



Luxxor® User Guide

Luxxor® LXX35-LED User Guide

LXX35-LED Light Source










Gradient Lens Corporation®





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All product specifications subject to change without notice.

LXX35-LED – Symbol Descriptions

	Caution: Consult accompanying documentation		Caution: Hot Surface
	Caution		Hazard Warning
	Lamp On		Lamp Off
	Light; Lighting; Illumination Intensity		Bright Light
	Storage Humidity		Transport Temperature
	Alternating Current		Direct Current
	Manufacturer		Do Not Immerse in Any Liquid
	Do not dispose of this product as unsorted municipal waste. Prepare this product for reuse or separate collection as specified by Directive 2002/96/EC of the European Parliament and the Council of the European Union on Waste Electronic and Electrical Equipment (WEEE). If this product is contaminated, this directive does not apply.		

		There are no user serviceable or replacement parts. Do not attempt to dismantle box or remove top cover. / Aucune pièce ne peut être réparée ou remplacée par l'utilisateur. Ne pas essayer de émonter la boîte ou de retirer le couvercle du dessus.
	WARNING / MISE EN GARDE	Only qualified personnel should make electrical inspections and repair of the LED Light Source. / Seul le personnel qualifié doit effectuer les vérifications électriques et les réparations de cette source de lumière à DEL.
	WARNING / MISE EN GARDE	The high intensity light at the front of the LED Light Source and at the tip of the fiber-optic bundle will create high temperatures and bright light. To minimize the risk of injury, avoid direct viewing or contact. / La lampe à haute intensité, située sur le devant de la source de lumière à DEL et sur le bout du faisceau de fibres optiques, générera beaucoup de chaleur et une lumière vive. Afin de réduire les risques de blessures, éviter de toucher l'appareil ou d'exposer directement l'œil à la lumière de la lampe.
	WARNING / MISE EN GARDE	To prevent temporary blinding and contact with heated parts, always plug the fiber optic bundle into the LED Light Source before turning the power on. / Pour éviter tout aveuglement temporaire ou contact avec les pièces chauffées, toujours brancher le faisceau de fibres optiques dans la source de lumière à DEL avant la mise en marche.
	WARNING / MISE EN GARDE	Do not use the LED Light Source directly in medical applications. / Ne pas utiliser une source de lumière à DEL directe à des fins médicales.
	WARNING / MISE EN GARDE	Unit MAY BE HOT . Allow to cool before handling. / L'appareil PEUT ÊTRE CHAUD . Il est important de le laisser refroidir avant d'y toucher.
	CAUTION / AVERTISSEMENT	Preferred operation is in the horizontal position. Other operating orientations are permitted. / L'appareil fonctionne de façon optimale à l'horizontale. Les autres orientations sont permises.

	CAUTION / AVERTISSEMENT	Any changes or modifications made to this device that are not expressly approved by manufacturer may void the user's authority to operate the equipment. / Toute modification apportée à cet appareil et non expressément approuvée par le fabricant peut priver l'utilisateur de son droit d'usage.
	CAUTION / AVERTISSEMENT	PROVIDE ADEQUATE VENTILATION TO PREVENT OVER HEATING. Do not drape this light source. Provide a 1.5 inch (3.8 cm) distance between LED Light Source and any solid objects. / ASSURER UNE VENTILATION ADEQUATE AFIN D'ÉVITER LA SURCHAUFFE DE L'APPAREIL. Ne pas couvrir la source de lumière. Laisser au moins 3,8 cm (1,5 po) de distance entre la source de lumière à DEL et tout objet.
	CAUTION / AVERTISSEMENT	DO NOT IMMERSE or store liquids above or on the LED Light Source. / NE PAS IMMERGER la source de lumière à DEL dans des liquides ou placer des liquides au-dessus de celle-ci.
	CAUTION / AVERTISSEMENT	Do not operate device without the cover in place. / Ne pas faire fonctionner l'appareil sans son couvercle.
	CAUTION / AVERTISSEMENT	DO NOT obstruct the airway paths for sufficient cooling is required. / NE PAS obstruer les voies d'aération afin de permettre le refroidissement adéquat de l'appareil.
	CAUTION / AVERTISSEMENT	Please read this entire manual prior to operation. / Lire le présent guide en entier avant d'utiliser l'appareil.
	CAUTION / AVERTISSEMENT	Protection provided by the equipment maybe impaired if not used in accordance with the manufacture recommendations. / La protection assurée par l'équipement risque d'être altérée si l'appareil n'est pas utilisé conformément aux recommandations du fabricant.

LXX35-LED – Set Up

Unscrew the protective plug from the output receptacle on the front of the Luxxor® LXX35-LED.



Insert the male end of the Luxxor® Light Guide fully into the output receptacle.



Connect the other end of the Luxxor® Light Guide to your Hawkeye® borescope by pushing it onto the light post of the scope until it clicks into place.



LXX35-LED – Set Up

Make sure the Light Intensity/Power knob is set to OFF.



LXX35-LED – Operation



Rotate the Power/Intensity knob clockwise to turn the light ON and set the intensity. Full intensity position is shown here.



Warning!!

The Luxxor® LXX35-LED emits extremely bright light. **DO NOT LOOK DIRECTLY INTO THE OUTPUT RECEPTACLE OF THE LIGHT SOURCE, OR INTO THE OUTPUT END OF AN ATTACHED LIGHT GUIDE.**

Light Intensity

Light intensity can be varied electronically, with the power/intensity knob, or mechanically, with the sliding shutter. Maximum intensity is delivered with the shutter slide in the OPEN position, and the power/intensity knob rotated fully clockwise. Users may find it convenient to set a maximum output limit with the shutter, and fine-tune the output with the power/intensity knob.



