



## Profile and Wash



**Martin**<sup>®</sup>  
by HARMAN

# MAC 700 on tour with

## Tours

Paul McCartney  
Madonna  
Depeche Mode  
James Blunt  
BB King  
Lee Ann Womack  
Rosanne Cash  
Lyle Lovett  
Beastie Boys  
The Pretenders  
Joe Cocker  
Nine Inch Nails  
Radiohead  
David Gray  
Tracy Chapman  
Tim McGraw and Faith Hill  
Jethro Tull  
The Wiggles  
John Butler Trio

## Theatre

One Flew Over the Cuckoo's Nest, West End  
Lennon, Broadway  
A Dancer's Life, Broadway  
David Copperfield  
Starlight Express  
Chitty Chitty Bang Bang, UK  
Embers, West End  
Aladdin, West End

## Television

Top Of The Pops  
Australian Idol  
Late night with Conan O'Brien  
VH-1 Honors 2006  
Dubai TV Sports Channel  
Wheel of Fortune  
The Karen Taylor Show  
Who Wants to be a Millionaire?

## Events

Xbox 360 Corporate Show  
Scandinavian Music Convention  
NAIAS - Detroit Auto Show  
Coachella Valley Music Festival  
IAAF World Track and Field Championships  
Autosport Awards

# Partners **in** Light

The MAC 700 Series heralds a new era of compact-sized, moving head luminaires from Martin. Powerful, feature-rich and designed for effortless service and customization, the MAC 700 Wash and Profile complement each other in creating the perfect balance of solidly washed colors, stunning spotlight patterns and animation effects.

## A warm welcome

Used on some of the world's biggest and most challenging tours, the MAC 700 has received glowing reviews and gained a chorus of devoted users.

# Light

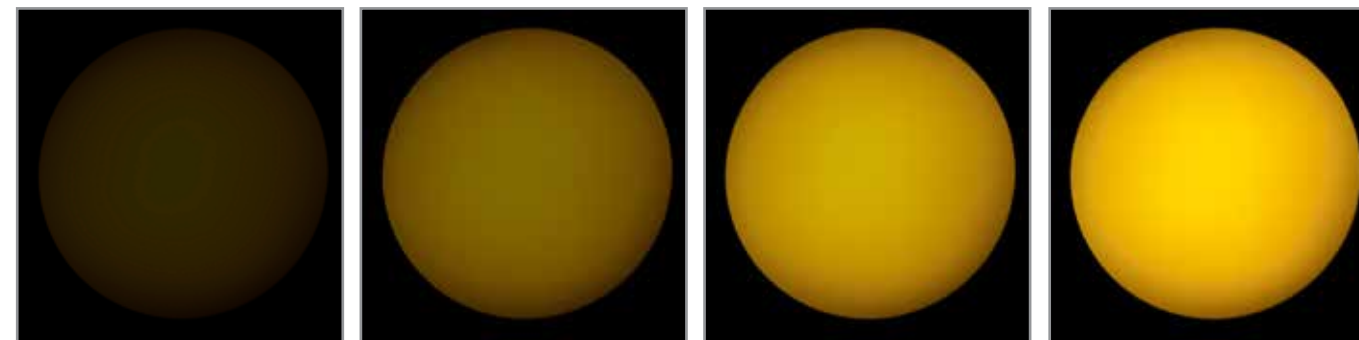
## It's what it's all about.

After all is said and done, a beautifully clean even beam from center to edge is the foundation upon which everything else lies.

We believe we have achieved just this in the MAC 700 Series, creating the ideal balance between optical performance and output, giving an incredibly powerful beam of smooth uniform light.

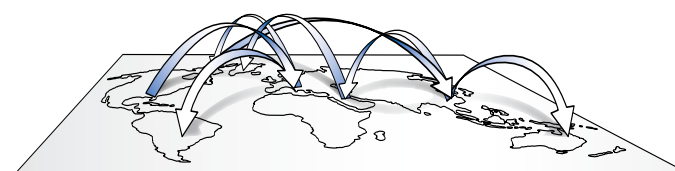
A 700 watt, double-ended, short arc lamp works in harmony with a tremendously efficient reflector and optical system to punch out more light than you are used to seeing in fixtures this compact. The 700 Series' brightness is truly astounding - matching and surpassing the output of higher wattage lamp sources.

