

Profile and Wash



**Martin**

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.

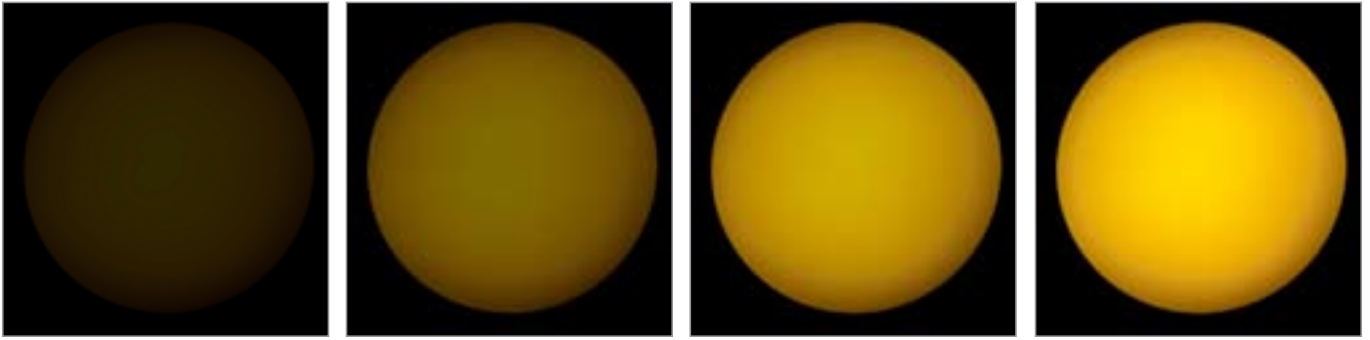
Light

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.

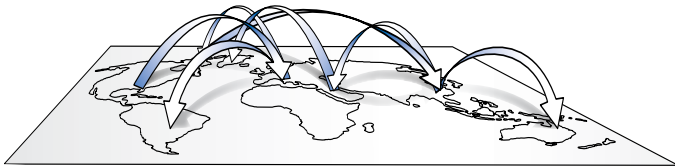
We believe we have achieved just this in the MAC 700 Series, creating the ideal balance between optical performance and output, giving an incredibly powerful beam of smooth uniform light.

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.



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.



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.



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.



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.



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.





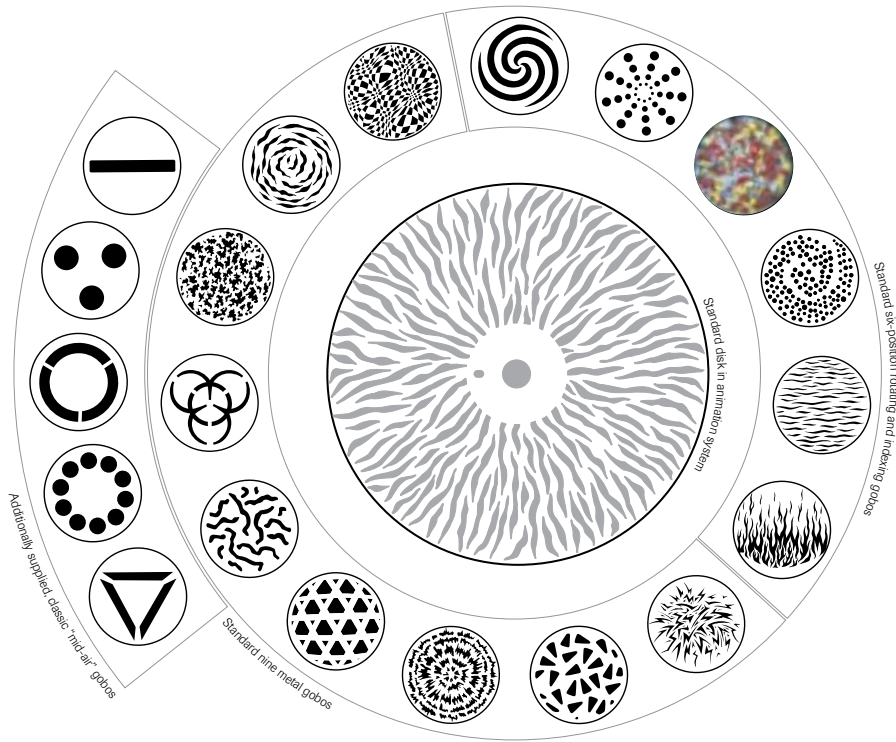
Motorized Zoom and Focus

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/- 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/- 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

