

Factory Evaluation Report

Client:	XXXXXXXXXXSYSTEMS LTD	Type of Evaluation:	Factory Audit
Vendor /Supplier:	XXXXXXElectronics Co. LTD	Project No.:	HIFA1012135678
Factory Name:	XXXXXX ELECTRONIC.CO.,LTD	Item Description:	LED LIGHT
Address:	SHENZHEN XXXXX AREAXXXX LEZHUIJIAO VILLAGE	Auditor :	STEVENWONG,ZAOWEILING
Telephone:	0755-XXXXXX	Audit Date:	AUG.12-13,2010
Facsimile:	0755-XXXXXX	Time In:	0900
E-mail:	XXXXXXXXX@GMAIL.COM	Time Out	1730

Reason for Audit: **Initial Qualification** **In- Production Audit**
 Follow- up Audit **Other (specify)**

Gnereral Overview

Grade System: Percentage achieved: 84% Grade A
 >80% = A 60-80% =B 50-60% = C <50% = Ungraded
 PASS [] FAIL [X]

Rating: 84%

If failure, reason: Critical item C6,C7,C8,C16 are failed

Important Remarks

1	This is an ISO9001 certificated factory. CE certificate , ROHS certificate for LED tube, and ISO9001 certificate for factory was presented for inspection reference during inspection.
2	The XXXXX Electronics Co. LTD is part of XXXXX Electronic Co., LTD and all the LED light are produced in XXXXX Electronic Co., LTD. The XXXXXElectronics Co. LTD and XXXXXElectronic Co., LTD both has separate business operation.
3	The life and reliability test should be conducted on all client' products and the records should be maintained.
4	The improvement is recommended that IQC , PQC, FQC should have a detailed written inspection report maintained demonstrating how quality requirements on products are checked in house.
5	<ul style="list-style-type: none"> • XXX-T8L60P8-F T8 LED Tube 600mm manufactured and tested in the inspected factory • XXX-T8L120P15-F T8 LED Tube 1200mm manufactured and tested in the inspected factory • XXX-T8L150P18-F T8 LED Tube 1500mm manufactured and tested in the inspected factory • XXX-ID120-W01 Hi Bay Lamp not found manufactured and tested in the inspected factory <p>The test data is attached The over voltage protection test was refused from factory</p>
6	For T8 LED tube: light source, SMD LED, XXXXX3528 from XXXX specified in SPEC, but only

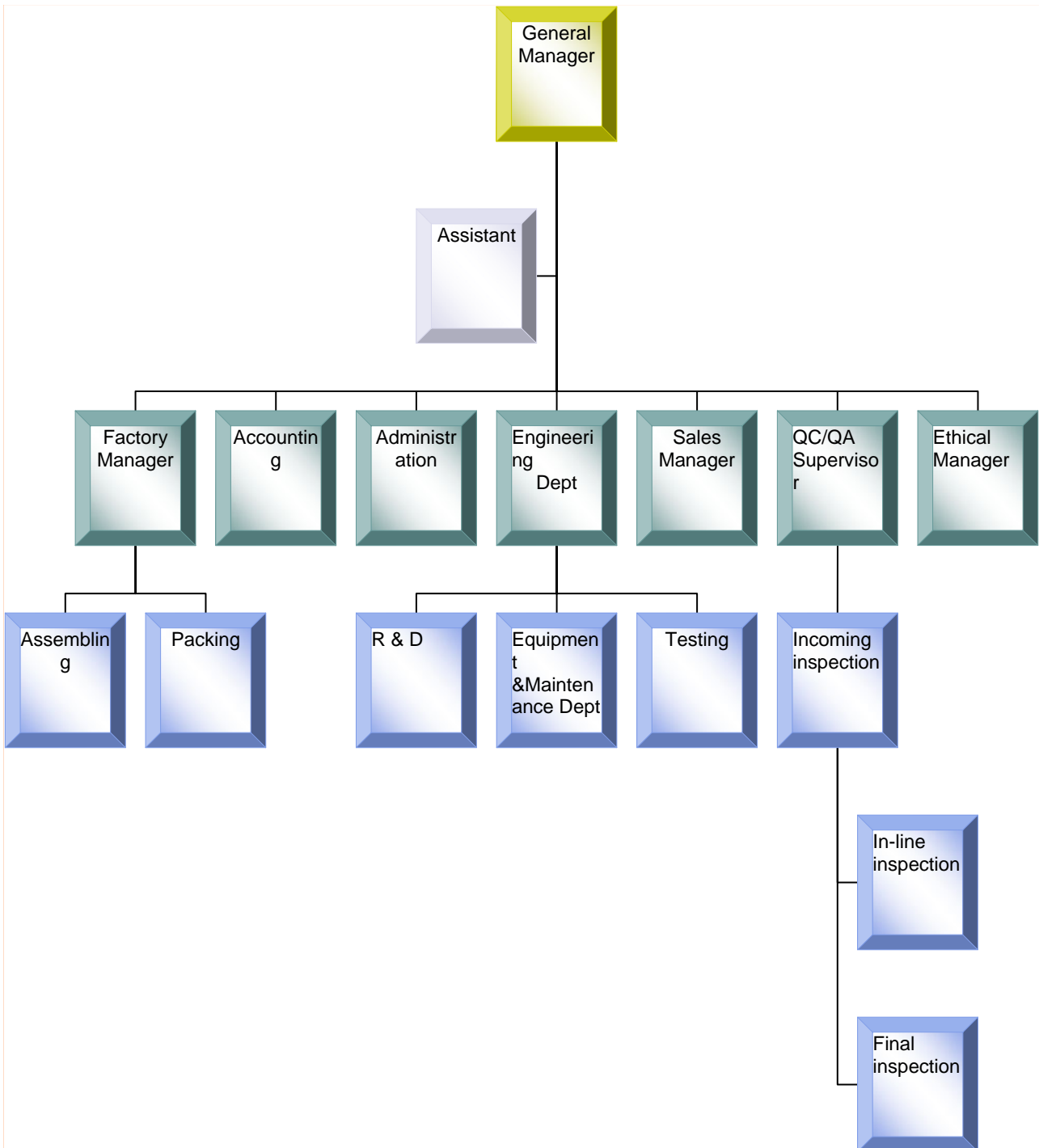
	provided a suppliers information for reference “ GUANGZHOU XXXX XXXX-ELECTRONIC CO.,LTD” part no. HL-A-3528H238W-S.This supplier not found on qualification supplier list
7	The factory inspection is only completely performed on LED strap light due to LED tube light only welding process present on site.

Company Organization		Met during audit?
Managing Director/General Manager	Mr. Li XXXX	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Sales Manager/Marketing Manager	Ms Zhang XXXXX	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Technical Manager/Chief officer	Mr.Li XXXX	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
QC/QA Supervisor	Mr.XXXX	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Production Manager/Factory Manager	Mr.Tian XXXX	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Compliance /Ethical Manager	Ms Zhang XXXX	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Human Resources Manager	Ms Bai XXXX	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Auditor Accompanied By	Mr Huang, Ms JiangXXXX	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Person to whom QC/QA Manager reports:		General Manager
Person to whom the Compliance /Ethical Manager reports:		General Manager
Does QA or Compliance/Ethical Manager have other job responsibilities in other areas ?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If yes, please list:		
Factory has been in operation since: 2008		
Business License:	Certificate No.:4403061036XXXXX Legal Representative: Mr. Li XXXX Date issued: 2010-07-10 Expiration:2018-9-18 Register Capital: ¥ 3.5 million	
Last Years Turnover: ¥ 50million		
Main product: LED Light		
Main market : Europe ,USA		
*Does factory have experience manufacturing this type of product		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Is this an ISO9000 accredited factory If so, give date and type (e.g. 9002) of accreditation, the reference number and the name of the organisation which granted the accreditation ISO9001:2008 certification approved by XXXXXCertification Center Inc on September 17,2009 and valid on September 16,2012. The certification No.04909Q11XXXXX	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Is this an SA8000 accredited factory If so, give date and type of accreditation, the reference number and the name of the organisation which granted the accreditation	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Is this an ISO14000 accredited factory If so, give date and type of accreditation, the reference number and the name of the organisation which granted the accreditation	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Is this an ICTI accredited factory ? If so ,give date and type of accreditation ,the reference number and the name of the organisation which granted the accreditation	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Does the factory hold any other certifications? If so ,please list	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Has the factory purchased comprehensive accident insurance cover ?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Does the insurance cover include the value of good stored in warehousing?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<u>Staffing Levels</u> Remarks: Alert client if there is a large discrepancy found between A & B	Manufacturing Personnel: 150 Quality Controllers: 11 Engineers: 13 Others : 70 Total Employees: 244 Employees employed (A) 244 Employees present at time of Audit (B): <u>170</u>
Does the Factory have the design capability & software to produce: Instruction Manuals? Packaging Artwork? If yes then please attach an example to this report.Photoshop	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Current Major Customers:XXXXX(GERMANY) XXXXX STATION (GUANGZHOU)	
List type and number of major items of machinery in factory:	
Goniophoto meters X 1, Lamp complete anal ysis system X1, Digital storage oscilloscope X1, Optical color and electrical measurement system X 1, voltage adjust machine X 10, Hi – pot tester X 4, Plus UV-VIS –NEAR IR spectrophoto color rimeter X 1, vacuum packing machine 3pcs.power parameter tester X 8.black cabinet X4	

