

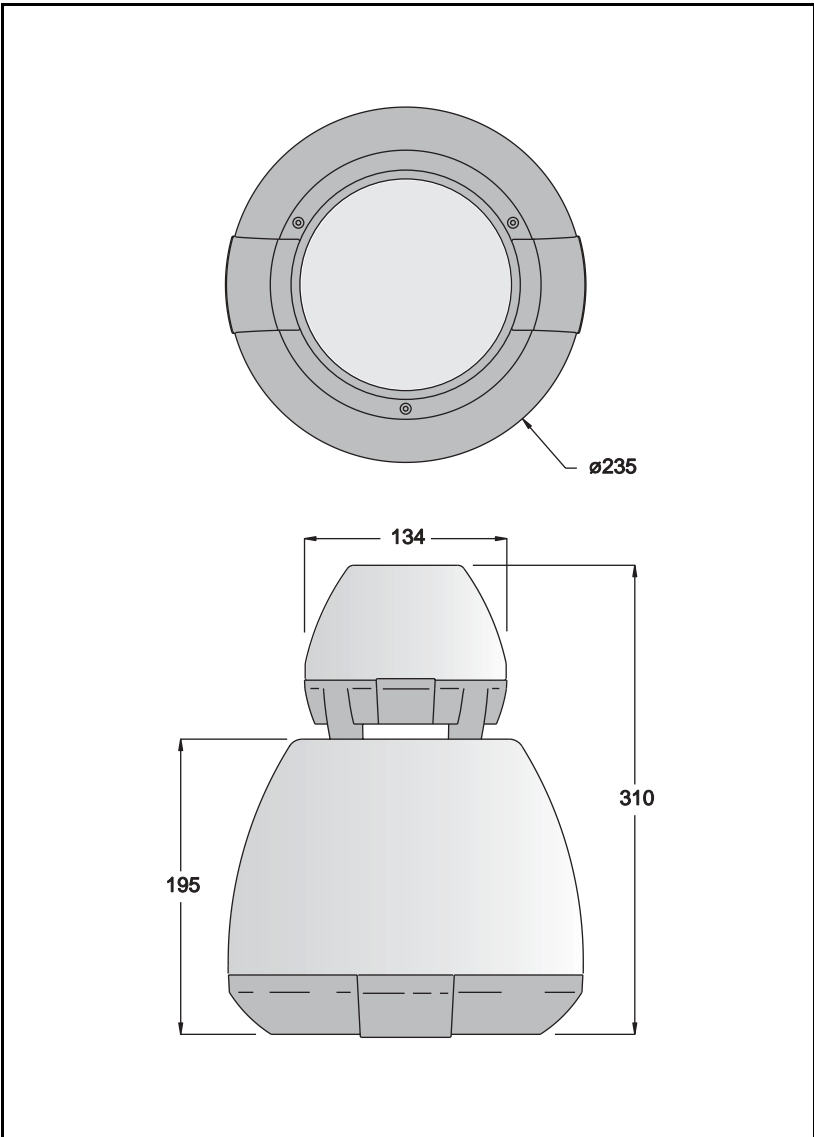
Alien 02 Spot

user manual



Alien 02 Series

Measurements are in millimeters



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INTRODUCTION

Thank you for selecting the Martin Alien 02 Spot. The Alien 02 Spot is an automated 150-watt color-changing medium-throw light designed for fixed interior installation. It features seamless CMY color mixing and full-range continuous dimming. The fixture may be operated with DMX control devices.

