INDUSTRIAL LIGHTING CATALOG

W

Waldmann Lighting

Large and Small Halogen Machine Lighting

HSW/HSWK: Waterproof Large Halogen

HSW-75 32″ arm

HSW front ring bayonet allows for quick and easy lamp replacement

HSWK-75

The **HSW-75 waterproof halogen light delivers over 40% more light to the work surface than standard halogen lights by utilizing a 75-watt halogen lamp with special reflector design. A glare-control built-in louver minimizes harsh, unwanted glare.**
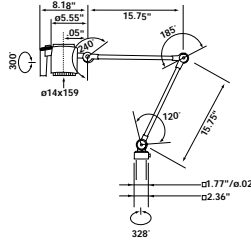
APPLICATIONS:

Use the HSW-75 where super bright, glare-free illumination is important for enhancing the performance of machine tool applications. This light is ideal for CNC machinery and lathes. It also works well in wet applications where coolant, oil, and fluids are prevalent.
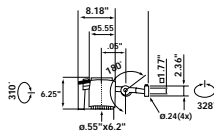
FEATURES:

- Heavy duty 32" articulated arm provides easy adjustment.
- A front ring bayonet connection allows the lens to twist off easily for fast lamp replacement, which reduces machinery downtime.
- A 75-watt, 24V lamp and reflector design provides over 40% more light output than standard MR-16 halogens.
- A 4-hole mounting base is included for secure placement.
- Ergonomic thumb switch on head.
- IP65 waterproof protected.
- 12V models are available. Please contact Customer Service for additional information.

ORDERING INFORMATION:

HSW-75, 24V, 32" arm, w/switch 112-185-010

Includes: 75-watt, 24V lamp, heat shield, built-in glare-control louver, clear glass lens, ergonomic thumb switch on head, electronic transformer (for 12V models).

HSWK-75, 24V, w/o switch 112-187-013

HSWK-75, 24V, w/switch 112-187-010

MOUNTING OPTIONS:

Clamp, 0"-2.75"	190-007-019
Clamp, 2.5"-5.3"	190-033-019
Wall Bracket	300-213-018

REPLACEMENT PARTS:

Glass Lens, Clear	305-041-010
Lamp, Halogen, QT-LP12, 24V, 75W, GY6.35, **5-pack**	320-283-060
Lamp, Halogen, QT-LP12, 12V, 75W, GY6.35, **5-pack**	320-283-030
Electronic Transformer, 20-75 VA, 120-11.6V, 50/60Hz	US0-224-043

HGW: Waterproof Large Halogen

HGW-70 32″ Arm

HGW-70 18" Arm   32" arm version

The **HGW-70 series machine light is the high powered solution for work areas requiring an intense light over longer distances. The 32" arm is available for maximum positioning. The 18" arm may be used in areas with less space. Both models include a double lens for heat reduction.**
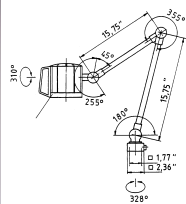
APPLICATIONS:

The HGW-70 series machine lights are used on large CNC machinery, conventional mills, lathes, and other metalworking machine tools where coolant, oil or other fluids are present.

FEATURES:

- Ergonomic thumb switch on head.
- A 60-watt halogen lamp provides high intensity light, with an estimated lamp life of over 3500 hours.
- The ergonomically designed handle and heat shield attached to the head allows for safe and easy positioning.
- A 4-hole mounting base is included.
- IP65 waterproof protected rating. UL and CUL listed.
- The 120V versions include remote transformer in a waterproof case for plug-in to a 120V power supply.
- 12V models are available. Please contact Customer Service for additional information.

ORDERING INFORMATION:

HGW-70, 120V, w/32" arm, 108-870-802
in-line transformer

Includes: 60W, 24V lamp, heat shield, two hardened clear glass lenses for heat reduction, ergonomic thumb switch on head, remote transformer mounted inside a waterproof metal case with 7.5' of cord to the light, and a 6' grounded cordset.

HGW-70, 120V, w/18″ arm, 108-870-801
in-line transformer

HGW-70, 24V, w/32" arm, with switch 100-870-803

HGW-70, 24V, w/18" arm, with switch 100-870-801

MOUNTING OPTIONS:

Clamp, 0"-2.75"	190-007-019
Clamp, 2.5"-5.3"	190-033-019
Wall Bracket	300-213-018

REPLACEMENT PARTS:

Lamp, Halogen, 24V, 60W, H3, **5-pack** (24V and 120V models)	450-070-300
Lamp, Halogen, 12V, 55W, H3, **5-pack** (HG/HGW 12V models)	450-055-300
Glass Lens, Hardened, Clear	305-412-010
Glass Lens, Tempered, Clear	305-412-030
Glass Lens, Hardened, Milky	305-412-020

PARTS KITS:

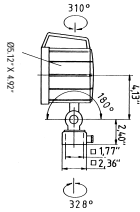|	
Parts Kit, HG, HGW, HGWK (24V)	950-900-067
Parts Kit, HG, HGW, HGWK (12V)	950-900-068

2

HGWK: Waterproof Large Halogen Head

HGWK-70

HGWK Transformers

The waterproof "head only" version of our powerful HGW halogen series provides an intense light source where space is limited.

APPLICATIONS:

Use the HGWK waterproof head in harsh coolant environments. The light is also ideal for grinders, machining centers, CNC lathes, screw machines, turning centers, and virtually all types of machinery.

FEATURES:

- Compact head design for mounting areas with restricted space.
- Extruded aluminum head helps dissipate heat build-up. Ergonomic handle and attached heat shield provide safe, easy positioning.
- All joints can be tightened to hold position during high vibration operations.
- The head has 3 adjustable positioning axes.
- IP65 waterproof protected rating. UL and CUL listed.
- A 5" head, side connection strain reliefs and a terminal block in the base allows for an easy connection.
- A 60-watt 24V halogen lamp is rated at 3500 hours.
- Optional transformers are available either alone or mounted inside waterproof metal cases.
- A 4-hole mounting base is included.
- 12V models are available. Please contact Customer Service for additional information.

ORDERING INFORMATION:

HGWK-70, 24V, without switch	008-308-800
Includes: 60W, 24V lamp, hardened clear glass lens, and a 4-hole mounting base.	
HGWK-70, 24V, with ergonomic thumb switch	008-308-802

TRANSFORMERS:

With case:

Transformer, enclosed, 60VA, 120-23.5V, 50/60Hz (HG 24V models)	150-127-M19

Without case:

Transformer, 60VA, 120-23.5V, 50/60Hz (HG 24V models)	150-125-M19
Transformer, 60VA, 230-23.5V, 50/60Hz (HG 24V models)	150-048-019
Electronic Transformer, 20-75VA, 120-11.6V, 50/60Hz (HG 12V models)	US0-224-043

REPLACEMENT PARTS:

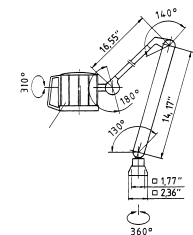|	
Lamp, Halogen, 24V, 60W, H3, **5-pack** (HG 24V and 120V models)	450-070-300
Glass Lens, Hardened, Clear	305-412-010
Glass Lens, Tempered, Clear	305-412-030
Glass Lens, Hardened, Milky	305-412-020

PARTS KITS:

Parts Kit, HG, HGW, HGWK (24V)	950-900-067
Parts Kit, HG, HGW, HGWK (12V)	950-900-068

HG: Dustproof Large Halogen

HG-55 32" Arm

The HG-55 is the high powered solution for work areas requiring a broad, yet intense light over longer distances. It has a rugged 32" arm for easy positioning.

APPLICATIONS:

The HG-55 is commonly used on large CNC machinery, conventional mills, lathes, and other metalworking machine tools and dry operating machinery where little or no fluid is present.

FEATURES:

- A 55-watt halogen lamp provides high intensity light, with an estimated lamp life of over 3500 hours.
- Built-in louver directs light onto the work area and reduces glare.
- A built-in transformer in the lower arm allows convenient plug-in to a 120V power supply.
- The ergonomically designed heat shield attached to the head allows for easy positioning.
- With only 12V supplied to the head, operator safety is enhanced.
- IP20 dust protected rating.
- The universal base allows the user the option to mount the light either vertically or horizontally.

ORDERING INFORMATION:

HG-55, 120V (transformer built into arm)	108-690-000
Includes: 55W, 12V lamp, clear glass lens, on/off rocker switch in arm, built-in glare-free louver, 6' cord with grounded plug, and built-in transformer in arm.	

MOUNTING OPTIONS:

Clamp, 0"-2.75"	190-007-019
Clamp, 2.5"-5.3"	190-033-019

REPLACEMENT PARTS:

Glass Lens, Hardened, Clear (HG series)	305-412-010
Glass Lens, Tempered, Clear (HG series)	305-412-030
Glass Lens, Hardened, Milky (HG series)	305-412-020
Lamp, Halogen, 12V, 55W, H3, **5-pack** (HG, HGW 12V models)	450-055-300
Fuse, T0.5A, 12V, 55W, Halogen, **10-pack**	950-900-057

PARTS KITS:

Parts Kit, HG, HGW, HGWK (12V)	950-900-068

HPWT/HPWK: Waterproof Small Halogens

HPWT-20

HPWK-20

Transformers

The HPWT-20 features a heavy duty gooseneck. The light is IP54 splash protected for machinery using heavy fluids. The "head only" HPWK-20 provides an intense light source with IP54 waterproof protection. Use the light in compact areas.

APPLICATIONS:

The HPWT-20 is ideal for EDM and other wet environments. The "head only" version is ideal for CNC grinders, machining centers, CNC lathes, screw machines, and turning centers.

FEATURES:
Both lights:
- A 20-watt halogen lamp provides projected high intensity light for over 2000 hours.
- Only 12V are supplied to the head for enhanced operator safety.

