



IECEX Certificate of Conformity

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 21.0037X** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2021-04-20

Applicant: **Top Hi-Tech Co. Ltd.**
9F 1 Zhongshan Rd.
Tucheng District
New Taipei City 236
Taiwan

Equipment: **LED Luminaires, Model L1319C Series – Models THTH1319C, THTH1319E, THTH1319D and THTH1319F Series.**

Optional accessory:

Type of Protection: **Restricted breathing "nR" and Dust Ignition Protection by Enclosure "tb"**

Marking: Ex nR IIC T4...T5 Gc
Ex tb IIIC T110°C...T90°C Db
-20°C ≤ Ta ≤ +40°C or
-20°C ≤ Ta ≤ +65°C

Approved for issue on behalf of the IECEx
Certification Body:

Katy A. Holdredge

Position:

Senior Staff Engineer

Signature:
(for printed version)

Date:

2021-04-20

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
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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.**
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Tucheng District
New Taipei City 236
Taiwan

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 Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
Edition:5.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

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/ExTR21.0038/00](#)

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 L1319C Series of LED luminaires is suitable for use in hazardous location classified as Zone 2 and Zone 21. This luminaire consists of "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 certificate).
- The gasket not to be replaced in the field.

Annex:

[Annex to IECEx UL 21.0037X Issue 0.pdf](#)



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TYPE DESIGNATION

Nomenclature for Luminaires:

The complete luminaire catalogue number example is as follows:

Cat. No.	THT	H	1319	C	N	H	C	C	P0
	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 luminaire

3 – Model name

1319 = Model L1319C Series

4 – Designates series type and length of LED luminaire

C = 2ft length with clear glass

E = 2ft length with matted glass

5 – Designates type of Top Cover

N = Without Top Cover

C = With Top Cover

6 – Designates type of LED module

H = SMD type

7 – Designates CCT of LED

C = Cool white

W = Warm white

8 – Designates voltage of luminaire

4 = 100 Vac (For 20W/40W/60W/120W/150W only)

1 = 110 Vac (For 20W/40W/60W/120W/150W only)

6 = 120 Vac (For 20W/40W/60W/80W/120W/150W only)

5 = 200 Vac (For 20W/40W/60W/120W/150W only)

2 = 220 Vac (For 20W/40W/60W/120W/150W only)

D = 230 Vac (For 20W/40W/60W/120W/150W only)

9 = 277 Vac (For 20W/40W/60W/80W/120W/150W only)

F = 347 Vac (For 20W/40W/80W only)

C = 480 Vac (For 20W/40W/80W only)

9 – Designates wattage of luminaire

B0 = 20W (For 100V/110V/120V/200V/220V/230V/277V/347V/480V only)

D0 = 40W (For 100V/110V/120V/200V/220V/230V/277V/347V/480V only)

F0 = 60W (For 100V/110V/120V/200V/220V/230V/277V only)

H0 = 80W (For 120V/277V/347V/480V only)

L0 = 120W (For 100V/110V/120V/200V/220V/230V/277V only)

P0 = 150W (For 100V/110V/120V/200V/220V/230V/277V only)



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Models covered are as follows:

Models	Ambient Temperature range	'nR' Temperature Code	'tb' Temperature Rating
THTH1319vwHxyz	-20°C to +40°C	T5	T90°C
	-20°C to +65°C	T4	T110°C

v can be C or E; w can be N or C; x can be C or W; y can be 4, 1, 6, 5, 2, D, 9, F or C; z can be B0, D0, F0, H0, L0 or P0



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Nomenclature for Luminaires:

The complete luminaire catalogue number example is as follows:

Cat.	THT	H	1319	D	C	H	C	C	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 luminaire

3 – Model name

1319 = Model L1319C Series

4 – Designates series type and length of LED luminaire

D = 4ft length with clear glass

F = 4ft length with matted glass

5 – Designates type of Top Cover

C = With Top Cover

6 – Designates type of LED module

H = SMD type

7 – Designates CCT of LED

C = Cool white

W = Warm white

8 – Designates voltage of luminaire

4 = 100 Vac (For 40W/80W/120W/240W/300W only)

1 = 110 Vac (For 40W/80W/120W/240W/300W only)

6 = 120 Vac (For 40W/80W/120W/160W/240W/300W only)

5 = 200 Vac (For 40W/80W/120W/240W/300W only)

2 = 220 Vac (For 40W/80W/120W/240W/300W only)

D = 230 Vac (For 40W/80W/120W/240W/300W only)

9 = 277 Vac (For 40W/80W/120W/160W/240W/300W only)

F = 347 Vac (For 40W/80W/160W only)

C = 480 Vac (For 40W/80W/160W only)

9 – Designates wattage of luminaire

D0 = 40W (For 100V/110V/120V/200V/220V/230V/277V/347V/480V only)

H0 = 80W (For 100V/110V/120V/200V/220V/230V/277V/347V/480V only)

L0 = 120W (For 100V/110V/120V/200V/220V/230V/277V only)

Q0 = 160W (For 120V/277V/347V/480V only)

Y0 = 240W (For 100V/110V/120V/200V/220V/230V/277V only)

30 = 300W (For 100V/110V/120V/200V/220V/230V/277V only)



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PARAMETERS RELATING TO THE SAFETY

Electrical Rating:

