



Verification Report

Applicant : NEKO LIGHTING AG


Address : Kreuzstrasse 2, CH-8008 Zürich, Switzerland

Factory : NEKO LIGHTING AG

Address : Nairui Industrial Park, No.9, Xin Le Wu Road, Ma'an Town, Huicheng District, Huizhou, Guangdong, China

Report on the submitted samples said to be:

Sample Name(s) : Ceilinglight

Trade Mark : 

Part No. : See attached table

Sample Received Date : September 21, 2022

Testing Period : September 21, 2022 ~ October 09, 2022

Date of Report : October 09, 2022

Testing Location : 901, No.40 Building, Xialang Industrial Zone, Heshuikou Community, Matian Street, Guangming District, Shenzhen, Guangdong, China

Results : Please refer to next page(s).



| TEST REQUEST | CONCLUSION |
|--|------------|
| As specified by client, based on the performed tests on submitted sample, the result of Lead(Pb), Cadmium(Cd), Mercury(Hg), Hexavalent Chromium(Cr(VI)), PBBs, PBDEs, Dibutyl Phthalate(DBP), Butylbenzyl Phthalate(BBP), Di-2-ethylhexyl Phthalate(DEHP) and Diisobutyl phthalate(DIBP) content comply with the limits set by RoHS Directive 2011/65/EU with amendment (EU) 2015/863. | PASS |

Signed for and on behalf of LCS



Young/Laboratory Manager





Ceilinglight series:

GAME 350-14W、SUGAR 350-14W、GAME 350-18W、SUGAR 350-18W、GAME 350-26W、SUGAR 350-26W、GAME 350-24W、SUGAR 350-24W、GAME 350-28W、SUGAR 350-28W、GAME 350-36W、SUGAR 350-36W、GAME 450-18W、SUGAR 450-18W、GAME 450-26W、SUGAR 450-26W、GAME 450-40W、SUGAR 450-40W、GAME 450-31W、SUGAR 450-31W、GAME 450-39W、SUGAR 450-39W、GAME 450-52W、SUGAR 450-52W、GAME 600 -40W、SUGAR 600 -40W、GAME 600-50W、SUGAR 600-50W、GAME 600-76W、SUGAR 600-76W、GAME 600 -60W、SUGAR 600 -60W、GAME 600-70W、SUGAR 600-70W、GAME 600-96W、SUGAR 600-96W、GAME 900 -68W、SUGAR 900 -68W、GAME 900-100W、SUGAR 900-100W、GAME 900 -96W、SUGAR 900 -96W、GAME 900-128W、SUGAR 900-128W、FLATIA 350-C-14W、FLATIA 350-D-14W、FLATIA 350-C-18W、FLATIA 350-D-18W、FLATIA 350-C-26W、FLATIA 350-D-26W、FLATIA 350-C-24W、FLATIA 350-D-24W、FLATIA 350-C-28W、FLATIA 350-D-28W、FLATIA 350-C-36W、FLATIA 350-D-36W、FLATIA 450-C-18W、FLATIA 450-D-18W、FLATIA 450-C-26W、FLATIA 450-D-26W、FLATIA 450-C-40W、FLATIA 450-D-40W、FLATIA 450-C-31W、FLATIA 450-D-31W、FLATIA 450-C-39W、FLATIA 450-D-39W、FLATIA 450-C-52W、FLATIA 450-D-52W、FLATIA 600-C-40W、FLATIA 600-D-40W、FLATIA 600-C-50W、FLATIA 600-D-50W、FLATIA 600-C-76W、FLATIA 600-D-76W、FLATIA 600-C-60W、FLATIA 600-D-60W、FLATIA 600-C-70W、FLATIA 600-D-70W、FLATIA 600-C-96W、FLATIA 600-D-96W、FLATIA 900-C-68W、FLATIA 900-D-68W、FLATIA 900-C-100W、FLATIA 900-D-100W、FLATIA 900-C-96W、FLATIA 900-D-96W、FLATIA 900-C-128W、FLATIA 900-D-128W、NOVA-P XS-9W、MIU-C S-11W、MIU-P S-11W、NOVA-C S-10D、NOVA-P S-10D、MIU-C M-15W、MIU-P M-15W、NOVA-C M-21W、NOVA-P M-21W、MIU-C L-28W、MIU-P L-28W、PURE Art-C-15W、PURE ART-C-Z-15W、PURE S-C-15W、PURE S-C-Z-15W、Brick-68S1-EA930L10S、Brick-68S1-CA930LxxS、Brick-68S1-CB930LxxS、Brick-68S2-EA930L10S、Brick-68S2-CA930LxxS、Brick-68S2-CB930LxxS、Brick-45S1-EY930LxxS、VRA-C-9W、VRA-C-13W、FX4-C、FF5-C、Luna-14W、Luna-20W、Luna-24W、Luna-30W、Cloud-14W、Cloud-20W、Cloud-24W、Cloud-30W、T150-C-21W、T150-C-28W



