

**Lucy Frieders** 

### INTERNATIONAL ELECTROTECHNICAL COMMISSION **IEC Certification System for Explosive Atmospheres**

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx UL 24.0069X** Page 1 of 4 Certificate history:

Issue No: 0 Status: Current

2024-10-03 Date of Issue:

Applicant: **Eaton's Crouse-Hinds Business** 

1201 Wolf Street Syracuse, NY 13208 **United States of America** 

Equipment: LED Luminaires - FMVA\*\*\*\*\*\*M2

Optional accessory:

Type of Protection: Increased Safety "ec" and Dust Ignition Protection by Enclosure "tb"

Ex ec IIC T4 Gc Marking:

Ex tb IIIC T85°C Db IP66/67

-40°C to +40°C -40°C to +55°C -40°C to +65°C

Approved for issue on behalf of the IECEx

Certification Body:

Position: Staff Engineer

Signature:

(for printed version)

(for printed version)

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Certificate issued by:

**UL Solutions (US)** 333 Pfingsten Road Northbrook IL 60062-2096 **United States of America** 





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Date of issue: 2024-10-03 Issue No: 0

Manufacturer: Eaton's Crouse-Hinds Business

1201 Wolf Street Syracuse, NY 13208 United States of America

Manufacturing Eaton's Crouse-Hinds Business

locations: 1700 Blue Hills Drive NE Roanoke, VA 24012

United States of America Barcelona Spain

Cooper Crouse Hinds S.A. Eaton Electrical (Australia) Pty Ltd.

Avda. Santa Eulàlia 10 Kent Road 290 ,08223 Terrassa Mascot, NSW 2020

ona **Australia** 

#### See following pages for more locations

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

#### STANDARDS:

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements

Edition:7.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

Edition:2

IEC 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

Edition:5.1

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

### **TEST & ASSESSMENT REPORTS:**

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

US/UL/ExTR24.0092/00

**Quality Assessment Reports:** 

AU/TSA/QAR06.0020/15 DE/BVS/QAR13.0001/09 GB/BAS/QAR07.0041/12

GB/BAS/QAR16.0002/05 US/UL/QAR17.0013/06



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#### **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

LED Luminaires models FMVA are composed of an LED housing and LED driver housing. Both the LED housing and LED driver housing are provided with integral fins for heatsinking. The LED housing consists of a gasketed joint between the housing and a clear or diffused glass lens, or clear polycarbonate lens. The LED driver housing consists of a gasketed joint between the housing and an Aluminum intermediate plate. The LED housing and LED driver housing are fastened together with four screws. Wiring from the LED driver housing is routed through a gasketed hole in the intermediate plate and LED housing. The LED driver housing consists of two entries for supply connection, and a straight threaded opening with a plug. The luminaire is provided with yoke mount.

Please see Annex for additional information.

#### SPECIFIC CONDITIONS OF USE: YES as shown below:

- "To minimize the risk from electrostatic discharge, when cleaning, wipe the lens with a clean, damp cloth"
- "LED compartment is non serviceable. Do not open."



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Additional manufacturing locations:

Cooper Electrical (Changzhou) Co. Ltd. No. 189 Liuyanghe Rd, Xinbei District, Changzhou, Jiangsu, 213031

China

Eaton Industries Middle East LLC

2nd Industrial City Dammam Eastern Province KHOBAR 31952 (PO Box 3996)

Saudi Arabia

Annex:

Annex to IECEx UL 24.0069XIssue 0.pdf



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### TYPE DESIGNATION

LED Luminaires models FMVA are composed of an LED housing and LED driver housing. Both the LED housing and LED driver housing are provided with integral fins for heatsinking. The LED housing consists of a gasketed joint between the housing and a clear or diffused glass lens, or clear polycarbonate lens. The LED driver housing consists of a gasketed joint between the housing and an Aluminum intermediate plate. The LED housing and LED driver housing are fastened together with four screws. Wiring from the LED driver housing is routed through a gasketed hole in the intermediate plate and LED housing. The LED driver housing consists of two entries for supply connection, and a straight threaded opening with a plug. The luminaire is provided with yoke mount.

