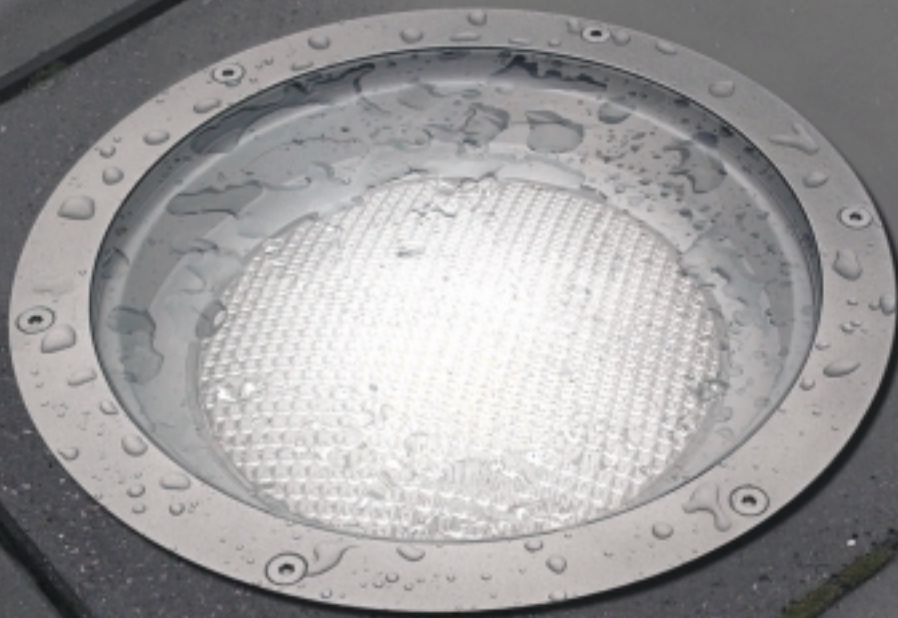


martinarchitectural



Inground 200



Dynamic light

The Inground 200 represents a breakthrough for its ability to integrate colour-changing technology into a standard uplight luminaire.

For the first time, the benefits of dynamic light and discrete buried installation are seamlessly combined in a simple, easy-to-use system of programmable luminaires.

Applications

Designed for all terrains and weathers, the Inground Series offers high-performance tools for dynamic uplight illumination of facades, columns, structures, trees and landscapes.



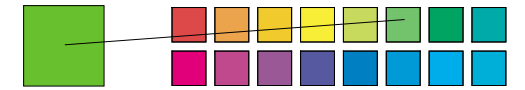
What's your favourite colour?
 Lavender, lime or rich ruby red, whatever the shade, Martin's colour systems are known for their ability to create beautiful, even colours. Fully flexible, the Inground 200 Series offers a choice of three different colour systems for dynamic light applications of varying complexity.

THREE COLOUR SYSTEMS

1. Single Colour

One selectable colour ■ Manual Intensity control ■ Conventional

Designed as a simple means to creating colourful lighting schemes, the single colour system lets you choose any colour from our collection of forty dichroic filters. Custom colours are also available. The single-colour system also provides manual intensity control for fine-tuned illumination.

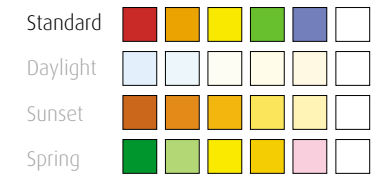


Choose your favourite colour from our collection of forty.

2. Six Colours

Six selectable colours ■ 0-100% Intensity control ■ Programmable

The 6-colour system is a programmable colour-changing system for dynamic lighting applications. It offers a selectable palette of up to six colours. Choose one of our ready-made colour schemes or consult us to create your own. A palette of five primary colours is included as standard.



The 6-colour system provides a programmable dimmer for true 0-100% intensity control.