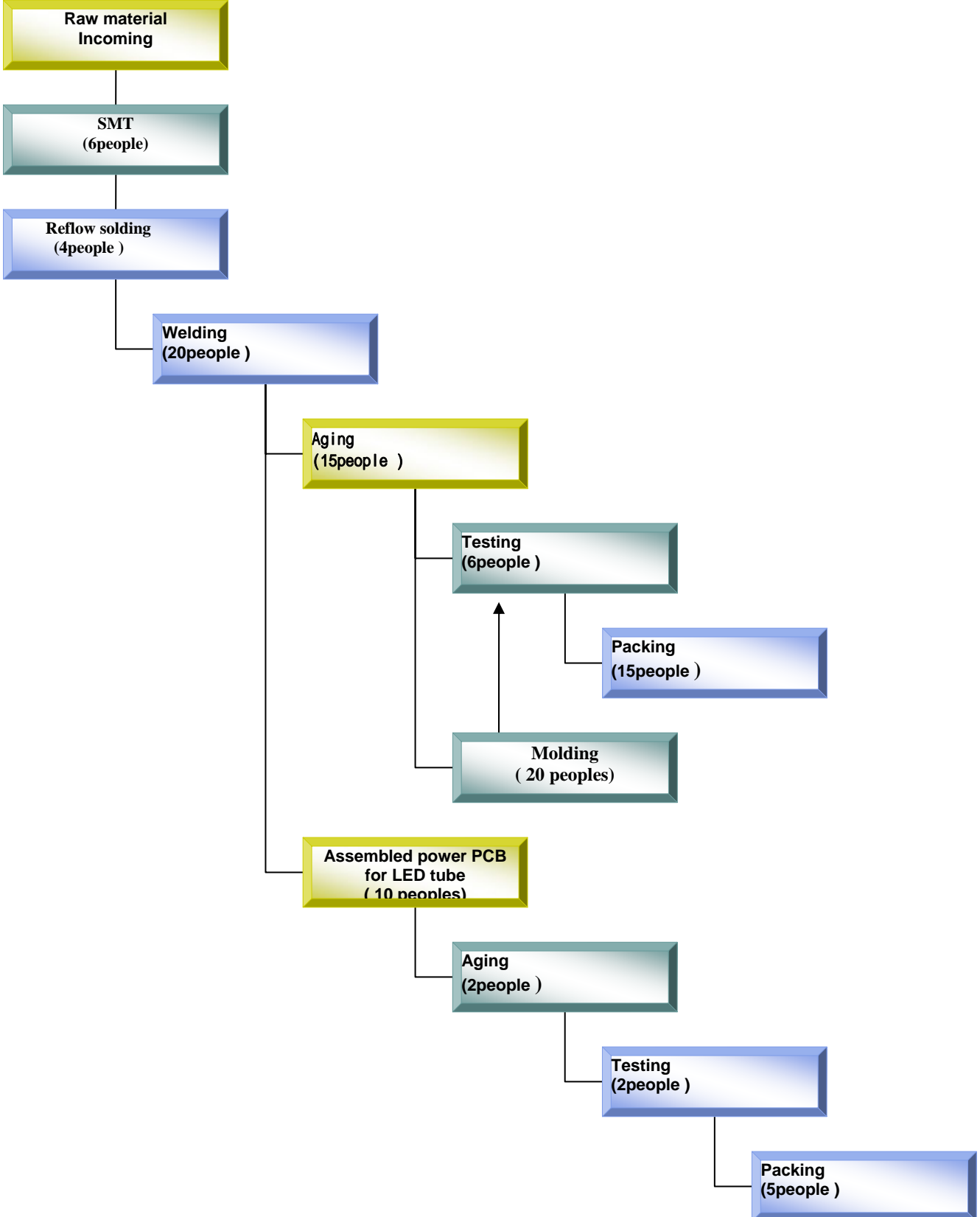
SUBCONTRACT	
List finished products which are sub-contracted:	N/A
List key components/sub-assemblies which are sub-contracted:	FIBRE PCB, LIGHT SOURCE, POWER BOARD
List processes which are sub-contracted:	PRINTING, ELECTROPLATE

Factory Organization Chart



Production Workflow Chart

Pls remark how many people/workers for the major process



A. FACILITIES

1.	Is the plant layout generally acceptable to manufacture the item in question?	[X] Yes [] No																																	
2.	Is overall maintenance of the premises acceptable?	[X] Yes [] No																																	
3.	Is the general housekeeping acceptable and free from dust?	[X] Yes [] No																																	
4.	Are procedures in place to control pests?	[X] Yes [] No																																	
5.	Is there a no-smoking policy?	[X] Yes [] No																																	
6.	Is there a no food and drink policy on the production floor?	[] Yes [X] No																																	
7.	Is production machinery operated under a maintenance schedule?	[] Yes [X] No																																	
8.	Does the factory possess a strong maintenance team to back up production?	[X] Yes [] No																																	
9.	Does the factory have either: (a) A well organised maintenance team to give immediate response to a machinery breakdown or emergency that affects production? Or (b) Have maintenance cover sub-contracted with a guaranteed response time What is guaranteed response time? <u>One day at most</u>	[X] Yes [] No [X] Yes [] No																																	
10.	Are machines/equipment periodically maintained, calibrated, and checked to run efficiently?	[X] Yes [] No																																	
*11.	Are available machines/equipment/fixtures suitable to produce client's products?	[X] Yes [] No																																	
12.	If applicable, are injection, rotocast moulds, spraying masks stored to Avoid rust or damage?	[X] Yes [] No																																	
13.	Is the communication system effective? Are fax and telephone utilities available?	[X] Yes [] No																																	
*14.	Does the factory have a back up electricity supply? 400kw	[X] Yes [] No																																	
*15.	Can the back up electricity support the normal production demand?	[X] Yes [] No																																	
16.	What is the Factory Floor Space <u>10000 m²</u> <i>Non-scoring</i>																																		
17.	Does the Factory have warehouse facilities? <i>Non-scoring</i>	[X] Yes [] No																																	
18.	Does the Factory have in-house design? <i>Non-scoring</i>	[X] Yes [] No																																	
19.	Does the factory have Product Development? <i>Non-scoring</i>	[X] Yes [] No																																	
20.	Does the Factory have an on-site laboratory? <i>Non-scoring</i>	[X] Yes [] No																																	
Rating: Facilities		0 1 2 3 4 5 6 7 8 9																																	
Attach equipment list of facilities if available		<table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">10</td> <td style="text-align: center;">11</td> <td style="text-align: center;">12</td> <td style="text-align: center;">13</td> <td style="text-align: center;">14</td> <td style="text-align: center;">15</td> <td style="background-color: #cccccc;"></td> <td style="background-color: #cccccc;"></td> <td style="background-color: #cccccc;"></td> <td style="background-color: #cccccc;"></td> <td style="background-color: #cccccc;"></td> </tr> </table>																		X	X				10	11	12	13	14	15					
						X	X																												
10	11	12	13	14	15																														

Item #	Remarks								
7	found the overdue maintained record card on Vacuumized packing machine								
6	Drink area on the production floor								
4	The pest control and sterilization is conducted by local health department regularly.								

