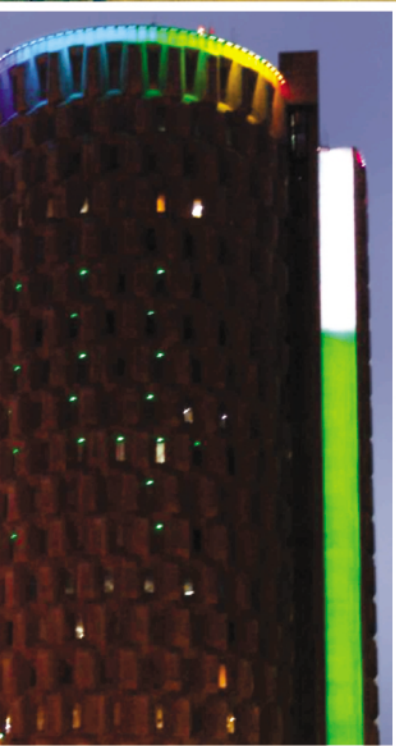
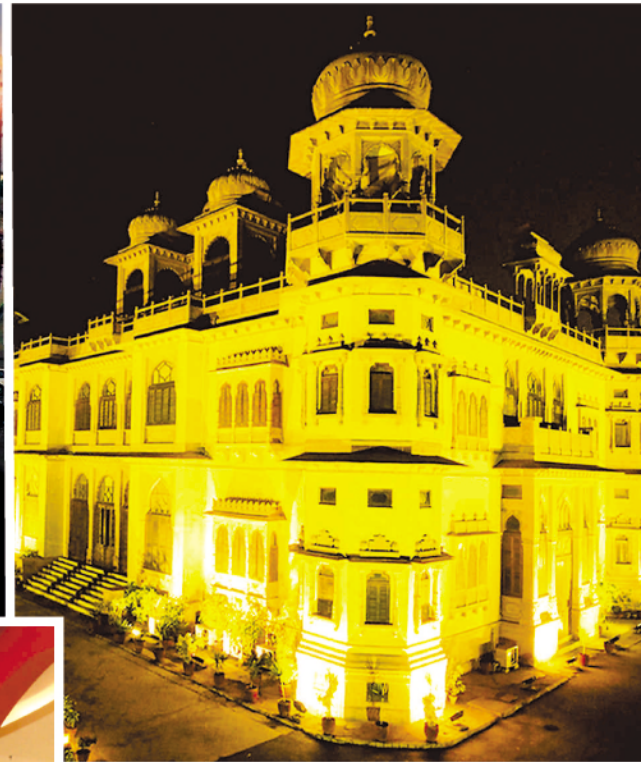


Product Catalogue



Inspire your lighting experience

PHILIPS

Introduction



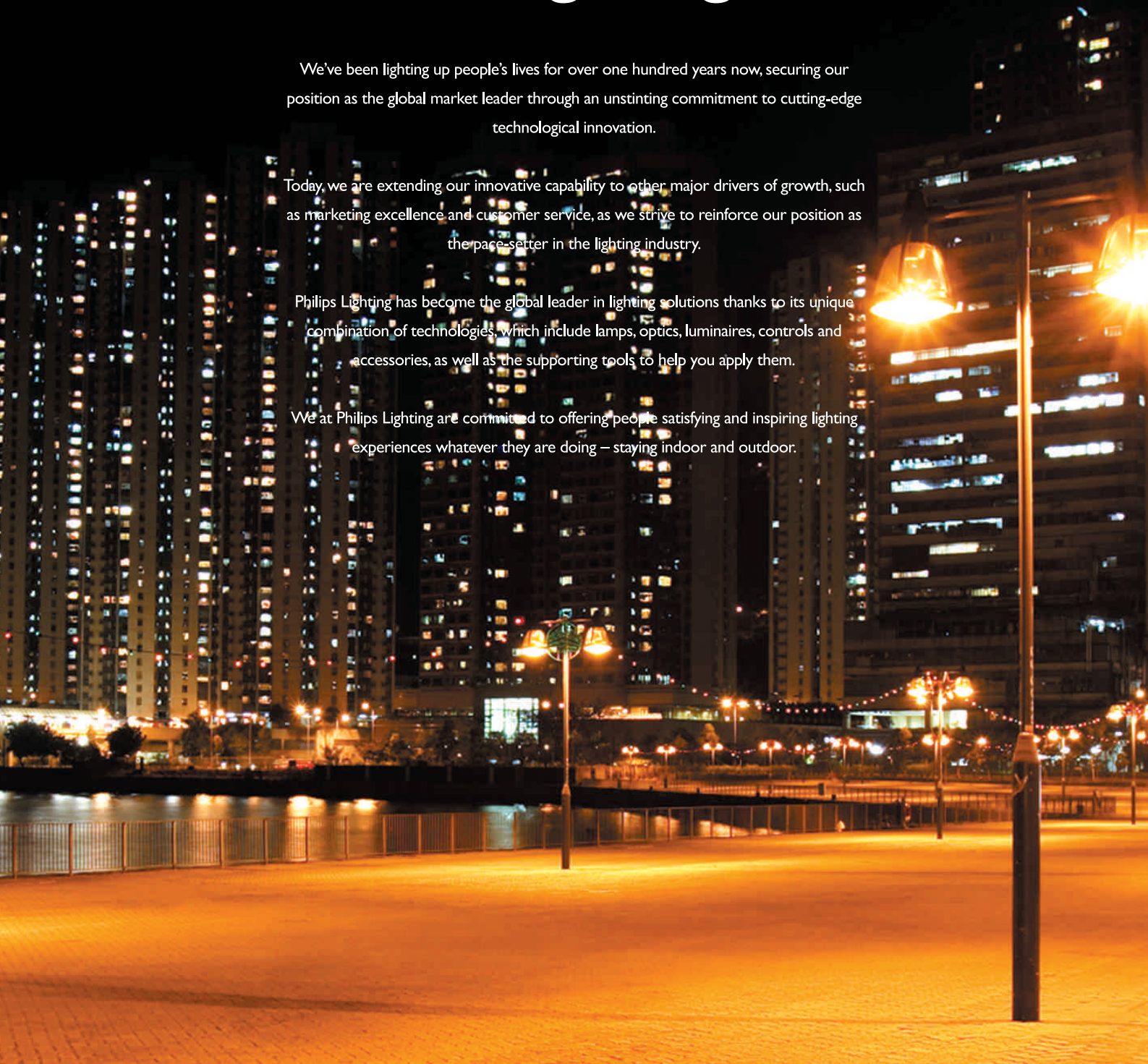
Philips - The World leader in Lighting

We've been lighting up people's lives for over one hundred years now, securing our position as the global market leader through an unstinting commitment to cutting-edge technological innovation.

Today, we are extending our innovative capability to other major drivers of growth, such as marketing excellence and customer service, as we strive to reinforce our position as the pace-setter in the lighting industry.

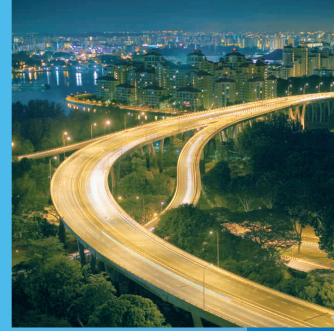
Philips Lighting has become the global leader in lighting solutions thanks to its unique combination of technologies, which include lamps, optics, luminaires, controls and accessories, as well as the supporting tools to help you apply them.

We at Philips Lighting are committed to offering people satisfying and inspiring lighting experiences whatever they are doing – staying indoor and outdoor.



Philips Lighting Pakistan

Overview



Philips is number one in the global lighting market, a position supported by leadership in innovation combined with a systematic approach to seeking out new market opportunities. Its strategic ambition is to set the pace in the lighting industry as the first choice innovative partner for the supply of creative and cost-effective lighting solutions.

In Philips, we strive to introduce meaningful products and technologies for our customers and end users. Our aim is to explore new ways to improve products and to offer an exciting range of products that enhance your lives, anticipating your needs. At the forefront of technology, Philips currently holds about 75,000 rights, 22,000 trademark registrations and 6,000 design registrations.

In 1948, Philips began its operations in Pakistan dealing with only a few consumer products that is Light Bulbs and Radio. An APT beginning, the Light Bulb and Radio paved the way to an even brighter future for Philips in Pakistan. Today Philips Pakistan has come full cycle. It is evident that the company has achieved a recognizable status as a major Business Unit of Electrical & Electronics Products and a net contributor to the Pakistan Economy. Philips Pakistan is indeed dedicated to living up to the company's philosophy of "Sense and Simplicity".

Philips has been pioneer in introducing modern lighting concept in Pakistan. Philips Lighting is the only lighting company which provides total lighting solution under one umbrella, hence has been a household name in lighting. Through planned lighting, Philips helps to make roads safe, improve the working efficiency in offices and factories, increase industrial production and make monuments beautiful. Philips Pakistan first entered the sports field in mid eighties with lighting up – of hockey stadium at Karachi and till now has lit up all cricket & sports fields in the country.

Glossary of lighting terminology

Average illuminance

Illuminance averages over a specified surface.

Unit: lux (lx) = lm/m²

Symbol E_v

Ballast

Device used with discharge lamps for stabilising the current in the discharge.

Beam spread

The angle in the plane through the beam axis over which the luminous intensity drops to a stated percentage (e.g. 50%) of its peak intensity.

Brightness

Attribute of visual sensation according to which an area appears to emit more or less light. Brightness according to the definition is also an attribute of colour. In British recommendations the term "Brightness" is now reserved for descriptions of colour. Luminosity should be used in other instances.

Candela

The standard unit of light intensity, abbreviated as "cd", being one lumen per steradian.

Colour change

The ability to change the colour temperature of a lighting installation makes it possible to create either a more comfortable working environment or introduce dynamic lighting effects.

Colour rendering

The ability of a light source to render colours naturally, without distorting the hues seen under a black full spectrum radiator (like daylight or incandescent lamps). The colour-rendering index CRI ranges from 0 to 100. For further details see 'Specification data lamps'.

Colour rendering index CRI

See colour rendering.

Colour temperature

The temperature in kelvin of a full spectrum radiator most closely approximate to the colour appearance of a light source at the same brightness. For further details of Philips lamps see under 'Specification data lamps'.

Contrast C (Between two parts of a visual field)

The relevant luminance difference of those parts in accordance with the formula:

$$C = \frac{L1 - L2}{L2}$$

Where the size of the two parts differs greatly and where:

L1 = Luminance of the smallest part (the object)

L2 = Luminance of the greatest part (the background).

CosmoPolis system

A complete system featuring new lamp technology specially developed for outdoor lighting, driven by the latest generation of electronic gear and incorporated in a brand-new miniaturised optic: the CosmoR.

DALI

Digital Addressable Lighting Interface, a standardised communication interface to regulate lighting levels and to switch electronic HFD ballasts on and off.

Daylight linking

Natural light is energy saving and beneficial to individual users.

Daylight linking is a technique that regulates light output according to daylight conditions, maintaining a constant level of indoor lighting and ensuring comfort at all times.

Depreciation factor (depreciated)

The reciprocal of the maintenance factor.

Diffuse reflection

Diffusion by reflection in which, on the macroscopic scale, there is no regular reflection.

Diffuse transmission

Transmission in which, on the macroscopic scale, there is no regular transmission.

Dimmer

A device in the electrical circuit for varying the luminous flux from lamps in a lighting installation.

Direct lighting

Lighting by means of luminaires with a light distribution such that 90 – 100% of the emitted luminous flux reaches the working plane directly, assuming that this plane is unbounded.

Disability glare

Glare that impairs vision.

Discomfort glare

Glare that causes discomfort without necessarily impairing vision.

Driver stopping distance

The total distance travelled while a vehicle is being brought to rest, measured from the position of the vehicle at the instant the driver has an opportunity to perceive that he should stop his vehicle.

Dust-proof luminaire

Luminaire constructed so that dust of specified nature and fineness cannot enter it when it is used in a dust-laden atmosphere.

Emergency lighting

Lighting provided for use when the supply to the normal lighting fails.

Escape lighting

That part of emergency lighting provided to ensure that an escape route can be effectively identified and used in the case of failure of the normal lighting system.

Flashed area

Of a luminaire in a given direction. The area of the orthogonal projection of the luminous surface on a plane perpendicular to the specified direction.

Floodlight

Projector designed for floodlighting, usually capable of being pointed in any direction and of weatherproof construction.

Glare

See disability glare and discomfort glare, and the chapter 'Information - Lighting technique'.

Halogen lamp

Incandescent lamp in which the inclusion of halogens in the gas filling and a high-temperature quartz envelope promote the tungsten halogen cycle, permitting higher filament temperature. The result is a higher colour temperature and a significantly extended life. Halogen lamps are often applied to create sparkling lighting effects.

Halogen HV

High-voltage (230 V) halogen lamp

Halogen LV

Low (safety) voltage (6 V, 12 V or 24 V) halogen lamp. Operating low voltage halogen lamps requires an electronic or electromagnetic transformer, which is often integrated in the specific luminaire.

HFA/HFE

Electronic ballast for various fluorescent lamp types with warm-start principle.

Glossary of lighting terminology

HFD

Electronic dimmable ballast by which dimming is possible. Ballast functions according to the DALI protocol.

HFP

Electronic ballast for various fluorescent lamp types with warm-start principle.

HFR-T

Electronic ballast for TL5 and TL-D lamps. With this new-style electronic ballast, standard buttons can be used to dim the light output to as little as 3%. The lamp can also be switched on or off using the push-button control.

HFR

Electronic ballast for various fluorescent lamp types by which lighting regulation is possible. The main ranges of HF-R ballast allow step-less dimming down to 3%. See also 'Specification data luminaires'.

High-pressure mercury (vapour) lamp

Sodium vapour lamp in which the partial pressure of the vapour during operation is of the order of 105 Pa - for example: HPL and HPL-N lamps.

High-pressure sodium (vapour) lamp

Sodium vapour lamp in which the partial pressure of the vapour during operation is of the order of 104 Pa - for example: SON, SON-T and SON-TP lamps.

Horizontal illuminance (E_{hor})

Illuminance on the horizontal surface.

Unit: lux (lx) = lm/m^2

Symbol E_{hor}

HPI Plus

Metal-halide high-intensity discharge lamp combining high luminous efficacy with white light of moderate colour rendering. Main indoor applications are big industrial halls and lighting of discount stores, hyper-/supermarkets and DIY shops. Indoors, HPI Plus lamps are applied in high-bay luminaires.

Illuminance

The luminous flux density at the surface being lit. The unit is lux, being one lumen per square metre. The illuminance in the full summer sun is approx. 100.000 lux. Recommended illuminances for work places range from 200 lux for rough work to 2000 lux for detailed critical work.

Unit: lux (lx) = lm/m^2

Symbol E

Incandescent (electric lamp)

Lamp in which light is produced by means of an element heated to incandescence by the passage of an electric current.

Infrared remote control

In offices and meeting rooms where the lighting requirement changes frequently, wireless infrared control offers the flexibility to set the lighting and change it at any time.

Indirect lighting

Lighting by means of luminaires with a light distribution such that not more than 10 per cent of the emitted luminous flux reaches the working plane directly, assuming that this plane is unbounded.

Induction lighting QL

Electrode-less induction lighting system characterised by good light quality, high luminous efficacy and a phenomenal life (60.000 hours).

Isocandela curve (diagram)

Curve traced on an imaginary sphere with the source at its centre and joining all adjacent points corresponding to those directions in which the luminous intensity is the same, or a plane projection of this curve.

Isolux curve (diagram)

Locus of points on a surface where the illuminance has the same value.

Jet-proof luminaires

Luminaire constructed to withstand a direct jet of water from any direction.

Light

Any radiation capable of causing a visual sensation directly i.e. visible radiation.

Lighting installation

That part of a lighting system which comprises the luminaires and their supporting structures, installed at the site concerned.

Light output ratio (L.O.R.)

The ratio of the total light emitted by a luminaire to the total light output of the lamp(s) it contains. The light output ratio is always less than 1.

Low-pressure mercury (vapour) lamp

Mercury vapour lamp, with or without a coating of phosphor, in which during operation the partial pressure of the vapour does not exceed 100 Pa - for example: a TL lamp.

Low-pressure sodium (vapour) lamp

Sodium vapour lamp in which the partial pressure of the vapour during operation does not exceed 5 Pa - for example: a SOX lamp.

Lumen depreciation

Decline of light output of a light source during its lifetime.

Luminaire

Equipment that distributes, filters or transforms the light given by a lamp or lamps, and which contains all the necessary items for fixing and protecting the lamps and connecting them to a power supply.

Luminaire

The light intensity per square metre of apparent area of the light source, luminaire or illuminated surface (cd/m^2). Where surfaces are lit, the luminance is dependent upon both the lighting level and the reflection characteristics of the surface itself.

Unit: cd/m^2

Symbol L

Luminous efficacy

The quantity of light a light source emits per watt of electrical power of energy consumed. Note that both the lamp luminous efficacy and the system (lamp and ballast) luminous efficacy can be specified. The system luminous efficacy is always lower than the lamp luminous efficacy.

Luminous flux

The total light output emitted by a light source. Also the total light falling on a surface. Light output of a light source is measured in lumen.

Unit: lumen

Symbol Φ

Luminous intensity

The luminous flux in a given direction (e.g. from a floodlight, projector).

Unit: candela (cd) = one lumen per steradian

Symbol I

Luminous intensity diagram (table)

Luminous intensity shown in the form of a polar diagram or table, in terms of candelas per 1000 lumens of lamp flux.

The diagram (table) for non-symmetrical light distributions gives the light distribution of a luminaire in at least two planes:

1. In a vertical plane through the longitudinal axis of the luminaire
2. In a plane at right angles to that axis

Note: The luminous intensity diagram (table) can be used:

- a. To provide a rough idea of the light distribution of the luminaire,
- b. For the calculation of illuminance values at a point
- c. For the calculation of the luminance distribution of the luminaire

Luminous intensity distribution curve (Light distribution curve)

Of a light source is the curve, generally polar, which represents the luminous intensity in a plane passing through the source, or in a cone with its apex at the source, as a function of the angle measured from some given direction.

Note 1: When the source has a symmetrical luminous intensity distribution a meridian plane is generally chosen.

Note 2: In the case of a vertical plane, angles are measured from the downward vertical.--

Glossary of lighting terminology

Lux

The standard unit of illuminance of a surface being lit. One lux is one lumen per square metre.

Maintained emergency lighting

Emergency lighting where the lamps are in operation from the normal supply during standard conditions. In an emergency situation the emergency lamp (usually one lamp in luminaires of two or more lamps) remains in operation.

Maintained illuminance

Value below which the average illuminance on the specified surface is not allowed to fall. The maintained illuminance is specified at the end of the maintenance cycle, taking into consideration the maintenance factor.

It is one of the main specification elements for the lighting designer. In the various norms, the maintained illuminance is specified for various activities.

Unit: lux

Symbol: E_m

Maintenance factor

Correction factor used in lighting design to compensate for the rate of lumen depreciation, caused by lamp ageing (lumen depreciation and lamp failures) and dirt accumulation (luminaire and environment). It determines the maintenance cycle needed to ensure that illuminance does not fall below the maintained value.

MASTER Colour CDM

Series of metal-halide discharge lamps with excellent colour rendering and a warm or neutral colour impression. MASTER Colour lamps are applied in projectors and downlights in shop and office applications.

Mercury lamps

High-intensity discharge lamps for use in industry and large public spaces. Better light characteristics are obtained by applying metalhalide lamps.

Metal-halide lamps

Single- or double-ended discharge lamps for use in industry, public spaces and shops. Metal-halide lamps combine a natural white colour with a pleasant light and a high luminous intensity.

Mounting height

The distance between the reference plane and the plane of the luminaires.

Movement detection

To control lighting in a specific area, sensing of occupancy by movement detection ensures lights are activated only when needed.

Non-maintained emergency lighting

Emergency lighting where the emergency lighting lamps come into operation only when the power supply to normal lighting fails.

Obtrusive light

Spill light which because of quantitative, directional and spectral attributes in a given context, gives rise to annoyance, discomfort, distraction or a reduction in the ability to see essential information.

OLC

Omnidirectional Luminance Control, a Philips-patented series of optics for TL5 and TL-D lamps offering optimal lighting efficiency in combination with excellent glare and luminance control all around the luminaire.

PL

Single-ended fluorescent lamp in which the discharge tube is folded to two, four or six limbs. PL lamps are characterised by unusually high light output for length. PL lamps are to be applied in compact luminaires for professional and domestic use.

Power factor

The ratio of the circuit power in watts to the product of the root-mean-square values of voltage and current. For sinusoidal waveforms, it is equal to the cosine of the angle of phase difference between voltage and current. For electronic ballasts the power factor is 0.95; no extra compensation is required.

QL

See Induction lighting.

SDW-T

White SON or SDW-T lamps offer a high luminous efficacy in combination with a warm white light. The colour rendering is excellent. SDW-T lamps are applied in shops and public spaces where the atmosphere should be warm and cosy.

Sky glow

The brightening of the night sky that results from the reflection of radiation (visible and non-visible), scattered from the constituents of the atmosphere (gas molecules, aerosols and particulate matter, in the direction of observation. It comprises two separate components as follows:

- Natural sky glow: That part of the sky glow which is attributable to radiation from celestial sources and luminescent processes in the earth's upper atmosphere.
- Man-made sky glow: That part of sky glow which is attributable to man-made sources of radiation (e.g. outdoor electric lighting), including radiation that is emitted directly upwards and radiation that is reflected from the surface of the earth.

Spill light (stray light)

Light emitted by a lighting installation which falls outside the boundaries of the site for which the lighting installation is designed.

Starter

Device for starting a discharge lamp (in particular a fluorescent lamp) that provides the necessary preheating of the electrodes and/or causes a voltage surge in combination with the series ballast.

Switching and dimming control

As more and more light sources can be economically dimmed, lighting controls need to provide both switching and dimming capabilities.

Threshold increment (TI)

The measure of disability glare expressed as the percentage increase in the contrast required between an object and its background for it to be seen equally well with a source of glare present.

Note: Higher values of TI corresponds to greater disability glare.

TL5

Linear double-ended fluorescent lamp with a diameter of only 16 mm. In combination with OLC optics and high-frequency ballasts, the TL5 system offers a superb performance, both light-technically and in terms of energy consumption.

TL-D

Linear standard double-ended fluorescent lamp with a diameter of 26 mm.

Uniformity ratio

The ratio between the minimum and the average illuminance over an area (E_{min}/E_{ave}). If so defined, the uniformity ratio is the ratio between the minimum and the maximum illuminance over a specified surface (E_{min}/E_{ave}).

Utilisation Factor

The Utilisation Factor (UF) of a lighting installation represents the percentage of the luminous flux of the lamp(s), that reaches the defined working plane. The UF can be seen as the efficiency of the lighting installation. The UF is used to calculate the number of luminaires required.

Vertical illuminance

Illuminance on the vertical surface

Unit: lux (lx) = lm/m^2

Symbol E_{vert}

Visual guidance

The sum of the measures taken to give the user of a space an unambiguous and immediately recognisable picture of the course of the path ahead. Visual guidance is important in shops and public buildings. The lighting designer takes the demands for visual guidance into consideration.

