



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 21.0001X** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2021-08-23

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

Equipment: **LED Luminaires, Model L2004 Series – Models THTH2004E and THTH2004F Series**

Optional accessory:

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

Marking: Ex nR IIC T5...T6 Gc
Ex tb IIIC T100°C...T85°C Db
-25°C ≤ Ta ≤ +40°C or
-25°C ≤ Ta ≤ +55°C

Approved for issue on behalf of the IECEx
Certification Body:

Katy A. Holdredge

Position:

Senior Staff Engineer

Signature:
(for printed version)

2021-08-23

Date:

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.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



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 1 Zhongshan Rd.
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/ExTR21.0001/00](#)

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 L2004 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).
- The gasket not to be replaced in the field.

Annex:

[Annex to IECEx UL 21.0001X Issue 0.pdf](#)



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TYPE DESIGNATION

Nomenclature for Luminaires:

The complete luminaire catalogue number example is as follows:

Cat.	THT	H	2004	F	N	H	C	9	F0	03
No.	1	2	3	4	5	6	7	8	9	10

1 – Brand name

THT = Top Hi-Tech Co., Ltd.

2 – Category of product

H = HazLoc LED luminaire

3 – Model name

2004 = Model L2004 Series

4 – Designates length of LED luminaire

E = Middle size (2ft) (For 20W and 40W only)

F = Long size (4ft) (For 40W and 60W only)

5 – Designates type of Top Cover

N = No Top Cover exist

6 – Designates type of LED module

H = SMD type

7 – Designates CCT of LED

C = Cool white

W = Warm white

Y = Yellow light

G = Green light

8 – Designates voltage of luminaire

4 = 100 Vac

1 = 110 Vac

5 = 200 Vac

2 = 220 Vac

9 = 277 Vac

9 – Designates wattage of luminaire

B0 = 20W (For 2ft only)

D0 = 40W (For 2ft and 4ft)

F0 = 60W (For 4ft only)

10 – Designates number of PC tube

03 = Single PC tube

04 = Dual PC tube



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Models covered are as follows:

Models	Ambient Temperature Range	'nR' Temperature Code	'tb' Temperature Rating
THTH2004ENHwxy	-25°C to +40°C	T5	T100°C
z	-25°C to +55°C	T5	T100°C
THTH2004FNHwxy	-25°C to +40°C	T6	T85°C
z	-25°C to +55°C	T5	T100°C

w can be C, W, Y or G; x can be 4, 1, 5, 2 or 9; y can be B0, D0 or F0; z can be 03 or 04

PARAMETERS RELATING TO THE SAFETY

Electrical Rating:

Models	Length	Voltage (Vac)	Frequency (Hz)	Wattage (W)
THTH2004ENHwxB0z	2ft	100/110/200/220/277	50/60	20
THTH2004ENHwxD0z		100/110/200/220/277	50/60	40
THTH2004FNHwxD0z	4ft	100/110/200/220/277	50/60	40
THTH2004FNHwxF0z		100/110/200/220/277	50/60	60

