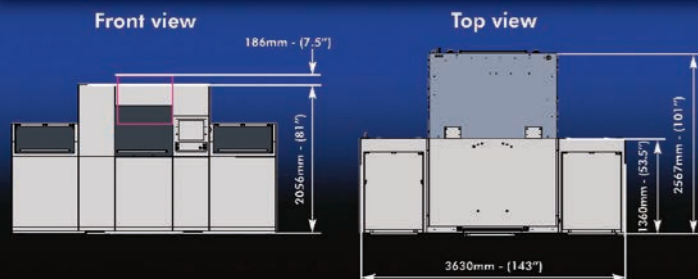




### ACURA-LED Light™ system characteristics

<b>Exposure light sources</b>	Light source Collimation angle	LED ≤ 1.6°
<b>Panel</b>	Panel size Panel thickness	Up to 610 x 762 mm <sup>2</sup> (24" x 30") 0.05 to 4 mm (2 to 150 mils)
<b>Productivity</b>	Up to 5 panels/minute depending on process and materials	
<b>Alignment Capabilities</b>	Artwork to Artwork Repeatability	± 5 µm (± 0.2 mils) after vacuum ± 8 µm (± 0.32 mils) after vacuum ± 3 µm (± 0.12 mils) after vacuum
<b>Resolution</b>	Down to 15 µm (0.6 mil)	
<b>Artwork</b>	Change over time Glass artwork	Less than 2 minutes with friendly Graphic User Interface Compatible
<b>Pre-alignment</b>	CCD pre-alignment station Rocking Rollers station (Depending on resist type and panel thickness)	
<b>Cleanliness</b>	Air treatment	Overpressure through Hepa filter class 100 Deionization bars for panels and air
<b>Construction</b>	Stainless Steel	Frame and covers (stainless steel inside & outside machine)
<b>Graphic User Interface</b>	ALTIX Imaging Suite™	Graphic color interface, Intuitive software, SPC capabilities, Multilanguage
<b>Humidity and Temperature control (Optional)</b>	Humidity Temperature	Clean room RH ± 5 % Clean room temperature -0/+3°C
<b>General utilities &amp; Foot print</b>	Power supply Air supply Machine weight Dimensions	230/400/480 Volts, 50/60 Hz, 6kW Over 6 bars (1.5 Nm <sup>3</sup> /min) ≈ 2500 kg W : 3630 mm (143") D : 2567 mm (101") H : 2056mm (81")



Quality Certification Program

## ACURA Range: Total Imaging Solution!



equipped with LED Light™  
Collimated Light  
OptiLight™

Productivity	Up to 5 panels/minute depending on process and materials
Alignment Capabilities	± 5 µm (after vacuum) ± 3 µm (after vacuum)
Resolution	Down to 25 µm (1 mil) with Collimated and LED sources Down to 65 µm (2.5 mils) with OptiLight™ source



equipped with LED Light™  
Collimated Light

Productivity	Up to 4 panels/minute depending on process and materials
Alignment Capabilities	± 5 µm (after vacuum) ± 8 µm (after vacuum)
Resolution	Down to 25 µm (1 mil) with Collimated and LED sources Down to 65 µm (2.5 mils) with OptiLight™ source



equipped with OptiLight™  
Collimated Light

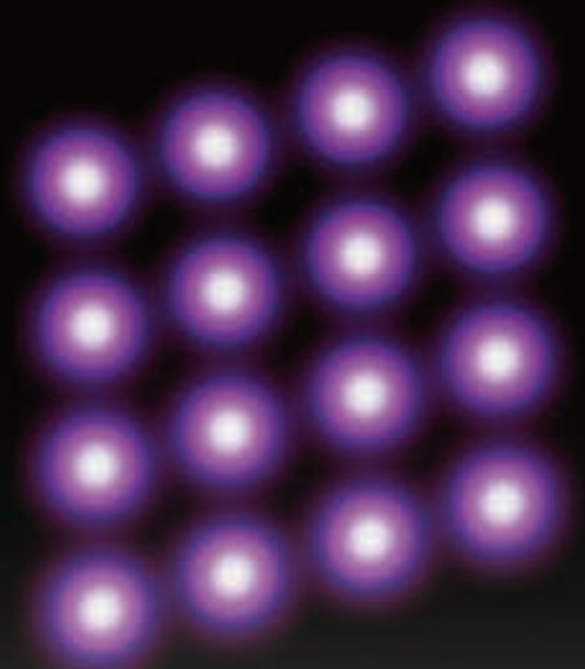
Productivity	Up to 3.5 panels/minute depending on process and materials
Alignment Capabilities	± 8 µm (after vacuum)
Resolution	Down to 50 µm (2 mil) with Collimated source Down to 65 µm (2.5 mils) with OptiLight™ source (Data depending on process, type and thickness of ink)



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High Power UV LED



Designed by OZMA Communication - Acura LED light - 14/11 All data mentioned on this document are not contractual and may be changed at any time