## MAC 700 Series



## Dimming and Strobing

An accurate full range dimmer/shutter system allows for both smooth and fast intensity changes, whether it is a long fade, or a snap to blackout. As a shutter, accelerated strobe effects are possible up to 10 Hz.



## Border Proof

An auto-sensing power supply covers worldwide voltages and frequencies allowing the fixtures to operate anywhere in the world.

ON AIR

## Quiet Operation

The MAC 700 Series combines a clever heat management design with head and base temperature sensors to ensure that fan speeds are kept to a minimum bringing noise levels right down to suit theatre and TV studio applications.

## Flicker-Free Light

The PFC electronic ballast provides the fixtures with a flicker-free image making them ideal for television and film work. It also allows the fixtures to run in a reduced power

mode; extending lamp life and further reducing their low noise output. Hot lamp re-strikes are also possible, further ensuring lamp preservation.



## MAC 700 Series

### Tour Proof

The Martin flight case, designed for the MAC family, is recognized in the industry as one of the best purpose-built cases for the transportation of lighting fixtures. Made of durable ply, it is covered in a tough water-repellent coating for added protection.



### Rapid & Precise

540° pan and 246° tilt are achieved through Martin's outstanding pan and tilt motors, drivers and software, which give rapid movement with noticeably less noise than other fixtures on the market.

An intelligent positioning correction system automatically returns the Profile or Wash to their original position should they accidentally be knocked out of place, while a multi position, tilt-lock mechanism is also featured to permit easy maintenance and handling.

### Easy Maintenance

An exceptionally functional modular design allows you fast and easy, tool-free access to critical components, reducing maintenance periods and saving time and money. A focus on product efficiency also means the MAC 700 Series has strong standardized modules and parts, simplifying logistics and lowering stock investment.



### Multi-Lingual

The MAC 700 Series is DMX512-controllable, equipped with both 3-pin and 5-pin XLR in/out sockets, and is totally compatible with coming standards such as Remote Device Management.

### Seamless CMY Color Mixing

A CMY color-mixing system mixes colors instantly and accurately. The system employs six, coated dichroic flags providing a full spectrum of fantastic rich colors. Mechanically short distances make for extremely fast color bumps while the award-winning optical design of the MAC family ensures smooth, even light and color distribution.

### Eight Position Color Wheel

As well as the CMY color mixing system the MAC 700s feature a separate color wheel with eight slots plus open. Color selections may be changed quickly and easily, offering a seemingly limitless array of color combinations. In the 700 Series the color slots can also be used for color correction filters to further harmonize fixtures.

# Animate your show

**When Martin decided in 2002 to see what would happen if they took the animation system from a traditional theatrical luminaire and placed it in the MAC 2000 Performance, they had no idea of the revolution it would unleash on the lighting industry.**

The new animation feature - originally intended to benefit mainly theatrical productions - quickly flourished in every application of light, and the industry never looked back.

From this kernel of innovation grew an industry standard that Martin has perfected, and today you can find a world of animated possibilities in even

one of our most compact yet powerful fixtures - the MAC 700 Profile.

Flowing water, clouded skies and flickering flames add depth and dimension like no gobo can. Fully DMX controlled, the system comes complete with one animation wheel, with further wheels available to expand your library. Each wheel is quickly changed via a magnetic coupling without the use of tools.