The Alien 02 product range is made up of a number of luminaires and accessories:

- Alien 02 Spot - a pedestal or arm mounted luminaire
- Alien 02 Pendant - a ceiling hung luminaire
- 150W Single Base - provides power and intelligent control functions to a single Alien 02 luminaire
- Mounting arms of varying lengths for the Alien 02 Spot
- Cable extension kits for extending the distance between the Alien 02 Spot and a 150W Single Base
- 36° fresnel lens kit
- 90° x 70° beam shaper lens kit
- Micro lens diffuser kit
- Barn doors

SAFETY INFORMATION

Warning! *This product is for professional use only. It is not for household use.*

This product presents risks of lethal or severe injury due to fire and heat, electric shock, ultraviolet radiation, lamp explosion, and falls. **Read this manual** before powering or installing the fixture, follow the safety precautions listed below and observe all warnings in this manual and on the fixture. If you have questions about how to operate the fixture safely, please contact your Martin dealer or call the Martin 24-hour service hotline at +45 70 200 201.

Protection from electric shock

- Disconnect the fixture from AC power before removing or installing the lamp, fuses, or any part, and when not in use.
- Always ground (earth) the fixture electrically.

- Use only a source of AC power that complies with local building and electrical codes and has both overload and ground-fault protection.
- Do not expose the fixture to rain or moisture.
- Refer all service to a Martin service technician.

Protection from UV radiation and lamp explosion

- Never operate the fixture with missing or damaged lenses and/or covers.
- When replacing the lamp, allow the fixture to cool for at least 5 minutes before opening the fixture or removing the lamp. Protect your hands and eyes with gloves and safety glasses.
- Do not stare directly into the light. Never look at an exposed lamp while it is lit.
- Replace the lamp if it becomes defective or worn out.

Protection from burns and fire

- Never attempt to bypass the thermostatic switch or fuses. Always replace defective fuses with ones of the specified type and rating.
- Keep all combustible materials (for example fabric, wood, paper) at least 1 meters (39 inches) away from the Alien 02 Spot luminaire.
- Do not illuminate surfaces within 0.5 meters (20 inches) of the fixture.
- Provide a minimum clearance of 0.1 meters (4 inches) around fans and air vents.
- Never place filters or other materials over the lens.
- The exterior of the fixture can reach temperatures up to 55° C (194° F) at room temperature (25° C / 77° F). Allow the fixture to cool before handling.
- Do not modify the fixture or install other than genuine Martin parts.
- Do not operate the fixture if the ambient temperature (Ta) exceeds 40° C (104° F).

Protection from injury due to falls

- When suspending the fixture above ground level, verify that the structure can hold at least 10 times the weight of all installed devices.
- Verify that all external covers and rigging hardware are securely fastened
- Block access below the work area whenever installing or removing the fixture.

This section describes in general terms how to mount the fixture and connect it to data and power. These procedures shall be performed by qualified professionals.

UNPACKING

The Alien 02 Spot comes with the following items:

- Philips CDM-SA/T 150 W discharge lamp (installed)
- User manual

FIXTURE ORIENTATION AND LOCATION

The Alien 02 Spot is designed to be attached to a Mounting Arm. These are available in varying lengths. This mounting arm may be used as a pedestal, mounted on a wall, or from a ceiling and shall be attached to a surface using 6 mm (1/4 in.) mounting hardware (not supplied).

Note that the cables that connect the Alien 02 Spot to the 150W Single Base are 1 metre long. If the distance between the two fixtures is to be greater you can order a cable extension kit to extend the distance up to a total of 16 metres. Keep these relative distances in mind when positioning your fixtures.

Do not locate the Alien 02 Spot luminaire in an unventilated space. Install the fixture in a location where it is:

- at least 0.5 meters (20 inches) away from the surface to be illuminated,
- at least 1 meter away from any combustible materials, and
- away from accidental public contact.

Attaching a mounting arm

Note that all the measurements in the diagrams in this section are in expressed in millimeters (mm).

