

PHILIPS
Day-Brite
CFI

Linear

LBX



Top to bottom advantage

Philips Day-Brite / Philips CFI
LED linear suspended
LBX luminaires with
LightBalance optics





Retail lighting
.....
Linear suspended
.....
Introduction
.....

Achieve balance Stand out and still save money

In a highly competitive environment, retailers look to strike a balance between encouraging customer spending, and protecting profit margins.

LED lighting technology aids bottom line savings by reducing energy consumption and maintenance costs compared to traditional lighting technologies. And now, new lighting technologies can be leveraged to create an environment that engages consumers and stimulates sales.

The Philips Day-Brite / Philips CFI LED linear suspended LBX luminaires with LightBalance optics **deliver up to a 2:1 max / avg vertical gradient of light** to ensure evenly lit merchandise from the top shelf to the bottom shelf. Together with appropriate task and accent lighting, LBX luminaires deliver bottom line results retailers expect from an LED lighting upgrade while enhancing the store atmosphere and merchandise presentation to support the top line.

Ambient lighting is typically a functional retail workhorse, and by incorporating LBX luminaires, it can also be leveraged for branding or revenue efforts. The IES Lighting Handbook, 10th ed. Retail Illuminance Recommendations lists vertical illuminance uniformity targets of 3:1 max./avg. and 3:1 avg./min. for general retail areas within Supermarkets or Mass Merchant stores.

When to consider maximum to average versus average to minimum?

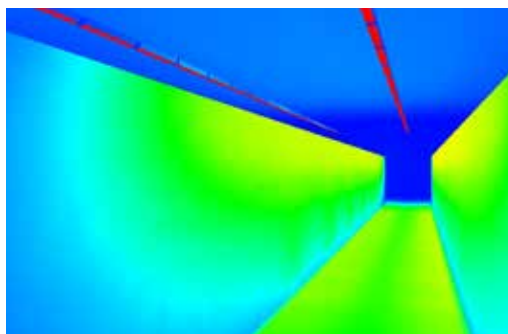
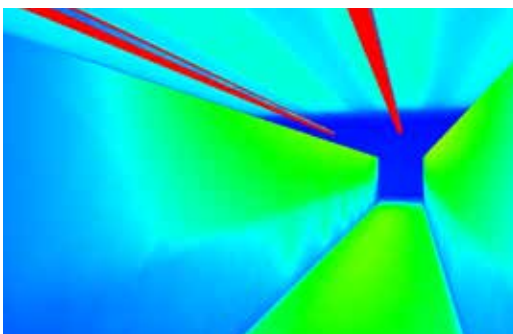
Maximum-to-average

This is the recommended ratio of maximum illuminance to the average illuminance found on the area of coverage of interest. **This ratio is typically ascribed to situations sensitive to even a relatively small degree of overlighting¹.**

Average-to-minimum

This is the recommended ratio of average illuminance to the minimum illuminance found on the area of coverage of interest. **This ratio is typically ascribed to situations where illuminance too far below average conditions is noticeable and detrimental to task performance or inconsistent with normal expectations¹.**

LBX luminaires can provide enhanced vertical illumination uniformity, which puts light exactly where it's needed, and at the right light levels without increasing energy expenses. By doing so, merchandise is properly promoted for all brands, and visual comfort is improved for shoppers.



With improper vertical illumination (far left), bottom shelves are underlit. LBX luminaires (near left) evenly light shelves from top to bottom.

¹ DiLaura, D. L., Houser, K., Mistrick, R., & Steffy, G. R. (2011). The lighting handbook: reference and application (10th ed.). New York: Illuminating Engineering Society of North America.



Promote merchandise through on-the-shelf uniformity

LBX luminaires provide the right light for any retail space where uniformity targets are important.

The exclusive LightBalance optics offer narrow, medium, aisle, and wide light distributions to further

extend design flexibility as well as a double asymmetric option that delivers 2:1 max:avg uniformity directly on the shelf, exceeding IES recommendations, while minimizing wasted energy.