**Results:****A. EU RoHS Directive 2011/65/EU and its amendment directives**

Test method: With reference to IEC 62321-1:2013&IEC 62321-2:2021&IEC 62321-3-1:2013, Screening by X-ray Fluorescence Spectroscopy (XRF)

| Sample No. | Sample Description | Results | | | | | | Date of sample submission/ Resubmission |
|------------|------------------------------|---------|----|----|-----------------|-----------------|-------|--|
| | | Cd | Pb | Hg | Cr [▼] | Br [▼] | | |
| | | | | | | PBBs | PBDEs | |
| 1 | Black plastic liner | BL | BL | BL | BL | BL | BL | 2022-09-21 |
| 2 | Black seal transparent label | BL | BL | BL | BL | BL | BL | 2022-09-21 |
| 3 | White metal shell | BL | BL | BL | BL | / | / | 2022-09-21 |
| 4 | White plastic | BL | BL | BL | BL | BL | BL | 2022-09-21 |
| 5 | White plastic shell | BL | BL | BL | BL | BL | BL | 2022-09-21 |
| 6 | Transparent plastic shell | BL | BL | BL | BL | BL | BL | 2022-09-21 |
| 7 | Black plastic | BL | BL | BL | BL | X | X | 2022-09-21 |
| 8 | Bright black plastic sheet | BL | BL | BL | BL | BL | BL | 2022-09-21 |
| 9 | Silver metal | X | BL | BL | BL | / | / | 2022-09-21 |
| 10 | Silver metal long screw | BL | BL | BL | X | / | / | 2022-09-21 |
| 11 | Silver metal | BL | BL | BL | BL | / | / | 2022-09-21 |
| 12 | The golden metal | OL | OL | BL | BL | / | / | 2022-09-21 |
| 13 | Red plastic liner | BL | BL | BL | BL | BL | BL | 2022-09-21 |
| 14 | Black plastic liner | BL | BL | BL | BL | BL | BL | 2022-09-21 |
| 15 | White rope | BL | BL | BL | BL | BL | BL | 2022-09-21 |
| 16 | Silver metal block | BL | BL | BL | BL | / | / | 2022-09-21 |
| 17 | Silver metal sheet | BL | BL | BL | X | / | / | 2022-09-21 |
| 18 | Silver metal magnet | OL | OL | BL | X | / | / | 2022-09-21 |
| 19 | Silver metal screw | BL | BL | BL | BL | / | / | 2022-09-21 |
| 20 | Silver metal ring pad | BL | BL | BL | BL | / | / | 2022-09-21 |
| 21 | Silver metal screw | BL | BL | BL | BL | / | / | 2022-09-21 |
| 22 | Silver metal nut | BL | BL | BL | BL | / | / | 2022-09-21 |
| 23 | White and yellow soft LED | BL | BL | BL | BL | BL | BL | 2022-09-21 |
| 24 | Solder | BL | BL | BL | BL | / | / | 2022-09-21 |
| 25 | Silver metal sheet | BL | BL | BL | BL | / | / | 2022-09-21 |
| 26 | White plastic | BL | BL | BL | BL | BL | BL | 2022-09-21 |
| 27 | Silver metal screw | BL | BL | BL | BL | / | / | 2022-09-21 |
| 28 | Solder | BL | OL | BL | BL | / | / | 2022-09-21 |
| 29 | Brown plastic liner | BL | BL | BL | BL | BL | BL | 2022-09-21 |



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Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

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| Sample No. | Sample Description | Results | | | | | | Date of sample submission/ Resubmission |
|------------|---|---------|----|----|-----------------|-----------------|-------|---|
| | | Cd | Pb | Hg | Cr [▼] | Br [▼] | | |
| | | | | | | PBBs | PBDEs | |
| 30 | Blue plastic liner | BL | BL | BL | BL | BL | BL | 2022-09-21 |
| 31 | Copper wire | BL | BL | BL | BL | / | / | 2022-09-21 |
| 32 | Green and yellow plastic thread leather | BL | BL | BL | BL | BL | BL | 2022-09-21 |
| 33 | Grey print white plastic | BL | BL | BL | BL | BL | BL | 2022-09-21 |
| 34 | Black metal case | BL | BL | BL | BL | / | / | 2022-09-21 |
| 35 | Black print white label | BL | BL | BL | BL | BL | BL | 2022-09-21 |
| 36 | Black print silver label | BL | BL | BL | BL | BL | BL | 2022-09-21 |
| 37 | Yellow plastic | BL | BL | BL | BL | BL | BL | 2022-09-21 |
| 38 | Black plastic ring | BL | BL | BL | BL | BL | BL | 2022-09-21 |
| 39 | Transparent plastic | BL | BL | BL | BL | BL | BL | 2022-09-21 |
| 40 | Yellow plastic | BL | BL | BL | BL | BL | BL | 2022-09-21 |
| 41 | Black print white label | BL | BL | BL | BL | BL | BL | 2022-09-21 |
| 42 | Black seal transparent label | BL | BL | BL | BL | BL | BL | 2022-09-21 |
| 43 | White plastic liner | BL | BL | BL | BL | BL | BL | 2022-09-21 |
| 44 | White plastic sheet | BL | BL | BL | BL | BL | BL | 2022-09-21 |
| 45 | Transparent plastic sheet | BL | BL | BL | BL | BL | BL | 2022-09-21 |
| 46 | Black viscous foam | BL | BL | BL | BL | BL | BL | 2022-09-21 |
| 47 | White plastic | BL | BL | BL | BL | BL | BL | 2022-09-21 |

Note:

- Results were obtained by XRF for primary screening, and further chemical testing by ICP(for Cd, Pb, Hg), UV-Vis(for Cr(VI)) and GC-MS(for PBBs, PBDEs) are recommended to be performed, if the concentration exceeds the below warning value according to IEC 62321-3-1:2013(Unit: mg/kg).

| Element | Polymers | Metals | Composite material |
|---------|--|--|--|
| Cd | $BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$ | $BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$ | $LOD < X < (150+3\sigma) \leq OL$ |
| Pb | $BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$ | $BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$ | $BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$ |
| Hg | $BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$ | $BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$ | $BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$ |
| Cr | $BL \leq (700-3\sigma) < X$ | $BL \leq (700-3\sigma) < X$ | $BL \leq (500-3\sigma) < X$ |
| Br | $BL \leq (300-3\sigma) < X$ | N/A | $BL \leq (250-3\sigma) < X$ |





