



EU Type Examination Certificate CML 20ATEX1279X Issue 0

- 1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 2 Equipment **LED High Bay EX-***W C***D****
- 3 Manufacturer **DongGuan Pan American Electronics Co., Ltd**
- 4 Address **No. 175 BeiWang Road, Zhongtang Town, DongGuan City, GuangDong Province, China P.O : 523227**
- 5 The equipment is specified in the description of this certificate and the documents to which it refers.
- 6 CML B.V., Chamber of Commerce No 6738671, Koopvaardijweg 32, 4906CV Oosterhout The Netherlands, Notified Body Number 2776, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The examination and test results are recorded in the confidential reports listed in Section 12.
- 7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.
- 8 This EU Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Article 13 apply to the manufacture of the equipment or component and are separately certified.
- 9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

EN IEC 60079-0:2018

EN 60079-1:2014

EN 60079-31:2014

- 10 The equipment shall be marked with the following:



II 2 G D

Ex db IIB T6...T3 Gb

Ex tb IIIC T80°C...T195°C Db

IP66

Ta= -40°C to +**°C

- * **Refer to Certificate Annex for Temperature Classification and Ambient Temperature Range of the individual models.**

S. Roumbedakis
Technical Manager



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11 Description

The LED High Bay EX-***W C***D** are luminaires that provide “db” and “tb” explosion protection. They include three versions with different power supplies, being: Driver power supply; IC power supply; DC power supply. The material of the enclosure is cast aluminium.

The Driver power supply version consists of two enclosures. One enclosure contains the LED light assembly, and the other contains terminals and an LED driver. The lamp cover is fitted with toughened glass cemented to the lamp enclosure cover and secured by a lamp enclosure heat sink, gasket and screws. An optional Polycarbonate spherical cover, an optional metal cover and an optional reflector ‘A’ or ‘B’ can be fixed on the light enclosure. One cable entry is provided in the driver enclosure for connection of suitably certified cable entry devices.

The versions with the IC power supply and the DC power supply comprise only one flameproof/dust protected enclosure. This enclosure contains the LED light assembly.

The temperature classification is as follows:

Luminaires Model	Rated power	Ambient Temp.	Temperature classification	Max surface Temp
EX-XXXW CYZD	100-277VAC; 50/60Hz	Ta≤+40/60°C	T5/T4	T95/T130°C
EX-XXXW CYZD-I	120-250VAC; 50/60Hz	Ta≤+80°C	T4	T95/T130°C
EX-XXXW CYZD-D	12-48VDC	Ta≤+80°C	T4	T95/T130°C
EX-XXXW CYZD-D	12-48VDC	Ta≤+80°C	T4	T95/T130°C
EX-XXXW C2YZD	100-277VAC; 50/60Hz	Ta≤+40/60°C	T6/T5	T80/T95°C
EX-XXXW C2YZD-I	120-250VAC; 50/60Hz	Ta≤+80°C	T4	T130°C
EX-XXXW C2YZD-D	12-48VDC	Ta≤+80°C	T4	T130°C
EX-XXXW C3YZD	100-277VAC; 50/60Hz	Ta≤+40/60°C	T5/T4	T95/T130°C
EX-XXXW C3YZD-I	120-250VAC; 50/60Hz	Ta≤+80°C	T4	T130°C
EX-XXXW C3YZD-D	12-48VDC	Ta≤+80°C	T3	T195°C

Nomenclature:

EX-***W _ _ _ D* _
1 2 3 4 5 6

- 1 : Wattage (C2: 10~80W, C: 10~180W, C3: 10~280W)
- 2 : Product code (C2, C and C3)
- 3 : Dimmable option (D denotes dimmable, N denotes Non-dimmable)
- 4 : Color temperature (30, 40, 50, 55, 65 denotes 3000K to 6500K)
- 5 : Beam angle (D15, D20, D25...D120 denotes 15 degree to 120 degree)
- 6 : Blank for power supply, I for IC power supply, D for DC power supply (Optional)



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12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	21 Dec 2020	R13375A/00	Issue of prime certificate

Note: Drawings that describe the equipment or component are listed in the Annex.

13 Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

- i. Where the product incorporates certified parts or safety critical components the manufacturer shall ensure that any changes to those parts or components do not affect the compliance of the certified product that is the subject of this certificate. A copy of the certificates and instructions shall be provided as part of the user's instructions manual of the equipment.
- ii. Each terminal compartment and light source compartment shall be subjected to a routine overpressure test of at least 5 bar (0.5 MPa) and 10 bar (1 MPa) respectively, as required by Clause 16.1 of EN 60079-1:2014. There shall be no damage, permanent deformation, or leakage other than through flamepaths.
- iii. The temperature at the entry and branching points may reach or exceed 70°C and 85°C respectively. Information regarding the selection of suitable cabling and cable entry devices shall be provided to the end user.

