PERFECT LITE
LIGHTING DESIGN SOFTWARE

UPGRADE NOTES FOR VERSION 4.86

(Released - October 2002)

1. INTRODUCTION

I'm still plodding away at converting the remainder of the DOS based Perfect Lite to a true 32-bit Windows application. The next module to be released will be the SAASTAN – User Interface, hopefully next month. Nonetheless, some other changes and enhancements have been made to my suite of programs which I'm now making available.

This upgrade is only minor in nature but significant in regard to reliability of the software when run under Windows NT/2000/XP. It will also now allow printing through Networked printers which has been a problem in some previous versions of the software. Another significant but 'behind the scenes' rework has been to increase the accuracy of the software. The software now uses 'double' rather than 'single' precision numbers (i.e. up to 16 significant digits in the calculations). This will have main significance for those using AMG co-ordinates and/or the AutoLISP Lighting Design Interface where previously the contours may have taken on a 'jagged' look.

Version 4.86 contains enhancements that affect most of the modules in the package. The affected program modules will be all that is distributed with this upgrade.

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** day or night or send me an email.

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

Home Page: **www.perfectlite.com**

Email address: **info@perfectlite.com**

2. PERFECT LITE MENU

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.

```
┌[ PERFECT LITE MENU ]══════════╗
║ Program setup                 ║
║ Luminaire Library manager...  ║
║ Exterior lighting design...   ║
║ Minor road lighting design    ║
║ Zebra crossing lighting design║
║ SAASTAN - User Interface...   ║
║ Upward Waste Light Ratio      ║
║ Terminate Perfect Lite        ║
╚═══════════════════════════════╝
```

Figure 2.1

2.1. Program setup

- Backslashes ('\') are now allowed in the printer 'Description' field on Page 4.
- Error corrected where program appeared to not allow input of text after returning from the list of available printers (<F3>).
- Smallest value that can be input into the 'Maximum Print Width' field on Page 4 has been reduced to 72.

2.2. Luminaire Library manager...

- A Perfect Lite header & version no. has been added to all printouts.
- Companion printer software 'Printglw' has been replaced with 'Ppd32' & 'Pringln.dll'.

2.3. Exterior Lighting design

See Section 3 below, for details on the enhancements found under this menu selection.

2.4. Minor road lighting design

- The version of the **Plespace.exe** program shipped with this upgrade is **1.65** which has only minor internal changes over the previous version. As previously mentioned, this particular program is stand alone, that is, it can be executed directly from DOS, if desired, rather than going through the Perfect Lite menu system. To do this just set up a shortcut icon on your Windows desktop to run the 'Plespace.exe' file in the 'c:\ple' folder (or wherever you had previously installed Perfect Lite).
- Following the release of the Pedestrian Area Lighting code (AS/NZS 1158.3.1:1999) this software has essentially been superceded by the software described in Section 4 below. However, it has been maintained in the Perfect Lite suite of programs for comparison of spacing purposes as the Code does allow, in some circumstances up to November 2001, spacing to be based on the calculation grid of this older program.
- Companion printer software 'Printglw' has been replaced with 'Ppd32' & 'Pringln.dll'.

2.5. Zebra crossing lighting design

No significant changes made to this module.

2.6. SAASTAN - User Interface

- The version of the **Uis97.exe** program shipped with this upgrade is **3.88** with only some minor internal changes over the previous version.
- Once again this particular program is stand alone, that is, it can be executed directly from DOS, if desired, rather than going through the Perfect Lite menu system. This is necessary sometimes if you get an error message, using the menu system, indicating you have 'insufficient conventional memory' to run the program. To do this just set up a shortcut icon on your Windows desktop to run the 'Uis97.exe' file in the 'c:\ple\uis' folder (or wherever you had previously installed this file).

- Layout of the results has changed slightly.
- Allows the results to be printed (i.e. saved) to a text file.
- This program will shortly be superseded by a Windows application called "Perfect Lite – Vehicular Traffic Lighting". Watch out for its release later in 2002.

2.7.	**Upward Waste Light Ratio**

- The version of the **Pleuwlr.EXE** program shipped with this upgrade is **1.06** with only some minor internal changes over the previous version.
- Allows the results to be printed (i.e. saved) to a text file.

2.8.	**Terminate Perfect Lite**

No changes to this choice from the menu.