Remark:

- BL= Below Limit
 - OL= Over Limit
 - X= The range of needing to do further testing
 - 3σ= The reproducibility of analytical instruments
 - N/A= Not applicable
 - LOD= Detection limit
2. The XRF screening test for RoHS elements – The reading may be different to the actual content in the sample be of non-uniformity composition.
 3. The maximum permissible limit is quoted from the document RoHS Directive 2011/65/EU with amendment (EU) 2015/863.
 4. ▼=For restricted substances PBBs and PBDEs, the results show the total Br content, the restricted substance was Cr(VI), and the results showed the total Cr content.

| RoHS Restricted Substances | Maximum Concentration Value (mg/kg) (by weight in homogenous materials) |
|--------------------------------------|--|
| Cadmium(Cd) | 100 |
| Lead(Pb) | 1000 |
| Mercury(Hg) | 1000 |
| Hexavalent Chromium(Cr(VI)) | 1000 |
| Polybrominated biphenyls(PBBs) | 1000 |
| Polybrominated diphenylethers(PBDEs) | 1000 |
| Dibutyl Phthalate(DBP) | 1000 |
| Butylbenzyl Phthalate(BBP) | 1000 |
| Di-(2-ethylhexyl) Phthalate(DEHP) | 1000 |
| Diisobutyl phthalate(DIBP) | 1000 |

Disclaimers:

This XRF Screening report is for reference purposes only. The applicant shall make its/his/her own judgment as to whether the information provided in this XRF screening report is sufficient for its/his/her purposes. The result shown in this XRF screening report will differ based on various factors, including but not limited to, the sample size, thickness, area, surface flatness, equipment parameters and matrix effect (e.g. plastic, rubber, metal, glass, ceramic etc.). Further wet chemical pre-treatment with relevant chemical equipment analysis are required to obtain quantitative data.



**B. EU RoHS Directive 2011/65/EU with amendment (EU) 2015/863 on Lead(Pb), Cadmium(Cd), Mercury(Hg), Hexavalent Chromium(Cr(VI)), PBBs, PBDEs, DBP, BBP, DEHP & DIBP content**Test method:

Lead(Pb) & Cadmium(Cd) Content:

With reference to IEC 62321-5:2013, by acid digestion and analysis was performed by inductively coupled plasma atomic emission spectrometer (ICP-OES) or Atomic absorption spectrometer (AAS).

Mercury(Hg) Content:

With reference to IEC 62321-4:2013+AMD1:2017 CSV, by acid digestion and analysis was performed by inductively coupled plasma atomic emission spectrometer (ICP-OES).

Hexavalent Chromium(Cr(VI)) Content:

With reference to IEC 62321-7-1:2015 or IEC 62321-7-2:2017, analysis was performed by UV-visible spectrophotometer (UV-Vis).

PBBs & PBDEs Content:

With reference to IEC 62321-6:2015, by solvent extraction and analysis was performed by gas chromatographic-mass spectrometer (GC-MS).

Phthalates(DBP, BBP, DEHP & DIBP) Content:

With reference to IEC 62321-8:2017, by solvent extraction and analysis was performed by gas chromatographic-mass spectrometer (GC-MS).

1) The test results of Lead(Pb) & Cadmium(Cd)

| Tested Items | MDL (mg/kg) | Results (mg/kg) | | | Limit (mg/kg) |
|------------------|----------------|--------------------|------|------|------------------|
| | | (12) | (18) | (28) | |
| Lead(Pb) Content | 5 | 92 | 586 | 64 | 1000 |

| Tested Items | MDL (mg/kg) | Results (mg/kg) | | | Limit (mg/kg) |
|---------------------|----------------|--------------------|------|------|------------------|
| | | (9) | (12) | (18) | |
| Cadmium(Cd) Content | 5 | N.D. | N.D. | N.D. | 100 |

2) The test results of Hexavalent Chromium(Cr(VI))(for coating on metal)

| Tested Items | MDL ($\mu\text{g}/\text{cm}^2$) | Results ($\mu\text{g}/\text{cm}^2$) | | | Limit ($\mu\text{g}/\text{cm}^2$) |
|--------------------------------------|--------------------------------------|--|------|------|--|
| | | (10) | (17) | (18) | |
| Hexavalent Chromium(Cr(VI)) Content★ | 0.10 (LOQ) | N.D. | N.D. | N.D. | 1000 |



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**3) The test results of Phthalates(DBP, BBP, DEHP &DIBP)**

| Tested Items | MDL (mg/kg) | Results (mg/kg) | Limit (mg/kg) |
|---|----------------|--------------------|------------------|
| | | 1+2+4+5+6+7 | |
| Dibutyl Phthalate(DBP) Content | 600 | N.D. | 1000 |
| Butylbenzyl Phthalate(BBP) Content | 600 | N.D. | 1000 |
| Di-(2-ethylhexyl) Phthalate(DEHP) Content | 600 | N.D. | 1000 |
| Diisobutyl phthalate(DIBP) Content | 600 | N.D. | 1000 |

| Tested Items | MDL (mg/kg) | Results (mg/kg) | Limit (mg/kg) |
|---|----------------|--------------------|------------------|
| | | 8+13+14+15+23+26 | |
| Dibutyl Phthalate(DBP) Content | 600 | N.D. | 1000 |
| Butylbenzyl Phthalate(BBP) Content | 600 | N.D. | 1000 |
| Di-(2-ethylhexyl) Phthalate(DEHP) Content | 600 | N.D. | 1000 |
| Diisobutyl phthalate(DIBP) Content | 600 | N.D. | 1000 |

