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## FirstLook | CURING LIGHTS



### VALO Cordless

Ultradent

[www.ultradent.com](http://www.ultradent.com)

#### PRICES:

**Basic Unit**

\$1,500.00

**Barrier Sleeves**

\$29.99/500 (\$0.06 ea)

#### WARRANTY:

2 years

Cordless version of the 5 Star wand-type, corded LED curing light. Clad in the same matte-finished black ebony aluminum with a brushed aluminum inset as its corded sibling, this is one cool-looking device. Due to its onboard battery, it weighs more than the corded version, topping the scale at 6.0oz/170.0g, which makes it middle of the road for cordless wands. It measures about 7.9in/20.0cm long by 32.3mm at its widest section. Even though the backend is weighed down somewhat with the batteries, it still has adequate balance and should feel comfortable in the hands of virtually all operators. A dental assistant should also be able to easily grab this light with his/her "pinky" finger during instrument transfer. And there are no sharp edges or corners.

There is no base unit or docking station. The rechargeable lithium iron batteries, which are shorter and more rotund than AA, are charged in a conventional style battery charger that accommodates two batteries. Since four batteries come with the light but only two are used to power it, you will always have freshly charged batteries when the need arises. Ultradent claims you will get 1-2 weeks of curing out of the batteries before you need to switch them out. Removing and inserting the batteries is very easy and quick. Merely rotate a quarter turn the silver-toned cap covering the backend of the wand and it pops off. The batteries are inserted with the positive ends first and the cap is replaced.

The same type of handpiece bracket that comes with the corded unit also is included with this model. The bracket has double-sided tape for attaching it someplace convenient, but with this model weighing more than the corded version, it is questionable whether the tape will be strong enough to hold the light, especially after repeated dockings and retrievals. Note that the light inserts tip first into the bracket and it must be turned sideways to accomplish this task.

The tip and front end of the cordless version is virtually a clone of its corded sibling. The conventional round tip is easy to position intraorally and measures 10mm in diameter (11mm would have been better). It still has a convex profile like a contact lens rather than being flat like most other tips and, since it is at basically a right angle to the wand, it should be accessible to all areas of the mouth. The accessibility is also enhanced by its slim profile, being only 12mm thick.

There is no power switch – the unit is always "on" once you insert the batteries. The sleep mode activates after about one minute of inactivity, but it wakes up instantly and without your having to push any buttons as soon as you pick it up to use it again.

As with the corded version, the control panel is located in small area midway on the back of the wand and is very simple and easy to operate.

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There are only two buttons that are separated by the LED indicator lights. This separation, which measures about 18mm, is just enough to keep you from confusing the buttons and hitting the wrong one. The buttons are rubberized and slightly raised to make them easy to find.

In between the buttons are the aforementioned indicator lights. On the right side, there are four lights stacked vertically in a straight line. These are the timer lights. A fifth light, immediately to the left of the first timer light, is the mode light. Immediately above the mode light is the battery status light.

The top button, closest to the tip, is the trigger – it activates and deactivates the light. A tone sounds when it is pushed to activate the light, every five seconds during curing and another tone sounds when the light is deactivated, but these tones are different, which is helpful since some of the light shields make it difficult to see when a curing light has deactivated. The pressure required to activate the light is just enough to keep inadvertent contact from accidentally turning the light on.

The bottom button controls the timer and modes. In the standard mode, the mode light glows a solid green. By pressing and releasing the timer/mode button, you can toggle through the four timing intervals: 5s, 10s, 15s, and 20s. The number of lights illuminated tells you at a glance your timing interval. There is also an audible sound that increases in amplitude as you toggle from 5-20s. While this timer matches those of

most other lights, we still prefer a 10, 20, 30, and 40s timer. We measured the output in this mode at about 950mW/cm<sup>2</sup>.

By depressing and holding the timer/mode button for about two seconds, you will enter into the high power mode. You'll know you're in high power since the mode light changes to amber while the timer buttons flash on and off at a rapid rate. In this mode, the time intervals are 1s, 2s, 3s, and 4s. We measured the output in this mode at about 1,250mW/cm<sup>2</sup>.

The third mode, called xtra, is entered in the same manner. When you are in this mode, the amber mode light flashes on and off along with the timer buttons, although 3s is the only curing option in this mode. We measured the output in this mode at 2,000mW/cm<sup>2</sup>, which is the upper limit of our meter. Ultradent claims this mode will reach an output of 3,200mW/cm<sup>2</sup>.

Due to its broad spectrum, VALO seems to be capable of curing all types of resins, regardless of the photoinitiator. What's more, the lack of a fan did not limit this light from completing our 10-minute, continual curing test and it only became slightly warm by the end of the test. Finally, as you may have guessed, there is no radiometer.

VALO CORDLESS follows in the footsteps of its corded sibling with a cool design, smart electronics, and broad spectrum. If you have wanted a VALO but not a cord, this could be the light you've been waiting for.

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