life, maintenance-free lead-calcium type. The charger shall be fully computer tested and have its charge voltage set in the factory to ± 1% tolerance. The charger shall be current limited, temperature compensated, shortcircuit proof and reverse polarity protected. The charger shall be furnished with an electronic lockout circuit, which will connect the battery when the AC circuit is activated, and an electronic brownout circuit.

Where required the equipment shall come complete with _____ heads, each of them equipped with _____ lamp(s) of _____ W.

The head housing shall be Die-Cast aluminum with grey epoxy powder coat finish. The lenses shall be a clear, impact and heat resistant prismatic glass globe. The head shall be factory sealed, with no need for external seals.

Where required the equipment shall come complete with one Exit Sign and will include a transfer circuit to maintain the Exit Sign permanently lighting in both normal and emergency operation. The exit housing shall be industrial grade 14-gauge steel and finished in grey enamel. The faceplate will be constructed of heavy-duty 14-gauge steel.

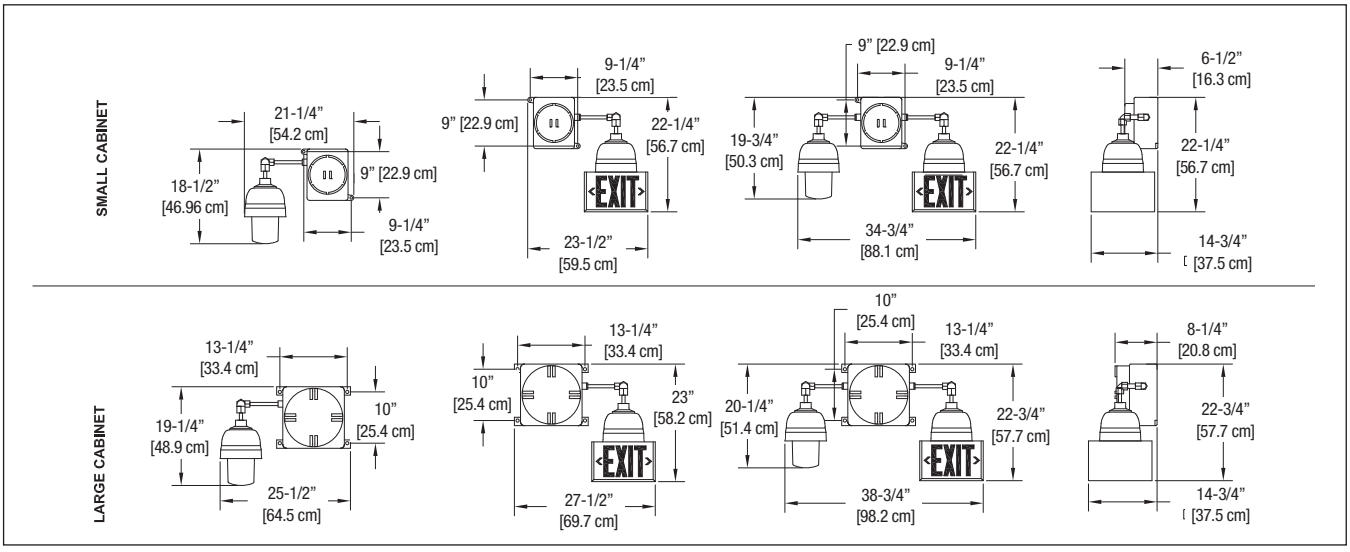
The equipment shall be certified CSA C22.2 No.137-M1981 for Hazardous Locations Class ____, Division ____, Group ____.

The Exit Sign shall be CSA C22.2 No.141-10 certified.

The equipment shall be **Lumacell®** Model: _____ .

DIMENSIONS

Dimensions are approximate and subject to change.



new product

RG-X LED "Exit" Series

Battery Units, Self-Powered Exit Signs, Combination Units

POWER CONSUMPTION AND UNIT RATING

UNIT CAPACITY	INPUT VOLTAGE	INPUT RATING	WATTAGE CAPACITY				
			30MIN	1H00	1H30	2H00	4H00
12V-72W*	120V, 60Hz	0.25A, 25W	72	36	25	20	10
	277V, 60Hz	0.125A, 28W					
	347V, 60 Hz	0.115A, 28W					
12V-120W	120V, 60Hz	0.45A, 37W	120	60	40	30	15
	277V, 60Hz	0.209A, 42W					
	347V, 60 Hz	0.176A, 42W					
24V-144W	120V, 60Hz	0.465A, 38W	144	72	50	40	20
	277V, 60Hz	0.208A, 42W					
	347V, 60 Hz	0.178A, 42W					

*** Combo, no remote Exit capability**

TEMPERATURE CODES: MEASURED AT 40°C AMBIENT

Explosion-proof equipment is composed of one or more modules, each of them qualified for a specific temperature code. The temperature code of the complete equipment (enclosure + exit sign + emergency heads) is defined as the most severe of the temperature codes identified for each of the modules below.

TEMPERATURE CODES FOR RG-X SERIES (Battery & exit combination units)

SEVERITY CODE	S1	S2	S3	S4
TEMPERATURE CODE	T6 85°C (185°F)	T6 85°C (185°F)	T6 120°C (248°F)	T6 85°C (185°F)

SEVERITY CODE SELECTION CHART

ENVIRONMENT	SEVERITY CODE
Cl. I, Div. 1 & 2, Gr. B	S1
Cl. I, Div. 1, Gr. C, D	S2
Cl. I, Div. 2, Gr. A, B, C, D	S3
Cl. II, Div. 1 & 2, Gr. E, F, G & Cl. III	S4

RG-X

D.C VOLTAGE	CAPACITY	HOUSING	SIGN/FACE	HEAD STYLE	LAMP TYPE, VOLTAGE AND POWER	SEVERITY CODE	A.C VOLTAGE	OPTIONS
RG12= 12V	**72**= 72W[1] **120**= 120W	**X**= Hazardous location	**Blank**= No sign **E1**= Single face LED "EXIT" **E2**= Double face LED "EXIT"	**0**= No heads **A1**= Single remote, 1 lamp **A2**= Single remote, 2 lamps **A3**= Double remote, 1 lamp each*	**Blank**= no lamp **LD7**= 12V-4W MR16 LED **LD9**= 12V-5W MR16 LED **LD10**= 12V-6W MR16 LED **LD13**= 24V-4W MR16 LED	**S1**= Cl.I, Div.1&2, Gr. B **S2**= Cl.I, Div.1, Gr. C, D **S3**= Cl.I, Div.2, Gr. A, B, C, D **S4**= Cl.II, Div.1&2, Gr. E, F, G & Cl.III	**Blank**= 120VAC **ZC**= 277VAC input **ZD**= 347VAC input	**Blank**= No options **TD**= Time delay (15 minutes) **TP**= Transfer panel[1]
RG24= 24V	**144**= 144W							

[1]Combo, no remote Exit capability

*Not available with Exit sign

[1]Not available with 12V-72W model

EXAMPLE: RG1272XE1A1LD7S2

XP/RSTP Series
LSRS-XP

"Sortie" Signs & Transfer Panel Hazardous Location

Made in Canada

FEATURES

LSRS-XP Series "SORTIE" Signs

- CSA Certified for use in hazardous locations:
  - Class I, Divisions 1 and 2, Group A, B, C, D
  - Class II, Divisions 1 and 2, Group E,F,G
  - Class III, Divisions 1 and 2
- Die-Cast aluminum body with grey epoxy powder coat finish
- Sortie sign housing and faceplate made of industrial-grade 14-gauge steel, grey enamel finish
- Faceplate features universal directional chevrons (knockouts)
- Two-wire input circuit for both AC and DC inputs
- Available in 6, 12, 24 and 120VAC/dc
- Light source is ALINGAP LEDs; consumes less than 5W in AC and DC mode
- New, easy-to-build catalogue number based on the **Lumacell®** Severity Codes
- Listed CSA C22.2 No. 137-M1981
- Listed CSA 22.2 No. 141

RSTP Series Transfer Panel

- Available with hazardous location housing (Class 1, Division 1) or NEMA-1 housing (for use outside the hazardous location area)
- Standard AC input: 120VAC, optional 277VAC, 347VAC; standard DC input: 6, 12 or 24VDC
- Two-wire output with permanently present AC/DC low voltage
- Output power: 25W, can drive up to five (5) remote units of the LSRS-XP remote "SORTIE" signs series
- Also available as Self-Powered Exit Sign, battery unit and combo unit; see RG-X catalogue sheet

See warranty details at: www.tnb.ca/en/brands/lumacell

TYPICAL SPECIFICATIONS

LSRS-XP Series Remote "SORTIE"Sign:

Supply and install the **Lumacell® LSRS-XP Series** remote "SORTIE" sign. The exit housing shall be industrial grade 14-gauge steel and finished in grey enamel. The faceplate will be constructed of heavy-duty _____ 14-gauge steel and feature universal knockout chevrons and the red letters shall not be less than 6" (150 mm) in height with a 3/4" stroke. The sign shall come complete with a _____ Volt LED lamp, and function from one voltage source only, in AC and DC current. The LED Lamp shall use **ALINGAP** LEDs and shall consume less than 5W in either AC or DC current.

The equipment shall be certified CSA C22.2 No. 137-M1981 for Hazardous Locations: Class ____, Division ____, Groups ____, with the temperature code: ____.

The equipment shall be certified 22.2 No. 141

The Sortie Sign shall be **Lumacell®** Model: _____ .

RSTP Series Transfer Panel:

Supply and install the **Lumacell® RSTP Series** transfer panel for hazardous location remote Exit Signs. The unit shall have two voltage inputs: _____ VAC and _____ VDC and shall be able to maintain an output of _____ Volts 25W for the permanent supply of a total of five remote LED Exit Signs.

The transfer panel shall be suitable for Class _____ , Division _____, Group _____, or for a NEMA 1 environment.

The unit shall be **Lumacell®** Model: _____ .

POWER CONSUMPTION AND UNIT RATING

MODEL	AC SPECS		DC SPECS	
AC/DC red two wire	6VAC	Less than 5W	6VDC	Less than 5W
	12VAC		12VDC	
	24VAC		24VDC	
	120VAC		120VDC	

*NOTE: SORTIE signs of 6,12 or 24 V must be connected through transfer panels; maximum five signs per panel.

1.

ENVIRONMENT	SEVERITY CODE
Cl. I, Div. 1 & 2, Gr. A, B	S1
Cl. I, Div. 1 & 2, Gr. C, D	S2N
Cl. I, Div. 2, Gr. A, B, C, D	S3
CL. II, Div.1 & 2 Gr. E, F, G CL. III, Div.1 & 2	S4

2.

CERTIFICATION GUIDE FOR LERE-XP (40°C AMBIENT)				
Severity Code	S1	S2N	S3	S4
Temperature Code	T6	T6	T4A	T6
CSA/UL rating	Max. 85°C (185°F)	Max. 85°C (185°F)	Max. 120°C (248°F)	Max. 85°C (185°F)

XP/RSTP Series
LSRS-XP

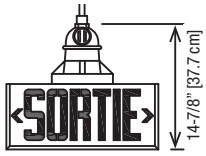
Hazardous Location "Sortie" Signs & Transfer Panel

DIMENSIONS

Dimensions are approximate and subject to change.

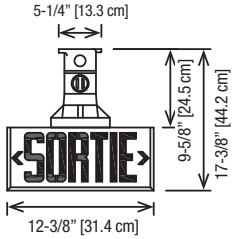
SEVERITY CODES S1 & S2N

*SINGLE PENDANT MOUNT



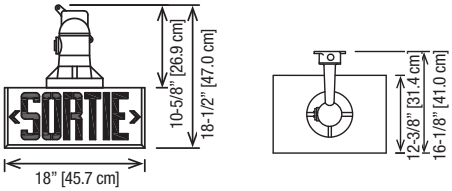
*HARDWARE SUPPLIED BY OTHER.

CEILING MOUNT



SEVERITY CODES S2N ONLY

WALL MOUNT

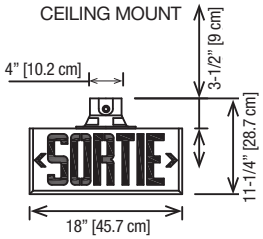


SEVERITY CODES S3, S4

*SINGLE PENDANT MOUNT

*HARDWARE SUPPLIED BY OTHER.

CEILING MOUNT



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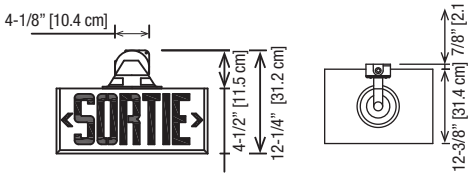
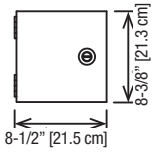
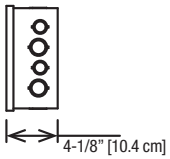
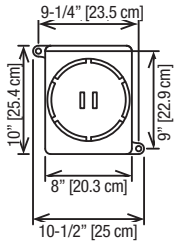


TRANSFER PANELS







NOTE: TRANSFER PANELS HAVE NO SEVERITY RATING

INFORMATION

Before ordering, identify the environment of your application: Class _____, Division _____, Group _____ . Refer to the table 1 for the Severity Code to use in your catalogue number. For temperature information, please look at the table 2.

3. LSRS-XP

SERIES	VOLTAGE	SEVERITY CODE	MOUNTING
LSRS1X= sortie single face LED **LSRS2X**= sortie double face LED	**-L6**= 6V **-L12**= 12V **-L24**= 24V **-L120**= 120V	**S1**= Cl. I, Div. 1 & 2, Gr. A, B **S2N**= Cl. I, Div. 1 & 2, Gr. C, D **S3**= Cl. I, Div. 2, Gr. A, B, C, D **S4**= CL. II, Div.1 & 2 Gr. E, F, G CL. III, Div.1 & 2	**C**= ceiling **P**= pendant[1] **W**= wall[2] [1]Mounting hardware not included [2]Wall mount only available for severities S2N, S3 and S4, single face.

EXAMPLE: LSRS1X-L6S1C

4. TRANSFER PANEL

SERIES	AC VOLTAGE	DC VOLTAGE		WATTAGE	HOUSING
RSTP= transfer panel	**120**= 120VAC **347**= 347VAC **277**= 277VAC	**6**= 6V **12**= 12V	**24**= 24V **120**= 120V	**25**= 25W[1] [1]5W required per DC "Sortie" load	**Blank**= NEMA 1 **XP**= hazardous location

EXAMPLE: RSTP1206-25

RG-X LED "Sortie" Series

new product

Battery Units, Self-Powered "Sortie" Signs, Combination Units

Made in Canada

CSA certified for use in hazardous locations

The **RG-X "Sortie" LED** Series of battery equipment is designed to cover emergency lighting applications for the entire spectrum of hazardous locations, where inflammable gases, vapors, liquids, dust particles or fabrics tissues are permanently present or are likely to exist.

The **RG-X "Sortie" LED** Series combines in one simple-to-order catalogue family three traditional emergency lighting products with battery back-up: battery units with emergency lights, Self-Powered Sortie Signs, and combination units with emergency lights and Sortie Sign. The equipment is also available with additional emergency power capacity to drive remote heads and Sortie Signs.

FEATURES

- CSA Certified for use in hazardous locations:
  - Class I, Division 1, Groups B, C, D
  - Class I, Division 2, Groups A, B, C, D
  - Class II, Divisions 1 and 2, Groups E, F, G
  - Class III, Divisions 1 and 2
- For wall mount only
- Die-Cast aluminum body with grey epoxy powder coat finish; clear, impact and heat resistant prismatic glass globe
- Long-life, maintenance-free lead-calcium battery
- Battery charger is current limited, temperature compensated, short-circuit proof and reverse polarity protected
- Emergency heads with one or twin lamp design
- Large Self-Powered exit (combo) includes a transfer circuit to drive three (3) LED-based remote exit signs (total power max 15W)
- New, easy-to-build catalogue number based on the **Lumacell®** Severity Codes
- Meets or exceeds CSA C22.2 No.141-10 & No. 137
  See warranty details at: www.tnb.ca/en/brands/lumacell

TYPICAL SPECIFICATIONS

Supply and install the **Lumacell® RG-X "Sortie" LED Series** of hazardous location battery equipment. The battery unit housing will be constructed of die cast aluminum with grey epoxy powder coat finish and equipped with heavy-duty key holes for wall mount. The equipment shall be rated for 120, 277 or 347V, 60 Hz input and be CSA listed. The equipment shall have an output of _____ V and _____ W and shall supply the rated load for a minimum of a 1/2 hour to 87,5% of the rated battery voltage. The battery shall be a long-life, maintenance-free lead-calcium type. The charger shall be fully computer tested and have its charge voltage set in the factory to ± 1% tolerance. The charger shall be current limited, temperature compensated, shortcircuit proof and reverse polarity protected. The charger shall be furnished with an electronic lockout circuit, which will connect the battery when the AC circuit is activated, and an electronic brownout circuit.

Where required the equipment shall come complete with _____ heads, each of them equipped with _____ lamp(s) of _____ W. The head housing shall be Die-Cast aluminum with grey epoxy powder coat finish. The lenses shall be a clear, impact and heat resistant prismatic glass globe. The head shall be factory sealed, with no need for external seals.

Where required the equipment shall come complete with one Exit Sign and will include a transfer circuit to maintain the Exit Sign permanently lighting in both normal and emergency operation. The exit housing shall be industrial grade 14-gauge steel and finished in grey enamel. The faceplate will be constructed of heavy-duty 14-gauge steel.

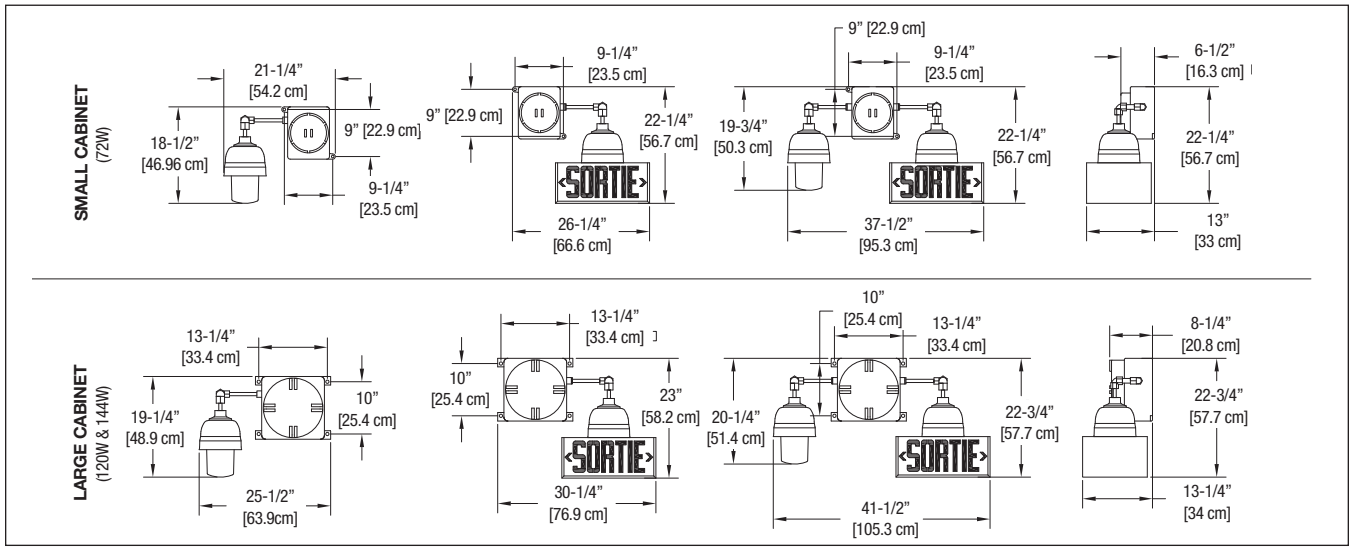
The equipment shall be certified CSA C22.2 No.137-M1981 for Hazardous Locations: Class ____, Division ____, Group ____ with the temperature code ____.

The Sortie Sign shall be CSA C22.2 No.141-10 certified.

The equipment shall be **Lumacell®** Model: _____ .

DIMENSIONS

Dimensions are approximate and subject to change.



new product

RG-X LED "Sortie" Series

Battery Units, Self-Powered "Sortie" Signs, Combination Units

POWER CONSUMPTION AND UNIT RATING

UNIT CAPACITY	INPUT VOLTAGE	INPUT RATING	WATTAGE CAPACITY				
			30MIN	1H00	1H30	2H00	4H00
12V-72W*	120V, 60Hz	0.25A, 25W	72	36	25	20	10
	277V, 60Hz	0.125A, 28W					
	347V, 60 Hz	0.115A, 28W					
12V-120W	120V, 60Hz	0.45A, 37W	120	60	40	30	15
	277V, 60Hz	0.209A, 42W					
	347V, 60 Hz	0.176A, 42W					
24V-144W	120V, 60Hz	0.465A, 38W	144	72	50	40	20
	277V, 60Hz	0.208A, 42W					
	347V, 60 Hz	0.178A, 42W					

*** Combo, no remote Exit capability**

TEMPERATURE CODES: MEASURED AT 40°C AMBIENT

Explosion-proof equipment is composed of one or more modules, each of them qualified for a specific temperature code. The temperature code of the complete equipment (enclosure + sortie sign + emergency heads) is defined as the most severe of the temperature codes identified for each of the modules below.

TEMPERATURE CODES FOR RG-X SERIES (Battery & sortie combination units)

SEVERITY CODE	S1	S2	S3	S4
TEMPERATURE CODE	T6 85°C (185°F)	T6 85°C (185°F)	T6 120°C (248°F)	T6 85°C (185°F)

SEVERITY CODE SELECTION CHART

ENVIRONMENT	SEVERITY CODE
Cl. I, Div. 1 & 2, Gr. B	S1
Cl. I, Div. 1, Gr. C, D	S2
Cl. I, Div. 2, Gr. A, B, C, D	S3
Cl. II, Div. 1 & 2, Gr. E, F, G & Cl. III	S4

RG-X

D.C VOLTAGE	CAPACITY	HOUSING	SIGN/FACE	HEAD STYLE	LAMP TYPE, VOLTAGE AND POWER	SEVERITY CODE	A.C VOLTAGE	OPTIONS
RG12= 12V	**72**= 72W[1] **120**= 120W	**X**= Hazardous location	**Blank**= No sign **S1**= Single face LED "SORTIE" **S2**= Double face LED "SORTIE"	**0**= No heads **A1**= Single remote, 1 lamp **A2**= Single remote, 2 lamps **A3**= Double remote, 1 lamp each[1]	**Blank**= no lamp **LD7**= 12V-4W MR16 LED **LD9**= 12V-5W MR16 LED **LD10**= 12V-6W MR16 LED **LD13**= 24V-4W MR16 LED	**S1**= Cl.I, Div.1&2, Gr.B **S2**= Cl.I, Div.1, Gr. C, D **S3**= Cl.I, Div.2, Gr. A, B, C, D **S4**= Cl.II, Div.1&2, Gr. E, F, G & Cl.III	**Blank**= 120VAC **ZC**= 277VAC input **ZD**= 347VAC input	**Blank**= No options **TD**= Time delay (15 minutes) **TP**= Transfer panel[1]
RG24= 24V	**144**= 144W							
	[1]Combo, no remote Exit capability			[1]Not available with sortie sign				[1]Not available with 12V-72W model

EXAMPLE: RG1272XS1A1LD7S2

LT Series

Power-Free Pictogram Sign

Made in Canada

FEATURES

- Illumination provided by borosilicate glass tubes, internally coated with zinc sulphide phosphor and filled with tritium gas
- Minimum brightness at time of manufacture is 0.132 foot-lambert (0.452 cd/m2)
- Decorative, slim-line heavy-duty ABS housing
- Rugged, impact-resistant polycarbonate face
- Spark-free construction
- Simple installation – universal direction capability, comes complete with universal mounting hardware
- Stands up to extreme temperatures in outdoor or indoor applications
- Life expectancy of 10-years
- Available in single or double face
- Certified to standard UL924 (ULC-S572)
- Pictogram Sign includes universal stencils (straight from here, left from here and right from here)

TYPICAL SPECIFICATIONS

Supply and install **Lumacell® LT (Pictogram) Series** Self-Luminous Exit Signs. The Pictogram Sign shall be constructed of a thermoplastic housing and be corrosion proof. The sealed housing will incorporate no loose or removable parts allowing for easy installation.

The standard minimum guaranteed life will be 10 years. The standard mounting brackets will allow for either end/ceiling or wall mount. The initial average minimum brightness shall be 0.132 foot-lambert (0.452 cd/m2).

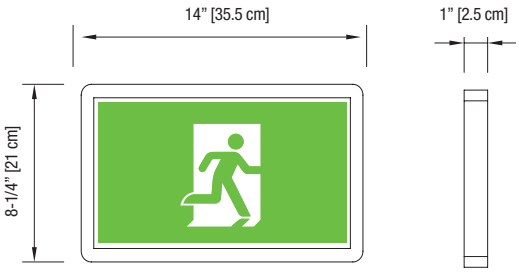
The equipment shall be **Lumacell®** Model: _____ .

WIRE GUARDS

460.0079-L	Wall Mount
460.0027-L	End Mount
460.0028-L	Ceiling Mount

DIMENSIONS

Dimensions are approximate and subject to change.



ORDERING INFORMATION

SERIES	FACEPLATES AND MOUNTING	FRAME COLOURS	LIFE YEARS	OPTIONS
LT= Pictogram Exit Sign	**1**= single face universal mount and chevrons **2**= double face universal mount and chevrons	**AF**= aluminum frame **B**= black **G**= grey **W**= white	**10**= 10 years	**PC**= polycarbonate shield **VR**= vandal cover

EXAMPLE: LT1AF10

The Pictogram sign is not available in double arrow configuration.

Special Wording

Illuminated Signage

FEATURES

- The same sturdy construction and electrical design used in our Exit Signs, is used to produce our custom-worded, illuminated signage
- Sign bodies - steel, extruded and Die-Cast aluminum, weatherproof, flame-retardant polycarbonate, high impact thermoplastic, recessed housing
- Also available with Self-Powered canopy and with emergency lamps
- Custom wording – any style of lettering, any language, any alphabet, any special characters
- Graphics – logos, standard symbols, custom art
- Colour choices – sign bodies, message, faceplate panel
- Illumination – LED (light-emitting diodes) – other light sources available - consult representative.
- White-out, black-out and split picture options

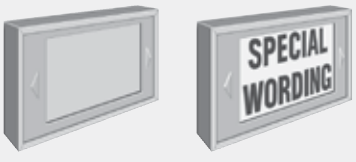
TYPICAL SPECIFICATIONS

Custom-worded, illuminated signage is available using the same sturdy construction and electrical design as Lumacell Exit Signage.

A wide range of sign body options and colour choices is available to suit any application.

Contact your local **Lumacell®** sales representative to discuss your specific requirements.

WHITE-OUT OPTION	BLACK-OUT OPTION



NON-ILLUMINATED ILLUMINATED

When the sign is non-illuminated the acrylic panel in the faceplate appears blank white. The message appears only when the sign is illuminated.

NON-ILLUMINATED ILLUMINATED

When the sign is non-illuminated the acrylic panel in the faceplate appears black. The message appears only when the sign is illuminated.

Glossary

AT	**Auto-test**	Automatically tests and continuously monitors your emergency lighting unit. If a problem occurs, the unit will send a visual (flashing or blinking LED indicator) and audible warning. Complies with Fire Code requirements.
ATN	**Auto-test (non-audible)**	Automatically tests and continuously monitors your emergency lighting unit. If a problem accurs, the unit will send a visual (flashing or blinking LED indicator) warning. Complies with Fire Code requirements.
CW1	**Cold weather, 120VAC**	120VAC input cold weather protection feature for applications where temperatures can reach -40° C.
CW3	**Cold weather, 347VAC**	347VAC input cold weather protection feature for applications where temperatures can reach -40° C.
NEX	**NEXUS® system interface**	The NEXUS® system interface is a computerized maintenance system for emergency lighting that, once programmed, will perform the tests, keep written records and send notification if anything needs to be fixed. One full system can address hundreds of units in as many buildings as you need from a single location.
T3/TD	**Time delay (15 minutes)**	Normally, when the a.c. is restored, all emergency lighting lamps are turned off. However, in some cases, such as when metal halide lamps are used, it is possible that the general lighting will not be availbe for several minutes after the blackout (or brownout) period. Battery units with the T3 option will keep some energy in store to ensure that the emergency lighting stays on or comes back on for at least 15 minutes once the regular a.c. power has been restored.
TP	**Tamper proof screws**	Screws that require a special bit. Can be used on certain units to deny access to unauthorized personnel.

BATTERY UNITS

new product

Table of contents

Battery Units Overview

LIFE SAFETY EQUIPMENT

Emergency Lighting, as part of Life Safety Equipment, is one of the key elements to ensure public safety within buildings. In the event of failure of the normal power supply, Self-Powered units automatically provide the illumination required to evacuate the building in safe conditions.

STANDARDS AND CODES

Requirements for the installation, level, and duration of emergency lighting in buildings are established by national standards: The National Building Code of Canada (NBCC-2015), the Canadian Electrical Code (CEC), and the National Fire Code of Canada (NFCC-2015). Concerning the equipment, performance is established by the Canadian Standards Association (CSA), for example, C22.2 No.141-15, C860, etc. Emergency lighting equipment is divided into two main categories: Self-Powered emergency lighting equipment, also referred to as “unit equipment for emergency lighting”, and central emergency power systems (separate emergency electrical power supply).

SELF-CONTAINED (OR SELF-POWERED) EQUIPMENT

The most common Self-Powered unit consists of a 6V lead battery and two lamp heads, also referred to as emergency lights, each with a 4W LED lamp. Lamps are normally off; the storage battery has sufficient capacity to actuate and maintain the emergency lighting for at least 30 minutes in the event of a power failure. In some applications described in the National Building Code of Canada, the minimum emergency lighting period can reach 60 minutes or even 120 minutes. This will require battery units of greater capacity. Once normal AC power supply is restored, heads will turn off, the fixture recharges the batteries to full capacity within 24 hours, then returns to the standby mode.

BATTERY UNITS AND REMOTE HEADS

There are also battery-powered units that will supply power to several remote emergency lights of different wattages (12W, 20W, 50W, etc.). In this case, remote emergency lights (also referred to as remote heads) are installed in rooms and corridors, connected by wiring installed inside the walls. Some 6V self-contained fixtures can assume a total emergency lighting load up to 150W – 180W. At this level, the battery current (25A – 30A) begins to generate significant losses in the external wiring. For this reason, there are battery units of higher voltages, 12V and 24V, which can respectively supply power to remote heads totaling up to 360W and 720W.

CENTRAL SYSTEMS

A higher wattage capacity emergency system is a Central System. In the event of a utility power failure, Central Systems continue to supply power to the emergency lighting equipment as well as other critical loads. A Central System that supplies power during a utility power failure is an emergency power system, the Alternating Current Central System (AC inverter). The electric power supplied by this system can vary from a few KVAs to 54 KVAs.

INDUSTRIAL ENVIRONMENT

The industrial environment is the most severe in terms of housing construction requirements. It is defined by several parameters specific to various technical processes within the industry: temperature range, degree of humidity, degree of protection against water and dust, resistance to corrosive chemicals, presence of flammable gases and vapors or combustible particles, etc. An important performance factor is the degree of protection against solid particles (dust, etc.) and liquids. This rating is generally defined and measured as established by the American standard NEMA 250-2003 from the National Electrical Manufacturers Association, or, alternately, the European IP (ingress protection) code of the International Electrotechnical Commission (IEC 60529 standard). To accomplish the required degree of protection and resistance to corrosive agents, emergency lighting fixtures are designed/fabricated with gasketed, rugged, polycarbonate or fiberglass housings. A special category exists covering hazardous areas, defined by technological processes generating (or susceptible to generate) flammable gases, vapors, flammable liquids or combustible dust particles in explosive concentrations in the atmosphere. For more details on definitions and classifications of hazardous areas, consult the Canadian Electrical Code (CSA C22. 1-15).

Considering the risks of explosion or fire, all equipment dedicated to hazardous areas must meet, special standards such as CSA C22.2 No. 30-M1986, No. 137-M1981, No. 213-M1987, etc. Based on each respective classification (Class, Division, Group, Zones), enclosures and remote heads for hazardous areas are fabricated of materials which must meet stringent requirements (pure forged aluminum, fiberglass, etc.) and may require specific components, such as seals, valves, gasketing, etc in addition to standards specific to emergency lighting. In view of all these additional specific characteristics, it can be expected that emergency lighting equipment approved for hazardous areas will cost more than fixtures classified for general industrial applications.

Considering the risks of explosion or fire, all equipment dedicated to hazardous areas must meet, in addition to standards specific to emergency lighting, special standards such as, CSA C22.2 No. 30-M1986, No. 137-M1981, No. 213-M1987, etc. Based on each respective classification (Class, Division, Group), enclosures and remote heads for hazardous areas are fabricated with materials that must meet stringent requirements (pure forged aluminum, fiberglass, etc.) and may require specific components, such as seals, valves, gasketing, etc.

EMERGENCY LIGHTING ENCLOSURES

Construction requirements for emergency lighting fixtures depends on the location where the equipment can be installed. Of all the components, the enclosure (box or housing) is probably the most affected by the type of environment where it is located.

The enclosure plays many roles: it provides the fixture with a degree of protection against the environmental conditions, while meeting technical, aesthetic and functional requirements. Of course, cost can also be a deciding factor when selecting a fixture.

In general, non-residential lighting is divided in three market segments: commercial, institutional and industrial. This market segmentation still applies in the case of emergency lighting. Typically, the commercial and institutional sectors are more sensitive to aesthetics, whereas the industrial sector is more influenced by the technical aspects (fixture durability, etc.).

COMMERCIAL AND INSTITUTIONAL ENVIRONMENTS

Commercial spaces (stores, restaurants, theatres, hotels, etc.) as well as institutions are generally air conditioned, so the equipment operates in normal temperature and humid conditions. The most common design for self-contained units uses sheet metal housings of a neutral colour: white or whist. For the most part, exit signs are housed in a rectangular box fabricated of steel (sheet metal) die-cast or extruded aluminum, and illuminated from a LED light source contained within the assembly (back-lit). Some molded plastic housings also exist (less expensive material, but also less rigid than metal) – mostly used for small battery units (lower wattages) and EXIT signs in some applications. Even if aesthetics is a secondary criterion, we continue to develop products which offer a more contemporary look.

AESTHETICS AND ARCHITECTURE

Aesthetics and architecture are often the most important criteria on the decision process. Some hotel chains, high-end stores and corporate headquarters are excellent examples.

In these situations, the architect and the lighting designer have a great influence in specifying emergency lighting fixtures. The question becomes – what will the architect prefer, a more decorative, unique look or a more unobtrusive, discreet one? Battery units are becoming increasingly discreet. The specifier can opt for a higher capacity unit (e.g.: 24V, 720W or a central System) installed in a hidden location, to supply power to remote heads distributed throughout the building. Another option would be to install recessed self-contained units concealed in the ceiling (T-bar), each with two lamp heads and additional capacity for remote heads. There are also single-lamp battery units that can be recessed in the ceiling. As for remote heads, they are generally fabricated of forged aluminum and contain MR16 LED lamps. It is also possible to conceal the battery units as well as the lamp heads entirely.

To address specifiers' needs for aesthetics, we have developed new products for high end emergency lighting: dual-function decorative luminaires providing both normal lighting and emergency lighting. The lamps are powered by one of the two independent electrical circuits: AC circuit for normal lighting (including the wall switch), and an uninterrupted AC circuit for the battery charger and control of the emergency lighting. Since normal lighting levels are higher than those required for emergency lighting, we also offer the same type of luminaire for normal lighting only. This option provides the end user with the possibility of alternating self-contained units with standard lighting fixtures, while maintaining consistency of design.

The Mini-Inverter acts like a central system but with less installation concerns and lower initial investment. Existing fixtures can function as emergency lighting with a Mini-Inverter. As an alternative to separate lighting fixtures, normally on light fixtures can be connected to the Mini-Inverter so they will function in an emergency. For specifiers who wish to preserve a design aesthetic in high-visibility areas, this option is extremely beneficial.

CAMRAY™ LED Series

Rugged, Versatile, Sophisticated

NEMA-3R c UL Made in Canada

FEATURES

- Die-Cast aluminum housing, available in four finishes: dark bronze, off-white, black, and platinum grey
- Nema-3R Rated for indoor/outdoors wet and Damp locations: -20°C to 50°C
- Wall-mount installation on various junction boxes or via rigid conduit
- Patent-pending design for easy installation: wall-mount backplate includes electrical wire box with snap-on connector
- Patent-pending light engine: four power LEDs with redundant inter-connections and very wide beam
- Clear polycarbonate lens of reduced size (3" x 1.5"), shock-absorbent and UV-resistant
- Battery: high-temperature rated, Nickel-Metal Hydride technology
- Power consumption in stand-by: less than 5W
- Self-Test and diagnostic functions, operated by micro-controller
- 90 minute run time
- 400-640 lumens
- Color temperature 5000K
- Certified to the CSA 22.2 No.141-15 and No.250.0-08 standards

See warranty details at: www.tnb.ca/en/brands/lumacell

OPTIONS

- Cold-weather: (-40°C)
- Forward-throw light distribution, for applications of outdoor exit discharge (OSHA 1910.36)
- High-lumen output: 25 to 50% additional level of illumination compared to standard models
- Dual-mode operation: normal lighting and/or emergency lighting with separate AC inputs
- Photo-switch: dusk-to-dawn control of normal lighting
- Remote test: infrared remote control (keyboard ordered separately)
- Time delay: 15 minutes

IN THE SAME FAMILY:

- CAMRAY™ Series Remote Fixtures

TYPICAL SPECIFICATIONS

Supply and install the **Camray™ Series of LED** emergency lighting unit from **Lumacell®**. The unit body shall include a back-plate and housing made of Die-Cast Aluminum with paint finish color: _____ and a UV- and impact-resistant polycarbonate lens of reduced size: 3-in by 1.5-in. The back-plate shall have knockouts for wires and wall-mount installation box as well as a threaded hole for rigid conduit entry at the top of the unit. The back-plate shall have a built-in electrical box with wire terminals and snap-on connector. After complete electrical installation of the back-plate the equipment housing shall be installed by a simple push & snap over the back-plate.

The emergency lights shall be 4 (four) power light-emitting diodes (LED) with operational life of minimum 36,000 hours, until 70% of the initial light level (reported L70). The LED lamps shall have redundant interconnections: eventual failure of one lamp shall allow other LED lamps to function. The unit shall have a dual-voltage input rated: 120/347VAC, 60Hz. The battery charger shall include low voltage disconnect to prevent deep discharge, battery lockout to prevent battery drain prior to energizing the utility power, and brownout protection which will automatically switch unit into emergency mode if the utility power falls below 80% of nominal level. The unit with Nickel-Metal Hydride battery shall be equipped with a micro-controller-based non-audible auto-test circuit and provide minimum 90 minutes of emergency lighting. The unit shall self-test for one minute every month, 30 minutes every six months and 90 minutes annually. The pilot light shall be integrated with the test button; it shall be a bi-color LED and shall change color from normal green to flashing red when a failure is detected from the battery, charger circuit or lamps. A label located near the pilot light shall describe the diagnostic for each flashing code.

When specified, models with dual-mode illumination shall include two separate AC input circuits: un-switched for emergency lighting and switched for normal lighting. When specified, models equipped with photo-switch shall automatically activate the normal lighting only from dusk till dawn, for additional energy savings. The typical ambient illumination for the photo-switch shall be: 10 lux (to turn-on) and 30 lux (to turn-off).

When specified, the unit shall be controlled by an infrared remote control keypad (ordered separately). The remote control shall be able to simulate a power failure of 1 minute, 30 minutes or 90 minutes and also to cancel the test in progress at any time. For units with dual-mode lighting the remote keypad shall also control the normal lighting with on/off switch and dimming functions.

The unit shall be certified to the CSA 22.2 No.141-15 for minimum 90 minutes and No.250.0-08 standards.

The unit shall be **Lumacell®** model: _____.

