

**48-30 A-dec 6300 Dental Operatory Light (Project 94-79) (5/96)**

The A-dec 6300 series Dental Operatory Light is available in a wide variety of delivery configurations including unit-, wall-, and ceiling-mounted (pedestal and track) systems. The 6300 Master Light Option is available on Cascade unit-mounted systems which allows on/off control of the light with the optional Master Touch Pad. The Cascade 6300 light will not adapt to non-Cascade delivery systems. All 6300 lights are adjustable in horizontal, vertical, and diagonal planes and offer three-step light intensity adjustment. The intensity range is reported to be between 22,000 and 32,000 lux. A 24V/150W quartz-halogen-xenon bulb with a color temperature of between 3800 and 4500 degrees Kelvin is standard. The 6300 is available in both 110V and 220V models. The A-dec 6300 is UL listed, CSA and ETL certified, and ADA accepted.

**Manufacturer:**

A-dec, Inc.  
 2601 Crestview Drive  
 Newberg, OR 97132  
 (800) 547-1883  
 (503) 538-9471  
 (503) 537-2702 (FAX)

**Suggested Prices:**

	Retail	Gov't
Cascade 6300 Unit Mount Light	\$1690.00	\$921.00
Cascade 6300 Master Unit Mount Light	\$1690.00	\$921.00
A-dec 6300 Post Mount Light (post not included)	\$1740.00	\$948.00
Radius 6300 Light	\$1840.00	\$1003.00
Radius 6300 Master Light	\$1840.00	\$1003.00
A-dec 6300 Wall Mount Light	\$2190.00	\$1194.00
A-dec 6300 Ceiling Mount	\$2125.00	\$1158.00
A-dec 6300 Track Light, Single Head	\$2720.00	\$1482.00
A-dec 6300 Track Light, Dual Head	\$4610.00	\$2512.00
Additional Quartz-Halogen-Xenon Bulb	\$12.50	\$6.81

**ADVANTAGES:**

- + Excellent quality materials and workmanship.
- + Touch Pad on/off control option.
- + Three-axis adjustability of light head.
- + UL listed, ADA accepted, and certified by CSA and ETL.
- + Well-illustrated operation, maintenance, and installation manuals.
- + Correct color temperature.
- + Right- to left-hand conversion without tools.
- + Self-lubricating pivots and bushings.
- + Adjustable focal length.

**DISADVANTAGES:**

- Illuminance (intensity) exceeds international and military specifications which may increase eye strain and fatigue.
- Illuminance pattern doesn't meet international and military specifications.
- Clinical evaluators perceived that patient access and entry/exit to dental chair were restricted.
- Some evaluators had difficulty coordinating the positioning of the Radius unit and light.

**SUMMARY AND CONCLUSIONS:**

The A-dec Radius 6300 dental operating light is well made, stable, and lends itself to quick and easy right- to left-hand conversion. The three-plane adjustability of the light head was praised by evaluators as was the ease of bulb replacement and lens cleaning. The design was noted to interfere with the Radius unit in certain positions, however. The light provided adequate illumination for dental procedures even though it was too bright according to International Standard ISO 9680 and military specifications for dental operating lights. Exceeding the recommended intensity has been reported in the literature to cause increased eye strain and fatigue. The A-dec 6300 also deviated from the international standard/military specification with regard to illumination pattern. Clinically, this would manifest itself as a narrowed horizontal light pattern which would require increased repositioning of the light when visualizing between the maxillary and mandibular arches. Despite deviations from the international standard/military specification, the **A-dec Radius 6300 Dental Operating Light** met the majority of the specifications and is therefore rated **Acceptable** for use by the federal dental services.