

# DayCor® LUMINAR<sup>HD</sup>



## HANDHELD HIGH DEFINITION CORONA CAMERA



**Luminar<sup>HD</sup>** is the top line handheld corona camera boosted with features that enhance inspection process. **Luminar<sup>HD</sup>** implements Ofil's benchmarked DayCor® proprietary technology ensuring accurate detection, recording and displaying of UV radiation emanated by corona. Perceived GPS, text & audio annotations, ambient temp & humidity are marked on captured media and saved as meta data for post processing and reporting. Wi-Fi, LAN and Bluetooth communication protocols support remote control and efficient data transfer. Strict ergonomic design ensures aesthetics and user friendliness. **Luminar<sup>HD</sup>** has an easy grip; large lit control buttons; pictorial menu, a large bright & adjustable display, powerful zoom, continuous interchangeable wide to narrow fields of view. **Luminar<sup>HD</sup>** is built for extended uninterrupted operation powered by a rechargeable battery. **Luminar<sup>HD</sup>** supports corona management systems and includes an interface to **coronaWise** software with auto-detect and automatic data transfer.

- >> Highest sensitivity to corona and RIV sources
- >> Powerful continuous optical & digital zoom
- >> Adjustable high resolution TFT LCD
- >> Uninterrupted continuous operation
- >> HD 720p videos & high resolution images

- >> Built-in GPS with internal antenna
- >> Bluetooth & Wi-Fi communications
- >> Powerful LED flashlight
- >> Temperature & Humidity plug
- >> Interface to **coronaWise** - Corona Management SW

### TESTED & CERTIFIED SENSITIVITY TO UV & RIV

Luminar<sup>HD</sup>, the top line sensitive corona camera, was tested and certified by RWE Germany for detecting 1pC from 15 meters, 3.6dBµV (RIV) @ 1MHz @ 10m in outdoors & indoors. UV photons emanating from corona are counted and presented as values that designate corona severity. Luminar<sup>HD</sup> enables frames integration as an additional means to enhance detecting corona sources.

### PRECISE LOCATION OF EMITTING SOURCES

The concurrently captured UV and visible images are merged accurately portraying a true pinpointed imaging of the electrical fault. Auxiliary data such as GPS, ambient conditions, narrations etc. are embedded and added as meta data.

### ERGONOMIC AND PRACTICAL

Spacious and big illuminated control buttons activate the most frequently used functions and accommodate for working-with gloves. A large adjustable TFT LCD guarantees good view in sunny conditions, while a built-in powerful LED flash light enables inspection tasks in darker conditions. A pictorial easy to navigate menu adds multiple operational features such as defining users preset profiles with personalized default settings.

### EFFECTIVE POWERFUL ZOOM

A continuous interchangeable optical wide to narrow fields of view of both the visible and UV channels provide powerful zooming. The high definition high resolution video recording adds significant digital magnification enabling excellent post processing possibilities of closer view into imperfections involved with corona discharges.

### DAYCOR® TECHNOLOGY INSIDE

Luminar<sup>HD</sup> is a high fidelity bi-spectral solar blind camera implementing Ofil's proprietary DayCor® technology [Registered Patent EP1112459B1]. Luminar<sup>HD</sup> offers over 3 hours ongoing continuous battery run time operation without overheating.

### Wi-Fi, BLUETOOTH, ETHERNET

Luminar<sup>HD</sup> supports wireless and wired communication through either communication protocol. As such, Luminar can be fully controlled from remote control centers, streaming recording to external monitors.

### HD VIDEO & IMAGE RECORDING & PLAYBACK

HD 720p video & stills are stored onto a micro flash card and displayed on the LCD. Media can be exported automatically to Ofil's **coronaWise** software, as plug-N-play.

# TECHNICAL SPECIFICATIONS

## UV - OPTICAL PROPERTIES

Minimum Discharge Detection	1pC @ 15 m Tested & certified by RWE Germany: IEC 60270:2000. Real results
Minimum RIV Detection	3.6dBµV (RIV) @1MHz@10m Tested & certified by RWE: NEMA107-1987. Real results
Minimum UV Sensitivity	2.2x10 <sup>-18</sup> watt/cm <sup>2</sup>
Fields of View	H: 10° - 1.6° V: 5.6°-0.9° Synchronized with visible channel, optic & digital, continuous
Focus	Full manual and auto focus for both channels
UV Zoom	2x Optical 6.25x Digital, Slaved to the visible channel
Spectral Range	240-280nm
UV Frames Integration	On   Off
UV Display Colors	Polychromatic: Red, Green, White, Black, Yellow

## VISIBLE - OPTICAL PROPERTIES

UV/Visible Overlay Accuracy	Deviation < 1 miliradian
Minimum Visible Light Sensitivity	0.1 Lux
Video Standard	HD, 720p ,1280X720px
Fields of View	H: 10° - 1.6° V: 5.6°-0.9° Synchronized with UV channel, optic & digital, continuous
Focus Range	0.6m   1.96ft Automatic & manual
Visible Zoom	2x Optical, 12x Digital, continuous
UV & Visible Channels Display Modes	Combine (UV & Visible), UV only, visible only

## DISPLAY

Type	Color, sun readable, TFT LCD
Brightness	1000 cd/m <sup>2</sup> , adjustable backlight
Resolution	WVGA, 800 x 480 pixels RGB
Size	5"
Tilting	Adjustable angles

## I/O & CONTROLS

Input	Keypad, menu, automatic feed, mic, GPS, temperature & humidity
Output	HDMI, Aux, 1GB Ethernet, Bluetooth, Wi-Fi, Mini USB, speaker (int. + ext.)
Functions Activation	Buttons & menu
GPS	Built-in, internal antenna
Text Editor	Built-in
Data Export	Auto detect, auto transfer interface to <b>coronaWise</b> software
Flashlight	Built-in, Led, 2 steps

## ENVIRONMENTAL

Storage and Operation Temp	-20°C up to +55°C   -4°F up to +131°F, fanless
IP Rating	IP 54

## MEDIA CAPTURE & DATA STORAGE

Video & Stills Capture & Playback	Internal, gallery display & playback video, audio & still pictures
Video Format	MOV res. 720p
Stills Format	JPG
Audio	M4A\1099
Digital Storage	Memory flash card Micro SD

## PHYSICAL CHARACTERISTICS & POWER SOURCE

Weight	2.2 Kg   4.85 lb
Dimensions L x W x H	L29 x W13 x H11.7cm   11.4" x 5.1" x 4.6"
Nominal Power Consumption	15 Watts
Power Source	Rechargeable (int & ext) battery run time >3 hours, Universal AC/DC 9.5V adapter
Mounting Point	Standard 1/4" X20 thread tripod mount
LED Indicators	On/Off, sleep mode, recording mode, power source

## ACCESSORIES

Close-up Lens; <b>coronaWise</b> Software; Temp & Humidity Meter plug, Remote Control wired or wireless
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