



SGSNA25ATEX031301X



(1) **EU-TYPE EXAMINATION CERTIFICATE**

(2) **Directive 2014/34/EU of the European Parliament and of the council of 26 February 2014 Equipment intended for Explosive Atmosphere -ATEX Directive**

(3) **ProCert No** :SHEX2501000007LM

(4) **Certificate Number** :SGSNA25ATEX031301X

Issue No :0

(5) **Equipment** :HFL Series LED Explosion-protected luminaire

(6) **Manufacturer** :Cooper Electric (Changzhou) Co., Ltd.

(7) **Address** :No.189 Liuyanghe Road, Xinbei District, Changzhou, 213031, Jiangsu, China.

(8) This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(9) SGS NORTH AMERICA, INC., Notified Body Number 3015 in accordance with Article 17 and Article 21 of the Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies, that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres, given in Annex II to the Directive, using EU Type Examination Certificate module as detailed under Annex III of this Directive.

(10) Compliance with the Essential Health and Safety Requirements has been assured by compliance with the following Harmonized Standards :EN IEC 60079-0:2018, EN 60079-1:2014, EN IEC 60079-7:2015+A1:2018, EN 60079-18:2015+A1:2017, EN IEC 60079-31:2024

Where additional criteria beyond those given here have been used, they are listed at item 16 in the Schedule.

(11) The marking of the product shall include the following

 II 2 G Ex db eb mb IIC T4...T3 Gb, II 2 G Ex eb mb IIC T4...T3 Gb & II 2 D Ex tb IIIC T80°C/T85°C/T90°C/T95°C Db IP66.

See the general product information for list of T-classes and associated ambient temperature ranges

(12) **Product Description** :HFL Series LED Explosion-protected luminaire



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QSF27-15-COC_1
Certification Body

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HFL series luminaires are designed mainly as per Ex db, Ex eb, Ex mb and Ex tb concepts, it's suitable for use in hazardous location classified as Zone 1, Zone 2, Zone 21 and Zone 22.

The luminaire consists of one or two Ex eb and Ex mb LED enclosure and one Ex e electrical enclosure fixed together for different configurations. There are 4 sizes of HFL series, 12L, 20L, 30L and 40L.

In the LED enclosure, the Ex mb LED module is fixed to aluminium enclosure directly, and the frame with glass is fixed to the enclosure with good sealing by gasket. A safety guard is optional.

In the electrical enclosure, the Ex mb LED drivers, Ex eb terminals, Ex db SPD (optional) and Ex db safety switch (optional) are installed to provide electrical connection. All entries are sealed with certified glands, plugs or breather to maintain the degree of protection IP66.

The complete fixture catalogue number is shown as follows.

Cat, No.	HFL	-12L	-W2	-1M	-N	-F	-G	-S	-L	-H	-16	-BV	-HT	-DL
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)

- (1) HFL = Zone 1 Flood Light LED
- (2) 12L = 12000Lm; 20L=20000Lm; 30L=30000Lm; 40L=40000Lm;
- (3) W2=3000K; C1=4000K; C2=5000K; C3=5700K;
- (4) 1M=2xM20; 2M=2xM25;
- (5) Default=Wide 120° type V; N=Narrow 30° type V; AT2=Asymmetric Type II; AT4=Asymmetric Type IV;
- (6) Default=Clear Glass; F=Foggy Glass;
- (7) Default=without guard; G=with guard.
- (8) Default=W/O Safety Switch; S=W/Safety Switch
- (9) Default=W/O handle; L=W/handle;
- (10) Default=6kv; H=10kv;
- (11) Default=Galvanized steel bracket with painting; 16=SS316 bracket;
- (12) Default=without breather valve; BV=Breather valve;
- (13) Default= -40°C ~ +40°C/+55°C; HT= -40°C ~ +65°C (12L/20L/30L only);
- (14) Default=normal; D= Dimmable 0-10V; DL=DALI;

The following tables are the detail parameters for different models:
(See following next pages)



