The right light

LUXO

Luxo Magnification Product Lines

THE MARKET LEADER IN MAGNIFICATION FOR OVER 70 YEARS



WAVE+PLUS MAGNIFIERS

For more than 70 years, Luxo has been the worldwide leader in magnification and lighting products. From inspection to assembly to rework applications, Luxo's illuminated magnifiers are designed for today's rigorous manufacturing environments and with the individual user in mind. Operators truly appreciate the diverse range and unique ergonomic features. Choices of magnification levels, light sources, arm lengths and mounting options combine to offer the best product for all forms of working conditions and applications. The end result is increased user productivity and comfort which ensures that Luxo illuminated magnifiers will continue to be an essential element in any manufacturing facility. Today, Luxo's illuminated magnifiers are recognized as "best in class" in such countries as the U.S., Canada, Great Britain, Norway, Sweden, Denmark, Germany, Portugal and Italy.



17845LG



17917BK

The **WAVE+Plus Magnifier** was introduced as the industry's first rectangular-lensed illuminated magnifier. Now, over twenty years since its introduction, the WAVE+Plus Magnifier remains the top choice of technicians, assembly operators and quality control inspectors due to its wide-view, rectangular-shaped lens, excellent lighting and time-tested, heavy-duty K-arm.

- 6.75" x 4.5" precision-ground white crown optical-quality glass lens.
- Adjustable neck for positioning the magnifier head at the proper viewing angle so as to ensure the operator maintains correct posture.
- Top-mounted accessory lenses, including a 10-diopter swing away lens.
- Lighting: two 13-watt quad compact fluorescent tubes.
- Dual switches for independent lighting controls. With one light on, shadowing is possible; with both on, full illumination results.
- Magnification: 3.5 diopter lens (1.85X).
- Total magnification possible 4.35X.
- A blue indicator for each lamp (indicating on/off fluorescent tube).
- Heavy duty K-arm. 5" square steel tubing – 20 gauge CRS.
- ABS plastic construction with polycarbonate lamp (bulb) covers.
- UL/CUL listed.
- 5 year warranty.





17900BK



17843LG

WAVE+Plus Magnifiers, each with a stadium-shaped lens, offer the largest distortion-free viewing area in the industry. In addition to standard lens models, ESD-Safe, Anti-Reflective and UV magnifiers are available.

WAVE+Plus ESD-Safe Magnifiers are designed for use in static sensitive environments as they guard against uncontrolled static dissipation. The outer surfaces of the components in the head assembly are protected with a special coating that alters the electrical characteristics at the surface of the materials. This specially-treated material results in a surface resistivity of 10^6 - 10^7 Ω/sq. (static dissipative). Since the surfaces are no longer insulative, triboelectric charging results in drastically lower voltages, especially since any charge (under 50 volts) is uniformly distributed throughout the entire surface of the unit's head assembly. The magnifier arms are powder-coated with a metal-laced paint that measures 10^{10} Ω/sq. (static dissipative). An Anti-Reflective lens dissipates glare from overhead lighting so it is not necessary to bend over the lens to block out light reflections. This combination of protection makes the WAVE+Plus ESD-Safe Magnifier the foremost ESD-Safe magnifier in the industry.

WAVE+Plus A/R Magnifiers feature an Anti-Reflective (A/R) coating on the lens, which virtually eliminates glare from overhead lighting allowing an operator/technician to see clearly without bending over the lens. This reduces both mental and physical fatigue as there is less stress on the shoulder, back and neck muscles, as well as less strain on the eyes. The resulting comfort and improved concentration and productivity make WAVE+Plus A/R Magnifiers an integral part of any complete ergonomics program.

WAVE+Plus UV Magnifiers are multi-tasking products primarily designed for inspection of conformal coatings. The UV lightsource is also ideal for detailed inspection of welds, solder joints and other areas of stress concentration. Additional applications include inspection of surfaces and finishes in fields such as criminology, museum and artwork restorations, document authenticity, leak detection, currency verification and gemstone and mineral inspection.

