PROFESSIONAL APPLICATIONS

TOSHIBA
Leading Innovation

E-CORE LED – CONTEMPORARY LIGHTING

Providing quality light to work by drawing attention to consumer products, creating relaxed atmospheres or resisting tough industrial challenges – in the professional sector, light needs to satisfy many different needs. This is why Toshiba has developed the E-CORE LED lighting range.

LIGHT QUALITY AND EFFICIENCY

The E-CORE LED luminaires and lamps exude impressive quality and efficiency. With a maintenance-free service life of up to 60.000 hours, they enable low-cost, sustainable solutions for a wide range of applications.

Moreover, a large selection of colour temperatures and beam angles provide maximum flexibility. And the fact that the LEDs are controllable opens up potential new lighting design opportunities.

ONE PRODUCT FAMILY, SEVERAL SOLUTIONS

In the professional sector, design is often as important as efficiency. And here too, the E-CORE LED range meets expectations. The luminaires and lamps together form a harmonious portfolio offering a broad range, a consistent design language and an impressive lighting technology. So Toshiba can provide the right lighting solution for any application and enables an object placed in different areas to be lit in an integrated way.

EXPERIENCE AND RESPONSIBILITY

Toshiba recognised the potential of LED lighting at a very early stage. It is an expression of our corporate philosophy. We feel that efficient LED technology offers the opportunity to improve our quality of life through innovation. In fact, it was put in writing in our 2008 environmental programme.

We are gradually implementing our vision of improving global energy efficiency by a factor of 10 by the year 2050. We have been taking firm action: In Japan, Toshiba ceased production of conventional light bulbs in 2010, as they consume up to 80 % more energy than LEDs.

INNOVATIVE LIGHTING SOLUTIONS

Constructors, architects, planners, trade businesses and retailers, and everyone dealing with lighting on a day-to-day basis, all benefit from the commitment we have made over many years. It is for them that we are continually upgrading our luminaires and lamps. So we never stop creating new, innovative lighting solutions for the world of work and everyday life, which is changing so rapidly.

BASIC, GENERAL AND ACCENT LIGHTING

Toshiba E-CORE LED luminaires can be used for basic, general and accent lighting. They perform functional, decorative, practical and emotional lighting roles, both indoors and out. Their full luminance – with no UV or infrared radiation – is available as soon as they are switched on, and the light quality remains constant throughout their service life.

Whether an office, shop, hospitality or industrial application, in this brochure we will show you how bespoke lighting solutions can be implemented with the wide range of E-CORE LED products. The references described in the following pages are glowing examples of our work.

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LIGHT IN THE MODERN WORLD OF WORK AND LIVING

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OFFICE

GOOD LIGHT QUALITY PROMOTES EFFICIENT WORKING

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»LIGHT IS A MOTIVATOR«

MATTHIAS MARTIN
Editor in Chief of trade journal LPI

How important is lighting in the workplace?

I see two aspects here, the psychological and the structural. If we take psychology first or, more accurately, the psychology of perception, which I have studied – a key issue is motivation, of which there are essentially two different types. One is intrinsic motivation, that is the ability to push oneself. The other is so-called extrinsic motivation, which comes from the surroundings.

Can lighting motivate people to work harder?

Yes, it can. It's crucial that standards of modern office fittings, including lighting, are continually improved, both in terms of their design and technically. As an employee, I of course want to work in an environment that exudes this modernity. If I see great lighting somewhere else and I don't have it, it impacts negatively on my motivation.

So it's very important that employers provide the most contemporary, positive environment they can, so that there is no disruption due to demotivation.

What benefits do LEDs offer for modern office design?

Many, but particularly through variability. These days, employees don't just stay in one place. They're having meetings or sitting with colleagues. The lighting for these work, communication and leisure areas, including the light colour and light intensity, can be controlled individually.
For example, in large open-plan offices you can now create separate areas with more intense lighting. The light can be digitalised, as it were – it can even follow the individual employee's movement.

Is lighting becoming increasingly important, now and in the future?

Oh yes, that's the structural aspect that I mentioned at the start. These days, many employees don't have their own office any more, they just have a space on a particular work level, a chair, in some offices not even that, but just a stool or they work standing up, there are all sorts of options. But whatever the situation, you need a light. It makes the space far clearer because everything around it becomes more pure. The structural quality and architectural significance of lighting is growing, definitely.

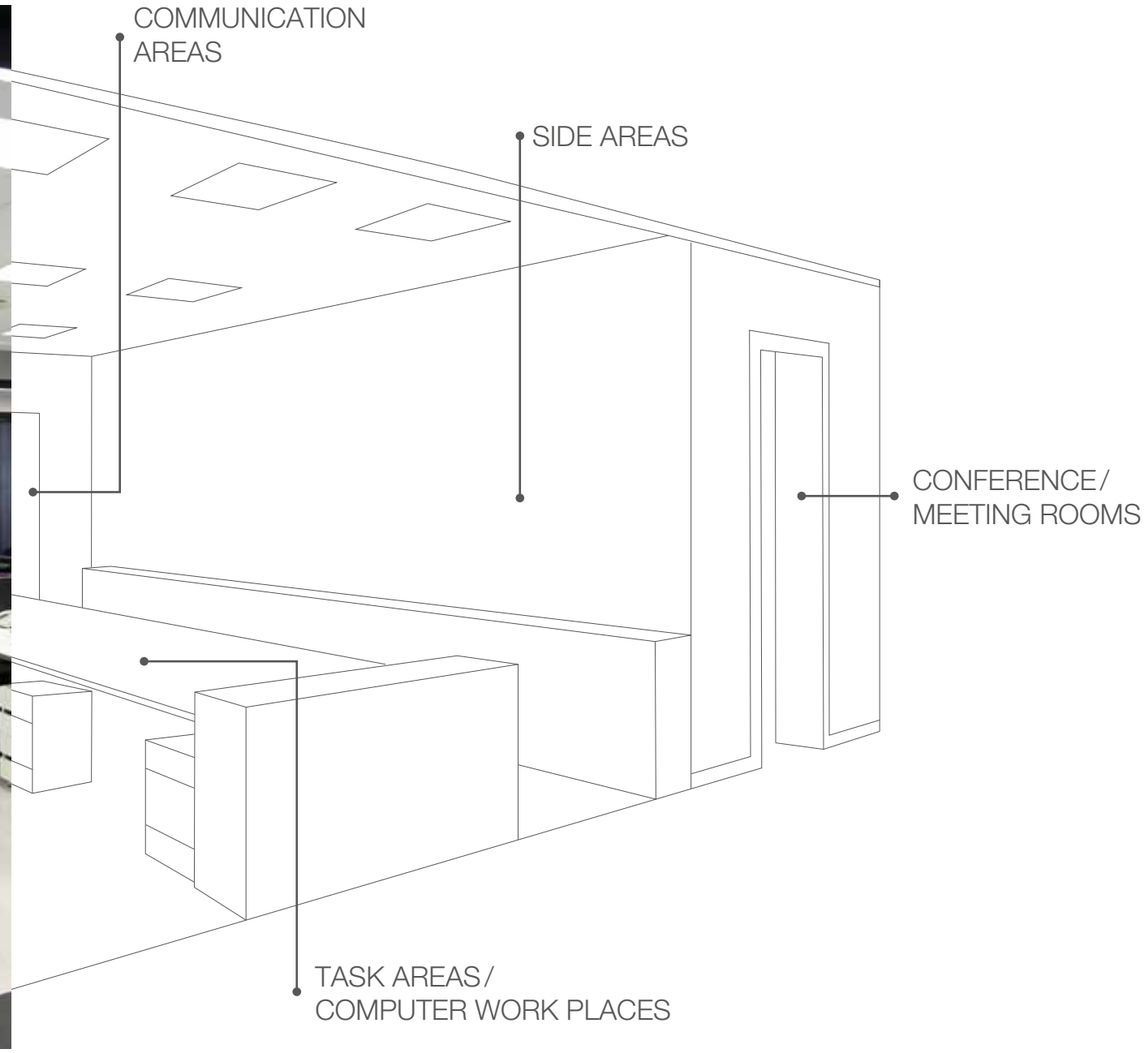
OPTIMAL LIGHTING FOR MODERN OFFICES

Flexible office architectures and appreciating staff are at the heart of the modern world of work. By providing a pleasant working environment and attractively designed premises, employers are creating conditions which will help their staff feel happy and motivated. Besides individual working spaces, communication areas, lounges and conference rooms are playing an ever greater role. To help achieve a work-life balance, companies are also consciously setting up relaxation areas.

LIGHT FOR DIFFERENT VISUAL TASKS

Toshiba lighting enables the various visual tasks in the different areas to be performed well. Special E-CORE LED luminaires at computer workstations provide high-lumen, low-glare light that aids concentration and enables staff to work without becoming tired. Aesthetically advanced, dimmable LED luminaires contribute to the employee's well-being, particularly in communication areas.

The E-CORE LED luminaires combine high light quality with energy and cost efficiency, reliability and easy maintainability. As the E-CORE LED luminaires form a harmonious portfolio, very tight lighting design criteria can be deployed to fit out the various areas. Equipping office areas with, or converting them to, Toshiba LED lighting pays for itself very quickly.



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FOR OFFICE AND COMMUNICATION

LIGHTING FOR COMPUTER WORKSTATIONS

European norms, such as EN 12464-1, define lighting quality criteria and ensure high light quality in workplaces. Toshiba's downlights for the office area meet the exacting requirements for luminous flux, UGR values, colour temperature and dimmability. Therefore, they ensure the best possible support for the visual task concerned.

GENERAL LIGHTING FOR SIDE AREAS

Alongside high-quality lighting for workstations, uniform and efficient lighting plays a major role in lighting adjacent areas. This enables sound orientation on stairs and in corridors, and DC-capable lights enable energy-saving use when in emergency mode. A great feature of the compact PACK series downlights is their easily replaceable LED modules.