Pre-requisites

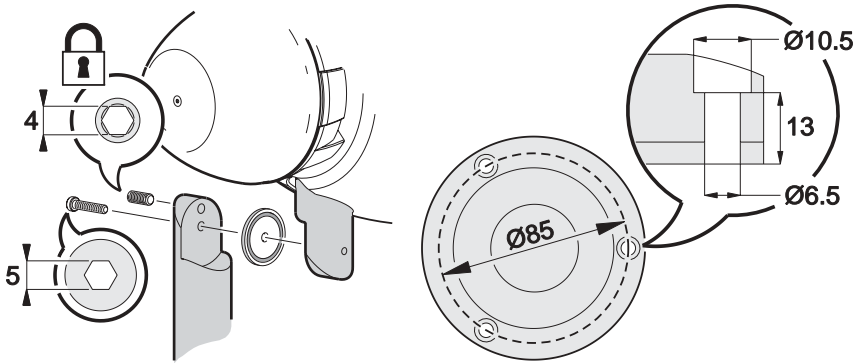
To attach the mounting arm to:

- The Alien 02 Spot luminaire you need 4 mm and 5 mm hex wrenches.
- A surface you need 3 units of M6 mounting hardware appropriate to the mounting surface and the weight of the fixture, and associated tools to install the hardware.

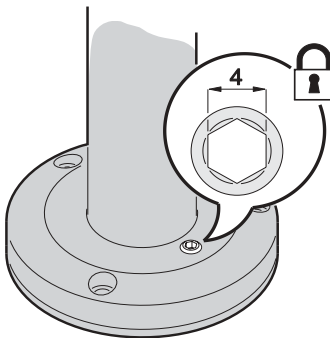
Installation

Note that these steps need not necessarily be performed in this order. You may find it easier to attach the mounting arm to the mounting surface before attaching the Alien 02 Spot luminaire.

- 1 Attach the Alien 02 Spot to the mounting arm using the supplied hardware and 4 mm and 5 mm hex wrenches. Do not over tighten the 4 mm locking bolt until the fixture is installed and pointing in the appropriate direction.



- 2 Attach the base of the arm to the required surface using M6 mounting hardware that is appropriate to the mounting surface and to the weight of the fixture.
- 3 Adjust the vertical and horizontal angles of the spot so that it is pointing in the correct direction. Tighten the 4 mm locking screws on the top of the arm (see the first illustration above) and on the base.



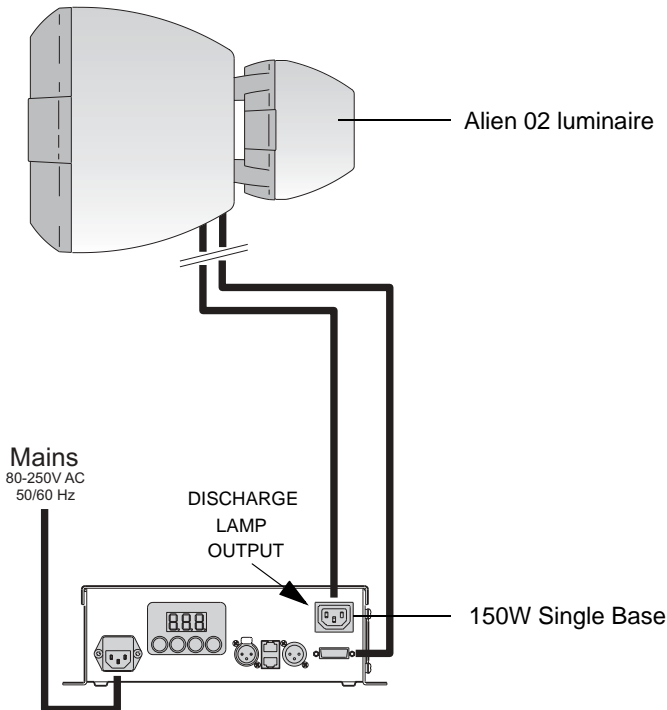
CONNECTING THE ALIEN 02 LUMINAIRE TO A 150W SINGLE BASE

Warning Do not connect the Alien 02 luminaire directly to mains power supply - doing so will result in damage to the lamp and the local power supply.

The Alien 02 luminaire receives its power from the 150W Single Base and must be connected to the DISCHARGE LAMP OUTPUT socket using the attached one-meter long power cable, or a Cable Extension Kit.

Powering through a dimmer system can damage the fixture.