Spirit - The Seventh Fire, photo: Simon Alexander

## MAC 700 Profile



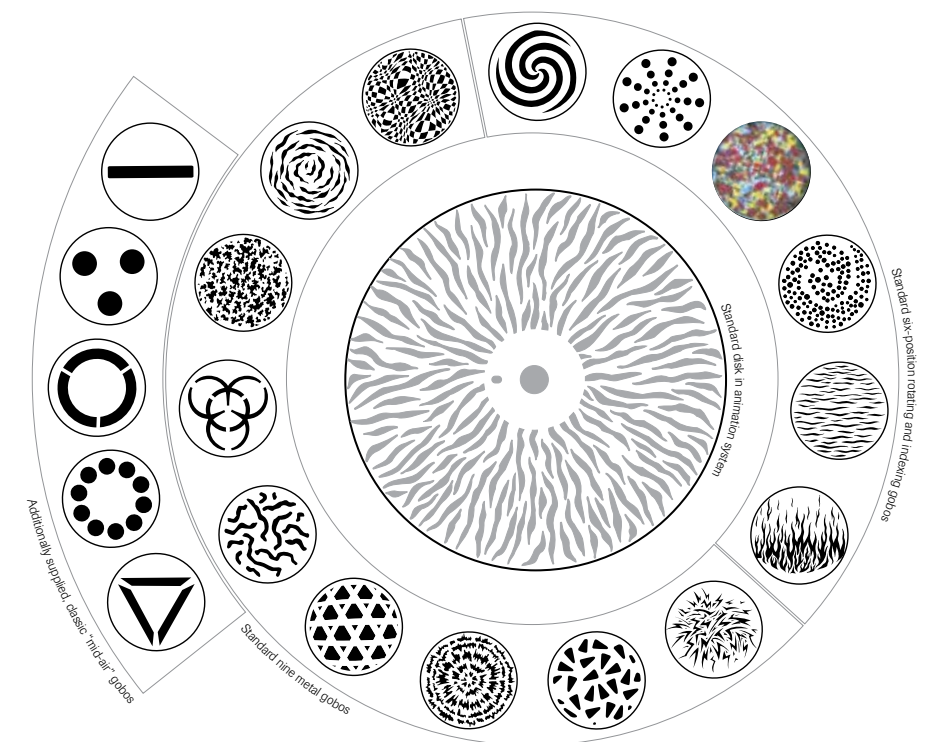
### Motorized Zoom and Focus

A variable motorized zoom allows full control over the beam angle of the MAC 700 Profile. Without restrictions or lens changes the fixture zooms continuously from 14 to 30 degrees. A variable focus system allows you to adjust the sharpness of your projection at any beam angle, whether you need a razor sharp image or a de-focused background effect.

### Gobos

Glass, textured glass or metal gobos fit within a six-position rotating and indexing gobo wheel (plus open). Nine metal gobos make up a second static gobo wheel (plus open).

The combination of two gobo wheels easily allows for advanced morphing effects adding a huge range of graphical possibilities. The gobo system permits 16-bit control for extreme accuracy with all gobos easily interchangeable, removing any obstacle to your creativity.



### Prism and Iris

A bi-directional, 3-facet prism rotates at variable speeds, adding unique effects to gobo projection. The prism can also be replaced giving lighting professionals further options for customization.

A motorized iris allows you to resize the beam quickly and accurately for fast effects with smaller beam sizes.



MAC 700 Profile Specifications

PHYSICAL

Length: 450 mm (17.7 in.)  
Width: 365 mm (14.4 in.)  
Height (head straight up): 636 mm (25.0 in.)  
Weight: 34.5 kg (76.1 lbs.)

LAMP

Type: 700 W short arc discharge  
Approved lamp: OSRAM HTI 700/D4/75  
Hot restrike: Yes  
Socket: Double-ended SFc 10-4 with key  
Ballast: Electronic

DYNAMIC EFFECTS

Color mixing: CMY, independently variable 0 - 100%, 8- or 16-bit control  
Color wheel: 8 replaceable dichroic filters (6 colors and 2 CTC) plus open, 8- or 16-bit control  
Rotating gobo wheel: 6 positions plus open, indexed and variable speed continuous gobo rotation, 16-bit control  
Static gobo wheel: 9 positions plus open, 8-bit control  
Gobo animation wheel effects: Vertical, horizontal or angled animation effects  
Gobo animation wheel rotation: Indexed and variable speed continuous rotation, 8- or 16-bit control  
Prism: Replaceable, high speed rotating 3-facet prism, 8-bit control  
Iris: 8- or 16-bit control  
Dimmer: 0 - 100%, 8- or 16-bit control  
Shutter: Strobe effect variable 2 - 10 Hz, 8-bit control  
Focus: 2 m (6.6 ft.) to infinity, 8- or 16-bit control  
Zoom: 2.1:1 (14° - 30°), 8- or 16-bit control  
Pan: 540°, 8- and 16-bit control  
Tilt: 246°, 8- and 16-bit control  
Position correction system: Yes

GOBOS

Outside diameter: 27.9 mm (1.1 in.) +/- 0.3 mm (0.01 in.)  
Maximum image diameter: 23 mm (0.9 in.)  
Maximum thickness: 1.1 mm (0.04 in.) in static slots, 4 mm (0.2 in.) in rotating slots  
Recommended glass: High-temperature Borofloat or better with dichroic or enhanced aluminum coating  
Recommended metal: 0.5 mm (0.02 in.) aluminum

