1.0 Road – Public Realm Classification

Road lighting is generally divided into three classes; traffic routes where the needs of the driver are dominant, subsidiary roads where the lighting is primarily intended for the pedestrian and the cyclist, and urban centres, where the lighting is designed to do what can be done for public safety and security, while also providing an attractive night-time environment. The photometric recommendations for all types of road and public realm lighting in Abu Dhabi are given in this document. Additionally local standards like the *'Abu Dhabi Urban Street Design Manual'* to be seen as an global guideline, meaning light levels may differ in the latest local standards from *'DMA Roadway & Public Realm Lighting Specifications and Roadway Project Compliance Checklist Tables'* in latest version issued which will take precedence.

1.1 Lighting for Traffic Routes

Lighting for traffic routes is lighting designed primarily to meet the requirements of the driver of a motorised vehicle. Road lighting recommendations identify three distinct situations:

• Traffic routes where motorised vehicles are dominant and move without conflict.
• The edges of roads where pedestrians and cyclists may be at risk, and conflict.
• Areas where streams of motorised vehicles intersect with each other or with pedestrians and cyclists.

2.0 Road Lighting Calculation Tutorial

2.1 Short-Cut Tutorial for DIALux 4.12.0.1- for Standard Street Lighting Calculations

This Tutorial is intended to explain the basic features of the lighting calculation program 'DIALux' and how to design a simple 'Typical Road with Luminaires', starting from designing the road to achieving the final luminance results.

NOTE 1 The lighting calculation program Relux will help to work out results in a similar way. Both programs (DIALux and Relux) are quite similar in quality of results and in technical, programming and support features.

NOTE 2 The designer should only use luminaires of which light distribution files in formats (*ldt, *uld, *ies) are available. It is highly recommended to use only luminaires from trusted manufacturers.