POWER CONSUMPTION

MODEL TYPE	AC SPECS: 120/347VAC				6-12VDC REMOTE
	NORMAL LIGHTING		EMERGENCY LIGHTING		
	CURRENT (MAX)	POWER (MAX)	CURRENT (MAX)	POWER (MAX)	POWER (MAX)
ACSD, SD, SD-H	0.12/0.05A	12W	0.05/0.02A	5W	NiMH battery
SD-CW	-	-	0.16/0.06A	16W	
ACSD-CW-P, -CWRC	not required*		0.24/0.10A	24W	

***Note: Only unswitched AC input; normal lighting with photo-switch or remote control**

CAMRAY™ LED Series

Rugged, Versatile, Sophisticated

TABLE A: SPACING FOR AVERAGE 1FC

National Building Code, Canada

MODEL TYPE	MOUNTING HEIGHT	WATTAGE CAPACITY	
		SINGLE	CENTER-TO-CENTER
Standard	9'	6' X 50'	6' X 50'
With option -H	11'	6' X 60'	6' X 60'
			3' X 70'
With option -FT	12'	6' X 40'	-
With option -FTH	15'	6' X 50'	-

Indoor reflectance: 80/50/20 and 10-ft wide corridor.
Outdoor reflectance: 0/30/10

Note: The illumination level meets ALL the requirements of the National Building Code-Canada and the Life Safety Code (NFPA 101):

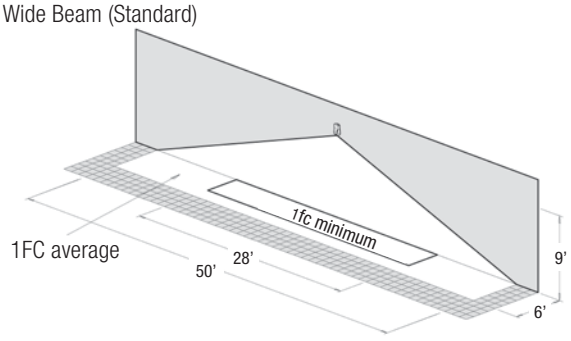
1) Average of 1 foot-candle or more
2) Minimum at any point of 0.1 foot-candle (1.07 lux)or more
3) Maximum-to-minimum illumination uniformity ratio of 40:1 or less

TABLE B: SPACING FOR MINIMUM 1FC

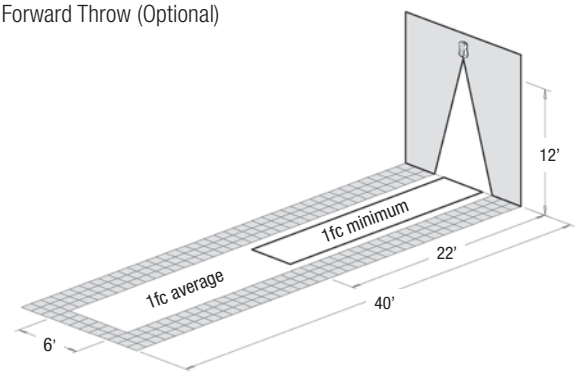
Maximum/minimum uniformity ratio less than 3:1

MODEL TYPE	MOUNTING HEIGHT	WATTAGE CAPACITY	
		SINGLE	CENTER-TO-CENTER
Standard	9'	4' X 28'	4' X 32'
With option -H	11'	4' X 32'	4' X 40'
With option -FT	12'	4' X 22'	-
With option -FTH	15'	4' X 27'	-

Wide Beam (Standard)

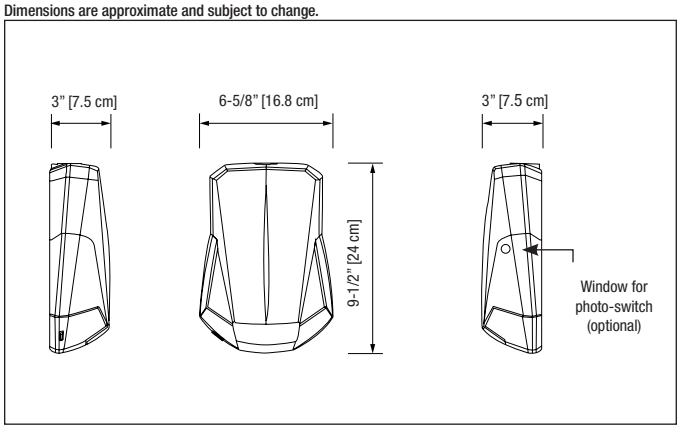


Forward Throw (Optional)



DIMENSIONS

Dimensions are approximate and subject to change.



REMOTE CONTROL

Patent Pending

Emergency Lighting →

Normal lighting with switch & dimming →

Part#: TB-RC1-L

ORDERING INFORMATION

SERIES	FUNCTION: BATTERY UNITS	COLOUR	OPTION
CAML= Camray™ LED	**ACSD**= dual-mode AC/Self-Powered & Diagnostic (-20°C to 40°C) **SD**= Self-Powered & Diagnostic (-20°C to 50°C)	**BK**= black **DB**= dark bronze **OW**= off-white **PG**= platinum grey	**-CW**= cold weather (-40°C; not available with option -H) **-FT**= forward throw lighting **-H**= high lumen output (maximum 30°C; model SD only) **-P**= photo-switch (model ACSD only) **-RC**= remote control - infrared[1] **-T3**= time delay (15 minutes) **-ZC**= 277VAC 60Hz input [1]**TB-RC1-L**= remote control keypad (sold separately)

EXAMPLE: CAMLSDOW-CW

PHANTOM™ Series

100% Recessed Emergency Lighting

Made in Canada

FEATURES

- Door flips 180° when AC fails
- Fully automatic operation – brown-out sensitive transfer circuit automatically goes to emergency lighting mode and, when the power is restored or at the end of battery discharge, the motor turns the door back to its original closed mode
- Customized finish – Off-white, but can be painted or wallpapered on site to match existing decor
- Heavy-duty back-box – made of heavy-duty, galvanized steel
- High-performance lighting – includes two 12V LED lamps; 4W, 5W and 6W
- Patent-pending design
- Auto-testing capabilities (specific load requirements)
- Meets or exceeds CSA 22.2 No.141-15
  See warranty details at: www.tnb.ca/en/brands/lumacell

REPLACEMENT LAMPS

MODEL	VOLTAGE/WATTAGE
580.0093-L	12V-4W LED
580.0104-L	12V-5W LED
580.0106-L	12V-6W LED

TYPICAL SPECIFICATIONS

Supply and install **Lumacell® Phantom™ Series**. The unit shall be designed to be concealed in walls or ceilings with a cavity, including T-bar suspended ceilings. Bar hanger brackets shall be provided with the Self-Powered unit. The unit equipment shall come standard with a metal back box containing the batteries, the lamp assembly and a charging circuitry. The back box shall be constructed of heavy-duty galvanized steel. The unit components: battery assembly, charger circuitry and lamp assembly shall have a modular design and come standard with quick connect plugs for easy installation in the back box.

The unit equipment shall be completely concealed in the wall or ceiling during normal power conditions. Upon a power failure the unit will expose the emergency heads by rotating its door 180° and then power the lamps. At the restoration of the AC power or at the end of the battery discharge, the lamps will turn off and the unit will retract the heads in the wall (ceiling) by rotating the door by 180°. Under normal conditions, the only visible parts of the unit shall be the flat door and trim plate, coated with a high-quality off-white finish that can be customized on site with paint or other suitable wall covering. The light source shall be LED lamps of specified wattage and light output. The unit shall supply the rated load for a minimum of 30 minutes or until the battery is discharged to 87-1/2% of its nominal voltage (whichever duration is longer). The charger circuitry shall utilize a micro-controller IC that samples the battery in relation to the ambient temperature, state of charge, and input voltage fluctuations. The charger shall be current limited, temperature compensated, short-circuit proof, and reverse-polarity protected. The circuit will charge in accordance with the CSA C22.2 – 141 requirements. The unit shall be furnished with a recessed, illuminated push button serving as test switch and status indicator light.

When specified, the unit shall come complete with the **Lumacell®** of auto-test micro-controller circuitry that will ensure the equipment readiness and reliability by continuously monitoring every critical function of the unit. If a problem occurs, the pilot light located on the front of the unit, will change color from green to red and will flash indicating a fault. A detailed diagnostic legend shall be available on the door back side and shall provide fault identification (battery, charger circuitry, lamps) for the maintenance personnel. The auto-test shall simulate a power loss for one minute monthly, 10 minutes every sixth months, and a full 30-minute test every 12 months.

The Unit shall be CSA 22.2 No.141-15 certified.

The equipment shall be **Lumacell®** model: _____.

IN THE SAME FAMILY:

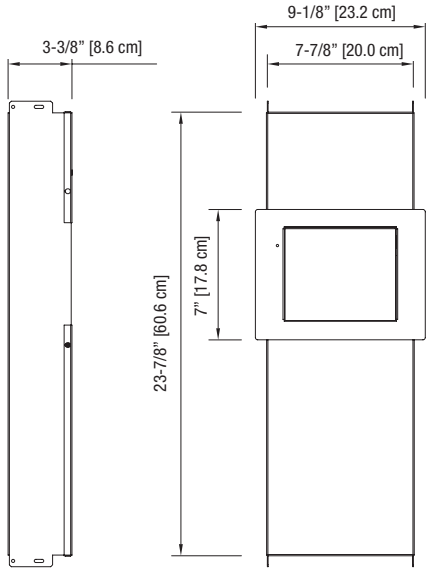
- PHANTOM ™ Series Remote Fixtures

PHANTOM™ Series

100% Recessed Emergency Lighting

DIMENSIONS

Dimensions are approximate and subject to change.



POWER CONSUMPTION

MODEL	AC ASPECS		WATTAGE CAPACITY				
			30MIN	1H00	1H30	2H00	4H00
PH75	120/347VAC	0.25/0.09A	75	40	30	24	15
PH150			150	80	60	48	30

ORDERING INFORMATION

SERIES	UNIT CAPACITY	LAMP WATTAGE	VOLTAGE	OPTIONS
PH	**75**= 12V-75W, Lead-Acid **150**= 12V-150W, Lead-Acid	**LD7**= MR16 LED, 2X4W **LD9**= MR16 LED, 2X5W **LD10**= MR16 LED, 2X6W	**Blank**= 120/347VAC **ZC**= 120/277VAC	**AT**= auto-test[1] **ATN**= auto-test, non-audible[1] **T3**= time delay (15 minutes) [1]Minimum lamp load required: 20% of unit capacity.

EXAMPLE: PH150LD7AT

Q-BIC™
RGS-QB Series

Decorative 6, 12 and 24V, Thermoplastic Cube Units

nexus® Made in Canada

FEATURES

- Impact-resistant steel center cabinet contains the battery and charger
- Frosted, thermoplastic light cubes protect light modules against vandalism while providing visual masking and light diffusion
- Units can be wall or ceiling mounted
- Maintenance-free, sealed Lead-Calcium battery
- 120/347VAC standard input
- Fully automatic, solid-state charger with low voltage battery disconnect, brownout protection, integral test switch and LED AC-On pilot lights
- Also available as a remote fixture; see Remote Fixtures section of this catalogue
- Auto-testing capabilities (specific load requirements)
- Meets or exceeds CSA 22.2 No. 141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

IN THE SAME FAMILY:

- RSQB/RSQBD/RSQB2 Series Remote Fixtures

TYPICAL SPECIFICATIONS

Supply and install a complete emergency lighting system as described herein and shown on the drawings.

The **Lumacell® Smart Diagnostic** micro-controller board shall supply the rated load for a minimum of a 1/2 hour to 87.5% of the rated battery voltage. The unit shall be rated 120V or 347V, 60 Hz and be CSA listed.

The unit shall have an output of _____ V.

The charger shall be fully computer tested and its charge voltage factory set to ± 1% tolerance. Chargers with field-adjusted potentiometers are not acceptable. A pulse-type charger shall be employed to promote long battery life and reduce the potential for grid corrosion. The charger shall provide a continuous high charge to recharge the battery, when the battery is at full capacity, the charger will shut-off. Periodically the charger shall provide a pulse of energy to keep the battery topped off. The charger shall be current limited, temperature compensated, short-circuit proof and reverse polarity protected. The unit shall be furnished with an electronic lockout circuit, which will connect the battery when the AC circuit is activated, and an electronic brownout circuit, which will activate the emergency heads when utility power dips below 75% of nominal voltage. A low voltage battery protection circuit shall be provided and will disconnect the battery from the fused output circuit at the end of discharge. The unit shall self-test for 1 minute every 30 days, 10 minutes on the 6th month and 30 minutes every 12 months. The unit shall be capable of full recharge in compliance with CSA specifications. The unit shall be furnished with a sealed, dust-tight relay, a test switch and diagnostic LED indicator lights to continuously monitor the status of the unit: Battery Failure, Battery Disconnected, Charger Failure, Lamp Failure, Service Alarm, AC -"ON", Charger High Rate. The unit shall come complete with fully adjustable 6V-4W LED lamps. The cube lens shall be frosted to diffuse light.

The unit shall be CSA 22.2 No. 141-15 certified.

The unit shall be **Lumacell®** model: _____.

WIRE GUARDS

460.0097-L	Wall Mount or Ceiling Mount

REPLACEMENT LAMPS

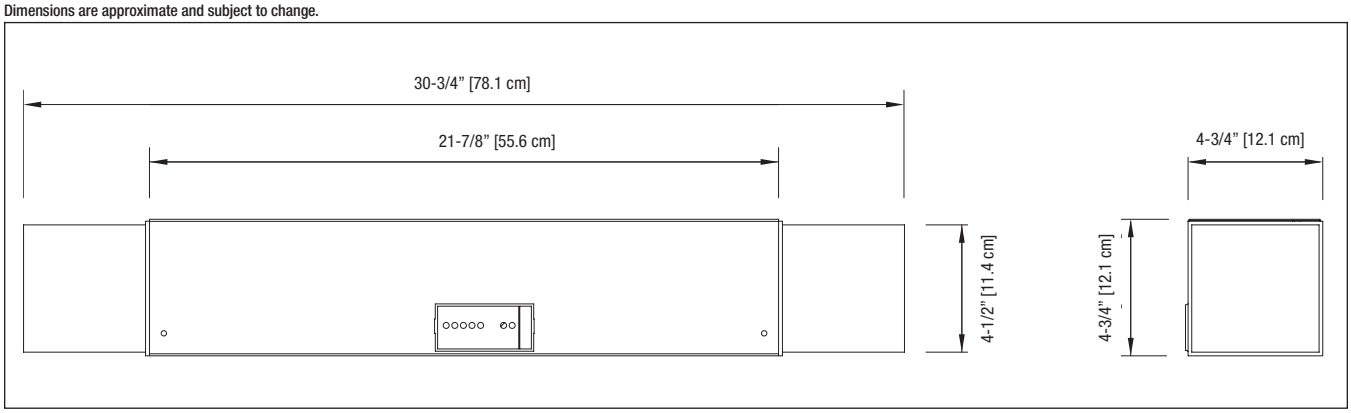
ORDERING CODE	TYPE	VOLTAGE/ WATTAGE
580.0097-L	MR16 LED	6V-4W
580.0122-L	MR16 LED	6V-5W
580.0093-L	MR16 LED	12V-4W
580.0104-L	MR16 LED	12V-5W
580.0106-L	MR16 LED	12V-6W
580.0098-L	MR16 LED	24V-4W
580.0100-L	MR16 LED	24V-6W

Q-BIC™
RGS-QB Series

Decorative 6, 12 and 24 V, Thermoplastic Cube Units

DIMENSIONS

Dimensions are approximate and subject to change.



POWER CONSUMPTION AND UNIT RATING

MODEL	AC SPECS		WATTAGE CAPACITY				
			30MIN	1H00	1H30	2H00	4H00
RG36QB	120/347VAC	0.10/0.04A	36	21	15	12	6
RG72QB		0.22/0.08A	72	42	30	24	12
RG1236QB		0.10/0.04A	36	21	15	12	6
RG1272QB		0.15/0.06A	72	42	30	24	12
RG12144QB		0.41/0.14A	144	84	60	48	24
RG24144QB		0.55/0.20A	144	84	60	48	24

ORDERING INFORMATION

SERIES	CAPACITY	HOUSING	VOLTAGE	# OF LAMPS	LAMP STYLE AND WATTAGE	OPTIONS
RG= 6V	**36**= 36W **72**= 72W	**QB**= Q-Bic	**Blank**= 120/347 VAC input **ZC**= 277VAC input	**2**= two lamps	**LD1**= MR16 LED, 6V-4W **LD2**= MR16 LED, 6V-5W **LD7**= MR16 LED, 12V-4W **LD9**= MR16 LED, 12V-5W **LD10**= MR16 LED, 12V-6W **LD13**= MR16 LED, 24V-4W **LD14**= MR16 LED, 24V-6W	**AT**= auto-test[1] **ATN**= auto-test, non-audible[1] **CT**= cab-tire **LC**= line cord (120V only)[2] **LD**= lamp disconnect **NEX**= NEXUS® system interface[1] **NEXRF**= wireless NEXUS® system interface[1] **TD**= time delay (15 minutes) **TL**= twistlock plug (120V)[2] **TMBB**= AC/DC terminal block[3] **TMBD**= DC terminal block **TMBK**= AC terminal block **TP**= tamper-proof screws[4]
RG12= 12V	**36**= 36W **72**= 72W **144**= 144W					
RG24= 24V	**144**= 144W					

[1]Minimum lamp load required: 20% of unit capacity. Not all options are available with NEXUS® system. Please consult your sales representative.

[2]120V is standard

[3]Only available with maximum 6V, 12V-144W

[4]**990.0119-L**= tamper-proof bit (sold separately)

EXAMPLE: RG36QB2LD1

RGS-TB Series

Decorative 6, 12 and 24 V T-Bar Unit

nexus® Made in Canada

Fully recessed units for T-Bar mounting in suspended ceilings.

The **RGS-TB Series** battery units are designed for T-bar ceiling grid installation.

This slim-line, unobtrusive unit is ideally suited for any commercial location where there is limited wall space and where the greater directional flexibility of ceiling-mounted heads is needed to provide greater light distribution.

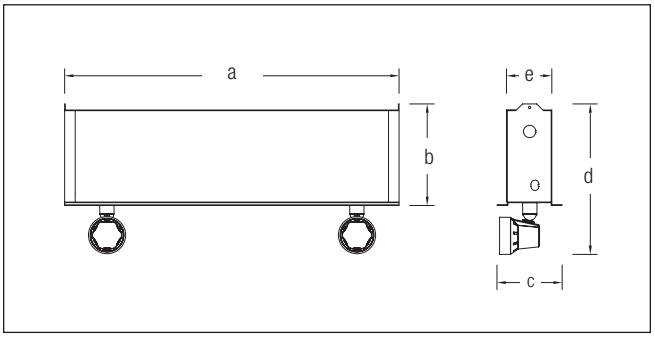
FEATURES

- Rugged steel cabinet with corrosion-resistant undercoating.
- Battery and charger are concealed above the ceiling level in the unit cabinet
- Removable panel provides easy access to battery and circuitry
- Test switch and LED indicators are mounted on the visible bottom panel
- Units mount quickly and easily in standard 2' X 2' or 2' X 4' grids without any additional hardware
- Solid-state pulse-type charger – current-limited, temperature-compensated, short-circuit proof and reverse-polarity protected
- Unit comes standard with electronic lockout and brownout circuits
- Sealed dust-proof transfer relay, test switch and LED indicator lights
- Long-life, maintenance-free lead acid battery
- Auto-testing capabilities (specific load requirements)
- Meets or exceeds CSA C22.2 No. 141-15

CABINET	DIMENSIONS				
	A	B	C	D	E
Large Cabinet	23-3/4" (60.3 cm)	7-1/4" (18.4 cm)	7-1/8" (18.1 cm)	10-5/8" (27.0 cm)	5-5/8" (14.3cm)
Small Cabinet	23-3/4" (60.3 cm)	7-1/4" (18.4 cm)	4-5/8" (11.7 cm)	10-5/8" (27.0 cm)	3-1/4" (8.3 cm)

DIMENSIONS

Dimensions are approximate and subject to change.



TYPICAL SPECIFICATIONS

Supply and install a complete emergency lighting system as described herein and shown on the drawings.

The **Lumacell® Smart Diagnostic** Micro controller board shall supply the rated load for a minimum of a 30 minutes to 87.5% of the rated battery voltage. The unit shall be rated 120V or 347V, 60 Hz and be CSA listed. The unit shall have an output of _____ V.

The charger shall be fully computer tested and its charge voltage factory set to ± 1% tolerance. Chargers with field-adjusted potentiometers are not acceptable. A pulse-type charger shall be employed to promote long battery life and reduce the potential for grid corrosion. The charger shall provide a continuous high charge to recharge the battery, when the battery is at full capacity, the charger will shut-off. Periodically the charger shall provide a pulse of energy to keep the battery topped off. The charger shall be current limited, temperature compensated, short-circuit proof and reverse polarity protected. The unit shall be furnished with an electronic lockout circuit, which will connect the battery when the AC circuit is activated, and an electronic brownout circuit, which will activate the emergency lights when utility power dips below 75% of nominal voltage.

A low voltage battery protection circuit shall be provided and will disconnect the battery from the fused output circuit at the end of discharge. The unit shall self-test for 1 minute every 30 days, 10 minutes on the 6th month and 30 minutes every 12 months. The unit shall be capable of full recharge in compliance with CSA specifications. The unit shall be furnished with sealed dust tight relay, a test switch and seven diagnostic LED indicator lights to continuously monitor the status of the unit: Battery Failure, Battery Disconnected, Charger Failure, Lamp Failure, Service Alarm, AC "ON", Charger High Rate. The unit shall be T-bar mounted and come complete with tool-less emergency lighting heads requiring no tools to adjust or aim.

The unit shall be CSA 22.2 No.141-15 certified.

The unit shall be **Lumacell®** model: _____ .

REPLACEMENT LAMPS

ORDERING CODE	LAMP TYPE	VOLTAGE/WATTAGE
580.0097-L	MR16 LED	6V-4W
580.0122-L	MR16 LED	6V-5W
580.0093-L	MR16 LED	12V-4W
580.0104-L	MR16 LED	12V-5W
580.0106-L	MR16 LED	12V-6W
580.0098-L	MR16 LED	24V-4W
580.0100-L	MR16 LED	24V-6W

RGS-TB Series

Decorative 6, 12 and 24 V T-Bar Unit

POWER CONSUMPTION AND UNIT RATING

MODEL	AC SPECS		WATTAGE CAPACITY				
			30MIN	1H00	1H30	2H00	4H00
RG36TB	120/347VAC	0.10/0.04A	36	21	15	12	6
RG72TB		0.22/0.08A	72	42	30	24	12
RG108TB		0.22/0.08A	108	63	45	36	18
RG180TB		0.22/0.08A	180	105	75	60	30
RG12S36TB		0.09/0.03A	36	21	15	12	6
RG12S72TB		0.15/0.06A	72	42	30	24	12
RG12S100TB		0.34/0.12A	100	58	42	33	17
RG12S144TB		0.40/0.14A	144	84	60	48	24
RG12S216TB		0.41/0.14A	216	120	90	72	36
RG24S144TB		0.55/0.20A	144	84	60	48	24
RG24S288TB		0.67/0.23A	288	168	120	96	48

ORDERING INFORMATION

SERIES	CAPACITY	HOUSING	# OF HEADS	HEAD STYLE LAMP WATTAGE	COLOUR	AC VOLTAGE	OPTIONS
RGS= 6V	**36**= 36W (S) **72**= 72W (S) **108**= 108W (S) **180**= 180W (L)	**TB**= T-Bar	**Blank**= no heads **1**= one head **2**= two heads **3**= three heads	**LD1**= MR16 LED, 6V-4W **LD2**= MR16 LED, 6V-5W **LD7**= MR16 LED, 12V-4W **LD9**= MR16 LED, 12V-5W **LD10**= MR16 LED, 12V-6W **LD13**= MR16 LED, 24V-4W **LD14**= MR16 LED, 24V-6W **130LD1**= deco head, MR16 LED, 6V-4W[1] **130LD2**= deco head, MR16 LED, 6V-4W[1] **130LD7**= deco head, MR16 LED, 12V-4W[1] **130LD9**= deco head, MR16 LED, 12V-5W[1] **130LD10**= deco head, MR16 LED, 12V-6W[1] **130LD13**= deco head, MR16 LED, 24V-4W[1] [1]Polar white or black cabinets only.	**BK**= black **Blank**= factory white	**Blank**= 120/347 VAC input **ZC**= 277VAC input	**A**= ammeter **AT**= auto-test[1] **ATN**= auto-test (non-audible)[1] **CT**= cab-tire **NEX**= NEXUS® system interface[2] **NEXRF**= wireless NEXUS® system interface[2] **LD**= lamp disconnect (programmable) **LTS**= light activated test switch **T3**= time delay (15 minutes) **TL**= twistlock plug[3] **TMBB**= AC/DC terminal block **TMBD**= DC terminal block **TMBK**= AC terminal block **V**= voltmeter [1]Minimum lamp load required: 20% of unit capacity. [2]Not all options are available with NEXUS® system. Please consult your sales representative [3]120V is standard
RG12S= 12V	**36**= 36W (S) **72**= 72W (S) **100**= 100W (S) **144**= 144W (S) **216**= 216W (L)						
RG24S= 24V	**144**= 144W (L) **288**= 288W (L)						

EXAMPLE: RGS36TBILD1

RGC Series

Steel, compact, 6 and 12V

nexus® CSA® Made in Canada

FEATURES

- Compact steel cabinet with corrosion-resistant undercoating
- Quick and easy installation – pre-assembled cordset, no batteries or board to remove before installation
- Universal Spider knockout pattern for junction box mounting
- Fully automatic solid-state charger with test switch and AC-on pilot light
- Sealed dust-proof transfer relay circuit and low-voltage disconnect
- Long-life, maintenance-free sealed Lead-Acid battery
- Heads require no tools for orientation
- Standard input 120VAC with line cord installed
- 120/347VAC without line cord
- Auto-testing capabilities (specific load requirements)
- Meets or exceeds CSA C22.2 No. 141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

TYPICAL SPECIFICATIONS

The contractor shall install the **Lumacell® RGC Series** battery units. The emergency lighting system shall consist of fully automatic equipment with two emergency lighting heads. The unit shall be rated _____ V with a capacity of _____ W for 30 minutes of emergency operation. The charger shall be factory set with a charging voltage tolerance of ± 1% to enable a longer battery life. The emergency light heads shall require no tools for adjusting or aiming. The metal cabinet shall be made of steel with anti-corrosion undercoating. The unit equipped with the auto-test micro-controller board shall self-test 1 minute every 30 days, 10 minutes in the 6th month and 30 minutes every 12 months. The unit shall be supplied with a test switch and diagnostic LED indicator lights to continuously monitor the status of the unit: Battery Failure, Battery Disconnect, Charger Failure, Lamp Failure, Service Alarm, main voltage AC "ON", Charger High Rate.

The unit shall be CSA 22.2 No.141-15 certified.

The unit shall be Lumacell® model: _____ .

REPLACEMENT LAMPS

ORDERING CODE	TYPE	VOLTAGE/ WATTAGE
580.0097-L	MR16 LED	6V-4W
580.0122-L	MR16 LED	6V-5W
580.0093-L	MR16 LED	12V-4W
580.0104-L	MR16 LED	12V-5W
580.0106-L	MR16 LED	12V-6W

WIRE GUARDS

460.0080-L	Wall Mount

POWER CONSUMPTION AND UNIT RATING

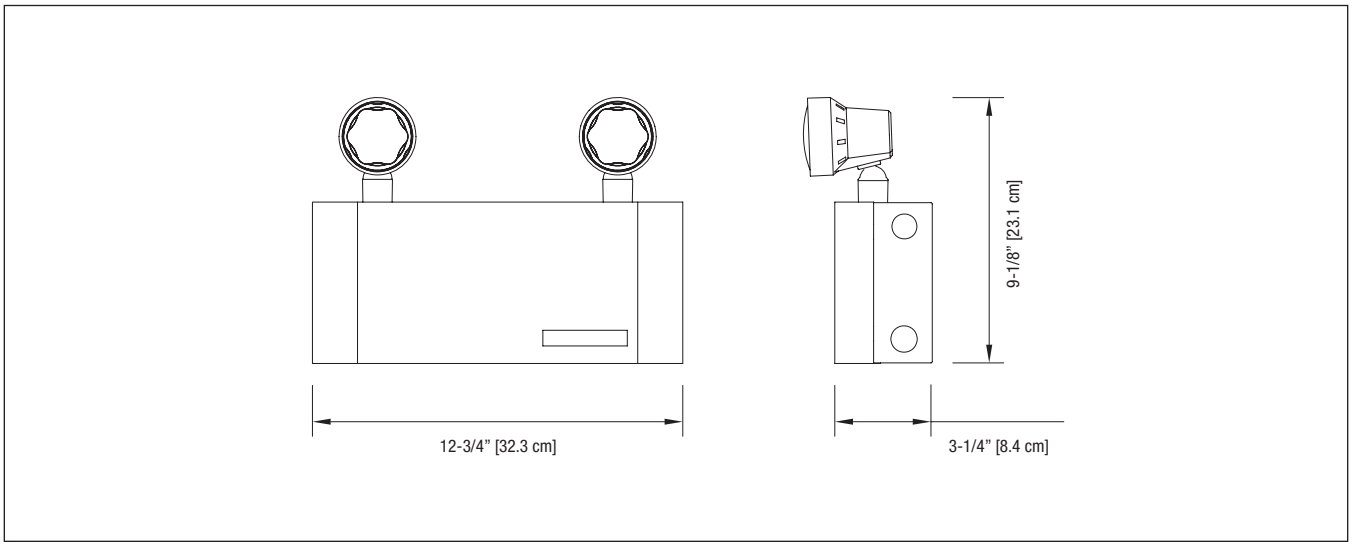
MODEL	AC SPECS		WATTAGE CAPACITY				
			30MIN	1H	1H30	2H	4H
RGC27	120/347 VAC	0.06/0.02A	27	15	11	9	-
RGC44		0.18/0.06A	44	26	18	15	7
RGC72		0.19/0.07A	72	42	30	24	12
RG12C44		0.31/0.10A	44	26	18	15	7
RG12C72		0.31/0.10A	72	42	30	24	12

RGC Series

Steel, compact, 6 and 12V

DIMENSIONS

Dimensions are approximate and subject to change.



ORDERING INFORMATION

SERIES	CAPACITY	# OF HEADS	HEAD STYLE/WATTAGE	COLOUR	AC VOLTAGE	OPTIONS
RGC= 6V	**27**= 27W **44**= 44W **72**= 72W	**Blank**= no heads **1**= one head **2**= two heads	**LD1**= MR16 LED, 6V-4W **LD2**= MR16 LED, 6V-5W **LD7**= MR16 LED, 12V-4W **LD9**= MR16 LED, 12V-5W **LD10**= MR16 LED, 12V-6W	**Blank**= factory white **BK**= black	**Blank**= 120VAC c/w line cord **ZC**= 277VAC input **ZD**= 120/347VAC input	**AT**= auto-test[1] **ATN**= auto-test, non-audible[1] **Blank**= no options **CT**= cab-tire **NEX**= NEXUS® system interface[2] **NEXRF**= wireless NEXUS® system interface[2] **TL**= twistlock plug[3]
RG12C= 12V	**44**= 44W **72**= 72W					

[1]Not available in 6V-72W

[2]Not all options are available with NEXUS® system. Please consult your sales representative.

[3]120V is standard

EXAMPLE: RGC272MLD2

RGS Series

6, 12 and 24V

nexus® CSA® Made in Canada

10-year life expectancy, maintenance-free emergency lighting units.

The **RGS Series** battery units combine long-life expectancy, high performance design and a reasonable initial cost outlay. Ideally suited for a range of commercial applications, the long-life lead acid battery is specifically recommended for environments where the unit will be exposed to large variances in ambient temperature.

FEATURES

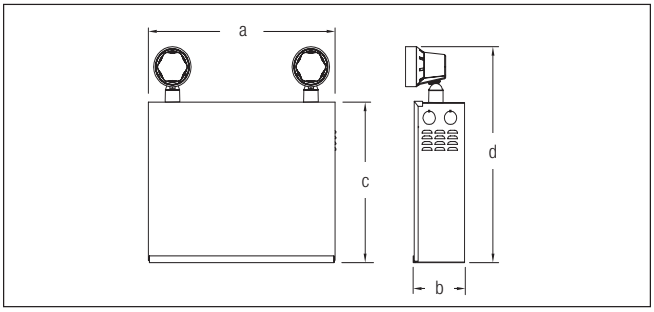
- Rugged steel cabinet with corrosion-resistant undercoating
- Removable front panel on cabinet provides easy access and allows the unit to be mounted at ceiling height
- Solid-state pulse-type charger – current-limited, temperature-compensated, short-circuit proof and reverse-polarity protected.
- Unit comes standard with electronic lockout and brownout circuits
- Sealed dust-proof transfer relay, test switch and LED indicator lights
- Long-life, maintenance-free Lead-Acid battery
- Standard 120/347VAC input voltage with line cord kit
- Auto-testing capabilities (specific load requirements)
- Meets exceeds CSA C22.2 No. 141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

CABINET	DIMENSIONS			
	A	B	C	D
A	13-1/4" (33.7 cm)	3-5/8" (9.2 cm)	10-1/2" (26.7 cm)	14-1/4" (36.2 cm)
B	16-1/8" (40.9 cm)	5-1/2" (13.9 cm)	10-1/4" (26.0 cm)	13-7/8" (35.2 cm)
C	23-1/8" (58.7 cm)	5-1/2" (13.9 cm)	10-1/4" (26.0 cm)	13-7/8" (35.2 cm)

DIMENSIONS

Dimensions are approximate and subject to change.



TYPICAL SPECIFICATIONS

Supply and install a complete emergency lighting system as described herein and shown on the drawings.

The **Lumacell® Smart Diagnostic** micro-controller board shall supply the rated load for a minimum of a 1/2 hour to 87.5% of the rated battery voltage. The unit shall be rated 120V or 347V, 60 Hz and be CSA listed. The unit shall have an output of: _____V and _____W.

The charger shall be fully computer tested and its charge voltage factory set to ± 1% tolerance. Chargers with field-adjusted potentiometers are not acceptable. A pulse-type charger shall be employed to promote long battery life and reduce the potential for grid corrosion. The charger shall provide a continuous high charge to recharge the battery, when the battery is at full capacity, the charger will shut-off.

Periodically the charger shall provide a pulse of energy to keep the battery topped off. The pulse charger shall be precisely regulated and shall charge the battery in relation to its temperature, state or charge and input voltage fluctuations. The charger shall be current limited, temperature compensated, short-circuit proof and reverse polarity protected.

The unit shall be furnished with an electronic lockout circuit, which will connect the battery when the AC circuit is activated, and an electronic brownout circuit, which will activate the emergency lights when utility power dips below 75% of nominal voltage. A low voltage battery protection circuit shall be provided and will disconnect the load when the battery reaches the end of discharge. The unit shall self-test for 1 minute every 30 days, 10 minutes on the 6th month and 30 minutes every 12 months. The unit shall be capable of full recharge in compliance with CSA specifications. The unit shall be furnished with sealed dust tight relay, a test switch and diagnostic LED indicator lights to continuously monitor the status of the unit: Battery Failure, Battery Disconnected, Charger Failure, Lamp Failure, Service Alarm, AC "ON", Charger High Rate. The emergency lighting heads shall require no tools for orientation.

The unit shall be CSA 22.2 No.141-15 certified.

The unit shall be **Lumacell®** model: _____.

WIRE GUARDS

460.0078-L	Wall Mount	"A" Cabinet
460.0081-L	Wall Mount	"B" Cabinet
460.0034-L	Wall Mount	"C" Cabinet

REPLACEMENT LAMPS

ORDERING CODE	LAMP TYPE	VOLTAGE/WATTAGE
580.0097-L	MR16 LED	6V-4W
580.0122-L	MR16 LED	6V-5W
580.0093-L	MR16 LED	12V-4W
580.0104-L	MR16 LED	12V-5W
580.0106-L	MR16 LED	12V-6W
580.0098-L	MR16 LED	24V-4W
580.0100-L	MR16 LED	24V-6W

new options

RGS Series

6, 12 and 24V

POWER CONSUMPTION AND UNIT RATING

MODEL	AC SPECS		WATTAGE CAPACITY				
			30 MIN	1H00	1H30	2H00	4H00
RGS36	120/347VAC	0.10/0.04A	36	21	15	12	6
RGS72		0.22/0.08A	72	42	30	24	12
RGS108		0.22/0.08A	108	63	45	36	18
RGS180		0.22/0.08A	180	105	75	60	30
RG12S36		0.09/0.03A	36	21	15	12	6
RG12S72		0.15/0.06A	72	42	30	24	12
RG12S100		0.34/0.12A	100	58	42	33	17
RG12S144		0.40/0.14A	144	84	60	48	24
RG12S200		0.41/0.14A	200	117	83	67	33
RG12S250		0.41/0.14A	250	144	100	83	42
RG12S360		0.43/0.15A	360	200	144	108	60
RG24S144		0.55/0.20A	144	84	60	48	24
RG24S200		0.67/0.23A	200	117	83	67	33
RG24S288		0.67/0.23A	288	168	120	96	48
RG24S350		0.67/0.23A	350	200	144	120	60
RG24S432		0.67/0.23A	432	250	180	144	72
RG24S550		0.88/0.33A	550	320	230	180	90
RG24S720		0.88/0.33A	720	420	300	240	120

Note: Units provide higher power for minimum one hour of emergency lighting.

ORDERING INFORMATION

SERIES	CAPACITY & CABINET SIZE[1]	# OF HEADS	HEAD STYLE/WATTAGE	COLOUR	AC VOLTAGE	OPTIONS
RGS= 6V	**36**= 36W (A) **72**= 72W (A) **108**= 108W (A) **180**= 180W (B)	**Blank**= no heads **1**= one head **2**= two heads **3**= three heads	**LD1**= MR16 LED, 6V-4W **LD2**= MR16 LED, 6V-5W **LD7**= MR16 LED, 12V-4W **LD9**= MR16 LED, 12V-5W **LD10**= MR16 LED, 12V-6W **LD13**= MR16 LED, 24V-4W **LD14**= MR16 LED, 24V-6W	**Blank**= factory white **BK**= black	**Blank**= 120/347VAC input **ZC**= 277VAC input	**A**= ammeter **AT**= auto-test[1] **ATN**= auto-test, non-audible[1] **CPS3**= constant power supply (N) 3Amps, 24V only[2] **CT**= cab-tire **LD**= lamp disconnect **LTS**= light activated test switch **NEX**= NEXUS® system interface[3] **NEXRF**= wireless NEXUS® system interface[3] **RF3**= radio frequency interference filter, 347VAC (N) **RFI**= radio frequency interference filter, 120VAC (N) **TD**= time delay (programmable) **TL**= cord and twist lock plug (120V only)[4] **TMBB**= AC/DC terminal block **TMBD**= DC terminal block **TMBK**= AC terminal block **V**= voltmeter **VSR**= voltage sensing relay[5] (N)
RG12S= 12V	**36**= 36W (A) **72**= 72W (A) **100**= 100W (A) **144**= 144W (A) **200**= 200W (B) **250**= 250W (B) **360**= 360W (B)					
RG24S= 24V	**144**= 144W (A) **200**= 200W (B) **288**= 288W (B) **350**= 350W (C) **432**= 432W (C) **550**= 550W (C) **720**= 720W (C)					

[1]Cabinet size is not part of nomenclature

[1]Not available with 6V-108W
Minimum lamp load required: 20% of unit capacity.
[2]"C" Cabinet only 24V, 144W-720W.
[3]Not all options are available with NEXUS® system. Consult your sales representative.
[4]120V is standard
[5]See voltage sensing relay in options section. B & C cabinet only.

EXAMPLE: RGS362MLD2

SIGNATURE™ DECO CAB Series

Decorative 6, 12 and 24V

nexus® CSA® Made in Canada

HIGH PERFORMANCE AND ENERGY EFFICIENCY IN A CONTEMPORARY DESIGN.

The **Signature™ Series** decorative battery units combine a contemporary design with the latest in high-tech security capability.