Connect the power supply:

- 1) Plug the output of the power supply into the jack on the rear of the Luxxor® LXX35-LED light source.
- 2) Plug the small connector on the end of the power supply's AC cable into the power supply.
- 3) Plug the other end of the AC cable into a 100-240 VAC 50/60Hz outlet.

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Shutter OPEN



Shutter CLOSED



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LXX35-LED – Operation



Caution: Do not obstruct air intake and outlets.

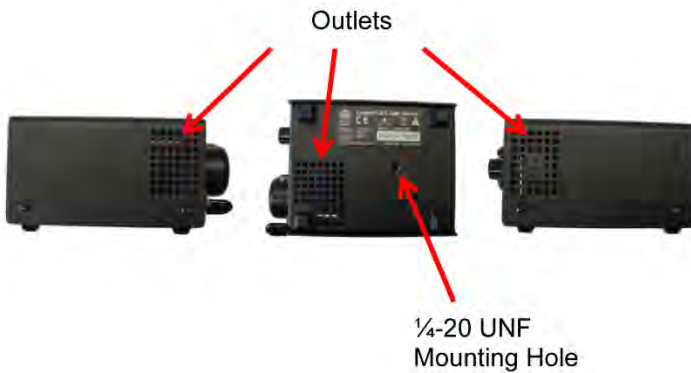
Unrestricted airflow is necessary for cooling.

Keep at least 1.5 inches of space around sides and rear of the unit.

Place the bottom on a flat, hard surface.



Do not cover with cloth or other materials while in use.



LXX35-LED – Mounting

A threaded hole is provided on the bottom of the unit to enable mounting to a stand or fixture. It will accept a screw with a 1/4-20 UNF thread.

LXX35-LED – Cleaning



Clean the exterior of the light source, power supply, and cables by wiping with a cloth dampened with mild soap and water.

- DO NOT IMMERSE.
- KEEP WATER OUT OF THE INTERIOR OF THE UNIT.
- Allow to dry.
- DO NOT RECONNECT TO POWER WHEN WET.

LXX35-LED – Troubleshooting

Under certain conditions the overvoltage protection of the power supply may cause it to turn off to prevent damage to the unit.

In the event the unit stops functioning, try the following steps to restart:

1. Turn OFF the Luxxor® LXX35-LED by rotating the intensity control knob counterclockwise until the switch clicks off.
2. Completely disconnect the power supply from both the light source, and mains (AC outlet).
3. Wait for about 5 seconds until the power supply discharges. The power supply LED indicator will turn off.
4. Reconnect the power supply to the Luxxor® LXX35-LED, and to the AC outlet.
5. Turn ON the Luxxor® LXX35-LED by rotating the control knob clockwise until it clicks on, and the LED indicator light is on.
6. Rotate the knob to increase the light output intensity to the desired level.

LXX35-LED – Ratings & Specifications

Environment Ratings

Operating Temperature: 41° F to 104° F (5° C to 40° C)
Humidity: 0 to 95% rh (non-condensing)
Storage Temperature: -10° F to 140° F (-20° C to 60° C)
Humidity: 30 to 75% rh
Atmospheric Pressure: 700 hpa to 1060 hpa
Mode of Operation: Continuous
Safety System Classification: Class II
System Pollution Degree: 2
Installation Category: II

Electrical Ratings

External Power Supply Ratings:

Input: 100 - 240 V~, 50/60 Hz, 1.4 A max
Output: +12 V —, 5.0 A

LUXOR® LXX35-LED Power Requirements:

Voltage: +12V DC; 14V DC maximum
Current: 3.4 amp

Battery power: We recommend using a battery rated at 12V/9Ah or equivalent with a minimum 3.5 amp current limit rating.

LXX35-LED – Ratings & Specifications

Dimensions

Length: 127MM (5.0")
Width: 90MM (3.5")
Height: 68MM (2.7")
Weight: 0.45 kg (1.0 lbs)



Illumination Source

Type: LED Custom Module
Color Temperature: 5700 K - 6500 K Nominal
Power: 35 Watts
Average LED Life*: 50,000+ Hours

* Based on LED manufacturer rated wattage and thermal operation.



LXX35-LED – Approvals/Compliance



The CE mark on this product indicates that it has been tested to and conforms to the provisions noted within the following directives:

Low Voltage: 2006/95/EC (73/23/EEC)
EMC: 2004/108/EC (89/336/EEC)
RoHS 2: 2011/65/EU

In accordance with the following standards:

EN61010-1
IEC 61326-1
EN 61326-1
IEC 62471
IEC/EN 61000 3-2
IEC/EN 61000 3-3
EN 50581



Conforms to UL Std 61010-1
Certified to CSA Std C22.2 No. 61010-1

Intertek
4009043



WEEE
(www.lamprecycle.org)

LXX35-LED – Approvals/Compliance

Agency Compliance Statements

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Class A Compliance Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.



- CAUTION** Any changes or modifications made to this device that are not expressly approved may void the user's authority to operate the equipment.
- NOTE** To maintain compliance with FCC Rules and Regulations, cables connected to this device must be shielded cables, in which the cable shield wire(s) have been grounded (tied) to the connector shell.

Canadian Notice

This equipment does not exceed the Class A limits for radio noise emissions as described in the Radio Interference Regulations of the Canadian Department of Communications.

Le present appareil numerique n'emet pas de bruits radioelectriques depassant les limites applicables aux appareils numeriques de la classe A prescrites dans le Reglement sur le brouillage radioelectrique edicte par le ministere des Communications du Canada.