

**Hong Kong – Philips Electronics**

**Hong Kong Ltd.**  
Lighting Asia Pacific Headquarters  
Level 6, Three Pacific Place  
1 Queen's Road East, Wanchai, Hong Kong  
Tel: + 852 2821 5300  
Fax: + 852 2821 5342  
www.lighting.philips.com.hk

**Australia – Philips Lighting**

Level 1, Philips House  
65 Epping Road, North Ryde  
NSW 2113, Sydney, Australia  
Tel: + 61 2 9947 0000 or  
1300 304 404 (toll free - local only)  
Fax: + 61 2 9947 0325  
www.lighting.philips.com.au

**China – Philips Lighting**

No. 1805 Hu Yi Road, Malu Town  
Jiading District, Shanghai, 201801, P.R.China  
Tel: + 86 21 5915 4060  
Fax: + 86 21 5915 4064  
www.lighting.philips.com.cn

**India – Philips Lighting**

Lighting Division  
Motorola Excellence Centre, 5th Floor  
415/2 Mehrauli-Gurgaon Road  
Sector-14, Haryana-122001, India  
Tel: + 91 124 509 1900  
Fax: + 91 124 509 1912  
www.lighting.philips.co.in

**Indonesia – Philips Lighting**

Gedung Philips  
Jl. Buncit Raya Kav. 99-100  
Jakarta 12510, Indonesia  
Tel: + 62 31 8491 674 or  
0800 10 52678 (hotline - local only)  
Fax: + 62 31 8473 240  
www.lighting.philips.co.id

**Japan – Philips Lighting**

Philips Building  
13-37, Kohnan 2-chome  
Minato-ku, Tokyo 108-8507, Japan  
Tel: + 81 3 3740 5156  
Fax: + 81 3 3740 5163  
www.lighting.philips.co.jp

**Korea – Philips Lighting**

260-199 Itaewon-dong  
Yongsan-ku, Seoul 140-200, Korea  
Tel: + 82 2 709 1312  
Fax: + 82 2 709 1350  
www.lighting.philips.co.kr

**Malaysia – Philips Lighting**

Level 9, Menara Axis  
No.2, Jalan SIA/2/23  
46100 Petaling Jaya  
Selangor, Malaysia  
Tel: + 60 3 7957 5511  
Fax: + 60 3 7955 2739  
www.lighting.philips.com.my

**New Zealand – Philips Lighting**

2 Wagener Place, Mt Albert  
PO Box 1041, Auckland, New Zealand  
Tel: + 64 9 815 4000 or  
0800 454 448 (toll free - local only)  
Fax: + 64 9 849 7812 or  
0800 160 875 (toll free - local only)  
www.lighting.philips.co.nz

**Pakistan – Philips Lighting**

F-54, S.I.T.E.  
Karachi-75730, Pakistan  
Tel: + 92 21 256 0071  
Fax: + 92 21 257 8920  
www.lighting.philips.com.pk

**Philippines – Philips Lighting**

49/F, P8Com Tower  
6795 Ayala Ave corner VA, Rufino Street  
1226 Makati City, Metro Manila, Philippines  
Tel: + 63 2 845 7840  
Fax: + 63 2 816 6340  
www.lighting.philips.com.ph

**Singapore – Philips Lighting**

620A Lorong 1 Toa Payoh  
Singapore 319762, Singapore  
Tel: + 65 6882 3330  
Fax: + 65 6253 2343  
www.lighting.philips.com.sg

**Taiwan – Philips Lighting**

14/F W, No. 3-1, Building G, YuanQu Street  
Nankang 1, Taipei, Taiwan  
Tel: + 886 2 2382 7666 or  
0800 231 099 (toll free - local only)  
Fax: + 886 2 2382 4422  
www.lighting.philips.com.tw

**Thailand – Philips Lighting**

1768, 26th-28th floor, Thai Summit Tower  
New Petchburi Road, Bangkok  
Huaykhwang, Bangkok, 10320, Thailand  
Tel: + 66 2 620 6666  
Fax: + 66 2 620 6633  
www.lighting.philips.co.th

**Vietnam – Philips Lighting**

99-101 Ham Nghi Street  
Ward: Nguyen Thai Binh  
District 1, Ho Chi Minh City, Vietnam  
Tel: + 84 8 914 2248 Ex.304  
Fax: + 84 8 914 2249



Maximize performance  
in every office setting

Office Lighting



42 2-000 3 001-01

©2005 Koninklijke Philips Electronics N.V.  
All rights reserved, reproduction in whole or in part without permission is prohibited.