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Catalog No.	System Power	Driver			SPD (Optional)	Safety switch (Optional)	LED Qty	Gas		Dust (°C)	
								-40°C-40°C	-40°C-55°C	40°C	55°C
HFL-12L-***-****	92W	MU100H120AQ_MB/z (IECEX TPS 21.0024U, TPS 24 ATEX 089317 0020 U)			IECEX PRE 19.0104U Presafe 19 ATEX 29943U		52	T4	T4	T80	T80
		Input	Output	89% of rated output load ▲T=11.16							
HFL-20L-***-****	140W	ECH-MU165H135AQ_MB/... (IECEX TPS 24.0052U, TPS 24 ATEX 089317 0025 U)			IECEX PRE 19.0104U Presafe 19 ATEX 29943U		82	T4	T3	T80	T85
		Input	Output	88% of rated output load ▲T=4.1							
HFL-30L-***-****	232W	MU100H120AQ_MB/z (IECEX TPS 21.0024U, TPS 24 ATEX 089317 0020 U)			NA		134	T4	T3	T80	T85
		Input	Output	89% of rated output load ▲T=11.16							
		ECH-MU165H135AQ_MB/... (IECEX TPS 24.0052U, TPS 24 ATEX 089317 0025 U)									
		Input	Output	88% of rated output load ▲T=4.1							
HFL-40L-***-****	274W	ECH-MU165H135AQ_MB/... x2 (IECEX TPS 24.0052U)			NA		164	T4	T3	T80	T85
		Input	Output	85% of rated output load ▲T=4.1							



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Catalog No.	System Power	Driver			SPD (Optional)	Safety switch (Optional)	LED Qty	Gas	Dust (°C)
								-40°C-65°C	65°C
HFL-12L-**-***-HT-*	85W	ECH-MU165H135AQ_MB/... (IECEX TPS 24.0052U, TPS 24 ATEX 089317 0025 U)			IECEX PRE 19.0104U Presafe 19 ATEX 29943U	IECEX CQM 16.0018U TÜV CY 23 ATEX 0206953 U	82	T4	T85
		Input	Output	53% of rated output load					
		100-277Vac 50/60Hz, 125-300Vdc	73-183Vdc 660mA	▲T=8.4					
HFL-20L-**-***-HT-*	145W	MU100H120AQ_MB/z (IECEX TPS 21.0024U, TPS 24 ATEX 089317 0020 U)			NA	NA	134	T3	T90
		Input	Output	59% of rated output load					
		100-277Vac 50/60Hz, 125-300Vdc	48-125Vdc 720mA	▲T=15.37					
		ECH-MU165H135AQ_MB/... (IECEX TPS 24.0052U, TPS 24 ATEX 089317 0025 U)							
		Input	Output	53% of rated output load					
100-277Vac 50/60Hz, 125-300Vdc	73-183Vdc 660mA	▲T=8.4							
HFL-30L-**-***-HT-*	210W	ECH-MU165H135AQ_MB/... x2 (IECEX TPS 24.0052U, TPS 24 ATEX 089317 0025 U)			NA	NA	164	T3	T95
		Input	Output	65% of rated output load					
		100-277Vac 50/60Hz, 125-300Vdc	73-183Vdc 820mA	▲T=7.5					

The critical ATEX separately certified components which can be fitted into the luminaire are shown in the following table.

