

# CERTIFICATE

Issued to:  
Applicant:  
**Cooper Univel S.A.**  
88 Thessaloniki Street  
601 00 Katerini, Greece

Licensee:  
**COOPER CSA S.R.L.**  
Via San Bovio 3 - Edificio Y  
20090 Segrate (MI), Italy

Product : Luminaire for emergency lighting with LED light source  
Trade name(s) : EATON, EATON CROMPTON, EATON JSB and EATON MENVIER  
Type(s)/model(s) : ESM-AT, ESC

The product and any acceptable variation thereto is specified in the Annex to this certificate and the documents therein referred to.

DEKRA hereby declares that the above-mentioned product has been certified on the basis of:

- a type test according to the standard EN 60598-1:2015, EN 60598-1:2015/AC:2015, EN 60598-1:2015/AC:2016, EN 60598-2-22:2014, EN 60598-2-22:2014/AC:2015 and EN 60598-2-22:2014/AC:2016-05
- an inspection of the production location according to CENELEC Operational Document CIG 021
- a certification agreement with the number 3504272

DEKRA hereby grants the right to use the ENEC certification mark.

Compliance with the requirements of this Standard carries a presumption of conformity with the essential safety requirements of the Low voltage directive (LVD) 2014/35/EU.

The ENEC certification mark may be applied to the product as specified in this certificate for the duration of the ENEC certification agreement and under the conditions of the ENEC certification agreement.

This certificate is issued on 1 March 2018 and expires upon withdrawal of one of the above mentioned standards.

Certificate number: 81-102908

DEKRA Certification B.V.



drs. G.J. Zoetbrood  
Managing Director



Henk Barends  
Certification Manager

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ACCREDITED BY THE  
DUTCH ACCREDITATION  
COUNCIL



**SPECIFICATION OF THE CERTIFIED PRODUCT****Product data**

Product	: Luminaire for emergency lighting with LED light source
Trade name(s)	: EATON, EATON CROMPTON, EATON JSB and EATON MENVIER
Type(s)/model(s)	: ESC, ESC-3H, ESC-3H-C, ESC-3H-CGL, ESC-3H-CGL-C, ESC-3H-CGL-J, ESC-3H-CGL-M, ESC-3H-J, ESC-3H-M, ESC-AUT, ESC-CGL, ESM-3H-AUT, ESM-3H-AUT-C, ESM-3H-AUT-J, ESM-3H-AUT-M, ESM-AT, ESM-AT-3H, ESM-AT-3H-C, ESM-AT-3H-J, ESM-AT-3H-M, ESMAINS, ESMAINS-C, ESMAINS-J and ESMAINS-M
Supply voltage	: 230 V
Rated frequency	: 50/60 Hz
Type	: Maintained

**Product data – type ESC and ESC-CGL**

Rated duration of emergency operation	: 90 minutes
Battery	: NiCd 4,8 V 0,8 Ah
Ambient temperature	: 40 °C
Protection degree	: IP 20

**Product data – type ESC-3H, ESC-3H-C, ESC-3H-CGL, ESC-3H-CGL-C, ESC-3H-CGL-J, ESC-3H-CGL-M, ESC-3H-J and ESC-3H-M**

Rated duration of emergency operation	: 180 minutes
Battery	: NiCd 4,8 V 1,7 Ah
Ambient temperature	: 40 °C
Protection degree	: IP 20

**Product data – type ESMAINS, ESMAINS-C, ESMAINS-J and ESMAINS-M**

Compatible with central battery system	: According Central Battery Systems
Ambient temperature	: 40 °C
Protection degree	: IP 20

**Product data – type ESC-AUT and ESM-AT**

Rated duration of emergency operation	: 60 minutes
Battery	: NiMH 4,8 V 1,25 Ah
Ambient temperature	: 40 °C
Protection degree	: IP 20

**Product data – type ESM-AT-3H, ESM-AT-3H-C, ESM-AT-3H-J, ESM-AT-3H-M, ESM-3H-AUT, ESM-3H-AUT-C, ESM-3H-AUT-J and ESM-3H-AUT-M**

Rated duration of emergency operation	: 180 minutes
Battery	: NiMH 4,8 V 2,2 Ah
Ambient temperature	: 40 °C
Protection degree	: IP 20

## TESTS

### Test requirements

EN 60598-1:2015  
EN 60598-1:2015/AC:2015  
EN 60598-1:2015/AC:2016  
EN 60598-2-22:2014  
EN 60598-2-22:2014/AC:2015  
EN 60598-2-22:2014/AC:2016-05

### Test result

The test results are laid down in DEKRA test file 350568900.