w can be C, W, Y or G; x can be 4, 1, 5, 2 or 9; z can be 03 or 04

MARKING

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

<p>TOP HI-TECH CO.,LTD -25°C ≤ Ta ≤ +40°C</p> <p>THTH2004ENH ②③④⑤ S/N: 2101-001</p> <p>CE UL 21 ATEX 2500X IECEx UL 21.0001X</p> <p>II 3 G Ex nR IIC T5 Gc Ex nR IIC T5 Gc V: ___ Vac</p> <p>CE UL 21 ATEX 2499X IECEx UL 21.0001X</p> <p>0035 II 2 D Ex tb IIIC T100°C Db Ex tb IIIC T100°C Db P: ___ W</p> <p>9F, No.1, Zhongshan Road, Tucheng Dist. New Taipei City, Taiwan. (R.O.C)</p>	<p>TOP HI-TECH CO.,LTD -25°C ≤ Ta ≤ +55°C</p> <p>THTH2004ENH ②③④⑤ S/N: 2101-001</p> <p>CE UL 21 ATEX 2500X IECEx UL 21.0001X</p> <p>II 3 G Ex nR IIC T5 Gc Ex nR IIC T5 Gc V: ___ Vac</p> <p>CE UL 21 ATEX 2499X IECEx UL 21.0001X</p> <p>0035 II 2 D Ex tb IIIC T100°C Db Ex tb IIIC T100°C Db P: ___ W</p> <p>9F, No.1, Zhongshan Road, Tucheng Dist. New Taipei City, Taiwan. (R.O.C)</p>
<p>TOP HI-TECH CO.,LTD -25°C ≤ Ta ≤ +40°C</p> <p>THTH2004FNH ②③④⑤ S/N: 2101-001</p> <p>CE UL 21 ATEX 2500X IECEx UL 21.0001X</p> <p>II 3 G Ex nR IIC T6 Gc Ex nR IIC T6 Gc V: ___ Vac</p> <p>CE UL 21 ATEX 2499X IECEx UL 21.0001X</p> <p>0035 II 2 D Ex tb IIIC T85°C Db Ex tb IIIC T85°C Db P: ___ W</p> <p>9F, No.1, Zhongshan Road, Tucheng Dist. New Taipei City, Taiwan. (R.O.C)</p>	<p>TOP HI-TECH CO.,LTD -25°C ≤ Ta ≤ +55°C</p> <p>THTH2004FNH ②③④⑤ S/N: 2101-001</p> <p>CE UL 21 ATEX 2500X IECEx UL 21.0001X</p> <p>II 3 G Ex nR IIC T5 Gc Ex nR IIC T5 Gc V: ___ Vac</p> <p>CE UL 21 ATEX 2499X IECEx UL 21.0001X</p> <p>0035 II 2 D Ex tb IIIC T100°C Db Ex tb IIIC T100°C Db P: ___ W</p> <p>9F, No.1, Zhongshan Road, Tucheng Dist. New Taipei City, Taiwan. (R.O.C)</p>
<p>TOP HI-TECH CO.,LTD -25°C ≤ Ta ≤ +40°C</p> <p>THTH2004FNHC9F003 S/N: 2101-001</p> <p>CE UL 21 ATEX 2500X IECEx UL 21.0001X</p> <p>II 3 G Ex nR IIC T6 Gc Ex nR IIC T6 Gc V: 277 Vac</p> <p>CE UL 21 ATEX 2499X IECEx UL 21.0001X</p> <p>0035 II 2 D Ex tb IIIC T85°C Db Ex tb IIIC T85°C Db P: 60 W</p> <p>9F, No.1, Zhongshan Road, Tucheng Dist. New Taipei City, Taiwan. (R.O.C)</p>	<p>TOP HI-TECH CO.,LTD -25°C ≤ Ta ≤ +55°C</p> <p>THTH2004FNHC9F003 S/N: 2101-001</p> <p>CE UL 21 ATEX 2500X IECEx UL 21.0001X</p> <p>II 3 G Ex nR IIC T5 Gc Ex nR IIC T5 Gc V: 277 Vac</p> <p>CE UL 21 ATEX 2499X IECEx UL 21.0001X</p> <p>0035 II 2 D Ex tb IIIC T100°C Db Ex tb IIIC T100°C Db P: 60 W</p> <p>9F, No.1, Zhongshan Road, Tucheng Dist. New Taipei City, Taiwan. (R.O.C)</p>



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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"

Model Code:

THTH2004①NH②③④⑤

① :E=middle size(2ft), F=long size(4ft)

② :C=Cool white, W=Warm white, Y=Yellow Light, G=Green Light

③ :1=110Vac, 2=220Vac, 9=277Vac, 4=100Vac, 5=200Vac

④ :A0=10W, B0=20W, D0=40W, F0=60W

⑤ :03=Single PC Tube, 04=Dual PC Tube

SN number description as show the follow:

21 means 2021.

01 means first week.

001 means number of product.

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.