PHILIPS

DDB

Date: 20/4/2005	Job No: 01PIR05040028	Client: Philips	Insertion Date: XX/4/2005	Media: A4-Brochure	Studio: susanna	AD: Joe/ Joke	CD XXX
Trim Size: 420x297mm(H) Folded Size: 210x297mm(H)	Job Description: A4-Brochure-Office	Colour: ?? SL: TBC	Traffic: Zoe	CW: XX	AS: Jane		



# Comprehensive lighting solutions

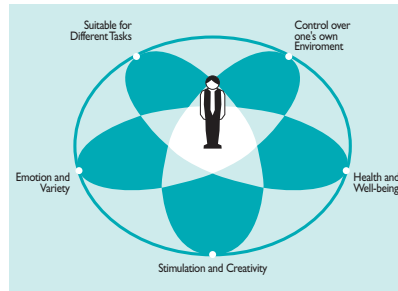
## Trends in office lighting

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. Employers 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. With different demands come different office configurations and structures. And that's why you'll need different lighting solutions to accommodate specific needs.

Learn more about all the latest changes in the office world in the following pages. So you can let the ideal lighting solution complement your office interior and let everyone perform at their best.



Date: 20/4/2005	Job No: 01PIR05040028	Client: Philips	Insertion Date: XX/4/2005	Media: A4-Brochure	Studio: susanna	AD: Joe/ Joke	CD XXX
Trim Size: 420x297mm(H) Folded Size: 210x297mm(H)	Job Description: A4-Brochure-Office	Colour: ?? SL: TBC	Traffic: Zoe	CW: XX	AS: Jane		



## New trends in office lighting

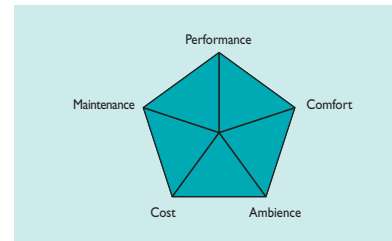
The new lighting trend that focuses on people, has the following requirements:

1. Suitable for different tasks
  - Improves communication
  - Enhances concentration
  - Creates the right atmosphere and degree of privacy
2. Promotes health and well-being
  - Use of daylight
  - Use of dynamic lighting
  - Creates a visually pleasing and comfortable environment
3. Creative and stimulates activity in various areas
  - Creates combined space lighting or task based lighting in general areas
  - Creates zoned lighting in specific areas
4. Dynamic and easy to control
  - Dynamic ambience
  - Ease of control
5. Emotion and variety
  - Decorative effects
  - Design flexibility

As a result, office lighting requirements have changed from fixed uniform illuminance on the working plane (CIE) to task based lighting with more emphasis on comfort and a visually appealing environment (CEN). And in the future, variable and dynamic zoned lighting will be derived from personal preferences, the perception of space and the need for well-being.

To meet the changing trends and requirements mentioned above, some office lighting solutions in demand today are:

- Shift towards TL5 lamps
- Indirect lighting methods
- Miniaturization
- Move towards High Frequency Electronic control gear
- Increase of dynamic lighting solutions and lighting control