GOBO ANIMATION WHEEL

Outside diameter: 116 mm (4.6 in.) +/- 0.25 mm (0.01 in.)  
Image outer diameter: 112 mm (4.4 in.)  
Image inner diameter: 32 mm (1.3 in.)  
Construction: 0.5 mm (0.02 in.) aluminum, magnetic mounting

CONTROL AND PROGRAMMING

DMX channels: 23 (16-bit basic mode) or 31 (16-bit extended mode)  
Setting and addressing: Control panel with LED display, MP-2 uploader  
Movement control options: Tracking and/or vector  
Receiver: Opto-isolated RS-485  
Protocol: USITT DMX 512 (1990)  
Firmware update: Serial upload (MUF)

OPTICS

Reflector: Glass cold light  
One-tenth peak output (max.): 14700 lumens at 30°  
One-tenth peak angle: 14° - 30° (focused on open gobo)  
Focal length: 46 mm (1.8 in.) - 100 mm (3.9 in.)

CONSTRUCTION

Color: Black  
Housing: UV-resistant fiber-reinforced composite  
Chassis: Steel & aluminum, shock resistant design  
Handling: Ergonomic carrying handles  
Protection factor: IP 20



INSTALLATION

Mounting points: 2 pairs of 1/4-turn locks  
Minimum distance to illuminated surfaces: 1.2 m (3.9 ft.)  
Minimum distance to combustible materials: 0.5 m (1.6 ft.)  
Orientation: Any

ELECTRICAL

Operating range: 100-120/208-240 V nominal, 50/60 Hz  
Power supply: Auto-ranging electronic switch-mode  
Main fuse (100-120 V power): 15 AT (slow blow)  
Main fuse (208-240 V power): 6.3 AT (slow blow)

THERMAL

Maximum ambient temperature (Ta): 40° C (104° F)  
Maximum surface temperature, steady state, Ta=40° C (104°F): 160° C (320° F)  
Cooling: Filtered forced air (temperature regulated, low noise)  
Total heat dissipation (calculated, 110 V, 60 Hz / 230 V, 50 Hz): 3340 BTU/hr / 3190 BTU/hr

APPROVALS

EU safety: EN 60598-1, EN 60598-2-17  
EU EMC: EN 55 015, EN 55 103-1, EN 61 547  
US safety: ANSI/UL 1573  
Canadian safety: CSA C22.2 No. 166

INCLUDED ITEMS

|                                                             |              |
|-------------------------------------------------------------|--------------|
| Osram HTI 700/D4/75 lamp:                                   | P/N 97010212 |
| 6 dichroic color filters (installed)                        |              |
| 9500 K CTC filter (installed)                               |              |
| UV transmitter filter (installed)                           |              |
| 6.3 AT main fuse                                            | P/N 05020020 |
| 15 AT main fuse                                             | P/N 05020027 |
| Two Omega clamp attachment brackets with 1/4 turn fasteners | P/N 91602001 |
| User manual                                                 | P/N 35000185 |

ACCESSORIES

|                                              |              |
|----------------------------------------------|--------------|
| Spiral breakup animation wheel               | P/N 62325049 |
| Linear breakup gobo animation wheel          | P/N 62325050 |
| Coarse tangential gobo animation wheel       | P/N 62325051 |
| Cloud breakup gobo animation wheel           | P/N 62325094 |
| Elliptical breakup gobo animation wheel      | P/N 62325095 |
| Half-coupler clamp                           | P/N 91602005 |
| G-clamp                                      | P/N 91602003 |
| DABS 1 PC/fixture interface device           | P/N 91611144 |
| MP-2 Uploader                                | P/N 90758420 |
| Safety wire, universal, 50 kg safe work load | P/N 91604003 |

