A	DOC No: AEU00506	TITLE: CLEAN ROOM - LIGHT TUBE REPLACEMENT			Advanex Europe Ltd Head Office: Southwell Site Mill Park Way, Southwell Nottinghamshire, UK, NG25 0ET a: 00 44 (0) 1636 81555 3: 00 44 (0) 1636 817725
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DOCUMENT APPROVAL

Author's Signature:

Your signature indicates that this document has been prepared in accordance with company standards or guidelines and adequately reflects the tasks and deliverables necessary.

Signature	d) D) jumy	Date	14-MA9-2015
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Reviewer's Signature:

Your signature indicates that, you have reviewed this document and that it accurately and completely reflects the tasks and deliverables necessary.

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Quality Assurance/Compliance Approver's Signature:

Your signature indicates that this document complies with company standards or guidelines; and that the documentation and information contained herein complies with applicable regulatory, corporate, divisional/departmental requirements, and current Good Manufacturing Practices.

Signature	Ellen /	Date	19MAR2015
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1.0 PURPOSE

1.1. The purpose of the document is to define the SOP (Standard Operating Procedures) to be followed by ADVANEX EUROPE Ltd, in order to ensure that the clean room working areas are maintained in a controlled and consistent manner whilst replacing the light tubes, to assure compliance with ISO 14644 for the required class of operation.

2.0 SCOPE

2.1. The scope of this documents covers the methods of working and maintenance of the clean rooms and associated equipment at Advanex Europe Ltd.

3.0 TERMS, DEFINITIONS & ABBREVIATIONS

- 3.1. ISO 14644 The International Standard Organisation Specification for clean rooms.
- 3.2. Class of Operation The required standard of clean room based upon the particulates sizes and concentration levels measured in the clean room.
- 3.3. CR1 Clean Room 1, the Upstairs clean room.
- 3.4. CR2 Clean Room 2, the new Downstairs clean room.

4.0 HEALTH, SAFETY & ENVIRONMENTAL

- 4.1. Within the factory area safety footwear is mandatory.
- 4.2. Within the factory area the use of safety glasses is mandatory.

5.0 ASSOCIATED DOCUMENTS

- 5.1. Full Cleandown (Document Number AEU00500).
- 5.2. Cleanroom Activity Log (Document Number AEU00496).
- 5.3. Works Order Instructions: Allowing full traceability for the batch.

6.0 PROCEDURE

6.1. General Instructions.

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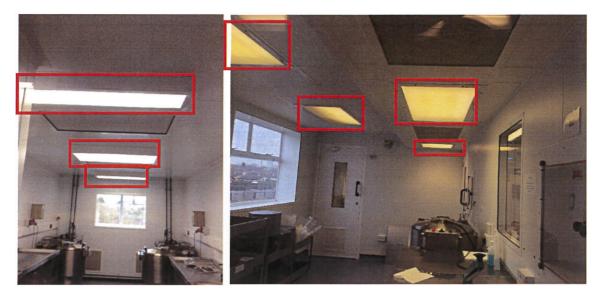


Figure 1: Location of the groups of light tubes, highlighted in red boxes.

- 6.1.1. Clean All Tools With Alcohol Wipes Before Taking Them Into The Clean Room.
- 6.1.2. Do Not Take The Cardboard Packing From The New Light Tube Into The Clean Room.
- 6.1.3. Clean The New Light Tubes With Alcohol Wipes Before Taking Them Into The Clean Room.
- 6.1.4. Before Preforming Task Note Any Light Tubes Not Working.
- 6.1.5. Switch Off Lights Before Removing De-fuser.
- 6.2. Procedure.



Figure 2: Example of the location of securing screws in light de-fuser.

- 6.2.1. **Remove the Securing Screws on the De-fuser.** Using a Cross head screw driver for CR1 (Upstairs Clean Room) or a 2.5mm Metric Hex head driver for CR2 (Down Stairs Clean Room) to completely remove all the securing screws from the light de-fuser, ensuring that the screws removed are placed onto a clean room wipe and not directly on any surface in the clean room.
- 6.2.2. **Lower the De-fuser.** Once all the securing screws have been removed the de-fuser lower it down so that the securing lanyards are taking the de-fusers weight and leave it hang whilst the tubes are replaced.
- 6.2.3. **Replace All Light Tubes Inside De-Fuser.** Replace all the light tubes inside the de-fuser.

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- 6.2.4. **Clean The De-Fuser.** Clean both the inside and outside of the de-fuser with alcohol wipes.
- 6.2.5. **Replace The De-Fuser And Re-Secure.** Re-locate the de-fuser and secure using the screws removed in step 6.2.1.

6.3. Task Completion.

- 6.3.1. **Test the Operation.** Switch on the lights to ensure their correct operation and note down the condition on sheet on Clean Room Activity Log (Document Number AEU00496).
- 6.3.2. **Perform a Full Clean Down.** Preform a full clean down in accordance with procedure AEU00500.