

Beacon: Continuous Far-UVC 222nm Protection

Beacon Overview

Beacon delivers continuous air and surface disinfection for homes, medical facilities, businesses, schools, and other indoor environments. Beacon combines patented, smart 222 nm Far-UVC technology with real-time environmental sensing to safely, autonomously disinfect occupied spaces, in full compliance with healthcare regulations. Hand-sized and wall-mounted, Beacon integrates seamlessly with existing infrastructure.

Features

Continuous air and surface disinfection

Continuous monitoring and disinfection reduces illness-causing pathogens and improves air and surface cleanliness.

Intelligent sensor technology

90°+ coverage using thermal and infrared occupancy sensors to monitor pathogens and disinfect accordingly.

Simple installation

Compact, wall-mounted device plugs into a standard US 120 V outlet and installs in minutes — no special equipment needed.

Smart Mode

Beacon's proprietary algorithm uses software and sensors to maintain regulatory exposure limits while maximizing disinfection.

Long-lasting

Up to 10,000 hours of operation.

Integration ready

Works with existing infrastructures and ecosystems.

Specifications

Model	BCN2-1000
Dimensions	6 × 6 × 2.6 in (152 × 152 × 66 mm)
Weight	1.17 lb (530 g)
Power	14.64 W
Input Voltage	120 V AC / 60 Hz
Beam Angle	90°
Housing	UL94V-0 polycarbonate
Operating Noise	25 dB
Power Cord	10 ft
Cooling Fan	Included
Lamp	KrCl Excimer

Functionality

- Replaceable lamp module
- iOS and Android phone app
- Installed via Bluetooth, operated via Wi-Fi (2.5/5Ghz Options)
- LED status lights
- 2 operating modes
- Customizable scheduling
- Infrared and Radar Occupancy Sensors
- 1 ft safety shutoff

Compliance

- FCC Class A/B/C compliant
- EPA Registered — Est. 105810
- UL 867 Ozone Safety compliant
- UL 153 Product Safety certified
- CE Conformance Designation
- Complies with IES/ANSI RP-27.1-22
- Standard UL mechanical and electrical components

What's Included

- One (1) Beacon disinfection unit (BCN2-1000) with replaceable lamp module
- One (1) 10 ft power cord — no hardwiring required
- Mount with wall-mounting bracket, mounting screws, and drywall anchors
- Beacon phone application for iOS and Android
- Installation booklet

About Beacon's Lamp Technology

Lamp Type	Krypton Chloride (KrCl) Excimer
Wavelength	222 nm
Beam Angle	90°
Optical Filter	222 nm
Lamp Life	Up to 10,000 hours
Operating Temp.	32°F – 113°F (0°C – 45°C)
Output @ 1 m (1000 h)	3.5 μW/cm ²
Electrical Input	24 V DC
Power Consumption	11 W
Lamp Operating Voltage	4 kV – 6 kV
Lamp Dimensions	1.97 × 1.97 in (50 × 50 mm)
Color Temperature	7,000 – 8,000 K

Replaceable lamp modules available for purchase. Users can easily remove and replace the lamp module — no need to replace the entire device, and no hardwiring or electrical work required.

Additional Information

Wall mount

Wall or ceiling mounted, 90°+ angle outward, 8 ft minimum height per ACGIH Threshold Limit Values.

Beacon's app

iOS and Android. Setup via Bluetooth, daily use via Wi-Fi. Search "Beacon Disinfection".

Eco-friendly

Eco-friendly packaging for minimal environmental impact.

Member of IUVA

Beacon is a proud member of the International Ultraviolet Association.

Operating Modes

Beacon offers two operating modes:

1. **Smart Mode** maintains consistent output for simplified operation, dynamically adjusting output to optimize exposure for maximum effectiveness and reduced energy consumption.
2. **Manual Mode** operates without requiring app connectivity.