Nomenclature:

### Example:

Cat. No.	FMVA	15	W	Blank	76	M20	DG	UNV1	BZ	M2	DRXXXXXXX
	I	II	Ш	IV	V	VI	VII	VIII	IX	Х	XI

I.	Series Designation:
	FMVA – LED floodlight Series
	DFLA – LED floodlight Series
II.	Lumen Level:
	9 – 9,000 lumens
	11 – 11,000 lumens
	13 – 13,000 lumens
	15 – 15,000 lumens
III.	Color Temperature:
	Blank (No Suffix) – 5000K - 70 CRI
	N – 4000K – 80 CRI
	W – 3000K – 80 CRI
	Q – 5700K – 70 CRI
	Z – 6500K – 70 CRI
	C80 – 5000 K – 80 CRI
	22 – 2200K – 70 CRI
IV.	Mount:
	Blank – Yoke Mount



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V.	Optics:	
	76 – NEMA 7x6 Beam Spread	
	44 – NEMA 4X4 Beam Spread	
VI.	Entries:	
	Blank (No Suffix) – 3/4" NPT	
	M20 – 3/4" to 20 mm adaptor	
	M25 – 3/4" to 25 mm adaptor	
VII.	Lens:	
	Blank – Clear Glass	
	DG – Diffused Glass	
	PC - Polycarbonate	
VIII.	Driver Voltage:	
	UNV1 – Low Voltage	
IX.	Paint:	
	Blank (No Suffix) – Painted Gray	
	BZ – Painted Bronze	
	WH – Painted White	
Χ.	Version	
	M2 (Third Generation Floodlight – Non-Connected)	
XI.	Optional Suffix – Indicates customer information code (does not affect driver housing construction)	
	DRXXXXXXX – XXXXXXX may be any seven digits.	



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### PARAMETERS RELATING TO THE SAFETY

Cat No.:	Input Ratings						
Cat No	Voltage (Frequency)	Current (A)	Wattage (W)				
9-UNV1	100-277 Vac (50/60 Hz)	0.59	58.12				
11-UNV1	100-277 Vac (50/60 Hz)	0.79	77.35				
13-UNV1	100-277 Vac (50/60 Hz)	0.91	89.60				
15-UNV1	100-277 Vac (50/60 Hz)	1.07	106.78				

Model FMVA	Voltage	Ambient Temperature	Gas <sup>1</sup>	Dust <sup>1</sup>
	100-277 Vac	-40°C to +40°C Ex ec IIC T4 Gc		Ex tb IIIC T85°C Db IP66/67
9-UNV1	(50/60 Hz)	-40°C to +55°C	Ex ec IIC T4 Gc	Ex tb IIIC T85°C Db IP66/67
		-40°C to +65°C	Ex ec IIC T4 Gc	Ex tb IIIC T85°C Db IP66/67
	100-277 Vac (50/60 Hz)	-40°C to +40°C	Ex ec IIC T4 Gc	Ex tb IIIC T85°C Db IP66/67
11-UNV1		-40°C to +55°C	Ex ec IIC T4 Gc	Ex tb IIIC T85°C Db IP66/67
		-40°C to +65°C	Ex ec IIC T4 Gc	Ex tb IIIC T85°C Db IP66/67
	100-277 Vac	-40°C to +40°C	Ex ec IIC T4 Gc	Ex tb IIIC T85°C Db IP66/67
13-UNV1	(50/60 Hz)	-40°C to +55°C	Ex ec IIC T4 Gc	Ex tb IIIC T85°C Db IP66/67
		-40°C to +65°C	Ex ec IIC T4 Gc	Ex tb IIIC T85°C Db IP66/67
	100-277 Vac	-40°C to +40°C	Ex ec IIC T4 Gc	Ex tb IIIC T85°C Db IP66/67
15-UNV1	(50/60 Hz)	-40°C to +55°C	Ex ec IIC T4 Gc	Ex tb IIIC T85°C Db IP66/67
		-40°C to +65°C	Ex ec IIC T4 Gc	Ex tb IIIC T85°C Db IP66/67

