



DARKER SKY

Interreg
North Sea

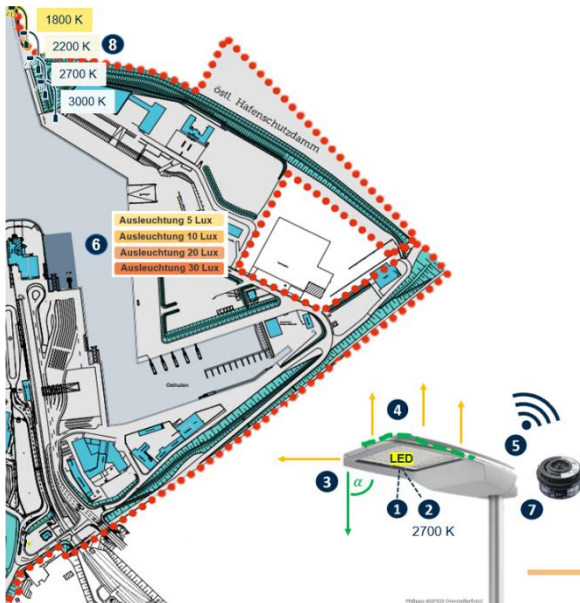


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Sustainable lighting concept for the Osthafen Norddeich

The lighting concept for the Norddeich project site was developed in close collaboration with technical experts and optimized with a particular focus on ecological considerations. The aim was to ensure safety and functionality in the port while minimizing negative impacts on the environment and nature as much as possible.

The result is a future-oriented lighting concept that meets legal requirements and occupational safety standards while minimizing light emissions and environmental impact. The project thus makes an important contribution to protecting people, animals, and the environment—without compromising operational safety and efficiency.



1. **LED technology:** We have replaced existing lamp types such as sodium vapor lamps and older LED lights with long-lasting and energy-efficient LEDs. This allows us to reduce our CO2 emissions and contribute to climate and environmental protection.
2. **Light color:** We have chosen a warm light color (2700 K). Compared to light with a high blue content, warm light colors reduce the negative impact on the environment.
3. **Light control:** We have checked the correct steering angles to avoid long scattering paths of light into the atmosphere and the illumination of water surfaces. This minimizes the impact of light on the ecosystem.
4. **Shielding:** We use upward-shielded luminaires. These do not emit light into the atmosphere and ensure targeted lighting where it is needed.
5. **Lighting control system:** We use intelligent lighting control software that allows us to adjust the lighting dynamically and as needed at any time.
6. **Illuminance:** We have specified different minimum illuminance levels for the individual port areas. Lighting will not exceed the legal requirements.
7. **Motion sensors:** We use motion sensors that only dim the lighting to the legally required level when the harbor is in use.
8. **Bringing light colors to life:** We have set up a test area for different light colors (from 1800 K to 3000 K) to bring different light colors to life in the port and increase port users' acceptance of warmer light colors.