Component	ATEX certificate	Ex marking
Explosion protected Surge Protect Device CS...series	Presafe 19 ATEX 29943U	II 2 G Ex db IIC Gb
COMPACT splicing wire connector type 221-48* and adapter type 221-501	PTB 18 ATEX 1019 U	II 2 G Ex eb IIC Gb or I M 2 Ex eb I Mb
COMPACT splicing wire connector type 221-68* and adapter type 221-511	PTB 19 ATEX 1001 U	II 2 G Ex eb IIC Gb or I M 2 Ex eb I Mb
LED driver, types: MU060HyAQ_MB/z and MU100HyAQ_MB/z	TPS 24 ATEX 089317 0020 U	II 2G Ex mb IIC Gb
LED driver, types: ECH-MU165H135AQ_MB/... Series	TPS 24 ATEX 089317 0025 U	II 2G Ex mb IIC Gb
Terminals MK BK Series	TÜV 18 ATEX 8209 U	II 2GD Ex eb IIC Gb



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Nipple connector CNC-CE2, CNC-CE5	SEV 23 ATEX 0697 U	II 2G Ex eb IIC Gb
Safety Switch SSE-2	TÜV CY 23 ATEX 0206953 U	II 2G Ex db IIC Gb
Terminal strip type 2410-*	BVS 13 ATEX E 080 U	II 2G Ex e IIC Gb

- (13) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the "Specific Conditions of Use" listed under item 15 of this certificate. {paragraph cannot be used for components}.
If the sign "U" placed behind the certificate number, it indicates that this certificate should not be confused with certificates issued for equipment of protective systems. This partial certification may not be used as basis for certification of an equipment or protective systems. "Schedule Of Limitations" is listed under item 15 of this certificate.
- (14) This EU-Type Examination Certificate relates only to the technical design of the specified product in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.
- (15) **Special conditions of safe use for "X":**
 1. Certified components installed inside the enclosure must meet the requirements of their ATEX certificates and instructions.
 2. Wipe the non-metallic dusts with a damp cotton cloth when maintenance.
 3. The ATEX and IECEx separately certified glands, plugs or breather with the IP66 shall be fitted on the luminaire by the end user.
 4. Repairs of the flameproof joints of explosion protected surge protect device CS... series must be made in compliance with the structural specifications provided by the manufacturer. Repairs must not be made on the basis of values specified in table 4 of EN 60079-1.
 5. The maximum prospective short-circuit current of the electrical power supply for the luminaire shall be 1500 A.
 6. Contact the manufacturer for information on the dimensions of the flameproof joints of the Ex db switch.
 7. The external earthing bolt shall be connected to the earthing system by the end user and the section area of external earthing cable shall be 4mm² at least.
- (16) Essential health and safety requirements met by compliance with the requirements mentioned in item 10 and where required, the report listed in item 3.
- (17) This Notification may be withdrawn if the manufacturer does not satisfy the requirements of the Directive or fails to maintain a quality system that can demonstrate compliance to Annex IV (or) Annex VII (or) Annex V of EU Directive 2014/34/EU.