14 Specific Conditions of Use (Special Conditions)

The following conditions relate to safe installation and/or use of the equipment.

- i. Only suitably certified cable entry devices or plugs shall be fitted, noting the service temperature range of at least -40°C to +135°C. The flameproof joints of the equipment shall not be repaired. Contact the manufacturer of the equipment for information.
- ii. Potential electrostatic charging hazard – see instructions. Earthing connections shall be made in accordance with recognised hazardous area standards, e.g. EN 60079-14 and local legislation.
- iii. The Ex-***W* LED high bays shall only be commissioned, operated, and maintained in accordance with the manufacturer's Instructions, User Manual, and general electrical safety standards; EN 60079-14.

Certificate Annex

Certificate Number CML 20ATEX1279X
Equipment LED High Bay EX-***W C***D**
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The following documents describe the equipment or component defined in this certificate:

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Drawing No	Sheets	Rev	Approved date	Title
EX-XXXW-C2YZ-A	1 of 76	A0	21 Dec 2020	C2 Assembly
EX-XXXW-C2YZ-B	2 of 76	A0	21 Dec 2020	C2 Assembly
EX-XXXW-C2YZ-001	3 of 76	A0	21 Dec 2020	Driver enclosure cover
EX-XXXW-C2YZ-002(B)	5 of 76	A0	21 Dec 2020	Lamp enclosure heat sink B
EX-XXXW-C2YZ-002	4 of 76	A0	21 Dec 2020	Lamp enclosure heat sink
EX-XXXW-C2YZ-003	6 of 76	A0	21 Dec 2020	Driver enclosure base
EX-XXXW-C2YZ-004	7 of 76	A0	21 Dec 2020	Lamp enclosure cover
EX-XXXW-C2YZ-005	8 of 76	A0	21 Dec 2020	U support bracket
EX-XXXW-C2YZ-006	9 of 76	A0	21 Dec 2020	Flat glass
EX-XXXW-C2YZ-007	10 of 76	A0	21 Dec 2020	WATER-PROOF-RING-A
EX-XXXW-C2YZ-008	11 of 76	A0	21 Dec 2020	WATER-PROOF-RING-B
EX-XXXW-C2YZ-010	21 of 76	A0	21 Dec 2020	Reflector A
EX-XXXW-C2YZ-011	22 of 76	A0	21 Dec 2020	Reflector B
EX-XXXW-C2YZ-012	23 of 76	A0	21 Dec 2020	LED PCB
EX-XXXW-C2YZ-013	24 of 76	A0	21 Dec 2020	Sch of C2 Series
EX-XXXW-C2YZ-015	29 of 76	A0	21 Dec 2020	Flexible cable
EX-XXXW-C2YZ-017	27 of 76	A0	21 Dec 2020	IC PCBA
EX-XXXW-C2YZ-018	28 of 76	A0	21 Dec 2020	DC PCBA
EX-XXXW-C2YZ-023	25 of 76	A0	21 Dec 2020	WATER-PROOF-RING-E
EX-XXXW-C2YZ-024	26 of 76	A	21 Dec 2020	Nameplate
EX-XXXW-FYZ-004	19 of 76	A0	21 Dec 2020	Metal guard
EX-XXXW-FYZ-005	20 of 76	A0	21 Dec 2020	PC spherical cover
EX-XXXW-CYZ-A	30 of 76	A	21 Dec 2020	C Assembly
EX-XXXW-CYZ-B	31 of 76	A	21 Dec 2020	C Assembly
EX-XXXW-CYZ-001	32 of 76	A0	21 Dec 2020	Lamp enclosure cover
EX-XXXW-CYZ-002(B)	34 of 76	A0	21 Dec 2020	Lamp enclosure heat sink B
EX-XXXW-CYZ-002	33 of 76	A0	21 Dec 2020	Lamp enclosure heat sink
EX-XXXW-CYZ-003	35 of 76	A0	21 Dec 2020	Driver enclosure base
EX-XXXW-CYZ-004	36 of 76	A0	21 Dec 2020	Driver enclosure cover
EX-XXXW-CYZ-005	37 of 76	A	21 Dec 2020	Flat glass

