

# REALITY

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2018

## The Ratings | HEADLIGHTS – LED – CORDLESS

1



(4.4)

## LED DayLite Wireless Mini w/HDi

### INTRODUCTION/MANUFACTURER'S CLAIMS

Second generation of the LED DayLite Wireless Mini. This upgraded version features High Definition Imaging (HDi). According to Designs for Vision (DVI), HDi presumably utilizes advanced photonic design to create a more uniform distribution of light which, in turn, produces more illumination.

Virtually everything about this enhanced model is identical with the non-HDi version, which is still available. It is definitely smaller than its big brother (LED DayLite WireLess), although the diameter of the actual headlight is not mini.

Most (62.5%) of the evaluators really liked the design, while the other 37.5% found it to be acceptable. One evaluator noted that he appreciated that the battery is incorporated in the rear portion of the light, meaning the overall height of the unit is lessened, compared to the full height of the battery extending up from the light.

Attaching it to your loupes is a personal choice. Most (62.5%) evaluators used a mount specifically designed for their loupes, 25% used a universal mount, and 12.5% used it on a headband.

Removing and inserting the battery was considered to be easy by 37.5% of the evaluators, acceptable by 25%, and cumbersome by 37.5%. One evaluator noted that the battery slips in and out with no effort, although another stated that it requires his taking off the head-



### RAVES & RANTS

- + HDi boosts power and produces focused beam
- + Really tiny and lightweight
- Power still could be better
- Battery runs out of power fairly quickly

### MANUFACTURER

*Designs for Vision*

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

### PRICES

**Headlight w/3 batteries**

\$1,195.00

**Replacement batteries**

\$49.95 (pack of 3)

### WARRANTY

4 years for headlight

2 years for recharger

1 year for batteries

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band and turning it upside down to allow the used battery to slide out so a recharged one can be inserted and the battery cap replaced.

Activating the light is the same as the non-HDi version. After dropping the battery into its recess, there is a black cap that screws onto the top end of the recess to secure the battery. But if you continue to tighten this knob, it will engage the battery's connection to the LED lamp and voila, the headlight comes alive.

Half of the evaluators thought this activation mode was acceptable, 25% found it to be easy, and 25% considered it to be cumbersome. One evaluator noted that he preferred the capacitive touch function of its larger sibling, while another stated that it took some time to get the activation down pat and still another chimed in with it being very easy to turn on, but if you loosen it too much when turning it off, the cap can fall off.

Since contaminating the light with soiled gloves could be an issue with this model (as it was with the other cordless models), it would seem the prudent approach to negate the contamination issues would be to position and activate the headlight before donning your gloves and then just leave it on until you have completed your procedure and have ungloved.

## **BATTERY**

Uses a AAA-sized type that you literally drop into its chamber just like a flashlight. Since these batteries are not proprietary, we found what appears to be an exact match on Amazon for significantly less. However, DVI stated that it has tested its batteries and even though the batteries on Amazon look exactly the same and have identical specs as those it is selling, they may not provide equivalent power. Since the batteries should last for at least one year, you can make the battery replacement decision at a later date.

According to the manufacturer, a fully charged battery will power the headlight for about 90 minutes or 1.5 hours. We tested three batteries and found an average runtime of 78 minutes, about 12 minutes short of the 90-minute goal.

Half of the evaluators thought it ran out of power too quickly, while the other half found its battery life to be acceptable. One evaluator found it had plenty of charge for most operative procedures, but not always enough time for crown and bridge.

There is still no low battery warning. Therefore, having a fully charged spare battery close by for quick changing would be prudent.

Recharging time for a spent battery is stated to be about 60 minutes, while we found the charger indicating 99% at 60 minutes, but to reach 100%, it took 139 minutes or over 2 hours. However, with the 3 batteries included in the kit, you should never be out of juice.

All evaluators except one thought the recharging time was acceptable, while the lone holdout felt it took too long. Two evaluators noted that with three batteries, the recharging time is not an issue.