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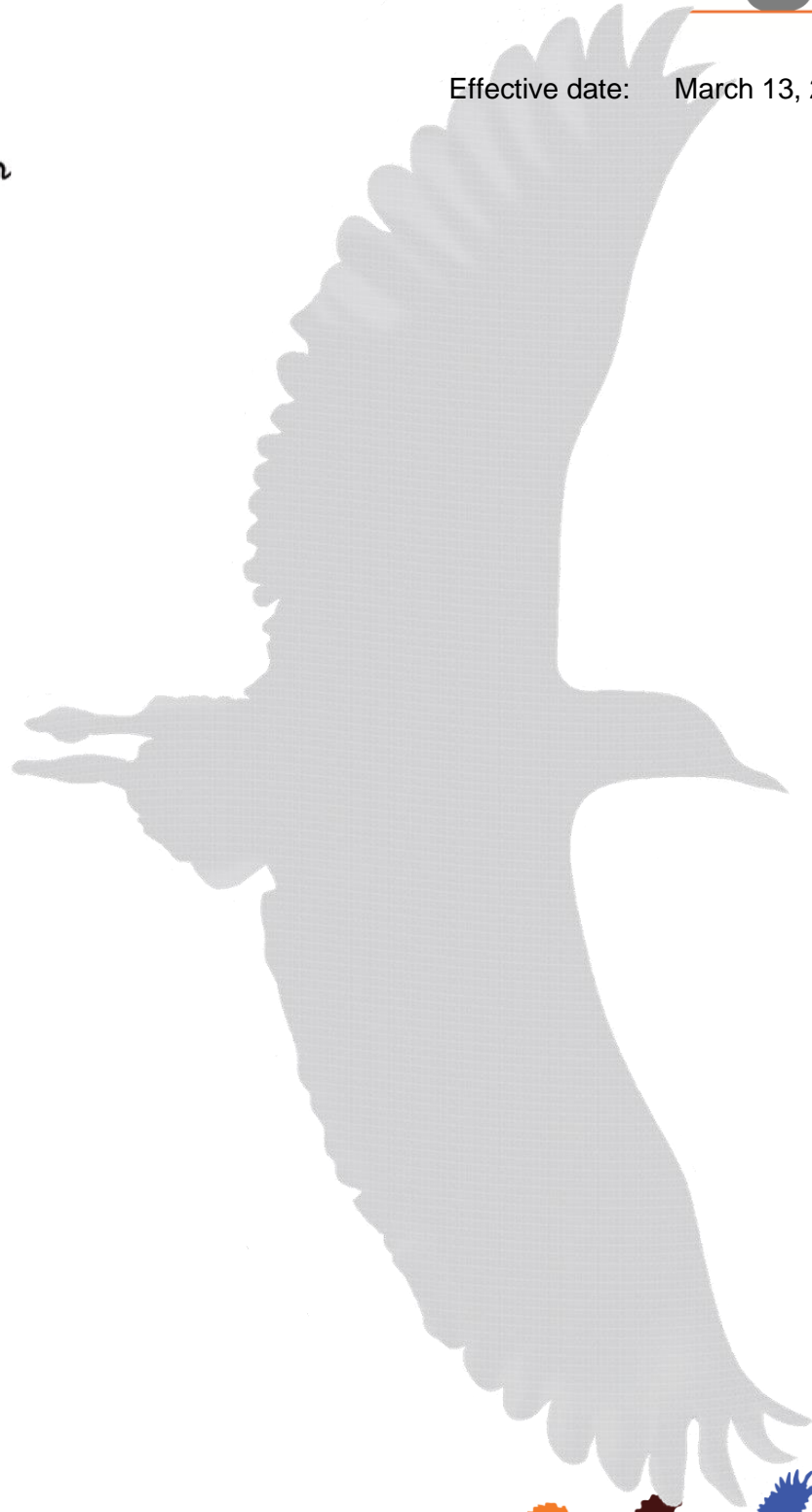
SGS

Authorized by

Effective date: March 13, 2025

Vijay Rangarajan

Vijay Rangarajan
Certification Manager



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(18) **Routine (Factory) Tests:**

1. Dielectric strength test shall be carried out at 1554VAC(1500VAC when safety switch is installed) between the input leads and aluminium housing, and maintained for at least 1 min without breakdown.
Alternatively, the test may be carried out at 1865VAC (1800 VAC when safety switch is installed), but maintained for at least 100 ms. Alternatively, a DC voltage may be applied at 2611V (2520V when safety switch is installed).
2. Dielectric strength test per clause 9.2 of EN 60079-18:2015+A1:2017 shall be carried out at 1500 VAC between the input leads of LED module and the surface of the compound or the non-metallic enclosure, and maintained for at least 1s without breakdown.
Alternatively, the test may be carried out at 1800VAC (1.2 times the above test voltage), but maintained for at least 100 ms.
3. Visual inspection according to clause 9.1 of EN 60079-18:2015+A1:2017.

(19) **Critical Drawings and Documentation-Tabulated based on Issue Number**

Issue 0				
S. No	Drawing No.	Description	Rev.	Date
1	CHLAS2697	HFL certification drawing	1	2024.10.10
2	IM0594	HFL instruction manual	1	2024.09
3	CCH-P188	DESCRIPTION DOCUMENT	1	2024.10.10

(20) Certification History	
Iss. No	Purpose
0	Initial release



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