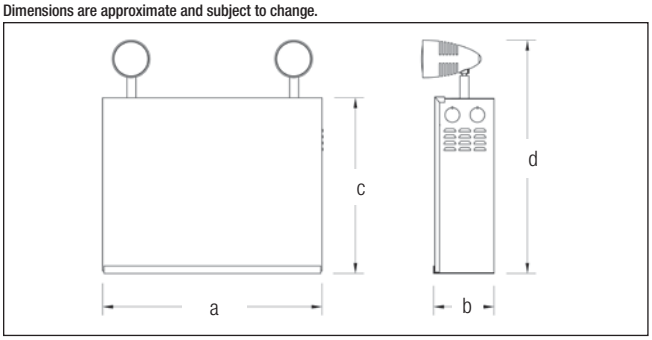
Designed to meet the needs of interior design professionals, these battery units are also high performance and energy-efficient.

FEATURES

- Rugged steel cabinet with corrosion-resistant undercoating
- Removable front panel on cabinet provides easy access and allows unit to be mounted at ceiling height
- Solid-state pulse-type charger – current-limited, temperature-compensated
- Unit comes standard with electronic lockout and brownout circuits
- Sealed dust-proof transfer relay, test switch and LED indicator lights continuously monitor unit status
- Long-life, maintenance-free lead acid battery
- Auto-testing capabilities (specific load requirements)
- Meets or exceeds CSA 22.2 No. 141-15
  See warranty details at: www.tnb.ca/en/brands/lumacell

DIMENSIONS

Dimensions are approximate and subject to change.



CABINET	DIMENSIONS			
	A	B	C	D
A	13-1/4" (33.7 cm)	3-5/8" (9.2 cm)	10-1/2" (26.7 cm)	14-1/4" (36.2 cm)
B	16-1/8" (40.9 cm)	5-1/2" (13.9 cm)	10-1/4" (26.0 cm)	13-7/8" (35.2 cm)
C	23-1/8" (58.7 cm)	5-1/2" (13.9 cm)	10-1/4" (26.0 cm)	13-7/8" (35.2 cm)

TYPICAL SPECIFICATIONS

Supply and install the **Lumacell® Signature™ Series** battery units.

The battery unit will supply the rated load for a minimum of _____ hour to 87.5% of the rated battery/voltage. The unit shall be rated 120 or 347V, 60 Hz and be CSA listed. The charger shall be fully computer tested and its charge voltage factory set to + or – 1% tolerance. A pulse type charger shall be employed to promote long battery life and reduce the potential for grid corrosion. The charger shall provide continuous high charge to recharge the battery. When the battery is at full capacity the charger will shut off. The pulse charge shall be current limited and precisely regulated by an electronic circuit which samples the battery in relation to its temperature, state of charge and input voltage fluctuations. The charger shall be current limited, temperature compensated, short-circuit proof and reverse polarity protected.

The unit shall be furnished with an electronic lockout circuit, which will connect the battery when the AC circuit is activated, and an electronic brownout circuit, which will activate the emergency lights when utility power dips below 75% of nominal voltage.

A low voltage battery protection circuit will disconnect the battery at end of the discharge. The unit will come complete with the Signature Series diagnostics micro-controller board option. The unit shall self-test for 1 minute every 30 days, 10 minutes on the 6th month and 30 minutes every 12 months. The unit shall be furnished with a sealed dust tight relay, a selectable test switch 1 minute, 5 minutes, 10 minutes or 20 minutes and diagnostics LED indicator lights to continuously monitor the status of the unit: battery failed, battery disconnect, charger failure, lamp failure, service alarm, AC "ON" and charger "ON".

The unit shall be CSA 22.2 No.141-15 certified.

The unit shall be **Lumacell®** model: _____.

REPLACEMENT LAMPS

ORDERING CODE	TYPE	VOLTAGE/ WATTAGE
580.0097-L	MR16 LED	6V-4W
580.0122-L	MR16 LED	6V-5W
580.0093-L	MR16 LED	12V-4W
580.0104-L	MR16 LED	12V-5W
580.0106-L	MR16 LED	12V-6W
580.0098-L	MR16 LED	24V-4W
580.0100-L	MR16 LED	24V-6W

WIRE GUARDS

460.0078-L	Wall Mount	"A" Cabinet
460.0081-L	Wall Mount	"B" Cabinet
460.0034-L	Wall Mount	"C" Cabinet

SIGNATURE™
DECO CAB Series
Decorative 6, 12 and 24V

POWER CONSUMPTION AND UNIT RATING

MODEL	AC SPECS		WATTAGE CAPACITY				
			30MIN	1H00	1H30	2H00	4H00
RGS36	120/347VAC	0.10/0.04A	36	21	15	12	6
RGS72		0.22/0.08A	72	42	30	24	12
RGS108		0.22/0.08A	108	63	45	36	18
RGS180		0.22/0.08A	180	105	75	60	30
RG12S72		0.15/0.06A	72	42	30	24	12
RG12S100		0.34/0.12A	100	58	42	33	17
RG12S144		0.40/0.14A	144	84	60	48	24
RG12S200		0.41/0.14A	200	117	83	67	33
RG12S250		0.41/0.14A	250	144	100	83	42
RG12S360		0.43/0.15A	360	200	144	108	60
RG24S144		0.55/0.20A	144	84	60	48	24
RG24S200		0.67/0.23A	200	117	83	67	33
RG24S288		0.67/0.23A	288	168	120	96	48
RG24S350		0.67/0.23A	350	200	144	120	60
RG24S432		0.67/0.23A	432	250	180	144	72
RG24S550		0.88/0.33A	550	320	230	180	90
RG24S720		0.88/0.33A	720	420	300	240	120

*Note: Units provide higher power for minimum one hour of emergency lighting.

ORDERING INFORMATION

SERIES	CAPACITY	# OF HEADS	HEAD STYLE	LAMP WATTAGE	COLOUR	AC VOLTAGE	OPTIONS
RGS= 6V	**36**= 36W (A) **72**= 72W (A) **108**= 108W (A) **180**= 180W (B)	**1**= one head **2**= two heads **3**= three heads	**130**= closed	**LD1**= MR16 LED, 6V-4W, **LD2**= MR16 LED, 6V-5W **LD7**= MR16 LED, 12V-4W **LD9**= MR16 LED, 12V-5W **LD10**= MR16 LED, 12V-6W **LD13**= MR16 LED, 24V-4W **LD14**= MR16 LED, 24V-6W	**BK**= black **Blank**= polar white	**Blank**= 120/347VAC input **ZC**= 277VAC input	**A**= ammeter **AT**= auto-test[1] **ATN**= auto-test, non-audible[1] **CPS3**= constant power supply 3 Amps, 24V only[2] **CT**= cab-tire **LD**= lamp disconnect **LTS**= light activated test switch **NEX**= NEXUS® system interface[3] **NEXRF**= wireless NEXUS® system interface[3] **RFI**= radio frequency interference filter, 120VAC **RF3**= radio frequency interference filter, 347VAC **TD**= time delay 15 minutes **TL**= twistlock plug (120V)[4] **TMBB**= AC/DC terminal block **TMBD**= DC terminal block **TMBK**= AC terminal block **V**= voltmeter **VSR**= voltage sensing relay[5]
RG12S= 12V	**72**= 72W (A) **100**= 100W (A) **144**= 144W (A) **200**= 200W (B) **250**= 250W (B) **360**= 360W (B)						
RG24S= 24V	**144**= 144W (A) **200**= 200W (B) **288**= 288W (B) **350**= 350W (C) **432**= 432W (C) **550**= 550W (C) **720**= 720W (C) *Cabinet size is not part of nomenclature						

[1]Minimum lamp load required: 20% of unit capacity

[2]"C" Cabinet only 24V, 144W-720W.

[3]Not all options are available with NEXUS® system. Please consult your sales representative

[4]120V is standard

[5]See voltage sensing relay in options section. B & C cabinet only.

EXAMPLE: RG12S722130LD7

new product

RGS High Perfomance Series

Commercial Battery Unit

nexus® CSA® Made in Canada

Standard life expectancy, maintenance-free emergency lighting units.

The **RGS High Performance Series** battery units combine long-life expectancy, high performance design and a reasonable initial cost outlay. Ideally suited for a range of commercial applications that require high performance emergency lighting fixtures.

FEATURES

- Rugged steel cabinet with corrosion-resistant undercoating
- Removable front panel on cabinet provides easy access and allows the unit to be mounted at ceiling height
- Solid-state pulse-type charger – current-limited, temperature-compensated, short-circuit proof and reverse-polarity protected.
- Die cast aluminum high efficiency heads
- Innovative head design featuring four LEDs and a dual driver that provide even illumination even in case of unexpected component failure
- Standard grey colour (black optional)
- May be wired from top or side only. Rear keyhole slots provided for installation (except for 24V model)
- Maintenance-free Lead-Acid battery
- Standard 120/347VAC input voltage
- Auto-testing capabilities (specific load requirements)
- Meets exceeds CSA C22.2 No. 141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

TYPICAL SPECIFICATIONS

Supply and install a complete emergency lighting system as described herein and shown on the drawings. The **Lumacell® Smart Diagnostic** micro-controller board shall supply the rated load for a minimum of a 1/2 hour to 87.5% of the rated battery voltage. The unit shall be rated 120V or 347V, 60 Hz and be CSA listed. The unit shall have an output of: _____V and _____W.

The charger shall be fully computer tested and its charge voltage factory set to ± 1% tolerance. Chargers with field-adjusted potentiometers are not acceptable. A pulse-type charger shall be employed to promote long battery life and reduce the potential for grid corrosion. The charger shall provide a continuous high charge to recharge the battery, when the battery is at full capacity, the charger will shut-off.

Periodically the charger shall provide a pulse of energy to keep the battery topped off. The pulse charger shall be precisely regulated and shall charge the battery in relation to its temperature, state or charge and input voltage fluctuations. The charger shall be current limited, temperature compensated, short-circuit proof and reverse polarity protected.

The unit shall be furnished with an electronic lockout circuit, which will connect the battery when the AC circuit is activated, and an electronic brownout circuit, which will activate the emergency lights when utility power dips below 75% of nominal voltage. A low voltage battery protection circuit shall be provided and will disconnect the load when the battery reaches the end of discharge. The unit shall self-test for 1 minute every 30 days, 10 minutes on the 6th month and 30 minutes every 12 months. The unit shall be capable of full recharge in compliance with CSA specifications. The unit shall be furnished with sealed dust tight relay and a test switch. When specified, units with self-test and auto-diagnostic feature shall be equipped with diagnostic LED indicator lights to continuously monitor the status of the unit: Battery Failure, Battery Disconnected, Charger Failure, Lamp Failure, Service Alarm, AC "ON", Charger High Rate. The emergency lighting heads shall require no tools for orientation.

The unit shall be CSA 22.2 No.141-15 certified.

The unit shall be **Lumacell®** model: _____.

WIRE GUARDS

460.0078-L	Wall Mount	"A" Cabinet

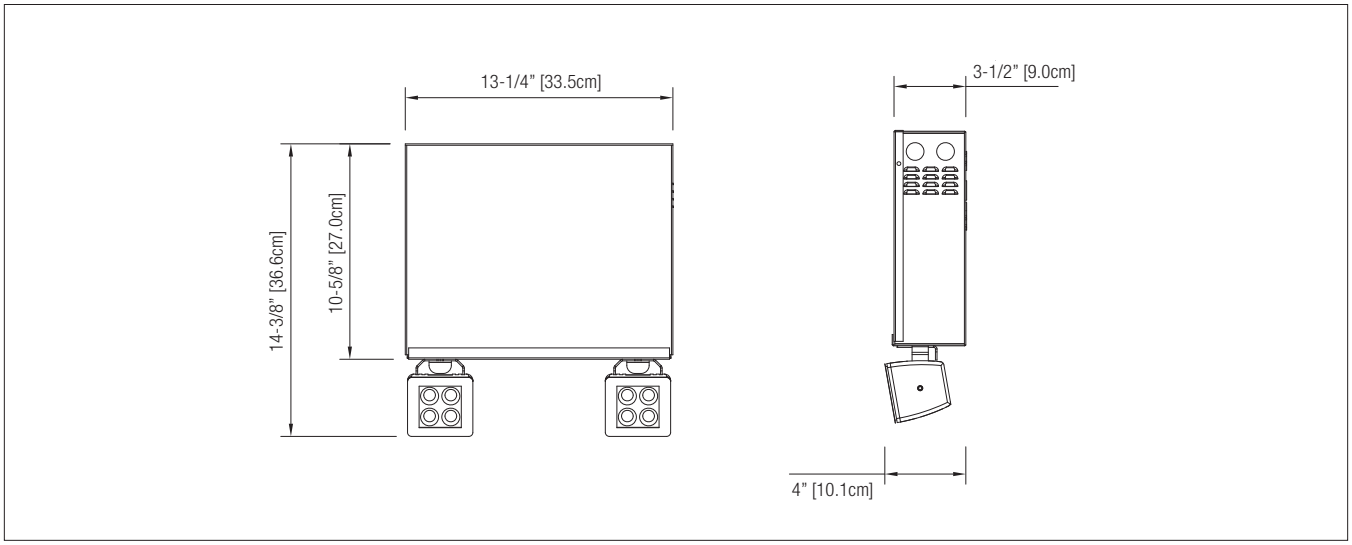
new product

RGS High Perfomance Series

Commercial Battery Unit

DIMENSIONS

Dimensions are approximate and subject to change.



POWER CONSUMPTION AND UNIT RATING

MODEL	AC SPECS		WATTAGE CAPACITY				
			30 MIN	1H00	1H30	2H00	4H00
RG12S36	120/347VAC	0.25/ 0.11A	36	21	15	12	6
RG12S72		0.25/ 0.11A	72	42	30	24	12
RG12S100		0.25/ 0.11A	100	58	42	33	17
RG12S130		0.25/ 0.11A	130	75	54	43	22
RG24S144		0.55/ 0.17 A	144	84	60	48	24

Note: Units provide higher power for minimum one hour of emergency lighting.

ORDERING INFORMATION

SERIES/ VOLTAGE/ CAPACITY	# OF HEADS	HEADS STYLE/ WATTAGE	COLOUR	INPUT VOLTAGE	CHARGER TYPE	OPTIONS (CAN BE COMBINED)
RG12S36= 36W (A) **RG12S72**= 72W (A) **RG12S100**= 100W (A) **RG12S130**= 130W (A) **RG24S144**= 144 W (A)	**0**= no heads **2**= two heads	**L6**= 12-24V, 6W **L10**= 12-24V, 10W **L15**= 12-24V, 15W	**BK**= black[1] **GY**= grey (standard) *L15 head only	**Blank**= 120/347VAC **-ZC**= 120/277VAC input	**AT**= auto-test **ATN**= auto-test, non-audible **Blank**= standard **NEX**= NEXUS® wired **NEXRF**= NEXUS® wireless	**RFI**= 120VAC Radio frequency interference filter **RF3**= 347VAC Radio frequency interference filter **TD**= time delay (15 min. default)

EXAMPLE: RG24S1442LD15GYAT

new product

RGC-BLD Series

Steel, compact, 6V

Made in Canada

FEATURES

- "Built-in" 3W LED heads
- Compact steel cabinet with corrosion-resistant undercoating
- Quick and easy installation – pre-assembled cordset, no batteries or board to remove before installation
- Universal Spider knockout pattern for junction box mounting
- Fully automatic solid-state charger with test switch and AC-on pilot light
- Sealed dust-proof transfer relay circuit and low-voltage disconnect
- Long-life, maintenance-free sealed Lead-Acid battery
- Standard input 120VAC with line cord installed
- 120/347VAC without line cord
- Meets or exceeds CSA C22.2 No. 141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

TYPICAL SPECIFICATIONS

The contractor shall install the **Lumacell® RGC-BLD Series** battery units. The emergency lighting system shall consist of fully automatic equipment with two emergency lighting heads. The unit shall be rated 6V with a capacity of 27W for 30 minutes of emergency operation. The charger shall be factory set with a charging voltage tolerance of ± 1% to enable a longer battery life. The metal cabinet shall be made of steel with anti-corrosion undercoating.The unit shall be CSA 22.2 No.141-15 certified.

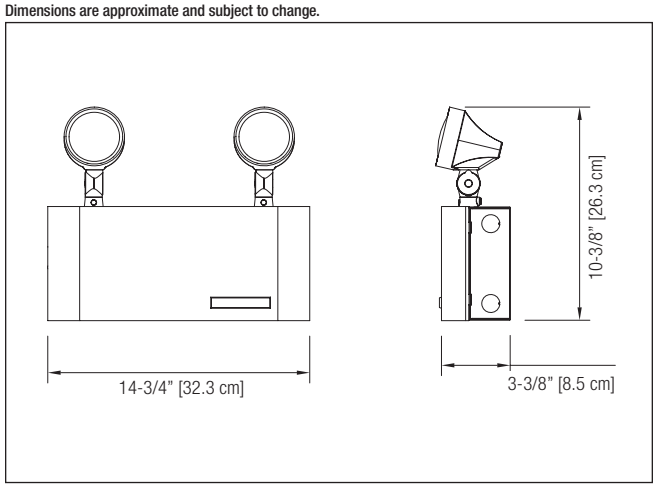
The unit shall be Lumacell® model: _____ .

WIRE GUARDS

460.0080-L	Wall Mount

DIMENSIONS

Dimensions are approximate and subject to change.



POWER CONSUMPTION AND UNIT RATING

MODEL	AC SPECS		WATTAGE CAPACITY				
			30MIN	1H	1H30	2H	4H
RGC27	120/347 VAC	0.06/0.02A	27	15	11	9	-

ORDERING INFORMATION

SERIES	CAPACITY	# OF HEADS	HEADS STYLE/WATTAGE	AC VOLTAGE
RGC= 6V	**27**= 6V-27W	**1**= One head **2**= Two heads	**BLD**= Built-in LED	**Blank**= 120VAC input comes with linecord **ZC**= 277VAC input **ZD**= 120/347VAC input

EXAMPLE: RGC272BLD

DIVIDER™ Series

Thermoplastic 6V

FEATURES

- Injection-molded, impact-, scratch- and corrosion-resistant thermoplastic with a snap-together design
- Compact and versatile – unit measures only 11.75" x 5" and can be wall or ceiling mounted
- LED lamps with life expectancy of 30,000+ hours
- Maintenance-free, long-life sealed Lead Calcium battery
- Fast & easy installation - AC quick connect plug, battery knockout feature
- Fully automatic, solid-state charger with low voltage battery disconnect, brownout protection, integral test switch and long-life LED AC-On pilot lights
- Charger is temperature compensated and reverse polarity protected
- Optional ceiling mount includes safety wire and pre-machined housing to receive a securement screw
- Auto-testing capabilities (specific load requirements)
- Meets or exceeds CSA 22.2 No.141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

TYPICAL SPECIFICATIONS

The contractor will install the **Lumacell® Divider™ Series** battery unit. The emergency lighting system shall consist of fully automatic equipment with two (2) emergency lighting heads. The emergency lighting heads shall require no tools for adjusting or aiming. Each unit shall contain a fully automatic, solid-state charger with test switch and AC-on pilot lights. The unit shall contain a sealed transfer circuit and low-voltage disconnect circuit. The unit equipped with self-testing /self-diagnostic or Nexus® features shall automatically self-test for one minute every 30 days, 10 minutes in the 6th month and 30 minutes annually. When a fault is detected, the bi-colour pilot light shall turn from green to red and shall flash, identifying the source of the failure: battery, charger circuitry, lamp load.

The battery shall meet 6V with a capacity of 20 or 36W for 30 minutes.

The unit shall be CSA C22.2 no. 141-15 certified.

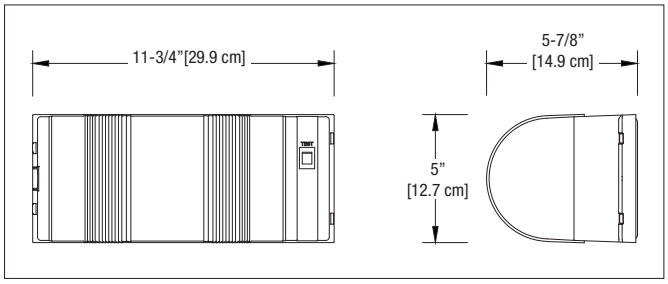
The unit shall be the **Lumacell®** model: _____.

WIRE GUARDS

460.0080-L	Wall Mount

DIMENSIONS

Dimensions are approximate and subject to change.



REPLACEMENT LAMPS

MODEL	LAMP TYPE	VOLTAGE/WATTAGE
580.0097-L	MR16-LED	6V-4W
580.0122-L	MR16-LED	6V-5W

POWER CONSUMPTION AND UNIT RATING

MODEL	LAMP TYPE	VOLTAGE/WATTAGE	WATTAGE CAPACITY				
			30MIN	1H	1H30	2H	4H
RGDIV20N	120/347VAC	0.07/0.03 A	20	15	12	8	-
RGDIV36N		0.08/0.03 A	36	21	15	12	6

ORDERING INFORMATION

SERIES	LAMP TYPE	COLOUR	INPUT VOLTAGE	UNIT TYPE	OPTIONS
RGDIV20N= 6V-20W **RGDIV36N**= 6V-36W	**LD1**= MR16 LED, 6V-4W **LD2**= MR16 LED, 6V-5W	**B**= black **Blank**= factory white	**Blank**= 120/347VAC **2**= 120/277VAC	**-AT**= auto-test **-ATNA**= auto-test, non-audible **Blank**= standard **-NEX**= NEXUS® system interface[1] **-NEXRF**= wireless NEXUS® system interface[1] [1]Available with RGDIV20N only Not all options available with NEXUS® System. Please consult your sales representative.	**Blank**= no options **CM**= ceiling mount **LC**= line cord (120VAC only) - not installed **V**= voltmeter[1] **VR**= vandal resistant screws[2] [1]Available with standard unit type only [2]**690.0454 -L**= tamper-proof bit (sold separately)

EXAMPLE: RGDIV20NLD1-NEXRFVR

new product

MGRA Series

Reduced Size
Thermoplastic, 6 and 12V

nexus® CSA® Made in Canada

FEATURES

- Designed with aesthetics, ease of installation and performance in mind
- Compact, simple and contemporary
- Wall, optional ceiling or pendant mount (optional)
- Two-piece housing of injection-molded thermoplastic
- Two LED lamps, shielded by clear polycarbonate covers
- Sealed, maintenance-free, Lead-Calcium batteries
- Dual voltage input: 120/347 Vac.
- Up to 48W of total battery capacity
- Autotest (optional)
- Nexus interface (optional)
- Meets or exceeds CSA 22.2 No.141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

TYPICAL SPECIFICATIONS

Supply and install the **Lumacell® MGRA series** of reduced size thermoplastic battery unit equipment. The unit construction shall include a housing and a front cover of injection-molded, high-impact thermoplastic of white color. No screws shall be necessary to hold the front cover to the housing. The unit shall be equipped at the bottom with two emergency heads with adjustable swivels and long-life LED lamps of ____ V ____ W protected by snap-on shock-absorbent, clear polycarbonate covers. The unit shall be suitable for wall mount or as otherwise specified.

The unit equipment shall have a dual-voltage input of 120/347Vac and shall be equipped with a test switch and a green pilot light, located on the front panel. The housing shall host the battery and the battery charger. The battery charger and other unit functions shall be driven by a micro-controller. All electronic circuitry shall be installed on a single printed circuit board. When specified, the unit equipped with Auto-test shall automatically self-test for one minute every 30 days, 10 minutes in the 6th month and 30 minutes annually. When a fault is detected, the bi-color pilot light shall turn from green to red and start flashing. A legend on a label installed near the pilot light shall explain the source of failure: battery, charger circuitry or lamp load.

The unit equipment shall be listed to the standard CSA 22.2 No.141-15.

The unit equipment shall be **Lumacell®** model: _____.

WIRE GUARDS

460.0080-L	Wall mount or ceiling mount

REPLACEMENT LAMPS

ORDERING CODE	TYPE	VOLTAGE/ WATTAGE
580.0097-L	MR16 LED	6V-4W
580.0122-L	MR16 LED	6V-5W
580.0093-L	MR16 LED	12V-4W
580.0104-L	MR16 LED	12V-5W
580.0106-L	MR16 LED	12V-6W

IN THE SAME THERMOPLASTIC FAMILY:

- Grande™ Series Exit Sign

- Grande™ Series Combo. Unit

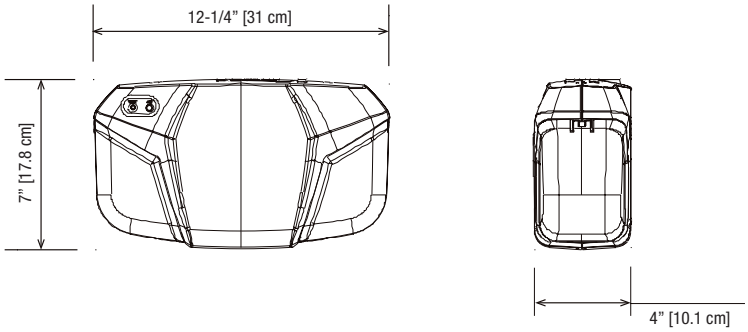
new product

MGRA Series

Reduced Size
Thermoplastic, 6 and 12V

DIMENSIONS

Dimensions are approximate and subject to change.



WALL MOUNT

POWER CONSUMPTION

MODEL	AC SPECS		WATTAGE CAPACITY				
			30MINS	1H	1,5H	2H	4H
MGRA	120/ 347VAC	.11 /.04A	24W	14W	10W	8W	4W
MGR12A		.21 /.07A	48W	28W	20W	16W	8W

ORDERING INFORMATION

SERIES	CAPACITY	HEADS	LAMPS TYPE AND WATTAGE	COLOUR	VOLTAGE	UNIT TYPE	OPTIONS
MGRA = 6V	**24**= 24W	**0**= no head **2**= two heads	**LD1**= MR16 LED, 6V-4W **LD2**= MR16 LED, 6V-5W **LD7**= MR16 LED, 12V-4W **LD9**= MR16 LED, 12V-5W **LD10**= MR16 LED, 12V-6W	**W**= factory white **B**= black	**Blank**= 120/347VAC **ZC**= 120/277VAC **ZU**= 120/208/220-240V 50/60Hz input[1] [1]Not available with Nexus®	**AT**= auto-test[1] **ATN**= auto-test, non-audible)[1] **Blank**= standard **NEX**= NEXUS® system interface[2] **NEXRF**= wireless NEXUS® system interface[2] [1]Minimum lamp load required: 20% of unit capacity. [2]Not all options available with the Nexus® system. Please consult your sales representative.	**Blank**= no options **CM**= ceiling mount **LC**= line cord (120V) **PM**= pendant mount[1] **T3**= time delay (15 minutes) [1]Pendant kit (sold separately, see p.142)
MGR12A = 12V	**48**= 48W						

EXAMPLE: MGRA242LD1W

new product

LCB-HO LED Series

Commercial Battery Unit

FEATURES

- Fully adjustable LED glare-free lens
- 5.4W long life high output LED light source
- Provides 90' spacing at 7.5' mounting height
- Dual voltage input capability 120/347VAC
- Automatic, temperature compensated, pulse type charger
- Low voltage disconnect prevents over discharge of battery
- Automatic brownout protection
- Sealed 9.6V-12W Lithium-ion battery offering 90 minutes of emergency lighting
- Battery lock-out prevents discharge during installation
- Red LED charger monitor
- Momentary test switch allows for quick operational check
- Injection-molded thermoplastic ABS housing
- Rear keyhole slots and universal knock-outs to mount to any standard 4" junction box
- Fast and easy installation with snap-together design
- Ceiling or wall mount installation
- Comes standard with one (1) year warranty
- Meets or exceeds CSA C22.2 no.141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

TYPICAL SPECIFICATIONS

The Contractor will install the **Lumacell® LCB-HO LED** battery unit. The emergency lighting system shall consist of fully automatic equipment with two high output LED heads. Each unit shall contain a fully automatic, solid state charger with test switch and AC ON pilot lights. The unit shall contain a sealed transfer circuit and low voltage disconnect circuit.

The battery shall be 9.6V with a capacity of 12W for 90 minutes. The unit shall be cUL approved to meet CSA 22.2 no. 141-15 standard.

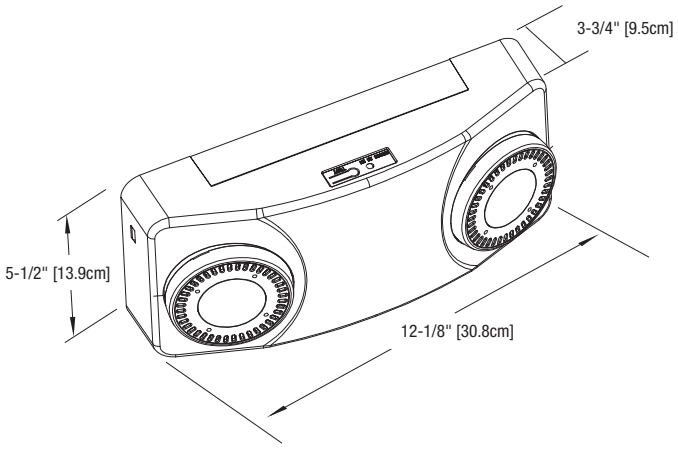
The unit shall be **Lumacell®** model: _____ .

POWER CONSUMPTION AND UNIT RATING

MODEL	AC SPECS			DC SPECS	
LCB-HO	120/347VAC	0.08 A	0.8 W	LifePO	Min. 90 minutes

DIMENSIONS

Dimensions are approximate and subject to change.



ORDERING INFORMATION

SERIES	VOLTAGE
LCB-HO= Commercial battery unit high output	**Blank**= 120/347VAC

EXAMPLE: LCB-HO

LCSB Series

Miniature LED Battery Unit

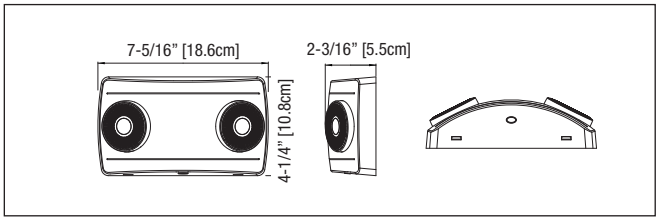
FEATURES

- Fully adjustable LED glare-free lens
- 3.6V 1W long life LED light source, 6000K
- Remote capacity for one dedicated remote head (LCSRD only).
- Dual voltage input capability 120/277VAC
- Automatic, temperature compensated, pulse type charger
- Low voltage disconnect prevents over discharge of battery
- Automatic brownout protection
- Sealed maintenance-free 3.6V Nickel-Metal Hydride battery offering 90 minutes of emergency lighting
- Battery lock-out prevents discharge during installation
- Red LED charger monitor
- Momentary test switch allows for quick operational check
- Injection-molded thermoplastic ABS housing
- Rear keyhole slots and universal knock-outs to mount to any standard 4" junction box
- Fast and easy installation with snap-together design
- Ceiling or wall mount installation
- Comes standard with one (1) year warranty
- Meets or exceeds CSA C22.2 no.141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

DIMENSIONS

Dimensions are approximate and subject to change.



POWER CONSUMPTION AND UNIT RATING

MODEL	AC SPECS			DC SPECS	
LCSB-6	120/277VAC	0.06/0.07 A	0.4/0.6 W	NiMH battery	Min. 90 minutes

*NOTE: The LCS Family cannot be combined with other Lumacell Products on the same emergency A.C. circuit.

ORDERING INFORMATION

SERIES	CAPACITY	VOLTAGE	LAMP
LCSB	**-6**= 6W-3.6V	**Blank**= 120/277VAC	**Blank**= 2X 1W LED

EXAMPLE: LCSB-6

LCSR Series

Dedicated Indoor LED Remote

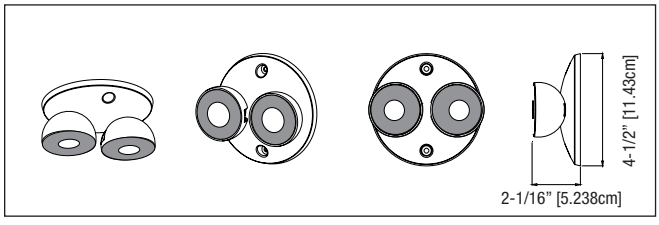
FEATURES

- Fully adjustable LED glare-free lens
- 3.6V 1W long life LED light source, 6000K
- Injection-molded off-white thermoplastic ABS housing
- Ceiling or wall mount installation
- To mount to any standard 4" junction box
- To be used only with LCSB battery unit
- Comes standard with one (1) year warranty
- Meets or exceeds CSA C22.2 No.141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

DIMENSIONS

Dimensions are approximate and subject to change.



*NOTE: The LCS Family cannot be combined with other Lumacell® Products on the same emergency A.C. circuit.

ORDERING INFORMATION

SERIES	NUMBER OF HEADS	LAMP TYPE/WATTAGE	COLOUR
LCSR	**D**= 2	**Blank**= 1W LED	**Blank**= White

EXAMPLE: LCSRD

RG-NX Series

NEMA-4X Rated

Made in Canada

FEATURES

- Fully gasketed cast aluminum back plate with clear polycarbonate cover – NEMA-4X Certified
- Comes standard with non-audible advanced diagnostic, 15 minute time delay and lamp disconnect
- Audible warning and time delay functions can be enabled or disabled during installation
- Micro-controller diagnostic system tests, detects and indicates battery, charger circuitry or LED lamp failures
- Non intrusive magnetic test switch
- Long-life, maintenance-free sealed Lead-Acid battery
- 1/2" rigid conduit entry on top and back
- Can be installed on 4" junction boxes
- Comes standard with tamper-proof screws and bit
- Standard 120/347VAC input voltage
- Cold weather option -40ºC (-40ºF)
- NSF Certified for food processing plants
- Auto-testing capabilities (specific load requirements)
- Meets or exceeds CSA C22.2 No. 141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

TYPICAL SPECIFICATIONS

Supply and install the **Lumacell® NEMA-4X Certified RG-NX Series** battery unit. Specifically designed for high abuse areas, wet locations, and cold weather (CW option -40°C (-40°F)), the housing shall consist of a fully gasketed die-cast with a cast aluminum back plate and a clear heavy-duty UV resistant polycarbonate cover. The heads shall be fully adjustable without tools and the lamps shall be high efficiency MR16 LEDs. The standard unit shall be equipped with tamper-proof screws and bits.The Lumacell Advanced Diagnostic Micro-controller charger board shall supply the rated load for a minimum of 30 minutes to 87.5% of the rated battery voltage. The charger incorporates lockout and brownout circuits, and low voltage disconnection. It protects the unit from over-current, short-circuit, and reverse polarity. The unit shall be rated 120/347V, 60Hz. The unit shall have an output of _____ V. This unit shall self-test for 1 minute every 30 days, 10 minutes on the 6th month and 30 minutes every 12 months. The unit shall be furnished with a non-intrusive magnetic test switch. A "Service Required" lamp shall be located near the test switch and flash when a fault is detected. A four-LED diagnostic display shall be located inside the equipment and shall identify the source of failure (battery, charger, circuitry,or lamps).

The unit shall be CSA 22.2 No. 141-15 certified.

The unit shall be **Lumacell®** model: _____.

WIRE GUARDS

460.0031-L	Wall Mount

ACCESSORIES

Additional bit for tamperproof screws	TPB
Universal bracket (for mounting on poles, I-beams)	PMK

REPLACEMENT LAMPS

ORDERING CODE	TYPE OF SPECIFICATIONS
580.0097-L	MR16 LED, 6V-4W
580.0122-L	MR16 LED, 6V-5W
580.0093-L	MR16 LED, 12V-5W
580.0104-L	MR16 LED, 12V-5W
580.0106-L	MR16 LED, 12V-6W

IN THE SAME FAMILY: NEMA-4X

- LER3000 Series

- 3LER3000 Series

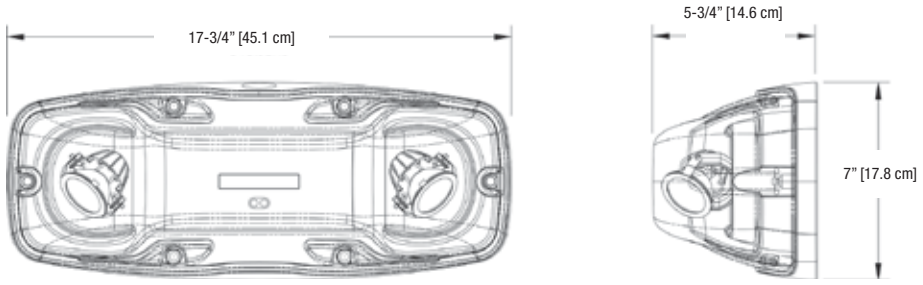
- MQM-NX NEMA 4X Remote Fixtures

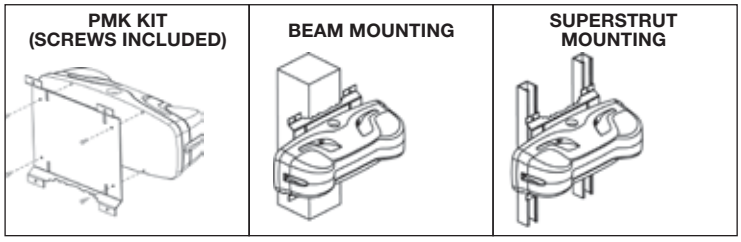
RG-NX Series

NEMA-4X Rated

DIMENSIONS

Dimensions are approximate and subject to change.





POWER CONSUMPTION AND UNIT RATING

MODEL	AC SPECS		WATTAGE CAPACITY				
			30MIN	1H00	1H30	2H00	4H00
RGNX36	120/347VAC	0.15/0.06A	36	21	15	12	6
RG12NX72		0.25/0.10A	72	42	30	24	12
RG12NX108		0.25/0.10A	108	63	45	36	18
Cold Weather 36W		0.45/0.20A	36	-	-	-	-
Cold Weather 72/108W	120VAC	0.85A	72/108	-	-	-	-

*Note: capacity depends on the ambient temperature

ORDERING INFORMATION

SERIES	CAPACITY	NUMBER OF HEADS	LAMP TYPES AND WATTAGE	COLOUR	AC VOLTAGE	OPTIONS
RGNX= 6V, NEMA-4X **RG12NX**= 12V, NEMA-4X	**36**= 6V-36W **72**= 12V-72W **108**= 12V-108W	**2**= 2 heads	**LD1**= MR16 LED, 6V-4W[1] **LD2**= MR16 LED, 6V-5W **LD7**= MR16 LED, 12V-4W[1] **LD9**= MR16 LED, 12V-5W **LD10**= MR16 LED, 12V-6W [1]Minimum lamp load required: 20% of unit capacity.	**BK**= black **Blank**= white **SG**= grey	**Blank**= 120/347VAC **ZC**= 277VAC input	**Blank**= auto-test, non audible **CW1**= cold weather 120VAC **CW3**= cold weather 347VAC[1] **NEX**= NEXUS® system interface[2] **NEXRF**= wireless NEXUS® system interface[2] **PMK-L**= universal bracket (sold separately) [1]Available in 6V only. [2]Not all options are available with NEXUS® System. Please consult your sales representative.