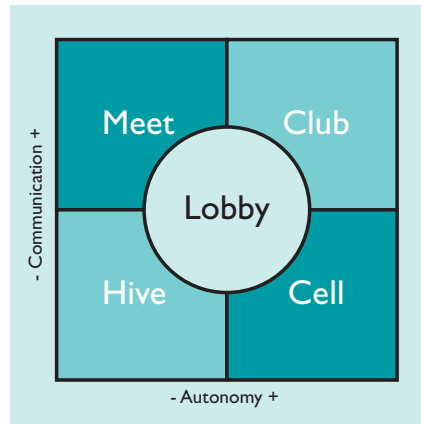
## Basic needs in office lighting

Not only will good office lighting affect the appearance of an office. It will also directly influence workers performance and impact corporate productivity. With adequate lighting, workers feel more comfortable, make fewer mistakes and feel less eye-fatigue. Appropriate use of lighting is also proven to lower absentee rates and boost morale in the working environment. Quality lighting can set or change the mood and ambience in the office. It can be used as an indirect tool to facilitate the conducive emotional response of employees, clients and visitors.

The ideal office lighting solution should satisfy five basic elements. First of all, it should generate reliable, quality light (performance). It should create a comfortable environment (comfort) and be able to produce the specific kind of mood and style you want to achieve (ambience). In addition, the ideal lighting solution has to be cost-effective (cost), which includes initial, installation and running costs. And its quality and reliability should ensure you minimal maintenance hassle (maintenance).

With a wide range of lighting solutions from Philips to satisfy all these needs, you can effectively offer everyone within the office an inspiring work environment and stimulate productivity with an appropriate corporate image. What's more, Philips' quality lighting solutions will also ensure superior energy efficiency. With reliable lighting, longer lifetimes and low maintenance, you can sit back and enjoy all the advantages of quality lighting without worrying about high labor and maintenance costs.

Date: 20/4/2005	Job No: 01PIR05040028	Client: Philips	Insertion Date: XX/4/2005	Media: A4-Brochure	Studio: susanna	AD: Joel Joke	CD XXX
Trim Size: 420x297mm(H) Folded Size: 210x297mm(H)	Job Description: A4-Brochure-Office	Colour: ?? SL: TBC	Traffic: Zoe	CW: XX	AS: Jane		

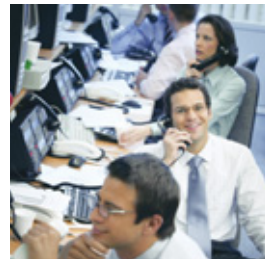
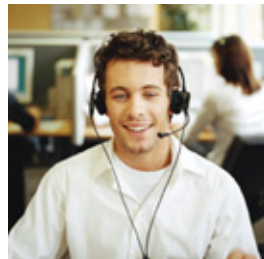
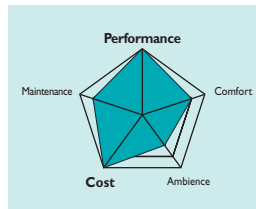


## Different office areas

Different office areas demand different functions. Generally, the nature and function of offices can be categorized into the five types below.

### Hive (or the Open-plan office)

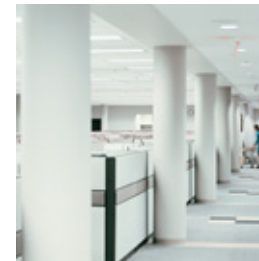
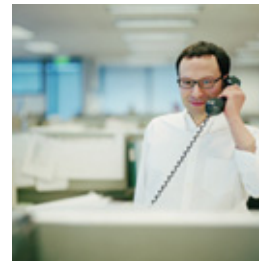
The hive is an area full of activity. Typical examples of hive include administration offices, general offices, call centers and help desks. The hive is a large area shared by many people, thus, a comfortable environment with good ambience, which can be achieved through lighting control, will encourage efficiency and productivity. And because the hive is usually a large space with lots of computers, the application of glare control, good color rendering and uniformity of lighting are just as important. Optimal lighting should match the requirements with various tasks being performed. And because the hive is the largest area, it uses more luminaires than other office areas. Therefore, cost and maintenance effectiveness are important factors as well.



