

# TYPE EXAMINATION CERTIFICATE



## Equipment or Protective System intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

- [3] Type Examination Certificate Number **UL 21 ATEX 2336X Rev. 0**
- [4] Product: **LED Luminaires, Models L1905 Series – Models THTH1905ACB and THTH1905ACK Series**
- [5] Manufacturer: **Top Hi-Tech Co., Ltd.**
- [6] Address: **9F, No. 1, Zhongshan Rd., Tucheng District, New Taipei City 236, Taiwan (R.O.C)**
- [7] This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- [8] UL International Demko A/S certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014.
- The examination and test results are recorded in confidential report no. **US/UL/ExTR21.0037/00.**
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
- EN IEC 60079-0:2018      EN IEC 60079-15: 2019**
- except in respect of those requirements listed at item 18 of the Schedule.
- [10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.
- [11] This Type examination certificate relates only to the design of the specified product, and not to specific items of product subsequently manufactured.
- [12] The marking of the product shall include the following:

 **II 3 G      Ex nR IIC T6 Gc**

**Certification Manager**  
Jan-Erik Storgaard

This is to certify that the sample(s) of the Product described herein ("Certified Product") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Product Certification Program Requirements. This certificate and test results obtained apply only to the product sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured product. UL has not established Follow-Up Service or other surveillance of the product. The Manufacturer is solely and fully responsible for conformity of all product to all applicable Standards, specifications, requirements or Directives. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

**Date of issue: 2022-01-12**

**Certification Body**

UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark  
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## Schedule TYPE EXAMINATION CERTIFICATE No. UL 21 ATEX 2336X Rev. 0

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Description of Product:

The Model L1905 Series of LED luminaires is suitable for use in hazardous location classified as Zone 2. This luminaire consists of one "nR" LED array chamber.

Nomenclature for Luminaires:

The complete luminaire catalogue number example is as follows:

Cat.	THT	H	1905	A	C	K	C	9	F0
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

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)

Models covered are as follows:

Models	Ambient Temperature range	'nR' Temperature Code
THTH1905ACBxyz	-20°C to +40°C	T6
THTH1905ACKxxyyzz	-20°C to +50°C	T6
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		

The optical radiation output of the product with respect to explosion protection, according to Annex II clause 1.3.1 of the Directive 2014/34/EU is covered in this certificate based on Exception 2) to the scope of EN 60079-28:2015.

Electrical data:

Models	Voltage (Vac)	Frequency (Hz)	Wattage (W)
THTH1905ACBxyz	100/110/120/200/208/220/230/240/277/347/480	50/60	10/20
THTH1905ACKxxyyzz	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			

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**Schedule**  
**TYPE EXAMINATION CERTIFICATE No.**  
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Routine tests:

Routine dielectric strength testing according to clause 12.1 of EN 60079-15 is required.

Routine restricted breathing testing according to clause 12.2.2.1.2 of EN 60079-15 is required.

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Descriptive Documents:

The scheduled drawings are listed in the report no. provided under item no. [ 8 ] on page 1 of this Type Examination Certificate.

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Special Conditions of Use:

- 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.

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Essential Health and Safety Requirements:

The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9.

Additional information:

The Models L1905 Series has in addition passed the tests for Ingress Protection to IP67 in accordance with EN60529:1991+A1:2000+A2:2013.

THT-EX THT-EX