EXAMPLE: RGNX362LD2

new product

LHP Series

NEMA-4X Rated

Made in Canada

FEATURES

- Fiberglass grey housing with captive screws. It is designed for heavy-duty industrial applications: indoors, outdoors, hose-down areas, cold-storage facilities etc
- NEMA-4X protection grade against liquids and windblown dust
- High ambient temperature up to 50°C [122°F] and optional cold-weather -40°C to 50°C [-40°F to 122°F]
- High temperature Lead-Calcium Battery
- High-efficacy LED emergency heads outperform traditional 50W halogen lamps
- Innovative head design: four-LED and dual-driver provide illumination even in case of unexpected component failure
- Product features stainless steel exterior hardware
- Simple and easy to install on walls, poles, columns or struts. For vertical installation on poles or columns use mounting bracket catalogue number: PMK1-L (sold separately)
- May be wired from top or side (see drawing for position)
- Standard infrared remote test control included in all models: allows to test the equipment without the need to climb a ladder. Functional up to a distance of 30 ft. Universal, one Remote Test Control may test all units on the job.
- Optional NEXUS® central monitoring system
- Auto-testing capabilities (specific load requirements)
- Meets or exceeds CSA C22.2 No. 141-15
- 1 Year limited warranty
  See warranty details at: www.tnb.ca/en/brands/lumacell

REMOTE TEST CONTROL

TYPICAL SPECIFICATIONS

Supply and install **Lumacell® LHP Series** of battery unit equipment. The unit enclosure shall have a compression-molded fiberglass construction and shall be equipped with a hinged, overlapping cover. The cover shall include a 3/16" wide rubber gasket and shall fasten with two stainless-steel captive screws. The enclosure shall have lateral flanges with holes for easy installation on the wall and also include two water-tight plugs of size 1/2" NPT for vertical and horizontal conduit and wire access. The emergency lighting heads shall be installed at the bottom of the cabinet and have the electrical cable passing through the swivel via water-tight bushings. The heads shall be made of die-cast aluminum and have a flat square lens made of UV-stabilized clear polycarbonate. The lens shall be sealed with a rubber gasket and be fixed with an aluminum frame and 6 (six) tamper-proof screws. Each head shall include four (4) LEDS and two independent LED drivers with electrical connections allowing for lighting even in case of unexpected component failure. Each head shall have an input voltage range of 12 – 24VDC and a constant power regulation, providing stable illumination during variations of the battery discharge voltage.

The equipment shall have a dual AC input rated 120/347VAC 60Hz and a charger module equipped with micro-controller and solid-state transfer relay. The charger shall perform functions like: AC brownout detection, battery lockout, low voltage battery disconnect, and provide protection against over-current, short-circuit, and DC reverse polarity.

Auto-test option shall execute automatic tests for one minute every 30 days, 10 minutes every sixth month and 30 minutes every 12 months. In case of functional failure detection the equipment pilot light shall change color from green to red and signal a service alarm with specific flashing codes: battery or lamp disconnect, battery failure, charger failure, lamp failure. A label installed on the cover shall contain the legend with diagnostic codes. The equipment shall come standard with an infrared remote test control.The equipment shall be rated NEMA-4X for hose-down applications.

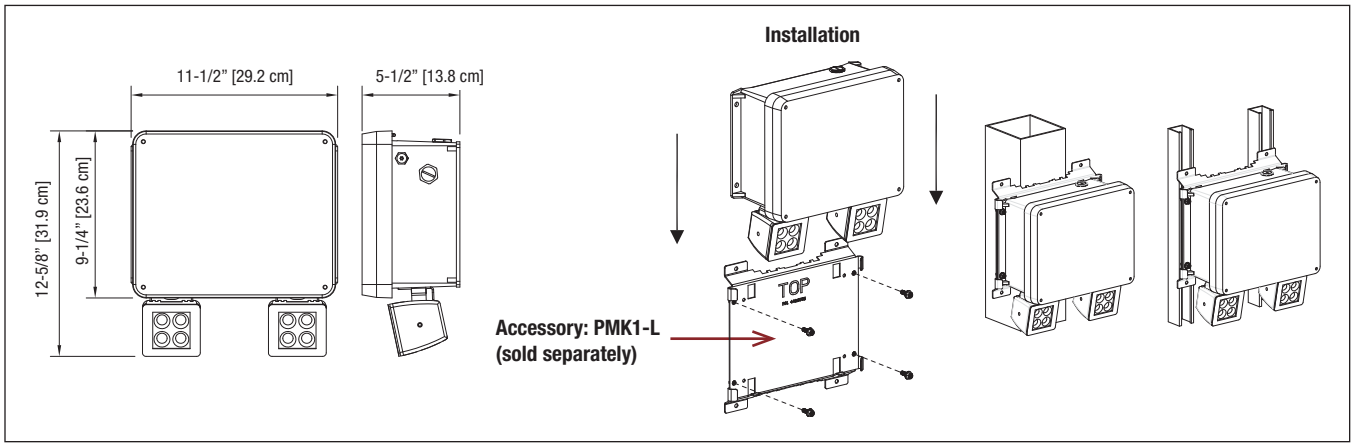
The equipment shall be listed to cUL standards for Damp and Wet Locations.

Certified to CSA C22.2 No.141-15

Unit shall be **Lumacell®** catalog number_____.

DIMENSIONS

Dimensions are approximate and subject to change.



new product

LHP Series

NEMA-4X Rated

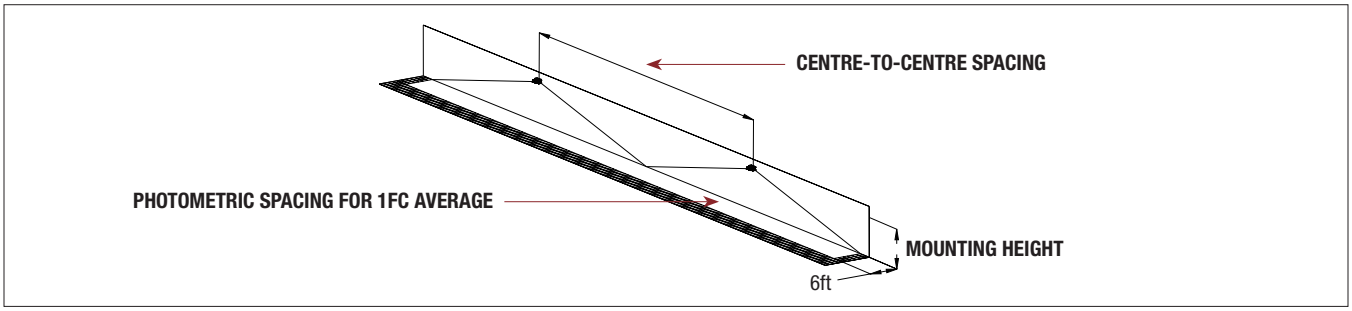
PHOTOMETRY PERFORMANCE

Whether installed indoors or outdoors, the **LHP Series** of LED emergency lights deliver a stable and consistent illumination on the path of egress for a wide range of mounting heights. Depending on the application, one may select and specify among three types of performance for the right power consumption, lumen output and cross reference to traditional incandescent emergency lights.

LED LAMP	POWER (W)	TOTAL LUMENS	OUTPERFORMS THE INCANDESCENT
L6	6W	565	35W PAR36, MR16 Halogen
L10	10W	1030	50W PAR36, MR16 Halogen
L15	15W	1320	50W MR16-IR Halogen

Industrial environment: wall mounted equipment, reflectances: 10/10/10; 6ft wide illumination path. 200 ft X 200 ft X 30 ft space. The illumination level meets all requirements of the NBC; Average: 1fc; Min: 0.1fc.

MOUNTING HEIGHT	SPACING CENTRE-TO-CENTRE (FEET)		
	LAMP L6 / 6W, 565LM	LAMP L10 / 10W, 1000LM	LAMP L15 / 15W, 1300LM
10 ft	80	110	140
15 ft	70	105	135
20 ft	60	100	130
25 ft	50	95	120



POWER CONSUMPTION AND UNIT RATING

MODEL	AC SPECS			WATTAGE CAPACITY				
	120VAC	277VAC	347VAC	30MIN	1H00	1H30	2H00*	4H00*
1275	0.20A	0.10A	0.07A	75	40	30	24*	15*
24150	0.37A	0.18A	0.12A	150	80	60	48*	30*
1275-CW	0.40A	0.25A	0.15A	75	40	30	24*	15*
24150-CW	0.50A	0.25A	0.20A	150	80	60	48*	30*

*Note: the cold-weather option is only rated for maximum 90 minutes

ORDERING INFORMATION

SERIES	UNIT CAPACITY	NUMBER OF HEADS	LED LAMP TYPE	FUNCTIONS	OPTIONS
LHP= High Performance Battery	**1275**= 12V-75W **24150**= 24V-150W	**0**= No heads **1**= One head **2**= Two heads	**L6**= 12V, 24V-6W **L10**= 12V, 24V-10W **L15**= 12V, 24V-15W	**AT**= auto-test, audible[1] **ATN**= auto-test, non-audible[1] **Blank**= no auto-test function **NEX**= NEXUS® wired system interface[2] **NEXRF**= NEXUS® wireless system interface[2] [1]Minimum lamp load required 20% of unit capacity [2]For more information on Nexus®, please consult your sales representative.	**CW**= cold-weather -40°C [-40°F] (120/347V) **CW2**= cold-weather -40°C [-40°F] (120/277V) **RFI**= radio frequency interference filter (120/277VAC) **RF3**= radio frequency interference filter (347VAC)[1] **T3**= time delay (15 minutes) **ZC**= 277VAC, 60Hz input [1]Not available with CW option **PMK1-L**= Pole mounting bracket (sold separately)

EXAMPLE: LHP12752L6ATRFI

LHZ Series

new product

High-performance unit equipment for hazardous locations. Class I, Div. 2, Groups A, B, C, & D; Class II, Div 2, Groups F & G, Class III

nexus® c UL us Made in Canada

FEATURES

- Evaluated to CSA C22.2 No.141-15 and No.137-M1981 for use in hazardous locations: Class I Division 2, Groups A, B, C and D; Class II Division 2, Groups F and G and Class III
- Nema-4X protection grade against liquids and dust
- Fiberglass light-grey housing with captive screws; stainless steel hardware
- High ambient temperature up to 50°C (122°F); optional cold-weather -40°C to 50°C (-40°F to 122°F)
- High-temperature Lead-Calcium battery
- High-efficacy LED emergency heads outperform traditional 50W halogen lamps.
- Innovative lamp design: four-LED and dual-driver provide illumination even in case of unexpected component failure
- Compact size: 0.46 cubic feet
- Simple and easy to install on walls, columns or struts on vertical position. For installation on columns use mounting bracket catalogue number: PMK1-L (order separately).
  *See warning in installation drawing below
- Standard infra-red remote control included in all models: allows testing the equipment without the need to climb a ladder. Distance range up to 30 ft. universal, one remote control may test all the units on the job.
- Optional audible or non-audible auto-test
- Optional Nexus® central monitoring system
- Auto-testing capabilities (specific load requirements)
- 1 Year limited warranty

See warranty details at: www.tnb.ca/en/brands/lumacell

REMOTE TEST CONTROL

TYPICAL SPECIFICATIONS

Supply and install **Lumacell® LHZ Series** of battery unit equipment. The unit enclosure shall have a compression-molded fiberglass construction and shall be equipped with a hinged, overlapping cover. The cover shall include a 3/16" wide rubber gasket and shall fasten with two stainless-steel captive screws. The enclosure shall have lateral flanges with holes for easy installation on the wall and shall include two entries for vertical and horizontal conduit and wire access. The installation kit shall include two cable glands of size 1/2" NPT, rated for hazardous locations. The emergency lighting heads shall be installed at the bottom of the cabinet and have the electrical cable passing through the swivel via water-tight bushings. The heads shall be made of die-cast aluminum and have a flat square lens made of UV-stabilized clear polycarbonate. The lens shall be sealed with a rubber gasket and be fixed with an aluminum frame and 6 (six) tamper-proof screws. Each head shall include four (4) LED lamps and two independent LED drivers with electrical connections allowing for lighting even in case of unexpected component failure. Each emergency head shall have an input voltage range of 12 – 24Vdc and a constant power regulation, providing stable illumination during variations of the battery discharge voltage.

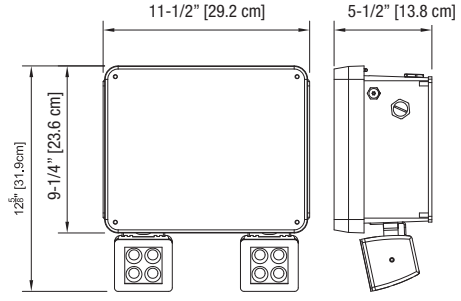
When specified, the unit equipment with Auto-Diagnostic option shall execute automatic tests for one minute every 30 days, 10 minutes every sixth month and 30 minutes every 12 months. In case of a functional failure detection: the unit equipment pilot light shall change color from green to red and signal a service alarm with specific flashing codes: battery or lamp disconnect, battery failure, charger failure, lamp failure, or heater failure (cold-weather option). A label installed near the pilot shall contain the legend with diagnostic codes. The unit equipment shall come standard with an infrared remote test control.

The unit equipment shall be rated NEMA-4X for hose-down applications. The equipment shall be cUL listed to CSA22.2 Standard No.141-15 and No.137-M1981 for hazardous locations: Class I Division 2, Groups A, B, C and D; Class II Division 2, Groups F and G and Class III .

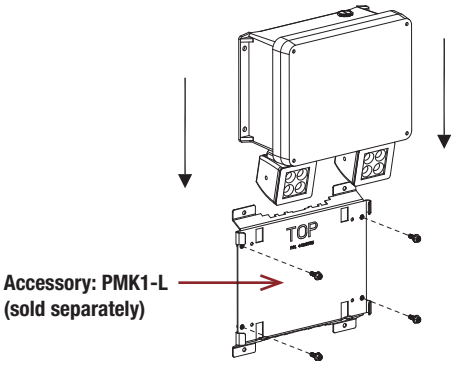
The unit shall be **Lumacell®** catalog number_____.

DIMENSIONS

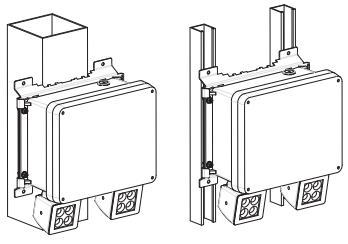
Dimensions are approximate and subject to change.



Installation



Accessory: PMK1-L (sold separately)



***WARNING: Mounting column must be anchored at both ends: floor and ceiling.**

new product

LHZ Series

High-performance unit equipment for hazardous locations. Class I, Div. 2, Groups A, B, C, & D; Class II, Div 2, Groups F & G, Class III

CLASSIFICATION FOR HAZARDOUS LOCATIONS

TYPE OF EMERGENCY HEADS	CLASSIFICATION	TEMPERATURE CODE	
		TA = 40°C	TA = 50°C
L15	Class I Division 2 Groups A, B, C and D	T3C	T3A
	Class II Division 2 Groups F and G; Class III	T5	T5
No Heads	Class I Division 2 Groups A, B, C and D	T4A	
	Class II Division 2 Groups F and G; Class III	T6	

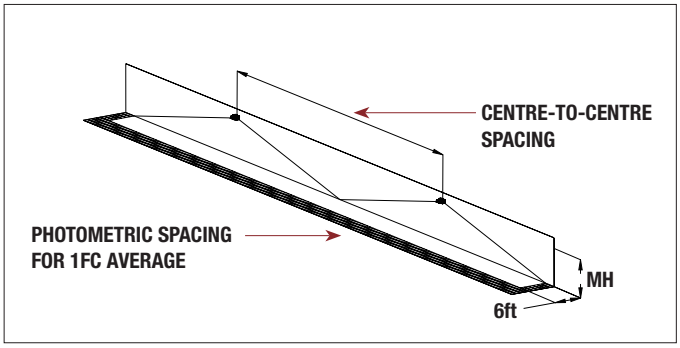
PHOTOMETRY PERFORMANCE

Whether installed indoors or outdoors, the **LHZ Series** of LED emergency lights deliver a stable and consistent illumination on the path of egress for a wide range of mounting heights.

LED LAMP	POWER (W)	TOTAL LUMENS	OUTPERFORMS THE INCANDESCENT LAMPS
L15	15W	1320	50W MR16-IR Halogen

Industrial environment: wall mounted equipment, reflectances: 10/10/10; 6-ft wide illumination path. Illumination as per NFPA101; Average: 1fc; Min: 0.1fc; Max/min< 40:1

MOUNTING HEIGHT	SPACING CENTRE-TO-CENTRE (FEET)
	LAMP L15 / 15W, 1300LM
10 ft	140
15 ft	135
20 ft	130
25 ft	120
30 ft	110



POWER CONSUMPTION AND UNIT RATING

MODEL	AC SPECS			WATTAGE CAPACITY				
	120VAC	277VAC	347VAC	30MIN	1H00	1H30	2H00*	4H00*
1275	0.20A	0.10A	0.07A	75	40	30	24	15
24150	0.37A	0.18A	0.12A	150	80	60	48	30
1275-CW	0.40A	0.25A	0.15A	75	40	30	N/A*	N/A*
24150-CW	0.50A	0.25A	0.20A	150	80	60	N/A*	N/A*

*Note: the cold-weather option is only rated for maximum 90 minutes

ORDERING INFORMATION

SERIES	UNIT CAPACITY	NUMBER OF HEADS	LED LAMP TYPE	FUNCTIONS	OPTIONS
LHZ= Hazardous locations. Cl.I D2, Cl.II D2, Cl.III	**1275**= 12V-75W; 10°C to 50°C Amb (10°F to 122°F) **24150**= 24V-150W; 10°C to 50°C Amb (10°F to 122°F)	**0**= No heads **1**= One head **2**= Two heads	**L15**= 12V, 24V-15W	**AT**= auto-test, audible[1] **ATN**= auto-test, non-audible[1] **Blank**= no auto-test function **NEX**= Nexus® wired system interface[2] **NEXRF**= Nexus® wireless system interface[2] [1]Minimum lamp load required 20% of unit capacity [2]For more information on Nexus®, please consult your sales representative.	**CW**= cold-weather -40°C [-40°F] **CW2**= (120/277V) Cold-weather (-40°C to 50°C Amb) **RFI**= radio frequency interference filter (120/277VAC) **RF3**= radio frequency interference filter (347VAC)[1] **T3**= time delay (15 minutes) **ZC**= 277VAC, 60Hz input **ZU**= 120/208/220-240V 50/60Hz input[2] [1]Not available with CW option [2]12-volt units only; not available with NEXUS® & CW **PMK1-L**= universal mounting bracket (sold separately)

EXAMPLE: LHZ12752L15ATT3

RGS-NX Series

6, 12 and 24 V, NEMA-4X Rated

NEMA-4X nexus® Made in Canada

FEATURES

- Fully gasketed fiberglass reinforced polyester housing - NEMA 4X
- Solid-state pulse-type charger – current – limited, temperature-compensated, short-circuit proof and reverse-polarity protected
- Unit comes standard with electronic lockout and brownout circuits
- Sealed dust-proof transfer relay, test switch and LED indicator lights
- Long-life, maintenance-free sealed Lead-Acid battery
- Standard 120/347VAC input voltage
- Auto-testing capabilities (specific load requirements)
- Meets or exceeds CSA C22.2 No.141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

TYPICAL SPECIFICATIONS

Supply and install the **Lumacell® NEMA-4X Rated RGS-NX Series** battery unit. The unit shall be specifically designed for high abuse areas and wet locations. The unit enclosure shall be of fiberglass-reinforced polyester and shall include a hinged door, fully gasketed and locked with two corrosion-resistant screws. The emergency head(s) shall be installed at the bottom of the unit and/or at both sides and shall be covered by a UV-resistant polycarbonate cover. The bottom head shall include one or two lamps as specified. The unit shall come with two heads at the sides, each with one LED lamp. The lamps shall be high-efficiency, long-life LED type of: __V __W as specified. The lamp swivels shall be easily adjustable without tools. The unit enclosure shall include a test switch and a pilot light.

The unit shall include sealed, maintenance-free Lead-Calcium batteries and an electronic module for the battery charge and other emergency lighting functions. The charger shall be computer-tested and its maximum charge voltage set in the factory with ± 1% tolerance. A pulse-type charger shall be employed to promote long battery life and reduce the potential for grid corrosion. The charger shall provide a continuous high charge to recharge the battery; when the battery is at full capacity, the charger will shut-off. Periodically the charger shall provide a pulse of energy to keep the battery topped off. The charger shall be current limited, temperature compensated and short-circuit proof. The unit shall be furnished with an electronic lockout circuit, which will connect the battery when the AC circuit is activated, and an electronic brownout circuit, which will activate the emergency lights when utility power dips below 75% of nominal voltage. A low voltage battery protection circuit shall be provided and will disconnect the battery form the fused output circuit at the end of discharge.

When specified, the unit equipped with the Lumacell Auto-Diagnostic feature shall include a micro-controller based charger board that will generate an automatic test for 1 minute every 30 days, 10 minutes every six months and 30 minutes every 12 months. The micro-controller circuitry shall ensure the equipment readiness and reliability by continuously monitoring every critical function of the unit. If a component failure occurs, the pilot light located on the front of the unit will change color from green to red and will flash indicating a fault. A detailed diagnostic legend shall be available next to the pilot light and shall provide fault identification (battery, charger circuitry, lamps) for the maintenance personnel.

The unit shall be capable of full recharge in compliance with CSA specifications and supply the rated load for a minimum of a 1/2 hour to 87.5% of the rated battery voltage. The unit shall be rated 120V or 347V, 60 Hz and shall have an output of: __ V __ W.

The unit shall be CSA 22.2 No.141-15 certified.

The unit shall be **Lumacell®** model: _____.

WIRE GUARDS

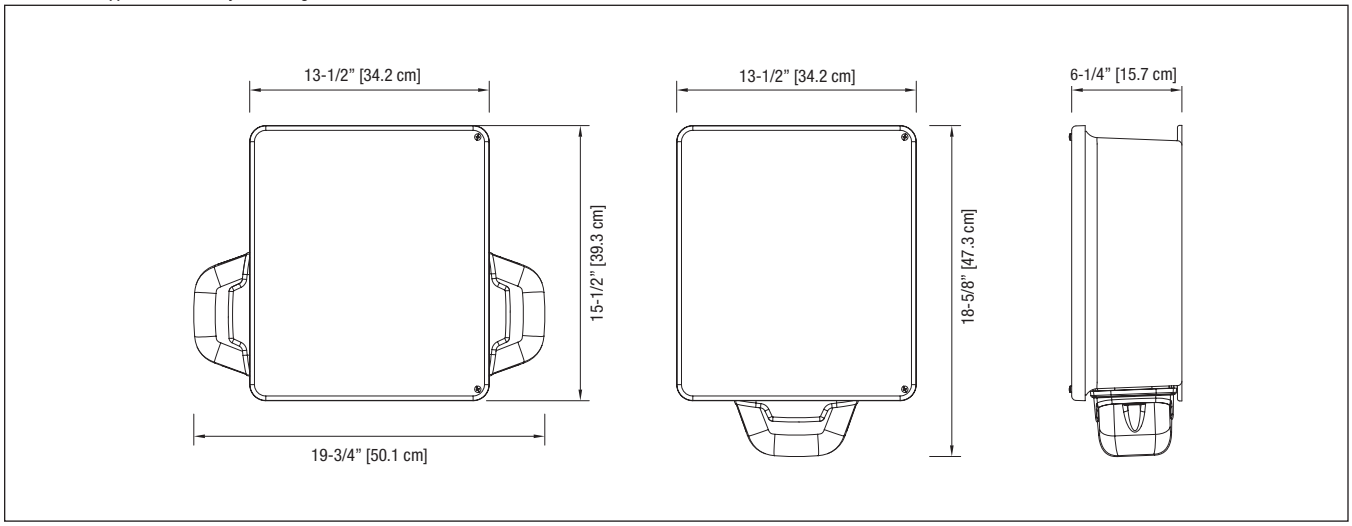
460.0034-L	Wall Mount

RGS-NX Series

6, 12 and 24 V, NEMA-4X Rated

DIMENSIONS

Dimensions are approximate and subject to change.



POWER CONSUMPTION AND UNIT RATING

MODEL	AC SPECS		WATTAGE CAPACITY				
			30MIN	1H00	1H30	2H00	4H00
RGS72	120/347VAC	0.22/0.08A	72	42	30	24	12
RGS108			108	63	45	36	18
RGS180			180	105	75	60	30
RG12S144		0.40 / 0.14A	144	84	60	48	24
RG12S200			200	117	83	67	33
RG12S250			250	144	120	90	42
RG12S360			360	200	160	120	60
RG24S144		0.55 / 0.20A	144	84	60	48	24
RG24S288		0.67 / 0.23A	288	168	120	96	48
RG24S350		0.67 / 0.23A	350	200	160	120	60
RG24S432		0.67 / 0.23A	432	250	180	144	72

ORDERING INFORMATION

SERIES	CAPACITY	HOUSING	# OF HEADS	HEAD STYLE/LAMP WATTAGE	AC VOLTAGE	OPTIONS
RGS= 6V	**72**= 72W **108**= 108W **180**= 180W	**NX**= NEMA-4X	**Blank**= no head **1**= single head bottom, one lamp **2**= double head bottom, two lamps **S**= no head bottom, single lamp on each side **1S**= single head bottom with single head on each side, three lamps **2S**= two head bottom with single head on each side, four lamps	**LD1**= MR16 LED, 6V-4W **LD2**= MR16 LED, 6V-5W **LD7**= MR16 LED, 12V-4W **LD9**= MR16 LED, 12V-5W **LD10**= MR16 LED, 12V-6W **LD13**= MR16 LED, 24V-4W **LD14**= MR16 LED, 24V-6W	**Blank**= 120/347 VAC input **ZC**= 277VAC input	**AT**= auto-test[1] **ATN**= auto-test, non-audible[1] **NEX**= NEXUS® system interface **NEXRF**= wireless NEXUS® system interface[2] **T3**= time delay (15 minutes)
RG12S= 12V	**144**= 144W **200**= 200W **250**= 250W **360**= 360W					
RG24S= 24V	**144**= 144W **288**= 288W **350**= 350W **432**= 432W					

[1]Minimum lamp load required: 20% of unit capacity

[2]Not all options available with NEXUS®. Please consult your sales representative

EXAMPLE: RG24S350NX2LD14

new feature

RG-HZ Series

Battery Unit Hazardous Locations: Class I Div 2, Class II Div 1&2 and Class III

nexus® CSA® Made in Canada

FEATURES

- Includes the addition of Class II Div 1&2 Groups E, F and G as well as Class III ratings
- Certified Class I Zone 2, Groups IIA, IIB and IIC
- Certified Class I Division 2, Groups A, B, C and D as per CSA C22.2 No.137-M1981
- Certified temperature codes for several types of emergency lamps
- Suited for areas with the risk of flammable gases, vapors or liquids that can create an explosive atmosphere
- Heavy-duty 1/8" thick aluminum back plate with keyholes for secure wall-mount installation
- Two LED lamps, shielded by a cast aluminum housing and a polycarbonate cover
- 6W LED emergency lights provide 100 ft of egress illumination on a 6-foot wide path
- Sealed, maintenance-free, Lead-Calcium batteries with up to 150W emergency power
- Built-in microcontroller-based battery charger and auto-diagnostics circuitry
- 1/2" electrical conduit entry on both sides and at the top
- Auto-testing capabilities (specific load requirements)
- Meets or exceeds CSA C22.2 No.141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

TYPICAL SPECIFICATIONS

Supply and install **Lumacell® RG-HZ Series** battery units. Designed specifically for Hazardous Location environments, the equipment frame shall be of industrial grade polymeric material with gaskets around both sides of the contour. The frame shall be fixed between two plates made of 1/8" thick aluminum sheet. The back plate shall include four keyholes for wall-mount installation. The front plate shall include two water-tight lenses for pilot lights: AC-on and "Service required". When specified, the equipment shall have attached a lower compartment containing two emergency lights with adjustable swivels and LED lamps. The lamps shall be shielded by a cast aluminum housing and protected by a shock-absorbent, transparent polycarbonate cover.

The equipment shall be certified for Hazardous Locations: Class I Division 2 Groups A, B, C and D, Class II Divison 1&2 Groups E, F and G as well as Class III. The standard equipment shall have a dual voltage input: 120/347VAC and shall be equipped with a magnetic test switch located on the left side of the frame. The unit shallw include self-testing/auto-diagnostic functions monitored by a micro-controller and shall automatically self test for one minute every 30 days, 10 minutes every 6 months and 30 minutes annually. The "Service required" LED shall light when a fault is detected. A four-LED diagnostic display located inside the equipment shall identify the source of the failure (battery, charger circuitry, lamp load).

The unit shall be listed CSA C22.2 No.141-15 and No. 137 – M1984 certified.

Equipment is **Lumacell®** Model: _____

HAZARDOUS LOCATION FAMILY CLASS I, II AND III


- LH Series Pictogram Exit Sign


- LER-HZ Series Exit Sign


- LHC Series Pictogram Exit Sign


- 3LER-HZ Series Exit Sign


- MQM-HZ Series Remote Fixtures

TEMPERATURE CODES (CLASS I DIVISION 2)

LAMP RATING	TEMPERATURE CODE	MAX. TEMPERATURE	REPLACEMENT LAMP
6V-4W LED	T4A	120°C	580.0097-L
6V-5W LED	T4A	120°C	580.0122-L
12V-4W LED	T4A	120°C	580.0093-L
12V-5W LED	T4A	120°C	580.0104-L
12V-6W LED	T4	135°C	580.0106-L

Note: Use qualified replacement lamps to avoid risk of over-heating.

POWER CONSUMPTION AND UNIT RATING

MODEL	AC SPECS		WATTAGE CAPACITY				
			30 MIN	1H00	1H30	2H00	4H00
RGHZ36	120/347VAC	0.15/0.06 A	36	21	15	12	-
RG12HZ72		0.30/0.10 A	72	42	30	24	12
RG12HZ72		0.30/0.10 A	120	70	50	40	20
RG12HZ150		0.30/0.10 A	150	-	72	-	-

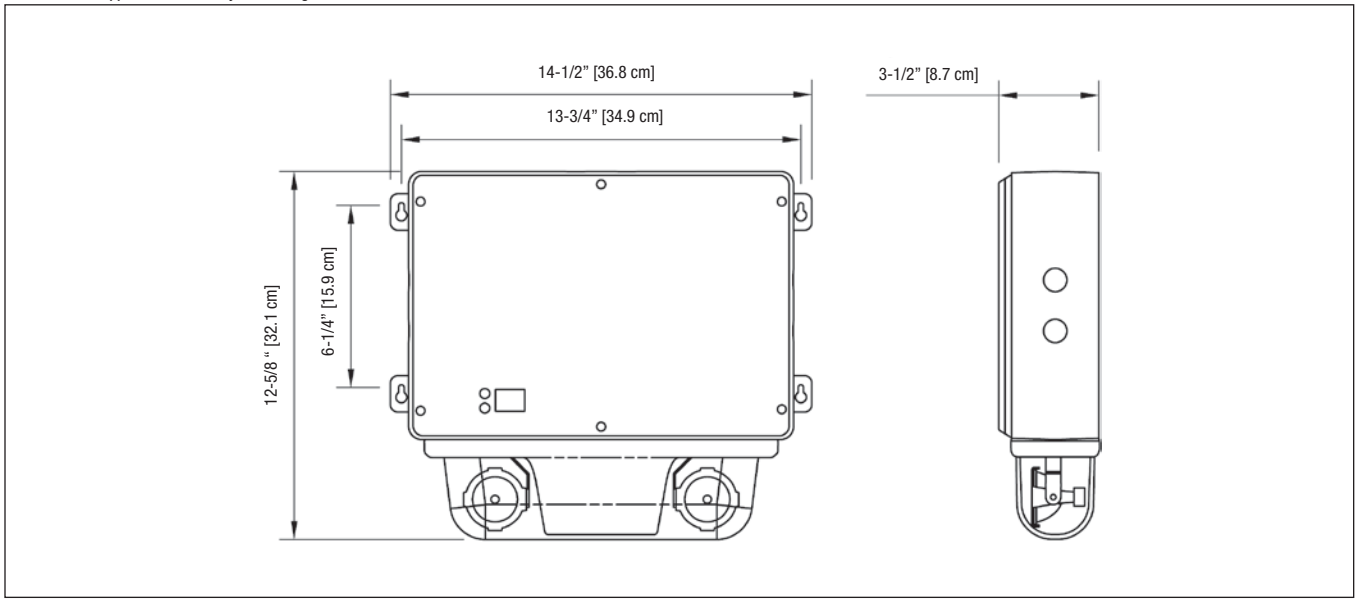
new feature

RG-HZ Series

Battery Unit Hazardous Locations: Class I Div 2, Class II Div 1&2 and Class III

DIMENSIONS

Dimensions are approximate and subject to change.



ORDERING INFORMATION

SERIES	CAPACITY	# OF HEADS	LAMP/WATTAGE	COLOUR	AC VOLTAGE	CHARGER TYPE
RGHZ= 6V **RG12HZ**= 12V	**36**= 6V-36W **72**= 12V-72W **120**= 12V-120W **150**= 12V-150W	**Blank**= no heads **2**= 2 heads	**LD1**= MR16 LED, 6V-4W **LD2**= MR16 LED, 6V-5W **LD7**= MR16 LED, 12V-4W **LD9**= MR16 LED, 12V-5W **LD10**= MR16 LED, 12V-6W	**Blank**= grey	**Blank**= 120/347VAC **ZC**= 277VAC	**AT**= auto-test[1] **ATN**= auto-test, non-audible[1] **NEX**= NEXUS® system interface[2] **NEXRF**= wireless NEXUS® system interface[2]

[1]Minimum lamp load required: 20% of unit capacity

[2]Not all options available with NEXUS® System. Please consult your sales representative

EXAMPLE: RGHZ362LD7AT

new product

IPL-LEDN Series

IP65 Linear LED Fixture

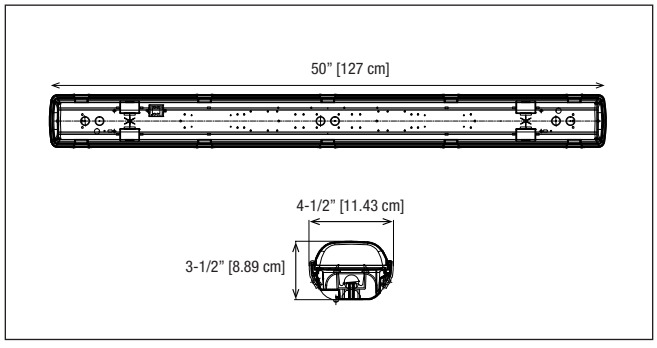
FEATURES

- IP65 Rated
- Polycarbonate lens and thermoplastic enclosure, vandal resistant and UV stabilized
- Stainless steel hardware
- Ceiling, surface or pendant mounting
- Low profile, less than 4 inch deep
- 0-10V dimming standard on all models
- 120VAC to 277VAC universal, 347VAC optional
- Certified for wet and damp locations
- Expected life of 50 000 hours (L70), CCT 5000K
- Power factor > 0.90
- ROHS compliant
- Meets IEEE C.62.41-1991 input transient protection
- Available integral motion sensor
- Optional emergency driver
- 5 year limited warranty

See warranty details at: www.tnb.ca/en/brands/lumacell

DIMENSIONS

Dimensions are approximate and subject to change.



TYPICAL SPECIFICATIONS

Supply and install **Lumacell® IPL-LEDN Series** linear LED fixtures as specified. The luminaire shall operate in 120-277VAC or 347VAC and use a high efficiency electronic driver.The lens shall be constructed of UV-stabilized industrial grade vandal-resistant polycarbonate and the enclosure of thermoplastic. A durable formed gasket shall be provided between the enclosure and the lens and shall be designed specifically for hostile environments. A metal plate used to retain the reflector also serves to dissipate heat, therefore lengthening driver life.

The fixture shall have five year warranty

The fixture shall be **Lumacell®** model: _____ .

POWER CONSUMPTION

MODEL	COLOR TEMPERATURE	CRI	LUMENS	WATTS	AC SPECS	POWER FACTOR
IPL-LEDN35	3500K	80	4,244	35W	0.28/0.12A	PF>0.9
IPL-LEDN35	4000K	80	4,550	35W	0.29/0.13A	PF>0.9
IPL-LEDN35	5000K	80	4,585	35W	0.29/0.13A	PF>0.9
IPL-LEDN52	3500K	80	6,469	52W	0.43/ 0.18A	PF>0.9
IPL-LEDN52	4000K	80	6,760	52W	0.43/ 0.19A	PF>0.9
IPL-LEDN52	5000K	80	6,812	52W	0.43/ 0.19A	PF>0.9

ORDERING INFORMATION

MODEL	WATTAGE	COLOR TEMPERATURE	VOLTAGE	OPTIONS
IPL-LEDN	**35**= 35W **52**= 52W	**-35**= 3500K **-4**= 4000K **-5**= 5000K	**Blank**= AC only 120-277VAC **3**= 347VAC	**EM**= emergency LED driver[1] **M**= motion sensor [1]120VAC only

EXAMPLE: IPL-LEDN35-4M

Glossary

A	Ammeter	Used to measure the current being supplied to the battery while in charge mode.
AT	Auto-test	Automatically tests and continuously monitors your emergency lighting unit. If a problem occurs, the unit will send a visual (flashing or blinking LED indicator) and audible warning. Complies with Fire Code requirements.
ATN	Auto-test, non-audible	Automatically tests and continuously monitors your emergency lighting unit. If a problem accurs, the unit will send a visual (flashing or blinking LED indicator) warning. Complies with Fire Code requirements.
CPS3	Constant Power Supply	Supplies continuous 24VDC-3 amp output for exit signs, fire doors, automatic locks, etc.
CT	Cab-tire	Unit supplied with a cab-tire cable used for special hardwire applications.
CW1	Cold weather, 120VAC	120VAC input cold weather protection feature for applications where temperatures can reach -40° C.
CW3	Cold weather, 347VAC	347VAC input cold weather protection feature for applications where temperatures can reach -40° C.
HTR	Heater & thermostat	Like a heat blanket, used to keep internal temperature optimal for battery units that are installed in cold environments.
LC	Line cord (120V)	When ordering a battery unit with the LC option, we supply and pre-install a line cord with a standard 3 prong 120V plug. Just hang the fixture and plug it in to a standard receptacle! Only available on 120V units.
LD	Lamp disconnect	To disconnect the emergency lighting load in an area that is not in use during a prolonged power failure or while area is no longer being occupied.
LTS	Light activated test switch	Used to remotely test battery units by pointing a flashlight at a photocell mounted on the bottom of a battery unit.
NEX	NEXUS® wired system interface	The NEXUS® system interface is a computerized maintenance system for emergency lighting that, once programmed, will perform the tests, keep written records and send notification if anything needs to be fixed. One full system can address hundreds of units in as many buildings as you need from a single location.
NEXRF	NEXUS® wireless system interface	The NEXUS® system interface is a computerized maintenance system for emergency lighting that, once programmed, will perform the tests, keep written records and send notification if anythingneeds to be fixed. One full system can address undreds of units in as many buildings as you need from a single location.
RFI	Radio Frequency Interference	The Radio Frequency Interrupter protects equipment from external radio frequency interference.
T3	15 minutes time delay	Normally, when the A.C. is restored, all emergency lighting lamps are turned off. However, in some cases such as when metal halide lamps are used, it is possible that the general lighting will not be availbe for several minutes after the blackout (or brownout) period. Battery units with the T3 option will keep some energy in store to ensure that the emergency lighting stays on or comes back on for at least 15 minutes once the regular A.C. power has been restored.
TP	Tamper proof screws	Screws that require a special bit. Can be used on certain units to deny access to unauthorized personnel.
TL	Twistlock plug	Used to facilitate the connection and removal of battery units for maintenance purposes.
TMBB	AC/DC terminal block	Used to facilitate the connection of large gauge input cables and output cables.
TMBD	DC terminal block	Used to facilitate the connection of large gauge D.C. input cables.
TMBK	AC terminal block	Used to facilitate the connection of large gauge D.C. input cables.
V	Voltmeter	Indicates voltage being supplied to the battery when in charge mode.
VSR	Voltage Sensing Relays	Voltage Sensing Relays are used to detect the loss of lighting in a specific area and activate the emergency lighting.

REMOTE FIXTURES

new product

Table of contents

EMERGENCY LIGHTING HEADS: PERFORMANCE & TECHNOLOGY

Emergency Lighting heads represent a key element of an emergency lighting system performance. During a power failure, these lamp heads must provide adequate lighting levels for safe evacuation. The emergency power supply is provided to the heads from batteries. Equipment manufacturers and customers should use high intensity light sources, with efficient light levels and distributions.

MR16 LED

Leading the technology trend, we offer a complete series of MR16 LED lamps available for all standard battery voltages: 6V, 12V, 24V and 120V. With up to 30,000 hours of operational life and a luminous flux of typically from 200 up to 590 lumens, they are available with most emergency heads designed to hold an MR16 lamp and meet most illumination specifications.