RECESSED GRIDS

NEOGRID

Lumen output: up to 3650 lm
Power: 30 W
UGR: ≤ 19 (White reflector)
≤ 16 (Aluminium specular reflector)
Colour temperature: 3000 K / 4000 K
Dimmable: DALI (5 – 100 %)
Grid ceiling: 600 x 600 or 625 x 625 mm
DC capable : yes

BASELIGHT

Lumen output: 2700 lm
Power: 49 – 66 W
(with constant lumen output)
UGR: ≤ 19
Coulour temperature: 3000 K / 4000 K
System Ceiling module: 600 x 600 mm

DOWNLIGHTS

DOWNLIGHT 3000

Lumen output: up to 2870 lm
Power: 46 W
UGR: ≤ 19 / 22 / 25 / 28
Colour temperature: 3000 K / 4000 K
Dimmable: DALI (5 – 100 %)
Cut-Out: Ø 150 mm

DOWNLIGHT 1100 / 1600

Lumen output: up to 1530 lm
Power: 18 W / 23 W
UGR: ≤ 16 / 19 / 22
Colour temperature: 3000 K / 4000 K
Dimmable: Trailing edge phase control
Replaceable bulb: / E-CORE LED Light Engine
Cut-Out: Ø 140 mm

PANEL RECESSED / SUSPENDED

PANEL

Lumen output: 3400 lm
Power: 48 W
(with constant lumen output)
UGR: ≤ 22
Colour temperature: 4000 K
Dimmable: 1 – 10 V (10 – 100 %)
Dimmensions: 600 x 600 mm
Accessories: Suspension kit

DOWNLIGHTS

PACK omni 2

Lumen output: up to 2050 lm
Power: 12,7 W / 17,5 W / 24 W
UGR: ≤ 22 / 25
Colour temperature: 3000 K / 4000 K
Dimmable: Available in two versions
(switchable only / DALI-dimmable)
Replaceable bulb : / E-CORE LED Light Engine
Cut-Out: Ø 150 / 200 mm
DC capable: yes

PACK omni mini 2

Lumen output: up to 660 lm
Power: 5,7 W / 8,3 W
Colour temperature: 2700 K / 4000 K
Replaceable bulb: / E-CORE GX53
Cut-Out: Ø 100 / 125 mm
Two versions: fixed / adjustable

TOSHIBA
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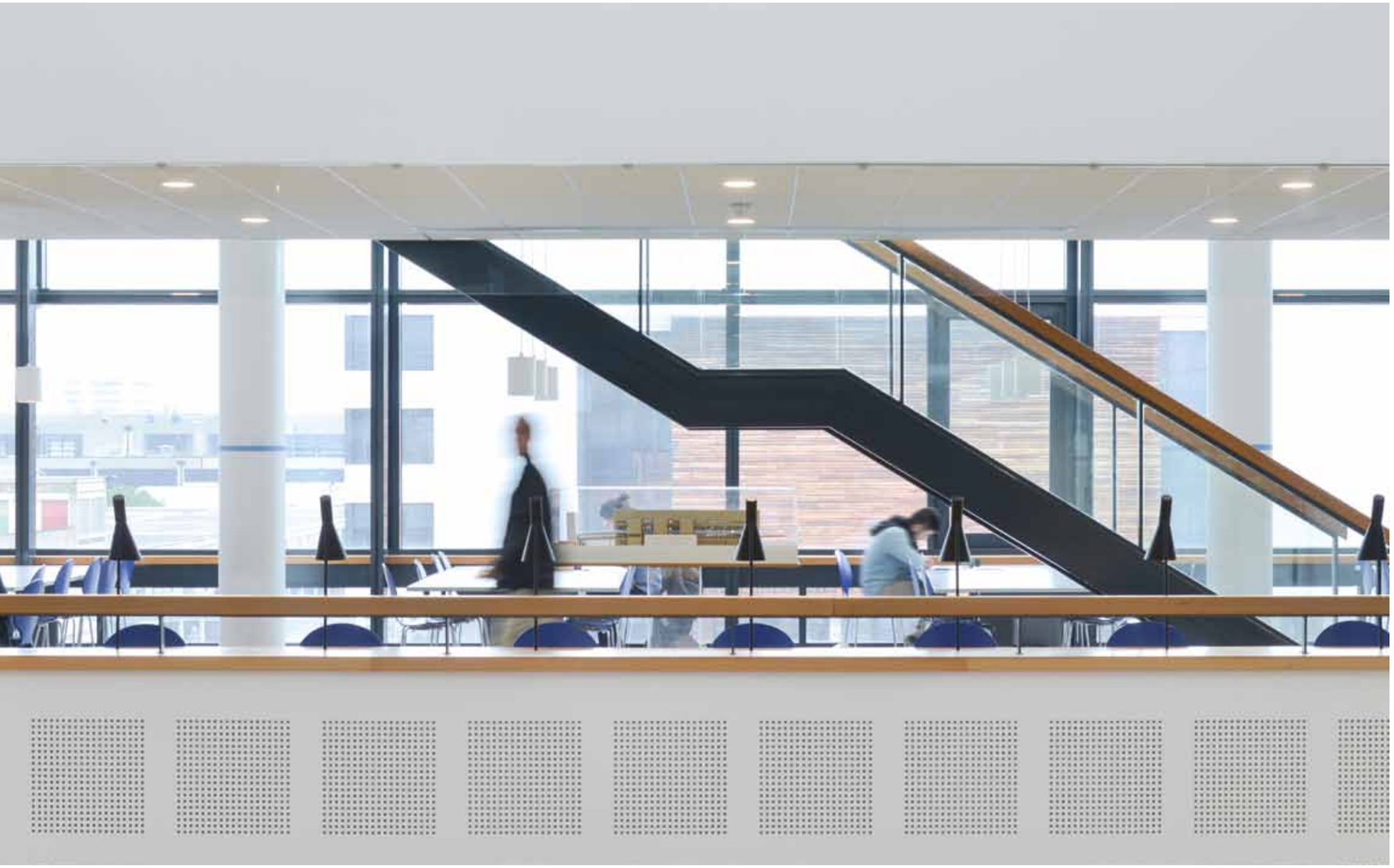
PACK omni 2
DOWNLIGHT
Ideal for efficient general lighting.

UNIVERSITÉ DE TOULOUSE MIRAIL
TOULOUSE, FRANCE

Founded in 1229, the University of Toulouse is one of the oldest universities in Europe. In 1969, the historic institution was divided into three autonomous universities. The Mirail district is home to Université Toulouse II Le Mirail (UTM), which has long been associated with the humanities. UTM offers a wide range of academic degrees in different disciplines.

When extensive construction and renovation work was being carried out on the campus, the lighting in the university building was also analysed. The 1503 downlights, each with 2 x 18 W light bulbs, had an annual consumption of 54 kWh and were extremely demanding in terms of maintenance.



WHY TOSHIBA LIGHTING?

The university very quickly opted for Toshiba, for two reasons. Firstly, due to the low energy consumption and long service life of LED lighting in general, and secondly, because of the particular properties of the PACK omni downlights. They are designed so that the LED source can be replaced if necessary (LED LIGHT ENGINE). This makes maintenance easier and cuts costs.

Toshiba installed 1503 PACK omni 23 W 4000 K 90 °, cutting energy consumption by 37 % to 34 kWh per annum. So the University of Toulouse Mirail is benefiting in the long term from reduced energy costs and the long service life of up to 40,000 hours of the Toshiba LED luminaires.

DOWNLIGHT 1100 / 1600
DOWNLIGHT

High-performence downlight for the retail sector.

DOWNLIGHT 3000
DOWNLIGHT

Ideal for large spaces with sophisticated lighting design.

TOSHIBA
Leading Innovation

BASELIGHT
RECESSED GRID

Constant light flux control
for uniform brightness.

HOPITAL CESAME
SAINTE GEMMES SUR LOIRE, FRANCE

The “Centre de Santé Mentale Angevin” (CESAME) was originally a state psychiatric clinic for children, teenagers and adults in the Main-et-Loire region of France. In 2003, it was decided to undertake a major new construction project in the region. The idea was to create a brand new town based around the philosophy of resources and energy efficiency.

As part of this project in the Angers area, the CESAME hospital was also to be expanded. In 2009, the clinic was given an award for sustainable development, including for its achievements in the energy-saving area.

PACK omni 2
DOWNLIGHT
Ideal for efficient general lighting.

WHY TOSHIBA LIGHTING?

By using the E-CORE LED luminaires to light the new hospital building, significant savings were made in terms of energy consumption and maintenance costs.

In the combination chosen, the E-CORE LED baselights provide uniform lighting for large spaces, while the PACK omni downlights offer flexible ways of using space. They are compact and offer different beams angles. Their light bulbs can be replaced very easily when necessary.

SHOP

REFINED LIGHTING IMPROVES SALES

TOSHIBA
Leading Innovation >>>

ADRIANO ANSELMI

Head of Marketing Mercato del Carmine

The “Smart City” project has kicked off in Genoa. What’s it all about?

The aim of “Smart City” is to reduce energy consumption and CO_2 emissions in our city. With the initiative of various companies, private individuals and the city itself, we’ve already carried out several projects. 500 neon lights in the city’s stadium have been replaced by LED lights. We’ve also upgraded the lighting in the Chiossone Museum of Oriental Art. And our Mercato del Carmine, of course, now has a smart lighting concept.

Which areas of the market hall have gone smart?

First we installed LED lighting. Then there was the issue of the ambient temperature which, without an air conditioning system, we can only regulate using fans. We use them to cool the air in the market to keep the food fresh, and warm the air in the restaurant, where diners are seated.

Is the new energy strategy having an impact on costs, too?

Yes, it is, and over the long term. Through the Smart City project we’ve succeeded in cutting the market’s energy costs by around 60 %. Per annum! It makes financial sense for us. I think our investment will have paid for itself within a year and a half.

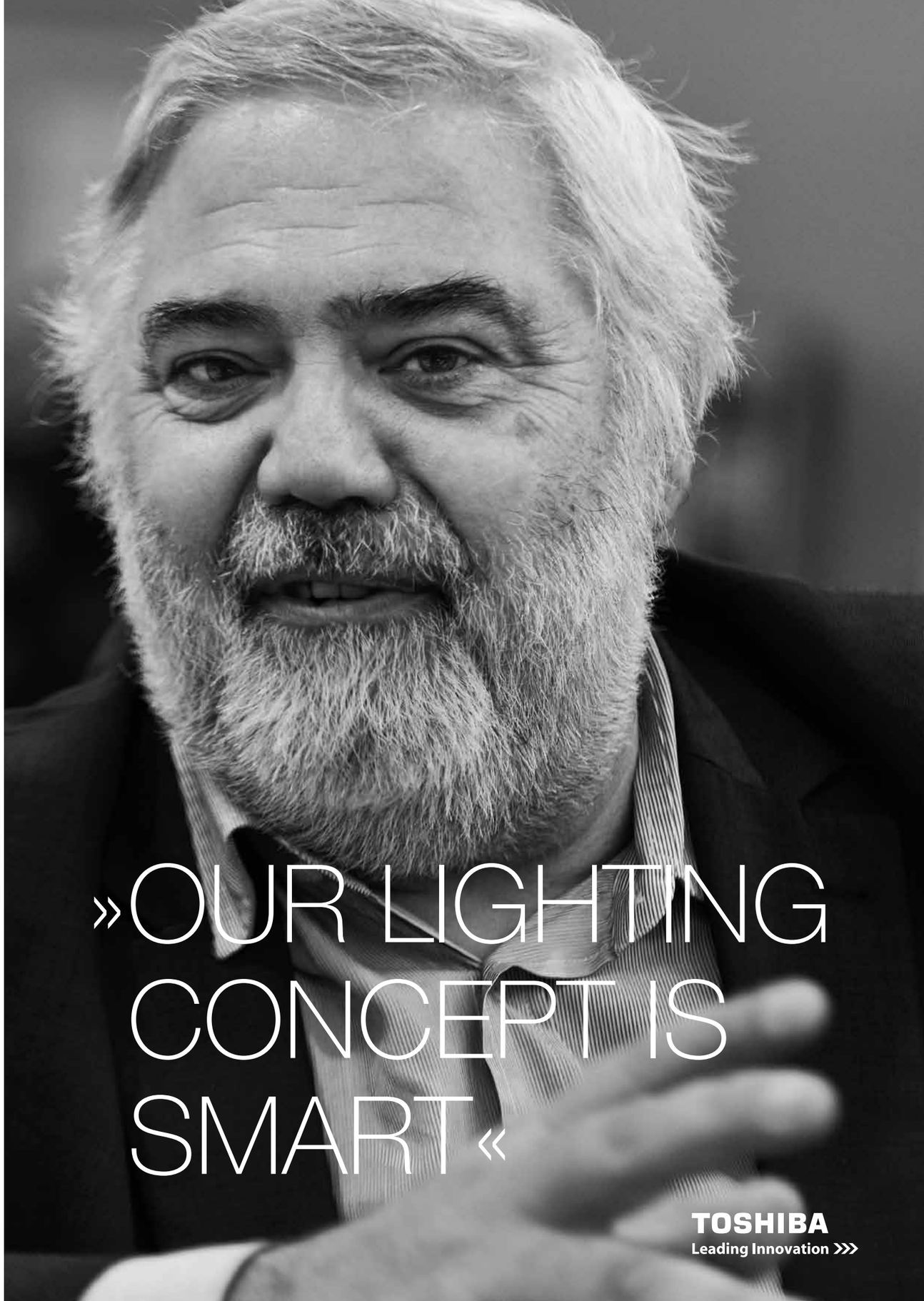
How have visitors reacted to the market hall?