Visual performance

The quantitative assessment of the visual system in the performance of a visual task.



Office lighting

Offices for people

Nowadays, people are becoming more concerned about their working environment. This concern stems from various factors including the trend towards a healthier lifestyle, change in the nature and organizational structure of businesses and the increased importance of internal and external communication. Employees are keen on an environment which generates maximum productivity from employees. And the employees naturally demand a comfortable environment which allows them to perform at their best.

Philips' office lighting continue to make people's working lives more comfortable and enjoyable, by giving them greater freedom to choose how they light their day.



Shop lighting

Enhancing the shopping experience

In the highly competitive world of retailing, lighting can be a key factor in a store's success, by attracting shoppers and creating an ambience that puts them in a buying mood. At Philips, we believe that the best way to develop effective shop lighting is to focus on the person actually experiencing our lighting solutions – the consumer. We also believe this is the best way we can support our customers in their business.

We offer solutions on two levels

Functional lighting: our versatile solutions enable merchandising to be presented in the most imaginative and inviting way – while keeping installation and operating costs to a minimum.

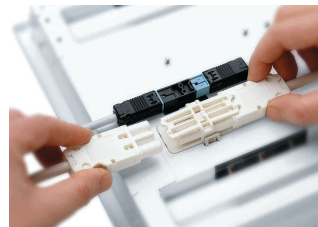
Retail ambience: modular lighting solutions integrate seamlessly with the architectural space, combining high-contrast accent lighting with diffuse ambient effects to deliver a more 'human' and natural environment.



In retail outlets, architectural decorative lighting can be used to define and organise the space, imbuing it with substance and rhythm to create an appealing ambience that encourages shoppers to linger.



Lighting of DIY outlets is in transition. On the way out are functional lighting solutions, and in their place we are seeing attractive display lighting designed to create a welcoming atmosphere.



Superb light distribution, glare control and luminaire efficiency are achieved thanks to Philips' patented Omni-directional Luminance Control (OLC) optic with 3D lamellae .



Superb light distribution, glare control and luminaire efficiency are achieved thanks to Philips' patented Omni-directional Luminance Control (OLC) optic with 3D lamellae .

PHILIPS



Industry lighting

Better light, better operations

Lighting has a major bearing on the performance and well-being of those working in industry. On a functional level, it has an effect on workers' visual task performance. And on a personal level, it affects their general sense of well-being. In both cases it affects productivity. We at Philips can deliver a portfolio of lighting solutions and consultative services that boost operating efficiency by improving the working environment. Philips has been supplying industry with eco-efficient, value-added solutions for the most demanding of applications, such as automotive assembly lines and paint shops. Philips' understanding of how lighting can influence operating efficiency, energy efficiency and operational reliability makes us the ideal partner for projects of this kind.

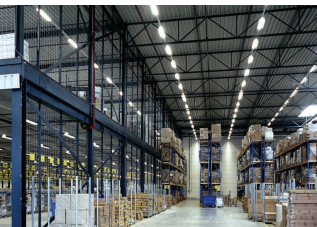


Road lighting

Lighting the road ahead

With over one hundred years of experience and expertise in the field of road lighting, we are in an ideal position to analyse the trends in the market and come up with appropriate solutions. Our business is to apply technological innovation to the design and development of the road lighting products of the future, in response to the wishes and needs of our customers.

All luminaires are optimised in wattage, in order to have precisely the right level of light, in the right place at the right time; lamps and electrical components used offer the longest possible lifetime. Compact, aesthetically pleasing luminaires are being designed, often with aluminium housings, reflecting the increasing importance being attached to the daytime appearance of light points.



In applications such as open or high rack-storage areas, Philips' lighting solutions ensure optimum conditions for safe and efficient working.



In industrial halls with ceilings more than 9 m high, high-bay luminaires with HID lamps allow efficient lighting with fewer luminaires. The result - lower initial and operational cost.



In certain fields, such as the food industry, lighting systems often have to operate in temperatures far beyond average. From -40°C to $+50^{\circ}\text{C}$, Philips has the luminaire, lamp, ballast combinations to withstand these harsh conditions.



Good tunnel lighting takes care of good visibility conditions for the road users.

PHILIPS

Sports lighting



Championship lighting for champion players

Today, sport is the world's biggest entertainment industry. Events such as the Olympics, the Football World Cup and Cricket Championships capture the attention of almost everyone on the planet. During the evening, when sport and TV can take advantage of peak-time viewing, broadcasters require excellent lighting of the playing field. But although the lighting should perfectly illuminate the players, and in some cases the live spectators too, it should never disturb them. Philips has in-house the lighting technology required to design all the elements of optimised sports lighting systems – many years of experience has enabled Philips engineers to perfect an unequalled competence for application development and optimal sports lighting design. And thanks to the Arena Vision Philips Lighting is present in all major sports, in the most prestigious stadiums across all continents, and is recognised as the true world champion in sports lighting.



Recreational sports lighting

Philips Lightings' leadership is also the result of its long-term technical co-operation with many international sports federations such as those for football, basketball, tennis and hockey, to name just a few. So, whatever the sport, whatever the level of competition, whatever the venue, Philips Lightings' impressive range of sports lighting solutions will provide the answer to all your needs.

Area lighting

For safety and efficiency

Today, the 24-hour economy has led to a massive increase in human activity around the clock. Whether it's a production centre, airport, container terminal, or industrial site there can be continuous activities throughout the night. The efficiency of these locations is greatly extended by lighting, which also contributes to the safety and security of people working on site. In area floodlighting, Philips Lightings' first objective is to understand and adapt to the specific customer needs. Philips Lighting has developed innovative optical systems, which contribute to the reduction of light pollution via sharp cut-off beam characteristics.



Airport Area Flood



Waigaoqiao Container Port



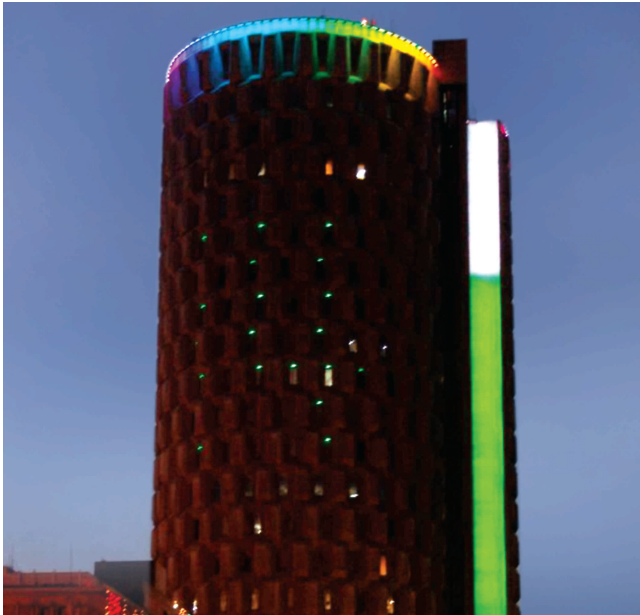
Train Station



Alder Community High School,
Tameside, United Kingdom.

PHILIPS

Solid state lighting



Highlighting all that is unique about your city

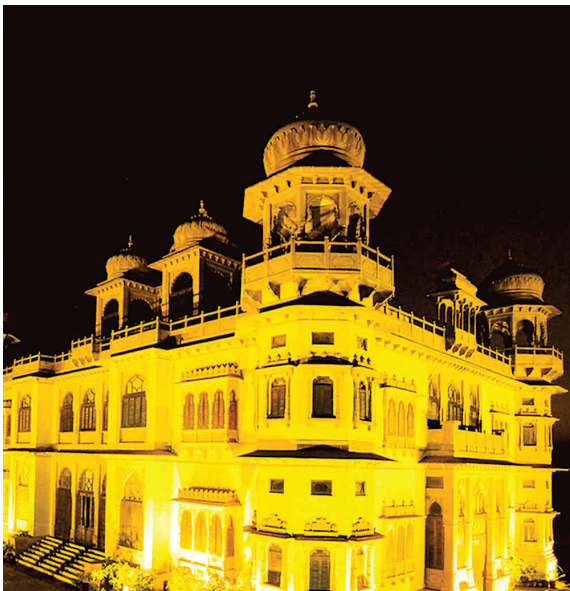
In today's increasingly individualistic world there is a growing demand for personalized lighting solutions. And when it comes to giving your fellow citizens lighting installations that will perfectly match their needs, moods and aspirations, no one offers you more choices than Philips SSL luminaires. When you choose Philips SSL luminaires for your applications, you give your design team the power to personalize individual settings and bring your city to life. Our pioneering state-of-the-art luminaire technologies are designed to slot into almost any object, surface or appliance. Their wealth of other user-friendly features includes sophisticated electronic controls that will enable users to adjust the output of every individual light source. The impressive end result is a lighting installation which offers an almost infinite choice of different shapes, intensities, colors and effects. There really is no easier or more affordable way to add a dramatic new dimension to your landmark architecture at night than Philips SSL luminaires!

Architecture outdoor lighting

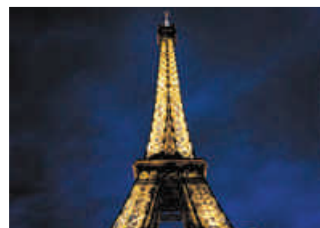
Philips Lighting believes that cities, towns and villages should be warm, inviting places that people enjoy living in and visiting.

Creating/identifying landmarks

Lighting a building, a monument or a specific architectural feature contributes to the identity of the city, town or village. It also creates landmarks for orientation. Whether you are working on a single building or an entire Masterplan, night-time sight-seeing tours or illumination of specific sites, Philips Lighting can offer state-of-the-art products and technologies backed by more than a century of lighting expertise. Luminaires for street and pedestrian lighting also have an architectural role. During the day they become an integral part of the street scene. Our architectural street luminaires has been designed with this in mind, offering a winning blend of performance and style.



Zhzhou Science & Technology Center,
China



Eiffel Tower, France



One ifc and Two ifc, Hong Kong



Philips Signage, Immigration
Tower,
Hong Kong

PHILIPS

Downlights



Downlights

I45 LOW HEIGHT RANGE



FBH I45

FBH I45

Professional low height recessed downlights with a 145mm internal diameter. Complete with a very efficient highly polished reflector in silver aluminium finish. Suitable for compact fluorescent lamps.

Main applications

- Mixed use shopping centres
- Corridors
- Department stores - general lighting
- High-end fashion shops and boutiques
- Restaurants, cafeterias and hotels
- Museum display, public buildings and waiting areas
- Transport buildings e.g. airport terminals and interchanges
- Small offices and conference rooms

Features

- Adjustable swing out metal clip integrates easily into various ceiling systems
- Maintenance is simplified with direct lamp access from below
- Employs highly efficient reflector to increase reflection and control glare
- Aluminium housing creates a compact and sturdy architecture to interface with different accessories

Materials and finish

- Aluminium body. Polycarbonate plastic outer ring. Aluminium reflectors.

Installation

- Cut-out diameter: 185mm
- Ceiling thickness: 1 - 28 mm
- Method: position the quick release metal clip according to the thickness of the ceiling boards
- Safety distance: 0,5m
- Lamp position: horizontal
- Maintenance: direct lamp access from below
- Lamp driver: complete with luminaire order

Accessories

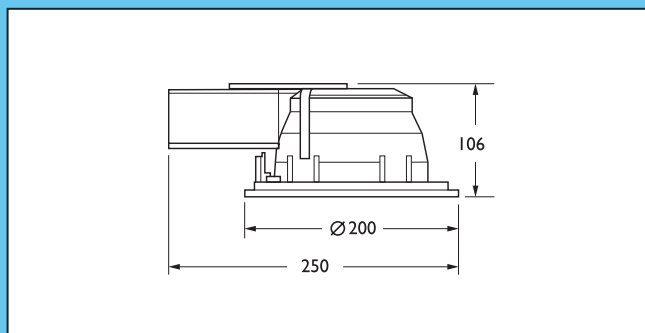
- Front glass ZZG I45.

Classifications

- IP 20
- Class I



Dimensions in mm



Product ID	Family	Weight	Lamps	Lamp Code	Rated Lamp
FBH I45 2xCFL MAXI4W-E27 220-240V	FBH I45	1,160kg	2	CFL-i	14W
FBH I45 1xCFL MAXI4W-E27 220-240V	FBH I45	1,160kg	1	CFL-i	14W

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www.lighting.philips.com.pk

PHILIPS



FBSI45C

I45 series

Professional standard recessed downlights with a 145mm internal diameter. Complete with a very efficient highly polished reflector in silver aluminium finish. Suitable for incandescent, halogen, compact fluorescent and high intensity discharge lamps.

Main applications

- Mixed use shopping centres
- Corridors
- Department stores - general lighting
- High-end fashion shops and boutiques
- Restaurants, cafeterias and hotels
- Museum display, public buildings and waiting areas
- Transport buildings e.g. airport terminals and interchanges
- Small offices and conference rooms

Features

- Modular concept - same cut out diameter allows a consistent appearance and interchangeable accessories and components
- Adjustable swing out metal clip integrates easily into various ceiling systems
- Maintenance is simplified with direct lamp access from below
- Employs highly efficient reflector with a polished upper part to increase reflection while the frosted lower part contributes to better glare control
- Die cast aluminium housing creates a compact and sturdy architecture to interface with different accessories

Materials and finish

- FBSI45: Die cast aluminium body, Polycarbonate plastic outer ring, Aluminium reflectors.
- MBSI45: Cast aluminum housing and ring, silver (frosted)aluminum reflectors.

Installation

- Cut-out diameter: 185mm
- Ceiling thickness: 1 - 28 mm
- Method: position the quick release metal clip according to the thickness of the ceiling boards
- Safety distance: 0,5m
- Lamp position: vertical downwards
- Maintenance: direct lamp access from below
- Lamp driver: complete with luminaire order
- CFL range: supplied with separate pre-wired ballasts polyamid gear box in black colour. Also available in HF versions
- HID range: supplied with separate pre-wired control gear in natural extruded aluminium box
- All HID versions come with built-in thermal switch gear

Accessories

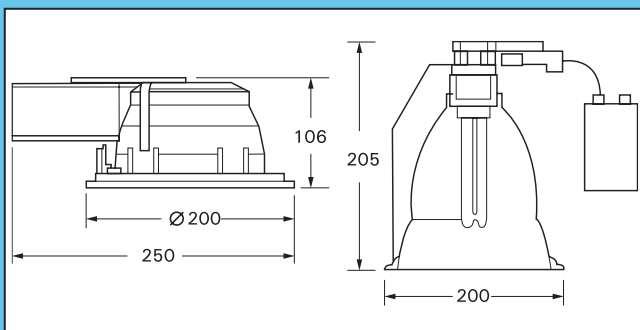
- Decorative front glass ZZGI45.

Classifications

- IP 20
- Class I
- Complies with IEC 598



Dimensions in mm



Preferred selection

Product ID	Product Family Code	Weight (kg)	Number of Lamps [pcs]	Lamp Family Code	Rated Lamp Power [W]	Gear
FBS145 C 1xPL-C/2P18W I FG	FBS145	3.0	1	PL-C/2P	18	CONV
FBS145 C 1xPL-C/2P18W I	FBS145	2.8	1	PL-C/2P	18	CONV
FBS145 C 1xPL-C/2P13W I FG	FBS145	3.0	1	PL-C/2P	13	CONV
FBS145 C 1xPL-C/2P13W I	FBS145	2.8	1	PL-C/2P	13	CONV
FBH145 C 1xPL-C/2P18W I FG	FBH145	2.1	1	PL-C/2P	18	CONV
FBH145 C 1xPL-C/2P18W I	FBH145	2.1	1	PL-C/2P	18	CONV
FBH145 C 1xPL-C/2P13W I FG	FBH145	2.1	1	PL-C/2P	13	CONV
FBH145 C 2xPL-C/2P26W I FG	FBH145	3.0	2	PL-C/2P	26	CONV
FBH145 C 2xPL-C/2P26W I	FBH145	3.0	2	PL-C/2P	26	CONV
FBH145 C 2xPL-C/2P13W I	FBH145	2.4	2	PL-C/2P	13	CONV
FBH145 C 2xPL-C/2P13W I FG	FBH145	2.4	2	PL-C/2P	13	CONV
FBH145 C 2xPL-C/2P18W I	FBH145	2.4	2	PL-C/2P	18	CONV
FBH145 C 2xPL-C/2P18W I FG	FBH145	2.4	2	PL-C/2P	18	CONV
FBH145 C 1xPL-C/2P13W I	FBH145	2.0	1	PL-C/2P	13	CONV



QBS050

Nova QBS050

Nova is a downlight based on a compact and sturdy construction. Its housing is fully made of high pressure die-casting aluminium and zamak. The unit has a straight downward beam and is available for fixed mounting. Installation and lamp replacement can easily be operated. Available with a choice of ring and face colors.

Main applications

Suitable for accent lighting in:

- Galleries
- Homes
- Restaurants
- Corridors
- Public areas
- Hotels
- Shops
- Conference rooms

Features

- Compact & sturdy construction
- Housing fully made of high pressure die-casting aluminium and zamak
- Twist & pull face plate for easy lamp access
- Available for fixed mounting
- Straight downward beams
- Easy installation & lamp replacement
- Available in trendy white, black, silver or gold face rings
- Available for adjustable functions

Technical description

- Power supply: 12V
- Number of lamps: 1
- Lamp power: Max. 50W
- Line frequency: 50Hz
- Lampholder: GX5.3/GY6.35
- Suitable for 12V Dichroic lamp 50W max

Materials and finish

- Die-casted aluminium.

Installation

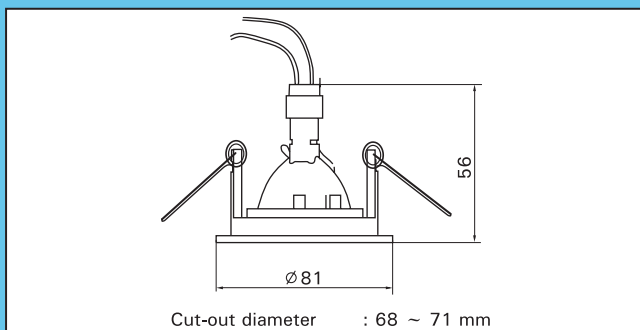
- One option available: recessed mounting. Please turn off the power supply if the product is not in use for a long time.

Classifications

- IP 20
- Class III



Dimensions in mm





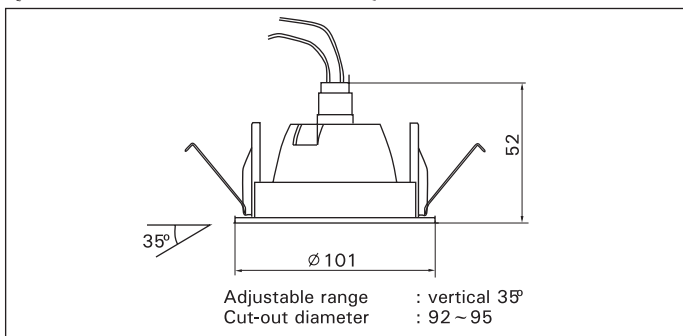
QBS051



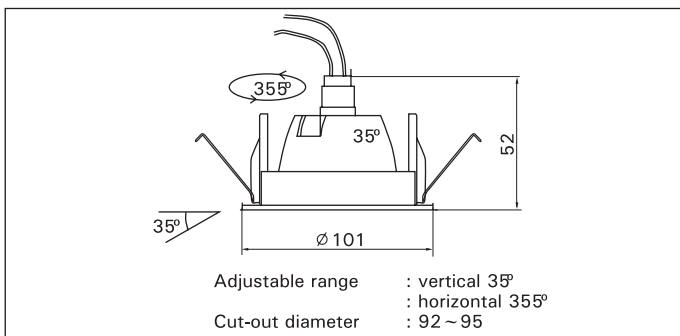
QBS052



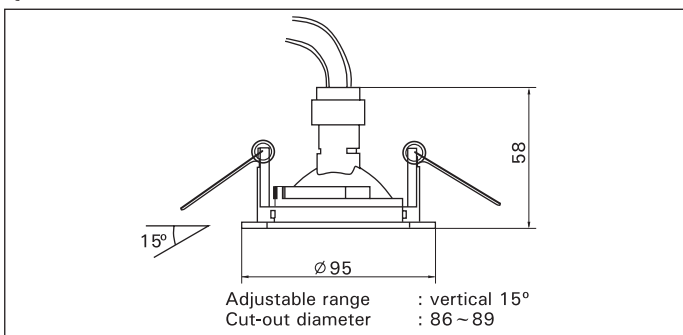
QBS058



QBS051



QBS052



QBS058

Preferred selection

Product ID	Product Family Code	Weight (kg)	Number of Lamps [pcs]	Lamp Family Code	Rated Lamp Power [W]
QBS052 MAX50W-GX5.3 12V BK IN	QBS050	7.5	1	12V Dichroic lamp	Max.50W
QBS058 MAX50W-GX5.3 12V WH IN	QBS050	6.5	1	12V Dichroic lamp	Max.50W
QBS051 MAX50W-GX5.3 12V SI IN	QBS050	11.5	1	12V Dichroic lamp	Max.50W
QBS050 MAX50W-GX5.3 12V SI IN	QBS050	3.25	1	12V Dichroic lamp	Max.50W
QBS050 MAX50W-GX5.3 12V WH IN	QBS050	3.25	1	12V Dichroic lamp	Max.50W
QBS050 MAX50W-GX5.3 12V GO IN	QBS050	5.75	1	12V Dichroic lamp	Max.50W
QBS050 MAX50W-GX5.3 12V BK IN	QBS050	3.25	1	12V Dichroic lamp	Max.50W
QBS051 MAX50W-GX5.3 12V WH IN	QBS050	6.5	1	12V Dichroic lamp	Max.50W
QBS051 MAX50W-GX5.3 12V GO IN	QBS050	11.5	1	12V Dichroic lamp	Max.50W
QBS051 MAX50W-GX5.3 12V BK IN	QBS050	6.5	1	12V Dichroic lamp	Max.50W
QBS052 MAX50W-GX5.3 12V SI IN	QBS050	13	1	12V Dichroic lamp	Max.50W
QBS052 MAX50W-GX5.3 12V WH IN	QBS050	7.5	1	12V Dichroic lamp	Max.50W
QBS052 MAX50W-GX5.3 12V GO IN	QBS050	13	1	12V Dichroic lamp	Max.50W

Downlights

Scrabble M/QBX500



MBX500c

Scrabble M/QBX500

High quality adjustable recessed multi-lamp downlights for compact discharge and halogen lamps; housed in white or silver frames. Its cardanic orientation system allows a beam orientation of 40° minimum in all directions. Optics offer a choice of narrow and medium beams with good visual comfort. Frames fit 1, 2, 3 or 4 lamps in 600 x 600 tiles to safeguard the ceiling structure.