| Tested Items | MDL (mg/kg) | Results (mg/kg) | Limit (mg/kg) |
|---|----------------|--------------------|------------------|
| | | 29+30+32+33+35+36 | |
| Dibutyl Phthalate(DBP) Content | 600 | N.D. | 1000 |
| Butylbenzyl Phthalate(BBP) Content | 600 | N.D. | 1000 |
| Di-(2-ethylhexyl) Phthalate(DEHP) Content | 600 | N.D. | 1000 |
| Diisobutyl phthalate(DIBP) Content | 600 | N.D. | 1000 |

| Tested Items | MDL (mg/kg) | Results (mg/kg) | Limit (mg/kg) |
|---|----------------|--------------------|------------------|
| | | 37+38+39+40+41+42 | |
| Dibutyl Phthalate(DBP) Content | 600 | N.D. | 1000 |
| Butylbenzyl Phthalate(BBP) Content | 600 | N.D. | 1000 |
| Di-(2-ethylhexyl) Phthalate(DEHP) Content | 600 | N.D. | 1000 |
| Diisobutyl phthalate(DIBP) Content | 600 | N.D. | 1000 |



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| Tested Items | MDL (mg/kg) | Results (mg/kg) | Limit (mg/kg) |
|---|----------------|--------------------|------------------|
| | | 43+44+45+46+47 | |
| Dibutyl Phthalate(DBP) Content | 600 | N.D. | 1000 |
| Butylbenzyl Phthalate(BBP) Content | 600 | N.D. | 1000 |
| Di-(2-ethylhexyl) Phthalate(DEHP) Content | 600 | N.D. | 1000 |
| Diisobutyl phthalate(DIBP) Content | 600 | N.D. | 1000 |

4) The test results of PBBs & PBDEs

| Tested Items | MDL (mg/kg) | Results (mg/kg) | Limit (mg/kg) |
|---|----------------|--------------------|------------------|
| | | (7) | |
| Polybrominated Biphenyls(PBBs) Content | | | |
| Monobromobiphenyl | 5 | N.D. | / |
| Dibromobiphenyl | 5 | N.D. | / |
| Tribromobiphenyl | 5 | N.D. | / |
| Tetrabromobiphenyl | 5 | N.D. | / |
| Pentabromobiphenyl | 5 | N.D. | / |
| Hexabromobiphenyl | 5 | N.D. | / |
| Heptabromobiphenyl | 5 | N.D. | / |
| Octabromobiphenyl | 5 | N.D. | / |
| Nonabromodiphenyl | 5 | N.D. | / |
| Decabromodiphenyl | 5 | N.D. | / |
| Total content | / | N.D. | 1000 |
| Polybrominated Diphenylethers(PBDEs) Content | | | |
| Monobromodiphenyl ether | 5 | N.D. | / |
| Dibromodiphenyl ether | 5 | N.D. | / |
| Tribromodiphenyl ether | 5 | N.D. | / |
| Tetrabromodiphenyl ether | 5 | N.D. | / |
| Pentabromodiphenyl ether | 5 | N.D. | / |
| Hexabromodiphenyl ether | 5 | N.D. | / |
| Heptabromodiphenyl ether | 5 | N.D. | / |
| Octabromodiphenyl ether | 5 | N.D. | / |
| Nonabromodiphenyl ether | 5 | N.D. | / |
| Decabromodiphenyl ether | 5 | N.D. | / |
| Total content | / | N.D. | 1000 |



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Note:

- MDL = Method Detection Limit
- N.D. = Not Detected (<MDL or LOQ)
- mg/kg = milligrams per kilogram
- LOQ = Limit Of Quantification, The LOQ of Hexavalent chromium is $0.10 \mu\text{g}/\text{cm}^2$
- ★ = a. The sample is positive for Cr(VI) if the Cr(VI) concentration is greater than $0.13 \mu\text{g}/\text{cm}^2$. The sample coating is considered to contain Cr(VI).
b. The sample is negative for Cr(VI) if Cr(VI) is N.D.(concentration less than $0.10 \mu\text{g}/\text{cm}^2$). The sample coating is considered a non- Cr(VI) based coating.
c. The result between $0.10 \mu\text{g}/\text{cm}^2$ and $0.13 \mu\text{g}/\text{cm}^2$ is considered to be inconclusive, unavoidable coating variations may influence the determination.
- Information on storage conditions and production date of the tested samples is unavailable and thus Cr(VI) results represent status of the sample at the time of testing.
- According to customer's requirement, only the appointed materials have been tested.
- According to the client's statement, the results of point 1 ~ 47 are quoted from point 1 ~ 47 of the report LCSA082322067R, and the original data is directly quoted, the referenced samples are not tested this time.



