

# PMA 2131 SCOTOPIC LIGHT DETECTOR

**SENSORS**  
INDUSTRIAL LIGHT  
MEASUREMENT  
LABORATORY LIGHT  
MEASUREMENT

Delivery on all products is  
Stock to 2 weeks.

Every product is  
calibrated to NIST  
traceable standards  
before shipment.



The PMA 2131 scotopic Light detector is a portable light detector (Lux detector) with spectral response following the CIE scotopic action spectrum.

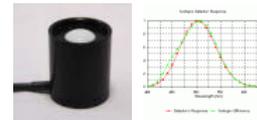
This detector is designed to have a spectral response like that of the human eye's visual response in the photopic region.

The power-like unit of brightness-sensation-producing ability of light is lumen [lm]. The relationship between effective Watts and scotopic lumen is now assumed to be 1754 lm/W. For example, 507-nm monochromatic radiation flux of 0.0001W would carry the scotopicluminous flux of 0.1754 lm. Please note, that photopic spectral luminous efficiency as well as the conversion factor between Watts and photopic lumens differ from their scotopic counterparts.

## Uses

The PMA2131 measures the intensity of light in the visible range of the spectrum following the Scotopic Action Spectrum similar to the human eye. It can be used in night vision technology measurement, display and illuminator testing.

## Alternate Views



## Applications

Low light level testing  
Night vision technology

Display and illuminator testing  
Luminescence and fluorescence

Photography and film studios  
Clinical studies

## Features

High sensitivity  
Wide dynamic range

Excellent long term stability  
Cosine corrected

NIST traceable calibration  
Selectable units

## Specifications

### Spectral response:

Follows CIE scotopic spectral luminous efficiency curve (400-600nm) Figure 1

### Angular response:

5% for angles <60°

### Range:

PMA2131 - 200,000 scotopic mLux, 20,000 mft-cd, 120,000  $\mu$ W/m<sup>2</sup>

PMA2131D - 500 Lux, 48 ft-cd

### Display resolution:

PMA2131 - 0.001 Lux 0.01 ft-cd 1  $\mu$ W/m<sup>2</sup>

PMA2131D - 0.001 Lux, 0.001 ft-cd

### Operating environment:

32 to 120 °F (0 to +50 °C) no precipitation

### Cable:

5ft (1.5m)

### Diameter:

1.6" (40.6 mm)

### Height:

1.8" (45.8 mm)

### Weight:

7.1 oz. (200 grams)