WAVE+Plus Magnifiers

Part No.	Description	Color	Arm Length	Mounting Bracket
17841	WAVE+ A/R K1AH	LG, BK	45"	Edge Mount
17842	WAVE+ A/R K2AH	LG, BK	30"	Edge Mount
17843	WAVE+A/R K2FE	LG, BK	30"	Base Mount
17845	WAVE+ K1AH	LG, BK, WT	45"	Edge Mount
17846	WAVE+ K2AH	LG, BK	30"	Edge Mount
17847	WAVE+ K2FE	LG, BK	30"	Base Mount
17900	WAVE+ ESD K1A	BK	45"	Edge Mount
17902	WAVE+ ESD K2A	BK	30"	Edge Mount
17904	WAVE+ ESD K2FE	BK	30"	Base Mount
17915	WAVE+ UV K1AH	BK	45"	Edge Mount
17916	WAVE+ UV K2AH	BK	30"	Edge Mount
17917	WAVE+ UV K2FE	BK	30"	Base Mount

NOTE: Black (BK), White, (WT), Light Gray (LG)

The right light
LUXO



17113LG



17255BK

KFM Magnifier is recognized as the world's number one magnification system. As the most widely used magnification system, it offers the greatest selection of primary and secondary lenses and is backed by more options and quality features than any other illuminated magnifier. The KFM Magnifier is well equipped to handle any magnifying challenge.

- Instant-On Switch: Just a touch of a switch ignites the fluorescent tube instantly and creates a "flicker-free" light that eliminates the stroboscopic effect on machinery such as a lathe or drill press.
- Adjustable Neck moves the magnifier head vertically and horizontally to provide total flexibility.
- Minimum Clearance Bracket allows for almost zero clearance (approximately ¼" clearance) between adjacent benches. It also provides more freedom of movement by raising the swivel point of the magnifier 2" higher above the bench surface. Its increased "jaw" size permits it to be clamped to surfaces up to 2.75" thick.
- 5" diameter, 3-diopter (1.75X), 5-diopter (2.25X) or 10 diopter (3.50X) optical-quality lenses are mounted in a die-cast aluminum housing that is non-corrosive and durable. The inside is finished in white to optimize and evenly distribute light.
- Multi-Lens Capability: The KFM Series offers a wider range of distortion-free primary and secondary magnification lenses than any other magnifier.
- 30" or 45" Patented Internal Spring K-Arm offers an infinite number of adjustable positions. Once adjusted, perfect balance is maintained by tempered steel springs.
- 22-Watt Energy-Efficient Tube is protected by a heavy-duty clear diffuser which provides cool, shadow-free light on any worksurface.
- Electronic Ballast System with RFI filter eliminates noise.
- Electronic ballast produces 15% greater light output.
- UL/CUL listed.
- 5 year warranty.



KFM-ESD Magnifier is designed for use in static sensitive environments as its ESD-Safe lens is protected with a special coating that guards against uncontrolled static dissipation by altering the electrical characteristics at the surface of the material. The shade and arm are powder-coated with a metal-laced paint that measures 10^{10} Ω/sq. (static dissipative) making the surfaces no longer insulative. Triboelectric charging results in drastically lower voltages, especially since any charge (under 50 volts) is uniformly distributed throughout the entire surface of the unit's head assembly.