3. Full Spectrum CMY

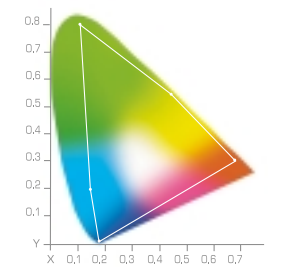
Seamless CMY colour mixing ■ 0-100% Intensity control ■ Programmable

The most advanced and versatile solution, the CMY colour system blends the primary colours Cyan, Magenta and Yellow to create a virtually limitless choice. For a beautiful effect, these colours can be programmed to shift smoothly from one shade to another.

The CMY system also provides a programmable dimmer for true 0-100% intensity control.



C = 5% Y = 10% C=10% Y=15% C=25% Y=25% C=50% Y=45%



With the CMY system, the Inground 200 can create all the colours in the triangle above.

Intensity



100% Intensity 40% Yellow 80% Intensity 50% Intensity 20% Intensity 0% Intensity

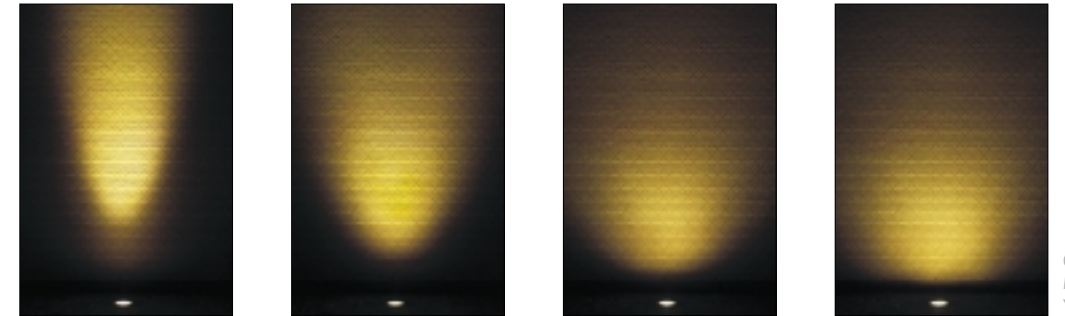
Good lighting design often highlights key features by varying light intensities. Programmable intensity control lets the light fade seamlessly from full intensity to off.



Spotless illumination

The Inground Series was born out of our conscious drive to provide better lighting solutions. The consequence of this drive is a full range of optical solutions that include a patent-pending wallwash design for spotless illumination of walls and surfaces.

A FULL RANGE OF OPTICAL SYSTEMS



Wall 7m wide by 9 m high. Fixture at 1 m offset from wall

C = 0%
M = 0%
Y = 40%

Medium

A 32-degree beam angle suitable for
Columns
Palm trees
Bridges
Tall structures
Facades

Wide

A 56-degree beam angle suitable for uplighting
Foliage
Trees
Structures
Facades

Very Wide

A 98-degree beam angle suitable for uplighting
Foliage
Trees
Structures
Facades

Wallwash Option

A patent-pending optical system guarantees even, broad illumination of walls and surfaces. Uniform light distribution starts at ground level.



Fresnel Lens



Diffuser Lens



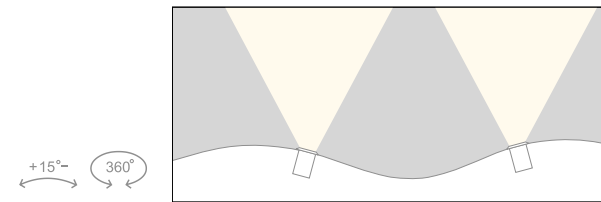
Superwide Lens



Superwide Lens with wallwash Mirror

Easy aiming

An adjustable lamp frame allows for 360 degrees rotation and +/- 15 degrees tilt. This compensates for variations in terrain and allows precise optical aiming. A locking mechanism secures the designer's aiming position even after lamp replacement.



