Division 8 Report

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

Canadian National Committee Comité national canadien

US National Committee of the CIE

Report to Joint CNC- USNC CIE Meeting

CORM Webinar, November 18-20, 2025

Robin Atkins – CNC **Max Derhak** - USNC

Division 8 Officers

- **Director:** Noël Richard (FR)
- **Division Editor**: Manuel Melgosa (ES)
- **Division Secretary**: Hermine Chatoux (FR)
- **Country Members**:

  Canada – Robin Atkins

  United States – Max Derhak

Division 8 Annual Meeting

Vienna, July 10 2025

Name	Fisrtname	online
Richard	Noël	
Chatoux	Hermine	
Melgosa	Manuel	
Atkins	Robin	
Imai	Francisco	
Brémond	Roland	
Yan	Jinyun	
Suessl	Florian	
Tanaka	Midori	
Suzuki	Yazuo	
Kanematsu	Erika	
Ikeda	Takeshi	
Seo	Young Jun	
Stolitzka	Dale	
Hung	Po-chieh	
Jungnitsch	Katharina	
Bai	Chuz	
Hung	Shan Yang	
Hakszer	Tomas	
Peyvandi	Shahram	
Allabauer	Christian	
Richter	Klaus	
Wu	Will	
Xiao	Kaida	
Abebe	Mekides	x
Alvarez Fernanandez-Balbuena	Antonio	x
Verdu	Francisco	x
Kuniba	Hideyasu	x
Shyu	Jim	x
Bergquist	Johan	x
Fernandes	Leandro	x
Derhak	Max	x
Bonnier	Nicolas	x
Kwak	Youngshin	x

Division 8 Liaison Officer Meeting

August 26 2025

Meeting Focus:

- Enhancing team engagement
- Collaboration within the division
- Addressing ethical standards
- Opportunities for partnerships in display metrology and color management (ISO, ICC and ICDM)

New Technical Committees

New TC proposal: Optimal CMFs for Display Color Consistency

- To standardize a set of new colour matching functions for self-emissive devices of display system that minimizes colour inconsistency caused by imperfections in the CIE 1931 standard observer.
- To propose an optimization framework of physiologically-driven colour matching functions to achieve colour consistency amongst electronic displays of different technologies.
- This framework provides a set of optimized parameters associated with physiological templates and components of the human eye. This TC provides the description of fundamental work on derivation of color matching functions optimized to improve perceive color consistency across observers and electronic display technologies.

Chair: Francisco Imai (US)

Members: Manual Melgosa, Andrew Stockman, Ronnie Luo, Tommy Wei, Youngshin Kwak, Po-Chie Hung, Shahram Peyvandi

Optimal CMFs for Display Color Consistency

Issue: Inconsistent color appearance across display technologies due to a flaw in the CIE 1931 CMFs

Goal: Sets of optimized CMFs framework standard to improve color consistency for display industry

Technical Committees

TC #	Title	TC (lead-/co-) chair	Year	Status
TC 8-12	Image and Video Compression Assessment	Pascal Bourdon (FR)	2013	Dissolution
TC 8-14	Specification of Spatio-Chromatic Complexity	Noël Richard (FR)	2015	Report at committee stage (CD)
TC 8-16	Consistency of colour appearance within a single reproduction medium	Craig Revie (UK)	2017	WD in ballot at TC level
TC 8-17	Methods for Evaluating Colour Difference between 3D Colour Objects	Kaida Xiao (GB)	2017	WD in progress
TC 8-18	Guidelines for Definition and Evaluation of High Dynamic Range Images and Image Sequences	Mekides Assefa Abebe (NO)	2021	In progress
JTC 12	The measurement of sparkle and graininess	Noël Richard (FR)	2018	WD in progress
JTC 17	Validity of Chromatic Adaptation	Kaida Xiao (GB)	2018	In progress
JTC 17	Gloss measurement and gloss perception – A framework for the definition and standardization of visual cues to gloss	(Vacant)	2019	Dissolution

Division Liaisons

L #	Title	Reporter
L 8-01	ISO/TC 36: Cinematography	CIE Central Bureau
L 8-02	ISO/TC 130: Graphic Technology	Florian Suessl
L 8-03	ISO/TC 42: Photography	Hideyasu Kuniba
L 8-04	ISO/TC 159/SC 4/WG 2: Visual Display Requirements	Po-Chieh Hung
L 8-05	ISO/IEC/JTC 1/SC 29: Coding of Audio, Picture, Multimedia and Hypermedia Information	Olfa Ben Ahmed
L 8-06	IEC/TC 100/TA 2: Multimedia Systems and Equipment	Hideyasu Kuniba
L 8-08	ISO/IEC/JTC 1/SC 28: Office Equipment	Klaus Richter
DC 8-01	ASTM/E12: Colour and Appearance	Ellen Carter
DC 8-02	International Color Consortium (ICC)	Maxim Derhak

Division Publications in 2025

No new publications in the last year

Display to Light Source Continuum

Observation 1: Displays are increasing being used to light our environment

Video Conferencing

Advertising Billboards

Virtual Production

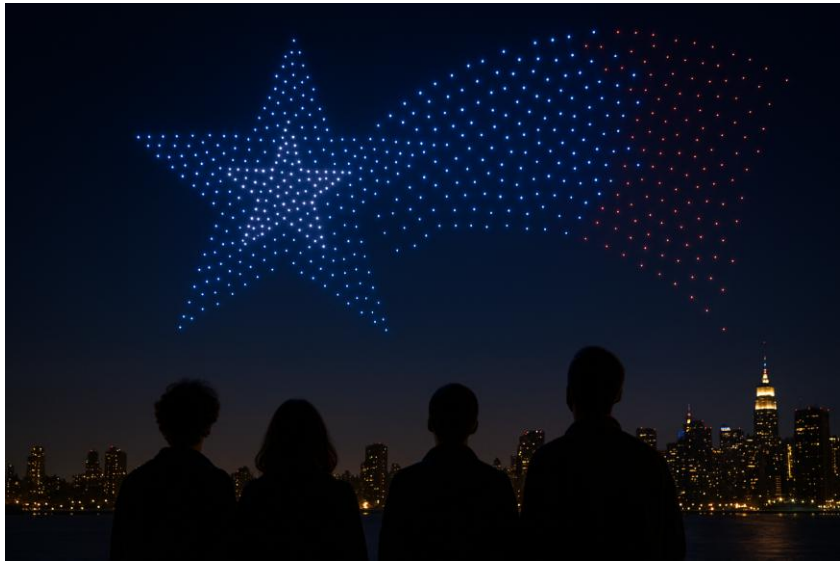
Display to Light Source Continuum

Observation 2: Light Sources are increasingly being used as displays

Automotive Interior Lighting

Architectural Illumination

Drone Light Shows



And who (or what) is the Observer?

Observation 3: Non-human observers are increasingly amongst us…

Self-driving cars

Consumer cameras (mobile, glasses, …)

Humanoid Robots

Display to Light Source Continuum

- Should we be applying the metrics that we have developed for light sources to displays?
  - Color Rendering Index, Efficiency Ratings, Flicker, etc?
- Conversely, should we be applying the metrics that we have developed for displays to light sources?
  - Spatial Uniformity, Refresh Rate, Color Accuracy and Tracking, etc?
- And should we be expanding our definition of standard observer(s) to include non-humans?
  - Color matching functions, Flicker sensitivity, etc?
- Potential for a new TC to investigate these questions?

Future Meetings

- Next Division 8 Meeting Feb 2026 (Webex) to discuss TC and RF