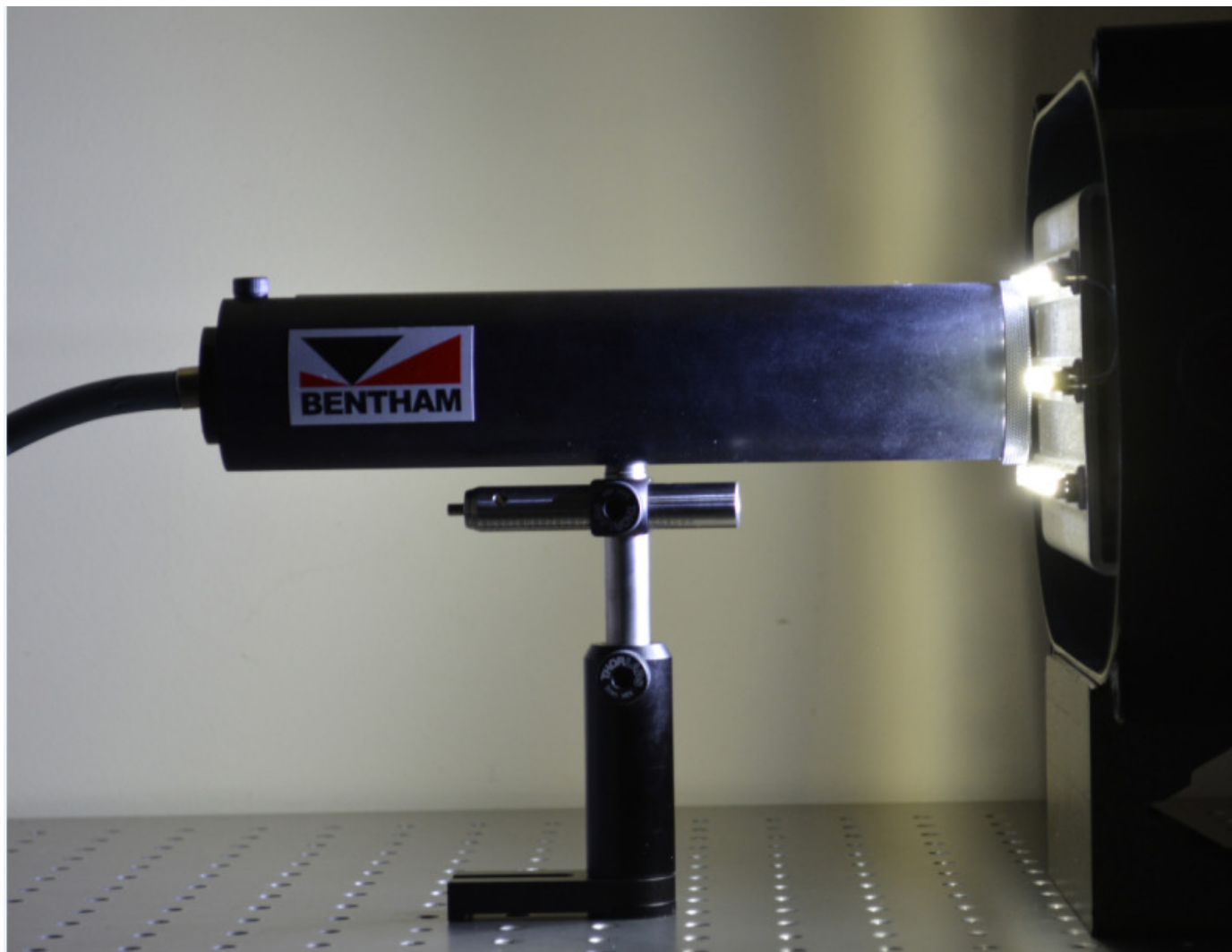


# DIFF\_D7\_FOVL

FIELD OF VIEW LIMITING BAFFLE TUBE



User Manual

Version 1- July 2015

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## 1 INTRODUCTION

Thank you for your purchase of the Bentham DIFF\_D7\_FOVL input optic. The documentation for this product consists of this User's Manual with reference made to specific component manuals where further information is sought. To get the most from this measurement system, please be sure to read all instructions thoroughly and keep them where they will be read by all who use the product.

## 2 GUARANTEE

Bentham Instruments warrants each instrument to be free of defects in material and workmanship for a period of one year after shipment to the original purchaser. Liability under this warranty is limited to repairing or adjusting any instrument returned to the factory for that purpose. The warranty of this instrument is void if the instrument has been modified other than in accordance with written instructions from Bentham, or if defect or failure is judged by Bentham to be caused by abnormal conditions of operation, storage or transportation.

This warranty is subject to verification by Bentham, that a defect or failure exists, and to compliance by the original purchaser with the following instructions.

Before returning the instrument, notify Bentham with full details of the problem, including model number and serial number of the instrument involved. After receiving the above information, Bentham will issue an RMA reference number and provide shipping instructions.