B. QUALITY CONTROL SYSTEM															
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1.	Is there an independent Quality Department?	[X] Yes [] No
2.	Is factory operating a formal internal quality control procedure on its products?	[X] Yes [] No
3.	Are there internal training programmes provided for all quality control personnel involved? (please attach a typical example in English).	[X] Yes [] No
4.	Are there adequate traceable training records?	[X] Yes [] No
5.	Are the factory's Q.C. personnel certified before they perform their job as outlined in the Q.C. procedures?	[X] Yes [] No
6.	Does the Q.C. team display strong quality consciousness?	[X] Yes [] No
7.	Does the factory use international, national, client's, or its own approved standards to perform in-house quality control?	[X] Yes [] No
8.	Does factory have a detailed written plan demonstrating how safety requirements on products are checked in house?	[X] Yes [] No
9.	Does factory implement all procedures correctly?	[] Yes [X] No
10.	Do detailed Q.C. reports indicate that the products are properly checked before shipment?	[] Yes [X] No
11.	Is there adequate Q.C. supervision on all shifts?	[X] Yes [] No
12.	Does quality controller fully understand factory's quality policy, and the importance of the quality assurance concept?	[X] Yes [] No
*13.	Does Q.C. have adequate basic knowledge and expertise on products to be made and general manufacturing technology?	[X] Yes [] No
14.	Does factory have all relevant international or national safety standards related to its business?	[] Yes [X] No

Rating:	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Q.C. System										X	X				X

Item #	Remarks														
9	Some semi-manufactured goods tracing sheet doesn't fill immediately as requirement														

10	Some QCs doesn't draw samples as requirement. IQC, PQC, FQC doesn't issue inspection report for all quality control, only simple inspection record was performed.
14	Factory not have this international or national standard.

C. INCOMING INSPECTIONS		
1.	Is there a written procedure for the control of suppliers?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
*2.	Does a new supplier receive formal approval from all relevant departments before an order is placed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
*3.	Are incoming goods purchased to written specifications?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
4.	Has the factory taken adequate measures to assure raw materials conformance to required specifications before use?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5.	Are incoming and outgoing raw materials registered and controlled?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
*6.	Is a formal sampling plan used to monitor the quality of incoming raw materials? If so, please comment on which sampling plan and AQL.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
*7.	Is the defect classification clearly documented?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
*8.	Are raw materials properly labelled, stored and traceable?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
9.	Are raw materials kept in controlled storerooms to avoid theft, loss, and any deterioration of quality?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
*10.	If raw materials need inspection before putting into production, are they properly inspected and are records traceable?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
11.	Is the inspection sampling schedule adequate and can the quality of the raw materials be guaranteed with confidence?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
12.	Are adequate inspection records maintained to prove raw materials are checked and meet all requirements?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
13.	Are there adequate written inspection instructions available as guidelines to inspectors?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
14.	If testing equipment is needed during inspection, is it sufficient and in good condition with regular calibration? If N/A please confirm method of inspection under remarks.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
15.	Is there a systematic control on the non-conforming raw materials and is it efficient?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
*16.	Are non-conforming raw materials adequately segregated and Identified?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Rating:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Incoming Inspections						X	X	X				X				X
Item #	Remarks															
*6	It is defined sampling plan G-II in factory regulation, but most the IQC draw samples less or more than it.															
*7	The defect classification in quality manual is MI, but inspection record show CR for packing inspection															
*8	Some raw materials labelled and traceable not completely.															
12	No detailed inspection report made and maintained.															
*16	Non-conforming raw materials adequately segregated, but not Identified and labeled															

D. IN-PROCESS QUALITY CONTROL

1.	Is all tooling fully tested and evaluated to comply with all specifications?	[X] Yes [] No
2.	Are samples of pilot run carefully reviewed by engineers and quality staff to ensure that all safety aspects are being met?	[X] Yes [] No
3.	Is there any documentation from either engineering, QC department, or top management to authorise mass production to customer requirements?	[X] Yes [] No
4.	Are there line patrols by quality controllers or other means to monitor the compliance of the product to meet safety requirements?	[] Yes [X] No
5.	Are working Instructions available at each workstation?	[] Yes [X] No
6.	Do Instructions cover all important characteristics?	[] Yes [X] No
7.	Are obsolete work instructions removed from the production area?	[X] Yes [] No
8.	Are reference samples or specifications available?	[X] Yes [] No
9.	Are they in good condition?	[X] Yes [] No
10.	Is a product coding (date/batch code) method in place?	[X] Yes [] No
11.	Does the coding method provide sufficient information to identify the Product quickly?	[X] Yes [] No
*12.	Does the coding method enable the key components/sub-assemblies to be Identified?	[X] Yes [] No
13.	Is IPQC adequate for the production volume?	[] Yes [X] No
14.	Does factory use international or other approved sampling standards to carry out in-process inspection? Are there records?	[] Yes [X] No
15.	Do records reflect the action taken on rejected lots?	[] Yes [X] No

16.	Do records show rejected lots are well identified and segregated from accepted lots?	[X] Yes [] No
17.	Are rejected lots reworked properly and measures taken to ensure the quality conformity?	[X] Yes [] No
18.	Are there adequate, clearly written criteria/instructions available for Inspectors to follow? Please clarify whether inspectors are internal QC/QA or external. internal QC/QA	[X] Yes [] No
19.	Are there adequate approved samples attached to all areas to give inspectors or workers a guideline? Please clarify whether inspectors are internal QC/QA or external.	[] Yes [X] No
20.	Are the inspection and test equipment sufficiently reliable to verify the conformance of the semi-finished or final products?	[] Yes [X] No
21.	Is the testing equipment calibrated accurately and is it adequate?	[X] Yes [] No
22.	Are the inspection defects charted, analysed, and monitored to improve the problems encountered?	[X] Yes [] No

Rating: In-Process Quality Control	1	2	3	4	5	6	7	8	9	10	11	12	13	14
				X	X	X							X	X
	15	16	17	18	19	20	21	22						
	X				X									

Item #	Remarks
4	Welding workstation and PQC only performed the surface check instead testing check for LED power PCB welding process. PQC not record inspection detail immediately on PQC inspection record table at all time Line patrols by quality controllers is 1time/1-2 hours in quality maunal, but actual about 1time/ 3hours Aging test for LED tube: not supervise at all time.
5	Some workstation was not found working Instructions on site.
19	For SMT procedure the reference samples was not placed on site.
13	Mr Zhu is a IPQC , but he is also a PQC and FQC.
14	There is not a formal sampling plan, the PQC draw samples from each process and conduct inspection intermittently. The detailed inspection report for PQC was not made.
15	The rejected lot was reworked immediately, but not record and some not labeled
6	Found 5 worker in testing procedure not dressed the static proof equipments.but it is required in work manual.
18,19	The inspectors are internal QC.

E. FINAL INSPECTION

1.	Do factory's quality controllers perform any internal final inspections on merchandise?	[X] Yes [] No
2.	Do these inspections follow a formal inspection plan? If so, please comment on which inspection plan and which AQL are used.	[] Yes [X] No
3.	Is the defect classification clearly documented?	[X] Yes [] No
4.	Are there written, formal inspection reports and are they properly filed and traceable to review quality of products?	[] Yes [X] No
5.	Are customer drawings/specifications readily available from quality control or engineering department on request?	[X] Yes [] No
6.	Does factory understand its responsibility to do internal tests during and after production to safeguard the products' quality?	[X] Yes [] No
7.	Are there records to show factory has ever performed appropriate safety tests?	[X] Yes [] No
*8.	Are adequate inspection and testing records maintained and have they been shown to the inspector?	[X] Yes [] No
9.	Do normal procedures require acceptable inspection reports before authorisation of shipment of the products? If not, is there enough control to guarantee quality?	[] Yes [X] No
10.	Does factory perform adequate checks on functionality? If not, is the current procedure adequate?	[X] Yes [] No
11.	Are master samples of products in place for final inspection?	[X] Yes [] No
12.	Are products inspected for defects in the surface finish?	[X] Yes [] No
13.	Is there an area suitable for third party inspection? <i>Non-scoring</i>	[X] Yes [] No

Rating: Final Inspection	0	1	2	3	4	5	6	7	8	9	10	11	12	
			X		X					X				

Item #	Remarks
2	There is no defined sampling plan for FQC for final random inspection, actual FQC only draws Xpcs samples plus 100% workstation inspection.
4	There are no written, formal inspection reports , only workstation 100% inspection record filed and traceable to review quality of products
9	There is no normal procedures require acceptable inspection reports before authorisation of shipment of the products.only FQC signed on workflow sheet ,but still found some sheet without FQC signed after check and master packed.

