



# 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 20.0012X** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2020-09-02

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

Equipment: **LED Luminaires, 15 Series: Models THTH1915S and THTH1915D 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 T115°C...T100°C Db**  
**-20°C ≤ Ta ≤ +40°C or -20°C ≤ Ta ≤ +60°C**

Approved for issue on behalf of the IECEx  
Certification Body:

**Katy A. Holdredge**

Position:

**Senior Staff Engineer**

Signature:  
(for printed version)

Date:

2020-09-02

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Certificate issued by:

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





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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/ExTR20.0012/00](#)

Quality Assessment Report:

[DE/TUR/QAR13.0016/03](#)



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## **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

The L1915 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 protection concept).
- The gasket not to be replaced in the field.

## **Annex:**

[Annex to IECEx UL 20.0012X Issue 0.pdf](#)



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## TYPE DESIGNATION

Nomenclature for Luminaires:

The complete luminaire catalogue number example is as follows:

Cat.	THT	H	1915	S	C	K	C	9	P0
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

1915 = Model L1915 Series

4 – Designates quantity of Tank

S = Single Tank (For 120 W, 140 W, 150 W, 180 W, 200 W, 220 W, 250 W only)

D = Dual Tank (For 240 W, 280 W, 300 W, 360 W, 400 W, 440 W, 500 W only)

5 – Designates type of Top Cover

C = Top Cover with opening

6 – Designates type of LED module

K = Circle SMD type

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

D = 230 Vac

9 = 277 Vac

F = 347 Vac

C = 480 Vac

9 – Designates wattage of luminaire

L0 = 120 W (For single Tank only)

N0 = 140 W (For single Tank only)

P0 = 150 W (For single Tank only)

S0 = 180 W (For single Tank only)

U0 = 200 W (For single Tank only)

W0 = 220 W (For single Tank only)

Y0 = 240 W (For dual Tank only)

25 = 250 W (For single Tank only)

28 = 280 W (For dual Tank only)

30 = 300 W (For dual Tank only)



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36 = 360 W (For dual Tank only)  
40 = 400 W (For dual Tank only)  
44 = 440 W (For dual Tank only)  
50 = 500 W (For dual Tank only)

## PARAMETERS RELATING TO THE SAFETY

Electrical Rating:

Models	Voltage (Vac)	Wattage (W)
THTH1915SCKxyz	110/120/220/230/277/347/480	120/140/150/180/200/220/250
THTH1915DCKxyzz	110/120/220/230/277/347/480	240/280/300/360/400/440/500
x can be C or W; y can be 1, 6, 2, D, 9, F or C; z can be L0, N0, P0, S0, U0, W0 or 25; zz can be Y0, 28, 30, 36, 40, 44 or 50		

Models covered are as follows:

Models	Ambient Temperature range	Gas Temperature Code	Dust Temperature Rating
THTH1915SCKxyz	-20°C to +40°C	T5	T100°C
THTH1915DCKxyzz	-20°C to +60°C	T4	T115°C
x can be C or W; y can be 1, 6, 2, D, 9, F or C; z can be L0, N0, P0, S0, U0, W0 or 25; zz can be Y0, 28, 30, 36, 40, 44 or 50			

## MARKING

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

<p><b>TOP HI-TECH CO.,LTD</b> <math>-20^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}</math></p> <p>THTH1915①CK②③④</p> <p>UL 20 ATEX 2310X IECEx UL 20.0012X</p> <p>CE II 3 G Ex nR IIC T5 Gc Ex nR IIC T5 Gc</p> <p>UL 20 ATEX 2339X IECEx UL 20.0012X</p> <p>CE0035 II 2 D Ex tb IIIC T100°C Db Ex tb IIIC T100°C Db</p> <p>V: _____ Vac P: _____ W S/N: 1920-001</p> <p>9F, No.1, Zhongshan Road, Tucheng Dist. New Taipei City, Taiwan. (R.O.C)</p>	<p><b>TOP HI-TECH CO.,LTD</b> <math>-20^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}</math></p> <p>THTH1915①CK②③④</p> <p>UL 20 ATEX 2310X IECEx UL 20.0012X</p> <p>CE II 3 G Ex nR IIC T4 Gc Ex nR IIC T4 Gc</p> <p>UL 20 ATEX 2339X IECEx UL 20.0012X</p> <p>CE0035 II 2 D Ex tb IIIC T115°C Db Ex tb IIIC T115°C Db</p> <p>V: _____ Vac P: _____ W S/N: 1920-001</p> <p>9F, No.1, Zhongshan Road, Tucheng Dist. New Taipei City, Taiwan. (R.O.C)</p>
<p><b>WARNING</b> – The luminaire shall not be opened."</p> <p><b>WARNING</b> – Potential Electrostatic Charging Hazard – See Instructions"</p> <p><b>WARNING</b> - The luminaire does not have a test port fitted"</p> <p><b>WARNING</b> - The gasket not to be replaced in the field"</p>	
<p>SN number description as show the follow:</p> <p>19 means 2019.</p> <p>20 means twentieth weeks.</p> <p>001 means number of product.</p>	



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*Model Code:*

*THTH1915①CK②③④*

①: *S = Single Tank, D = Dual Tank*

②: *C = Cool White, W = Warm White*

③: *1=110Vac, 6=120Vac, 2=220Vac, 9=277Vac, D=230Vac, F=347Vac, C=480Vac*

④: *L0=120W, N0=140W, P0=150W, S0=180W, U0=200W, W0=220W, Y0=240W*

*25=250W, 28=280W, 30=300W, 36=360W, 40=400W, 44=440W, 50=500W*

## **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.