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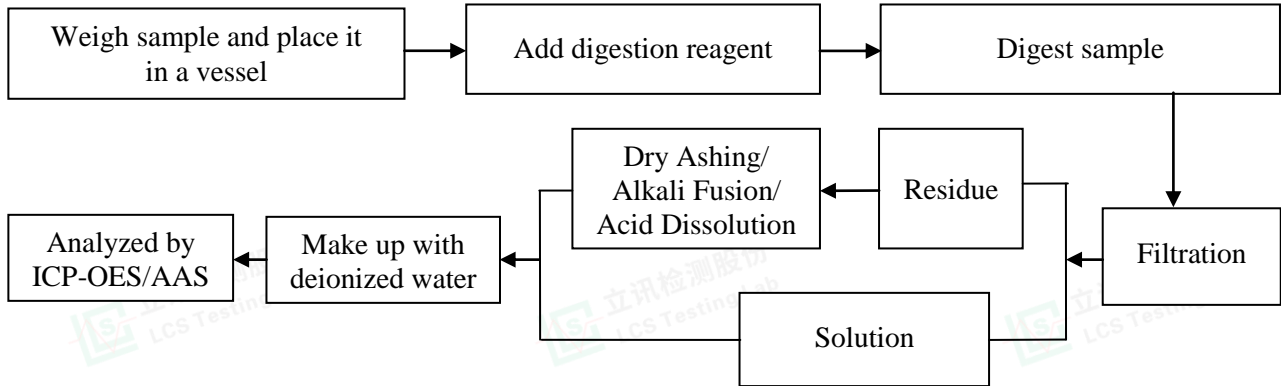
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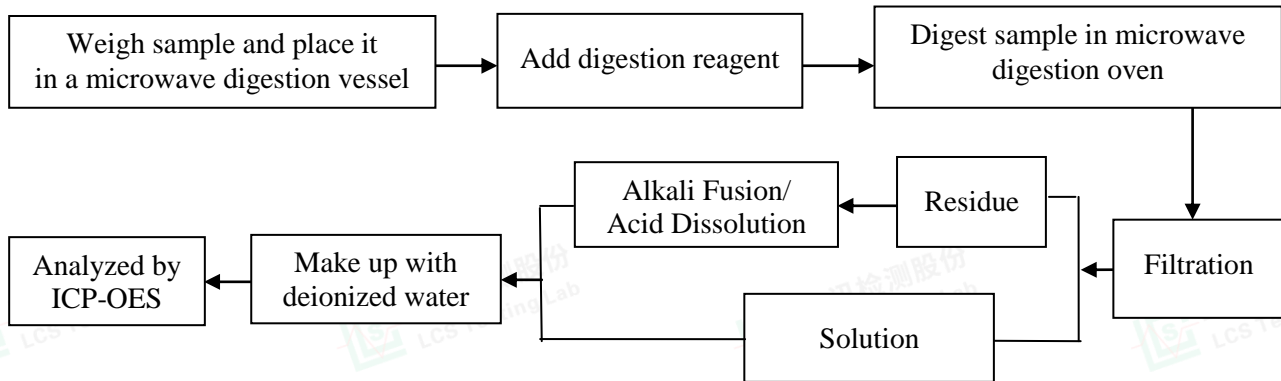


Test Process

1. Lead(Pb) & Cadmium(Cd): IEC 62321-5:2013

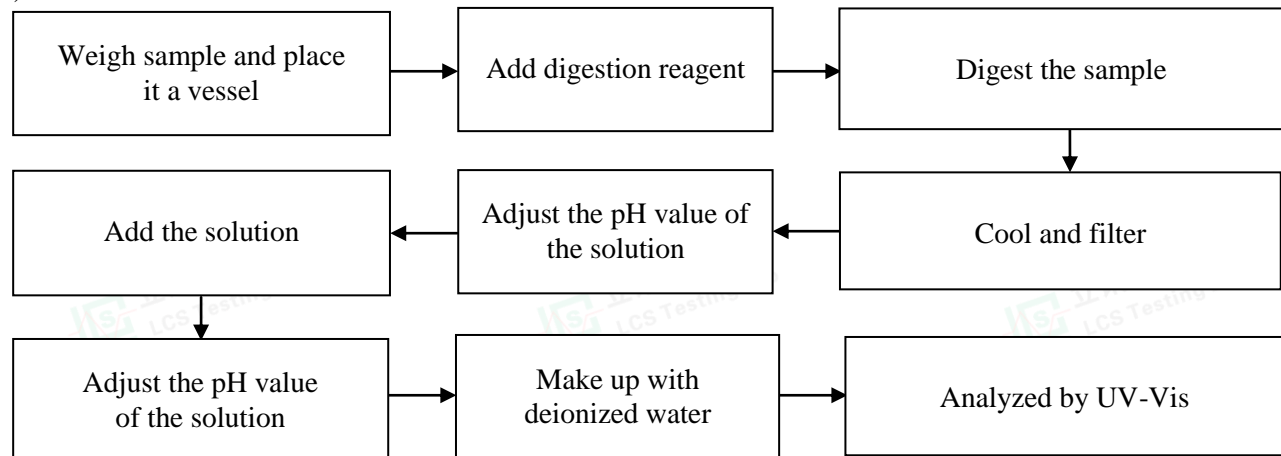


2. Mercury(Hg): IEC 62321-4:2013+AMD1:2017 CSV



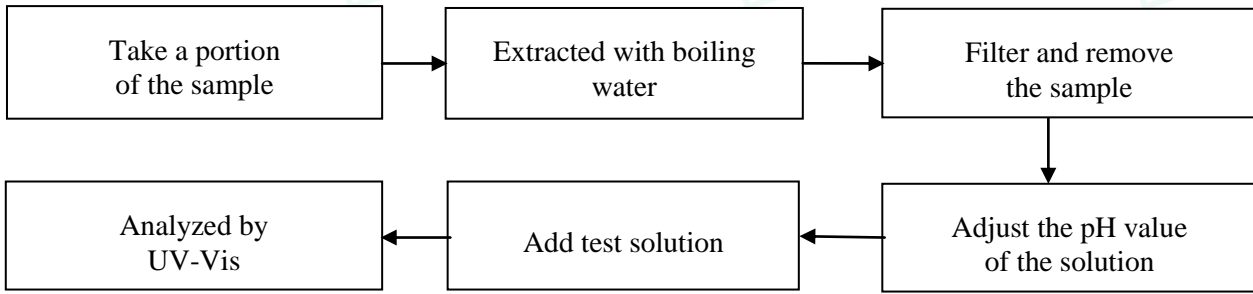
3. Hexavalent Chromium(Cr(VI))