16910BK



17253LG

KFM Magnifiers

Part No.	Description	Lens Type	Color	Arm Length	Mounting Bracket
17110	KFM-1/AH 10D	10-Diopter	LG	45"	Edge Mount
17113	KFM-1/AH 3D	3-Diopter	LG, BK, WT	45"	Edge Mount
17115	KFM-1/AH 5D	5-Diopter	LG, BK, WT	45"	Edge Mount
17210	KFM-2/AH 10D	10-Diopter	LG	30"	Edge Mount
17213	KFM-2/AH 3D	3-Diopter	LG, BK, WT	30"	Edge Mount
17215	KFM-2/AH 5D	5-Diopter	LG, BK, WT	30"	Edge Mount
17250	KFM-2/FE 10D	10-Diopter	LG	30"	Base Mount
17253	KFM-2/FE 3D	3-Diopter	LG, BK, WT	30"	Base Mount
17255	KFM.-2/FE 5D	5-Diopter	LG, BK, WT	30"	Base Mount
16910	KFM-1/AH 3D ESD	3-Diopter	BK	45"	Edge Mount
16913	KFM-1/AH 5D ESD	5-Diopter	BK	45"	Edge Mount

NOTE: Black (BK), White, (WT), Light Gray (LG)



KFM-HIGH OUTPUT MAGNIFIERS



KH115



KH253



KFM-High Output Magnifier features 2.5X greater light output than any other round-lensed industrial magnifier available today. Such complementary balance between light output and magnification makes the KFM-HO Magnifier ideal for use in Industrial, Manufacturing, Health and Beauty Spas, Cosmetology, Electrology, and Low Vision environments.

As part of the most widely used magnification series in the world, KFM-HO Magnifier offers the largest selection of primary and secondary lenses making it the industry-standard for round-lensed illuminated magnifiers.

- 22-Watt T-5C high output fluorescent light source protected by a heavy-duty clear diffuser, the tube provides cool, shadow-free light on any worksurface.
- 2.5X greater light output than any other round-lensed Industrial magnifier.
- 3500 lux at focal length.
- Instant-On Switch. Just the touch of a switch ignites the fluorescent tube instantly and creates a "flicker-free" light that eliminates the stroboscopic effect on machinery such as a lathe or drill press.
- Adjustable Neck moves the magnifier head vertically and horizontally to provide total flexibility.
- 5" diameter, 3-diopter (1.75X), 5-diopter (2.25X) or 10 diopter (3.50X) optical-quality lenses are mounted in a die-cast aluminum housing that is non-corrosive and durable. The inside is finished in a high-polished aluminum reflector which helps to evenly distribute light.
- Minimum Clearance Bracket. The AH bracket allows for almost zero clearance (approximately ¼" clearance) between adjacent benches. It also provides more freedom of movement by raising the swivel point of the magnifier 2" higher above the bench surface. Its increased "jaw" size permits it to be clamped to surfaces up to 2.75" thick.
- Multi-Lens Capability: The KFM-HO Series offers a wider range of distortion-free primary and secondary magnification lenses than any other magnifier.
- 30" or 45" Patented Internal Spring K-Arm offers an infinite number of adjustable positions. Once adjusted, perfect balance is maintained by tempered steel springs.
- Electronic Ballast System with RFI filter eliminates noise.
- UL/CUL listed.
- 5 year warranty.

KFM High-Output Magnifiers

Part No.	Description	Lens Type	Color	Arm Length	Mounting Bracket
KH110	KFM-HO - 1/AH 10D	10-Diopter	LG	45"	Edge Mount
KH113	KFM-HO - 1/AH 3D	3-Diopter	LG, BK, WT	45"	Edge Mount
KH115	KFM-HO - 1/AH 5D	5-Diopter	LG, BK, WT	45"	Edge Mount
KH210	KFM-HO - 2/AH 10D	10-Diopter	LG	30"	Edge Mount
KH213	KFM-HO - 2/AH 3D	3-Diopter	LG, BK	30"	Edge Mount
KH215	KFM-HO - 2/AH 5D	5-Diopter	LG, BK	30"	Edge Mount
KH250	KFM-HO - 2/FE 10D	10-Diopter	LG	30"	Base Mount
KH253	KFM-HO - 2/FE 3D	3-Diopter	LG, BK	30"	Base Mount
KH255	KFM-HO - 2/FE 5D	5-Diopter	LG, BK	30"	Base Mount

NOTE: Black (BK), White, (WT), Light Gray (LG)

JFM MAGNIFIERS



16115LG



16213LG

JFM Magnifier is Luxo's newest high-quality illuminated magnifier. Like the WAVE+Plus Magnifier, manufactured in Europe, the JFM Magnifier is an ideal medium-duty magnifier for inspection, assembly and rework applications.

