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Corrigendum

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Corrigendum

Rea MS, Figueiro MG, Bierman A, Hamner R. Modeling the spectral sensitivity of the human circadian system. *Lighting Research and Technology* 2012; 44(4): 386–396. DOI: 10.1177/1477153511430474

We recently discovered that the melanopsin spectral sensitivity function used for data modeling in this paper is inconsistent with our stated procedure. When generating the figures, an additional calculation step was included that should not have been performed. As stated in the paper, we began with the assumption that melanopsin has a peak spectral sensitivity at 480 nm. After applying the spectral transmittance of the crystalline lens (Wyszecki and Stiles,¹ Table 1(2.4.6), column Δ_L) to the melanopsin spectral sensitivity function, the lens-corrected melanopsin function would then peak at 484 nm. For the figures we inadvertently moved the lens-corrected melanopsin curve back to peak at 480 nm. Including the 4 nm shift or leaving the lens-corrected peak at 484 nm does not affect the validity or interpretation of the data. Rather, it only affects the values of the best-fitting coefficients in the model.

Table 1 provides the best-fitting model coefficients using a lens-corrected melanopsin function peaking at 480 nm (as published) and those using a lens-corrected melanopsin function peaking at 484 nm. Table 2 presents circadian light (CL_A) values for a number of light sources for comparison.

Table 1 Best-fitting model coefficients

	480 nm peak, lens-corrected melanopsin	484 nm peak, lens-corrected melanopsin
k	0.2616	0.2616
a _{b-y}	0.6201	0.7000
a _{rod}	3.2347	3.3000

Table 2 Circadian light for various light sources

Source (all at 300 lux)	CL _A 480 nm peak	CL _A 484 nm peak
CIE A (2856 K)	300	300
CIE D65 (6500 K)	459	460
F32T8/4100 K RE 70	150	151
F32T8/3500 K RE 80	109	111
CFL 2700 K	204	205
HPS	123	123
White LED 3000 K	269	269
White LED 5500 K	300	302
Blue Sky	761	759
Blue LED (470 nm peak)	4437	4364

Reference

- 1 Wyszecki G, Stiles WS. *Color Science: Concepts and Methods, Quantitative Data and Formulae*. New York: John Wiley & Sons, 1982.