Extremely positively! First of all, the market serves as a sort of display window. The exciting thing is that you can see everything. Secondly, we can control the lighting so that it’s always pleasant, whether raining or sunny. Crucial in this was our decision to use different LED lights – six or seven types in all. I think we’re the first in Europe to provide this range. We’re also using LEDs behind the scenes to light the technical areas.

What role is Toshiba playing in your Smart City project?

Well, with Toshiba we’ve been able to implement our idea for differentiated lighting as I’ve just described. Toshiba offers us exactly the broad range of products that we need, and with excellent quality.

For Toshiba, good lighting quality is one of their key goals. If you look at the lights here, you see just one light colour everywhere, which shows the quality. Toshiba guarantees us a steady flow of light and ensures luminous power over a long period.

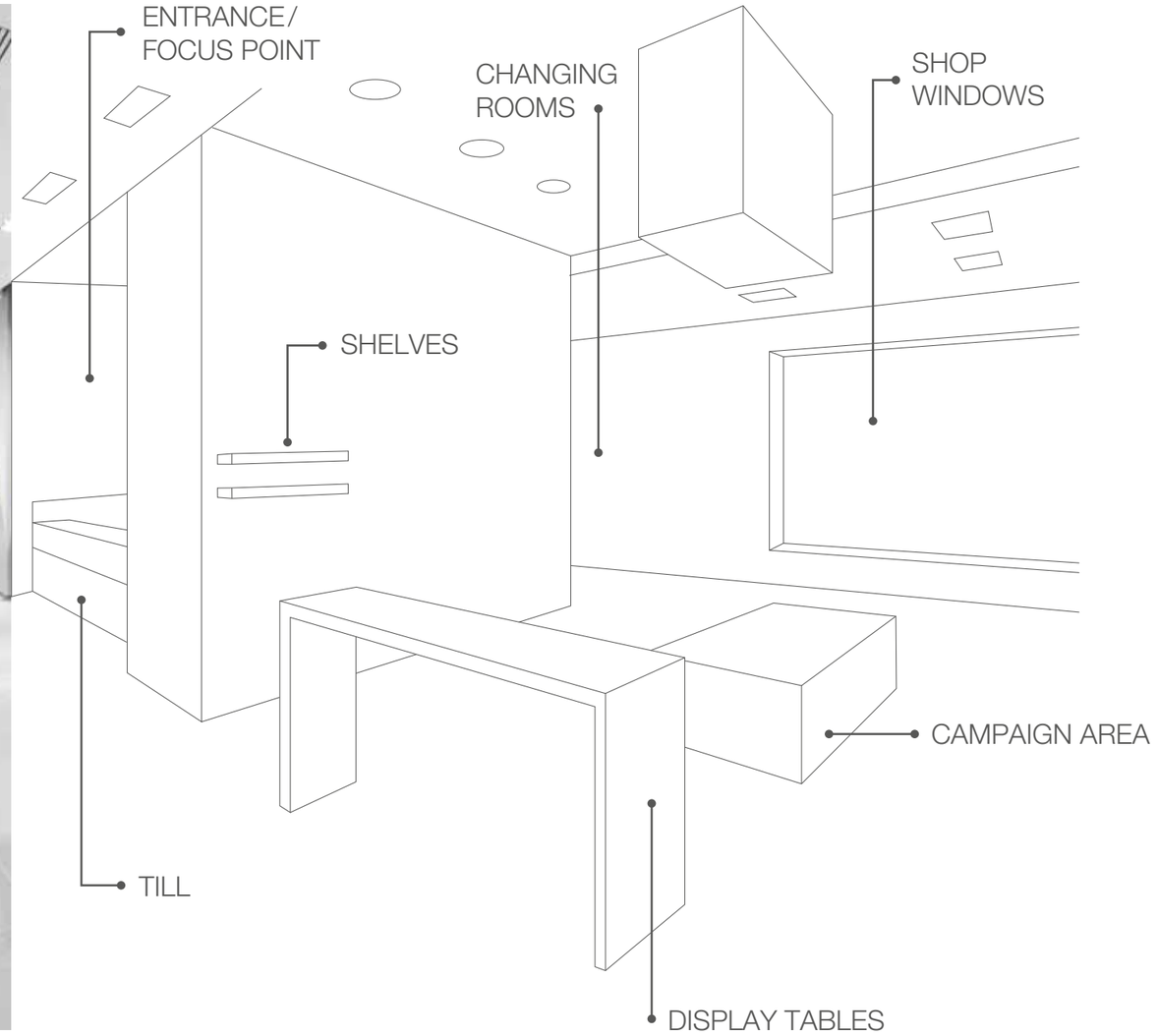


SHOW OFF BRANDS AND PRODUCTS

These days, shops are experiences, bringing brands and their messages to life. Lighting is part of this marketing concept. It is used strategically, to show off products and brands. The idea is to make the products look as authentic as possible. Shoppers are increasingly looking for natural products and sustainable energy concepts in shops and shopping centres.

LIGHTING WITH EXCELLENT LIGHT QUALITY

The versatile E-CORE LED range has the optimum solution for every area in the shop. The lighting for display windows and doorway areas influences whether the customer will enter the shop. Bright accent lighting shows products in the right light and encourages people to buy. Excellent colour rendering makes it easier to choose. Customers' well-being and, therefore, the length of their stay in the shop, can be increased by the right colour temperature, which is also a major issue in changing rooms. The till area will feature functional light for the shop's staff.



FOR SALES AND PRESENTATION

ACCENT LIGHTING

Toshiba's NEOACCENT LED range of spotlights sets new accents in shop lighting: powerful, efficient and flexible. The spotlights deliver precise, high-quality accent lighting in modern sales areas. With their consistent, dynamic design language, the various solutions in the range will integrate perfectly into any architecture and combine flexibly with one another. The specially designed housing enables purely passive cooling of the high-performance LED modules, whilst still remaining highly compact. Whether they be Tracklights, Extractables or Batteries, high-quality plastic lenses ensure extremely precise light distribution and strong accents.

GENERAL LIGHTING

General lighting in shops should be efficient, uniform and restrained. This is why Toshiba offers ceiling and pendant lights that blend harmoniously into any ceiling design and shop architecture. The lights are dimmable so that they can be adjusted to suit different moods and times of day. Finely adjustable light heads conveniently take the light to where it is needed.

ACCENT LIGHTING

NEOACCENT SERIE

Lumen output: up to 1700 / 2600 lm
Power: 22 W / 32 W
Beam angle: 15°, 25°, 35°
Colour temperature: 3000 K / 4000 K
Colour rendering: Ra 85
Accessories: High CRI Filter

NEOACCENT TRACKLIGHT

Installation: 3-Phase universal adapter
Dimmable: Using slider on box
Pivoting 90° and Rotary 355°

NEOACCENT EXTRACTABLE

Installation: Easy ceiling mounting with clips
Dimmable: DALI (5–100 %)
Pivoting 45° and Rotary 360°

NEOACCENT BATTERY

Installation: Easy ceiling mounting
Single, double and triple versions
Variable range of light heads
Dimmable: DALI (5–100 %)
Pivoting 30° and rotary 360°

TRACKLIGHT 1200

Lumen output: up to 1300 lm
Power: 21 W
Beam angle: 22°, 40°
Colour temperature: 3000 K / 4000 K
Colour rendering: Ra 80
Accessories: High CRI Filter

GIMBAL SPOT 111 SERIE

Replaceable bulb: E-CORE AR 111 up to 14,5 W
Lumen output: up to 920 lm
Beam angle: 8°, 24°, 40°
Colour Temperature: 2700 K / 3000 K / 4000 K
Spot light for one, two or three lamp fittings

DOWNLIGHTS

DOWNLIGHT 3000

Lumen output: up to 2870 lm
Power: 46 W
UGR: ≤ 19 / 22 / 25 / 28
Colour temperature: 3000 K / 4000 K
Dimmable: DALI (5–100 %)
Cut-Out: Ø 150 mm

DOWNLIGHT 6000

Lumen output: up to 5945 lm
Power: 46 W
Beam angle: 72°
UGR: ≤ 28
Colour temperature: 3000 K / 4000 K
Dimmable: DALI (5–100 %)
Cut-Out: Ø 150 mm

PACK omni 2

Lumen output: up to 2050 lm
Power: 12,7 W / 17,5 W / 24 W
UGR: ≤ 22 / 25
Colour temperature: 3000 K / 4000 K
Dimmable: Available in two versions
(switchable only / DALI-dimmable)
Replaceable bulb : / E-CORE LED Light Engine
Cut-Out: Ø 150 / 200 mm
DC capable: yes

PANEL RECESSED / SUSPENDED

PANEL

Lumen output: 3400 lm
Power: 48 W
(with constant lumen output)
UGR: ≤ 22
Colour temperature: 4000 K
Dimmable: 1–10 V (10–100 %)
Dimensions: 600 x 600 mm
Accessories: Suspension kit

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Leading Innovation

MERCATO DEL CARMINE
GENOA, ITALY

Opened in October 2013, the Mercato del Carmine was renovated at the initiative of a group of companies that wished to revive the historic local market. It was built in the Art Nouveau style in 1921. Out of the redesign process, a project emerged which remains unique in Italy – the first “zero kilometre” market, only stocking regional products and fitted out with benches made from wood and slate from the region.

The Mercato comprises three different areas: the fish section, which is stocked by a consortium of Ligurian fishermen, the fruit and vegetable section, and the stalls for meat and cheese. Anyone who wishes can have their purchases cooked there and then, in the market’s restaurant kitchen, enjoy it with a fine wine from the region’s vineyards.

FLOODLIGHT 3000
ACCENT LIGHTING

Pivoting light for an efficient night-time lighting of architectural buildings.

FLOODLIGHT 5500
ACCENT LIGHTING

Pivoting light for an efficient night-time lighting of architectural buildings.

WHY TOSHIBA LIGHTING?

To reinforce the Mercato del Carmine's strong focus on using our resources in a conscious and responsible manner, the project leaders opted for Toshiba lighting for both the indoor and outdoor areas.

Toshiba Lighting drew up a strategy for renewing the building's lighting and actively supported the detailed light planning. The exterior lighting skilfully highlighted the historic "liberty" style. The lights in the indoor area are strategically positioned to optimally light the market stalls, the restaurant's kitchen areas and the aisles and meeting points.

