



# 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](http://www.iecex.com)

Certificate No.: **IECEx UL 21.0036X** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2022-01-12

Applicant: **Top Hi-Tech Co., Ltd.**  
9F, No. 1, Zhongshan Rd.  
Tucheng District  
New Taipei City, 236  
**Taiwan**

Equipment: **LED Luminaires, Model L1905 Series – Models THTH1905ACB and THTH1905ACK Series**

Optional accessory:

Type of Protection: **Restricted breathing "nR", Dust ignition protection by enclosure "tb"**

Marking: Ex nR IIC T6 Gc  
Ex tb IIIC T85°C Db  
-20°C ≤ Ta ≤ +40°C or  
-20°C ≤ Ta ≤ +50°C

Approved for issue on behalf of the IECEx  
Certification Body:

**Katy A. Holdredge**

Position:

**Senior Staff Engineer**

Signature:  
(for printed version)

Date:

2022-01-12

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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  
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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/ExTR21.0037/00](#)

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 L1905 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.
- The gasket not to be replaced in the field.

## **Annex:**

[Annex to IECEx UL 21.0036X 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	1905	A	C	K	C	9	F0
	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

1905 = Model L1905 Series

4 – Designates of PC Cover

A = PC Cover

5 – Designates of Top Cover

C = Top Cover

6 – Designates type of LED module

B = DCOB type (For 10W, 20W only)

K = SMD type (For 40W, 50W, 60W only)

7 – Designates CCT of LED

C = Cool white (For DCOB and SMD type only)

W = Warm white (For DCOB and SMD type only)

R = Red (For DCOB type only)

G = Green (For DCOB type only)

8 – Designates voltage of luminaire

4 = 100 Vac (For DCOB type only)

1 = 110 Vac (For DCOB and SMD type only)

6 = 120 Vac (For DCOB and SMD type only)

5 = 200 Vac (For DCOB type only)

7 = 208 Vac (For DCOB type only)

2 = 220 Vac (For DCOB and SMD type only)

D = 230 Vac (For DCOB and SMD type only)

8 = 240 Vac (For DCOB type only)

9 = 277 Vac (For DCOB and SMD type only)

F = 347 Vac (For DCOB and SMD type only)

C = 480 Vac (For DCOB and SMD type only)

9 – Designates wattage of luminaire

A0 = 10 W (For DCOB type only)

B0 = 20 W (For DCOB type only)

D0 = 40 W (For SMD type only)

E0 = 50 W (For SMD type only)

F0 = 60 W (For SMD type only)



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Models covered are as follows:

Models	Ambient Temperature range	'nR' Temperature Code	'tb' Temperature Rating
THTH1905ACBxyz	-20°C to +40°C	T6	T85°C
THTH1905ACKxxyzz	-20°C to +50°C	T6	T85°C

x can be C, W, R or G; y can be 4, 1, 6, 5, 7, 2, D, 8, 9, F or C; z can be A0 or B0  
xx can be C or W; yy can be 1, 6, 2, D, 9, F or C; zz can be D0, E0 or F0

## PARAMETERS RELATING TO THE SAFETY

Electrical Rating:

Models	Voltage (Vac)	Frequency (Hz)	Wattage (W)
THTH1905ACBxyz	100/110/120/200/208/220/230/240/277/347/480	50/60	10/20
THTH1905ACKxxyzz	110/120/220/230/277/347/480	50/60	40/50/60

x can be C, W, R or G; y can be 4, 1, 6, 5, 7, 2, D, 8, 9, F or C; z can be A0 or B0  
xx can be C or W; yy can be 1, 6, 2, D, 9, F or C; zz can be D0, E0 or F0

## MARKING

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

TOP HI-TECH CO., LTD  
Universal Hazloc LED Lighting  
SN : xxyy-zzz  
UL 21 ATEX 2336X IECEx UL 21.0036X  
Ex nR IIC T6 Gc  
UL 21 ATEX 2335X IECEx UL 21.0036X  
Ex tb IIIC T85°C Db  
Ambient temperature:  $-20^{\circ}\text{C} \leq T_a \leq 40^{\circ}\text{C}$   
9F, No.1, Zhongshan Road, Tucheng Dist. New Taipei City,  
23680, Taiwan (R.O.C)

TOP HI-TECH CO., LTD  
Universal Hazloc LED Lighting  
SN : xxyy-zzz  
UL 21 ATEX 2336X IECEx UL 21.0036X  
Ex nR IIC T6 Gc  
UL 21 ATEX 2335X IECEx UL 21.0036X  
Ex tb IIIC T85°C Db  
Ambient temperature:  $-20^{\circ}\text{C} \leq T_a \leq 50^{\circ}\text{C}$   
9F, No.1, Zhongshan Road, Tucheng Dist. New Taipei City,  
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TOP HI-TECH CO., LTD

Universal Hazloc LED Lighting

SN : xxyy-zzz

THTH1905AC①②③④

V : V P : W



UL 21 ATEX 2336X

II 3 G Ex nR IIC T6 Gc

UL 21 ATEX 2335X

II 2 D Ex tb IIIC T85°C Db

IECEx UL 21.0036X

Ex nR IIC T6 Gc

IECEx UL 21.0036X

Ex tb IIIC T85°C Db

Ambient temperature:  $-20^{\circ}\text{C} \leq T_a \leq 40^{\circ}\text{C}$



9F, No.1, Zhongshan Road, Tucheng Dist. New Taipei City, 23680, Taiwan (R.O.C)

TOP HI-TECH CO., LTD

Universal Hazloc LED Lighting

SN : xxyy-zzz

THTH1905AC①②③④

V : V P : W



UL 21 ATEX 2336X

II 3 G Ex nR IIC T6 Gc

UL 21 ATEX 2335X

II 2 D Ex tb IIIC T85°C Db

IECEx UL 21.0036X

Ex nR IIC T6 Gc

IECEx UL 21.0036X

Ex tb IIIC T85°C Db

Ambient temperature:  $-20^{\circ}\text{C} \leq T_a \leq 50^{\circ}\text{C}$



9F, No.1, Zhongshan Road, Tucheng Dist. New Taipei City, 23680, Taiwan (R.O.C)

- ① - Designates type of LED module
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  - K = SMD type (For 40W, 50W, 60W only)
- ② - Designates CCT of LED
  - C = Cool white (For DCOB and SMD type only)
  - W = Warm white (For DCOB and SMD type only)
  - R = Red (For DCOB type only)
  - G = Green (For DCOB type only)
- ③ - Designates voltage of luminaire
  - 4 = 100 Vac (For DCOB type only)
  - 1 = 110 Vac (For DCOB and SMD type only)
  - 6 = 120 Vac (For DCOB and SMD type only)
  - 5 = 200 Vac (For DCOB type only)
  - 7 = 208 Vac (For DCOB type only)
  - 2 = 220 Vac (For DCOB and SMD type only)
  - D = 230 Vac (For DCOB and SMD type only)
  - 8 = 240 Vac (For DCOB type only)
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  - F = 347 Vac (For DCOB and SMD type only)
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- ④ - Designates wattage of luminaire
  - A0 = 10 W (For DCOB type only)
  - B0 = 20 W (For DCOB type only)
  - D0 = 40 W (For SMD type only)
  - E0 = 50 W (For SMD type only)
  - F0 = 60 W (For SMD type only)



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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.

## 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.