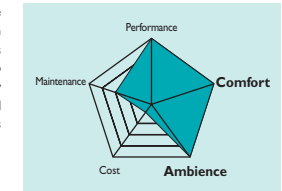
5

### Cell

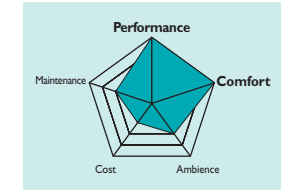
A cell office has a quiet, relaxing atmosphere, and accommodates employees who operate individually. Examples of these offices include senior managers of standard office, those in insurance, trade and policy offices. Due to the high degree of concentration required, it is important to consider lighting controls within this area. And because it is sometimes used to greet clients and visitors, lighting in this area should create a comfortable atmosphere and convey an appropriate corporate image, which can be achieved through proper lighting design and controls. Comparatively, general lighting uniformity, light efficiency and glare control are less significant factors.



### Exclusive Lighting

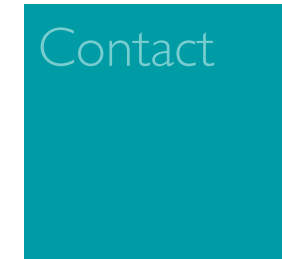
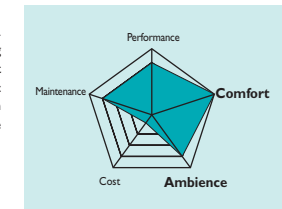


### General Lighting



### Meet (or Meeting area)

A meet area is where communication is essential. Meet is not limited to specific meeting rooms. It also includes other areas of communication like reception, waiting and conference hall. Lighting in the meet area must be functional and flexible enough to accommodate groups of different sizes with different purposes. The levels of comfort as well as good ambience are the most basic needs in a meet area for a pleasant and quality meeting, which can be accentuated further with proper dimming system and accent lighting. It also has to convey a good corporate image since it can be where clients and other visitors meet.



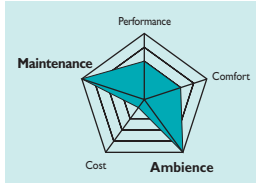
6

### Lobby

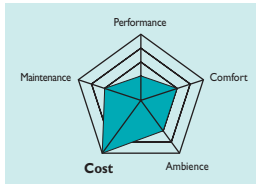
The lobby area is usually a passageway connecting various areas and departments in an office. It is used by all employees, but communication here is usually brief and informal. The lobby area is further divided into two main sections: representative areas, including reception, entrance, lobby and exhibition corners; and functional areas, including corridors, staircase and pantry. The representative area is usually where the company meets the public. Therefore, lighting in this area will directly communicate a company's desired image. And immediate maintenance is especially important in this area. In a functional area, the visual performance is less important since no visually demanding work takes place here. However, cost is an important factor for it usually occupies a large area in the office and many luminaires are required.



Representative areas: reception, entrance, lobby and exhibition corner

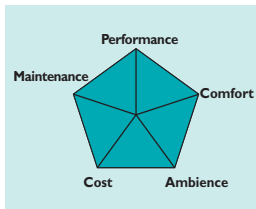
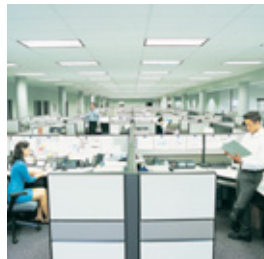


Functional areas: corridors, staircase and pantry



### Club

The club includes the needs of hive, cell, meet and lobby areas. It is usually a mid-size, open plan office with a large variety of luminaires and lamps; and combines activities that demand concentration as well as communication. Companies with the need for a club office include software companies, advertising agencies, broadcasting companies and editorial offices. Besides complementary lighting design that is in line with office concepts, high quality and unobtrusive luminaires are important for the degree of concentration required. And due to its open environment, uniformity of lighting and glare control are also important factors to consider. Different lighting levels may be required at different locations for comfort and ambience. This could be achieved through dimming and lighting controls.