HPWT-20 (Gooseneck Arm):
- A tempered glass lens withstands extreme temperature shock and prevents coolant from entering the head.
- A 16" rugged, yet flexible gooseneck for easy positioning.
- Built-in transformer allows for plug-in to a 120V power supply.
- A 4-hole mounting plate is included.

HPWK-20 (Head Only):
- The HPWK features a 2-1/2 O.D. head and a universal base with 58" cord.
- The universal base allows for horizontal or vertical mounting
- The head has 3 adjustable positioning axes.
- All joints can be tightened to hold position during high vibration operations.
- Comes without switch allowing for direct wiring to a power supply.
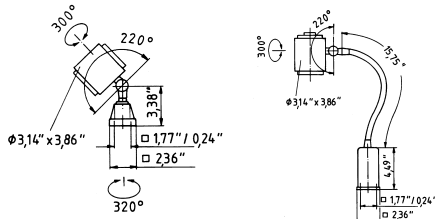
ORDERING INFORMATION:
HPWT-20, 120V	108-900-000

Includes: 12V, 20W lamp, tempered glass lens, built-in transformer, grounded plug in base, 16" gooseneck, dial switch in head, and 6' cord with grounded plug.

HPWK-20, 12V, without switch	806-327-010
HPWK-20, 24V, without switch, w/ 9′ cord	806-327-009

MOUNTING OPTIONS:
Clamp, 0"-2.75"	190-007-019
Clamp, 2.5"-5.3"	190-033-019
Magnetic Base	190-057-019
Table Base, Light Grey (for HPT)	190-036-119

REPLACEMENT PARTS:
Glass Lens, Tempered, Clear	305-204-030
Glass Lens, Tempered, Milky	305-204-040
Lamp, Halogen, AR48, 12V, 20W, **5-pack**	300-581-010
Lamp, Halogen, AR48, 24V, 20W, **5-pack**	300-581-020

TRANSFORMERS (HPWK, HPK-20):
With case:
Transformer, Enclosed, 20VA, 120-11V, 50/60Hz (HP series, 12V models)	150-148-019

Without case:
Transformer, 20VA, 120-11V, 50/60Hz (HP series, 12V models)	150-147-019
Electronic Transformer, 20-75VA, 120-11.6V, 50/60Hz (HP series, 12V models)	US0-224-043

PARTS KITS:
Parts Kit, HPW, HPWT, HPWK (specify 12V or 24V)	950-900-066

HPW-20: Waterproof Small Halogen

HPW-20 31" Arm

Our IP54 splash protected 20-watt halogen work light provides an intense, concentrated spot of light to the work area. The 31" arm provides vibration-resistant adjustability.

APPLICATIONS:

The HPW-20 provides precise illumination during milling, turning, grinding, deburring, high vibration machining, and other operations where fluids may interrupt standard machine lighting.

FEATURES:
- The HPW-20 is gasketed and protected at the joints and base to prevent damage from water, coolants, cutting oils, and fluids.
- The 31" articulated arm has 3 adjustment points that can be tightened to render the unit vibration-proof, or loosened for easy positioning.
- The 120V version features a transformer built into the base arm for convenient plug-in to a 120V power supply.
- A tempered glass lens withstands extreme temperature shock and prevents coolant from entering the head.
- With only 12V supplied to the head, operator safety is enhanced.
- The universal base allows the user the option to mount the light either vertically or horizontally.
- IP54 splash protected rating. UL and CUL listed.
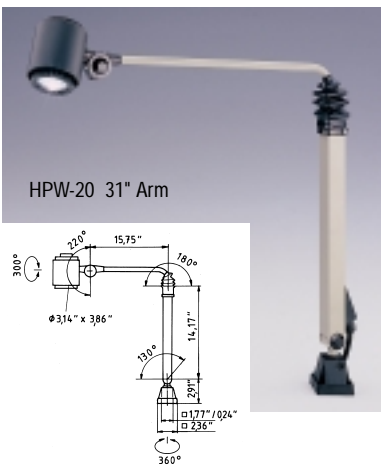
ORDERING INFORMATION:
HPW-20, 120V	108-120-000

Includes: 12V, 20W lamp, tempered glass lens, low profile on/off switch, built-in transformer, and 6' cord with grounded plug.

MOUNTING OPTIONS:
Clamp, 0″-2.75"	190-007-019
Clamp, 2.5"-5.3"	190-033-019
Wall Bracket, for Base-Mount	300-213-018
Portable Stand, Black, with 5-leg base	US1-043-019

REPLACEMENT PARTS:
Glass Lens, Tempered, Clear	305-204-030
Glass Lens, Tempered, Milky	305-204-040
Lamp, Halogen, AR48, 12V, 20W, **5-pack** (HP series)	300-581-010

PARTS KITS:
Parts Kit, HPW, HPWT, HPWK (specify 12V or 24V)	950-900-066

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HP: Small Halogens

HP-20

HPK-20

The HP-20 and "head only" HPK-20 are popular and compact (2-1/2" O.D.) machine lights. The HP-20 has a vibration-resistant 28" arm which provides maximum reach and positioning. The HPK-20 is practical when there are space limitations.

APPLICATIONS:
Both models are ideal for high vibration machining applications, milling, grinding, deburring, CNC lathes, screw machines, and turning machines. Use these lights for "non-wet" applications.

FEATURES:
Both lights:
- A 20-watt halogen lamp provides high intensity light, with a rated lamp life of over 2000 hours.
- The protective heat shield and extruded aluminum head dissipate heat build-up.
- A universal base allows users the option to mount the light onto a horizontal or vertical work surface.
- UL and CUL listed, and IP20 dust protected rating.
- All joints can be tightened to hold position during high vibration operations.

HP-20:
- The 28" articulated arm has 5 adjustment points that can be tightened to render the light vibration-proof, or loosened for easy positioning.
- The transformer is built into the base arm and allows convenient plug-in to a 120V power supply.
- Low voltage models available.

HPK-20:
- Compact head design is ideal for small work areas.
- The universal base has a 72" cord.
- Since all halogen heads are low voltage, if the correct voltage isn't on the machine, a transformer must be used for connection to a 120V power supply.

ORDERING INFORMATION:
HP-20, 120V	108-180-000

Includes: 12V, 20W lamp, clear glass lens, protective heat shield, on/off rocker switch (in head), built-in transformer, and 6' cord with grounded plug.

HPK-20-12V, w/switch (head only)	007-327-000
HPK-20, 24V, w/switch (head only)	007-327-011

MOUNTING OPTIONS:
Clamp, 0"-2.75"	190-007-019
Clamp, 2.5"-5.3"	190-033-019
Table Base, Light Grey	190-036-119
Portable Stand, Black, w/5-leg base	US1-043-019
Magnetic Base (HPF models only)	190-057-019

ACCESSORIES (HP-20):
Clip-on Magnifier, 4d (2X)	190-062-019
Clip-on Magnifier, 4d+12d (2X+4X)	190-062-029
Fiberoptic, 31" (HP, HPF, HPK, HPT)	001-364-002

REPLACEMENT PARTS:
Glass Lens, Clear	305-204-010
Glass Lens, Milky	305-204-020
Lamp, Halogen, AR48, 12V, 20W, **5-pack**	300-581-010
Lamp, Halogen, AR48, 24V, 20W, **5-pack**	300-581-020

PARTS KITS:
HP, HPK, HPF, HPT (specify 12V or 24V)	950-900-065

TRANSFORMERS:
With case:
Transformer, Enclosed, 20VA, 120-11V, 50/60Hz (HP series, 12V models)	150-148-019

Without case:
Transformer, 20VA, 120-11V, 50/60Hz (HP series, 12V models)	150-147-019
Electronic Transformer, 20-75VA, 120-11.6V, 50/60Hz (HP series, 12V models)	US0-224-043
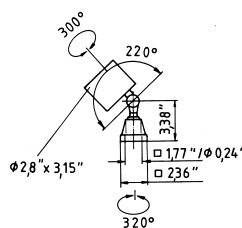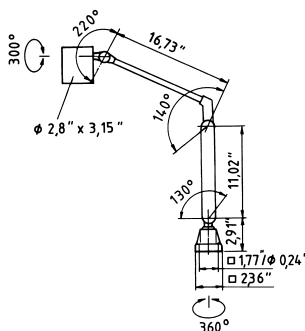
HPF: Small Gooseneck Halogen

HPF-20

**The HPF-20 small halogen machine light offers an intense and precise light source for the work area.
A flexible 16" or 24" gooseneck arm provides pinpoint lighting.**

APPLICATIONS:
The HPF-20 is ideal for various low vibration machinery and bench applications. The halogen light uses Waldmann's unique universal base which provides horizontal or vertical mounting. The unit can be mounted either directly, with a clamp or a magnetic base.

FEATURES:
- A 20-watt halogen lamp provides projected high intensity light for over 2000 hours.
- A protective heat shield and extruded aluminum head dissipates heat build-up.
- With only 12V supplied to the head, operator safety is enhanced.
- IP20 dust protected rating.
- A 16" or 24" flexible gooseneck is available to accommodate a variety of applications.
- Universal base provides horizontal or vertical mounting.
- Plug-in transformer is included with 120V HPF versions.

HPT: Small Gooseneck Halogen

The HPT-20 provides a 16" extremely durable gooseneck offering an intense and concentrated light source to work areas.

APPLICATIONS:
The HPT-20 is ideal for various low vibration machining and bench applications. The light also provides point source illumination at workbenches and repair stations. Use the HPT-20 for "non-wet" applications.

FEATURES:
- The 16" extremely rugged gooseneck is ideal for areas where head and arm maneuverability is required.
- A built-in transformer in the base allows convenient plug-in to a 120V power supply.
- A 20-watt halogen lamp provides projected high intensity light for over 2000 hours.
- The protective heat shield and extruded aluminum head dissipates heat build-up.
- With only 12V supplied to the head, operator safety is enhanced.
- IP20 dust protected rating.
- A 4-hole mounting plate is included.