Main applications

- Small independent food/nonfood shops
- Hyper-supermarkets, discount stores, DIY stores
- High-end fashion shops, boutiques
- Department stores, fashion shops
- Museums and art galleries

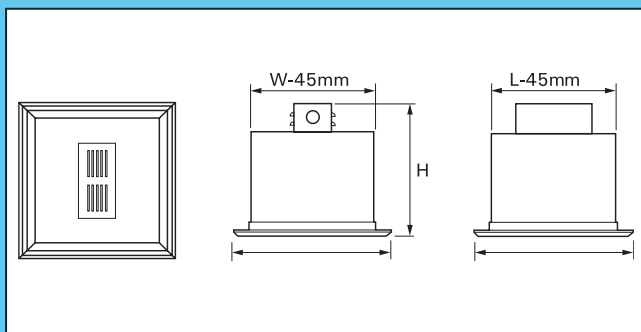
Features

- Compact and modular design
- Suitable for the different ceiling types, excellent visual effect and the perfect solution for modern shop concepts
- Unique cardanic orientation system, ensures high lighting efficiency and good lighting uniformity
- Stainless clips, tool free for maintenance, removable gear tray, ensures safe installation and easy lamp replacement
- Combined lamp options on request, to create special lighting effects and optimize merchandise with a combination of optic resources

Materials and finish

- Colors: all types available in white (WH, RAL9016) or silver (SI)
- Material: aluminum and steel
- Orientation: cardanic swivel device 2 x 40°

Dimensions in mm



Type	L	W	H
QBX 500 1x	204	204	150
QBX 500 2x	346	204	150
QBX 500 3x	448	204	150
QBX 500 4x (line)	630	204	150
QBX 500 4x (square)	356	356	150
MBX 500 1x	204	204	190
MBX 500 2x	346	204	190
MBX 500 3x	448	204	190
MBX 500 4x (line)	630	204	190
MBX 500 4x (square)	356	356	190

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Downlights

Scrabble M/QBX500

Installation

- Ceiling cut-out (mm):
 - MBX
 - 1 lamp: 206 × 206
 - 2 lamps: 396 × 206
 - 3 lamps: 584 × 206
 - QBX:
 - 1 lamp: 166 × 166
 - 2 lamps: 308 × 166
 - 3 lamps: 450 × 166
 - 4 lamps (line): 592 × 166
 - 4 lamps (square): 318 × 318
- Thickness of false ceiling: 5-24mm

- Safety suspension points for chain, cable or threaded rod
- Safety distance: 0.8 m
- Maintenance: remove front face to replace CDM-T, CDM-R111 and HAL-R111 lamps; unscrew CDM-R lamps

Classifications

- IP 20
- Class I for CDM lamp
- Class III for HAL-R111
- Complies with IEC 598



Preferred selection

Product ID	Product Family Code	Weight (kg)	Number of Lamps [pcs]	Lamp Family Code	Rated Lamp Power [W]
MBX500 C 1xCDM-R111-35W EB 24-36 WH	MBX500	1.70	1	CDM-R111	35
MBX500 C 1xCDM-R30-35W IC 24-36 WH	MBX500	3.20	1	CDM-R30	35
MBX500 C 1xCDM-R30-70W IC 24-36 WH	MBX500	3.20	1	CDM-R30	70
MBX500 C 1xCDM-T35W IC 24-36 WH	MBX500	3.20	1	CDM-T	35
MBX500 C 1xCDM-T70W IC 24-36 WH	MBX500	3.20	1	CDM-T	70
MBX500 C 2xCDM-R111-35W EB 24-36 WH	MBX500	3.40	2	CDM-R111	35
MBX500 C 2xCDM-R30-35W IC 24-36 WH	MBX500	6.00	2	CDM-R30	35
MBX500 C 2xCDM-R30-70W IC 24-36 WH	MBX500	6.00	2	CDM-R30	70
MBX500 C 2xCDM-T35W IC 24-36 WH	MBX500	6.00	2	CDM-T	35
MBX500 C 2xCDM-T70W IC 24-36 WH	MBX500	5.20	2	CDM-T	70
MBX500 C 3xCDM-R111-35W EB 24-36 WH	MBX500	5.10	3	CDM-R111	35
MBX500 C 3xCDM-R30-35W IC 24-36 WH	MBX500	9.00	3	CDM-R30	35
MBX500 C 3xCDM-R30-70W IC 24-36 WH	MBX500	9.00	3	CDM-R30	70
MBX500 C 3xCDM-T35W IC 24-36 WH	MBX500	9.00	3	CDM-T	35
MBX500 C 3xCDM-T70W IC 24-36 WH	MBX500	9.00	3	CDM-T	70
MBX500 C 4xCDM-R111-35W EB 24-36 WH	MBX500	6.80	4	CDM-R111	35
QBX500 C 1xHAL-R111-50W EB 24-36 WH	QBX500	1.20	1	HAL-R111	50
QBX500 C 2xHAL-R111-50W EB 24-36 WH	QBX500	2.40	2	HAL-R111	50
QBX500 C 3xHAL-R111-50W EB 24-36 WH	QBX500	3.60	3	HAL-R111	50
QBX500 C 4xHAL-R111-50W EB 24-36 WH	QBX500	4.80	4	HAL-R111	50

SI=Silver

WH=White



MBN100

MBN100

Recessed fixed downlight for MASTER Colour CDM-T lamps

Main applications

- Small independent food/non-food shops
- Discount stores, hyper-/supermarkets, do-it-yourself shops
- High-end fashion shops, boutiques
- Department stores, fashion shops

Features

- Solid and durable, excellent heat dissipating effect
- Orientations can be 70° horizontal and 65° vertical
- Separate gear box

Materials and finish

- Die cast aluminum housing, zinc-coated steel gear box, high intensity toughened glass.

Installation

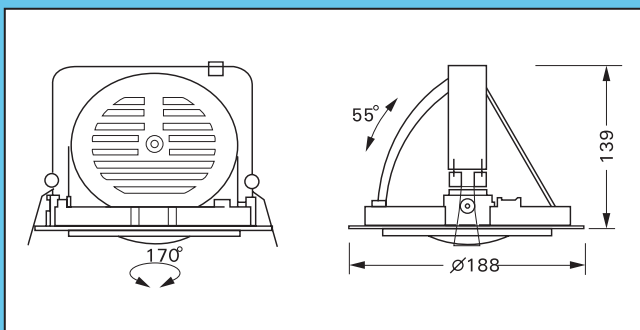
- Thickness of false ceiling: 1 - 40 mm
- Method: position spring fasteners
- Safety distance: 0,8 m
- Maintenance: by removing the front protection glass

Classifications

- IP 20
- Class I
- Complies with IEC 598



Dimensions in mm



Preferred selection

Product ID	Product Family Code	Weight (kg)	Number of [pcs]	Lamp Family Code	Rated Lamp Power [W]	Gear
MBN100 CDM-T35W IC	MBN100	2,80	1	CDM-T	35	CONV
MBN100 CDM-T70W IC	MBN100	2,80	1	CDM-T	70	CONV

Preferred selection

Product ID	Product Family Code	Weight (kg)	Number of Lamps [pcs]	Lamp Family Code	Rated Lamp Power [W]	Color	Compensation Circuit	Gear	Comm Code
MCSI45 C CDM-T35W IC	MCSI45	4.2	1	CDM-T	35	No	IC	CONV	824106224380
MCSI45 C CDM-T70W IC	MCSI45	4.6	1	CDM-T	70	No	IC	CONV	824106224480
MCSI45 C CDM-T150W IC	MCSI45	5.4	1	CDM-T	150	No	IC	CONV	824106224580
MCSI45 C CDM-TD70W	MCSI45	4.6	1	CDM-TD	70	No	IC	CONV	824106224680
MCSI45 C CDM-TD150W IC	MCSI45	5.4	1	CDM-TD	150	No	IC	CONV	824106224780
FCSI45 C 1xPL-C/2P26W IC	FCSI45	2.8	1	PL-C/2P	26	No	IC	CONV	824106222480
QCSI45 C HAL-P38-120W	QCSI45	2.0	1	HAL-P38	120	No	No	No	910401681080



MBN200

MBN200

Recessed adjustable downlight for MHN-TD lamps.

Main applications

- Small independent food/non-food shops
- Discount stores, hyper-/supermarkets, do-it-yourself shops
- High-end fashion shops, boutiques
- Department stores, fashion shops

Features

- Die-cast aluminium housing, solid and durable, excellent heat dissipating effect
- Orientations from 0° to 60°
- Separate gear box to reduce the bearing of ceiling and good for heat dissipation

Materials and finish

- Die-cast aluminium body, white painted, steel gear box, 5mm-thick tempered glass.

Installation

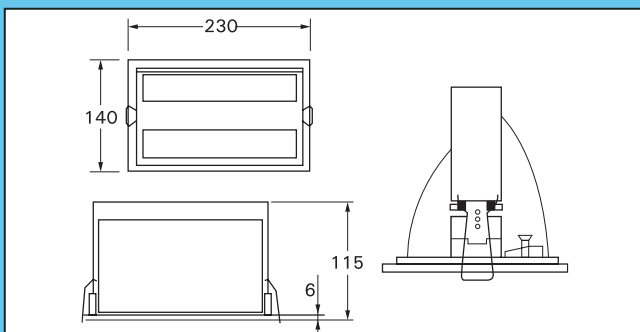
- Thickness of false ceiling: 2 - 24 mm
- Method: position spring fasteners
- Safety distance: 0.8 m
- Maintenance: by removing the front protection glass

Classifications

- IP 20
- Class I
- Complies with IEC 598



Dimensions in mm



Preferred selection

Product ID	Product Family Code	Weight (kg)	Number of [pcs]	Lamp Family Code	Rated Lamp Power [W]	Gear
MBN200 MHN-TD70W EB	MBN200	2.50	1	MHN-TD	70	EB
MBN200 MHN-TD150W EB	MBN200	3.00	1	MHN-TD	150	EB



MBR600c

Odyssey M/QBR600

Recessed luminaire for compact fluorescent PL-C, MASTER Colour CDM-TD and halogen Plusline lamps. Dedicated to general lighting with an asymmetrical light distribution for indoor applications.

Main applications

- Small independent food/non-food shops
- Department stores, fashion shops

Features

- Professionally designed asymmetric reflector
- A variety of lamp choices: PLC 26W, CDM-TD 70W/150W, HAL-DE 200W
- Fast clip for ease of installation and maintenance
- Delivered with male and female electrical connector fitted on the luminaire
- Self-locking fixed device, the luminaire need not be taken down when replacing the lamp or electrical component

Materials and finish

- Housing: body of extruded profile aluminium, painted grey with glass front face

Installation

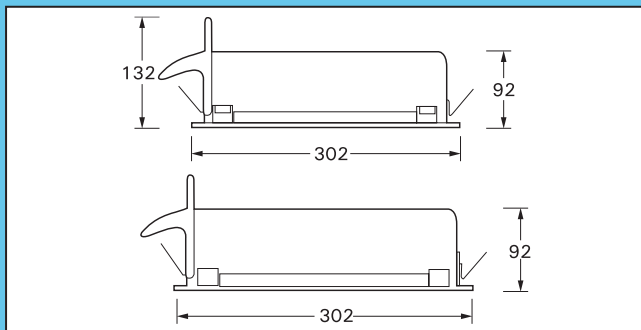
- For wall, floor or ceiling. Cut-out: 285 x 293 mm. Fixation with adjustable clips in ceilings of thickness 3 - 24 mm.
- For other ceilings and walls, additional counter-sunk rim holes available for screw fixing, or use the integration frame ZBR600.

Classifications

- IP 20
- Class I
- Complies with IEC 598



Dimensions in mm



Preferred selection

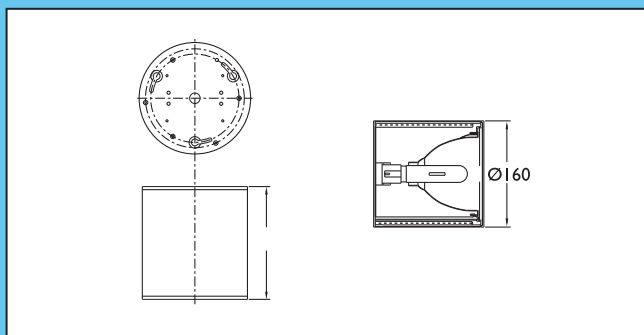
Product ID	Product Family Code	Weight (kg)	Number of [pcs]	Lamp Family Code	Rated Lamp Power [W]	Gear
FBR600 C-PL-C/2P6W I	FBR600	4.00	1	PLC/2P	26	CONV
FBR600 C-PL-C/2P6W I	FBR600	2.40	1	PLC/2P	26	CONV
MBR600 C CDM-TD70W EB	MBR600	5.50	1	CDM-TD	70	EB
MBR600 C CDM-TD70W IC	MBR600	5.50	1	CDM-TD	70	CONV
MBR600 C CDM-TD 150W EB	MBR600	6.20	1	CDM-TD	150	EB
MBR600 C CDM-TD 150 W IC	MBR600	6.20	1	CDM-TD	150	CONV
QBR600 C HAL-TDC200W	QBR600	4.10	1	HALTDC	200	NO

Downlights



FCS120

Dimensions in mm



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LUNAR SURFACE MOUNTED

FCS 120

Economical surface-mounted downlighter complementing the lunar range. Complete with a very efficient highly polished reflector in specular aluminium finish. Suitable for compact fluorescent lamps. Colour options available upon request.

Main Applications

- Mixed use shopping centres - corridors & lobbies
- Departmental stores – general lighting
- Fashion shops, boutiques, restaurants, cafeterias & hotels
- Museum displays, public buildings & waiting areas
- Transport buildings e.g. Airport, Terminals & Interchange
- Small offices & conference rooms.

Features

- Non-yellowing ABS decorative antiglare ring housing creates a compact and sturdy architecture to interface with different accessories.
- Maintenance is simplified with direct lamp access from below.

Materials & Finished

Sheet metal housing (Epoxy Polyester Powder Coated)
MS body ABS plastic outer ring
Aluminium reflectors (mirror/satin)

Installation & Mounting

- Power Supply : 220-240V 50/60Hz
- Method : Direct mounting to the ceiling by using the base plate.
- Safety Distance : 0,5m
- Lamp Position : Vertically mounted
- Maintenance : Direct lamp access from below
- Lamp Driver : Complete with luminaire order

Classifications

- IP 20
- Class I



Product ID	Family	Weight	Lamps	Lamp Code	Rated Lamp	Comm. Code
FCS120 MAX18W-E27 220-240V	LUNAR	1.145kg	I	CFL-i	Max.18W	919099133701

PHILIPS



FCSI45

M/F/QCSI45 series

Surface mounting technical downlights with highly efficient 145 mm internal diameter (frosted) silver reflector. White decorative ring, protection glass and control gear are supplied together with downlight.

Main applications

- Representative offices
- Reception and public service areas
- Corridors and staircases
- Recreational areas (sport halls, restaurants, cafeterias)
- Department stores, Fashion shops Small independent food

Features

- Compact design with "3 in 1" concept of integrated lamp - reflector- gear.
- Modular concept with same diameter allows consistent appearance & interchangeable accessories.
- Extruded ALU housing creates a compact & sturdy architecture.

Technical description

- Power supply: 220V/50Hz or 240V/50Hz with through-wiring designed connector.
- Gear: Control gear unit is supplied together with the luminaire.

Materials & finish

- Material : aluminum extrusion case and die-casting ring, silver (frosted) aluminum reflector.

Installation

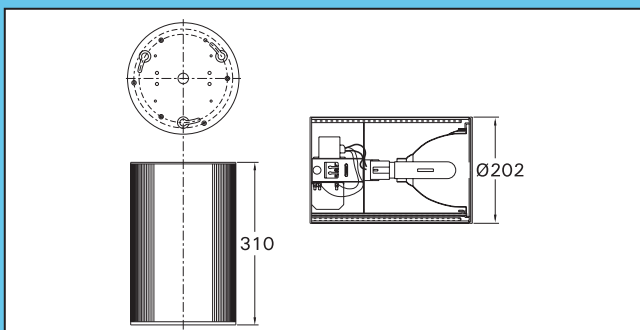
- Direct mounting to the ceiling by using the base plate and then counter clockwise to turn the luminaire onto the base plate.
- Open the side maintenance door to connect electrical power and tighten the safety screw.
- Safety: 0,5 M.
- Maintenance: direct lamp access (by removing the decorative ring with protection glass).

Classifications

- IP 20
- Class I
- Complies with IEC 598



Dimensions in mm



Office Lighting





TBS 300

TBS 300

Functional modular luminaires for TL'D fluorescent lamp(s) with a choice of 3 optics, 2 covers and an optional 1-, 2- or 3-hour emergency lighting circuit. All versions, excluding O and P, are suitable for air handling systems. Extra-length versions available upon request.

Features:

- Wide range of attachments and mirrors.
- Suitable for exposed and concealed ceiling.
- Can be mounted by threaded rods
- Flexible modular system for attachments.
- Modular range.
- I product family.
- Built-in emergency units are possible.

Main applications:

- Normal industries • Representative offices • Conference rooms
- Small offices • General open plan offices • Dataprocessing offices
- Reception and public service areas • Recreational areas (restaurants, cafeterias) • Discount stores, Hyper-/supermarkets, D-I-Y shops
- Department stores, fashion shops • Small independent food/non-food shops • Specific areas

Material and finish:

Housing: 0.5 - 0.6 mm white zinc-coated sheet steel. Optics: 0.4 mm preanodized sheet aluminium.

Installation & mounting:

Mounting: individual. For standard 300 mm or 600 mm, modular exposed or concealed ceiling grids.

Accessories

Suspension bracket set.

Options

2 and 4-lamp TL'D versions with TL'D 18W and 36W.

Applicable optics and covers: L, M1 and M2.

Applicable gears: conventional electromagnetic with parallel capacitor compensation and high frequency electronic ballast. Applicable mains options (V/Hz): 220 ~ 240 / 50

Integrated air-supply panels. Fused terminal block. Lighting controls.

Emergency lighting. Suspension brackets. Extra length.

Classifications:

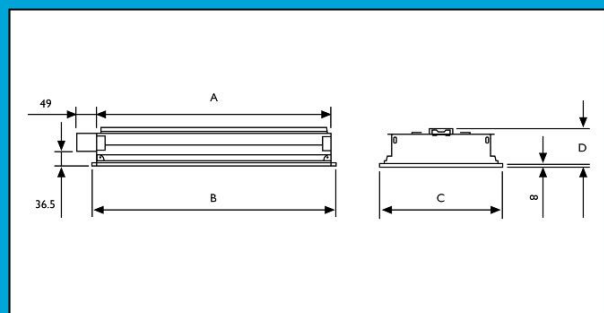
Class I

IP 20

Compliance with IEC 598



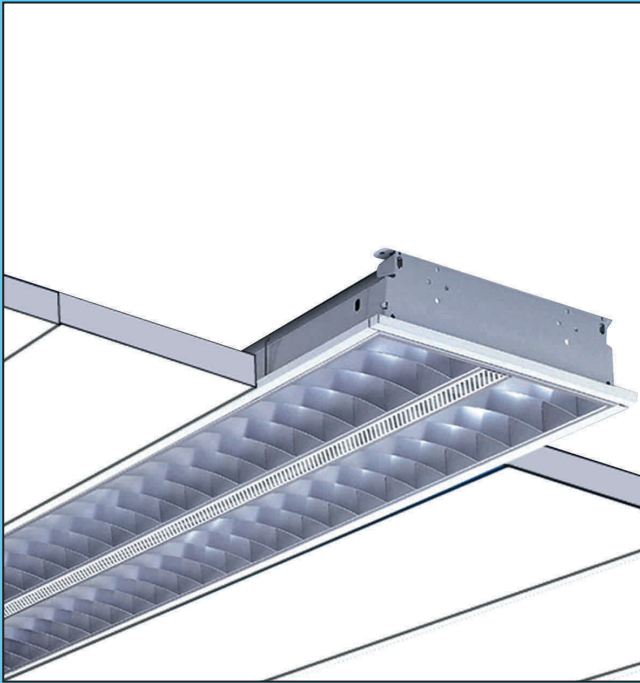
Dimensions in mm



Type	A	B	C	D
TBS 300 4X18W	574	597	597	89
TBS 300 2X36W	1174	1197	297	96

Recessed

X-tend TBS369



TBS369

X-tend TBS369

Functional modular luminaire for TL-D fluorescent lamp(s) with a choice of optics, covers and an optional emergency lighting circuit. All versions, excluding O (opal) and P (prismatic diffuser), are suitable for air handling systems. Extra-length versions available upon request.

Main applications

- General industries
- Representative offices
- Conference rooms
- Small offices
- General open plan offices
- Data processing offices
- Reception and public service areas
- Recreational areas (restaurants, cafeterias)
- Discount stores, Hyper-supermarkets, D-I-Y shops
- Department stores, fashion shops
- Small independent food/nonfood shops

Features

- Suitable for all metric ceilings
- Four types of OLC louvre D6 & C6; M6 complies with CIBSE LG3 Cat 2
- 3-dimensional lamella
- Concave contour

Materials and finish

- Housing: 0.5mm cold rolled white paint sheet steel
- Optics: high purity pre-anodize aluminum sheet in matt, semi-specular and specular finish
- In-fill panel: cold rolled steel with white paint. Resistant to fire

Installation

- Mounting: individual. For standard 300mm or 600mm modular; exposed or concealed ceiling grids.

Choice of optics

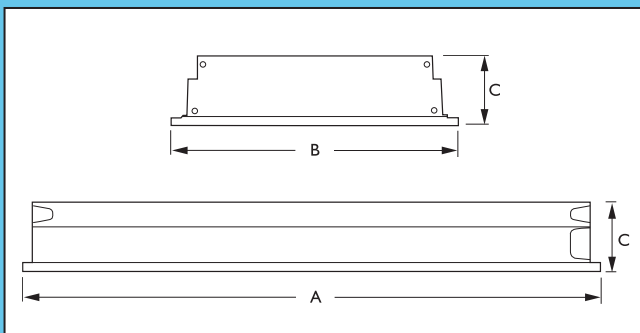
- M6: OLC matt high quality anodized aluminium 3-dimensional cross lamellae with fresnel structure
- D6: OLC semi-high-gloss, high quality anodized aluminium 3-dimensional cross lamellae with fresnel structure
- C6: OLC high-gloss, high quality anodized aluminium 3-dimensional cross lamellae with fresnel structure

Classifications

- IP 20
- Class I
- Complies with IEC 598



Dimensions in mm



Type	A	B	C
TBS369 4x18W	597	597	72.57
TBS369 2x36W	1197	297	72.57

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TBS299

TBS299

The TBS299 is a superior energy efficient T5 based solution that delivers excellent lighting performance and color-rendering in any kind of interior application. With its sleek design and availability in 2 different lamp configurations, the TBS299 is the ideal luminaire for all types of office spaces and public buildings.

