Chart

Description automatically generated

Figure S1: **Monthly integrated dosages of irradiance at the surface calculated for Buenos Aires (2020).** Model results for dosages of A) solar (MJ m–2), B) twilight (kJ m–2), C) lunar (J m–2) and D) artificial light at night (ALAN, J m–2); note the different units. Broadband (400–740 nm) is shown in black; spectral components, in blue (400–500 nm), green (495–560 nm) and red (620–740 nm).

Chart

Description automatically generated

Figure S2: **Monthly integrated dosages of irradiance at the surface calculated for Lagos (2020).** Model results for dosages of A) solar (MJ m–2), B) twilight (kJ m–2), C) lunar (J m–2) and D) artificial light at night (ALAN, J m–2); note the different units. Broadband (400–740 nm) is shown in black; spectral components, in blue (400–500 nm), green (495–560 nm) and red (620–740 nm).

Chart

Description automatically generated

Figure S3: **Monthly integrated dosages of irradiance at the surface calculated for Los Angeles (2020).** Model results for dosages of A) solar (MJ m–2), B) twilight (kJ m–2), C) lunar (J m–2) and D) artificial light at night (ALAN, J m–2); note the different units. Broadband (400–740 nm) is shown in black; spectral components, in blue (400–500 nm), green (495–560 nm) and red (620–740 nm).

Chart

Description automatically generated

Figure S4: **Monthly integrated dosages of irradiance at the surface calculated for Mumbai (2020).** Model results for dosages of A) solar (MJ m–2), B) twilight (kJ m–2), C) lunar (J m–2) and D) artificial light at night (ALAN, J m–2); note the different units. Broadband (400–740 nm) is shown in black; spectral components, in blue (400–500 nm), green (495–560 nm) and red (620–740 nm).

Chart

Description automatically generated

Figure S5: **Monthly integrated dosages of irradiance at the surface calculated for New York (2020).** Model results for dosages of A) solar (MJ m–2), B) twilight (kJ m–2), C) lunar (J m–2) and D) artificial light at night (ALAN, J m–2); note the different units. Broadband (400–740 nm) is shown in black; spectral components, in blue (400–500 nm), green (495–560 nm) and red (620–740 nm).

Chart

Description automatically generated

Figure S6: **Monthly integrated dosages of irradiance at the surface calculated for Plymouth (2020)** Model results for dosages of A) solar (MJ m–2), B) twilight (kJ m–2), C) lunar (J m–2) and D) artificial light at night (ALAN, J m–2); note the different units. Broadband (400–740 nm) is shown in black; spectral components, in blue (400–500 nm), green (495–560 nm) and red (620–740 nm).

Chart, histogram

Description automatically generated

Figure S7: **Monthly integrated dosages of irradiance at the surface calculated for Tokyo (2020).** Model results for dosages of A) solar (MJ m–2), B) twilight (kJ m–2), C) lunar (J m–2) and D) artificial light at night (ALAN, J m–2); note the different units. Broadband (400–740 nm) is shown in black; spectral components, in blue (400–500 nm), green (495–560 nm) and red (620–740 nm).

Chart, histogram

Description automatically generated

Figure S8: **Monthly integrated dosages of irradiance at the intertidal point calculated for Buenos Aires (2020).** Model results for dosages of A) solar (MJ m–2), B) twilight (kJ m–2), C) lunar (J m–2) and D) artificial light at night (ALAN, J m–2); note the different units. Broadband (400–740 nm) is shown in black; spectral components, in blue (400–500 nm), green (495–560 nm) and red (620–740 nm).

Chart

Description automatically generated

Figure S9: **Monthly integrated dosages of irradiance at the intertidal point calculated for Lagos (2020).** Model results for dosages of A) solar (MJ m–2), B) twilight (kJ m–2), C) lunar (J m–2) and D) artificial light at night (ALAN, J m–2); note the different units. Broadband (400–740 nm) is shown in black; spectral components, in blue (400–500 nm), green (495–560 nm) and red (620–740 nm).

Chart

Description automatically generated

Figure S10: **Monthly integrated dosages of irradiance at the intertidal point calculated for Los Angeles (2020).** Model results for dosages of A) solar (MJ m–2), B) twilight (kJ m–2), C) lunar (J m–2) and D) artificial light at night (ALAN, J m–2); note the different units. Broadband (400–740 nm) is shown in black; spectral components, in blue (400–500 nm), green (495–560 nm) and red (620–740 nm).

Chart, histogram

Description automatically generated

Figure S11: **Monthly integrated dosages of irradiance at the intertidal point calculated for Mumbai (2020).** Model results for dosages of A) solar (MJ m–2), B) twilight (kJ m–2), C) lunar (J m–2) and D) artificial light at night (ALAN, J m–2); note the different units. Broadband (400–740 nm) is shown in black; spectral components, in blue (400–500 nm), green (495–560 nm) and red (620–740 nm).

Chart

Description automatically generated

Figure S12: **Monthly integrated dosages of irradiance at the intertidal point calculated for New York (2020).** Model results for dosages of A) solar (MJ m–2), B) twilight (kJ m–2), C) lunar (J m–2) and D) artificial light at night (ALAN, J m–2); note the different units. Broadband (400–740 nm) is shown in black; spectral components, in blue (400–500 nm), green (495–560 nm) and red (620–740 nm).

Chart

Description automatically generated

Figure S13: **Monthly integrated dosages of irradiance at the intertidal point calculated for Plymouth (2020).** Model results for dosages of A) solar (MJ m–2), B) twilight (kJ m–2), C) lunar (J m–2) and D) artificial light at night (ALAN, J m–2); note the different units. Broadband (400–740 nm) is shown in black; spectral components, in blue (400–500 nm), green (495–560 nm) and red (620–740 nm).

Chart, histogram

Description automatically generated

Figure S14: **Monthly integrated dosages of irradiance at the intertidal point calculated for Tokyo (2020).** Model results for dosages of A) solar (MJ m–2), B) twilight (kJ m–2), C) lunar (J m–2) and D) artificial light at night (ALAN, J m–2); note the different units. Broadband (400–740 nm) is shown in black; spectral components, in blue (400–500 nm), green (495–560 nm) and red (620–740 nm).