- 1 Connect the built in power-cable on the Alien 02 luminaire to the **DISCHARGE LAMP OUTPUT** socket on the 150W Single Base.
- 2 Connect the 26-pin plug on the cable attached to the Alien 02 luminaire to the **DATA OUT** socket on the 150W Single Base. Screw the connector into place.
- 3 Connect the mains power cable to the 150W Single Base **MAINS INPUT** socket and the AC mains distribution system. Do not connect the fixture to a dimmer system.



Cable extension kits

Cable extension kits are available that allow the distance between an Alien 02 luminaire and a 150W Single Base to be extended up to a maximum of 16 meters. The kits contain a power cable extension and a data cable extension. Kits are available in 2, 5, and 10 metre (6.5, 16, and 33 feet) extension lengths.

GENERAL OPERATION

For information on operating the Alien 02 Spot refer to the *150W Single Base* manual, but note the following points to ensure optimum lamp life:

- Turn off lamp power whenever illumination is not required for extended periods of an hour or more. Fixture power may remain on when not in use.
- Always allow the lamp to warm up fully before turning it off.
- Avoid turning on several lamps at once.

LENS OPTIONS

The following lenses are available for the Alien O2 Spot luminaire:

70° diffuser lens: The 70° diffuser lens is standard. It provides a symmetric 70° field. It installs with the rough side out, away from the lamp.

36° Fresnel lens: The optional Fresnel lens provides a symmetric 36° field. It installs with the ridges out, away from the lamp.

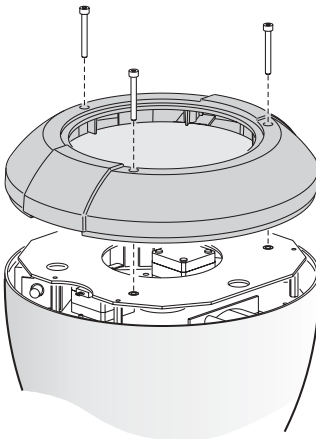
90° x 70° beam shaper lens: The optional beam shaper provides an asymmetric 90° by 70° field. It installs with the ridges facing out, and may be turned as desired; the ridges are parallel with the short axis of the field. This lens is lighter and more fragile than the others: *be extra careful when installing the beam shaper lens and tighten the rubber washers just enough to exert light pressure.*

Micro lens diffuser: The Micro lens diffuser provides a very flat field and improved efficiency compared to the standard optical configuration. It can be used in short throw applications where exact evenness is required. The estimated spread angle is 60 degrees.

CHANGING THE LENS

Lens installation requires 2.5 and 3 mm Allen wrenches.

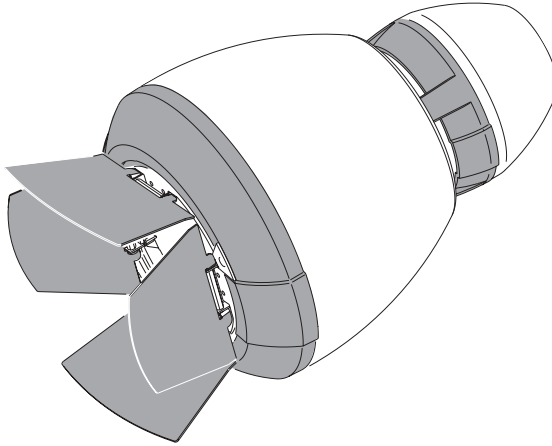
- 1 Remove the front by removing the three 3 mm Allen screws.



- 2 Remove the lens bracket and the existing lens.
- 3 Remove the air filter behind the bracket.
- 4 Using a 2.5 mm Allen wrench, remove the three screws and metal plates that hold the lens in place at the rear of the lens bracket.
- 5 Remove the lens.
- 6 Place the new lens flat against the lens bracket with the rougher side in or out (as described in the previous section). Replace the metal plates and screws that hold the lens in place.
- 7 Replace the air filter.
- 8 Reattach the lens bracket to the fixture.