F. PACKAGING		
1.	Is the packaging area tidy, free of dust and other contamination?	[X] Yes [] No

2.	Are there adequate safeguards to prevent another company's products being packed into master cartons?	[X] Yes [] No										
3.	Is there adequate control to prevent any defective or rejected products from being packed into master cartons?	[X] Yes [] No										
4.	Are semi-finished products well segregated from finished products in the packing area?	[X] Yes [] No										
5.	If applicable, are individual products passed through metal detectors before and after packing into polybags? (Only applicable to products without metal components)	[] Yes [] No [X] N/A										
6.	If applicable are heat-sealed bulk polybagged products packed into master cartons immediately after passing through a metal detector?	[] Yes [] No [X] N/A										
7.	Are approved finished products packed immediately into polybags in order to avoid dust and dirt? If not, are they properly stored and protected?	[X] Yes [] No										
8.	Are master cartons sealed immediately after filling?	[] Yes [X] No										
9.	Is the method of product count into master cartons accurate and to customer requirements? If not, is the current procedure acceptable to avoid the possibility of shortage of products?	[X] Yes [] No										
10.	Are packed master cartons well stored in a covered area or a good shelter to protect from pests/weather damage?	[] Yes [X] No										
11.	Are master cartons identified with date code, lot code and sequential carton number?	[X] Yes [] No										
Rating: Packaging	0	1	2	3	4	5	6	7	8	9	10	11
									X		X	

Item #	Remarks
8	Found some master cartons not sealed immediately after filling on packing area
10	There is no independent and segregative area is provided for packed master carton.

G. NON-CONFORMING MATERIALS

1.	Is non-conforming material properly segregated at all stages?	[X] Yes [] No
2.	Is non-conforming material clearly identified?	[] Yes [X] No
3.	Can the factory supply solid proof to guarantee non-conforming materials or products are absolutely segregated from normal production and none will be mixed into the production?	[X] Yes [] No
4.	Are adequate records maintained to show the status of such non-	[] Yes [X] No

conforming materials?												
5.	Do records show that reworked parts/materials have been re-inspected to comply with standards?											<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
6.	Can the factory demonstrate how they handle the non-conforming materials?											<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
7.	Is scrap material handled satisfactorily?											<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
*8.	If re claimed materials are used, is there adequate identification and checking against specification?											<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
9.	Is the corrective action on non-conforming materials effective?											<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
10.	Is the overall policy of treating non-conforming material effective?											<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Rating: Non Conforming Materials		0	1	2	3	4	5	6	7	8	9	10
				X		X	X					
Item #	Remarks											
2	Same as C16											
4	Same as D15											
5	Same as D15											

H. COMMUNICATION, DOCUMENTATION CONTROL AND WORK MOVEMENT

1.	Do <u>factory's</u> management and key staff understand English sufficiently to ensure communication? If no, are measures taken to provide effective communication?											<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2.	Is there an adequate and formal system for receiving purchase orders, tooling, and equipment?											<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3.	Is there an adequate and formal system for receiving and applying drawings, procedures, design change, etc. correctly?											<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
4.	Are approved drawings and specifications used properly, filed in chronological sequence, and traceable?											<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5.	Are drawings, records, and specifications that reflect an adequate history of changes readily available?											<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
6.	Is any part of the manufacturing process sub-contracted? If so, list. <i>(non scoring question)</i>											<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
7.	Have sub-contractors been audited within last 6 months on behalf of Client ?											<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
*8.	Does factory give clear instructions to its departmental heads to delegate authority to stop production if the products do not meet requirements of client's standards?											<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

9.	Is technical information clearly identified and adequately controlled throughout?	[X] Yes [] No							
10.	Do staff realize that all technical information relating to client's projects is confidential?	[X] Yes [] No							
Rating: Communication, document control and work movement									
0	1	2	3	4	5	6	7	8	9
Item #	Remarks								

I. WORKING CONDITIONS		
1.	Do you consider the employment practices of this facility fair and non-exploitative? If not, please explain.	[X] Yes [] No
*2.	Is the general working conditions satisfactory including the quality of air? (e.g. measures in place to reduce production fumes/dust/chemical waste etc)	[X] Yes [] No
*3.	Are there suitable guards on the machinery to prevent injury to employees?	[X] Yes [] No
*4.	Is the overall air quality acceptable and free from odour?	[X] Yes [] No
*5.	Are the lighting conditions adequate?	[X] Yes [] No
6.	Are all workers in this facility present voluntarily? If not, please explain	[X] Yes [] No
7.	Are there any prisoners working at this facility?	[] Yes [X] No
8.	Are there guards posted other than for normal security reasons?	[] Yes [X] No
9.	Are employees free to leave once their shift ends?	[X] Yes [] No
*10.	Are all workers in this facility at least 16 years of age? What is the youngest age of workers hired in this facility? <u>22</u> What is the legal age requirement for working in this country? <u>16</u>	[X] Yes [] No
11.	Are workers given work to take home?	[] Yes [X] No
12.	What is the lowest hourly wage paid by this contractor For <u>trained</u> facility workers? <u>12</u> Local <u>1.64</u> USD For <u>untrained</u> facility workers? <u>6.9</u> Local <u>0.99</u> USD Is this equal to or higher than the government standard? What is the number of scheduled work hours per day/week at regular pay? <u>8/40</u>	[X] Yes [] No
13.	Are workers provided accommodation and food free of charge?	[] Yes [X] No
14.	Do workers have at least one day off in seven?	[X] Yes [] No
15.	Are supervisors allowed to use corporal punishment?	[] Yes [X] No

16.	Is there any evidence that employees have been abused?	[] Yes [X] No															
Rating:	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Working Conditions																	
Item #	Remarks																

K. Working Conditions
 Key: Award 1 point for each “yes” answer to questions: 1, 2, 3, 4, 5, 6, 9, 10, 12, 13 & 14
 Award 1 point for each “no” answer to questions: 7, 8, 11, 15 & 16

J. MEASURING EQUIPMENT CONTROL									
1.	Are gauges and test/inspection equipment, including customer owned gauges / equipment, maintained and adequately stored?	[X] Yes [] No							
2.	Are gauges and test / inspection equipment, including customers; checked by a formal system and records maintained? are they identified as to :	[X] Yes [] No							
	(a) Item identification/serial number? [X] Yes [] No								
	(b) Date calibrated/inspected? [X] Yes [] No								
	(c) Date due for calibration/inspection? [X] Yes [] No								
	(d) Initial or stamp of person performing calibration/inspection? [X] Yes [] No								
3.	Is calibration frequency adequate?	[X] Yes [] No							
4.	Does the calibration schedule include personally owned measuring equipment and customer owned equipment?	[] Yes [] No [X] N/A							
5.	Are there Master Reference standards available for calibration of electrical and mechanical equipment; or if standards are not available, is there an acceptable calibration alternative?	[] Yes [] No [X] N/A							
6.	Are all Master Reference Standards certified traceable to National Standards or equivalent?	[] Yes [] No [X] N/A							
7.	Is calibration frequency of standards adequate?	[] Yes [] No [X] N/A							
Rating:	0	1	2	3	4	5	6	7	
Measuring Equipment Control					-	-	-	-	
Item #	Remarks								

K. LIFE AND RELIABILITY TESTING	
MANUFACTURING PROCESSES – List finished products which are sub-contracted	●N/A
List key components/sub-assemblies which are sub-contracted	●N/A
List processes which are sub-contracted	●N/A
List all critical parts produced in-house	●N/A