Main Application

- General offices
- Meeting rooms
- Cell offices
- Department stores
- Schools
- Shops
- Hospitals

Features and Benefits

- Rippled louver reflectors
- Equipped with external hinged connection device
- Flat light with only 47mm in height

Materials and Finish

- Housing: post-painted sheet steel
- Optics: high purity pre-anodized aluminum

Installation

- Mounting: individual or in-line. For standard 600mm modular exposed or concealed grids
- Suspension ,surface and recessed mounting options available

Choice of Optics

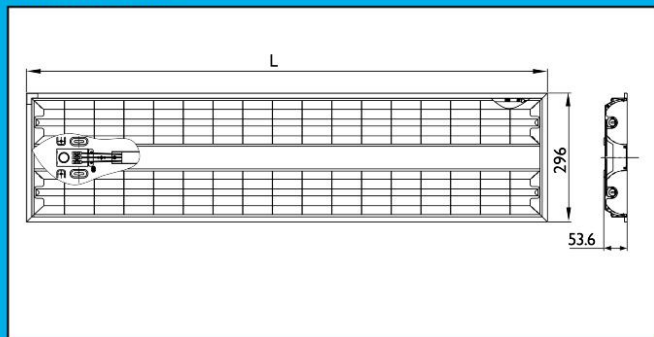
- M2: Matt high quality anodized aluminum optic with flat profiled aluminum lamellae
- Mirror finish parabolic louver

Classification

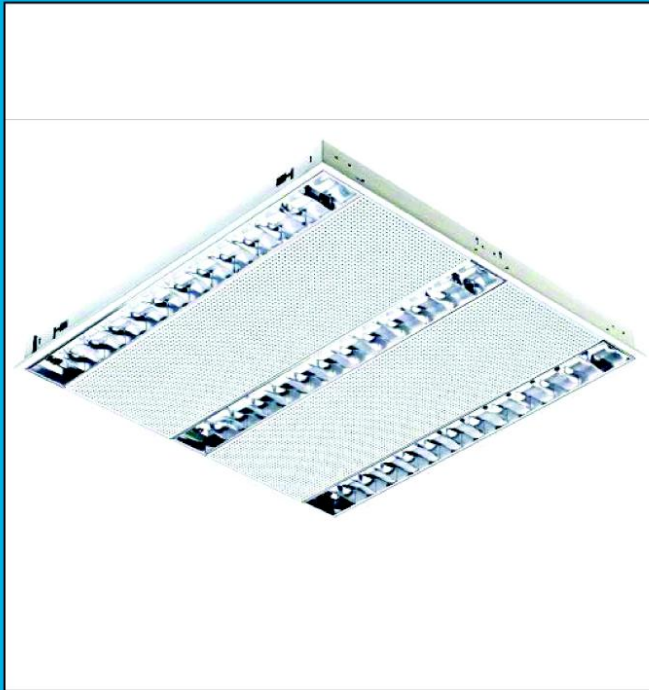
- IP 20
- Class I
- Complies with IEC 598



Dimensions in mm



Type	Lamp	L
TBS 299/228	28W	1196
TBS 299/414	14W	596



Sereno TBS869

Sereno

The new Philips range Sereno recessed luminaires are more energy efficient than ever before. The latest optical technology was used to create a highly effective optic, giving rise to new opportunities for saving energy.

Main Application

- General industries
- Representative offices
- Conference rooms
- Small offices
- General open plan offices
- Data processing offices
- Reception and public service areas

Features and Benefits

- Energy efficient: Sereno advanced TL5 recessed luminaire with micro optic technology use up to 25% less energy than standard TLD solutions and with PHILIPS advanced lighting controls, up to 75% energy saving.
- Architecturally appealing: comfort visual appearance and ultra flat light with only 47mm in height
- An easy choice offer installation, replacement & maintenance

Materials and Finish

- Housing: high quality steel, painted with standard white RAL 9003
- Optics: high purity pre-anodized aluminum sheet in a semi-specular finish

Installation

- Mounting: individual. For standard 300mm or 600mm modular, exposed or concealed ceiling grids
- Method: housing rests on T-bars
- Four suspension holes available for safety chain

Choice of Optics

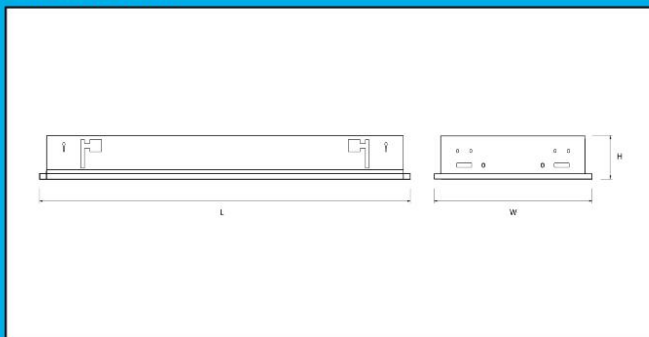
- OLC semi-high-gloss, high-reflecting anodized aluminum 3-dimensional optimized cross lamellae with upper surface in convex closed by overlap (D8)
- OLC semi-high-gloss, very high-reflecting anodized aluminum 3-dimensional optimized cross lamellae with upper surface in convex closed by overlap (D8H)

Classification

- IP 20
- Class I
- IEC60598



Dimensions in mm



Preferred selection

Type	Dimensions (mm)
TBS 869/4x14W D8	675 x 665 x 120
TBS 869/2x28W D8	1280 x 365 x 120
TBS 528 2x28W M2	1280 x 365 x 120
TBS 528 2x28W M8	1280 x 365 x 120
TBS 528 4x14W M8	675 x 665 x 120
TBS 528 4x14W M2	675 x 665 x 120



TCS398

TCS398

High-performance luminaire for 2 TLD fluorescent lamps, with a wide range of high-performance optics. The luminaire is a direct version and can be surface-mounted or suspended. There is a choice of ballast types, optics and lamps. Extra features can be added, such as emergency lighting, through-wiring, lighting control devices, etc. Two types of suspension systems are available: wire and tube suspension. The luminaire can be mounted individually and in configurations.

Connection to the mains, ceiling or suspension system can be done from either outside or inside the lamp compartment.

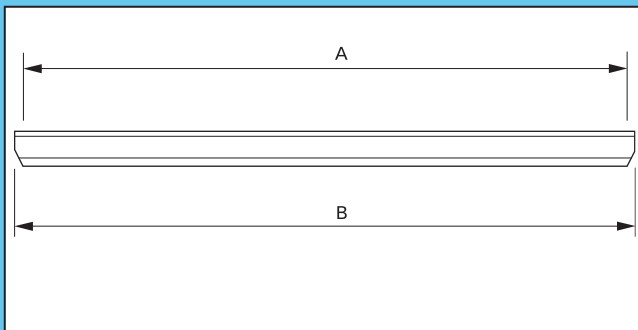
Main applications

- Offices
- Recreational areas
- Public buildings, schools, and hospitals
- Small independent food/nonfood shops
- Discount stores, hyper/supermarkets
- Do-it-yourself shops
- Department stores, fashion shops
- General industries

Features

- Wide selection of best-in-class optics, customized to meet your specific needs
- Choice of fluorescent lamps TLD: increased efficiency, luminaire is optimized with TL5 version
- Compact dimensions, clean lines and subtly-round edges: offer stylish design & a high quality appearance
- Semi-matt housing (RAL9010), suitable for modern interiors
- Philips V-clips to ease installation and maintenance
- Choice of suspended or surface mounting offers flexibility in application
- Top mirror on request: offers higher luminaire performance
- In-line mounting on request for a smooth visual appearance

Dimensions in mm



Type	A	B
TCS 398 2/1x36 W	1240	1310
TCS 398 2/1x58 W	1540	1610

Materials and finish

- Housing: 0.6mm high quality lacquered steel, painted with standard white RAL 9010, semi-matt
- Optics: high purity pre-anodize aluminum sheet in matt, semispecula and specula finish

Installation

- Mounting: individual and in-line. Method: holes for (wood) screw.

Classifications

- IP 20
- Class I
- Complies with IEC 598

**Accessories**

- Universal suspension set ZPH 300 US (screws) for cable suspension mounting, ZPS 398 CB-S for pole suspension, ZPS 398 CP-S for in-line mounting.

Choice of optics

- M2: Matt high quality anodized aluminium optic with flat profiled aluminium lamellae
- C6: OLC high-gloss, high quality anodized aluminium 3-dimensional cross lamellae with fresnel structure
- D6: OLC semi-high-gloss, high quality anodized aluminium 3-dimensional cross lamellae with fresnel structure
- M6: OLC matt high quality anodized aluminium 3-dimensional cross lamellae with fresnel structure

Suspended and Surface Mounted

TCS KIA



TCS KIA

TCS KIA

A surface-mounted luminaire with a high-quality mirror reflector system. TCS KIA has been designed for use with TL'D fluorescent lamp. Specially designed reflector profiles ensures both high light output and a wide beam distribution; in doing so, optimum use has been made of the consumed energy with exceptional glare control.

Main applications

Type TCS KIA luminaire can be applied in any kind of commercial interior where high demands are placed on quality and lighting characteristics.

Features

- Luminaire housing is fabricated from M.S. sheet, white powder coated throughout with premium quality cables.
- High quality finish of the internal metal surface gives excellent reflectance of light.
- Tight construction of the metal components prevents any disturbing leakage of light.
- Electrical circuit within the luminaire is clear and neatly wired.
- An earthing terminal is provided for safe operation of the luminaire according to safety regulation.

Options

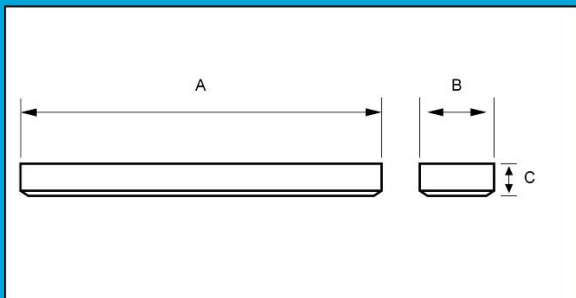
- Available with M2 type covers and with plastic sheet.
- Electronic version also available
- M2; matt high quality aluminium optic with flat profiled aluminium lamella.

Classifications

- IP 20



Dimensions in mm



Preferred selection

Type	A	B	C
TCS KIA 1/2 x 36 W	1288	197	67



TPS498

X-tend TPS498

High-performance suspended luminaire for TLD or TL5 fluorescent lamps with a wide range of optics. Choice of direct, direct/indirect lighting. The luminaire has an innovative and stylish design. Straight coupling pieces allow connection of luminaires in line. There are two different top covers: cover-solid and PC-indirect (D/I version). The luminaire is developed with ease of installation in mind, it can be suspended without removing the optic and lamp during installation.

Main applications

- Offices
- Public buildings, schools, and hospitals
- Department stores, fashion shops

Features

- Wide selection of best-in-class optics, customized to meet your specific needs
- Choice of fluorescent lamps, TL5 or TLD
- High-quality finishing for a high quality appearance
- Philips lightweight design, eases installation and maintenance
- Direct/indirect lighting, greater beam control
- Pre-fitted optics for quick installation
- Accessories offer flexibility in application

Technical description

- Gear/power supply: HF 220-240V
- Lamps: 1 and 2 TLD or TL5 (16 mm) fluorescent
- Connection: push-in
- Housing: high quality extruded aluminium, painted with standard white RAL 9010, semi-matt
- End cap: ABS, same color as housing
- Reflector: 0,4 mm high-purity aluminium

Installation

- Mounting: suspended individual, in line.
- Method: suspended mounting in combination with the universal suspension set ZPH 300 US.
- Fixing: installation without removing lamps or optics, with minimum of tools.

Choice of optics

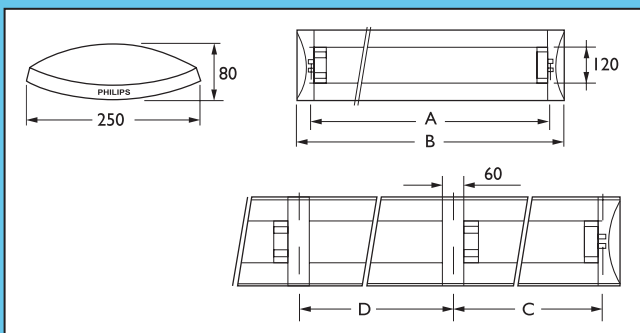
- M2 - Matt high quality anodized aluminium optic with flat profiled aluminium lamellae
- C6 - OLC high-gloss, high quality anodized aluminium 3-dimensional cross lamellae with fresnel structure
- D6 - OLC semi-high-gloss, high quality anodized aluminium 3-dimensional cross lamellae with fresnel structure
- M6 - OLC matt high quality anodized aluminium 3-dimensional cross lamellae with fresnel structure

Classifications

- IP 20 • Class I • Complies with IEC 598



Dimensions in mm



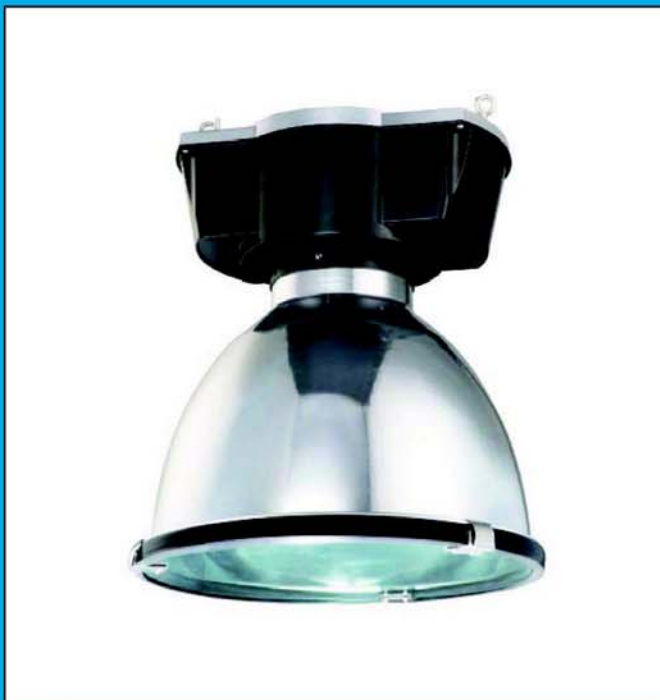
Type	A	B	C	D
TPS 498 2x36W	1240	1388	1260	1280
TPS 498 1x36W	1240	1388	1260	1280
TPS 498 2x58W	1540	1638	1560	1580
TPS 498 1x58W	1540	1638	1560	1580
TPS 498 2x28W	1188	1286	1208	1228
TPS 498 1x28W	1188	1286	1208	1228

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Industry Lighting

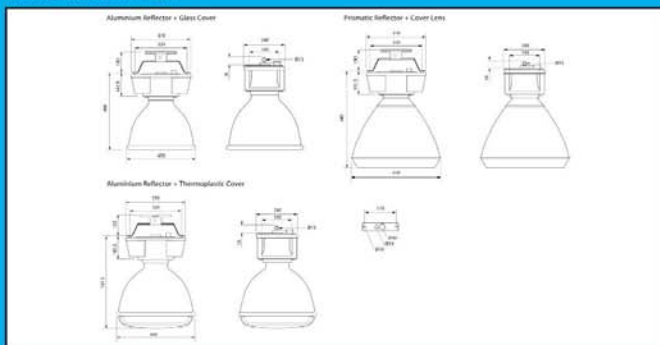




HPK518



Dimensions in mm



HPK518

VersaBay™ luminaire has been designed to offer the best light output on the market and to withstand harsh industrial conditions

Main Application

- General Industry
- Heavy Industry
- Logistic Center
- Power plant
- Steel plant
- Public area
- Food processing Industry

Features and Benefits

- Ideal for industrial applications with extreme conditions
- VerseBay is also particularly suitable for many large spaces with high ceilings
- Integrated beam regulator to adjust beam spread
- Tool-less installation and wiring

Materials and Finish

- Sandblasted aluminum die-cast housing plate
- Black-painted aluminum die-cast housing
- Anodized aluminum reflector
- Tempered glass and silicon gasket
- PA66 + 30% glass fibre lamp holder adapter
- Zinc-coated mounting bracket

Installation

- Suspension, surface or pipe-mounted

Choice of Optics

- Light output ratio of 70% with glass cover
- Wide-beam; narrow beam with aluminum reflector
- Prismatic reflector for 150W & 250W lamp Options
- Thermoplastic cover

Classifications

- IP 20 for Prismatic reflector
- IP 65 for Aluminum reflector
- Class I
- Electrical: IEC60598/GB7000
- Vibration: GB/T 4857.18 (for aluminum reflector version)



Preferred selection

Type	Lamp Type
HPK518 1xHPI-P 250W-BU	HPI-P 250W-BU
HPK518 1xHPI-P 400W-BUS	HPI-P 400W BUS
HPK518 1xSON 150W	SON 150W
HPK518 1xSON 250W	SON 250W
HPK518 1xSON 400W	SON 400W



HPK580

Hanger HPK580

A basic high-bay luminaire for high-pressure mercury, metal halide and sodium lamps. Its medium beam light distribution makes this luminaire suitable for most industrial applications. Installations can be through a hook, pipe or chain.

Main applications

- General Industries
- Warehouse & Storage Areas
- Large halls
- Workshops

Features

- Economical & safe
- Good light distribution for general industries
- Heat dissipation via ventilation slots on the two sides of the gear housing
- Prewired with high quality Philips control gear & components

Installation

- Electrical connection through PG 13.5 cable Gland.
- Luminaire can be mounted by hook, pipe or chain

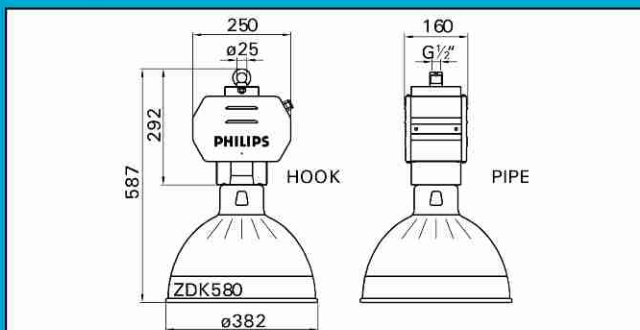
*Electrical unit is included but other accessories have to be ordered separately.

Classifications

- IP 20

IP 20

Dimensions in mm



Preferred selection

Product ID	Product Family Code	Weight (kg)	Number of [pcs]	Lamp Family Code	Rated Lamp power [W]	Comm Code
HPK580 SON150W 230V 50Hz	HPK580	5.0	1	SON	150	914522310233
HPK580 SON250W 230V 50Hz	HPK580	5.9	1	SON	250	914522310133
HPK580 SON400W H 240V 50Hz	HPK580	7.2	1	SON	400	914522310035
HPK580 HPL-N250W 230V 50Hz	HPK580	4.8	1	HPL-N	250	914522310533
HPK580 HPL-N400W/HPI-P400W-BUS 230V 50Hz	HPK580	5.9	1	HPL-N or HPI BUS	400	914522310333
HPK580 HPI-P250W-BU 230V 50Hz	HPK580	4.8	1	HPI BU	250	914522310433
ZDK580	ZDK580	0.5	-	-	-	914522340331



TCW097

Pacific II TCW097

Functional impact-, dust- and jetproof luminaire for single and twin TLD and TL5 fluorescent lamps for indoor applications and semioutdoor applications. Housing and cover of TCW097 are made of high quality poly-carbonate which has an excellent impact resistant property. The cover has anti-UV additives which bring additional performance levels to UV protection. Available with conventional or high-frequency (HF) electronic control gears. Can be ceiling-mounted or suspended. Equipped with mounting brackets, mounting is made easy via screws without drilling into the luminaire housing. Gear tray and metal toggles are re-installed; cable gland and mounting brackets are delivered with the luminaire.

Main applications

- General industry
- Food & beverage industry
- Dusty areas
- Wet & moist areas
- Car parks
- Storage areas

Features

- Dust- and moisture-proof, impact resistant
- Anti-UV function cover; effective from wavelength 240nm to 370nm
- Specially designed toggles protect against dust and water ingress
- Easy installation and maintenance using toggles and stainless steel mounting brackets
- Luminaire is integrated and prewired with control gear

Materials and finish

- Housing: poly-carbonate (PC)
- Cover: clear poly-carbonate (PC)
- Toggles: stainless steel
- Mounting bracket: stainless steel

Installation

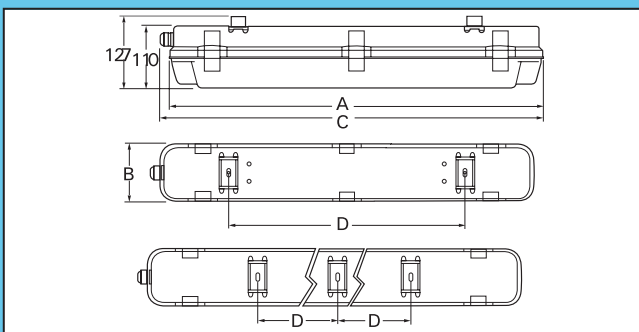
- Electrical connection through the provided cable gland (PG13.5)
- Method: surface mount or suspension (with provided mounting bracket)

Classifications

- IP 66
- Class I
- Complies with IEC 598



Dimensions in mm



Preferred selection

Product ID	Product Family Code	Weight (kg)	Number of Lamps [pcs]	Lamp Family Code	Rated Lamp Power [W]
TCW097 1xTL5-14W HFE 220V-50Hz CN	TCW097	1.50	1	TL5	14
TCW097 1xTL5-28W HFE 220V-50Hz CN	TCW097	2.00	1	TL5	28
TCW097 1xTL-D18W HFE 220V-50Hz CN	TCW097	1.40	1	TL-D	18
TCW097 1xTL-D36W HFE 220V-50Hz CN	TCW097	1.90	1	TL-D	36
TCW097 2xTL5-14W HFE 220V-50Hz CN	TCW097	2.00	2	TL5	14
TCW097 2xTL5-28W HFE 220V-50Hz CN	TCW097	4.00	2	TL5	28
TCW097 2xTL-D18W HFE 220V-50Hz CN	TCW097	1.90	2	TL-D	18
TCW097 2xTL-D36W HFE 220V-50Hz CN	TCW097	3.80	2	TL-D	36



DCP300

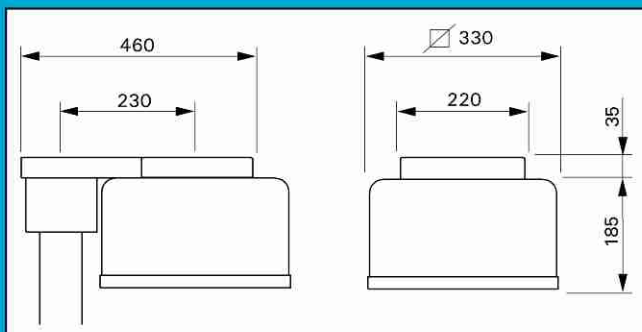


DGP300



DBP300

Dimensions in mm



Mini 300 DBP/DCP/DGP300

Extremely efficient low-glare recessed luminaire especially designed for the professional illumination of large areas. The high light output ratio (LOR) is realized by the unique patented white optical coating of the reflectors. Optimal lighting results are achieved by the good balance of horizontal and vertical light levels, combined with the white light, of good color rendering levels of up to 96, resulting from the CDM-TD lamp. Minimum glare is achieved as the light source is shielded by the patented 2x2 louvre system.

