FEATURES

- Low substrate heat
- Large Area Uniform Source (10%)
- Lower power consumption
- High peak power - deep penetration
- Modular - ease of installation
- Many options - ease of matching application
- Lamp instant ON/OFF - no warm-up time
- High throughput with ultra short cures

APPLICATIONS

- Medical device manufacturing
- Plastic - bonding without damage
- Pharmaceutical packaging
- Rapid low heat curing - adhesives, coatings, inks and paints
- Sintering – Start-Stop sintering applications
- Semiconductor Processing.

GENERAL DESCRIPTION

The Luxon 300 pulsed Ultraviolet (UV) light curing system is a modular, high intensity light source designed for a wide range of tough industrial curing applications that can not be solved with mercury UV systems. Featuring high intensity pulsed UV light lamps (mercury free), a high speed controller with instant on/off control, and a high voltage power supply. Pulsed UV light is a safe, environmentally benign and flexible technology that can be applied in continuous and batch curing applications. The Luxon 300 System offer solutions for demanding inline curing applications when low heat and fast throughput are required. The optical profile of the lamp is specially

designed for providing unprecedented uniformity over a 12”x12” or 12” Diameter area. The system is designed to function as part of an integrated manufacturing system and provide controlled high peak power pulsed UV light. System interfacing is handled with low voltage I/O using a Programmable Logic Controller (PLC).

ROBUST DESIGN

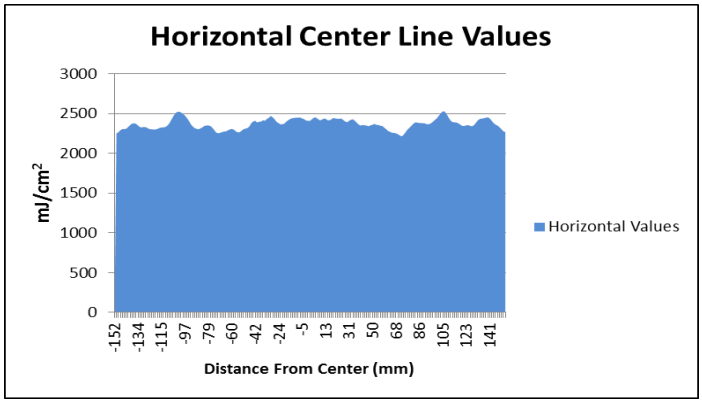
The Luxon 300 is designed for demanding inline process systems that must operate continuously (24/7), producing high yields and minimum downtime. Incorporating an optically isolated I/O interface, high noise immunity 24Vdc logic, extended life components, reliable lamp trigger control and power-on delay, avoiding high voltage damage due to line surges, the Luxon 300 offers long-term reliable operation. To minimize downtime during routine maintenance periods, critical components such as the lamp housing optical reflector and lamp are easily replaced by plant personnel.

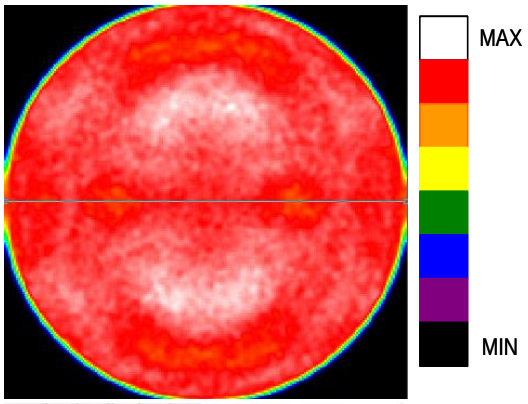
LAMP HOUSING

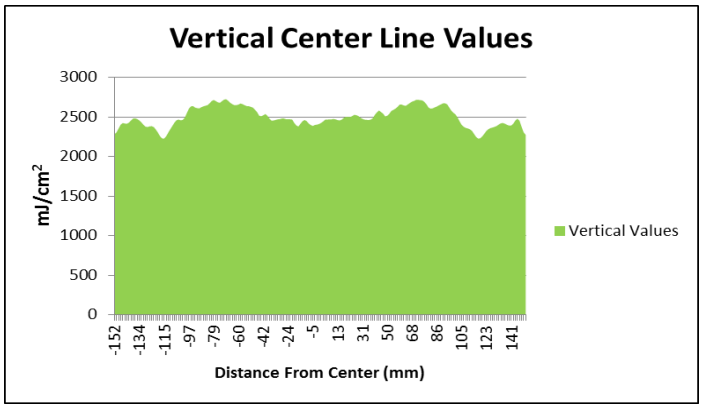
At the core of the Luxon 300 is the lamp housing which houses two 12” U lamps. With the aid of a reflector to create a homogeneous intensity over a 12” area under the lamp, uniformity to within 10% is realized. Each lamp requires its own blower for cooling. This avoids the use of water cooling systems but retains the high power