LightBalance

Optics



Highly specialized LightBalance optics within LBX luminaires use a unique one-optic-per-diode array that precisely delivers light to a specific area, compared to the broad angle delivered in a typical linear LED luminaire. This results in an ideal combination of light distribution and efficiency, and also provides the flexibility to choose the right option for a specific retail area. In many cases, this can improve horizontal and vertical uniformity

while using significantly less lighting energy compared to other technologies.

The double asymmetric LightBalance optic is specifically designed for applications where vertical illuminance is critical; aiming two cones of light directly towards the vertical plane of the shelves, resulting in a 2:1 max/avg uniformity.



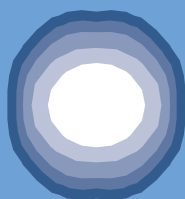
Narrow

The narrow optic delivers an approximately 25 degree beam which allows focused light for higher ceiling areas.



Medium

The medium optic delivers an approximately 40 degree beam which is tailored for mid mounting heights.



Wide

The wide optic delivers an approximately 60 degree beam which is ideal for low bay areas or locations where wider luminaire spacing is desired.



Aisle

The aisle optic has a distribution of approximately 20 degrees by 50 degrees for aisle areas or open areas requiring a rectangular distribution.



Double asymmetric

The double asymmetric optic distributes two cones of light at approximately 20 degrees for vertical illumination on shelves and racks.

Compete in an omnichannel environment

Enhance the shopping experience:

- Receive location relevant promotions and messaging
- Easily find products
- Get help from store associate

Enrich business results:

- Drive conversion rates and basket size
- Enhance customer loyalty
- Test and evaluate marketing campaigns and store layout
- Collect and analyze non-personal shopper traffic pattern data

Support an omnichannel consumer journey to captivate, inform and entertain using location-based services. LBX luminaires are enabled to support the Philips indoor positioning system which makes location-based services possible. The LBX luminaires, in addition to offering industry-leading efficacy and light distribution control, form a positioning grid.

The luminaires enable indoor positioning using Philips' visible light communications (VLC) and Bluetooth® low energy (BTLE). Enabled personal devices locate the shopper inside the store with a high degree of accuracy. Once the location is established, in context, customer-specific and meaningful information (such as wayfinding, notifications, coupons and promotions) may be sent for an interactive, personalized shopping experience.

The indoor positioning system technology is embedded directly in the LBX luminaires, so no additional installation, maintenance or power is required. Therefore, the luminaires provide all the benefits of LED-based illumination, while also providing the infrastructure for delivering indoor location-based services.

For additional information on indoor location services and availability with the LBX luminaires, contact your local Philips sales representative.



French retail giant Carrefour uses an **innovative indoor positioning system** to transform the shopping experience in its Lille hypermarket

Customer satisfaction is a priority for European retail giant, Carrefour, so when replacing the old fluorescent luminaires in their Lille, France hypermarket, Carrefour turned to Philips for an LED lighting system that is as innovative as it is energy-saving. The 800 linear LED luminaires across the 7800 square meter retail space helped to significantly reduce energy use by up to 50%, and also opened a new opportunity for Carrefour to engage with their customers.

“We are always on the lookout for innovations to facilitate customers’ navigation in our stores and meet consumers’ expectations,” comments Céline Martin, Director of Commercial Models and Innovation for Carrefour hypermarkets in France. “Thanks to this new application, which uses Philips technology, we are now able to provide our customers at the EuraLille Carrefour with a new service, enabling them to quickly search and locate their preferred promotions or detect all the promotions around them when in-store.”

“
A real time-saver
for an urban
customer base!”

Céline Martin, Director of Commercial Models and Innovation for Carrefour, France



- Retail lighting
- Linear suspended
- Key advantages

Protect profit margins

A key advantage to LBX is its advanced, dimmable LED technology that helps to significantly lower energy costs compared to traditional lighting technologies, without compromising light quality. The LBX delivers up to 150 lumens per watt, 50% better than leading fluorescent technology. Long-lasting LED technology also helps to reduce maintenance time and costs resulting from relamping and repairs. All this adds up to shorter payback periods.