Main applications

- Recreational areas
- Public buildings, airport terminals
- Discounted stores, hyper-super markets
- Car showrooms
- Dust and moisture protected areas
- Food industry
- Petrol stations

Features

- Extremely high efficiency thanks to the 'small' lamp in combination with the patented specially coated reflector system giving 35% more efficiency than currently available solutions
- Excellent uniform light distribution with an asymmetrical beam or a bi-directional beam creating outstanding illuminances on vertically-oriented objects like cars, people, buildings, merchandise
- The CDM-TD 150W lamp with 4,200 degrees Kelvin in combination with a color rendering of 96 creates a natural daylight impression
- The minute burners are reflected on surfaces as tiny pin-points of light. Cars sparkle and everything looks brighter and cleaner
- The luminaire is well sealed to IP65, making it jet and dust proof for easy hose spray cleaning
- Specially engineered louvres shield drivers' eyes from the burner, so even from a fast moving vehicle, drivers can clearly see people on the forecourt

Technical description

- Gear/power supply: conventional 230V
- Lamp: 1x CDM-TD 150W, lamp color 942

Materials and finish

- Base plate: injection moulded aluminium
- Housing: deep drawn aluminium
- Glass: thermally hardened
- Mounting plate: lacquered galvanized steel
- Color: white or silver

Installation

- The luminaire is delivered with a separate mounting frame with a cut out for the ceiling, after which the closed luminaire with a 3 meter cable is pushed through this opening in the frame, connected to the mains and bolted towards the frame.

Accessories

- Delivered with mounting frame, ballast, lamp, cable and flat clear glass.

Classifications

- IP 65
- Class I
- Complies with IEC 598



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PHILIPS

Mini 300 DBP/DCP/DGP300

Preferred selection

Product ID	Weight (kg)	Number of [pcs]	Lamp Family Code	Rated Lamp power [W]	Kombi Pack	Comensation Circuit	Gear	Color
DBP300 C CDM-TD150W/942 A-WB WH CN	8.00	1	CDM-TD	150	K	IC	CONV	WH
DBP300 C CDM-TD150W/942 A-WB WH MR CN	8.00	1	CDM-TD	150	K	IC	CONV	WH
DBP300 C CDM-TD150W/942 S-WB WH CN	8.00	1	CDM-TD	150	K	IC	CONV	WH
DBP300 C CDM-TD150W/942 S-WB WH MR CN	8.00	1	CDM-TD	150	K	IC	CONV	WH
DBP300 C CDM-TD150W/942 A-WB WH CN	8.50	1	CDM-TD	150	K	IC	CONV	WH
DBP300 C CDM-TD150W/942 S-WB WH CN	8.50	1	CDM-TD	150	K	IC	CONV	WH
DBP300 C CDM-TD150W/942 A-MB SI CN	10.00	1	CDM-TD	150	K	IC	CONV	SI
DBP300 C CDM-TD150W/942 A-NB SI CN	10.00	1	CDM-TD	150	K	IC	CONV	SI
DBP300 C CDM-TD150W/942 A-WB SI CN	10.00	1	CDM-TD	150	K	IC	CONV	SI



TBH318

Hygeia TBH 318

Functional, fully closed recessed luminaire for 2 or 3 TLD fluorescent lamps for application in cleanrooms and dust-/ water-ingress protected areas. Double parabolic mirror is integrated in the luminaire with clear PMMA cover.

Main applications

- Clean-rooms
- Electronic industry
- Pharmaceutical industry
- Food & Beverage industry
- Dust and moisture protected area
- Sanitized rooms

Features

- Completely closed recessed luminaire for TLD fluorescent lamps.
- The luminaire is integrated with double parabolic mirror M5 with an anti-static treatment
- Clear-PMMA panel/cover and gasket to prevent dust ingress.
- With no protruding rims, the luminaire has a totally flat surface.
- Standard product comes with HF electronic ballast.

Materials and finish

- Housing: zinc coated steel sheet
- Cover: clear PMMA
- M5 louvre: high-purity double parabolic pre-anodized aluminium
- Gasket: EPDM

Installation

- Electrical connection through the cable gland
- Method: recessed mounting / luminaire is laid on the ceiling grid and suspend the luminaire by chain of wire.
- To ensure the closed character, there are no holes for fixing.
- Front cover is fixed with the housing by 4 screws. To open the cover, just simply unscrew without any tools needed.

Choice of optics

- Fused terminal block
- Emergency lighting
- Surface-mounted version
- For non-cleanroom application, acrylic cover (P6 prismatic) is available upon request
- Other luminaire sizes besides the standard ones are available upon request
- Other electrical systems are available upon request

Classifications

- IP 54
- Class I
- Complies with IEC 598



Preferred selection

Product ID	Product Family Code	Weight (kg)	Lamp Family Code	Number of Lamps [pcs]
TBH318 2xTL-D36W HFE M5 PM	TBH318	10	TL-D	2
TBH318 3xTL-D36W HFE M5 PM	TBH318	15.8	TL-D	3

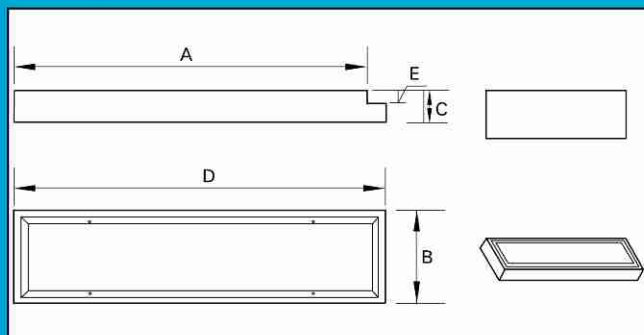
Standard products are for 220V/50Hz. Other types of electrical systems can be supplied upon request

HFE = HF electronic ballast

M5 = double parabolic mirror

PM = clear PMMA cover

Dimensions in mm



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PHILIPS



TMS 015-136

TMS 015

Aesthetically designed basic batten luminaire in single and twin-lamp versions for use with TL & TLD fluorescent lamp(s) for general lighting. High quality electronic ballast for energy saving. The specially designed Polycarbonate German lamp holders click to the end caps. The longitudinal sides of the ceilingrail are reinforced by beading. Mounting bosses around the keyhole slots and under the ballast(s) allow for an extra safe distance from the batten and the ballast(s) to the mounting surface. A range of attractive attachments is available for use with the TMS 015.

Main applications

- House holds
- Offices
- Discount stores
- Hyper/supermarkets
- Do-it-yourself shops
- Industries

Features

- Goods finish and aesthetics
- Energy Saving with electronic ballast
- Sturdy

Materials and finish

- Housing: 0.5 mm white powder painted sheet steel.
- Rail Cover: 0.5 mm white powder painted sheet steel.
- Faceted reflector: 0.5 mm white powder painted sheet steel.
- Diffuser: PMMA Primatid/ABS end-cap.

Mounting

- Electrical connection through central, side or end-cap cable entry.

Installation

- Holes connection through central, side or end-cap cable entry.

Accessories

- GMP: PMMA prismatic diffuser.
- GKD: Parabolic industrial reflector.
- GDL: Asymmetric reflector for single lamp.

Options

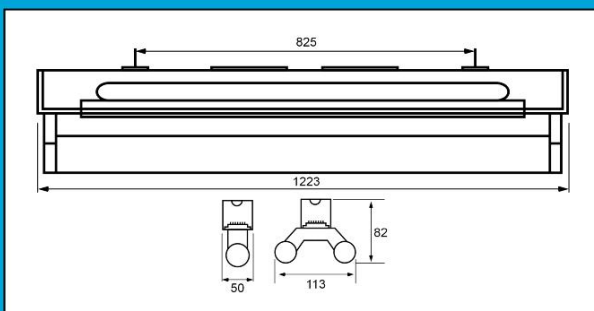
- Electronic ballast version available
- Emergency lighting

Classifications

- IP 20
- Class I
- Complies with IEC 598/EN 60598



Dimensions in mm



Type	Weight	Lamps
TMS - 015/136	16kg	1x36W
TMS - 015/236	20kg	2x36W
TMS - 015/118	10kg	1x18W
GMP - 136	-	1x36W
GMP - 236	-	2x36W
GMP - 118	-	1x18W

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MPF 942

MPF 942

Undercanopy luminaire available in surface-mounted execution for tubular metal halide 250W and 400W providing symmetrical lighting distribution. Uses a metal halide lamp to create an atmosphere of welcome.

Features

- For use with either tubular metal halide HPI-T 250W or 400W lamps.
- The MPF 942 has a bidirectional light distribution.
- The optical system of MPF 942 comprises a specially designed louvre to avoid glare
- The luminaires are designed for surface mounting in double-skin canopies.
- White-lacquered mounting frame or 2 mm steel.
- The glass cover is fixed by two stainless steel hinges using two metal dart studs; it is sealed by EPDM gasket and is thus jet & water-proof
- The reflector is installed using a rivets; and the louvre is fixed by rivet.
- The gear box is separated to improve the temperature balance and it uses Philips ballast, ignitor and capacitor
- Internal wiring conforms to IEC 598 and wire entry goes in via the side.
- Maximum ambient temperature is 40°C.

Main applications

- Petrol stations
- Toll gate stations
- Large halls
- Floodlighting of large displays in shops and warehouses

Materials and finish

The housing is made of corrosion resistant galvanised steel with a thickness of 1.2 mm, finished with a high quality powder casting. The glass cover is made of 0.5 mm tempered glass, hinging on two stainless steel hinges. The louvre which is white wet painted is made up of 1.2 mm steel. Reflector comes in symmetrical (942) is made of high purity aluminium anodized with thickness of 0.5 mm. Reflector has special facets to give better light distribution.

Installation & mounting

Hinged mounting device for firm surface-mounted fixing to cladding. Front glass in hinged window with metal dart studs. Mounting frame can be adapted or changed for other applications upon request.

Accessories

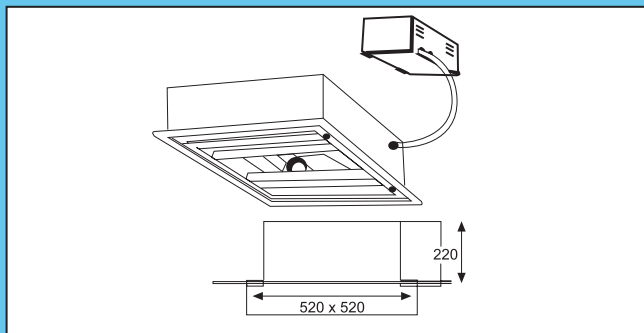
- Ballast box MPF HPI-T 250W
- Ballast box MPF HPI-T 400W
- Ballast box MPF SON-T 150W
- Ballast box MPF SON-T 250W
- Ballast box MPF SON-T 400W

Classifications

Class I
IP 55
Complies with IEC 598



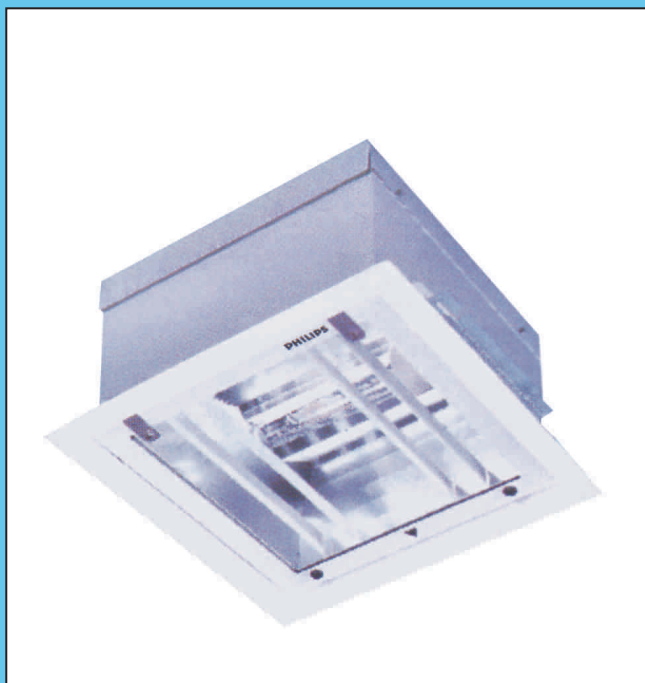
Dimensions in mm



Philips Lighting Pakistan

F-54, S.I.T.E. Karachi-75730
Ph: (021) 2560071-78, 2570062 Fax: (021) 2570068
www.lighting.philips.com.pk

Type	Lamp	Net Weight	Packing Dimension (mm)
MPF 942 SM	HPI-T250/400W	11.74	560 x 560 x 280
MPF 942 SM	SON-T150/250/400W	11.74	560 x 560 x 280



MPF 932

MPF 932

Undercanopy luminaire in recessed execution for tubular metal halide 250W and 400W providing symmetrical lighting distribution. Uses a metal halide lamp to create an atmosphere of welcome.

Features:

- For use with either tubular metal halide HPI-T 250W or 400W lamps.
- The MPF 932 has a bi-directional light distribution
- The optical system of MPF 932 comprises a specially designed louvre to avoid glare.
- The luminaire is designed for recessed mounting in double-skin canopies.
- White polyester powder painted mounting frame of 1.5 mm steel.
- The glass cover is fixed by two stainless steel hinges using two metal dart studs; it is sealed by EPDM / Neoprene gasket and is thus jet- & water proof.
- The reflector riveted and the louvre is fixed by rivets.
- The gear box is separated to improve the temperature balance; incorporating Philips ballast, ignitor and capacitor.
- Internal wiring conforms to IEC 598 and wire entry goes in via the side.

Main applications:

- Petrol stations
- Toll gate stations
- Large halls
- Floodlighting of large displays in shops and warehouses

Material and finish:

The housing is made of corrosion resistant galvanised steel with a thickness of 1 mm. The glass cover is made of 5 mm tempered glass, hinging on two stainless steel hinges. The louvre is made up of 1.0 mm Aluminium. Reflector comes symmetrical (932) and is made of high purity aluminium anodized with thickness of 0.4mm. Reflector has special facets to give better light distribution.

Installation & mounting:

Mounting the luminaire rapidly is facilitated by first mounting the frame only, easily done by use of 2 mounting devices at flexible height. Take the luminaire (without front glass) through the frame and screw it on top of it; finally the front glass can be fixed. Alternatively, the luminaire (without front glass) can be put onto the cladding before mounting the frame. Between the top of the luminaire and the ceiling, a space of 50 mm ought to be available. The luminaire can be mounted recessed in a hole of 470 by 470 mm.

Accessories

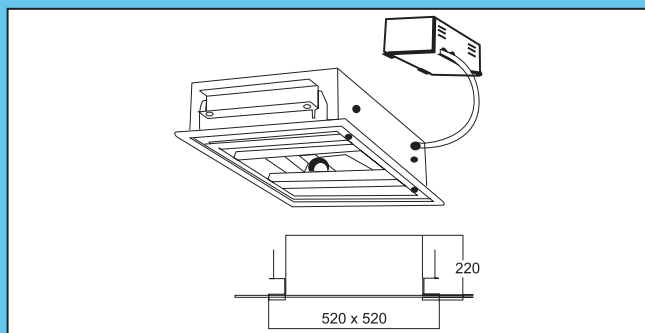
- Ballast box MPF HPI-T 250W
- Ballast box MPF HPI-T 400W
- Ballast box MPF SON-T 150W
- Ballast box MPF SON-T 250W
- Ballast box MPF SON-T 400W

Classifications:

- Class I
- IP 55
- Complies with IEC 598



Dimensions in mm



Type	Lamp	Net Weight	Packing Dimension (mm)
MPF 932	HPI-T 250/400W	12.01	530 x 530 x 230
MPF 932	SON-T 150/250/400W	12.01	530 x 530 x 230

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TMS 215

Slimline TMS 215

Slimline TMS 215 is the latest state of the art batten for TL 5 fluorescent lamps. Slimline is a compact, sleek and light weight batten with powder painted steel housing ideal for surface mounting on the wall or ceiling.

Main applications

- General Lighting
- Reading spaces
- Retail space decoration
- Dressing rooms/tables
- Warehouses/Factories
- Stage decoration
- Kitchen decoration

Features

- Steel channel with white paint
- T5 lamps and electronic ballast: 25% less energy consumption than conventional systems
- Instant, flicker free electronic operation
- Light weight and ultra slim
- Easy installation
- Powder painted steel housing

Technical description

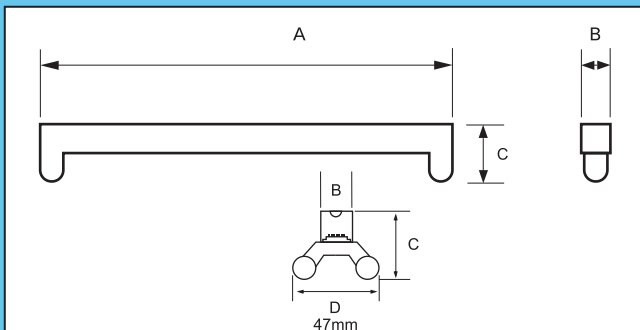
- Power supply: 220V
- Line frequency: 50Hz
- Lamp source: TL 5
- Number of lamps: 1 or 2
- Lamp power: 14W / 28W

Classifications

- IP 20
- Class I



Dimensions in mm



Preferred selection

Type	Lamps	A	B	C
Slimline - TMS 215/114	1x14W	570	26	52
Slimline - TMS 215/128	1x28W	1170	26	52
Slimline - TMS 215/228	2x28W	1170	32	58

Road Lighting





SGP338

Velocity SGP338

Road lighting luminaire for tubular high-pressure sodium lamps up to 400 watt or HPI-T lamps up to 400 watt. Step dimming option available for SON-T250W lamp version.

Main applications

- Motorways
- Major roads

Features

- One piece deep drawn high quality optical system for clear tubular lamps
- Lamp position adjustable to obtain several light distributions
- Lamp compartment dustproof and jetproof (IP 66), no internal cleaning required
- Easy access and maintenance of gear and lamp

Materials and finish

- Non-corrosive, high-pressure die-cast aluminum housing and spigot, high-purity aluminum reflector, clear curved glass toughened bowl, silicone rubber gasket, all external fixings in stainless steel.

Installation

- Suitable for post-top or lateral mounting on mast arms of 50 mm to 65 mm.

Options

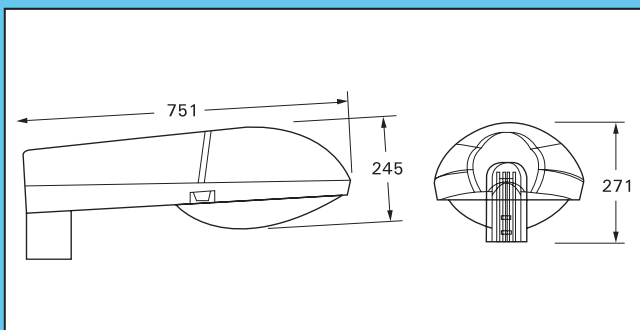
- Luminaire housing in different colours available upon request.
- Luminaire can be offered with HPI-T 250W and 400W lamps upon request.

Classifications

- Gear compartment IP 43
- Lamp compartment IP 66
- Class I
- Complies with IEC 598



Dimensions in mm



Preferred selection

Product ID	Lamp Family Code	Weight (kg)	Comm Code
SGP338 SON-T150W	SON-T150W	11.00	910401605380
SGP338 SON-T250W	SON-T250W	12.00	910401605480
SGP338 SON-T400W	SON-T400W	14.30	910401605580
SGP338 SON-T250W FG ALU SD	SON-T250W	12.85	910403365380
SGP338 SON-T250W GB ALU SD	SON-T250W	12.85	910403365480

FG = Flat glass

ALU = Aluminium color

GB = Glass bowl

SD = Step dimming

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PHILIPS



SGX186

SGX 186

A versatile streetlight that produces good light distribution either with tubular or ovoid lamps. Avenue ensures low investments and value for money.

Main Applications

- Urban Road
- Secondary Road
- Industrial Road
- Car Parks

Features

- One piece deep drawn high quality reflector cum housing providing excellent light distribution with tubular lamps.
- Lamp compartment dust and water-proof with Neoprene/EPDM Gasket. IP65
- Easy access and maintenance of gear and lamp
- Imported E-40 ceramic lamp holder conforming to IEC-598.
- All Assembly closure parts made of corrosion resistant stainless steel.

Materials & Finished

Non-corrosive, one piece deep drawn aluminum housing, anodised and polished from inside to provide high class faceted reflector. Clear, treated and toughened flat glass ensures maximum permeability of light. Neoprene/EPDM Gasket makes the fixture dust and water proof. All external fixings in stainless steel.

Installation & Mounting

Suitable for post top or lateral mounting on mast arms of 42 mm to 70 mm.

Options

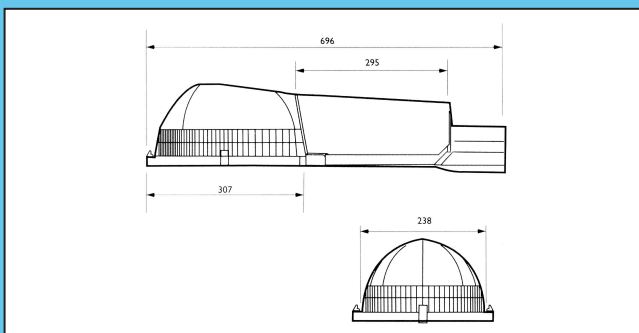
Luminaire housing in different colours available upon request.

Classifications

- IP 65
- Class I



Dimensions in mm



Preferred selection

Product ID	Lamp	Weight (kg)
SGX186 with flat glass	SON/SON-T 150W	9
SGX186 with flat glass	SON/SON-T 250W	10



SMARTWAY SPP185

Smartway

A cost effective road lighting luminaire that delivers fresh new light to city roads, residential areas and industrial estates while making a significant contribution to a safer and more comfortable environment.

Main Application

- City streets,
- Residential roads
- Industrial areas

Features and Benefits

- Well designed for good daytime aesthetics
- Long-lasting and robust die cast housing
- Ribbed cover for good impact resistance
- High quality gasket and glue-free lamp compartment installation for IP65 ingress protection
- Intelligent raised frame design for better ingress protection
- Breathing filter and heat sink for good air circulation and heat dissipation
- 'Twist and Release' lamp replacement and easy gear replacement for safety and time-efficient maintenance
- High purity aluminum reflector for good lighting performance
- Double-fold, strong open arm for durability and repeat use

Materials and Finish

- Non corrosive high-pressure die-cast aluminum for canopy and frame
- High purity aluminum reflector
- Toughened glass bowl
- Stainless steel clip
- Silicon rubber gasket
- Color: RAL7040

Installation

- Side-entry with pole diameter of 48-60 mm for SON-T 150W/250W lamp versions (60S)
- Side-entry with pole diameter of 34-50 mm for SON-T 70W lamp versions (50S)

Choice of Optics

- Standard reflector and economic reflector

Classifications

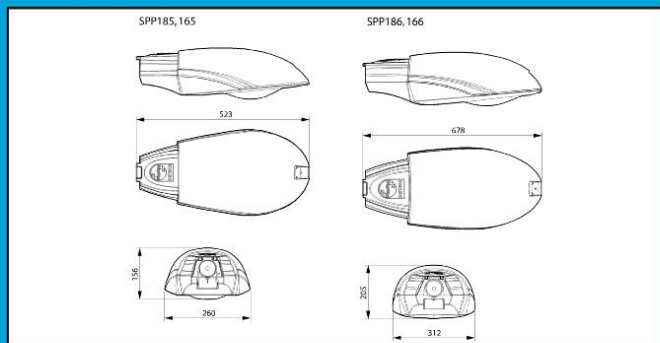
- IP 65
- IP 43
- Class I
- IEC60598



Preferred selection

Product ID	Weight (kg)	Comm Code
SPP185 MAX70W-E27 E GB GR 34/50S	2.40	911400989780
SPP185 SON-T70W 240V-50Hz GB GR 34/50S	3.70	911400989680
SPP186 SON-T150W 220V-50Hz GB GR 48/60S	6.80	911400989880
SPP186 SON-T250W 230V-50Hz GB GR 48/60S	7.40	911400990280

Dimensions in mm





SGP268

Broadway SGP268

Road lighting luminaire which embodies functionality and aesthetics, reflecting the aspirations of today's modern cities. Step dimming option available for SON-T400W and SON-T250W lamp.