For example, one pair of LED emergency heads installed at a height of 7.5ft, could illuminate a 6th path of egress during an emergency by using 75% less power. This has a direct impact on the battery size, reducing the back-up capacity needs by 75%. Consequently, it also reduces the total cost of application, with the use of smaller battery capacity units, the possibility of using fewer fixtures due to superior illumination, thus also reducing electrical wiring, and it reduces the environmental footprint.

LAMP TYPE	APPLICATION	VOLTAGE (V)	WATTAGE (W)	AVERAGE LIFE (HRS)	LUMEN	EFFICACY (LM/W)
LED	Emergency Lighting	6	4	30,000	199	49.8
	Emergency Lighting	12	4	30,000	220	55.0
	Emergency Lighting	24	4	30,000	220	55.0
	Emergency Lighting	120	5	30,000	204	51.0
	Emergency Lighting	12	6	30,000	340	68.0
	Emergency Lighting	12	6	30,000	540	90.0
	Emergency Lighting	24	6	30,000	590	98.3

CAMRAY™ LED Series

Rugged, Versatile, Sophisticated

NEMA-3R c UL Made in Canada

FEATURES

- Four LED light engine with redundant connections
- Powder-coated Die-Cast aluminum construction
- Clear Polycarbonate lens allows for maximum lumen output
- Surface Wall Mount
- NEMA-3R Damp and Wet locations
- Operating temperature -40°C to + 50°C
- 400-640 Lumens
- Color temperature 5000K
- Meets or exceeds CSA 22.2 No.141-15

OPTIONS

- Forward-throw light distribution
- Dual-mode: normal and emergency LED lighting
- High-lumen output
- Photo-switch: dusk-to-dawn control of normal lighting
- Infrared remote control (normal lighting)

See warranty details at: www.tnb.ca/en/brands/lumacell

IN THE SAME FAMILY:

- Camray™ LED Series Battery Unit

TYPICAL SPECIFICATIONS

Supply and install the **Camray™ Series** of LED emergency lighting unit from Lumacell®. The unit body shall include a back-plate and housing made of Die-Cast Aluminum with paint Finish color: _____ and a UV- and impact-resistant polycarbonate lens of reduced size: 3-in by 1.5-in. The back-plate shall have knockouts for wires and wall-mount installation box as well as a threaded hole for rigid conduit entry at the top of the unit. The back-plate shall have a built-in electrical box with wire terminals and snap-on connector. After complete electrical installation of the back-plate the equipment housing shall be installed by a simple push & snap over the back-plate.The emergency lights shall be 4 (four) power-light-emitting diodes (LED) with operational life of minimum 36,000 hours, until 70% of the initial light level (reported L70). The LED lamps shall have redundant interconnections: eventual failure of one lamp shall allow other LED lamps to function. The unit shall have a dual-voltage input rated: 120/347VAC, 60Hz. The battery charger shall include low voltage disconnect to prevent deep discharge, battery lockout to prevent battery drain prior to energizing the utility power, and brownout protection which will automatically switch unit into emergency mode if the utility power falls below 80% of nominal level. The unit with Nickel Metal Hydride battery shall be equipped with a micro-controller-based non-audible auto-test circuit. The unit shall self-test for one minute every month, 30 minutes every six months and 90 minutes annually. The pilot light shall be integrated with the test button; it shall be a bi-color LED and shall change color from normal green to flashing red when a failure is detected from the battery, charger circuit or lamps. A label located near the pilot light shall describe the diagnostic for each flashing code.

When specified, models with dual-mode illumination shall include two separate AC input circuits: un-switched for emergency lighting and switched for normal lighting. When specified, models equipped with photo-switch shall automatically activate the normal lighting only from dusk till dawn, for additional energy savings. The typical ambient illumination for the photo-switch shall be: 10 lux (to turn-on) and 30 lux (to turn-off).

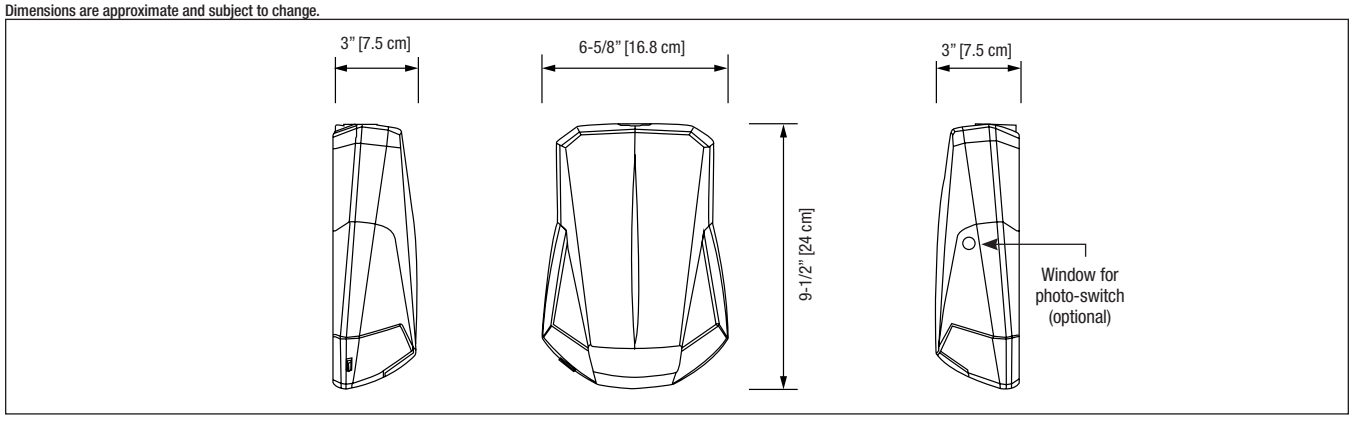
When specified, the unit shall be controlled by an infrared remote control keypad (ordered separately). The remote control shall be able to simulate a power failure of 1 minute, 30 minutes or 90 minutes and also to cancel the test in progress at any time. For units with dual-mode lighting the remote keypad shall also control the normal lighting with on/off switch and dimming functions.

The unit shall be certified to the CSA 22.2 No.141-15 and No.250.0-08 standards.

The unit shall be **Lumacell®** model: _____.

DIMENSIONS

Dimensions are approximate and subject to change.



CAMRAY™ LED Series

Rugged, Versatile, Sophisticated

TABLE A: SPACING FOR AVERAGE 1FC

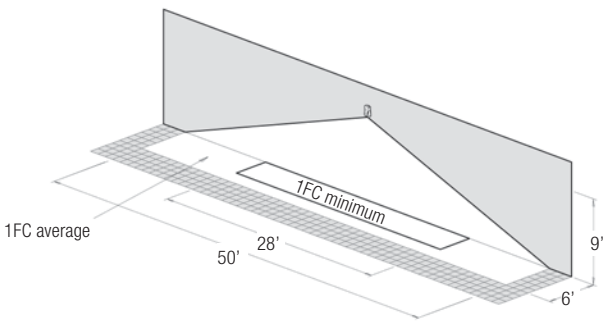
MODEL TYPE	MOUNTING HEIGHT	WATTAGE CAPACITY	
		SINGLE	CENTER-TO-CENTER
Standard	9'	6' X 50'	6' X 50'
With option -H	11'	6' X 60'	6' X 60'
			3' X 70'
With option -FT	12'	6' X 40'	-
With option -FTH	15'	6' X 50'	-

Indoor reflectance: 80/50/20 and 10-ft wide corridor. Outdoor reflectance: 0/30/10

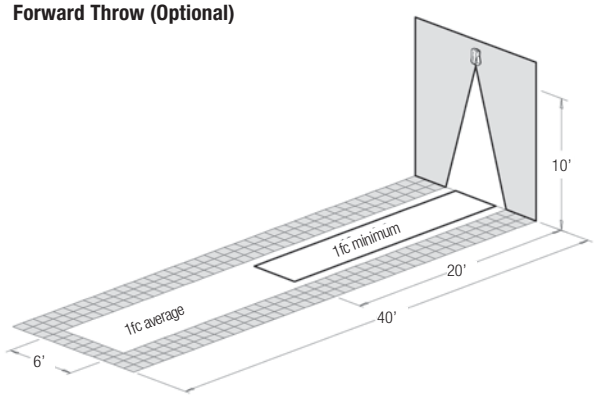
Note: The illumination level meets ALL the requirements of the National Building Code-Canada and the Life Safety Code (NFPA 101):

1) Average of 1 foot-candle (10.7 lux) or more
2) Minimum at any point of 0.1 foot-candle (1.07 lux) or more
3) Maximum-to-minimum illumination uniformity ratio of 40:1 or less

Wide Beam (Standard)



Forward Throw (Optional)



POWER CONSUMPTION

MODEL TYPE	AC SPECS: 120/347VAC				6-12VDC REMOTE
	NORMAL LIGHTING		EMERGENCY LIGHTING		
	CURRENT (MAX)	POWER (MAX)	CURRENT (MAX)	POWER (MAX)	POWER (MAX)
AC, ACDC, DC	0.12/0.05A	12W	0.12/0.05A	12W	8W
AC, ACDC, DC -H	0.18/0.07A	18W	0.18/0.07A	18W	14W
2AC (120VAC only)	0.12A	12W	0.12A	12W	—
2AC-H (120VAC only)	0.18A	18W	0.18A	18W	—

***Note: Only unswitched AC input; normal lighting with photo-switch or remote control**

ORDERING INFORMATION

SERIES	FUNCTION: REMOTE FIXTURES (-40... +50°C)	COLOUR	OPTION
CAML= Camray™ LED	**AC**= AC-only 120/347VAC **ACDC**= AC/6-12VDC remote **DC**= 6-12VDC remote fixture **2AC**= AC-only two circuits: 120/120 or 277/277V	**BK**= black **DB**= dark bronze **OW**= off-white **PG**= platinum grey	**-FT**= forward throw lighting **-H**= high lumen output (-40... 30°C) **-P**= photo-switch, normal lighting (models AC, ACDC only) **-RC**= remote control - infrared (models AC, ACDC only)[1] **-ZC**= 277VAC 60Hz input [1]**TB-RC1-L**= Remote control keypad (sold separately)

EXAMPLE: CAMLACOW-H

SAF-T-RAY™ Series

NEMA-3R
Wall Mount Remote Head

NEMA-3R

FEATURES

- Compact wall sconce unit for indoor and outdoor use
- High impact resistant polycarbonate diffuser
- Die-cast aluminum housing
- For outdoor and indoor use
- Adjustabe lamps
- Vandal resistant option
- CSA Certified to C22.2 No. 141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

TYPICAL SPECIFICATIONS

Wall mount unit shall be gasketed die-cast aluminum housing, impact resistant polycarbonate diffuser. The lamps shall be in adjustable for aisle or area distribution.Fixture shall be supplied with gasket and shall be suitable for installation on any four inch octagonal box.

The remote fixtures shall be certified to CSA 22.2 No.141-15

The remote unit shall be **Lumacell®** model: SAF _____.

WIRE GUARDS

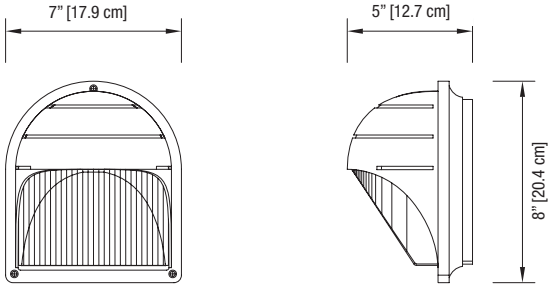
460.0082-L	Wall Mount

REPLACEMENT LAMPS

MODEL	LAMP TYPE	VOLTAGE/WATTAGE
580.0097-L	MR16 LED	6V-4W
580.0122-L	MR16 LED	6V-5W
580.0093-L	MR16 LED	12V-4W
580.0104-L	MR16 LED	12V-5W
580.0106-L	MR16 LED	12V-6W
580.0098-L	MR16 LED	24V-4W
580.0100-L	MR16 LED	24V-6W
580.0113-L	MR16 LED	120V-4W

DIMENSIONS

Dimensions are approximate and subject to change.



ORDERING INFORMATION

SERIES	LAMP TYPE	VOLTAGE/ WATTAGE	COLOUR	OPTIONS
SAF= exterior remote	**M**= MR16	**Blank**= no lamp **LD1**= 2X MR16 LED, 6V-4W **LD2**= 2X MR16 LED, 6V-5W **LD7**= 2X MR16 LED, 12V-4W **LD9**= 2X MR16 LED, 12V-5W **LD10**= 2X MR16 LED, 12V-6W **LD13**= 2X MR16 LED, 24V-4W **LD14**= 2X MR16 LED, 24V-6W **LD26**= 2x MR16 LED, 120V-4W	**BK**= black **Blank**= factory white **DG**= dark grey	**C**= clear lens **VR**= vandal resistant screws[1] [1] **990.0119-L**= tamper-proof bit (sold separately)

EXAMPLE: SAFMLD1DG

PHANTOM™ Series

Remote Fixture

Made in Canada

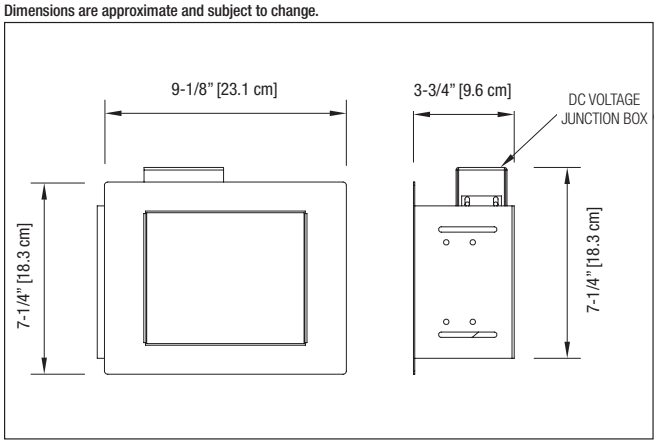
FEATURES

- Fully automatic operation: the unit door opens upon supply with DC voltage from battery and closes after the voltage disconnect
- AC line voltage is NOT required
- Emergency lights: two high-efficacy LED
- Certification: CSA C22.2 No 141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

DIMENSIONS

Dimensions are approximate and subject to change.



TYPICAL SPECIFICATIONS

Supply and install **Lumacell® Phantom™ Series** of remote fixture: The unit shall be designed to be concealed in walls or ceilings with a cavity. The unit equipment shall be completely concealed in the wall or ceiling in the absence of remote power. Upon DC power supply the unit will rotate its door by 180° to expose the emergency lamps and then will power them. After the DC power disconnect the lamps will turn off and the unit will conceal the heads in the wall (ceiling) by rotating the door by 180°. The DC-remote unit shall not require the presence of AC power in order to open or close the door.

Under normal conditions, the only visible parts of the unit shall be the off-white flat door and trim plate, that can be customized on site with paint or other suitable wall covering. The light source shall be LED lamps of specified wattage and light output.

The remote fixtures shall be certifed to CSA 22.2 No.141-15.

The remote unit shall be the **Lumacell®** model: PHAR _____.

WIRE GUARDS

460.0082-L	Wall mount

REPLACEMENT LAMPS: MR16

MODEL	VOLTAGE/WATTAGE
580.0093-L	12V-4W LED
580.0104-L	12V-5W LED
580.0106-L	12V-6W LED
580.0098-L	24V-4W LED
580.0100-L	24V-6W LED

IN THE SAME FAMILY:

- Phantom™ Series Battery Unit

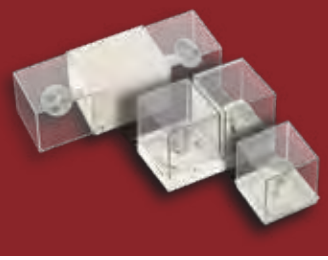
ORDERING INFORMATION

SERIES	VOLTAGE	LAMP WATTAGE	OPTIONS
PHAR= DC remote fixture (no AC voltage required)	**12V**= 12VDC remote[1] **24V**= 24VDC remote[2]	**LD7= 2X** MR16 LED, 12V-4W **LD9= 2X** MR16 LED, 12V-5W **LD10= 2X** MR16 LED, 12V-6W **LD13= 2X** MR16 LED, 24V-4W **LD14= 2X** MR16 LED, 24V-6W	**TB**= T-Bar mounting kit

[1]The remote fixture is compatible with all Phantom™ battery units.

[2]12V-24V battery unit must include the time delay function and exclude diagnostic to close door: consult factory for details.

EXAMPLE: PHAR12VLD9TB



Q-BIC™ RSQB/ RSQBD/ RSQB2 Series

Surface Mount, Remote Fixture

Made in Canada

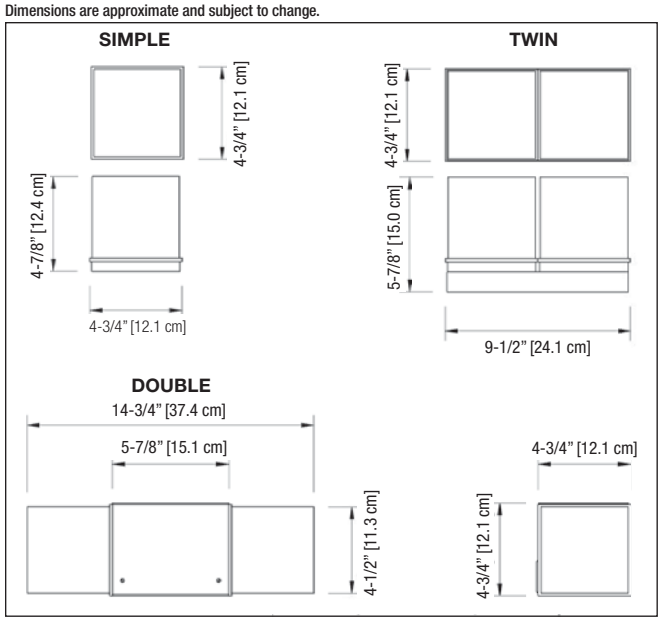
FEATURES

- Cubic, vandal-resistant surface-mounted fixture
- Single, twin or double cube with center body
- Frosted polycarbonate cube
- CSA certified to C22.2 No. 141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

DIMENSIONS

Dimensions are approximate and subject to change.



TYPICAL SPECIFICATIONS

Remote heads Series **Q-BIC™** shall be comprised of one (single) or two (double ou twin) adjustable heads with LED lamps. Each lamp shall be housed in an impact-resistant polycarbonate cube. The cube lens shall be frosted to diffuse the light.Heads shall provide mounting holes for installation to a standardoctogonal box

The remote fixtures shall be certified to CSA 22.2 No.141-15.

The remote unit shall be the **Lumacell®** model: RSQ _____ X _____ .

WIRE GUARDS

460.0035-L	Wall Mount (RSQB)
460.0031-L	Wall Mount (RSQBD)
460.0080-L	Wall Mount (RSQB2)

REPLACEMENT LAMPS

MODEL	LAMP TYPE	VOLTAGE/WATTAGE
580.0097-L	MR16 LED	6V-4W
580.0122-L	MR16 LED	6V-5W
580.0093-L	MR16 LED	12V-4W
580.0104-L	MR16 LED	12V-5W
580.0106-L	MR16 LED	12V-6W
580.0098-L	MR16 LED	24V-4W
580.0100-L	MR16 LED	24V-6W
580.0113-L	MR16 LED	120V-4W

IN THE SAME FAMILY:

- Q-BIC™ Series Battery Unit

ORDERING INFORMATION

SERIES	NUMBER OF HEADS	COLOUR	OPTIONS
RSQB= single cube **RSQBD**= double cube **RSQB2**= twin cube	**LD1**= MR16 LED, 6V-4W **LD2**= MR16 LED, 6V-5W **LD7**= MR16 LED, 12V-4W **LD9**= MR16 LED, 12V-5W **LD10**= MR16 LED, 12V-6W **LD13**= MR16 LED, 24V-4W **LD14**= MR16 LED, 24V-6W **LD26**= MR16 LED, 120V-4W	**BK**= black **Blank**= factory white	**Blank**= no options **TP**= tamper proof screws[1] [1]**690.0454-L**= tamper-proof bit (sold separately)

EXAMPLE: RSQBDLD10

SIGNATURE™ Collection

Surface designer Series

Made in Canada

FEATURES

- Available in 1, 2 or 3 head configurations
- Highly resistant powder-coated, die cast aluminum construction
- MR16 LED lamps: 4W, 5W and 6W
- CSA certified to C22.2 No. 141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

TYPICAL SPECIFICATIONS

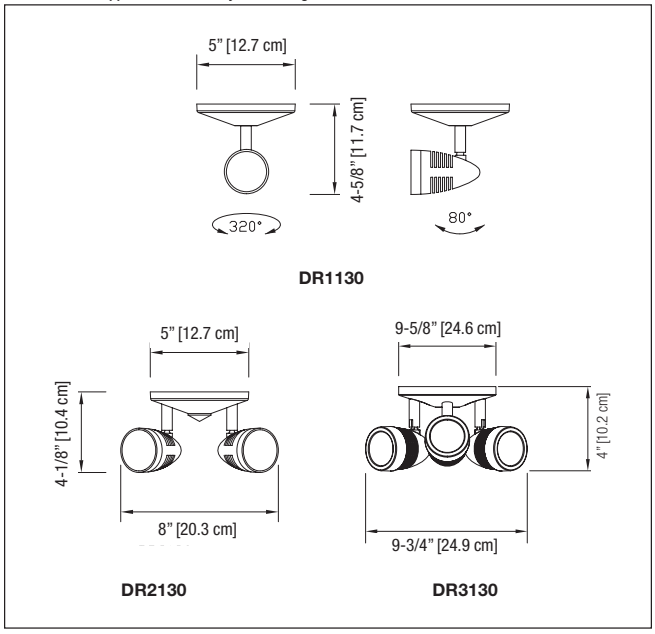
The contractor will supply and install **Lumacell® Signature™ Collection Series** remote heads. These remote heads will consist of either single, double or triple head configurations according to the design. Remote heads will be constructed of durable powder coated, Die-Cast aluminum and LED light sources.

The remote fixtures shall be certified to CSA C22.2 No.141-15.

The unit shall be **Lumacell®** model: _____.

DIMENSIONS

Dimensions are approximate and subject to change.



WIRE GUARDS

460.0029-L	Wall Mount (DR1130)
460.0032-L	Wall Mount (DR2130)
460.0078-L	Wall Mount (DR3130)

REPLACEMENT LAMPS

MODEL	LAMP TYPE	VOLTAGE-WATTAGE
580.0097-L	MR16 LED	6V-4W
580.0122-L	MR16 LED	6V-5W
580.0093-L	MR16 LED	12V-4W
580.0104-L	MR16 LED	12V-5W
580.0106-L	MR16 LED	12V-6W
580.0098-L	MR16 LED	24V-4W
580.0100-L	MR16 LED	24V-6W
580.0113-L	MR16 LED	120V-4W

ORDERING INFORMATION

SERIES	# OF HEADS	HEAD STYLE	COLOUR	LAMP STYLE	VOLTAGE/WATTAGE
DR= decorative remote	**1**= single head **2**= double head **3**= triple head	**130**= closed	**BK**= black **WH**= white	**MR16**= MR16 LED lamp	**LD1**= MR16 LED, 6V-4W **LD2**= MR16 LED, 6V-5W **LD7**= MR16 LED, 12V-4W **LD9**= MR16 LED, 12V-5W **LD10**= MR16 LED, 12V-6W **LD13**= MR16 LED, 24V-4W **LD14**= MR16 LED, 24V-6W **LD26**= MR16 LED, 120V-4W

EXAMPLE: DR1130WH-MR16LD7

RSTH SIGNATURE™ Series

Recessed designer series

FEATURES

- Contemporary, enduring designs
- 4W, 5W, 6W LED light source
- RSTH18R is made of powder coated or electro-plate steel
- RSTH19 is made of Die-Cast aluminum
- Will blend in with regular decorative recessed fixtures
- Choice of housing for new construction or insulated ceiling
- cUL listed

See warranty details at: www.tnb.ca/en/brands/lumacell

TYPICAL SPECIFICATIONS

The contractor will supply and install **Lumacell® Signature™ Collection** recessed heads and housing. Recessed heads will be constructed of durable powder coated, metal and use MR16 LED lamps. The RSTH18 series shall be made of steel. The RSTH19 series shall be made of die-cast aluminum. The light source will be _____ V, _____ W MR16 LED. The remote unit shall be the model: _____ , the housing shall be the model: _____.

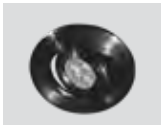
The remote fixtures shall be certified to CSA 22.2 No.141-15

BACK BOXES

LU-GRHR03	Non-Insulated ceiling 6-24V	New construction
LU-GRHR04	Non-Insulated ceiling 6-24V	Renovation
LU-GRHR05	Non-Insulated ceiling 120V GU10	New construction
LU-GRHR06	Insulated ceiling 6-24V	New construction

PENDANT KIT

P1L24W	24"	Pendant kit
P1L48W	48"	Pendant kit
P1L60W	60"	Pendant kit



RSTH18R

RSTH19

REPLACEMENT LAMPS

MODEL	LAMP TYPE	VOLTAGE/WATTAGE
580.0097-L	MR16 LED	6V-4W
580.0122-L	MR16 LED	6V-5W
580.0093-L	MR16 LED	12V-4W
580.0104-L	MR16 LED	12V-5W
580.0106-L	MR16 LED	12V-6W
580.0098-L	MR16 LED	24V-4W
580.0100-L	MR16 LED	24V-6W
580.0095-L	MR16 LED	120V-4W

MR16 LED COMPATIBILITY CHART

HEAD STYLE	6V-4W	12V-4W	24V-4W	12V-5W	12V-6W	120V-4W
RSTH18R	X	X	X	X	X	X
RSTH19	X	X	X	X	X	X

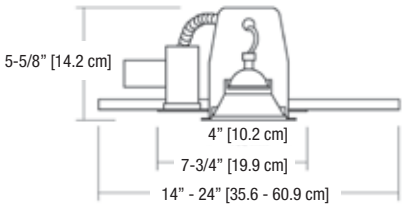
RSTH SIGNATURE™ Series

Recessed designer series

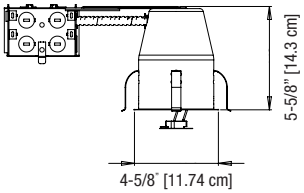
DIMENSIONS

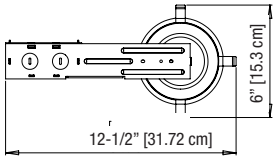
Dimensions are approximate and subject to change.

NEW CONSTRUCTION HOUSING LU-GRHR03

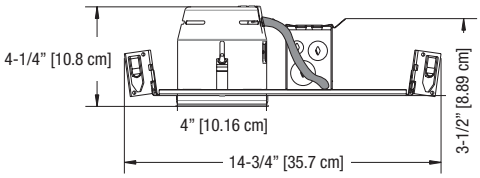


RENOVATION HOUSING LU-GRHR04

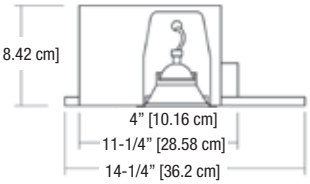




NON INSULATED CEILINGS HOUSING LU-GRHR05



INSULATED CEILINGS HOUSING LU-GRHR06



ORDERING INFORMATION

SERIES	HEAD STYLE	COLOUR	LAMP TYPE	VOLTAGE/WATTAGE	OPTIONS
RSTH= decorative recessed remote	**18R**= concave (Tilting Round Rear Load) **19**= concave (Egress/Regress)	**BK**= black (18R, 19 series only) **BN**= brushed nickel (18R & 24 series only) **WH**= white	**MR16**= MR16 lamp	**LD1**= MR16 LED, 6V-4W **LD2**= MR16 LED, 6V-5W **LD7**= MR16 LED, 12V-4W **LD9**= MR16 LED, 12V-5W **LD10**= MR16 LED, 12V-6W **LD13**= MR16 LED, 24V-4W **LD14**= MR16 LED, 24V-6W **LD25**= MR16 LED, 120V-4W[1] [1]Available only with LU-GRHR05 housing and with 18R & 19 heads	**PM**= complete with pendant mount backbox[1] [1]Pendant kit sold separately

EXAMPLE: RSTH18RBKMR16LD1

MQM Series

MR16 LED lamps

Made in Canada

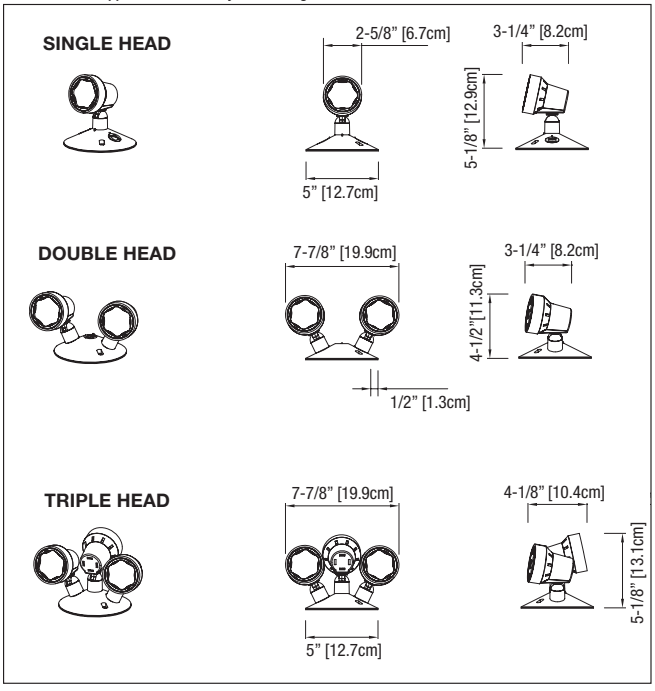
FEATURES

- 6, 12 and 24V with various wattages
- Fire-retardant thermoplastic
- 300º rotation
- CSA certified to C22.2 No.141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

DIMENSIONS

Dimensions are approximate and subject to change.



TYPICAL SPECIFICATIONS

Lamp head and stem shall be injection molded, impact resistant, flame retardant thermoplastic and shall require no tool for aiming or adjustment. The lens shall be inverse concave design and fully adjustable for aisle or area distribution during installation without the need to energize the lamp. Visual identification of distribution shall be provided through position of adjustment pins.

Fixture shall be supplied with a canopy for installation on any four inch octagon box. Housing shall be designed to allow for lamp replacement if required.

The remote fixtures shall be certified to CSA 22.2 No.141-15.

The remote unit shall be the **Lumacell®** model: _____.

WIRE GUARDS

460.0029-L	Wall ceiling Mount

REPLACEMENT LAMPS

MODEL	AC SPECS	DC SPECS
580.0097-L	MR16 LED	6V-4W
580.0122-L	MR16 LED	6V-5W
580.0093-L	MR16 LED	12V-4W
580.0098-L	MR16 LED	12V-5W
580.0106-L	MR16 LED	12V-6W
580.0104-L	MR16 LED	24V-4W
580.0100-L	MR16 LED	24V-6W

ORDERING INFORMATION

SERIES	LAMP TYPE	NUMBER OF HEADS	VOLTAGE/WATTAGE/LAMP TYPE	COLOURS
M= micro, PAR 18	**QM**= MR16 LED	**1**= single head **2**= double head **3**= triple head	**LD1**= MR16 LED, 6V-4W **LD2**= MR16 LED, 6V-5W **LD7**= MR16 LED, 12V-4W **LD9**= MR16 LED, 12V-5W **LD10**= MR16 LED, 12V-6W **LD13**= MR16 LED, 24V-4W **LD14**= MR16 LED, 24V-6W	**BK**= black **Blank**= factory white

EXAMPLE: MQMLD7

new product

MP-BLD Series

"Built-in" micro LED lamp remote fixture

FEATURES

- 6 to 12V, 3W LED each head
- Fire-retardant thermoplastic
- 300° rotation
- CSA certified to C22.2 No.141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

TYPICAL SPECIFICATIONS

Lamp head and stem shall be injection molded, impact resistant, flame retardant thermoplastic. Fixture shall be supplied with a canopy for installation on any four inch octagon box.

The remote fixtures shall be certified to CSA 22.2 No.141-15.

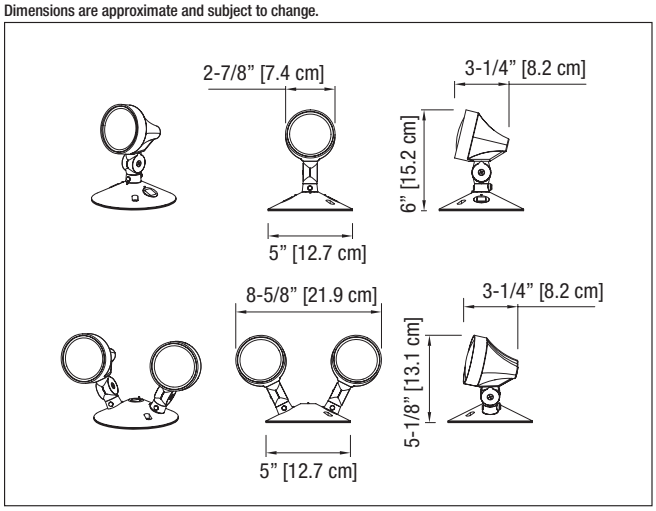
The remote unit shall be the **Lumacell®** model: _____.

WIRE GUARDS

460.0029-L	Wall ceiling Mount

DIMENSIONS

Dimensions are approximate and subject to change.



ORDERING INFORMATION

SERIES	NUMBER OF HEADS	LAMP TYPE
MP= Plastic built-in LED	**1**= Single head **2**= Double heads	**BLD**= Plastic built-in LED, 6V / 12V, 3W each

EXAMPLE: MP1BLD

LCSR Series

Dedicated Indoor LED Remote

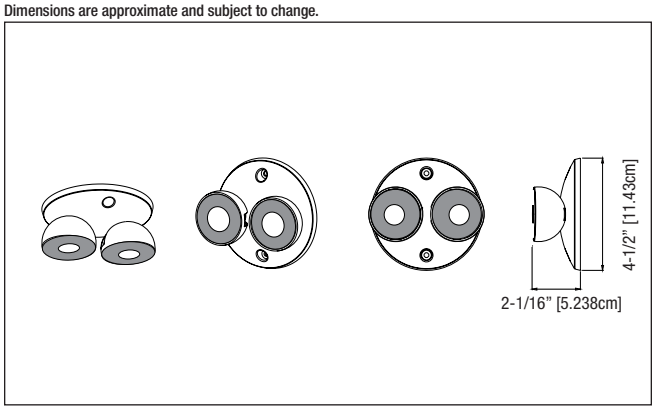
FEATURES

- Fully adjustable LED glare-free lens
- 3.6V 1W long life LED light source, 6000K
- Injection-molded off-white thermoplastic ABS housing
- Ceiling or wall mount installation
- To mount to any standard 4" junction box
- To be used only with LCSB battery unit
- Comes standard with one (1) year warranty
- Meets or exceeds CSA C22.2 No.141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

DIMENSIONS

Dimensions are approximate and subject to change.



*NOTE: The LCS Family cannot be combined with other Lumacell® Products on the same emergency A.C. circuit.

ORDERING INFORMATION

SERIES	NUMBER OF HEADS	LAMP TYPE/WATTAGE	COLOUR
LCSR	**D**= 2	**Blank**= 1W LED	**Blank**= White

EXAMPLE: LCSRD

MQMP-NC Series

Remote Fixture

Made in Canada

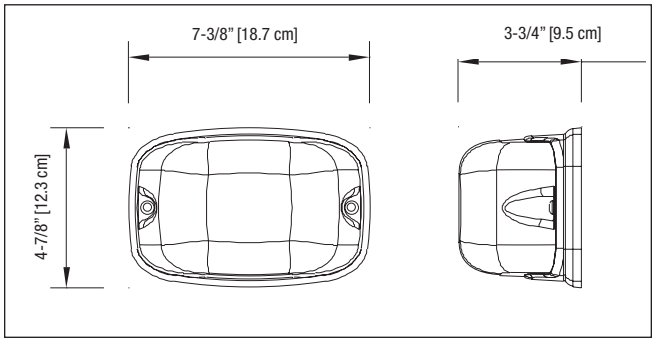
FEATURES

- Quality illumination requires fewer fixtures
- Clear polycarbonate UV and impact resistant lens with optional tamper-proof screws to prevent tampering
- Easy lamp replacement
- Modern design will blend into surroundings
- Selection of Die-Cast or polycarbonate back plate
- For indoor use only
- CSA certified to C22.2 No. 141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

DIMENSIONS

Dimensions are approximate and subject to change.



WIRE GUARDS

460.0029-L	Wall Mount

TYPICAL SPECIFICATIONS

Supply and install **Lumacell® MQMP-NC** Series remote emergency lighting. These remote fixtures will consist of either single or double lamp configurations as specified and include a UV resistant fire retardant Die-Cast polycarbonate back plate and a clear heavy-duty UV resistant polycarbonate light cover.

The remote fixture shall be certified to CSA C22.2 No. 141. The head(s) shall be fully adjustable and be equipped with high efficiency MR16 LED lamp(s) of _____ V, _____ W.

The remote fixtures shall be certified to CSA 22.2 No.141-15

The remote unit shall be the **Lumacell®** model: _____.

REPLACEMENT LAMPS: MQMP

MODEL	LAMP TYPE	VOLTAGE/WATTAGE
580.0097-L	MR16 LED	6V-4W
580.0122-L	MR16 LED	6V-5W
580.0093-L	MR16 LED	12V-4W
580.0104-L	MR16 LED	12V-5W
580.0106-L	MR16 LED	12V-6W
580.0098-L	MR16 LED	24V-4W
580.0100-L	MR16 LED	24V-6W
580.0113-L	MR16 LED	120V-4W

ORDERING INFORMATION: MQMP

SERIES	LAMP TYPE/WALTAGE/WATTAGE	COLOUR	OPTIONS
MQMP1NC= polycarbonate, one lamp **MQMP2NC**= polycarbonate, two lamps	**LD1**= MR16 LED, 6V-4W **LD2**= MR16 LED, 6V-5W **LD7**= MR16 LED, 12V-4W **LD9**= MR16 LED, 12V-5W **LD10**= MR16 LED, 12V-6W **LD13**= MR16 LED, 24V-4W	**BK**= black **Blank**= factory white **SG**= grey	**Blank**= no options **T**= tamper-proof screws[1] [1]**690.0454-L**= tamper-proof bit (sold separately)

EXAMPLE: MQMP1NCLD7BK

ORDERING INFORMATION: MQM

SERIES	LAMP TYPE/VOLTAGE/WATTAGE	COLOUR	OPTIONS
MQM1NC= Die-Cast, one lamp **MQM2NC**= Die-Cast, two lamps	**LD1**= MR16 LED, 6V-4W **LD2**= MR16 LED, 6V-5W **LD7**= MR16 LED, 12V-4W **LD9**= MR16 LED, 12V-5W **LD10**= MR16 LED, 12V-6W **LD13**= MR16 LED,24V-4W **LD14**= MR16 LED, 24V-6W **LD26**= MR16 LED, 120V-4W	**BK**= black **Blank**= factory white **SG**= grey	**Blank**= no option **T**= tamper-proof screws[1] [1]**690.0454-L**= tamper-proof bit (sold separately)

EXAMPLE: MQM2NCLD7

MQM-NX Series

NEMA-4X Certified Remote Fixture

Made in Canada

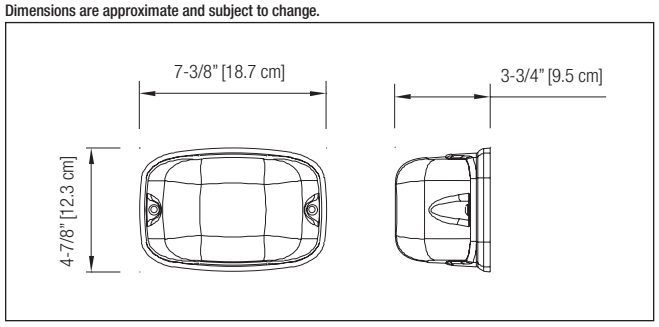
NEMA-4X

FEATURES

- Fully gasketed with a selection of Die-Cast aluminum or polycarbonate back plate
- Clear polycarbonate UV and impact resistant lens
- Choice of single or double lamp models
- Available in 6, 12 and 24V models LED
- Easy lamp replacement
- Comes standard with tamper-proof screws and bit
- NSF Certified for food processing plants
- NEMA-4X Certified*
- Suitable for indoor/outdoor installation
- CSA Certified to C22.2 No. 141-15
  See warranty details at: www.tnb.ca/en/brands/lumacell
- For MQMP, units are NEMA-4X Certified when installed using a circular NEMA-4X rated junction box (sold separately by ABB under P/N CE365D-CAR or CE365DW-CAR and with plugs P/N P7701W-CARI.)