Saving beyond LEDs

With a Philips controls system, lighting can be set at the correct level from installation, avoiding the need to over design lumen output. Our system also allows for the opportunity to schedule lighting to match the daily routine in the store. Lighting can adjust automatically to its highest level during core business hours and be set to dim during cleaning or restocking. Another important factor in saving energy is lighting only areas that are in use – areas for staff can be lit only when and where needed, ensuring that no energy is wasted.

Flexibility throughout the store

With our completely autonomous, but flexible, lighting system, you can reduce operational costs and save energy. Our lighting system can also be easily adjusted by staff, either based on schedule or to meet the needs of a special event, making it the ideal system for dynamic retail environments.

For more information on compatible Philips controls systems, contact your local sales representative.

Daylight Harvesting



Harvest the power of daylight with sensors that adjust lighting accordingly

Lighting level preservation



Ensure lighting is set at the correct level from installation, avoiding the need to over-design lumen output

Scheduling



Schedule lighting to match the daily routine in the store

Presence Control



Detect presence in staff-only areas to light only where and when it's needed

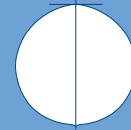




Foundation:

base unit with no optics, no lens. Ideal for “back of house” areas such as storage or utility spaces.

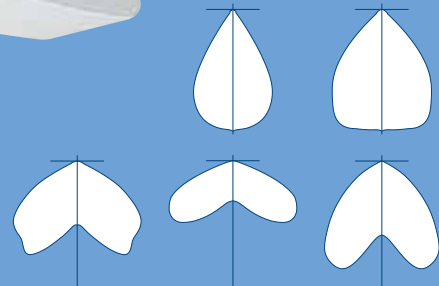
Distribution



High performance:

base unit with LightBalance optics, no lens, and a choice of narrow, medium, wide, aisle, or double asymmetric optics.

Distribution



Brightness control:

base unit with louver. Field installed louver compatible with foundation or performance versions

Distribution



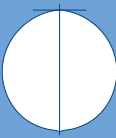
Choose from a wide selection

No matter what retail requirement or area, there's an LBX luminaire to light the way. Each configuration is available in 4-foot and 8-foot units that are easy to install, and can be continuously mounted together in long runs:

Flat diffuse:

base unit with flat lens. Ideal for retailers who want good performance, brightness control, and a minimal profile.

Distribution



Uplight diffuse:

base unit with oval lens and uplight. Ideal for retailers who want good performance and some uplight.

Distribution



Ordering guide

Example: LBX55L840-UNV-FD

Family	Lumens	Color Temperature	Voltage	Optics	Options
<input type="text" value="LBX"/>	<input type="text"/>	<input type="text"/> -	<input type="text"/> -	<input type="text"/> -	<input type="text"/>
LBX	40L 4,000 nominal delivered lumens (4') 55L 5,500 nominal delivered lumens (4') 70L 7,000 nominal delivered lumens (4') 90L 9,000 nominal delivered lumens (4') 80L 8,000 nominal delivered lumens (8') 110L 11,000 nominal delivered lumens (8') 140L 14,000 nominal delivered lumens (8') 180L 18,000 nominal delivered lumens (8')	830 ³ 3000K (CRI 80) 835 3500K (CRI 80) 840 4000K (CRI 80) 850 5000K (CRI 80)	UNV Universal voltage 120-277V 120 120V 208 208V 240 240V 277 277V 347 ⁴ 347V	Blank General Distribution N ¹ Narrow M ¹ Medium W ¹ Wide A ^{1,2} Aisle DA ^{1,3} Double Asymmetric	FD Flat diffuse lens UD Oval upright diffuse lens VLC Visible Light Communication (consult factory) WP6 ⁵ Wired 6' 16/3 cord & NEMA twist lock plug WC6 Wired 6' 16/3 cord WP6D ⁵ Wired 6' 16/3 cord & NEMA twist lock plug for line voltage and wired 6' purple and gray leads with disconnect plug for dimming control WC6D Wired 6' 16/3 cord for line voltage and wired 6' cord for dimming control EMLED ⁶ Emergency Battery (0° C - 40° C) OCCLB ^{7,8} Occupancy sensor, Low Bay OCCHB ^{7,8} Occupancy sensor, High Bay

Footnotes

1. Not for use with FD or UD diffuse lenses.
2. Not available in 3000K.
3. Not available in 9000lm or 18000lm.
4. Not available in 4000lm with EMLED.
5. Must specify voltage.
6. When row mounting, non-switched HOT for EMLED should be fed separately and directly to the emergency luminaire.
7. If row mounting with occupancy sensors, may use one sensor per luminaire or up to four drivers per sensor maximum.
8. Not available in 4' unit with 347V and EMLED.