BARN DOORS

A optional barn door kit can be ordered for the Alien O2 luminaire. The barn door kit is easily attached to the Alien O2 spot and allows for precise beam control. The barn doors can be opened, closed, and rotated. They can be used in situations where you need to shape the beam or prevent light leakage.

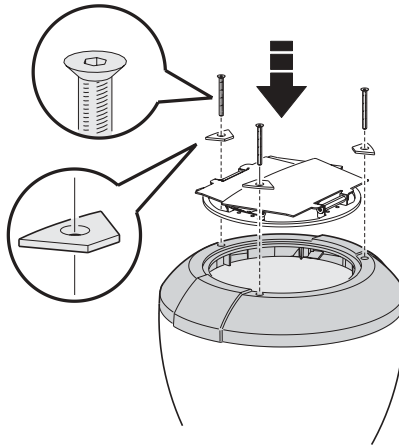
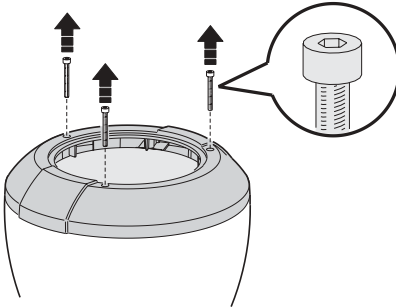


INSTALLATION

Installing the barn door kit requires a 3 mm Allen wrench.

To install the barn door kit:

- 1 Remove the three 3 mm Allen screws holding the front lens bracket in place.



- 2 Place the barn door kit over the lens.
- 3 Screw the barn doors into place using the longer Allen screws and plates supplied with the kit.

SERVICE

This section describes service procedures that can be performed by the user. Refer all service not described here to a qualified Martin technician.

Warning! *Disconnect the fixture from power before removing any cover.*

LAMP REPLACEMENT

The Alien O2 Spot can use the following discharge lamps. *Installing any other lamp type may damage the fixture.*

Lamp	Efficiency	Color Temp.	Average Life
Philips CDM-SA/T 150W	85 Lm/W	4000 K	6000 hr.
General Electric CMH150	74 Lm/W	4200 K	12000 hours

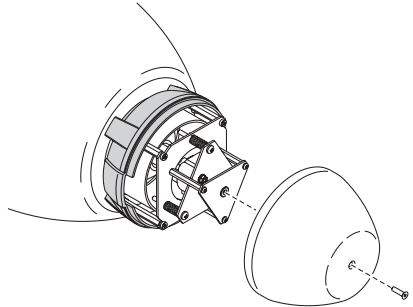
Table 1: Lamp specifications

Lamp replacement requires 2.5 mm Allen wrench and a Phillips screwdriver.

Warning! *Allow the lamp to cool for 15 minutes before removing the lamp cover.*

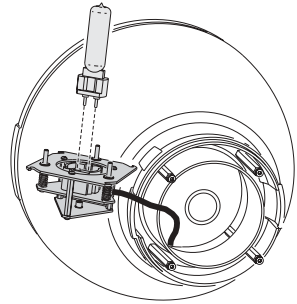
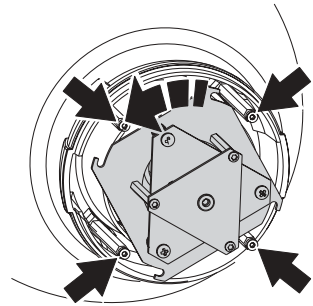
To replace the lamp:

- 1 Disconnect the fixture from power and allow it to cool.
- 2 Remove the lamp cover at the back of the fixture using a 2.5 mm Allen wrench.



