



# DIVISION 6

PHOTOBIOLOGY AND PHOTOCHEMISTRY

TÜRKİYE TEMSİLCİSİ: BANU MANAV

# GÖREV DAĞILIMI

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6-52 Proper Measurement of Passive UV Air Disinfection Sources

JTC 05 (CIE-IEC) Review of IEC 62471/CIE S009

JTC 08 (D1/D2/D3/D4/D6/D8) Terminology in light and lighting

JTC 14 (CIE-ISO) Integrative Lighting

JTC19 (D6/D2) Terms and Definitions of Horticultural Lighting

What light and dark daily pattern (intensity, spectrum, timing, duration) best supports well-being (younger/older)? Ongoing activities: JTC 14 “Integrative Lighting” - ISO TC 274/WG5 ; DR 6-46 “2nd circadian Manchester workshop”; ICNIRP: PG Short Wavelength Light

### **Aydınlık ve Karanlık Döngüsü Nedir, Genç ve Yaşlıları Nasıl Destekler?**


JTC 5 Review of IEC 62471/CIE S009 “Photobiological Safety of Lamps and Lamp Systems”

### **JTC 5 Review of IEC 62471/CIE S009 Lamba ve Lamba Sistemlerinin Fotobiyolojik Güvenirliđi**

Next to circadian regulation, what physiological and psychological processes are influenced by ocular light exposure?  
Sirkadyen regulasyonu ile birlikte, hangi fizyolojik ve psikolojik işlemler göze giren ışıktan etkilenir?

Horticulture lighting: terms & definitions (JTC 19), action spectra,....

### **Bahçe Aydınlatması :Tanımlar (JTC 19)**



Daylight definition: is now based on visual system -> update w.r.t. non-visual, spectral radiance, ....?

***Günlüğü Tanımları: Görme Sistemler, ışığın görünmeyen etkileri, radyasyon***

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Medical uses of light (for example treatment of hyperbilirubinemia (DR 6-43) or skin disorders)

***Işığın Sağlık için Kullanımı***

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UV disinfection (for example guide for gonioradiometric measurement of upper air UVGI luminaires TC 6-52)

UV Dezenfeksiyon



# GUIDE FOR THE GONIORADIOMETRIC MEASUREMENT OF UPPER AIR ULTRAVIOLET GERMICIDAL IRRADIATION LUMINAIRES

CIE 247:2021  
ISBN: 978-3-902842-19-0  
DOI: 10.25039/TR.247.2021

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Upper air ultraviolet germicidal irradiation (UVGI), in combination with appropriate room ventilation, is increasingly being used as a method to reduce transmission of airborne infectious diseases such as tuberculosis. UVGI luminaires appropriate for upper room air disinfection are installed above eye level and designed to limit vertical emission spread in order to prevent exposure to occupants as much as possible. Accurate UVGI luminaire emission profiles are needed to calculate the dose required for disinfection of airborne microorganisms. A radiometric measurement protocol for UVGI luminaires is a basis for this method of measurement. This guide is intended to promote uniformity and accuracy in the measurement of UVGI luminaires. Data will be exportable to any standard electronic data file formats for use in lighting software programs adapted for UVGI application.

The publication is written in English, with a short summary in French and German. It consists of 28 pages with 4 figures and is readily available from the [CIE Webshop](#) or from the National Committees of the CIE.

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# OPTICAL SAFETY OF INFRARED EYE TRACKERS APPLIED FOR EXTENDED DURATIONS

CIE 245:2021  
ISBN: 978-3-902842-14-5  
DOI: 10.25039/TR.245.2021

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Infrared eye trackers are employed to achieve communication through gaze interaction, which is an important application of modern electro-optics and computer technology to the benefit of persons with disabilities who have major motor impairments, as well as for general use as a human-to-computer interaction device. By tracking eye movements of persons with severe motor disabilities, the individuals can interact with automated equipment through movements of their gaze. In addition to purely passive systems, which may only employ ambient lighting, more typical eye trackers employ active infrared eye-tracking techniques.

However, questions have arisen with regard to the potential optical radiation hazards of using infrared eye trackers for the much-extended durations of 10 to 12 hours each day for a lifetime. Conventional eye trackers employed in the research setting would rarely be used for more than an hour. Several exposure guidelines exist today, but the question has arisen whether the chronic nature of exposure for such an infrared illuminator for assistive devices falls outside the assumed conditions of daily exposure.

This technical report explores the basis of the current human exposure guidelines, their scientific basis and underlying assumptions in order to determine the direct applicability of these guidelines to this application. It is found that the most limiting exposure criterion is the infrared exposure limit to protect against delayed changes in the crystalline lens of the eye. The Technical Committee also examined some representative eye trackers and found that the day-long average exposure in these typical examples of current technology did not exceed that criterion.

The publication is written in English, with a short summary in French and German. It consists of 25 pages with 3 figures and 2 tables and is readily available from the [CIE Webshop](#) or from the National Committees of the CIE.

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International Commission on Illumination  
Commission Internationale de l'Éclairage  
Internationale Beleuchtungskommission

CIE S 026/E:2018

**International Standard**

## **CIE System for Metrology of Optical Radiation for ipRGC-Influenced Responses to Light**

Système CIE de métrologie des rayonnements optiques dédié à la réponse à la lumière des cellules ganglionnaires photosensibles de la rétine (ipRGC)

CIE-System für die Metrologie optischer Strahlung für ipRGC-beeinflusste Antworten auf Licht

This CIE International Standard has been prepared by Joint Technical Committee (JTC) 9 “CIE system for metrology of ipRGC influenced light response” of Division 1 “Vision and Colour”, Division 2 “Physical Measurement of Light and Radiation”, Division 3 “Interior Environment and Lighting Design”, and Division 6 “Photobiology and Photochemistry” of the Commission Internationale de l’Éclairage, under lead of Division 6

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