1) IEC 62321-7-2:2017

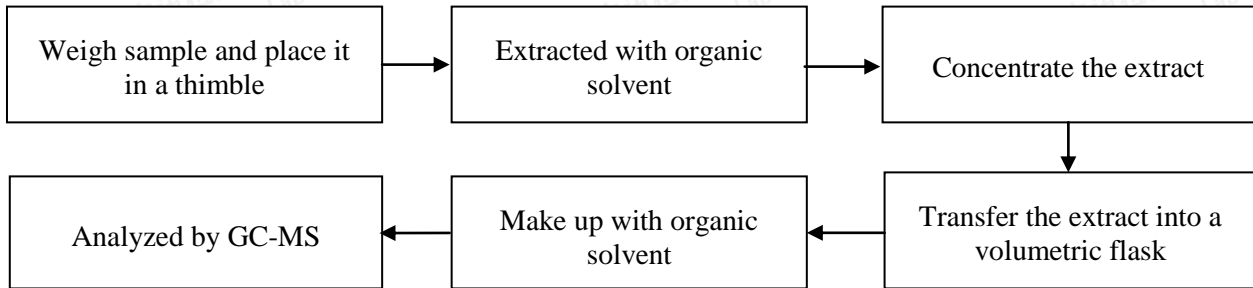




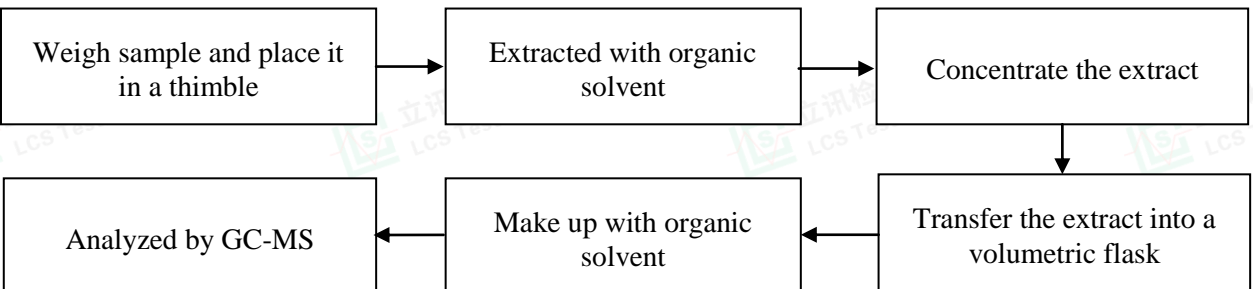
2) IEC 62321-7-1:2015



4. Polybrominated Biphenyls(PBBs) & Polybrominated