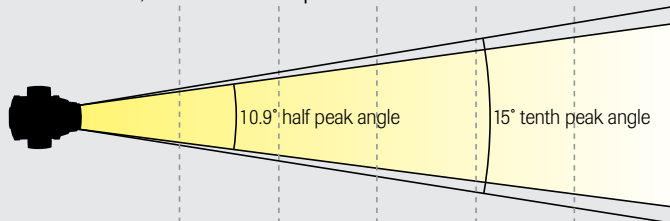
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|---|--------------|
| MAC 700 Profile in cardboard packing case | P/N 90207000 |
| MAC 700 Profile in flight case | P/N 90207001 |

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, zoom in minimum position: **15.1°**

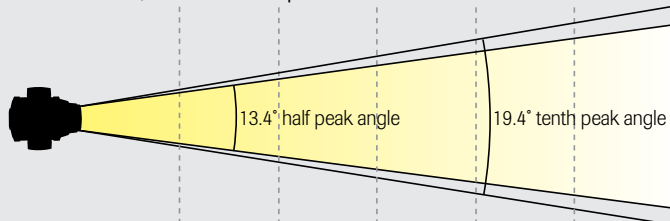


| | | | | | |
|-----------------------------|-------|------|------|-----|-----|
| Distance (m) | 5 | 10 | 20 | 30 | 50 |
| One-tenth peak diameter (m) | 1.3 | 2.6 | 5.2 | 7.8 | 3.0 |
| Illuminance (lux) | 19640 | 4910 | 1228 | 546 | 196 |

| | | | |
|---------------------------|---------------------|----------------------|-------------------|
| Luminous intensity | Total output | Efficacy | Efficiency |
| 491 000 candela | 14300 lumens | 15.3 lumens per watt | 26.5% |

Half-peak (beam) diameter: 0.19 x distance
 Tenth-peak (field) diameter: 0.26 x distance

MAC 700 Profile, zoom in median position: **19.4°**

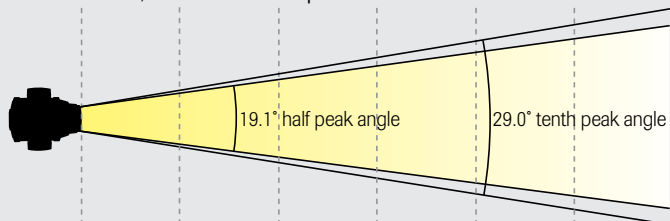


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|-----------------------------|-------|------|-----|------|------|
| Distance (m) | 5 | 10 | 20 | 30 | 50 |
| One-tenth peak diameter (m) | 1.7 | 3.4 | 6.8 | 10.2 | 17.0 |
| Illuminance (lux) | 12680 | 3170 | 793 | 352 | 127 |

| | | | |
|---------------------------|---------------------|----------------------|-------------------|
| Luminous intensity | Total output | Efficacy | Efficiency |
| 317 000 candela | 14600 lumens | 15.7 lumens per watt | 27.1% |

Half-peak (beam) diameter: 0.24 x distance
 Tenth-peak (field) diameter: 0.34 x distance

MAC 700 Profile, zoom in maximum position: **29.0°**



| | | | | | |
|-----------------------------|------|------|------|------|------|
| Distance (m) | 5 | 10 | 20 | 30 | 50 |
| One-tenth peak diameter (m) | 2.6 | 5.2 | 10.4 | 15.6 | 26.0 |
| Illuminance (lux) | 5960 | 1490 | 373 | 166 | 60 |

| | | | |
|---------------------------|---------------------|----------------------|-------------------|
| Luminous intensity | Total output | Efficacy | Efficiency |
| 149 000 candela | 14700 lumens | 15.7 lumens per watt | 27.3% |

Half-peak (beam) diameter: 0.34 x distance
 Tenth-peak (field) diameter: 0.52 x distance



Photometric data is available from 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.



