

REALITY

The information source for esthetic dentistry

2018

The Ratings | HEADLIGHTS – LED – CORDED

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(4.5)



RAVES & RANTS

- + Exemplary power
- + Uniform beam
- Inadvertent activation of power button can be a nuisance
- Cannot use when plugged into wall

MANUFACTURER

Designs for Vision

www.designsforvision.com

PRICES

\$1,195.00 (with 2 batteries)

\$995.00 (with 1 battery)

WARRANTY

4 years for headlight

2 years for power pack

1 year for power supply and cables

LED DayLite Micro

INTRODUCTION/MANUFACTURER'S CLAIMS

Very small LED headlight with a number of nifty features, the most innovative of which is called High Definition Imaging or HDi for short. It presumably utilizes advanced photonic design to create a more uniform distribution of light which, in turn, produces more illumination.

Half of the evaluators really liked the overall design, while the other half thought it was acceptable. One evaluator commented that while the design was fine for a corded unit, he much prefers cordless.

Concerning the HDi feature, the shape of the beam is still square, but unlike most LED headlights that have diffuse borders, HDi technology produces a more distinct, focused beam.

Most (62.5%) evaluators liked the uniformity of the beam, while the other 37.5% found it difficult to notice a difference between this beam and those from other units. One evaluator noted that when you compare this to other units, the uniformity of the beam is obviously better. He went on to state that this doesn't necessarily mean it is revolutionary since he can easily practice with the other versions and perform good dentistry. However, given the choice between purchasing HDi vs other versions, he would definitely go with HDi.

CONTROL UNIT/BATTERY PACK

Has a cylinder profile with the back side flat so it fits securely in the black plastic holster. On the front curved surface close to the top end is the power button, which is easily located and illuminated when

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activated. Speaking of activation, push it once and high power comes alive. A second tap reveals low power. And a third push turns the light off. Nothing fancy, but very functional. All evaluators except one considered it to be easy to activate and change settings, while the lone holdout found it to be cumbersome.

The holster snaps easily onto the control pack. The back of the holster has a circular projection that slides into a channel on the front of the belt clip and locks the control pack securely. The belt clip attaches via a spring-loaded mechanism and includes a quick release button at the top.

Half of the evaluators considered the design of this control unit to be acceptable, while the other half was even split between really liking it and not being impressed at all. One evaluator prefers a square format with rounded corners, while another found that it annoyingly rotated by itself with the slightest contact. On the other hand, another liked the fact that is very small and lightweight.

The belt clip was also considered to be acceptable by all evaluators, although one evaluator found the clip to be somewhat difficult to open when securing it to his scrubs. Another evaluator just placed the control unit in a pocket in his scrubs and did not use the belt clip. The quick release button was deemed to be easy to use by all evaluators except one, who found it to be cumbersome. The holster itself was considered to be easy to snap onto the control unit by most (75%) evaluators, while the other 25% did not find it to be easy.

CONTROL UNIT DIMENSIONS

Without holster and belt-clip

Height	5.8in/14.7cm (including headlight cord)
Width	0.9in/2.4cm
Thickness	0.9in/2.4cm

With holster and belt-clip

Height	5.8in/14.7cm (including headlight cord)
Width	1.3in/3.4cm
Thickness	1.9in/4.9cm

CONTROL UNIT WEIGHT

Without holster and belt-clip

2.5oz/70.9g

With holster and belt-clip

3.2oz/90.7g

This is lighter than any other control/power pack we have tested. All evaluators except one considered these weights to be acceptable, with the lone holdout thinking it is too heavy, but qualified that opinion by stating that all power packs are too heavy compared to those on cordless units.

BATTERY

Lithium ion battery. It is stated to provide up to 10 hours of runtime, which in most cases, means you would not have to change out the control pack at all during a typical day of treating patients. However, we found using it on high power, it ran for 5 hours, which is still very impressive for such a small unit. On low power, it would probably run longer, maybe even approaching the 10 hours claimed by DVI, but if you purchase the system with two power packs, which we feel is a good idea regardless, replacing a dead one with a fully charged pack can be done quickly and easily.

