

**Underwriters  
Laboratories**

# CERTIFICATE OF COMPLIANCE

**Certificate Number** 20150727-E469573  
**Report Reference** E469573-20150724  
**Issue Date** 2015-JULY-27

**Issued to:** MINLEON INTERNATIONAL (USA) LIMITED, LLC  
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**This is to certify that representative samples of** LOW-VOLTAGE LIGHTING SYSTEMS, POWER UNITS, LUMINAIRES AND FITTINGS

USL, CNL – Low Voltage Class 2 Luminaire, Class 2, designated as “MinleonRGB” system.

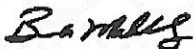
Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.

**Standard(s) for Safety:** UL 2108 - Low Voltage Lighting Systems.  
UL 1598 / CSA 250.0-08 - Luminaires.

**Additional Information:** See the UL Online Certifications Directory at [www.ul.com/database](http://www.ul.com/database) for additional information

Only those products bearing the UL Certification Mark should be considered as being covered by UL's Certification and Follow-Up Service.

Look for the UL Certification Mark on the product.



Bruce Mahrenholz, Director North American Certification Program

UL LLC

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File E469573  
Project 4786822835

July 24, 2015

REPORT

On

LOW-VOLTAGE LIGHTING SYSTEMS, POWER UNITS, LUMINAIRES AND FITTINGS

MINLEON INTERNATIONAL (USA) LIMITED, LLC  
MECHANICSBURG, PA

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PRODUCT COVERED:

USL, CNL - Low Voltage Class 2 Luminaire, Class 2, designated as "MinleonRGB" system.

GENERAL:

These products shall comply with the applicable requirements in Sec. Gen. and with the following description.

These low voltage luminaires are intended to be remotely powered by an isolated class 2 power supply or transformer.

TECHNICAL CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

USL indicates product complies with the Standard for Low Voltage Lighting Systems, UL 2108 1<sup>st</sup> Ed, the Standard for Luminaires, UL 1598 3<sup>rd</sup> Ed, the Standard for Light Emitting Diode (LED) Equipment For Use In Lighting Products, UL 8750 1<sup>st</sup> Ed, and the United States country specific requirements.

CNL indicates the product has been evaluated using the Canadian National Standard for Luminaires, CSA C22.2 No. 250.0; and the Canadian country-specific requirements.

Unless otherwise specified, components of products bearing the C-UL Mark shall be Listed or Recognized for Canada or CSA certified, in addition to being UL Listed or Recognized.

Electrical Ratings

12 Vdc, 5 A or 60 W , where the current rating or wattage is based on length of LED array.

## CONSTRUCTION DETAILS:

General - The details of construction are covered in the following photographs and accompanying descriptive pages and illustrations.

Corrosion Protection - All parts are made of corrosion resistant materials or galvanized plated, painted or equivalent as corrosion protection.

Tolerances - All indicated dimensions are nominal, unless specified otherwise.

Spacing - Spacing is not specified since these devices are intended to be connected to a class 2 source.

Polymeric Materials on Class 2 Circuits - When provided and when applicable, all polymeric materials on Class 2 side of the circuit, shall be R/C (QMFZ2), rated min HB, 50°C.

## MARKINGS:

In accordance with the Section General and as follows:

When the words of a particular marking are given within quotation marks, the actual wording must be used. Words between parenthesis are optional. The minimum letter height shall be 3.2 mm unless indicated otherwise. Permanent label is a UL PGDQ2, suitable for the surface and rated min. 90°C.

Manufacturer's identification, Date code of at least the month and year of manufacture, Model number, and Electrical Ratings, minimum 1.6 mm letter height on a non-permanent label or tag where visible during installation.

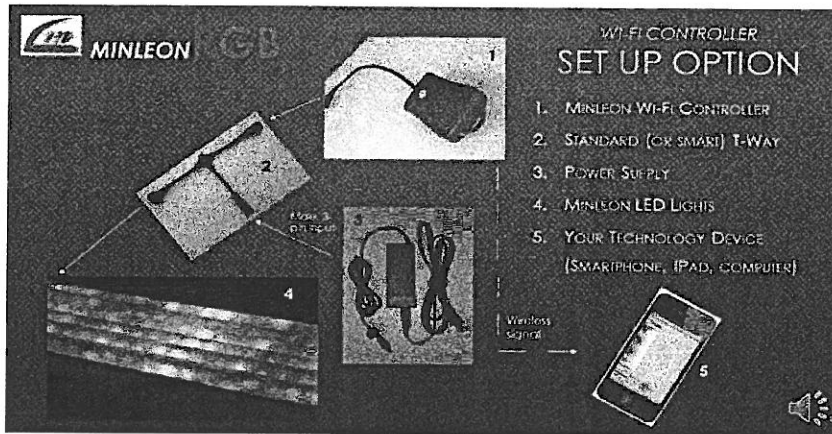
"Use only with class 2 power unit" or equivalent minimum 3.2 mm tall where visible during installation.