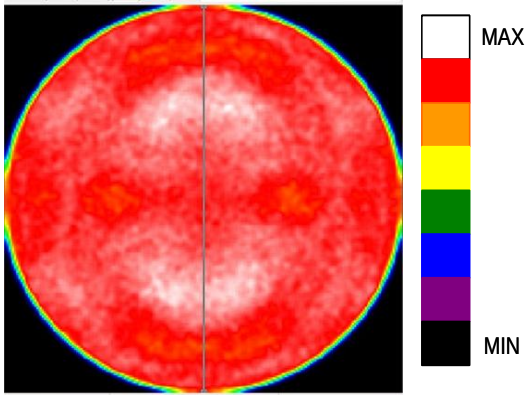
output capability of the system. The lamps flashes are interweaved (patented process) to allow the use of a single controller and power supply module.

OPTICAL DATA
Uniformity









All specifications are typical unless otherwise noted (TAMBIENT @ +25 °C, VINPUT = 208 Vrms)

System Units
Model CTR-810, Controller

High Voltage Power Supply	Model PS-813 (3400 J/s)
	Model PS-833 (3400 J/s; 3-phase)
Lamp Housing Blower Kit [1] Options	
	Model BL-1020 1020 m³/h (60Hz)
	Model BL-1030 1020 m³/h (50Hz)
Mounting Hardware	Metric
User Interface	37-pin I/O connector located on the Controller
Power Input [2]	
	With PS-813 HVPS 1-phase 200-240 Vrms, 50/60 Hz, 30 amps, max
	With PS-833 HVPS 3-phase 200-240 Vrms, 50/60 Hz, 17 amps, max
	With PS-833 HVPS 3-phase 380-480 Vrms, 50/60 Hz, 8 amps, max
Lamp Housing Blower	1020 m³/h 1-phase 200-240 Vrms, 60 Hz, 6 amps (BL-1020)
	1020 m³/h 1-phase 200-240 Vrms, 50 Hz, 6 amps (BL-1030)

Power Output to UV Lamp 3400 J/s, max

Lamp Housing

Pulse Energy & Pulse Rate Options[3]	13 J/pulse @ 100 pps
	15 J/pulse @ 70 pps or 100 pps
	207 J/pulse@ 10 pps or 15 pps
Control Cable Options	3 meters
High Voltage Cable Options	3 meters
Window Opening	12” diameter or 12”x12”
Optical Curing Area Circular:	12” diameter or 12x12”
Optimum distance to target	Directly under reflector
Lamp Type Options	305mm, type B spectra
	305mm, type C spectra
Model CTR-810 Controller[4]	Optically isolated I/O interface to computer or PLC Lamp pulse rate: factory set
	InterWeave™ Lamp Control
Interlocks	Lamp Housing access cover
Cooling	
Controller	internal fan
High Voltage Power Supply	internal fan
Lamp Housing - external blower[1] x2	Model BL-1020 and BL-1030 1020 m³/h

4 –24 Vdc power for controller operation is provided by High Voltage Power Supply

Dimensions:
Outline Dimensions Height x Width x Length

- Model CTR-810 Controller 6.63" x 12.0" x 19.0" (168 x 305 x 482 mm)
- Model PS-813 HV Power Supply 5.81" x 7.04" x 14.0" (147 x 178 x 356 mm)
- Model PS-833 HV Power Supply 3.70" x 16.5" x 17.3" (94 x 419 x 439 mm)
- Model RC-847 Cabinet 8.8" x 18.9" x 27.8" (226 x 480 x 706 mm)
- Model Luxon300 Lamp Housing 37.0" x 12.00" x 15.24" (470 x 152 x 194 mm)

Weight:

Model CTR-810 Controller 28 pounds (12.8 kg)
Model PS-813 HV Power Supply 10.5 pounds (4.8 kg)
Model Luxon300 Lamp Housing 36 pounds (16.4 kg)
Model RC-847 (w/controller, timer & HVPS) 87 pounds (39 kg)