Low surface temperature

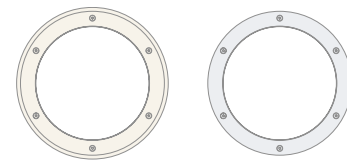
Double glass protection reduces the surface temperature, allowing for safe installation in applications near pedestrians or delicate planting. Surface temperatures are typically below 80°C. Consult Martin Architectural for safety information.

Drive-over capability

Manufactured from marine-grade steel and clear tempered glass, the Inground 200 is designed to withstand loads of 5 metric tonnes. For drive-over applications, the luminaire can also be sleeve mounted and installed in concrete. Consult Martin Architectural for details.

Accessories

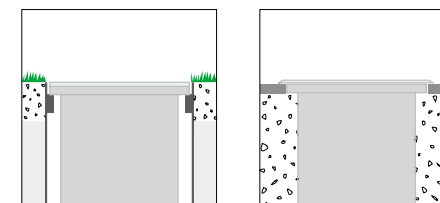
The Inground 200 can be adapted with a number of accessories, including louvres and customized top plates. Consult Martin Architectural for a full accessory list.



Available in stainless steel, aluminium or brass

Installation

Special attention has been paid to ensure easy installation. The Inground 200 is suitable both for direct burial and sleeve installation. As with all buried uplights, adequate drainage should be ensured.



Sleeve burial in concrete

Direct burial

No colour distortion

The Inground 200 front glass is made of OptiWhite glass to ensure high transmission, a purer white light and no colour shift. Other upright luminaires use conventional glass that will always discolour the light green.

Conventional Glass

Inground 200 Glass



Programmability

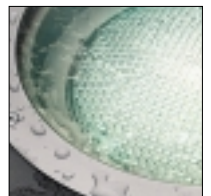
Martin luminaires are 'intelligent' luminaires, and as such can be controlled by computer, or programmed to change according to the season or time of day. Most dynamic installations have a number of lighting programmes that can be selected for different functions and events.

Depending on the complexity required, Inground luminaires can either be operated by PC software, or without the aid of an external controller, via a built-in programme or master/slave relationship.



IP 65/67

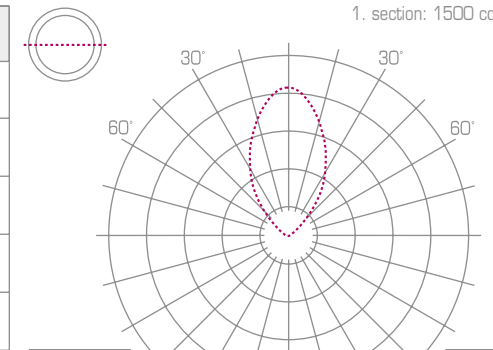
Designed to the highest quality, all Inground products are weatherproofed to withstand the constant exposure to rain, heat and frost. An IP 65/67 rating guarantees safe and reliable operation in all weathers.



PHOTOMETRICS

Very Wide Superwide Lens 98'

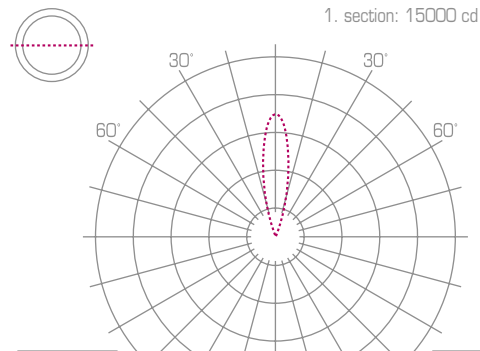
m.	Ø 50%	Ø 10%	54'	98'	E (lux)
20	20.4	46.0			16
15	15.3	34.5			28
10	10.2	23.0			63
5	5.1	11.5			252
2	2.0	4.6			1573