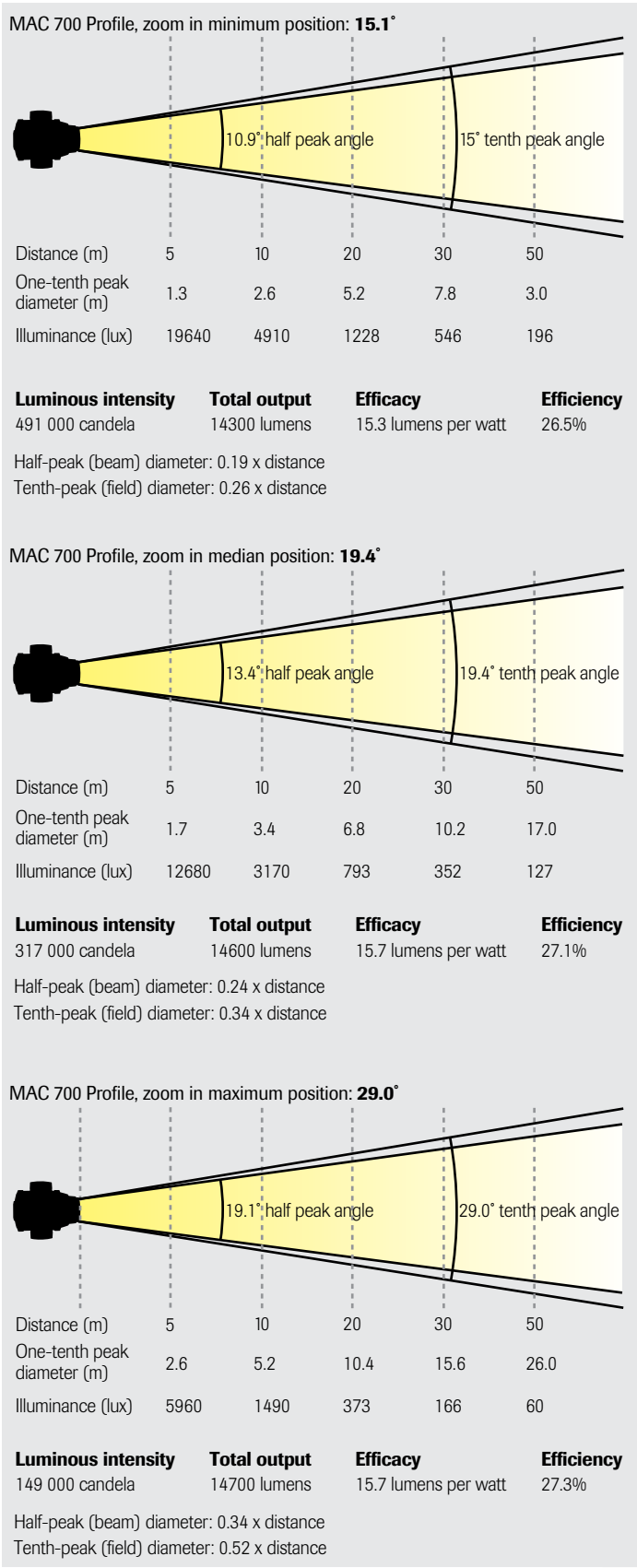
ORDERING INFORMATION

|                                           |              |
|-------------------------------------------|--------------|
| MAC 700 Profile in cardboard packing case | P/N 90207000 |
| MAC 700 Profile in flight case            | P/N 90207001 |

Specifications are subject to change without notice. Consult [www.martin.com/service](http://www.martin.com/service) for further documentation.

MAC 700 Profile Photometric Data

Test lamp: **Osram HTI/700 W/D4**  
Test conditions: 230 V/50 Hz, no effects applied  
Rated color temperature: 7500 K  
Rated output: 54000 lumens



MAC 700 Profile

Photometric data is available from [www.martin.com/service](http://www.martin.com/service)



# The lightest touch

## Soft Edge Beam

The MAC 700 Wash has soft, uniform beam edges and an even light and color output.

This gives a smooth distribution across projected surfaces allowing seamless overlaps of beams for large stage and set areas.



## MAC 700 Wash

### Indexing & Rotating Beam Shaper

The beam shaping system dynamically changes the round light beam into a rotating, elliptical form for accurate beam placement on façades, stages and objects.

The beam can be indexed through 360 degrees for total precision while the continuous rotation also creates an arresting mid-air effect.



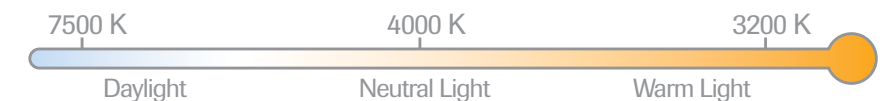
Projection from 3 meters



Projection from 3 meters with beam shaper system.

### Variable Color Temperature

Provides flexibility in color temperature and gives warmer and more saturated shades of colors. This is also a major benefit when calibrating fixtures with a disparity in lamp age and therefore actual color output. It is additionally useful in matching color temperatures when working alongside tungsten fixtures or in theatre and television applications. The range with a HTI lamp is 7500 to 3200K.