Tubular Fluorescent
Machine Lighting

RL40/RL70:
Waterproof Tubular Fluorescents

RL40-124 S
RL70-224 S
RL70E-224
AWDE-113
RL70C-136 S
RL70C-118 S

(Cordsets not included - refer to RL All-In-One Series)

End Caps
Long L
Short L
Straight

2 mounting brackets required. Please see dimensions on page 10.

RL70C-124 S is shown with glare reducing louver

Our RL tubular fluorescent machine lights are ideal for illuminating hard-to-reach areas even under the most extreme conditions of coolant, water, cutting oils, hot chips, and petroleum-based fluid environments.

APPLICATIONS:

RL's, which are available in lengths of 11" to 67", are ideal for vision systems, packaging machinery, and food processing equipment. They are also utilized for setups, inspection, or maintenance in the working areas of machining centers, lathes, wave soldering machines, machinery with enclosures, and other areas where liquids pose a problem for ordinary fixtures and overhead lighting is inadequate. RL's also provide an excellent flood light pattern.

FEATURES:

- Available with 1.57" or 2.75" O.D. (outer diameter) tubes are made from acrylic or borosilicate glass material. High impact borosilicate glass models are recommended for applications involving hot chips, synthetic or petroleum-based fluids.

- RL40's and RL70's are available with built-in or remote-mount ballasts. Built-in electronic ballasts are also offered. Remote ballasts, which are ordered separately, are designated with an "S" (RL70-239 S). Electronic ballast versions, which increase lamp frequency, are designated with an "E" (RL70E).

- The 118, 124, and 136 models use new generation compact fluorescent lamps offering more compact design, increased light per watt, and up to 33% longer lamp life than traditional bi-pin based fluorescent lamps. These lights are designated with a "C". RL70CE-124 would indicate that the light includes a compact fluorescent lamp "and" built-in electronic ballast.

- Glare reducing louvers are available for any 70mm tubelight. If you require a louver, you may purchase the selected light and a Louver Kit. Please contact Customer Service for additional information.

Ordering information:
BUILT-IN BALLAST RL70 MODELS - EACH RL REQUIRES TWO BRACKETS.
(All models are shipped without cord.)

AWDCE-118, 24V, DC, Glass (11.3")	112-153-001
RL70CE-118, 100-120V, Glass (18.9")	041-803-015
RL70CE-118, 100-120V, Acrylic (18.9")	041-803-016
RL70CV-118, 120V, Acrylic (17.6")	108-500-000
RL70CV-118, 120V, Glass (17.6")	108-500-001
RL70CE-124, 120-277V, 50/60Hz, Acrylic (26.7")	108-670-000
RL70CE-124, 120-277V, 50/60Hz, Glass (26.7")	108-670-001
RL70CV-124, 120V, Acrylic (23.6")	108-510-000
RL70CV-124, 120V, Glass (23.6")	108-510-001
RL70CE-136, 120-277V, 50/60Hz, Acrylic (31")	108-680-000
RL70CE-136, 120-277V, 50/60Hz, Glass (31")	108-680-001
RL70E-254, 120V, Glass (67.4")	138-449-001
RL70E-239, 120-277V, 50/60Hz, Acrylic (52.7")	138-450-000
RL70E-239, 120-277V, 50-60Hz, Glass (52.7")	138-450-001
RL70E-224, 120-277V, 50/60Hz, Acrylic (41.2")	138-451-000
RL70E-224, 120-277V, 50/60Hz, Glass (41.2")	138-451-001

REMOTE BALLAST SERIES RL70 and RL40 MODELS - EACH RL REQUIRES TWO BRACKETS.
(All models are shipped without cord.)

AWD-113 S, Acrylic (10.8") w/15′ cord	128-200-000
AWD-113 S, Glass (10.8") w/15′ cord	128-200-001
RL70C-118 S, Acrylic (14.4")	108-210-000
RL70C-118 S, Glass (14.4")	108-210-001
RL70C-124 S, Acrylic (17.6")	108-470-000
RL70C-124 S, Glass (17.6")	108-470-001
RL70C-136 S, Acrylic (20.7")	108-620-000
RL70C-136 S, Glass (20.7")	108-620-001
RL70-136 S, Acrylic (53.6")	108-710-000
RL70-136 S, Glass (53.6")	108-710-001
RL70-254 S, Glass (53.6")	138-452-001
RL70-239 S, Acrylic (41.6")	138-453-000
RL70-239 S, Glass (41.6")	138-453-001
RL70-224 S, Acrylic (29.6")	138-454-000
RL70-224 S, Glass (29.6")	138-454-001
RL40-154 S, Acrylic (50")	138-455-000
RL40-154 S, Glass (50")	138-455-001
RL40-139 S, Acrylic (38.2")	138-456-000
RL40-139 S, Glass (38.2")	138-456-001
RL40-124 S, Acrylic (26.3")	138-457-000
RL40-124 S, Glass (26.3")	138-457-001
RL40-132 S, Acrylic (52")	138-458-000
RL40-132 S, Glass (52")	138-458-001
RL40-125 S, Acrylic (43.4")	138-459-000
RL40-125 S, Glass (43.4")	138-459-001
RL40-117 S, Acrylic (39.7")	138-460-000
RL40-117 S, Glass (39.7")	138-460-001

"Low Voltage" RL70 ELECTRONIC BALLAST SERIES - EACH RL REQUIRES TWO BRACKETS.
(All models are shipped without cord.)

RL70E-118, 24V, 50/60Hz AC, Acrylic (36.9")	111-650-000
RL70E-136, 24V, 50/60Hz AC, Acrylic (58.8")	111-720-003
RL70CE-124, 24V, DC, Acrylic, (23.6")	111-440-013
RL70CE-124, 24V, DC, Glass, (23.6")	111-440-012

RL40/RL70:
Waterproof Tubular Fluorescents

Without Louver
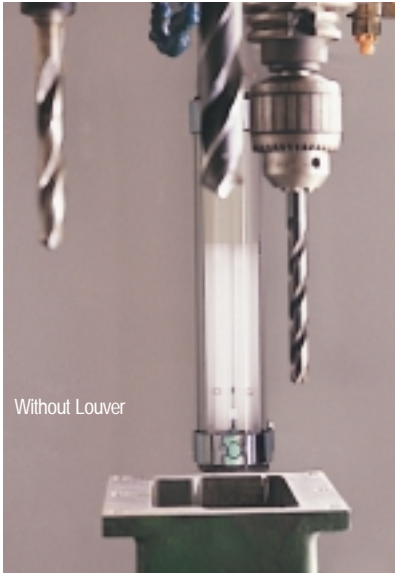
RL lights can be mounted both horizontally and vertically to meet various application requirements.

- RL70V models are provided with built-in magnetic or electronic ballasts to fit specific space requirements. Built-in magnetic ballasts are designated with a "V" or "E".

- All RL70's are available with optional Louver Kits (RL40's are available without louvers only). Louvers provide glare-reducing illumination and direct light precisely to specific work areas. Please contact our Customer Service department for additional information.

- T5 HO fluorescent lamps utilized in our 2x24, 2x39 and 2x54W lights, offer 4000 to 10000 lumens of "super bright" light output and a 4100K color temperature. The lights are available in glass or acrylic tube lengths of 42", 53", 54", and 67" and are offered with built-in or remote ballasts. The 2x54W is available in glass only.

- A variety of mounting brackets make installation and relamping easy. A unique end cap design provides a waterproof under pressure (IP67) rating.

- Strain relief (PG-11) threads at one end allow for easy electrical hook-up.

- Remote ballasts are available in several specifications including: 1 ballast to operate 2 lights, high frequency electronic ballasts to eliminate strobe effect, ballasts that operate on various voltages and frequencies, and many other combinations. Please call Waldmann Lighting's technical department at: 800-634-0007 for complete information.

MODELS REQUIRING REMOTE BALLASTS:

Note: Some RL models require a remote ballast. This ballast must be wired by the customer. Therefore, Waldmann recommends the remote RL models "only" for wiring by a qualified technician.

With Louver
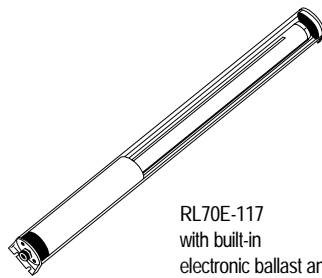
RL70E-117 with built-in electronic ballast and built-in mounting brackets. Louver Kits are available. Waterproof IP67

MOUNTING BRACKETS FOR RL70 AND RL40 SERIES – EACH RL REQUIRES TWO BRACKETS.