## **BATTERY CHARGER**

Called the Smart Charging Cradle. The two recesses for the two extra batteries sit in the back half of the top surface. You insert the batteries just like you would to most chargers that you are probably familiar with, paying attention to their polarity (+ or -), which is clearly marked.

The recesses are also labeled 1 and 2, the numbers of which relate to the two displays on the angled front section of the charger. The displays give you immediate feedback through blue indicator LEDs as to the charge status of the batteries. When the batteries are charging, these lights are moving sequentially in the battery icon from the negative to positive end as well as showing you in numerals the percentage of charge.

There is even a voltage meter, which should be 4.2v when new. According to the directions, you will need to replace the batteries when the voltage doesn't go higher than 3.4v when the battery is fully charged. In addition, there is a count up timer that indicates how long it has taken to charge the batteries.

When fully charged, the lights in the battery icon are fully illuminated and 100% will tell you the battery is

ready to roll. When you remove the battery from the charger, the display for that battery will be NC to indicate not charging.

The power cord to the charger is basically a USB cord. One end has a mini USB connector; that one inserts into the charger. The other end has a conventional USB connector that inserts into an electric plug adaptor. However, the cord is only about 30.0in/76.2cm, which is acceptable if your electrical outlet is close, but it's not long enough if you are trying to use a wall plug close to the floor.

Half of the evaluators thought the design was acceptable, while the other half really liked it. One evaluator noted it was the best yet, another lauded its compact design, and a third stated it is Nicely compact with easy to read, illuminated status levels.

Inserting and removing the batteries in and out of the charger was considered to be easy by half of the evaluators, while 37.5% thought it was acceptable and 12.5% cumbersome. One evaluator noted that the top recess is easy due to the notch for you to place your finger to lift out the battery, but the bottom does not have an access notch and removing the battery is more difficult, but he qualified his statement by adding it is not really a big deal.

### SIZE OF SPOT @ 14.0in/35.6cm

**2.7in/6.7cm.** Its shape is square, but unlike most LED headlights, the HDi technology produces more distinct borders and more focused beam.

### POWER @ 14.0in/35.6cm

Foot-candles	2,100
Lux	22,600

This illumination level is moderately higher than the non-HDi model. Half of the evaluators thought the illumination level was OK but not great, while half found it to be plenty. The light beam itself is quite white and is stated to be 5800° K, which makes it reasonably color corrected.

In addition, all evaluators found its single illumination level to be acceptable.

### UMBILICAL LENGTH

None.

### HEADLIGHT (WITH FILTER INSTALLED)

Diameter	0.8in/20.6mm
Weight	1.1oz/31.2g

All evaluators considered the size and weight to be acceptable. One evaluator noted that the weight is rarely an issue when a headlight is mounted on a headband.

### FILTER

Comes already attached to the headlight via a small screw at the top. This allows the filter to rotate easily over the aperture via a single pivot point when needed, but there is no mini-handle for pivoting it to cover or uncover the headlight. Therefore, due to the potential for contamination, you may want to have your dental assistant perform this task.

### IRIS ADJUSTMENT

None.

### DIRECTIONS

Small, coated paper booklet with several color photos. Information is reasonably straightforward and easy to understand. All evaluators also found the directions to be straightforward, easy to understand and follow.

# REALITY

## STRENGTHS

Cordless. Small and lightweight. Inexpensive batteries and comes with three of them. Small recharger. Straightforward rotating knob makes it easy to turn on and off. Easy to setup and adjust position of the beam. HDi technology produces nice, uniform light distribution.

## WEAKNESSES

Light intensity is still on the low end of illumination. Battery life is compromised to save weight and size. No low battery warning.

## BOTTOM LINE

**The HDi feature adds a slight boost in power along with a more focused beam while it retains its minimal weight and size, but you still need to accept an illumination level that is lower than most of its competition.**

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