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.



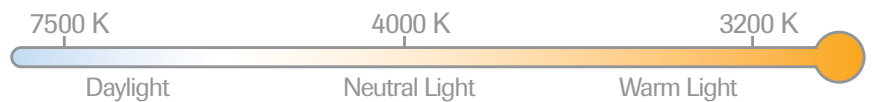
Projection from 3 meters



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

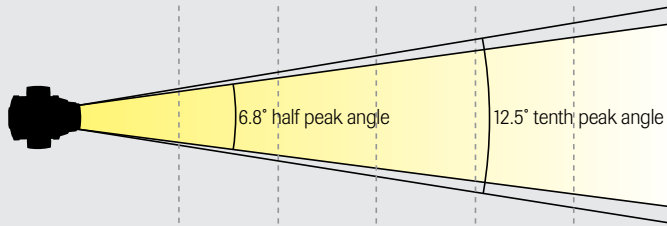
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|--|--------------|
| MAC 700 Wash in cardboard packing case | P/N 90207400 |
| MAC 700 Wash in flight case | P/N 90207401 |

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

MAC 700 Wash, zoom in minimum position: **12.5°**



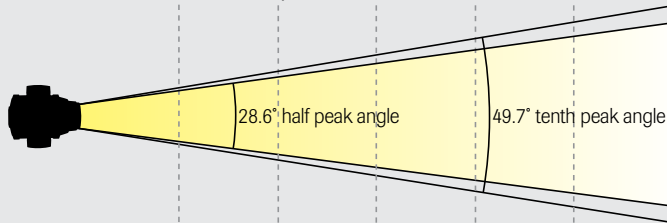
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|-----------------------------|-------|-------|------|------|-----|
| Distance (m) | 5 | 10 | 20 | 30 | 50 |
| One-tenth peak diameter (m) | 1.1 | 2.2 | 4.4 | 6.6 | 11 |
| Illuminance (lux) | 46080 | 11520 | 2880 | 1280 | 461 |

| Luminous intensity | Total output | Efficacy | Efficiency |
|--------------------|--------------|----------------------|------------|
| 1 152 000 candela | 18600 lumens | 19.8 lumens per watt | 34.5% |

Half-peak (beam) diameter: 0.12 x distance

Tenth-peak (field) diameter: 0.22 x distance

MAC 700 Wash, zoom in median position: **49.7°**



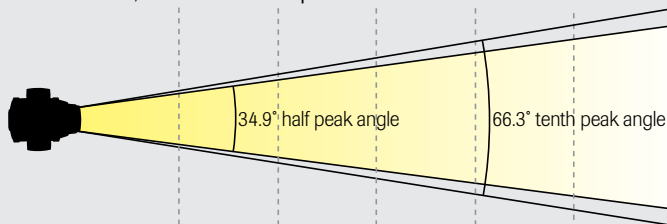
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|-----------------------------|------|-----|------|------|------|
| Distance (m) | 5 | 10 | 20 | 30 | 50 |
| One-tenth peak diameter (m) | 4.65 | 9.3 | 18.6 | 27.9 | 46.5 |
| Illuminance (lux) | 2840 | 710 | 178 | 79 | 28 |

| Luminous intensity | Total output | Efficacy | Efficiency |
|--------------------|--------------|----------------------|------------|
| 71 000 candela | 18700 lumens | 19.9 lumens per watt | 34.6% |

Half-peak (beam) diameter: 0.51 x distance

Tenth-peak (field) diameter: 0.93 x distance

MAC 700 Wash, zoom in maximum position: **66.3°**



| | | | | | |
|-----------------------------|------|------|------|------|------|
| Distance (m) | 5 | 10 | 20 | 30 | 50 |
| One-tenth peak diameter (m) | 6.55 | 13.1 | 26.2 | 39.3 | 65.5 |
| Illuminance (lux) | 1040 | 260 | 65 | 29 | 10 |