# ACURA-LED Light™ - for Inner & Outerlayer processes

Up to 80% running costs savings  
Low energy consumption

Small footprint of LED electrical cabinet

High speed frictionless  
CCD pre-alignment station

No artwork warming  
High dimension stability

Advanced ALTIX Imaging Suite™

High productivity  
equal to collimated light

UV LED  
high power collimated

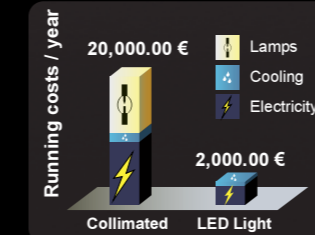
High resolution  
line/space performance

**LEDLight™**

# REVOLUTION in Imaging Technology !

## DRAMATIC SAVINGS IN RUNNING COSTS

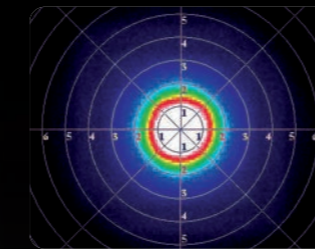
Low electricity and water consumption:



Due to LED high efficiency, the ACURA-LED Light™ electrical power consumption is only 6kW compared to 17kW for an equivalent collimated light exposer.

High efficiency also produces less heat radiation resulting in significantly lower water consumption.

LED long lifetime:



Our UV LEDs offer an exceptional lifetime exceeding tens of thousands of hours ! ACURA-LED Light™ will only switch on LEDs when panel is being exposed.

As the total LED switch-on time is much shorter than conventional lamps the LED Light™ source can last as long as the lifetime of the machine

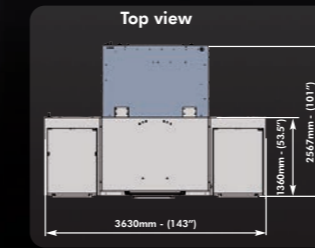
Low maintenance costs:



The built-in LED auto-check system detects failure on a single LED through our special electronics circuitry.

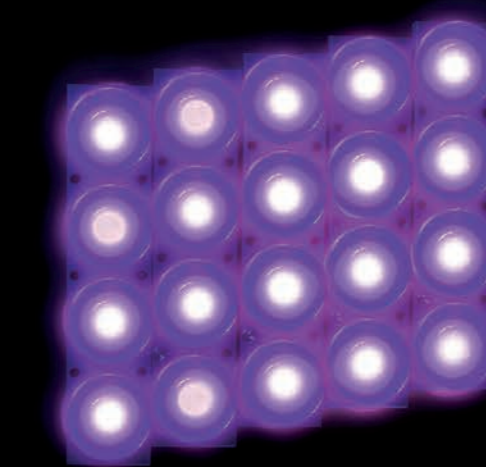
When a specific LED failure is identified, the LED module (of 8 to 10 LEDs) will be replaced promptly and efficiently.

Reduced costs of infrastructure:



ACURA-LED Light™ requires less electricity and less water cooling power.

The LED technology associated with double-sided exposure results in extremely compact machine with small footprint. Clean room costs could be drastically reduced due to the energy saving improvements.



- Same productivity as collimated light

- Up to 80% running costs savings

- LED Lifetime = Machine Lifetime

- No artwork warming & expansion

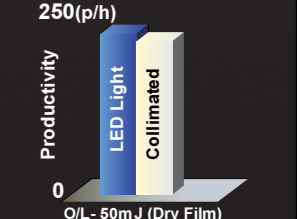
- Resolution down to 15 μm (0.6 mils)

**LEDLight™**

## HIGH PERFORMANCES THROUGH LED

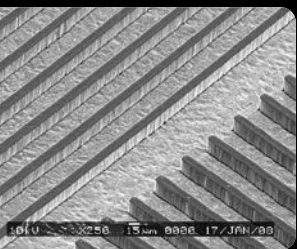
UV Power with LED equals to collimated light source

A large number of high power UV LEDs, producing a power density of 32mW/cm<sup>2</sup>, is capable of covering the whole panel area. The machine productivity using LED light source is equal to or higher than a machine using conventional collimated light source.



UV LED high resolution line/space performances:

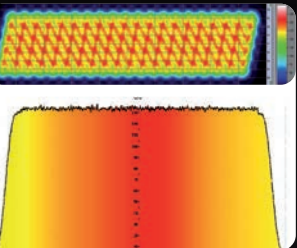
The unique optical design of the LED system featuring patented collimation device mounted on each LED produces high quality lighting with a collimation angle better than 1.6° and without declination. This quality light source allows achievement of a resolution down to 15 μm (0.6 mils) with well controlled processes prior to and after the imaging.



Uniformity through exclusive scanning function:

The UV LED source covers the whole panel area and moves above the PCB using an exclusive patented scanning device.

The UV LED source regulates the power density and evenly delivers the power onto the resist to achieve a light uniformity better than 85%.



No artwork warming - image dimension stability:

High efficiency UV LEDs and ALTIX-Automatech patented cooling devices allow minimal heat generation by power supplies and LED light source.

One of the major advantages is an extremely low artwork shrinking or expansion through stable temperature regulation during the imaging process.