Accessories (order separately)

- **LBX-HANGER BKT** Hanging bracket (pair)
- **LBX-LVR4** 4' White louver (order 2 for eight foot units)
- **FKR-126** Two 5' chains and "V" hooks

Wiring Notes

- Standard cords have 3 wires. Consult factory for other cord options.

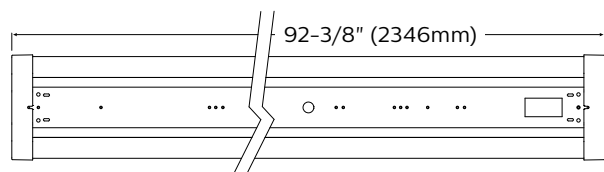
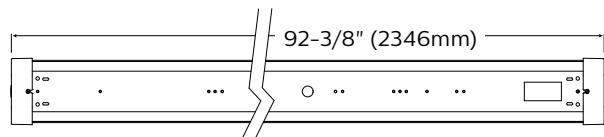
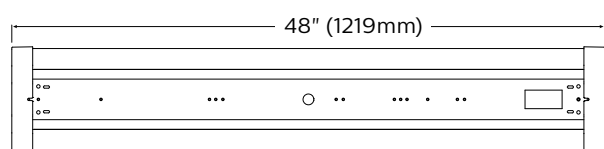
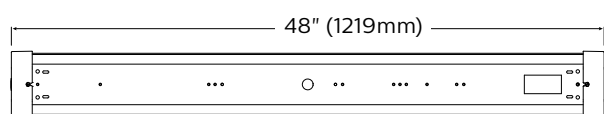
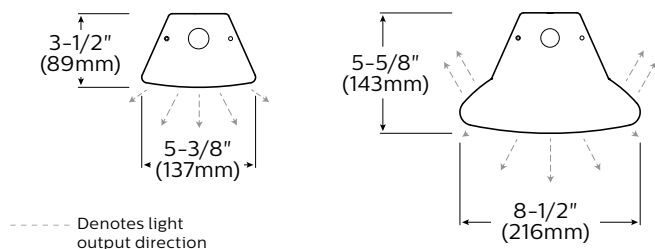
General Notes

- All options factory installed.
- All accessories are field installed.
- Many luminaire components, such as reflectors, refractors, lenses, sockets, lamp-holders, and LEDs are made from various types of plastics which can be adversely affected by airborne contaminants. If sulfur based chemicals, petroleum based products, cleaning solutions, or other contaminants are expected in the intended area of use, consult factory for compatibility.

Predicted L70 Lifetime

- 40°C Ambient > 100,000 hours (based upon LED manufacturer's supplied LM-80 data and in-situ laboratory testing)

Dimensions



Accessories / options



Occupancy sensor



Hanging brackets



V bracket and chain

Contact your local Philips sales representative for a personalized rendering of your space to see how an **LBX** upgrade can improve light level uniformity on your shelves, to ultimately encourage customer spending without compromising profits.



© 2016 Philips Lighting Holding B.V. All rights reserved. Philips reserves the right to make changes in specifications and/or to discontinue any product at any time without notice or obligation and will not be liable for any consequences resulting from the use of this publication.

PDb1606BR 04/16 www.philips.com/luminaires

Philips Lighting
North America Corporation
200 Franklin Square Drive
Somerset, NJ 08873
Tel. 855-486-2216

Philips Lighting Canada Ltd.
281 Hillmount Rd.
Markham, ON,
Canada L6C 2S3
Tel. 800-668-9008