

PERFECT LITE

LIGHTING DESIGN SOFTWARE

UPGRADE NOTES FOR VERSION 4.88

(Released – August 2005)

1. INTRODUCTION

I'm still plodding away at converting the remainder of the DOS based Perfect Lite to a full 32-bit Windows application. Unfortunately, with the revisions to AS1158 that have finally been published, I've been side tracked into modifying the software associated with those revisions.

This upgrade introduces two new (or rather newly named) programs called **P Category Lighting** (PlePcat) and **V Category Lighting** (PleVcat) which respectively replace the **Pedestrian Area Lighting** and **Vehicular Traffic Lighting** programs.

Version 4.88 (DOS component) contains only some very minor changes but they affect most of the modules in the package

As always, I am open to suggestions on future improvements, so if you have any please give me a ring on **(07) 3275 2406** or **0417 732 763** or send me an email.

Complete details of the full range of my software is on the Web at:

Home Page: www.perfectlite.com
 Email address: support@perfectlite.com

2. PERFECT LITE MENU (DOS Component)

The first menu displayed when you start the DOS Perfect Lite (Ple.exe) is shown in Figure 2.1. The following sections detail the changes/enhancements to the various modules selected from this menu.



Figure 2.1

Please note that the **Minor road lighting design** and **SAASTAN – User Interface...** items on the previous version menu have been removed as they are associated with the superceded Code. If you still have a need to run these old standalone programs, the respective executable program files are:-

Minor road lighting design (i.e. B & C Category from the 1986 Standard)

c:\ple\plespace.exe

c:\ple\uisuis97.exe

2.1. Program setup

Nominating the Path to UIS software (i.e. SAASTAN – User Interface) has been removed from Page 2 as no longer supported.

2.2. Exterior Lighting design

See Section 3 below, for details of the changes found under this menu selection.

2.3. Zebra crossing lighting design

No significant changes to this module.

2.4. Upward Waste Light Ratio

No significant changes to this module.

2.5. Terminate Perfect Lite

No significant changes to this module.

3. EXTERIOR LIGHTING DESIGN MENU

Figure 3.1 shows the 'Exterior Lighting Design Menu' of version 4.88.

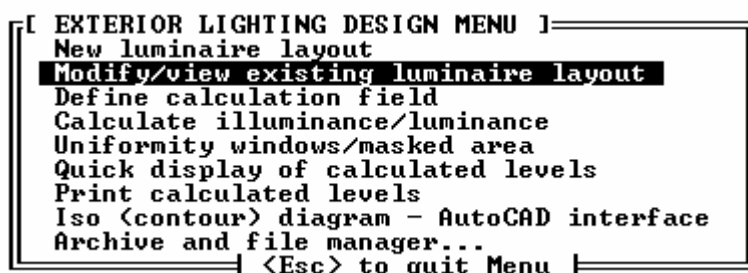


Figure 3.1

No significant changes to this group of modules.

4. P CATEGORY LIGHTING SOFTWARE (Windows Component)

The new **PlePcat.exe** program fully replaces the **Plepal.exe** (Pedestrian Area) program for the many changes associated with the release of AS/NZS1158.3.1-2005.

Enhancements include:-

- ? 'Miscellaneous' menu renamed to 'Tools' menu and 'Options' item added.
- ? Setting the company name has been moved to the 'Options' menu.
- ? 'Options' menu now includes a new item called 'Output setup' which is used to set the left margin indent, font name & size for all output to the printer.
- ? When 'Multi File Mode' is activated a small tick will be shown against it in the 'File' menu. To exist 'Multi File Mode' simply select the item when it is ticked.
- ? Maintenance factor calculation form has been modified to also include the 'IP Rating' and a 'Lamp Depreciation factor'.
- ? Luminaire Description form now includes fields for the Light Source and Luminaire Classification.
- ? Automatically depreciates initial lamp flux where Sodium Vapour lamps used.

? Format of the output has been changed to show some lines in Bold and/or Italic text.

Remember this program is not run from the Perfect Lite menu (shown in Figure 2.1) as it is a Window's application. To run it, you click on the Windows **Start** button, select **Programs**, select **Perfect Lite** and click on **P Category Lighting**.

