

## 優化住宅樓宇的照明光度

屋宇署頒布的「設計手冊：暢通無阻的通道2008」要求公共地方的照明必須能滿足有特別需要的人仕包括視力受損人士的光度要求。為使住宅樓宇能夠達到這個標準而又沒有過度提高能源消耗，從2008年12月開始，新的住宅樓宇已採用二級照明控制系統。此系統能令用者在有需要時提升照明光度。

公共地方的照明光度如下：

	正常模式	啟動模式
一般大堂	50勒克斯	85勒克斯
一般走廊	30勒克斯	85勒克斯
樓梯	30勒克斯	85勒克斯
地下升降機大堂	120勒克斯	不適用
升降機	150勒克斯	不適用



提升公共地方照明光度



## 採用機電工程署的屋宇裝備裝置能源效益實務守則

新建樓宇在照明、電力、空調和升降機及自動梯等裝置已採用符合機電工程署「建築物能源效益守則」要求的設計。自2015年8月，房委會已獲得112張由機電工程署《建築物能源效益條例》下簽發的「遵行規定登記證明書」。



## 新住宅樓宇公用地方的公共照明光電感應控制

於接近有日照可達的地方-例如公共地方接近窗之處，裝置光電感應控制照明。當光線充足時可關掉部份照明，節約能源。



光電感應控制照明

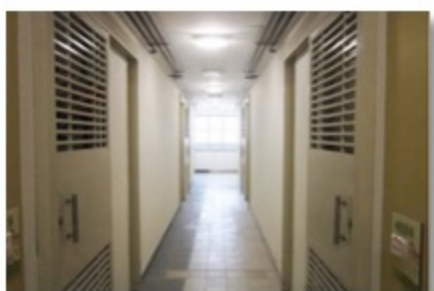
## 以電子鎮流器取代電磁鎮流器

相比電磁鎮流器，電子鎮流器大概可節省螢光燈具所耗用的電能的百分之二十。因此，我們已在2003年起，開始廣泛地採用電子鎮流器。而現時，所有螢光照明裝置已採用電子鎮流器。

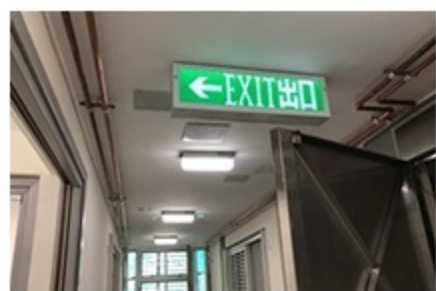
我們於2012/13年度開始實施為期42個月的計劃，更換所有現有屋邨公共地方配備電磁鎮流器的照明裝置，改用節能的電子鎮流器，共涵蓋約960幢住宅大廈。全部960幢大廈的更換工作已於2015年9月完成。

## 廣泛採用LED照明系統

自2016年初起，我們決定將LED凸面照明器列為所有在規劃及設計階段的新工程項目的住宅樓宇公共空間標準裝備。從2019/20年開始，我們將會在故障維修期間把現有公共屋邨公共區域的照明換成LED凸面照明器。此外，我們在2019年或之後招標的新發展項目中將採用LED出口指示牌。



LED 凸面照明器



LED 出口指示牌

## Optimisation on Illumination Level of Domestic Blocks

In response to the requirements laid down in the Design Manual: Barrier Free Access 2008 promulgated by the Building Department, the illumination standard of public areas has been significantly increased to cater for the needs of persons with special needs such as those having impaired vision. To achieve the new illumination standard for domestic blocks without undue increase on energy consumption, a two level lighting control system has been adopted in new design for domestic blocks since December 2008. This system enables users raising the lighting level when needed. The illumination levels for public areas are as follows:

	Normal Mode	Triggered Mode
- for typical lobby	50 lux	85 lux
- for typical corridor	30 lux	85 lux
- for staircase	30 lux	85 lux
- for ground floor lift lobby	120 lux	NA
- for lift car	150 lux	NA



Raise the lighting level of public areas



## Adopting EMSD's Code of Practice for Energy Efficiency of Building Services Installation

The lighting, electrical, air-conditioning and lift & escalator of new buildings have been adopting the design in compliance with the requirements of Building Energy Codes issued by EMSD. Since August 2015, HA has received 112 Certificates of Compliance Registration under the Building Energy Efficiency Ordinance from EMSD.



## Photocell Sensor Control for Lights in Public Areas of New Domestic Blocks

Photocell sensor controls for lights are installed in areas with natural light, such as areas near the windows in communal areas, to switch off some lights to save energy when the illumination level is adequate.



Photocell sensor controls for lights

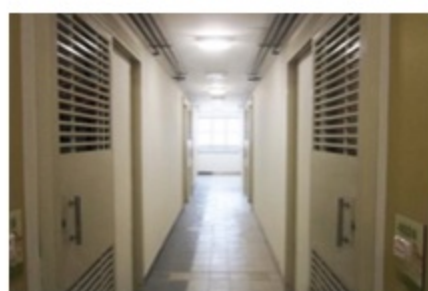
## The Use of Electronic Ballast to replace Electromagnetic Ballast

For fluorescent type lighting fittings, about 20% of electrical energy could be saved if electronic ballast is used instead of electromagnetic ballast. In view of this, since 2003, we have widely adopted the use of electronic ballast. At present, all fluorescent type lighting fittings are equipped with electronic ballasts.

Starting from 2012/13, we have launched a 42-month programme of replacing existing light fittings equipped with electromagnetic ballast by energy-saving electronic ballast in communal areas of all our existing estates, covering around 960 domestic blocks. The replacement work for all 960 domestic blocks have been completed in September 2015.

## Wider Use of LED Lighting

Since early 2016, we have adopted LED bulkheads as standard luminaires for communal areas of domestic blocks in all new works projects under planning or design. Starting from 2019/20, LED bulkheads will be adopted in communal areas of existing PRH blocks during the breakdown maintenance. In addition, LED Exit Signs and Directional Signs will be adopted in new developments to be tendered out in or after 2019.



LED installations



LED Exit Sign

## Variable Speed Drive Control for the Fresh Water Booster Pumping System

We have adopted variable speed drive control for the fresh water booster pumping system in all new projects. The system has been used together with smaller stainless steel pneumatic pressure vessels and stamped stainless steel multi-stage pumps to achieve higher energy efficiency and occupy lesser plant room space.