

fluence rate, E_o

radiant energy fluence rate

spherical irradiance

Total *radiant power*, P , incident from all directions onto a small sphere divided by the cross-sectional area of that sphere. SI unit is W m^{-2} .

Note 1: Mathematical definition: $E_o = dP/dS = dH_o/dt$. If the radiant power is constant over the area S , $E_o = P/S$. Equivalent definition: $E_o = \int_{4\pi} L d\Omega$, with Ω the solid angle of each beam passing through the given point on the surface and L the *radiance* of the beam at that point.

Note 2: Fluence rate is identical to spherical irradiance and reduces to *irradiance*, E , for a parallel and perpendicularly incident beam not scattered or reflected by the target or its surroundings.

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