



## IES File Notes

### STR Series – Future Proof Street Light

The .IES files can be adjusted to work with different part numbers by applying appropriate scale factors to photometric software.

- 1) Start with the .IES file for a particular distribution. Different distributions cannot be adjusted.
- 2) Adjust the number of lamps in the photometric software to the desired number of modules. Each module has 12 diodes (lamps), so multiply the required number of modules by 12:  
$$\text{Number of Lamps} = \text{Number of Modules} \times 12$$
- 3) Find the lumen output in the STR spec sheet of the required CCT and wattage. The scale factor to adjust the .IES file to the required CCT and Wattage equals the change in lumen output from the .IES file value to the required spec sheet value divided by the .IES file value plus 1:

$$\text{Scale Factor} = 1 + \frac{\text{Required Spec Sheet Lumen Output} - \text{.IES File Lumen Output}}{\text{.IES File Lumen Output}}$$

*\*Spec Sheet Lumen Output must be from the same number of module as the .IES file.*

- 4) Add this IES file scale factor to other scale factors of design, and this will be the overall factor to apply to photometric software:

$$\text{Photometric Software Factor} = \text{IES file scale factor} + \text{Light Loss Factor}$$

- 5) Example:

- a. Desired Part Number = PLG-STR-B-3-II-40-128-1000
- b. .IES file part number = PLG-STR-C-1-II-27-30-700
- c. Number of Lamps = 3 x 12 = **36**
- d. .IES Scale Factor =  $1 + [(4874 - 2844) / 2844] = \underline{\mathbf{1.714}}$
- e. LLF = - **.1**
- f. Photometric Scale Factor =  $1.714 + (-.1) = \underline{\mathbf{1.614}}$