- Instant-On Switch: Just a touch of a switch ignites the fluorescent tube instantly and creates a "flicker-free" light that eliminates the stroboscopic effect on machinery such as a lathe or drill press.
- Adjustable Neck moves the magnifier head vertically and horizontally to provide total flexibility.
- Minimum Clearance Bracket allows for almost zero clearance (approximately ¼" clearance) between adjacent benches. It also provides more freedom of movement by raising the swivel point of the magnifier 2" higher above the bench surface. Its increased "jaw" size permits it to be clamped to surfaces up to 2.75" thick.
- 5" diameter lenses are mounted in a die-cast aluminum housing that is non-corrosive and durable. The inside is finished in white to optimize and evenly distribute light.
- Optical-quality, white crown, 3-diopter (1.75X) or 5-diopter (2.25X) glass lens.
- 22-Watt Energy-Efficient Tube is protected by a heavy-duty clear diffuser which provides cool, shadow-free light on any worksurface.
- Lamp diffuser cover.
- 30" or 45" reach external spring arm.
- Electronic ballast produces 15% greater light output.
- Operates on 115VAC.
- UL/CUL listed.
- 5 year warranty.

JFM Magnifiers

Part No.	Description	Lens Type	Color	Arm Length	Mounting Bracket
16113	JFM1A 3D	3-Diopter	LG	45"	Edge Mount
16115	JFM1A 5D	5-Diopter	LG	45"	Edge Mount
16213	JFM2A 3D	3-Diopter	LG	30"	Edge Mount
16215	JFM2A 5D	5-Diopter	LG	30"	Edge Mount

NOTE: Light Gray (LG)

IFM MAGNIFIER



16346LG



16351LG

IFM Magnifier is the ideal light-duty magnifier for low-power inspection. With a sturdy, stamped steel shade, it features a 5" diameter, 3-diopter (1.75X) or 5-dioper (2.25X) lens and choice of 45" or 30" arm lengths.
The IFM Magnifier is a smart, economical choice for tight budgets.

- 30" or 45" external spring arm.
- Clamp or base mount.
- 5" diameter, 3-diopter (1.75X) or 5-diopter (2.25X) lens.
- Expanded model range.
- Lamp diffuser cover.
- 22-Watt circline fluorescent lamp provides 360° shadow-free illumination.
- Built-in starter switch.
- 3-wire cord.
- Operates on 115VAC.
- 30" arm models are available with a weighted base.
- 3-wire single outlet receptacle is provided at the base of the arm for models 16345WT, 16346WT, 16345BK and 16346BK.
- UL/CUL listed.
- 5 year warranty.

IFM Magnifiers

Part No.	Description	Lens Type	Color	Arm Length	Mounting Bracket
16345	IFM1A 3D	3-Diopter	BK, WT, LG	45"	Edge Mount
16346	IFM1A 5D	5-Diopter	BK, WT, LG	45"	Edge Mount
16350	IFM2A 3D	3-Diopter	LG	30"	Edge Mount
16351	IFM2K 3D	3-Diopter	LG	30"	Base Mount
16352	IFM2A 5D	5-Diopter	LG	30"	Edge Mount
16353	IFM2K 5D	5-Diopter	LG	30"	Base Mount

NOTE: Black (BK), White, (WT), Light Gray (LG)



MOUNTING BRACKETS, BASES AND ACCESSORY LENSES



60001, A Edge Mount Bracket for mounting products to horizontal surfaces (2.25" opening). Colors: Black, White, Light Gray