DOWNLIGHT 6000
DOWNLIGHT

Brilliant and controllable light even with high ceilings.

WEATHERPROOF
MOISTURE-PROOF
LUMINAIRE

Optimal replacement for T8 Lamp installations in warehouses, underground car parks, cold stores and other similar situations.

TOSHIBA
Leading Innovation

HOSPITALITY

AMBIENT LIGHT CREATES A PLEASANT ATMOSPHERE

TOSHIBA
Leading Innovation >>>

»LIGHT, AS INDIVIDUAL AS THE GUEST«

TOBIAS BRÄUER

Head of Purchasing Fleming's Hotel & Restaurants

How important is it to have efficient lighting in the hotel?

It's vital. Competition in the hotel sector is fierce. So improving efficiency and reducing energy consumption play a major role, particularly in terms of lighting, which is in constant use in a hotel. We're opting more and more for LED technology. The fixtures and light bulbs are of a very high quality, they have a long service life and they offer a great deal of potential savings on energy and maintenance costs. In our hotel group, we can save two whole handyman years if we can stop changing light bulbs. So it's worth switching to LEDs.

Where do you see the particular benefits of LED lighting?

LEDs enable you to control the lighting and create different light scenarios. Using smart technologies such as ballasts, transformers, and control and dimmer systems, we can, for example, adjust the lighting to suit outdoor light levels, and predefine lighting scenarios. Guests can then walk into a bright hotel room.

So LED lighting can make the guests' stay more pleasant?

Oh yes, very much so. We can go much further in meeting guests' individual wishes. For instance, men and women perceive lighting in very different ways. Women like the bathroom to be very well lit, with natural light colour reproduction for their make-up. And the room's desk lighting is very important to business travellers. If the lighting is right they don't tire so easily and can work longer in the room in the evening, on their laptop. Even the lighting in the conference area can help with the success of a seminar.

What is Toshiba's role as your lighting partner?

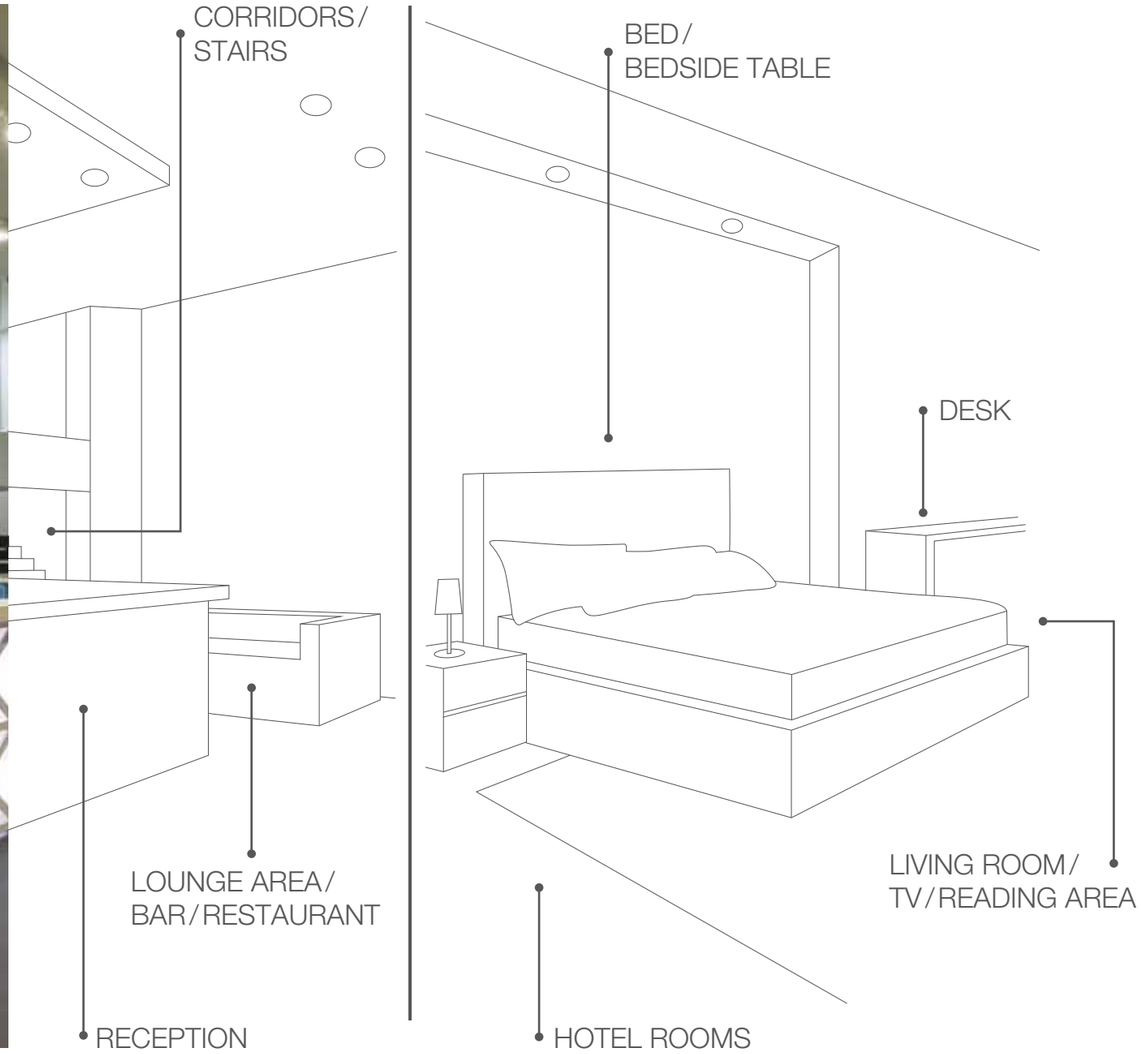
Toshiba Lighting has a broad, well-chosen range of products, with excellent quality. It is a really reliable partner who sells an established, proven product that meets our requirements, Toshiba has focused entirely on LED technology. That has to make sense, because it can upgrade products more quickly and effectively. With Toshiba's LED lamps and lights, we can cover around 98 % of all our needs. When planning new or replacement lighting, we look to Toshiba.

COMFORT AND AMBIENCE FOR WELL-BEING

In these times of globalisation, hotel guest numbers are rising. For them, a hotel is their temporary home, where they want to feel relaxed. This may be helped, for example, by a welcoming reception desk or an entrance with a lounge-like feel that becomes a meeting point. The hotel room enables guests to withdraw into their own privacy. Here, as well as a sleeping and living area, business travellers expect a separate workplace with a multimedia connection.

BEAUTIFUL, COSY LIGHT

E-CORE LED lighting helps enhance the atmosphere of well-being in the hotel. The brightness in the entrance and reception area generates a friendly ambience that fosters communication. At the same time, the reception is a workplace for the hotel staff who requires functional lighting. Pleasant colour temperatures and dimmable lights create a cosy lighting ambience in the hotel rooms, in corridors and on stairs, the lighting provides orientation and security. Toshiba's LED products fully satisfy the hotel management's desire for long-term, energy-efficient lighting and simplified maintenance management.



TOSHIBA
Leading Innovation

FOR THE ENTRANCE, CORRIDORS AND ROOMS

ATMOSPHERIC LIGHTING

With their warm colour temperature, the E-CORE LED lamps create a pleasant environment. Being compact, they are suitable for use in ambient lights or for highlighting in chandeliers, in which they conjure up faceted crystal optics. Hotel guests can easily select the lighting comfort that they prefer. The E-CORE LED lamps fulfil their lighting tasks with maximum energy efficiency. Savings of up to 90 % can be achieved compared with conventional lights, and with wonderful ease, since the LED lamps are the same shape as traditional light bulbs.

GENERAL LIGHTING

E-CORE LED luminaires generate bright, controllable light for large spaces and entrance areas. They can be integrated into different ceiling designs, they are dimmable and they are available with a wide or focused beam angle and in different colour temperatures as required. They combine light quality with energy efficiency and simplified maintenance management.

LAMPS / REFLECTOR LAMPS

E-CORE PAR 16

Lumen output: up to 370 lm
Beam angle: 25 °, 40 °
Colour temperature: 2700 K / 3000 K / 4000 K
Energy Efficiency Class: A+ / A++
Socket: GU 10
Dimmable: yes

E-CORE MR 16

Lumen output: up to 420 lm
Beam angle: 25 °, 35 °
Colour temperature: 2700 K / 3000 K / 4000 K
Energy efficiency class: A
Socket: GU 5,3
Dimmable: no

E-CORE CLASSIC A

Lumen output: up to 1060 lm
Beam angle: 240 °
Colour temperature: 2700 K
Energy efficiency class: A+
Socket: E 27
Dimmable: yes

E-CORE CANDLE

Lumen output: 250 lm
Light distribution: 260 °
Colour temperature: 2700 K
Energy efficiency class: A
Socket: E 14
Dimmable: yes

E-CORE GOLFBALL

Lumen output: 250 lm
Light distribution: 260 °
Colour temperature: 2700 K
Energy efficiency class: A
Socket: E14
Dimmable: yes

PACK accent 3

Replaceable light: E-CORE PAR16 5,4 W GU10
Lumen output: up to 355 lm
Beam angle: 25 °, 40 °
Colour temperature: 3000 K
Cut-Out: Ø 82 mm
Swivelling: ± 30 °
Dimmable: yes

DOWNLIGHTS

DOWNLIGHT 3000

Lumen output: up to 2870 lm
Power: 46 W
UGR: ≤ 19 / 22 / 25 / 28
Colour temperature: 3000 K / 4000 K
Dimmable: DALI (5 – 100 %)
Cut-Out: Ø 150 mm