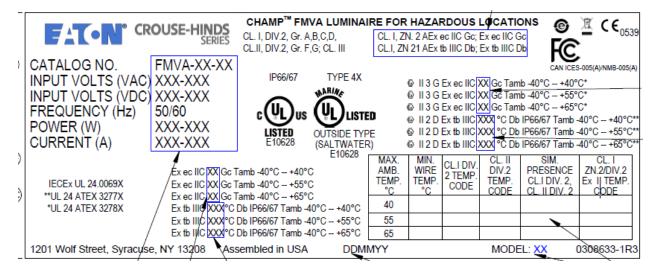


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### **MARKING**

Marking has to be readable and indelible; it has to include the following indications:



### MARNING / ADVERTENCIA / AVERTISSEMENT / WARNUNG / ATENÇÃO

TO PREVENT FIRE OR EXPLOSION DO NOT INSTALL WHERE THE MARKED OPERATING TEMPERATURES EXCEEDS THE IGNITION TEMPERATURE OF THE HAZARDOUS ATMOSPHERE. INSTALL ACCORDING TO APPROPRIATE STANDARDS. DO NOT OPEN WHILE ENERGIZED. AFTER DE-ENERGIZING, DELAY 15 MINUTES BEFORE OPENING, KEEP TIGHTLY CLOSED WHEN IN OPERATION. DISCONNECT POWER BEFORE SERVICING, DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT. TO REDUCE THE RISK OF IGNITION DUE TO ELECTROSTATIC DISCHARGE, AVOID CONTACT WITH THE LUMINAIRE WHILE AN EXPLOSIVE ATMOSPHERE IS PRESENT. CLEAN ONLY WITH A DAMP CLOTH. DO NOT REMOVE LENS, NO REPLACEABLE COMPONENTS INSIDE.

PARA EVITAR INCENDIO O EXPLOSIÓN NO INSTALE DONDE LA TEMPERATURA DE OPERACIÓN EXCEDA A LATEMPERATURA DE IGNICIÓN DE LA ATMOSFERA PELIGROSA. INSTALE DE ACUERDO A LAS NORMAS APROPIADAS. NO ABRA CUANDO SE ENCUENTRE ENERGIZADA. UNA VEZ QUE SE HAYA DESENERGIZADO, ESPERE 15 MINUTOS ANTES DE ABRIRLA. "MANTENGA BIEN CERRADA CUANDO ESTÁ EN FUNCIONAMIENTO. DESCONECTE LA ENERGÍA ANTES DE DABLE SERVICIÓ. NO ABRA CUANDO UNA ATMÓSFERA EXPLOSIVA PUEDA ESTAR PRESENTE. PARA REDUCIR EL RIESGO DE IGNICIÓN DEBIDO A DESCARGA ELECTROSTÁTICA, EVITE EL CONTACTO CON LA LUMINARIA MIENTRAS HAYA UNA ATMÓSFERA EXPLOSIVA. LIMPIE ÚNICAMENTE CON UN PAÑO HÚMEDO. NO QUITE LA LENTE. NO ES POSIBLE REEMPLAZAR LOS COMPONENTES DEL INTERIOR.

POUR ÉVITER UN INCENDIE OU UNE EXPLOSION, NE PAS INSTALLER DANS DES ENDROIT SOÙ LES TEMPÉRATURES DE FONCTIONNEMENT INDIQUÉES EXCÈDENT LA TEMPÉRATURE D'IGNITION DE L'ATMOSPHÈRE DANGEREUSE. INSTALLER SELON LES NORMES A DÉCUATES. NE PAS OLVRIR LORSQUE SOUS TENSION. APRÈS AVOIR MIS HORS TENSION, ATTENDRE 15 MINUTES AVANT D'OUVRIR. CONSERVER HERMÉTIQUEMENT FERMÉ LORSQU'IL EST EN FONCTIONNEMENT. COUPER LE COURANT AVANT TOUT ENTRETIEN, NE PAS OLVRIR QUAND UNE ATMOSPHÈRE EXPLOSIVE PEUT ÊTRE PRÉSENTE. POUR RÉDUIRE LE RISQUE D'ALLUMAGE EN RAISON D'UNE DÉCHARGE ÉLECTROSTATIQUE, ÉVITER DE TOUCHER LE LUMINAIRE DANS UNE ATMOSPHÈRE EXPLOSIVE. LE NETTOYER UNIQUEMENT AVEC UN CHIFFON HUMIDE. NE RETIREZ PAS LA LENTILLE. NE CONTIENT AUCUN COMPOSANT REMPLAÇABLE.