50020, AH Edge Mount Bracket for mounting products to horizontal surfaces (2.75" opening). Colors: Black, White, Light Gray



50003, B Wall Mount for permanent mounting to walls or other vertical surfaces. Colors: Black, White, Light Gray



50005, C Surface Mount for direct, permanent mounting to horizontal surfaces. Colors: Black, White, Light Gray



50010, FE Base for use with 30" arm Wave+Plus, KFM, KFM-HO and JFM Magnifiers only. Colors: Black, White, Light Gray



60008, K Weighted Base for use with IFM Magnifier models 16351 and 16353 only. Color: Matte Black.



31639, Flush/Surface Mount Bushing for flush mount surface installation (19.3mm O.D.). Aluminum finish.



50036, 34" Floor Stand. Painted steel pole and cast iron base includes both casters and glides. Colors: Black, White, Light Gray



50074, 4-Diopter Lens adds 1X to magnification of primary lens. Colors: Black and Light Gray
*for use with all WAVE+Plus Magnifiers

50078, 8-Diopter Lens adds 2X to magnification of primary lens. Colors: Black and Light Gray
*for use with all WAVE+Plus Magnifiers



50206, 10-Dioper Swing Away Lens adds 2.5X magnification of primary lens
*for use with all WAVE+Plus Magnifiers, KFM Magnifiers, KFM-HO Magnifiers and JFM Magnifiers



50201, 4-Dioper Lens adds 1X to magnification of primary lens
*for use with all KFM Magnifiers



50202, 8-Diopter Lens adds 2X to magnification of primary lens
*for use with KFM Magnifiers



50204, 4-Diopter Lens adds 1X to magnification of primary lens
*for use with KFM-HO Magnifiers



50205, 8-Diopter Lens adds 2X to magnification of primary lens
*for use with KFM-HO Magnifiers



16401GY



16405BK

Handheld UV Magnifier and UV Portable Magnifier are both perfect for the inspection of conformal coatings. Coatings glow brilliantly under UV black illumination, especially when magnified through a five-diopter (2.25X) optical-quality glass lens. Perfect for inspection of welds, solder joints, flux residues and hairline stress cracks. Additional applications include inspection of surfaces and finishes in fields such as criminology, museum and artwork restorations, document authenticity, leak detection, currency verification and gemstone and mineral inspection.

16401GY, Handheld UV Magnifier with combination 2-4W UV black bulbs and 2-4W fluorescent white bulbs. Wide rectangular 2.5" x 4" viewing area.

16405BK, UV Portable Magnifier with 13W UV black light illumination. 10' cord with plug-in ballast and protective lens cover included. Rectangular 2" x 4" viewing area.

KFM Magnifiers

Part No.	Description	Color
16405BK	UV Portable Magnifier with 13W UV black light	BK
16401GY	Handheld UV Magnifier with combination 2-4W UV black light bulbs and 2-4W fluorescent white bulbs	GY

NOTE: Black (BK), Gray (GY)



BASICS OF MAGNIFICATION

BASIC TERMS

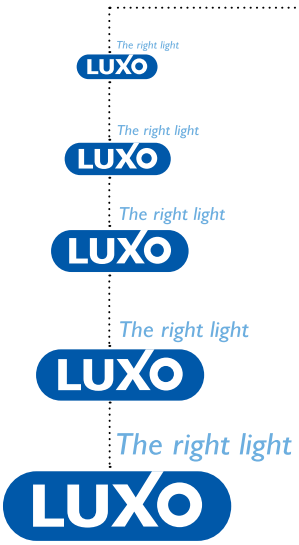
Focal Length: Focal length is the distance from the center of the lens (or lens system) to the viewed object when in focus.

Working distance: Working distance is measured from the lowest protruding portion of the magnifier below the lens, usually the bottom of the shade or shade housing, to the object when it appears in focus.