Bracket, Each, Straight, Galv. Steel, Neoprene Inserts (RL70)	190-015-019
Bracket, Each, Long-L, Galv. Steel, Neoprene Inserts (RL70)	190-015-021
Bracket, Each, Short-L Galv. Steel, Neoprene Inserts (RL70)	190-015-995
Bracket, Each, Straight, Galv. Steel, Profiled Rubber Inserts (RL70)	190-015-719
Bracket, Each, Long-L, Galv. Steel, Profiled Rubber Inserts (RL70)	SK1-021-719
Bracket, Each, Short-L, Galv. Steel, Profiled Rubber Inserts (RL70)	SK0-995-719
Bracket, Pair, Molded Endcap, Plastic, Black (RL70)	US0-165-012
Bracket, Each, Straight, Stainless Steel, Neoprene Inserts (RL70)	190-180-019
Bracket, Each, Long-L, Stainless Steel, Neoprene Inserts (RL70)	190-183-019
Bracket, Each, Short-L, Stainless Steel, Neoprene Inserts (RL70)	190-181-019
Bracket, Each, Straight, Stainless Steel, Profiled Rubber Inserts (RL70)	190-180-719
Bracket, Each, Long-L, Stainless Steel, Profiled Rubber Inserts (RL70)	190-169-719
Bracket, Each, Short-L, Stainless Steel, Profiled Rubber Inserts (RL70)	190-181-719
Spring Clip, Each, Galv. Steel (RL40)	306-266-022
Mounting Strap, Each, Stainless Steel (RL40)	190-174-019

RL70 SERIES WITH BUILT-IN ELECTRONIC BALLAST AND BUILT-IN MOUNTING BRACKETS.
(All models are shipped without cord)

RL70E-117, 120-277V, 50/60Hz, Acrylic (40.6")	128-100-000
RL70E-117, 120-277V, 50/60Hz, Glass (40.6")	128-100-001
RL70E-125, 120-277V, 50/60Hz, Acrylic (52.6")	128-110-000
RL70E-125, 120-277V, 50/60Hz, Glass (52.6")	128-110-001
RL70E-132, 120-277V, 50/60Hz, Acrylic (64.6")	128-120-000
RL70E-132, 120-277V, 50/60Hz, Glass (64.6")	128-120-001

RL70 SERIES REMOTE BALLAST MODELS WITH BUILT-IN MOUNTING BRACKETS.
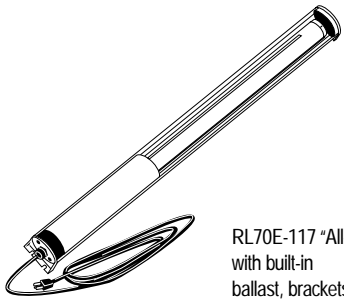(All models are shipped without cord)

RL70-117 S, Acrylic (30.9")	128-130-000
RL70-117 S, Glass (30.9")	128-130-001
RL70-125 S, Acrylic (42.9")	128-140-000
RL70-125 S, Glass (42.9")	128-140-001
RL70-132 S, Acrylic (54.9")	128-150-000
RL70-132 S, Glass (54.9")	128-150-001

All-In-One:
Waterproof Tubular Fluorescents

All-In-One

RL70E-117 "All-in-one" with built-in ballast, brackets and cordset. Louver Kits are available.
Waterproof IP67

FEATURES (All-In-One):

- The 117, 125 and 132 T8 series and the 118, 124 and 136 compact fluorescent series are pre-wired and ready for operation.
- All models include mounting brackets and an 8' cordset with plug.
- The longer 117, 125 and 132 models feature lengths from 41" to 64" and are ideal for large machinery and applications where a broad length of illumination is needed. The 118, 124 and 136 series featuring lengths from 18" to 31", are ideal for standard applications or smaller machining requirements.
- The outer tube is the same style as our standard RL series, and is available in acrylic and borosilicate glass. (When ordering 117, 125, 132, or 118, 124, or 136 models, do not order mounting brackets.)
- The lights are offered with either linear fluorescent or compact fluorescent lamps. Each energy efficient lamp offers a 20000 hour lamp life and a 4100K color temperature.
- For technical information regarding dimensions, bracket hold pattern, or specific application requirements, please call our Customer Service department at: 800-634-0007.
- Glare reducing louvers are available for any 70mm tubelight. If you require a louver, you may purchase the selected light and a Louver Kit. Please contact Customer Service for the additional information

"ALL-IN-ONE" PRE-WIRED RL70 SERIES WITH LINEAR FLUORESCENT LAMPS AND BUILT-IN BALLAST/BRACKETS/CORDSET.

RL70E-117, 120-277V, Acrylic (40.6")	128-100-900
RL70E-117, 120-277V, Glass (40.6")	128-100-901
RL70E-125, 120-277V, Acrylic (52.6")	128-110-900
RL70E-125, 120-277V, Glass (52.6")	128-110-901
RL70E-132, 120-277V, Acrylic (64.6")	128-120-900
RL70E-132, 120-277V, Glass (64.6")	128-120-901

"ALL-IN-ONE" PRE-WIRED RL70 SERIES WITH COMPACT FLUORESCENT LAMPS AND BUILT-IN BALLAST/BRACKETS/CORDSET.

RL70CV-118, 120V, 60Hz, Acrylic (17.6")	108-500-M00
RL70CV-118, 120V, 60Hz, Glass (17.6")	108-500-M01
RL70CE-124, 120-277V, 50/60Hz, Acrylic (23.6")	108-670-M00
RL70CE-124, 120-277V, 50/60Hz, Glass (23.6")	108-670-M01
RL70CE-136, 120-277V, 50/60Hz, Acrylic (31")	108-680-M00
RL70CE-136, 120-277V, 50/60Hz, Glass (31")	108-680-M01

PARTS KITS:

Parts Kit, RL70-120, RL70V-120	950-900-071
Parts Kit, RL70-136	950-900-072
Parts Kit, RL70C-118, RL70CV-118	950-900-073
Parts Kit, RL70C-124, RL70CV-124	950-900-074
Parts Kit, RL70C-136	950-900-075
Parts Kit, RL70-254, RL70E-254	US0-013-013
Parts Kit, RL70-239, RL70E-239	US0-013-023
Parts Kit, RL70-224, RL70E-224	US0-013-033
Parts Kit, RL40-154, RL40E-154	US0-013-043
Parts Kit, RL40-139, RL40E-139	US0-013-053
Parts Kit, RL40-124, RL40E-124	US0-013-063
Parts Kit, RL40-132, RL40E-132	US0-013-073
Parts Kit, RL40-125, RL40E-125	US0-013-083
Parts Kit, RL40-117, RL40E-117	US0-013-093

RL Mounting Bracket Dimensions:

56mm 2.20" c/c
82mm 3.22"
67mm 2.64"

End Caps

59mm 2.32"

Long L

42mm 1.65"

Short L

40mm 1.575" c/c
20mm .787"

All-in-one

70mm 2.75"
78mm 3.07"
20mm .79" c/c
67mm 2.64"
30mm 1.15"

Straight
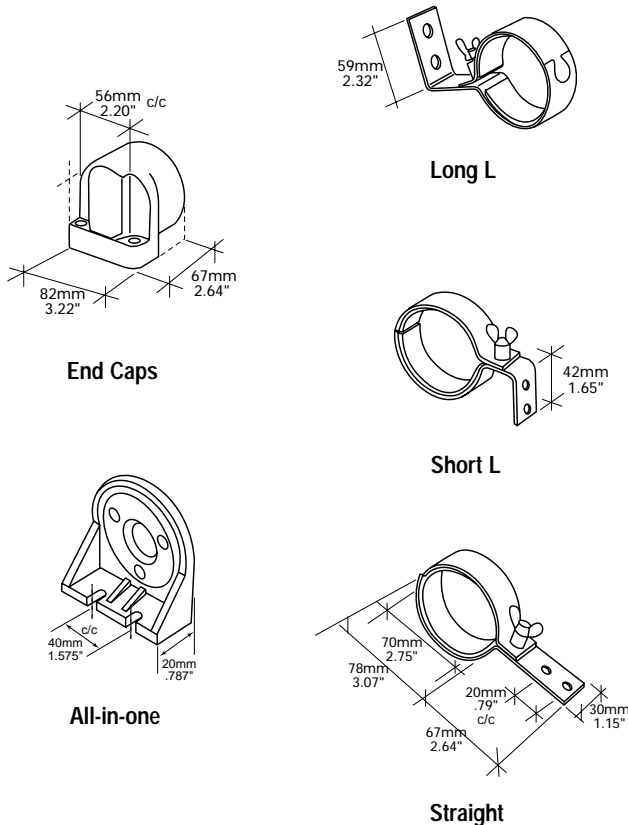
WD/EBL: Waterproof Fluorescent

WD-213
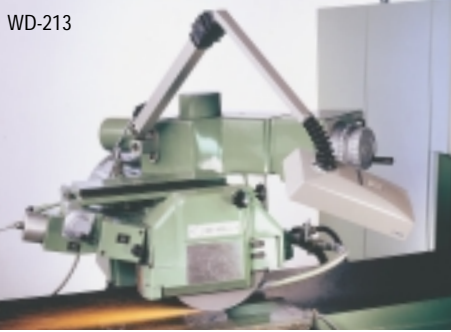
EBL-213

The WD-213 and "head only" EBL-213 are constructed with cast aluminum heads to resist harsh metalworking machinery conditions.

Both lights are IP54 splash protected, and 2 new generation 13-watt compact fluorescent lamps offer bright (1800 lumens) and even illumination. These lamps provide 10000 hours of lamp life, high energy efficiency, and a balanced 5000K color temperature.

APPLICATIONS:
Both lights work well inside machining enclosures or where a wide area of illumination is required.

FEATURES:
WD-213:
- The articulated arm and universal base allows users the option to mount the light on a vertical or horizontal surface.
- A high impact polycarbonate diffuser protects the fluorescent lamps from coolant, dust, dirt, and chips.
- Gasketing of the diffuser, switch, joints, and base prevents damage to the lighting fixture.

"Head only" EBL-213:
- Fully gasketed high impact polycarbonate diffuser protects the fluorescent lamps from coolant, dust, dirt, and chips.
- Designed with 3 pre-tapped holes for easy mounting with M6 screws (not provided) or for mounting to an optional swivel bracket.
- A 16' cord is included.

ORDERING INFORMATION:
WD-213, 120V, w/34" reach	108-400-001
Includes: On/off push switch (in head), two 13W, 5000K, compact fluorescent lamps, and 10' cord with grounded plug.	
EBL-213, 120V	108-070-000
Includes: 16' cord without plug, no switch, and two 13W compact fluorescent lamps.	