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EX-XXXW-CYZ-006	52 of 76	A0	21 Dec 2020	Support base
EX-XXXW-CYZ-007	37 of 76	A0	21 Dec 2020	Metal guard
EX-XXXW-CYZ-008	38 of 76	A	21 Dec 2020	U support bracket
EX-XXXW-CYZ-010	39 of 76	A	21 Dec 2020	WATER-PROOF-RING-A
EX-XXXW-CYZ-011	43 of 76	A	21 Dec 2020	WATER-PROOF-RING-B
EX-XXXW-CYZ-012	53 of 76	A0	21 Dec 2020	WATER-PROOF-RING-C
EX-XXXW-CYZ-013	40 of 76	A0	21 Dec 2020	WATER-PROOF-RING-D
EX-XXXW-CYZ-014	41 of 76	A	21 Dec 2020	Reflector A
EX-XXXW-CYZ-015	42 of 76	A	21 Dec 2020	Reflector B
EX-XXXW-CYZ-017	44 of 76	A	21 Dec 2020	LED PCB
EX-XXXW-CYZ-019	45 of 76	A0	21 Dec 2020	PC spherical cover
EX-XXXW-CYZ-020	46 of 76	A0	21 Dec 2020	Sch of C2 Series
EX-XXXW-CYZ-021	50 of 76	A	21 Dec 2020	DC PCBA
EX-XXXW-CYZ-022	51 of 76	A	21 Dec 2020	IC PCBA
EX-XXXW-CYZ-023	47 of 76	A0	21 Dec 2020	WATER-PROOF-RING-E
EX-XXXW-CYZ-024	49 of 76	A	21 Dec 2020	Nameplate
EX-XXXW-C3YZ-A	55 of 76	A	21 Dec 2020	C3 Assembly
EX-XXXW-C3YZ-B	56 of 76	A	21 Dec 2020	C3 Assembly
EX-XXXW-C3YZ-001(B)	58 of 77	A0	21 Dec 2020	Lamp enclosure heat sink B
EX-XXXW-C3YZ-001	57 of 76	A0	21 Dec 2020	Lamp enclosure heat sink
EX-XXXW-C3YZ-002	59 of 76	A0	21 Dec 2020	Driver enclosure base
EX-XXXW-C3YZ-003	60 of 76	A0	21 Dec 2020	Driver enclosure cover
EX-XXXW-C3YZ-004	61 of 76	A0	21 Dec 2020	Lamp enclosure cover
EX-XXXW-C3YZ-005	62 of 76	A0	21 Dec 2020	U support bracket
EX-XXXW-C3YZ-007	63 of 76	A0	21 Dec 2020	Flat glass
EX-XXXW-C3YZ-008	64 of 76	A0	21 Dec 2020	WATER-PROOF-RING-A
EX-XXXW-C3YZ-009	65 of 76	A0	21 Dec 2020	WATER-PROOF-RING-B
EX-XXXW-C3YZ-011	67 of 76	A0	21 Dec 2020	LED PCB
EX-XXXW-C3YZ-012	68 of 76	A0	21 Dec 2020	Sch of C3 Series
EX-XXXW-C3YZ-013	69 of 76	A0	21 Dec 2020	Metal guard
EX-XXXW-C3YZ-014	70 of 76	A0	21 Dec 2020	PC spherical cover
EX-XXXW-C3YZ-015	71 of 76	A0	21 Dec 2020	Reflector A
EX-XXXW-C3YZ-016	72 of 76	A0	21 Dec 2020	Reflector B
EX-XXXW-C3YZ-017	75 of 76	A0	21 Dec 2020	DC PBCA

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EX-XXXW-C3YZ-018	76 of 76	A0	21 Dec 2020	IC PBCA
EX-XXXW-C3YZ-019	73 of 76	A0	21 Dec 2020	WATER-PROOF-RING-E
EX-XXXW-C3YZ-022	74 of 76	A0	21 Dec 2020	Nameplate
EX-XXXW-A2YZ-011	14 of 76	A0	21 Dec 2020	Cable gland
EX-XXXW-AYZ-013	15 of 76	A0	21 Dec 2020	Grounding mark
EX-XXXW-AYZ-015	17 of 77	A0	21 Dec 2020	Cable connector
EX-XXXW-AYZ-016	16 of 77	A0	21 Dec 2020	Grounding Cable
EX-XXXW-AYZ-017	13 of 76	A0	21 Dec 2020	Flexible cable
EX-XXXW-BYZ-026	18 of 76	A0	21 Dec 2020	Lens