## Recommended Norms

	Hive	Cell	Meet	Lobby	Club
Lighting level (Em)	500-1000 lux	General lighting level:250-500 lux Task area: 500-750 lux	≥500	General lighting level:150-300 lux	Depends on the functions of specific areas
Uniformity(E min/Eave)	≥0.8	≥0.8	≥0.8	Depends on the functions of specific areas	Depends on the functions of specific areas
Glare restriction (UGR) *	<19	<19	<19	<22	<19
Color rendering(Ra)	≥80	≥80	≥80	≥80	≥80
Lighting control	Optional	Optional	Required	Optional	Optional
Recommended lighting solutions**:	A, B, C, D, E	A, B, C, D, F	A, B, C, D, F	B, C, D, E, F	A, B, C, D, E, F

\* For technical drawing area, UGR 16.

\*\* For recommended lighting solutions, please refer to table on page 9.

Maximize savings



## Recommended office lighting solutions

Luminaires	Lamps	Control Gear
A Savio Celino Arano	MASTER TL-5 28W 840	MASTER HF-Performer for TL-5 28W
B Exclusive TBS 769	MASTER TL-5 28W 840	MASTER EB-Standard for TL-5 28W
C MASTER X-tend TBS 369/669	MASTER TL-D Super 80 36W 840 MASTER TL-5 28W 840	MASTER EB-Standard for TL-D 36W MASTER EB-Standard for TL-5 28W
D MASTER X-tend TCS 398/TPS 498	MASTER TL-D Super 80 36W 840 MASTER TL-5 28W 840	MASTER EB-Standard for TL-D 36W MASTER EB-Standard for TL-5 28W
E TBS 168 M5	MASTER TL-D Super 80 36W 840 MASTER TL-5 28W 840	MASTER EB-Standard for TL-D 36W MASTER EB-Standard for TL-5 28W
F Fugato compact 145 standard range	MASTER PL-C 18W 840 MASTERLINE ES 30W 36°	HF-Performer for PL-T, PL-C and PL-Q MASTER ET-Standard for 50W Halogen lamps

## Luminaires



### Savio

- Philips New generation luminaire which has an edge-to-edge light appearance with a uniform and comfortable brightness impression
- The patented micro-lens-optic (MLO) consists of a single plate and is embedded in a high-quality natural anodized aluminum housing
- Ensures optimum lighting distribution and full glare control compliant with the latest office lighting norm (EN12464-1)
- Enables the creation of 'personal light' and 'dynamic ambience' and offers the flexibility of lighting level & temperature
- The design allows multiple luminaires to be connected in a line or block arrangement
- Available as a full range- suspended, surface-mounted, recessed, free-standing and wall mounted, offering maximum freedom in application



### Celino

- Philips new generation luminaire with compact dimension (a mere 71mm wide) and subtle, minimalist design
- The housing is made of natural anodized extruded aluminum and has diecast aluminum end caps
- Philips' new aluminum micro optic with 3D lamellae ensures optimum visual comfort and efficiency compliant with the latest office lighting norm (EN12464-1)
- The design allows multiple luminaires to be connected in a line arrangement
- Available as a full range- suspended, surface-mounted, free-standing and wall mounted, offering maximum freedom in application



### Arano

- Philips new generation luminaire with compact dimension (a mere 45mm high) and subtle, minimalist design
- The housing is made of natural anodized extruded aluminum
- Philips' new aluminum micro optic with 3D lamellae ensures optimum visual comfort and efficiency compliant with the latest office lighting norm (EN12464-1)
- The design allows multiple luminaires to be connected in a line arrangement
- Available as a full range- suspended, surface-mounted (rectangular & square version), free-standing and wall mounted, offering maximum freedom in application



### Exclusive TBS 769

- Exclusive performance modular recessed luminaires for TL-5 fluorescent lamps
- Wide selection of best-in-class optics: C7/D7; 3D lamella and concave upper side; MD – a highly decorative optic using a greenish translucent material
- Wide selection of optics allows for customisation to meet specific office needs
- Omni-directional Luminance Control (OLC) optic and well-controlled bat-wing light distribution
- Compact dimension
- Decorative perforated in-fill plate and light emitting holes
- Mounting: individual or in-line
- Suitable for air handling systems
- Philips V-clip
- Option: movement detector/infrared sensor, emergency lighting battery pack



