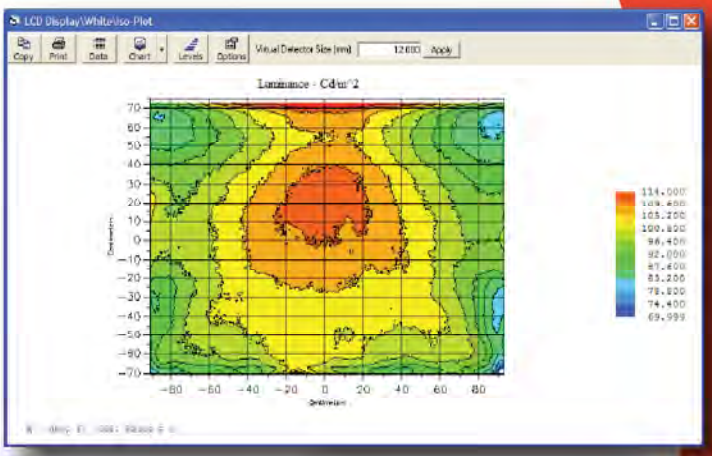
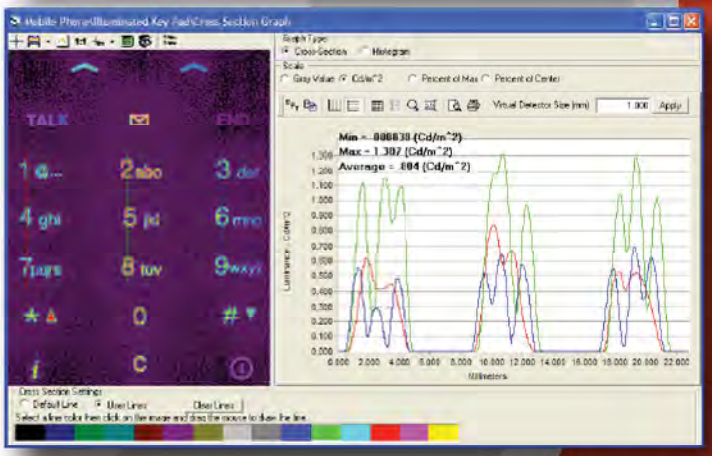
PM-1400E Series

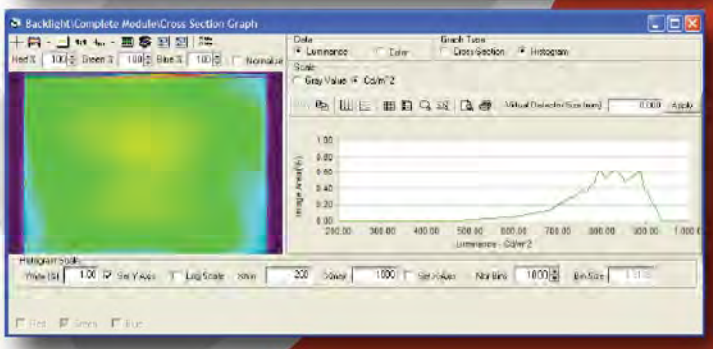
CCD Imaging Photometer and Radiometer

NEW AND IMPROVED

- Millions of photopic or radiometric data points in seconds
- Fast data acquisition times
- Measure 2-D distribution of Luminance (Radiance), Illuminance (Irradiance), Luminous (Radiant) Intensity
- Cooled scientific grade CCD camera with 14 bits of dynamic range
- Field of View: 1 degrees to 68 degrees plus micro and macro capabilities
- Fully Integrated Windows Software with Active-X controls for easy Production and Automated Test Sequence Interface Development







NEW TO THE "E" SERIES

- Patent pending mechanical shutter shortens exposure times and provides increased lifetime and repeatability
- Internal ND filters now included
- New shutter design, motors and circuitry. Change from magnetic to optical positioning of new filter wheel

DESCRIPTION

ProMetric® 1400 Series is a ***USB 2.0*** computer controlled CCD-based imaging photometer / radiometer, system capable of capturing images and quantitatively analyzing these images for lumiance and illuminance (radiance and irradiance). ProMetric® 1400 system consists of:

- 2-stage Peltier cooled 14-bit CCD camera
- Precisely designed photopic filter
  (custom filters available upon request)
- Standard lenses from 14mm to 300mm
  (Microscope objectives 4x to 50x also available)
- ProMetric® v. 8.5 software for camera control, data acquisition, data analysis and test report generation.
- Illuminance calibration light source or factory luminance calibration included