Efficiency	43%
Half-peak diameter	1.02 x distance (m)
One-tenth peak diameter	2.30 x distance (m)
Illuminance	6291 / distance ² (lux)
Total Output	5993 (lumens)

Medium Fresnel 32'

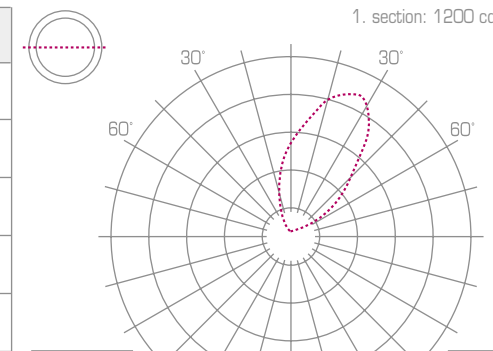
m.	Ø 50%	Ø 10%	20'	32'	E (lux)
20	7.0	11.2			126
15	2.3	8.4			225
10	3.5	5.6			506
5	1.8	2.8			2022
2	0.7	1.1			12639



Efficiency	41%
Half-peak diameter	0.35 x distance (m)
One-tenth peak diameter	0.56 x distance (m)
Illuminance	50556 / distance ² (lux)
Total Output	5777 (lumens)

Wallwash Superwide Lens + Mirror 104'

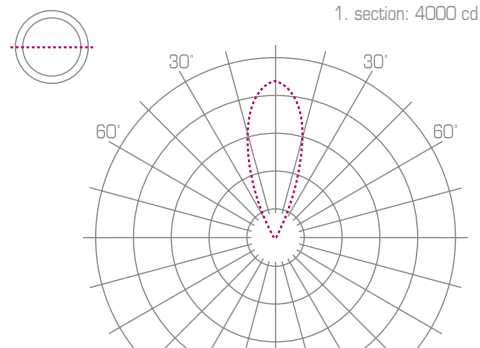
m.	Ø 50%	Ø 10%	54'	104'	E (lux)
20	20.4	51.2			13
15	15.3	38.4			23
10	10.2	25.6			51
5	5.1	12.2			202
2	2.0	5.1			1265



Efficiency	39%
Half-peak diameter	1.02 x distance (m)
One-tenth peak diameter	2.56 x distance (m)
Illuminance	5059 / distance ² (lux)
Total Output	5526 (lumens)

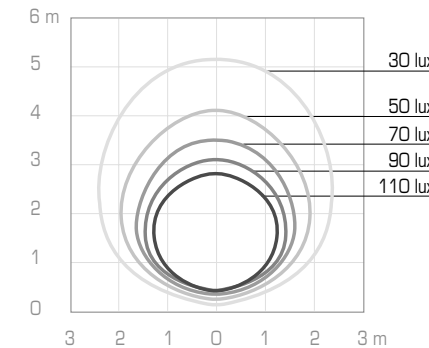
Wide Diffuser Lens 56'

m.	Ø 50%	Ø 10%	32'	56'	E (lux)
20	11.4	21.2			43
15	8.6	15.9			76
10	5.7	10.6			171
5	2.9	5.3			683
2	1.1	2.1			4266

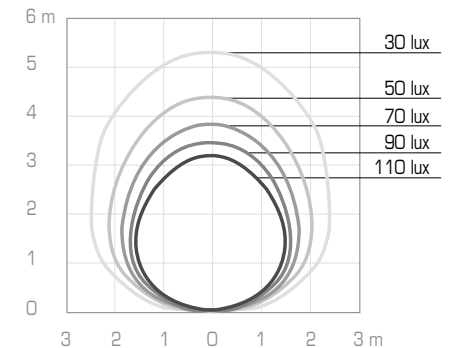


Efficiency	41%
Half-peak diameter	0.57 x distance (m)
One-tenth peak diameter	1.06 x distance (m)
Illuminance	17063 / distance ² (lux)
Total Output	5794 (lumens)