DIMENSIONS

Dimensions are approximate and subject to change.



IN THE SAME FAMILY:

- LER3000 Series Exit Sign

- 3LER3000 Series Exit Sign

- RG-NX NEMA 4X Series Battery Unit

TYPICAL SPECIFICATIONS

Supply and install **Lumacell® MQMP Series** remote emergency lighting fixtures. These remote fixtures will consist of either single or double lamp configurations according to the design. These fixtures shall be fully gasketed with a UV resistant and fire retardant Die-Cast aluminum or polycarbonate back plate with a clear heavy-duty UV resistant polycarbonate light cover. The unit shall be equipped with two emergency heads with tool-less adjustable swivels (lamps of 12W or less). Units shall be NEMA-4X and NSF certified and specifically designed for high abuse areas, wet and cold weather locations, food processing plants as well in applications requiring a resistance to corrosive agents. The standard unit will come with stainless steel tamper-proof screws and bit.

The remote fixture shall be certified to CSA C22.2 No. 141-15. The head(s) shall be fully adjustable without tools and should be equipped with LED lamp(s) of _____V _____W.

The remote fixtures shall be certified to CSA 22.2 No.141-15.

The remote unit shall be the **Lumacell®** model: _____.

REPLACEMENT LAMPS: MQMP

MODEL	LAMP TYPE	VOLTAGE/WATTAGE
580.0097-L	MR16 LED	6V-4W
580.0122-L	MR16 LED	6V-5W
580.0093-L	MR16 LED	12V-4W
580.0104-L	MR16 LED	12V-5W
580.0106-L	MR16 LED	12V-6W
580.0098-L	MR16 LED	24V-4W
580.0100-L	MR16 LED	24V-6W
580.0113-L	MR16 LED	120V-4W

ORDERING INFORMATION: MQMP

SERIES	LAMP TYPE/VOLTAGE/WATTAGE		COLOUR	OPTIONS
MQMP1NX= polycarbonate, one lamp **MQMP2NX**= polycarbonate, two lamps	**LD1**= MR16 LED, 6V-4W **LD2**= MR16 LED, 6V-5W **LD7**= MR16 LED, 12V-4W	**LD9**= MR16 LED, 12V-5W **LD10**= MR16 LED, 12V-6W **LD13**= MR16 LED, 24V-4W	**Blank**= factory white **BK**= black **SG**= grey	**-SM**= surface mount[1] [1]Surface plastic junction box included

EXAMPLE: MQMP1NXLD10BK

ORDERING INFORMATION: MQM

SERIES	LAMP TYPE/VOLTAGE/WATTAGE		COLOUR
MQM1NX= Die-Cast, one lamp **MQM2NX**= Die-Cast, two lamps	**LD1**= MR16 LED, 6V-4W **LD2**= MR16 LED, 6V-5W **LD7**= MR16 LED, 12V-4W **LD9**= MR16 LED, 12V-5W	**LD10**= MR16 LED, 12V-6W **LD13**= MR16 LED, 24V-4W **LD14**= MR16 LED, 24V-6W **LD26**= MR16 LED, 120V-4W	**BK**= black **Blank**= factory white **SG**= silver/ grey

EXAMPLE: MQM2NXLD13

new product

LHPRL Series

NEMA-4X Rated Remote Fixture

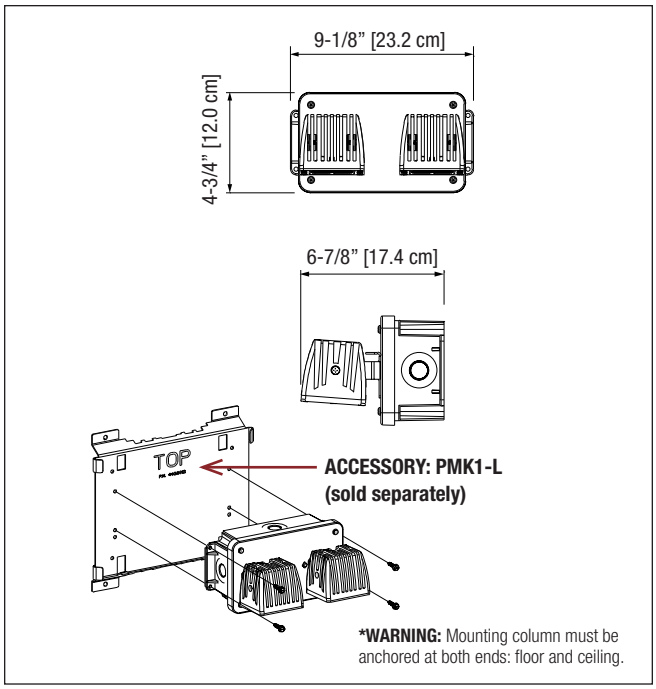
Made in Canada

FEATURES

- PVC grey housing and heads designed for heavy-duty industrial applications: indoors, outdoors, hose-down areas, cold-storage facilities etc
- Can be installed in wide temperature conditions: -40°C to 55°C [40°F to 131°F]
- NEMA-4X protection grade against liquids and windblown dust
- High-efficacy LED emergency heads outperform traditional 50W incandescent lamps
- Innovative head design: four-LED and dual-driver provide illumination even in case of unexpected component failure
- Simple and easy to install on walls, poles, columns or struts. For vertical installation on poles or columns, use mounting bracket catalogue number: PMK1-L (sold separately)
- Meet or exceed CSA C22.2 No. 141-15
- 1 Year limited warranty
  See warranty details at: www.tnb.ca/en/brands/lumacell

DIMENSIONS

Dimensions are approximate and subject to change.



***WARNING:** Mounting column must be anchored at both ends: floor and ceiling.

TYPICAL SPECIFICATIONS

Supply and install **Lumacell® LHPRL Series** remote emergency lighting fixtures. These remote fixtures will consist of either single or double lamp configurations. The housing shall be made of grey PVC, be designed for heavy duty industrial applications with temperatures ranging from -40°C to 55°C [40°F to 131°F] . The remote fixture can easily be installed on walls, poles, columns or struts. The heads shall be die cast and have a flat square lens made of UV stabilized clear polycarbonate. Each head shall include four (4) high efficacy LEDS and two independent drivers.

The remote fixture shall fully adjustable without tools, be NEMA 4X rated and be cUL listed to CSA C22.2 No.141-15.

The remote unit shall be the **Lumacell®** model: _____.

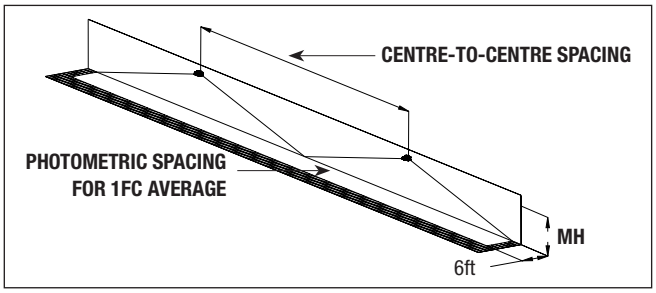
PHOTOMETRY PERFORMANCE

Whether installed indoors or outdoors, the **LHPRL Series** of LED emergency lights deliver a stable and consistent illumination on the path of egress for a wide range of mounting heights. Depending on the application, one may select and specify among three levels of lumen output. See cross reference to traditional incandescent emergency lights below.

LED HEAD	POWER	TOTAL LUMENS	OUTPERFORMS SPACING OF INCANDESCENT
L6	6W	565	35W PAR36, MR16 Halogen
L10	10W	1030	50W PAR36, MR16 Halogen
L15	15W	1320	50W MR16-IR Halogen

Industrial environment: wall mounted equipment, reflectances: 10/10/10; 6-ft wide illumination path. Illumination as per NBC; Average: 1fc; Min: 0.1fc.

MOUNTING HEIGHT	SPACING CENTRE-TO-CENTRE (FEET)		
	LAMP L6 / 6W, 565LM	LAMP L10 / 10W, 1000LM	LAMP L15 / 15W, 1300LM
10 ft	80	110	140
15 ft	70	105	135
20 ft	60	100	130
25 ft	50	95	120



ORDERING INFORMATION

SERIES	NUMBER OF HEADS	LED HEAD
LHPRL= high performance remote	**1**= single **2**= double	**L6W**= 12-24V 6W **L10W**= 12-24V 10W **L15W**= 12-24V 15W **PMK1-L**= pole mounting bracket (sold separately)

EXAMPLE: LHPRL2L10W

MQM-HZ Series

Hazardous Locations

Made in Canada

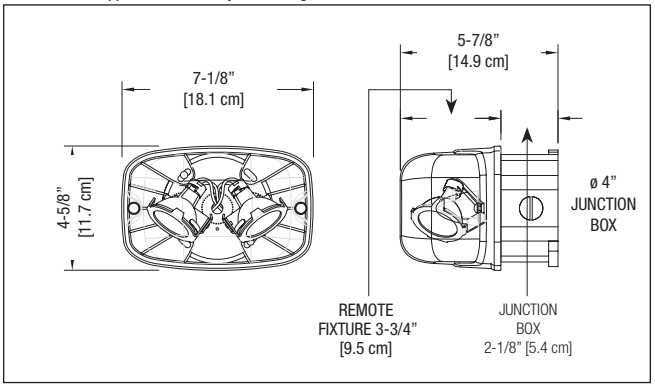
FEATURES

- Quality illumination requires fewer fixtures
- Certified Class I Zone 2, Groups IIA, IIB and IIC
- Certified Class I Division 2, Groups A, B, C and D as per CSA C22.2 No.137-M1981
- Temperature Codes: T3B (10W and 12W MR16 lamps) and T2C (20W MR16 lamps), as per Canadian Electrical Code, Part I and CSA C22.2 No.137-M1981)
- Extreme operational temperature range: -40ºC (-40ºF)
- Choice of single- or double-lamp models
- High-efficacy LED lamps of 4W, 5W and 6W
- Input voltage: 6V, 12V, 24V or 120V
- Fully gasketed die-cast aluminum back plate
- Clear polycarbonate cover, UV and impact resistant
- Easy installation on a 4-inch octagonal box (included)
- Comes standard with tamper-proof screws and bit
- Certified to CSA 22.2 No.141-15

See warranty details at: www.tnb.ca/en/brands/lumacell

DIMENSIONS

Dimensions are approximate and subject to change.



TYPICAL SPECIFICATIONS

Supply and install **Lumacell® MQM-HZ Series** remote emergency lighting fixture. The fixture shall have a single- or double-lamp configuration (as specified) and shall include a fully gasketed die-cast aluminum back plate and a clear heavy-duty UV resistant polycarbonate cover. The fixture shall come standard with a 4-inch octagonal box, stainless steel tamper-proof screws and dedicated screwdriver bit.

The fixture shall be certified for use in hazardous locations Class I, Division 2, Groups A, B, C and D and shall be listed to CSA C22.2 No. 141 and CSA C22.2 No.137-M1981. The fixture shall be rated with a temperature code for the selected lamps as in the table below.

Each lamp in the fixture shall be able to be oriented without tools and should be equipped with LED lamp(s) of _____ V _____ W.

The remote fixtures shall be certified to CSA 22.2 No.141-15

The remote unit shall be the **Lumacell®** model:

MQM _____ HZ _____ .

REPLACEMENT LAMPS

ORDERING CODE	LAMP TYPE	VOLTAGE/ WATTAGE	TEMPERATURE CODE
580.0097-L	MR16 LED	6V-4W	T4A (Max. 120°C)
580.0122-L	MR16 LED	6V-5W	T4A (Max. 120°C)
580.0093-L	MR16 LED	12V-4W	T5 (Max. 100°C)
580.0104-L	MR16 LED	12V-5W	T4A (Max. 120°C)
580.0106-L	MR16 LED	12V-6W	T4 (Max. 135°C)
580.0098-L	MR16 LED	24V-4W	T5 (Max. 100°C)
580.0113-L	MR16 LED	120V-4W	T4A (Max. 135°C)

IN THE SAME FAMILY: CLASS 1, DIV. 2

- 3LER-HZ Series Exit Sign

- RG-HZ Series Battery Unit

ORDERING INFORMATION

SERIES	VOLTAGE/WATTAGE/LAMP TYPE		COLOUR
MQM1HZ= single lamp **MQM2HZ**= double lamp	**LD1**= MR16 LED, 6V-4W **LD2**= MR16 LED, 6V-5W **LD7**= MR16 LED, 12V-4W **LD9**= MR16 LED, 12V-5W	**LD10**= MR16 LED, 12V-6W **LD13**= MR16 LED, 24V-4W **LD26**= MR16 LED, 120V-4W	**SG**= silver grey

EXAMPLE: MQM1HZLD9SG

new product

LHZRL Series

Hazardous Location Remote Fixture

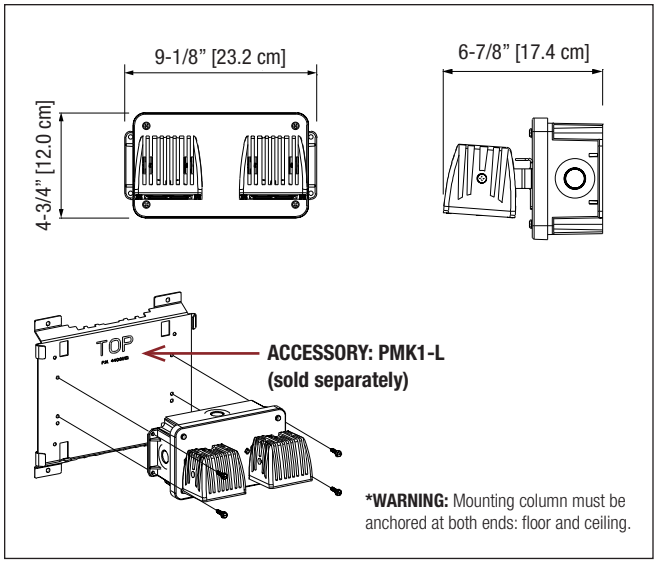
Made in Canada

FEATURES

- Evaluated to CSA C22.2 No.141-15 and No.137-M1981 for use in hazardous locations: Class I Division 2, Groups A, B, C and D; Class II Division 2, Groups F and G and Class III
- NEMA-4X protection grade against liquids and windblown dust
- Can be installed in wide temperature conditions: -40°C to 55°C (40°F to 131°F)
- High-efficacy LED emergency heads outperform traditional 50W halogen lamps
- Innovative head design: four-LED and dual-driver provide illumination even in case of unexpected component failure
- Simple and easy to install on walls, columns or struts. For vertical installation on columns, use mounting bracket catalogue number: PMK1-L (sold separately). *See warning in installation below
- 1 Year limited warranty
  See warranty details at: www.tnb.ca/en/brands/lumacell

DIMENSIONS

Dimensions are approximate and subject to change.



CLASSIFICATION FOR HAZARDOUS LOCATIONS

TYPE OF EMERGENCY HEADS	CLASSIFICATION	TEMPERATURE CODE
		TA = 55°C
L15	Class I Division 2 Groups A, B, C and D	T3C
	Class II Division 2 Groups F and G; Class III	T5

TYPICAL SPECIFICATIONS

Supply and install **Lumacell® LHZRL Series** remote emergency lighting fixtures. These remote fixtures will consist of either single or double lamp configurations. The housing shall be made of grey PVC designed for hazardous location Class I, Div. 2, Groups A,B,C & D; Class II Div.2 Groups F and G and Class III applications . The remote fixture can easily be installed on walls, poles, columns or struts. The heads shall be of die-cast aluminum and have a flat square lens made of UV stabilized clear polycarbonate. Each head shall include four (4) high efficacy LEDS and two independent drivers.

The remote fixture shall fully adjustable without tools, be NEMA 4X rated and be cUL listed to CSA C22.2 No.141-15 and No. 137-M1981 standards.

The remote unit shall be the **Lumacell®** model: _____.

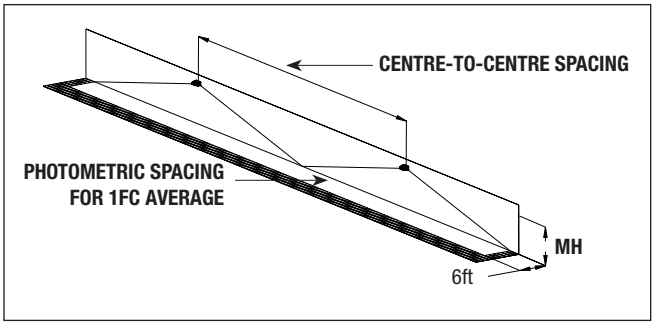
PHOTOMETRY PERFORMANCE

Whether installed indoors or outdoors, the **LHZRL Series** of LED emergency lights deliver a stable and consistent illumination on the path of egress for awide range of mounting heights.

LED HEAD	POWER	TOTAL LUMENS	OUTPERFORMS SPACING OF INCANDESCENT LAMPS
L15	15W	1320	50W MR16-IR Halogen

Industrial environment: wall mounted equipment, reflectances: 10/10/10; 6-ft wide illumination path. Illumination as per NBC; Average: 1fc; Min: 0.1fc.

MOUNTING HEIGHT	SPACING CENTRE-TO-CENTRE (FEET)
	LAMP L15 / 15W, 1300LM
10 ft	140
15 ft	135
20 ft	130
25 ft	120
30 ft	110



ORDERING INFORMATION

SERIES	NUMBER OF HEADS	LED HEAD
LHZRL= High-performance remote heads	**1**= single **2**= double	**L15W**= 12-24Vdc, 15W **PMK1-L**= universal mounting bracket (sold separately)

EXAMPLE: LHZRL2L15W

new product

RS10XP LED Series

Remote Fixtures
Hazardous Locations

Made in Canada

FEATURES

- CSA Certified for use in hazardous locations:
  - Class I, Divisions 1 and 2, Groups A, B, C, D
  - Class II, Divisions 1 and 2, Groups E, F, G
  - Class III, Divisions 1 and 2
- High Efficacy LED Lamps
- Die-cast aluminum body with gray epoxy powder coat finish
- Clear, impact and heat resistant prismatic glass globe
- Available in 6, 12 and 24V & 120V
- Available with single-lamp or twin-lamp combination
- New, easy-to-build catalogue number based on the Lumacell Severity Codes
- Certified CSA 22.2 No.141

See warranty details at: www.tnb.ca/en/brands/lumacell

TYPICAL SPECIFICATIONS

Supply and install the **Lumacell® RS10XP LED Series** of hazardous location remote heads. The head housing will be die cast aluminum with gray epoxy powder coat finish. The lens shall be a clear, impact and heat resistant prismatic glass globe. The head shall be factory sealed. External seals shall not be required.

The remote shall come complete with a _____ mounting connection and include _____lamp(s) rated _____ V _____ W.

The remote head shall be suitable for Class _____, Division _____, Group _____ .

The remote fixtures shall be certified to CSA 22.2 No.141.

The remote unit shall be the **Lumacell®** model:

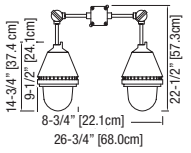
RS _____ .

DIMENSIONS

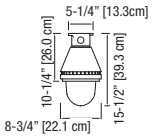
Dimensions are approximate and subject to change.

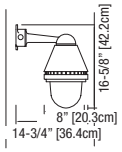
SEVERITY S1

DOUBLE PENDANT MOUNT

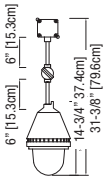


CEILING MOUNT





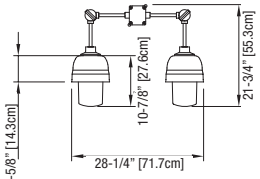
WALL MOUNT



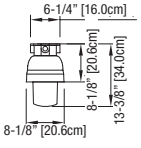
PENDANT MOUNT

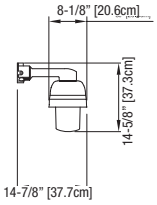
SEVERITY S2

DOUBLE PENDANT MOUNT

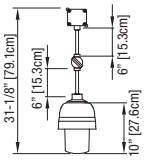


CEILING MOUNT





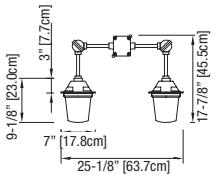
WALL MOUNT



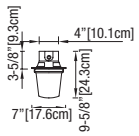
PENDANT MOUNT

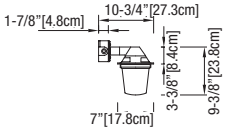
SEVERITY S3, S4

DOUBLE PENDANT MOUNT

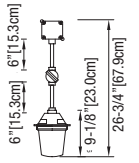


CEILING MOUNT





WALL MOUNT



PENDANT MOUNT

new product

RS10XP LED Series

Remote Fixtures
Hazardous Locations

1.

ENVIRONMENT	SEVERITY CODE
Cl. I, Div. 1, Gr. A & B	S1
Cl. I, Div. 1, Gr. C, D	S2
Cl. I, Div. 2, Gr. A, B, C, D	S3
Cl. II, Div. 1 & 2, Gr. E, F, GCl. III, Div. 1 & 2	S4

2.

CERTIFICATION GUIDE FOR REMOTE LIGHTING FIXTURES (40°C AMBIENT)				
Severity Code	S1	S2	S3	S4
Temperature Code	T6	T6	T3C	T3C (E.G.F.)
CSA/UL rating	Max. 120°C (248°F)	Max. 85°C (185°F)	Max. 450°C (842°F)	Max. 165°C (329°F)

ORDERING INFORMATION

Before ordering, identify the environment of your application: Class _____, Division_____, Group_____. Refer to the following chart for the Severity Code (1) to use in your catalogue number: For additional information, please look at the table below(2):

3. RS10-XP

SERIES	LAMP TYPE	LAMPS WATTAGE & TYPE	SEVERITY CODE	MOUNTING
RS10XP= single remote, 1 lamp **RS20XP**= single remote, 2 lamp **RS20FXP**= double remote, 1 lamp each[1]	**Blank**= MR16 LED	**LD1**= 6V-4W, MR16 LED **LD2**= MR16 LED, 6V-5W **LD7**= 12V-4W, MR16 LED **LD9**= 12V-5W, MR16 LED **LD10**= 12V-6W, MR16 LED **LD13**= 24V-4W, MR16 LED **LD25**= 120V-4W, GU10 LED	**S1**= Cl. I, Div. 1, Gr. A, B **S2**= CL. I, Div.2, Gr. C,D **S3**= Cl. I, Div. 2, Gr. A, B, C, D **S4**= CL.II, Div.1 & 2, Gr. E, F, G CL. III, Div. 1 & 2	**C**= ceiling mount **P**= pendant mount **W**= wall mount

[1]Pendant mount only

EXAMPLE: RS10XPLD1S1C

CENTRAL SYSTEMS

new product

Table of contents

new product

Mini-Inverter Series

Interruptible Unit Equipment

nexus® c UL

The **Mini-Inverter** is a cUL Listed stand-alone pure sine wave output inverter designed to provide power to designated emergency lighting fixtures. In a power loss situation, it will supply power from the onboard battery supply.

The **Mini-Inverter** works in conjunction with incandescent, LED, and fluorescent fixture types and will automatically run switched, normally-on, or normally-off designated emergency fixtures.

The **Mini-Inverter** is ideal for applications requiring an emergency source for lighting arrangements that utilize multiple lamp and fixture types and is available in surface mount and comes with a one year warranty and nine-year pro-rata battery warranty

FEATURES

- Lamps operated: Incandescent LED, fluorescent lamps and ballast combinations, including TRIAC dimmable ballasts
- Components: High-efficiency pure sine wave inverter
- Temperature-compensated charger 12V oversized Valve Regulated Lead Acid (VRLA) battery
- Construction: 18-gauge steel for 300W & 600W/ 14-gauge steel for 1000W & 1440W
- Emergency lighting supplied from one convenient, reliable source
- Input/Output voltage 120/120V 60Hz or 347/347V 60 Hz
- Replaceable output fuse protection
- Valve Regulated Lead Acid (VRLA) battery provides long-life and is maintenance free
- Line voltage allows for remote mounting of emergency fixtures at distances up to 1000 feet
- Low Battery Voltage Disconnect
- Unit comes standard with electonic lockout and brownout circuits
- Meets or exceeds all National Electrical Code and Life Safety Code Emergency Lighting Requirements.
- Cabinet in factory white powder-coat paint finish
- **May accept load to 80% capacity when load feature power factor of 0.9 or more**
- Non audible auto-test is standard.
- Nexus® system interface available
- Standard lighting control override for 0-10V dimming systems
- Meets or exceeds the requirements of CSA 141-15

nexus c UL

TYPICAL SPECIFICATIONS

Emergency lighting shall be provided by inverter unit equipment designed to operate designated incandescent, fluorescent and LED fixtures on emergency power at their full nominal lumen rating during the full 30 minute emergency discharge cycle. System output will be rated at _____ watts for 30 minutes and provide fused output connections to the load. The system's voltage rating shall be _____ VAC input/output nominal. The inverter unit shall allow for fused connected emergency fixture(s) to be normally on, normally off, switched or dimmed without affecting lamp operation during a power failure.

Upon utility power loss, the inverter unit shall deliver 100% of its rated output to the emergency fixtures regardless of the local switch or dimmer (TRIAC) position, and will provide power to emergency fixtures at distances of up to 1000 feet. The housing shall be manufactured using 18-gauge steel for 300W & 600W/ 14-gauge steel for 1000W & 1440W with a white baked-on powder coat paint finish.

The unit's electronics shall include a self-contained inverter section with a fully automatic, thermal-compensating variable-rate battery charger, AC lockout feature, low battery voltage disconnect, overload, short circuit and brownout protection as standard. The unit shall utilize a sealed lead acid battery with a 10-year design life. The inverter system shall be cUL Listed and labeled. The unit shall be covered under a 1-year warranty on the electronics and battery and a 9-year pro-rata warranty on the battery. It shall meet or exceed the requirements of CSA 141-15.

SPECIFICATIONS

TRANSFER TIME: less than 1 second
VOLTAGE REGULATION ON EMERGENCY: +/- 3%
FREQUENCY REGULATION ON EMERGENCY: 60 Hz +/- 1%
LOAD POWER FACTOR RANGE: 0.9 leading to 0.9 lagging
OPERATING TEMPERATURE: 20° TO 30°C (68° TO 86°F)

WARRANTY

All **Lumacell®** inverter products receive 100% quality inspection before shipment to insure proper and satisfactory operation. When operated under normal conditions,, **Lumacell®** inverter products will provide years of dependable service. This unit is backed by a complete 1-year warranty against defects in material or workmanship, and a 9-year prorata battery warranty.

The inverter unit shall be **Lumacell®** model: _____.

ELECTRICAL CHARACTERISTICS & DIMENSIONS

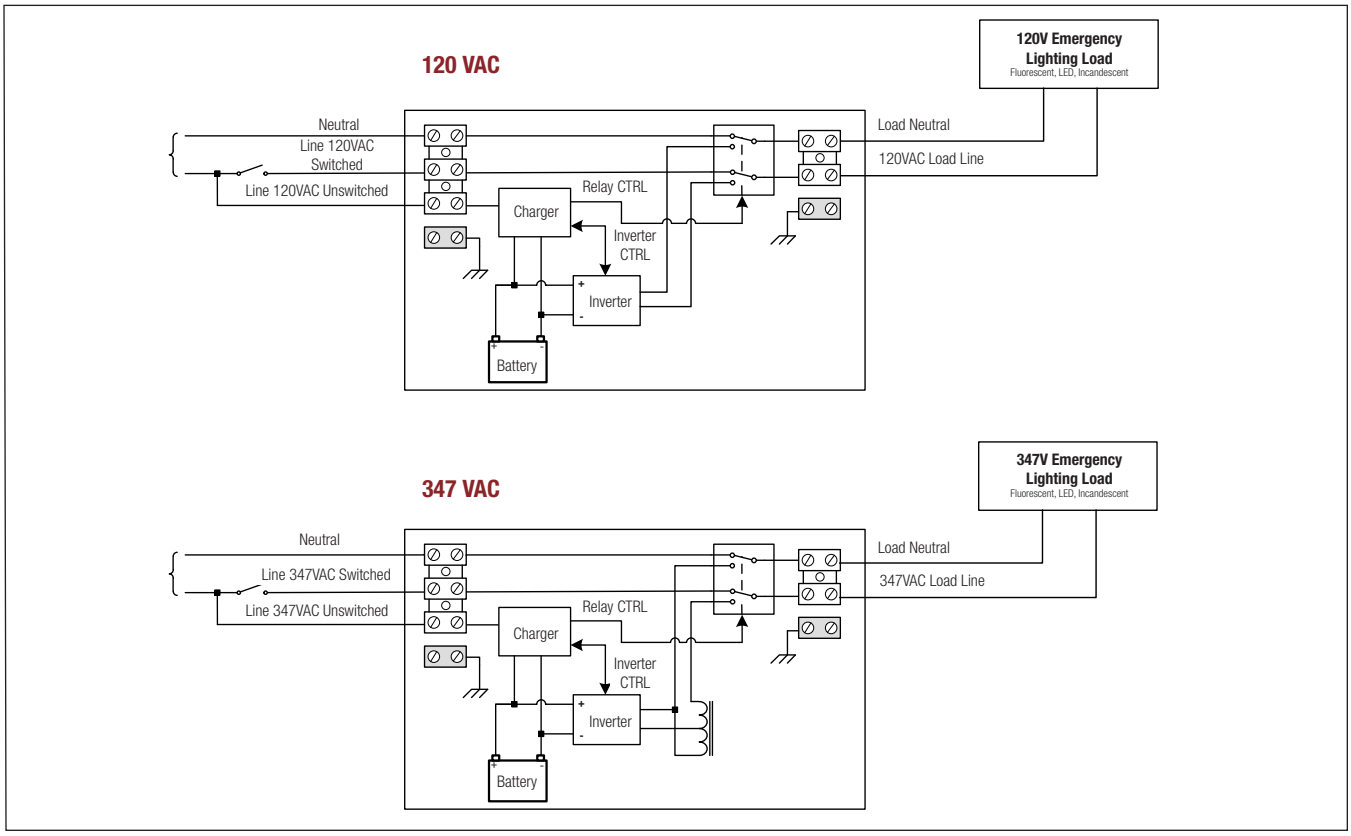
POWER RATING	MAX INPUT RATING		SINE WAVE	INSTALLATION	CABINET DIMENSIONS			NO. OF BATTERY	WEIGHT		WEIGHT W/O BATTERY	
	120VAC	347VAC			W"	H"	D"		120V	347V	120V	347V
300W	3.10	n/a	Pure	Wall	27"	12.25"	7.25"	1	55 lbs	n/a	30 lbs	n/a
600W	3.00	2.30	Pure	Wall	24"	20.25"	10.5"	2	105 lbs	117 lbs	55 lbs	67 lbs
1000W	11.60	3.60	Pure	Wall	24"	20.25"	14.5"	2	150 lbs	169 lbs	70 lbs	89 lbs
1000W-4C	14.00	N/A	Pure	Wall	24"	40.75"	14.5"	4	320 lbs	n/a	198 lbs	n/a
1440W	15.00	5.00	Pure	Wall	24"	20.25"	14.5"	2	190 lbs	214 lbs	75 lbs	99 lbs

new product

Mini-Inverter Series

Interruptible Unit Equipment

WIRING DIAGRAM



POWER CONSUMPTION AND UNIT RATING

MODEL NUMBER	AC SPECS		EMERGENCY POWER AVAILABLE FOR LOAD				
			30MIN	1H00	1H30	2H00	4H00
LMI-300	120Vac	3.10 / Amps	300W	175W	125W	100W	50W
LMI-600	120 / 347Vac	6.00 / 2.30 Amps	600W	350W	250W	200W	100W
LMI-1000		11.60 / 3.60 Amps	1000W	585W	415W	330W	165W
LMI-1000-4C	120Vac	14.00 Amps	N/A	N/A	1000W	800W	N/A
LMI-1440	120 / 347Vac	15.00 / 5.00 Amps	1440W	842W	600W	480W	240W

ORDERING INFORMATION

SERIES	CAPACITY	VOLTAGES IN/OUT	DIAGNOSTIC FEATURES	OPTIONS
LMI= Series	**-300**= 300W **-600**= 600W **-1000**= 1000W **-1440**= 1440W	**-1**= 120/120VAC, 60 Hz **-3**= 347/347VAC, 60 Hz[1]	**Blank**= Auto-Diagnostics, non-audible[1] **-AT**= Auto-Diagnostics, audible[1] **-NAT**= No Diagnostics **-NEX**= Nexus® wired system interface[2] **-NEXRF**= Nexus® wireless system interface[2]	**-4C**= Four output circuits[1] **-LC**= Line cord (120V only) **-SAC**= Service alarm contact **-T3**= Time delay (15 minutes) **-TL**= Cord and twist lock plug (120V only)
		[1]Available only with 600W, 1000W & 1440W	[1]Minimum load required: 10% of unit capacity [2]Please consult your sales representative	[1]1000W model at 120V only

EXAMPLE: LMI-1440-1

Arges Central System

A General Presentation about Central Systems

For all fluorescent/incandescent/LED loads

CHOOSING THE RIGHT SYSTEM

There are a variety of ways in which back-up power can be provided.However, even though certain methods are suitable for critical applications, they may not necessarily be suitable for Emergency Lighting. This is because an Emergency Lighting system has unique load characteristics. And since Emergency Lighting is a critical life-safety installation, it is vital that a Central Battery System is designed with these load characteristics in mind. **ARGES Power** central inverter systems are specifically designed to provide emergency power for emergency lighting systems in a power failure.

IN CHOOSING THE RIGHT AC SYSTEM TO SUPPORT EMERGENCY LIGHTING IT IS IMPORTANT TO CONSIDER THE FOLLOWING QUESTIONS:

Overload performance

Is the system able to start the full load without the mains supply present. How does the system perform in a total power failure (ie is the system able to start the load without the bypass supply being available)?

Repeat duty

CSA141-10 requires a central battery system to fully recharge within 24 hours. Is the charger able to recharge the batteries quickly (80% in 14 hours or 100% after 24 hours)?

Energy consumption and heat dissipation

Are the inverter and charger permanently running, shortening the battery life, generating heat, wasting energy and shortening component life? Are cooling fans running continuously, generating noise?

Maintenance

Is the system easy to service and maintain? Is the system designed in a modular format, or would the failure of even a minor component require the whole system to be shut down and stripped for repair?

GENERAL INFORMATION ON UPS SYSTEMS:

Recharge period

UPS systems which are designed primarily for computer back-up generally offer short run times, 5 or 10 minutes. The long run times required for emergency lighting call for more powerful chargers to recharge the larger bank of batteries needed in the time prescribed by CSA.

Overload performance

An emergency lighting load will impose large “in-rush” currents when starting lamps from cold. However, UPS systems are often designed to shut down at only 125% overload and revert to the incoming supply. During a total power failure situation, this could result in total failure of the emergency lighting system. Furthermore, a UPS may fail to clear a breaker on a lighting circuit, meaning that a single short circuit fault could result in loss of the entire emergency lighting supply.

Energy consumption and battery life

Most UPS systems operate in the “on-line” mode, whereby the inverter runs constantly to supply the load, and power is taken from the battery with the charger running constantly. This places an excessive ripple on the battery (contrary to the advice given by most battery manufacturers). Also, the system is constantly generating heat which has a further detrimental effect on battery life. There are energy costs and heat generation issues must be addressed when running an on-line system

Arges Central System

A General Presentation about Central Systems

For all fluorescent/incandescent/LED loads

SYSTEM DESIGN

The ARGES Power inverter and charger modules utilize solid state electronics of the highest reliability to provide a rugged, easy to maintain system with exceptional performance for emergency lighting use. The system has been designed solely for emergency lighting, and not modified from other less essential power supply requirements. As such, the system has exceptional overload performance without the need to over-specify the rating of the inverter to ensure faults can be cleared.

Each module has input and output protection and each module measures and limits its own current. Alarms and status indications are provided on the front panel display, which provide clear and concise information, rather than a long list of parameters, which may be confusing.

SERIES HIGHLIGHTS

Performance

The ARGES-Power Systems work with lighting loads to provide full light output for minimum 30 min. It is designed to support incandescent, fluorescent and LED loads. It will power these loads at cold starts for all normally off circuits or normally on circuits.

True Sine Waveform

Using a solid-state, pulse width modulation (PWM) inverter, the systems produce pure sinusoidal output waveform with less than 5% Total Harmonic Distortion (THD) for linear loads.

Reliability

The product is third generation inverter technology. LVD (Low Voltage Disconnect) circuitry eliminates excessive battery drain after long power outages.

Batteries

Automatic restart and recharge upon restoration of utility.

Approvals

- CSA C22.2 No. 141-15– Emergency Lighting Equipment
- CSA C22.2 No. 107.3 – Uninterruptible Power Systems
- UL 1778 – Uninterruptible Power Systems

Applications

ARGES-Power Systems can be used in almost every type of building, especially in architecturally sensitive applications or when maintenance costs and testing of individual unit equipment becomes significant. Our systems are designed to work with power factor corrected as well as the most recent T5 and T5-HO electronic ballasts.

FEATURES	BENEFITS
Self-Diagnostic/Self-Testing Programmable monthly and annual self-testing. Proven self-diagnostic with information stored in separate memory logs for Test, Event and Alarm. Microprocessor monitoring and control.	**Compliance with NFPA101** The self-testing meets the requirements of NFPA and UL. User programmable time of testing. Test results, events or alarms can be downloaded from history logs. Load monitoring. Reduced testing/service time.
Low heat dissipation Very low heat loss in standby operating mode (see specifications for exact values). Convection cooling in normal mode with forced air during emergency and recharge mode. Battery cabinets: convection cooling only.	**Less air-conditioning** Reduced costs for air-conditioning required to ensure the optimum operating temperature when compared with equivalent systems that dissipate much more heat. Higher reliability of fans and electronic components.
Versatile Installation Modular design, easy front access freestanding cabinets, fasten together when more than one cabinet is required. Optional seismic kit available. All wiring provided is pre-cut and terminated, along with the necessary hardware for proper installation.	**Easy to install** Quick installation and connection through flexible cable entries and fast access terminal blocks. Low MTTR (<30 min.) due to modular design, quick disconnect means and frontal access.
Complete Protection Battery circuit breakers are standard. Modular standard systems offer overload capacity, short-circuit protection, current- limiting, low-battery disconnect and brownout protection as standard.	**Reduced damage risks** The full protection of the system will eliminate damage created by external events and will increase lifetime of the electronics and the batteries.
Thermal Performance Bonded oversized heat sinks for maximum thermal performance. Cooling fans are energized only in inverter and recharge modes.	**Increased MTBF** Increased reliability and reduced preventative maintenance. No air filters needed.
Monitoring and Control User friendly programmable interface with LCD display provides full metering values, easy program and control functions and a wide range of visual and audible alarms.	**Easy maintenance** Diagnostics, troubleshooting, preventative maintenance and service are made easier by using the front panel display or the history logs.

