

Certificate of Compliance

Certificate: 1023732

Master Contract: 201067

Project: 1096791 (Edition 2)

Date Issued: June 27th, 2000

Issued to: **Chalmit Lighting**
A Division of Hubbell Lighting Ltd.
388 Hillington Rd
Glasgow, G52 4BL
United Kingdom

The products listed below are eligible to bear the CSA Mark shown, with adjacent indicator "C" and "US".



Issued by: Dave Adams, P.Eng.

Signature:

(Handwritten signature of Dave Adams)

CLASS

- 3428 03 - Fixtures and Fittings - For Hazardous Locations
- 3428 83 - Fixtures and Fittings - For Hazardous Locations - To US Requirements

PRODUCTS

Part A:

Ex de IIB (or IIC) (Class I, Zone 1), T*(see note) (Tamb -20 °C to *(see note) °C), CSA Enclosure Type 4:

'Evolution' 200 Series Mk III Luminaire rated up to 254V 50 Hz, or 600 V 60 Hz up to 600 W.

Part B:

Ex d IIC (Class I, Zone 1), T6, CSA Enclosure Type 4:

Type 712 Transformer, Input 110/115/120 Vac, Output 220/240 Vac, 50/60 Hz, 1250 VA.

NOTE

- 1) The Ambient temperature and Wattage of lamp will impact the Temperature Code Rating (T3 or T4)
- 2) The 'INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS - EVOLUTION FLOODLIGHT', Rev 00, Dated 5/99 must be provided to end user, and must be followed to maintain the integrity of the installation, notwithstanding the requirements of the Canadian Electrical Code Part 1.
- 3) The difference between IIC and IIB is noted in the Factory Testing and Report.

The "C" and "US" indicator adjacent to the CSA Mark signifies that the product has been evaluated to the applicable ANSI/UL and CSA Standards, for use in the U.S. and Canada. This includes products eligible to bear the NRTL indicator. NRTL, i.e. Nationally Recognized Testing Laboratory, is a designation granted by the U.S. Occupational Safety and Health Administration (OSHA) to laboratories which have been recognized to perform certification to U.S. Standards.



Electrical Control Gear, Lamp Schedule, Ratings, and Temperature Classifications										
Lamp Type	Type	Wattage	Voltage	Lamp Cap	Ignitor	Ballast	Capacitor	Cable Temp Rise	T _{amb} - 50°C to	T Class
Tungsten Halogen	TH	500W Max.	270V Max.	E40	-	-	-	50°C	40°C	T3
Tungsten Halogen	TH	500W Max	270V Max.	R7s	-	-	-	40°C	55°C	T3
HPS	SON/T	150W	220/230 /240/254 50 Hz or 600V, 60Hz	E40	Parry S.I.P. PCX40S * or CSA Certified Equivalent	Parry	20/30µF	40°C	40°C	T4
								35°C	55°C	T3
HPS	SON/T	250W					30/40µF	40°C	40°C	T4
								35°C	55°C	T3
HPS	SON/T	400W					40/50µF	40°C	40°C	T3
								55°C	55°C	T3
HPS	SON/T	600W					Remote	55°C	35°C	T3
MBI	MBI/T	150W					20/30µF	40°C	40°C	T4
								35°C	55°C	T3
MBI	MBI/T	250W					30/40µF	40°C	40°C	T4
			35°C	55°C	T3					
MBI	MBI/T	400W	40/50µF	40°C	40°C	T3				
				35°C	55°C	T3				

APPLICABLE REQUIREMENTS

- CSA Standard C22.2 No 0-M1991 - General Requirements - Canadian Electrical Code Part II.
- CAN/CSA E79-0-95 - Electrical apparatus for explosive gas atmospheres. PART 0: General requirements.
- E79-1-95 - Electrical apparatus for explosive gas atmospheres. PART 1: Construction and verification test of flameproof enclosures of electrical apparatus.
- E79-7-95 - Electrical apparatus for explosive gas atmospheres. Part 7: Increased Safety 'e'.
- UL 2279 - UL Standard for Safety for Electrical Equipment for Use in Class I, Zone 0,1,2 Hazardous Locations.
- CSA Standard C22.2 No. 137-M1981 - Electric Luminaires for Use in Hazardous Locations.
- ANSI/UL 1572, - Standard for High Intensity Discharge Lighting Fixtures
- ANSI/UL 595, - Standard for Marine Type Electric Lighting Fixtures.
- ANSI/UL 844, - Standard for Electric Lighting Fixtures for Use in Hazardous (Classified) Locations.

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Project: 1358604 (Edition 3)

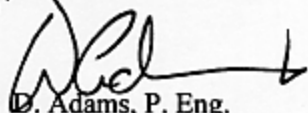
Date Issued: September 3rd, 2002

Issued to: Chalmit Lighting, A Division of Hubbell Lighting Ltd.
388 Hillington Road
Glasgow, G52 4BL
UNITED KINGDOM

*The products listed below are eligible to bear the CSA Mark shown
with adjacent indicators 'C' and 'US'*



Issued by:


D. Adams, P. Eng.
Certification Specialist

Authorized by: John Verwey, P.Eng.
Operations Manager

CLASS

3428 03 - Fixtures and Fittings - For Hazardous Locations
3428 83 - Fixtures and Fittings - For Hazardous Locations - To US Requirements

PRODUCTS

Part A:

Ex de IIC (or IIB) T*(see note); Class I, Zone 1, AEx de IIC (IIB);
Class II, Groups E, F and G; Class III; Tamb -50 °C to *(see note) °C, CSA Enclosure Type 4 (IP66/67)

'Evolution' 200 Series Mk III Luminaire rated 110/120 Vac, 50/60-Hz, or up to 254V 50 Hz, or 277 V 60 Hz up to 500 W.