Wallwash

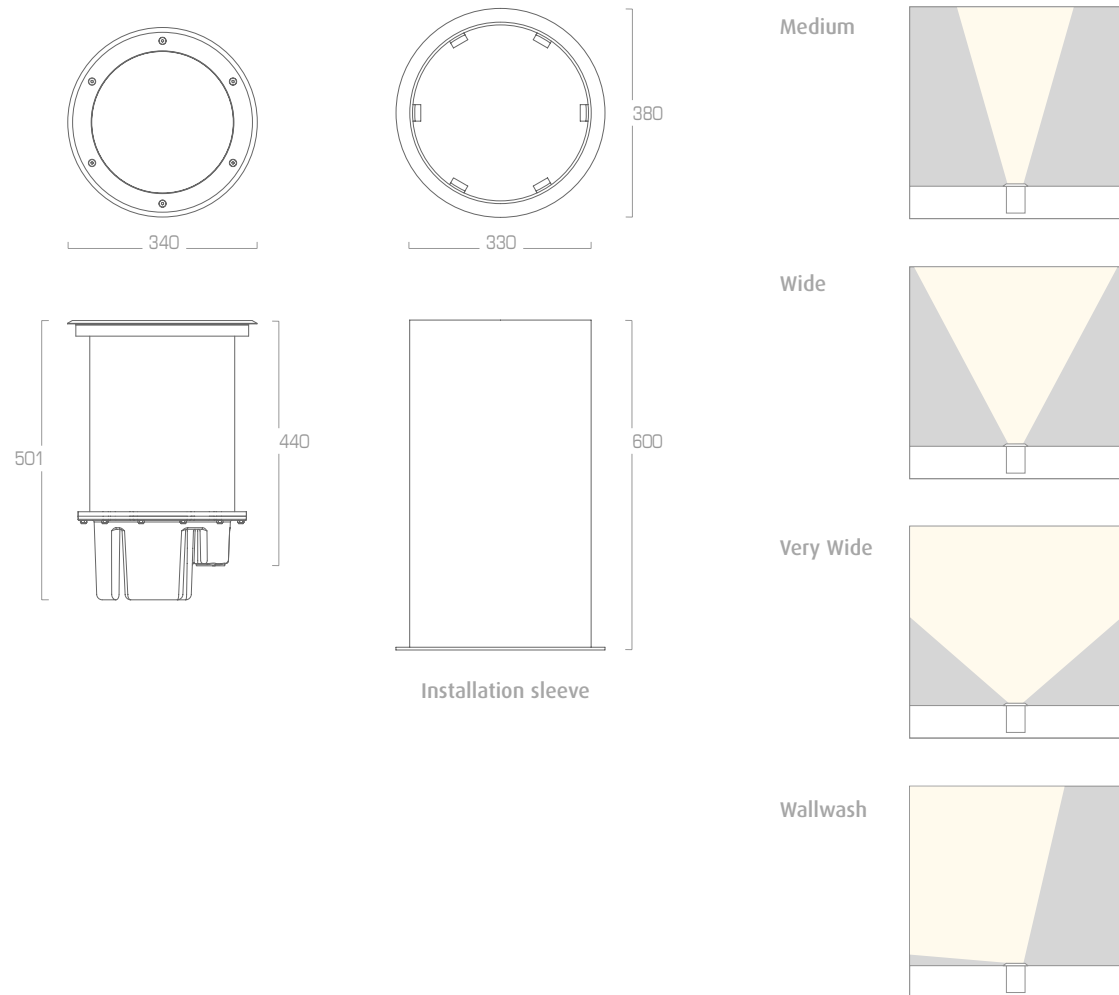


Wallwash Superwide Lens + Mirror. The fixture is centered on grid with 1m setback, no tilt.



Wallwash Superwide Lens + Mirror. The fixture is centered on grid with 1m set-back 15-degrees tilt.