BCN2-1000

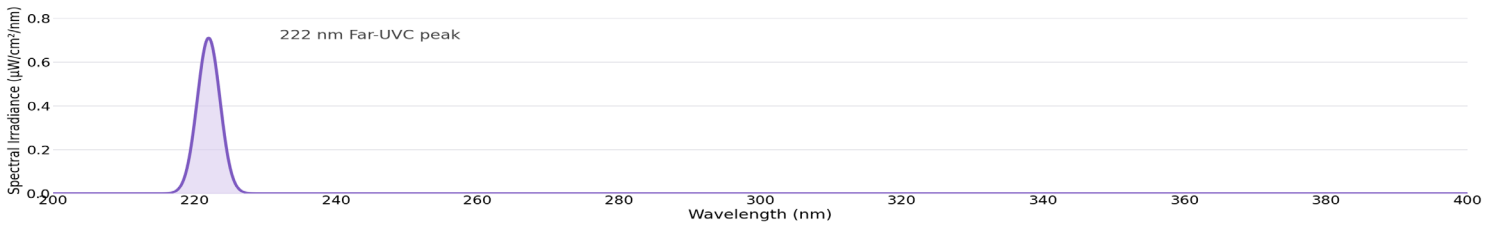
Far-UVC 222 nm Disinfection Module

Independently verified by Intertek · Report 106325518CRT-001

<p>3.5 $\mu\text{W}/\text{cm}^2$ at 1000 hours Steady-state output @ 1m</p>	<p>27.6 mW Total radiant flux</p>	<p>26.5 mW/sr Peak intensity (on-axis)</p>	<p>14.64 W Steady-state input</p>	<p>222 nm Far-UVC wavelength</p>
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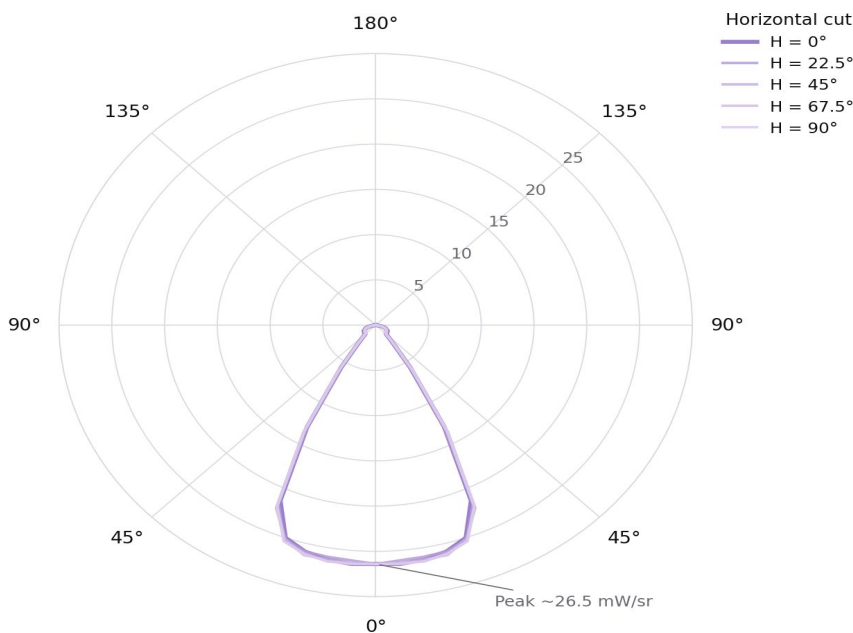
Spectral Output

Narrow-band Far-UVC emission centered at 222 nm



Radiant Intensity Distribution

Type C goniometer, mW/sr · 5 horizontal cuts overlaid



Output centered on-axis at ~ 26.5 mW/sr; holds above 25 mW/sr through the first 20° and drops to zero by 85° vertical — fully contained below the fixture. Distribution is rotationally symmetric. IES photometric file available for dosing simulation.

Verified Specifications

Tested Model
BCN2-1000

Test Method
Type C Goniometer

Nationally Recognized Testing Laboratory
Intertek

Effective Beam Cutoff
 $\leq 85^\circ$ vertical

Input Voltage
120.17 Vac

Input Current
252.7 mA

Power Factor
0.482