Diopter (D): A term used to identify the refractive (light bending) capacity of a lens. It also relates magnification to focal length. Each diopter increases magnification by 25%, e.g. 4 diopter equals a 100% increase above original size.

Field of View (FOV): Field of view is the area which is visible as seen through a lens. Wide-view rectangular lenses allow a greater viewing area than round lenses which force the user to rely solely on the center, undistorted section of the lens for optimal magnification clarity.

Magnification: The degree to which the viewed object is enlarged. Magnification is usually expressed by a number followed by the symbol 'X' as in 1X, 2.25X, etc. To determine the level of magnification based on diopters used, divide the total diopters by 4 and add 1. E.g. 20D/4+1=5X.



Examples of Magnification

With no magnification

1.75X or 175% of its size as seen through a 3D lens.

3.50X or 350% of its size as seen through a 10D lens.

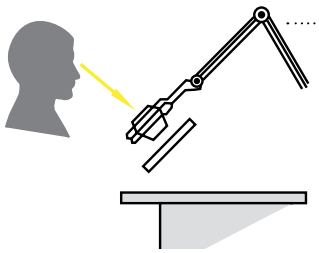
4.75X or 475% of its size as seen through a combination of a 5D primary lens and a 10D secondary lens.

6.00X or 600% of its size as seen through a combination of a 10D primary lens and a 10D secondary lens.

Selecting the Right Luxo Magnifier

To select the Luxo Illuminated Magnifier that best suits your needs, follow these steps:

1. Determine the desired magnification for your needs. Remember, as you increase magnification, you decrease both the focal length and the viewing area.
2. Check the chart on the back page of this brochure to find the right diopter to achieve that magnification. (The vast majority start with the standard 3-diopter factory installed lens and add secondary lenses or change primary lenses as needs dictate.)
3. Note the focal length and lens diameter that correspond to the magnification and lens diopter you have chosen, and make sure they are suitable for your task.
4. Select the primary and secondary lens combination required to achieve your desired magnification.
5. As a general rule, lenses or lens combinations above 5-diopter are recommended for inspection purposes only due to shorter working distances. A magnification requirement in excess of 4X normally requires a microscope.



Using a Luxo Magnifier

1. Use both eyes. Luxo lenses are designed as 'working tools'. They should be used as comfortably as a pair of glasses.
2. Position the lens so that it is a proper distance from the work-area, yet close enough to your eyes (about 8" to 10") so that you have the maximum magnification without distortion. Don't lean back away from the lens to increase magnification.
3. Chair height and worksurface should be set so that you can enjoy good posture.

The right light

LUXO

Diopter-Magnification

Diopter	Magnification	Working Distance	Primary Lens	Auxiliary Lens
3	1.75X	13"	3.0D	-
3.5	1.85X	12"	3.5D	-
5	2.25X	8"	5.0D	-
7	2.75X	5.5"	3.0D	4D
7.5	2.85X	5"	3.5D	4D
9	3.25X	4.5"	5.0D	4D
10	3.50X	4"	10.0D	-
11	3.75X	3.8"	3.0D	8D
11.5	3.85X	3.5"	3.5D	8D
13	4.25X	3"	5.0D	8D
13.5	4.35X	2.9"	3.5D	10D
14	4.50X	2.8"	10.0D	4D
15	4.75X	2.6"	5.0D	10D
18	5.50X	2.3"	10.0D	8D
20	6.00X	2"	10.0D	10D

Copyright 2008, Luxo Corporation







Luxo Corporation
Five Westchester Plaza
Elmsford, New York 10523
Phone: 800-222-5896
Fax: 800-648-2978
www.luxous.com

Luxo Lamp Ltd.
Montreal, Québec
Phone: 800-361-3993
Fax: 800-567-9215
office@luxo.ca
www.luxo.ca

The right light

LUXO