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● A lighting hierarchy reduces overall brightness and light pollution

A lighting hierarchy defines the maximum luminance for the city's important places and buildings, and subsequently, the appropriate brightness level for less important façades around the city. Following the same principle, private lighting should always be less bright than lighting for priority features. In the overall lighting scheme, it is also important to consider the surrounding brightness. Using a lighting hierarchy, the city should limit the maximum luminance and the surrounding brightness through a policy for the use of individual lighting in shop-windows, windows, walls, and roofs.

Example: The luminance of the façade of the Town Hall in Hamburg is pretty low; it is about 3–4 Candela per square meter.

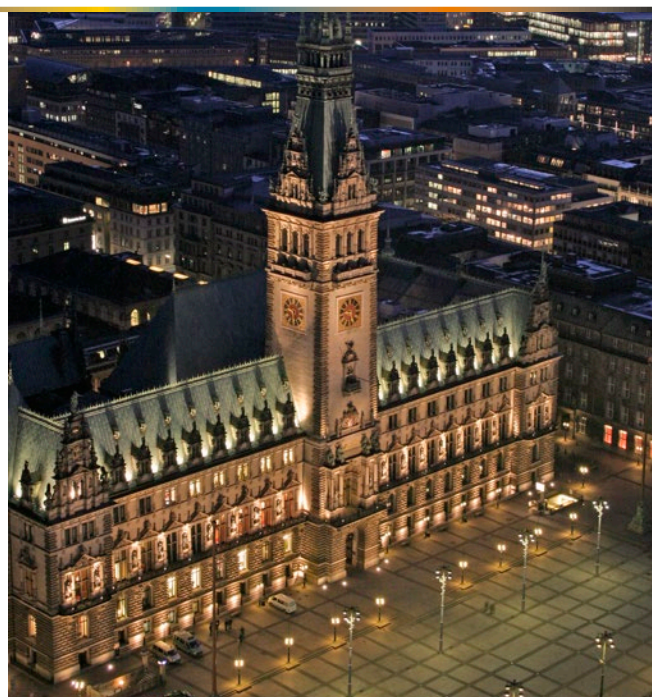


Photo: Brandt Lichtdesign

● A lighting hierarchy creates a safer environment around the city

A lighting hierarchy also includes considerations for the street lights. By defining a hierarchy based on the typology of streets or paths, traffic intensity, environment, and road safety, the city can achieve lower brightness for the overall city without necessarily compromising the public's safety.

Human eyes adapt to brightness. Therefore, it is critical to provide a low brightness-contrast for the surroundings to

prevent glare, while maintaining regularity of the luminance level for the streets. It is also important to take into account the overall illuminance for the public areas.

Example: Illumination for the paths in a park. It is safer for the public to illuminate a single path with the highest traffic, than to illuminate multiple paths and scattering the traffic flow.

Источники:

- 1 Oldenziel, Ruth et al: (2016): Cycling Cities: The European Experience. Hundred years of Policy and Practice. Eindhoven/Munich.
- 2 Light on the green path (2017): https://lightingmetropolis.com/projects__post/light-on-the-green-path/

- 3 Gouvernement du Grand-Duché de Luxembourg (2018): Mouvement écologique (Leitfaden „Gutes Licht“ im Außenraum für das Großherzogtum Luxemburg. Wirkung nächtlicher, künstlicher Beleuchtung auf Fauna und Flora). Luxembourg. www.emwelt.lu