### Additional information

"LED modules for general lighting - Safety specifications". The results are laid down in DEKRA test report no. 3505689.50.

### ESMAINS

Centrally supplied emergency luminaire  
Emergency luminaire with integral electronic controlgear and LED module, Class II, IP20, suitable for normally flammable surface.  
The electronic circuit is the same of ESC series, except the battery charging part, that is not present.

The product should be used with Centrally Supplied Emergency Luminaires and / or Decentralized models containing their own batteries.

In case of Centrally Supplied Emergency Luminaires:

For operation on 180 minutes Central Battery Systems the luminaires incorporate a controlgear which was tested according to the controlgear standard. It includes particular safety requirements for a.c, a.c./d.c. or d.c. supplied electronic controlgear for emergency lighting purposes, intended for connection to a centralized emergency power supply, as, for example, centrally battery supply systems.

The luminaire incorporating the controlgear was tested for proper function with a central power supply.

Monitoring systems are only tested according to the safety requirements and are checked in combination with a luminaire. Compatibility is based on manufacturer's information and is the responsibility of the manufacturer.

In case of Decentralized Emergency Luminaires:

For installation in Self-contained Emergency Lighting Systems with automatic test functions; may include feature for connection to centrally monitored systems via bus connection. Equipped with sufficient battery capacity for emergency lighting duration.

### Test results

The test results and critical components list are laid down in DEKRA test report No. 3505689.50

For a complete list of models, see table on the last page.

This certificate replaces certificates No. 81-100601 which we herewith declare invalid.

This certificate replaces certificate No. 81-100599 which we herewith declare invalid.

### Conclusion

The examination proved that all requirements were met.

**Factory location**

SC Cooper Industries Romania SRL  
Zona Industriala Vest  
Str. III, Nr. 12  
310510 Arad, Romania

## Rated duration of emergency operation - 60 minutes

Models	Supply Voltage	t <sub>a</sub> °C	IP	Type	Emergency duration Battery	Facilities	Type installation
ESM-AT	230 V 50/60 Hz	40	IP20	Maintained	60 minutes NiMH 4,8 V 1,25 Ah	Test device, Remote rest mode Automatic test function	Ceiling
ESC-AUT	230 V 50/60 Hz	40	IP20	Maintained	60 minutes NiMH 4,8 V 1,25 Ah	Test device, Remote rest mode Automatic test function	Ceiling

## Rated duration of emergency operation - 90 minutes

ESC	230 V 50/60 Hz	40	IP20	Maintained	90 minutes NiCd 4,8 V 0,8 Ah	Test device Remote rest mode Inhibiting mode	Ceiling
ESC-CGL	230 V 50/60 Hz	40	IP20	Maintained	90 minutes NiCd 4,8 V 0,8 Ah	Test device Remote rest mode Inhibiting mode	Ceiling

## Rated duration of emergency operation - 180 minutes

ESM-AT-3H ESM-AT-3H-C ESM-AT-3H-J ESM-AT-3H-M	230 V 50/60 Hz	40	IP20	Maintained	180 minutes NiMH 4,8 V 2,2 Ah	Test device, Remote rest mode Automatic test function	Ceiling
ESM-3H-AUT, ESM -3H-AUT-C, ESM -3H-AUT-J, ESM -3H-AUT-M,	230 V 50/60 Hz	40	IP20	Maintained	180 minutes NiMH 4,8 V 2,2 Ah	Test device, Remote rest mode Automatic test function	Ceiling
ESC-3H ESC-3H-C ESC-3H-J ESC-3H-M	230 V 50/60 Hz	40	IP20	Maintained	180 minutes NiCd 4,8 V 1,7 Ah	Test device Remote rest mode Inhibiting mode	Ceiling
ESC-3H-CGL, ESC-3H-CGL-C, ESC-3H-CGL-J, ESC-3H-CGL-M	230 V 50/60 Hz	40	IP20	Maintained	180 minutes NiCd 4,8 V 1,7 Ah	Test device Remote rest mode Inhibiting mode	Ceiling

## Centrally supplied emergency luminaire

ESMAINS ESMAINS-C ESMAINS-J ESMAINS-M	230 V 50/60 Hz	40	IP20	Mains	According CBS (#)	Centrally supplied emergency luminaire	Ceiling
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**Velos exit sings** ESP-IDD, ESP-ILR, ESP-IUU

The suffix C corresponds to commercial name "Crompton"  
 The suffix J corresponds to commercial name "JBS"  
 The suffix M corresponds to commercial name "MENVIER"

The suffix CBS corresponds to Central Battery Systems (#)