MOUNTING OPTIONS:
Swivel Bracket (EBL)	203-081-019
Clamp, 0"-2.75" (WD)	190-007-019
Clamp, 2.5"-5.3" (WD)	190-033-019

REPLACEMENT PARTS:
Diffuser, Acrylic, Semi-Clear, Tinted Yellow (WD, EBL)	225-234-019
Diffuser, Polycarbonate, Semi-Clear, Colorless (WD, EBL)	225-234-029
Diffuser, Polyurethane, Semi-Clear, Tinted Yellow (WD, EBL)	225-234-039
Lamp, Fluorescent, PL-S 13W, 5000K (WD, EBL)	950-900-039
Lamp, Fluorescent, PL-S, 13W, 4100K (WD, EBL)	450-013-120

PARTS KITS:
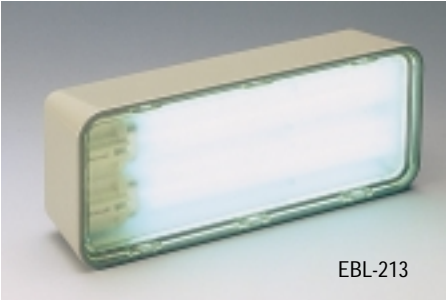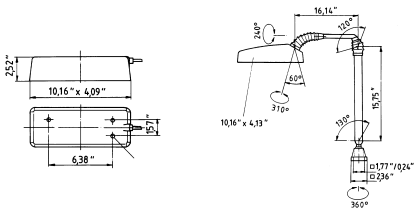|	
Parts Kit, WD, EBL	950-900-091

PAL: Hand-held Fluorescent
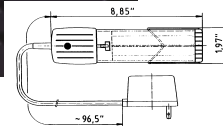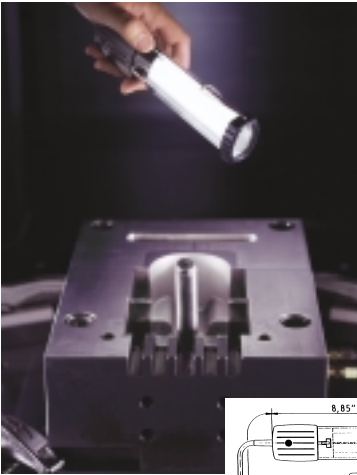
PAL-113

The PAL-113 (Portable Advantage Light) is ideal for all hand-held inspection needs.

APPLICATIONS:
Use the PAL wherever space is limited and light is critical, such as aircraft inspection, on-site repairs, HVAC repair, for vehicles, boats, and in your tool box for the unexpected situation when more light is needed.

FEATURES:
- A durable acrylic shield and rubber "shock guard" cap protects the lamps from dust or breakage.
- A removable reflector built into the shield guides the light in one direction to provide greater efficiency.
- A New internal lamp guide makes changing lamps easy.
- A hook built into the end of the shield makes it convenient to hang the PAL in the right location.
- A 13-watt compact fluorescent lamp gives you high efficiency, excellent color rendition, and 10000 hours of lamp life. Replacement lamps are readily available.
- A 10' cord between the PAL and the in-line ballast allows for easy positioning.
- An on/off rocker switch is built into the handle.
- The light stays cool to the touch and is ideal for use in confined spaces.
- UL and CUL listed.

ORDERING INFORMATION:
PAL-113, 120V	108-540-000
Includes: 13W, 5000K, compact fluorescent lamp, 10' cord with in-line ballast and on/off rocker switch in handle.	

REPLACEMENT PARTS:
Lamp, Fluorescent, PL-S 13W, 5000K	950-900-039
Lamp, Fluorescent, PL-S 13W, 4100K	450-013-120
Acrylic Shield, Clip, Shock Guard Cap	205-652-049

ACCESSORIES:
Mounting Clip	208-136-019
Mounting Clip, Magnetic	208-128-019

**Magnifiers and
ESD Magnifiers**

Omnivue ESD Series: 35" and 43" Reach

Omnivue ESD Series

OmnivueMax

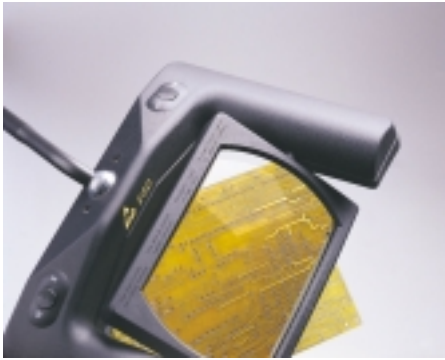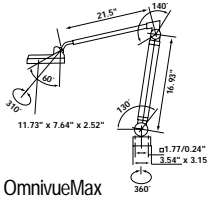| Surface Resistivity	(R$_S$)	
Plastic Materials	$10^6 - 10^9$	Ω/square
Diffuser	$10^3 - 10^5$	Ω/square
Magnifier	10^4	Ω/square
Varnish	$10^5 - 10^9$	Ω/square

Omnivue ESD standard version top arm is 15.75″.

The OmnivueMax ESD and Omnivue ESD are coated to meet ESD area specifications. The magnifier is ideal to help maintain the effectiveness of ESD control programs.

APPLICATIONS:

The OmnivueMax ESD and Omnivue ESD series are ideal for ESD area-assembly and inspection applications.

FEATURES:

- The Omnivue ESD is produced with static dissipative plastic materials and varnish on steel parts.
- The OmnivueMax ESD offers an extended 43" reach, ideal for ESD workstations and production benches. The Omnivue ESD offers a 35" reach for traditional ESD requirements.
- Includes 3 compact fluorescent 9W lamps which provide 1800 lumens and 2 light levels: 18 watts (1200 lumens) of side-to-side lighting or 27 watts (1800 lumens) of light from the top and both sides of the magnifier.
- A 3-diopter stadium shaped lens provides precise positioning.
- The magnifier glass and lens cover are treated with conductive coatings.
- An industrial-grade clamp is included.
- An optional 1/2" pin mount for production workbenches is available.
- Optional Add-X lens increases magnification to 7 diopters (see page 16).
- A spring-loaded base and middle joint allow easy light adjustment.
- All Omnivue models are UL and CUL listed.

ORDERING INFORMATION:

Omnivue ESD, 120V, 3d, w/35″ reach, with clamp	138-425-000
Includes: Permanently attached ESD safe magnifier lens with lens cover, 3 compact fluorescent (5000K) 9W lamps, 6' cord with grounded plug, lens cover, and mounting clamp.	
OmnivueMax ESD, 120V, 3d, w/43″ reach	138-425-001

MOUNTING OPTIONS:

Table Base, Black	190-112-019
1/2" Pin Mount Adapter, 3.75″ long (for workstations)	US0-209-012
1/2" Pin Mount Adapter, 1.77″ long (for workstations)	US0-209-022
Portable Stand, Black, with 5-leg base	US1-043-019

REPLACEMENT PARTS:

Lamp, Fluorescent, PL-S 9W, 5000K (3 lamps required)	950-900-038
Lamp, Fluorescent, PL-S 9W/08 BLB, UVA (3 lamps required)	US0-007-013

ACCESSORIES:

Magnifier, Add-X 4d (2X) (Omnivue ESD)	190-080-049

Opticlux Magnifier

Snap-in acrylic & glass lenses

Opticlux Magnifier with 44" reach
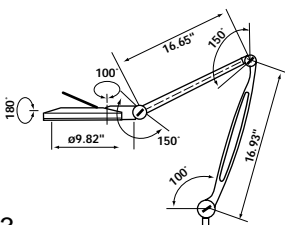
The powerful Opticlux features a 4100K, 22-watt T5 HO lamp providing over 60% greater light output compared to other similar magnifier lights. The Opticlux features a distortion-free 3.5 diopter lens with a strong cera-tec® hard coating from Eschenbach Optic Company. The choice of three interchangeable snap-in magnifier lenses are offered for increased magnification power.

APPLICATIONS:

Use the Opticlux with a 44" extended reach for detailed inspection and assembly work where distortion-free and powerful illumination is needed for enhanced performance.

FEATURES:

- A distortion-free 3.5 diopter optical-quality acrylic magnifier lens features a cera-tec® coating from Eschenbach Optic Company which is stronger than glass and is more resistant to mechanical scratches, alcohol, cleaning agents, and solvents.
- Additional quick and convenient snap-in magnifier lenses are available in 4d, 6d and 4d+12d. The 4d and 4+12d are available in glass and the 6d is offered in acrylic with a cera-tec® coating (see page 16).
- The lenses and frame can be interchanged quickly and easily.
- A 22-watt T5 HO lamp provides 63% more light output than standard 22-watt fluorescents.
- The magnifier cover, attached to the light, can be detached easily by a snap catch or used as a glare guard.
- An electronic ballast built into the arm increases energy efficiency.
- An industrial-grade clamp is included.

ORDERING INFORMATION:

Opticlux-122, 120V, 3.5d, w/44" reach, with clamp	112-222-003
Includes: 3.5d acrylic magnifier lens, 22-watt T5 HO circline lamp, attached lens cover, 6' cord with grounded plug, and mounting clamp. Additional lenses must be ordered separately.	

MOUNTING OPTIONS:

Table Base, Black	190-112-019
Table Base , White	190-112-069
1/2" Pin Mount Adapter, 3.75" long (for workstations)	US0-209-012
1/2" Pin Mount Adapter, 1.77" long (for workstations)	US0-209-022
Portable Stand, Black, with 5-leg base	US1-043-019
Portable Stand, White, with 5-leg base	US1-043-029

REPLACEMENT PARTS:

Lamp, Fluorescent, FC9T5, 22W, 4100K, Circline	450-022-062

ACCESSORIES:

Lens, Interchangeable, 4d, Glass	190-184-019
Lens, Interchangeable, 6d, Acrylic	190-184-039
Lens, Interchangeable, 4d+12d, Glass	190-184-049

OmnivueMax: 43" Reach Magnifier

OmnivueMax features fully rotational lens

OmnivueMax
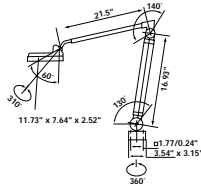
The OmnivueMax with 43" extended reach and ergonomic head and ball joint design improves productivity by allowing users to position the light exactly where it's needed. It offers 2 light levels for a variety of inspection applications. 3 compact fluorescent 9-watt lamps are cool to the touch and less fatiguing on the eye.

