



D5.1 First pre-series production unit for Light Steering projection technology demonstration



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1.2 26-06-19	Revisions in response to review: final versions submitted to Commission

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1 EXECUTIVE SUMMARY

The Deliverable consists of a projector pre-series prototype capable of displaying High Dynamic Range (HDR) images on a screen in a typical cinema environment and designed for commercial use in Digital Cinema market.

This document describes the process followed to gather the parameters that lead to the design of this projector using a pre-existing technology demonstrator and will show pictures of the pre-series projector build in the Barco HQ and now available for further work in the HDR4EU program. Data were collected from typical average moviegoers (to evaluate the value of HDR for cinema and the boundaries of diminishing returns), reference clients (to determine the right cost to value ratio) and with Barco R&D for technical feasibility assessment. This resulted in image performance parameters that were proposed to the Digital Cinema Initiative (DCI) group for consideration in the process of HDR standard generation being the following: 300 cd/m² peak luminance, 0.001cd/m² black level, 48cd/m² full-screen white, 15 cd/m² of highlights budget (diffused white point up to 33cd/m²), use of ST2084 for encoding and display curve.