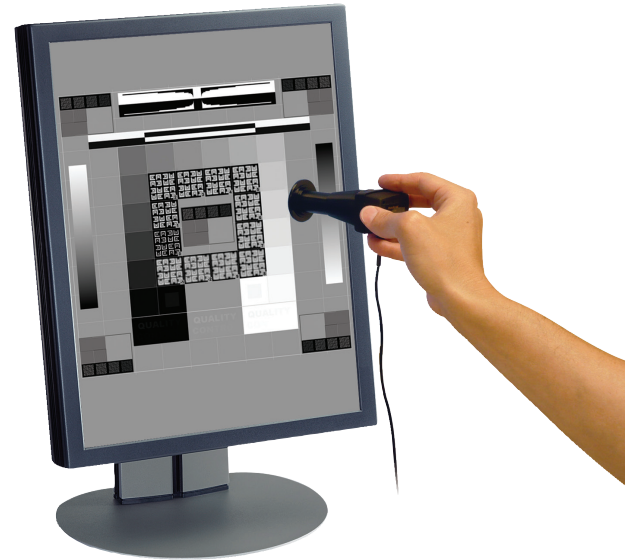


AGLS Light Sensor Manual

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Overview –

The AGLS is a sensor accessory to the Accu-Gold family of products that include the Accu-Gold digitizer and Accu-Gold Touch systems. The AGLS is an excellent Quality Control/Quality Assurance solution for measuring luminance and illuminance.

The base unit of the light sensor contains a silicon photo diode that is exposed to ambient light through an optical filter which very accurately simulates the spectral response of the human eye (the photopic response). In this way, the light sensor measures illuminance of the ambient in units of lux.

A luminance adapter can be attached to the base unit in front of the photo-diode for the measurement of luminance of a monitor in cd/m^2 units. The aperture of the Luminance Adapter is 10-mm in diameter.

The Accu-Gold digitizer and Touch systems automatically detect the presence or absence of the luminance adapter and automatically select the appropriate measurement and units.

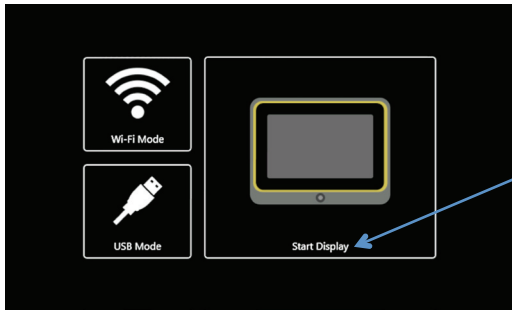


Specifications –

Light Sensor	
Luminance Properties	
Range	0.05 to 50,000 cd/m^2
Resolution	0.01 cd/m^2
Aperture	10-mm diameter
Illuminance Properties	
Range	0.05 to 50,000 lux
Resolution	0.01 lux
Calibration Uncertainty	<3% or 0.05 (lux or cd/m^2)
Photopic Response	<3% Deviation from 1931 CIE Standard Photopic Curve
Cosine Response	<2.5% based on the CIE f2 Test
Calibration Traceability	NIST and other International standards

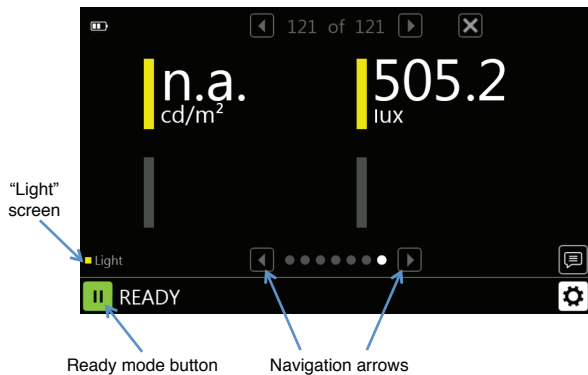
Setting Up the AGLS with Accu-Gold Touch (stand-alone) –

Begin by plugging the AGLS into the Accu-Gold Touch AUX connector and then turn on the Touch system. Click on Start Display to operate the AG Touch in stand-alone mode.



On the start screen click "Start Display". The measure window will automatically be loaded.

Using the arrow keys, navigate to the appropriate screen for light sensor measurement and place the Touch in "Ready" mode (See the AG Touch Manual for more details).



"Light" screen

Light

Ready mode button

Navigation arrows

Setting Up the AGLS with Accu-Gold 2.0 Software –

Getting Started

The Accu-Gold 2.0 software is a Windows application that remotely operates an Accu-Gold stand-alone digitizer or the digitizer of the Accu-Gold Touch Pro system through a USB or wireless connection. In order to install the Accu-Gold 2.0 application and learn the basics of its operation refer to the Accu-Gold 2.0 User's Guide on the Flash Drive provided with your instrument or the Radcal Support web page.

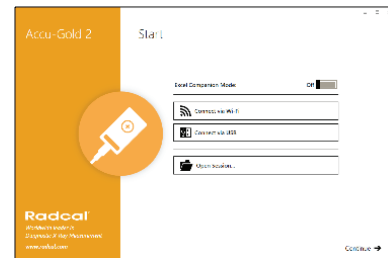
Making the Connections

Begin by plugging the AGLS into the Accu-Gold Touch AUX connector on your Accu-Gold digitizer or Accu-Gold Touch Pro system.

If using a USB connection, ensure that the USB cable is connected to both your computer/tablet and the instrument. For the Accu-Gold Touch Pro, turn on the instrument and select USB Mode.

If using the wireless interface with an Accu-Gold digitizer, attach the Nugget wireless adaptor to your digitizer and turn it on. For the Accu-Gold Touch Pro, turn on the instrument and select Wi-Fi Mode.

Start the Accu-Gold 2.0 application and ensure that the software is properly connecting to the instrument (see the Accu-Gold 2.0 User's Guide for more details). Select the desired connection method (USB or Wi-Fi):



Place the Accu-Gold 2.0 application in "Ready" mode. The display will automatically adjust to show the AGLS values.

Making Illuminance Measurements –

Remove the Luminance Adaptor and position the light sensor base as desired to measure illuminance. This is accomplished by unscrewing the adaptor in a counter-clockwise direction. A switch is automatically released when the adaptor is removed instructing the system to make illuminance measurements reported in lux. Press and hold the AGLS activator button for several seconds. The lux value will appear in the display; when it stabilizes release the button to capture the value.

Note: when switching between modes, press Pause, change the adaptor, then press Play.



Illuminance Base Sensor

Activator Button

Making Luminance Measurements –

Attach the Luminance Adaptor to the base by screwing it on in the clockwise direction. Ensure that the adaptor is fully attached so that the actuator switch is depressed instructing the system to make luminance measurements in units of candela/meter² (cd/m²). Position the sensor as shown below over the screen area to be measured. Press and hold the AGLS activator button for several seconds. The luminance value in cd/m² will appear in the display; when it stabilizes release the button to capture the value.

Note: the adaptor must be used with the felt cap shown below and the cap must be fully seated. Luminance calibration is specific to the cap, luminance adaptor, and light sensor base. For this reason, care should be taken to always use the same three components together.