### Motorized Zoom

A variable motorized zoom allows for full control over the beam angle of the MAC 700 Wash. Without restrictions or lens changes, the fixture zooms continuously from a slender 12.5 to a broad 66 degrees (tenth peak angles). Much effort has been put into ensuring that the beam maintains a smooth and even form at every step along the zoom range.



MAC 700 Wash  
Specifications



PHYSICAL

Length: 450 mm (17.7 in.)  
Width: 365 mm (14.4 in.)  
Height (head straight up): 656 mm (25.8 in.)  
Weight: 32 kg (70.5 lbs.)

LAMP

Type: 700 W short arc discharge  
Approved lamp: OSRAM HTI 700/D4/75  
Hot restrike: Yes  
Socket: Double-ended SFc 10-4 with key  
Ballast: Electronic

DYNAMIC EFFECTS

Color mixing: CMY, independently variable 0 - 100%, 8- or 16-bit control  
Color wheel: Color wheel: 8 replaceable filters (6 colors, 9500 K CTC and UV transmitter) plus open, 8- or 16-bit control  
Color temperature control: 7500 - 3200 K variable 0 - 100%, 8- or 16-bit control  
Beam shaper: Indexable and variable speed continuous rotation  
Dimmer: 0 - 100%, 8- or 16-bit control  
Shutter: Strobe effect variable 2 - 10 Hz, 8-bit control  
Zoom: 5:1 (12.5°- 66°), 8- or 16-bit control  
Pan: 540°, 8- and 16-bit control  
Tilt: 246°, 8- and 16-bit control  
Position correction system: Yes

CONTROL AND PROGRAMMING

DMX channels: 16 (16-bit basic mode) or 23 (16-bit extended mode)  
Setting and addressing: Control panel with LED display, MP-2 uploader  
Movement control options: Tracking and/or vector  
Receiver: Opto-isolated RS-485  
Protocol: USITT DMX 512 (1990)  
Firmware update: Serial upload (MUF)

OPTICS

Reflector: Glass cold light  
One-tenth peak output (max.): 17000 lumens at 50°  
One-tenth peak angle: 12.5° - 66°

CONSTRUCTION

Color: Black  
Housing: UV-resistant fiber-reinforced composite  
Chassis: Steel & aluminum, shock resistant design  
Handling: Ergonomic carrying handles  
Protection factor: IP 20

INSTALLATION

Mounting points: 2 pairs of 1/4-turn locks  
Minimum distance to illuminated surfaces: 1.2 m (3.9 ft.)  
Minimum distance to combustible materials: 0.5 m (1.6 ft.)  
Orientation: Any

ELECTRICAL

Operating range: 100-120/208-240 V nominal, 50/60 Hz  
Power supply: Auto-ranging electronic switch-mode  
Main fuse (100-120 V power): 15 AT (slow blow)  
Main fuse (208-240 V power): 6.3 AT (slow blow)

THERMAL

Maximum ambient temperature (Ta): 40° C (104° F)  
Maximum surface temperature, steady state, Ta=40° C (104°F): 160° C (320° F)  
Cooling: Filtered forced air (temperature regulated, low noise)  
Total heat dissipation (calculated, 110 V, 60 Hz / 230 V, 50 Hz):  
3340 BTU/hr / 3190 BTU/hr

APPROVALS

EU safety: EN 60598-1, EN 60598-2-17  
EU EMC: EN 55 015, EN 55 103, EN 61 000-3  
US safety: ANSI/UL 1573  
Canadian safety: CSA C22.2 No. 166

INCLUDED ITEMS

|                                                             |              |
|-------------------------------------------------------------|--------------|
| Osram HTI 700/D4/75 lamp:                                   | P/N 97010212 |
| 6 dichroic color filters (installed)                        |              |
| 9500 K CTC filter (installed)                               |              |
| UV transmitter filter (installed)                           |              |
| 6.3 AT main fuse                                            | P/N 05020020 |
| 15 AT main fuse                                             | P/N 05020027 |
| Two Omega clamp attachment brackets with 1/4 turn fasteners | P/N 91602001 |
| User manual                                                 | P/N 35000185 |

ACCESSORIES

|                                              |              |
|----------------------------------------------|--------------|
| Half-coupler clamp                           | P/N 91602005 |
| G-clamp                                      | P/N 91602003 |
| DABS 1 PC/fixture interface device           | P/N 91611144 |
| MP-2 Uploader                                | P/N 90758420 |
| Safety wire, universal, 50 kg safe work load | P/N 91604003 |