Part B:

Ex de IIB (Class I, Zone 1), T6), CSA Enclosure Type 4

Type 712 Transformer, Input 110/115/120 Vac, Output 220/240 Vac, 50/60 Hz, 1250 VA.

NOTE

- 1) The Ambient temperature and Wattage of lamp will impact the Temperature Code Rating (T3 or T4)
- 2) The 'INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS - EVOLUTION FLOODLIGHT', Rev 00, Dated 5/99 must be provided to end user, and must be followed to maintain the integrity of the installation, notwithstanding the requirements of the Canadian Electrical Code Part 1.
- 3) The difference between IIC and IIB is noted in the Factory Testing and Report.

The 'C' and 'US' indicators adjacent to the CSA Mark signify that the product has been evaluated to the applicable CSA and ANSI/UL Standards, for use in Canada and the U.S., respectively. This 'US' indicator includes products eligible to bear the 'NRTL' indicator. NRTL, i.e. National Recognized Testing Laboratory, is a designation granted by the U.S. Occupational Safety and Health Administration (OSHA) to laboratories which have been recognised to perform certification to U.S. Standards.

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Project: 1358604

Master Contract: 201067
Date: September 3rd, 2002

Electrical Control Gear, Lamp Schedule, Ratings, and Temperature Classifications												
Lamp Type	Type	Wattage	Voltage	Lamp Cap	Ignitor	Ballast	Capacitor	Cable Temp Rise	T _{amb} - 50°C to	T Class		
Tungsten Halogen	TH	500W Max.	270V Max.	E39 E40	-	-	-	50°C	40°C	T3		
Tungsten Halogen	TH	500W Max	270V Max.	R7s	-	-	-	40°C	55°C	T3		
HPS	SON/T	150W	220/230/ 240/254 50 Hz or 240/250/ 260/277 50Hz	E39 or E40	Parry S.I.P. PCX40S or equivalent	Parry	20/30µF	40°C	40°C	T4		
											35°C	55°C
HPS	SON/T	250W			Parry S.I.P. PCX40S or equivalent		30/40µF	40°C	40°C	T4		
									35°C	55°C	T3	
HPS	SON/T	400W			Parry S.I.P. PXE000 or equivalent		40/50µF	40°C	55°C	T3		
									40°C	55°C	T3	
HPS	SON/T	600W			Parry S.I.P. PXE000 or equivalent		Remote	55°C	35°C	T3		
MBI	MBIT	150W			Parry S.I.P. PCX40S or equivalent		20/30µF	40°C	40°C	T4		
									35°C	55°C	T3	
MBI	MBIT	250W			Parry S.I.P. PCX40H or equivalent		30/40µF	40°C	40°C	T4		
					35°C	55°C		T3				
MBI	MBIT	400W	Parry S.I.P. PXE000 or equivalent	40/50µF	40°C	40°C	T3					
						35°C	55°C	T3				

Note: IIC apparatus Certified for -20°C

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The ratings for the 110/120V types are as follows:

Lamp Type	Type	Wattage	Voltage	Lamp Cap	Ignitor	Cable Temp Rise	Tamb -50 °C to	T Class	Max Surface Temperature.
HPS	SON/T	400	110-120 50/60Hz	E39 E40	Parry S.I.P PXE000 or equivalent	40°C	55°C	T3	175°C
							40°C		
HPS	SON/T	250			Parry S.I.P PXE000 or equivalent	40°C	40°C	T4	130°C
							35°C	55°C	T3
HPS	SON/T	150			Parry S.I.P PXE000 or equivalent	40°C	40°C	T4	130°C
							35°C	55°C	T3
MBI	MBI/T	400			Parry S.I.P PXE000 or equivalent	40°C	55°C	T3	175°C
							40°C		
MBI	MBI/T	250			Parry S.I.P PXE000 or equivalent	40°C	40°C	T4	130°C
							35°C	55°C	T3
MBI	MBI/T	150			Parry S.I.P PXE000 or equivalent	40°C	40°C	T4	130°C
							35°C	55°C	T3

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APPLICABLE REQUIREMENTS

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CSA Standard C22.2 No 137-M1981- Electric Luminaires for Use in Hazardous Locations.
CAN/CSA E79-0-95 -Electrical apparatus for explosive gas atmospheres. PART 0: General requirements.
E79-1-95 -Electrical apparatus for explosive gas atmospheres. PART 1: Construction and verification test of flameproof enclosures of electrical apparatus.
E79-7-95 -Electrical apparatus for explosive gas atmospheres. Part 7: Increased Safety 'e'.
E79-18-95 -Electrical apparatus for explosive gas atmospheres. Part 18: Encapsulation "m".
- UL 2279 -UL Standard for Safety for Electrical Equipment for Use in Class I, Zone 0,1,2 Hazardous Locations.
- ANSI/UL 1572 - Standard for High Intensity Discharge Lighting Fixtures
ANSI/UL 595 -Standard for Marine Type Electric Lighting Fixtures.
ANSI/UL 844 -Standard for Electric Lighting Fixtures for Use in Hazardous (Classified) Locations.



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

Project	Date	Description
1023732	February 25, 2000	Original Certification of the Evolution 200 Series Luminaire (Originally issued as 2500003322).
1096791	June 27th, 2000	Update to 1023732 to include Type 712 Transformer.
1358604	September 3, 2002	Update to 1023732 to include 110/120 Vac ratings, report corrections.