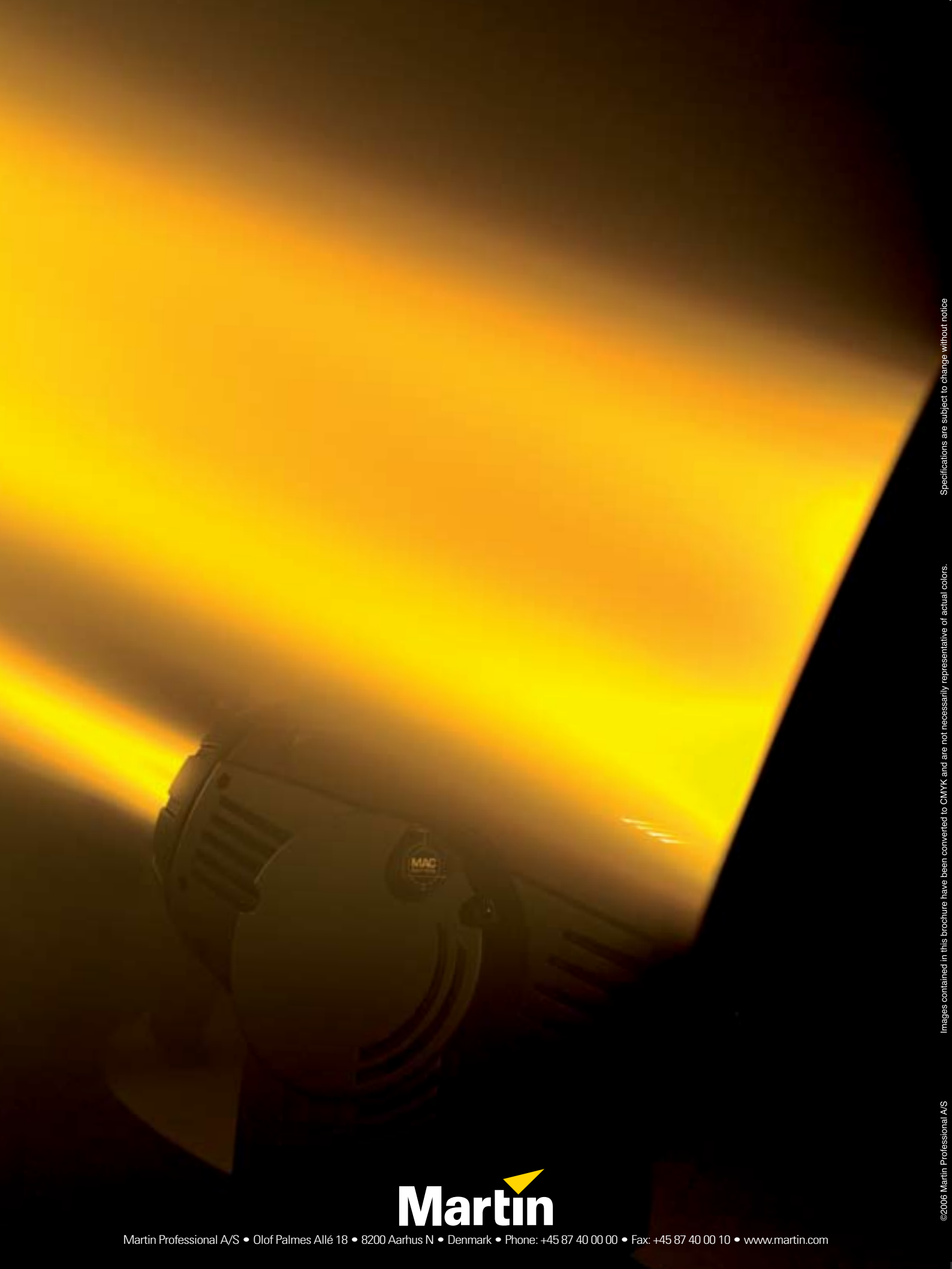
| Luminous intensity | Total output | Efficacy | Efficiency |
|--------------------|--------------|----------------------|------------|
| 26 000 candela | 11400 lumens | 12.1 lumens per watt | 21.0% |

Half-peak (beam) diameter: 0.63 x distance

Tenth-peak (field) diameter: 1.31 x distance

Photometric data is available from www.martin.com/service





Martin

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Specifications are subject to change without notice

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