DOWNLIGHT 1100 / 1600

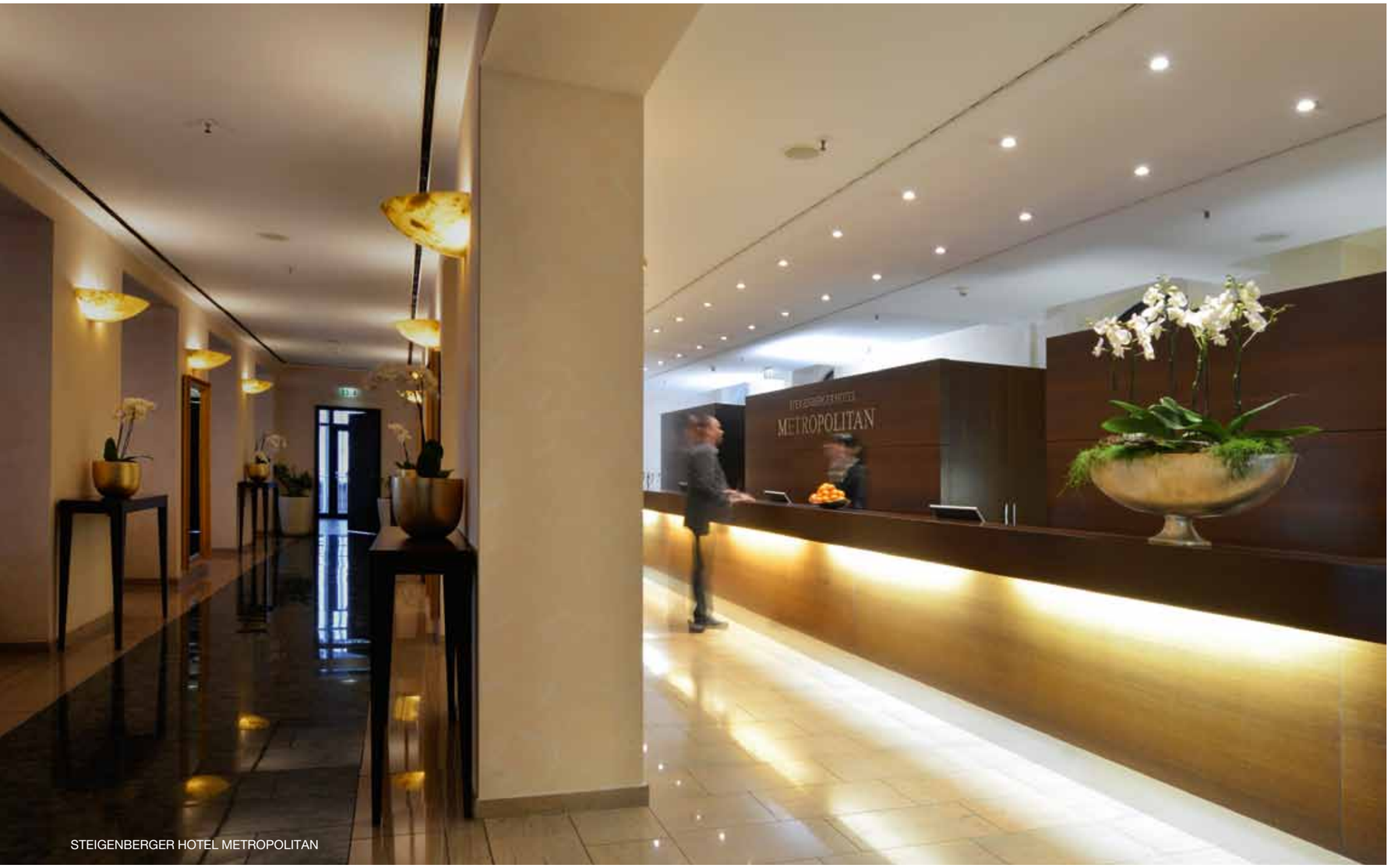
Lumen output: up to 1530 lm
Power: 18 W / 23 W
UGR: ≤ 16 / 19 / 22
Colour temperature: 3000 K / 4000 K
Dimmable: Trailing edge phase control
Replaceable bulb: / E-CORE LED Light Engine
Cut-Out: Ø 140 mm

PACK omni 2

Lumen output: up to 2050 lm
Power: 12,7 W / 17,5 W / 24 W
UGR: ≤ 22 / 25
Colour temperature: 3000 K / 4000 K
Dimmable: Available in two versions
(switchable only / DALI-dimmable)
Replaceable bulb : / E-CORE LED Light Engine
Cut-Out: Ø 150 / 200 mm
DC capable: yes

PACK omni mini 2

Lumen output: up to 660 lm
Power: 5,7 W / 8,3 W
Colour temperature: 2700 K / 4000 K
Replaceable bulb: / E-CORE GX53
Cut-Out: Ø 100 / 125 mm
Two versions: fixed / adjustable



STEIGENBERGER HOTEL METROPOLITAN

FLEMING'S DELUXE

STEIGENBERGER HOTEL METROPOLITAN

DOWNLIGHT 1100 / 1600
DOWNLIGHT

High-performence downlight for the retail sector.

HMG HOTELS
FRANKFURT AM MAIN, GERMANY

The HMG hotel group owns 19 4–5 star hotels in cities such as Frankfurt, Munich and Zurich. HMG's essential hotel philosophy is based on uniform quality standards, high-quality, modern fittings, excellent service and a best price guarantee. In the rooms, the selected materials and modern design elements lend the interior a sober elegance and cosy atmosphere. The company has been successful in the German, Austrian and Swiss markets for almost twenty years.

But competition amongst hotels and guests' higher expectations are presenting hotel managers with new challenges. In this context, issues such as sustainability and quality are playing an ever greater role. Given this background, the HMG group decided, in the medium term, to replace the conventional light bulbs at all their existing sites with high-quality LED lamps.

WHY TOSHIBA LIGHTING?

As part of the renewal project, all the conventional lighting in HMG's hotels was converted to LED. The HMG Group's main focus is on energy savings, which are to be achieved without having an impact on light quality.

The conversion process is currently under way in 13 HMG hotels, including "Fleming's Deluxe Hotel Frankfurt City" and the "Steigenberger Hotel Metropolitan" in Frankfurt am Main. For example, traditional halogen reflector light bulbs are being replaced by an efficient LED solution.

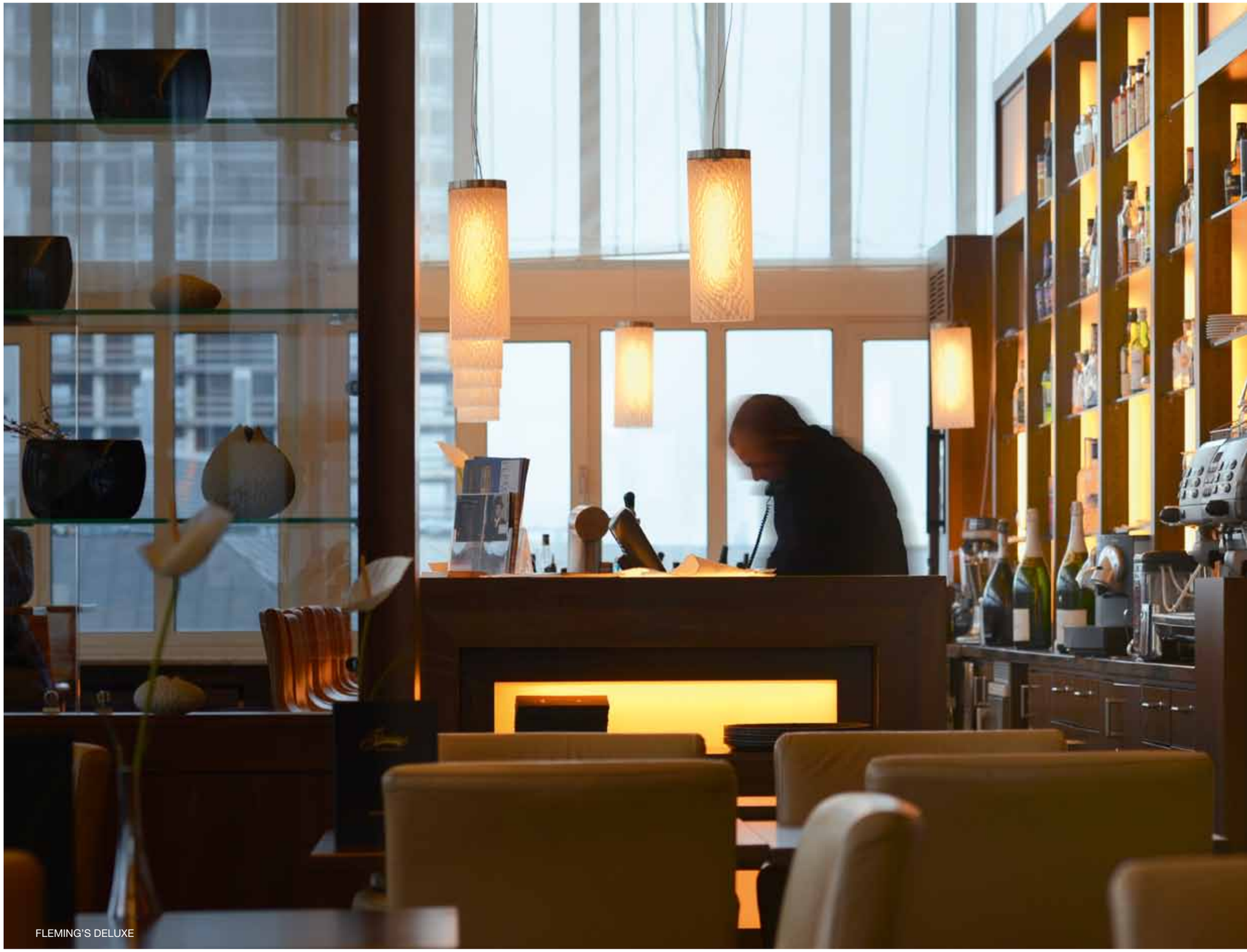
Alongside long-term reduced costs for energy and maintenance, the new LED lighting gives guests in the HMG Group hotels a new light quality. Whereas handymen replace conventional light bulbs after 1.000 hours of service life, Toshiba's LED luminaires last up to 40 times longer.

DOWNLIGHT 6000
DOWNLIGHT

Brilliant and controllable light even with high ceilings.

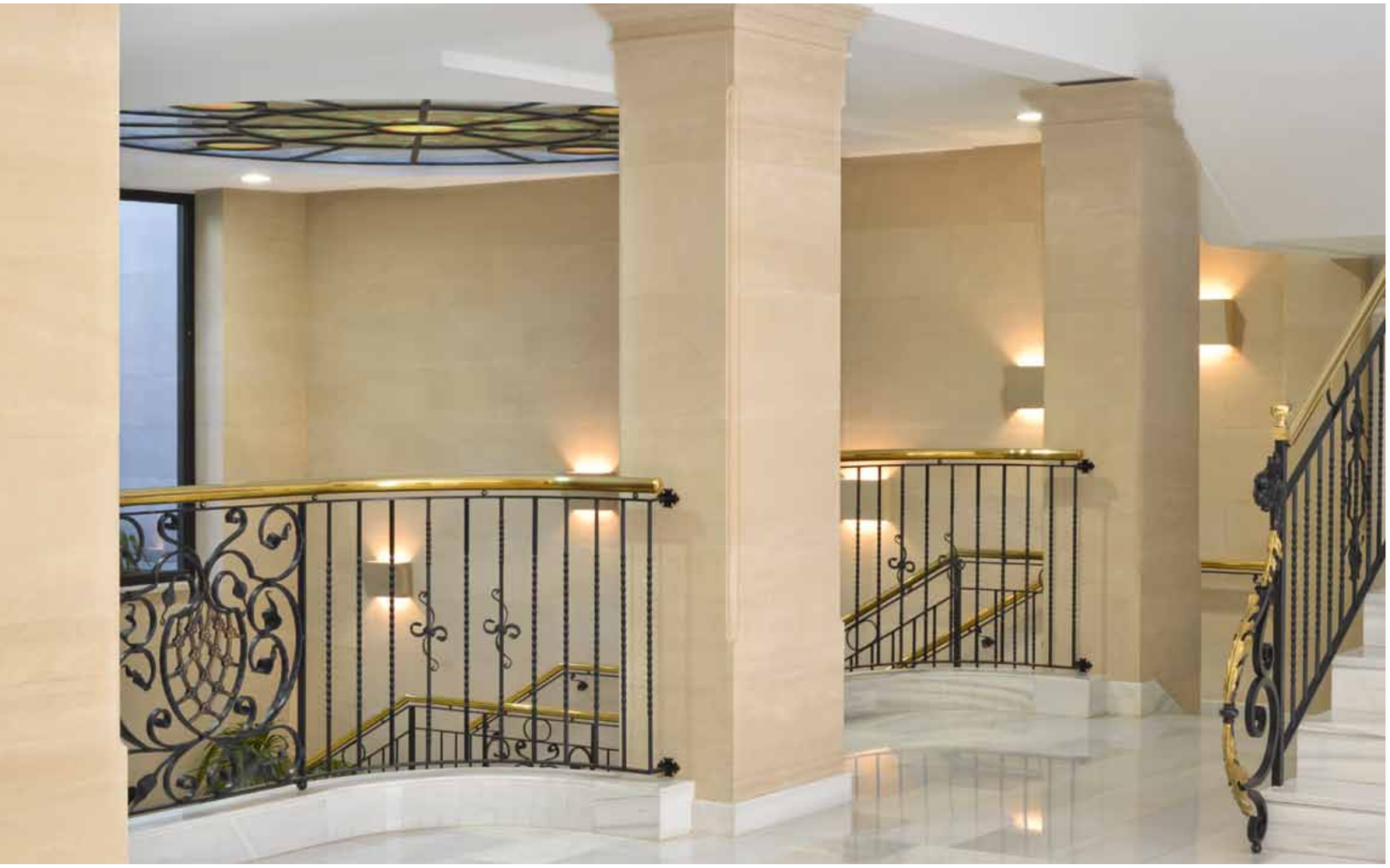
DOWNLIGHT 3000
DOWNLIGHT

Ideal for large spaces with sophisticated lighting design.