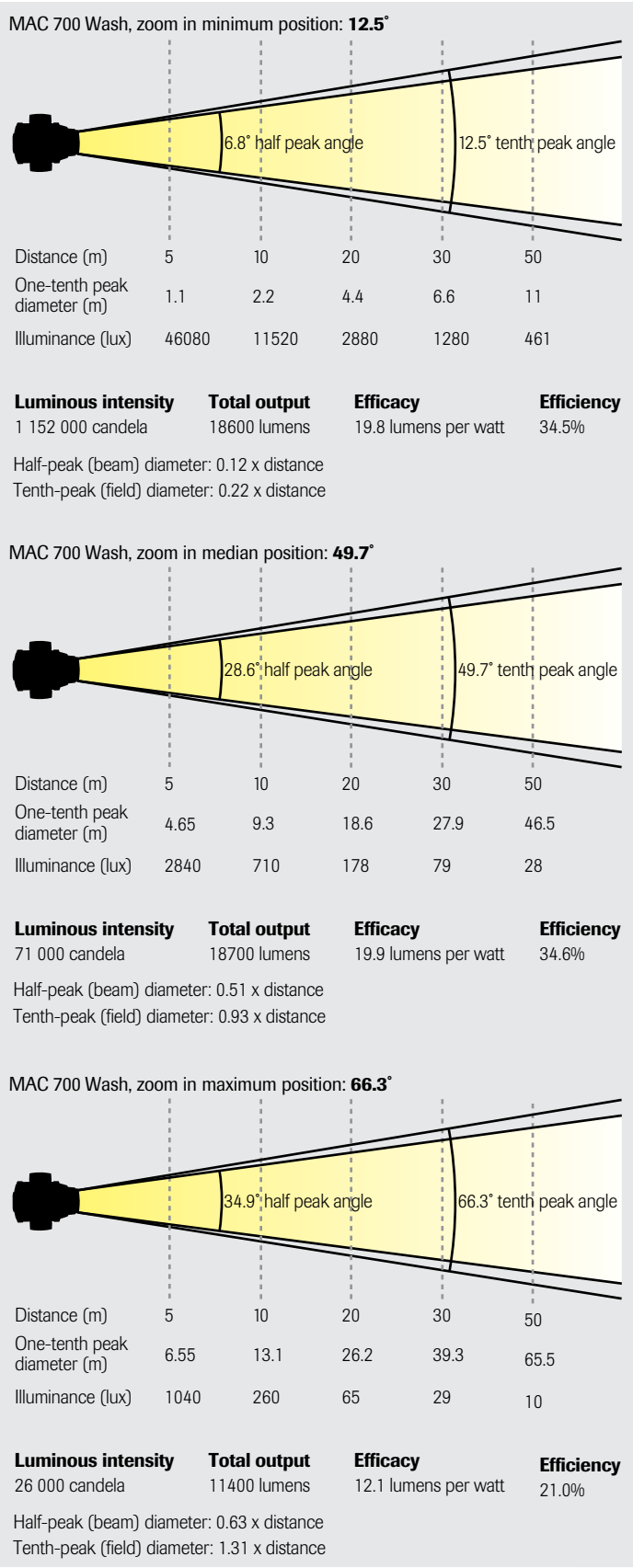
ORDERING INFORMATION

|                                        |              |
|----------------------------------------|--------------|
| MAC 700 Wash in cardboard packing case | P/N 90207400 |
| MAC 700 Wash in flight case            | P/N 90207401 |