- 3 Loosen the four screws holding the lamp holder in place.
- 4 Gently twist the lamp holder and guide it out of the housing.
- 5 Remove the old lamp from the socket.
- 6 Holding the new lamp by its ceramic base - *do not touch the glass bulb* - insert it firmly and squarely into the lamp socket.
- 7 Clean the glass bulb with an alcohol wipe or a clean, lint-free cloth wetted with alcohol.
- 8 Gently insert the lamp and screw the holder into place.
- 9 Replace the cover and set it in place using a 2.5 mm Allen wrench.
- 10 We recommend that you activate the Lamp Hour Warning function on the 150W Single Base and that you set the expected number of hours of life the lamp has. This is done using the Personality menu on the 150W Single Base (see the *150W Single Base user manual*). Remember to also reset the lamp hour counter using the Information menu on the 150W Single Base. When the lamp hour counter reaches:

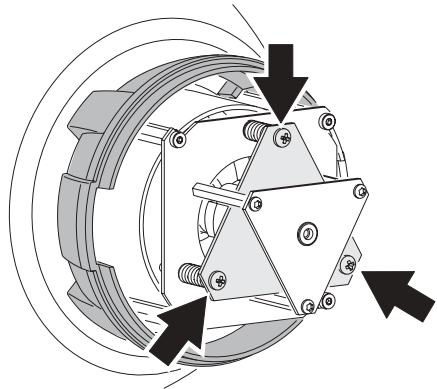
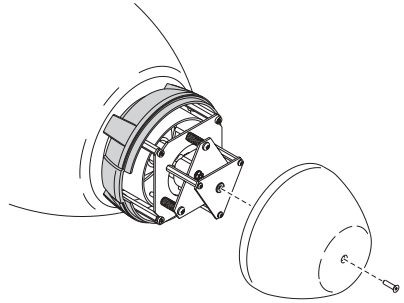
- 100 hours less than the expected life time of the lamp, the display on the 150W Single Base will start blinking LHR in the display. At this point you should change the lamp to avoid the risk of lamp explosion.
- The expected life of the lamp, the lamp shuts off and can not be turned on again before the counter in the 150W Single Base is reset, or the predefined lamp hour warning level has been redefined.



OPTIMIZING LAMP ALIGNMENT

The lamp alignment is set at the factory. If, the light distribution is uneven, lamp alignment may be adjusted as follows. A 2.5 mm Allen wrench and a Phillips screwdriver is required.

- 1 Disconnect the fixture from AC power supply and allow the lamp to cool for 15 minutes.
- 2 Remove the lamp cover at the back of the fixture using a 2.5 mm Allen wrench.
- 3 The three sprung screws on the lamp holder are used for lamp adjustment. Switch on the Alien O2 Spot and allow it to reset.
- 4 Using either a controller or the control panel, strike the lamp and focus the light on a flat surface.
- 5 Center the hot-spot (the brightest part of the beam) by turning the 3 adjustment screws. Turn one screw at a time to drag the hot-spot diagonally across the projected image. If there is no hot-spot, adjust the lamp until the light is even.
- 6 To reduce a hot-spot, pull the lamp in by turning all three screws clockwise 1/4-turn at a time until the light is evenly distributed.
- 7 If the light is brighter around the edge than it is in the center, or if light output is low, the lamp is too far back in the reflector. “Push” the lamp out by turning the screws counterclockwise 1/4-turn at a time until the light is bright and evenly distributed.
- 8 Replace the lamp cover.



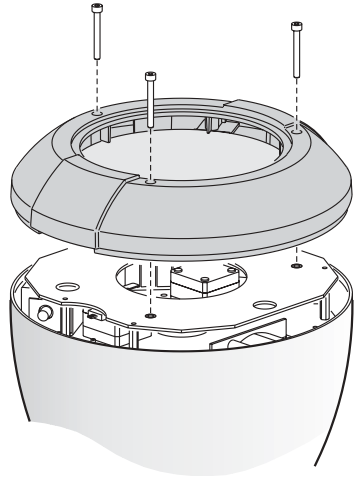
CLEANING

Wash the aluminum housing of the Alien 02 Spot with a soft brush or sponge and a mild, non-abrasive car washing detergent. Rinse.

Cleaning the air filter in the Alien 02 luminaire

Accessing the air filter in an Alien 02 requires a 3 mm Allen wrench.

