



IPR-PDET2-L/LD/LAp/A/AD/AAp/TS

PDET2: Photometric (Y bar) detector, 20mm filter
 L: Laboratory grade $f1' \leq 1.5\%$ OR...
 A: Class A grade $f1' \leq 3\%$
 D: Add diffuser OR...
 Ap: Add aperture
 TS: Temperature-stabilized

IPR-CDET2-X1/X2/Y/Z

CDET2: Colorimetric detector, 20mm filter
 X1, X2, Y, or Z: Filter type

IPR-RDET2-V/VD/VAp/IR/IRD/IRAp

RDET2: Radiometric detector, 20mm filter
 V: Visible spectral range (400-750nm) OR...
 IR: IR spectral range (600-900nm)
 D: Add diffuser OR...
 Ap: Add aperture

IPR-PDET1/CDET1/RDET1

As above using 7mm filter mounted on TO5 detector with standard pin leads.
 Available in Class A only. Diffusers and apertures not available in this size.

Inphora's light measuring detectors are built using selected, stability tested, high-grade silicon PIN photocells. The photocells are matched with high quality custom color glass filters to ensure long-life and consistent performance.

A Calibration Certificate showing the normalized spectral response and $f1'$ error matching function is provided for the photometric and colorimetric detectors. The $f1'$ value is the most important quality criterion for determining the spectral match to the CIE color matching functions and characterizes the mean deviation of the spectral match weighted with the CIE Standard Illuminant "A" spectral power distribution (see CIE Publ. 53 and 69). Inphora produces photometric and colorimetric detectors with the closest match to the CIE tristimulus functions currently available anywhere.

SPECIFICATIONS:

Photometric Detectors

Photometric detectors are available to measure luminous flux using an aperture, or luminous intensity using a diffuser. Inphora photometric detectors conform to CIE specifications and are available in multiple $f1'$ error classes which are in agreement with the German DIN 5032/Teil 7 classification. Examples include "L" Laboratory grade with $f1' \leq 1.5\%$ and "A" Class A grade with $f1' \leq 3\%$. Photometric detectors are available in both temperature-stabilized (35°C) and general purpose configurations.

Colorimetric Detectors

Colorimetric detectors use filters designed to obtain CIE tristimulus type responses for colorimetric measurements of objects and light source. Detector types include X1, X2, Y and Z.

Radiometric Detectors

Radiometric detectors are available to measure radiant flux using an aperture, or radiant intensity using a diffuser. These detectors produce a flat response with maximum deviation of $\pm 10\%$ in the visible (400-750nm) or IR (600-900nm) spectral range.

Custom Detectors

Inphora can design and build custom detectors with specific detector-filter combinations to match your requirements. Standard Inphora detector sizes include our DET1 with a 7mm filter, and the DET2 with a 20mm filter. Filter and housing size can be customized to meet your needs. A BNC connector or wire lead may be specified.