Main applications

- Major urban roads
- Expressways

Features

- Dedicated faceted optics to optimize beam control and maximise light output
- Adjustable optics
- Choice of different bowls: curved or flat glass
- High IP: lamp compartment IP66, dust-tight and jet-water proof
- Maintenance from above in an ergonomic position

Materials and finish

- Non-corrosive, high-pressure die-cast aluminum housing and spigot, high purity aluminum reflector, clear curved glass toughened bowl, silicone rubber gasket. All external fixings in stainless steel, E40 ceramic lamp holder.

Installation

- Suitable for lateral mounting on mast arms of 50 to 60mm.

Options

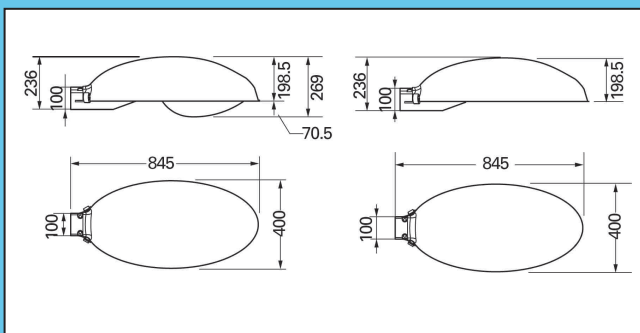
- Luminaire housing in different colours are available upon request.

Classifications

- IP66
- Class I
- Fully complies with IEC 598/ENEC 60598



Dimensions in mm



Preferred selection

Product ID	Family	Weight	Comm Code
SGP268 SON-T400W 230V GB SI	SON-T400W	15.00	910401962980
SGP268 SON-T150W 230V GB SI	SON-T150W	18.00	911400329480
SGP268 SON-T250W 230V GB SI	SON-T250W	18.00	911400329180
SGP268 SON-T250W 230V GB SI SD	SON-T250W	13.85	910403366380
SGP268 SON-T400W 230V GB SI SD	SON-T400W	15.85	910403366280

FG = Flat glass
GB = Glass bowl

ALU = Aluminium color
SI = Silver color
SD = Step dim

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PHILIPS



SGP340

Selenium SGP340

Selenium is the most recent addition to Philips' road-lighting family. It is the latest of a long line of sound, efficient and ergonomic luminaires that combine a high resistance aluminium housing with the optical performance of the T-POT reflector. Its simple design helps it to integrate into every kind of environment.

Main applications

- Motorways
- Major roads
- Minor roads
- Rural roads
- Crossings, roundabouts
- Industrial estates

Suitable lamp types

- SON-T 150W/250W/400 W
- CPO-T 60W/140W

Features

- Timeless design, round modern shape for reduced daytime visual impact
- Completely made of aluminium, impact-resistant and designed to last
- High-strength, sealed construction, IP66 protected optic and the gear compartment
- Easy maintenance from above, tool-less lamp exchange
- Well-known T-POT optic optimised for high-pressure sodium & cosmo polis lamps, with five different lamp settings
- Energy savings by step dimming system
- Three tilt angles for optimal installation on mast or bracket (0°, 5°, 15°)

Materials and finish

- Canopy and frame: die-cast aluminium
- Standard colour: grey RAL 7035, other RAL colours on request
- Mounting module: die-cast aluminium
- Bowls: vandal-resistant polycarbonate bowl (PC) or toughened flat glass (FG)
- Reflector: high-purity aluminium
- Closing clip: stainless steel

Installation

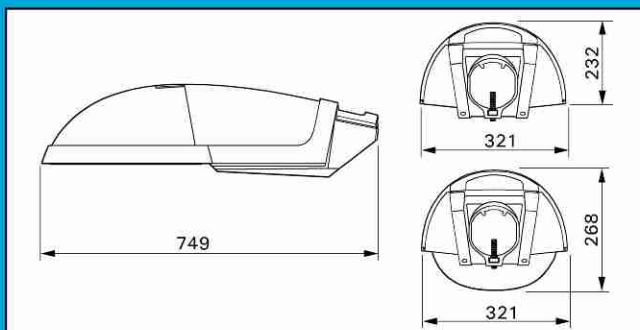
- Reversible mounting module standard spigot for post-top and side-entry 48-60 mm
- The spigot is delivered mounted on the luminaire

Classifications

- IP 66
- Class I, II
- IEC598 compliant



Dimensions in mm



Preferred selection

Product ID	Lamp Family Code
SGP340 C SON-T150W FG	SON-T150W
SGP340 C SON-T150W PC	SON-T150W
SGP340 C SON-T250W FG	SON-T250W
SGP340 C SON-T250W PC	SON-T250W
SGP340 C SON-T400W FG	SON-T400W
SGP340 C SON-T250W FG SD	SON-T250W
SGP340 C SON-T250W PC SD	SON-T250W
SGP 340 C CPO-T 60W/FG	CPO-T 60W
SGP 340 C CPO-T 60W/PC	CPO-T 60W
SGP 340 C CPO-T 140W/FG	CPO-T 140W
SGP 340 C CPO-T 140W/PC	CPO-T 140W

CPO = Cosmopolis

SD = Step Dim



HGC007

Metro HGC007

Road lighting luminaire for SON, HPLN, PL-T, PL-L or PL-C lamps.

Main applications

- Residential streets
- Small and plaza areas
- Security areas
- Parks and gardens
- Footpaths and access ways
- Conveyor lighting
- Home yard lighting
- Industry

Features

- Compact luminaire body, designed to accept a variety of lamps: SON, HPLN, and PL-T
- Quick and easy lamp replacement by removal of twist-lock bowl
- Maintenance of the control gear and lamp holder is via a single slide-out gear/ lamp holder assembly
- Mounting bracket for easy and flexible installation
- Anti-vibration spring supplied for HID lamp versions

Materials and finish

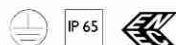
- Glass filled nylon body, polycarbonate cover and refractor, painted metal sheet reflector, metal sheet gear tray, silicone gasket, galvanized iron mounting bracket, all other external fixings in stainless steel.

Installation

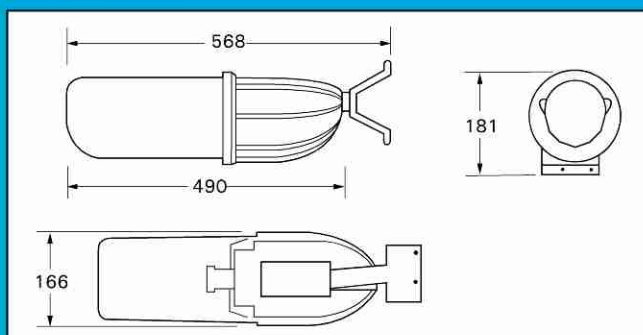
- Easy installation on 34mm standard pipe. A standard mounting-bracket is supplied for more flexible installation.

Classifications

- IP 65
- Class I
- Complies with IEC 598



Dimensions in mm



Preferred selection

Product ID	Lamp Family Code	Weight (kg)
HGC007 HPL-N80W	HPL-N80W	2.95
HGC007 PL-T/4P32W/840	PL-T/4P32W	2.64
HGC007 SON-I70W	SON-70W	3.21

K = Kombi pack



TGX220/SGX220

Tunnelite TGX220

Tunnel luminaire TGX220 suitable for use with 36-58W TLD lamps.

Main applications

- Tunnels
- Underpasses
- Basement parking areas

Features

- The housing consists of extruded aluminum body with die cast end plates, painted in black
- Symmetric (S) reflector
- Detachable gear tray for easy repair and maintenance
- Tool-free lamp replacement
- 3 types of installation options

Materials and finish

- Shock resistant tempered glass cover
- Aluminum hinge with a closing device
- EPDM gasket
- E40 ceramic lamp holder

Installation

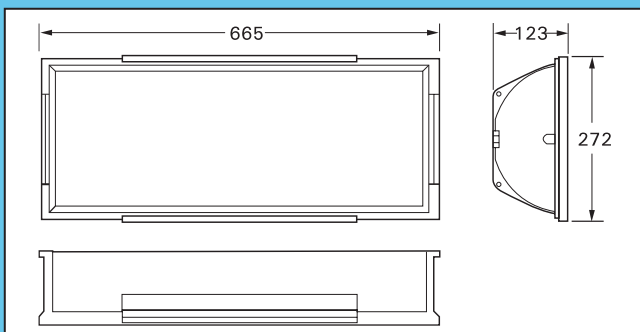
- Luminaire can be installed on ceiling or wall. Luminaire brackets to be ordered separately. Cable gland PG13.5.

Classifications

- IP 65
- Class I
- Complies with IEC 598



Dimensions in mm



SGX220

Preferred selection

Product ID	Weight (kg)	Comm Code
TGX220 1xTL-D36W IC 220V S	12.00	910401963680
TGX220 1xTL-D58W IC 220V S	15.00	910401963880
TGX220 2xTL-D36W IC 220V S	14.00	910401963280
TGX220 2xTL-D58W IC 220V S	15.00	910401963980

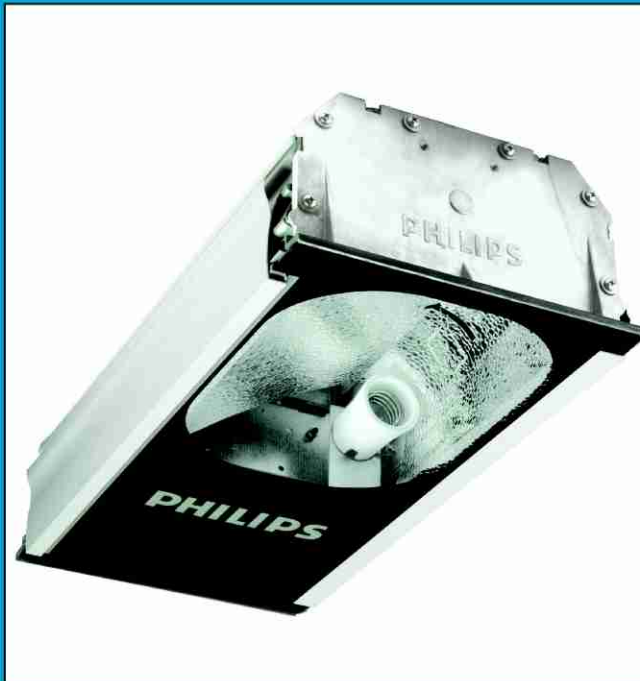
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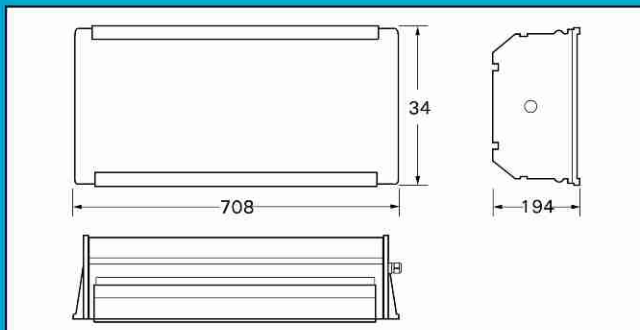


SGX320



SGX320

Dimensions in mm



Tunnelite SGX320

Tunnel luminaire SGX320 suitable for use with SON-T 150-400W high pressure sodium vapour lamps.

Main applications

- Tunnels
- Underpasses
- Basement parking areas

Features

- The housing consists of extruded aluminum body with die cast end plates
- Reflector options: T-pot, asymmetric or symmetric
- Detachable gear tray for easy repair and maintenance
- Tool-free lamp replacement
- 3 types of installation options

Materials and finish

- Shock resistant tempered glass cover
- One continuous aluminum hinge with a full length closing device
- EPDM gasket
- E40 ceramic lamp holder

Installation

- Luminaire can be installed on ceiling or wall. Luminaire brackets to be ordered separately. Cable gland PG13.5.

Classifications

- IP 65
- Class I
- Complies with IEC 598



Preferred selection

Product ID	Weight (kg)	Comm Code
SGX320 1xSON-T100W 220V	12.20	910401962680
SGX320 1xSON-T150W 220V	12.20	910401961880
SGX320 1xSON-T250W 220V	13.20	910401961980
SGX320 1xSON-T400W 220V	15.50	910401962080

Urban Lighting





HGS160/HGS163

Bollard HGS160

Decorative luminaires for pavement or garden lighting applications with a choice of two bollard sizes. Easy to install and maintain.

Main applications

- Pavement
- Shopping area
- Parks
- Squares

Features

- Low glare bowl
- Easy installation
- Quick lamp replacement
- Corrosion-proof construction
- Available in black or green color versions
- Choice of two bollard heights - 348mm or 528 mm
- Suitable for GLS (<40W) or SL-17W lamps

Materials and finish

- PMMA diffuser; extruded aluminum column, aluminum bollard base, black or green unstabilized painting, E27 ceramic lamp holder.

Installation

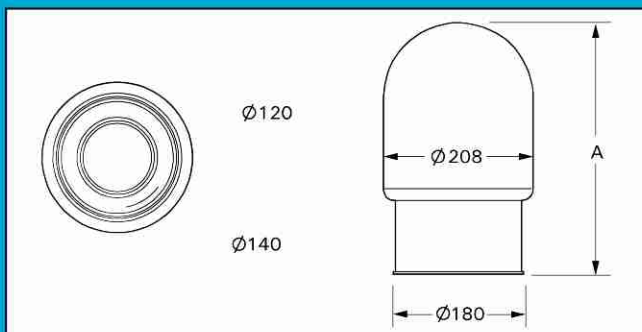
- Bollards are to be fixed by three 10mm diameter screws to the concrete base.

Classifications

- IP 44
- Class I
- Complies with IEC 598



Dimensions in mm



Preferred selection

Product ID	Weight (kg)
HGS160 MAX18W-E27 BK	0.80
HGS160 MAX18W-E27 GR	0.80
HGS163 MAX18W-E27 BK	1.50
HGS163 MAX18W-E27 GR	1.50

BK = BLACK
GR = GREEN

Sports & Area Flood Lighting





MMF383 S

Tango MMF383

Compact, sturdy floodlight complete with integral gear, particularly suited for surface lighting using metal halide or high-pressure sodium lamps. All-weather construction designed for simple cleaning and speedy servicing.

Main applications

- Billboard lighting
- Lighting of building facades
- Area and security lighting

Features

- High-grade symmetrical or asymmetrical reflector projects a highly efficient light beam
- Wall, ceiling and surface mountings with wide range of adjustments for both down and up lighting
- Quick, easy access to lamp and gear, without affecting beam adjustment, through hinged front window with quick-release clips
- Housing dustproof and jetproof; no internal cleaning required
- Available with SON-T-250-400W and HPI-T-250-400W lamps

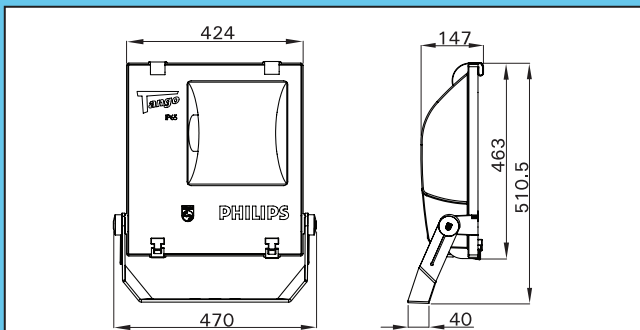
Materials and finish

- Non-corrosive, high-pressure die-cast aluminum housing with low copper content and high grade black finish; high-purity aluminum reflector with smooth surface; toughened glass; silicone rubber seal; hot-dipped galvanized steel mounting bracket; all external fixings in stainless steel.

Installation

- Universal mounting bracket allows for ceiling, wall or surface mounting.
- Cable entry via cable gland.
- Front glass with quick-release hinge-clips for in-position lamp replacement.

Dimensions in mm



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Classifications

- IP 65
- Class I
- Complies with IEC 598

**Preferred selection**

Product ID	Weight (kg)
MMF383 HPI-TP250W 240V BK	11.80
MMF383 HPI-TP400W 240V BK	11.80
MMF383 SON-T250W 240V BK	11.90
MMF383 SON-T400W 240V BK	13.90



HNF901

HNF901

A versatile floodlight suitable for small to medium scale floodlighting for sports or similar areas. It offers good color rendering with HPI-T metal halide lamps, or economical operation with SON-T high pressure sodium lamps. Robust and simple construction designed for easy aiming, quick maintenance and long service life.

Main Application

- Sports facilities,
- Industrial areas,
- Car parks

Features and Benefits

- Choice of wide or narrow reflector
- Quick, easy lamp replacement via side lamp holder; no re-aiming
- Floating lamp holder and support to minimize mechanical shock to the lamp
- Integral aluminum casts daylight aiming sight for fast aiming
- Separate or "Back-Pack"

Materials and Finish

- Non-corrosive, gravity-casting aluminum housing, lamp holder and maintenance cover
- High-grade aluminum reflector 5 mm toughened glass secured by stainless steel clips
- Hot-dipped galvanized mounting bracket
- Heat-resistant silicone rubber gaskets

Installation

- Housing is dustproof and jetproof to IP55: no internal cleaning required
- Cable entry through fitted conduit located at lamp holder block

Choice of Optics

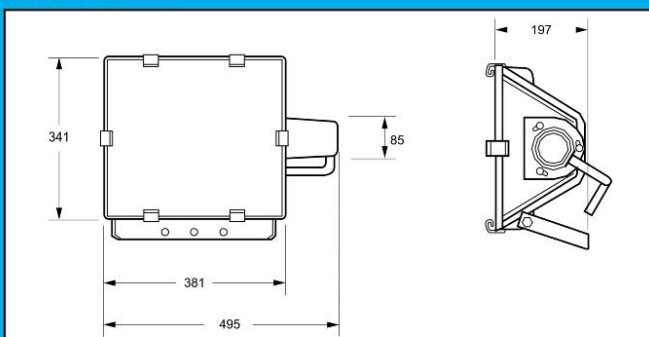
- Wide beam (WB)
- Narrow beam (NB)

Classifications

- IP 55
- Class I
- IEC60598

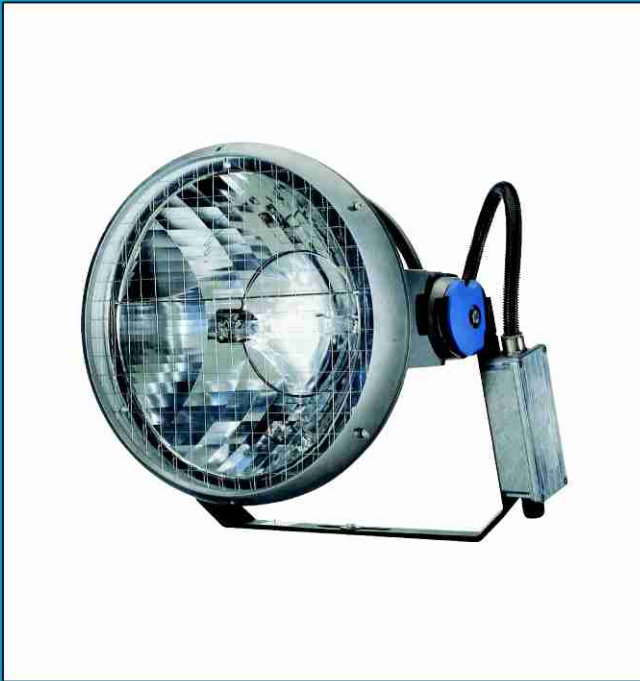


Dimensions in mm



Preferred selection

Product ID	Weight (kg)	Comm Code
HNF904 MAX 1000W-E40 NB	8.00	911401040780
HNF904 MAX 1000W-E40 NB BK	9.00	911401040880
HNF904 MAX 1000W-E40 EVW B	8.00	911401040380



MVF403

ArenaVision MVF403

ArenaVision MVF403 takes this world-famous sports floodlighting luminaire to new heights of performance. The world-class design offers increased light output, optical efficiency, ease of installation, reliability and flexibility. MVF403 is the sports lighting system specially designed to increase dramatically the theatrical and emotional values of sports for TV audiences, spectators and players alike.

Main applications

- Outdoor sports lighting
- Architectural floodlighting
- Indoor sports halls

Features

- Together with the unique oval optics, the MHN-SA 2000W lamp guarantees the highest possible system efficiency, low glare and best-ever lighting levels on the field
- Built-in reflector reduces spill light and glare even further
- Rear opening access for easy lamp replacement
- Housing dustproof and waterproof to IP65; no internal cleaning required
- MHN-LA lamp version equipped as standard with series ignitor and terminal block in an aluminium connection box on the bracket.
- Wire mesh to prevent large pieces of glass falling out
- Optional safety switch to cut off current when luminaire is opened (requires additional contactor - supplied by others)
- Uplighting versions available (220/240V MHN-LA 1000W and MHN-SA 1800W) for architectural lighting
- Integrated system of optics, gear and transverse MHN-SA 1800W, MHN-SA 2000W or MHN-LA 1000W lamp in a single housing, ensuring high efficiency and low glare

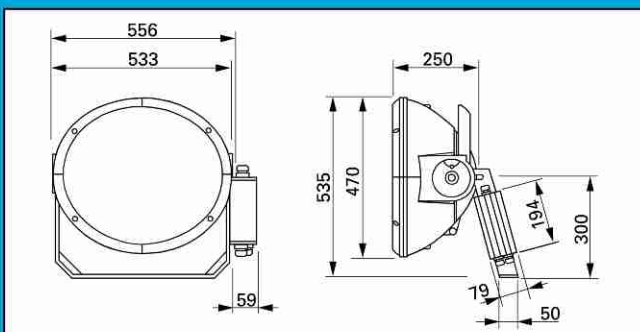
Materials and finish

- Non-corrosive, high-pressure die-cast aluminum housing and hinged rear cover
- Anodized and brightened 99.98% aluminum reflector
- Chemically toughened 1.6 mm-thick glass, for downlighting versions, and 4 mm-thick ceramic glass for the uplighting versions
- Stainless-steel clips for direct access to the lamp
- Hot-dipped galvanized steel mounting bracket painted in black

Installation

- Light weight and easy to carry thanks to the integrated handle. The floodlight has a 360° mounting bracket adjustment. MVF403 has precision aiming facilities at both the top and bottom of the housing for use in conjunction with the ZVF403 PAD accessory. Alternatively, the ZVF401 SAD simple aiming device can be used. Horizontal adjustment of the floodlight is possible to allow close group arrangements.
- An aiming memory, which safeguards the original aiming position of the luminaire during servicing, is available as an option. Ambient temperature: 35 °C outdoor (25 °C indoor) for 1800/2000W versions and 45 °C (indoor and outdoor) for 1000W versions. Projected area under 70° = 0.20 m², drag factor C_x = 0.93.