Diphenyl Ethers(PBDEs) : IEC 62321-6:2015

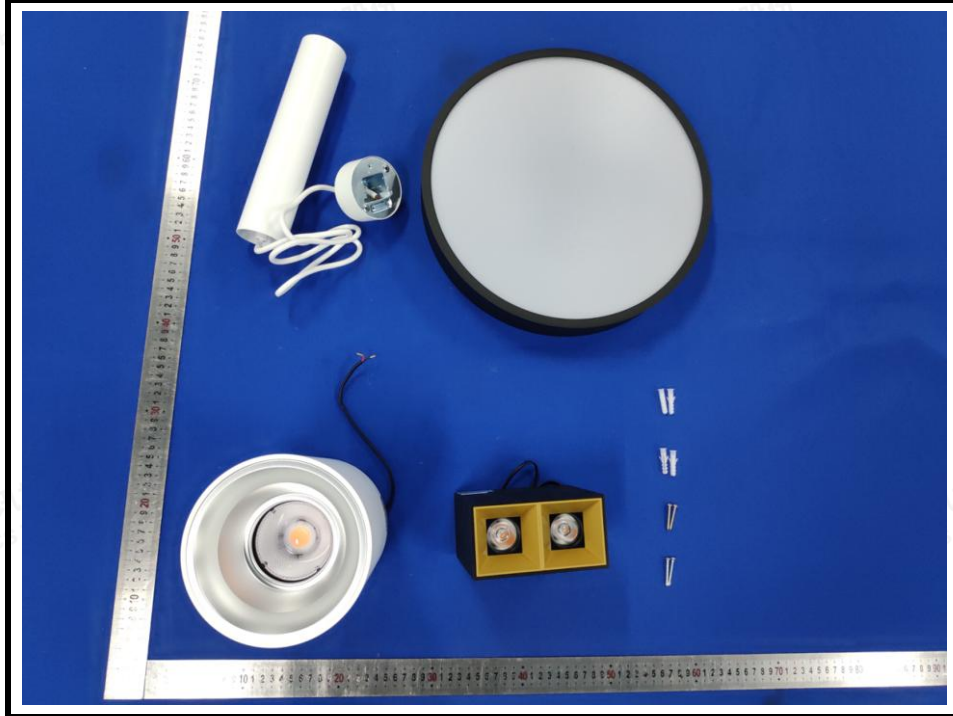


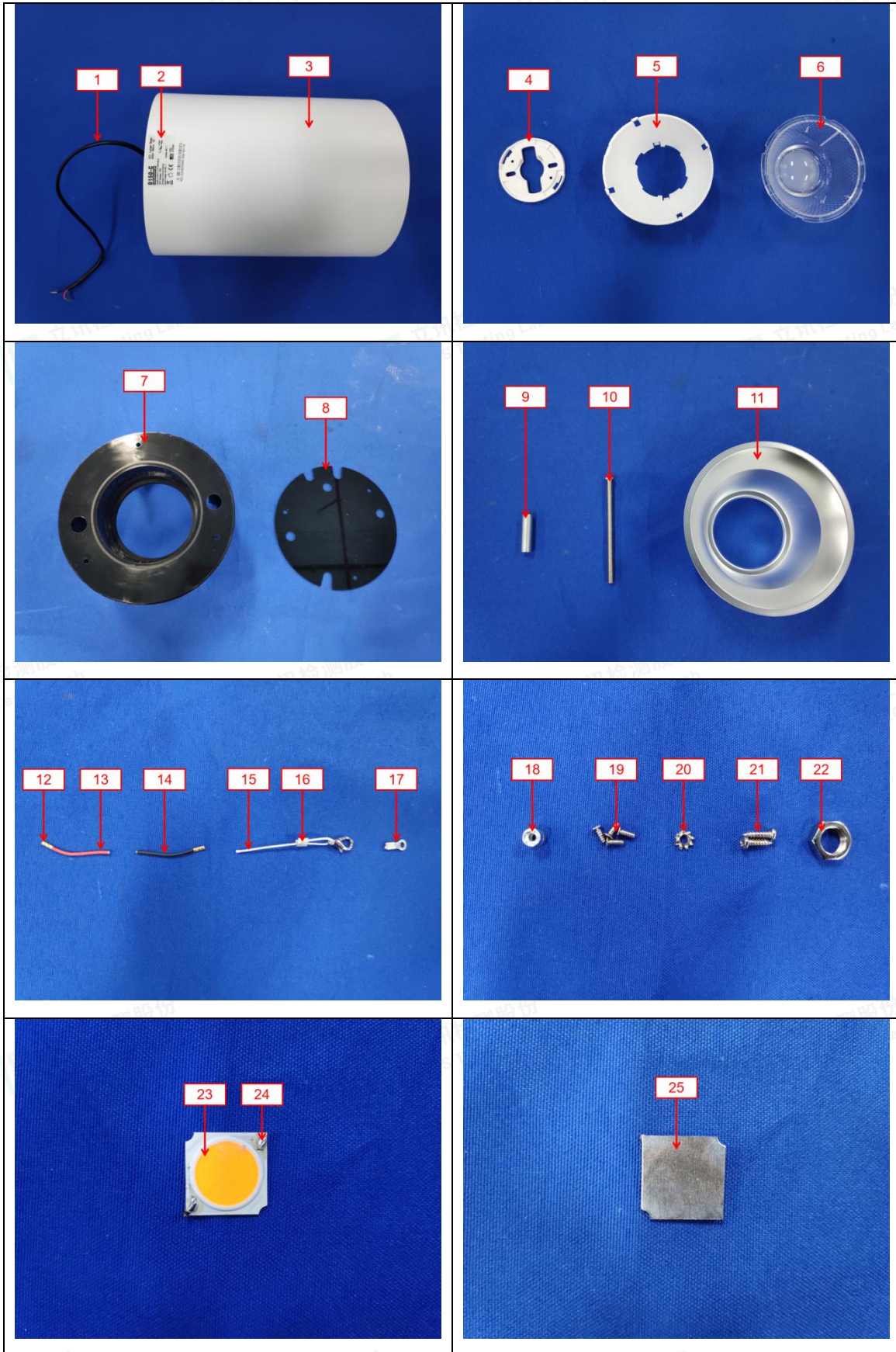
5. Phthalates(DBP, BBP, DEHP & DIBP) : IEC 62321-8:2017