UM FEUER ODER EXPLOSION ZU VERHINDERN, NICHT INSTALLIEREN, WO DIE GEKENNZEICHNETEN UMGEBUNGSTEMPERATUREN DIE ZÜNDTEMPERATUREN DES GEFÄHRLICHEN BEREICHES ÜBERSTEIGEN. GEMÄSS DEN ENTSPRECHENDEN ZUTREFFENDEN NORMEN INSTALLIEREN. WÄHREND DER AKTIVIERUNG NICHT ÖFFNEN. ZWISCHEN DEAKTIVIERUNG UND ÖFFNUNG SOLLTEN 15 MINUTEN LIEGEN. WÄHREND DER INBETRIEBNAHME FEST VERSCHLOSSEN HALTEN. SCHALTENSIE DEN STROM VOR DER INSTANDHALTUNG AUS. NICHT ÖFFNEN, FALLS SIE SICH IN EINEM GEFÄHRLICHEN BEREICH AUFHALTEN KÖNNTEN. VERMEIDEN SIE IN EXPLOSIONSGEFÄHRDETEN BEREICHEN DEN KONTAKT MIT DER LEUCHTE, UM DAS ENTZÜNDUNGSRISIKO AUFGRUND VON ELEKTROSTATISCHEN ENTLADUNGEN ZU MINIMIEREN. REINIGEN SIE DIE LEUCHTE NUR MIT EINEM FEUCHTEN TUCH. LINSE NICHT ENTFERNEN, KEINE AUSTAUSABAREN KOMPONENTEN IM NINEREN.

PARA EVITAR INCÊNDIO OU EXPLOSÕES, NÃO INSTALE CASO AS TEMPERATURAS OPERACIONAIS MARCADAS EXCEDAM A TEMPERATURA DE IGNIÇÃO DE ATMOSFERA PERIGOSA. INSTALE DE ACORDO COM NORMAS ADEQUADAS. NÃO ABRA ENQUANTO ESTIVER ENERGIZADO. APÓS DESENERGIZAR, AGUARDE 15 MINUTOS ANTES DE ABRIR. MANTENHA BEM FECHADO DURANTE O FUNCIONAMENTO. DESCONECTE A ENERGÍA ANTES DE PRESTAR SERVIÇO. NÃO ABRA QUANDO UMA ATMOSFERA EXPLOSIVA POSSA ESTAR PRESENTE. PARA REDUZIR O RISCO DE INCÊNDIO DEVIDO À DESCARGA ELETROSTÁTICA, EVITE CONTATO COM A LÂMPADA ENQUANTO HAJA UMA ATMOSFERA EXPLOSIVA. LIMPAR SOMENTE COM UM PANO ÚMIDO. NÃO REMOVA AS LENTES, OS COMPONENTES INTERNOS NÃO SÃO SUBSTITUÍVEIS.

WHERE MARKED, CL. 1, DIV. 2 GROUPS A,B,C,D & CL. II, DIV. 2 GROUPS F,G SUITABLE FOR WET LOCATIONS. ALSO LISTED AS MISCELLANEOUS MARINE LUMINAIRE OUTSIDE TYPE (SALTWATER). FOR CORRECT INSTALLATION, USE & MAINTENANCE SEE INSTRUCTIONS PROVIDED.

### **ROUTINE EXAMINATIONS AND TESTS**

None