Dimensions in mm



Accessories

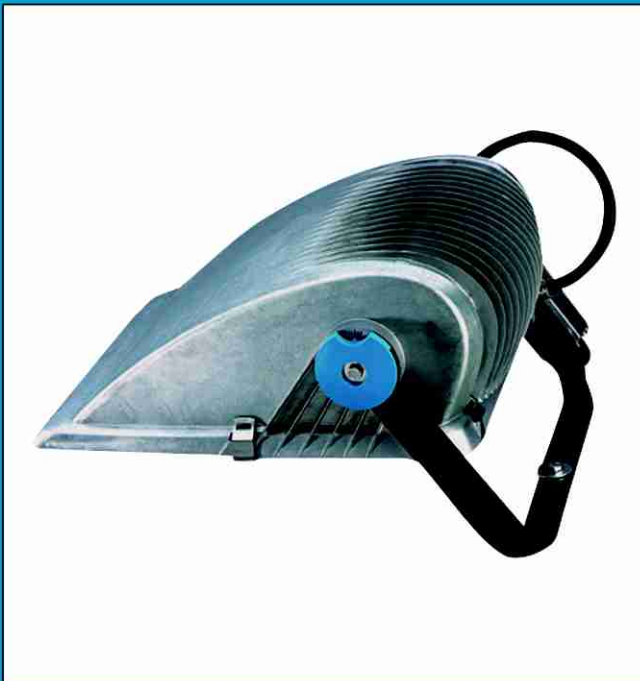
- External louvre
- Simple aiming device
- Precision aiming device
- Colour filters

Classifications

- IP 65
- Class I
- Complies with IEC 598

**Preferred selection**

Product ID	Weight (kg)	Comm Code
MVF403 C MHN-SA1800W 220-240V A1	13.8	911401054480
MVF403 C MHN-SA1800W 220-240V A2	13.8	911401055580
MVF403 C MHN-SA1800W 220-240V A3	13.8	911401055680
MVF403 C MHN-SA1800W 220-240V A4	13.8	911401055780
MVF403 C MHN-SA1800W 220-240V A5	13.8	911401055880
MVF403 C MHN-SA1800W 220-240V A6	13.8	911401055980
MVF403 C MHN-SA1800W 220-240V A7	13.8	911401056080
MVF403 C MHN-SA2000W 220-240V A1	13.8	911401060780
MVF403 C MHN-SA2000W 220-240V A2	13.8	911401056180
MVF403 C MHN-SA2000W 220-240V A3	13.8	911401060880
MVF403 C MHN-SA2000W 220-240V A5	13.8	911401060980
MVF403 C MHN-SA2000W 220-240V A6	13.8	911401056280
MVF403 C MHN-SA2000W 220-240V A7	13.8	911401054580
MVF403 C MHN-LA1000W 220-240V A1	13.8	911401054680
MVF403 C MHN-LA1000W 220-240V A2	13.8	911401054780
MVF403 C MHN-LA1000W 220-240V A3	13.8	911401054880
MVF403 C MHN-LA1000W 220-240V A4	13.8	911401054980
MVF403 C MHN-LA1000W 220-240V A5	13.8	911401055080
MVF403 C MHN-LA1000W 220-240V A6	13.8	911401055180
MVF403 C MHN-LA1000W 220-240V A7	13.8	911401055280

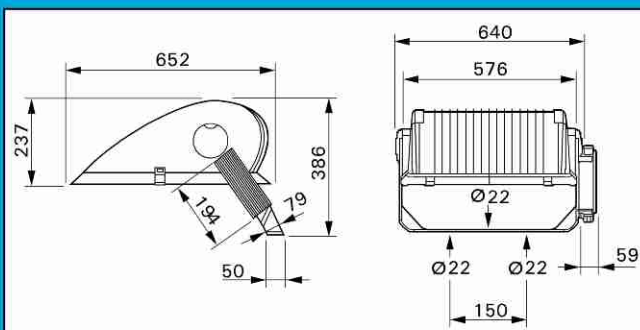


MVP507



MVP507

Dimensions in mm



Philips Lighting Pakistan

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www.lighting.philips.com.pk

OptiVision MVP507

An asymmetric luminaire for down lighting that combines a compact design with very high efficiency. It provides excellent spill-light control and limitation of glare and upward leakage of light. Accommodates metal-halide lamps for good color rendering or high-pressure sodium lamps for economical operation. Available with narrow-, medium- and wide beams.

Main applications

- Sports facilities
- Industrial areas
- Car park

Features

- Excellent spill-light control; limitation of glare and upward leakage of light is secured by asymmetric optics that achieve peak intensity at 60° and a sharp cut-off of light at 80°
- Flexibility of application because of availability of 3 different beams for MHN-LA 2000W lamps and specific wide beams for MHN-LA 1000W and SON-T 1000W
- Integrated protractor scale for aiming
- The optional build-in safety switch ensures that the mains current is cut off as soon as the floodlight is opened, only in MHN-LA lamp versions
- The compact, low-weight luminaire, together with the low drag factor, enables savings on mast costs
- Housing dustproof and waterproof to IP65; no internal cleaning required
- 380/415 V versions equipped as standard with series ignitor and terminal block in the aluminium connection box on the bracket
- 220/240 V versions equipped with aluminium connection box for mains supply connection
- Semi-parallel ignitor is installed on a separate gear tray
- Specially designed heat fins to provide optimal working conditions for lamp and reflector system

Materials and finish

- Non-corrosive, high-pressure die-cast aluminium housing.
- High reflectivity and purity anodised aluminium reflector.
- Thermally hardened 4 mm-thick glass. Stainless-steel clips and hinges facilitate the opening of the glass cover.
- Hotdipped galvanised steel mounting bracket painted in black.

Installation

- Bracket can be inverted to allow mounting above or below a cross arm. Front glass in hinged window with quick-release clips for lamp replacement without having to change position of luminaire.

Classifications

- IP 65
- Class I
- Complies with IEC 598

**Preferred selection**

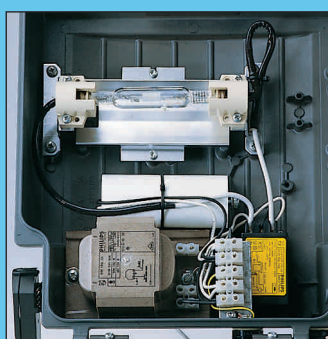
Product ID	Lamp Family Code
MVP507 C SON-TP600W WB	SON-TP
MVP507 C SON-T1000W WB	SON-T
MVP507 C MHN-LA1000W/230V	MHN-LA
MVP507 C MHN-LA2000W/400V	MHN-LA

Architectural Lighting



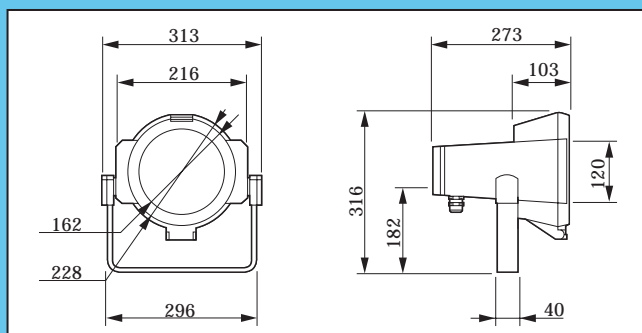


MVF606



Integrated gear

Dimensions in mm



Decoflood MVF606

A medium-sized, high-grade, rotational-symmetrical floodlight with a choice of 3 light distributions from a wide variety of lamps. Well suited to city environments. All-weather construction designed for simple cleaning and speedy servicing.

Main applications

- Parks
- Architectural structures
- Sculptures

Features

- High-quality anodized aluminium reflectors to throw a narrow beam
- Protractor scale for easy aiming. 'Memory ring' for immediate reaiming if the floodlight should be swivelled off beam
- Suitable for mounting on horizontal surfaces, walls and ceilings, and for pole mounting using suitable brackets
- Fast access to lamp through front with snap-action clip, and to terminal blocks through rear cover
- 220V/50Hz integral gear for discharge lamps, other voltages or versions without gear available on request. Provision for through wiring facilities.

Materials and finish

- Housing, front frame and rear cover in high-pressure die-cast aluminium, painted dark grey (other colors available on a project basis); high-grade anodized aluminium reflectors; aluminium mounting bracket, painted dark grey; UV-stabilized polypropylene end caps in light grey; 5-mm thick toughened plate front glass silicone rubber gaskets.

Installation

- Universal mounting bracket allows ceiling, wall or surface mounting. Cable entry via M20*1.5 cable gland. Front window with snapaction clip for in-position lamp replacement. Housing dustproof and jetproof to IP 65; no internal cleaning required.

Classifications

- IP 65
- Class I
- Complies with IEC 598

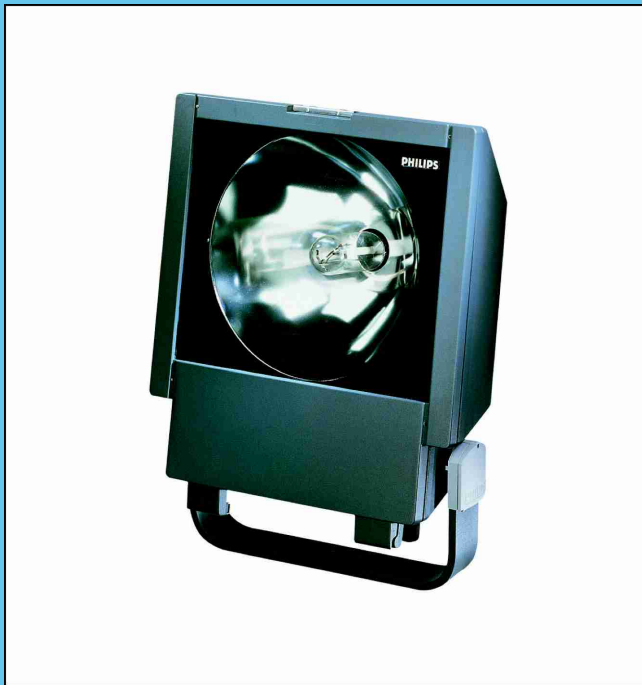


Preferred selection

Product ID	Weight (kg)	Comm Code
MVF606 CDM-T70W MB	6.1	910401633380
MVF606 CDM-T150W MB	6.8	910401633580
MVF606 C CDM-T35W NB	5.4	910401634780
MVF606 C SON-T70W NB	6.2	910401635180

NB = Narrow beam

MB = Medium beam



MVF607

Decoflood MVF607

A large, high-grade rotational symmetrical floodlight throwing a narrow beam from a SON-T Plus and metal halide lamp. Well suited to city environments. All-weather construction designed for simple cleaning and speedy servicing.

Main applications

- Parks
- Architectural structures
- Sculptures

Features

- High-quality anodized aluminium reflector to throw a narrow beam
- Protractor scale for easy aiming, 'Memory ring' for immediate reaiming if the floodlight should be swivelled off beam
- Suitable for mounting on horizontal surfaces, walls and ceilings, and for pole mounting using suitable brackets
- Fast access to lamp and terminal blocks through the front with snap-action clip
- 220V/50Hz integral gear: other voltages or versions without gear available on request. Provision of through-wiring facilities

Materials and finish

- Housing, front frame and rear cover in high-pressure die-cast aluminium, painted dark grey (other colors available on a project basis); high-grade anodized aluminium reflectors; zinc-coated aluminium mounting bracket, painted dark grey; UV-stabilized polypropylene end caps in light grey; 5-mm thick toughened plate front glass; silicone rubber gaskets.

Installation

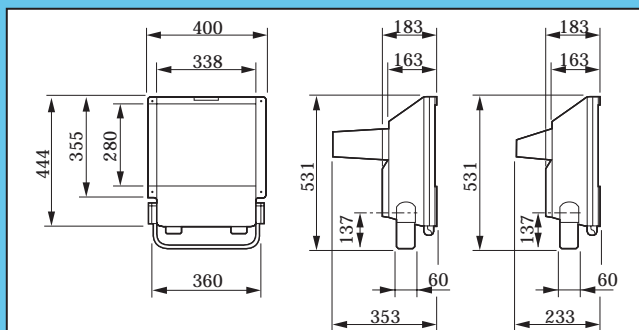
- Universal mounting bracket allows ceiling, wall or surface mounting. Cable entry via M20*1.5 cable gland. Front window with snap-action clip for in-position lamp replacement. Housing dustproof and jetproof to IP 65; no internal cleaning required.

Classifications

- IP 65
- Class I
- Complies with IEC 598



Dimensions in mm



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Preferred selection

Product ID	Weight (kg)	Comm Code
MVF607 C HPI-T250W K 220V NB	12.10	910401635580
MVF607 C HPI-T400W K 220V NB	13.00	910401635680
MVF607 C SON-T1 50W K 220V NB	11.90	910401635380
MVF607 C SON-T250W K 220V NB	12.90	910401635480
MVF607 C SON-T400W K 220V NB	14.70	910401635780

K = Kombi pack

NB = Narrow beam

PHILIPS

Architectural flood lighting

New Decoflood MVF617



MVF617

New Decoflood MVF617

A large, high-grade, asymmetrical floodlight with a choice of light distributions from a variety of lamps. Well suited to city environments. A wide range of accessories for lighting effects, glare reduction and damage protection. All-weather construction designed for simple cleaning and speedy servicing.

Main applications

- Parks
- Architectural structures
- Sculptures

Features

- High-quality anodized aluminium reflectors to throw a medium or wide beam
- Protractor scale for easy aiming. 'Memory ring' for immediate reaiming if the floodlight should be swivelled off beam
- Suitable for mounting on horizontal surfaces, walls and ceilings, and for pole mounting using suitable brackets
- Fast access to lamp and terminal blocks through the front with snap-action clip
- 220V/50Hz integral gear: other voltages or versions without gear available on request. Provision of through-wiring facilities

Materials and finish

- Housing, front frame and rear cover in high-pressure die-cast aluminium, painted dark grey (other colors available on a project basis); high-grade anodized aluminium reflectors; zinc-coated aluminium mounting bracket, painted dark grey; UV-stabilized polypropylene end caps in light grey; 5-mm thick toughened plate front glass; silicone rubber gaskets.

Installation

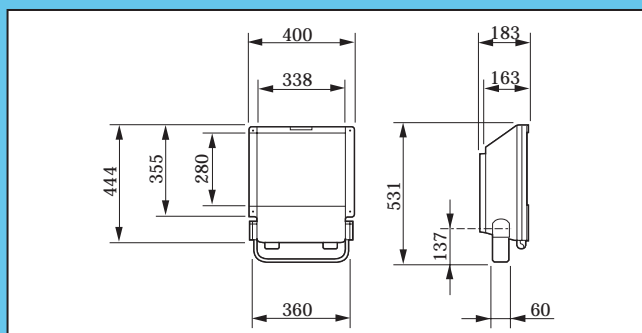
- Universal mounting bracket allows ceiling, wall or surface mounting. Cable entry via M20*1.5 cable gland. Front window with snap-action clip for in-position lamp replacement. Housing dustproof and jetproof to IP 65; no internal cleaning required.

Classifications

- IP 65
- Class I
- Complies with IEC 598



Dimensions in mm



Preferred selection

Product ID	Weight (kg)	Comm Code
MVF617 C HPI-T250W K 220V MB	10.90	910401637680
MVF617 C HPI-T400W K 220V MB	11.80	910401637980
MVF617 C MHN-TD250W K 220V MB	11.60	910401637780
MVF617 C SON-T250W K 220V MB	11.70	910401637580
MVF617 C SON-T400W K 220V MB	13.60	910401637880

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PHILIPS

Architectural flood lighting

Underground MBF205



MBF205

Underground MBF205

Recessed ground mounting floodlight for outdoor uplighting effects.

Main applications

- Square, parks, gardens
- Decorative street lighting
- Hotels
- Shopping area
- Residential area
- Safety lighting

Features

- Sealed with protection degree IP67 - suitable for permanent installation below ground with sustainable drainage
- Highly corrosion-resistant due to its stainless steel material
- Supplied with a mounting bucket for proper positioning and protection during installation

Materials and finish

- Black painted high pressure die-casted aluminum housing, PC cover, high purity aluminum reflector, stainless steel metal parts, silicone gasket.

Installation

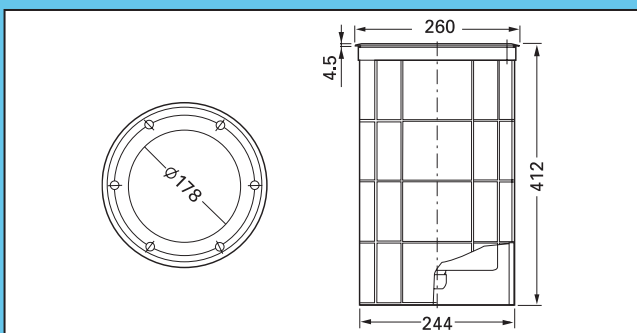
- Wall mounting and lateral mounting options.

Classifications

- IP 67
- Class I
- Complies with IEC 598



Dimensions in mm



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Preferred selection

Product ID	Weight (kg)	Comm Code
MBF205 MHN-TD70W K 230V-50Hz	6.40	911400315880
MBF205 SON-T70W K 220V-50Hz	6.40	910401972880

PHILIPS

Lamp & Control Gear

Fluorescent and compact fluorescent lamps control gear

		Recommended electronic system for the best performance				Alternative electromagnetic system for good performance				
Commercial name	Technical lamp type	Ballast (1 lamp)	Ballast (2 lamps)	Ballast (3 lamps)	Ballast (4 lamps)	Ballast (1 lamp)	Starter	Ballast (2 lamps)	Starter	
TLS 16mm dia	MASTER TLS HE Super 80 14W TL-5 Essential 14W	EB-S 114 230-240 LH/LP/SP/SH								
		EB-E 114 TLS 220-230	EB-E 214 TLS 220-230							
		EB-S 114 TLS 220-240	EB-S 214 TLS 220-240	EB-S 314 TLS 220-240	EB-S 414 TLS 220-240					
		HF-P 1 14-35 TLS HE	HF-P 2 14-35 TLS HE EII	HF-P 3/414 TLS HE EII	HF-P 3/414 TLS HE EII					
		HF-M Red 114 SH TL/TLS								
		HF-R 114 TLS	HF-R 214 TLS	HF-R 3/414 TLS	HF-R 3/414 TLS					
		HF-R DALI 114 TLS	HF-R DALI 214 TLS	HF-R DALI 3/414 TLS						
					HF-RT 414 TLS					
TLS 16mm dia	MASTER TLS HE Super 80 21W TL-5 Essential 21W	EB-E 121 TLS 220-230								
		EB-S 121 TLS 220-240	EB-S 221 TLS 220-240							
		EB-S 121 220-240 LH/LP								
		HF-R 121 TLS	HF-R 221 TLS							
		HF-R DALI 121 TLS	HF-R DALI 221 TLS							
TLS 16mm dia	MASTER TLS HE Super 80 28W TL-5 Essential 28W	EB-E 128 TLS 220-230	EB-E 228 TLS 220-230							
		EB-S 128 TLS 220-240	EB-S 228 TLS 220-240							
		HF-P 1 14-35 TLS HE	HF-P 2 14-35 TLS HE EII							
		HF-R 128 TLS	HF-R 228 TLS							
		HF-R DALI 128 TLS	HF-R DALI 228 TLS							
		HF-RT 128 TLS	HF-RT 228 TLS							
		HF-RTD 1 28-35 TLS	HF-RTD 2 28-35 TLS							
TLS 16mm dia	MASTER TLS HE Super 80 35W	EB-S 135 TLS 220-240	EB-S 235 TLS 220-240							
		HF-R 135 TLS	HF-R 235 TLS							
		HF-R DALI 135 TLS	HF-R DALI 235 TLS							
		HF-RT 135 TLS	HF-RT 235 TLS							
TLS 16mm dia	TLS HO Super 80 49W	HF-P 149 TLS HO	HF-P 249 TLS HO EII							
		HF-R 149 TLS	HF-R 249 TLS							
		HF-R DALI 149 TLS	HF-R DALI 249 TLS							
		HF-RT 149 TLS	HF-RT 249 TLS							
		HF-RTD 149 TLS	HF-RTD 249 TLS							
TLS 16mm dia	MASTER TLS HO Super 80 24W	HF-M Red 124 SH TL/TLS								
		HF-P 1 24-39 TLS HO	HF-P 2 24-39 TLS HO							
			HF-P 2 24-39 TLS HO EII							
		HF-R 124 TLS	HF-R 224 TLS							
		HF-R DALI 124 TLS	HF-R DALI 224 TLS							
TLS 16mm dia	TLS HO Super 80 39W	HF-P 1 24-39 TLS HO	HF-P 2 24-39 TLS HO							
			HF-P 2 24-39 TLS HO EII							
		HF-R 139 TLS	HF-R 239 TLS							
		HF-R DALI 139 TLS	HF-R DALI 239 TLS							
		HF-RT 139 TLS								
TLS 16mm dia	TLS HO Super 80 54W	HF-P 154 TLS HO	HF-P 254 TLS HO EII							
		HF-R 154 TLS	HF-R 254 TLS							
		HF-R DALI 154 TLS	HF-R DALI 254 TLS							
		HF-RT 154 TLS	HF-RT 254 TLS							
		HF-RTD 154 TLS	HF-RTD 254 TLS							
TLS 16mm dia	MASTER TLS HO Super 80 80W	HF-P 180 TLS HO EII	HF-P 280 TLS HO EII							
		HF-R 180 TLS								
		HF-RTD 180 TLS/PLL								
TLD 26mm dia	TL-D Super 80 18W TL-D Xtreme 18W TL-D Xtra 18W TL-D 90 De Luxe Pro 18W/930	EB-S 118 230-240 SH	EB-S 118 230-240 SP			BTA 18W 220V C SC	S10(-E)	BTA 36W 220V C SC	S2(-E)	
		EB-E 118 TLD 220-240	EB-E 218 TLD 220-240			BTA 18W 220V C DI	S10(-E)	BTA 36W 220V C DI	S2(-E)	
		EB-S 118 TLD 220-240	EB-S 218 TLD 220-240	EB-S 318 TLD 220-240	EB-S 418 TLD 220-240	BTA 18W 220V/60Hz C SC	S10(-E)	BTA 36W 220V/60Hz C SC	S2(-E)	
		HF-P 118 TLD 220-240 EII	HF-P 218 TLD 220-240 EII	HF-P 3/418 TLD 220-240 EII	HF-P 3/418 TLD 220-240 EII	BTA 18W 220V/60Hz C DI	S10(-E)	BTA 36W 220V/60Hz C DI	S2(-E)	
		EB-S ED 118 TLD 220-240	EB-S ED 218 TLD 220-240			BTA 18W 230V C SC	S10(-E)	BTA 36W 230V C SC	S2(-E)	
		HF-M Red 118 SH TL/TLS				BTA 18W 230V C DI	S10(-E)	BTA 36W 230V C DI	S2(-E)	
		HF-P 118 TLD EII	HF-P 218 TLD EII	HF-P 3/418 TLD EII	HF-P 3/418 TLD EII	BTA 18W 240V C SC	S10(-E)	BTA 36W 240V C SC	S2(-E)	
		HF-R 118 TLD	HF-R 218 TLD	HF-R 3/418 TLD		BTA 18W 240V C DI	S10(-E)	BTA 36W 240V C DI	S2(-E)	
		HF-R DALI 118 TLD	HF-R DALI 218 TLD	HF-R DALI 3/418 TLD	HF-R DALI 3/418 TLD	BTA 18W 220V B2 SC	S10(-E)	BTA 36W 220V B2 SC	S2(-E)	
						BTA 18W 220V B2 DI	S10(-E)	BTA 36W 220V B2 DI	S2(-E)	
						BTA 18W 220V/60Hz B2 SC	S10(-E)	BTA 36W 220V/60Hz B2 SC	S2(-E)	
						BTA 18W 220V/60Hz B2 DI	S10(-E)	BTA 36W 220V/60Hz B2 DI	S2(-E)	
						BTA 18W 220V B1 SC	S10(-E)	BTA 36W 220V B1 SC	S2(-E)	
						BTA 18W 220V B1 DI	S10(-E)	BTA 36W 220V B1 DI	S2(-E)	
				BTA 18W 230V B1 SC	S10(-E)	BTA 36W 230V B1 SC	S2(-E)			

