

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 20.0019X Page 1 of 3 Certificate history:

Status: Current Issue No: 0

Date of Issue: 2020-06-10

Applicant: **Top Hi-Tech Co., Ltd.**

9F, No. 1, Zhongshan Rd. Tucheng District New Taipei City, 236

Chinese Taipei

Equipment: LED Luminaire, Model L1719 Series; Models THTH1719ANH and THTH1719BNK Series

Optional accessory:

Type of Protection: Restricted Breathing "nR", Dust Ignition Protection by Enclosure "tb"

Marking: Ex nR IIC T4...T5 Gc

Ex tb IIIC T120°C...T95°C Db

-20°C \leq Ta \leq +40°C or -20°C \leq Ta \leq +65°C

Approved for issue on behalf of the IECEx

Certification Body:

Katy A. Holdredge

Position:

Senior Staff Engineer

Signature:

(for printed version)

2020-06-10

Date:

- . This certificate and schedule may only be reproduced in full.
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Certificate issued by:

UL LLC 333 Pfingsten Road Northbrook IL 60062-2096 United States of America





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Manufacturer: **Top Hi-Tech Co., Ltd.**

9F, No. 1, Zhongshan Rd.

Tucheng District New Taipei City, 236 **Chinese Taipei**

Additional manufacturing 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 60079-15:2017

Edition:5.0

Explosive atmospheres - Part 15: Equipment protection by type of protection "n" $\,$

IEC 60079-31:2013

Edition:2

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

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/ExTR20.0019/00

Quality Assessment Report:

DE/TUR/QAR13.0016/03



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Model L1719 Series of LED luminaires is suitable for use in hazardous location classified as Zone 2 and Zone 21. This luminaire consists of one "nR"/"tb" LED array chamber.

Please see Annex for additional information.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- The luminaire shall not be opened.
- Potential electrostatic charging hazard see instructions.
- The luminaire does not have a test port fitted (only for nR)
- The gasket not to be replaced in the field.

Annex:

Annex to IECEx UL 20.0019X Issue 0.pdf



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TYPE DESIGNATION

Nomenclature for Luminaires:

The complete luminaire catalogue number example is as follows:

Cat.	THT	Н	1719	Α	N	Н	С	9	30
No.	1	2	3	4	5	6	7	8	9

1 - Brand name

THT = Top Hi-Tech Co., Ltd.

2 – Category of product

H = HazLoc LED lighting

3 - Model name

1719 = Model L1719 Series

- 4 Designates dimensions and shape of LED module
 - A = Rectangle (200x70 mm) (For 300W only)
 - B = Circle (Ø 180 mm) (For 240 W, 280 W and 300 W only)
- 5 Designates type of Top Cover

N = Without Top Cover

6 - Designates type of LED module

H = Rectangle SMD type (For 300 W only)

K = Circle SMD type (For 240 W, 280 W and 300 W only)

7 - Designates CCT of LED

C = Cool white

W = Warm white

8 - Designates voltage of luminaire

1 = 110 Vac

6 = 120 Vac

2 = 220 Vac

9 = 277 Vac

F = 347 Vac

C = 480 Vac

9 - Designates wattage of luminaire

Y0 = 240 W (For circle LED module only)

28 = 280 W (For circle LED module only)

30 = 300 W (For rectangle and circle LED module only)

Models covered are as follows:

	Ambient Temperature	Gas Temperature	Dust Temperature		
Models	range	Code	Rating		
THTH1719ANHxyz	-20°C to +40°C	T5	T95°C		
THTH1719BNKxyzz	-20°C to +65°C	T4	T120°C		
x can be C or W; y can be 1, 6, 2, 9, F or C; z can be 30; zz can be Y0, 28 or 30					



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PARAMETERS RELATING TO THE SAFETY

Electrical Rating:

Models	Voltage (Vac)	Wattage (W)			
THTH1719ANHxyz	110/120/220/277/347/480	300			
THTH1719BNKxyzz	110/120/220/277/347/480	240/280/300			
x can be C or W; y can be 1, 6, 2, 9, F or C; z can be 30; zz can be Y0, 28 or 30					

MARKING

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

	TOP HI-TECH CO., LTD	$\overline{}$		TOP HI-TECH CO., LTD	$\overline{}$
Θ	Universal Hazloc LED Lighting THTH1719①N②③④⑤		Universal Hazloc LED Lighting THTH1719 ①N②③④⑤		\bigcirc
CE	UL 20 ATEX 2351X IECEX UL 20.0019X Soli 3 G Ex nR IIC T5 Ge Ex nR IIC T5 Ge		ce	UL 20 ATEX 2351X IECEX UL 20.0019X Solid 3 G Ex nR IIC T4 Ge Ex nR IIC T4 Ge	
	UL 20 ATEX 2345X IECEX UL 20.0019X ➡II 2 D Ex tb IIIC T95°C Db Ex tb IIIC T95°C Db		CE	UL 20 ATEX 2345X IECEX UL 20.0019X ⊕ II 2 D Ex th IIIC T120°C Db Ex th IIIC T120°C Db	
	V: V P: W A: A SN: xxyy-zzz	IP67		7,	IP67
9	9F, No.1, Zhongshan Road, Tucheng Dist. New Taipei City, 23680, Taiwan (R.O.C) Ambient temperature: -20°C \leq Ta \leq +40°C			9F, No.1, Zhongshan Road, Tucheng Dist. New Taipei City, 23680, Taiwan (R.O.C) Ambient temperature: -20°C ≤ Ta ≤ +65°C	

WARNING -THE LUMINAIRE SHALL NOT BE OPENED.
WARNING - POTENTIAL ELECTROSTATIC CHARGING HAZARD.
- SEE INSTRUCTIONS.

WARNING-THE LUMINAIRE DOES NOT HAVE A TEST PORT FITTED. WARNING-THE GASKET NOT TO BE REPLACED IN THE FIELD

SN number description as show the follow:

- -xx means Two yards after the first AD.
- -yy means Week number.
- -zzz means Current week code.
- ① Dimension and shape of LED Module, A = 200x70 LED module, $B = \phi 180$ LED module
- 2 Designates type of LED module, H=Rectangle SMD type, K= Circle SMD type
- ③ Designates CCT of LED, C = Cool white, W = Warm white
- 4 Designates voltage of LED module, 1=110 Vac , 2=220 Vac , 6=120 Vac , 9 = 277 Vac, C=480Vac, F=347Vac
- ⑤ Designates wattage rating of the luminaire, Y0=240W(For circle LED module only), 28=280W(For circle LED module only), 30=300W(For rectangle and circle LED module only)

ROUTINE EXAMINATIONS AND TESTS

Each pieces of equipment defined above has to have successfully passed; before delivery:

- Routine dielectric strength testing according to clause 12.1 of IEC 60079-15 is required.
- Routine restricted breathing testing according to clause 12.2.2.1.2 of IEC 60079-15 is required.