chromasens — Imaging for Professionals

Pyramid Imaging

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Corona II LED Line Lighting System

Tube light illumination

Applications

▸ PCB inspection
▸ Medical applications
▸ Print inspection
▸ Surface inspection
▸ Steel inspection
▸ Semiconductor industry
▸ Measurement and quality control
▸ Web inspection
▸ General machine vision
▸ Sorting processes

Pharma   Security   Electronics

The tube light version of the Corona II offers the most powerful light source for line scan applications with diffuse lighting conditions, for example, when inspecting metallic objects with highly reflective or glossy surfaces.

Features
Tube Light Illumination

▸ Now with two power options:
   ▸ Ultra high bright version: up to 1,200,000 lux
   ▸ High bright version: up to 600,00 lux
▸ High uniformity light distribution
▸ Suitable for specular surfaces
▸ Reduces shadows on objects
▸ Reduces unwanted reflections
▸ Modular concept
▸ Compatible with other Corona options
▸ Compatible with XLC4 controller
▸ Various LED colors
▸ Eight lengths up to 1360 mm per single module
▸ Camera angles 0° or 15°
▸ Active fan or water cooling
▸ Passive cooling options on request
▸ Temperature stabilization
▸ High quality LED binning for white
▸ Advanced thermal management and temperature control
▸ Housing design for easy mounting and integration

LED Control Unit - XLC4

▸ 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

THE CHROMASENS CORONA II FAMILY:

Three lighting concepts:

D — TOP LIGHT DARK FIELD

B — BRIGHT FIELD BACK LIGHTING

T — TUBE LIGHTING

Specifications:

CORONA II	Ultra High Bright	High Bright
Illuminance (white @ 10mm working distance)	Up to 1,200,000 lux	Up to 600,000 lux
Available module length	170 mm to 1360 mm in steps of 170 mm	170 mm to 1360 mm in steps of 170 mm
Working distance	10 mm	10 mm
LED colors	White (5500K or 3500K) Green (520 nm) Blue (452 nm) IR (850 or 940 nm) Mixed cool + warm white	White (5500K or 3500K) Red (632 nm) Green (520 nm) Blue (452 nm) IR (850 or 940 nm)
Ports	4 LED channels per 170 mm segment	2 LED channels per 170 mm segment
Cable length	Standard length 2.5 m or 5 m Up to 15 m or drag chain cable on request	Standard length 2.5 m or 5 m Up to 15 m or drag chain cable on request
Protection class	IP 20	IP 20
Operating temperature	0°C to + 70°C (housing temperature)	0°C to + 70°C (housing temperature)
Certifications	CE, FCC compliant, RoHS	CE, FCC compliant, RoHS

LED CONTROL UNIT - XLC4	
Input voltage	24 Volt DC +/- 10 %; approx. 3.5 amps per used channel for full operation (~ 14 amps for 4 channels)
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
Interfaces	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