FINISHED PRODUCT			
*1.	Is ongoing life reliability testing carried out on finished (current production) product?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
*2.	Does the factory have the necessary equipment /facilities to conduct life/reliability testing in-house?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
3.	Is type/qualification testing undertaken?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
4.	Do products undergo 100% Dielectric Voltage withstand test?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
5.	Are procedures for life/reliability testing available?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
6.	Is there a formal system of investigating failures?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
*7.	Is there a recording system for failures?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
*8.	Is there a formal feedback to design?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
9.	Does the supplier understand that reliability requirements on drawings are mandatory specifications?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
10.	Is testing conducted under load?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
11.	Is there an acceptance criteria? <i>What is acceptance criteria?</i>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
*12.	Are records maintained?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
*13.	Are finished products batch/date coded?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
*14.	Are traceability records maintained?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
15.	Is life/reliability testing independent or in-house? In-house	<i>Non-scoring question</i>	
16.	What is the frequency of testing? See remark	<i>Non-scoring question</i>	
	Frequency: For New product	Number of samples tested: 1	pc/model
17.	What is the duration of testing? See remark Aging test 100% on products for 12-16hours	<i>Non-scoring question</i>	
18.	What is the testing criteria? See remark <u>Frequency:</u> At all time <u>Duration:</u> 12-16h <u>Cycles:</u> <u>Other:</u>	<i>Non-scoring question</i>	

19.	Additional information:
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K. LIFE AND RELIABILITY TESTING *continued*

LED LIGHT (finished product)		
20.	Is ongoing life reliability testing carried out on LED?	[X]Yes []No
21.	Are procedures for reliability testing available?	[X]Yes []No
22.	Is there a formal system of investigating failures?	[X]Yes []No
23.	Is there a recording system for failures?	[X]Yes []No
24.	Is there a formal feedback to design?	[X]Yes []No
25.	Is testing conducted under load?	[X]Yes []No
26.	Is there an acceptance criteria? <i>What is acceptance criteria?</i>	[X]Yes []No
27.	Are records maintained?	[X]Yes []No
28.	Are unit batch/date coded?	[X]Yes []No
29.	Are traceability records maintained?	[X]Yes []No
30.	Is testing independent or in-house? In-house	<i>Non-scoring question</i>
31.	What is the frequency of testing? See remark Frequency: New product Number of samples tested: 1pc/item	<i>Non-scoring question</i>
32.	What is the duration of testing? See remark	<i>Non-scoring question</i>
33.	What is the testing criteria? See remark <u>Load:</u> <u>Duration:</u> <u>Cycles:</u> <u>Other:</u> 12-16h	<i>Non-scoring question</i>
34.	Additional information:	

Rating: Life & Reliability Testing														
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
15	16	17	18	19	20	21	22	23	24					
Item #	Remarks													

SUMMARY OF POINTS ACHIEVED

SECTIONS	Minimum Points Needed	Maximum Points Possible	Total Points Achieved
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A. Facilities	11	15	13
B. Quality Control System	10	14	11
C. Incoming Inspections	11	16	11
D. In-Process Quality Control	15	22	15
E. Final Inspections	8	12	9
F. Packaging	6	11-2	9
G. Non-conforming Materials	7	10	7
H. Communication/Document Control	6	9	9
I. Working Conditions	11	16	16
J Measuring Equipment Control	2	7-4	3
K. Life & Reliability Testing	17	24	24

Total Points Achieved	:	127
Maximum Points Possible	:	150
Overall Rating (%)	:	84

All individual sub-groups must meet minimum points needed.
 TSInspection's default Overall Rating must be no less than 70%
 Failure of any critical (*) items? _____
 (Items marked with a "*" are considered critical. Any "no" response requires immediate failure of the Factory Audit)

The above reflects our findings for the particular factory in concern on the date of our service only. This report does not certify, confirm or imply: a) compliance with any government, industry or association regulations or standards, unless stated otherwise; or, b) the quality of any specific products manufactured by the factory/sellers/suppliers; or, c) the shipment of any specific products. This report does not discharge or release the factory/sellers/suppliers from their commercial, legal or contractual obligations with buyers in respect of products manufactured by the factory/sellers/suppliers. Our services, including reports and certificates, are subject to the General Conditions of Service of TSInspection which have been sent to your company. They can be resent upon written request.. This audit Report Shall Not Be Reproduced Except In Full Without The Approval Of TSInspection And The Client.

Conduct Audit Photos
 Factory Name: XXXX OPTO-ELECTRONIC.CO.,LTD
 Audit Date: AUG.12-13,2010