Models	Length	Voltage (Vac)	Frequency (Hz)	Wattage (W)
THTH1319vwHxaB0	2ft	100/110/120/200/220/230/277/347/480	50/60	20
THTH1319vwHxaD0		100/110/120/200/220/230/277/347/480	50/60	40
THTH1319vwHxbF0		100/110/120/200/220/230/277	50/60	60
THTH1319vwHxcH0		120/277/347/480	50/60	80
THTH1319vwHxbL0		100/110/120/200/220/230/277	50/60	120
THTH1319vwHxbP0		100/110/120/200/220/230/277	50/60	150
THTH1319uCHxaD0	4ft	100/110/120/200/220/230/277/347/480	50/60	40
THTH1319uCHxaH0		100/110/120/200/220/230/277/347/480	50/60	80
THTH1319uCHxbL0		100/110/120/200/220/230/277	50/60	120
THTH1319uCHxcQ0		120/277/347/480	50/60	160
THTH1319uCHxbY0		100/110/120/200/220/230/277	50/60	240
THTH1319uCHxb30		100/110/120/200/220/230/277	50/60	300

v can be C or E; u can be D or F; w can be N or C; x can be C or W; a can be 4, 1, 6, 5, 2, D, 9, F or C; b can be 4, 1, 6, 5, 2, D or 9; c can be 6, 9, F or C

Models covered are as follows:

Models	Ambient Temperature range	'nR' Temperature Code	'tb' Temperature Rating
THTH1319uCHxyzz	-20°C to +40°C	T5	T90°C
	-20°C to +65°C	T4	T110°C

u can be D or F; x can be C or W; y can be 4, 1, 6, 5, 2, D, 9, F or C; zz can be D0, H0, L0, Q0, Y0 or 30

MARKING

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

<p>TOP HI-TECH CO., LTD Universal Hazloc LED Lighting THTH1319①②H③④⑤</p> <p>UL 21 ATEX 2398X Ex nR IIC T5 Gc UL 21 ATEX 2397X Ex tb IIIC T90°C Db</p> <p>CE₀₅ II 3 G Ex nR IIC T5 Gc CE₀₅ II 2 D Ex tb IIIC T90°C Db</p> <p>V : V P : W A : A SN : xxyy-zzz</p> <p>9F, No.1, Zhongshan Road, Tucheng Dist. New Taipei City, 236, Taiwan (R.O.C) Ambient temperature: -20°C ≤ Ta ≤ +40°C</p>	<p>TOP HI-TECH CO., LTD Universal Hazloc LED Lighting THTH1319①②H③④⑤</p> <p>UL 21 ATEX 2398X Ex nR IIC T4 Gc UL 21 ATEX 2397X Ex tb IIIC T110°C Db</p> <p>CE₀₅ II 3 G Ex nR IIC T4 Gc CE₀₅ II 2 D Ex tb IIIC T110°C Db</p> <p>V : V P : W A : A SN : xxyy-zzz</p> <p>9F, No.1, Zhongshan Road, Tucheng Dist. New Taipei City, 236, Taiwan (R.O.C) Ambient temperature: -20°C ≤ Ta ≤ +65°C</p>
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- ① - Designates series type and length of LED luminaire
C = 2ft length with clear glass
E = 2ft length with matted glass
- ② - Designates type of Top Cover
N = Without Top Cover
C = With Top Cover
- ③ - Designates CCT of LED
C = Cool white
W = Warm white
- ④ - Designates voltage of luminaire
4 = 100 Vac (For 20W/40W/60W/120W/150W only)
1 = 110 Vac (For 20W/40W/60W/120W/150W only)
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F = 347 Vac (For 20W/40W/80W only)
C = 480 Vac (For 20W/40W/80W only)
- ⑤ - Designates wattage of luminaire
B0 = 20W (For 100V/110V/120V/200V/220V/230V/277V/347V/480V only)
D0 = 40W (For 100V/110V/120V/200V/220V/230V/277V/347V/480V only)
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H0 = 80W (For 120V/277V/347V/480V only)
L0 = 120W (For 100V/110V/120V/200V/220V/230V/277V only)
P0 = 150W (For 100V/110V/120V/200V/220V/230V/277V only)

SN number description as show the follow :

- xx means Two yards after the first AD.
- yy means Week number.
- zzz means Current week code.

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

<p>TOP HI-TECH CO., LTD Universal Hazloc LED Lighting THTH1319①CH②③④</p> <p>CE II 3 G Ex nR IIC T5 Ge UL 21 ATEX 2397X CE II 2 D Ex tb IIIC T90°C Db</p> <p>UL 21 ATEX 2398X IECEX UL 21.0037X Ex nR IIC T5 Gc IECEX UL 21.0037X Ex tb IIIC T90°C Db</p> <p>V : V P : W A : A SN : xxyy-zzz</p> <p>9F, No.1, Zhongshan Road, Tucheng Dist. New Taipei City, 236, Taiwan (R.O.C) Ambient temperature: -20°C ≤ Ta ≤ +40°C</p>	<p>TOP HI-TECH CO., LTD Universal Hazloc LED Lighting THTH1319①CH②③④</p> <p>CE II 3 G Ex nR IIC T4 Gc UL 21 ATEX 2397X CE II 2 D Ex tb IIIC T110°C Db</p> <p>UL 21 ATEX 2398X IECEX UL 21.0037X Ex nR IIC T4 Gc IECEX UL 21.0037X Ex tb IIIC T110°C Db</p> <p>V : V P : W A : A SN : xxyy-zzz</p> <p>9F, No.1, Zhongshan Road, Tucheng Dist. New Taipei City, 236, Taiwan (R.O.C) Ambient temperature: -20°C ≤ Ta ≤ +65°C</p>
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- ① - Designates series type and length of LED luminaire
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 WARNING - POTENTIAL ELECTROSTATIC CHARGING HAZARD.
 - SEE INSTRUCTIONS.
 WARNING-THE LUMINAIRE DOES NOT HAVE A TEST PORT FITTED.
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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.