SPECIFICATIONS



Inground 200

Physical

Diameter (at lens/at base): Ø310/Ø340mm (12.2 in./13.4 in.)
 Height: 500 mm (19.7 in.)
 Weight: approximately 20kg (44lb)

Source

Lamp: 150 W HIT
 Base: G12
 Approved models:
 Philips CDM-SA/T 150W/830
 Philips CDM-SA/T 150W/942
 Osram HCI-T 150W/WDL
 Osram HCI-T 150W/NDL

Thermal

Cooling: Convection

AC Supply

Power supply options:
 100-110-120V; 200-210-220-230-240-250-277 V; 50/60Hz
 AC Entrance: 2 threaded holes
 M25 x 1.5mm, suitable for through wiring

Construction

Housing: combination of extruded and high pressure die-cast aluminium
 Finish: powder coated epoxy/polyester with 2% Teflon (PTFE), Grey
 Lens frame: N/A
 Fasteners: Six pieces M6 stainless steel Allen cap screws
 Front glass: Ø254mm, 19 mm tempered optiwhite
 Protection factor: IP 65/67

Included items

User manual
 Philips CDM-SA/T 150W/942
 2 stainless steel cable glands (IP 68) for data entrance (M16x1.5; ø=5-9mm)
 2 stainless steel cable glands (IP 68) for AC entrance (M25x1.5mm; ø13-17mm)

CMY module

Control & Programming

Control options: DMX-512, stand-alone, master/slave, remote control
 Receiver: RS-485
 Setting and addressing: MP-2, DAD, MUM
 Firmware update: Serial upload (MUF)
 Stand-alone trigger options : internal real-time clock with timer
 Stand-alone memory: 20 scenes
 Data Entrance: 2 threaded holes M16x1.5mm suitable for through wiring
 DMX channels: 5
 Dynamic effects
 Cyan filter: 0 - 100%
 Magenta filter: 0 - 100%
 Yellow filter: 0 - 100%
 Dimmer: 0 - 100%

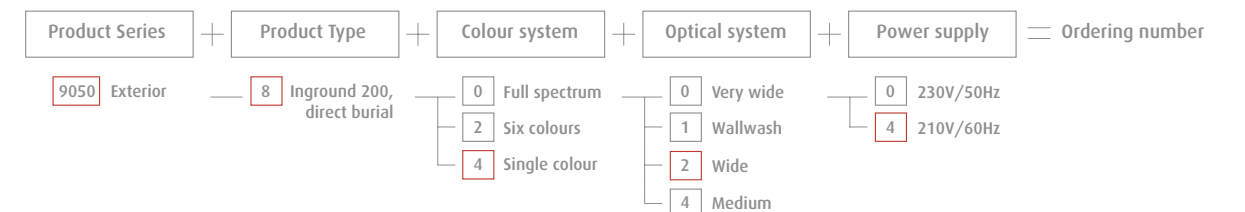
6 colour module

Control & Programming

Control options: DMX-512, stand-alone, master/slave, remote control
 Receiver: RS-485
 Setting and addressing: MP-2, DAD, MUM
 Firmware update: Serial upload (MUF)
 Stand-alone trigger options : internal real-time clock with timer
 Stand-alone memory: 20 scenes
 Data Entrance: 2 threaded holes M16x1.5mm suitable for through wiring
 DMX channels: 3
 Dynamic effects
 Colour wheel: 6 positions
 Dimmer: 0 - 100%

Specifications subject to change.

Ordering information



Example: 90508424 (Inground 200, C, W, 210V/60Hz)

AT A GLANCE

SURFACE TEMPERATURE

Double glass protection reduces surface temperature for safe installation near pedestrians and delicate planting.

