

FLASH-lite 1001 (Project 03-15) (1/04)



FLASH-lite 1001 is a second-generation light-emitting diode (LED) curing light from Discus Dental. The cordless, light-weight (3.6-oz) curing unit reportedly has an irradiance of 1001mW/cm² and is capable of curing camphoroquinone-initiated dental materials. FLASH-lite is powered by a lithium-ion rechargeable battery and purportedly provides 300 ten-second cures on a single-battery charge. The unit has a one-touch

on/off button and a 5-second audible indicator for monitoring cure time. The ergonomic and curved design reportedly allows easy access to all areas of the oral cavity.



Manufacturer:

Discus Dental
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Culver City, CA 90232
(800) 422-9448
(310) 845-8260
(310) 845-1537 FAX
www.discusdental.com.

Suggested Retail Price:

\$695.00 FLASH-lite 1001 with transformer, battery charger, protective tip shield, and hardness disc.

Government Price:

\$545.00 FLASH-lite 1001 (includes contents as listed above)

ADVANTAGES:

- + Inexpensive
- + Lightweight, easy to handle
- + Easy access to all areas of the mouth
- + Cordless, portable design
- + High irradiance
- + Degree of cure similar to a halogen curing light
- + Adequately cures 2-mm increment of microfill composite in less than 28 seconds
- + Very quiet
- + 30-minute battery life with minimal loss of irradiance
- + Adequately maintained irradiance over distance
- + Lithium-ion rechargeable battery
- + Disposable hardness discs

DISADVANTAGES:

- Handpiece becomes very warm with continuous use
- May not polymerize all photoinitiated dental materials
- Periodic battery replacement required
- Light aperture only available in one size
- Manufacturer's recommended duty cycle of 40 secs "ON" and 4 mins "OFF" may be inconvenient
- No adjustable timer controls

SUMMARY AND CONCLUSIONS:

The FLASH-lite 1001 is a lightweight, easy-to-use, cordless light-emitting diode (LED) curing light that provides easy access to all areas of the mouth. The battery-operated compact curing light was capable of providing forty-five 40-second exposures on a single charge with minimal loss of irradiance. However, the manufacturer's recommended duty cycle of 40 seconds "ON" and 4 minutes "OFF" may be inconvenient. Laboratory testing found it capable of adequately polymerizing a 2-mm increment of microfill in less than 28 seconds. The FLASH-lite 1001 has one of the highest irradiances of all LED curing lights tested by DIS. Degree of cure was similar to a halogen curing light. However, the curing light may not polymerize all photoinitiated dental materials due to the limited width of its emission spectrum. Most clinical evaluators rated the FLASH-lite 1001 as either "good" or "average". The FLASH-lite 1001 is one of the least expensive LED curing lights evaluated by DIS. Because of its compact size and portability, DIS recommends FLASH-lite 1001 for military deployments. The **FLASH-lite 1001** curing light is rated **Acceptable** for use by the federal dental services.