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Road vehicles — Visibility — Specifications and test procedures for head-up displays (HUD)

*Véhicules routiers — Visibilité — Spécifications et procédures d'essai
pour les affichages tête haute (HUD)*



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Foreword

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Introduction

This document outlines ergonomic specifications, evaluations and test methods for the design and laboratory assessment measurement of head-up display (HUD) image qualities like virtual image distance (X), aspect ratio (Y and Z), luminance, contrast and image height adjustment ranges. This document also outlines procedures for measuring HUD images for the purpose of laboratory assessments, as measured from observation areas defined by an eyebox, and provides the definition of the eyebox from the locating the driver's eyellipse (see ISO 4513).

This document also provides a standard measurement practice of HUD virtual images for HUD bench testing, static and dynamic laboratory test, as well as methods for documenting HUD virtual image attributes such as size, luminance, contrast, field of view, image location adjustment ranges and HUD eyebox attributes using image readability standards from SAE J1757-1, SAE J1757-2, ISO 15008 or other applicable standards where required.