Outer view of factory



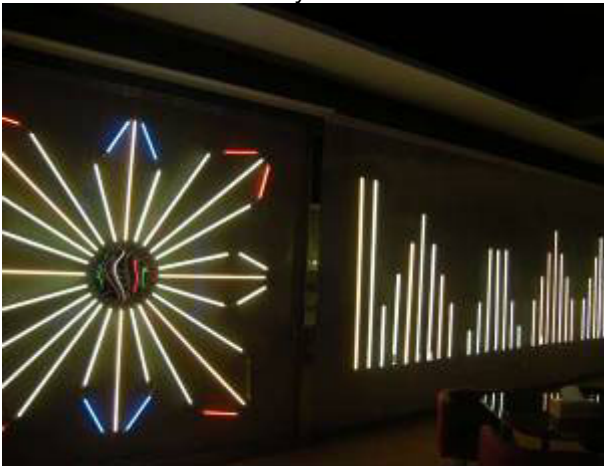
Factory office



Factory office



Shown room



Shown room



Raw material warehouse



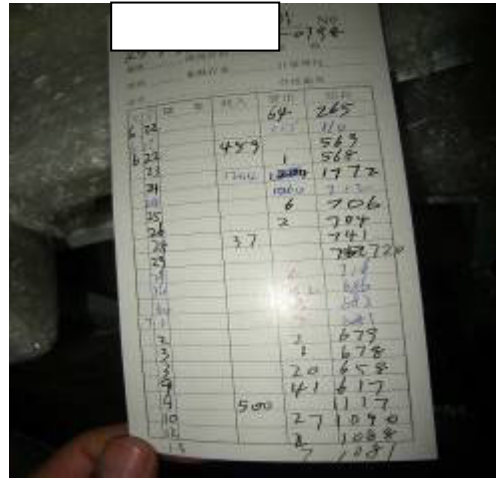
Raw material warehouse



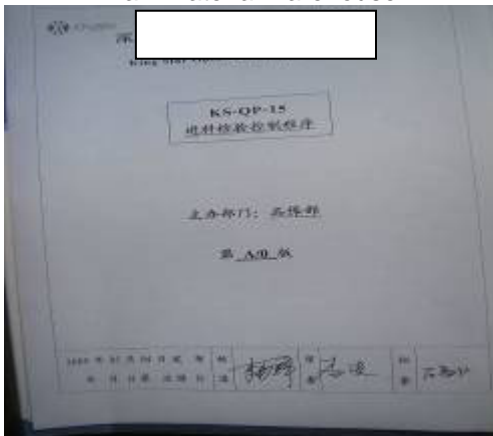
Raw material warehouse



Raw material warehouse



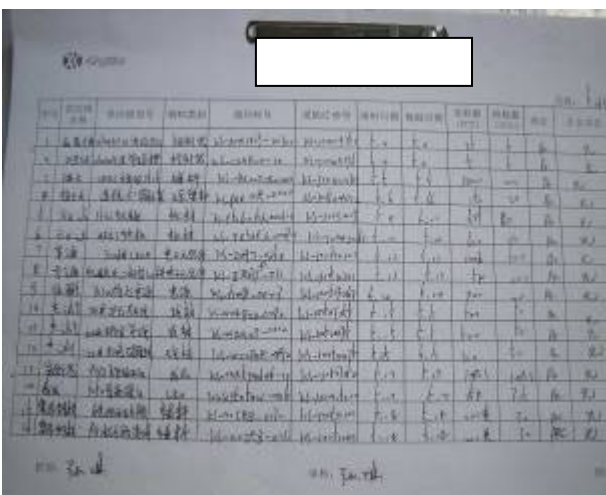
Incoming and outgoing card



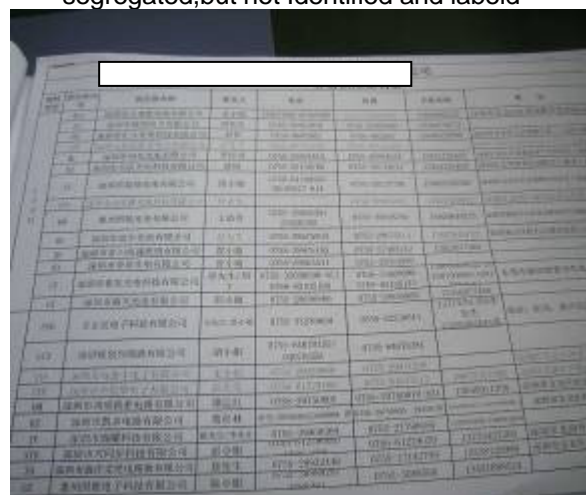
Inspection instruction for IQC



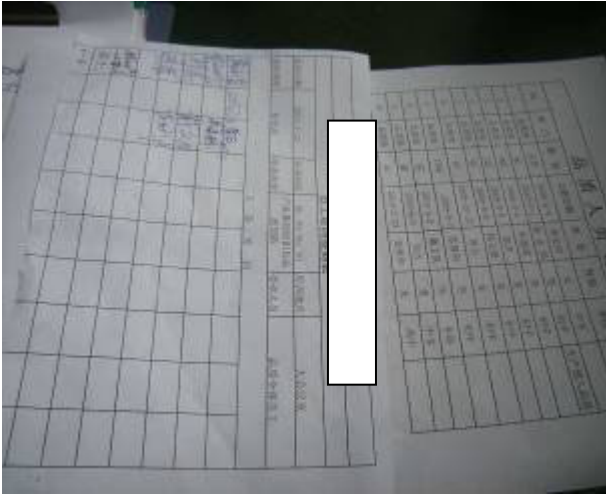
Non-conforming raw materials adequately segregated, but not Identified and labeled



IQC record



qualification supplier list



QC internal training programmes and QC name list



SMT



SMT-1



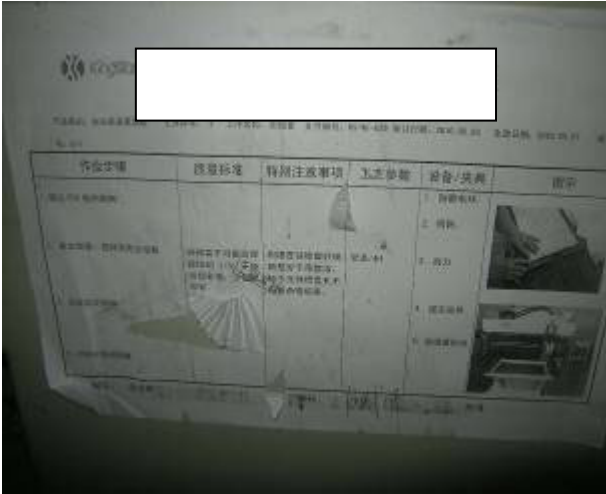
SMT-1



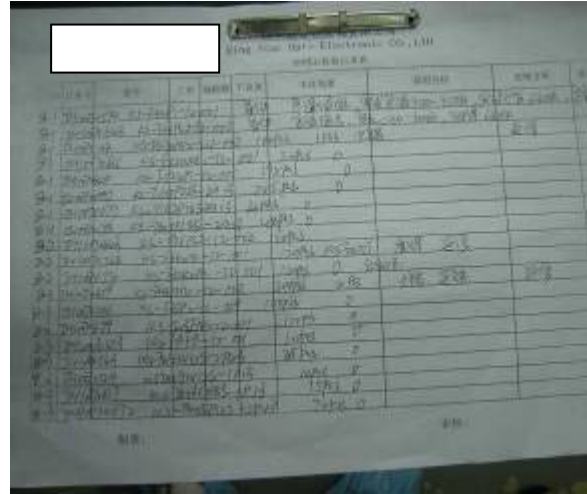
SMT-2



machines maintenance



Work instruction



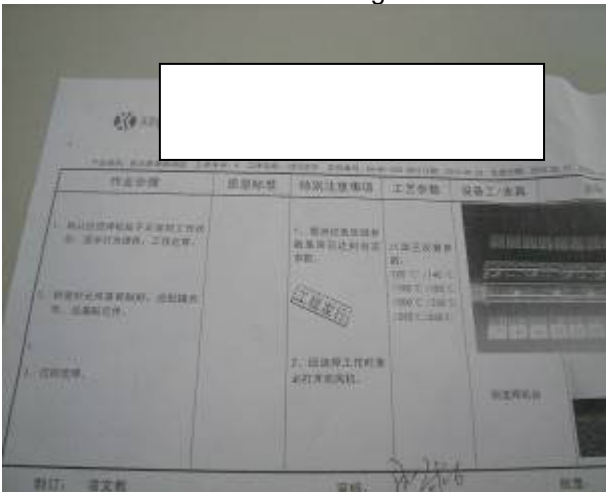
PQC record



Reflow soldering



Reflow soldering



Work instruction



Approved sample



Reflow soldering check

ITEM NO.	DESCRIPTION	QUANTITY	STATUS
01
02
03
04
05
06
07
08
09
10
11
12
13
14
15
16
17
18
19
20

PQC record



Inspection manual



Welding



Welding



Drink on work floor



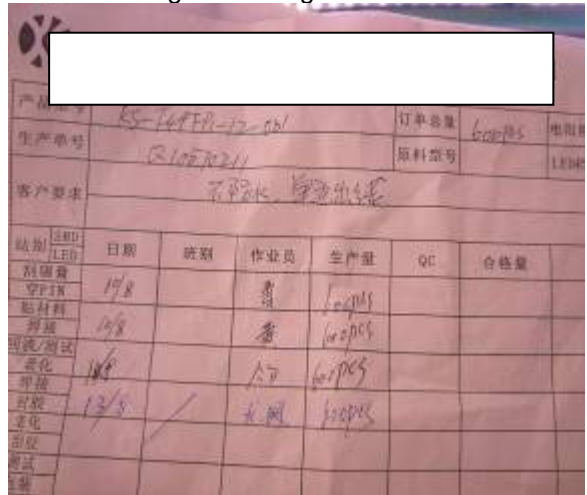
Welding for tube light manufacture



Welding for tube light manufacture



Aging check



In-process labelled and traceable not completely.



Molding



Molding



Test



Packing



Packing



Laboratory



Laboratory



Laboratory



Laboratory



Laboratory



EPISTAR LIGHT SOURCE



T8 LED Tube test



T8 LED Tube test



T8 LED Tube test



T8 LED Tube test



T8 LED Tube test



T8 LED Tube test



T8 LED Tube test



T8 LED Tube test



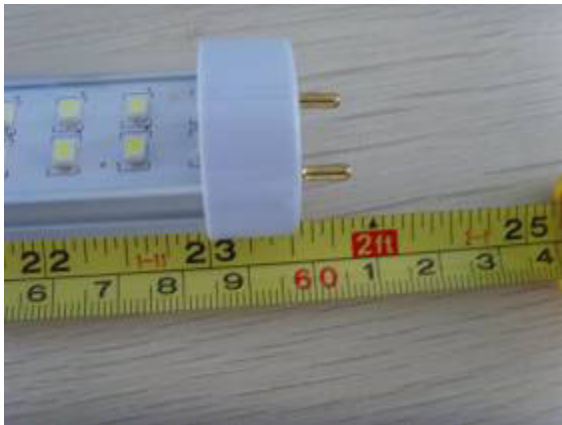
T8 LED Tube test



T8 LED Tube test



T8 LED Tube test

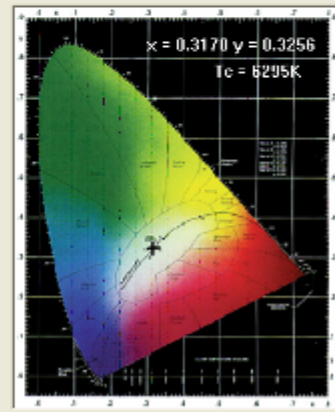
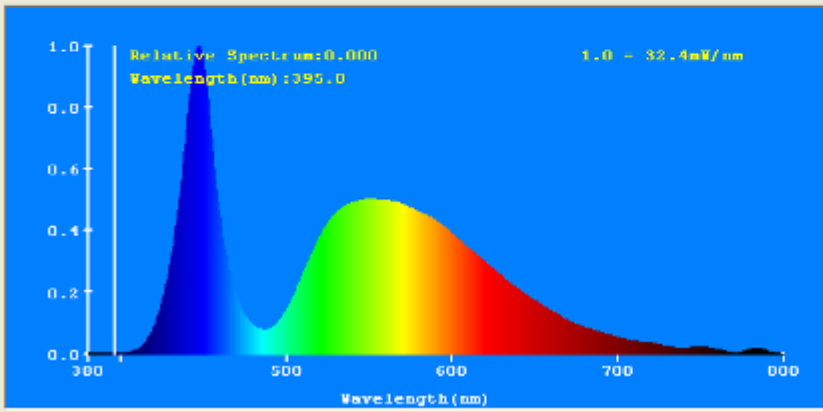