3.   EXTERIOR LIGHTING DESIGN MENU

Figure 3.1 shows the 'Exterior Lighting Design Menu' of version 4.86.

```
┌[ EXTERIOR LIGHTING DESIGN MENU ]══════
  New luminaire layout
  Modify/view existing luminaire layout
  Define calculation field
  Calculate illuminance/luminance
  Uniformity windows/masked area
  Quick display of calculated levels
  Print calculated levels
  Iso (contour) diagram - AutoCAD interface
  Archive and file manager...
         └────────┤ <Esc> to quit Menu ├══════
```

Figure 3.1

No significant changes to this module other than some slight changes to the output generated on the printer.

4.   PEDESTRIAN AREA LIGHTING SOFTWARE

The **Plepal.exe** program is still undergoing some minor changes and will be released at a later date, the current version is **2.04**. 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 **Pedestrian Area Lighting**.

5.   PRINTING VIA THE PRINT MANAGER   *…..another reminder*

Most of the newer colour Canon Bubblejet, HP Deskjet and Epson Inkjet type printers, as well as many laser printers are not supplied with DOS printer drivers as they are meant only to operate with Windows 95/98/NT/2000/XP (the 'DOS is dead' syndrome). This subtlety may not be evident till you have purchased the printer and tried it out in your home or office. It will work quite well printing from any Windows application but not any DOS program. However, by this time it is a bit late to take it back to the shop to exchange it. Anyhow, there's nothing to exchange it with, as most (colour) printers now don't work with DOS anyway.

Another thing you may have noticed is that when previously running the "Program setup" module and completing screen Page 4, there may not have been a 'Printer type code' that exactly matched your particular printer and you may have had to experiment with alternate

codes to get one to work. Also, if you print through a Network, especially on Windows 2000/XP, you can no longer 'capture' a printer port which means some printing in Perfect Lite is virtually impossible.

The printing method in versions 4.86 gets around all these situations. Even if you have an 'older' type printer (colour or black & white that does have DOS drivers) you may elect to print, from now on, through the Print Manager system described below. *In fact, this will be the best method to use for future upgrades and operating system versions.*

For this new printing method to operate, it is **essential** that Perfect Lite is run in the Windows operating system (as you probably do anyway) preferably **in a window** on the screen rather than full screen.

When you select to run any of the following modules, either from the main Perfect Lite menu (see Figure 2.1) or execute the program directly from DOS:-

- Minor road lighting design (PLESPACE.EXE)
- SAASTAN – Use Interface (UIS97.EXE)
- Upward Waste Light Ratio (PLEUWLR.EXE

you will now be presented with a menu of all the printers available on your PC that can be accessed through the Print Manager, see Figure 5.1 for an example. To select a printer simply move the highlight bar over the printer name you want and press <Enter>. For convenience, next time you run the same program, this same printer will be highlighted by default, so it is simply a matter of pressing the <Enter> key only, to make the selection (unless you want a different printer, of course).
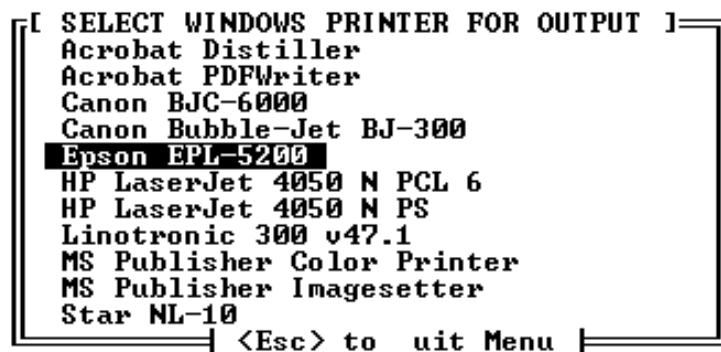
```
┌[ SELECT WINDOWS PRINTER FOR OUTPUT ]┐
│  Acrobat Distiller                  │
│  Acrobat PDFWriter                  │
│  Canon BJC-6000                     │
│  Canon Bubble-Jet BJ-300            │
│  Epson EPL-5200                     │
│  HP LaserJet 4050 N PCL 6           │
│  HP LaserJet 4050 N PS              │
│  Linotronic 300 v47.1               │
│  MS Publisher Color Printer         │
│  MS Publisher Imagesetter           │
│  Star NL-10                         │
└─────┤  <Esc> to  uit Menu ├─────────┘
```

Figure 5.1

You may note from Figure 5.1 that it is even possible to select to make the output into the form of a PDF file (of course, you need Adobe Acrobat for 'Acrobat PDFWriter' to be on the menu).