Fluorescent and compact fluorescent lamps control gear

Lamps and gear table-Fluo

Commercial name	Technical lamp type	Recommended electronic system for the best performance				Alternative electromagnetic system for good performance			
		Ballast (1 lamp)	Ballast (2 lamps)	Ballast (3 lamps)		Ballast (4 lamps)	Ballast (1 lamp)	Starter	Ballast (2 lamps)
						BTA 18W 230V B1 DI	S10(-E)	BTA 36W 230V B1 DI	S2(-E)
						BTA 18W 240V B1 SC	S10(-E)	BTA 36W 240V B1 SC	S2(-E)
						BTA 18W 240V B1 DI	S10(-E)	BTA 36W 240V B1 DI	S2(-E)
TLD 26mm dia	TL-D Super 80 RS 32W/840 SLV/25		EB-S 232 TLD 220-240						
TLD 26mm dia	TL-D Super 80 30W					BTA 30W 220V C SC	S10(-E)		
	TL-D Super 80 30W/840 ES					BTA 30W 220V C DI	S10(-E)		
	TL-D Food Pro 30W/79					BTA 30W 230V C SC	S10(-E)		
	TL-D 90 de Luxe Pro 30W/930					BTA 30W 230V C DI	S10(-E)		
						BTA 30W 240V C SC	S10(-E)		
						BTA 30W 240V C DI	S10(-E)		
						BTA 30W 220V B2 SC	S10(-E)		
						BTA 30W 220V/60Hz B2 SC	S10(-E)		
						BTA 30W 220V/60Hz B2 DI	S10(-E)		
TLD 26mm dia	TL-D Super 80 36W	EB-E 136 TLD 220-240	EB-E 236 TLD 220-240			BTA 36W 220V C SC	S10(-E)		
	TL-D Xtreme 36W	EB-S 136 TLD 220-240	EB-S 236 TLD 220-240	EB-S 336 TLD 220-240		BTA 36W 220V C DI	S10(-E)		
	TL-D Xtra 36W	HF-P 136 TLD 220-240 EII	HF-P 236 TLD 220-240 EII			BTA 36W 220V/60Hz C SC	S10(-E)		
	TL-D 90 De Luxe Pro 36W/930	EB-S ED 136 TLD 220-240	EB-S ED 236 TLD 220-240			BTA 36W 220V/60Hz C DI	S10(-E)		
	MASTER TL-D Reflex 36W/865	HF-P 136 TLD EII	HF-P 236 TLD EII			BTA 36W 230V C SC	S10(-E)		
		HF-R 136 TLD EII	HF-R 236 TLD EII			BTA 36W 230V C DI	S10(-E)		
		HF-R DALI 136 TLD	HF-R DALI 236 TLD			BTA 36W 240V C SC	S10(-E)		
		HF-R T 136 TLD	HF-R T 236 TLD			BTA 36W 240V C DI	S10(-E)		
		HF-R TD 136 TLD	HF-R TD 236 TLD			BTA 36W 220V B2 SC	S10(-E)		
						BTA 36W 220V B2 DI	S10(-E)		
						BTA 36W 220V/60Hz B2 SC	S10(-E)		
						BTA 36W 220V/60Hz B2 DI	S10(-E)		
						BTA 36W 220V B1 SC	S10(-E)		
						BTA 36W 220V B1 DI	S10(-E)		
						BTA 36W 230V B1 SC	S10(-E)		
						BTA 36W 230V B1 DI	S10(-E)		
						BTA 36W 240V B1 SC	S10(-E)		
						BTA 36W 240V B1 DI	S10(-E)		
TLD 26mm dia	TL-D Super 80 58W	EB-S 158 TLD 220-240	EB-S 258 TLD 220-240			BTA 58W 220V C SC	S10(-E)		
	MASTER TL-D Secura 58W	HF-P 158 TLD 220-240 EII	HF-P 258 TLD 220-240 EII			BTA 58W 220V C DI	S10(-E)		
	TL-D Super 80 HF 58W	EB-S ED 158 TLD 220-240	EB-S ED 258 TLD 220-240			BTA 58W 220V/60Hz C SC	S10(-E)		
	TL-D Xtreme 58W	HF-P 158 TLD EII	HF-P 258 TLD EII			BTA 58W 220V/60Hz C DI	S10(-E)		
	TL-D Xtra 58W	HF-R 158 TLD EII	HF-R 258 TLD EII			BTA 58W 230V C SC	S10(-E)		
	TL-D 90 Graphica Pro 58W/965	HF-R DALI 158 TLD	HF-R DALI 258 TLD			BTA 58W 230V C DI	S10(-E)		
	MASTER TL-D Reflex 58W/840	HF-R T 158 TLD	HF-R T 258 TLD			BTA 58W 240V C SC	S10(-E)		
		HF-R TD 158 TLD	HF-R TD 258 TLD			BTA 58W 240V C DI	S10(-E)		
						BTA 58W 220V B2 SC	S10(-E)		
TLE	TL-E 22W	EB-E 122 TLE 220-240				BTA 22W 220V C SC	S10(-E)		
	TL-E Super 80 22W					BTA 22W 220V C DI	S10(-E)		
						BTA 22W 230V C SC	S10(-E)		
						BTA 22W 230V C DI	S10(-E)		
						BTA 22W 240V C SC	S10(-E)		
						BTA 22W 240V C DI	S10(-E)		
						BTA 22W 220V B2 SC	S10(-E)		
						BTA 22W 220V/60Hz B2 SC	S10(-E)		
						BTA 22W 220V/60Hz B2 DI	S10(-E)		
TLE	TL-E 32W	EB-E 132 TLE 220-240				BTA 32W 220V C SC	S10(-E)		
	TL-E Super 80 32W					BTA 32W 220V C DI	S10(-E)		
						BTA 32W 230V C SC	S10(-E)		
						BTA 32W 230V C DI	S10(-E)		
						BTA 32W 240V C SC	S10(-E)		
						BTA 32W 240V C DI	S10(-E)		
						BTA 32W 220V B2 SC	S10(-E)		
						BTA 32W 220V/60Hz B2 SC	S10(-E)		
						BTA 32W 220V/60Hz B2 DI	S10(-E)		
TL5C	TL5 C Super 80 22W	HF-P 1 22-40 TL5C	HF-P 2 22-40 TL5C						
		HF-R 122 TL5C							
		HF-R DALI 122 TL5C							

Fluorescent and compact fluorescent lamps control gear

Lamps and gear table-Fluo

		Recommended electronic system for the best performance				Alternative electromagnetic system for good performance					
Commercial name	Technical lamp type	Ballast (1 lamp)	Ballast (2 lamps)	Ballast (3 lamps)	Ballast (4 lamps)	Ballast (1 lamp)	Starter	Ballast (2 lamps)	Starter		
TL5C	TL5 C Super 80 55W	HF-P 155 TL5C									
		HF-R 155 TL5C									
		HF-R DALI 155 TL5C									
		HF-RT 155 TL5C									
TL5C	TL5 C Super 80 60W	HF-P 160 TL5C									
		HF-R 160 TL5C									
		HF-R DALI 160 TL5C									
		HF-RT 160 TL5C									
TL 38mm dia	TL RS 20W TL 20W					BTA 18W 220V C SC	S10(-E)	BTA 36W 220V C SC	S2(-E)		
						BTA 18W 220V C DI	S10(-E)	BTA 36W 220V C DI	S2(-E)		
						BTA 18W 220V/60Hz C SC	S10(-E)	BTA 36W 220V/60Hz C SC	S2(-E)		
						BTA 18W 220V/60Hz C DI	S10(-E)	BTA 36W 220V/60Hz C DI	S2(-E)		
						BTA 18W 230V C SC	S10(-E)	BTA 36W 230V C SC	S2(-E)		
						BTA 18W 230V C DI	S10(-E)	BTA 36W 230V C DI	S2(-E)		
						BTA 18W 240V C SC	S10(-E)	BTA 36W 240V C SC	S2(-E)		
						BTA 18W 240V C DI	S10(-E)	BTA 36W 240V C DI	S2(-E)		
						BTA 18W 220V B2 SC	S10(-E)	BTA 36W 220V B2 SC	S2(-E)		
						BTA 18W 220V B2 DI	S10(-E)	BTA 36W 220V B2 DI	S2(-E)		
						BTA 18W 220V/60Hz B2 SC	S10(-E)	BTA 36W 220V/60Hz B2 SC	S2(-E)		
						BTA 18W 220V/60Hz B2 DI	S10(-E)	BTA 36W 220V/60Hz B2 DI	S2(-E)		
						BTA 18W 220V B1 SC	S10(-E)	BTA 36W 220V B1 SC	S2(-E)		
						BTA 18W 220V B1 DI	S10(-E)	BTA 36W 220V B1 DI	S2(-E)		
						BTA 18W 230V B1 SC	S10(-E)	BTA 36W 230V B1 SC	S2(-E)		
						BTA 18W 230V B1 DI	S10(-E)	BTA 36W 230V B1 DI	S2(-E)		
						BTA 18W 240V B1 SC	S10(-E)	BTA 36W 240V B1 SC	S2(-E)		
						BTA 18W 240V B1 DI	S10(-E)	BTA 36W 240V B1 DI	S2(-E)		
		TL 38mm dia	TL RS 40W					BTA 36W 220V C SC	S10(-E)		
								BTA 36W 220V C DI	S10(-E)		
						BTA 36W 220V/60Hz C SC	S10(-E)				
						BTA 36W 220V/60Hz C DI	S10(-E)				
						BTA 36W 230V C SC	S10(-E)				
						BTA 36W 230V C DI	S10(-E)				
						BTA 36W 240V C SC	S10(-E)				
						BTA 36W 240V C DI	S10(-E)				
						BTA 36W 220V B2 SC	S10(-E)				
						BTA 36W 220V B2 DI	S10(-E)				
						BTA 36W 220V/60Hz B2 SC	S10(-E)				
						BTA 36W 220V/60Hz B2 DI	S10(-E)				
						BTA 36W 220V B1 SC	S10(-E)				
						BTA 36W 220V B1 DI	S10(-E)				
						BTA 36W 230V B1 SC	S10(-E)				
						BTA 36W 230V B1 DI	S10(-E)				
						BTA 36W 240V B1 SC	S10(-E)				
						BTA 36W 240V B1 DI	S10(-E)				
TL 38mm dia	TL RS 65W							BTA 58W 220V C SC	S10(-E)		
								BTA 58W 220V C DI	S10(-E)		
						BTA 58W 220V/60Hz C SC	S10(-E)				
						BTA 58W 220V/60Hz C DI	S10(-E)				
						BTA 58W 230V C SC	S10(-E)				
						BTA 58W 230V C DI	S10(-E)				
						BTA 58W 240V C SC	S10(-E)				
						BTA 58W 240V C DI	S10(-E)				
						BTA 58W 220V B2 SC	S10(-E)				
Miniature	TL Mini Aperture 8W/865 FA50	EB-S 109 230-240 LH									
	TL Mini Super 80 8W/830	EB-S 109 230-240 SH									
	TL Mini 6W/54	EB-S 109 230-240 LP									
		EB-S 109 230-240 SP									
Miniature	TL Mini Aperture 13W/865 FA50	HF-M RED 109 SH PL-S/PL-C									
	TL Mini 13W	EB-S 114 230-240 LH									
		EB-S 114 230-240 SH									
		EB-S 114 230-240 LP									
		EB-S 114 230-240 SP									
		HF-M RED 114 SH TL/TL5									

High intensity discharge control gear

Lamps and gear table-HID

Commercial name	Technical lamp type	Recommended system for the best performance		Alternative gear system for good performance		
		Gear	Dimming	Gear	Ignitor	Capacitor
MASTER Colour	CDM-R 111 35W	HID-PV C 035/2*035 CDM	N	BMH35	SN58(T15)	6uF/250V
	CDM-R 111 70W	HID-PV C 070 CDM	N	BMH70	SN58(T15)	6uF/250V
	CDM-R 35W	HID-PV C 035/2*035 CDM	N	BMH35	SN58(T15)	6uF/250V
	CDM-R 70W	HID-PV C 070 CDM	N	BMH70	SN58(T15)	6uF/250V
	CDM-TT/ET 70W	HID-PV C 070 CDM	N	BSN70	SN58(T15)	12uF/250V
	CDM-TT/ET 150W	HID-PV C 150 CDM	N	BSN150	SN58(T15)	18uF/250V
	CDM-TT 250W	HID-PV C 250 CDM	N	BSN250	SN58(T15)	32uF/250V
	CDM-TT 400W	NA	N	BSN400	SN58(T15)	45uF/250V
	CDM-TM 20W	HID-PV C 20/S CDM	N	N/A	NA	N/A
	CDM-T 35W	HID-PV C 035 CDM / EHS 2*035 CDM	N	BMH35	SN58(T15)	6uF/250V
	CDM-T 70W/830	HID-PV C 070 CDM	N	BMH70	SN58(T15)	12uF/250V
	CDM-T 70W/942	HID-PV C 070 CDM	N	BMH70	SN58(T15)	12uF/250V
	CDM-T 150W/830	HID-PV C 150 CDM	N	BSN150	SN58(T15)	18uF/250V
	CDM-T 150W/942	HID-PV C 150 CDM	N	BSN150	SN58(T15)	18uF/250V
	CDM-T 250W/830	HID-PV 250 CDM	N	BSN250	SN58(T15)	32uF/250V
	CDM-TC 35W/830	HID-PV C 035 CDM / HID-PV C 2*035 CDM	N	NA	NA	N/A
	CDM-TC 70W/830	HID-PV C 70 CDM	N	NA	NA	N/A
	CDM-TP 70W/830	HID-PV C 70 CDM	N	BMH70	SN58(T15)	12uF/250V
	CDM-TP 70W/942	HID-PV C 70 CDM	N	BMH70	SN58(T15)	12uF/250V
	CDM-TP 150W/830	HID-PV C 150 CDM	N	BSN150	SN58(T15)	18uF/250V
	CDM-TP 150W/942	HID-PV C 150 CDM	N	BSN150	SN58(T15)	18uF/250V
	CDM-TD 70W/830	HID-PV C 70 CDM	N	BMH70	SN58(T15)	12uF/250V
	CDM-TD 70W/942	HID-PV C 70 CDM	N	BMH70	SN58(T15)	12uF/250V
CDM-TD 150 W/830	HID-PV C 150 CDM	N	BSN150	SN58(T15)	18uF/250V	
CDM-TD 150W/942	HID-PV C 150 CDM	N	BSN150	SN58(T15)	18uF/250V	
Mini White Son	SDW-T 35W	NA	N	BSL35	CSLS35	6uF/250V
	SDW-T 50W	NA	N	BSL50	CSLS50	9uF/250V
	SDW-T 100W	NA	N	BSL100	CSLS100	14uF/250V
	SDW-TG 50W	HID-PV 50/S SDW-TG	N	NA	NA	NA
	SDW-TG 100W	HID-PV 100/S SDW-TG	N	NA	NA	NA
Metal halide HPI Plus, HPL-T Plus	HPI(T) 250W BU/BU-P	NA	N	BSN250/BHL250	SN58(T5)/SI51	32uF/250V
	HPI(T) 400W BU/BU-P	NA	N	BSN400/BHL400	SN58(T5)/SI51	45uF/250V
	HPI(T) 400W BUS/BUS-P	NA	N	BSN400/BHL400	NA	45uF/250V
Metal halide low wattage	MHN-TD 70W	NA	N	BMH70	SN58(T15)	12uF/250V
	MHN-TD 150W	NA	N	BSN150	SN58(T15)	18uF/250V
	MHN-TD 250W	NA	N	BSN250	SN58(T15)	32uF/250V
CosmoPolis	CPO TWhite 60W	HID-PV 60 CPO-TW*	Y	NA	NA	NA
	CPO TWhite 140W	HID-PV 140 CPO-TW*	Y	NA	NA	NA
High pressure sodium	SON/E-T PIA Plus 50W	NA	N	BSN50	SN57	10uF/250V
	SON 50W I	NA	N	BSN50	NA	10uF/250V
	SON/E-T PIA Plus 70W	EHS 070 SON	N	BSN70	SN57	12uF/250V
	SON/PIA Plus 70W I	NA	N	BSN70	NA	12uF/250V
	SON-GT PIA Plus 100W	NA	N	BSN100	SN58(T15)	12uF/250V
	SON/Comfort-Hg /-T PIA Plus 150W	EHS 150 SON	N	BSN150	SN58(T15)	18uF/250V
	SON/Comfort-Hg /-T PIA Plus 250W	NA	N	BSN250	SN58(T15)	32uF/250V
	SON/Comfort-Hg /-T PIA Plus 400W	NA	N	BSN400	SN58(T15)	45uF/250V
	SON-T PIA Plus 600W	NA	N	BSN600	SN58(T15)	45uF/250V
	SON-GT 1000W	NA	N	BSN1000	SN56	100uF/250V
	SON-H 110W	NA	N	BHL125	NA	10uF/250V
	SON-H 220W	NA	N	BHL250	NA	18uF/250V
	SON-H 350W	NA	N	BHL400	NA	15uF/250V
Quartz metal halide	HPI Plus BU / BU-P /-T 250W	NA	N	BSN250 / BHL250	SN58 / SI 51	32uF/250V
	HPI Plus BU / BUS / BU-P / PUS-P / HOR /-T 400W	NA	N	BSN400 / BHL400	SN58 / SI 51	45uF/250V
MASTER MHN, HPL-T	MHN-SA 1800W/230V/956	NA	N	BMH1800	SU50	200uF/250V
	MHN-SA 1800W/400V/956	NA	N	BMH1800	SU52	200uF/250V
	MHN-SA 1800W/230V/956	NA	N	BMH1800	SN56/59	200uF/250V
	MHN-SA/5B 2000W/400V/956	NA	N	BMH2000	SU52	70uF/450V
	MHN-LA 1000W/956	NA	N	BSN1000	SN56	125uF/450V
	MHN-LA 2000W/842	NA	N	BMH2000	SU52	65uF/250V
	HPL-T 1000W	NA	N	BHL1000	SI 52 / SI 51	65uF/250V
	HPL-T 2000W/380V	NA	N	BHL2000	SI 52	125uF/450V
	HPL-T 2000W/220V	NA	N	BMH2000	SU52	35uF/450V

High intensity discharge control gear

Lamps and gear table-HID

Commercial name	Technical lamp type	Recommended system for the best performance		Alternative gear system for good performance		
		Gear	Dimming	Gear	Ignitor	Capacitor
MH-NaSc low wattage	MH 70W	NA	N	BMH70	SN58(T5)	12uF/250V
	MH 700P	NA	N	BMH70	SN58(T5)	12uF/250V
	MH 100W	NA	N	BSN100	SN58(T5)	14uF/250V
	MH 100W/P	NA	N	BSN100	SN58(T5)	14uF/250V
	MH 150W	NA	N	BSN150	SN58(T5)	14uF/250V
MH-NaSc medium wattage	MH 175 W/CIU	NA	N	CKN175 H400	NA	NA
	MH 175 W/U	NA	N	CKN175 H400	NA	NA
	MH 250 W/U	NA	N	CKN250 H400	NA	NA
	MH 250 W/CIU	NA	N	CKN250 H400	NA	NA
	MH 400 W/U	NA	N	CKN400 H400	NA	NA
	MH 400 W/CIU	NA	N	CKN400 H400	NA	NA

* Dimmable gear will be available at the end of 2007.

Commercial name	Technical lamp type	Recommended system for the best performance		Dimming	Alternative gear system for good performance		
		Gear	Capacitor		Gear	Ignitor	Capacitor
Quartz metal halide ArtColor	Art. Colour: MH-T 400W Red/Green/Violet/Red	NA	NA	N	BHL400	S151	25uF/250V
High pressure mercury	HPL-N/Comfort 50 W	NA	NA	N	BHL50	NA	8uF/250V
	HPL-N/Comfort 80 W	NA	NA	N	BHL80	NA	8uF/250V
	HPL-N/Comfort 125 W	NA	NA	N	BHL125	NA	10uF/250V
	HPL-N/Comfort 250 W	NA	NA	N	BHL250	NA	18uF/250V
	HPL-N/Comfort 400 W	NA	NA	N	BHL400	NA	28uF/250V
Low pressure sodium	HPL-N 1000 W	NA	NA	N	BHL1000	NA	65uF/250V
	SOX-E 18W	NA	NA	N	BSX18 L81/82	SX26	4uF/250V
	SOX-E 26W	NA	NA	N	BSX26 L81/82	SX26	6uF/250V
	SOX-E 36W	EXC 036 S/50	NA	N	BSX55H26 / BSX36H66	SX72	4.4uF/300V
	SOX-E 66W	EXC 066 S/50	NA	N	BSX90 H26	SX70	7.6uF/300V
	SOX-E 91W	EXC 091 S/50	NA	N	BSX91 H96	SX74	5.2uF/300V
	SOX-E 131W	NA	NA	N	BSX131 H96	SX131	3.4uF/650V
	SOX 35W	EXC 035 S/50	NA	N	BSX35 / BSX355	SX26	8uF/250V
	SOX 55W	EXC 055 S/50	NA	N	BSX355 L32	SX72	6uF/250V
	SOX 90W	NA	NA	N	BSX90	SX76	10uF/250V
	SOX 135W	NA	NA	N	BSX135 H96	SX74	6.8uF/420V
	SOX 180W	NA	NA	N	BSX180 H96	SX73	4.4uF/650V
QL	QL 55W	HF-Generator 55W 100-120V/200-277V +Power coupler 55W	NA	Y	NA	NA	NA
	QL / -R 85W	HF-Generator 85W 100-120V/200-277V +Power coupler 85W	NA	Y	NA	NA	NA
	QL 85W / 830	HF-Generator 85W 100-120V/200-277V +Power coupler 85W	NA	Y	NA	NA	NA