Corona II LED Line Lighting System

D **Top light and dark field illumination**

CORONA II LED lighting modules feature powerful brightness up to 3.500.000 lux and deliver outstanding homogeneity via a patented reflector design that perfectly shapes light, eliminating chromatic aberrations for unprecedented performance and better inspection results.

Features
Top Light/Dark Field Illumination

- Brightness up to 3.500.000 lux
- Patented reflector focusing technology
  - No color abbration
  - Higher efficiency
- Various LED colors
  - Standard: White, red, green, blue
  - IR (850 nm or 940 nm)
  - UV (395 nm - on request)
  - D50 (standard daylight)
- Eight lengths up to 1360 mm per single module
- Three passive cooling options
- Fan or water cooling available
- Stackable modules
- Various screens
  - Different diffuse screens
  - Polarizing screen
- High quality LED binning
- Advanced thermal management and temperature control
- Housing design for easy mounting and integration

LED controller

- External LED controller for flexibility and improved thermal management
- Four channels up to 1.8 amps per channel
- RS232, USB, Ethernet and RS485 from PC to the controller
- Analog or PWM input for external control
- Temperature stabilization
  - +/- 1 Kelvin water cooling option
  - +/- 2 Kelvin fan based cooling
- Automatic detection of Corona II modules with automatic current limitation
- Temperature monitoring in the controller and the Corona II modules

Customized solutions

Besides standard components Chromasens offers full custom solutions for lighting, camera and scanner solutions.
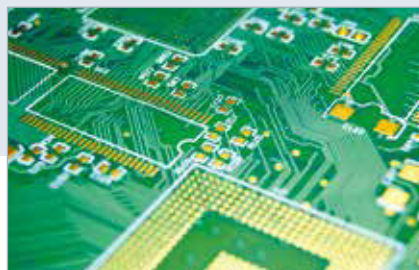- Based on standard Corona II and XLC4 technology
- Special housing for the controller available
- Special filters or screenings for the LED module available
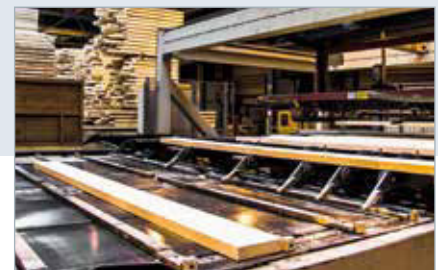- Full custom designs

Applications
- Print inspection
- Surface inspection
- Document scanning
- Food inspection
- Steel inspection
- Semiconductor industry
- Measurement and quality control
- Web inspection
- General machine vision
- Sorting processes

Food

Electronics

Wood

THE CHROMASENS CORONA II FAMILY:

Three lighting concepts:

D

TOP LIGHT DARK FIELD

B

BRIGHT FIELD BACK LIGHTING

TUBE LIGHTING

Camera specifications:

CORONA II	
Illuminance (white)	Up to 3.500.000 lux @ 60 mm focus (type A) Min. 1.500.000 lux @ 95 mm focus (type B) Min. 800.000 lux @ 190 mm focus (type C) Min. 300.000 lux @ parallel focus (type D)
Available module length	170 mm to 1360 mm in steps of 170 mm
Focal length	60 mm; 95 mm, 190 mm; parallel
LED colors	White (5500 Kelvin or 3500 Kelvin); Red (632 mm); Green (520 nm); Blue (452 nm); IR (850 nm and 940 nm); UV (395 nm)
Ports	One LED channel per 170 mm segment I²C port for temperature control and identification
Cable length	Standard length 2.5 m or 5 m Up to 15 m or drag chain cable on request
Protection class	IP 54
Operating temperature	0°C to + 70°C (housing temperature)
Certifications	CE, FCC compliant, RoHS

CONTROLLER XLC4	
Input voltage	24 Volt DC +/- 10 %; approx. 3.5 amps per used channel for full operation
Output	4 current controlled outputs, from 0.2 amps to 1.8 amps Output power 80 watt per channel and max. output voltage up to 47 volts
Controlling	RS232; RS485, USB, Ethernet Analog input 1-10 Volt and PWM interface
Protection class	IP 40
Operating temperature	0°C to + 50°C (housing temperature)
Certifications	CE, FCC compliant, RoHS