T8 LED Tube test



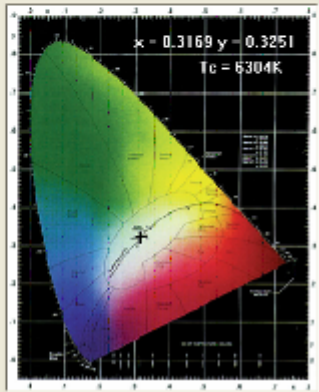
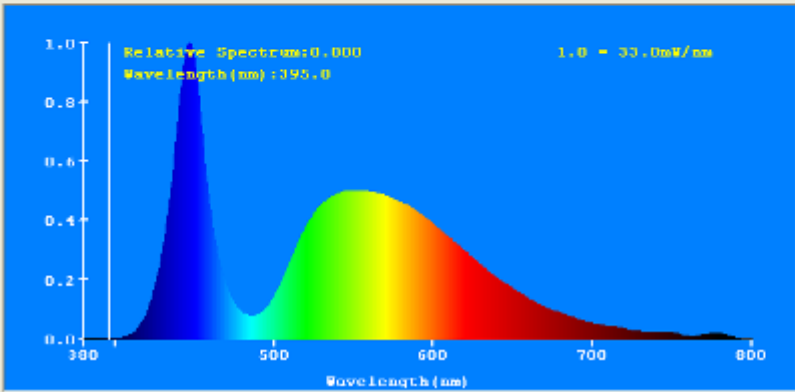
T8 LED Tube test

x=0.3170 y=0.3256	Rendering	R1-71	R6 -63	R11-71	Instrument State
u=0.3021 v=0.3114	index	R2-73	R7 -78	R12-39	Scan Range:300nm-800nm
CCT: 6295K (duv=-7.46e-004)	Ro=70.5	R3-71	R8 -64	R13-70	Scan Interval:5nm
Prep WaveL:485.4nm		R4-73	R9 -19	R14-83	Ip=3706(S=2,D=52)
Purity: 6.1%		R5-72	R10-33	R15-68	REF-31833
Peak WaveL:445nm	Ratio: R=12.6% G=04.1% B=3.3%				Environment: TWP:33.3deg
Average Wave:544nm	U=210.7V I=0.0452A P=7.354W PF=0.744				TMP (PMT):34.6deg
Lumi. Pow.:2.868W	Flux: 904.19lm Efficacy: 122.95lm/W				Test Mode: Fast Test
					flux lamp:A3000K



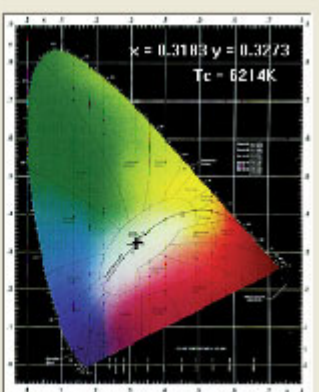
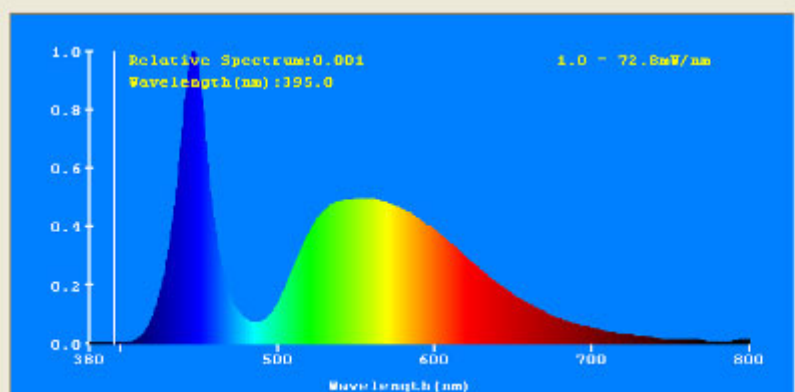
$x=0.3169$ $y=0.3251$ Rendering R1=71 R6 =63 R11=71
 $u=0.2022$ $v=0.3112$ Index R2=73 R7 =79 R12=39
 CCT:6304K (duv= 0.30e-004) Ra=70.3 R3=71 R8 =63 R13=70
 Prop. WaveL:485.0nm R4=73 R9 =-20 R14=83
 Pur ity: 6.2% R5=72 R10=32 R15=68
 Peak WaveL:445nm Ratio: R=12.64 G=04.15 B=3.34
 Average Wave:544nm U=220.3V I=0.0490A P=7.423W PF=0.767
 Lumi. Pow.:2.904W Flux: 915.36lm Efficacy: 123.30lm/W

Instrument State
 Scan Range:380nm-800nm
 Scan Interval:5nm
 Ip=3679(G=2,D=52)
 DEP=32225
 Environment TBP:33.2deg
 TBP (PNT):34.6deg
 Test Mode: Fast Test
 Flux Lamp:A3000K



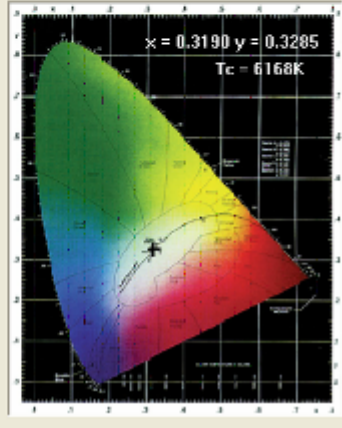
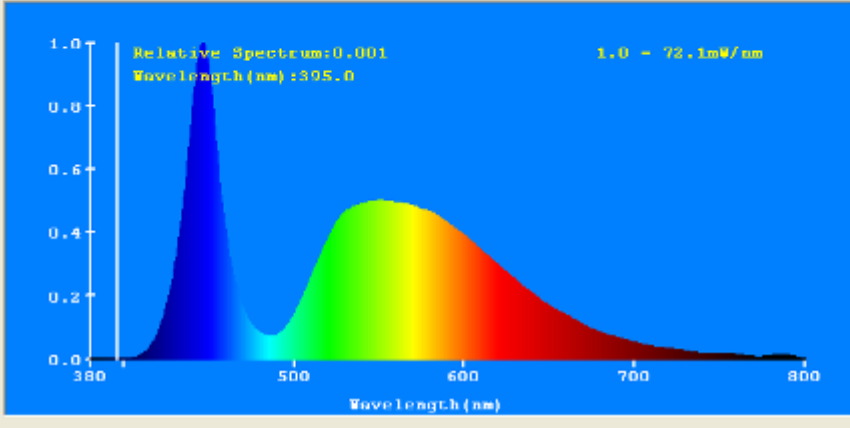
$x=0.3103$ $y=0.3273$ Rendering R1=70 R6 =62 R11=71
 $u=0.2024$ $v=0.3121$ Index R2=72 R7 =77 R12=39
 CCT:6214K (duv=-5.15e-004) Ra=69.9 R3=71 R8 =63 R13=69
 Prop. WaveL:486.4nm R4=72 R9 =-21 R14=83
 Pur ity: 5.5% R5=71 R10=32 R15=67
 Peak WaveL:445nm Ratio: R=12.7% G=84.1% B=3.2%
 Average Wave:545nm U=218.6V I=0.0927A P=17.17W PF=0.848
 Lumi. Pow.:6.266W Flux: 1988.7lm Efficacy: 115.79lm/W