Note that if you choose to try to get by with only one battery and you run out of juice, the light will not operate if it is plugged into an AC outlet. This means purchasing the extra battery is a prudent decision.

The top end of the battery has the conventional USB port for the cable running to the headlight and the mini-USB port for the charger. There is also the battery status light, which starts out green on the full charge, then gradually turns yellow, intensifying

into orange during use, and finally red when the battery is out of juice.

The headlight is supposed to flash three times when there is about 10 minutes of power remaining. This signal is stated to repeat at 5 minutes of remaining power, while we found this signal came at about 4 minutes before it goes dark. When you have only 30 seconds of power remaining, the headlight flashes continuously along with the flashing red indicator light on the control pack. There is no way you can ignore the flashing headlight, which gives you more than adequate time to switch power packs.

Half of the evaluators thought these indicator and flashing lights worked well in alerting them it was time to switch batteries, while 25% never ran the battery down enough to engage the lights and 25% did not think they were intrusive enough since they still ran out of power during a procedure.

All evaluators except one considered the battery life to be acceptable, while the lone holdout thought it ran out of power too quickly, meaning it seldom made it through a day.

We found recharging time for a spent battery to be about 5 hours, but you will probably be charging it overnight. All evaluators thought the recharging time was acceptable.

BATTERY CHARGER

Simple square that plugs into a wall socket and has the USB port in the middle of the front surface. Nothing extraordinary, but functions in a utilitarian manner.

SIZE OF SPOT @ 14.0in/35.6cm

2.6in/6.7cm. Square in outline with distinct borders.

The light beam itself is still quite white and is stated to be 5800° K, which makes it reasonably color corrected.

POWER @ 14.0in/35.6cm

High

Foot-candles	3,995
Lux	43,000

Low

Foot-candles	2,258
Lux	24,300

The high power is higher than any other small headlight we have ever tested. And not coincidentally, all evaluators thought the high illumination level was more than enough, while the low power was lauded as being a good compromise between high and no illumination by all evaluators except one holdout thought it needed to be higher.

UMBILICAL

4.2ft /1.3m. The blue-clad cable is very lightweight, only 2.6mm in diameter. One end has a conventional USB connector that inserts into the control pack, while the other end has a mini-USB connector plugging into the headlight. All evaluators except one found it to be as lightweight and non-intrusive as a cable can be, while the lone holdout considered it to be too heavy.

HEADLIGHT (WITH FILTER INSTALLED)

Diameter	0.81in/20.6mm
Weight	0.6oz/16.0g

All evaluators considered the size and weight of the headlight to be acceptable.

FILTER

Comes already attached to the headlight via a small screw at the top. This allows the filter to rotate easily 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.

All evaluators except one thought it was reasonably easy to cover and uncover the headlight with the filter.

IRIS ADJUSTMENT

None.

DIRECTIONS

The directions are in a small, plain paper booklet with numerous color photos. All evaluators found

them to be reasonably straightforward and easy to understand.

REALITY

STRENGTHS

Excellent power. HDi produces nice, focused light beam. Adequate battery life. Easy controls — power button is very easy to find and activate even through a clinic coat or disposable gown. Very small and lightweight. Two power levels. The two-battery package means you will never run out of power. Battery indicator and flashing lights give you visual clues as to how much power you have left before you run out. High Kelvin temperature means it won't distort colors. Cable is lightweight and can be replaced easily if defective and can easily be disconnected at both the headlight itself and the control unit in case it gets twisted/tangled. Cable holds well and doesn't come out if you accidentally pull on it. The charging cable and umbilical are different colors for easy differentiation. It has two clips to your clothes to keep the umbilical in place. Filter comes already installed and is reasonably easily to rotate.

WEAKNESSES

Vertical design of battery. Accidental activation. Battery indicator lights may not be visible if you wear a clinic coat or disposable gown. A supplementary audible signal would be helpful. No AC option to keep you working without interruption if you forget to charge the batteries.

BOTTOM LINE

Has exemplary power, simple controls, enough battery power to get you through most mornings or afternoons even on high power, and more uniform illumination than other headlights.

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