APPLICATIONS

- CRT, LCD, PDP, LED, OLED, and Backlight Display Testing of Luminance, Luminance Uniformity and Mura Inspection
- Projection System Testing of Luminance, Illuminance, and Illuminance Uniformity
- Roadway and Scene Illumination Evaluations
- NVIS/NIR Display Testing of Radiance Uniformity
- Illumination System Beam Pattern Testing of Luminous (Radiant) Intensity and Illuminance (Irradiance)

RADIANT IMAGING

SEE THE DIFFERENCE™

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www.radiantimaging.com

PM-1400E Series

CCD Imaging Photometer and Radiometer

TYPICAL SPECIFICATIONS*

2-Dimensional Measurement Capabilities	Luminance Radiance Illuminance Irradiance Luminous Intensity	
Units	Footlambert, Cd/cm^2, Cd/m^2, Nit, Mnit, mnit W/sr/m^2, W/sr/ft^2, W/sr/cm^2, mW/sr/m^2 Footcandles, Lux, mLux, Mlux, Lux-Sec W/m^2, W/ft^2, W/m^2, mW/m^2, MW/m^2, W-Sec/m^2 Candela W/sr	
CCD Resolution (px)	512x512, 768x512, 1024x1024, 1536x1024 or 3072x2048 Custom CCD resolutions are also available	
CCD Camera A/D Dynamic Range	14 bits = 16,384 grayscale levels	
Luminance Range	0.005 nit minimum 10^{10} nit maximum with ND filters	
System Accuracy	Illuminance Luminance (Y)	± 3%$_1$ ± 3%$_1$
Short Term Repeatability	Illuminance Luminance	± 0.5%$_2$ ± 0.5%$_2$
Interface	USB 2.0	
Minimum Measurement Time for 100 cd/m^2	1.0 seconds (512x512) 1.1 seconds (768x512) 2.2 seconds (1024x1024) 2.8 seconds (1536x1024) 9.1 seconds (3072x2048)	
Camera Field of View (FOV)	512x512 CCD 768x512 CCD: 1024x1024 CCD: 1536x1024 CCD: 3072x2048 CCD:	1 to 30 degrees 1 to 20 degrees 3 to 62 degrees 2 to 40 degrees 3 to 68 degrees
Dimensions:	242mm (H) x 154mm (W) x 100mm (D)	
Weight:	8 lbs. (3.6 kg.)	

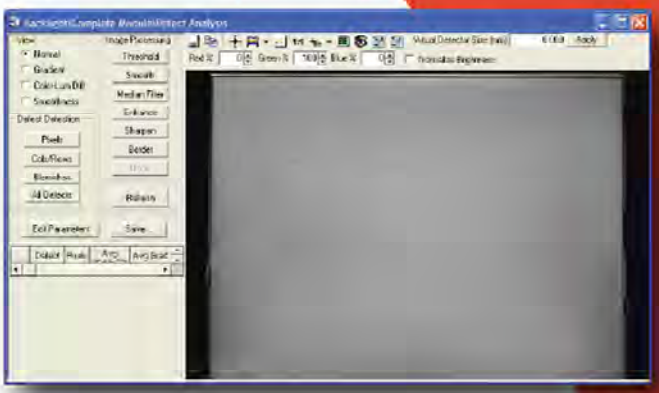
1. *Based on Illuminant A, D 65, or user calibration for specific speera. Based on a virtual detector size of 40 pixels. Spcification is for every point within the field of view of the camera.*
2. *At every point within the field of view of the camera, based on virtual detector size of 40 pixels.*

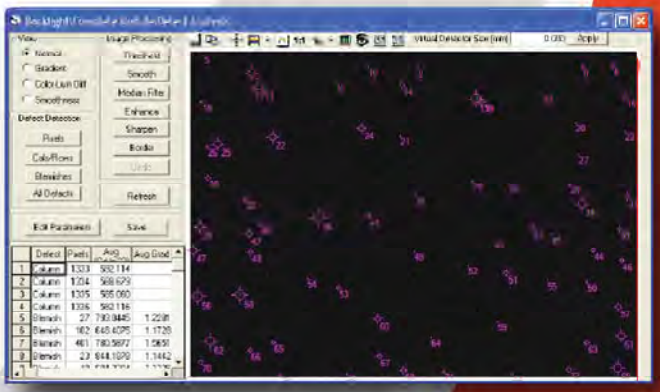
** Specifications subject to change without notice.*

SYSTEM REQUIREMENTS

Pentium IV, 1.3 GHz Processor or faster, 512 MB RAM
Windows® 2000 or XP
USB 2.0 Interface

DEFECT DETECTION
(advanced capabilities)





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