Handy Tip:

How to put an icon (or shortcut) on your computer's Desktop associated with an item from the Start menu. This is how you would do it for the P Category Lighting example above. Navigate through the menu system as above but when you get to P Category Lighting click and hold down the Right mouse button. Now drag the mouse cursor to a blank area on your desktop and then let go of the button. A small menu should appear with Copy, Move or Cancel as the choices. Left click on Copy and you should see the icon appear on the desktop. You can move this icon around the desktop to a suitable position by holding down the left mouse button and dragging the icon. In future, when you want to run this particular program all you do now is just double click on the icon instead of going through the menu system. Follow the same procedure for any other menu item to go on the Desktop.

5. V CATEGORY LIGHTING SOFTWARE (Windows Component)

The new **PleVcat.exe** program fully replaces the **Plevtl.exe** (Vehicular Traffic) program for the many changes associated with the release of AS/NZS1158.1.1-2005, the version no. is now **5.00**.

Enhancements include:-

- ? The 'Miscellaneous' menu has been renamed to the 'Tools' menu and the 'Options' item added.
- ? Setting the Company Name for use in the software has been moved to the 'Options' menu item.
- ? The 'Options' menu now includes a new item called 'Output setup' which is used to set the left margin indent, font name & size for all output to the printer. Selection of the country, Australia or New Zealand, is also done here.
- ? For a spacing calculation, a selection is required as to whether the traffic flow on the carriageway is One way or Two way as this will impact on the number of calculations to be performed. For example, results may show LTPs for Normal and Oncoming traffic – compliance with both is necessary.
- ? Where New Zealand is selected as the Country, calculations are performed for both R-tables NZR2 & NZN4 and the Observer is located in centre of each lane, results for each are given.
- ? Where Australia is selected as the Country, calculations are generally performed with R-table CIER3 but an alternate table can be selected. The Observer is located in the centre of the driver's section of the carriageway i.e. half way across for one way and quarter way across for two carriageways.
- ? The Maintenance factor calculation screen has been modified to include inputs for the 'IP Rating' and a 'Lamp Depreciation factor'.
- ? A maximum Maintenance Factor of 0.8 is now allowed IP6x luminaires, for all others it is 0.7.
- ? When 'opening' an i-table (or adding one to the Library) the Luminaire Description screen now includes fields for the 'IP Rating', 'Light Source' and 'Luminaire Classification'.
- ? No automatic de-rating of the lamp flux is applicable for Sodium Vapour lamps as in the P Category.
- ? The maximum Upward Waste Light Ratio is now reduced to 3%.
- ? Due to popular demand Arrangement '5s' has been added i.e. stagger on a dual carriageway road
- ? Format of the output has been modified to show some lines with Bold and/or Italic text.

Just reiterating, for Luminance calculations the new Standard (AS/NZS1158.2-2005, Section 3.2.1) requires that Australia places the observer in the middle of the driver's section of the carriageway. Where as New Zealand has the observer in the middle of each lane of the driver's section of the carriageway. This means that Modes 1, 2 and 3 from the previous PleVTL (or UIS97) software is no longer relevant. Instead, the PleVcat software uses a special variant of Mode 3 to place the observer correctly and set up the appropriate calculation fields. Also, on Two way carriageways where the arrangement of lights is not symmetrical (ie. different overhangs), calculations need to be performed for traffic in both directions i.e. normal AND oncoming directions. Fortunately, PleVcat recognises these special cases and will calculate and present results accordingly. It should be noted that if a 'No' is indicated in the 'Comply' column, for either Normal or Oncoming for a particular spacing, then that spacing does NOT comply for the selected Category.

Similarly, for the New Zealand situation where calculations are performed against the two standard road surface tables, the spacing does NOT comply if a 'No' is recorded against one or both of the tables.

This program is not run from the Perfect Lite menu (shown in Figure 2.1) as it is a Window's application. To run it you click on the Windows **Start** button, select **Programs**, select **Perfect Lite** and click on **V Category Lighting**.

Trevor Caswell
0417 732 763
trevor@perfectlite.com
www.perfectlite.com