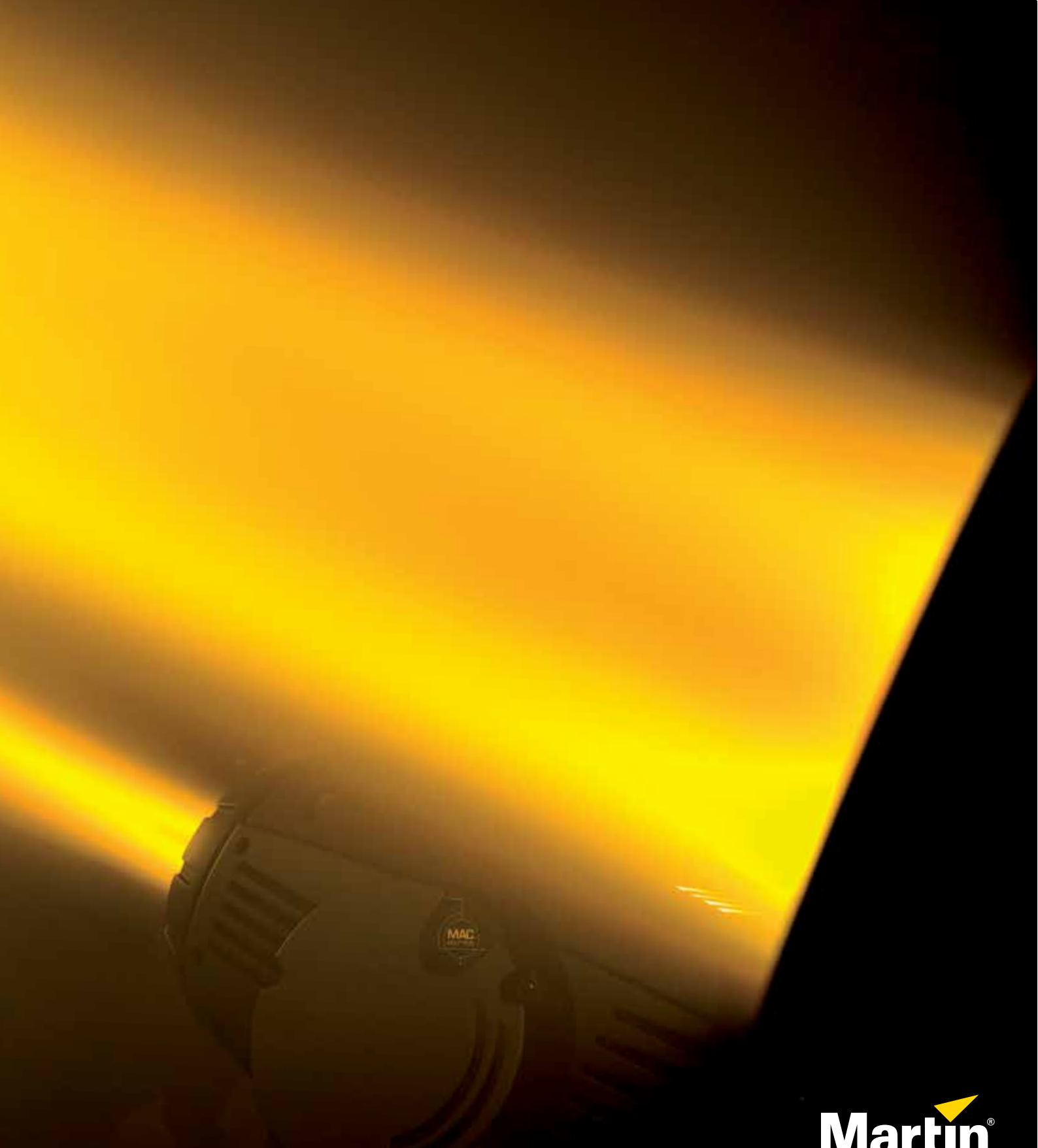
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MAC 700 Wash  
Photometric Data, Zoom

Test lamp: **Osram HTI/700 W/D4**  
Test conditions: 230 V/50 Hz, no effects applied  
Rated color temperature: 7500 K  
Rated output: 54000 lumens



Photometric data is available  
from [www.martin.com/service](http://www.martin.com/service)



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#### **About Martin by Harman**

As a world leader in the creation of dynamic lighting solutions for the entertainment, architectural, and commercial sectors, Martin lighting and video systems are renowned the world over. Martin also offers a range of advanced lighting controllers and media servers, as well as a complete line of smoke machines as a complement to intelligent lighting. Martin operates the industry's most complete and capable distributor network with local partners in nearly 100 countries. Founded in 1987 and based in Aarhus, Denmark, Martin is the lighting division of global infotainment and audio company HARMAN International Industries.

For more information please visit



**HARMAN** ([www.HARMAN.com](http://www.HARMAN.com)) designs, manufactures and markets a wide range of audio and infotainment solutions for the automotive, consumer and professional markets – supported by 15 leading brands, including AKG®, Harman Kardon®, Infinity®, JBL®, Lexicon® and Mark Levinson®. The Company is admired by audiophiles across multiple generations and supports leading professional entertainers and the venues where they perform. More than 25 million automobiles on the road today are equipped with HARMAN audio and infotainment systems. HARMAN's highly competent workforce is employed across the Americas, Europe and Asia.