Operating Environment

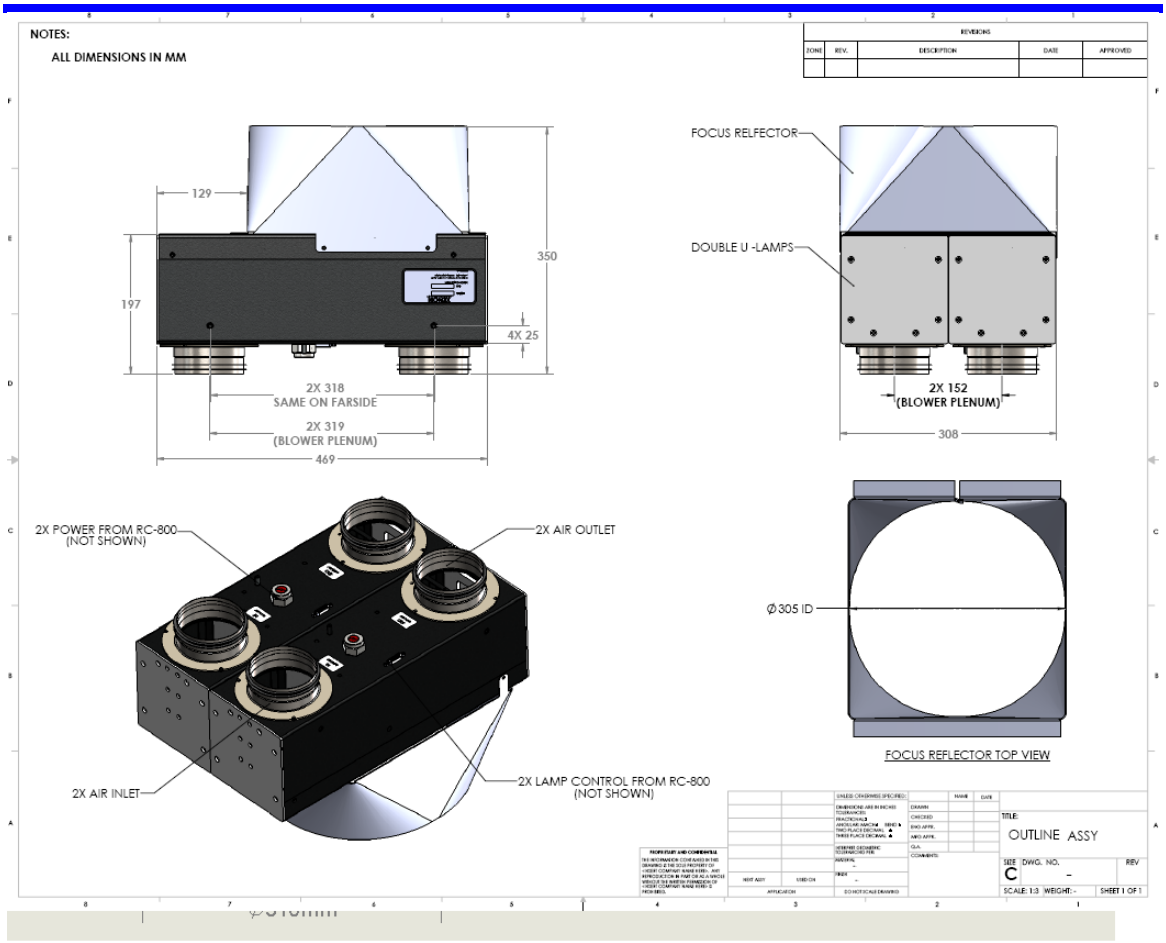
Temperature 0 - 40°C (32-104°F)
Relative Humidity 10 - 90% (non-condensing)

Regulatory Compliance

CE marked - certified to IEC, Canadian and US standards

Notes:

1 – Lamp Housing Blower Kits include blower, blower filter, metallic ducting, duct clamps and mains power cord. Cooling is dependent upon lamp operating duty cycle. Refer to lamp housing manual for cooling requirements.
2 – Power-Up Mode: 3700 watts; Standby Mode: 150 watts; Curing Mode: 2600 watts @ 10 PPS when operated at 100% duty cycle (continuous pulsing). Lamp may be operated in burst mode, as illustrated in Figure 2, reducing total system power.
3 – Maximum duty cycle will be determined by pulse energy selected. Refer to User Manual.



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