APPLICATIONS:

Ideal for assembly and inspection applications.

FEATURES:

- The OmnivueMax offers an extended 43" reach, ideal for production benches and workstations.
- Includes 3 compact fluorescent (5000K) 9-watt lamps which provide 1800 lumens of light and 2 light levels: 18-watts (1200 lumens) of side-to-side lighting or 27-watts (1800 lumens) of light from the top and both sides of the magnifier.
- A 3-diopter large stadium shaped lens provides precise positioning which eliminates unnecessary bending or slouching. A lens cover is included.
- UV models are available. Please contact Customer Service for additional information.
- An industrial-grade clamp is included.
- A spring-loaded base and middle joint allow easy light adjustment.
- An optional 1/2" pin mount for production workstation bushing mounts is available.
- Optional Add-X lenses are available. (See page 16.)

ORDERING INFORMATION:

OmnivueMax, 120V, 3d, w/43" reach, with clamp	047-803-000

Includes: Permanently attached magnifier lens with lens cover, 3 compact fluorescent (5000K) 9W lamps, 6' cord with grounded plug, and mounting clamp.

MOUNTING OPTIONS:

1/2" Pin Mount Adapter, 3.75" long (for workstations)	US0-209-012
1/2" Pin Mount Adapter, 1.77" long (for workstations)	US0-209-022
Table Base, Black	190-112-019
Table Base, White	190-112-069
Portable Stand, Black, with 5-leg base	US1-043-019
Portable Stand, White, with 5-leg base	US1-043-029

REPLACEMENT PARTS:

Lamp, Fluorescent, PL-S 9W, 5000K (3 lamps required)	950-900-038
Lamp, Fluorescent, PL-S 9W/08 BLB, UVA (3 lamps required/Omnivue UVA)	US0-007-013

### ACCESSORIES:

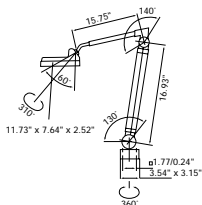|	
Magnifier, Add-X 4d (2X)	190-080-019
(Add this lens onto the permanent 3d lens to achieve 7d)	
Magnifier, Add-X 4d+12d (2X+4X)	190-080-029
(Add this lens onto the permanent 3d lens to achieve 7d+15d)	

Omnivue: 35" Reach Magnifier

Omnivue

The Omnivue's fully pivoting, large stadium-shaped lens provides optimum viewing and positioning. This allows users to see the inspection area easier – without unnecessary bending or slouching. Plus, glare from overhead lighting is minimized which reduces eye strain.

APPLICATIONS:

The Omnivue offers an extended 35" reach for traditional inspection applications.

FEATURES:

- Includes 3 compact fluorescent (5000K) 9-watt lamps which provide 1800 lumens of light and 2 light levels: 18-watts (1200 lumens) of side-to-side lighting or 27-watts (1800 lumens) of light from the top and both sides of the magnifier.
- A 3-diopter stadium shaped lens provides precise positioning. A lens cover is included.
- UV models are available. Please contact Customer Service for additional information.
- An industrial-grade clamp is included.
- A ball joint attached to the head provides superior positioning.
- A 1/2" pin mount for production workbenches is available.
- A spring-loaded base and middle joint allow easy light adjustment.
- Optional Add-X lenses are available (See page 16.)

ORDERING INFORMATION:

Omnivue, 120V, 3d, w/35" reach, with clamp	118-790-000

Includes: Permanently attached magnifier lens with lens cover, 3 compact fluorescent (5000K) 9W lamps, 6' cord with grounded plug, and mounting clamp.

MOUNTING OPTIONS:

Table Base, Black	190-112-019
Table Base, White	190-112-069
1/2" Pin Mount Adapter, 3.75" long (for workstations)	US0-209-012
1/2" Pin Mount Adapter, 1.77" long (for workstations)	US0-209-022
Portable Stand, Black, with 5-leg base	US1-043-019
Portable Stand, White, with 5-leg base	US1-043-029

REPLACEMENT PARTS:

Lamp, Fluorescent, PL-S 9W, 5000K (3 lamps required)	950-900-038
Lamp, Fluorescent, PL-S 9W/08 BLB, UVA (3 lamps required/Omnivue UVA)	US0-007-013

ACCESSORIES:

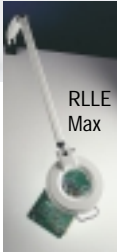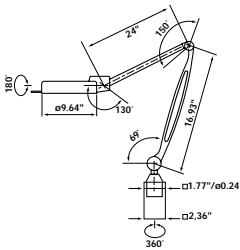|	
Magnifier, Add-X 4d (2X)	190-080-019
(Add this lens on to the permanent 3d lens to achieve 7d)	
Magnifier, Add-X 4d+12d (2X+4X)	190-080-029
(Add this lens on to the permanent 3d lens to achieve 7d+15d)	

14

RLLE: Ring Magnifier Series

RLLE-122

RLLE Max

Max version top arm is 24".
Standard version top arm is 17.5".

The RLLE series magnifiers are ideal for conventional magnification and inspection lighting. RLLE Max has an extended 43.5" reach and the RLLE-122 has a 37" reach.

APPLICATIONS:
Both models are ideal for assembly, inspection, and soldering applications.

FEATURES:
- The RLLE Max offers a pull handle and an extended 43.5" reach, ideal for production benches and workstations or longer length applications. The RLLE-122 offers a 37" reach for traditional inspection applications.
- A permanent optical quality glass lens provides 4 diopters of magnification and is 33 % stronger than similar ring magnifiers. A lens cover which protects against dust and scratches is included.
- To increase magnification, the RLLE-122 offers a model with a 12d bonded inset bubble on the 4d lens.
- For stronger magnification, a 4d Add-X lens can be ordered for either RLLE model (see page 16).
- A 22-watt circline lamp provides even light distribution to the work surface and 12000 hours of lamp life.
- A spring-loaded arm contributes to the adjustability of the light.
- An industrial-grade clamp is included.
- A 1/2" pin mount adapter is available.

ORDERING INFORMATION:

RLLE-122, 120V, 4d, w/37" reach, with clamp	138-442-000
RLLE-122, 120V, 4d+12d, w/37" reach, with clamp	138-442-001
RLLE-122, Max, 120V, 4d, w/43.5" reach, with clamp	138-442-005
RLLE-122, Max, 120V, 4d+12d, w/43.5" reach, with clamp	138-442-009

Includes: All models above include a (4d or 4d+12d) optical quality glass magnification lens, 22W circline lamp, built-in ballast, protective lens cover, 6' cord, and mounting clamp. (The 4d Add-X lens must be ordered separately)

MOUNTING OPTIONS:

Table Base, Black	190-112-019
Table Base, White	190-112-069
1/2" Pin Mount Adapter, 3.75″ long (for workstations)	US0-209-012
1/2" Pin Mount Adapter, 1.77″ long (for workstations)	US0-209-022
Portable Stand, Black, with 5-leg base	US1-043-019
Portable Stand, White, with 5-leg base	US1-043-029

REPLACEMENT PARTS:

Lamp, Fluorescent, FC8T9, 22W, 4100K Circline	450-022-010

ACCESSORIES:

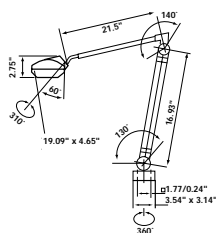|	
Magnifier, Add-X 4d (2X)	190-054-019

SNE-136: Task Light with Optional Lens

SNE-136

Optional Clip-on Magnifier Lens

The multi-functional SNE-136 task light features a 36-watt compact fluorescent lamp that offers maximum light output. The lamp is available in a variety of Kelvin temperatures to meet a myriad of inspection requirements including applications that require high color temperatures including color correction applications. An optional clip-on magnifier lens is also available.

FEATURES:
- The SNE-136 offers a 35" arm reach for a variety of inspection applications.
- A 36-watt compact fluorescent lamp is available in three Kelvin temperatures including: 4100K, 5400K, and 6000K to meet a variety of inspection requirements. The 5400K lamp is standard.
- An electronic ballast built into the arm provides additional energy efficiency and flicker-free illumination.
- A parabolic louver system provides glare-free illumination and precise light direction.
- The ergonomic arm and joint design, complete with flexible spring-loaded base, adds to the adjustability of the luminaire.
- A 3d (1.75X) clip-on magnifier lens is optional.
- Add-X lenses which increase magnification are available (see page 16).
- The universal base allows the user the option to mount the light either vertically or horizontally.
- UL and CUL listed.

ORDERING INFORMATION:

SNE-136, 120V, 5400K, w/35" reach task light, without magnifier, with clamp	138-462-003
Please specify both #'s to order with magnifier (3d clip-on lens)	190-182-019

Includes: 36W, 5400K, compact fluorescent lamp, 6' cord with grounded plug, lens cover, and mounting clamp.

MOUNTING OPTIONS:

Table Base, Black	190-112-019
Table Base, White	190-112-069
1/2" Pin Mount Adapter, 3.75" long (for workstations)	US0-209-012
1/2" Pin Mount Adapter, 1.77" long (for workstations)	US0-209-022
Portable Stand, Black, with 5-leg base	US1-043-019
Portable Stand, White, with 5-leg base	US1-043-029

REPLACEMENT PARTS:

Lamp, Fluorescent, PL-L 36W, 4100K (36W)	450-036-010
Lamp, Fluorescent, PL-L 36W, 5400K (36W)	450-036-190
Lamp, Fluorescent, PL-L 36W, 6000K (36W)	450-036-222

ACCESSORIES:

Magnifier, Add-X 4d (2X) (Snaps into 3d lens)	190-080-019
Magnifier, Add-X 4d+12d (2X+4X) (Snaps into 3d lens)	190-080-029
Magnifier, 3d (1.75X) Clip-on Lens	190-182-019

# Magnification Accessories and Understanding Magnification

Omnivue standard (Max and ESD versions), and SNE-136 Task Light with "optional" magnifier.