FLEMING'S DELUXE

TOSHIBA
Leading Innovation



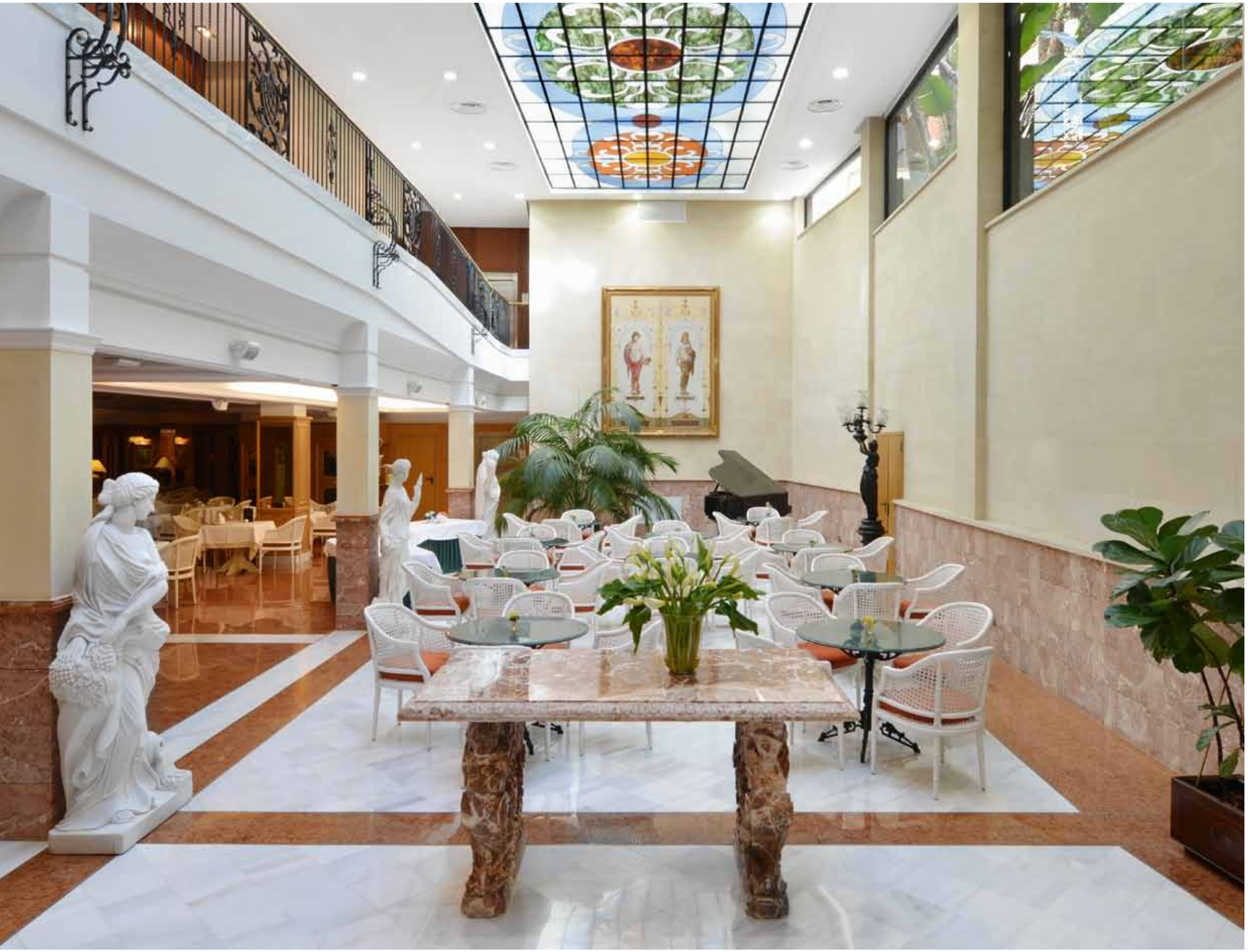
PACK accent 3
DOWNLIGHT

An attractive and precise accent lighting for various applications.

CONTINENTAL HOTEL
PALMA DE MALLORCA, SPAIN

Opened in 2006, the Hotel Continental is situated in the town centre of the island's capital, Palma de Mallorca, near the old town, the shopping area and the famous Paseo Maritimo promenade at the port. The Es Baluard art museum and Palma's Yacht Club are a stone's throw away. The international Son Sant Joan Airport is a short journey away. This charming urban hotel has 52 superior double rooms, catering both to holidaymakers and business travellers.

The traditional Mediterranean style was retained by using materials such as exotic woods, fine marble and natural stone. The exquisite ambience is rounded off by works of art and antiques. The hotel also has a gym and wellness area, a restaurant and a piano bar. Guests have access to three meeting and conference rooms with the latest presentation technology.



WHY TOSHIBA LIGHTING?

The hotel managers achieved their goal of reducing energy costs over the long term and with no complications by deploying Toshiba's practical retrofit lamps. They offer efficient LED technology in conventional light bulb shapes and all common socket types. This meant that the conventional light bulbs could be replaced without great difficulty. From Toshiba's wide range, the light planners selected the LED lamps that were most suitable in each case, and reflector lamps for general and accent lighting. Along with the high light quality, hotels can save up to 80 % on lighting costs.

PACK omni 2
DOWNLIGHT
Ideal for efficient general lighting.

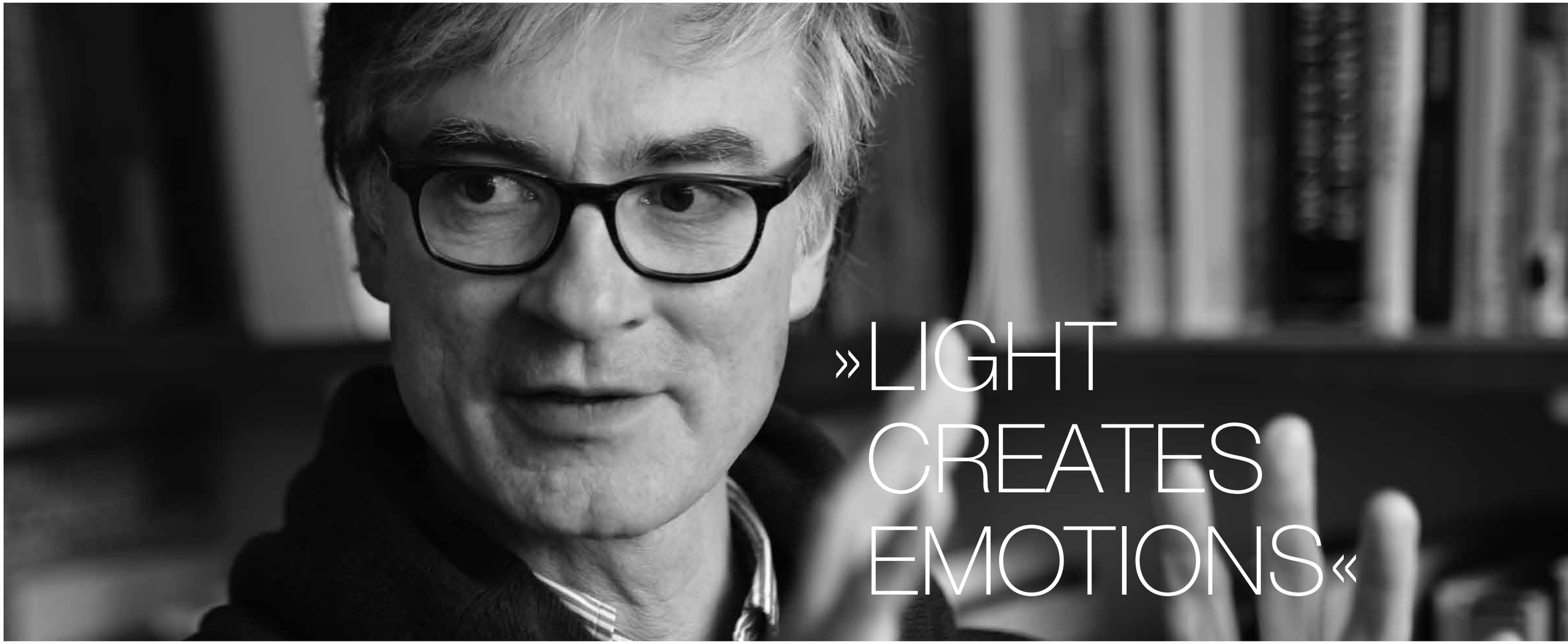
PACK omni mini 2
DOWNLIGHT
Perfect in all secondary areas.

TOSHIBA
Leading Innovation

INDUSTRIAL

ROBUST LIGHTS WITHSTAND TOUGH CONDITIONS

TOSHIBA
Leading Innovation



»LIGHT CREATES EMOTIONS«

PASCAL PRUNET

Prunet Architecture and Urban Planning

How important are lighting plans in your projects?

Lighting is really important to us. We are increasingly working with lighting planners to implement our ideas on lighting effects. Architects can't do this on their own, because it's a highly specialised discipline. For example, there are many different types of applications for historical monuments which all require specific lighting systems – enormous cathedrals, concert halls and theatres. There is light for daytime and light for night-time, and there are different norms. This is a mix of requirements that you have to bring together, and then out of this combination of requirements comes a unique lighting project.

Do you feel it is important that lighting can be digitally controlled?

Yes. Buildings have certain areas that you want to be bright and other areas that are darker. In large buildings especially, for example in churches the nave is better lit while the higher spaces are rather darker and more mysterious. Then there are large glass windows which should only be softly lit. The end result is a kind of building scenography that highlights the quality of the architecture and the objects housed there. As such, LED lighting offers the greatest possible freedom for lighting plans.

How does architectural lighting fit into the cityscape?