3 COLOUR SYSTEMS

Three separate colour systems provide a range of solutions for any application:

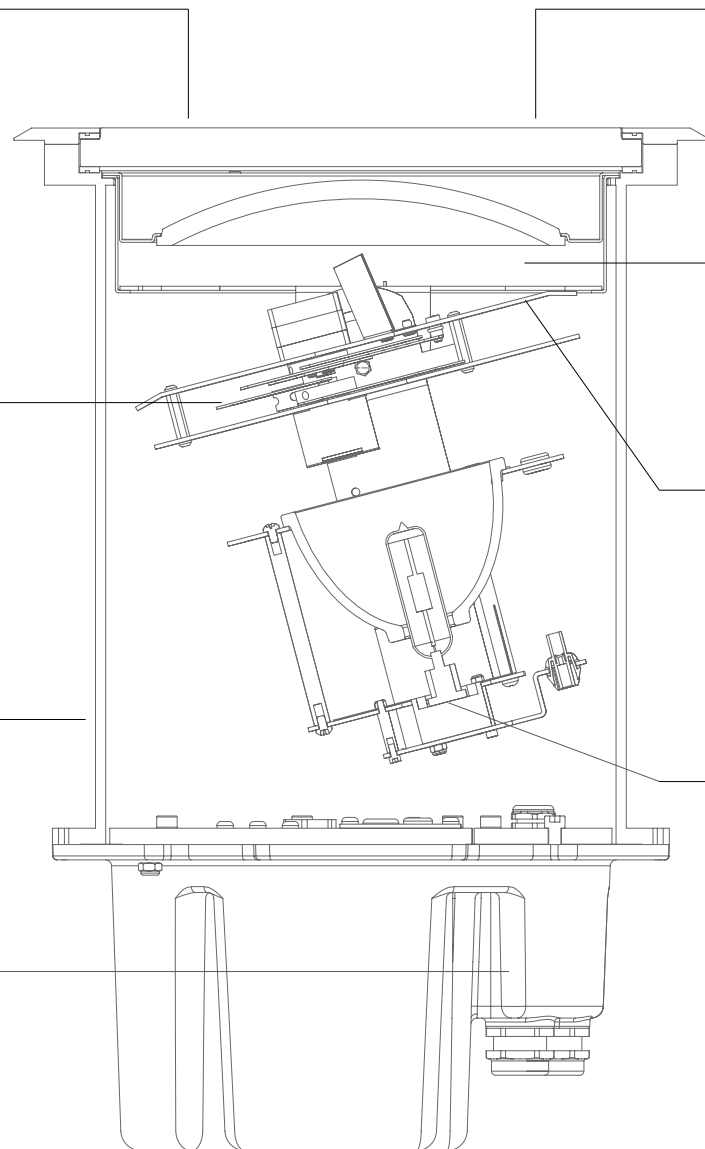
- Single colour
- Six colours
- Full spectrum CMY

IP 65/67

IP 65/67 rating guarantees safe and reliable operation in all weathers.

LOGICAL CONSTRUCTION

Separate compartments for electrical gear, PCB and junction box reduce heat to extend component life. Servicing can be performed without dismantling the body, always leaving behind a safe and sealed fixture.



DRIVE-OVER

The top plate and 19 mm clear tempered glass are constructed to bear loads of up to 5000 kg.

PHOTOMETRIC OPTIONS

Various optical solutions are available to obtain different beam angles or a smooth, patent-pending wallwash.

OPTICAL AIMING

The adjustable lamp frame allows for 360° rotation and +/-15 tilt. A locking mechanism secures the optical aiming position.

RELAMPING

150 W discharge lamp. Entire lamp module is removable for relamping.

+15°
↔

360°
↻

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Product Guide

For information on the full Martin Architectural range, order our product guide at:

www.martin-architectural.com

Martin Professional
Olof Palmes Alle 18
8200 Aarhus N
Denmark

T : +45 8740 0000
F : +45 8740 0010



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[martinarchitectural](http://www.martin-architectural.com)

www.martin-architectural.com

Tel. +45 8740 0000

Fax +45 8740 0010