The 3-diopter primary lens is permanently attached to the Omnivue series magnifiers. The 3-diopter "clip-on" version is for the SNE-136.


6.5" / 3d / 4.25"

Model	Part #	3d Lens Part #
Omnivue	118-790-000	(Included)
Omnivue ESD	138-425-000	(Included)
OmnivueMax	047-803-000	(Included)
SNE-136	138-462-000	190-182-019

The following 4d Add-X Lens snaps into the 3-diopter primary lens. When added on to the permanent 3d lens, your power increases to 7d:

3.63" / 7d / 2.0"
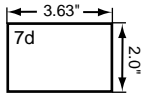
Model	4d Lens Part #
Omnivue	190-080-019
Omnivue Max	190-080-019
Omnivue ESD	190-080-049
SNE-136	190-080-019

The following 4d+12d (2X and 4X) Add-X Lens snaps into the 3-diopter primary lens. When added on to the permanent 3d lens, your power increases to 7d+15d.

3.63" / 2.0" / 7d / 15d / 1.25"
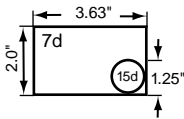
Model	4d+12d Lens Part #
Omnivue	190-080-029
SNE-136	190-080-029

OmnivueMax arm length versions are available with the same magnifier accessories as above.

4d+12d ESD Add-X lens is not available.

Opticlux Magnifier Interchangeable Snap-in lenses.

The Opticlux-122 comes complete with an interchangeable acrylic 3.5d lens. Three additional acrylic or glass snap-in lenses are offered in 4d, 6d and 4+12d.

Please see Page 13 for additional information.

| Model	Snap-in Lens Part #
Opticlux-122	190-184-019 (4d Glass)
Opticlux-122	190-184-039 (6d Acrylic)
Opticlux-122	190-184-049 (4d+12d Glass)

RLLE-122 Magnifier Accessories.

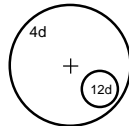**This is the permanent 4d Magnifier for both the standard and Max versions.**

4.5" / 4d
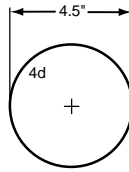
Model	Part #	4d Lens Part #
RLLE-122 4d Magnifier	138-442-000	Included

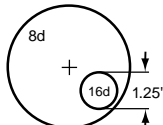When added on to the permanent 4d magnifier your power increases to 8d.

8d
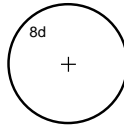
Model	4d Add-X Lens Part #
RLLE-122	190-054-019

This is the permanent 4d+12d Magnifier for both standard and Max versions.

4d / 12d

Model	4d+12d Part #	4d+12d Lens Part #
RLLE-122 (4d+12d)	138-442-001	Included

When added on to the permanent 4d+12d magnifier your power increases to 8d+16d.
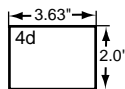

8d / 16d / 1.25"

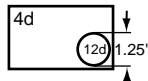| Model	4d Add-X Lens Part #
RLLE-122	190-054-019

HP Series Magnifier Accessories.

The following lenses can be clipped on to the HP Small Halogen series (where indicated) to provide magnification.

"Clip-on" 4d Magnifier.

3.63" / 4d / 2.0"

Model	Part #
HP Series, 4d (2X)	190-062-019

"Clip-on" 4d+12d Magnifier.

3.63" / 4d / 12d / 1.25"

Model	Part #
HP Series, 4d+12d (2X+4X)	190-062-029

UNDERSTANDING MAGNIFICATION:

To aid in your understanding of magnification, please refer to the following commonly used terms.

MAGNIFICATION (or POWER):

The degree to which the viewed object is enlarged. Magnification is expressed by a number followed by X (for example 4X).

DIOPTER:

A term used to identify the light bending (refractive) capacity of a lens. It also relates magnification to focal distance. (See the chart below for diopter to power ratios.)

FOCAL DISTANCE:

This is the maximum distance from the center of the magnifying lens to the object being viewed, without distortion.

A BASIC RULE TO REMEMBER:

As magnification increases, focal distance decreases and the size of the lens increases.

HELPFUL HINT:

To achieve maximum magnification without distortion, keep your eyes approximately 10" from the lens.

"SYSTEMS" MAGNIFICATION EXPLAINED:

The most often used measurement of magnification is "System Magnification." This formula measures not only the "power" of the lens, but also takes the seeing ability of the operator into consideration. This means that the operator is using the lens and therefore the refractive power of the eye, which is "1," is added into the formula.

Since we refer to magnification in diopters, it is useful to know how to equate diopters to power (X). The following formula is an easy way to calculate this:

Magnification Power (X) =

$$X = \frac{\text{Diopter of lens}}{4} + 1 \text{ (Operator)}$$

or, more simply: $X = \frac{D + 1}{4}$

If we are using the "System Magnification" to equate diopters to power for the 3-diopter lens on the "Omnivue," our equation would look like this:

$$X = \frac{3 \text{ diopters}}{4} + 1 = 1.75X$$

Magnification (X)	Diopter (D)	Focal Distance (Inches)
1.63	2.5	16
1.75	3	13.3
2	4	10
2.75	7	5.7
3	8	5
4	12	3.3
5	16	2.5

NOTE: For compliance with Military Specification, subtract 1X. The military does not consider the refractive power of the operator's eye in its formula.
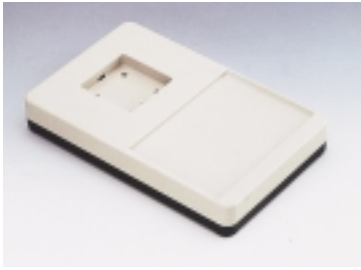
Mounting Options

TABLE BASE
When all other mounting options are unsuitable, the table base offers great flexibility. An attractive grey plastic cover (8″ x 4.75″ x 2.25″) fits over a 15-lb. base that will keep your light stable and safe. A 6″ x 4″ space provides an area for pens, pencils and memo pads. Mounting screws for all lights are included with the table base.

Table Base, Light Grey   190-036-119

PIN MOUNT TABLE BASE
This table base may be used for our Omnivue, RLLE, and SNE series magnification and task lights.
The pin mount of these models inserts into the base.

Pin Mount Table Base, Black   190-112-019
Pin Mount Table Base, White   190-112-069

PORTABLE STAND
This sturdy mounting platform gives the user maximum versatility. A 25″ x 25″ base is mounted on five casters. The vertical pole is 38″ above the floor, making the light readily accessible. Our portable stand is a popular mounting choice for laboratories and other areas where mobility is needed.
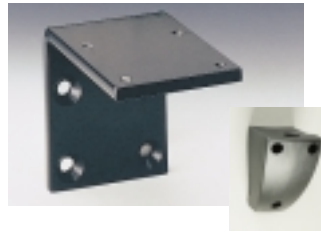
Portable Stand, Black w/ 5-leg base   US1-043-019
Portable Stand, White w/5-leg base   US1-043-029
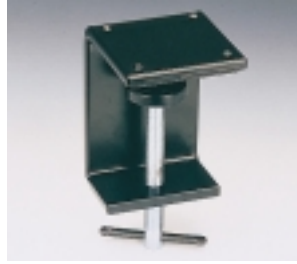
HEAVY DUTY STEEL CLAMPS
These heavy duty steel clamps mount with 4 screws. A rubber pad protects the mounting surface and prevents slippage. Clamps are black in color and available in two sizes to fit various surface thicknesses.

Clamp, 0″-2.75″   190-007-019
Clamp, 2.5″-5.4″   190-033-019

WALL BRACKET
This bracket allows lights to be mounted on a vertical surface. Remember, if your light has a universal base and you wish to mount it vertically, the wall bracket is not necessary.

Wall Bracket, for Base-Mount   300-213-018
Wall Bracket for RLLE, Opticlux, Omnivue, and SNE series   308-218-109

MAGNETIC BASE
The magnetic base is 2-1/2″ in diameter and can be mounted to our HPT-20, HPF-20 and HPWT-20 gooseneck lights. Its strong magnetic force allows for horizontal, vertical, or inverted use. This is a popular accessory for EDM machines. We do not recommend magnetic base mounting on machinery with substantial vibration.

Magnetic Base   190-057-019

Base Mount

Pin Mount

PIN ADAPTER
Some workbenches offer a pin mounting receptacle. To accommodate these situations, use our 1/2″ pin adapter with a 3″ + receptacle.

1/2″ Base Mount Adapter (HP)   SK3-618-011
1/2″ Pin Mount Adapter, 3.75″   US0-209-012
(for workstations)
1/2″ Pin Mount Adapter, 1.77″   US0-209-022
(for workstations)

Accessories

PAL MOUNTING CLIPS
The magnetic clip for our popular PAL is ideal when additional freestanding light is needed. There is also a standard mounting clip available for regular applications.

Standard Mounting Clip   208-136-019
Magnetic Mounting Clip   208-128-019

FIBEROPTIC ATTACHMENT
This popular attachment fits all of our standard 20-watt halogens. (There is no fiberoptic available for the waterproof or 60-watt models.) After removing the HP-20 series heat shield, the fiberoptic case slides onto the head and fastens with a thumb screw. A magnifying lens inside the case concentrates the high intensity light before it travels 31″ through the .5″ O.D. fiberoptic glass bundle. Use the fiberoptic attachment for getting light into hard-to-reach places. Not for wet applications.

Fiberoptic Attachment   001-364-002

Omnivue Add-X Lenses

4d (2X)

4d+12d (2X+4X)

ADD-X LENSES
For additional magnification, use our 4d (2X) and 4d +12d (2X+4X) Add-X lenses on top of our permanent "stadium shaped" 3d (1.75X) lens for the Omnivue series. Add-X lenses can also be used on our "optional" 3d (1.75X) clip-on lens for our SNE-136 series. A 4d Add-X lens is also available for our RLLE series. The Opticlux series offers snap-in interchangeable lenses in 4d, 6d and 4d+12d.