IPS Single Phase Series

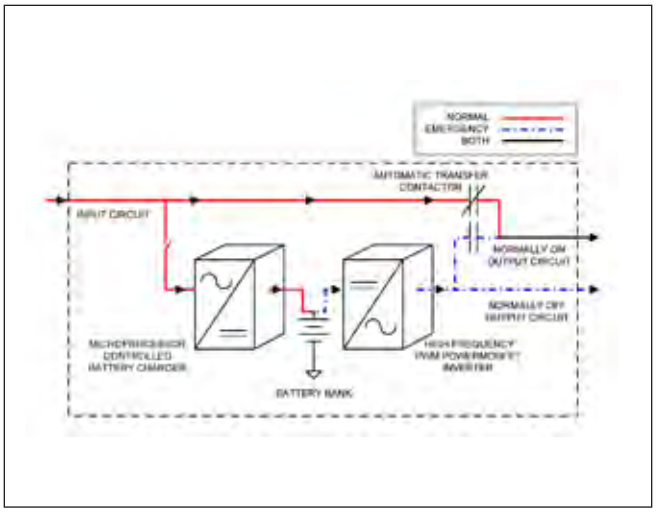
Interruptible emergency lighting inverter system 3KVA –15KVA

For all fluorescent/incandescent/LED loads

FEATURES:

- PWM/Power Mosfet technology
- Self-testing/Self-diagnostic
- User programmable with password protection
- User programmable variable time delay
- Optional 100% normally Off output
- RS485 MODBUS RTU communication port
- Micro-processor controlled
- 30, 60, 90, 120 minutes run times
- Summary alarm form C dry contact
- Generator compatibility
- Electronic and magnetic ballast compatible
- Automatic event, test and alarm log
- LCD display
- Maintenance free standard batteries
- Forced air cooling during emergency and recharge modes only
- Off when on standby

SINGLE LINE DIAGRAM



ELECTRICAL/MECHANICAL CHARACTERISTICS FOR 30 MINUTES BACK-UP TIME

Power rating KVA/ KW	Effic. at full load %	Max. input current (A)[1]				Heat loss in normal mode (BTU/hr)	Batt. VDC	Batt. ADC	No. of batt. [1]	IPS cabinet dimensions			No. of batt. cab.[1][2]	Batt. cabinet dimensions			IPS Cabinet weight kg[1]	Batt. cabinet weight kg (empty)[1]	Battery weight kg[1]	Total system weight kg[1]
		120V	240V	277V	347V					W"	H"	D"		W"	H"	D"				
3.0	98%	42	21	18	14	546	120	34	10	30	71	27	NA	NA	NA	NA	240	NA	105	345
6.0	98%	67	33	29	23	546	120	68	20	30	71	27	NA	NA	NA	NA	290	NA	210	500
9.0	98%	92	46	40	32	546	120	101	10	30	71	27	NA	NA	NA	NA	340	NA	372	712
12.0	98%	117	58	51	40	546	120	135	20	30	77	27	1	30	77	27	390	140	550	1080
15.0	98%	142	71	61	49	546	120	168	20	30	77	27	1	30	77	27	440	140	550	1130

1- For 30 min. discharge time. For other discharge times, consult factory.
2- Batteries are installed in the IPS cabinet for 3 to 9.0KVA systems, for 30 minutes only.

ORDERING INFORMATION

SERIES	SYSTEM VOLTAGE	KVA/KW	RUN TIME	EXTERNAL CIRCUIT BREAKERS	OPTIONS
A= Series	**1**= 120-120 input-output **2**= 120-240-120/240 (3 wire in-out) **3**= 277-277 **4**= 347-347	**A**= 3 **B**= 6 **C**= 9 **D**= 12 **E**= 15[1]	**3**= 30 minutes **6**= 60 minutes **9**= 90 minutes **12**= 120 minutes[1]	**B**= No breakers **F####**= Normally Off **N####**= Normally On **First Two Digits= Qty** 01 to 99 max (specify) **Last Two Digits= Amp Rating** 10, 15, 20, 25 ….(specify)	**A**= Fast recovery Charge **C**= Remote Alarm Panel **E**= Output trip alarm **G**= Dry contact relay **H**= Normally off full capacity output **I**= Extended Battery Warranty[1] **J**= External maintenance bypass **K**= Anchor Mounting Kit **L**= Drip shield **M**= Second Output Terminal Block **N**= Normally on & Normally off output[2] **O**= Bacnet Gateway
		[1]Other voltages available using an external transformer (sold separately)	[1]For 120 minutes run time, minimum 120/240Vac in/out	Example: N1020	[1]Consult your sales representative [2]Full capacity available on either output

EXAMPLE: A1A3N1020

IPS Single Phase Series

Interruptible emergency lighting inverter system 3KVA –15KVA

For all fluorescent/incandescent/LED loads

SYSTEM SPECIFICATIONS

General

DESIGN	Stand-by. PWM inverter type utilizing Power Mosfet technology with 500ms transfer time.
CONTROL	Microprocessor controlled, 4 x 20-character display with touch pad controls & functions
METERING	Input & Output Voltage, Battery Voltage, Battery & Output Current, Output VA, Temperature
COMMUNICATIONS	RS-485 MODBUS RTU Port (DB-9) Baud rate 19200 b.p.s

Electrical Input

VOLTAGE	120, 277, 347VAC 2-wire or 120/240VAC 3-wire, 1-phase, +10%/ -15%
INPUT FREQUENCY	60Hz

Electrical Output

VOLTAGE	120, 277, 347VAC 2-wire or 120/240 3-wire, 1-phase
DYNAMIC VOLTAGE	+/-2% for +/-25% load step change, +/-3% for a 50% load step change, recovery within 3 cycles
HARMONIC DISTORTION	<5% THD for linear load
OUTPUT FREQUENCY	60Hz +/- 2Hz during emergency mode
LOAD POWER FACTOR	0.7 lag to 0.9 lead
INVERTER OVERLOAD	120% continious, 150% for 1 minute and 200% for 10 seconds
PROTECTION	Optional External Distribution Circuit Breaker
CREST FACTOR	3

Environmental Conditions

STORAGE/ TRANSPORT	32ºF to 104ºF (0ºC to 40ºC) without batteries 68ºF to 86ºF (20ºC to 30ºC) with batteries(1)
OPERATING TEMPERATURE	System operates safely from 32°F to 104°F (0°C to 40°C) but optimum operation is between 68° F and 77°F (20°C to 25°C). Battery performance can be affected by temperature.
ALTITUDE	<10,000 feet (above sea level) without de-rating
Relative Humidity	0 to 95% non-condensing
Audible Noise	45 dBA at 1m from surface in emergency mode

(1) - max. 3 months at 77°F-86°F (25°C-30°C)

Cabinets

Modular design, freestanding NEMA-1 steel cabinets powder coated for corrosion and scratch resistance. Front access design through hinged lockable doors requires only 42" front, 2" back and side clearance and 12" top clearance without drip shield. Top conduit entry Gland Plate.

Inverter

Using Power Mosfet/PWM technology the inverter converts DC voltage supplied by the batteries to AC voltage of a precise stabilized amplitude and frequency, suitable for most sophisticated electrical equipment. True sinusoidal output waveform with very low distortion (less than 5% for linear loads). Overload capability of 120% continuous, 150% for 1 minute and 200% for 10 seconds.

Charger

Fully automatic, temperature compensated, charger recharges fully discharged batteries in maximum 24 hours at nominal AC input voltage. AC input current limiting and over-voltage protection included.

Battery

System is provided standard with 10 year, maintenance free, sealed valve regulated, lead calcium batteries. 30, 60, 90 & 120 min. standard discharge time at full load under normal operating temperature (20ºC to 25ºC). Low Voltage Disconnect protection included. No special ventilation required.

Supervision

Automatic self tests consist of a 2-minute monthly, 1/3 discharge at 6 months and full annual discharge. The front-mounted control panel includes, a 4-line 20-character LCD display with a keypad to control and monitor the operation of the system. This allows the operator to easily "watch" system functions as they occur and check on virtually any aspect of the system's operation. Standard RS485 MODBUS RTU diagnostic interface

Alarms

Battery High/Low, Low Voltage Disconnect, Battery Disconnect, Maintained Lamp Off, Charger Fail, Supply From Battery, System Inhibit, Circuit Breaker Trip, Module Breaker Trip, Inverter Undervoltage, Inverter Overvoltage, Output Overcurrent, Hi Temp, Over Temp, Unit in Bypass, Inverter Frequency Control Failed, Processor Reset.

Optional features

External Output Circuit Breakers, Output Trip Alarms, Extended Battery Warranty, 12 Hours Fast Recharge, External Maintenance Bypass Switch. Dripshield, Remote Summary Alarm Panel, Normally Off Output, Anchor Mounting Kit, Dry Contact Relay, Bacnet Gateway.

Factory Start-Up

Includes one additional year of warranty. See warranty conditions.

Warranty

(Full limited warranty conditions available upon request)

Limited manufacturer warranty is one-year, parts and labour, for system electronics. Battery warranty is one year full plus 9 years pro-rata for a total of 10 years, under normal operating conditions. System must be put in service within 6 months from ship date in order to validate warranty. Consult factory for other battery types.

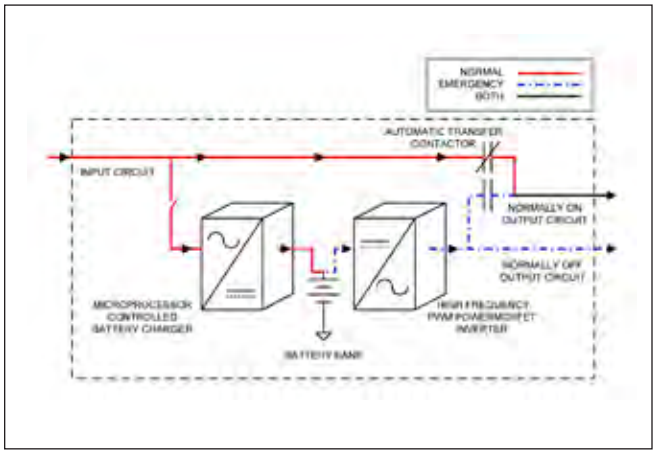
IPS Three Phase Series

Interruptible emergency lighting inverter system 4.5KVA –54KVA

FEATURES:

- PWM/Power Mosfet technology
- Self-testing/Self-diagnostic
- User programmable with password protection
- User programmable variable time delay
- Optional 100% normally Off output
- RS485 MODBUS RTU communication port
- Micro-processor controlled
- 30, 60, 90, 120 minutes run times
- Summary alarm form C dry contact
- Generator compatibility
- Electronic and magnetic ballast compatible
- Automatic event, test and alarm log
- LCD display
- Maintenance free standard batteries
- Forced air cooling during emergency and recharge modes only
- Off when on standby

SINGLE LINE DIAGRAM



ELECTRICAL/MECHANICAL CHARACTERISTICS FOR 30 MINUTES BACK-UP TIME

Power rating KVA/ KW	Effic. at full load %	Max. input current (A)[1]			Heat loss in normal mode (BTU/hr)	Batt. VDC	Batt. ADC	No. of batt.[1]	No. of IPS cab. [1][2]	IPS cabinet dimensions			No. of 20 batt. cab.[1][2]	Batt. cabinet dimensions			No. of 30 batt. cab.[1][2]	Batt. cabinet dimensions			Total IPS Cabinet weight kg[1][2]	Total batt. cabinet weight kg (empty)[1]	Battery weight kg[1]	Total system weight kg[1]
		208/ 120V	480/ 277V	600/ 347V						W"	H"	D"		W"	H"	D"		W"	H"	D"				
4.5	98%	29	13	10	546	120	50	20	1	30	71	27	NA	NA	NA	NA	NA	NA	NA	NA	265	NA	210	475
9.0	98%	42	18	14	546	120	101	10	1	30	71	27	NA	NA	NA	NA	NA	NA	NA	NA	340	NA	372	712
13.5	98%	54	23	19	546	120	151	20	1	30	77	27	1	30	77	27	NA	NA	NA	NA	415	140	550	1105
18.0	98%	67	29	23	546	120	202	20	1	30	77	27	1	30	77	27	NA	NA	NA	NA	540	140	744	1424
22.5	98%	79	34	27	546	120	252	30	1	30	77	27	NA	NA	NA	NA	1	30	71	30	615	165	825	1605
27.0	98%	92	40	32	1092	120	303	30	1	30	77	27	NA	NA	NA	NA	1	30	77	30	690	165	1116	1971
31.5	98%	104	45	36	1092	120	353	30	2	30	77	27	1	30	77	27	NA	NA	NA	NA	905	140	1116	2161
36.0	98%	117	51	40	1092	120	403	40	2	30	77	27	NA	NA	NA	NA	1	30	77	30	1030	165	1488	2683
40.5	98%	129	56	45	1092	120	454	40	2	30	77	27	2	30	77	27	NA	NA	NA	30	1105	280	1488	2873
45.0	98%	142	61	49	1092	120	504	50	2	30	77	27	1	30	77	27	1	30	77	30	1180	305	1860	3345
49.5	98%	NA	67	53	1092	120	555	50	2	30	77	27	1	30	77	27	1	30	77	30	1255	305	1860	3420
54.0	98%	NA	73	58	1638	120	605	60	2	30	77	27	NA	NA	NA	NA	2	30	77	30	1380	330	2232	3942

1- For 30 min. discharge time. For other discharge times, consult factory.
2- Batteries are installed in the IPS cabinet for 1.5 to 9.0KVA systems, for 30 minutes only.

ORDERING INFORMATION[1]

SERIES	SYSTEM VOLTAGE	KVA/KW	RUN TIME	EXTERNAL CIRCUIT BREAKER	OPTIONS
AIII= series	**1**= 120/208 4-wire **2**= 277/480 **3**= 347/600 Other voltage available using an external transformer (sold separately)	**A**= 4.5 **B**= 9 **C**= 13.5 **D**= 18 **E**= 22.5 **F**= 27 **G**= 31.5 **H**= 36 **I**=40.5 **J**= 45[1] **K**= 49.5[2] **L**= 54[2] [1]For 120/208Vac in/out, 120 mins. runtime not available. [2]Min. 277/480Vac in/out 120 min. runtime not available	**3**= 30 minutes **6**= 60 minutes **9**= 90 minutes **12**= 120 minutes	**B**= no breakers **F**= normally off **N**= normally on **First Two Digits= Qty** 1 to 99 (specify) **Last Two Digits= Amp rating** 10, 15, 20, 25... (specify) Example: N1020	**A**= fast recovery charge **C**= remote alarm panel **E**= output trip alarm **G**= "inverter on" dry contact **H**= normally off full capacity output **I**= extended battery warranty[1] **J**= external maintenance bypass **K**= anchor mounting kit **L**= drip shield **M**= second output terminal block **N**= normally on & normally off output[2] **O**= Bacnet Gateway [1]Consult your sales representative. [2]Full capacity available on either output

EXAMPLE: AIII1A3N1020

IPS Three Phase Series

Interruptible emergency lighting inverter system 4.5KVA –54KVA

For all fluorescent/incandescent/LED loads

SYSTEM SPECIFICATIONS

General

DESIGN	Stand-by. PWM inverter type utilizing Power Mosfet technology with 500ms transfer time.
CONTROL	Microprocessor controlled, 4 x 20-character display with touch pad controls & functions
METERING	Input & Output Voltage, Battery Voltage, Battery & Output Current, Output VA, Temperature
COMMUNICATIONS	RS-485 MODBUS RTU Port (DB-9) Baud rate 19200 b.p.s

Electrical Input

VOLTAGE	120/208, 277/480, 347/600VAC 3-phase 4-wire +10% / -15%.
INPUT FREQUENCY	60Hz

Electrical Output

VOLTAGE	120/208, 277/480, 347/600VAC 3-phase 4-wire.
DYNAMIC VOLTAGE	+/-2% for +/-25% load step change, +/-3% for a 50% load step change, recovery within 3 cycles
HARMONIC DISTORTION	<5% THD for linear load
OUTPUT FREQUENCY	60Hz +/- 2Hz during emergency mode
LOAD POWER FACTOR	0.7 lag to 0.9 lead
INVERTER OVERLOAD	120% continuous, 150% for 1 minute and 200% for 10 seconds
PROTECTION	Optional External Distribution Circuit Breaker
CREST FACTOR	3

Environmental Conditions

STORAGE/ TRANSPORT	32ºF to 104ºF (0ºC to 40ºC) without batteries 68ºF to 86ºF (20ºC to 30ºC) with batteries(1)
OPERATING TEMPERATURE	System operates safely from 32°F to 104°F (0°C to 40°C) but optimum operation is between 68° F and 77°F (20°C to 25°C). Battery performance can be affected by temperature.
ALTITUDE	<10,000 feet (above sea level) without de-rating
RELATIVE HUMIDITY	0 to 95% non-condensing
AUDIBLE NOISE	45 dBA at 1m from surface in emergency mode

(1) - max. 3 months at 77°F-86°F (25°C-30°C)

Cabinets

Modular design, freestanding NEMA-1 steel cabinets powder coated for corrosion and scratch resistance. Front access design through hinged lockable doors requires only 42" front, 2" back and side clearance and 12" top clearance without drip shield. Top conduit entry Gland Plate.

Inverter

Using Power Mosfet/PWM technology the inverter converts DC voltage supplied by the batteries to AC voltage of a precise stabilized amplitude and frequency, suitable for most sophisticated electrical equipment. True sinusoidal output waveform with very low distortion (less than 5% for linear loads). Overload capability of 120% continuous, 150% for 1 minute and 200% for 10 seconds.

Charger

Fully automatic, temperature compensated, charger recharges fully discharged batteries in maximum 24 hours at nominal AC input voltage. AC input current limiting and over-voltage protection included.

Battery

System is provided standard with 10 year, maintenance free, sealed valve regulated, lead calcium batteries. 30, 60, 90 & 120 min. standard discharge time at full load under normal operating temperature (20ºC to 25ºC). Low Voltage Disconnect protection included. No special ventilation required.

Supervision

Automatic self tests consist of a 2-minute monthly, 1/3 discharge at 6 months and full annual discharge. The front-mounted control panel includes, a 4-line 20-character LCD display with a keypad to control and monitor the operation of the system. This allows the operator to easily "watch" system functions as they occur and check on virtually any aspect of the system's operation. Standard RS485 MODBUS RTU diagnostic interface

Alarms

Battery High/Low, Low Voltage Disconnect, Battery Disconnect, Maintained Lamp Off, Charger Fail, Supply From Battery, System Inhibit, Circuit Breaker Trip, Module Breaker Trip, Inverter Undervoltage, Inverter Overvoltage, Output Overcurrent, Hi Temp, Over Temp, Unit in Bypass, Inverter Frequency Control Failed, Processor Reset.

Optional Features

External Output Circuit Breakers, Output Trip Alarms, Extended Battery Warranty, 12 Hours Fast Recharge, External Maintenance Bypass Switch. Dripshield, Remote Summary Alarm Panel, Normally Off Output, Anchor Mounting Kit, Dry Contact Relay, Bacnet Gateway.

Factory Start-Up

Includes one additional year of warranty. See warranty conditions.

Warranty

(Full limited warranty conditions available upon request)

Limited manufacturer warranty is one-year, parts and labour, for system electronics. Battery warranty is one year full plus 9 years pro-rata for a total of 10 years, under normal operating conditions. System must be put in service within 6 months from ship date in order to validate warranty. Consult factory for other battery types.

System Options

(-A) 12 Hour Fast Recharge

Battery charger upgrade option which decreases the time required to recharge a fully discharged battery to a fully charged state. The normal 24 hour recharge time is reduced to a 12 hour period.

(-C) Remote Summary Alarm Panel

Wall mountable box provides visual and audible alarms with silence switch. The panel consists of LED indicators and built in audible alarm and may be located up to 1,000 feet away from the inverter system.

(-E) Output Trip Alarm

System triggers an alarm when any output breaker trips.

(-G) Inverter On Dry Contacts

Form C dry contacts that will change state when the system transfers to battery.

(-H) Normally Off Output

This output circuit is dedicated for the emergency only equipment. Emergency only equipment operates during power outages and when the system is on battery back up. This option leaves the normally off load circuits off during normal utility power conditions.

(-I) Extended Battery Warranty

Extends battery warranty from 10 years pro-rated to 20 years pro-rated.

(-J) External Maintenance Bypass Switch

The external maintenance bypass switch is mounted in a maximum of 20"H x 16"W x 9"D NEMA 1 separate enclosure, used to completely isolate the inverter system from the connected load and AC utility input. This option allows the system to be safely powered down for maintenance or service.

(-K) Anchor Mounting Kit

The anchor mounting kit option is designed to prevent system movement during seismic events. Heavy duty brackets are provided to secure system cabinetry to your surfaces.

(-L) Drip Shield

Hood cover to protect the enclosure against falling water from sprinkler systems.

(-M) Second Output Terminal Block

The output of the Central System is divided into two. The load can be connected to either outputs.

(-N) Normally On & Normally Off Outputs

The Central System can have both normally on and normally off outputs. Either output can handle 100% of the load.

(-O) Bacnet Gateway

Allows communication with Bacnet network.

SYSTEM TESTING

The **Arges Power Central Battery Systems** provide manual and automatic test functions. Manual test can be activated any time using the test key provided on the control panel. Manual testing will do a programmable fixed test time and can be aborted any time by pushing again on the test key. Automatic test and diagnostic is done following an annual sequence. Every month a quick diagnostic test of 2 minutes is performed. At the 6 month mark, a 1/3 timed discharge test is done, and at the 12 month, a full discharge, down to LVD is performed. Pass/Fail and discharge time are registered in the event log. Test time and date is programmed using the Service Menu.

User Interface & Display Functions

Meter & Reading Functions Menu

- AC Voltage Output
- AC Current Ouput Normally On
- AC Current Output Normally Off
- Battery Voltage
- Battery Charging Current
- Battery Discharging Current
- KVA Total Output
- Cabinet Internal Temperature
- Inverter Frequency
- Real Time Clock
- Time Delay
- Monthly Test Result
- Half Year Test Result
- Annual Test Result
- Event Log Reading

Service Menu Functions

- Passkeyword protected
- Set Battery Voltage & Current Ranges
- Set System Voltage & Current Ranges
- Set System Phase
- Set Normally OFF Load
- Set Language
- Set Real Time Clock & Calendar
- Set Time Delay Function
- Set Manual Test Duration
- Set Self Test Sequence
- Set Buzzer Function

Administration Menu Functions

- Passkeyword protected
- Read/Set Serial Number
- Read/Set Manufacturing Date
- Read/Set Installation Date
- Read Firmware Version
- Read/Clear Battery Elapse Time
- Read/Clear Total Power Failures
- Read/Clear Total Alarms
- Clear Event Log
- Enter Calibration Routine

Alarm and Events

- Event Logging (1000) Type Date & Hour
- Transfer Mode
- Standby
- Load Off
- Stop Mode
- Lock-Out Mode
- Forced Transfer
- Battery Volt
- Battery Disconnect
- Mains Out Of Range
- Manual Test
- Monthly Test
- Half Year Test
- Yearly Test
- Modbus Transfer

Central System Data Request

1) INPUT VOLTAGE

Single phase	(2 wire + ground)	120VAC ☐	208VAC ☐	277VAC ☐	347VAC ☐
Single phase	(3 wire + ground)	120/240VAC ☐			
Three phase	(4 wire + ground, Y)	120/208VAC ☐	277/480V ☐	347/600VAC ☐	
Three phase	(3 wire + ground, Δ)	208VAC ☐	480VAC ☐	600VAC ☐	

2) OUTPUT VOLTAGE

Single phase	(2 wire + ground)	120VAC ☐	208VAC ☐	277VAC ☐	347VAC ☐
Single phase	(3 wire + ground)	120/240VAC ☐	120/277V ☐		
Three phase	(4 wire + ground, Y)	120/208VAC ☐	277/480VAC ☐	347/600VAC ☐	

3) SYSTEM CAPACITY

KVA rating: _____

a) Please consider total power consumption of the complete fixture, not just the lamp wattage

b) Even if the systems can run with 100% load, it is recommended as standard practice to use a system with a capacity at least 20% over maximum connected load

4) RUNTIME

☐ 30 minutes ☐ 60 minutes ☐ 90 minutes ☐ 120 minutes

☐ Other _____

5) TYPE OF LOADS

☐ Incandescent ☐ Fluorescent ☐ L.E.D.

☐ Others _____

6) MODE OF OPERATION

☐ Normally ON (24/7) ☐ Normally OFF (emergency only)

7) OUTPUT CIRCUIT BREAKERS

# of CB _____	Amps _____	# of poles _____	Normally "On" ☐	Normally "Off" ☐	Trip alarm ☐
# of CB _____	Amps _____	# of poles _____	Normally "On" ☐	Normally "Off" ☐	Trip alarm ☐

8) OPTIONS (REFER TO AVAILABLE OPTIONS FOR EACH SYSTEM TYPE)

☐ (-A) 12 Hour Fast Recharge

☐ (-C) Remote Summary Alarm Panel

☐ (-E) Output Trip Alarm

☐ (-G) Inverter On Dry Contacts

☐ (-H) Normally Off Output

☐ (-I) Extended Battery Warranty

☐ (-J) External Maintenance Bypass Switch

☐ (-K) Anchor Mounting Kit

☐ (-L) Drip Shield

☐ (-M) Second Output Terminal Block

☐ (-N) Normally On & Normally Off outputs

☐ (-O) Bacnet Gateway

OPTIONS & ACCESSORIES

Table of contents

Pendant Kit

For EXIT signage

TYPICAL SPECIFICATIONS

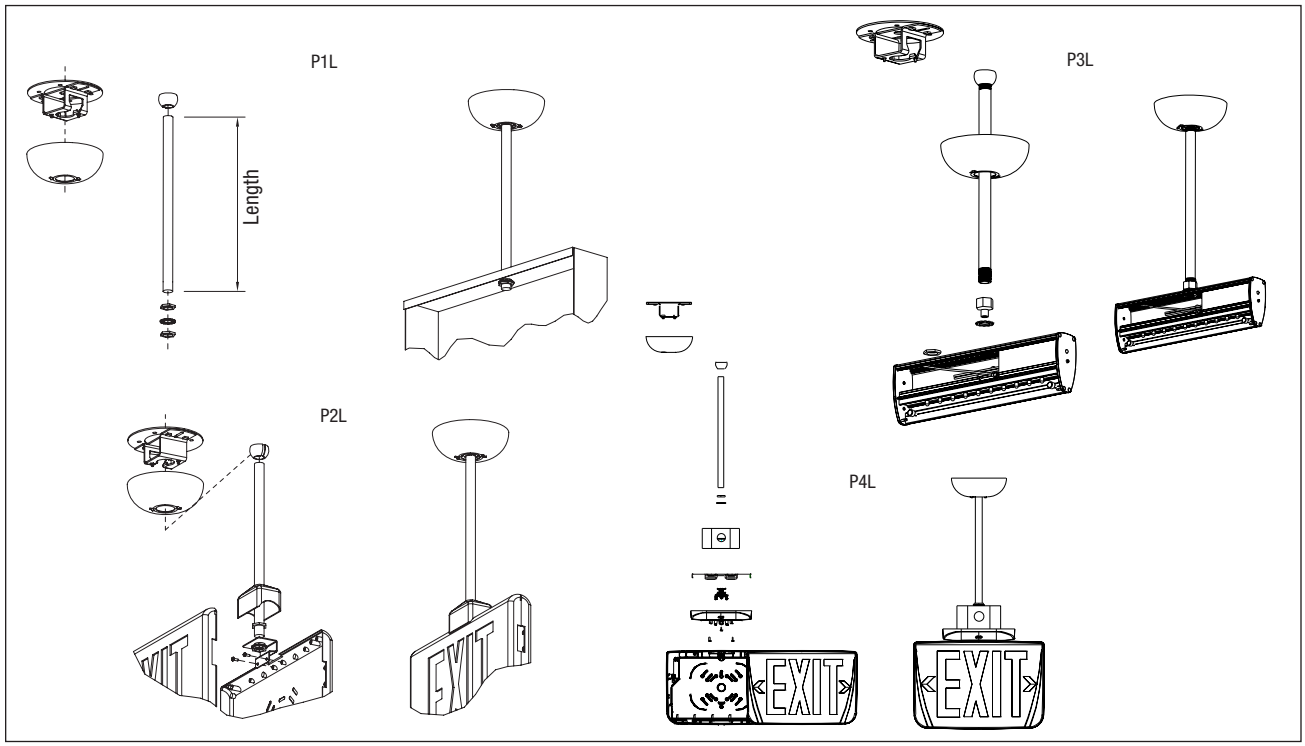
Offered in a variety of colours and lengths, **Lumacell®** Pendant Kits are designed to facilitate the installation of Exit Signs at regular mounting heights.

Compatible with both horizontal and sloped ceilings, these Pendant Kits are truly universal and will adapt to any application.

Please consult your sales representative.

DIMENSIONS

Dimensions are approximate and subject to change.



ORDERING INFORMATION

SERIES	LENGTH (IN)*	COLOUR
***P1L** Standard model of pendant	6 12 18 24	**W**= white **B**= black **SG**= silver grey
***P2L** Genesis™ series	6 12 18 24	**W**= white **B**= black **SG**= silver grey
***P3L** Aluminum slim edge-lit	6 12 18 24	**W**= white **B**= black **SG**= silver grey
***P4L** Grande™ plastic exit	6 12 18 24	**W**= white **B**= black **SG**= silver grey

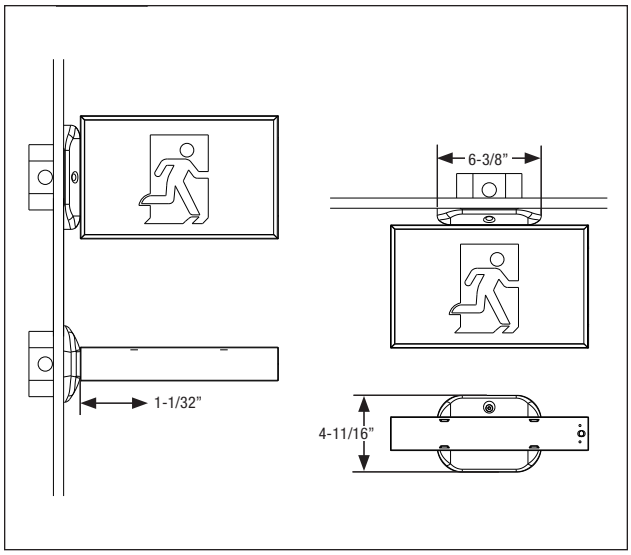
*Other lengths available by request. Consult your sales representative.

EZ2 Canopy

Quick & Easy Installation

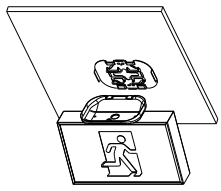
DIMENSIONS

Dimensions are approximate and subject to change.

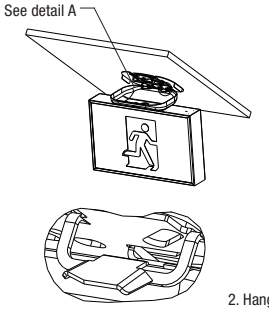


The **EZ2™ Canopy** allows the installer to make all of the electrical connections using both hands without having to juggle with the Exit Sign, making it our most contractor friendly product feature to date.

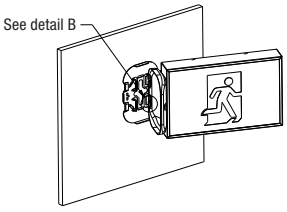
Simply attach the backplate to the junction box, clip the canopy on the Exit Sign, hang the canopy on the back plate, make your connections using both hands, slide the unit in place, one screw and the job is done!



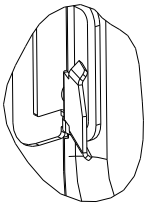
1. Attach the backplate/spider to the wall before assembly.



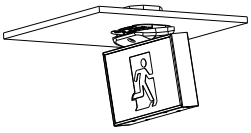
Detail A
Scale 3.000

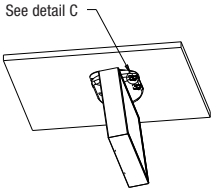


2. Hang the unit using the tabs and the wire eyes.

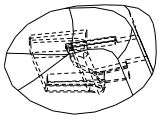


Detail B
Scale 3.000





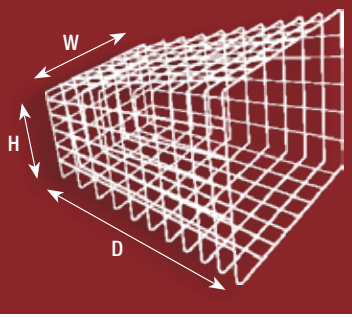
3. Connect the wires, then align and slide the sign to its final position.



Detail C
Scale 3.000

EXIT SIGNS

PART #	MOUNTING	SIGNS		DIMENSIONS		
				W	H	D
460.0027-L	End Mount	3000 Series - Nema-4X Exit LMCE Exit	LN Series LS Series	10 1/2” (26.7 cm)	6” (15.2 cm)	16” (40.6 cm)
460.0028-L	Ceiling Mount	3000 Series - Nema-4X Exit LMCE Exit	LN Series LS Series	14 1/2”(36.8 cm)	6 1/4” (15.9 cm)	10 1/2” (26.5 cm)
460.0048-L	End Mount	LSRLMCSU Sortie		10 1/2” (26.7 cm)	6” (15.2 cm)	21” (53.3 cm)
460.0057-L	Wall Mount	LSRLMCSU Sortie		20 3/4” (52.7 cm)	10” (25.4 cm)	4” (10.2cm)
460.0058-L	Ceiling Mount	LSRLMCSU Sortie		21 3/4” (55.2 cm)	5 1/2” (14 cm)	10 1/2” (26.7cm)
460.0059-L	Wall Mount	LMCSB6L Sortie	LMCEB6L Exit	31” (86.4 cm)	10” (25.4 cm)	4 1/2” (14 cm)
460.0060-L	End Mount	3000 Series-Nema-4X Exit Combo	8LMCEU EXIT Combo	20” (50.8 cm)	12” (30.5 cm)	15” (38.1 cm)
460.0060-L	Wall Mount	LN Series 3000 Combo	8LMCEU EXIT Combo	20” (50.8 cm)	12” (30.5 cm)	15” (38.1 cm)
460.0078-L	Wall Mount	3LSRLMCSU Sortie Combo Series 3000 Series-Nema-4X Exit Combo	8LMCEU Exit Combo LNC Series Grande Combo	18” (45.7 cm)	18” (45.7 cm)	7” (17.8 cm)
460.0079-L	Wall Mount	3000 Series-Nema-4X Exit LMCE Exit Grande Exit	LN Series LS Series	14 1/4” (36.2 cm)	9 7/8” (25.0 cm)	4 5/8” (11.7 cm)
460.0080-L	Wall Mount	LER-HZ combo (class1 Div2)	LER-HZ Exit	15 1/4” (38.7 cm)	14 1/8” (35.9 cm)	6 1/2” (16.5 cm)
460.0081-L	Wall Mount	LSC		20” (50.8 cm)	17 1/8” (43.6 cm)	8 1/2” (21.6 cm)
460.0092-L	Ceiling Mount	3LSRLMCSU Sortie Combo Series LMCEB6L	8LMCSU Sortie Combo	31” (53.3 cm)	4.5” (11.4 cm)	10” (25.4 cm)
460.0104-L	End Mount	3LSRLMCSU Sortie Combo Series		25” (63.5 cm)	10” (25.4 cm)	20” (50.8 cm)



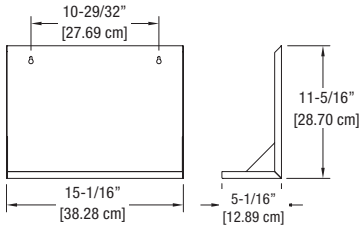
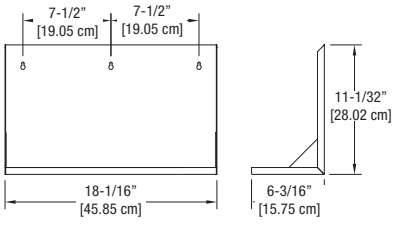
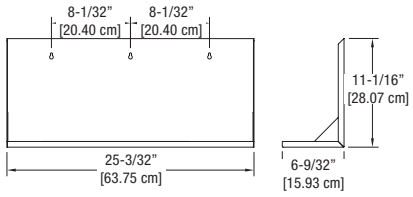
BATTERY UNITS

PART	MOUNTING	COMMERCIAL, DECO UNIT	DIMENSIONS		
			W	H	D
460.0105-L	Wall Mount	IPL 48 PO	54.6" (138.7 cm)	8" (20.3 cm)	5" (12.7 cm)
460.0078-L	Wall Mount	"A" Cabinet-6V, 12V, 24V-Max. 144W	18" (45.7 cm)	18" (45.7 cm)	7" (17.8 cm)
460.0081-L	Wall Mount	"B" Cabinet-6V-180W 12V-200 to 360W 24V-200 to 288W	20" (50.8 cm)	17 1/8" (43.6 cm)	8 1/2" (21.6 cm)
460.0034-L	Wall Mount	"C" Cabinet 24V-350 to 720W	28 1/8" (71.5 cm	21 1/8" (53.7 cm)	10" (25.4 cm)
460.0097-L	Wall or Ceiling Mount	Q-BIC	31"(53.3cm)	7"(17.8cm)	6"(15.2cm)
SMALL, 6 & 12 VOLT					
460.0080-L	Wall Mount	6V, 12V - 18 to 72watts	15 1/4" (38.7 cm)	14 1/8" (35.9 cm)	6 1/2" (16.5 cm)

REMOTE HEADS

PART	MOUNTING	DIMENSIONS		
		W	H	D
460.0029-L	DR1130, MQM, MQM-NX, MQM-NC	8 1/4" (21.cm)	6 1/4" (15.9cm)	6 3/4" (17.2cm)
460.0031-L	RSQBD, RG-NX	25 1/4" (64.1cm)	8 1/2" (21.5cm)	8 1/2" (21.5cm)
460.0032-L	RSQB2, DR2130, DR2130	9 1/2" (24.1cm)	9 1/2" (24.1cm)	6 1/8" (15.6cm)
460.0035-L	RSQB	8 1/4" (21.5cm)	6 1/4"(15.9cm)	8 1/2" (21.5cm)
460.0082-L	Saf-T-Ray®, Camray®, Phantom®	12"(30.5cm)	9"(22.9cm)	9"(22.9cm)

MOUNTING SHELVES

PART # 440.0616-L FOR "A" CABINET	PART # 440.0620-L FOR "B" CABINET	PART # 440.0625-L FOR "C" CABINET
		

new product

VSR Series

Voltage Sensing Relay

INTRODUCTION

The **Lumacell®** VSR Voltage Sensing Relay is required in buildings where the path of egress for emergency lighting crosses through several areas and each area has a separate electrical circuit and breaker for lighting. In such circumstances a local power failure in one area (zone) may not trigger the emergency lighting connected to a different electrical circuit. The requirement for the zone control function is specified in the National Building Code of Canada and the Canadian Electrical Code:

- NBCC 9.9.12.3. 3) Lighting required in Sentence (1) shall be designed to be automatically actuated for a period of at least 30 min when the electric lighting in the affected area is interrupted.
- CEC C22.1-12 46-304 (4) Unit equipment shall be installed in such a manner that it will be automatically actuated upon failure of the power supply to the normal lighting in the area covered by that unit equipment.

DESCRIPTION

The VSR has several inputs to detect the AC voltage of each zone and one output switch for the emergency lighting AC line. It will activate the emergency lighting if at least one zone becomes de-energized through either a power failure or lighting circuit breaker tripping. This greatly enhances the life safety system, as any failure of a lighting circuit will ensure emergency egress lighting in the entire building. As an optional feature, the VSR can include test buttons and/or pilot lights, enabling individual testing of each zone circuit monitored. The VSR can be included as an option in the **Lumacell®** emergency lighting battery unit, with maximum 6 zone circuits. For a larger number of zones the VSR is available in a separate enclosure (extension module).

TYPICAL SPECIFICATION: VSR ZONE CONTROL STAND-ALONE EXTENSION MODULE

Supply and install **Lumacell®** VSR Series Model _____ of Voltage Sensing Relay. The equipment shall have _____ (maximum 24) inputs for line voltage detection from different building zones. The wire connection from each zone circuit shall be made with terminal blocks. The value of each zone voltage shall be: ____VAC. The output circuit shall be a dry-contact relay, normally closed and shall be accessible for connection on a terminal block. The output circuit shall be connected at installation in series with the AC line supplying the battery unit equipment. The value of output line voltage shall be: ____VAC. In the case of power failure of one or several zones the output circuit will open and transfer the battery unit(s) in emergency lighting mode. When specified the equipment shall include a 'push to test' push button and/or a pilot light for each zone circuit for manual testing and service. The unit shall be certified CSA 22.2 No.141-15.

