



The SkyRay 800 is a compact microprocessor controlled LED flood curing system. The SkyRay integrates all system components into a small lamp head which can be easily mounted anywhere on a factory floor, with no remote controller, power supply box or remote cooler required. Just mount the head, connect the AC power cord and start timed exposure curing! The long life solidstate LEDs illuminate a 5x5 inch curing area with cool and evenly distributed high intensity light. The system features an integrated exposure timer and adjustable output intensity. The front panel LCD display and sealed membrane type keypad make programming and monitoring of curing operations a snap. System dose and setup parameters feature password protection to prevent unauthorized changes to sensitive process and control settings. The unit features a variable speed cooling fan and convenient flush-mounted carrying handles. The enclosure's slim design allows for side-by-side mounting of multiple units for exposure of larger curing areas.

FEATURES

+ System Timers

Duration of curing is controlled by a 1 to 9999 second timer that turns off the LEDs and beeps after exposure is complete. The timer can alternatively be switched to a 1 to 9999 hour mode for use in artificial aging or other long exposure applications. The exposure timer can also be set to a user controlled manual mode in which exposure time increments on the display to indicate elapsed time of a cure.

+ Lamp Intensity Control

The system has a user adjustable 0 to 100% intensity level. This feature provides the flexibility of choosing appropriate curing intensity for sensitive materials.

+ Status Indicators and Alarms

Three front panel LEDs are provided: AC power-on / door open, lamp LEDs on, and system alarm. The SkyRay also monitors all internal sub-systems and environmental conditions, and displays system status, internal temperature levels and alarm conditions on the LCD display.



Figure 1: SkyRay 800 mounted on optional Rayven curing chamber

+ External logic signal interface

The system can be remotely monitored and controlled using isolated logic signals available at a 15-pin D-sub connector on the unit's top panel. The digital logic functions allow high-speed control of the SkyRay for applications requiring a direct interface with machine controllers or PLCs. Control signals include LEDs on/off, 0 to 10V LEDs intensity, and a safety interlock that disables LEDs. Monitoring signals include LEDs lit, chamber temperature and system alarm.

+ Remote control via PC serial port

The system can also be remotely controlled via USB or RS485 serial ports. A Windows™ compatible graphical interface program allows all system functions to be exercised, and with RS485, multiple units can be networked.

+ Foot pedal control

An optional exposure control foot pedal is available for applications requiring handsfree operation. The pedal can be used with the system's exposure timer, or in a manual mode in which the lamp LEDs remain on as long as the pedal is pressed.

+ Lamp power regulation

The system's switch mode power supply maintains constant lamp power regardless of variations in AC line input or LED voltages, resulting in consistent and repeatable curing times.

+ Universal wide-range AC line input

The *Auto-Ranging* 100~240VAC 50/60Hz power factor corrected AC input makes the SkyRay easy to use in any country, with no wiring changes or voltage select switching required.

+ Forced air cooling

A baffled variable speed fan cooling system with removable filter channels cooling air appropriately to all components to ensure high system reliability.

+ Optional LED spectrums

The SkyRay is available with 365nm @ 1300 mW/cm², 385nm @ 1700 mW/cm², 395nm @ 1900 mW/cm² & 405nm @ 2200 mW/cm² LEDs, which ensure compatibility with many types of adhesives and coatings from all manufacturers.

Part #	Wavelength (nm)	Intensity @ 1" (mW/cm ²)
UV3805	365	1300
UV3153	385	1700
UV3937	395	1900
UV3896	405	2200



Figure 2: SkyRay 800 Dimensions (Weight = 11.25 lbs)



SkyRay Configurations Mounting and conveyor options for SkyRay 800



SkyRay

- + Curing area: 5" x 5"
- + Up to 2200 mW/cm² Intensity @ 1"
- + Cool-output Long-life LEDs in 4 spectral types
- Microprocessor control of time & intensity / Remote control & reporting via PC or PLC
- + Integrated Lamp head, power supply and controller
- + Optional shielded benchtop curing chamber



SkyRay + Rayven

- + Curing area: 5" x 5"
- + Up to 2200 mW/cm² Intensity @ 1"
- Cool-output Long-life LEDs available in 4 spectral types
- + Shielded benchtop curing chamber
- + Forced air w/ louvers, channeled from lamp head



SkyRay + 80/20 Stand

- + Curing area: 5" x 15" (3 system configuration)
- + Up to 2200 mW/cm² Intensity @ 1"
- Mount multiple SkyRay systems consecutively for larger exposure area
- Customized setup that can accommodate a variety applications



SkyRay + UV Conveyor 40

- + 9 inch wide belt, 5 inch cure width
- + Up to 2200 mW/cm² Intensity @ 1"
- Variable speed, up to 12 ft/min Digital speed display
- + Adjustable lamp height & full UV shielding
- + Dual spectrum lamp capable
- + Benchtop or w/ optional mounting stands