



# Certificate of Compliance

**Certificate:** 2701662

**Master Contract:** 201067

**Project:** 2701662

**Date Issued:** June 26, 2014

**Issued to:** **Chalmit Lighting**

**A Division of Hubbell Lighting Ltd.  
388 Hillington Rd  
Glasgow, G52 4BL  
United Kingdom  
Attention: Mr. George Banks**

*The products listed below are eligible to bear the CSA Mark shown*



*Jim Belevitch*

**Issued by:** Jim Belevitch

## **PRODUCTS**

**CLASS 3428 03 - FIXTURES AND FITTINGS - For Hazardous Locations**

Ex d e IIB T5 Gb; Tamb = -20°C /-50°C /-55°C to +45°C/+55°C (as specified in the Table below); IP66/67.  
Suitable for Wet Locations.

"Solas" and "Solas (Emergency)" Luminaires. Ratings are as specified in the Table below:

Luminaire	Electrical Input Rating	Mains Input Wattage (W)	Ambient Temp. Range (°C)	Temp. Code	Duration of Emergency Operation	Supply Wire Min. Temp. Rating (°C)
Solas	100-130Vac or 220-254Vac, 50/60Hz	62	-55 To +55 (See Note 3 below)	T5	N/A	75
Solas (Emergency) –	100-130Vac or 220-254Vac, 50/60Hz	- 114 at Constant Charge	-55 To +45 (See Note 3 below)	T5	90 Minutes OR	75



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Maintained w/ Heater		- 119 at Boost Charge			3 Hours	
Solas (Emergency) – Maintained w/o Heater	100-130Vac or 220-254Vac, 50/60Hz	- 73 at Constant Charge - 80 at Boost Charge	-20 To +45	T5	90 Minutes OR 3 Hours	75
Solas (Emergency) – Non-Maintained w/ Heater	100-130Vac or 220-254Vac, 50/60Hz	- 52 at Constant Charge - 62 at Boost Charge	-55 To +55 (See Note 3 below)	T5	90 Minutes OR 3 Hours	75
5Solas (Emergency) – Non-Maintained w/o Heater	100-130Vac or 220-254Vac, 50/60Hz	- 11 at Constant Charge - 23 at Boost Charge	-20 To +55	T5	90 Minutes OR 3 Hours	75

**Notes:**

1. The “Solas” is designed to operate as a normal mains powered luminaire with no emergency capability.
2. The “Solas (Emergency)” is designed with an emergency capability and is further sub divided into two types:
  - i. “Maintained” = Luminaire is designed to operate as a normal mains powered luminaire which becomes a battery powered emergency luminaire in the event of mains power failure.
  - ii. “Non-Maintained” = Luminaire is designed to operate strictly as a battery powered emergency luminaire in the event of mains power failure.
3. Luminaires furnished with Weidmuller MK6 4 Way mains terminal block in the increased safety compartment are certified for -50°C minimum ambient temperature.
4. Wiring methods to the luminaire must be in accordance with Section 18 of the Canadian Electrical Code, Part I (CSA C22.1). Cable glands and blanking plugs installed in the increased safety (Ex e) compartment of the luminaire must be increased safety (Ex e) certified to CAN/CSA C22.2 No. 60079-0:11 and CAN/CSA C22.2 No. 60079-7:12 and must maintain on the enclosure an ingress protection rating of IP66/67.

**APPLICABLE REQUIREMENTS**

CSA Standard C22.2 No. 0-10 - General Requirements - Canadian Electrical Code Part II



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- CAN/CSA C22.2 No. 60079-0: 11 - Explosive atmospheres — Part 0: Equipment — General requirements
- CAN/CSA C22.2 No. 60079-1: 11 - Explosive atmospheres — Part 1: Equipment protection by flameproof enclosures “d”
- CAN/CSA C22.2 No. 60079-7: 12 - Explosive Atmospheres – Part 7: Equipment Protection by Increased Safety “e”
- CSA C22.2 No. 250.0-08 (R2013) - Luminaires
- CAN/CSA C22.2 No. 250.13-12 - Light Emitting Diode (LED) Equipment For Lighting Applications
- CSA C22.2 No. 141-10 - Emergency Lighting Equipment
- CAN/CSA C22.2 No. 60529: 05 - Degrees of protection provided by enclosures (IP Code) - First Edition

## **MARKINGS**

The manufacturer is required to apply the following markings:

- Products shall be marked with the markings specified by the particular product standard.
- Products certified for Canada shall have all Caution and Warning markings in both English and French.

Additional bilingual markings not covered by the product standard(s) may be required by the Authorities Having Jurisdiction. It is the responsibility of the manufacturer to provide and apply these additional markings, where applicable, in accordance with the requirements of those authorities.

The following markings are applied on a stainless steel nameplate that is riveted to the front face of the terminal compartment cover:

- (a) Submitter's name, trademark, or the CSA Master Contract No.
- (b) “CSA 14.2701662”.
- (c) The model designation “Solas” or “Solas (Emergency)”.
- (d) The designation “Maintained Luminaire” or “Non Maintained” as applicable.
- (e) Serial number and/or date code, traceable to the month and year (at least) of manufacture.
- (f) Electrical ratings (Volts, Amperes, Watts).
- (g) Hazardous location designation.
- (h) Temperature Code.
- (i) Ambient temperature range.



**Certificate:** 2701662

**Master Contract:** 201067

**Project:** 2701662

**Date Issued:** June 26, 2014

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- (j) Supply wire minimum temperature rating or the supply wire temperature rise above ambient temperature.
- (k) IP66/67.
- (l) SUITABLE FOR WET LOCATIONS.
- (m) Warning statement “DO NOT OPEN WHEN AN EXPLOSIVE GAS ATMOSPHERE IS PRESENT” and the French translation "NE PAS OUVRIR UN GAZ PRESENCE D'ATMOSPHERE EXPLOSIVE”.
- (n) CSA Mark.

Additional Markings Per CSA C22.2 No. 141-10 Applicable to Solas (Emergency) Luminaires only:

• The following markings shall be applied on a nameplate secured to the external surface of the luminaire such that it is visible after installation:

1. Nominal voltage of the battery pack.
  2. Duration of emergency operation in minutes (i.e. the time base for the emergency rating).
  3. Regarding replacement of the LED array board, the phrase “Replace only with” and “Remplacer seulement par” followed by the manufacturer’s part number.
  4. “CSA C22.2 No. 141, *Emergency Lighting Equipment*” and “*Appareil d’éclairage de secours*”.
- The following markings shall be applied on an adhesive label applied on the battery pack:
1. Identification of the replacement battery type.
  2. The caution marking “CAUTION: REPLACE BATTERY ONLY WITH (MODEL)” and “REPLACER LA BATTERIE UNIQUEMENT PAR UNE BATTERIE (MODELE)”. The battery model designation is “G9000-0090”.
  3. The battery model number and the month and year of its replacement date.
  4. The statement “THIS LUMINAIRE IS PROVIDED WITH A FACTORY-INSTALLED EMERGENCY LIGHTING BATTERY PACK”.



## *Supplement to Certificate of Compliance*

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*The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.*

### **Product Certification History**

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<b>Project</b>	<b>Date</b>	<b>Description</b>
2701662	Jun 26, 2014	Certification of "Solas" and "Solas (Emergency)" luminaires for hazardous locations as Ex d e IIB T5 Gb.