4d (2X) Add-X Lens (Omnivue)   190-080-019
4d+12d (2X+4X) Add-X Lens (Omnivue)   190-080-029
4d (2X) ESD Safe Add-X Lens (Omnivue)   190-080-049
3d (1.75X) Clip-on Lens (SNE-136)   190-182-019
4d (2X) Add-X Lens (RLLE)   190-054-019
Lens, Snap-in, 4d, Glass (Opticlux)   190-184-019
Lens, Snap-in, 6d, Acrylic (Opticlux)   190-184-039
Lens, Snap-in, 4d+12d, Glass (Opticlux)   190-184-049

Lamp Data

Fluorescent Lamps

Watts	Lamp Type	Catalog #	Color Temp.	Base	Avg. Life Hours	Approx. Lumens	Length (inches)	CRI
9	PL-S 9W	450-009-110	2700K (Warm White)	G23	10000	600	6 1/2 Overall	82
9	PL-S 9W	450-009-120	4100K (Cool White)	G23	10000	600	6 1/2 Overall	82
13	PL-S 13W	450-013-010	2700K (Warm White)	GX23	10000	825	7 Overall	82
13	PL-S 13W	450-013-120	4100K (Cool White)	GX23	10000	825	7 Overall	82
13	PL-C/E 13W	450-013-132	4100K (Cool White)	G24q-1	10000	900	5 3/16 Overall	82
17	F17T8	450-017-020	4100K (Cool White)	Med. Bipin	20000	1400	24 Overall	85
18	PL-L18W	450-018-010	4100K (Cool White)	2G11	12000	1250	8 15/16 Overall	82
18	PL-C/E 18W	450-018-182	4100K (Cool White)	G24q-2	10000	1250	5 11/16 Overall	82
20	F20T12	450-020-010	4100K (Cool White)	Med. Bipin	9000	1200	24 Nominal	62
22	FC8T9	450-022-010	4100K (Cool White)	4-Pin	12000	1050	O.D. 8 1/4	62
22	FC9T5	450-022-062	4100K (Cool White)	4-Pin	12000	3200	O.D. 9	82
24	PL-L 24W	450-024-010	4100K (Cool White)	2G11	12000	1800	12 11/16 Overall	82
24	T5HO 24W	450-024-012	4100K (Cool White)	Mini Bipin	20000	2000	22 Nominal	85
25	F25T8	450-025-020	4100K (Cool White)	Med. Bipin	20000	2225	36 Overall	85
32	F32T8	450-032-020	4100K (Cool White)	Med. Bipin	20000	2950	48 Nominal	86
36	PL-L 36W	450-036-010	4100K (Cool White)	2G11	12000	2900	16 7/16 Overall	82
36	PL-L 36W	450-036-190	5400K (Daylight)	2G11	12000	1900	16 7/16 Overall	92
39	T5HO 39W	450-039-012	4100K (Cool White)	Mini Bipin	20000	3500	34 Nominal	85
54	T5HO 54W	450-054-012	4100K (Cool White)	Mini Bipin	20000	5000	46 Nominal	85

FC8T9

AR48

PL-18, PL-24, and PL-36

PL-9, PL-13

H-3

F6T5 and F8T5
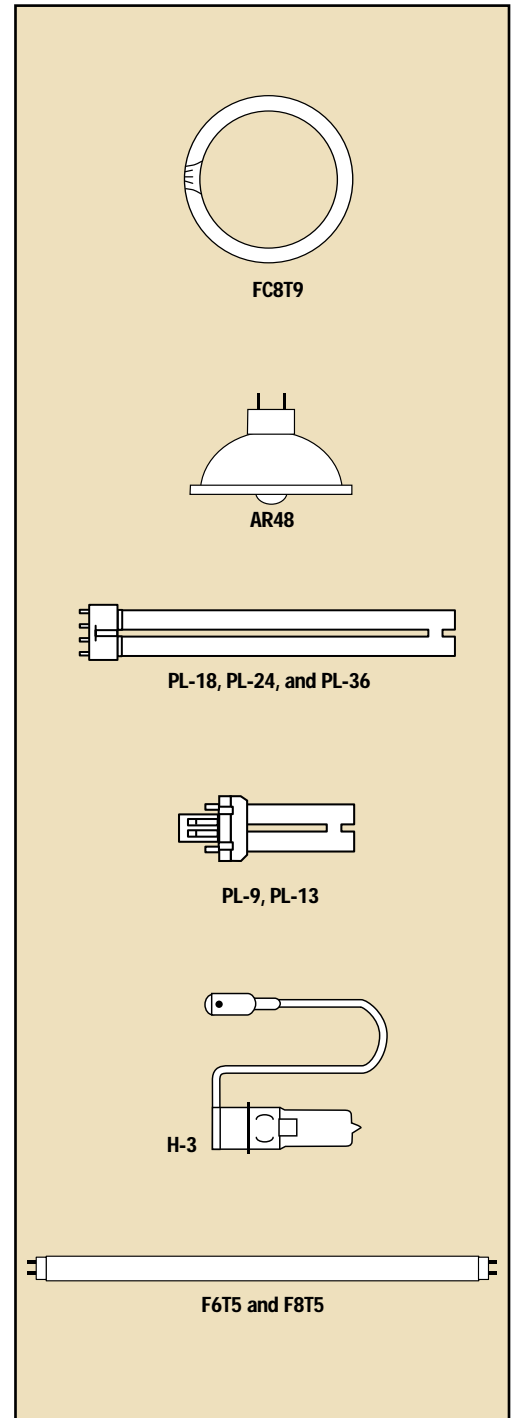
Halogen Lamps

| Watts	Volts	Lamp Type	Catalog #	Color Temp.	Base	Avg. Life Hours	Candle Power	Length (inches)
20	12	Halospot 48	300-581-010	3000K	GY4	2500**	5000	1.42 Overall
20	24	Halospot 48	300-581-020	3000K	GY4	2500**	4500	1.42 Overall
55	12	H-3	450-055-300	3000K	PK22s	3000**	N/A	1.65 Overall
60/70***	24	H-3	450-070-300	3000K	PK22s	3000**	N/A	1.65 Overall
75	12	QT-LP12, GY6.35	320-283-030	3000K	GY6.35	4000	N/A	N/A
75	24	QT-LP12, GY6.35	320-283-060	3000K	GY6.35	4000	N/A	N/A

Note:

Lamp data, dimensions, and type designations may vary by manufacturers.

Average lamp life is set by manufacturers according to industry standards.

*Other color temperature K (Kelvin degrees) are available for most lamps.

** Lamp life at 10% below nominal rated voltage.

***This same lamp is marked 60 or 70 watts by different manufacturers.
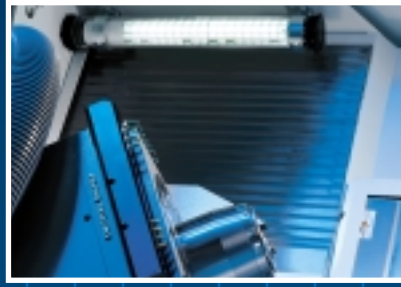
Commitment

Waldmann Lighting Company is a worldwide leading manufacturer of lighting systems and workplace lighting for virtually all industries and applications. Our company produces over 200 standard lighting models and over 2000 special solutions that are adapted for use in all types of working environments.

From robust industrial lighting for machinery and OEM applications, to custom architectural lighting featuring our unique tubular fluorescent series, Waldmann is proud to offer world-class lighting solutions for meeting all your workplace requirements.

At Waldmann, your satisfaction is our most important goal. We thank you for your continued support and acceptance of our products.

Quick Ship Program

As your source for lighting solutions, we believe it is our obligation to fulfill your orders quickly and accurately. Accordingly, we maintain extensive inventories of all our products. In fact, more than 95% of our orders leave our facility within 24 hours of order receipt.

10-Year Warranty

All Waldmann lighting fixtures are warranted against defective materials and workmanship for ten years from the date of purchase. This warranty applies to normal usage and does not apply to any product that has been subject to alteration, abuse, negligence, or use (including voltage and/or current) other than that for which the product was designed. This warranty is limited to replacement, repair, or refund at our option. Ballasts and transformers are warranted up to two years from the date of purchase. Lamps (bulbs or tubes) are not covered by this warranty.

Quality-ISO 9001:2000 Certified

Quality assurance at Waldmann embraces all aspects of design, engineering, material procurement, and production. Our products are subjected to various testing that simulates actual field use. At Waldmann, we utilize a 200% quality control program in which every product is completely checked twice before it leaves the factory.

Waldmann is also an ISO 9001:2000 certified company. For us, this certification is seen not only as a confirmation of our quality standards, but as a challenge for the future as well.

This certification assures us that quality processes and procedures are in place governing Waldmann's product design, development, production, and customer service.

Service

Our lighting specialists will be happy to answer your technical questions, solve a problem, or recommend a solution. Should you require on-site assistance or attention, our Waldmann sales managers and a nationwide network of field sales representatives are ready to help. For any service need, please contact one of our lighting specialists.

Repairs

Waldmann products are built to withstand substantially hard use. However, if you should have an item needing repair, please call our repair department for assistance. Our repair technician will assist you in resolving your problem promptly and economically.

To Place an Order

Please call us at **800-634-0007** or e-mail us at **waldmann@waldmannlighting.com** for the Waldmann representative or distributor nearest you. All of our representatives receive comprehensive training and can handle almost all of your inquiries. However, if you have any technical questions that need further qualification, please call our engineering department at 800-634-0007.

Literature Request

To request our free specialty brochures featuring architectural lighting, medical lighting, industrial lighting, school and dorm room lighting, and office task lighting, please contact us today at: **800-634-0007**, or email us at: **waldmann@waldmannlighting.com.** Visit our web site at: www.waldmannlighting.com to easily download brochure and specification information 24/7.

Waldmann Lighting

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