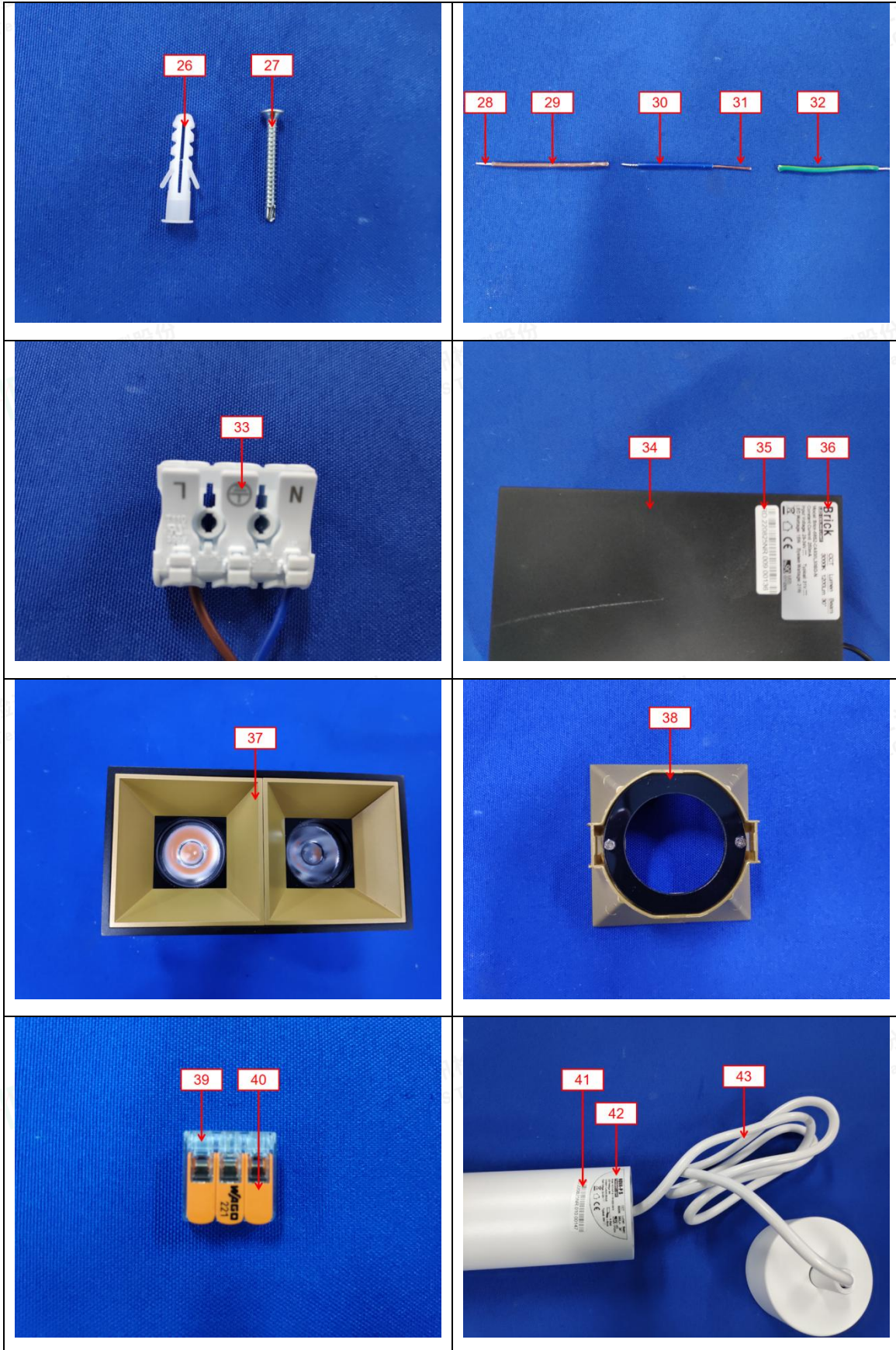


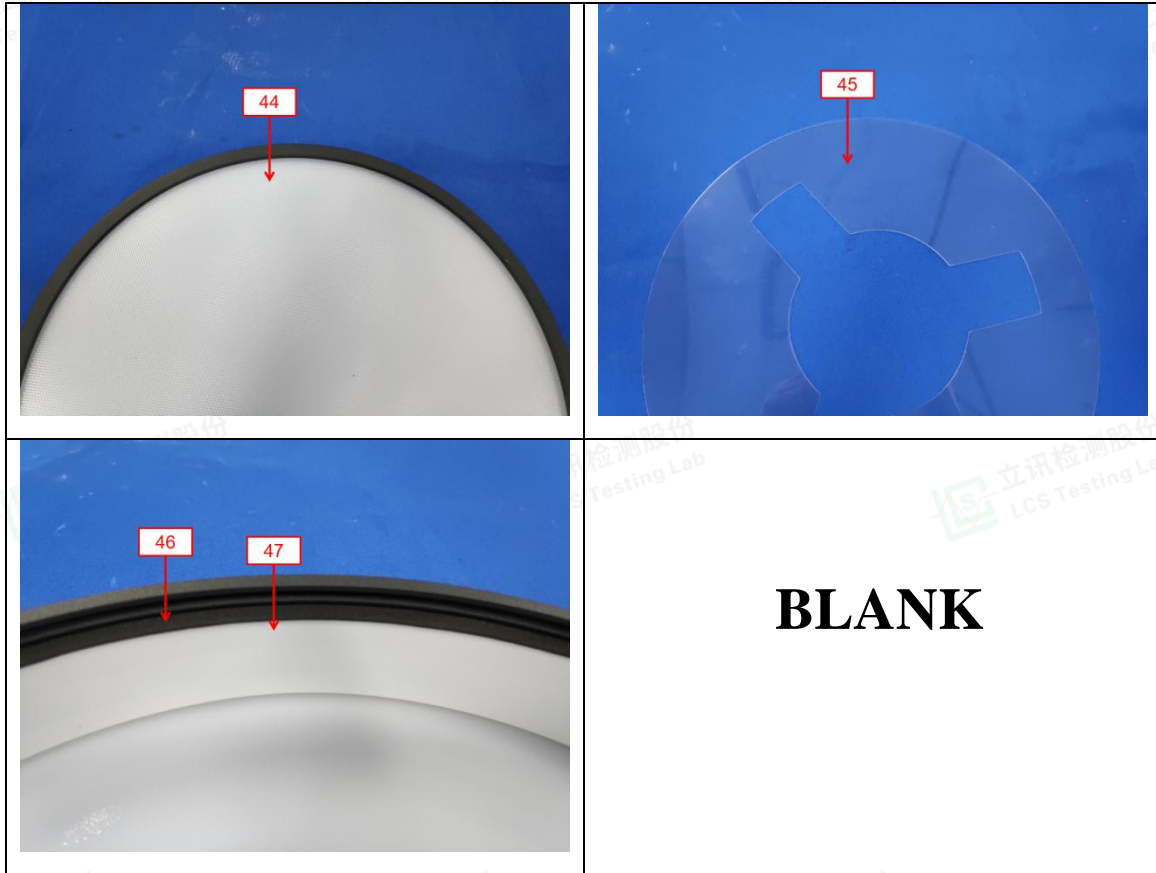


The photo(s) of the sample









Statement:

1. The test report is invalid without the signature of the approver and the special seal for the company's report;
2. The company name, address and sample information shown on the report were provided by the applicant who should be responsible for the authenticity which are not verified by LCS;
3. The test results in this report are only responsible for the tested samples;
4. Without written approval of LCS, this report can't be reproduced except in full;
5. In case of any discrepancy between the corresponding Chinese and English contents in the test report, the English version shall prevail.

*** End of Report ***