In Toulouse, we used LEDs to illuminate the 25 m facade of the law court building. It's extremely imposing, so we worked with the city of Toulouse to use the facade itself as a lighting resource and to reduce the number of lamp posts in that area. In this way, buildings can be used to light their surrounding areas. However, there is often too much lighting. Whether a building should be lit, and to what degree, depends on the architecture and the setting.

There are also ecological issues to be taken into account. Light should be used on behalf of people and of nature. On the one hand, it provides a sense of security, but on the other, it should seem as restrained as possible.

As an architect, what are you hoping for from LEDs in the future?

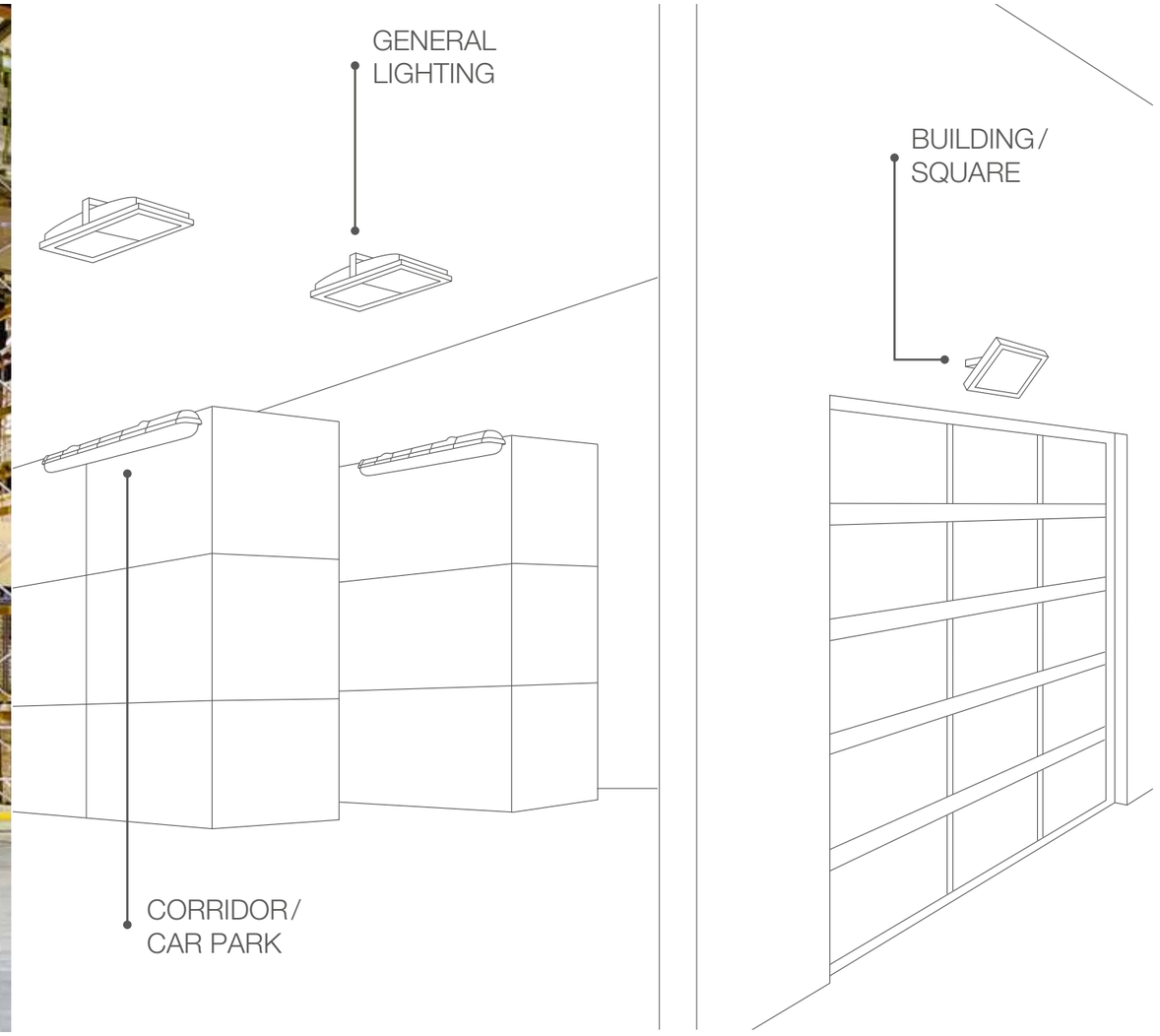
LEDs are extremely economical – they consume little energy and they have a long life. Now that the technology is well developed, I'd like to see lighting become more sensuous in the future. Early bulbs used to shine like candles. LED product design ought to introduce this sensuousness so that the lighting itself becomes a design object once more. Lamps and lighting ought to arouse emotions.
As Le Corbusier said, "the entire architecture acts like a machine for emotions" – whether as an old or new building, a square or an industrial facility. Forward-looking technology and strong emotions should be reunited in LED lighting.

IMPROVE MOTIVATION AND SAFETY

In industry, all types of applications, including difficult ambient conditions, can represent a challenge. Men and machines largely work in very spacious and high areas. Many production work processes are automated, while there are also areas for manual finishing, component assembly, quality control and storage, as well as extensive outdoor areas. Particular challenges may come in the form of, for example, extreme temperatures, damp, vibrations and soiling. Many factories also work 24 hours per day across 3 shifts. The lighting has to work reliably – and efficiently – throughout the entire time.

HIGH LUMINANCE AND LOW MAINTENANCE

Robust E-CORE LED luminaires for industry are ideal for these tough conditions. Their external durability resists mechanical stresses in harsh environments. Equally important is their – maintenance-free – service life of up to 60.000 hours, because any light bulb replacement interrupts production and generates downtime costs. High lumen packages ensure ideal lighting strengths for workplaces. Good lighting helps reduce the amount of workplace accidents and, at the same time, improves the productivity and well-being of the workforce.



FOR BUILDINGS AND OUTDOOR AREAS

INTERIOR LIGHTING

The E-CORE LED range offers extremely robust, long-life lights for particular climatic and functional requirements. The constant luminous flux control is a particular forte. It ensures a strong, uniform luminous flux over their entire useful life and counters natural LED ageing. The result is homogeneous lighting for different industrial applications across the entire lifetime.

EXTERIOR LIGHTING

Exterior lighting can be used to set off architectural highlights or illuminate areas adjacent to buildings. Powerful luminaires with different beam angles are best for achieving this. They are resilient, long-life and efficient. This keeps operating and maintenance costs low, including when they are permanently in use. A wide adjustable range enables them to be perfectly directed.

HIGHBAY

HIGHBAY 12000

Lumen output: 11.000 lm
Power: 150 W
Colour temperature: 5000 K
Protection rating: IP 65
Temperature range: -20 °C – 35 °C
Lifespan: 60.000 h
Constant lumen output

MOISTURE-PROOF LUMINAIRE

WEATHERPROOF 2

Two lengths available
Lumen output: 1,28 m – 2760 lm / 2930 lm
1,58 m – 3320 lm / 3550 lm
Power: 32 W / 40 W
Colour temperature: 4000 K
Protection rating: IP 65
Temperature range: -20 °C – 40 °C
Lifespan: 40.000 h
Replaceable bulb: Yes
Polcarbonate cover : highly impact resistant
PMMA cover: scratch-resistant, highly transparent
Surface mounted or suspended installation

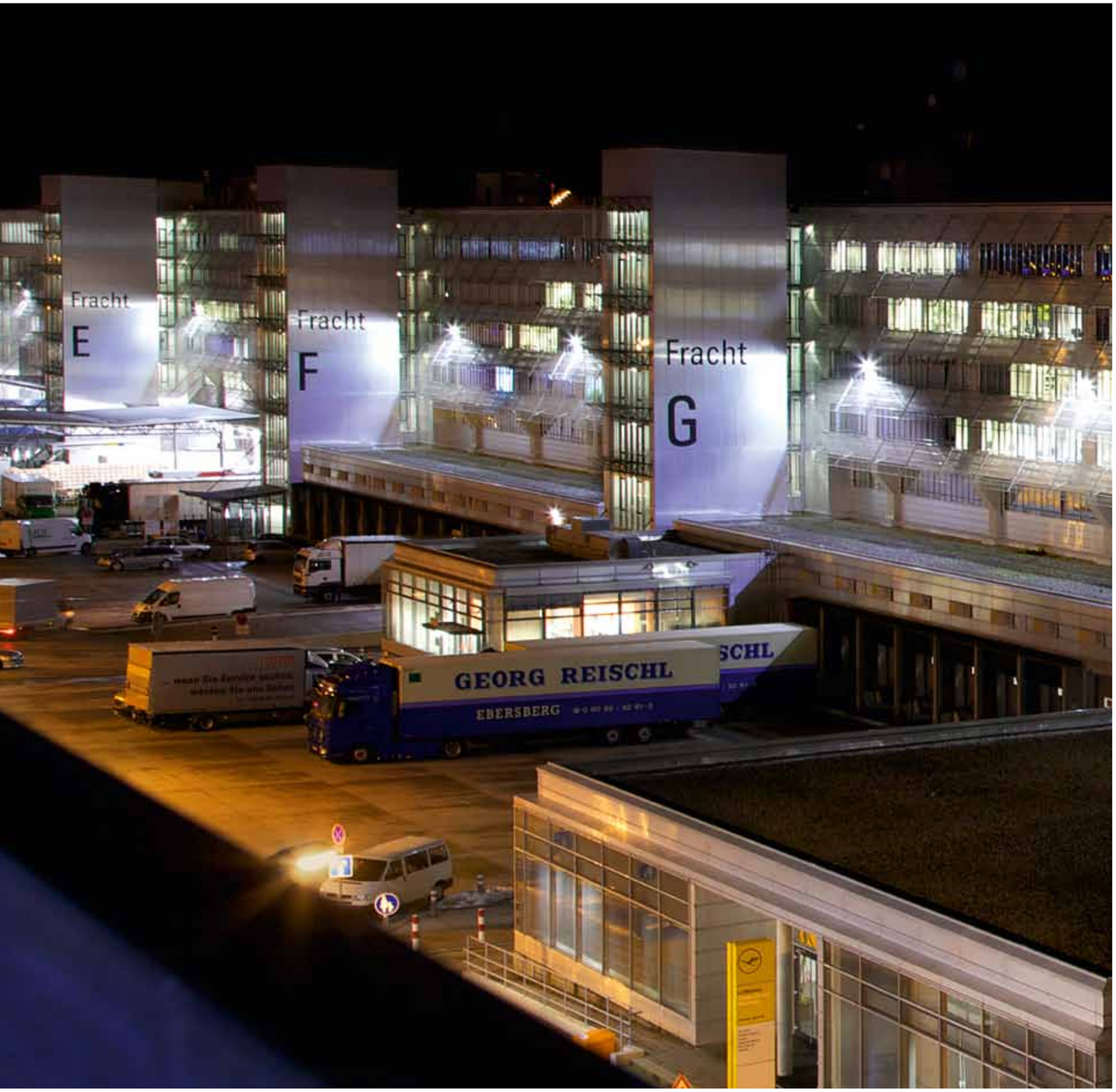
ACCENT LIGHTING

FLOODLIGHT 3000

Lumen output: 1775 lm – 2880 lm
Power: 30 – 40 W
Colour temperature: 3000 K, 4000 K, 5000 K
Protection rating: IP 65
Temperature range: -20 °C – 35 °C
Lifespan: 60.000 h
Constant lumen output
ENEC

FLOODLIGHT 5500

Lumen output: 3395 lm – 5760 lm
Power: 57 – 75 W
Colour temperature: 3000 K, 4000 K, 5000 K
Protection rating: IP 65
Temperature range: -20 °C – 35 °C
Lifespan: 60.000 h
Constant lumen output
ENEC



FLOODLIGHT 5500
ACCENT LIGHTING

Pivoting light for an efficient night-time lighting of architectural buildings.