- 1 Remove the front lens bracket by removing the three 3 mm Allen screws.
- 2 Remove the lens bracket from the fixture.
- 3 Remove the air filter from behind the bracket.
- 4 To clean the air filter, use a vacuum or compressed air, or soak it in warm soapy water and blot dry.
- 5 Replace the air filter.
- 6 Reattach the lens bracket to the fixture.



SPECIFICATIONS

PHYSICAL

Alien 02 Spot length:	312 mm (12.3 in)
Alien 02 Spot width:	238 mm (9.4 in)
Alien 02 Spot weight:	3.3 kg (7.3 lbs)
Alien 02 Spot mounting arm length:	135 mm (5.3 in)
Alien 02 Spot mounting arm weight:	0.7 kg (1.5 lbs)

SOURCE

Lamp:	150 W discharge
Base:	GY 12
Approved models:	Philips CDM-SA/T 150W, General Electric CMH150
Control:	remote switchable

PHOTOMETRICS (STANDARD DIFFUSER LENS)

Light output (CDM-SA/T 150W):	4515 lumens
Illuminance (lux or fc):	10604 cd / distance ² (m or ft)
Half-peak diameter:	0.66 x distance
Half-peak angle:	36.5°
One-tenth-peak diameter:	1.17 x distance
One-tenth-peak angle:	61°
Measurement conditions:	Diffuser lens; no color or effects applied
Measurement source:	Philips CDM-SA/T 150W

PHOTOMETRICS (WITH FRESNEL LENS)

Light output (CDM-SA/T 150W):	4773 lumens
Illuminance (lux or fc):	32284 cd / distance ² (m or ft)
Half-peak diameter:	0.38 x distance
Half-peak angle:	21.4°
One-tenth-peak diameter:	0.62 x distance
One-tenth-peak angle:	34.6°
Measurement conditions:	Fresnel lens; no color or effects applied
Measurement source:	Philips CDM-SA/T 150W

PHOTOMETRICS (WITH BEAM SHAPER LENS)

Light output (CDM-SA/T 150W):	3741 lumens
Illuminance (lux or fc):	5018 cd / distance ² (m or ft)
Half-peak diameter:	0.80 x distance
Half-peak angle:	43°
One-tenth-peak diameter:	1.91 x distance
One-tenth-peak angle:	87°
Measurement conditions:	Beam shaper lens; no color or effects applied
Measurement source:	Philips CDM-SA/T 150W

ELECTROMECHANICAL EFFECTS

Cyan filter:	0 - 100%
Magenta filter:	0 - 100%
Yellow filter:	0 - 100%
Dimmer:	0 - 100%

INSTALLATION

Minimum distance to combustible materials:	1 m (39 in)
Minimum distance to illuminated surfaces:	0.5 m (20 in)
Orientation:	any
Alien 02 Spot swivel:360°
Alien 02 Spot tilt:160°
Standard cable separation between Alien 02 Spot and 150W Single Base:	1 m (40 in)

THERMAL

Maximum ambient temperature (Ta):	40° C (104° F)
Maximum surface temperature, steady state, Ta=40° C:	80° C (176° F)

CONSTRUCTION

Alien 02 housing:	Aluminum and plastic
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ORDERING INFORMATION

Alien 02 Spot:	P/N 90345000
150W Single Base:	P/N 90724000
Alien 02 Spot 135 mm (5.3 in) mounting arm:	P/N 91611048

ACCESSORIES

36° fresnel lens:	P/N 91610022
90° x 70° beam shaper lens:	P/N 91610023
Micro lens diffuser:	P/N 91610024
Barn door kit:	P/N 91611057
MP-2 uploader:	P/N 90758420
Philips CDM-SA/T 150 W discharge lamp:	P/N 97010111
2-meter cable extension kit:	P/N 91611051
5-meter cable extension kit:	P/N 91611060
10-meter cable extension kit:	P/N 91611061

INCLUDED ITEMS

User manual
Philips CDM-SA/T 150 W discharge lamp