Instrument State
 Scan Range:380nm-800nm
 Scan Interval:5nm
 Ip=8009(G=2,D=52)
 DEP=7073
 Environment TBP:33.8deg
 TBP (PNT):34.7deg
 Test Mode: Fast Test
 Flux Lamp:A3000K



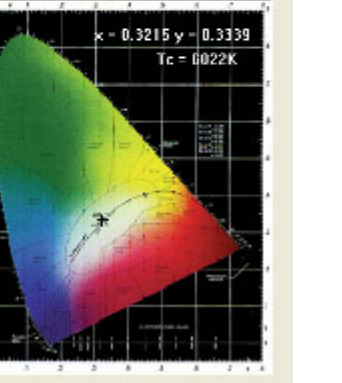
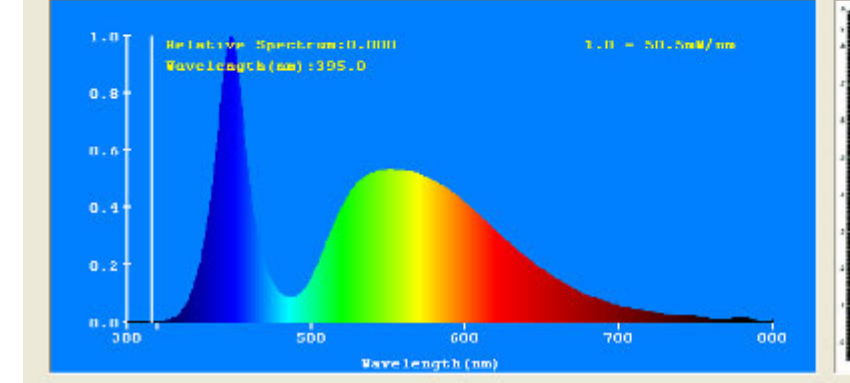
x=0.3190 y=0.3285 Reading R1=70 R6 =62 R11=71
 u=0.2025 v=0.3126 Index R2=72 R7 =77 R12=39
 CCT: 6168K (duv=-2.53e-004) Ra=69.9 R3=71 R8 =62 R13=69
 Prep Wavel: 487.2nm R4=72 R9 = 22 R14=83
 Purity: 5.2% R5=71 R10=32 R15=67
 Peak Wavel: 445nm Ratio: R=12.7% G=04.2% B=3.2%
 Average Wave: 545nm U=218.8V I=0.0917A P=17.05W PF=0.850
 Lumi. Pow.: 6.263W Flux: 1990.2lm Efficacy: 116.72lm/W

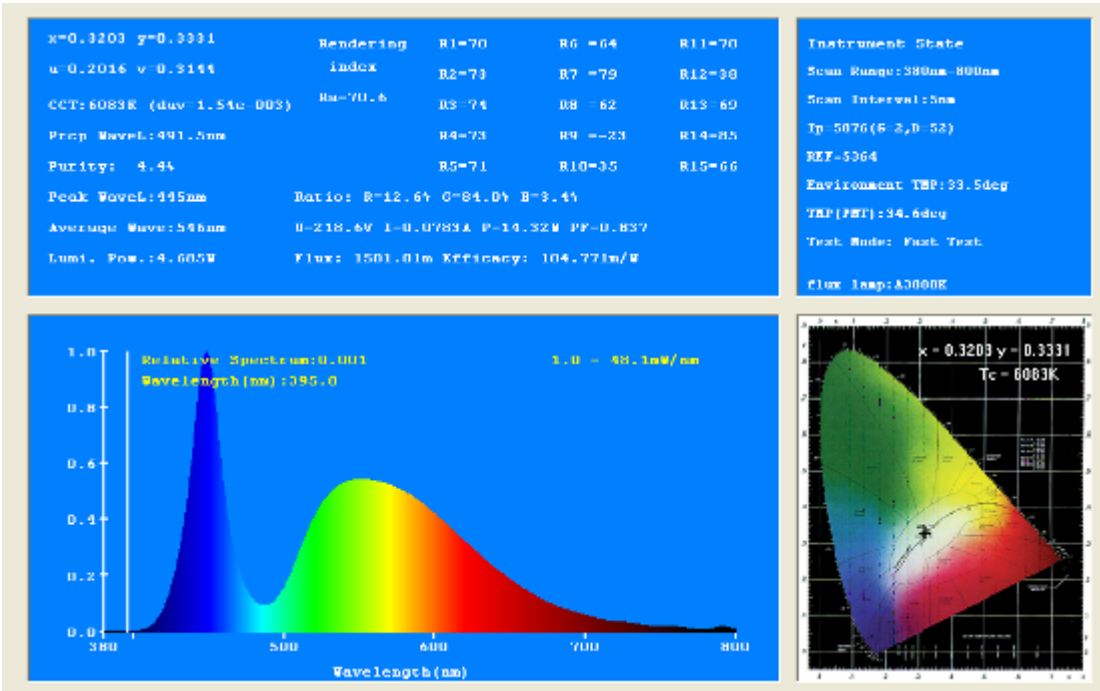
Instrument State
 Scan Range: 300nm-800nm
 Scan Interval: 5nm
 Ip=0006 (G=2,D=52)
 REF=7070
 Environment TMP: 33.7deg
 TMP (PMT): 34.7deg
 Test Mode: Fast Test
 flux lamp: A3000K



x=0.3215 y=0.3339 Reading R1=70 R6 =63 R11=70
 u=0.2021 v=0.3148 Index R2=73 R7 =79 R12=30
 CCT: 6022K (duv=-1.36e-003) Ra=70.4 R3=73 R8 =62 R13=69
 Prep Wavel: 492.3nm R4=73 R9 = 24 R14=85
 Purity: 4.0% R5=71 R10=34 R15=66
 Peak Wavel: 445nm Ratio: R=12.7% G=04.0% B=3.3%
 Average Wave: 546nm U=218.7V I=0.0801A P=14.59W PF=0.833
 Lumi. Pow.: 4.779W Flux: 1536.2lm Efficacy: 105.25lm/W

Instrument State
 Scan Range: 380nm-800nm
 Scan Interval: 5nm
 Ip=6041 (G=2,D=52)
 REF=5407
 Environment TMP: 33.9deg
 TMP (PMT): 34.7deg
 Test Mode: Fast Test
 flux lamp: A3000K

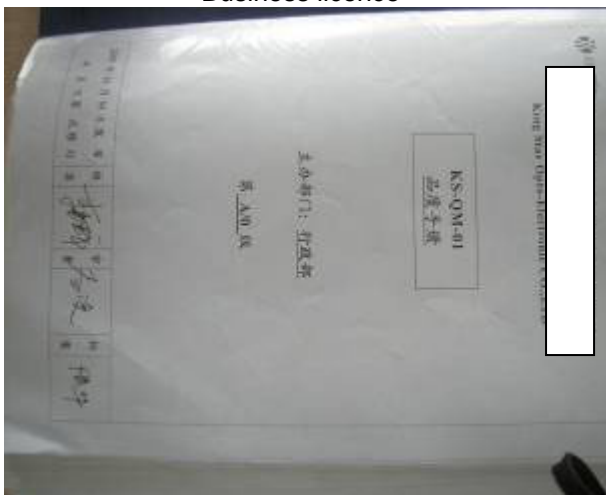




Business licence



ISO9001



Quality manual



RoHS cert.

CE-EMC for T8 tube



CE- LVD CERT.



The producing process

A table titled '文件发放一览表' (Document Issuance Table) showing the details of document issuance. The table has columns for '文件名称' (Document Name), '版本号' (Version Number), '发布日期' (Release Date), '生效日期' (Effective Date), '失效日期' (Expiration Date), '编制' (Prepared), '审核' (Reviewed), '批准' (Approved), '分发' (Distributed), '回收' (Recycled), and '备注' (Remarks). The table contains multiple rows of data.

procedure document

TSInspection Auditor	STEVEN WONG, ZAOWEILING	Audit date	Date:12-13, Aug.,2010
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End of Report