AIR CARGO CENTRE
MUNICH AIRPORT, GERMANY

The Air Cargo Centre at Munich Airport is the first port of call for any company in the air freight sector. In the Air Cargo Centre, all the infrastructure facilities and contacts can be found under one roof. The short distances between the apron positions and the Air Cargo Centre also mean that handling is exceptionally quick. Before deploying the Toshiba floodlights, the airport was using 26 halogen metal halide (HQI) lamps with 2 x 4000 Watts.

WHY TOSHIBA LIGHTING?

21 E-CORE LED floodlights were installed in the Cargo Centre's outdoor area at Munich Airport. They require less than one-tenth of the energy previously consumed by the HQI lamps and have minimal leakage with similar lighting strength. As well as the energy costs, CO_2 emissions were also reduced by 39 tonnes.

Over the entire service life of over 60,000 hours, the E-CORE LED floodlights guarantee a constant luminous flux, so that no maintenance measures are required. As IP65-classified luminaires, the floodlights are reliably protected against dust, soiling and rainwater. Even spray from cleaning poses no problems. The IK07 impact classification guarantees that the robust lights will resist mechanical damage.

SPECIAL

THE BEAUTY OF LIGHT IS FASCINATING

TOSHIBA
Leading Innovation

FRANCOIS SEGUINEAU

Vice President, Toshiba Lighting Systems, Europe

What was the aim of launching Toshiba Lighting in Europe?

We took our first steps in the French and German markets, with other countries to follow. Our intention is to have a long-term presence in Europe. Our 120-year history as a developer of lighting technologies, our Environmental Vision 2050 and our idea of Akari are all inseparable from the launch of our European lighting division. Akari is our lighting philosophy and means that feelings such as warmth, tranquillity and security should be expressed, along with brightness. We are implementing this vision in the Louvre and demonstrating our innovative ability.

Where did the challenges lie on the Louvre lighting project?

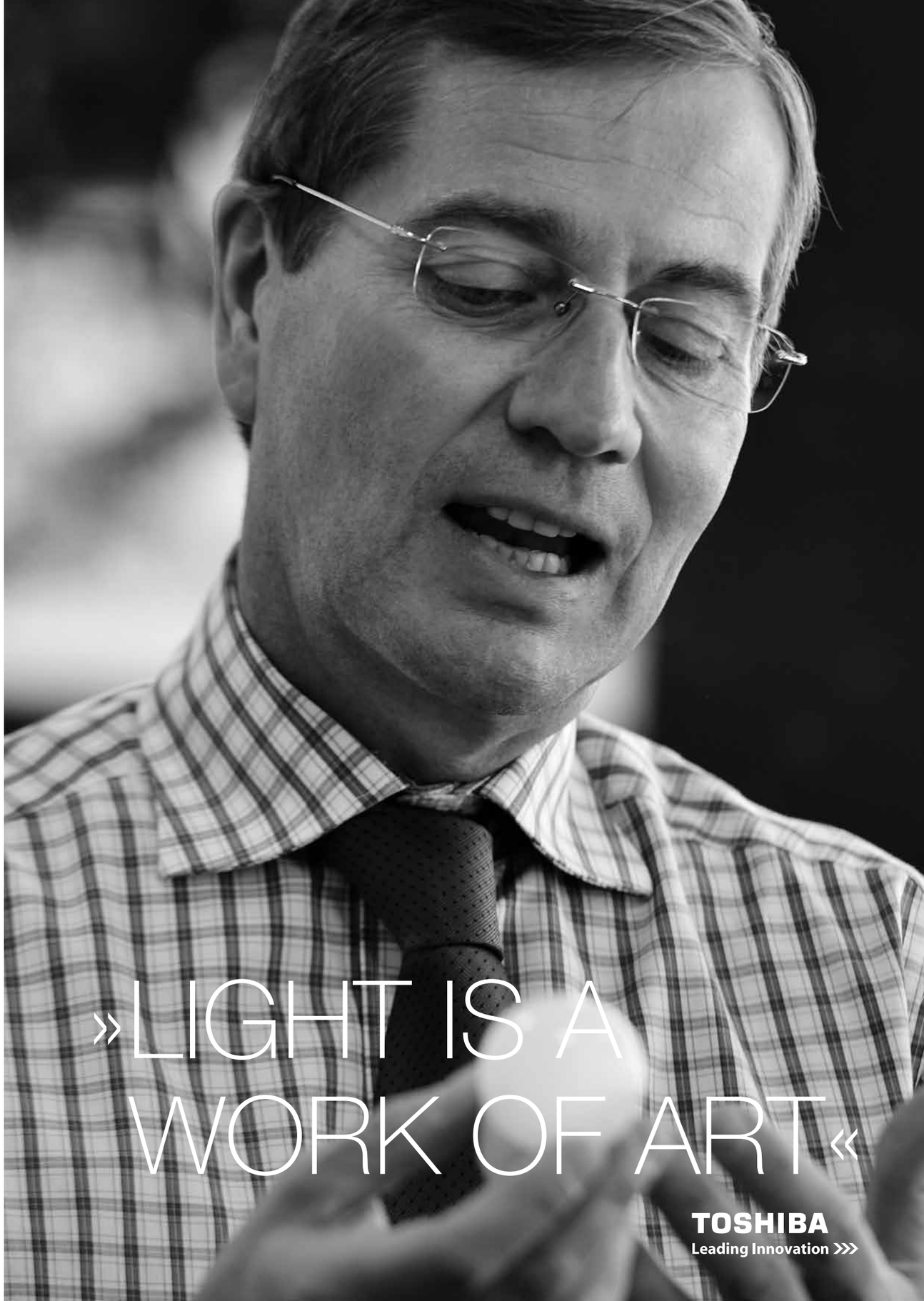
Invaluable works of art are on display in the Louvre. Conserving them and, at the same time, presenting them to millions of visitors is a huge task for the Louvre team. A key factor in this is the lighting. It serves as a medium to illuminate the artworks, but at the same time is a major energy consumer and producer of CO_2 emissions. So, for the Louvre, the question is: how can we protect this world heritage site and our environment at the same time? Toshiba Lighting is providing the answer in the form of innovative LED lights and technologies that protect resources, which we have developed exclusively for the Louvre.

Which parts of the Louvre have you lit?

We began in 2011 with the outdoor lighting of the Pyramid and the Pyramidions, we followed that up in 2012 with the Napoléon Court and in 2013 with the Cour Carrée. From the very start, there was a highly constructive collaboration with the Louvre's own team and international engineers. The lighting in these areas was widely praised, so we were then given the contracts to light the Red Rooms and the Mona Lisa, which is a huge honour for Toshiba Lighting.

Which LED lights and smart technologies have you developed specifically for the Louvre?

We were very aware that we had to make the lighting work on behalf of the art. Light had to almost only be visible in terms of its effect, and not as an installation. We had to find some innovative technical solutions for this. One outstanding solution is the Mona Lisa Spotlight. It has an almost completely natural colour rendering index of 98, and the light intensity and colour temperature can be entirely regulated based on the environment and the daylight. The effect is phenomenal! Experts tell us that our smart Mona Lisa lighting system has made the painting's original dimensions and colouring visible again. For example, the chair that Mona Lisa is sitting on can be seen again for the first time, despite the bulletproof glass protecting the painting.



DIVE LIGHT

Linear system for lighting façades. The lighting solution blends harmoniously into the architecture.

LOUVRE
PARIS, FRANCE

France's national museum since 1793 and holder of UNESCO world heritage status, the Louvre is one of Europe's oldest museums. Its exhibition space is amongst the largest in the world. The Louvre is enormously popular, with 8.5 million visitors per year.

One of the main lighting tasks for one of the world's best-known buildings, is to accentuate the unique beauty of the Louvre Palace. The trick was to draw one's attention to the building and its special atmosphere.

In this context, the lights developed exclusively for the Louvre project are used to highlight its grandiosity.

Every evening, the gentle LED light covers the Louvre's Pyramid, the three pyramidions and the Colbert Pavilion, enabling an architectural masterpiece to gleam in renewed splendour.

FLOODLIGHT

Used on the balconies of the Colbert Pavilion.

FACADE 495

Light that conjures up harmony on the façade.

WHY TOSHIBA LIGHTING?

Because of the stringent requirements when lighting works of art, the Louvre chose E-CORE LED lighting. Toshiba's engineers developed a range of products specifically for the external lighting of this prestigious object. 4500 energy-intensive Xenon lights were replaced by 3500 energy-saving LED luminaires which consume 73 % less power.

EXCLUSIVE LED LUMINAIRES FOR THE MONA LISA

Toshiba developed a complex LED luminaire of the very best quality for the Louvre's crown jewel, Leonardo da Vinci's Mona Lisa. 34 LEDs and three optical systems provide a consistent luminance. The exclusive LED luminaires can be controlled digitally if required. This means that the light can be precisely adjusted to suit specific exhibition conditions, such as being displayed behind bulletproof glass.

JOCONDE

LED light specifically developed for the Mona Lisa ensures top light quality and natural colour rendering.

BEST ANGLE

A light integrated into the ceiling that provides daylight-regulated basic lighting.

A 120 YEAR HISTORY OF SUCCESS

1875

Hisashige Tanaka founded the company Tanaka Engineering Works (Tanaka Seizo-sho), which was later renamed Shibaura Engineering Works (Shibaura Seisaku-sho).

1890

Ichisuke Fujioka founded the company Hakunetsusha & Co. Ltd., Japan's first incandescent lampfactory. It produced carbon filament lamps.

1899

Renamed Tokyo Electric Company (Tokyo Denki).

1939

Merger of the Tokyo Electric Company and Shibaura Engineering Works Co. Ltd. (Tanaka Seisaku-sho) in Tokyo Shibaura Electric Co. Ltd. – In short, Toshiba.

1940

Production of Japan's first fluorescent lamp.

1980

Production of the world's first compact bulb-shaped fluorescent lamp - the "NeoBall" - characterised by its low energy consumption rate.

2007

Development of the E-CORE LED Downlights - with a lamp life of over 40,000 hours. LED becomes a universal means of lighting.

2008

Toshiba's Environmental Vision 2050 seeks to harmonize the environment with a better future for people.
Toshiba Lighting therefore announces the termination of the production of conventional light bulbs in 2010.

2009

Production E-CORE LED Lamp: LED enters a new market by becoming compliant with classical lamps.

2010

March 2010: termination of the production of incandescent light bulbs.

2012

Expand further in the european market thanks to a fixture line-up covering commercial lighting applications.

FOR MORE INFORMATION, PLEASE VISIT

www.toshiba.eu/lighting

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