### MASTER X-tend TBS 369/669

- High performance modular recessed luminaire for TL-D or TL-5 fluorescent lamps
- Wide selection of optics: D6/C6/M6, M2 for customisation to meet specific office needs
- Omni-directional Luminance Control (OLC) optic and well-controlled bat-wing light distribution
- Decorative perforated in-fill plate and light emitting holes
- Mounting: individual or in-line
- Suitable for air handling systems
- Philips V-clip
- Option: movement detector/infrared sensor, emergency lighting battery pack



### TBS 168 M5

- Functional modular recessed luminaire for TL-D fluorescent lamps
- 3 optic selections
- Versions: 2x36W, 3x36W, 3x18W and 4x18W
- Suitable for air handling systems
- Well-controlled bat-wing light distribution
- Light output ratio : ≥ 63%
- Optional 1 or 3-hour emergency lighting circuit



### MASTER X-tend TCS 398/TPS 498

- High performance surface mounted and suspended luminaires for TL-D or TL-5 fluorescent lamps
- Wide selection of optics: D6/C6/M6, M2 for customization to meet specific office needs
- Omni-directional Luminance Control (OLC) optic and well-controlled bat-wing light distribution
- Top mirror
- Universal suspension set with flexible cable duct
- Philips V-clip
- Mounting: in-line with an option of visual continuous light lines (VCLL)
- Option: movement detector/infrared sensor, emergency lighting battery pack





#### Fugato compact

- Flexible choice of fixed and adjustable downlight
- Fixed downlight for compact fluorescent, discharge and halogen lamps. With low optic unit, offering clean visual appearance
- Adjustable downlight for discharge and halogen lamps. Offers internal adjustability up to 40 degrees and external adjustability up to 80 degrees
- An extensive range of advanced optics available for general and accent lighting
- Optimum combination of light output, excellent glare rating and operating efficiency
- Wide choice of accessories and optic finishes
- Easy installation, with different sizes for different heights of ceilings



#### I45 standard range

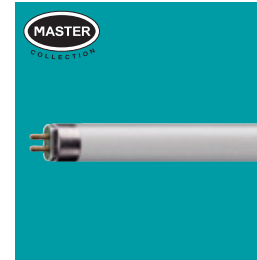
- High performance recessed downlight for compact fluorescent energy-saving lamps and HKD lamps
- Optimal structural layout and stylish appearance for low-height, false ceilings
- Professional optical design to provide a highly efficient lighting distribution and a low glare rate
- Decorative ring and glass can be ordered separately
- Adjustable clips for easy installation on ceilings with different thickness

## Lamps



#### MASTER TL-D Super 80 36W 840

- Rated average life: 15,000 hours
- Light output: 3,350lm
- Lumen maintenance at 10,000 hours: 90%
- Luminous efficacy: 93lm/W
- Color rendering (Ra): ≥ 85
- Color temperature (Tc): 4,000K



#### MASTER TL-5 28W 840

- Rated average life: 20,000 hours
- Light output: 2,900lm(at 35°C)
- Lumen maintenance at 10,000 hours: 91%
- Luminous efficacy: 104lm/W
- Color rendering (Ra): ≥ 85
- Color temperature (Tc): 4,000K



#### MASTER PL-C 18W 840

- Rated average life : 10,000 hours, (on HF gear: 13,000)
- Light output: 1,200lm
- Lumen maintenance : 87% at 5,000 hours
- Luminous efficacy : 67lm/W
- Color rendering (Ra) : 82



#### Masterline ES 30W 36°

- Rated average life : 5,000 hours
- Luminous efficacy : 32Scd/W (8° spot versions) - 25cd/W (for 60° flood versions)
- Color rendering (Ra) : 100
- Color temperature (Tc) : 3,150K
- Luminous intensity : 1,600cd
- Superior IRR burner technology from Philips Lighting

