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Radiant Webinar Presents Measurement Challenges Posed by Next-Generation Head-Up Displays and Demonstrates Capabilities of Optical Quality Solutions

REDMOND, Wash. – November 14, 2018 — Radiant Vision Systems, a leading provider of test and measurement solutions for lighting and displays, announces that it will host a webinar to present development trends in automotive head-up display (HUD) technology, from traditional to augmented reality (AR) HUD. The webinar will discuss optical measurement challenges and photometric imaging system



benefits that ensure virtual image quality across all display types. The webinar, titled "<u>Measuring Head-Up Displays from 2D to AR: System Benefits & Demonstration</u>," will be broadcast live on Wednesday, November 28, 2018, from 10:00 to 11:00 A.M. Eastern Standard Time (EST) (4:00 to 5:00 P.M. Central European Time (CET)). The broadcast includes a technical presentation and software demonstration by Radiant's automotive business leader, Matt Scholz, followed by a live audience question and answer session.

Projecting speed, navigation, and situational data onto the car windshield within the operator's field of view offers safety and design advantages that have given HUD technology the highest expected growth rate in the automotive market (Source: *Mordor Intelligence, Automotive Head-up Display Market - Analysis of Growth, Trends, and Forecast (2018 - 2023)*). Introduced in several new vehicles, HUDs are evolving rapidly. With the rise of virtual and augmented reality (VR, AR) in consumer electronics, user expectations regarding projection and holographic displays have set a high bar for HUD design and quality. The opportunity for automakers to gain a competitive advantage by offering fixed-depth, two-dimensional HUDs may be brief. Anticipation is building for next-generation 3D and AR systems, even prior to a widespread commercial rollout of the first integrated HUDs.

With the advent of new HUD systems, equipment used to ensure HUD optical quality (the accuracy and visibility of projected images on the windshield) is likewise facing new demands. HUD measurement must adapt with the incorporation of 3D and AR-HUD systems, which project new types of virtual images, across larger fields of view, and at a range of depths. Responding to these demands, manufacturers are challenged to find measurement systems that can address the evolution of HUD technology.

Having contributed to the development of optical metrology parameters for new international HUD measurement standards (<u>SAE J1757-2 "Optical System HUD for Automotive</u>"), the automotive team at Radiant Vision Systems has adapted solutions for HUD testing to meet the measurement criteria of automotive OEMs and Tier I suppliers, whose products incorporate a

range of technologies for traditional and AR HUD including TFT, DLP, and laser-based systems. Radiant <u>ProMetric® imaging colorimeters and photometers</u> feature an electronically-controlled lens that is highly effective at identifying and focusing on an image projected into infinity. This capability enables ProMetric analysis software to provide accurate luminance and chromaticity measurements at any working distance from traditional HUD projections at two to five meters, to AR-HUD projections as far as 20 meters.

During the upcoming webinar, Radiant International Senior Business Advisor for Automotive applications, Matt Scholz, will present the measurement challenges posed new HUD technology from traditional fixeddepth, two-dimensional projections to AR-HUD and 3D images, and camera-based solutions that are adaptive to imaging requirements for simplified quality testing of HUD optical systems. Scholz will introduce Radiant's photometric HUD measurement system, review imaging specifications that are beneficial for measurement across HUD systems, and demonstrate HUD image quality tests in Radiant's new TT-HUD software module.

For information about this webinar and to register for the live broadcast on November 28, visit <u>www.RadiantVisionSystems.com</u>.

About Radiant Vision Systems

Radiant Vision Systems works with world-class brands and manufacturers to deliver creative visual inspection solutions that improve quality, reduce costs, and increase customer satisfaction. Radiant's legacy of technology innovation in photometric imaging and worldwide install base date back more than 25 years and address applications from consumer electronics to automotive manufacturing. Radiant Vision Systems product lines include TrueTest[™] automated visual inspection software for quality control, and ProMetric[®] imaging colorimeters, photometers, and light source measurement systems. Radiant is headquartered in Redmond, Washington, USA, with strategic offices in China and South Korea. Radiant has been a part of Konica Minolta's Sensing Business Unit since August 2015. For more information, visit <u>www.RadiantVisionSystems.com</u>.

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