After receipt of Shipping instructions, ship the instrument "carriage paid" to Bentham. Full liability for damage during shipment is borne by the purchaser. It is recommended that instruments shipped to us be fully insured and packed surrounded by at least two inches of shock-absorbing material. Specific transit packaging as used in Monochromators etc. must be installed.

Bentham reserves the right to make changes in design at any time without incurring any obligation to install same on units previously purchased.

This warranty is expressly in lieu of all other obligations or liabilities on the part of Bentham, and Bentham neither assumes, nor authorises any other person to assume for it, any liability in connection with the sales of Bentham's products.

**NOTHING IN THIS GUARANTEE AFFECTS YOUR STATUTORY RIGHTS.**

### 3 CONTACT BENTHAM

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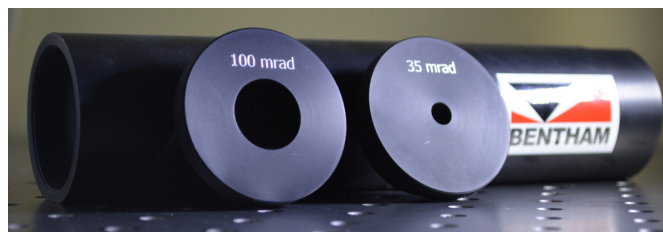
T:+44 (0)118 975 1355

### 4 SYSTEM REQUIREMENTS

The DIFF\_D7\_FOVL is intended for use with in-line diffusers, of type DIFF\_D7 or DIFF\_D6.

### 5 SYSTEM COMPONENTS

**1 x FOVL Baffle tube, 2x Apertures labelled 100mrad and 35mrad**



#### **Miscellaneous**

1 x M6 screw to clamp DIFF\_D7 to DIFF\_D7\_FOVL

## 6 HARDWARE INSTALLATION



Figure 1: DIFF\_D7\_FOVL

The DIFF\_D7\_FOVL is supplied with two apertures, labelled 100mrad and 35mrad. As required, the aperture may be screwed to the front face of the optic. To the rear of the optic can be positioned the DIFF\_D7 cosine diffuser, locked in place using an M6 screw provided.

The optic is supplied with an M6 optical rail post system. Alternative threaded holes are provided for use of a tripod and a flat lower surface to mount on a lab jack or similar.

## 7 OVERVIEW OF USE OF DIFF\_D7\_FOVL

The DIFF\_D7\_FOVL has been specifically designed to meet the requirements of testing lamps to IEC 62471 “Photobiological Safety of Lamps and Lamp Systems”.

The DIFF\_D7\_FOVL is a baffle tube designed to adapt to the D7 cosine diffuser, and supplied with two interchangeable apertures to allow performing measurements in 100mrad or 35mrad. The length of the baffle tube is such that when touching the source, the front surface of the D7 diffuser will be placed at 200mm from the source as required in the consideration of non-GLS sources.

In the case of non-GLS sources, where an aperture is required to limit the output of the source to 100mrad in the consideration of blue light hazard exempt risk group it is recommended to use the DIFF\_D7\_FOVL with the aperture for 100mrad.

In the case of non-GLS sources, where an aperture is required to limit the output of the source to 35mrad in the consideration of retinal thermal weak visual stimulus hazard exempt risk group it is recommended to use the DIFF\_D7\_FOVL with the aperture for 35mrad.

There is no need to re-calibrate the spectroradiometer to use the DIFF\_D7 diffuser with the DIFF\_D7\_FOVL.

In use, one can use the Benwin+ alignment utility, set at a wavelength at which the source under test emits light, place the DIFF\_D7\_FOVL at the plane of the source and move the lateral and vertical position to find a maximum signal, representing the highest irradiance in a 100mrad or 35mrad FOV.

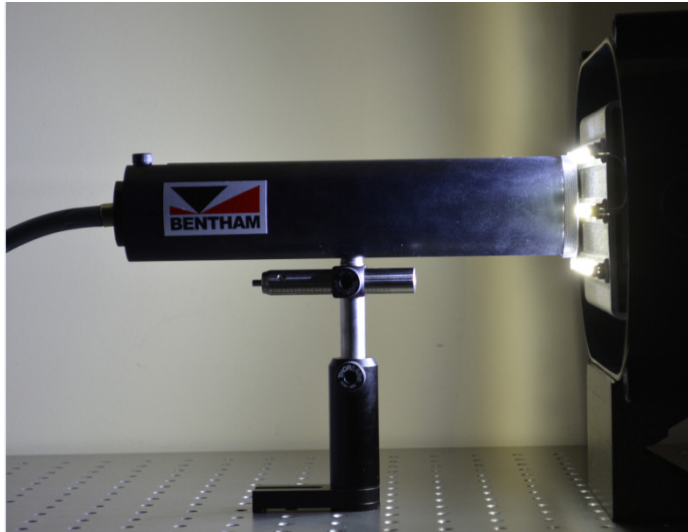


Figure 2: DIFF\_D7\_FOVL in use