Dear handling editor,

We are writing for the chance of modifying the second step of Eq. 12.

$$T_{\text{hemi}}(t,\theta_s) = \left(\frac{1}{\pi}\cdot\int_0^{2\pi}\int_0^{\pi/2} T_{\text{dir}}^4(t,\theta_s,\theta_v,\Delta\varphi)\cdot\cos\theta_v\cdot\sin\theta_v\,d\theta_v\,d\varphi_v\right)^{\frac{1}{4}}$$

$$= \frac{T_{\text{dir}}\left(t,\theta_s,\theta_v^{FY},\Delta\varphi_v^{FY}\right)\cdot\left(\int_0^{2\pi}\int_0^{\pi/2}(1+\alpha\cdot K_{\text{LSF}}(\theta_v)+\beta\cdot\cos\theta_s\cdot K_{\text{Chen}}(\theta_s,\theta_v,\Delta\varphi,W))^4\cdot\cos\theta_v\cdot\sin\theta_v\,d\theta_v\,d\varphi_v\right)^{\frac{1}{4}}}{\pi\cdot\left(1+\alpha\cdot K_{\text{LSF}}\left(\theta_v^{FY}\right)+\beta\cdot\cos\theta_s\cdot K_{\text{Chen}}\left(\theta_s,\theta_v^{FY},\Delta\varphi_v^{FY},W\right)\right)} \quad (12)$$

As shown above, there are two steps in Eq. 12.
The red rectangle is the first step while the blue rectangle is the second step.

In the first step, the "1/π·" is located in the parentheses. It is right.

In the second step, the "1/π·" should be still located in the parentheses in the numerator. However, we are sorry for making it out of the parentheses in the numerator. Therefore, it become "π·" in the denominator. It is a mistake during our equation editing in the stage of reviewing. We are applying for a modification in the stage of proofing as below (see the green rectangle).

$$T_{\text{hemi}}(t,\theta_s) = \left(\frac{1}{\pi}\cdot\int_0^{2\pi}\int_0^{\pi/2} T_{\text{dir}}^4(t,\theta_s,\theta_v,\Delta\varphi)\cdot\cos\theta_v\cdot\sin\theta_v\,d\theta_v\,d\varphi_v\right)^{\frac{1}{4}}$$

$$= \frac{T_{\text{dir}}\left(t,\theta_s,\theta_v^{FY},\Delta\varphi_v^{FY}\right)\cdot\left(\frac{1}{\pi}\cdot\int_0^{2\pi}\int_0^{\pi/2}(1+\alpha\cdot K_{\text{LSF}}(\theta_v)+\beta\cdot\cos\theta_s\cdot K_{\text{Chen}}(\theta_s,\theta_v,\Delta\varphi,W))^4\cdot\cos\theta_v\cdot\sin\theta_v\,d\theta_v\,d\varphi_v\right)^{\frac{1}{4}}}{\left(1+\alpha\cdot K_{\text{LSF}}\left(\theta_v^{FY}\right)+\beta\cdot\cos\theta_s\cdot K_{\text{Chen}}\left(\theta_s,\theta_v^{FY},\Delta\varphi_v^{FY},W\right)\right)} \quad (12)$$

In addition, we have carefully check the code of our work, it is exactly same as the new Eq. 12. Hope you could admit the modification of the second step of the Eq. 12.

Best regards

Biao CAO