For the "Luminaire Library manager…", "Exterior lighting design…" and "Zebra crossing lighting design" modules (see Figure 2.1), the selection of a printer, different from the default as set in the "Program setup" module, is made within the module as previously.

In any of the situations above there are two types of printouts that can be generated in the Perfect Lite modules, they can contain either text or graphics.

5.1. Text Output

Text output is simply where there is only numbers and letters printed on the page (eg. list of luminaires in the library).

When you select to print text, the message, like Figure 5.2, may be seen on the screen as Perfect Lite passes the details to be printed to the Print Manager.
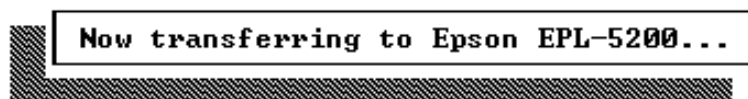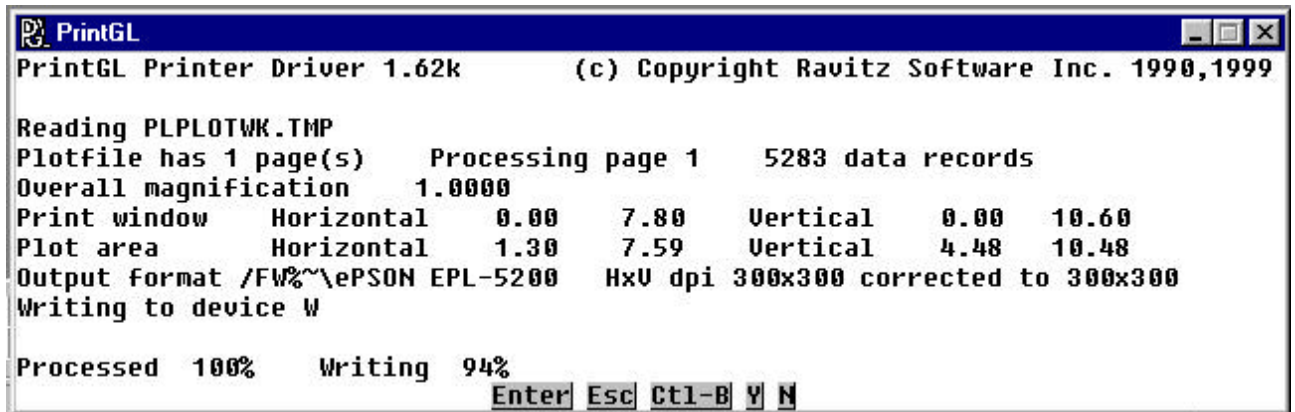
```
│ Now transferring to Epson EPL-5200... │
```

Figure 5.2

Shortly after the message disappears the nominated printer should start printing the required output. The program would then continue on as normal.

5.2.   Graphics Output

Graphics output is where there is some text but also there are lines, circles, shapes etc. (eg. Iso contour diagram).

When you select to print graphics, a window like, Figure 5.3, will be seen on the lower part of the screen as Perfect Lite (in fact PrintGL) processes the output and passes it to the Print Manager.


```
PrintGL                                                          _ □ ✕
PrintGL Printer Driver 1.62k        (c) Copyright Ravitz Software Inc. 1990,1999

Reading PLPLOTWK.TMP
Plotfile has 1 page(s)     Processing page 1     5283 data records
Overall magnification    1.0000
Print window    Horizontal    0.00    7.80    Vertical    0.00    10.60
Plot area       Horizontal    1.30    7.59    Vertical    4.48    10.48
Output format /FW%~\ePSON EPL-5200    HxV dpi 300x300 corrected to 300x300
Writing to device W

Processed   100%    Writing   94%
                    Enter Esc Ctl-B Y N
```

Figure 5.3

Shortly after the bottom line in this window reads "Processed 100%   Written   100%", the PrintGL window should close and the nominated printer should commence printing. If you are printing to a laser printer, it might be a further 10 to 20 seconds before the print emerges. See the next section if it appears as though Perfect Lite has then disappeared from the screen.

5.3.   Running Full Screen

If you run Perfect Lite full screen the window as in Figure 5.3 will not be readily visible and you may think the program has 'locked up', as nothing immediately appears to be happening either on the screen or on the printer. Also, just prior to the processing in Figure 5.3, Perfect Lite may have been minimised and once again your immediate thought may be that the program has 'crashed'. However, if you look closely, you will see Perfect Lite minimised on the bottom of the screen on the Windows taskbar. You would then just click on the button icon to return the program to full screen and continue.