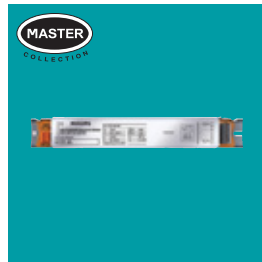
Date: 20/4/2005	Job No: 01PIR05040028	Client: Philips	Insertion Date: XX/4/2005	Media: A4-Brochure	Studio: susanna	AD: Joe/ Joke	CD XXX
Trim Size: 420x297mm(H) Folded Size: 210x297mm(H)	Job Description: A4-Brochure-Office	Colour: ?? SL: TBC	Traffic: Zoe	CW: XX	AS: Jane		

## Control Gear



### MASTER HF-PERFORMER for TL-5 28W

- Power factor: 0.98
- System power: 33W
- Suitable for mains voltage: 220-240V/50-60Hz
- Uses Philips designed, manufactured and patented Integrated Circuit (IC) technology
- Immediate Light: Fast preheated ignition time of 0.5 secs (most other ballasts take as long as 2 secs)
- Low THD: Less than 10%, making this range suitable for most applications
- Runs Cooler: Allowing a higher maximum Tcase of 75 degrees
- Optimized TCOO (Total Cost of Ownership) since all products conform to CELMA energy efficiency rating of A2
- Meets relevant IEC safety and performance standards
- CE and ENEC approved



### MASTER EB-STANDARD for TL-5 36W

- Power factor: 0.95
- System power: 37W
- Suitable for mains voltage: 220-240V/50-60Hz
- Push-button connections
- Warm / Rapid Start Ignition
- Conforms to CELMA energy efficiency rating of A2
- Long lifetime of 50,000 hours
- Meets relevant IEC safety and performance standards
- CE and ENEC approved



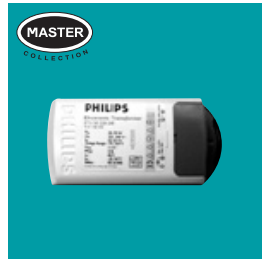
### MASTER EB-STANDARD for TL-5 28W

- Power factor: 0.96
- System power: 32W
- Suitable: 220-240V/50-60Hz mains voltages
- Push-button connections ensure quick and easy installation
- Uses Philips designed, manufactured and patented Integrated Circuit (IC) technology
- Low THD: Less than 10%, making this range suitable for most applications
- Conforms to CELMA energy efficiency rating of A2
- Full program start ignition: Meaning longer lamp life in applications with high switching requirements
- Meets relevant IEC safety and performance standards
- CE and ENEC approved



### Msater HF-PERFORMER for PL-T/C 18W and PL-Q 38W lamps

- Power factor: 0.93 for PL-T/C 18W, 0.98 for PL-Q 38W
- Luminous efficacy for color 840 lamps: 67lm/W for PL-T/C 18W, 75lm/W for PL-Q 38W
- System power: 18W for PL-T/C 18W, 38W for PL-Q 38W
- Suitable for mains voltage: 220-240V/50-60Hz



### MASTER ET-STANDARD for 50W Halogen lamps

- Mains voltage: 220-240V/ 50/60Hz
- Lamp power range: 20-70W
- Watt loss: 4W
- Power factor: > 0.99
- 3 protection circuits: short circuit protection, overload protection and over-temperature protection



### The MASTER Collection – Lighting solutions that really last.

Offering best in class energy efficiency, lifetime reliability and lighting quality, Philips MASTER Collection lamps, luminaires and control gears minimize your lighting solution's total cost of ownership. They also provide a major boost for your staff morale and productivity levels. You can start enjoying significant savings and benefits from day one by replacing your conventional lighting products with Philips MASTER Collection upgrades. You can achieve even more dramatic savings and improvements by switching your whole lighting system to the Philips MASTER Collection.

Date: 20/4/2005	Job No: 01PIR05040028	Client: Philips	Insertion Date: XX/4/2005	Media: A4-Brochure	Studio: susanna	AD: Joel Joke	CD XXX
Trim Size: 420x297mm(H) Folded Size: 210x297mm(H)	Job Description: A4-Brochure-Office	Colour: ?? SL: TBC	Traffic: Zoe	CW: XX	AS: Jane		