The unit shall be **Lumacell®** model: _____.

TYPICAL SPECIFICATION: BATTERY UNIT EQUIPMENT WITH VSR ZONE CONTROL OPTION

When specified, the equipment shall have _____ (maximum six) inputs for line voltage detection from different building zones. The wire connection from each zone circuit shall be made with terminal blocks. The value of each zone voltage shall be: _____VAC. In the case of a power failure of one or several zones the circuit will transfer the battery unit to emergency lighting mode for minimum 30 minutes. When specified the equipment shall include a 'push to test' push button and/or a pilot light for each zone circuit for manual testing and service.The unit shall be certified CSA 22.2 No.141-15.

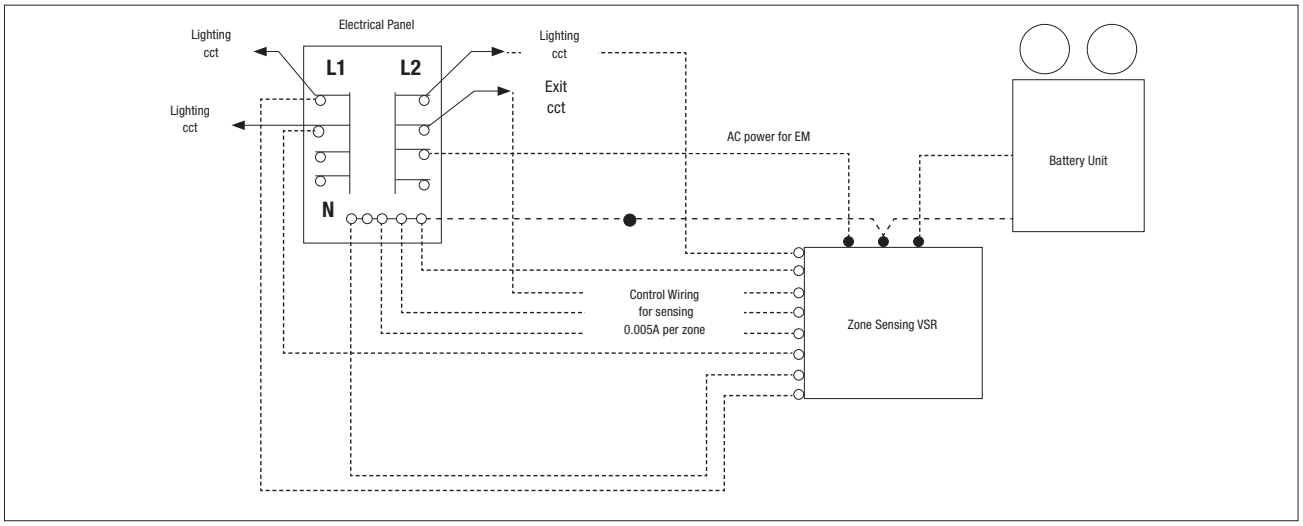
The unit shall be **Lumacell®** model: _____.

new product

VSR Series

Voltage Sensing Relay

TYPICAL WIRING OF STAND-ALONE VSR ZONE SENSING



1. ORDERING INFORMATION: STAND-ALONE ZONE SENSING EXTENSION MODULE

AC OUTPUT TO BATTERY UNIT(S) (AC CURRENT DRAW: 8A MAX.)	SERIES	NUMBER OF ZONE CIRCUITS	AC INPUT OF ZONES	BATTERY UNIT	CABINET TYPE	OPTIONS
Z= 120VAC **ZD**= 347VAC	**VSR**	**2Z**= 2 zones **3Z**= 3 zones **_Z**= _ zones* *Max. 24 zones Refer to cabinet type	**1**= 120VAC **3**= 347VAC	**U1**= 1 unit	**A**= A cabinet (max. 4 circuits)* **B**= B cabinet (max. 8 circuits) **C**= C cabinet (max. 24 circ. 120V; 16 circ. 347V)** **DTFG**= fiberglass (max.12 circuits) *For 4 zones and combined PBPL options, use B cabinet **Max. 16 zones and combined PBPL option	**PB**= zone(s) test button* **PL**= zone(s) pilot lamp* *Only with cabinets: A, B and C

EXAMPLE: ZVSR1Z1U1APB

2. ORDERING INFORMATION: BATTERY UNIT WITH INTERNAL ZONE SENSING OPTION*

BATTERY UNIT CAT CONSTRUCT	UNIT AC INPUT	OPTIONS			
	MANDATORY FOR VSR	ZONE SENSING INTERNAL	# OF ZONES	ZONE AC	ZONE OPTIONS
RGS Series Page 80-81 Signature Deco Cab Page 82-83 **RG24S3502MTI2W**	**Z**= 120VAC **ZD**= 347VAC	**VSR**= zone sensing	**2Z**= 2 zones **3Z**= 3 zones Additional zone circuits (max. 6)	**1**= 120VAC **3**= 347VAC	**PB**= zone(s) test button **PL**= zone(s) pilot lamp

EXAMPLE: RG24S3502MTI2WZVSR2Z1PBPL

* Contact your sale representative for combinations of zone sensing and other options.

TECHNICAL INFORMATION

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Wire Size Guide

When remote fixtures and exit signs are connected to emergency lighting units of less than 50 volts, circuit runs must be sufficient size to maintain a proper operating voltage to all lamps. The maximum allowable voltage drop should not exceed 5%. Proper wire size can be selected from the following table or by use of the following formula:

$$CM = \frac{22 \times W \times L}{.05 \times E^2}$$

CM= Wire size in circular mills **E**= Line Voltage
W= Emergency load in watts **22**= Constant
L= Length of circuit in feet **.05**= Factor for max. allowable voltage drop

Length of Wire Run (in feet)

	WIRE SIZE	WATTS													
		13	18	25	30	35	50	60	75	100	150	200	250	300	400
6 volts	12	41	30	21	18	15	11	9	8	6	4	__	__	__	__
	10	65	47	32	28	24	17	14	11	9	6	__	__	__	__
	8	110	75	54	45	39	27	22	18	14	9	7	__	__	__
	6	165	120	86	71	62	43	36	29	22	15	11	9	__	__
12 volts	12	165	110	85	71	61	42	35	29	21	14	10	8	__	__
	10	260	190	136	112	97	68	52	45	34	23	17	21	18	__
	8	415	300	215	180	154	108	90	72	54	36	27	21	18	__
	6	660	475	340	285	245	170	140	114	86	57	43	34	28	__
	4	1050	760	540	455	390	275	225	182	137	91	68	55	45	__
24 volts	12	660	440	340	284	244	168	140	116	84	56	40	32	26	21
	10	1040	760	544	448	388	272	208	180	136	92	68	52	44	34
	8	1668	1200	860	720	616	432	360	288	216	144	108	84	72	54
	6	24640	1900	1360	1140	1560	1100	900	728	548	364	272	220	180	100
	4	4200	3040	2160	1810	1560	1100	900	728	548	364	272	220	180	100
32 volts	12	1160	840	600	500	435	300	250	200	150	100	75	60	50	42
	10	__	1340	960	800	690	480	400	32	24	160	120	96	80	63
	8	__	__	1540	1280	1110	770	640	510	385	255	192	154	128	100
	6	__	__	__	__	1740	1220	1020	815	610	405	305	240	200	163
	4	__	__	__	__	__	__	1620	1300	970	650	485	390	325	260
48 volts	12	__	1899	1367	1139	949	680	__	455	341	227	170	136	113	68
	10	__	__	__	1811	1509	1085	__	724	543	362	271	217	181	108
	8	__	__	__	__	__	1729	__	1152	864	576	432	345	288	172
	6	__	__	__	__	__	__	__	1832	1374	926	687	549	458	274
120 volts	12	14964	__	7792	__	__	3896	__	__	1945	1300	977	720	650	608
	10	23787	__	12367	__	__	6193	__	__	3093	2067	1553	1238	1033	966
	8	37810	__	19705	__	__	9852	__	__	4820	3289	2471	1970	1644	1538
	6	60159	__	331327	__	__	15663	__	__	7822	5229	3929	3132	2614	2445

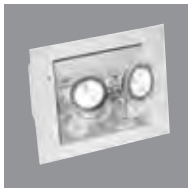
Battery Unit Capacity Chart

BATTERY UNIT

	WATTAGE CAPACITY				
	30MIN	1H00	1H30	2H00	4H00
6V - 36W	36	21	15	12	6
6V - 72W	72	42	30	24	12
6V - 108W	108	63	45	36	18
6V - 180W	180	105	75	60	30
12V - 36W	36	21	15	12	6
12V - 72W	72	42	30	24	12
12V - 100W	100	58	42	33	17
12V - 144W	144	84	60	48	24
12V - 200W	200	117	83	67	33
12V - 250W	250	144	100	83	42
12V - 288W	288	168	120	96	48
12V - 360W	360	210	150	120	60
24V - 144W	144	84	60	48	24
24V - 200W	200	117	83	67	33
24V - 288W	288	168	120	96	48
24V - 350W	350	200	144	120	60
24V - 432W	432	250	180	144	72
24V - 550W	550	320	230	180	90

RGS

RGS-TB



PHANTOM

Q-BIC
RG-QB

SECTION 46 — EMERGENCY POWER SUPPLY, UNIT EQUIPMENT, EXIT SIGNS, AND LIFE SAFETY SYSTEMS

46-000 SCOPE (SEE APPENDIX B)

1 This Section applies to the installation, operation, and maintenance of
   (a) emergency power supply and unit equipment intended to provide power to life safety systems; and
   (b) emergency power supply and unit equipment intended to provide illumination of exit signs, in theevent of failure of the normal supply, where the emergency power supply is required by the NationalBuilding Code of Canada.

2 This Section applies to the wiring between the emergency power supply and life safety systems that are required by the National Building Code of Canada to be provided with an emergency power supply

3 This Section applies to the wiring of exit signs

4 The requirements of this Section supplement or amend the general requirements of this Code

46-002 SPECIAL TERMINOLOGY (SEE APPENDIX B)

In this Section, the following definitions apply:

Emergency power supply

Emergency power, supplied by a generator, batteries, or a combination thereof, that is required by the National Building Code of Canada.

Life safety systems

Emergency lighting and fire alarm systems that are required to be provided with anemergency power supply from batteries, generators, or a combination thereof, and electrical equipment for building services such as fire pumps, elevators, smoke-venting fans, smoke control fans, and dampers that are required to be provided with an emergency power supply by an emergency generator in conformance with the National Building Code of Canada.

Unit equipment

Unit equipment for emergency lighting conforming to CSA C22.2 No. 141.

GENERAL

46-100 CAPACITY

Emergency power supply and unit equipment shall have adequate capacity and rating to ensure the satisfactory
operation of all connected equipment when the principal source of power fails.

46-102 INSTRUCTIONS

1 Complete instructions for the operation and care of an emergency power supply or unit equipment that
   shall specify testing at least once every month to ensure security of operation shall be posted on the
   premises in a frame under glass.

2 The form of instructions and their locations shall be in compliance with the National Building Code of
   Canada.

46-104 MAINTENANCE

Where batteries are used as a source of the emergency power supply, the batteries shall be kept

   (a) in proper condition; and
   (b) fully charged at all times

46-106 ARRANGEMENT OF LAMPS

1 Emergency lights shall be arranged so that the failure of any one lamp will not leave in total darkness the area normally illuminated by it.

2 No appliance or lamp, other than those required for emergency purposes, shall be supplied by the
   emergency circuits.

46-108 WIRING METHOD (SEE APPENDICES B AND G)

1 Except as permitted by Subrule (3), Rule 46-304(3), and Rule 46-400(2), the following conductors shall be installed in accordance with Subrule (2):
   (a) conductors required for operation of life safety systems and installed between an emergency power supply and life safety systems;
   (b) conductors between an emergency power supply and exit signs; and
   (c) conductors between unit equipment and remote lamps.

2 Conductors described in Subrule (1) shall be
   (a) installed in metal raceway of the totally enclosed type;
   (b) incorporated in a cable having a metal armour or sheath;
   (c) installed in rigid non-metallic conduit; or
   (d) installed in electrical non-metallic tubing where embedded in at least 50 mm of masonry or poured concrete.

3 Not with standing Subrule (2), conductors installed in buildings of combustible construction in accordance with Rules 12-506 to 12-520 shall be permitted to be
   (a) run as a non-metallic-sheathed cable; or
   (b) installed in a totally enclosed non-metallic raceway.

4 Conductors installed in accordance with Subrule (1) shall be kept entirely independent of all other conductors and equipment and shall not enter a luminaire, raceway, box, cabinet, or unit equipment occupied by other conductors except where necessary
   (a) in transfer switches; and
   (b) in exit signs and emergency lights supplied from two sources.

5 Conductors between an emergency power supply and any electrical equipment that is not defined as a "life safety system" in accordance with this Section shall not enter a luminaire, raceway, box, or cabinet occupied by conductors installed as described in Subrule (1), except where necessary in busways, splitters, and other similar enclosures provided for connection to the overcurrent device for an emergency power supply described in Rule 46-208(1).

EMERGENCY POWER SUPPLY

46-200 EMERGENCY POWER SUPPLY (SEE APPENDIX B)

Rules 46-202 to 46-212 apply only to emergency power supply from central standby power sources.

46-202 TYPES OF EMERGENCY POWER SUPPLY (SEE APPENDIX G)

1 The emergency power supply shall be a standby supply consisting of
   (a) a storage battery of the rechargeable type having sufficient capacity to supply and maintain at not less than 91% of full voltage the total load of the emergency circuits for the time period required by the National Building Code of Canada, but in no case less than 30 min, and equipped with a charging means to maintain the battery in a charged condition automatically; or
   (b) a generator.

2 Automobile batteries and lead batteries not of the enclosed glass-jar type are not considered suitable under Subrule (1) and shall be used only where a deviation has been allowed in accordance with Rule 2-030.

3 Where a generator is used, it shall be
(a) of sufficient capacity to carry the load;
(b) arranged to start automatically without failure and without undue delay upon the failure of the normal power supply to any transfer switch connected to this generator; and
(c) in conformance with CSA C282.

46-204 PROTECTION OF ELECTRICAL CONDUCTORS (SEE APPENDICES B AND G)

All power, control, and communication conductors between an emergency generator as described in Rule 46-202(3), and electrical equipment required to be installed as a part of the emergency power supply and located outside the generator room shall be protected against fire exposure to provide continued operation in compliance with the National Building Code of Canada.

46-206 CONTROL

1 An emergency power supply shall be controlled by automatic transfer equipment that actuates the emergency power supply upon failure of the normal current supply and that is accessible only to authorized persons.

2 An automatic light-actuated device, approved for the purpose, shall be permitted to be used to control separately the lights located in an area that is adequately illuminated during daylight hours without the need for artificial lighting.

46-208 OVERCURRENT PROTECTION

1 The overcurrent device for an emergency power supply shall be coordinated with the overcurrent devices of feeders and branch circuits supplying life safety systems and other electrical equipment connected to the emergency power supply in order to provide selective operation of the branch circuit overcurrent device when a fault occurs in that branch circuit.

2 The branch circuit overcurrent devices shall be accessible only to authorized persons.

46-210 AUDIBLE AND VISUAL TROUBLE-SIGNAL DEVICES

1 Every emergency power supply shall be equipped with audible and visual trouble-signal devices that warn of derangement of the current source or sources and that indicate when exit signs or life safety systems are supplied from the emergency power supply.

2 Audible trouble signals shall be permitted to be wired so that (a) they can be silenced, but a red warning or trouble light shall continue to provide the protective function; and
(b) when the system is restored to normal, the audible signal will
(i) sound, indicating the need to restore the silencing switch to its normal position; or
(ii) reset automatically so as to provide sound for any subsequent operation of the emergency power supply.

46-212 REMOTE LAMPS

Lamps shall be permitted to be mounted at some distance from the current supply that feeds them, but the voltage drop in the wiring feeding such lamps shall not exceed 5% of the applied voltage.

UNIT EQUIPMENT

46-300 UNIT EQUIPMENT (SEE APPENDIX B)

Rules 46-302 to 46-306 apply to individual unit equipment for emergency lighting only.

46-302 MOUNTING OF EQUIPMENT

Each unit equipment shall be mounted with the bottom of the enclosure not less than 2 m above the floor, wherever practicable.

46-304 SUPPLY CONNECTIONS

Each unit equipment shall be mounted with the bottom of the enclosure not less than 2 m above the floor, wherever practicable.

1 Receptacles to which unit equipment is to be connected shall be not less than 2.5 m above the floor, where practicable, and shall be not more than 1.5 m from the location of the unit equipment.

2 Unit equipment shall be permanently connected to the supply if
(a) the voltage rating exceeds 250 V; or
(b) the marked input rating exceeds 24 A.

3 Where the ratings in Subrule (2) are not exceeded, the unit equipment shall be permitted to be connected using the flexible cord and attachment plug supplied with the equipment.

4 Unit equipment shall be installed in such a manner that it will be automatically actuated upon failure of the power supply to the normal lighting in the area covered by that unit equipment.

46-306 REMOTE LAMPS (SEE APPENDIX B)

1 The size of circuit conductors to remote lamps shall be such that the voltage drop does not exceed 5% of the marked output voltage of the unit equipment, or such other voltage drop for which the performance of unit equipment is certified when connected to the specific remote lamp being installed.

2 Remote lamps shall be suitable for remote connection and shall be included in the list of lamps provided with the unit equipment.

3 The number of lamps connected to a single unit equipment shall not result in a load in excess of the watts output rating marked on the equipment for the emergency period required by the National Building Code of Canada, and the load shall be computed from the information in the list of lamps referred to in Subrule (2).

EXIT SIGNS

46-400 EXIT SIGNS

Location requirements for exit signs are set out in the NBCC. Rule 46-400 covers only their connection to a power supply. Rule 46-400 also covers connection of circuits supplying lighting in the area where externally illuminated exit signs are installed in accordance with the NBCC requirements.

If an exit sign is required by the NBCC and is electrically illuminated, Subrule (1) requires that the power for the exit sign be provided by a branch circuit that supplies only other exit signs.

Subrule (2) exempts the circuit supplying only exit signs to allow it to supply emergency lighting in the area where the exit signs are located.

However, in an area where exit signs are installed and where emergency lighting is required by the NBCC or local building codes, Subrule (3) requires that exit signs must also be illuminated by an emergency power supply. This ensures that the exit sign is provided with a minimum illumination whenever the emergency lighting is energized.

Subrule (4) requires that the luminaires used to illuminate exit signs are to meet the circuit requirements of Subrule (1) and (2) and the illumination requirements of Subrule (3).

Note (2) to Rule 46-400 in Appendix B cautions that the circuit supplying both emergency lighting and exit signs not be controlled by a switch, time clock, or other disconnecting means.

Building Code

Extracts from the National Building Code of Canada 2015

3.2.6. REQUIREMENTS FOR HIGH BUILDINGS

3.2.6.1. APPLICATION

1 This Subsection applies to a building
- a) of Group A, D, E or F major occupancy classification that is more than
  - i) 36 m high, measured between grade and the floor level of the top storey, or
  - ii) 18 m high, measured between grade and the floor level of the top storey, and in which the cumulative or total occupant load on or above any storey above grade, other than the first storey, divided by 1.8 times the width in metres of all exit stairs at that storey, exceeds 300,
- b) containing a Group B major occupancy in which the floor level of the highest storey of that major occupancy is more than 18 m above grade,
- c) containing a floor area or part of a floor area located above the third storey designed or intended as a Group B, Division 2 or 3 occupancy, or
- d) containing a Group C major occupancy whose floor level is more than 18 m above grade.

3.2.7.3. EMERGENCY LIGHTING

1 Emergency lighting shall be provided to an average level of illumination not less than 10 lx at floor or tread level in
- a) exits
- b) principal routes providing access to exit in open floor areas and in service rooms,
- c) corridors used by the public,
- d) corridors serving sleeping rooms in a treatment occupancy,
- e) corridors serving sleeping rooms in a care occupancy, except corridors serving sleeping rooms within individual suites of care occupancy,
- f) corridors serving classrooms,
- g) underground walkways,
- h) public corridors,
- i) floor areas or parts thereof where the public may congregate
  - i) in Group A, Division 1 occupancies, or
  - ii) in Group A, Division 2 and 3 occupancies having an occupant load of 60 or more,
- j) floor areas or parts thereof of daycare centreswhere persons are cared for, and
- k) food preparation areas in commercial kitchens.

2 Emergency lighting to provide an average level of illumination of not less than 10 lx at floor or catwalk level shall be included in a service space referred to in Sentence 3.2.1.1.(8).

3 The minimum value of the illumination required by Sentences (1) and (2) shall be not less than 1 lx.

4 In addition to the requirements of Sentences (1) to (3), the installation of battery-operated emergency lighting in buildings or part thereof where treatment is provided shall conform to the appropriate requirements of CSA Z32, "Electrical Safety and Essential Electrical Systems in Health Care Facilities".

3.2.7.4. EMERGENCY POWER FOR LIGHTING

1 An emergency power supply shall be
- a) provided to maintain the emergency lighting required by this Subsection from a power source such as batteries or generators that will continue to supply power in the event that the regular power supply to the building is interrupted, and
- b) so designed and installed that upon failure of the regular power it will assume the electrical load automatically for a period of
  - i) 2 h for a building within the scope of Subsection 3.2.6.,
  - ii) 1 h for a building of Group B major occupancy classification that is not within the scope of Subsection 3.2.6., and
  - iii) 30 min for a building of any other occupancy. (See Appendix A.)

2 If self-contained emergency lighting units are used, they shall conform to CSA C22.2 No. 141, "Emergency Lighting Equipment."

3.2.7.5. EMERGENCY POWER SUPPLY INSTALLATION

1 Except as required by Articles 3.2.7.6. and 3.2.7.7., an emergency electrical power supply system shall be installed in conformance with CAN/CSA-C282, "Emergency Electrical Power Supply for Buildings." (See Sentence 3.2.7.8.(1) for emergency electrical power supply for voice communication systems).

3.4.5. EXIT SIGNS

3.4.5.1. EXIT SIGNS

1 Every exit door shall have an exit sign placed over or adjacent to it if the exit serves
- a) a building more than 2 storeys in building height,
- b) a building having an occupant load of more than 150, or
- c) a room or floor area that has a fire escape as part of a required means of egress

2) Every exit sign shall
- a) be visible on approach to the exit,
- b) Consist of a green pictogram and a white or lightly tinted graphical symbol meeting the colour specifications referred to in ISO 3864-1, "Graphical symbols – Safety colours and safety signs – Part 1: Design principles for safety signs and safety markings," and
- c) conform to ISO 7010, "Graphical symbols – Safety colours and safety signs – Registered safety signs" for the following symbols (see Note A-3.4.5.1 (2)(c)):
  - i) E001 emergency exit left,
  - ii) E002 emergency exit right,
  - iii) E005 90-degree directional arrow, and
  - iv) E006 45-degree directional arrow

3) Internally illuminated exit signs shall be continuously illuminated and
- a) where illumination of the sign is powered by an electrical circuit, be constructed in conformance with CSA C22.2 No. 141, "Emergency Lighting Equipment," or
- b) where illumination of the sign is not powered by an electrical circuit, be constructed in conformance with CAN/ULC-S572, "Photoluminescent and Self-Luminous Signs and Path Marking Systems."

4) Externally illuminated exit signs shall be continuously illuminated and be constructed in conformance with CAN/ULC-S572, "Photoluminescent and Self-Luminous Signs and Path Marking Systems." (see Note A-3.4.5.1(4).)

5) The circuitry serving lighting for externally and internally illuminated exit signs shall
- a) serve no equipment other than emergency equipment, and
- b) be connected to an emergency power supply as described in Article 3.2.7.4.

6) Where no exit is visible from a public corridor, from a corridor used by the public in a Group A or B major occupancy, or from principal routes serving an open floor area having an occupant load of more than 150, an exit sign conforming to Clauses (2)(b) and (c) with an arrow or pointer indicating the direction of egress shall be provided.

7) Except for egress doorways described in Sentence 3.3.2.4.(4), an exit sign conforming to Sentences (2) to (5) shall be placed over or adjacent to every egress doorway from rooms with an occupant load of more than 60 in Group A, Division 1 occupancies, dance halls, licensed beverage establishments, and other similar occupancies that, when occupied, have lighting levels below that which would provide easy identification of the egress doorway.

3.4.5.2. SIGNS FOR STAIRS AND RAMPS AT EXIT LEVEL

1 In a building more than 2 storeys in building height, any part of an exit ramp or stairway that continues up or down past the lowest exit level shall have a posted sign clearly indicating that it does not lead to an exit.

9.9.11. SIGNS

9.9.11.1. APPLICATION

1 This Subsection applies to all exits except those serving not more than one dwelling unit or a house with a secondary suite.

9.9.11.2. VISIBILITY OF EXITS

1 Exits shall be located so as to be clearly visible or their locations shall be clearly indicated.

2 Where an exit door leading directly to the outside is subject to being obstructed by parked vehicles or storage because of its location, a visible sign or a physical barrier prohibiting such obstruction shall be installed or the exterior side of the door.

9.9.11.3. EXIT SIGNS

1 Every exit door shall have an exit sign placed over it or adjacent to it if the exit serves
- a) a building that is 3 storeys in building height,
- b) a building having an occupant load of more than 150, or
- c) a room or floor area that has a fire escape as part of a required means of egress.

2 Every exit sign shall
- a) be visible on approach to the exit,
- b) Consist of a green pictogram and a white or lightly tinted graphical symbol meeting the colour specifications referred to in ISO 3864-1, "Graphical symbols – Safety colours and safety signs – Part 1: Design principles for safety signs in workplaces and public areas," and
- c) conform to the dimensions indicated in ISO 7010, "Graphical symbols – Safety colours and safety signs – for the following symbols (see A-3.4.5.1.(2)(c)
  - i) E001 emergency exit left,
  - ii) E002 emergency exit right,
  - iii) E005 90-degree directional arrow, and
  - iv) E006 45-degree directional arrow.

3 Internally illuminated exit signs shall be continuously illuminated and
- a) where illumination of the sign is powered by an electrical circuit, be constructed in conformance with CSA C22.2 No. 141, "Emergency Lighting Equipment," or
- b) where illumination of the sign is not powered by an electrical circuit, be constructed in conformance with CAN/ULC-S572, "Photoluminescent and Self-Luminous Signs and Path Marking Systems."

4 Externally illuminated exit signs shall be continuously illuminated and be constructed in conformance with CAN/ULC-S572, "Photoluminescent and Self-Luminous Signs and Path Marking Systems." (See A-3.4.5.1.(4)

5 The circuitry serving lighting for externally and internally illuminated exit signs shall
- a) serve no equipment other than emergency equipment, and
- b) be connected to an emergency power supply as described in Sentences 9.9.12.3.(2), (3) and (7).

6 Where no exit is visible from a public corridor, from a corridor used by the public, or from principal routes serving an open floor area having an occupant load of more than 150, an exit sign conforming to Clauses (2)(b) and (c) with an arrow or pointer indicating the direction of egress shall be provided

9.9.11.4. SIGNS FOR STAIRS AND RAMPS AT EXIT LEVEL

1 In buildings that are 3 storeys in building height, any part of an exit ramp or stairway that continues up or down past the lowest exit level shall be clearly marked to indicate that it does not lead to an exit, if the portion beyond the exit level may be mistaken as the direction of exit travel.

9.9.12. LIGHTING

9.9.11.4. SIGNS FOR STAIRS AND RAMPS AT EXIT LEVEL

1 This Subsection applies to the lighting of all means of egress except those within dwelling units or a house with a secondary suite.

9.9.12.2. REQUIRED LIGHTING IN EGRESS FACILITIES

1 Every exit, public corridor or corridor providing access to exit for the public shall be equipped to provide illumination to an average level of not less than 50 lx at floor or tread level and at all points such as angles and intersections at changes of level where there are stairs or ramps.

2 The minimum value of the illumination required by Sentence (1) shall be not less than 10 lx

9.9.12.3. EMERGENCY LIGHTING

1 Emergency lighting shall be provided in
- a) exits,
- b) principal routes providing access to exit in an open floor area,
- c) corridors used by the public,
- d) underground walkways, and
- e) public corridors.

2 Emergency lighting required in Sentence (1) shall be provided from a source of energy separate from the electrical supply for the building.

3 Lighting required in Sentence (1) shall be designed to be automatically actuated for a period of at least 30 min when the electric lighting in the affected area is interrupted.

4 Illumination from lighting required in Sentence (1) shall be provided to average levels of not less than 10 lx at floor or tread level.

5 The minimum value of the illumination required by Sentence (4) shall be not less than 1 lx.

6 Where incandescent lighting is provided, lighting equal to 1 W/m2 of floor area shall be considered to meet the requirement in Sentence (4).

7 Where self-contained emergency lighting units are used, they shall conform to CSA C22.2 No. 141, "Emergency Lighting Equipment."

APPENDIX A

EXPLANATORY MATERIAL

A-3.1.2. Use Classification

The purpose of classification is to determine which requirements apply.

This Code requires classification in accordance with every major occupancy for which the building is used or intended to be used. Where necessary, an application clause has been inserted in this Part to explain how to choose between the alternative requirements which multiple occupancy classification may present.

A-3.1.2.1.(1) Major Occupancy Classification.

The following are examples of the major occupancy classifications described in Table 3.1.2.1.:

EXAMPLES		GROUP	DIVISION
Motion picture theatres Opera houses Television studios admitting a viewing audience Theatres, including experimental theatres		A	1
Art galleries Auditoria Bowling alleys Churches and similar places of worship Clubs, nonresidential Community halls Courtrooms Dance halls Exhibition halls (other than classified in Group E) Gymnasia	Lecture halls Libraries Licensed beverage establishments Museums Passenger stations and depots Recreational piers Restaurants Schools and colleges, nonresidential Undertaking premises	A	2
Arenas Indoor swimming pools, with or without spectator seating Rinks		A	3
Amusement park structures (not elsewhere classified) Bleachers Grandstands	Reviewing stands Stadiums	A	4
Jails Penitentiaries Police stations with detention quarters	Prisons Psychiatric hospitals with detention quarters Reformatories with detention quarters	B	1
Care facilities with treatment Convalescent /recovery/rehabilitation centres with treatment Hospices with treatment Hospitals	Infirmaries Nursing homes with treatment Psychiatric hospitals without detention quarters Respite centres with treatment	B	2
Assisted/supportive living facilities Care facilities without treatment Children's custodial homes Convalescent/recovery/rehabilitation centres without treatment	Group homes Hospices without treatment Nursing homes without treatment Reformatories without detention quarters Respite centres without treatment	B	3
Apartments Boarding houses Clubs, residential Colleges, residential Convents Dormitories	Hotels Houses Lodging houses Monasteries Motels Schools, residential	C	

EXAMPLES		GROUP	DIVISION
Banks Barber and hairdressing shops Beauty parlours Dental offices Dry cleaning establishments, self-service, not using flammable or explosive solvents or cleaners Laundries, self-service	Medical offices Offices Police stations without detention quarters Radio stations Small tool and appliance rental and service establishments	D	
Department stores Exhibition halls Markets	Shops Stores Supermarkets	E	
Bulk plants for flammable liquids Bulk storage warehouses for hazardous substances Cereal mills Chemical manufacturing or processing plants Distilleries Dry cleaning plants Feed mills	Flour mills Grain elevators Lacquer factories Mattress factories Paint, varnish and pyroxylin product factories Rubber processing plants Spray painting operations Waste paper processing plants	F	1
Aircraft hangars Box factories Candy plants Cold storage plants Dry cleaning establishments not using flammable or explosive solvents or cleaners Electrical substations Factories Freight depots Helicopter landing areas on roofs Laboratories Laundries, except self-service Mattress factories Planing mills	Printing plants Repair garages Salesrooms Service stations Storage rooms Television studios not admitting a viewing audience Warehouses Wholesale rooms Woodworking factories Workshops	F	2
Creameries Factories Laboratories Light-aircraft hangars (storage only) Power plants Salesrooms	Sample display rooms Storage garages, including open air parking garages Storage rooms Warehouses Workshops	F	3

A-3.4.5.1.(2)(C) GRAPHICAL SYMBOLS FOR EXIT SIGNS

ISO 7010, "Graphical" symbols – Safety colours and safety signs – Registered safety signs" identifies the following internationally recognized symbols for use at required exits

"EMERGENCY EXIT RIGHT" (E001) SYMBOL FROM ISO 7010

Figure A-3.4.5.1.(2)(c)-B
90-degree directional arrow (E005) from ISO 7010

A-3.4.5.1.(4) Externally Illuminated Signs

An external lighting source is required to properly charge photoluminescent signs. These types of signs must be lit in conformance with the charging requirements stated in CAN/ULC-S572.

A-3.4.6. Application to Means of Egress

The requirements in Subsection 3.4.6. apply to interior and exterior exits, as well as to ramps, stairways and passageways used by the public as access to exit. The treads, risers, landings, handrails and guards for the latter access to exit facilities must thus be provided in conformance with the appropriate requirements for exit facilities.

Fire Code

Extracts from the National Fire Code of Canada 2015

2.7. SAFETY TO LIFE

2.7.3. EXIT LIGHTING, EXIT SIGNS AND EMERGENCY LIGHTING

2.7.3.1. Installation and Maintenance

1) Exit lighting, exit signs and emergency lighting shall be provided in buildings in conformance with the NBC. (See Note A-2.37.3.1.(1).)

2) Exit lighting and exit signs shall be illuminated during times when the building is occupied.

3) Emergency lighting shall be maintained in operating condition, in conformance with Section 6.5.

6.5. EMERGENCY POWER SYSTEMS AND UNIT EQUIPMENT FOR EMERGENCY LIGHTING

6.5.1 GENERAL

6.5.1.1. Inspection, Testing and Maintenance

1) Except as provided in Articles 6.5.1.2. to 6.5.1.5., emergency power systems shall be inspected, tested and maintained in conformance with CSA-C282, "Emergency Electrical Power Supply for Buildings."

2) An emergency electrical power supply system for emergency equipment for health care facilities shall be inspected, tested and maintained in conformance with CSA Z32, "Electrical Safety and Essential Electrical Systems in Health Care Facilities." (See Appendix A.)

6.5.1.2. Notification

1) When an emergency power system or any part thereof is shut down, the supervisory staff shall be notified in conformance with Section 2.8.

6.5.1.3. Instructions

1) Where an emergency power system is installed, instructions shall be provided for switching on essential loads and for starting the generator when this is not done automatically.

6.5.1.4. Records

1) Written records shall be maintained as required in CAN/CSA-C282, "Emergency Electrical Power Supply for Buildings".

6.5.1.6. Inspection of Unit Equipment

1) Self-contained emergency lighting unit equipment shall be inspected at intervals not greater than one month to ensure that

a) pilot lights are functioning and not obviously damaged or obstructed,

b) the terminal connections are clean, free of corrosion and lubricated when necessary,

c) the terminal clamps are clean and tight as per manufacturer's specifications, and

d) the battery surface is kept clean and dry.

2) Self-contained emergency lighting unit equipment shall be tested

a) at intervals not greater than one month to ensure that the emergency lights will function upon failure of the primary power supply, and

b) at intervals not greater than 12 months to ensure that the unit will provide emergency lighting for a duration equal to the design criterion under simulated power failure conditions.

3) After completion of the test required in Clause (2)(b), the charging conditions for voltage and current and the recovery period shall be tested to ensure that the charging system is functioning in accordance with the manufacturer's specifications.

6.5.1.7. Inspection of Emergency Lights

1) Except as provided in Article 6.5.1.6., emergency lights shall be inspected at intervals not greater than 12 months to ensure that they are functional.

SECTION 6.11

EMERGENCY LIGHTING

6.11.1

The emergency electrical power supply room and the automatic transfer switch room, where separate, shall be equipped with unit equipment for emergency lighting that complies with CSA C22.2 No. 141. Sufficient lamps shall be provided to ensure that a minimum lighting level of 50 lx for 2 h is available at all equipment locations requiring adjustment or service.

Note: This illumination level is significantly greater than that specified in the NBCC, which requires 10 lx for egress route emergency lighting

6.11.2

Emergency lighting units shall be tested in accordance with Table 2 and CSA C22.2 No. 141.

6.11.3

The emergency lighting unit shall include

(a) automatic self-diagnostic circuitry; and

(b) a transient voltage surge suppressor on the supply side of power to the unit.

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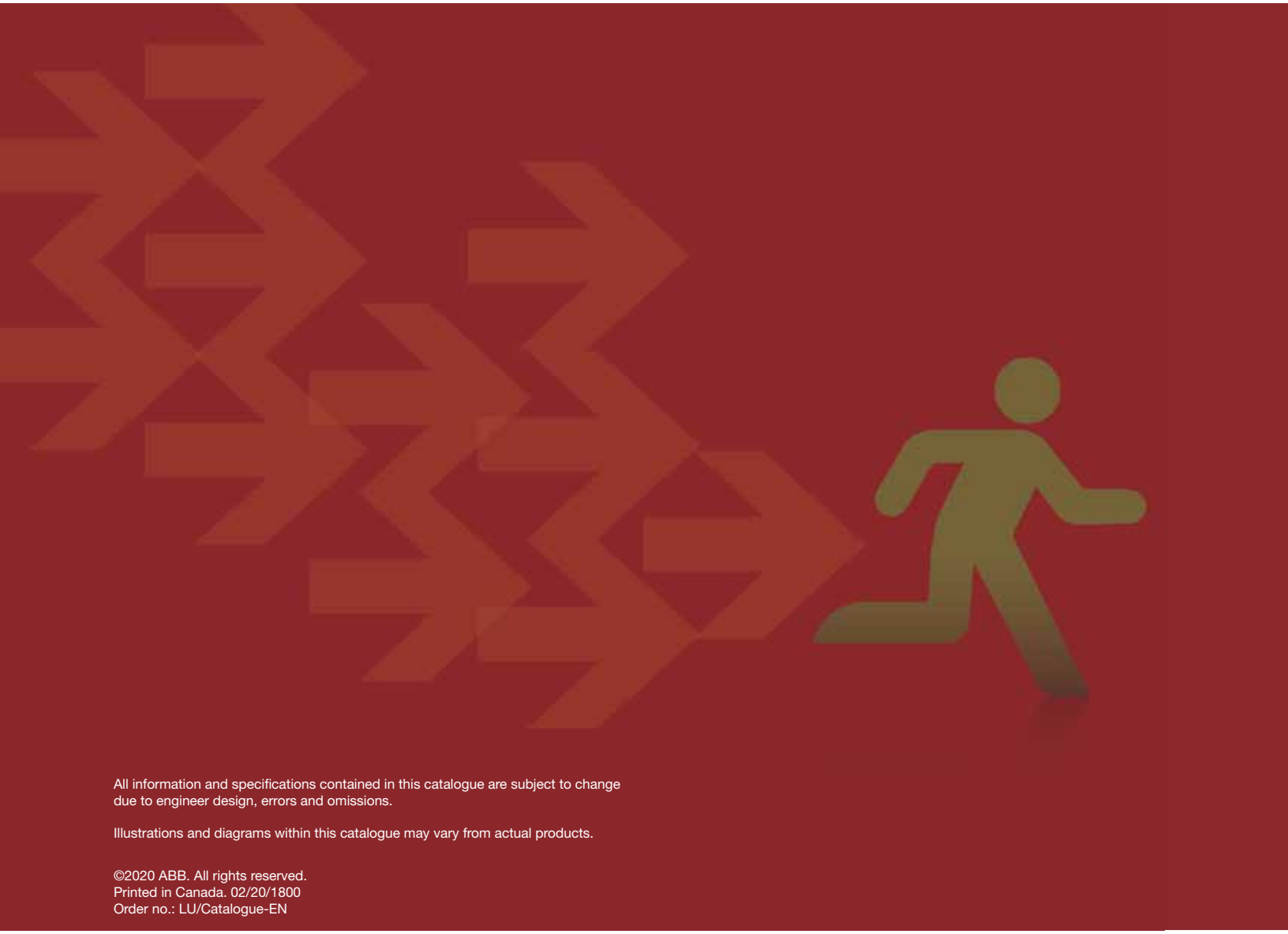

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