May be marked for dry, damp, or wet location use.

## "MINLEONRGB" SYSTEM - FIGS. ILL. 1

General - All dimensions are nominal, within engineering tolerances, except where specifically indicated as a minimum or a maximum.

1. Power Supply - Class 2 or LPS Direct plug-in power unit - Listed/CN , rated input 100-240 Vac, 50/60 Hz, Class 2 output or LPS rated max. 12 Vdc, 5 A max.
2. "T-WAY" Conductor - Powered by Class 2 circuit, R/C (AVLV2/8), provided with outer jacket, appliance wires rated min. 22 AWG, 60°C, provided with integral connector for connection to load and output of Power Supply (Item 1), shape size and design may vary.
3. LED Modules and controllers - Manufacturer, shape, size, number of LED's and designation may vary, powered by Class 2 or LPS Direct plug-in power unit (Item 1), consisted of LEDs mounted on R/C (QMFZ2) PWB, rated min. HB (50°C), LED's rated min. 3.7 V FV. Mechanically secured to Enclosure Frame.
4. Components - See ILL. 1 for description and detailed components information and setup.
5. Mounting Means - Blind keyhole slot, ring, mounting clip or hole, mechanically supported by chain or cable, or by similar method in accordance with the Standard, not shown.




The diagram illustrates the setup for the MINLEON RGB Wi-Fi Controller. It shows five numbered components: 1. A black rectangular Wi-Fi controller unit. 2. A white standard or smart t-way switch. 3. A power supply unit with a transformer and cables. 4. A long, thin strip of RGB LED lights. 5. A smartphone displaying a control app. A 'Wireless signal' arrow points from the smartphone to the controller. The MINLEON logo and 'RGB' are visible in the top left.

**MINLEON RGB**

**WI-FI CONTROLLER SET UP OPTION**

1. MINLEON WI-FI CONTROLLER
2. STANDARD (OR SMART) T-WAY
3. POWER SUPPLY
4. MINLEON LED LIGHTS
5. YOUR TECHNOLOGY DEVICE (SMARTPHONE, IPAD, COMPUTER)

Wireless signal



The diagram shows the parts and connection for the MINLEON RGB Mini-Controller V3. It features five numbered items: 1. A small black mini-controller box. 2. A white remote control. 3. A power supply unit with a transformer and cables. 4. A coiled light spacer cable. 5. A strip of RGB LED lights. The MINLEON logo and 'RGB' are visible in the top left.

**MINLEON RGB**

**MINI-CONTROLLER V3 PARTS & CONNECTION**

1. MINI-CONTROLLER
2. MINI-CONTROLLER REMOTE CONTROL
3. MINI-CONTROLLER 1.5-AMP, 12VDC POWER SUPPLY
4. LIGHT SPACER CABLE (OPTIONAL)
5. MINLEON RGB LIGHTS

TEST RECORD NO. 1

## SAMPLES:

samples of the Low Voltage Class 2 Luminaire, Class 2, designated as "MinleonRGB" system as indicated below and constructed as described within this report, was [were] submitted by the manufacturer for examination and test.

Normal Temperature Test - Class 2 And Exposed Bare Conductor Luminaires:	Sec. 59
Input Test:	Sec. 33.1

## Test Record Summary:

The results of this investigation, including construction review and testing, indicate that the products evaluated comply with the applicable requirements in the standards noted below and, therefore, such products are judged eligible to bear UL's Mark as described on the Conclusion Page of this Report.

Standard	Title	Edition or Publication Date	Latest Revision Date
UL 2108	Low Voltage Lighting Systems	1 <sup>st</sup> Edition	2014-02-24
UL 1598 / CSA 250.0-08	Luminaires	3rd Edition	2012-10-17

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## CONCLUSION

Samples of the products covered by this Report have been found to comply with the requirements covering the category and the products are found to comply with UL's applicable requirements. The description and test result in this Report are only applicable to the sample(s) investigated by UL and does not signify UL certification or that the product(s) described are covered under UL's Follow-Up Service Program. When covered under UL's Follow-Up Service Program, the manufacturer is authorized to use the Certification Mark of UL on such products which comply with UL's Follow-Up Service Procedure and any other applicable requirements of UL LLC. The Certification Mark of UL on the product, or the UL symbol on the product and the Certification Mark of UL on the smallest unit container in which the product is packaged, is the only method to identify products investigated by UL to published requirements and manufactured under UL's Listing and Follow-Up Service.

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